

# Catalogue of Fungi of Colombia

Royal  
Botanic  
Gardens **Kew**

Edited by  
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**Aída Vasco-Palacios**  
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**Mauricio Diazgranados**



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*Dibaëis columbiana*  
[Robert Lücking]



# Preface

Fungi have played an essential role in shaping the Earth's biosphere for the past one billion years. They might have been one of the few life forms inhabiting landmasses over 500 million years ago, perhaps associated with terrestrial algae, even before early land plant lineages arose. Lacking roots, early plants may have relied on fungal partners for endophytic mycorrhiza-like associations, allowing them to thrive on primordial mineral soil. In a process known as biological weathering, fungal hyphae would secrete organic acids to dissolve rocks and extract nutrients held within, and for water acquisition. In return, plants would transfer carbohydrates produced through photosynthesis to their fungal partners. Widespread today in associations known as mycorrhizae or lichens, this exchange of resources between fungi and early land plants or other photosynthetic organisms helped to ignite the Earth's biosphere growth, evolution, and diversification into ever more complex organisms, communities, and ecosystems. Nowadays, over ninety per cent of known land plants associate with at least one fungal partner, and some are entirely dependent on fungal assistance to survive. The symbiotic rise of land plants and their fungal partners also had dramatic effects on our atmosphere, with the increased absorption of carbon dioxide by plants over millions of years producing a massive rise in oxygen concentrations, supporting the emergence of much larger, more complex animal life forms, from early tetrapods to humans.

Fungi have also directly impacted the daily life of human society along with their cultural evolution during the past 300,000 years, being used as food, for ritualistic purposes, as medicinal sources, or by causing diseases affecting our crops, livestock, and own bodies. Nonetheless, the documented history of the uses and impact of fungi through time within human societies is greatly fragmented, not the least because there have always been major doubts regarding their nature. In medieval European societies, naturalists diverged in assessing the relationships of fungi with other life forms, some considering them closer to animals and others as a "mixture" of animal and algal traits, best positioned within plants. It was only in 1728 that Antoine Jussieu read a paper to the Paris Academy stating the urgent need to recognise fungi as a section of plants. Since then, even if their separate nature had been well established at the turn of the 19th century, fungi remained confined as a section

of botany in academia until 1969, when the North American ecologist Robert Whittaker proposed that they should be placed in their own kingdom, separate from plants. Twenty years later, the first DNA-based studies of fungi revealed that fungi are indeed more closely related to animals than plants.

The knowledge on fungi accumulated during the past 500 years led to ground-breaking discoveries for modern science, such as antibiotics or the use of fungi in food production and biotechnology. Nonetheless, most of this knowledge was based on temperate fungus from Europe or North America. The diversity of Neotropical fungi and their potential uses started to be uncovered only in the 1800s when European nations began to study the natural resources of their colonies in the New World. Since then, several floras have been published for different countries in Central and South America or for larger regions, such as Mesoamerica, the Caribbean, or the entire Neotropics, which in some cases covered groups of fungi such as lichens. Yet, compared to vascular plant and even bryophyte floras, megadiverse countries in South America, including Colombia, Venezuela, Ecuador, Peru, and Bolivia, still lack any comprehensive taxonomic study of their fungi.

Through the *Catalogue of Fungi of Colombia*, we want to showcase the significant progress that has resulted from a partnership between Colombia and the UK (see Chapter 1). These joint efforts enabled us to compile the first broad assessment on the history of mycology in the country (Chapter 2), expand on the general diversity of the Colombian fungi (Chapter 3) and on the diversity of the main groups of true fungi (Chapters 4–9), assess the biogeography of selected taxa (Chapter 10), and elaborate on fungal ecology (Chapter 11), uses (Chapter 12), biotechnological potential (Chapter 13), conservation (Chapter 14), and biological collections (Chapter 15). The first checklist of fungi and fungi-like organisms for Colombia (Chapter 16) is complemented by indexes of families, genera, synonyms, misapplied and dubious names, and a laminae section with photographs of selected taxa for proper illustration.

## USING THIS CATALOGUE AND THE COLFUNGI ONLINE PORTAL

Free access to a large amount of information on the diversity of fungi in Colombia is available to everyone for the first time for over 7,000 accepted species. Accessing the web

portal from this Catalogue is made easy by clicking on the hyperlink on the species name or by reading the QR code of the species, or by typing a scientific or common name of the species, genus, family, or any keyword that describes the fungus or its uses, in the search bar on the homepage of [colfungi.org](http://colfungi.org)

The search results show all the relevant fungi species profiles that the user can explore. The pages in each profile show the classification and status of the fungal name (whether it is an accepted name, synonym, misapplied or dubious) and the habit, description, ecology, distribution, uses, common names, and conservation status when known and available. Images of fungi in the field and from fungarium specimens are also featured when available, along with any other information about the species, as well as links to other sources. The *ColFungi* portal has advanced search and filtering options tailored to the fungi of Colombia. Advanced search allows users to build customised queries on the data based on their interests.

The taxonomic backbone of *ColFungi* and the *Catalogue of Fungi of Colombia* is based on the Index Fungorum (IF: [indexfungorum.org](http://indexfungorum.org)) and Species Fungorum (SF: [speciesfungorum.org](http://speciesfungorum.org)), adjusted by consultation of recent reference works, and will be updated over time. Other metadata, such as distribution, have been extracted from public occurrence repositories, such as the Global Biodiversity Information Facility (GBIF, [gbif.org](http://gbif.org)) and institutional and personal databases from digitised Colombian herbaria/fungaria.

### INTRODUCING COLFUNGI TO YOU

Access to information on fungi is essential to expand our knowledge of fungal diversity, allowing us to conserve them, along with their habitats and ecosystems, and to make sustainable use of them, achieving the benefits they provide to our societies. *ColFungi* is a free access online portal built by experts that offer accredited information on Colombian fungi. It is a detailed resource that provides for the first time high-quality taxonomic information along with a wide range of data and information for all groups of fungi in a single resource.

In order to have information on all known Colombian fungi in a single web page, *ColFungi* also shares a large amount of information, such as herbarium/fungarium specimens, species descriptions, maps, images, information on traditional and potential uses and sustainable practices, and relevant literature and links when available. As a dynamic tool with a rapidly growing amount of information, it provides a valuable resource for a wide variety of audiences and users, ranging from researchers and practitioners to legislators, teachers, and schoolchildren.

*ColFungi* contributes directly to the objectives of Colombian governmental organisations to develop national and regional biodiversity catalogues while supporting the transformation of the Colombian economy towards green growth. It also maximises the impact of scientific research and highlights the value of fungal diversity in Colombia

while promoting the exchange and transfer of knowledge between researchers from the UK and Colombia.

### SHARING KNOWLEDGE FAIRLY

By gathering data from different sources, *ColFungi* enables access to valuable information, enriches the data and its potential uses, and maximises the visibility of local resources. Only publicly available content is used and, as part of the content collection process, we aim to ensure that publishers have respected the Nagoya Protocol (a part of the Convention on Biological Diversity that aims to ensure the fair and equitable sharing of benefits obtained from the use of genetic resources), as well as Colombian laws regarding the dissemination of traditional knowledge.

*ColFungi* is part of Kew's Plants of the World Online portal ([plantsoftheworldonline.org](http://plantsoftheworldonline.org)) and therefore offers structured content adjusted to standards that facilitate the distribution and exchange of information with global data resources. It is also part of Kew's initiative on Useful Plants and Fungi (UPF), benefiting from UPF databases and its standards and applying them to fungi in Colombia. These actions make information about fungi of Colombia more widely available, both in Colombia and among the international community.

### COLLABORATION AND CAPACITY BUILDING

*ColFungi* is building a strong collaborative network between the UK and Colombian researchers and institutions, including universities, fungal collections, non-governmental organisations, associations, and national institutes. The project involves 37 researchers and collaborators from Kew's scientific departments, 35 researchers from the Asociación Colombiana de Micología (ASCOLMIC) and 25 Colombian partner institutions that cover most regions and cities, and international experts studying the Colombian fungi from countries such as Brazil, Mexico, the USA, Canada, and Germany.

The *Catalogue of Fungi of Colombia* and *ColFungi* gather and link information from other portals (such as the Information System on Biodiversity of Colombia - SIB Colombia), the Catalogue of Plants and Lichens of Colombia, the Global Biodiversity Information Facility (GBIF), Index Fungorum, databases from national and international fungarium and strain collections, and data generated by mycological researchers during their investigations, providing an additional window to the available data and expanding the access to information on Colombian fungi. As a result, the visibility of all linked resources is expanded, providing reciprocal benefits to RBG Kew, the Humboldt Institute, the Asociación Colombiana de Micología (ASCOLMIC), and other academic and environmental institutions in Colombia and abroad.

Both the Catalogue and the portal provide opportunities for Colombian mycologists and their international collaborators and volunteers and interns to contribute to the project. The exchange of skills and experience has provided great benefits to all the institutions involved and has helped to strengthen capacities in Colombia.

### ENRICHING INFORMATION

The value of species profiles in *ColFungi* is increased with expanded data on the biology and ecology of the species when available. To this end, different resources are used to access information on the distribution, threats, uses, and availability of the underlying resources, such as **herbarium/fungarium specimens** and **strain collections**. These specimens are dried fungi or parts thereof labelled with a wealth of information about the species and its environment. Digitising specimens includes assigning a unique barcode, capturing an image of the sample and labels, and transcribing data from the labels. A compendium of 7,241 species of Colombian fungi has been currently recorded, most from Colombian herbaria, fungaria, strain cultures, and international collections. How many additional uncatalogued collections exist is unknown.

### CONSERVATION STATUS

Extinction risk assessments depend on knowledge of species distribution and the threats they face. The IUCN Red List of Threatened Species Categories and Criteria data available for fungi to date are assessed through the *ColFungi* profiles and in this Catalogue. Also, some species are placed in extinction risk categories according to the regional or national lists of threatened species in Colombia.

### USES

The *Catalogue of Fungi of Colombia* and *ColFungi* teams have been collecting information on useful fungi from different sources to enrich the content of the species profiles. The data and images from these collections were compiled from published sources and added to the species profiles to provide a valuable information resource on the various uses of Colombian fungi – from culinary to cultural.

### EXPANDING PRACTICAL DEVELOPMENTS AND POSSIBILITIES

The *Catalogue of Fungi of Colombia* and the *ColFungi* portal are resources that are free to access and built by experts, with accredited information on the Colombian fungi. They are designed to support research, learning, development, and innovation for sustainable growth, economic development, and well-being. The basic data can be used as a source of information about Colombian fungi and to accelerate species discovery. Also, both resources represent hopefully useful and essential sources of information for practical actions on conservation, management, legislation, and policy.

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Ester Gaya  
Mauricio Diazgranados  
Editors





*Staheliomyces cinctus*  
[Tatiana Sanjuan]



# Executive Summary

Colombia has a great comparative advantage over other countries in being the second most biodiverse country globally. Its biological resources are a key asset for changes in its productive matrix. However, to plan a solid bioeconomic strategy, the first step is to consolidate the current knowledge of the rich diversity of plants and fungi in the country. Arising from the collective efforts of the Alexander von Humboldt Biological Resources Research Institute (Colombia), the Royal Botanic Gardens, Kew—under the Useful Plants and Fungi of Colombia Project and Colombia Bio—and the mycological community in Colombia, this Catalogue is presented as a source of baseline information about the great diversity of fungal species in Colombia, now linked and accessible through a single online portal—*ColFungi* (Colombian Fungi Resources made Accessible). The Useful Plants and Fungi of Colombia Project Team and national and international mycologists have consolidated expert generated and accredited information on Colombian fungi. For the first time, high-quality and up-date taxonomic information is presented alongside data on uses, morphology, known geographic distributions, habitats, life forms, vernacular names, and field images taken from the field by several mycologists who have donated to the project. This goal required generating a list of the species that occur in Colombia and associating all reported taxonomic information for those species from all available databases and literature sources. For further details, check Chapter 16.

Tracking species as their names change through time and maintaining links to their uses, distributions, conservation status, and common names is an endless task. It is the reason for linking the printed version of the Catalogue to a dynamic online portal. We still need to gain scale on those tasks. Still, we are confident that technological advances in artificial intelligence and in curation fields will accelerate both the taxonomy and the integration of traditional and scientific knowledge needed to support alternative and sustainable uses for Colombia's plant and fungal resources and to facilitate their conservation. It is also important to remember that we currently know less than 5% of Colombia's expected diversity of fungi. For this reason, this is a base list of species representing the funga of the country, but our knowledge will increase over time, and this information will be updated on the *ColFungi* portal.

In addition to the checklist, we have included a series of chapters written by specialists to provide some context for the actual knowledge about funga in Colombia. These perspectives on the state of knowledge on the Fungi of Colombia, covering the diversity of the main groups of fungi found in the country and the history of mycological studies in Colombia, are presented alongside chapters on their biogeography, biotechnology, conservation, ecology, uses, and presence in national and international collections. The supplementary materials that follow the checklist will allow users, to explore open questions and opportunities in order to develop new ideas on consumption/production alternatives and pattern changes, species conservation, and new technologies, to influence positive social and environmental impacts, and to inspire new generations. Importantly, this compilation also points out the information gaps we have on the diversity, conservation, and sustainable uses of the country's fungal diversity, which will serve as the basis for planning actions to fill these gaps, thereby supporting the conservation and sustainable use of the Colombian funga for the benefit of society.

We hope that this Catalogue and *ColFungi*, as its dynamic resource, will be used by the audience as a useful reference for decision-making, production, and demand building. We expect a broad audience (from scientists, students, interested public, politicians, stakeholders, regulators, producers, and consumers), who together can work to allow Colombia as a Nation to achieve its Mission on Green Growth, and to use and conserve its natural resources in an integrated, equitable and sustainable way.





*Coprinellus disseminatus*  
[Robert Lücking]



# Foreword

Colombia houses some of the most diverse ecosystems on earth. This diversity is not only of animals and plants but also of fungi, the mysterious Kingdom of life that feeds, heals, clothes, harms, and certainly delights us. In this extraordinary, publication which represents the joint effort of many scientists and researchers worldwide, you will be submerged in the wonder and magic that the fungal Kingdom provides through concise data and superb photography. However, what makes this edition so extraordinary is that it not only presents the charismatic mushrooms and conks but, more uniquely and delightfully, it takes us on a deep dive into the invisible world of yeasts, rusts, and smuts, as well as the intriguing and fundamental diversity of endophytes. The latter is seldom shown in any books on fungi.

With over 7,200 species of macro- and microscopic fungi found in Colombia listed in this book, you will have the most in-depth induction into the funga of this unique part of the world. This book will provide you with a unique view of how species are intertwined and sometimes are used by their plant and animal allies, including us humans. Through well-curated and analysed data that give you a sophisticated understanding of the role of fungi in Colombian ecosystems, and most importantly, their role in ecosystems at large, your appreciation for the fungi can only grow. With the data on the conservation status of fungi—and detailed infographic illustrations that convey these powerful data—you will gain an integral understanding of these extraordinary and fundamental organisms. But most importantly, this book highlights the information gaps in our knowledge of the funga of Colombia and proposes a way forward for different groups of fungi.

The photography you will see in this book is astonishing. Rarely do we get to see so many species of fungi in such perfect conditions and at such high magnification. Through this book, you will observe structures rarely glimpsed while walking through a forest. With every photograph, the importance of these organisms for Colombian ecosystems are portrayed with delight, making the book a versatile publication that is not only a guide for mycologists or people with a developed understanding of these organisms but also a guide for beginners and nature enthusiasts of all ages and from anywhere and everywhere in the world.

The way in which the ethnic groups and indigenous peoples of Colombia use different species of fungi provide a unique opportunity to delve into the cultural co-evolution

of fungi and humanity. Medicinal, edible, tinctorial, and more uses are thoroughly described in this book, which is a delight to read and a delight to look through.

But this project is not only about describing and illustrating species. This project is about collaboration, and interconnection is the essence of fungi. This pioneering effort to document the species of fungi in Colombia and their uses for human benefit forms the basis of an ongoing investment in building platforms for digital access to information about fungal species and their uses, as well as a digital platform to create and promote value chains that facilitate the sustainable use of fungi in Colombia. This information is not only useful in the context of the difficulties that humanity is facing on earth today, but also as proof of how fungal technologies discovered in the past hold the keys to the health and sustainability of people and the planet in the present and future. The virtuous symbiosis of international researchers from Kew, which houses the largest fungarium globally, and Colombian and Latin American researchers who know their habitats like no other can only be a two-times virtuous collaboration. Although it seems obvious, these symbioses are not frequent and are seldom enabled by many institutions at the same time. Therefore, this endeavour is truly pioneering and reveals a multi-faceted view of the diversity of Colombian fungi.

Fungi are not exempt from or immune to the same threats animals and plants face. Habitat loss, habitat fragmentation, overuse of pesticides and fungicides, and climate change affect the funga, fauna and flora equally. Understanding the world beneath our footsteps, a world in which fungi play symbiotic and decomposing roles, enables us to look at forests, prairies, city parks and even your garden in a different light. With this understanding comes care, and care triggers action. This book invites us to come together to protect the habitats that house this unique fungal diversity, and it is a call we should all answer.

Giuliana Furci – Founder & CEO, Fungi Foundation  
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Dame, Order of the Star of Italy  
Co-Chair, IUCN SSC Fungal Conservation Committee  
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Underground Networks SPUN  
Santiago, Chile, February 2022





*Pannaria andina*  
[Robert Lücking]



# Acknowledgements

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This book is substantially based on the *ColFungi* portal, developed and maintained by the Biodiversity Informatics and Spatial Analysis team (BISA) at RBG Kew. This portal uses several databases as primary sources, such as the Catalogue of Plants and Lichens of Colombia (Bernal *et al.*, 2019), the Global Biodiversity Information Facility (GBIF), The Mycology Collections data Portal (MyCoPortal), Index Fungorum, databases from Colombian fungal collections (HUA - Ana Esperanza Franco, COL - Lauren Raz, ANDES-F, and UBDC - Bibiana Moncada) and personal data generated by Colombian mycologists during years of research. Special thanks to the BISA team, especially Joaquim d'Souza and Malcolm Stone, for making all the information available from the *ColFungi* portal and providing the PURLs, which allowed the production of the QR codes. The data central repository team, especially Bob Allkin, is also acknowledged for working on consolidating the data and the taxonomic backbone.

Also, many thanks to those that provided invaluable support towards the compilation of the preliminary lists, references, specimens, common names, and all information related to species and their respective uses and conservation status, integrating these metadata into the central data repository. This refers especially to Kew's digitisation team (Laura Green, Ellie Graves, and Priscila Reis), Julia Carretero, and the colleagues from IAvH (Alejandra Aguilar-Giraldo, Daniel Jiménez-Pastrana, Lina Isabel Guevara-Ruiz, Henry Agudelo, and Fabio Ávila). A special thanks to the Asociación Colombiana de Micología (ASCOLMIC) for the scientific support and constant advice during the project execution.

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numerous specialists from several countries who contributed to the elaboration or revision of the updated checklist or with valuable information on local or regional uses of the species. We also thank those colleagues who contributed to the book or its chapters with metadata or images, besides the various chapter authors also Álvaro Rúa, Ana Cristina Bolaños, and Gineth Adriana Calderón, and those who acted as academic reviewers of the various chapters and made valuable suggestions, especially Bianca R. da Hora, Celeste Heisecke, Manuela Dal Forno, Patricia Fiuza, Raquel Negrão, Tiara Cabral, and Tom Prescott. Additionally, we thank Giuliana Furci for the wonderful foreword that conveys the importance of this book.

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*Campanella caesia*  
[Robert Lücking]

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Tropical rain forest in the  
Guaviare department, Colombia  
[Mauricio Diazgranados]



# Chapter 1

## The Useful Plants and Fungi of Colombia (UPFC) project: delivering mycological knowledge to support conservation and sustainable development

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### ABSTRACT

Colombia ranks second in the world in biodiversity and is recognised as one of the most ethnically diverse countries. Despite its biocultural richness, the country is marked with vast social inequality and rural poverty. Following decades of internal armed conflict, the country's 2016 Peace Agreement has provided new opportunities for socio-economic growth, which could represent either a threat to Colombian biodiversity or an opportunity for sustainable development based on the country's treasured natural resources. The Useful Plants and Fungi of Colombia (UPFC) project aimed to develop pathways to enhance nature's contribution to people in Colombia through increasing, consolidating and making accessible the knowledge on its useful plants and fungi for the benefit of local communities. The project has provided a framework to develop and promote a market for useful indigenous species and their high-value products while protecting the surrounding natural resources. It has produced over 140 dissemination outputs, including books, booklets, scientific journal publications, technical reports, websites, online portals, and educational tools. Also, it has delivered capacity-building events, reaching a broad audience. With the participation of a multinational team, the project compiled and generated knowledge on over 36,000 plants and fungi, developed pathways for tackling socio-environmental challenges and contributed to Colombia's green transformation.

### RESUMEN

Colombia ocupa el segundo lugar en el mundo en biodiversidad y es reconocido como uno de los países con mayor diversidad étnica. A pesar de su riqueza biocultural, el país está marcado por una gran desigualdad social y pobreza rural. Tras décadas de conflicto armado interno, el Acuerdo de Paz de 2016 del país ha brindado nuevas oportunidades para su crecimiento socioeconómico que pueden representar tanto una amenaza para la biodiversidad colombiana como una oportunidad para un desarrollo sostenible basado en sus preciados recursos naturales. El proyecto Plantas y Hongos Útiles de Colombia (UPFC) tuvo como objetivo desarrollar vías para mejorar la contribución de la naturaleza a las personas en Colombia, mediante el aumento, la consolidación y la accesibilidad del conocimiento sobre sus plantas y hongos útiles para el beneficio de las comunidades locales. El proyecto ha proporcionado un marco para desarrollar y promover un mercado para especies autóctonas útiles y sus productos de alto valor, al mismo tiempo que se protegen los recursos naturales circundantes. Así, este proyecto ha producido más de 140 productos de difusión, incluidos libros, folletos, publicaciones en revistas científicas, informes técnicos, sitios web, portales en línea y herramientas educativas. También se han realizado eventos de creación de capacidad, llegando a una amplia audiencia. Con la participación de un equipo multinacional, se ha recopilado y generado conocimiento sobre más de 36.000 plantas y hongos, y se desarrollaron vías para abordar los desafíos socioambientales y contribuir con la transformación verde de Colombia.

### COLOMBIA'S RICH BIODIVERSITY IN DANGER

Our life and well-being rely on the environmental goods and services provided by plants and fungi. Not only do they provide us with products, such as food, medicines, natural fibres, fuel, building materials, and cosmetics, but they also act to purify the air, enrich the soil, protect against erosion, regulate water flow and quality, and provide habitats for animals while acting as a significant

store of global carbon among other functions (Millennium Ecosystem Assessment, 2005). However, the conversion of natural habitats—primarily for farming—is fuelling land degradation, undermining the well-being of two-fifths of the human population, and raising the risk of migration and conflict (IPBES, 2018). Therefore, the preservation and sustainable use of this biodiversity are essential to human well-being and future economic prosperity.

**TABLE 1.** Origin and conservation status of plant and fungal diversity in Colombia, based on data collected in this project.

	Plants	Useful plants	Fungi	Useful fungi	Plants & fungi	Useful Plants & fungi
Cultivated	1,077	1,077	21	N/A	N/A	N/A
Naturalised	677	638	20	N/A	N/A	N/A
Native	27,134	5,830	7,200	25	28,398	5,855
Endemic	9,473	478	203	8	9,679	486
Threatened	1,061	249	63	3	1,071	252

**TABLE 2.** Plant and fungal diversity in Colombia, based on data collected by this project (useful vs non-useful).

	Plants	Useful plants	Fungi	Useful fungi	Plants & fungi	Useful Plants & fungi
Species	28,947	7,472	7,241	374	36,087	7,790
Genera	3,583	2,140	1,790	192	5,346	2,318
Families	395	258	455	99	843	356

Colombia is one of the most biodiverse countries on Earth, hosting at least 28,947 plant species (24% endemic; >1,000 threatened), 3,583 genera, and 395 families (Table 1). The country ranks third in the diversity of plants worldwide and is a centre of origin of tomatoes, peppers, potatoes, chillies and many other crops and their wild relatives (Diazgranados *et al.*, 2020, Negrão *et al.*, 2022; Khoury *et al.*, 2014). The fungal diversity in Colombia is also impressive, with at least 7,241 species belonging to 1,790 genera and 455 families (Table 2). Given that the observed ratio between fungi and plant species in well-studied areas is 9.8:1, Colombia could harbour up to 300,000 species, of plants and fungi representing 9% of the global diversity (Gaya *et al.*, 2021).

Colombia is also described as one of the most ethnically diverse countries in the world, with 85 different ethnic groups and 68 recognised native languages. The knowledge associated with useful plants and fungi can be as rich as the cultural variety. The country has been considered a “cradle for modern ethnobotany”, with a plethora of recent studies on this topic (Bernal *et al.*, 2011), although ethnobotanical knowledge is still vastly under-documented in this region (Cámara-Leret *et al.*, 2014).

Regrettably, the country lost just under six million hectares of forest between 1990 and 2015, at an average rate of 237,000 hectares per year (FAO, 2015). This deforestation is mainly due to agricultural expansion, urban development, and illegal mining, driven by inadequate political decision-making, often not supported by science (Eufemia *et al.*, 2019; Sabater *et al.*, 2017; Salazar *et al.*, 2021). Land-use change is threatening Colombia’s impressive cultural and biological diversity, and researchers and conservationists are now in a race to protect it (Andrade-C., 2011; WWF-Colombia, 2017).

As deforestation proceeds, the disappearance of traditional knowledge on the conservation, use and management of plants and fungi accelerates with biodiversity loss.

With its unique and extraordinary biocultural diversity and richness, Colombia can become an exemplar for achieving Sustainable Development Goals (SDGs) (United Nations, 2015), by reducing inequality and poverty based on the sustainable use of its useful plants and fungi whilst reducing the degradation of its natural resources. Although native non-crop plants and fungi have great potential to improve livelihoods and to support economic development in the country, knowledge on the most useful native species remains highly dispersed, largely inaccessible, and susceptible to disappearing over time.

### **CAN THE SUSTAINABLE USE OF BIODIVERSITY BECOME PART OF THE SOLUTION?**

Despite the unique biological and cultural richness of Colombia, vast social inequality and marked poverty in rural areas have triggered more than six decades of internal conflict. Plant and fungal diversity and its associated cultural knowledge could tackle socio-environmental challenges by boosting rural employment and incomes, improving people’s livelihoods, reducing inequalities, and supporting peace. Improving access to critical biological information and the development of markets for natural ingredients, while meeting sustainability benchmarks, can boost the stake of marginalised communities in the national economy by adding value to their traditional knowledge. Simultaneously, this process would empower meaningful participation, leading ultimately to more stable and equitable socio-economic outcomes. This approach tackles a number of SDGs, most notably those related to



poverty alleviation, health improvement, empowerment of the disenfranchised, sustainability of economic growth and promotion of peace (United Nations, 2015).

In recent years, Colombia has established several policies promoting the sustainable use of biodiversity to reduce the social gap and to consolidate peace whilst following a green growth approach to economic development (Baptiste *et al.*, 2017). The country has stated its intention to develop as a bioeconomy, which is “an economy that efficiently and sustainably manages biodiversity and biomass to generate new value-added products, processes and services based on knowledge and innovation” (CONPES, 2018). The commitment of the Colombian government to green growth has been demonstrated through the Colombia Bio programme, and its principal aim to foster the development of the bioeconomy through science, technology, and innovation.

As an offspring of this overarching national effort, the Useful Plants and Fungi of Colombia project (UPFC) was supported by a Professional Development & Engagement grant under the Newton-Caldas Fund partnership. The £2.5 million grant was funded by the UK Department for Business, Energy, and Industrial Strategy (BEIS) and the Colombian Ministry of Science, Technology and Education (MinCiencias) and was delivered by the British Council over 28 months from November 2019 to February 2021.

### THE USEFUL PLANTS AND FUNGI OF COLOMBIA

The overall goal of the UPFC was to develop pathways to enhance nature’s contribution to people in Colombia by increasing, consolidating, and making accessible the knowledge on its useful plants and fungi for the benefit of local communities; and to promote a market for useful indigenous species and their high-value products to motivate the sustainable use of biodiversity whilst protecting the surrounding natural resources.

This project documented and broadly disseminated knowledge on useful plants and fungi of Colombia across a wide range of audiences. Outputs targeted policy and decision-makers in government, local NGOs, scientists, educators, and private and public companies, aiming to boost bioeconomic development. The project’s long-term vision was to support Colombia’s economic future by promoting the sustainable expansion of its bioeconomy, based on its unique plant and fungal diversity, whilst conserving its natural resources and associated traditional knowledge.

The UPFC project was structured as four work packages (WP), each with a specific objective:

1. Document knowledge on useful plants and fungi of Colombia (WP1).
2. Synthesise and disseminate knowledge on useful plants and fungi of Colombia using various platforms for different audiences (WP2).
3. Develop a framework for creating a sustainable value chain network (VCN) from plant and fungal diversity (WP3).

4. Apply a VCN framework to improve local communities’ livelihoods in three pilot areas (WP4).

### DOCUMENT KNOWLEDGE ON USEFUL PLANTS AND FUNGI OF COLOMBIA (WP1)

Native non-crop plants and fungi have great potential to improve livelihoods and economic development in the country. However, high-quality information on their uses and properties remains scarce or inaccessible. This WP aimed to gather and compile this information to boost Colombia’s bioeconomy and to benefit local communities.

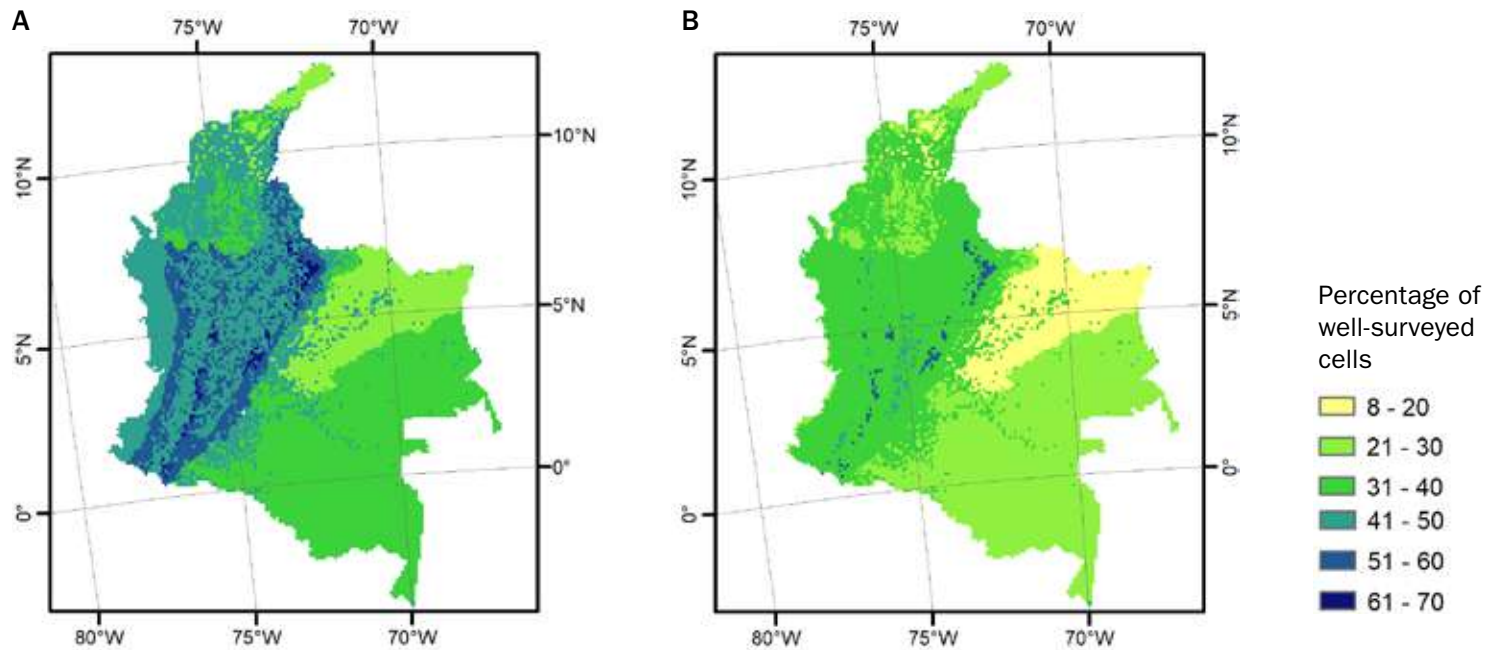
Significant effort to document Colombian floral and fungal diversity has been carried out in recent years. Still, hundreds of sources of published information had not been compiled and made readily available. The project brought together a binational team of researchers who collected and compiled data from available datasets and publications; digitised data that were not readily available; scanned specimens, illustrations, and records from scientific collections (from herbaria, fungaria, and libraries); generated an image bank of the useful plants and fungi of Colombia; developed species distribution maps and models; and created species profiles that are available online through the project’s portals.

The gathered information was analysed to identify taxonomic and geographic gaps and assessed for quality and potential contribution to conservation practices, among other aspects. In all, six research questions on useful plants and fungi were addressed, each with a scientific output (<https://in-colombia.org/>):

- How can we assess the comprehensiveness (in quantity and quality) of the information available for each species?
- Are there taxonomic gaps in the available information?
- Are there geographic gaps?
- What are the most likely factors influencing the observed taxonomic and geographic patterns?
- Which geographic areas are important for conservation?
- Can traditional knowledge erosion be mitigated through Citizen Science?

Results from initial activities helped us to identify poorly surveyed areas of the country for useful plants and plants in general (Bystriakova *et al.*, 2021), which informed subsequent fieldwork and ethnobotanical priorities for WP1 (Figure 1).

In addition to the research questions, three tools were designed to manage and collect data on useful plants and fungi, specifically: 1) the *shinyCCleaner* tool, to clean georeferenced records in the R environment (Ondo *et al.*, unpub.); 2) an online survey form built in ESRI Survey123, to collect ethnobotanical information from mobile devices; and 3) a Plant Use Data Management tool, with modules for data entry and exportation, taxonomic reconciliation, and classification of uses, among other functions.



**FIGURE 1.** Survey completeness for all vascular (A) and useful (B) plants by bioregion (Bystriakova *et al.*, 2021). Percentage of 10×10 km well-surveyed grid cells, defined as those with  $\geq 25$  observations, calculated by bioregion.

### SYNTHESISING AND DISSEMINATING KNOWLEDGE ON USEFUL PLANTS AND FUNGI OF COLOMBIA (WP2)

Access to information about plants and fungi and their uses underpins our collective effort to further understand their diversity in Colombia, allowing us to better conserve species, habitats, and ecosystems and to use them sustainably to the benefit of society. Knowledge must be available for different audiences to empower Colombia to protect and sustainably utilise its valuable plants and fungi. This WP aimed to build a comprehensive synthesis and to disseminate this through various media, including online portals, scientific journal publications, books, booklets, reports, magazine and news articles, social media streams and educational tools.

This wide range of dissemination outputs and formats was aimed strategically to reach a broad audience of policy-makers, researchers, and practitioners, including those in governmental, monitoring and developmental aid agencies, regulatory bodies, conservation organisations, biobusinesses, schools and universities. Potential users included: innovators, developers, bioeconomists, herbal and food entrepreneurs (including plant and fungi importers, suppliers and retailers), biotechnologists, bioenergy experts, agronomists, forestry engineers, crop specialists, horticulturalists, arborists, weed scientists, forest managers, wildlife managers, health professionals, biopharmaceutical scientists, medicine regulators, conservationists, naturalists, photographers, environmental consultants, library managers, students, professors, researchers (biologists, botanists, ecologists, chemists, agronomists, biomedical researchers, ethnobiologists, among others), scientific editors, people interested in culture and gardening, and the general public.

The project built two websites (<https://www.kew.org/upfc>, in English; and <https://in-colombia.org/>, in Spanish) to inform the public and disseminate project outputs. In addition, it built on the previously created ColPlantA portal (<http://colplanta.org/>), further synthesising knowledge of Colombian plants and improving the user experience, content and infrastructure (Diazgranados *et al.*, 2020). It also created a companion portal for Colombian fungi, i.e., ColFungi (<http://colfungi.org/>) (Figure 2). Each portal was accompanied by an explanatory booklet (Diazgranados *et al.*, 2020; Gaya *et al.*, 2021) designed for a general audience.

Comprehensive annotated checklists for both plants and fungi, along with a range of thematic chapters, are presented here and in the Catalogue of Useful Plants of Colombia as a reference for scientists and for the long-term preservation of knowledge.

A survey analysis was conducted to understand how much Colombian society knows about their native diversity of plants and fungi and their uses as part of this WP. An online national survey was developed to collect information on how Colombians generally use plants and fungi. Semi-structured interviews of 20 experts from different sectors of society, including academia, civil society, NGOs, and the private sector, were also undertaken. These experts provided information regarding the state of knowledge of useful plants and fungi, advising on the limitations and opportunities of various studies and the inclusion of plants and fungi in value chains.

In consideration of socio-cultural components, a Spanish-language storytelling series, “Somos Historias”, was developed, which was designed to identify and promote practices and relationships that underlie the value chains of



key plants. The co-creation of short videos that portrayed the practices, knowledge, and relationships of local producers with these plants and their environment promoted value chains and increased project visibility to a broader audience while also gathering qualitative information on the local use of the species.

Last, the project published over 50 blogs and notes in the press to raise awareness on the importance of useful plants and fungi for the well-being and prosperity of Colombians and humanity.

### **COLFUNGI, A NEW PORTAL DEDICATED TO THE FUNGI OF COLOMBIA**

Access to information about fungi and their uses, it is essential to understand their diversity, conserve them and

their habitats and ecosystems, use them sustainably, and enjoy the benefits they provide to society. In 2020, the UPFC project delivered *ColFungi*, an authoritative, expert-driven, open-access online portal for information on Colombian fungi and their uses. *ColFungi* is an entirely new tool backed by the expertise of Colombian mycologists and presenting integrated content on the fungi of Colombia. For the first time

*ColFungi* is a content aggregator site—it collects information from Kew's databases and various external sources, displaying it in one place while preserving the appropriate links and citations. By bringing together data from a wide range of sources, *ColFungi* aims to synthesise and unlock valuable information, including potential uses of fungi, while maximising the visibility of local resources. Only publicly available content is used and, as part of the

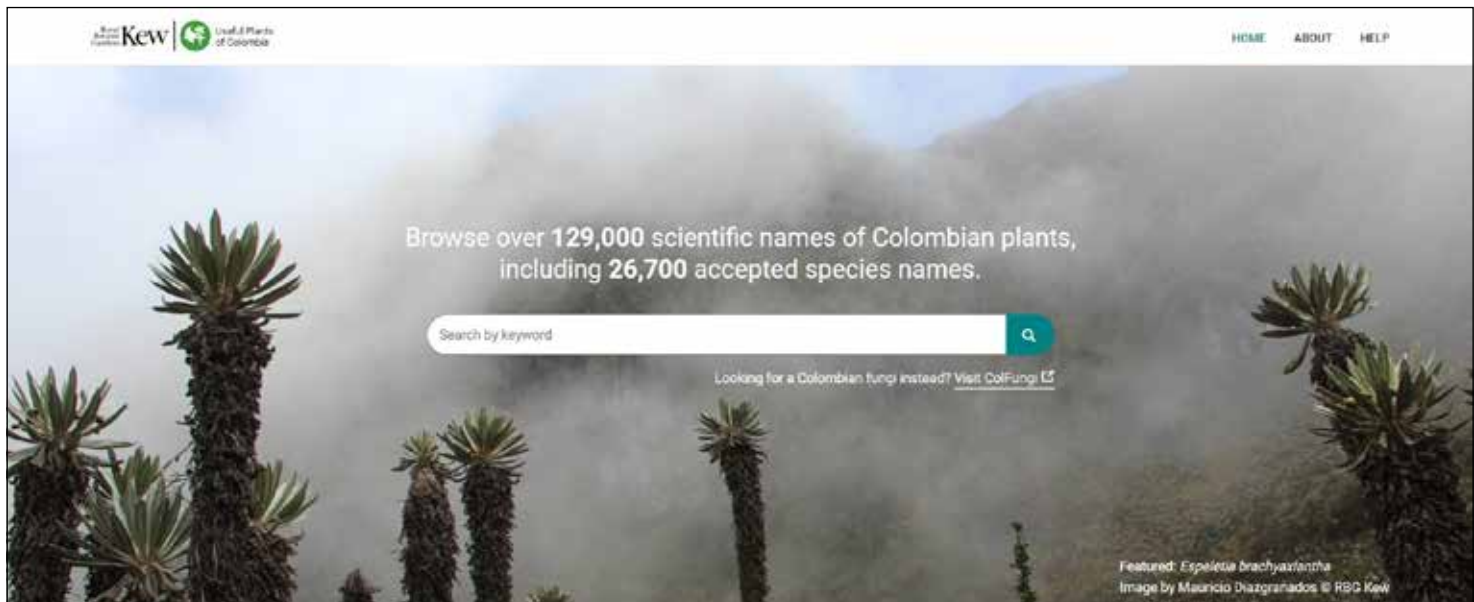


FIGURE 2. ColPlantA (<https://colplanta.org/>) and ColFungi (<https://colfungi.org/>) site homepages.

content gathering process, steps are taken to ensure that publishers have respected the Nagoya Protocol (part of the international Convention on Biological Diversity that aims to ensure the fair and equitable sharing of benefits arising from the utilisation of genetic resources) as well as Colombian laws relating to traditional knowledge.

ColFungi is also part of Kew's Useful Plants and Fungi project (UPF), and takes advantage of UPF's databases and standards by applying them to Colombian fungi data. This infrastructure provides a platform for reliable information on Colombia's useful fungi to be made more widely available.

The UPFC bioinformatics work team developed ColFungi based on the initial infrastructure of ColPlantA and incorporated recommendations from a detailed UX analysis. The current version contains 9,400 scientific names, 7,241 species profiles including 308 with images, and 251 full species and uses descriptions. Alternative names (including common names) and local checklists are also available. The taxonomic backbone of ColFungi is taken from the Index Fungorum and Mycobank databases, and common names from published material, especially field guides.

The UPFC project team, in collaboration with more than a dozen Colombian and European mycologists, produced a companion booklet to the ColFungi portal (Gaya *et al.*, 2021). The booklet contains a significant overview of the current state of knowledge of Colombian fungi and mycological

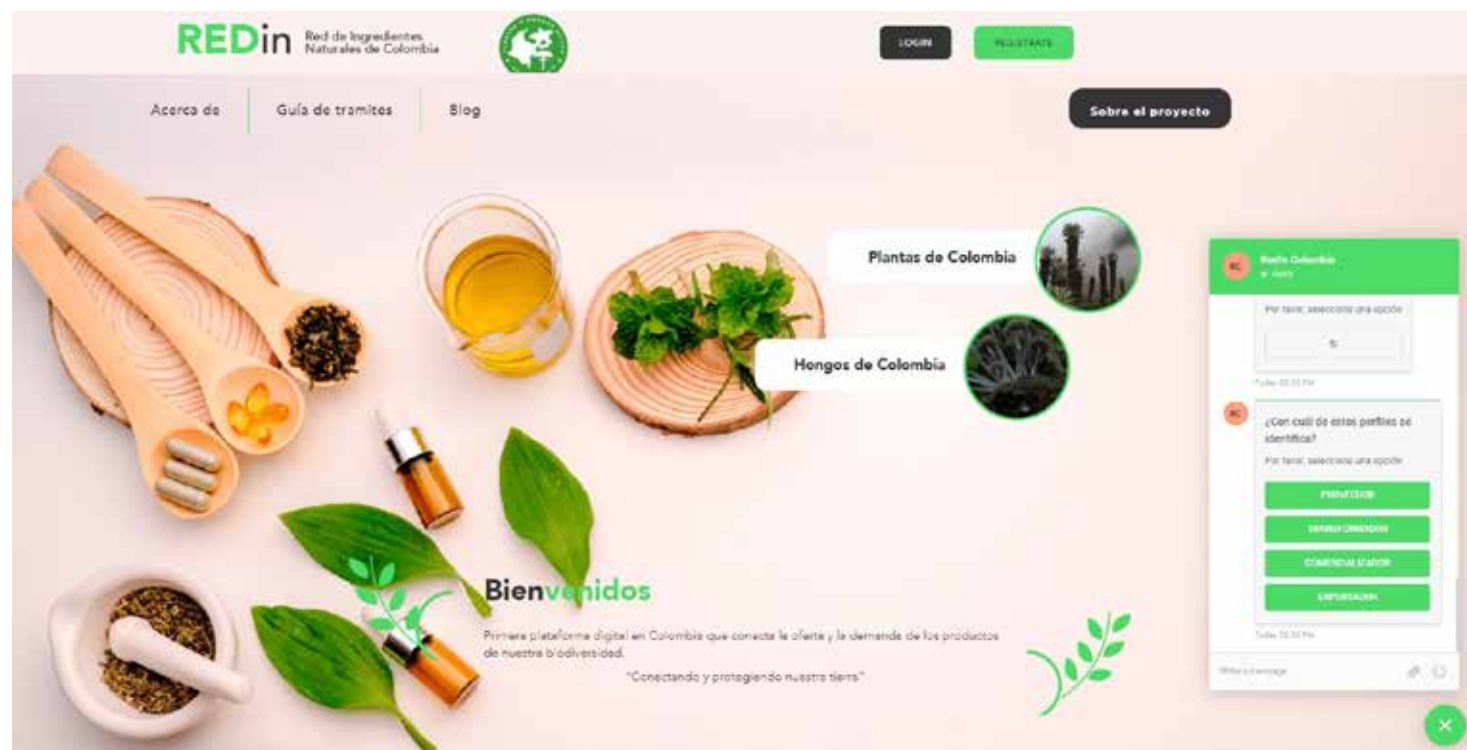
research and the distribution of species, collections, taxonomy, ecology, geography, and economic uses.

ColFungi contributes directly to the Colombian government's goals of developing national and regional catalogues of biodiversity while supporting the transformation of the economy to drive green growth. It also maximises the impact of research and highlights the value of fungal diversity in the country, promoting knowledge exchange and transfer between the UK and Colombian researchers and end-users.

### DIGITAL OUTREACH OPPORTUNITIES

The project reached a range of audiences and created new alliances and opportunities for collaboration through an array of varying virtual events and social media activities.

Despite the recent challenges presented by the coronavirus pandemic, the project found new methods to engage with its target audiences through virtual events, such as Hay Festival Cartagena Virtual, Hay Festival Digital Queretaro 2020, Sabor Barranquilla 2021, Hay Festival Cartagena 2022, the Colombian Chef Masterclass series, and virtual workshops, reaching over one million viewers. In addition, it delivered more than 23 virtual conferences, five seminar presentations, three teaching modules, 30 socialisation workshops, and 15 radio interviews. It had more than 90,000 engagements in its social media accounts (Facebook and Twitter). It also published ten blogs and more than 90 popular articles and media notes, which helped broaden the project's recognition.



**FIGURE 3.** The VCN website (“Red de Ingredientes Naturales – Colombia”; <https://redin-colombia.org/>), displaying the registration form for connecting to the market chain. The site also includes a blog, a serving BOT, and a practical guide to understanding the legal processes in Colombia for developing and commercialising natural ingredients or products of any kind from non-crop plants and fungi.



### **BUILDING A VALUE CHAIN NETWORK TO SUPPORT COLOMBIA'S BIOECONOMY (WP3)**

Innovative projects to deliver natural ingredients or other bioproducts to the market often fail because a viable market has not been established. The project developed a value chain network (VCN) centred on a digital platform to provide pathways to develop such markets, facilitating interaction between local, national and international actors in the production, refinement, distribution and exportation of plant- and fungi-based products. The VCN aims to enable the symbiosis between plant and fungal diversity, knowledge of its uses, and local livelihoods that depend on it. It is the first VCN focused on useful plants and fungi for Colombia and South America

The VCN connects scientists, technologists, innovators, producers, and consumers, enabling the flow of materials downstream (e.g., the supply of natural ingredients produced by local communities to consumers) and information upstream (e.g., consumer demand to producers) whilst linking products to species names based on a taxonomic backbone. This functionality allows two-way linking between the VCN platform and the scientific portals (*ColPlantA* and *ColFungi*), enabling users to browse specific uses, read exciting plants and fungi species profiles, and contact product providers directly. A website for the VCN (<https://www.redin-colombia.org/>) was created in Spanish to maximise outreach among the Colombian audience (primary users) (Figure 3).

In addition, the project delivered the first comprehensive practical guide (174 pages) to understanding the Colombian legal processes for developing and commercialising natural-ingredient products from non-crop plants and fungi (Rojas *et al.*, 2021, available at <https://redin-colombia.org/guide/>). This freely available guide is in Spanish and is organised around four central roles within the value chain: producer, refiner, national wholesaler/retailer, and exporter. Content focuses on permissions, regulatory compliance, and certification concerning three types of natural ingredients: harvested non-timber forest products, nursery-grown products, and genetic material products. It articulates processes related to intellectual property rights, benefit-sharing agreements, and threatened species, among others related to national and international regulations, compliance, and market access. Eleven semi-structured interviews were conducted with staff from the Ministry of Environment and Sustainable Development, ProColombia, natural product companies, and NGOs.

Two online tools were created to accompany the guide:

1. A serving BOT, which is an automated tool designed to guide users to obtain information from within the guide by answering a series of targeted questions regarding their needs and the type of commercial role they play within the value chain (e.g., producer, refiner, distributor, retailer, exporter). The serving BOT is accessible via the VCN website (<https://redin-colombia.org/>).
2. An online quiz in Spanish, drawing upon the information contained within the guide, it tests users' knowledge regarding documentation, certification and responsible

agencies related to the production, distribution, and exportation of bioproducts from Colombia. Access to the live quiz platform in Kahoot can be found through the link <https://kahoot.it/challenge/00115304> or in the practical guide.

To establish a baseline about the current status of the Colombian bioeconomy, researchers produced a 124-page report (Rojas *et al.*, 2020), also freely accessible at <https://in-colombia.org/>. Highlights included:

1. A prioritisation exercise for potential species in Colombia's bioeconomy.
2. A broad directory of companies engaged in the use of prioritised plant species of native plants and fungi (25 in total).
3. A Science, Technology, and Innovation capability analysis around the Bioeconomy and Natural Ingredients sector.
4. A multi-criteria value chain infrastructure for biodiversity-based products.
5. A case study of the value chain analysis for the first prioritised species, naidí (*Euterpe oleracea*), in the Pacific coast region of Colombia.
6. A search for and analysis of patents and publications related to naidí in Colombia and the rest of the world.

Finally, to inform the VCN, a standard for controlled vocabulary on natural ingredients and bioproducts was developed, which included a harmonised table and accompanying explanatory report. The standard will allow the classification, indexing, cataloguing, description, and analysis of these ingredients and products. It was based on the harmonisation of three classification structures linking natural ingredient products: Kew's Economic Botany Data Collection Standard (EBDCS), the UN Central Product Classification scheme (CPC) and the *Departamento Administrativo Nacional de Estadística's* Clasificación Central de Productos (DANE CPC). These three structures were reconciled based on the concept, definition, and rules to identify a common, core standard linking botanical (e.g., species), national and international bioproduct classificatory structures.

### **IMPLEMENTING A VALUE CHAIN NETWORK IN THREE PILOT AREAS OF COLOMBIA (WP4)**

Three biodiverse pilot areas of Colombia recently affected by the armed conflict were selected to test the potential of the VCN framework to improve the livelihoods of impoverished communities (food security, health, and prosperity): Bahía Solano (Chocó), Becerril (Cesar), and Otanche (Boyacá) (Figure 4).

The selection of the areas considered several criteria within five categories: environmental, social, governance, business, and economic factors (Diazgranados *et al.*, 2021).

The implementation included:

1. Assessment of the useful local plants and fungi resources.



**FIGURE 4.** UPFC fieldwork activities in the pilot areas. Top left: collecting useful plants and fungi with the help of local “sabedores” (wisdom people). Top right and bottom: species prioritisation workshops with local communities. Photograph credits: Mateo Fernández (top left), Sabina Bernal (top right and bottom right), and Edgar Padilla (bottom left).

2. Evaluation of the market status based on local native diversity.
3. Assessment and modelling of current and potential outcomes of the VCN implementation.
4. Identification of the most promising species and types of natural ingredients.
5. The gleaning of lessons from the implementation and community feedback.

The project expected that implementing the VCN would support an improvement in family livelihoods over the middle- to long-term through its role in facilitating diversified, market-based approaches to income generation.

The social impact assessment carried out during the implementation of the VCN will allow the measurement of middle- and long-term changes in cultural, economic, and social outcomes. The outcome monitoring activities implemented at the time of writing include participant surveys (gender, age, locality, ethnic group, family composition,

among others) and analysis of statistics from the potential implementation. The project published a booklet to connect experiences in local communities within the three pilot areas with a broader, more general audience. It included highlights, notes on the prioritisation of species, stories from local initiatives and experiences (Quiñones-Hoyos *et al.*, 2021).

#### THE UPFC TEAM

The UPFC project was led by RBG Kew in collaboration with the Instituto de Investigación de Recursos Biológicos Alexander von Humboldt in Colombia. It directly involved 85 people (50 from Kew and 35 from Humboldt Institute) and received contributions from 34 other researchers from 26 institutions across Colombia and Europe, including the Asociación Colombiana de Micología, Ascolmic. The diverse and gender-balanced participation was achieved in all activities to ensure a more inclusive environment and in line with SDG5 (Empower women). We have been collaborating to include minorities such as indigenous people, Afro-Colombians and the LGBT+ community, always following



RBG Kew's and Humboldt Institute's policies on diversity and inclusion. From the total of 115 project participants, 64 (56%) were female, and 51 (44%) were male. The project deemed this gender balance appropriate given the traditional tendency for science to be a male-dominated discipline.

### REACHING COMMUNITIES ACROSS SOCIETY

The UPFC project built and maintained connections with other government and non-government initiatives. Through various fora and media, objectives and outcomes were communicated to the Presidency of the Republic, the National Committee of Sustainability, the Green Business Bureau of the Ministry of Environment, the Programa de Transformación Productiva (PTP) of the Ministry of Commerce, ProColombia, the Instituto de Investigaciones Ambientales del Pacífico John von Neumann (IIAP), and the Green Growth Mission (GGM) created by the Colombian National Planning Department in 2017.

The GGM, together with Biointropic Corporation and Suricata Consulting, identified seven factors to boost the country's bioeconomy: 1) research and technological development; 2) regulatory framework; 3) market dynamics; 4) human capital; 5) financing and investment; 6) environmental or ecosystem services; and 7) infrastructure. By contributing directly to factors 1–4, the project supported GGM's mission and the Green Growth Policy, i.e., "Promote by 2030 the increase in productivity and economic competitiveness of the country, while ensuring the sustainable use of natural capital and social inclusion, in a compatible way with the climate".

It engaged the Colombian National Board of Natural Ingredients (Programa de Interés estratégico-PINE), an initiative led by the Program Colombia+ Competitiva of SwissContact as part of a 5-year plan to boost natural ingredients for cosmetics. The Humboldt Institute, leader of the board's six sub-activities regarding the governance and competitiveness of value chains from native fungal and plant species, was vital in maintaining this interaction.

The project also connected with private-sector organisations such as Crepes & Waffles, the Chamber of Food Industry, the National Association of Industrials of Colombia (ANDI), Corpocampo, Naidí Pacífico SAS, Fondo Acción, Planeta CHB SA, Partnerships for Forest, MUCHOCOL, UNIANDES (Faculty of Economics), Apsacesar, Envol-vert, Selvacéutica S.A.S., E3 Asesorías, Corporación Boyapaz, Alianza Quinchas, among many others.

The mycological work was made possible through extensive collaboration with the mycological community in Colombia and Europe, including the Colombian Association of Mycology (ASCOLMIC), Botanischer Garten und Botanisches Museum in Germany, BioMicro Group at School of Microbiology of the Universidad de Antioquia, the Group of Taxonomy and Ecology of Fungi of the Universidad de Antioquia (TEHO), Universidad de los Andes, Universidad del Cauca, Universidad del Rosario, Universidad Distrital Francisco José de Caldas, Universidad de San Buenaventura, the Research Group in Mycology of

the University of Cali (GIM/CICBA), the Research Group in Environmental Sustainability (SUSA) of the Universidad de los Llanos, the Research Group of Biology and Conservation of the Universidad Pedagógica y Tecnológica de Colombia in Tunja, the Research Group of Biology and Microorganisms (BPM) of the Universidad del Valle, Universidad Santiago de Cali, Colombian Mycology group and the Colombian Group of Lichenology (GCOL).

Fieldwork was carried out through a participatory approach involving local organizations, social leaders, and communities from the *veredas* of Caño Rodrigo and Río Maracas in Becerril (Cesar), and Altazor, Betania, Camilo, Cunchalita, Curubita, El Carmen and Nazareth in Otanche (Boyacá) (Figure 5).

In conclusion, the UPFC project played a pivotal role by reaching communities across society, promoting the conservation and sustainable use of the country's plants and fungi, combining traditional and scientific knowledge to boost the national bioeconomy, and raising awareness about the importance of these resources for the country. On a broader scale, it represents a sustainable development model of green growth in megadiverse nations worldwide.

### UNEXPECTED IMPACTS AND CHALLENGES DUE TO COVID-19

The pandemic of 2020–21 had significant impacts on where and how the UPFC project team carried out their work due to the restriction of travel and facility access, recruitment delays, and the shortage of human resources. Mitigation plans proved effective in buffering some of the effects, especially regarding WP1, WP2 and WP3 workflows and timelines, through increased teleconferencing and online stakeholder consultations with several cross-cutting contingency actions. However, the capacity building (e.g., the internship and research visitor programmes) and fieldwork activities had to be considerably scaled down, and future funds could help to strengthen the implementation of the VCN at the national scale.

### PATHWAY TO IMPACT ON ECONOMIC DEVELOPMENT AND SOCIAL WELFARE

This project has developed novel pathways to enhance nature's contribution to people in Colombia. It has made available 'state-of-the-art' knowledge on the nation's useful plants and fungi while unveiling how this information can be used to promote and develop markets for these species and their high-value products.

Beyond the delivery of specific outputs, a broader set of project outcomes were achieved, such as:

- A significant increase in online, open-access knowledge on the useful plants and fungi of Colombia.
- Increased capacity of Colombian scientists to research plant and fungal diversity and uses.
- Increased public perception and awareness about the importance of plant and fungal diversity and their uses to support green growth in Colombia.



**FIGURE 5.** Map of urban centres of main collaborators, and pilot areas selected for the implementation of the VCN framework: Bahía solano (Chocó), Becerril (Cesar), and Olanche (Boyacá). Photograph credits: Mateo Hernández (Becerril), Mauricio Diazgranados (Olanche), and Daniel Uribe (Bahía Solano).



- Improved opportunities for alternative local income streams based on value-added to bioproducts through VCN development, at least in the three pilot areas.
- Supported expansion of a natural ingredients market at the national level.
- Opportunities opened for further improvement to people's livelihoods in the three pilot areas.
- Informed development of a bioeconomy, bringing together science, policy, and industry.
- The predicted spillover effects included:
  - Increased interest by Colombian institutions in expanding plant and especially fungal research.
  - Enhanced recognition of market possibilities for natural ingredients based on native species of plants and fungi at the Colombian national level.
  - The incentive to develop specific areas of commercial businesses based on natural ingredients from native Colombian plants and fungi, e.g., by the British and Colombian Chamber of Commerce, ProColombia, among others.
  - Expansion of Colombian bioeconomy by strengthening industrial endeavours to add value to useful plant and fungal products.

In addition to the contributions to the United Nations SDGs, the project outputs and activities also contributed to several objectives of the CBDs Global Strategy for Plant Conservation (GSPC), particularly those linked to ecosystem goods and services (GSPC1), recognition, respect and maintenance of indigenous and local community knowledge (GSPC 5), and improved awareness of the urgency of plant conservation and public participation (GSPC 6).

As most communities in rural Colombia are male-dominated, with men focused on farming, mining and construction, the project emphasised pathways for women to play leading roles in obtaining and commercialising natural ingredients, potentially bringing additional income to their household. Thus, the implementation of the VCN could improve gender equality and opportunities, supporting SDG5 (Empower women).

The project pathway to impact on economic development and social welfare was based on a stepwise approach:

- Short-term (1–3 years): the project documented and broadly disseminated knowledge on the useful plants and fungi of Colombia, reaching both general and academic audiences, as well as policy and decision-makers. It also contributed to capacity building. Last, by implementing the VCN in three pilot areas, the project aimed to support improvements to communities' livelihoods by establishing a baseline that can be monitored and by providing some initial training to communities.
- Mid-term (3–10 years): the project outputs will increase awareness in Colombian society about the importance

of Colombia's diversity of useful plants and fungi and will inform policy and decision-makers in government and non-government organisations to boost sustainable biobusinesses and support national and international-scale connections. The VCN may improve the livelihoods of communities at the national scale, providing new opportunities to reduce poverty, reduce gender inequality, and improve health and well-being.

- Long-term (10–15 years): Colombia will rise as a successful exemplar of a developing country that is expanding its bioeconomy based on its unique plant and fungal diversity whilst preserving its natural environment.

## FUTURE PERSPECTIVES AND REMARKS

The project has contributed significantly to the Colombian Green Growth Policy's scope to "Promote by 2030 an increase in productivity and economic competitiveness of the country, while ensuring the sustainable use of natural capital and social inclusion, in a compatible way with the climate". While the transformation of a country must be seen as a very complex, long-term process, usually involving all levels of society, the UPFC project is confident that its outputs and outcomes have supported Colombia's transformation towards a greener, more sustainable economy by enhancing critical baseline knowledge on plants and fungi, and by re-imagining how access to and practical use of this information could be improved through open-access digital platforms and tools. The impact of the UPFC project will continue, with the information generated here being made broadly available to Colombian companies in the agricultural, pharmaceutical, food, human health, and personal care sectors that have an interest in the sustainable development of biodiversity-based (bio-based) products. Colombia's green transformation has begun!

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*Marasmius cladophyllus*  
[Nataly Gómez-Montoya]









*Anthropomorphic pendant*  
[Robert Lücking]



# Chapter 2

## Two Centuries of Mycological History in Colombia

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**Keywords:** biodiversity expeditions, diversity, funga, expedición botánica, ethnomycology, Francisco José de Caldas.

### ABSTRACT

Current knowledge about the Colombian funga results from countless expeditions, researchers, and national and foreign institutions that have contributed to the development of mycology in Colombia for more than two centuries. This historical timeline will probably remain incomplete because several historical accounts are difficult to track down, but four different periods are highlighted: 1. Fungal knowledge from pre-Hispanic times is still incomplete despite efforts to compile the biocultural heritage of ancestral knowledge of indigenous, root, and traditional farming populations; 2. The 19th century's study of the funga started with The Royal Botanical Expedition to New Granada and was followed by other important expeditions; 3. The 20th century was a period marked by expeditions of European naturalists, but Colombian mycologists also started to develop areas such as phytopathology and clinical mycology; 4. From the 1970s to today, the knowledge on Colombian funga has grown due to the contributions of foreign and national mycologists, with about 80 Colombian research groups studying fungi nowadays. In each of these periods, some notable events and influential figures left their mark on the historical memory of Colombian mycology.

### RESUMEN

El conocimiento sobre la funga colombiana es el resultado de innumerables expediciones, investigadores e instituciones nacionales y extranjeras que por más de dos siglos han aportado a su desarrollo. En este capítulo se presenta un breve recuento de esta historia dividiéndola en cuatro períodos, mencionando hechos destacados y personajes influyentes que han dejado huella en la memoria histórica de la micología colombiana. En el primer periodo se reconoce la relación de las diferentes comunidades ancestrales colombianas con los hongos, vestigios que se pueden encontrar en piezas prehispánicas en el Museo del Oro de Bogotá y en publicaciones iconográficas. A pesar de los esfuerzos en la recopilación del patrimonio biocultural de conocimientos ancestrales de poblaciones indígenas, raizales y campesinas tradicionales, aún está lejos de completarse. El segundo período denominado siglo XIX, coincide con la participación de Francisco José de Caldas en la Real Expedición Botánica del Nuevo Reino de Granada, quien reporta el primer hongo para Colombia. Posteriormente Sir William Jackson Hooker describe varias especies de hongos y líquenes de las colecciones realizadas por Alexander von Humboldt y Aimé Jacques Alexandre Bonpland durante sus viajes por el país. Y finalmente, la edición del *Prodromus Florae Novo-Granatensis* de José Jerónimo Triana y Jules Émile Planchon (1863–1867), con las colaboraciones de Joseph-Henri Léveillé (Hongos) y William Nylander (Líquenes). El tercer período, del siglo XX hasta 1970, inicia con la Expedición de Otto Fuhrmann y Eugène Mayor conocida como la expedición Helvética, inspirando a micólogos como Carlos Chardón y Rafael Toro, quienes lideraron el primer inventario de hongos de Colombia. Posteriormente, el establecimiento de la carrera en ciencias agrícolas en la Universidad Nacional sede Medellín en 1927, contribuyó sustancialmente a la formación de micólogos y al conocimiento de los hongos fitopatógenos. Así mismo, la micología clínica tuvo su inicio con las investigaciones de Alfredo Correa y Alfonso Jaramillo; hacia los años sesenta aparece la primera micóloga médica Angela Restrepo-Moreno, creadora de una de las más importantes escuelas micológicas de América Latina, posteriormente, en Bogotá, la reconocida micóloga Elizabeth Castañeda ha liderado el estudio de los hongos que causan enfermedades. El cuarto período comprendido entre los 70s y la segunda década del siglo XXI, debería considerarse el periodo de iluminación micológica, pues no solamente fue el tiempo con mayores visitas de especialistas internacionales, sino también el despertar de la micología nacional en todas las áreas conocidas hoy. Especialistas en diversos grupos y líneas conformaron sus propias escuelas y han formado a las nuevas generaciones de investigadores. Reciente dos hechos han transformado la historia de la micología, ambos involucrando el trabajo en equipo como fuente de progreso. El primero de ellos, la conformación de grupos de investigación que ha fortalecido los procesos de investigación y formación de capital humano,

además de generar un reconocimiento colectivo de las actividades de investigación a nivel nacional e internacional. Y Finalmente, en el 2019, la consolidación de la Asociación Colombiana de Micología (ASCOLMIC) que tiene como misión, además de conectar a todos aquellos que investigan en hongos en Colombia, generar resultados científicos que puedan integrarse a las políticas públicas nacionales, y conlleven a la inclusión de los hongos en las agendas nacionales a fin de orientar y gestionar la protección, manejo y uso de la funga del país.

## INTRODUCTION

Summarizing the history of mycological studies in Colombia is not a simple task. This historical timeline will probably remain incomplete as several historical accounts come from extensive grey literature and historical archives that are difficult to track down. Nonetheless, the relationship between fungi and the indigenous people of Colombia is ancient and evidenced by pre-Hispanic art pieces in the Bogotá Gold Museum and iconographies in some historical books (e.g., Pérez de Barradas, 1954; Schultes & Bright, 1979). The biological heritage of Colombia's extant indigenous and traditional farmers has been compiled by ethnomycologists but is still far from being fully documented. However, the known history of mycological studies in Colombia starts, as far as we know, in 1785 with la Real Expedición Botánica del Nuevo Reino de Granada (the Royal Botanical Expedition to New Granada, which was a former jurisdiction of the Spanish Empire corresponding to modern Colombia, Ecuador, Panama, and Venezuela) and continues to this day. In these 236 years, mycology in Colombia has significantly developed thanks to foreign naturalists who carried out expeditions collecting specimens in the national territory and who contributed to the knowledge of the Colombian funga during the first 200 years.

In recent times, Colombian mycology has been in the hands of renowned national and international researchers. Studies in Colombian arbuscular mycorrhiza, macrofungi, microfungi, and lichens, little known until recently, were accelerated after the visits of specialists such as Carlos Chardon and Rafael Toro (Puerto Rico), Ewald Sieverding (Germany), Kent Dummont, Rolf Singer, Roy Halling, and Greg Mueller (all from the United States), Gastón Guzman (México), Leif Ryvar den (Norway), and Harrie Sipman (Germany). In turn, these foreign researchers trained countless Colombian mycologists over the years. As advances in science prevailed, fungi were not left behind, and it is towards the end of the 20th century and at the beginning of the 21st studies in clinical mycology, biotechnology, and bioprospecting took off. Even today, these areas are studied by the greatest number of researchers in the country after those studying fungal biodiversity. The instatement of research groups focusing on fungi brought with it the association of specialists, strengthening the development of research and human resources, and generating a collective recognition of research activities at the national level. Recently, the Asociación Colombiana de Micología (Colombian Association of Mycology) - ASCOLMIC facilitates connections between the groups and researchers working with fungi. We hope this network, along with this book, will help develop mycology and fill the information gaps we detected.

## FUNGI IN PRE-HISPANIC TIMES AND THEIR BIO-CULTURAL HERITAGE

The documented history of mycology in Colombia spans a little over 200 years. However, there is evidence of the traditional use of fungi, especially macrofungi, by indigenous communities before pre-Hispanic times in various regions of Colombia. Pérez de Barradas (1954) documented pectorals and pieces that contained figures allusive to fungi in his work entitled *Pre-Hispanic Goldsmithing of Colombia*. Schultes & Bright (1979) revisited the gold pectorals of the *Museo del Oro* in Bogotá, presenting evidence for the use of mushrooms by the indigenous cultures of the Darien, Sinú, and Quimbaya regions (Figure 1). Later, Schultes et al. (2000), in their book entitled *Plants of the Gods*, further pointed out the use of mushrooms by various communities, including in magical-religious rituals. Fungal representations are found in the iconography of several pre-Hispanic cultures throughout the country, showing their knowledge and close cultural relationship with fungi (Velandia et al., 2008).



**FIGURE 1.** Anthropozoomorphic pendant. Caribbean Plains - Serranía de San Jacinto / Bajo Magdalena. 1000 AD to 1700 AD. Found in Betancí, Córdoba, Colombia. 10.7 x 8.6 cm. Gold Museum Collection, Bank of the Republic. Photograph by Robert Lücking.



The traditional use of fungi by Colombian indigenous communities continues until the present. Colombia comprises an enormous cultural diversity, including 85 indigenous peoples, three distinct Afro-Colombian ethnicities, the Romani people, and traditional farming communities (DANE, 2007). These communities primarily depend on environmental resources, hunting, fishing, and gathering wild products such as fruits, buds, and mushrooms, and producing food using fermentation. The use of mushrooms as food, in traditional medicine, and for societal and religious rituals has been recorded for the Uitoto, Andoke, Muinane, Bora-Miraña, and Yukuna-Matapí of the Amazon (e.g., Landaburu & Pineda, 1984; Urbina, 1986; Vasco-Palacios *et al.*, 2008), as well as for the Ingas in Putumayo (Sanjuan, 1999), the Embera-chamí in the Pacific tropical forests (Cayón & Aristizábal, 1980), the U'wa in the eastern foothills of the mountain range in the Nevado del Cocuy (Rocheraux, 1959), the Kokonucos in Cauca (Gonzalez-Cuellaret *et al.*, 2021), and the Wayuu in the upper Guajira, who use fungal spores as facial sunscreen (Villalobos *et al.*, 2017). Traditional farmers from Boyacá and Santander use mainly ectomycorrhizal species associated with oaks (*Quercus humboldtii*) as a food source (Peña-Cañón & Eno-Mejía, 2014).

### 19TH CENTURY

Until July 20th of 1810, Modern Colombian territory was known as part of the Viceroyalty of the New Kingdom of Granada. The first inventory of Colombia's biodiversity dates to 1783–1816 when *The Royal Botanical Expedition* to New Granada was led by the Spanish priest José Celestino Mutis (Díaz-Piedrahita, 1991). Around 20,000 plants and 7,000 animals were collected and documented. The specimens collected in this expedition were published in a series of books, in which volume 2, published *a posteriori* (Aguirre & Calonge 1985), entitled *Algae, Lichens, Fungi, Liverworts, and Mosses*, included 15 fungi (seven *Basidiomycota* and eight *Ascomycota*, three of them being lichenised). The original illustrations were edited with complementary texts and scientific determinations were done by Jaime Aguirre (Colombian bryologist and lichenologist) and Francisco de Diego Calonge (Spanish mycologist). Unfortunately, the original plates of this volume do not have information on the place, date, collector, or artist, except plate VI, called *a posteriori* *Cookeina sulcipes*, made by the Colombian artist Francisco Javier Matis on April 14th, 1785 (Figure 2e). This plate was documented for the first time by Calonge (1986). As an update to Volume II, we have compiled plates III, IV, VI, and VIII, added photographs of the species “*in situ*,” and updated their taxonomy (Figure 2).

Francisco José de Caldas (1803) provided the first known report on a phytopathogenic fungus, a description that coincides with the wheat leaf rust, *Puccinia graminis* (Figure 2). Later, the Italian botanist and naturalist Luigi Carlo Giuseppe Bertero, during his expedition to the Antilles and the Caribbean coast of Colombia (1816–1821), made considerable collections of plants, algae, and fungi from Santa Marta (Magdalena), Barranquilla (Atlántico), Mompóx

(Bolívar), and part of the Río Magdalena (1820–1821) (Delprete *et al.*, 2002; Baldini & Guglielmone, 2012). In 1882, Sir William Jackson Hooker described 73 species of fungi, 12 new to science, collected by Alexander von Humboldt and Aimé Jacques Alexandre Bonpland in Venezuela and deposited at the Kew Gardens herbarium (K).

Shortly after the middle of the 19th century, José Jerónimo Triana and Jules Émile Planchon (1863–1867) published the *Prodromus Florae Novo-Granatensis*, including a lengthy chapter on lichens (*Lichenes*) elaborated by the Finish lichenologist and mycologist William Nylander (Nylander, 1863). He described numerous new species based on the collections of the German botanist Alexander Lindig, who lived in Bogotá and undertook botanical expeditions to the surroundings and other areas, including Choachí, Fusagasugá, Tibacuy, and Villeta (Cundinamarca), Honda (Tolima), and Muzo (Boyacá). Another chapter of non-lichenised fungi, by the French mycologist Joseph-Henri Lévillé (1863), enumerating 63 species, was based on collections by Hooker, Justin Goudot, and Lindig (Herbarium, Muséum National d' Histoire Naturelle).

### 20TH CENTURY TO THE 1970S

At the beginning of the 20th century, field expeditions to Colombia were very popular among European naturalists. The Swiss parasitologist Otto Fuhrmann and the Swiss mycologist Eugène Mayor undertook further scientific exploration in Colombia within the *Helvetic Expedition* (Fuhrmann & Mayor, 1914). Their results contributed to the knowledge of various groups of fungi, mainly pathogens and lichens. This work constituted the first extensive systematic treatment of *Uredinales* (rusts) studied by Mayor, and *Pucciniales*, by the German mycologist Paul Sydow and his son Hans Sydow, from Berlin (Gómez-Gutiérrez, 2011; Buritica-Céspedes *et al.*, 2014). The collected materials represent 156 species currently deposited at the University of Neuchatel herbarium (NEU) in Switzerland (Pardo-Cardona, 2001; Gómez-Gutiérrez, 2011). The German lichenologist and mycologist Gustav Lindau, also from Berlin, studied the lichens collected in this expedition reporting 64 taxa, including the then-new species *Lecidea mayorii*. The holotype of this species was unfortunately destroyed during the 1943 bombing in the Berlin herbarium (Botanischer Garten und Botanisches Museum Berlin, B).

The *Helvetic Expedition* inspired the Puerto Rican mycologists and pathologists Carlos Chardón and Rafael Toro to carry out the *Mycological Explorations of Colombia* supported by the Colombian government (Chardón & Toro, 1930). They registered 610 species of fungi collected between 1926 and 1930 in the surroundings of Medellín, the Magdalena Valley, the Pacific coast, the Valle del Cauca, and the mountain ranges of the departments of Cundinamarca and Tolima. This work included mostly phytopathogenic fungi and some macrofungi, later recognised as the first modern inventory of Colombian fungi. Frank D. Kern and Herbert Whetzel (*Uredinales*), Julian Miller (*Xylariaceae*), and Jay Seaver (*Discomycetes*), Dr. L.O. Overholts (Higher



FIGURE 2. Species drawn in *Flora de la Real Expedición Botánica Tomo II* and their possibly corresponding or similar species. A-B *Cladonia meridensis*, previously identified as *Cladonia didyma*. C-D *Stereocaulon ramulosum*. E-F *Cookeina sulcipes*. and G-H *Trametes versicolor* (*Jar. Bot. Mad.* 86).



Basidiomycetes), Dr. IY. Fl. Weston Jr. (Phycomycetes), Dr. Charles Chupp (*Cercospora*) collaborated in that publication. Most of these collections were deposited in foreign herbaria, especially at Cornell University (CUP) and Pennsylvania State University (PACMA) herbaria, the latter now transferred to the US National Fungus Collections, USDA-ARS (BPI). In addition to the contributions of Chardon, in 1927, higher education in agricultural science was established at the Faculty of Agricultural Science in Medellín and at the Plant Health Service (PHF) of Colombia (Ministry of Industries). These developments were fundamental to the development of phytopathology in Colombia. Enrique Pérez Arbeláez, botanist and catholic priest, head of the Botany Department at the PHF, implemented a methodology suggested by Chardón and Toro, both recognised for initiating phytopathology in Colombia. This method includes drawings of plant host, the symptoms, and the different stages of pathogenic fungi. Part of those drawings (1940–1944) was rescued by Pablo Buriticá-Céspedes and published in 1996

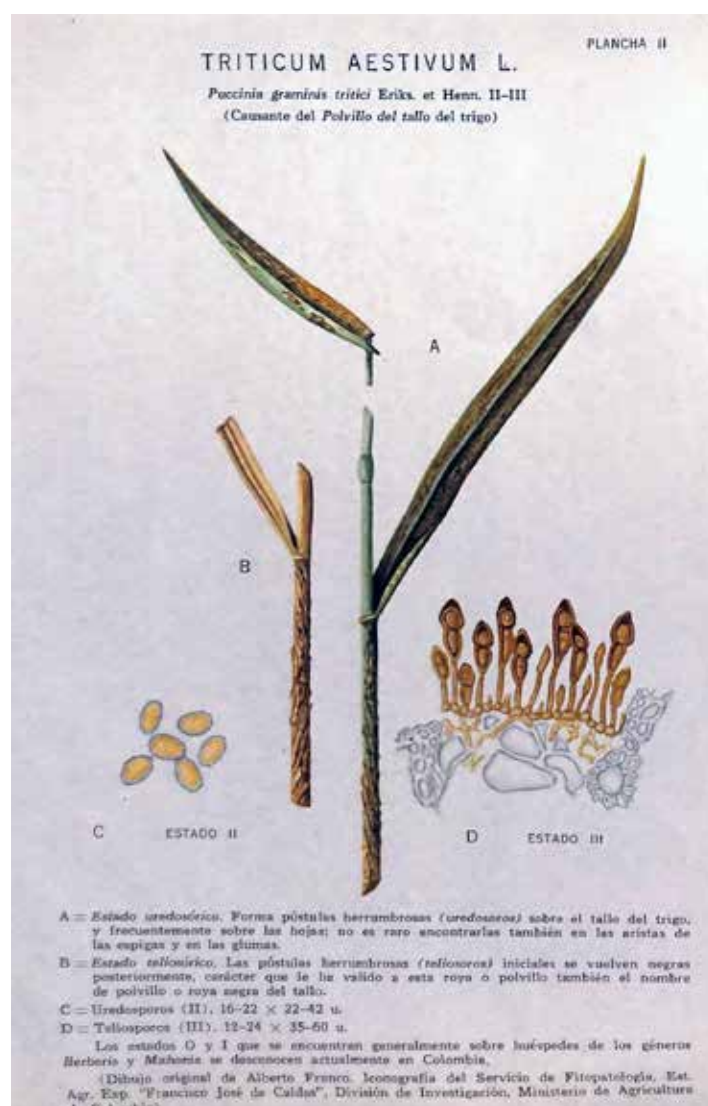


FIGURE 3. Illustration of *Puccinia graminis* Pers. (Pucciniaceae) made by Alberto Franco 1940. Iconography of the National Phytopathology Service, personal collection of Dr. Pablo Buriticá.

(Figure 3). The collection of phytopathogenic fungi gave rise to the Tibaitatá collection, currently at Corporación Colombiana de Investigación Agropecuaria - AGROSAVIA.

A few years later, in 1936, the Spanish botanist and pharmacist José Cuatrecasas, motivated by the celebration of the second centenary of the birth of Mutis, reported two species of fungi and 22 lichens, collected by himself and currently held in the National Herbarium, Smithsonian Institution (US) (Cuatrecasas, 1936). Between 1937–1939, George Willard Martin (1937, 1938, 1939a, 1939b) published a serial publication on the “New or noteworthy fungi from Panama and Colombia”. His collections from the Sierra Nevada of Santa Marta in the Magdalena department enriched our knowledge about the funga of this biodiversity “hotspot”. Martin described eight new species of microfungi from this area. The exploration of parasitic fungi associated with plants of agronomic importance continued during the 1950s with Carlos Garcés and Rafael Obregón, both professors at the Facultad de Agronomía (Faculty of Agronomy), which was integrated into the Universidad Nacional de Colombia, as their Medellín headquarters, and of some of their students (Pardo-Cardona, 2001).

Clinical mycology arises from the need to know the fungi that cause diseases, including endemic diseases. In the 1930s, the study of human pathogenic fungi in Colombia focused on skin diseases and their annexes. One of the first important contributions is the monograph *Contribution to the study of mycosis in Antioquia* (1929), by doctors Alfredo Correa and Alfonso Jaramillo, from the Universidad de Antioquia, which included aspects of the classification, laboratory science, and clinical relevance of medically important fungi. In this same period, dermatologists were particularly interested in systemic mycoses, the study of how fungi affect internal organs. Around the 1940s, publications on systemic mycosis started with the publications on *Blastomycosis* by Miguel Serrano (Serrano, 1943). In this first stage, microscopic examination and isolation in culture were used. Still, the initiation of pathophysiology changed the orientation of the diagnosis of mycoses, with clinicians trying to identify the fungus causing the disease and its mechanisms of action or alteration (Galvis-Pérez *et al.*, 2013). In the early 1960s, research in paracoccidioidomycosis was consolidated thanks to Angela Restrepo-Moreno. She was the first woman in medical mycology in Colombia, a field previously exclusively male-dominated. In 1962, she compiled a series of cases of various mycoses, giving the first overview of the state of the art, including cases caused by *Cryptococcus* and *Sporothrix*. Thanks to her dedication to teaching, Restrepo-Moreno formed one of the most important schools in this area in Latin America. In Bogotá DC, Elizabeth Castañeda del Gordo studied fungi that cause human diseases from a very young age. Later, at the National Institute of Health, she and her team made Colombia one of the leaders in Latin America in identifying this type of agent. Currently, Colombia is well established and recognised worldwide in this area, with many research groups dedicated to the study of mycoses, thanks to the efforts of these two women.

### THE 70S TO THE SECOND DECADE OF THE 21ST CENTURY

During the last third of the 20th century, knowledge on the Colombian fungi increased largely due to contributions by foreign mycologists visiting the country. Some of these scientists left their legacy by training Colombian mycologists. Particularly, during this period, the expeditions of Kent P. Dumont (New York Botanical Garden – NYBG) in Colombia during 1968 provided the base for further unveiling of the richness of Colombian fungi. The project *Mycological Flora of Colombia* was a program established in 1974 between the New York Botanical Garden and the Instituto de Ciencias Naturales — ICN (Institute of Natural Sciences) at Universidad Nacional de Colombia. From 1978 to 1983, this project amassed about 4,000 collections from the departments of Antioquia, Boyacá, Cauca, Cundinamarca Boyacá, Caquetá, and Valle del Cauca. It was the first international project for which the main collections were deposited in a Colombian herbarium (Herbario Nacional Colombiano, COL). As a result of this project, ten publications have been produced under the title *Los Hongos de Colombia I–X*, with descriptions and records of macrofungi in the *Ascomycota* and *Basidiomycota*, as well as phytopathogenic fungi, moulds, lichens, and myxomycetes (e.g., Dumont *et al.*, 1978; Guzmán & Varela, 1978; Pulido-L., 1983).

Another significant contribution to mycology, particularly lichenology and macrofungi in Colombia, was the binational framework ECOANDES project between the Netherlands and Colombia (1980–1983). This has been the most comprehensive large-scale ecological project developed in the Colombian Andes to date. Systematic expeditions were developed along transects in four mountain ranges, including the three Cordilleras (Parque Nacional Natural los Nevados – PNNN, Tatamá and Sumapaz) and the Sierra Nevada de Santa Marta. Lichens (Sipman, 1986, 1989, 2005; Aguirre, 2008b) and macrofungi were studied (Pulido-L. & Boekhout, 1989a, 1989b; Pulido-L., 2005, 2008), contributing to the knowledge of these groups in altitudinal gradients, and considerably increasing the number of species known for the country.

The first Colombian studies on foliicolous lichens were done by the German ecologist Sieghard Winkler and his student Rainer Nowak, both in the Sierra Nevada de Santa Marta and the Chocó region (Nowak & Winkler, 1970, 1975). During this period, the Dutch lichenologist Harrie Sipman, based at the Botanical Garden and Botanical Museum (BGBM) in Berlin, emerged as a leader of lichenological studies in Colombia, supporting the Dutch ecologist Jan Wolf in his pioneering studies of canopy epiphyte communities (Wolf, 1993, 1994, 1995). Sipman also mentored and consolidated Jaime Aguirre as the first Colombian lichenologist. Sipman and Aguirre made important contributions among which are the first key to the lichens of Colombia (Sipman & Aguirre, 1982), and three lichen catalogues and checklists (Aguirre, 2008a; Sipman *et al.*, 2008; Sipman & Aguirre, 2016). Towards the end of the 1980s, Juan Luis Rubiano began to work in bioindication using lichens as model organisms (Rubiano, 1987, 1988).

One of the most important recent events in the study of lichenised fungi was the creation of the Grupo Colombiano de

Liquenología- GCOL (Colombian Group of Lichenology), with the support of the German mycologist Robert Lücking in 2010. This prompted the study of lichenology with great contributions such as: the consolidation of reference collections in several Colombian herbaria such as Herbario Forestal Gilberto Emilio Mahecha Vega, Sección no Vasculares, Universidad Distrital, (UDBC), Herbario Luis Sigifredo Espinal-Tascón, Universidad del Valle (CUVC), and Herbario Universidad de Caldas (FAUC); the description of new species (Lücking *et al.*, 2017); the publication of several ecological (Soto *et al.*, 2012; Chilito *et al.*, 2016; Simijaca *et al.*, 2018), phylogenetic/systematic (Lücking *et al.*, 2014; Moncada *et al.*, 2014; Coca *et al.*, 2018), bioindication (Díaz-Escandón *et al.*, 2016; Correa-Ochoa *et al.*, 2020), microbiome (Sierra *et al.*, 2020), and conservation (IAVH, 2019) studies; besides training specialised Colombian personnel (see Chapters 6, 14). At the same time, Norma Valencia-Islas and Leopoldo Rojas, with their research group, began their studies in bioprospecting of lichen substances (e.g., Rojas *et al.*, 2015; Leal *et al.*, 2018). Lichens went from being one of the least known groups of fungi in Colombia to one of the most well-studied (Lücking *et al.*, 2021).

In addition to the Mycological Flora of Colombia project and ECOANDES, numerous international researchers have visited the country. One of the relevant mycologists in the 20th century, Rolf Singer, travelled around the country and described more than 200 new species from Colombia (Mueller & Wu, 1997). Dennis (1970) presented a brief contribution to Colombia's fungi, including macrofungi species and various taxonomic groups and non-true fungi (myxomycetes). Later, Roy Halling (NYBG, USA), Greg Mueller (Field Museum, USA), and other colleagues conducted pioneering studies of fungi associated with montane oak in Colombia and Costa Rica (1986 – 1988). Collections of those expeditions are deposited in the Herbaria of the Universidad de Antioquia (HUA), NY, and F (see Chapter 15). Other important mycologists that contributed to the knowledge of Colombian fungi were Dennis Desjardin (University of Tennessee, USA), Tim Baroni (SUNY Cortland, USA), Gaston Guzmán (Instituto de Ecología de Xalapa, México), a specialist in agaricoid fungi, and Leif Ryvarden, working with polypore fungi (University of Oslo, Norway). More recently, Colombian mycologists have carried out studies on macrofungi (Chapters 4, 5). Important contributions to the fungi from the Amazon ecosystem have been made since 2001 by a project focused on exploring the diversity and ecology of saprotrophic, ectomycorrhizal, and entomopathogenic fungi (e.g. Franco-Molano *et al.*, 2005; López-Quintero *et al.*, 2012; Vasco-Palacios *et al.*, 2018, 2019, 2020; Sanjuan *et al.*, 2015). This initiative has been widely supported by Dr Teun Boekhout, a Dutch mycologist who was part of the ECOANDES and visited Colombia in the 80s. The best-studied regions are the Andean region of the central, eastern, and western cordillera, mainly in places close to the large cities and both ectomycorrhizal fungi associated with *Quercus humboldtii* and saprotrophic fungi (Vasco-Palacios & Franco-Molano, 2013; Peña-Venegas & Vasco-Palacios, 2019; Vargas & Restrepo, 2019; Chapter 10). Colombian mycologists and lichenologists are actively working on the threat assessment of fungal species and are among the leaders in these efforts in South America (Chapter 14).



Studies in arbuscular mycorrhizae (AM) also started in the 1970s. Colombia was one of the first countries in South America to study these organisms. At the end of the 1970s, studies of AM in crops began at The International Centre for Tropical Agriculture (CIAT) with Reinhardt Howeler and James Spain, who isolated for the first time the species *Glomus manihotis*, and *Entrophospora colombiana* (Schenck *et al.*, 1984). During the 1980s, Ewald Sieverding, considered the father of AM studies in Colombia, in a cooperation project supported by the German Technical Cooperation Agency (GTZ), collected almost 1,200 ecotypes (Sieverding, 1984, 1989a, 1989b; Sieverding & Howeler, 1985). This was a starting point for the “Mycorrhizal Collection”, one of the most important AM collections in the world and Latin America during the eighties. The collection preserves 44 species of AM, of which 86% are from Colombia (García *et al.*, 2000). Those AM strains had been used as reference cultures to develop a new AM fungal taxonomic classification that includes molecular data, resulting in 12 new species from Colombia (Peña-Venegas & Vasco-Palacios, 2019). Important contributions in AM have also been made by Colombian researchers such as Marina Sanchez de Prager (Marina Sanchez, 2007, 2010), Marina Correa de Restrepo (Romero *et al.*, 2004) and Eduardo Guerrero Forero (Guerrero, 1996), among others. Peña-Venegas *et al.* (2006) made an essential contribution to the *Illustrated Catalogue of Arbuscular Mycorrhizae of the Colombian Amazon*.

With the rise of studies on pathogenic fungi in the country during the 1960s and early 1970s, the Asociación Colombiana de Fitopatología y Ciencias Afines (Colombian Association of Phytopathology and Related Sciences) was organised in 1974, bringing together experts on the subject and generating the *Colombian Phytopathology* journal, still active and with wide recognition in the country. Probably one of its most prominent members was Dr. Pablo Buriticá Céspedes, who published on rusts from the late 1960s until a few years ago (e.g., Buriticá-Céspedes, 1978, 1991; Buriticá-Céspedes & Hennen, 1980; Buriticá-Céspedes & Pardo-Cardona, 1996; Buriticá-Céspedes & Salazar, 2007; Buriticá-Céspedes *et al.*, 2014). Buriticá-Céspedes (2014) was the first to describe genera and native species of Uredinales directly collected by him throughout the Colombian territory and covering hitherto unexplored areas. His work includes “Buriticá’s collection”, which constitutes more than 3,000 specimens deposited at the Museo Micológico, Universidad Nacional de Colombia, Medellín (MMUNM). Rusts are currently one of the best-studied groups in Colombia, thanks also to Luis Molina-Valero, Víctor Manuel Pardo-Cardona, and Mauricio Salazar-Yepes (Chapter 9). The smut fungi (Ustilaginales) were studied by Meike Piepenbring, who published an annotated checklist in 2002, after visiting Colombia in 1998 (Chapter 9).

Inquiries into the historical development of microfungi studies are very difficult. This group of fungi includes soil fungi, endophytes, crithidia, and moulds, which belong to various phylogenetic groups within the *Fungi* kingdom (e.g., Ascomycota, Basidiomycota, Zygomycota, Mucoromycota, Chytridiomycota) (Chapter 8). In 1971, Alvin Lee Rogers studied keratinophilic species comparing the mycobiota of

environments separated by important geographical barriers such as the Andes or different latitudes. Two years later, Llanos & Kjøller (1976) presented microorganisms that attack crude oil and hydrocarbons. As part of the series *Hongos de Colombia*, John Veerkamp & Walter Gams (1983) described three new species of soil fungi. Several species of *Penicillium*, *Trichoderma*, and *Talaromyces* have been described from isolates of Amazonian soils (Houbraken *et al.*, 2010; López-Quintero *et al.*, 2013; Yilmaz *et al.*, 2016). Since the 1980s, María Caridad Cepero de García has dedicated her professional life to the study of fungal biology, training several microbiologists and biologists in this area.

Biological control using microorganisms has a long history in Colombia, emphasising the biological control of insects in crops. The development of this field began in the 1970s when microorganisms were imported from the USA to control insect diseases in cotton (Cotes, 2014). Now, the entomopathogenic fungus *Lecanicillium lecanii* is routinely used to control whitefly in this crop. *Trichoderma* was incorporated into the production of cut flowers in Colombia to control *Fusarium oxysporum* in cloves. Later, in the 1990s, the Centro Nacional de Investigaciones de Café – Cenicafé (National Coffee Research Centre) – promoted the production of *Beauveria bassiana* for the control of the Coffee Berry Borer (*Hypothenemus hampei*). This project promoted the development of biological control with microorganisms and encouraged producers and research institutes to dedicate a large part of their efforts to developing biopesticides (Cadena, 2005). The Corporación Colombiana de Investigaciones Agropecuarias (Colombian Agricultural Research Corporation), led by Dra Alba Marina Cotes since 1994, defined a comprehensive research strategy for biological control, including a multidisciplinary team of researchers. They also established infrastructure, including a pilot plant, for the semi-commercial scaling of biopesticides, making Colombia the leading country in South America in the development, production, and commercialisation of biopesticides (Cotes, 2014)

For more than three decades, biotechnology has been a guide for developing areas such as medicine, agriculture, and the food industry, among others, in Colombia. The use of fungi in this area has been led by Dr Lucia Atehortua from the Universidad de Antioquia and Dr Sandra Montoya from the Universidad de Caldas. Production of edible mushrooms has also been important in Colombia, and we can mention Carmenza Jaramillo from Manizales, Caldas in this context. This topic is developed in more detail in Chapters 12 and 13.

Fungi have been part of the biocultural heritage of pre-Hispanic and current groups of the country. At the beginning of this chapter, we referenced most of the current studies published on this topic. Part of this traditional knowledge has been lost due to the acculturation of communities and the loss of ecosystems. Therefore, collecting ancestral knowledge has become important in different regions of the country. For example, at the Universidad Pedagógica y Tecnológica de Tunja (UPTC), Universidad del Cauca, and Universidad de Antioquia, there are research groups and hotbeds in ethnomycology, and several training courses have been conducted in this discipline (Vasco-Palacios, 2021).

## AT PRESENT

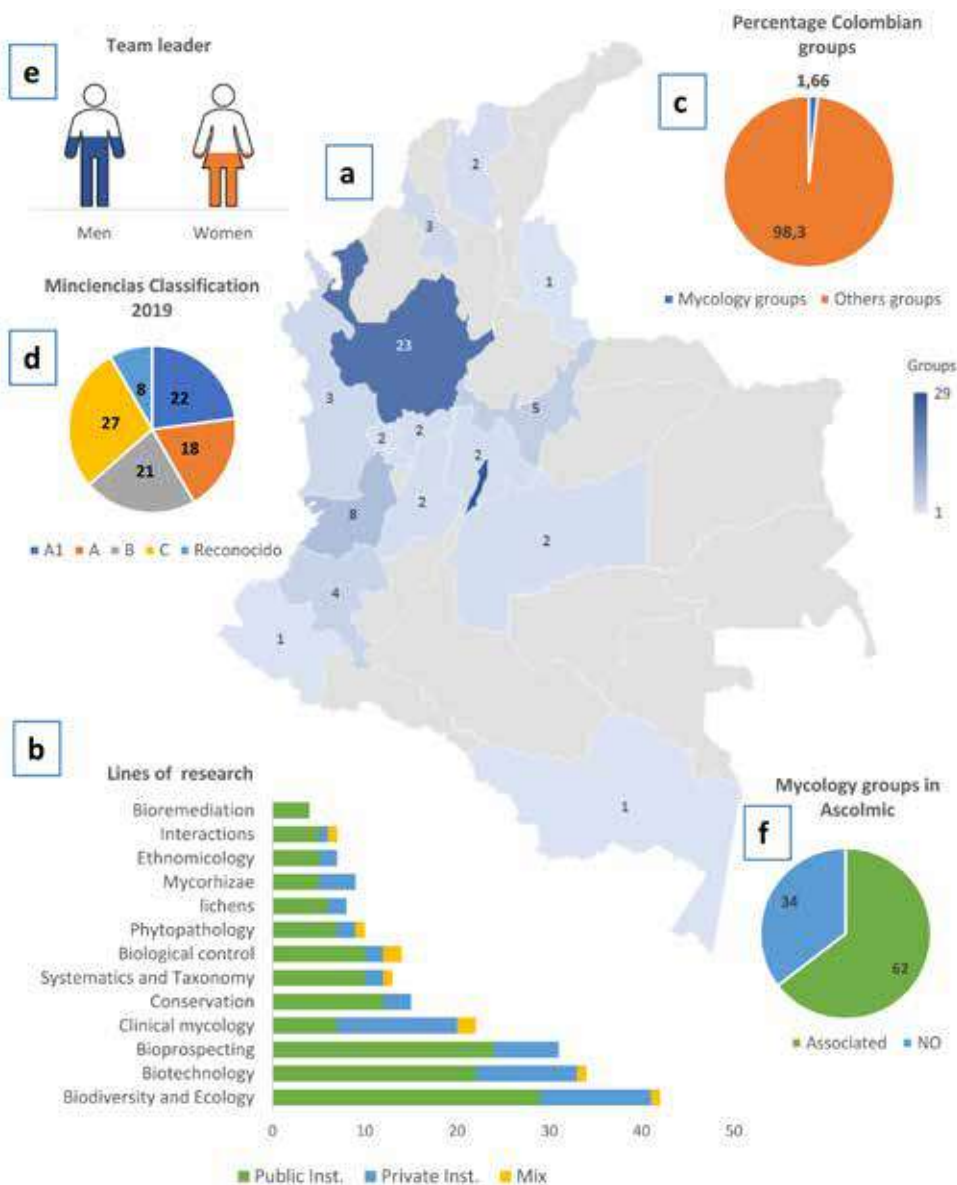
In the early 21st century, Colombian mycology was substantially strengthened by the creation of several research groups affiliated with universities, research centres, the government, and non-government organisations. To date, there are around 97 mycological research groups in Colombia, most of them (55%) concentrated in Antioquia, Bogotá DC, and Valle del Cauca (Figure 4a). These research groups carry out activities in all known areas of mycology, whereas those working on specific topics include: Grupo Colombiano de Liquenología, Grupo de Investigación en Micología, Grupo de Micología y Fitopatología, Grupo Micólogos de Colombia, Micología Médica, Micología Médica y Experimental, Química de Hongos Macromicetos Colombianos, and Taxonomía y Ecología de Hongos, among others. Other groups are

more generalists and include fungi in their research lines of research. Most groups belong to public universities and institutions in areas such as biodiversity, systematics, taxonomy, and conservation. Meanwhile, the activities of private entities tend to develop research focused mainly on clinical mycology and biotechnology (Figure 4b).

The 97 mycological research groups in Colombia represent only 1.66% of the total number of research groups in the country (Figure 4c), underlining the need to increase the number of researchers in this field. However, 40 of these are classified in the highest categories of the MinCiencias (Science Ministry) (Figure 4d), demonstrating their productivity and high level of research, as well as their important contributions to science. Participation of male versus female researchers in the leadership of these groups is surprisingly only slightly disproportionate, with 56% of led by men and 44% by women (Figure 4e).

Although the mycological community has grown substantially, it has been very scattered and isolated. In 2019, the Colombian Association of Mycology, ASCOLMIC, was consolidated under the leadership of Tatiana Sanjuán, Viviana Motato, and Aída Vasco. The aim of the association is to group people and organisations whose scientific, technical, and educational activities are related to mycology to promote its development in Colombia. Currently, the association brings together about 80 mycologists belonging to 62 of the 97 groups registered in MinCiencias and active in the field of Colombian mycology, and we hope to continue growing and consolidating in the upcoming years. The initial results of ASCOLMIC were the First Colombian Mycology Colloquium in 2020, its second edition in 2021, and the cooperative participation of some of its members in the Project of Useful Plants and Fungi of Colombia (UPFC, led by the Royal Botanic Gardens, Kew and Alexander von Humboldt Biological Resources Research Institute (IAVH; Gaya *et al.*, 2021 and this Book). The result of this joint work is this catalogue and updated list of fungi of Colombia, written by national specialists and international colleagues, whose efforts have contributed significantly with their efforts to the knowledge of the Colombian fungi.

After signing the peace agreement with the Armed Revolutionary Forces of Colombia (FARC), the Colombian government launched the project Colombia Bio to explore the biological



**FIGURE 4.** A Mycological Research groups in Colombia (MRGC) 2019-2021. B Research lines vs affiliation of the groups to the public (in green), private (in blue) and mixed research entities (in yellow) (see supplementary file 1 for additional information). C Percentage MRGC with others. D MRGC Classified Minciencias 2019-2020. E MRGC Leadership. F MRGC associated with ASCOLMIC.



diversity in territories previously under the control of this guerrilla force. These biological inventories have brought great discoveries in all fields, including new species of plants. Interest in fungal diversity has only been included in a few expeditions, such as the Andean-Amazonian expedition of the department of Caquetá led by Instituto Amazónico de Investigaciones Científicas - SINCHI (Amazonic Institute of Scientific Research) (arbuscular mycorrhizae); the expedition to the municipality of Medina (Cundinamarca, Anorí) Antioquia, Vichada, and Santander (macrofungi) and the Boyacá-Bio expedition led by the IAVH and Royal Botanic Gardens, Kew, which included several national and international specialists in different groups (macrofungi, arbuscular mycorrhizae, and lichens). Unfortunately, part of the material collected in that expedition was lost during shipment, but the remaining material includes several new species and multiple reports for that Colombian department.

## CONCLUSIONS

The current knowledge of the Colombian funga has been the result of efforts by national and international researchers in the past 230 years. Mycology has had a historical development, completely dominated by foreigners in the early stages similar to those of other biological disciplines, with products of these investigations deposited in European and North American herbaria. Decolonisation of science began practically in the second decade of the 20th century with the creation of higher education in agricultural sciences at the Facultad de Ciencias Agrarias de Medellín (Faculty of Agrarian Sciences of Medellín) and the Servicio de Sanidad Vegetal (Plant Health Service of Colombia) of the Ministry of Industries, together with Colombian scientists trained locally or abroad who began to work locally in different areas of mycology. However, mycology has flourished in the past 50 years, thanks to Colombian mycologists. During this time, the current research lines and groups have been established, and collaborations have also been established with foreign colleagues from various parts of the world, but mostly from North America and Europe. Currently, Colombian mycologists have organised their work as a group, mimicking fungi themselves, which have established multiple types of interactions with other organisms throughout time, making them one of the most successful groups of organisms and important ecosystem drivers. We hope this new mycology network will help us continue filling in the gaps in the knowledge about Colombian Funga and their uses that have been detected during the preparation of this book.

## Acknowledgements

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*Rhytidhysteron columbiense*  
[Robert Lücking]



# Chapter 3

## Diversity of Fungi of Colombia

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### ABSTRACT

This chapter provides a brief overview of the diversity of fungi of Colombia, both in comparison with other organisms and in a global context, including an assessment of the current state of knowledge and an estimate of the actual species richness. The current checklist of fungi of Colombia, including lichenised and fungus-like organisms unrelated to the true *Fungi*, comprises 7,241 species. Assessments of biodiversity-rich countries are usually based on plants and vertebrates, but here we provide an expanded perspective, including fungi and selected invertebrates. The documented diversity of fungi of Colombia is lower than that of plants, vertebrates, and insects, which we attribute to the lack of rigorous taxonomic studies and systematic inventories. Colombia ranks second in plant and vertebrate diversity in the world, trailing only Brazil. However, in terms of known fungal diversity, Colombia is not among the top ten countries and even far behind smaller temperate countries, such as France, Italy, the UK, Germany, and Japan, again highlighting the need for much additional work. Estimates of the existing species richness of fungi of Colombia oscillate between 27,430 and 380,000 species, depending on the extrapolation method. Although these numbers may seem exaggerated, currently reported numbers for the United States already exceed 45,000 and estimates for Mexico predict up to 260,000 species. To catalogue the diversity of the Colombian funga fully, a thorough assessment is needed, including molecular studies of presumably known taxa that may include morphologically cryptic species and effective detection methods for ecologically hidden fungi.

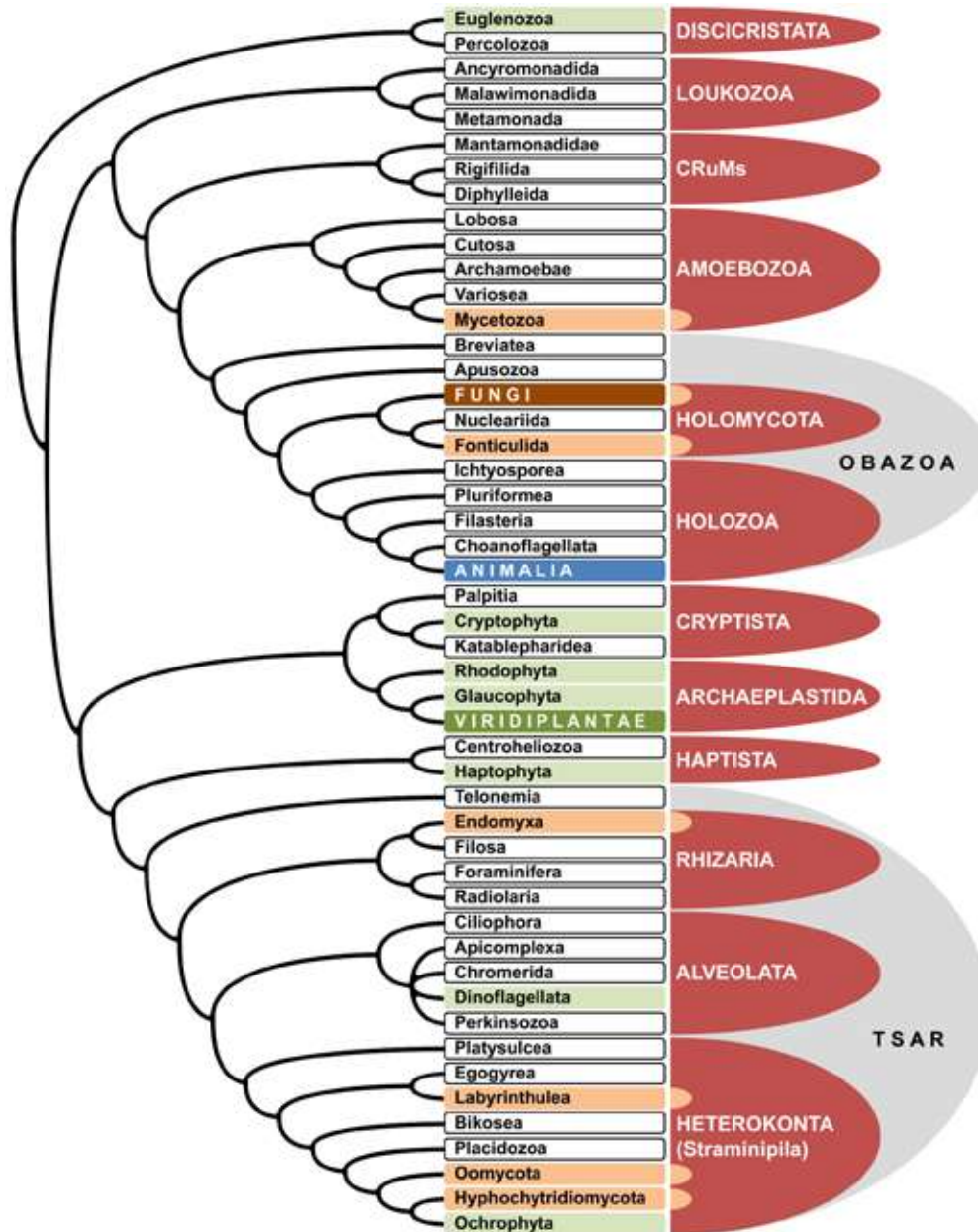
### RESUMEN

Este capítulo proporciona una breve introducción a la diversidad de hongos de Colombia, tanto en comparación con otros organismos como en un contexto global, incluyendo una evaluación del estado actual del conocimiento y una estimación de la riqueza real de las especies. El listado actual de los hongos de Colombia comprende 7.241 especies, incluyendo especies liquenizadas y organismos similares a los hongos pero no relacionados con los hongos verdaderos, tales como los oomicetes y los mixomicetes. Si bien las evaluaciones de los países ricos en biodiversidad generalmente se basan en plantas y vertebrados, aquí brindamos una perspectiva ampliada, la cual incluye los hongos e también invertebrados seleccionados. La diversidad documentada de hongos de Colombia es menor que la de plantas (26,150 especies), vertebrados (7,607) e insectos (68,000), lo que atribuimos a la falta de estudios taxonómicos rigurosos e inventarios sistemáticos. Colombia ocupa el segundo lugar en diversidad de plantas y vertebrados en el mundo, solo detrás de Brasil. Sin embargo, en términos de diversidad fúngica conocida, Colombia no se encuentra entre los diez primeros países del mundo e incluso muy por detrás de algunos países templados más pequeños, como Francia (24,840 especies), Italia (22,700), el Reino Unido (20,000), Alemania (15,295) y Japón (14,000), lo que también destaca la necesidad de mucho trabajo adicional. Las estimaciones de la riqueza de especies existentes de hongos de Colombia oscilan entre 27,430 y 380,000 especies, según el método de extrapolación. Si bien estos números pueden parecer exagerados, los números reportados actualmente para los Estados Unidos ya superan las 45,000 y las estimaciones para México predicen hasta 260,000 especies. Para catalogar completamente la diversidad de los hongos de Colombia, se necesita inventarios exhaustivos, los cuales incluyen estudios moleculares de taxones supuestamente conocidos que pueden incluir especies morfológicamente crípticas, tanto como métodos efectivos de detección de hongos ecológicamente escondidos, a través del metabarcoding ambiental.

**INTRODUCTION**

Fungi represent one of the three major eukaryotic life forms on our planet, besides plants and animals (Burki *et al.*, 2019). Mycology, the study of fungi, was traditionally treated as a branch of botany, but fungi are more closely related to animals than plants (Figure 1). To further complicate matters, fungi are not a natural group, with fungal life forms convergently evolving several times among eukaryotes. We can even find fungus-like bacteria in the Actinomycetales (Ventura *et al.*, 2007). Although nearly 99% of all fungi are representatives of the kingdom *Fungi*, fungus-like organisms are also found in various other clades (Beakes

& Thines, 2017; Burki *et al.*, 2019; James *et al.*, 2020). These include the *Oomycota* (egg fungi or water moulds), *Hyphochytridiomycota*, and *Labyrinthulomycetes* (slime nets), which form separate lineages within the *Heterokontophyta* (part of the SAR supergroup and related to brown algae and diatoms), as well as the *Phytomyxea* within the *Rhizaria* (also part of the SAR supergroup). Other fungus-like organisms are represented by the *Myxogastria* or *Myxomycetes* (plasmodial slime moulds) within the *Amoebozoa*, the *Acrasida* (cellular slime moulds) within the *Discoba*, and the *Fonticulida* (another group of cellular slime moulds) within the *Cristidiscoidea*, a clade basally related to the *Fungi* and together with the



**FIGURE 1.** Simplified *Tree of Life* highlighting the position of the true *Fungi* (dark brown) and other fungus-like organisms (light brown) relative to animals (*Animalia*) (blue) and true plants (*Viridiplantae*) (dark green) and plant-like organisms (light green) (compiled after Burki *et al.*, 2019 and James *et al.*, 2020, as well as various other sources for specific clades). Unranked major groups above kingdom are indicated to the right.



latter forming the *Holomycota* (Figure 1). The true fungi are named *Fungi* (as a scientific name written in upper case and italics) to distinguish them from other fungus-like organisms, whereas the non-scientific term “fungi” also encompasses all unrelated fungus-like organisms (as a vernacular name written in lower case and standard font; Thines *et al.*, 2020).

The convergent evolution of the fungal lifestyle within the eukaryotes is comparable to the situation in plants (Burki *et al.*, 2019; James *et al.*, 2020): the true plants are grouped in the kingdom *Plantae* (corresponding to the unranked *Viridiplantae*), but other multicellular plant-like organisms are found in the related red (*Rhodophyta*) and brown algae (*Phaeophyceae*), the latter classified within the *Heterokontophyta* and thus more closely related to the *Oomycota*, *Hyphochytridiomycota*, and *Labyrinthulomycetes* (Figure 1). Fungi are sessile (like plants) and heterotrophic organisms that are incapable of photosynthesis (like animals), with various strategies to obtain carbohydrates. These strategies range from the decomposition of dead organic material (saprotrophs) to attacking living organisms (pathogens, parasites, or carnivores) to forming different types of mutualistic symbioses with phototrophic plants, algae, and cyanobacteria (mycorrhizae and lichens) (Dix & Webster, 1995; Mueller *et al.*, 2004; Piepenbring, 2015; Watkinson *et al.*, 2016). Endophytic and endolichenic fungi are ubiquitous as asymptomatic inhabitants of plants, plant-like organisms, and lichens (Rodríguez *et al.*, 2009; U'Ren *et al.*, 2012). They are often classified as symbionts (e.g., in the FUNGuild database; Nguyen *et al.*, 2016), but their biological roles are diverse and often unknown, and they should only be considered symbionts if there is actual evidence for this (Arnold & Lewis, 2005; Bolívar-Anillo *et al.*, 2016; Bastias *et al.*, 2021). Indeed, the diversity of potential life forms of endophytic and endolichenic fungi has been dubbed the “endophytic continuum” (Schulz & Boyle, 2005).

Although mostly invisible (“ecologically hidden”), fungi are crucial components of most ecosystems on earth, being particularly involved in nutrient cycling (Dix & Webster, 1995; Watkinson *et al.*, 2016). In addition, they have played, and continue to play, important roles in ancient and modern cultures (Guzmán *et al.*, 2003; Dugan, 2008). These include their uses as food, in industrial, biotechnological, and pharmaceutical applications, and in biomonitoring and mycoremediation (Nimis *et al.*, 2002; Rhodes, 2014; Hyde *et al.*, 2019; see also Chapter 13).

Fungi also hold several records among living organisms. For instance, species of *Armillaria* (honey mushrooms) form several of the largest known single organisms on earth, with biomasses corresponding to up to three blue whales (Smith *et al.*, 1992; Schmitt & Tatum, 2008; Anderson *et al.*, 2018). The widespread *Schizophyllum commune* (split gill) and *Coprinopsis cinerea* (gray shag), both model fungi, have been shown to develop more than 20,000 mating types or “sexes” (Kothe, 1999; Casselton & Kues, 2007). The lichenised fungus *Buellia frigida* in dry valleys of Antarctica forms thalli that are among the oldest documented organisms on earth, in part estimated at over 6,500 years old (Green *et al.*, 2012).

In terms of known species, *Fungi* currently rank third amongst the three large kingdoms, with 150,000 species (Lücking *et al.*, 2021a), after *Animalia* (animals), with 1.66 million known species (Zhang, 2013), and *Viridiplantae* (plants), with at least 350,000 known species (Christenhusz & Byng, 2016; The Plant List, 2021). *Fungi* are clearly the least well-known of these three kingdoms, given that estimates predict a much higher number of species, between 1.5 and 6.3 million (Blackwell, 2011; Hawksworth & Lücking, 2017; Baldrian *et al.*, 2021). These estimates would place *Fungi* as the second-largest kingdom after animals, including estimates for unknown arthropods (see below), but far ahead of plants. Predictive estimates of global fungal diversity are based on diverse considerations, including a mean global fungi:plant species ratio of between 6:1 and 10:1, but also taking into account accumulating evidence of hidden diversity among presumably known species, with a mean ratio of over 10:1, as well as a wealth of data emerging from environmental sequencing studies (Baldrian *et al.*, 2021; Lücking *et al.*, 2021a). Cataloguing this unknown diversity is the major challenge for mycology in terms of time and resources and how to deal with fungi only known from sequence data (Lücking *et al.*, 2021a). Much of this unknown fungal diversity is expected to be found in tropical regions, such as Colombia.

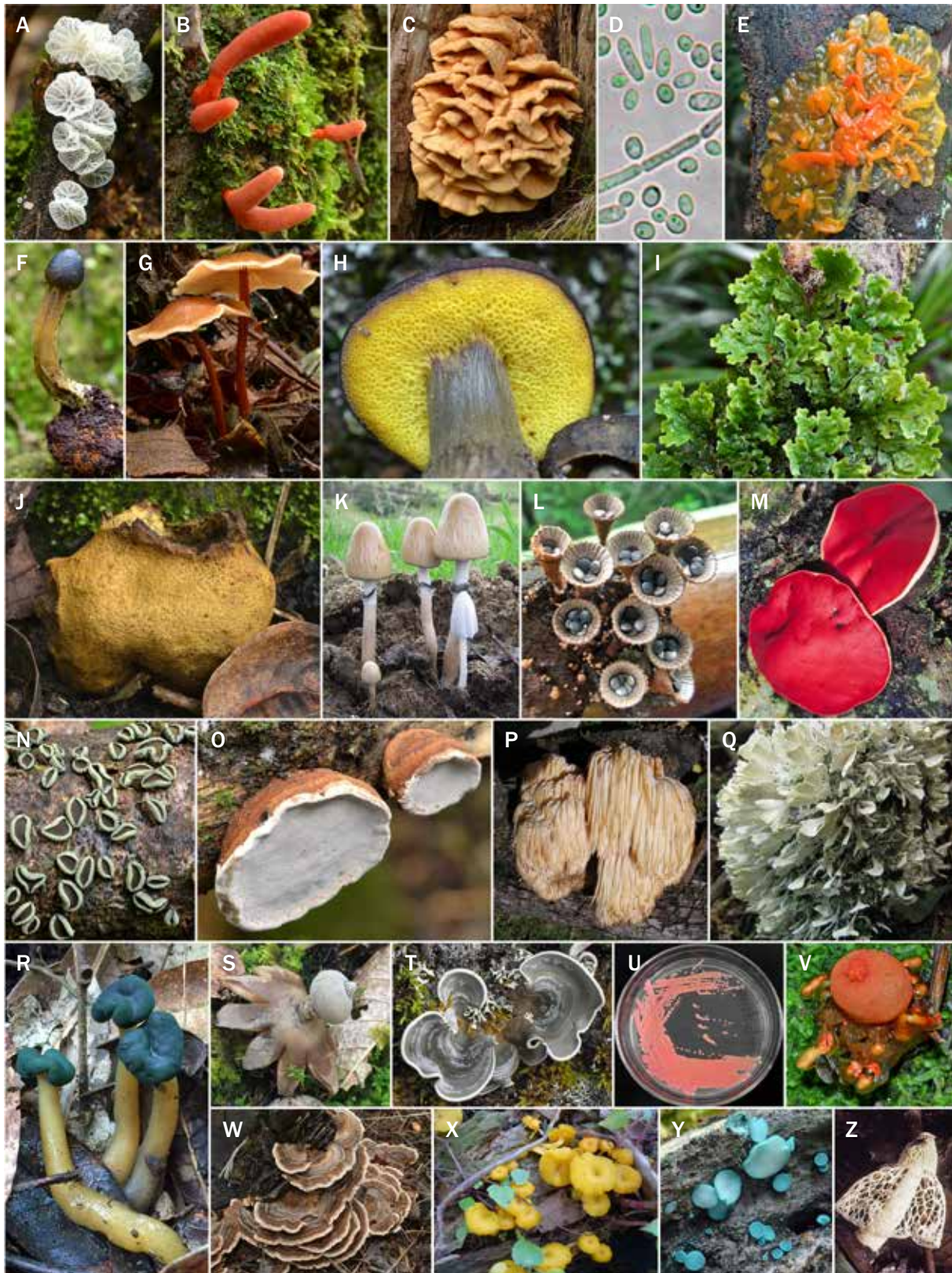
#### DIVERSITY OF FUNGI OF COLOMBIA IN THE TREE OF LIFE

The ColFungi project (Gaya *et al.*, 2021; <https://colfungi.org>) represents the first compilation of data on all groups of fungi of Colombia into a single resource, including nomenclatural and taxonomic checks. This project resulted in a total of 7,241 accepted species of fungi for Colombia, encompassing a high diversity of fungal life forms, including mushrooms and lichen-formers, plant- and animal-pathogenic microfungi, moulds, yeasts, among many others (Figure 2). By itself, the number of 7,241 species is difficult to evaluate, but when put into a taxonomic and geographic context, it illustrates the current state of knowledge of the Colombian funga.

Country- or region-based comparisons of biodiversity are often presented in the context of global conservation approaches, but these listings are usually limited to plants and vertebrates (mammals, birds, reptiles, amphibians, and fish; e.g., Butler, 2016, 2019), whereas fungi are rarely included in such comparisons. Colombia is currently ranked second among the ten most biodiversity-rich countries in plant and vertebrate species richness, trailing Brazil but ahead of Indonesia, China, Mexico, Peru, Australia, India, Ecuador, and Venezuela (Butler, 2016, 2019). According to these listings, Colombia has 51,220 plant species, 2,053 fish, 1,878 birds, 771 amphibians, 601 reptiles, and 442 mammals, and updated numbers for all vertebrate groups are consistently higher (Table 1). Notably, with 7,241 known species, fungi would rank second in this enumeration for Colombia.

Still, this ranking would be misleading: plants and fungi essentially represent entire kingdoms, whereas, in terms of





**FIGURE 2.** Examples of fungi of Colombia representing a diversity of lifestyles and phenotypes of spore-bearing structures. **A** *Campanella caesia*. **B** *Cordyceps nidus*. **C** *Laetiporus sulphureus*. **D** *Candida* sp. **E** *Auricularia mesenterica*. **F** *Tolypocladium capitatum*. **G** *Laccaria laccata*. **H** *Boletus* sp. **I** *Yoshimuriella peltigera*. **J** *Scleroderma flavidum*. **K** *Panaeolus semiovatus*. **L** *Cyathus striatus*. **M** *Phillipsia domingensis*. **N** *Rhytidhysterion columbiense*. **O** *Cerioporus scutellatus*. **P** *Hericium erinaceus*. **Q** *Hydnopolyporus fimbriatus*. **R** *Leotia lubrica*. **S** *Geastrum pectinatum*. **T** *Cora elephas*. **U** *Rhodotorula* sp. **V** *Calostoma cinnabarinum*. **W** *Trametes versicolor*. **X** *Collybia plectophylla*. **Y** *Chlorociboria aeruginascens*. **Z** *Phallus indusiatus*. Photographs: A, B, C, F, G, I, J, N, O, Q, T, W, Y: Robert Lücking. D, U: Mauricio Ramírez. E, L, R, S: Aída Vasco-Palacios. H, V: Bibiana Moncada. K, M, P, Z: Ana Esperanza Franco-Molano. X: Ana Cristina Bolaños.



**TABLE 1.** Updated totals for the number of known species of selected groups of organisms in Colombia. The global totals exclude fossil taxa.

Group	Butler (2016, 2019)	Updated figures	Global total	Proportion of updated figures vs global total	Reference(s) for updated figures
Animals	—	—	1,530,000	—	Zhang (2013); this paper
Vertebrates	5,745	7,607	57,102	13.2%	This paper
Fish	2,053	3,700	32,000	11.6%	Mejia & Acero (2002); Maldonado-Ocampo <i>et al.</i> (2008); Nelson <i>et al.</i> (2016); DoNascimento <i>et al.</i> (2018)
Amphibia	771	836	8,348	10.0%	Acosta-Galvis (2019); Frost (2021)
Reptiles	601	634	11,440	5.5%	Uetz <i>et al.</i> (2021)
Birds	1,878	1,909	9,159	20.8%	Barrowclough <i>et al.</i> (2016); Avendaño <i>et al.</i> (2017)
Mammals	442	528	6,451	8.2%	Burgin <i>et al.</i> (2018); Mammal Diversity Database (2021)
Invertebrates					
Insects	—	68,000	1,000,000	6.8%	This paper
Papilionoidea	—	3,642	18,768	19.4%	Garwood <i>et al.</i> (2021)
Formicidae	—	1,100	13,809	8.0%	Fernández <i>et al.</i> (2019); Bolton (2020)
Staphylinidae	—	800	48,000	1.7%	Newton <i>et al.</i> (2005)
Cicadellidae	—	679	22,000	3.1%	Freytag & Sharkey (2002)
Odonata	—	335	6,000	5.6%	Pérez-Gutiérrez & Palacino-Rodríguez (2011)
Blattaria	—	133	4,330	3.1%	Vélez (2008)
Arachnida	—	1,546	57,126	2.7%	Perafán <i>et al.</i> (2013)
Plants	51,220	26,150	350,000	7.5%	Bernal <i>et al.</i> (2016a, b, 2019); Diazgranados <i>et al.</i> (2021); The Plant List (2021)
Vascular plants	—	24,500	316,000	7.8%	Bernal <i>et al.</i> (2016a, b, 2019); Diazgranados <i>et al.</i> (2021); The Plant List (2021)
Bryophytes	—	1,650	34,500	4.8%	Bernal <i>et al.</i> (2016a, b, 2019); Diazgranados <i>et al.</i> (2021); The Plant List (2021)
Fungi	—	7,241	150,000	4.8%	Gaya <i>et al.</i> (2021); Lücking <i>et al.</i> (2021a); this paper
Ascomycota	—	4,564	93,632	4.9%	Gaya <i>et al.</i> (2021); Kirk (pers. comm. July 2021); this paper
Basidiomycota	—	2,318	50,460	4.7%	Gaya <i>et al.</i> (2021); Kirk (pers. comm. July 2021); this paper

species richness, vertebrates are only a small fraction of the animal kingdom, the diversity of which is concentrated among arthropods (Stork, 2018). Indeed, the known insect diversity of Colombia alone should easily surpass that of vertebrates and likely even plants. For instance, Newton *et al.*, (2005) listed nearly 800 species only of *Staphylinidae* (rove beetles) for the country, out of a total of 48,000 known globally, and Vélez (2008) enumerated 133 species of *Blattaria* (cockroaches), compared to 4,330 worldwide (Table 1). Pérez-Gutiérrez & Palacino-Rodríguez (2011) reported 335 species of *Odonata* (dragonflies), out of a global total of around 6,000. For *Formicidae* (ants), Fernández *et al.*, (2019) listed 1,100 species for Colombia, compared to over 13,800

globally (Bolton, 2020). The most comprehensive and most recent checklist of Colombian butterflies (*Papilionoidea*) compiled data on 3,642 species out of a global number of 18,768 (Garwood *et al.*, 2021). According to Stork (2018), about one million insect species have been named, which means that globally, *Staphylinidae* corresponds to 4.8%, *Papilionoidea* 1.9%, *Formicidae* 1.4%, *Odonata* 0.6%, and *Blattaria* a little over 0.4% of that number. Extrapolating from these proportions in the case of Colombia implies that a total of between 17,000 and 194,000 insect species are likely known from the country, with a median of 43,350 and a mean of 68,000 (Table 1). Although the exact number has not yet been compiled, this extrapolation is far ahead of the

7,241 fungi and even ahead of the actual known number of plant species (see below).

Compared to the 51,220 species of plants reported for Colombia (Butler, 2016, 2019), the number of 7,241 fungal species also appears relatively low, with a fungus:plant species ratio of 1:7. However, the figure of 51,220 plant species goes back to outdated sources, being recently corrected to about 26,150 species in the *Catálogo de Plantas y Líquenes de Colombia* (Bernal et al., 2016a, b, 2019) and the most recent compilation of *ColPlantA* (Diazgranados et al., 2021). Based on the corrected number, Colombia's fungus:plant species ratio currently amounts to about 1:3.6, still much lower than ratios of between 6:1 and 10:1 obtained from well-studied extra-tropical areas (Hawksworth & Lücking, 2017). In terms of global diversity, Colombia harbours 4.8% of the 150,000 known fungal species and 7.5% of the 350,000 known plant species (Table 1). While these percentages are in the same order of magnitude, they do not consider the much more limited state of knowledge of global fungal diversity.

Fungi and fungus-like organisms are currently arranged into 64 classes (Species Fungorum 2021), of which 36 have been reported from Colombia. The remaining 28 classes are species-poor, with between one and 321 species globally. These remaining classes potentially occur in Colombia but are challenging to detect, as they largely represent ecologically hidden microfungi. Among the 36 classes present in Colombia, 11 are overrepresented compared to global proportions, by a factor of up to 6.5 (Figure 3). The seven most overrepresented classes are *Glomeromycetes* (factor 6.5), *Coniocybomycetes* (3.9), *Mortierellomycetes* (4.3), *Schizosaccharomycetes* (4.0), *Lecanoromycetes* (3.8), *Candelariomycetes* (3.8), and *Arthoniomycetes* (3.6). Four of these seven classes have low species numbers in Colombia, between one and 26, so the observed deviations are not meaningful, but the three remaining classes are represented by higher species numbers: *Lecanoromycetes* (2,167), *Arthoniomycetes* (189) and *Glomeromycetes* (106). The substantial overrepresentation of *Lecanoromycetes* and *Arthoniomycetes* is because these mostly lichen-forming fungi are much better studied than any other larger group of fungi in Colombia (Gaya et al., 2021), so the observed deviations are based on study bias. On the other hand, five important classes that are highly diverse in tropical regions but substantially underrepresented and understudied in Colombia are *Dothideomycetes*, *Sordariomycetes*, *Leotiomycetes*, *Pezizomycetes*, and *Laboulbeniomycetes* (Figure 3).

### DIVERSITY OF FUNGI OF COLOMBIA IN A GLOBAL CONTEXT

Knowledge on organismic diversity is unevenly distributed across the planet, and even the absolute state of knowledge is opposed to the estimated diversity in a region. This scenario is largely because there are more specialists per area working in regions with fewer species per area for almost any group of organisms, particularly fungi (Hawksworth, 2001; Piepenbring et al., 2018). As

a result, in biodiversity-rich countries, such as Colombia, even though the number of fungal species is expected to be higher than in extra-tropical areas, the absolute number of mycological studies is much lower. For instance, a search in the *Web of Science* [<https://www.webofscience.com/wos/woscc/basic-search>], using the string <(ALL=(Fungi)) AND ALL=(Country)>, retrieved around 16,000 results between 1900 and 2020 for the U.K. (England, Northern Ireland, Scotland, Wales), but only 1,155 for Colombia. Unfortunately, reliable estimates of known fungal diversity are difficult to obtain for most countries due to the lack of comprehensive databases or checklists, exceptions being lichenised fungi and macrofungi (Feuerer & Hawksworth, 2007; Gaya et al., 2021). Also, the nature and detail of existing compilations may differ markedly between countries, making comparisons challenging. Nevertheless, we attempted to compile existing data to compare Colombia with selected countries within and outside the tropics (see Gaya et al., 2021; here updated).

The highest number of fungi, including all lifestyles, has been reported for the United States (Table 2), with approximately 45,000 species (Perlmutter & Weakley, 2018; Bates et al., 2018; Esslinger, 2019). However, this impressive number is tentative, as, for non-lichenised fungi, current names and synonyms have not been fully sorted out. After India, with 29,000 species, France remarkably ranks third, with 24,840 species, followed by China (23,927) and Italy (22,700) (Roux, 2012; Onofri et al., 2013; Medardi, 2006; Venturella et al., 2011; Nimis, 2016; Institute of Microbiology, Chinese Academy of Sciences, 2018; Gargominy et al., 2020; Wang et al., 2020; Wei, 2021). We had originally reported 20,500 species for Brazil (Gaya et al., 2021), but a reanalysis of the underlying data, including accepted names vs synonyms, led to a correction, with now 13,950 species (see Table 2). This number is still substantially higher than the 5,719 species reported by Maia et al., (2015), the latter likely an underestimate based on an incomplete list of selected records for particular groups.

Among the countries assessed here, Colombia ranks seventh for lichenised fungi (see Chapter 6). In comparison, the overall number and particularly the number of non-lichenised fungi is comparatively low, with Colombia currently taking 13th place. In terms of species density and species per  $\log_{10}(\text{area})$ , Colombia also ranks comparatively low, particularly when compared to its richness in other groups of organisms, leading us to the question: how many species of fungi can we expect in Colombia?

### HOW MANY SPECIES OF FUNGI ARE THERE IN COLOMBIA?

Predictive estimates of species richness are naturally speculative, especially for ecologically largely hidden organisms and in groups where taxon concepts have not been fully resolved. Several approaches exist to predict species numbers on the basis of known species and other data. One possible approach is the assumption that Colombia's species per  $\log_{10}(\text{area})$  estimate should be



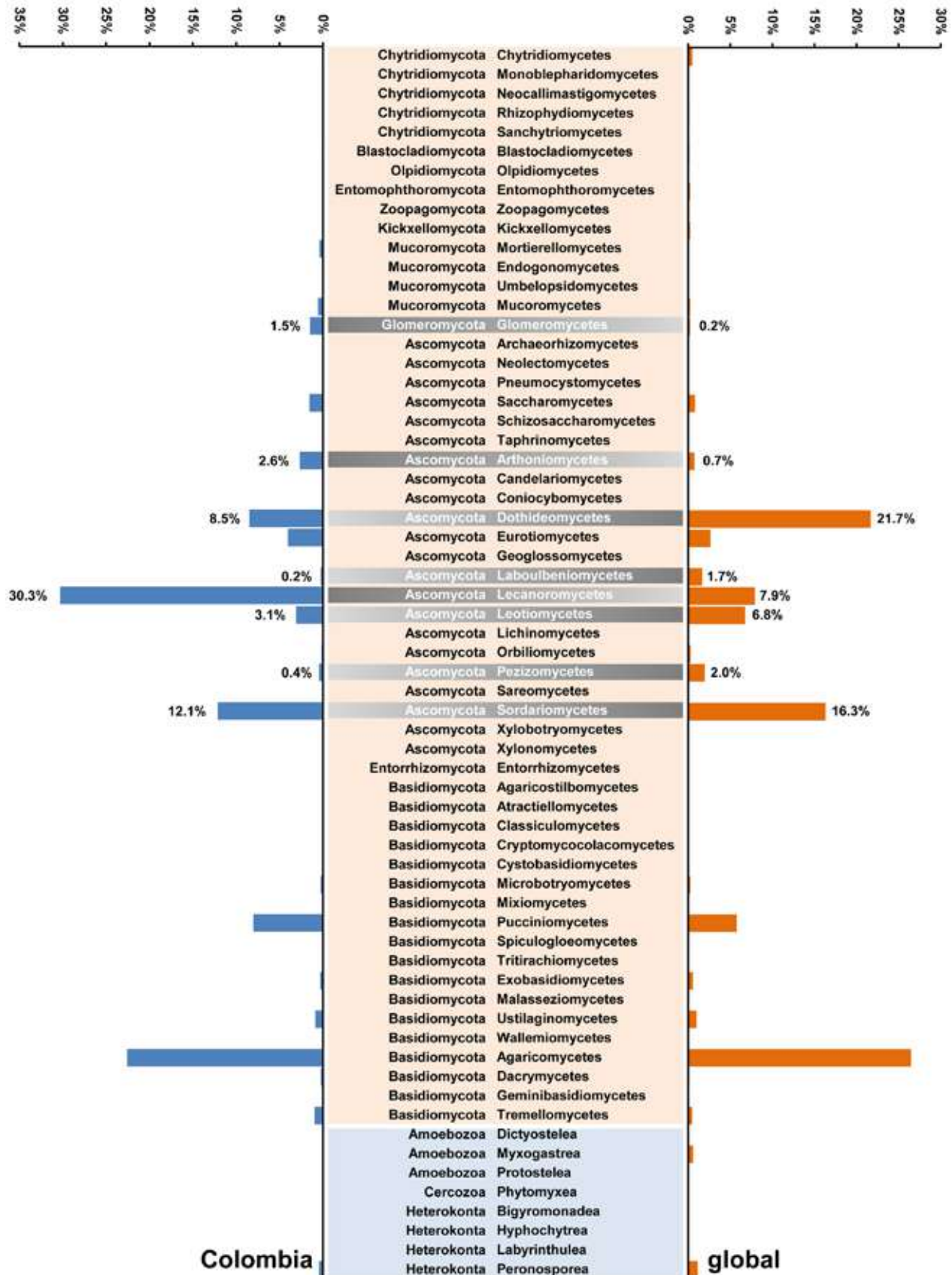


FIGURE 3. Comparison of the proportional phylogenetic diversity of *Fungi* and fungus-like organisms at the class level between Colombia and the global fungi. The percentages indicate the number of species per class compared to the corresponding total. Selected classes that are over- or under-represented in Colombia are marked in dark grey, and the corresponding percentages are indicated. For detailed data, see Suppl. File S1.

**TABLE 2.** Comparison of numbers of known fungal species between selected countries. The number of 16,900 macrofungi for the United States is an estimate based on Bates *et al.* (2018). The corrected total for Brazil (13,950; as compared to 20,500 reported in Gaya *et al.*, 2021) is based on the accepted number of fungal names for Brazil on SpeciesLink (approximately 11,330), minus the number of lichenised species in that database (approximately 1,690), plus the updated number of lichenised species based on Aptroot (2021).

Country / Territory	All fungi	Lichenised fungi	Macro-fungi	Density [species / log <sub>10</sub> (km <sup>2</sup> )	Reference(s)
United States	45,000	4,341	16,900	6,578	Perlmutter & Weakley (2018); Bates <i>et al.</i> (2018); Esslinger (2019)
India	27,000	2,714	—	4,450	Sarbhoy <i>et al.</i> (1996); Singh & Sinha (2010); Manoharachary & Nagaraju (2016); Sinha <i>et al.</i> (2018)
France	24,840	2,917	—	4,276	Roux (2012); Gargominy <i>et al.</i> (2020)
China	23,927	3,050	7,138	3,427	Institute of Microbiology, Chinese Academy of Sciences (2018); Wang <i>et al.</i> 2020; Wei (2021)
Italy	22,700	2,704	4,198	4,143	Onofri <i>et al.</i> (2013); Medardi (2006); Venturella <i>et al.</i> (2011); Nimis (2016); Checklist of Italian Fungi (2021)
United Kingdom	20,000	2,000	3,100	3,343	Legon & Henrici (2005); Smith <i>et al.</i> (2009); Dines & McCarthy (2014); Clubbe <i>et al.</i> (2020)
Germany	15,295	1,946	6,120	2,754	Wirth <i>et al.</i> (2011); DGfM (2021)
Japan	14,000	1,906	4,160	2,510	Hosoya (2006); Katumoto (2009); Ohmura & Kashiwadani (2018)
Brazil	13,950	4,310	2,300	2,013	Lewinsohn & Prado (2005); Maia <i>et al.</i> (2015); Aptroot (2021); SpeciesLink (2021)
Australia	12,870	4,003	4,000	1,869	May <i>et al.</i> (2004); McCarthy (2020)
Canada	12,800	2,262	4,500	1,829	Perlmutter & Weakley (2018); Bates <i>et al.</i> (2018); Esslinger (2019)
Venezuela	8,300	1,801	—	1,392	Marcano <i>et al.</i> (1996); Itturiaga (2000); Hernández-M. (2021)
Mexico	7,632	2,722	2,900	1,212	Guzmán (1998a, b); Cifuentes (2008); Aguirre-Acosta <i>et al.</i> (2014); Herrera-Campos <i>et al.</i> (2014); Bates <i>et al.</i> (2018)
Colombia	7,241	2,559	1,239	1,210	Vasco-Palacios & Franco-Molano (2013); Gaya <i>et al.</i> (2021); Lücking <i>et al.</i> (2021b); this paper
Thailand	7,300	1,292	2,100	1,278	Hywel-Jones & Boonpratuang (2001); Chandrasrikul <i>et al.</i> (2011); Buaruang <i>et al.</i> (2017); Hyde <i>et al.</i> (2018); Index Fungorum (2021)
Malaysia	3,804	—	—	689	Chua <i>et al.</i> (2012)
Costa Rica	3,500	1,740	2,000	743	Halling & Mueller (2005); Mueller <i>et al.</i> (2007)
Bolivia	2,234	1,353	500	370	Piepenbring (2004); Rodriguez de Flakus <i>et al.</i> (2016); Melgarejo-Estrada <i>et al.</i> (2020a, b)
Panama	1,807	325	300	370	Piepenbring (2007)

comparable to that of a well-studied temperate country, such as the United States. Colombia encompasses an area of 1.143 million km<sup>2</sup>, compared to 9.834 million km<sup>2</sup> for the United States. The latter has 6,578 fungal species per log<sub>10</sub>(km<sup>2</sup>), so with log<sub>10</sub>(1,143,000) = 6.058, one would expect 6,578 x 6.058 = 39,850 species for Colombia (Table 3). This figure is about 5.5 times higher than the currently known number. Given that lichen-forming fungi have been estimated at nearly 5,000 species for Colombia

(see Chapter 6), this would result in approximately 35,000 species of non-lichenised fungi. Since about 5,000 species of non-lichenised fungi are known from Colombia (Gaya *et al.*, 2021), nearly 30,000 still need to be catalogued. However, the actual number could be even higher because tropical ecosystems on average support higher small-scale species richness than temperate areas, which means that patterns found in the United States or other largely temperate countries cannot be directly transferred.



**TABLE 3.** Various predictions of the actual species richness of the Colombian fungi using different approaches.

Prediction	Approach
27,430	Adjusted according to a proportion of well-studied class <i>Lecanoromycetes</i>
39,850	Species versus $\log_{10}(\text{area})$ relationship using the USA as a benchmark
105,600 –182,400	Colombian proportion of global estimated richness, using known fungi as a benchmark (4.8%) and 2.2–3.8 million estimated fungal species globally (Hawksworth & Lücking, 2017)
156,900 –261,500	Fungi:plant ratio between 6:1 and 10:1
165,000 –285,000	Colombian proportion of global estimated richness, using known plants as a benchmark (7.5%) and 2.2–3.8 million estimated fungal species globally (Hawksworth & Lücking, 2017)
220,000 –380,000	Colombian proportion of global estimated richness, using known amphibia as a benchmark (10.0%) and 2.2–3.8 million estimated fungal species globally (Hawksworth & Lücking, 2017)

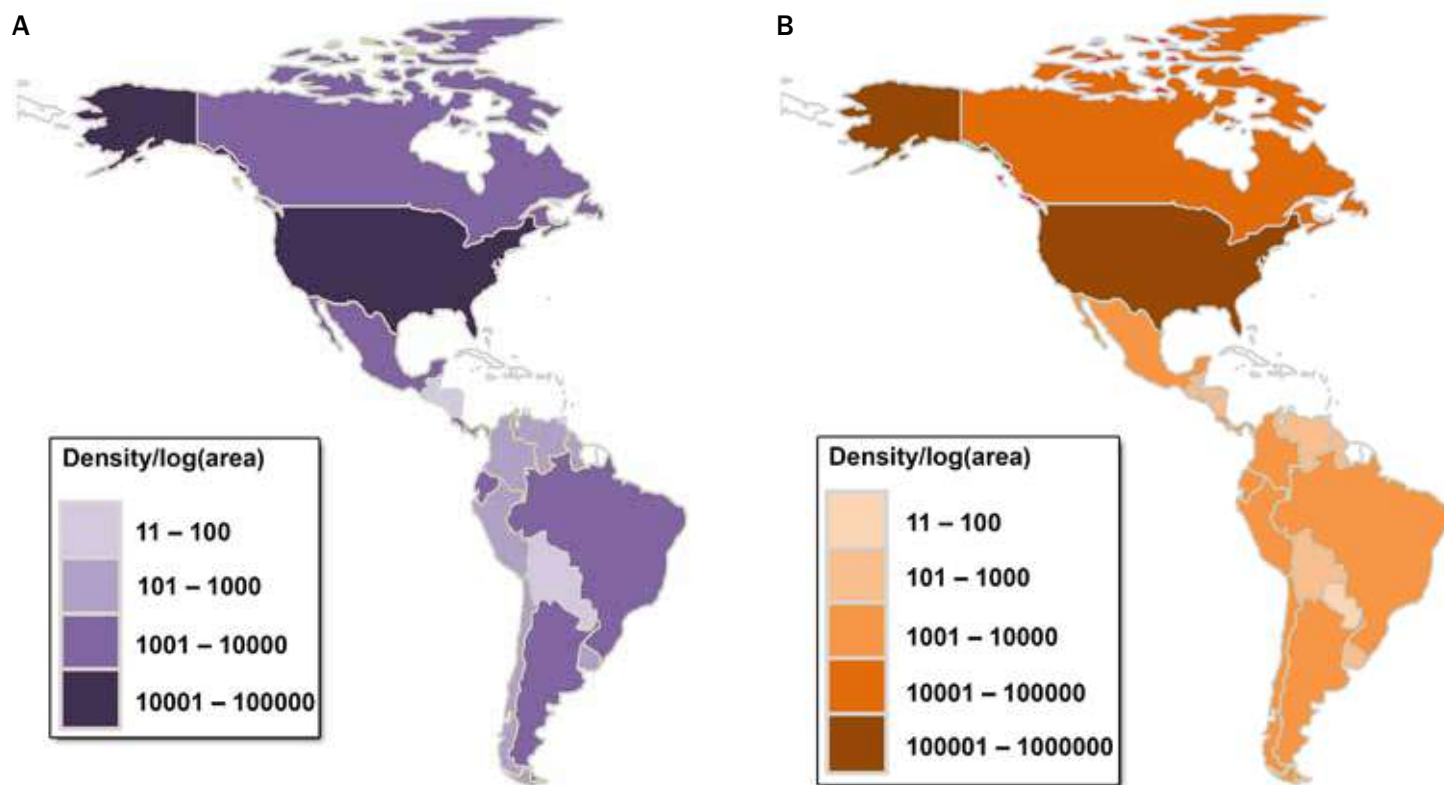
A similar prediction is achieved when considering the phylogenetic diversity of fungi of Colombia at the class level (Figure 3). As outlined above, the largest overrepresented class is *Lecanoromycetes* (30.3% in Colombia versus 7.9% globally), which includes most of the lichenised fungi, a group particularly well-studied in Colombia. If we assume that the global proportion of *Lecanoromycetes* is relatively constant across terrestrial ecosystems dominated by woody plants, then Colombia would be expected to harbour at least 27,430 species of fungi to render the current number of 2,167 *Lecanoromycetes* at a proportion of 7.9%.

Another approach is to look at proportional richness per organism group in Colombia relative to the known global diversity of the group. The observed values range between 4.3% for insects and 20.8% for birds, with others in between, e.g., 7.5% for plants, 8.2% for mammals, and 10.0% for amphibia (Table 1). Relying on well-studied groups and taking into account how species in particular groups can successfully disperse, that is, how sizable average species ranges probably are, for fungi, one could assume values similar to those of plants or amphibia (or butterflies), that is, 7.5%–10.0% (–19.4%). The global estimate of between 2.2 and 3.8 million species (Hawksworth & Lücking, 2017) would give an estimate of (165,000–)220,000–285,000(–380,000) species for Colombia when applying the 7.5%–10.0% range (the 19.4% range probably being too high). Even taking the currently observed 4.8% for known Colombian vs

globally known fungi as a basis, the estimate would range between 105,600 and 182,400 species, still much higher than the estimate based on  $\log_{10}(\text{area})$  extrapolation (Table 3). Such estimates may seem unrealistic, but figures in the same order of magnitude, namely (100,000–)200,000(–260,000) species of fungi, have been proposed for Mexico (Guzmán 1998a, b; Aguirre-Acosta *et al.*, 2014).

The fungus:plant species ratio is another commonly used measure for predictive species richness estimates (Martin, 1951; Hawksworth, 1991; Hawksworth & Lücking, 2017). Empirical data for this measure vary widely, ranging from 1.8:1 to 19.1:1, depending on the ecosystem and sampling methods. Thus, while plants within a given area can be sampled quite accurately, fungal sampling restricted to macroscopically visible fungi and within a limited time frame will naturally and often grossly underestimate fungal diversity, as evidenced by a study performed in Panama (Piepenbring *et al.*, 2012). The ratio also depends on the group of fungi. For example, rust fungi (*Pucciniomycetes*) show lower empirical fungus:plant species ratios between 1:10 and 1:100, with more realistic ratios ranging between 1:4 and 1:20, resulting in estimates for the diversity of rust fungi alone in Colombia of between 2,500 and nearly 13,000 species (Salazar-Yepes & Alves de Carvalho Júnior, 2013). However, these approaches have largely not been tested using molecular approaches, both in terms of taxon concepts in rust fungi and the detection of species not producing spore-bearing structures. In addition, fungus:plant species ratios vary with latitude, higher ratios in temperate areas going along with substantially lower plant diversity, which requires a downwards correction when extrapolating globally (Tedersoo *et al.*, 2014). Estimates may be further misguided by outdated numbers for plant diversity, such as the earlier - reported exaggerated figure of 51,220 plant species for Colombia (see above). Studies that include more sophisticated sampling methods, such as long-term plots and/or metabarcoding, show overall fungus:plant species ratios of between 6:1 and 10:1. However, such studies have been mostly restricted to temperate ecosystems (Hawksworth & Lücking, 2017). Given the number of 26,150 plant species currently known from Colombia, applying the fungus:plant species ratio approach would thus result in 156,900–261,500 species of fungi for Colombia, a figure comparable to that derived from the proportional richness approach (Table 3).

Although a reliable estimate of fungal diversity in Colombia remains speculative, we can safely assume that the predicted figure is perhaps an order of magnitude higher than the currently number of known species. Apart from the sheer size of that number, the more daunting perspective is the effort required to document this largely unknown diversity, requiring a large task force of experts in the different fungal groups and consequent application of modern methods of biodiversity research. Unfortunately, molecular approaches to catalogue fungi are still limited in Colombia. We performed a structured search in the NCBI GenBank [<https://www.ncbi.nlm.nih.gov/genbank>], using the string <Fungi[organism] AND (5.8S[title] OR ITS1[title] OR ITS2[title] OR “internal



**FIGURE 4.** Number of NCBI GenBank accessions obtained using the fungal ITS barcoding marker (A) and number of biosamples from metabarcoding studies using various markers (B), adjusted for area size [relative to  $\log_{10}(\text{area})$ ] for countries across the Americas.

transcribed spacer”[title]) AND country>, for all countries in the Americas, to assess how many accessions of the fungal ITS barcoding marker exist for each country, and then divided the number by  $\log_{10}(\text{area})$ , to filter the area effect. The United States ranks two orders of magnitude ahead of Colombia, whereas Canada, Mexico, Costa Rica, Ecuador, Brazil, and Argentina rank one order of magnitude ahead (Figure 4A). We further queried the NCBI Sequence Read Archive [<https://www.ncbi.nlm.nih.gov/sra>] using the country name and recording the number of resulting biosamples, also dividing them by  $\log_{10}(\text{area})$  to obtain an estimate of existing metabarcoding studies. Again, the United States ranges two orders of magnitude ahead of Colombia and most other countries except Canada (Figure 4B).

Considering that it took about 200 years to arrive at a list of just 7,241 species of fungi known from Colombia using mostly traditional inventory methods, efforts have to be increased by about two orders of magnitude to catalogue an additional at least 30,000 species within a reasonable time frame of 15–20 years. For this to happen, there needs to be a paradigm shift in the political and societal support for this kind of work in Colombia, and across Latin America and other tropical regions in general.

## CONCLUSIONS

The first assembly of a critical checklist of the Colombian fungi is a milestone in the state of knowledge of fungi in the country. However, compared to other organisms and in

a global context, the inventory of fungi of Colombia is still at its onset in terms of expected numbers. Although a good balance of taxonomic groups has been studied to date in Colombia, including a wide array of macro- and microfungi and fungi representing different lifestyles, the development of mycology is not at a level comparable to that in temperate countries, in which non-professional mycology also plays a critical role in performing inventory work. We believe that mycology in Colombia can only develop further if the focus is not only on applied approaches, but more resources are provided for basic scientific studies, allowing the adoption of modern technologies, such as molecular (meta-)barcoding at a broader scale. In parallel, fostering taxonomic specialist groups for the various taxa is necessary, particularly for taxa that remain grossly understudied. The formation of associations, such as the *Asociación Colombiana de Micología* (ASCOLMI) and the *Grupo Colombiano de Liqueología* (GCOL) can be considered an excellent initiative to achieve this goal.

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*Panaeolus semiovatus*  
[Ana Esperanza Franco-Molano]



# Chapter 4

## Diversity of Basidiomycota in Colombia

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### ABSTRACT

Colombia is one of the most biodiverse countries on the planet due to its geographical location and its great diversity in ecosystems and climates, which give rise to the high richness and diversity of its funga. Its funga will probably prove to be one of the most diverse in South America. In the present study, we analysed the dataset for Basidiomycota provided by the *ColFungi* project and the Herbarium of the University of Antioquia (HUA). Statistical analyses show a high diversity of Basidiomycota, especially for Agaricomycetes in oak and lowland forests. Also, evidence of the lack of studies for some departments of Colombia, such as the Guaviare, is provided. Regarding the conservation of fungi, it is observed that only a few studies have been carried out for Basidiomycota macrofungi in Colombia, since only 22 species have been assessed to date for their extinction threat.

### RESUMEN

Colombia es uno de los países más biodiversos en el planeta debido a su ubicación geográfica y su gran diversidad de ecosistemas y climas, por lo que promete una alta riqueza y diversidad de hongos, y probablemente se constituya en uno de los países más diversos de Sudamérica respecto a su funga. En el presente trabajo se hace la recopilación de datos para Basidiomycota, suministrados por el KEW y el Herbario de la Universidad de Antioquia (HUA). Análisis estadísticos demuestran alta diversidad en cuanto a Agaricomycetes, principalmente para los ecosistemas de roble y tierras bajas, así como también la falta de estudios para algunos departamentos de Colombia, como Guaviare. En cuanto a la conservación, se observa que, en el país, se han realizado pocos estudios sobre macrohongos de Basidiomycota, ya que hasta el momento solo 22 especies han sido evaluadas.

### INTRODUCTION

The Colombian funga promises to be one of the richest in South America given its varied geological history, alongside its topography, climatic conditions, wide range of vegetation types, and high biodiversity (Franco-Molano & Uribe-Calle, 2000; Franco-Molano *et al.*, 2005; World Atlas, 2021). It has been speculated that Colombia offers one of the richest vascular plant floras in the new world and possibly the richest in the world for its equivalent size (Gentry, 1978). Because of the association between plants and fungi (Hawksworth, 1991), there is every reason to believe that the Colombian funga may be just as rich as its flora. However, the studies of fungi in Colombia are still at early stages when compared with those on other taxonomic groups. Fortunately, mycological explorations of the Colombian funga have increased in recent decades due to the increasing number of mycologists trained abroad or in Colombian universities (refer to Chapter 2). At present, it is suggested that there are between 2.2 and 3.8 million fungal species worldwide, of which around 120,000 are scientifically accepted, representing 3-8% of

the planet's diversity (Hawksworth & Lücking, 2017). Of this total, about 41,270 species belong to Basidiomycota (He *et al.*, 2019). For Colombia, there are nearly 7,241 species recorded, of which 2,318 species are Basidiomycota (Gaya *et al.*, 2021), representing 5.78% of Basidiomycota species worldwide (pers. observ.).

The current classification of *Fungi* was proposed by Tedersoo *et al.* (2018). It includes nine sub-kingdoms and 18 phyla, conserving Dikarya as a subkingdom, besides the Entorrhizomycota, Ascomycota, and Basidiomycota. Basidiomycota was proposed by Moore (1980) with diagnostic characters such as the presence of sexual spores or basidiospores exogenously produced on the sterigmata of cells called basidia (holobasidia and phragmobasidia); the presence of the dolipore septa that divide the hyphae into cells, these septa having a barrel-shaped swelling or parenthesome that surrounds the central pore; and the presence of fibula or clamp connections in filamentous species, which allow the exchange of nuclei between cells (Cepero de García *et al.*, 2012; Watkinson *et al.*, 2016;

He *et al.*, 2019). Currently, Basidiomycota comprises four subphyla: Pucciniomycotina with nine classes, Ustilaginomycotina with four classes, Wallemiomycotina with a single class, and Agaricomycotina with three classes (He *et al.*, 2019).

Pucciniomycotina has more than 8,000 described species and represents a group that diverged at least 406 million years ago (He *et al.*, 2019). This subphylum is characterised by predominant asexual or anamorphic stages in most lineages. In fact, only these stages are known in some classes, such as Tritirachiomycetes. Pucciniomycotina species play different roles in ecosystems, but they are better known as phytopathogens and parasites of animals or other fungi (Aime *et al.*, 2014; Malysheva *et al.*, 2021). Ustilaginomycotina, with more than 1,800 described species, has a minimum age of divergence of 430 million years (He *et al.*, 2019). This subphylum comprises plant parasitic fungi, such as *Jamesdicksonia irregularis*, and other economically important fungi, such as *Ustilago maydis*, a model organism used to study the interaction between plants and their specific parasites (Begerow *et al.*, 2014). Wallemiomycotina is a recently proposed group of unicellular fungi (Zhao *et al.*, 2017), that includes xerophilic, osmophilic, and halophilic fungi (Zajc & Gunde-Cimerman, 2018).

Within Basidiomycota, Agaricomycotina has the largest number of described species, around 30,800, and its evolutionary history dates to at least 406 million years ago (He *et al.*, 2019). Agaricomycotina are divided into three classes mainly characterised by the presence of macroscopic structures called basidiomas, which are used for sexual reproduction (He *et al.*, 2019; Kirk *et al.*, 2008). Basidiomas vary from very small structures, like those in *Mycena spinosissima*, to very large such as those in *Termitomyces tianicus*. The basidiomas also present different morphological patterns named: agaricoids, boletoids, polyporoids, resupinates, clavarioids, coralloid, gasteroids, and secotioids (Cepero de García *et al.*, 2012; Varga *et al.*, 2019). These types of basidiomas have emerged through multiple evolutionary convergences in the history of Basidiomycota (Hibbett & Binder, 2002; Sánchez-García *et al.*, 2020). According to He *et al.*, (2019), this subphylum currently comprises three classes: Dacrymycetes, Tremellomycetes, and Agaricomycetes.

Dacrymycetes comprise 146 described species distributed into two orders, with an estimated minimum divergence time of 298 million years ago (He *et al.*, 2019). It is also the sister group of Agaricomycetes (McLaughlin *et al.*, 2016; Zamora & Ekman, 2020). This class comprises species characterised by having sterigmatized or bifurcated holobasidia (except for *Unilacryma unispora*), and by the presence of continuous parentheses that cover the dolipore septa (Zamora & Ekman, 2020). Dacrymycetes includes saprotrophic fungi that produce gelatinous, waxy, fleshy, or cartilaginous basidiomas with yellow to orange colouration due to their carotenoid pigments (Zamora & Ekman, 2020).

Tremellomycetes comprise nearly 500 accepted species distributed in five orders, with an evolutionary history

of 341 million years (He *et al.*, 2019). Tremellomycetes include saprotrophic, animal and fungi parasites, or can be commensals with fungi and lichens (Millanes *et al.*, 2011; Weiß *et al.*, 2014). The class includes asexual yeasts and fungi with conspicuous and gelatinous basidiomas such as *Tremella* (Weiß *et al.*, 2014). Finally, the Agaricomycetes have an evolutionary history dating to at least 298 million years ago and include 30,143 described species distributed in 19 orders (He *et al.*, 2019). Recent studies suggest that resupinate basidiomas that are fully attached to the substrate provide the most likely ancestral trait for Agaricomycetes (Sánchez-García *et al.*, 2020). Furthermore, the pileate-stipitate morphology (e.g., agaricoid and boletoid) is correlated with high rates of diversification, suggesting that this morphology represents a key character in the success of Agaricomycetes (Varga *et al.*, 2019; Sánchez-García *et al.*, 2020).

Ecologically speaking, species of Basidiomycota are an essential part of natural ecosystems, with many recycling or degrading organic matter and shaping communities of plants through parasitic and symbiotic interactions. Saprotrophic fungi are those that degrade organic matter such as dead wood and litter (Posada *et al.*, 2012). They play an essential role in forest ecosystems as they are one of the largest recycling groups (Robledo & Urcelay, 2009). On the other hand, many species are essential in conserving ecosystems by forming a mycorrhizal symbiosis with trees and shrubs (Tedersoo *et al.*, 2018). Some species can associate with termites and leafcutter ants, generating a complex symbiosis in which insects feed on the cultivated fungi. Other species within this phylum are parasitic and can cause mild or potentially lethal infections in animals and humans. In the case of plants, rusts and smuts represent the most critical pathogens (Watkinson *et al.*, 2016). Around 41,270 Basidiomycota species have been recorded globally, making this phylum the second most speciose after Ascomycota (He *et al.*, 2019).

From a biogeographic point of view, some members of Basidiomycota show remarkable patterns of origin and distribution directly related to their habitat types, being influenced by geological history, vegetation, whether native or introduced, climate, and anthropogenic impacts (Halling & Mueller, 2002). In Colombia, geological events have played essential roles in determining distribution. These events are well documented, by Halling & Ovrebo (1987), Halling (1996), Halling & Mueller (2002), and Mueller *et al.*, (2006), among others (see Chapter 10). In Colombia, ectomycorrhizal fungi, which may have diversified later in the Jurassic (208 – 146 million years ago), present a limited distribution that corresponds with the distribution of their hosts, and are more abundant and diverse at 2,200–3,200 m altitude where most of the oak forests (*Quercus humboldtii*) are found (Avella-Muñoz & Rangel-Churio, 2014). Colombian ectomycorrhizal fungi from oak forests show affinities with northern temperate taxa, migrating from north to south along with those forest communities (Halling, 1996, Chapter 10). Another important Fagaceae associated with ectomycorrhizal fungi is *Colombobalanus excelsa*, a species endemic to the Colombian Andes of which there



are eight populations located between 1,800 and 2,200 altitude (Davila *et al.*, 2012). However, very few mycological explorations have been carried out in this type of forest, and few results have been published. Another ectomycorrhizal-forming tree from which some agarics have been described is *Pseudomonotes tropenbosii* (Dipterocarpaceae), an endemic species, described from the Colombian Amazon at 300 m altitude (Londoño *et al.*, 1995). Some non-native plants, such as *Pinus*, *Eucalyptus*, and *Cupressus* trees, are also able to form these symbiotic associations. These species were introduced into the country in the 1950s and 1960s bringing their ectomycorrhizal fungi hidden in their roots (Vargas *et al.*, 2019). Nevertheless, these exotic fungi compete with native fungal species, invading other ecosystems such as the oak forest (Vargas *et al.*, 2019). The saprotrophic agarics registered for Colombia are cosmopolitan or have restricted distribution giving good biogeographical information (Halling & Mueller, 2002; see Chapter 10).

Regarding the conservation of fungi in Colombia, it is essential to note that the IUCN has been working on the conservation assessment of species of macrofungi only in recent years (Dahlberg & Mueller 2011; IUCN, 2021). Worldwide, 328 Basidiomycota species (IUCN, 2021) have been evaluated and placed in the following categories: Critically threatened (12 species), Endangered (57 species), and Vulnerable (110 species). The remaining species have been evaluated as least concern, deficient data, or almost threatened. Specifically for Colombia, there are few studies [e.g., *Amanita sepultipes* (Vargas-Estupiñan *et al.*, 2020) and *Austroboletus amazonicus* (Vasco-Palacios *et al.*, 2020)] (Table 1, Chapter 14) on fungal conservation as fungi are not mentioned in Colombian environmental legislation, and their socio-political interest is not of much relevance (pers. observ.). The only group of fungi contemplated within Resolution 213 of 1977 of the National Institute of Renewable Natural Resources and Environment (INDERENA) are lichens, which are mentioned in the resolution as non-vascular epiphytes (Resolution 213, 1977). The goal of this chapter is to present the current state of knowledge of the Basidiomycota in Colombia in terms of their diversity, ecology, and conservation.

## MATERIALS AND METHODS

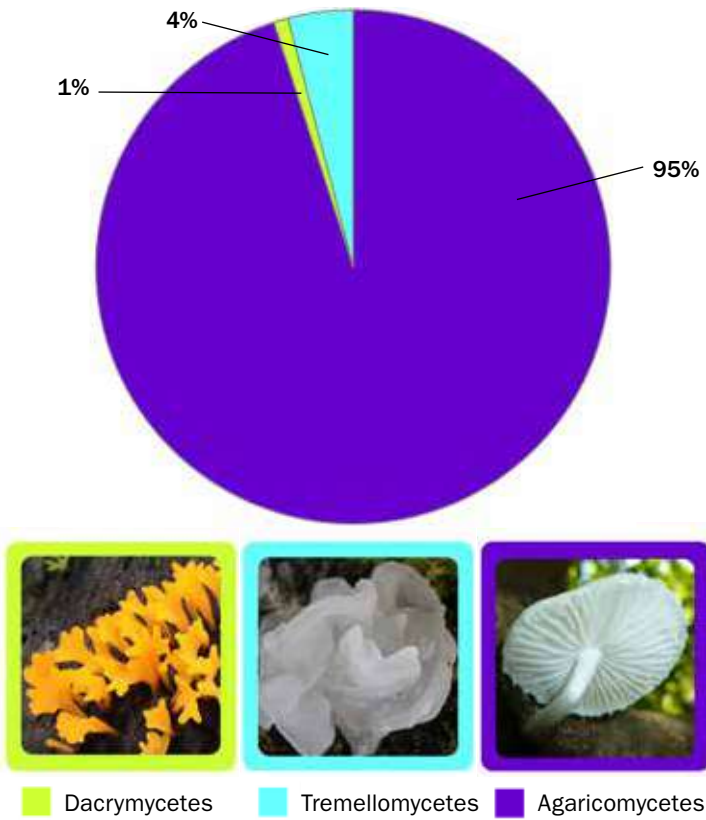
Two fungi databases for fungal occurrences in Colombia were used: the ColFungi database comprising more than 7,000 species, and the Herbarium of the University of Antioquia (2020) with more than 13,000 records from which only Basidiomycota records were considered. Statistical analyses and graphics were made using R studio version 1.3.959 (RStudio Team, 2020) and Microsoft Excel (2020). The data used for the analyses were divided by ecosystem into six groups as follows: oak forest, coniferous forest (mainly dominated by *Pinus patula* and *Cupressus lusitanica*), mixed forest, Amazon Forest (in the departments of Amazonas and Caquetá), lowland forest (below 1,400 masl, excluding previous ecosystems), and other ecosystems (for urban areas or or areas lacking information).

**TABLE 1.** List of fungal species categorised by the IUCN for Colombia. LC- least concern. CR- critically endangered. VU- vulnerable. NT- near threatened. DD- data deficient.

Species	Population trend	IUCN Red List category
<i>Amanita fuligineodisca</i>	Decreasing	VU
<i>Amanita sepultipes</i>	Decreasing	VU
<i>Austroboletus amazonicus</i>	Unknown	CR
<i>Binderoboletus segoi</i>	Unknown	DD
<i>Cantharellus guyanensis</i>	Unknown	LC
<i>Clavulina kunmudlutsa</i>	Unknown	DD
<i>Clavulina tepurumenga</i>	Unknown	DD
<i>Coprinus comatus</i>	Stable	LC
<i>Cortinarius aurantiobrunneus</i>	Decreasing	NT
<i>Cymatoderma sclerotioides</i>	Decreasing	NT
<i>Fomitiporia bambusarum</i>	Increasing	LC
<i>Gloiocephala quercetorum</i>	Decreasing	NT
<i>Hericium erinaceus</i>	Decreasing	LC
<i>Lactifluus hallingii</i>	Decreasing	VU
<i>Leccinum andinum</i>	Decreasing	NT
<i>Lycoperdon perlatum</i>	Stable	LC
<i>Phylloporus fibulatus</i>	Decreasing	VU
<i>Suillus luteus</i>	Stable	LC
<i>Tylopilus bulbosus</i>	Decreasing	NT
<i>Tylopilus obscurus</i>	Decreasing	NT

## RESULTS AND DISCUSSION

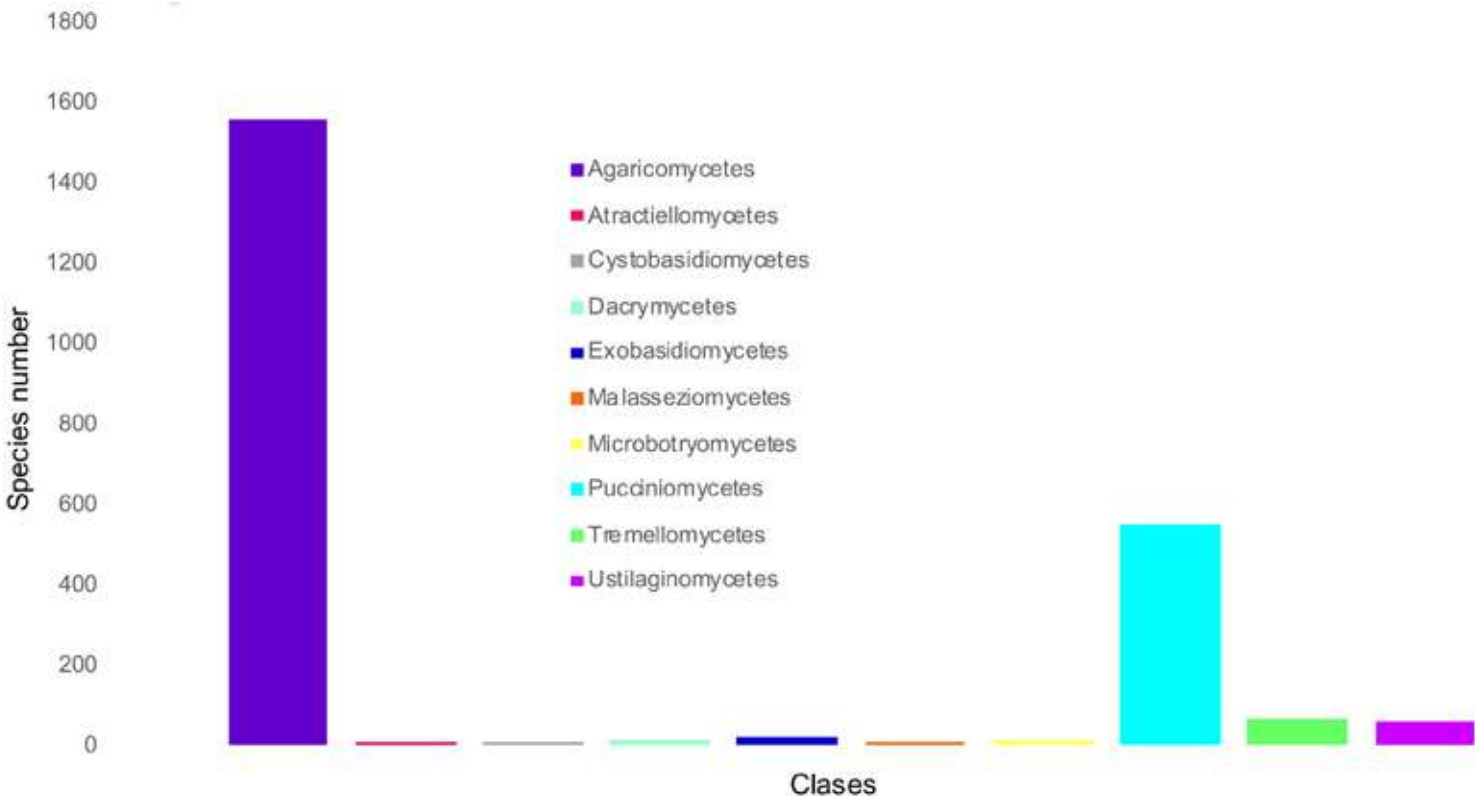
Currently, there are 2,386 species of Basidiomycota recorded for Colombia (including mushrooms, stinkhorns, puffballs, earth stars, shelf fungi, gelatinous fungi, smuts, rusts and yeasts, among others) (Gaya *et al.*, 2021). These species are classified within three of the four subphyla recognised by Tedersoo *et al.*, (2018) and He *et al.*, (2019): Agaricomycotina (1,642 species), Pucciniomycotina (579 species), and Ustilaginomycotina (84 species) (Figure 1). To date, there are no records for Wallemiomycotina in Colombia.



**FIGURE 1.** Species number by classes in the subphylum Agaricomycotina (Basidiomycota) based on the ColFungi database. Dacrymycetes photo by F.E.García and remaining photographs by the authors.

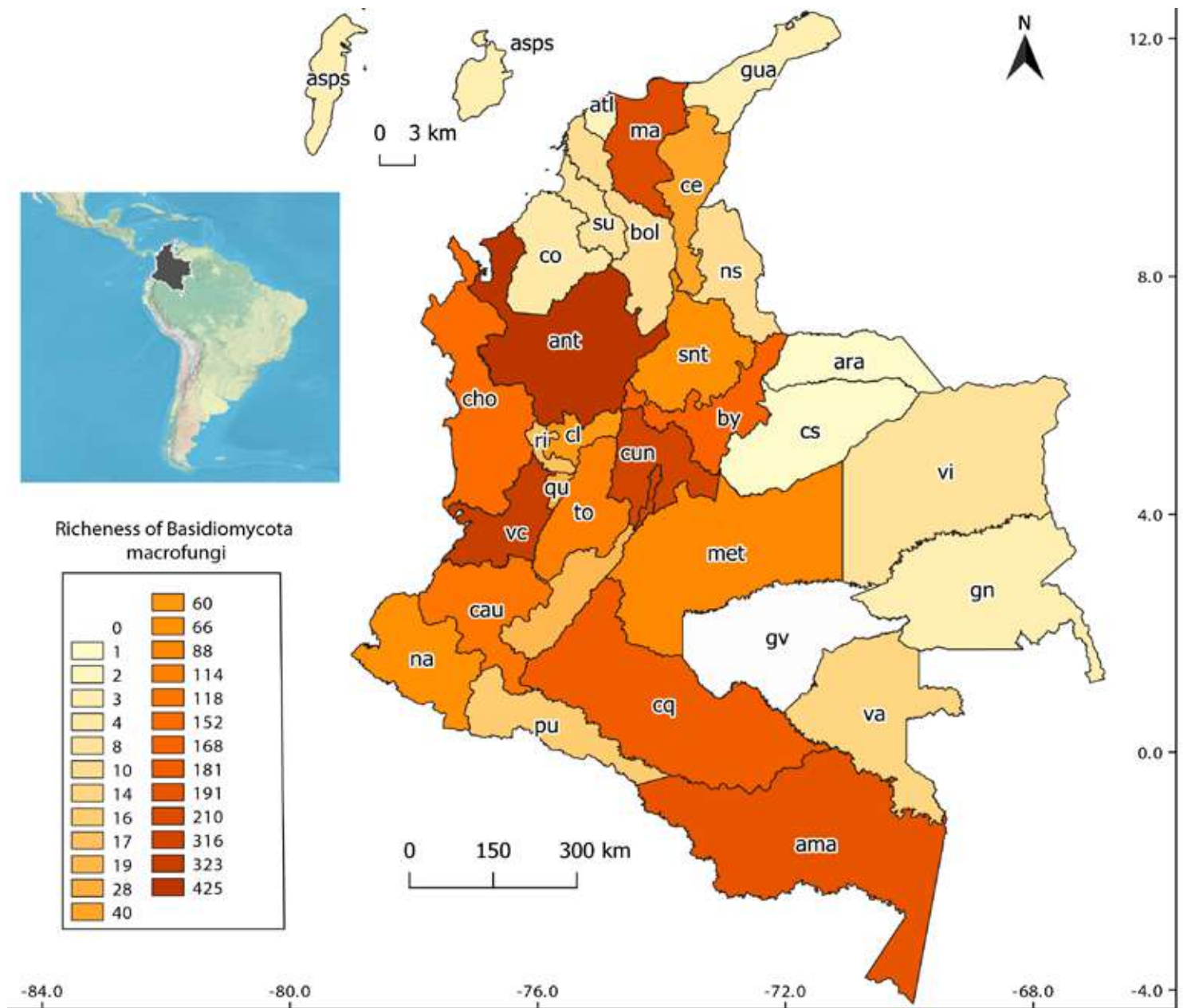
Analysing the diversity of Basidiomycota by their taxonomical classes, we found that Agaricomycetes is the richest class with 1,560 species, followed by Pucciniomycetes (553 species), Tremellomycetes (67), Ustilaginomycetes (60), Exobasidiomycetes (21), Microbotryomycetes (16), Dacrymycetes (15), Cystobasidiomycetes (5), Atractiellomycetes (4), and Malasseziomycetes (3) (Figure 2). The Pucciniomycetes, with more than 500 species mostly corresponding to plant pathogens like *Puccinia fuhrmannii*, are part of the list of rusts in Colombia (Céspedes *et al.*, 2014). Regarding the Tremellomycetes, 23 species are known as parasites that grow on fungi, lichens, and animals, and there are 14 saprotrophic species, including the edible *Tremella fuciformis*. This class also includes *Cryptococcus neoformans*, an opportunistic pathogen with tropism towards the central nervous system of humans (CNS) (Kwon-Chung *et al.*, 2014).

Although Colombia probably harbours a high richness and diversity of fungi, studies on its funga are still scarce (Gómez-Montoya *et al.*, 2021). Most studies in Colombia have been carried out mainly in the Andean region, especially in the departments of Antioquia, Valle del Cauca, and Cundinamarca (Gómez-Montoya *et al.*, 2021) (Figure 3). Therefore, our results might be biased because mycologists are mostly located in research institutions within these areas, and their distribution does not reflect the actual diversity of these organisms in these departments (Figure 3). The best-sampled ecosystems in Colombia are oak forest, mixed forest, lowland forest, and the Amazon Forest (Figure 4).



**FIGURE 2.** Number of records grouped by class. Abundance by class is shown using the HUA database.





**FIGURE 3.** Richness of Basidiomycota macrofungi and their distribution by departments of Colombia (modified from Gómez-Montoya *et al.*, 2021). Amazonas: ama; Antioquia: ant; Arauca: ara; Atlántico: atl; Bolívar: bol; Boyacá: by; Caldas: cl; Caquetá: cq; Casanare: cs; Cauca: cau; Cesar: ce; Chocó: cho; Córdoba: co; Cundinamarca: cun; El Archipiélago de San Andrés, Providencia y Santa Catalina: asps; Guainía: gn; Guaviare: gv; Huila: hu; La Guajira: gua; Magdalena: ma; Meta: met; Nariño: na; Norte de Santander: ns; Parque Nacional Natural Los Nevados: PNNN.

The high diversity of Agaricomycetes present in these ecosystems corroborates Mueller & Halling (1995), who documented a high level of diversity of ectomycorrhizal fungi and a high degree of endemism, between 30–100%, for these ecosystems in Costa Rica and Colombia. Likewise, López-Quintero *et al.*, (2012) showed great diversity in terms of fungi for the Amazon lowland forests, where saprotrophic fungi show high diversity.

The results here presented are an example of the efforts made to know the fungi of Colombia, especially the Basidiomycota. In recent decades, progress has been

seen in mycological explorations in easily accessible areas and ecosystems and/or where mycologists or people with mycological training are located. The need to carry out inventories and/or monitoring is reaffirmed in places such as the department of Guaviare, which has no records of Basidiomycota, or in the departments of Atlántico, Arauca, Córdoba, Casanare, Guainía, La Guajira, Sucre, Vichada, The Archipelago of San Andrés, Providencia, and Santa Catalina, with only one to eight records (Gómez-Montoya *et al.*, 2021). It is also important to emphasise the need for more studies on other ecosystems currently categorised as

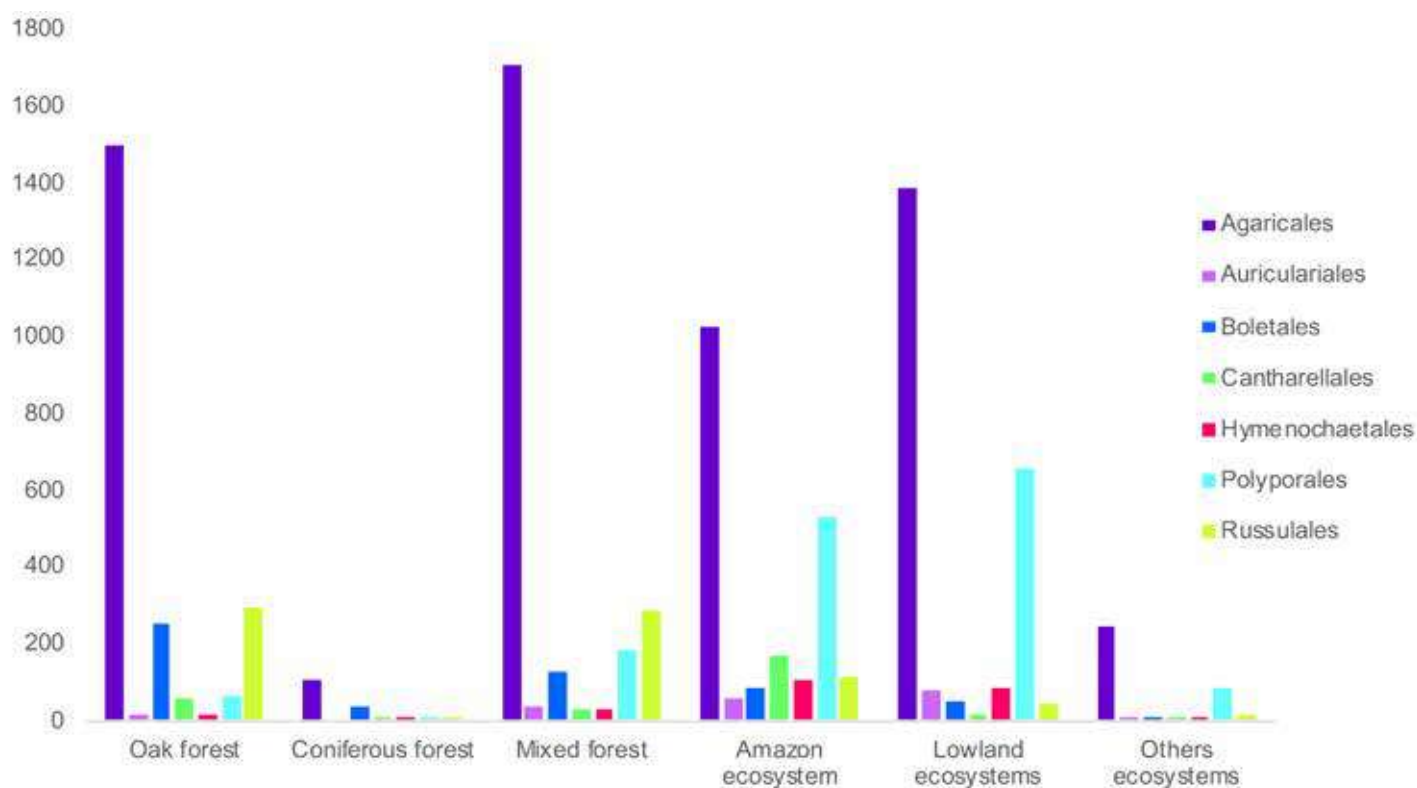


FIGURE 4. Number of records grouped by ecosystems. Abundance by class is shown using the HUA database.

critically endangered, such as tropical dry forests, shrubs, low Andean dry forests, humid and tropical forests, among others (Etter *et al.*, 2017).

Considering that the species of Basidiomycota play an essential ecological role in the functioning of terrestrial ecosystems, any effort to recognise and conservation fungi from these ecosystems in Colombia must be considered of utmost importance. Little is known about the conserve status of Basidiomycota species in Colombia (Table 1) (IUCN, 2021, Chapter 14). So far, 22 species have been evaluated, of which 18 were recently (2019–2021) categorised, evidencing an increased interest in evaluating the conservation status of fungi and the need for more studies on this issue for Colombia (see Chapter 14). The endemic species of the Amazon Forest, *Austroboletus amazonicus*, is under critical extinction threat (Vasco-Palacios *et al.*, 2020). In addition, four species are categorised as Vulnerable, six are Nearly Threatened, eight are of Least Concern, and five are Data Deficient, lacking insufficient data for evaluation (IUCN, 2021). Thus, it is still necessary to assess the conservation status of almost 98% of the remaining Basidiomycota species reported for Colombia.

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*Cordyceps nidus*  
[Robert Lücking]



# Chapter 5

## Diversity of Non-Lichenised Macro-Ascomycota of Colombia

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**Keywords:** Ascomycetes, fungal diversity, mycology, Neotropics, taxonomy.

### ABSTRACT

*Ascomycota* is the most diverse phylum of the kingdom *Fungi*, comprising 92,725 species described to date. They are characterised by producing spores in a sac that resembles a row of peas, a so-called ascus, in higher *Ascomycota* formed in structures termed ascomata. In most *Ascomycota*, the ascomata are primarily microscopic structures, reaching a few millimeters in diameter, but some *Ascomycota* produce macro-ascocarps comparable in size to those of higher *Basidiomycota*. Unfortunately, there is no straightforward definition of what would constitute macro-*Ascomycota*, as size differences are often gradual and workers define "macro" and "micro" in this phylum differently. Globally the larger non-lichenized *Ascomycota* are found primarily within the classes *Geoglossomycetes*, *Leotiomycetes*, *Orbiliomycetes*, *Pezizomycetes*, *Sordariomycetes*, and *Xylobotryomycetes*. These classes encompass a total of 36,462 species, corresponding to 39% of the currently known *Ascomycota*, although not all their members can be considered macro-*Ascomycota* and there are a few other classes with small numbers of larger species which are not discussed here. The purpose of this chapter is to elaborate on the state of knowledge of the diversity of the fungi within these classes in Colombia, based on records in the *ColFungi* portal and with additional records from local herbaria, literature, and private collections. In the past ten years, Colombia increased the number of known species of macro-*Ascomycota* from 181 to 1,114. Regarding the number of records, Colombia has 6% of the total reported for the Neotropical region, compared to Brazil with 41%. Notably, the macro-*Ascomycota* deposited in herbaria outside Colombia comprises mostly *Leotiomycetes*, whereas *Sordariomycetes* are the best represented class in Colombian collections. Rather than the relative abundance of the various fungal groups, this difference reflects the interest of mycologists who collected these specimens. A representative inventory for the true diversity of macro-*Ascomycota* in Colombia is still needed.

### RESUMEN

Los *Ascomycota* son el filo más diverso de hongos, con 92.725 especies. Estos hongos caracterizados por su producción de esporas en sacos pueden ser saprofitos patógenos de animales, plantas y otros hongos, y simbiontes, en asociación con algas, como los líquenes, o trabajando en mutualismo con plantas, como en las ectomicorrizas y los endófitos. De manera notable, mientras en el mundo, los líquenes corresponden al 13% del total de las especies de ascomicetes registradas, en Colombia corresponden al 52% de las especies de anotadas en *ColFungi*, sesgo derivado de su estudio tradicional asociado a la botánica. En cambio, los macro-*Ascomycota* no liquenizados, según lo definido aquí, representan un 24% de los registros de ascomicetes en Colombia, en comparación con 39% en el mundo. Los ascomicetes que tienen su ascoma o estructura reproductiva asexual a simple vista se ubican en el subfilo *Pezizomycotina*, en las clases *Geoglossomycetes*, *Leotiomycetes*, *Orbiliomycetes*, *Pezizomycetes*, *Sordariomycetes* y *Xylobotryomycetes*, además de algunos miembros del orden *Eurotiales* dentro de la clase *Eurotiomycetes*. Para 2013, el listado de macro-*Ascomycota* de Colombia alcanzaba 181 especies, mientras que en esta revisión se ha recopilado información de al menos 1,114 especies de esas clases, tomando los datos de *ColFungi*, así como de literatura gris, herbarios nacionales y colecciones privadas. En cuanto a las colecciones de especímenes preservados, Colombia, en comparación con otros países de la región neotropical, se ubica por debajo de Brasil, que posee el 41% de las colecciones, seguido de Costa Rica, con 21% y México con 18%. Colombia y Venezuela, países vecinos con áreas similares, poseen una proporción del 6% y 8% respectivamente. Cuando se analiza la distribución de las clases de macro-ascomicetes no liquenizados en los diferentes países de la región, Colombia se destaca por su mayor número de registros de ascomicetes de la clase *Leotiomycetes*. Esto se debe a los estudios esporádicos de investigadores extranjeros con enfoque en sus especialidades taxonómicas en la década de los 70 y 80. Sin embargo, cambia cuando se analizan los herbarios locales no conectados con las bases internacionales, donde se nota que los especialistas nacionales se han enfocado en la clase *Sordariomycetes*. Las 1,114 especies de macro-ascomicetes de Colombia no liquenizados registradas a la fecha superan las 463 especies de Panamá y las 1.483 especies de Ecuador, porque este número incluye además líquenes. Finalmente, la distribución de los macro-ascomicetes no liquenizados dentro del territorio nacional según su ecología se da de manera heterogénea de acuerdo con el gradiente altitudinal que va de la cordillera de los Andes hacia la cuenca

Amazónica. Las especies ectomicorrizas se distribuyen en los bosques nublados de roble, mientras los discomicetes pueden abarcar desde las alturas de los páramos hasta las selvas bajas. Los *Xylariales*, en cambio, muestran su mayor expresión de diversidad y tamaños en las tierras bajas, aprovechando la gran biomasa de lignina y celulosa de los bosques tropicales. Cabe destacar que los hongos artrópodo-patógenos del orden *Hypocreales* se distribuyen por el país siguiendo los patrones de diversidad de los artrópodos que sirven como hospederos, los cuales son más diversos en los bosques húmedos tropicales bajos; en consecuencia, allí se presenta la mayor riqueza de especies con 15 géneros y al menos 82 especies. La presente revisión plantea el desafío de analizar los datos de macro-ascomicetes no liquenizados desde un mayor número de fuentes secundarias para así estimar de una manera más amplia la enorme diversidad de estos hongos y ubicar los vacíos de información y las áreas aun sin explorar.

## INTRODUCTION

*Ascomycota* is the most diverse phylum of the kingdom *Fungi*, with 92,725 species described to date (Catalogue of Life, 2021) and probably many more yet to be discovered. These fungi are characterised by producing spores in a sac, called an ascus, which typically resembles a row of peas, produced in structures termed ascomata. Ascomata are mostly microscopic in size, to a few millimetres in diameter, but several classes can produce macro-asocarps that are visible to the naked eye from a distance, and here we consider them as macro-ascomycetes (Kirk *et al.*, 2008). This phylum encompasses a high diversity of life forms, from saprotrophs growing on different substrata, to parasitic biotrophs of animals, fungi, plants, and others, to symbiotic relationships, such as mycorrhizas and lichens, and can inhabit terrestrial or aquatic environments (Cepero de García *et al.*, 2012). *Ascomycota* are typically the most numerous inhabitants of the soil; they also include substantial numbers of pathogens, such as the yeast *Candida albicans*, pathogenic to humans, *Fusarium oxysporum*, pathogenic to plants, and *Ophiocordyceps unilateralis*, a pathogen of ants that turns them into "zombies" (Andersen *et al.*, 2009; Beug *et al.*, 2014). Within the *Ascomycota*, at least six classes include non-lichenised macrofungi, such as *Geoglossomycetes*, *Leotiomycetes*, *Orbiliomycetes*, *Pezizomycetes*, *Sordariomycetes*, and *Xylobotryomycetes* (Voglmayr, 2019). Altogether, these classes comprise 36,462 species that correspond to 39% of the *Ascomycota* currently known worldwide (Catalogue of Life, 2021), although not all of these fungi can be considered macro-*Ascomycota*.

The purpose of this chapter is to describe the current state of knowledge of the diversity of *Ascomycota* in Colombia, focusing on the classes containing primarily non-lichenised macro-*Ascomycota*. However, in the class *Eurotiomycetes*, in the order *Eurotiales*, there are also some genera present in Colombia, such as *Elaphomyces* and *Penicillioopsis*, which have larger ascomata and will be discussed here. To address this goal, we used the database of the ColFungi portal (<https://colfungi.org/>), the *Ascomycota* database of the National Herbario de Colombia (COL), Herbario de la Universidad de Antioquía (HUA) as well as private collections. Additionally, this chapter provides a broader overview of Colombia's research on *Ascomycota* (see also Chapter 2), alongside some systematic studies of selected groups. Although citizen science records are useful sources of information, including for macro-*Ascomycota*, observations from these (e.g., <https://inaturalist.org>; [www.mushroomobserver.org](http://www.mushroomobserver.org)) were not considered here, as very few records can be associated with scientifically validated identifications or specimens.

mushroomobserver.org) were not considered here, as very few records can be associated with scientifically validated identifications or specimens.

## A BRIEF HISTORY OF ASCOMYCOTA RESEARCH IN COLOMBIA

In 1783, the Spaniard José Celestino Mutis was appointed to carry out a botanical expedition of the viceroyalty of New Granada (the former Spanish territory currently comprising Colombia, Ecuador, Panama, and Venezuela). He led field surveys for 29 years, initially from a base camp in the municipality of Mariquita in the Magdalena Valley and from the vicinity of Bogotá from 1790 onward. He and his associates collected and documented thousands of vascular plants, bryophytes, and fungi during this expedition. One entry in his diary states: "*hallé sobre un pequeño domicilio de comején una especie de hongo, que he reducido a Clavaria militaria. Lo guardo por si hay lugar de pintarlo no siendo estas especies muy comunes*" (I discovered a species of fungus that I determined to be *Clavaria militaria* on the nest of a wood-eating insect), apparently the first report of a species of *Cordyceps* from Colombia. His team included an incredible illustrator, Javier Matis, who perhaps drew the first *Ascomycota* from Colombia, *Phillipsia dominguensis* (referred by Mutis to *Peziza*) (Aguirre-C., 1985).

Although Mutis made the first records of Colombian *Ascomycota*, it was not until 1928 that the Puerto Rican plant pathologists Carlos Eugenio Chardón and Rafael Toro performed a comprehensive survey of the funga of Colombia (Chardón & Toro, 1930). However, their exploration focused on plant pathogens mostly representing micro-*Ascomycota*, collected from both natural ecosystems and agricultural areas close to the major cities of Colombia. At least a thousand specimens were collected, including the first records of *Camillea*, *Poronia*, and *Xylaria*.

In 1968, Kent Dumont from the New York Botanical Garden, began a series of visits to Colombia which took place over the next ten years, collecting more than 20,000 specimens of fungi with the cooperation of the Instituto de Ciencias Naturales (ICN), the Universidad Nacional de Colombia (UNAL), and the Instituto Colombiano de Agricultura (ICA). His collections included 3,264 *Ascomycota* from 15 departments of Colombia, most of them in the Andean region and the Amazon foothills (departments of Caquetá and Putumayo). These specimens were deposited at the herbaria NY and COL. As a result of this project, a series of publications called "*Hongos de Colombia*" was published in ten issues between 1974 and 1983, in cooperation with



several renowned mycologists. Among these publications, Carpenter & Dumont (1978) expanded the distribution of *Bisporella descendens*, found in many localities in the Andean region, and Veerkamp & Gams (1983) described new species of soil fungi, *Trichoderma inhamatum* and *Mortierella ornata*.

Studies of Colombian *Ascomycota* by local mycologists have, for the most part, been restricted in scope, most of them focusing on micro-*Ascomycota* with relevance to phytopathology (Buritica, 1999). In the 1990s, Tobón (1991) published a study on the *Ascomycota* of the Andean region from the department of Antioquia, including 11 species of discomycetes. Local mycologists continue to publish studies on *Ascomycota* for Colombia, with some of them describing new species, such as *Cookeina colombiana* (Raymundo *et al.*, 2020), others encompassing broader systematic studies, such as that for the genus *Cordyceps* s.lat. (Sanjuan *et al.*, 2014; 2015).

### COLOMBIAN ASCOMYCOTA IN NUMBERS

To address the "state of knowledge" of the diversity of ascomycetes in Colombia, it is useful to compare species counts of the various taxa in Colombia to those for the world and for similar countries. Referring to Table 1, we see that *Ascomycota* reported for Colombia comprise 5% of the 92,725 species known worldwide. For yeasts and dimorphic yeasts (subphyla *Saccharomycotina* and *Taphrinomycotina*) Colombia registers 9% and 2%, respectively, of species

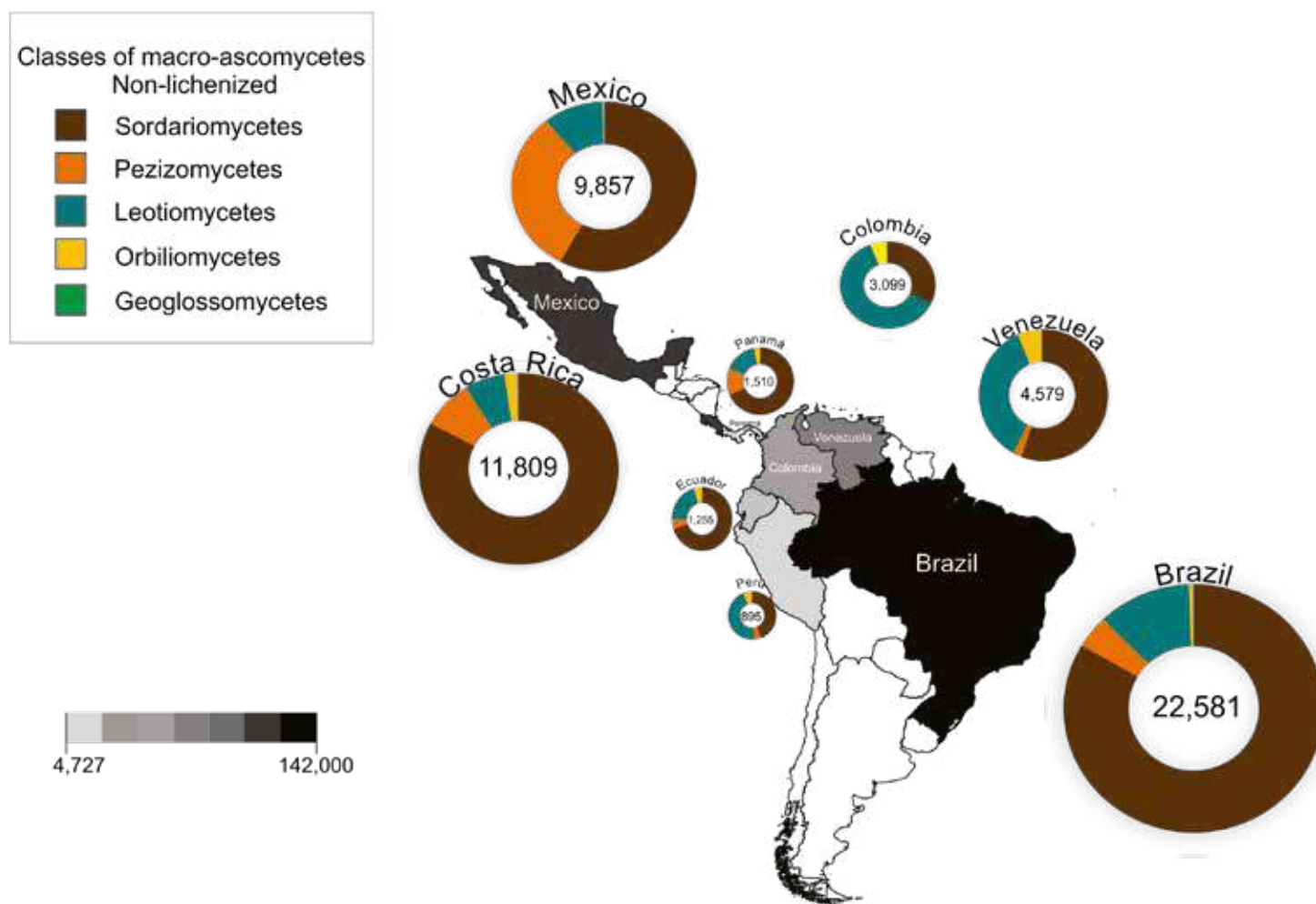
worldwide. Among the lichenised *Ascomycota* (primarily the classes *Arthoniomycetes*, *Coniocybomycetes*, *Lecanoromycetes*, *Lichinomycetes*), Colombia accounts for 19% of those worldwide. However, they constitute 52% of the *Ascomycota* species reported for Colombia. So while Colombia's lichen biota is well known, the same cannot be said for non-lichenised *Ascomycota*. In particular, for classes comprising mostly micro-*Ascomycota*, such as *Dothidiomycetes*, *Eurotiomycetes*, and *Laboulbeniomycetes*, Colombian species represent only 2.4% of those registered in the world.

In comparison, the classes that include non-lichenised macro-*Ascomycota* as here defined, namely *Geoglossomycetes*, *Leotiomycetes*, *Orbiliomycetes*, *Pezizomycetes*, *Sordariomycetes*, and *Xylobotriomycetes*, are represented by 36,462 species worldwide and 1,114 species in Colombia. They represent only 3% of the world species, and inside of Colombia they comprise 24%, not as many as the lichens, but more than the micro-*Ascomycota*.

Overall, the *Ascomycota* in Colombia are not well sampled and studied. They might also not be as conspicuous and useful as *Basidiomycota* for local communities in Colombia. Apart from lichens, incentives to study *Ascomycota* have mostly arisen from their medicinal importance or their effects on crops (Sipman, 1986; Garcés *et al.*, 1999). Indeed, throughout humanity's history, we have mostly studied what benefits or harms us, and so the amount of knowledge reflects our anthropocentric point of view.

TABLE 1. Comparison of the number of species of *Ascomycota* in the world (Catalogue of Life, 2021) with species reported from Colombia.

Subphylum	Class	Life form	World species	Colombian species	Colombian percentage
Saccharomycotina	Saccharomycetes	True yeast	1,180 (1.3%)	106 (2%)	9.0%
Taphrinomycotina	Pneumocystomycetes Schizosaccharomycetes	Dimorphic yeast	164 (0.2%)	3 (0.1%)	1.8%
Pezizomycotina	Arthoniomycetes Coniocybomycetes Lecanoromycetes Lichinomycetes	Lichen	12,439 (13%)	2,352 (52%)	19%
	Dothideomycetes Eurotiomycetes Laboulbeniomycetes	Non-lichen non-yeast micro-ascomycetes	37,238 (40%)	906 (20%)	2.4%
	Sordariomycetes Geoglossomycetes Leotiomycetes Orbiliomycetes Pezizomycetes Xylobotriomycetes	Non-lichen non-yeast macro-ascomycetes	36,462 (39%)	1,114 (24%)	3.1%
	Incertae sedis			73 (2%)	
Ascomycota identified to class			87,483	4,481	5.1%
Phylum Ascomycota			92,725	4,554	4.9%



**FIGURE 1.** Collections of classes containing non-lichenised macro-Ascomycetes in Neotropical countries based on GBIF (2021). Xylobotryomycetes is omitted due to their low number of species. Numbers inside the circles represent the number of preserved specimens. Shades of grey for each country reflect the corresponding total number of records.

### STUDIES OF NON-LICHENISED MACRO-ASCOMYCOTA IN THE NEOTROPICS

When analysing the composition of *Ascomycota* classes in collections from each country (Figure 1), in most countries *Sordariomycetes* are the most abundant by far. This class includes families such as Xylariaceae and Cordycipitaceae, which are very common in tropical lowlands (Soto-Medina & Bolaños-Rojas, 2013; Sanjuan, 2015). Brazil is currently the country with the highest number of digitized records in both absolute numbers and proportions (GBIF, 2021). By contrast, in Colombia, *Leotiomyces* are more representative, including Leotiaceae, a family with ectomycorrhizal relationships with oak (*Quercus humboldtii*) and *Trigonobalanus excelsa* (Sierra *et al.*, 2011). Colombia represents the southernmost distribution of these forest associations originating from the Northern Hemisphere (Gonzalez *et al.*, 2006). Additionally, this ecosystem is located in the highlands, where most mycological research has been done in Colombia.

On the other hand, in the Antioquia University Herbarium (HUA), *Sordariomycetes* are the most representative class, with 381 species recorded to date for Colombia, mostly due

to entomopathogenic fungi within *Hypocreales* and lignicolous fungi from *Xylariales*. There is a notable difference in taxonomic coverage based on GBIF versus HUA records, likely because the GBIF records are biased towards the collections made by Kent Dumont in the NY herbarium, who focused on *Helotiales* (*Leotiomyces*) (<https://mycoportal.org>). In fungi collections, the abundance of a taxon is often explained by the presence of a specialist who worked on it. The number of non-lichenised *Ascomycota* for Colombia (1,114 species) is greater than for Panama (483; Pipenbring, 2007) and Ecuador; the latter has a total of 1,483 *Ascomycota* reported but that number includes lichens (Læssøe & Petersen, 2008; Batallas *et al.*, 2020). This underlines Colombia's high fungal diversity, matching that of other organisms, such as birds, orchids, and amphibians (Álvarez Hincapié *et al.*, 2021).

### REPRESENTATIVE GROUPS OF NON-LICHENISED MACRO-ASCOMYCOTA IN COLOMBIA

To date, we have seen the abundance and diversity of *Ascomycota*, especially the non-lichenised ones, at global and regional scales. However, given Colombia's diversity of



ecosystems, the distribution of macro-Ascomycota is not homogeneous across the country, responding to factors such as rainfall, temperature, and altitude (Álvarez Hincapie *et al.*, 2021). The most representative groups of macro-Ascomycota in Colombia can be grouped according to the shape of their ascoma and/or their role in the ecosystem, relative to the most representative biomes of Colombia (Figure 2).

### CUPULATE ASCOMYCOTA

The terms "cup fungi" or "discomycetes" are informally used for Ascomycota with discoid, more or less sessile ascomata, representing the classes *Leotiomyces* (including *Helotiales* and some *Rhytismatales*), *Orbiliomyces* (including *Orbiliales*), and *Pezizomyces* (including *Pezizales*). Discomycetes have 148 species reported for Colombia, with *Lachnum* (*Helotiales*, Lachnaceae) being the most diverse and abundant, with 30 species and 150 records. *Calycina claroflava* (*Helotiales*, Helotiaceae) is the most frequently collected species, with 71 specimens in total. As part of the "Hongos de Colombia" project, Carpenter & Dumont (1978) recorded more than 70 specimens of *C. claroflava*, under its synonym *Bisporella descendens*. The most extensive collection of discomycetes has been made in the Andean region, between 1,500 and

3,300 meters, corresponding to cloud forests and Andean paramos, classified under Holdridge's life zone system (Holdridge, 1967) as moist montane forests (MMF) and sub-alpine rain paramo (SARP). The *Pezizales* *Cookeina speciosa*, *Cookeina tricholoma* (Figure 2d), and *Phillipsia domingensis*, are more frequently collected in lowlands, e.g., in the Magdalena Valley and in the Amazon foothills and basin, which correspond to tropical rainforests (RFT). However, a new species of *Cookeina* was discovered recently, namely *C. colombiana*, found in tropical dry forests (DFT) in the Caribbean region (Raymundo *et al.*, 2020). Thus, although discomycetes have been collected mainly throughout the Andean, Amazon, and Pacific regions, the Caribbean and Orinoquia would benefit from more field surveys, as revealed by the newly discovered species of *Cookeina*.

### HYPOGEOUS ASCOMYCOTA

Spore-sequestering fungi have evolved several times from different lineages of Ascomycota (Bonito & Smith, 2016). In Colombia, truffle-like fungi represent *Pezizomyces* (*Pezizales*) and *Eurotiomyces* (*Eurotiales*). These fungi are ectomycorrhizal, associated with oak (*Quercus humboldtii*) and *Trigonobalanus excelsa* trees. The false truffle,



**FIGURE 2.** Representative groups of non-lichenised macro-Ascomycota in Colombia. **A** *Xylaria telfarii*, from Tolima in the Magdalena valley. **B** False truffle, *Elaphomyces muricatus*, parasitised by *Tolypocladium capitatum*, from Boyaca in the Andean region. **C** *Xylobotryum* sp., from Amazonas in the Amazon basin. **D** *Cookeina speciosa* and *C. tricholoma*, from Antioquia in the Magdalena Valley. **E** *Leotia lubrica* and *L. chlorocephala*, from Huila in the Andean region. **F** *Annulohypoxylon* sp. from Andean cloud forest in Cundinamarca. **G** *Ophiocordyceps albacongiuae*, from Antioquia in the Magdalena valley. (Photographs A, B, D and E by Tatiana Sanjuan; C, F and G by Kent Brothers).

*Elaphomyces muricatus* (Eurotiales, Elaphomycetaceae) has been reported from the department of Cundinamarca by Guzmán & Varela (1978). However, there are collections identified to genus from the departments of Antioquia, Boyacá, Huila, and Tolima, most of them parasitised by species of *Tolypocladium* (Hypocreales, Ophiocordycipitaceae) (Herbario de la Universidad de Antioquia, 2021) (Figure 2b).

Another false truffle, with specimens housed in HUA, was collected in the departments of Antioquia and Tolima, namely *Hydnotrya tulasnei* (Pezizales, Discinaceae), known for its good flavour when young. A genuine truffle, *Tuber melanosporum* (Pezizales, Tuberaceae), was reported in 1986 from Antioquia. Given that this name covers a European species of black *Tuber*, the Colombian specimen may have been identified erroneously, assuming that the most common European species may also be present in Colombia. Another record of this genus was reported for Cundinamarca in 2019 by the specialist in hypogeous fungi, Matthew Smith (<https://mycoportal.org/portal/collections/individual/index.php?occid=10515278>), but no DNA sequences are available for it yet. Truffles, in general, are undersampled in Colombia and would greatly benefit from timely studies, given that oak forests in Colombia are classified as vulnerable by the IUCN due to deforestation for agriculture and animal breeding activities.

### STIPITATE ASCOMYCOTA

Some macro-Ascomycota have ascomata supported by a fleshy stalk (e.g., *Pezizales*, *Helvellaceae*), sometimes hollow and filled with jelly and with viscid discs (e.g., *Leotiales*, *Leotiaceae*), or with an alveolate, conical disc supported by a spongy stalk (*Pezizales*, *Morchellaceae*). Clavate to



**FIGURE 3.** Morels drawn by Matis in 1783, one of the painters of the botanical expedition of the viceroyalty of New Granada coordinated by Jose Celestino Mutis (courtesy of the Royal Botanical Garden of Madrid).

spathulate or strongly stipitate ascomata are found in species of *Geoglossomycetes* (Geoglossaceae). Each of these groups is characterized by a specific trophic mode (Beug *et al.*, 2014).

The genus *Leotia* (jelly babies; Figure 2e) includes three species in Colombia. *Leotia lubrica* is the most common, found above 2,400 meters as ectomycorrhiza of oak (*Quercus humboldtii*) in moist montane forests (MMF). The saddle fungus, *Helvella*, is found in the same region, although not only in oak forests but sometimes also in grasslands close to cloud forests (MWF) in the Andean region. In Colombia, three species of *Helvella* have been recorded, with *Helvella lacunosa* being the most frequently collected.

Morels are found in anthropized ecosystems in Colombia. The first formal report of morels was made from Cundinamarca by Pinzón-Osario & Pinzón-Osario (2017), although Matis had already illustrated Colombian morels for the first time in 1783 from the Royal Botanical Expedition (Figure 3). No information about the location was recorded in that study. Given the lack of historical records, it is difficult to know whether morels were originally native or introduced to Colombia by Europeans. According to Sanchez (2019), three infra-generic clades are present in Colombia: subsect. *Elata*, sect. *Esculenta* and sect. *Rufobrunnea*. Standardised cultures were made from a strain of *Morchella rufobrunnea* found in Colombia (Sanchez, 2019). *Morchella elata* and *M. gracilis* have also been collected in the countryside of Colombia in the departments of Cesar, Cundinamarca, and Quindío.

Earth tongues from the class *Geoglossomycetes* comprise four species in Colombia: *Geoglossum fallax*, *G. nigratum*, *Trichoglossum hirsutum*, and *T. walteri*. They all grow associated with mosses or debris in montane cloud forests (MWF) with high precipitation. Also in these cases, the names for Colombian material have been adopted from Northern Hemisphere species, and no DNA sequences from Colombian specimens are available to date. Thus, it would not be surprising to discover that some species of this group from Colombia are new to science.

### STROMATIC ASCOMYCOTA

The class *Sordariomycetes* includes *Ascomycota* producing perithecioid ascomata in well-developed, often conspicuous stromata (Kirk *et al.*, 2008). Two orders contain macro-*Ascomycota*, namely *Xylariales*, producing carbonaceous stroma on woody substrata, and *Hypocreales*, producing often brightly coloured stromata on plants, animals, and other fungi (Beug, 2014).

*Xylariales* in Colombia comprises nine families, 24 genera, and 124 species, compared to 16 families, 223 genera, and 2,911 species worldwide (<https://colfungi.org>; Catalogue of Life, 2021). This order is distributed throughout the country, but with more species and collections from lowland tropical rainforests. A revision of *Sordariomycetes* from Colombia for the bamboo *Guadua angustifolia* evidenced nine new records for the country, including *Diatrype bermudensis* (*Diatrypaceae*) (Soto -Agudelo *et al.*, 2016). As expected, *Xylaria* is the most diverse genus in Colombia with 49 species, more than Panama with 33 species, but fewer



TABLE 2. Species of Hypocreales described for first time from Colombia and recent new records for the country and their distribution.

Species	New species	New records	Natural region
<i>Akanthomyces sabanensis</i>	X		Andean region
<i>Beauveria acridophila</i>	X		Amazon basin, Magdalena Valley
<i>Beauveria diapheromeriphila</i>	X		Amazon basin
<i>Bionectria grammicospora</i>	X		Andean region
<i>Bionectria parvipialis</i>	X		Andean region
<i>Cordyceps nidus</i>	X		Amazon basin, Choco biogeografic zone, Andean region
<i>Cordyceps pilifera</i>	X		Amazon basin
<i>Cosmospora annulohypoxyli</i>		X	Andean region
<i>Cosmospora ustulinae</i>		X	Andean region
<i>Macronectria jungneri</i>		X	Andean region
<i>Nectria fusispora</i>	X		Magdalena valley
<i>Nectria microdisca</i>	X		Andean region
<i>Nectria rubrostoma</i>	X		Andean region
<i>Nectria cinnabarina</i>		X	Andean region
<i>Neonectria dumontii</i>	X		Andean region
<i>Ophiocordyceps albacongiuae</i>	X		Magdalena valley
<i>Ophiocordyceps amazonica</i>		X	Amazon basin, Magdalena valley
<i>Ophiocordyceps araracuarensis</i>	X		Amazon basin, Magdalena valley
<i>Ophiocordyceps blattarioides</i>	X		Amazon basin
<i>Ophiocordyceps evansii</i>	X		Amazon basin
<i>Ophiocordyceps fulgoromorphila</i>	X		Amazon basin, Magdalena valley
<i>Ophiocordyceps gracillima</i>	X		Amazon basin

than Ecuador with 60 species (Pipenbring, 2007; Læssøe & Petersen, 2008). *Xylaria metaeformis* and *X. willsii* were the first species of the genus reported from Colombia, from wood collected in Bogotá in the 1860s. The most recent record is *X. bambusicola*, collected in Quindío in the lowlands of the Andes region (Soto-Agudelo *et al.*, 2016). *Xylariales* are represented by numerous collections in the HUA herbarium, with 488 specimens from the Amazon basin and the Choco biogeographic zone, but the Orinoquia region is poorly represented. A study of the distribution of *X. telfarii* (Figure 2a) and related species in Colombia confirmed that *Xylariales* occur predominantly under certain precipitation regimes, with no dependence on temperature (Miñana, 2018). That study also revealed sampling gaps for these species throughout Colombia, which could be extended to all genera of this order. *Xylariales* show high diversity in Colombia, but there are no studies yet based on DNA sequences. A polyphasic

approach is necessary to understand the systematics of this order, which in other parts of the world has revealed important antimicrobial properties (Hyde *et al.*, 2019).

*Hypocreales* comprises eight families, ten genera, and 415 species in Colombia, compared to 14 families, 434 genera, and 5,313 species worldwide (<https://colfungi.org>; Catalogue of Life 2021). This order has a broad range of trophic modes, as animal, fungal, or plant pathogens, endophytes, or saprotrophs. As part of the "Hongos de Colombia" project, Dumont *et al.* (1976) collected 39 species of Nectriaceae, five of which were new to science (Table 2) (Schroers, 2001). The latter family, together with Bionectriaceae and Xylariaceae, often have brightly coloured stromata that develop on various types of wood (Beug *et al.*, 2014). Both families were reported on *Guadua angustifolia* in the department of Quindío in Colombia, with four new records for this country (Table 2) (Soto-Agudelo *et al.*, 2016).

*Hypocreales* also contain one of the kingdom's most notable and conspicuous fungi, the arthropod pathogens colloquially called "zombie fungi", distributed among the Clavicipitaceae, Cordycipitaceae, and Ophiocordycipitaceae (Sung *et al.*, 2007). In Colombia, 92 arthropod pathogens have been reported, and another seven fungal pathogens. Most species have been found in lowland tropical forests. Around agricultural areas, such as those for coffee crops, the genera *Beauveria*, *Lecanicillium*, and *Metarhizium* are more frequently collected. However, two species of *Beauveria* were described from undisturbed forests in the Amazon and Putumayo departments, namely *B. diapheromeriphila* and *B. acridophila* (Table 2), which represent rare examples of sexual forms of this cosmopolitan genus (Sanjuan *et al.*, 2014). By contrast, *Akanthomyces sabanensis* was described from an urban street of high-level city of Bogotá (Table 2). This entomopathogen parasitises scale insects feeding on the emblematic tree *Ficus soatensis*, its distribution corresponding to areas of low pollution within the city (Chirivi *et al.*, 2015).

The distribution of arthropod pathogens follows that of their hosts, which are highly diverse and abundant, especially in the Amazon basin. The orders *Coleoptera* (weevils and beetles) and *Hymenoptera* (ants and wasps) are the most parasitised in Colombia, with seven and 13 species, respectively, in concordance with the high abundance and richness of both groups. However, the most abundant species in all altitudinal zones, *Cordyceps tenuipes* (synonym: *Isaria tenuipes*), attacks pupae of *Lepidoptera* (Sanjuan, 2015). This species is found in lowland tropical forests (TRF) as well as in montane moist forests (MMF) and shares habitats with *Tolypocladium capitatum* (synonym: *Cordyceps capitatum*). It attacks the hypogeous ascomycete *Elaphomyces muricatus*, an ectomycorrhizal associate of oak belonging to the *Eurotiales*.

Considerable attention is given to these arthropod pathogens, due to their ability to manipulate their host's behaviour to their benefit, especially the zombie ants, which have been widely documented (Araújo *et al.*, 2018). In particular, *Ophiocordyceps unilateralis* manipulates ants of the genus *Camponotus* (*Formicinae*, *Camponotini*), forcing them to die in particular locations (Andersen *et al.*, 2009). This behaviour was already observed by the Inga indigenous people in the Putumayo region of Colombia, where it forms part of a myth from the indigenous cosmology (Sanjuan, 1999). Three new ant pathogens have been reported from Colombia, one of which, *Ophiocordyceps albacongiva* (Figure 2g), was discovered in Río Claro canyon, a tropical forest in the karst limestone formations of the Magdalena valley. Another 33 species of arthropod pathogens have been reported from the same location, showing a high diversity in a small area with species common to the Amazon basin (Posada & Sanjuan, 2018). Unfortunately, this location is threatened by a limestone mining operation that has accelerated after the signing of the peace accord in Colombia. Overall, each year a new species of arthropod pathogens is discovered globally, and to date, 677 species have been described. However, the discovery of cryptic species requires the use of

molecular tools. Basic research into these kinds of fungi in Colombia would likely benefit the country, as they appear to have considerable biotechnological potential.

## FUTURE PERSPECTIVES FOR NON-LICHENISED MACRO-ASCOMYCOTA OF COLOMBIA

Ascomycota of Colombia have mostly been studied as part of sporadic visits by foreign mycologists, and more recently also by trained local mycologists. Until now, the "*Hongos de Colombia*" project of Dumont and collaborators in the 1970s continues to be the most complete study to date on the macro-Ascomycota of Colombia, although these workers favoured sampling areas with easy access at the time, such as those near roads or farms, in an opportunistic manner. There have been few inventories in pristine forests in areas such as the Orinoquía region or on islands, such as San Andres and Providencia in the Caribbean or Gorgona in the Pacific, where many gaps persist. Novel sampling methodologies are required that include all life forms and trophic modes of Ascomycota in a temporal framework to assess the importance of these organisms for tropical ecosystems in Colombia. Finally, it is necessary to train new mycologists with an integrative approach that includes traditional taxonomy and molecular phylogenetics.

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*Phaeographis galeanae*  
[Robert Lüicking]



# Chapter 6

## Diversity, Ecogeography, and Importance of Lichens of Colombia

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### ABSTRACT

Lichenised fungi constitute a substantial portion of the known Colombian fungi, with 2,670 out of 7,241 species. This fairly high number is not because lichens represent a particularly diverse group of fungi but because they are relatively well-studied in the country compared to non-lichenised fungi. Lichens have traditionally been defined as a symbiosis between a fungus (mycobiont), an alga and/or a cyanobacterium (photobionts). A modern definition also incorporates components of the lichen microbiome, particularly other fungi, and bacteria. However, the scientific names given to lichens strictly refer to the primary mycobiont. Globally, Colombia ranks among the top ten countries in terms of known lichen diversity. Most top-ranking countries are outside the tropics, so this supports Colombia's position among the three most biodiverse tropical countries worldwide. The total number for Colombia is estimated at 5,000 species, almost twice the number of species currently known. Unrecognised species are predicted to be found in understudied regions, understudied groups, and in genera where broad species concepts may include substantial hidden diversity. Diverse ecological studies assess environmental factors, such as altitudinal range, topography, and habitat diversity, as drivers of lichen biodiversity. On the basis of these findings, the impact of land-use changes and environmental pollution on lichen communities can be quantified, providing the foundation for using lichens as bioindicators to monitor ecosystem health and to perform environmental impact studies. However, such applications first require a systematic inventory of the lichens of Colombia.

### RESUMEN

Los hongos liquenizados constituyen una parte sustancial de la funga Colombiana, con 2.670 de las 7.241 especies conocidas. Este número bastante alto no se debe a que los líquenes representen un grupo de hongos particularmente diverso, sino a que están relativamente bien estudiados en el país en comparación con los hongos no liquenizados. Los líquenes se han definido tradicionalmente como una simbiosis entre un hongo (micobionte) y un alga y/o una cianobacteria (fotobiontes). Una definición moderna también incorpora componentes del microbioma del líquen, en particular otros hongos y bacterias. Sin embargo, los nombres científicos dados a los líquenes se refieren estrictamente al micobionte primario. A nivel mundial, Colombia se encuentra entre los diez países con mayor diversidad de líquenes conocida. El país de mayor diversidad líquénica conocido es Estados Unidos (4,341 especies), seguido por Brasil (4,310), Australia (4,003), China (3,050), Francia (2,917), México (2,722), India (2,714) e Italia (2,704). Sin embargo, la mayoría de los países con alta diversidad líquénica están fuera de los trópicos, lo que respalda la posición de Colombia entre los tres países tropicales con mayor biodiversidad en todo el mundo. El número total de especies liquenizadas para Colombia se estima en 5,000, casi el doble del número de especies conocidas actualmente. Se predice que las especies no reconocidas se encontrarán en regiones poco estudiadas, en grupos taxonómicos poco estudiados y en géneros donde los conceptos tradicionales de especies pueden incluir una alta diversidad críptica. Históricamente, Colombia es uno de los países más importantes en cuanto a estudios sobre líquenes neotropicales, junto a Brasil, Cuba y México. Los líquenes de Colombia se documentaron por primera vez como parte de la Expedición Botánica del Nuevo Reino de Granada y colecciones realizadas por Humboldt y Bonpland; sin embargo, las colecciones históricas de líquenes más importantes de Colombia son las de Lindig, en su mayoría estudiadas por Nylander. Consecuentemente, más de 400 tipos se encuentran en los herbarios H y PC, siendo una referencia histórica esencial para los líquenes (neo) tropicales. Diversos estudios ecológicos han evaluado los factores

ambientales, como el rango altitudinal, la topografía y la diversidad de hábitats, como impulsores de la biodiversidad de líquenes en Colombia. Con base en estos hallazgos, se puede cuantificar el impacto de los cambios en el uso de la tierra y la contaminación ambiental en las comunidades de líquenes, siendo la base para el uso de líquenes como bioindicadores para monitorear la salud de ecosistemas y realizar estudios de impacto ambiental. Sin embargo, tales aplicaciones requieren un inventario sistemático más profundo de líquenes de Colombia.

## INTRODUCTION

Lichens have long been treated as a separate group of organisms, even after discovering their symbiotic nature (Lücking *et al.*, 2021). Biologically, lichens are just one example of the diverse nutritional types that have evolved among the *Fungi*, including saprotrophs, pathogens, mycorrhizas, and even carnivores (Watkinson *et al.*, 2016). However, in lichens, the vegetative hyphae form a persistent, macroscopically conspicuous thallus (Honegger, 2012; Figure 1). By contrast, non-lichenised fungi are characterised by ecologically hidden mycelia that are only usually visible due to their spore-bearing structures.

After its discovery, the lichen symbiosis has continuously been defined as bipartite or tripartite associations between a fungal partner (mycobiont) and one or two photosynthetic partners (photobionts; Lücking *et al.*, 2021). Known lichen mycobionts are only found in the two major phyla of the *Fungi*, representing either *Ascomycota* (99%) or *Basidiomycota* (1%) (Lücking *et al.*, 2017). At the same time, known photobionts encompass two domains and three kingdoms: *Chlorophyta* and *Heterokonta* among the eukaryotes and *Cyanobacteria* among the prokaryotes (Friedl & Büdel, 2008; Saini *et al.*, 2019). Recent studies using advanced molecular approaches have challenged the bipartite or tripartite nature of the lichen symbiosis, postulating that other fungi, in particular yeast-like *Basidiomycota*, as well as certain bacteria, together constitute the lichen microbiome as possible integral components of the lichen symbiosis (Grube *et al.*, 2015; Spribille *et al.*, 2016; Lendemer *et al.*, 2019; Hawksworth & Grube, 2020; Sierra *et al.*, 2020; Grimm *et al.*, 2021; Tuovinen *et al.*, 2021). Consequently, the definition of the lichen symbiosis as a bipartite or tripartite association of one mycobiont and one or two photobionts has been abandoned in favour of a broader definition encompassing these additional biological components (Hawksworth & Grube, 2020; Lücking *et al.*, 2021).

Owing to their symbiotic nature, the nomenclature applied to lichens has also posed challenges. Before discovery of the symbiosis, the scientific Latin name applied to the entire lichen, including its photobiont(s), at the time termed gonidia (Lücking *et al.*, 2021). With the realisation that lichens are composed of more than one organism, the need arose to adjust the precise application of the scientific name, which was then ruled to apply to the mycobiont alone (Lücking *et al.*, 2021). This solution seemed straightforward, but the argument could be raised that the same fungus may form different lichens, so-called photosymbiodemes, when associated with different photobionts (Figure 1), differing in ecology or distribution (Goward, 2008). The scientific name should be used for the mycobiont only to account for such

cases, whereas the vernacular name can be used for the entire lichen. For example, in the case of the widespread *Xanthoria parietina* (yellow wall lichen), a species also found in Colombia, the scientific name (*X. parietina*) applies to the mycobiont alone. By contrast, the common name (yellow wall lichen) addresses the entire lichen (Lücking *et al.*, 2021).

Lichens are integral components of terrestrial ecosystems and sometimes are the dominant or exclusive life form (e.g., in the Antarctic continent). Even aquatic and marine lichens have been known for almost 50 years (Seaward, 1977; Sanders *et al.*, 2004; Feuerer & Hawksworth, 2007; Miadlikowska *et al.*, 2014). Lichens are generally believed to escape the temperate-tropical diversity gradient, being more conspicuous in temperate to arctic regions (Lücking *et al.*, 2011). However, this is a matter of scale: at larger scales (regional and landscape level), the species richness of temperate and tropical regions is comparable, whereas at smaller scales (local and habitat level), species richness appears to be greater in the tropics (Lücking *et al.*, 2011). Notably, the highest species richness is found in tropical lowland rainforests. Nonetheless, lichens are not conspicuous in these ecosystems, and their associated biomass is low. Yet, a single square kilometre (100 ha) of tropical rainforest can harbour up to 600 species, including several hundred species of foliicolous lichens growing on living leaves (Lücking *et al.*, 2011). For comparison, the best-studied temperate regions may yield higher species numbers, but across much larger areas, such as the Cévennes National Park in France (973 species within 93,700 ha), Glacier Bay National Park in Alaska (831 species within 600,000 ha), and Klondike Gold Rush National Historical Park (668 species within 5,300 ha), among others (Roux *et al.*, 2008; Spribille *et al.*, 2010, 2020; Lücking *et al.*, 2011). The main difference between these temperate and the hitherto studied tropical sites is that landscape diversity largely drives lichen diversity in the former. By contrast, high species richness has been reported in tropical locations for more or less homogeneous ecosystems, indicating that these habitats have a higher species carrying capacity (Lücking *et al.*, 2011).

## BIODIVERSITY OF LICHENS OF COLOMBIA

Colombia is home to extraordinary biodiversity, given its geographic position at the conjunction between Central and South America. The country is bordered by two oceans, comprises an abrupt topography ranging from sea level to 5,775 m altitude, and has diverse ecosystems (Arbeláez-Cortés, 2013; Murcia *et al.*, 2013; Rangel-Ch., 2015). This great biodiversity also extends to lichens with 2,670 species reported to date from the country (Gaya *et al.*, 2021; this paper). Colombia is only surpassed in lichen richness by





**FIGURE 1.** A–B Thallus of *Sticta lobarioides* and section of a Parmeliaceae showing the different layers formed by the mycobiont and the photobiont. C–D Cephalodia in *Stereocaulon novogranatense* (C) and *Placopsis rhodocarpa* (D). E–F Photosymbiodeme in *Sticta* aff. *subscrobiculata*, with cyanobacterial lobes emerging from green-algal lobes (E) and vice versa (F). (Photographs by Robert Lücking).

TABLE 1. Species numbers of lichenised fungi reported from selected regions and countries worldwide.

Country / territory	Number	Species / 1,000 km <sup>2</sup>	Species / log <sub>2</sub> (km <sup>2</sup> )	Reference(s)
United States	4,341	0.44	187	Perlmutter & Weakley (2018); Esslinger (2019)
Brazil	4,310	0.51	187	Aptroot (2021)
Australia	4,003	0.52	175	McCarthy (2020)
China	3,050	0.32	131	Wei (2021)
France	2,917	4.53	151	Roux (2012)
Mexico	2,722	1.38	130	Herrera-Campos <i>et al.</i> (2014)
India	2,714	0.83	125	Singh & Sinha (2010); Sinha <i>et al.</i> (2018)
Italy	2,704	8.97	149	Nimis (2016)
Colombia	2,670	2.34	133	Gaya <i>et al.</i> (2021); this chapter
Austria	2,349	28.00	144	Hafellner & Türk (2016)
United Kingdom	2,000	8.25	112	Smith <i>et al.</i> (2009); Coppins (2021)
Germany	1,946	5.45	105	Wirth <i>et al.</i> (2011)
Japan	1,906	5.04	103	Ohmura & Kashiwadani (2018)
Chile	1,880	2.48	96	Galloway & Quilhot (1998); Vargas-Catillo & Sandoval-Leiva (2020)
Venezuela	1,801	1.97	91	Marcano <i>et al.</i> (1996); Hernández-M. (2021)
South Africa	1,751	1.44	87	Fryday (2015); Ahti <i>et al.</i> (2016)
Costa Rica	1,740	34.00	111	Umaña-Tenorio <i>et al.</i> (2002); Nelsen <i>et al.</i> (2006); Rivas Plata <i>et al.</i> (2006); Lücking <i>et al.</i> (2007, 2008); Aptroot <i>et al.</i> (2008); Sipman <i>et al.</i> (2012)
Argentina	1,670	0.60	78	Calvelo & Liberatore (2002)
Finland	1,644	4.86	90	Stenroos <i>et al.</i> (2016)
Bolivia	1,353	1.23	67	Rodríguez de Flakus <i>et al.</i> (2016)
Thailand	1,292	2.52	68	Buaruang <i>et al.</i> (2017)
Philippines	1,234	4.11	68	Paguirigan <i>et al.</i> (2020)
Algeria	1,051	0.44	50	Amrani <i>et al.</i> (2018)
Cuba	1,027	9.35	61	Lücking <i>et al.</i> (in prep.)
Peru	924	0.72	46	Ramos (2014)
Puerto Rico	781	85.79	59	Mercado-Díaz & Santiago-Valentin (2010)
Uruguay	614	3.48	35	Osorio (1972, 1992)
Madagascar	500	0.85	26	Aptroot (2016)
Panama	325	4.30	20	Piepenbring (2007)





**FIGURE 2.** A.Part of the “Lindig trail” in the “El Delirio Ecological Reserve”; B leading from the Southeastern outskirts of the municipality of Bogotá DC at 2,800 m altitude up to the paramo region of El Verjón at 3,400 m altitude, along the Río Fucha; C this area is the type locality for several species collected by Lindig, among them *Sticta peltigerella*, which typically grows on mossy boulders in streams and is an excellent indicator of water quality. (Photographs by Robert Lücking).



the USA (4,341 species), Brazil (4,310), Australia (4,003), China (3,050), France (2,917), Mexico (2,722), India (2,714), and Italy (2,704) (Singh & Sinha, 2010; Herrera-Campos *et al.*, 2014; Nimis, 2016; Perlmutter & Weakley, 2018; Sinha *et al.*, 2018; Esslinger, 2019; McCarthy, 2020; Aptroot, 2021; Wei, 2021; Table 1). These countries are much larger than Colombia (USA, Canada, Brazil, Australia, China, and India) or represent much better studied temperate countries (France and Italy). Among the ten richest countries in relative species density, Colombia ranks fourth with 2.34 species per 1,000 km<sup>2</sup>, trailing Austria (28.0), Italy (8.97) and France (4.53), but ahead of Mexico (1.38), India (0.83), Brazil (0.52), Australia (0.52), the USA (0.44), and China (0.32). When considering a logarithmic relationship of species richness with area size, Colombia ranks seventh among the ten most species-rich countries [133 species per log<sub>2</sub>(area)], after the USA (187), Brazil (187), Australia (175), France (151), Italy (149), and Austria (144), but ahead of China (131), Mexico (130), and India (125). Some small countries or territories with comparatively high species numbers surpass the high species density of Italy, ranking far ahead of Colombia as well, such as Puerto Rico (85.8 species per 1,000 km<sup>2</sup>), Costa Rica (34.0), and Cuba (9.4). Still, no further country included in this analysis has a higher species per log<sub>2</sub>(area) count than Colombia.

Overall, the high biodiversity of lichens of Colombia reflects that of other groups of organisms for the country, such as plants, vertebrates, and insects (see Chapter 3), and further supports the status of Colombia as one of the world's 17 megadiverse countries (Mittermeier, 1988; Mittermeier *et al.*, 1999; Arbeláez-Cortés, 2013). It also corroborates Colombia's position as the second most biodiverse tropical country, after Brazil (Butler, 2016, 2019). Most other top-ranked countries and regions in terms of known lichen diversity are largely or entirely outside the tropics.

Historically, Colombia is one of the most important countries as regards studies on neotropical lichens, alongside Brazil, Cuba, and Mexico. Lichens of Colombia were first documented as part of the *Expedición Botánica del Nuevo Reino de Granada*, organised by José Celestino Mutis, with the collaboration of Francisco José de Caldas, between 1783 and 1816, with three colour plates representing the species *Baeomyces imbricatus* ( $\equiv$  *Phyllobaeis imbricata*), *Cladonia didyma*, and *Stereocaulon ramulosum* (Aguirre-C., 1985; see Chapter 2). Halfway through this monumental endeavour, which unfortunately yielded few lichens and non-lichenised fungi, in 1801 Mutis and Caldas crossed pathways with Alexander von Humboldt and Aime Bonpland in Bogotá during the travels of the latter two through the northern Andes (Colombia, Ecuador, and Peru). The collections made by Humboldt and Bonpland were treated by Hooker (1822), who reported 73 species, including 12 presumably new to science, among them *Baeomyces imbricatus* ( $\equiv$  *Phyllobaeis imbricata*), *Lecidea parmelioides* ( $\equiv$  *Coccocarpia erythroxyli*), *Pyrenula marginata* ( $\equiv$  *P. mamillana*), *Sticta humboldtii*, and *S. pallida* ( $\equiv$  *Lobariella pallida*).

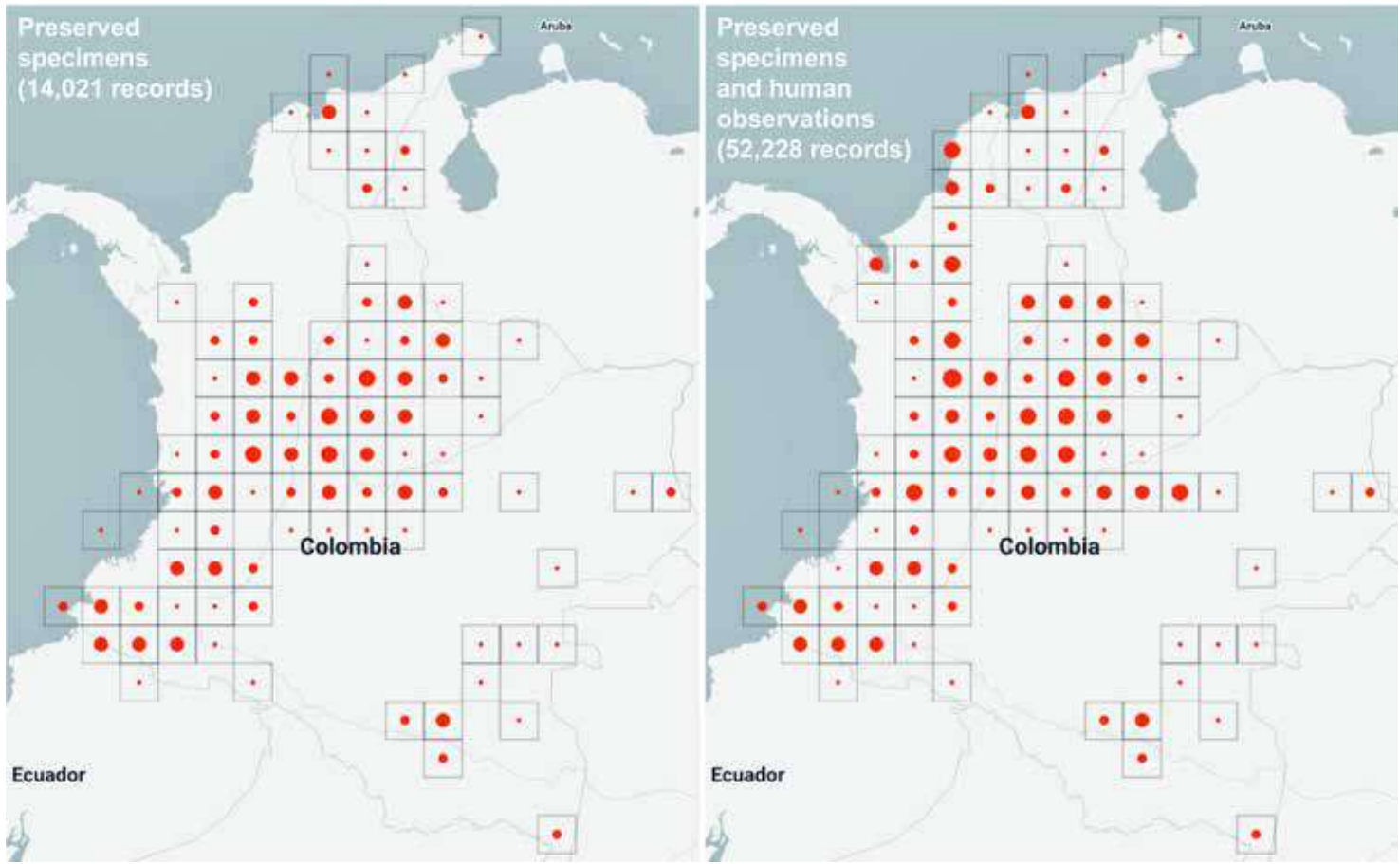
Alexander (Alexandre) Lindig, a German botanist who resided in Bogotá DC between 1859 and 1863, gathered

Colombia's most important historical lichen collections (see Chapter 2). The famous "Lindig trail", presumably the type locality of many new species described from Bogotá DC, is still preserved in the "El Delirio" Reserve (Figure 2). Unfortunately, the exact localities of the collected specimens are unknown, as most only indicate "Bogotá". Most of Lindig's collections were studied in comprehensive treatments by Nylander (1859, 1863a–c, 1864, 1867). Over 400 types of names applying to (neo-) tropical species are now housed in the H and PC herbaria. This number is comparable to names based on type material from Cuba and only surpassed by the historical role of Brazil (Marcelli, 1998). Therefore, the Colombian lichen biota is an essential historical reference for (neo-)tropical lichens. In modern times, Harrie Sipman and collaborators (see Chapter 2) made substantial contributions to the knowledge of Colombian lichens, with comprehensive checklists enumerating 1,553 and more recently 1,674 species (Sipman *et al.*, 2008; Sipman & Aguirre, 2016).

Although the currently known 2,670 species already represent a high number, the true diversity of the lichens of Colombia is probably much higher. Three reasons account for this assumption: 1. understudied and unexplored regions that harbour unknown species; 2. understudied taxonomic groups; and 3. refined species concepts in groups that were considered to be well-known. GBIF ([https://www.gbif.org/occurrence/search?country=CO&taxon\\_key=180](https://www.gbif.org/occurrence/search?country=CO&taxon_key=180)) has over 55,000 occurrence records for *Lecanoromycetes* in Colombia, which is by far the largest class of lichenised *Ascomycota*. Most of these records are georeferenced, but only 38% correspond to preserved specimens, whereas 62% represent human observations, mostly through environmental impact assessments. The resulting map shows a clear bias of existing collections to the Andean region. By contrast, the Caribbean, Pacific (Chocó biogeographic region), Orinoco, and Amazon regions are grossly undersampled (Figure 3). Such pattern is also seen for other organisms (Arbeláez-Cortés, 2013). Given that tropical lichens are particularly diverse at lower altitudes and dry forests often harbour unique taxa, many additional species can be expected from these four undersampled regions, which harbour large areas of lowland rainforests, savannas, and dry forests (Rincón-Espitia *et al.*, 2011; Lücking *et al.*, 2019; Soto-Medina *et al.*, 2021). A particular hotspot is expected in the geographically isolated Sierra Nevada de Santa Marta, where only a few lichen studies have been carried out so far (Mägdefrau & Winkler, 1967; Nowak & Winkler, 1970; Sipman, 1986; Ramírez-Roncallo, 2018).

Understudied taxonomic groups are particularly represented by large genera that are either poorly collected or lack thorough taxonomic studies because they have been deemed too difficult to study. Two examples are the genera *Graphis* (and its recent segregate *Allographa*) and *Usnea*. In a revision of fungarium specimens, Motta & Amórtegui (2018) unveiled 15 new species and 67 new records of *Graphis* and *Allographa* for Colombia, some of which have been published (Motta *et al.*, 2019), raising the number of species known from Colombia by 149%. A molecular





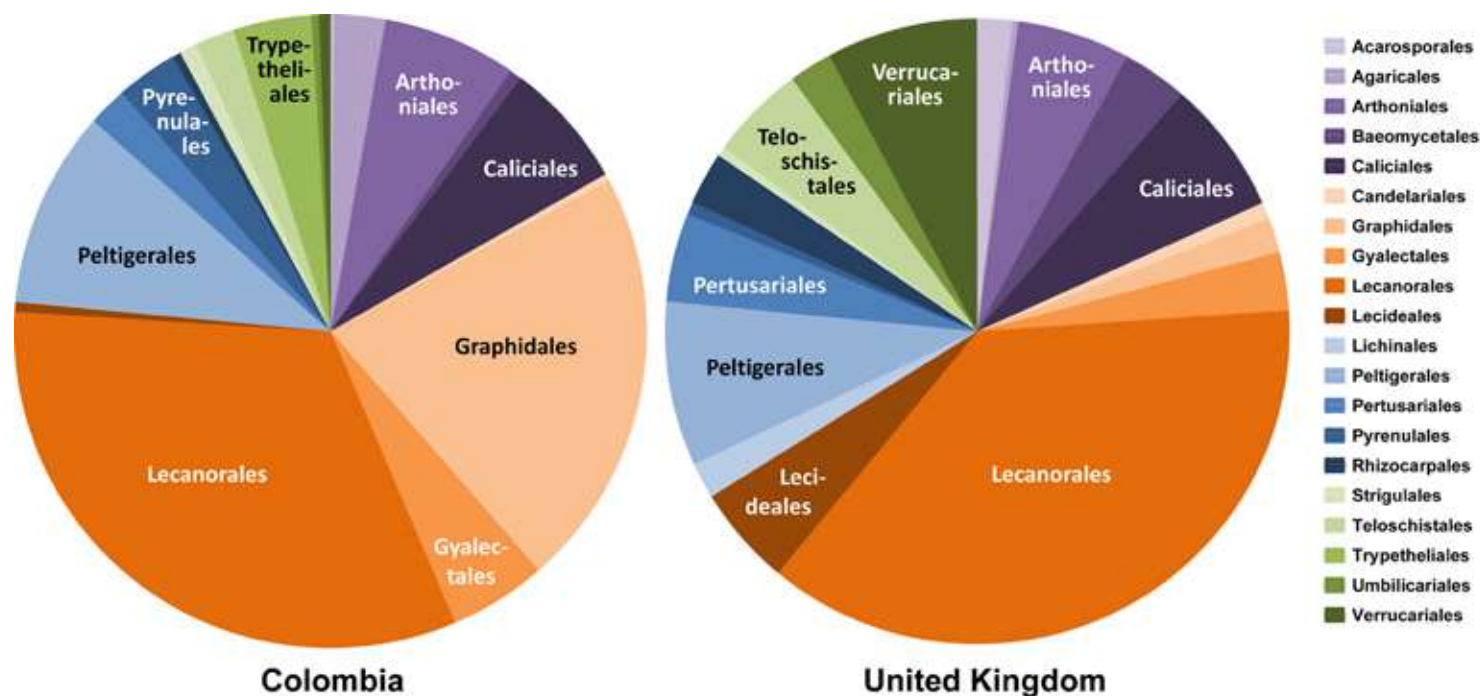
**FIGURE 3.** Grid maps of georeferenced records of *Lecanoromycetes* in Colombia available from GBIF ([https://www.gbif.org/occurrence/map?country=CO&taxon\\_key=180](https://www.gbif.org/occurrence/map?country=CO&taxon_key=180)), showing records based on preserved specimens (left map) versus all records, i.e., also including human observations (right map). Size of dots is proportional to number of records per grid. Note that human observation records (mostly through environmental impact assessments) mitigate sampling gaps particularly in northwestern Colombia.

barcoding study of the genus *Usnea* suggested that its true species richness for Colombia may be up to 2.5 times greater than is currently known (Moncada *et al.*, 2020). Some examples of refined species concepts are found in the genera *Lobariella* and *Sticta* (Ascomycota) and the genus *Cora* (Basidiomycota). Before molecular studies, the three genera were presumed to be well-known in Colombia, with four species of *Lobariella*, 42 of *Sticta*, and a single species of *Cora* (Sipman *et al.*, 2008). Since then, these numbers have risen, based on molecular phylogenetic revisions, to 24, 78, and 49 species, respectively, increasing their species richness by more than 200%. This increase is particularly dramatic for the genus *Cora*, a well-known element of the Colombian Andean region.

Lücking *et al.* (2009) estimated the number of lichenised species in Colombia at 3,600. However, at that point, the magnitude of the hidden diversity in presumably well-known groups had not yet been realised. We anticipate that an estimated 3,600 species would perhaps cover additional species found in understudied regions or taxonomic groups. Yet, hidden diversity in presumably well-known lineages would

on average double the number of species in many genera, adding another 1,500 species. Thus, a revised estimate, considering under- and unexplored regions, understudied groups, and hidden diversity would arrive at a number close to or above 5,000 species.

All major taxonomic groups and biotypes of lichens are represented in Colombia. However, compared to temperate lichen biotas, such as that of the United Kingdom, crustose groups are overrepresented, particularly those primarily confined to tropical regions, such as *Graphidales*, *Pyrenulales*, and *Trypetheliales*, which feature trentepohlioid photobionts adapted to tropical climates. By contrast, orders such as *Acarosporales*, *Baeomycetales*, *Lecideales*, *Pertusariales*, *Teloschistales*, and *Verrucariales*, are underrepresented (Figure 4). Additional orders, such as *Arthoniales*, *Caliciales*, *Lecanorales*, and *Peltigerales*, exhibit a similar richness in tropical and temperate regions but encompass different species. A particularly diverse group of tropical lichens are foliicolous taxa, which grow on the living leaves of vascular plants (Lücking, 2008; Mateus *et al.*, 2012). The Colombian paramos is mentioned in terms



**FIGURE 4.** Comparison between Colombia and the United Kingdom in terms of the composition of lichenised fungi by order, representing a tropical versus temperate region. Data from Gaya *et al.* (2021) and this chapter for Colombia, and Smith *et al.* (2009) and Coppins (2021) for the UK.

of ecosystem diversity, featuring a high lichen biodiversity (Sipman, 2002; Cleef, 2008; Madriñán *et al.*, 2013), with similar habitats only found in parts of Venezuela and northern Ecuador. By contrast, the lichen biota of the Colombian Amazon is broadly shared with neighbouring countries, such as Venezuela, the Guianas, Brazil, Ecuador, and Peru (Lücking *et al.*, in prep.).

### ECOGEOGRAPHY OF LICHENS OF COLOMBIA

Compared to temperate regions in North America and Europe, studies on the ecology and distribution of Colombian lichens are still sparse. Regarding the distribution patterns of Colombian lichens, to date, there is no quantitative analysis, so here we provide a first approach based on the assessment of 2,678 species (Figure 5). According to this assessment, most species (35%) are neotropical, followed by subcosmopolitan (16%), circumpacific (15%), and pantropical (15%) species. Only a small portion of 8.5% is currently considered endemic. However, this assessment is preliminary, as molecular studies have shown that presumably widespread taxa often represent species complexes. Thus, we expect the actual proportion of widespread, cross-continental species to be lower, favouring a higher number of neotropical and endemic taxa (see Chapter 10). Furthermore, species currently classified as circumpacific (i.e., known from the Neotropics and the Eastern Palearctic) are largely artefactual due to a lack of data from tropical Africa where these species may occur.

The division of Colombia into ecoregions (IDEAM *et al.*, 2017) provides an excellent background for investigating tropical lichens beyond their taxonomy and systematics. Ecological, ecogeographical, and biogeographical studies of Colombian lichens go back to the early 1970s, covering topics such as distribution patterns, landscape ecology, altitudinal gradients, and habitat preferences (Sipman, 1986, 1989, 1998; Ahti, 1992; Wolf, 1993a; Kessler, 2000; Aguirre-C. & Sipman, 2004; Pinzón & Linares, 2006; Aguirre-C., 2008; Aguirre-C. & Rangel-Ch, 2008; Pérez-Quintero & Watteijne-Cerón, 2009; Moncada *et al.*, 2014). Other studies focused on community and population structure, substrate specificity, and niche differentiation (Nowak & Winkler, 1970, 1975; Wolf, 1993b, c, 1994, 1995; Soto-Medina *et al.*, 2012, 2015; Zárate-Arias *et al.*, 2019). More recent studies have investigated functional traits of tropical lichens (Chilito-López *et al.*, 2016; Soto-Medina *et al.*, 2019) or their ecophysiology (Pulido-Herrera & Ramos-Montaño, 2016), whereas some classic studies analysed lichen-related nitrogen availability and nutrient flux in tropical forest ecosystems (Forman, 1975; Veneklaas, 1991). Interactions between lichens and invertebrates, specifically regarding lichen-related camouflage, are a popular topic in entomological studies (Rivera *et al.*, 2011; Cadena-Castañeda, 2013; Londoño *et al.*, 2017; Lisi *et al.*, 2019). The availability of advanced molecular methods in Colombian laboratories has also allowed new investigations into the microbiome of paramo lichens, revealing patterns



of host specificity (Sierra *et al.*, 2020). Additionally, several studies have addressed the impact of land use change on lichen community diversity and composition (Ardila-Rios *et al.*, 2015; Pulido-Herrera & Ramos-Montaño, 2016; Ramírez-Morán *et al.*, 2016; Simijaca *et al.*, 2018).

Colombia served as the target region for one of the most important broad-scale ecological studies on tropical ecosystems, the ECOANDES project (Van der Hammen *et al.*, 1983). ECOANDES was an extraordinary example of collaborative work between Colombian and Dutch researchers during the early 1980s (see Chapter 2), leaving a lasting impact in the development of Colombian biodiversity research and resulting in various studies on lichenised fungi (Sipman, 1986, 1989, 1998; Kessler, 2000; Aguirre-C., 2008). The study area encompassed all four major mountain systems of Colombia: the Sierra Nevada de Santa Marta, the Western Cordillera (Tatamá), the Central Cordillera (Los Nevados), and the Eastern Cordillera (Sumapaz). Besides more inventory-oriented lichen studies, the ECOANDES project also produced the seminal dissertation by Jan Wolf on epiphytic canopy communities on Colombian montane forests, including numerous new data on lichens (Wolf, 1993a-c, 1994, 1995). Starting with the ECOANDES project, Harrie Sipman became a pioneer in modern lichen research in Colombia and a mentor of Jaime Aguirre-Ceballos, who continued the studies on the ecogeography of Colombian lichens (Aguirre-C. & Rangel, 2008).

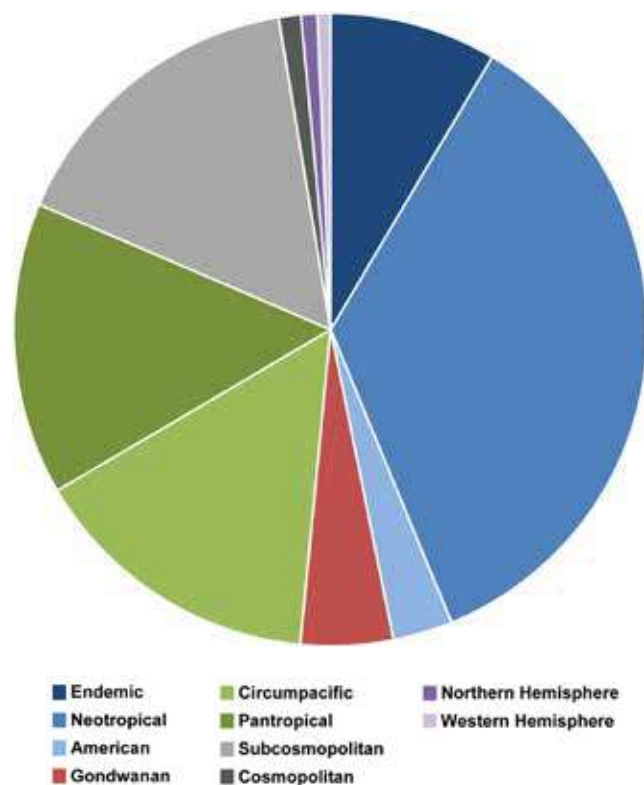


FIGURE 5. Main distribution types among the 2,678 species of lichenised fungi known from Colombia.

These diverse studies have provided insight into which environmental factors drive lichen biodiversity and species richness, demonstrating how the diversity and composition of lichen communities depend on macroecological features driven by altitude and other factors. Moncada *et al.* (2014) demonstrated that (sub-)Andean Forests and Páramo areas harbour the highest richness of *Sticta* species, with the Eastern Cordillera as one of the centres of diversity for the genus. Soto-Medina *et al.* (2012) found subtle phorophyte preferences of lichens, with a stronger dependency on microclimatic factors. Chilito-López *et al.* (2016) also found pronounced microhabitat preferences among lichenised taxa correlated with functional parameters, such as growth form. Unfortunately, a comprehensive database in terms of functional parameters does not yet exist for the lichens of Colombia or tropical lichens in general, but this would be a desirable achievement for the near future to allow more thorough assessments in trait-based functional ecosystem analyses (St. Martin & Mallik 2017).

Impact studies suggest that the replacement of natural forests with tree monocultures natural forests influence influences lichen communities. Thus, *Eucalyptus* plantations in Colombian montane *Quercus* forests have a strong dediversification and homogenisation effect, with planted trees featuring highly similar lichen communities, leading to low plot-level species richness (Ardila-Rios *et al.*, 2015). Notably, replacing native *Quercus* forests with *Pinus* plantations does not seem to affect diversity metrics but causes partial species turnover (Simijaca *et al.*, 2018). Pulido-Herrera & Ramos-Montaño (2016) found a marked edge effect on lichen community parameters and chlorophyll content in fragments of *Polylepis* forests in the páramo zone, and Ramírez-Morán *et al.* (2016) associated functional biotypes with the conservation status of Andean Forest remnants.

### IMPORTANCE OF LICHENS OF COLOMBIA

Lichens are important components of tropical ecosystems, developing conspicuous biomass particularly in montane forests and paramos, but high diversity, especially in lowland to lower montane rainforests (Sipman & Harris, 1989; Lücking *et al.*, 2011). Their ecosystem services encompass the water and nutrient cycle, generating local humidity and cloud cover, preventing soil erosion, and contributing to atmospheric nitrogen fixation (Seaward, 1988; Ahmadjian, 1995; Zedda & Rambold, 2015), as well as diverse interactions with animals, by supporting nest building or camouflage (Seaward, 1988).

As symbiotic organisms, lichens have adapted to diverse conditions that may be averse to other organisms. However, they are susceptible to abrupt environmental changes, particularly air pollution, habitat disturbances, and land-use change. Therefore, they have long been used as bioindicators of environmental health. In Colombia, since 1977, more than 20 studies have been focused on lichens as pollution indicators in different areas of the country. The first published studies were those of Rubiano-Olaya (1987, 1988) in Cali and Medellín. From the beginning,

most of these studies were based on lichen community ecology parameters, employing the *Index of Atmospheric Purity* (IAP), which links the frequency and abundance of individual taxa to sample species composition, providing a taxon-independent measure for air quality. The IAP was also used to determine isocontamination zones in various areas of Bogotá DC (Rubiano-Olaya, 2002; Rubiano-Olaya & Chaparro, 2006; González-Aldana, 2007), Tunja (Simijaca-Salcedo *et al.*, 2011, 2014), and Quibdó (Mena, 2012), particularly in relation to vehicular traffic (Valois-Cuesta & Mosquera-Palacios, 2014). In Medellín, an updated study confirmed the usefulness of the IAP across a broader range of phorophytes, using air quality monitoring stations as reference (Correa-Ochoa *et al.*, 2020), and the method was also employed to assess air quality in suburban areas near Medellín (Quijano-Abril *et al.*, 2021). While broadly comparable between regions, the downside of the IAP method is that it does not require complete identification of the underlying lichens, as long as they are accurately recognised as species. Therefore, most of the studies mentioned above do not provide complete lists of fully identified species, making a proper taxonomic assessment of urban lichen diversity difficult to obtain. In addition to biomonitoring using the IAP, a few studies in Colombia have assessed the impact of atmospheric pollutants, including emissions in a sulphur mine in Cauca (Díaz-Escandón *et al.*, 2016), acid rain (Álvarez-Berrio *et al.*, 2018), and heavy metals in lichens from Bogotá DC (Rodríguez *et al.*, 2016).

The potential application of lichens to monitor the impact of land use changes are thus far from limited to montane forest ecosystems (Ardila-Ríos *et al.*, 2015; Díaz-Escandón *et al.*, 2016; Pulido-Herrera & Ramos-Montaño, 2016; Ramírez-Morán *et al.*, 2016; Simijaca-Salcedo *et al.*, 2018). Unfortunately, standardised protocols for this purpose are not yet available. Ramírez-Morán *et al.* (2016) assessed the strategy of using easy-to-identify lichen biotypes instead of actual lichen taxa, providing an advantage like that of the IAP. In Colombia, lichens, mosses, and vascular epiphytes have been traditionally protected under the *Resolución 213 de 2013* of the Ministerio de Ambiente y Desarrollo Sostenible (MinAmbiente), initially aiming to prevent the uncontrolled harvesting and trade of these organisms. For the past decade, this provision has been implemented to monitor the environmental impact of projects related to infrastructure or the exploration of mineral resources. Unfortunately, this approach bears a few problems: sampling protocols are not standardised, the underlying taxonomy is often inaccurate, and there are conflicts of interest if the entity that carries out the project is also responsible for the impact report. A solution could be a standardised protocol using selected lichen taxa that are known to be sensitive to environmental changes, such as thelotremoid Graphidaceae or lobaroid Peltigeraceae (Rivas Plata *et al.*, 2008; Ramírez-Morán *et al.*, 2016), combined with an assessment of the conservation status of the underlying ecosystem (Etter *et al.*, 2018).

Another venue in terms of lichen uses is the diverse composition of secondary substances and their potential applications (Mitrović *et al.*, 2011). Some studies on this

topic have been performed in Colombia (Perico-Franco *et al.*, 2015; Valencia-Islas *et al.*, 2020). Unfortunately, most studies do not go beyond reporting the results from standardised bioassays, and potential clinical applications are rarely explored (Lücking, 2020). The causes of antibacterial, antitumoral or antioxidative effects are often unclear, because the bioactive compounds are not always identified, or substances are tested separately, without considering potential interactions with other substances. Another issue is inaccurate taxonomy, as experts are rarely consulted, and the underlying material is often not documented by proper voucher material. Fortunately, the aforementioned Colombian studies are exemplary in this respect, as they cited voucher material and consulted taxonomic experts.

Although promising, applied approaches using lichens depend on accurate assessment of the underlying biodiversity and hence require rigorous taxonomic studies and inventories using modern methods, including molecular assessments. Therefore, the political support for science should not focus on applied aspects alone but should also provide the framework for the necessary taxonomic inventories.

## CONCLUSIONS

The currently known number of 2,678 species makes the Colombian lichen funga one of the richest worldwide. However, the actual number may be almost twice as high, requiring further rigorous inventory works and taxonomic revisions, particularly in the understudied regions of the Caribe, Orinoquía, Pacífico and Amazonía. Unfortunately, societal and government support for such fundamental studies in Colombia is limited. Instead, there is a strong focus on applied aspects, including in the training of young students, neglecting the knowledge and tools that are necessary to properly assess the underlying taxonomy. Before undertaking applied studies, efforts should concentrate on providing a complete inventory of the Colombian lichen biota so that potential applications can be assessed and explored more rigorously, taking into account the need for habitat conservation to preserve this diversity. In applied studies, the focus should be on broadly applicable, standardised approaches, such as using lichens as biomonitors of air pollution and environmental health. Pharmaceutically oriented studies should be more systematically structured to provide new insight into the potential of lichen secondary metabolites, seeking collaborations for follow-up clinical studies when results are promising.

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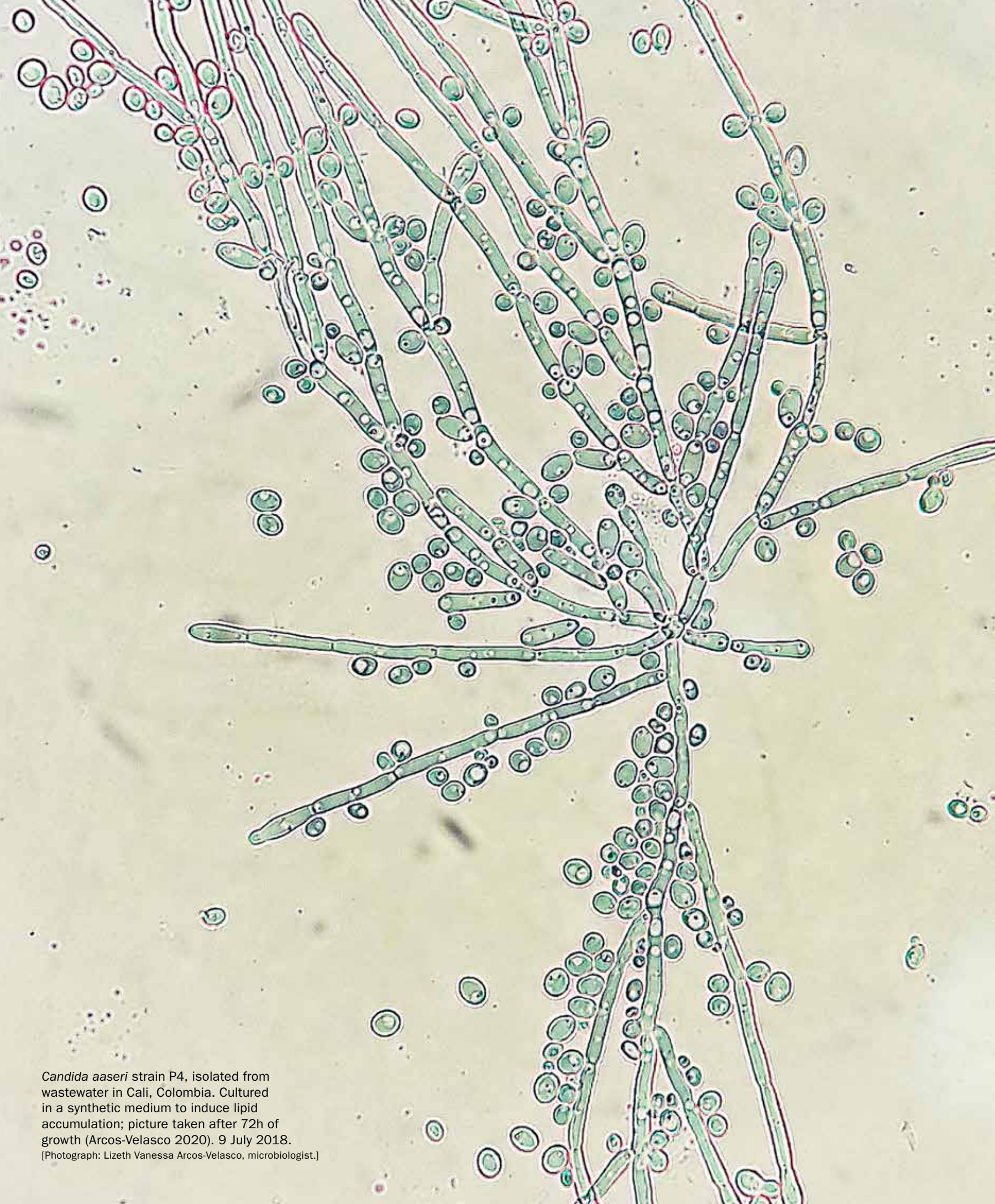
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*Enchylium conglomeratum*  
[Robert Lücking]









*Candida aaseri* strain P4, isolated from wastewater in Cali, Colombia. Cultured in a synthetic medium to induce lipid accumulation; picture taken after 72h of growth (Arcos-Velasco 2020). 9 July 2018.

[Photograph: Lizeth Vanessa Arcos-Velasco, microbiologist.]



# Chapter 7

## Diversity of Environmental Yeasts of Colombia: A Systematic Review

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### ABSTRACT

Colombia is recognised for its remarkable biodiversity as the country ranked first for bird and orchid richness, second for amphibians, butterflies, and freshwater fishes, third for palms and reptiles, and fourth for mammals. By contrast, the diversity of fungi in Colombia is not well known, with at least 7,241 species, a low number compared to that in other tropical countries. Yeast diversity in particular has been little explored, and little is known about the sampling efforts within this group in Colombia. This study reviewed published studies from repositories, databases, and public collections reporting the isolation and identification of environmental yeasts in Colombia in the years 2000 to 2020. All clinical isolations (human or related to zoonotic diseases) were excluded. We found 112 species of environmental yeasts occurring in four regions and 11 departments of Colombia, with 73.4% of yeasts belonging to Ascomycota and 26.6% to Basidiomycota. Thirty-two percent of publications reported yeasts only to genus level, suggesting the potential to find and describe new species in Colombia. The most common primary environments were associated with different parts of plants, soils, and animals. Secondary environments for the reported yeasts were fermented fruits, fermented beverages, soils surrounding sugarcane crops, and soils contaminated with hydrocarbons. The most representative species were *Cryptococcus neoformans* (544 strains), *Cryptococcus vini* (360), *Cryptococcus gattii* (243), *Saccharomyces cerevisiae* (201), and *Meyerozyma guilliermondii* (107). There is an evident lack of sampling efforts in several geographic regions of Colombia, such as the Amazon, Orinoquia, Caribbean, Islands, and Oceans. We emphasise that future studies on the yeasts of Colombia should focus on natural ecosystems in these regions.

### RESUMEN

Colombia es reconocida por su gran biodiversidad. Es el primer país con mayor biodiversidad en el mundo de aves y orquídeas, segundo lugar en anfibios, mariposas y peces de agua dulce, tercer lugar en palmeras y reptiles y cuarto lugar en mamíferos. La diversidad de hongos en Colombia no es bien conocida, donde hay al menos 7.241 especies, siendo un número bajo cuando se compara con otros países. Las levaduras han sido poco exploradas y se sabe poco sobre su esfuerzo de muestreo. Este trabajo tuvo como objetivo revisar todas las publicaciones, repositorios, bases de datos y colecciones públicas que reportaron aislamiento e identificación de levaduras en Colombia, entre 2000 y 2020. Algunas de las combinaciones a buscar en cada base de datos fueron: “yeast AND Colombia”, “yeasts AND diversity AND Colombia OR yeasts AND species AND Colombia” en inglés y español. Se excluyeron todos los aislamientos clínicos (humanos o relacionados con enfermedades zoonóticas). De 24.320 reportes iniciales, fueron seleccionados 97 reportes para este análisis. Fueron encontradas 112 especies de levaduras, ubicadas en cuatro regiones (11 departamentos). El 73.4% de las levaduras pertenecen a Ascomycota y el 26.6% a Basidiomycota. Trienta-y-dos por ciento de las publicaciones reportaron solo géneros de levaduras, sugiriendo el potencial para encontrar y describir nuevas especies de levaduras en Colombia. En total, fueron reportados 68 géneros y 112 especies, donde las regiones geográficas con mayor información fueron el Pacífico y la región Andina. Los ambientes primarios más comunes se asociaron con diferentes partes de plantas, suelo y animales. Los ambientes secundarios que reportaron levaduras fueron frutas fermentadas, bebidas fermentadas, suelos que rodean el cultivo de caña de azúcar y suelos contaminados con hidrocarburos. Las especies más representativas fueron *Cryptococcus neoformans* (544 cepas), *Cryptococcus vini* (360), *Cryptococcus gattii* (243), *Saccharomyces cerevisiae* (201), y *Meyerozyma guilliermondii* (107). Fueron identificados cinco clusters de géneros a partir del análisis de redes, donde es posible identificar grupos de levaduras que podrían coexistir y ser aisladas simultáneamente. Por ejemplo, el cluster 1 incluye a los géneros *Candida*, *Rhodotorula* y *Geotrichum* como los más frecuentes. El cluster 2 incluye a *Pichia* y *Saccharomyces* como nodos principales, mientras que los cluster 3 y 4 fueron representados por *Cryptococcus* y *Aureobasidium*, respectivamente. Este análisis ofrece el potencial para comparar, en una forma rápida y fácil, ecosistemas complejos y diferentes para entender como las asociaciones de levaduras pueden influir las comunidades microbianas. Hay una evidente falta de esfuerzo de muestreo en varias regiones geográficas, tales como Amazonas, Orinoquía, Caribe y océanos y se hace el énfasis en enfocar los muestreos en estas regiones, principalmente en ecosistemas naturales.

## INTRODUCTION

Yeasts are an artificial group of *Fungi* whose asexual growth predominantly results from budding or fission and that do not form their sexual states associated with a fruiting body (Kurtzman *et al.*, 2011). The great diversity of yeasts is reflected in their size, shape, colour, and in the variety of species that are pathogenic to plants and animals, besides harmless but very useful species (González & Valenzuela, 2003). Yeasts have been used, since ancient times, in biotechnology, including the production of bread, beer, and wine (Hernandez *et al.*, 2011; Kurtzman *et al.*, 2011). These microorganisms are often found on leaves and flowers, and insects are an essential vector for spreading yeasts (Becher *et al.*, 2018). They are usually found on the epidermis of fruits and sometimes penetrate the underlying tissues through chemically mediated decomposition (Tournas & Katsoudas, 2005). Soil is an essential reservoir, but yeasts are also often found in freshwater from lakes and rivers (Monapathi *et al.*, 2020). Their presence depends on

temperature, pH, humidity, and the availability of simple sugars (Carlile *et al.*, 2001). Yeasts are the most common cause of altered foods because they contain fermentable sugars and high acidity (Riesute *et al.*, 2020). They are also a fundamental part of the microbiota of dairy and meat products (Deak, 2007).

The knowledge on the fungi of Colombia is also increasing with reports of 7,241 species in 2021, with a high representation of the Ascomycota (4,564 species) and Basidiomycota (2,318 species). However, it remains a long time behind when compared to the knowledge of plants and animals (Gaya *et al.*, 2021; also see Chapter 3). In the past ten years, the establishment of molecular tools for yeast identification (Vasquez-Castillo *et al.*, 2016a), and the definition of the internal transcribed spacer (ITS) (Schoch *et al.*, 2012) and of the large subunit (LSU) of the nuclear rRNA as the primary barcode genes for several groups of fungi (Vu *et al.*, 2016, 2019) have enabled fungal studies to flourish. In Colombia, these advances made it possible

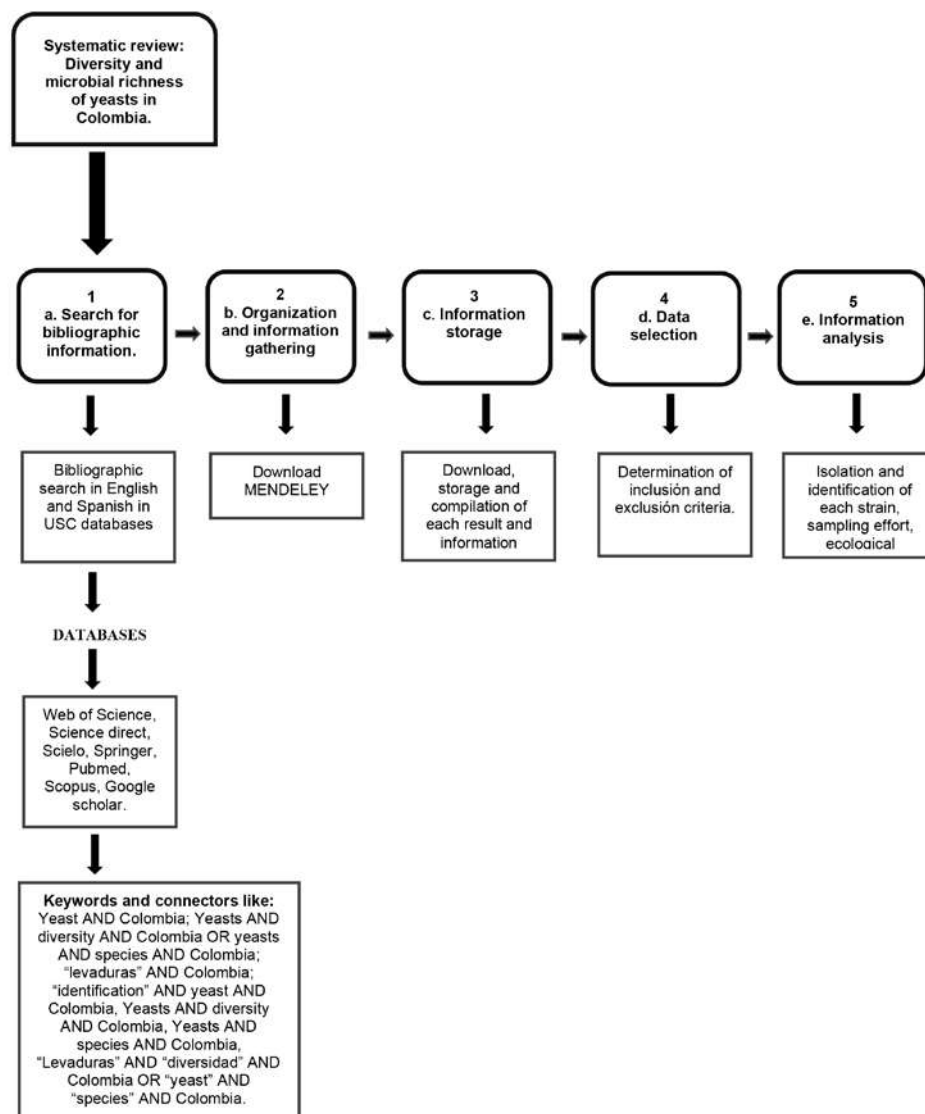


FIGURE 1. Methodological scheme of the five phases of the study.



to report, for example, 89 species of ectomycorrhizal *Fungi* associated with the Amazon Forest using metabarcoding (Vasco-Palacios *et al.*, 2018), 116 fungal species associated with Boyacá and Santander forests (Vargas & Restrepo, 2020), and 33 entomopathogenic fungal species in the Amazon forests, using the above barcodes (Sanjuan *et al.*, 2015). However, the knowledge about yeasts is fragmented for several geographic regions and substrate types in Colombia, making it challenging to understand their richness, ecological roles, or biotechnological potential in this country. This chapter aimed to summarise the current knowledge about the diversity of yeasts in Colombia and to identify taxa of interest in different sectors, such as industry, health, and environment.

## MATERIALS AND METHODS

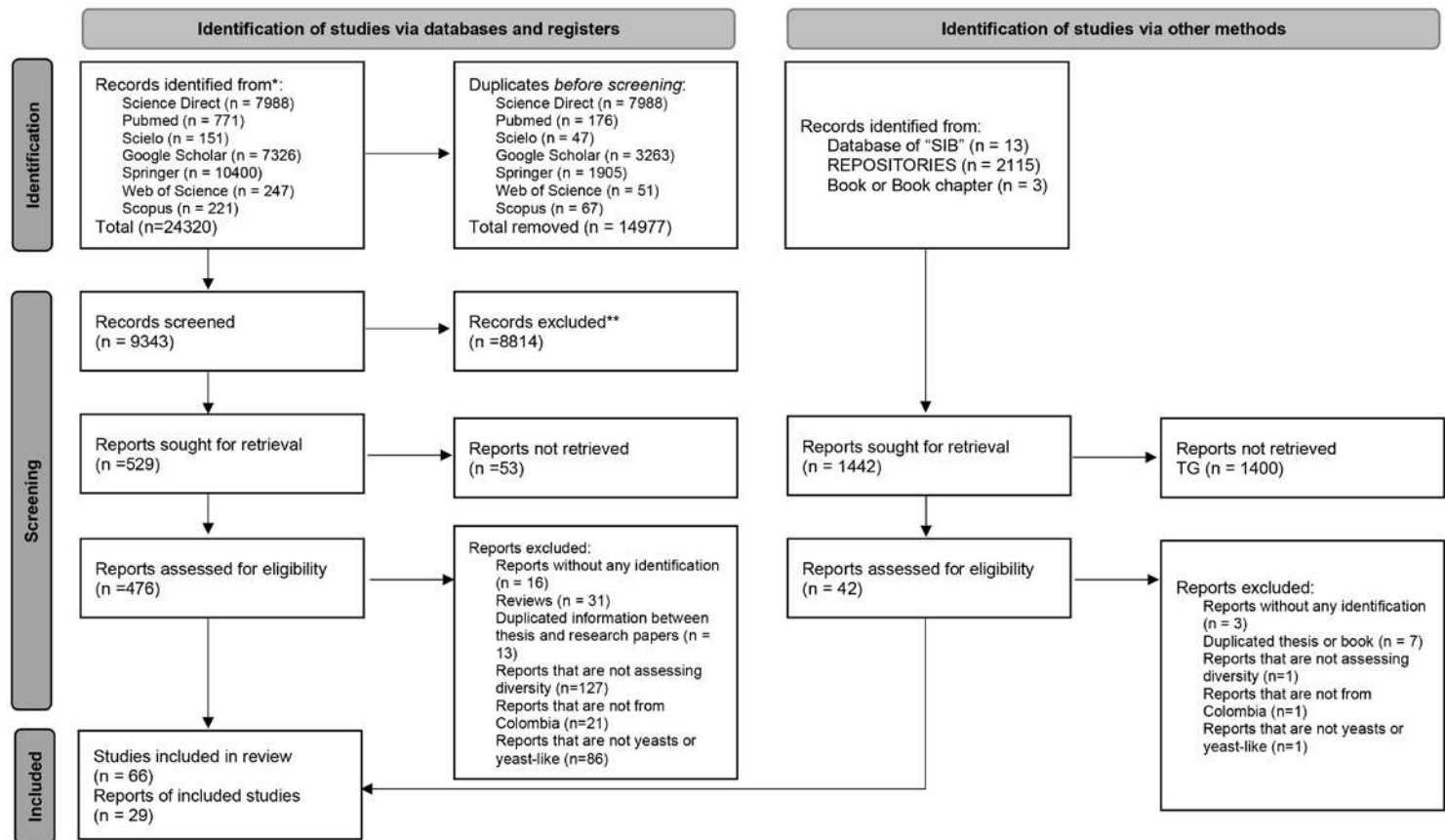
We conducted literature searches followed by data filtering and several analyses using a predefined workflow (Figure 1). Search parameters and data filtering followed PRISMA recommendations (Figure 2; Page *et al.*, 2021).

### Literature searches

Literature searches were carried out in English and Spanish, comprising studies from January 2000 to December 2020, in the following databases: Google Scholar, Pubmed, Scielo, Science Direct, Scopus, Springer, and Web of Science. In addition, institutional repositories from universities and editorials were also consulted. Specific keywords, connectors, and possible combinations were established as shown in Figure 1. Finally, we also included the official database of biological collections from Colombia (SiB Colombia, 2021).

### Data selection

We used Mendeley v1.19.8 (Elsevier, Amsterdam, The Netherlands) to organise all the literature data, including author information, journal or publisher, year, and keywords. For the analysis of information, we screened all downloaded databases by title, keywords, and abstract. We applied the following inclusion and exclusion criteria to select final reports:



\*Consider, if feasible to do so, reporting the number of records identified from each database or register searched (rather than the total number across all databases/registers).

\*\*If automation tools were used, indicate how many records were excluded by a human and how many were excluded by automation tools.

From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ* 2021;372:n71. doi: 10.1136/bmj.n71. For more information, visit: <http://www.prisma-statement.org/>

FIGURE 2. PRISMA 2020 flow diagram for the systematic reviews performed in this analysis.

**Inclusion criteria**

- a. Original papers and documents.
- b. Papers and documents in English and Spanish.
- c. Papers and documents that have isolated yeasts from Colombia and identified it, at least to the genus level.

**Exclusion criteria**

- a. Papers without any yeast identification or only metabarcoding results.
- b. Review papers and documents.
- c. Duplicate papers and documents in different databases or repositories.
- d. Theses already published as papers or books.
- e. Papers with clinical isolates.
- f. Papers that do not involve yeast diversity assessments.

**Data analyses**

Selected papers were organised, standardised using Mendeley, and exported to the RIS format (Research Information System) in a plaintext file. This file was imported into VOSviewer v1.6.17 (Van Eck & Waltman, 2010). Two types of analyses were performed: 1. a co-occurrence network, where the field “keywords” was updated with the genera found in each paper; and 2. a co-author network. We showed all keywords or authors in the generated map. The nodes in the reconstructed network represent the genera, whereas the edges (i.e., connections) correspond to a strong and significant correlation between nodes. The clustering coefficient was defined as how nodes are embedded in their neighbourhood and, thus, the degree to which they tend to cluster together. Several characteristics, such as region, category, and specific substrate where yeasts were isolated, were extracted from each report for analysis. We also updated the taxonomy and nomenclature of all records using Mycobank (Robert *et al.*, 2013) or Index Fungorum (<http://www.indexfungorum.org/>) and computed the frequency of inclusion for each genus or species (Table S1). For example, *Cryptococcus* was updated and separated into the segregated *Vanrija*, *Papiliotrema*, *Cutaneotrichosporon*, *Solicoccozyma*, among others. In addition, we organised the richness and abundance of species in a spreadsheet according to paper, and we classified reports according to the substrate wherever available. Finally, we included additional fields, such as region and year of publication (Table S1).

**RESULTS AND DISCUSSION****Literature searches**

24,320 studies were identified from searches in the abovementioned databases using different combinations of English and Spanish keywords. After the removal of 14,977 duplicates, 8,814 further studies did not pass our initial checks. The remaining 476 studies were assessed for eligibility by scanning their abstracts and results sections. After this step, 66 studies were selected for full-text reviews,

whereas 410 studies were excluded for one or several of the following reasons: 1. reports without any yeast identification (n=16); 2. literature reviews (n=31); 3. duplicated information between original articles and theses (n=13); 4. studies evaluating other aspects unrelated to diversity, such as clinical isolation, genetic engineering, or bioprocessing improvement, among others (n=127); 5. studies that were not from Colombia (n=21); and 6. fungal reports that did not include any yeasts or yeast-like organisms (n=86). We added studies that were not found through the literature search but that were available from other sources to the 66 selected studies, such as documents from university repositories and reports from the Colombian collection database SIB (Sistema de Información Biológica). Those were processed as described above. Thirty-one reports were also included, corresponding to three books or book chapters, 17 theses, and nine SIB reports. Literature searches were classified as research papers, book chapters, books, theses, conference proceedings, book chapters, and database collections. Research papers and theses were the most common type of publications found in these years. We highlighted that several reports corresponded to grey literature and were not submitted to peer-review. Therefore, 97 records of environmental yeasts were selected for the period between 2000 and 2020 (Figure 2).

Pioneer reports about yeasts in Colombia were identified, but not included in the analyses. The first reports of environmental yeast isolates in Colombia were based on the serotyping of clinical and environmental isolates of *Cryptococcus neoformans* (Ordoñez & Castañeda, 1994). These isolates were recovered between 1972 and 1992. In total, 29 strains of *C. neoformans* were isolated from environmental samples. Duarte *et al.* (1994) identified *Cryptococcus* yeasts associated with species of *Eucalyptus* in a first evaluation of the ecology of *C. neoformans* var. *gattii* in Colombia. Caicedo *et al.* (1996) reported *C. neoformans* in pigeon droppings from the urban perimeter of Santiago de Cali. In this study, 59 strains of this species were isolated. Another study characterised microorganisms with pectinolytic activity from *Mangifera indica* (mango), such as *Pichia kudriavzevii* (formerly *Candida krusei*), *Candida sorboxylosa*, *Aureobasidium pullulans*, and *Candida insectorum* (Feoli *et al.*, 1997).

**Diversity of yeasts of Colombia**

We found 173 environmental yeasts belonging to 68 genera. From these, 112 yeasts were identified at the species level. 73.4% were Ascomycota and 26.6% Basidiomycota. 288 recorded yeasts, out of 3,557, were not identified by any specific method. However, this number is higher since many reports were excluded from this study because they identified no yeast strains. The same species isolated from a different substrate were assumed to be different samples.

According to Gaya *et al.* (2021), the recorded richness of fungi in Colombia differs in the five different geographical regions recognised in the country. This fact is also true for yeasts but with different geographic patterns evidenced.



The highest yeast species richness was recorded for the Pacific region (103 species), followed by the Andean (77 spp.), Caribbean (eight spp.), and Orinoquia (two spp.) regions. There are no reports of culturable yeasts for the Amazon region to date (Figure 3). However, Vasco-Palacios *et al.* (2018) reported 21 operational taxonomic units (OTUs) belonging to the genus *Cryptococcus* from metabarcoding analyses in three different Amazon forests. The seawater and insular territory from the Caribbean and Pacific oceans also lack information on yeasts. There is no report from islands such as San Andrés, Providencia, Santa Catalina, or Gorgona. In this sense, mainly the Andean and Pacific regions, where the main research groups working with yeasts (see section on Yeast Research Groups of Colombia) are located, are represented in the sampling efforts for yeasts in Colombia. We suggest increasing efforts in sampling and isolating yeasts from other regions of Colombia, such as the Amazon, Orinoquia, Caribbean, Islands, and Oceans.

Regarding the substrate of isolation, 3,559 strains were categorised into 12 substrates (Table 1). Plant substrates exhibited higher sampling efforts, with 36 samples reported

and 1,643 yeast strains found (Table 1). In general, different parts of plants were assessed, including fruit pulp (Ramirez-Castrillon *et al.*, 2019), fruit skin (Vanegas Cordoba *et al.*, 2004), phyllosphere (Medina *et al.*, 2009; Zapata Narvaez *et al.*, 2016), seed (Parsa *et al.*, 2016), and cortex (Contreras Martinez *et al.*, 2011). A second group included non-fermented or fermented beverages and foods with 26 samples. For this group, we found 670 yeast strains. The non-fermented beverages studied included sugarcane juice and fruit juices (i.e., pineapple, blackberry, grape, guanabana, and orange). On the other hand, fermented beverages included “champús”, “chicha”, kumis, kefir (Alzate *et al.*, 2016), and fermented juices. The base from each fermented beverage is variable. For example, “Champús” is generally made with pineapple fruit pulp, “lulo” fruit pulp and maize seed, while “kumis” uses fermented milk (Chaves-Lopes *et al.*, 2014). Some foods include milk and derivatives (Lopez *et al.*, 2010), beebread, and beehoney (Portillo Carrascal, 2016). We found nine samples from soil substrates associated with parks, crops, composting, or natural ecosystems, such as forests (Miles *et al.*, 2012).



FIGURE 3. Yeast strains, species, genera, and number of reports for different geographic regions of Colombia.

In this category, 162 yeast strains were reported. Yeasts isolated from animals (nine samples) were reported mainly from faeces (birds, cows, or pigs) or associated with pigs or fish (Londoño-Franco *et al.*, 2014), where 239 strains were found. From the air, reports assessed fungal communities associated with gravimetric deposition of cells, including environments such as libraries or buildings (Tolosa Moreno *et al.*, 2012, Hernandez *et al.*, 2012; Tolosa & Lizarazo 2013; Mendez-Puentes *et al.*, 2015). Two-hundred-and-forty yeast strains were reported from water, both fresh and wastewater. Regarding freshwater samples, rivers, lakes and drinking water were assessed, whereas wastewater included organic sludges, wastewater treatment plants, and leachate waters, among others. The fermentation industry category included all modified environments related to ethanol distilleries. Finally, contaminated environments included samples containing petroleum derivatives (Delgadillo Ordoñez *et al.*, 2017; Ordoñez-Burbano *et al.*, 2018).

**TABLE 1.** Yeast strains by substrate type. Some reports were included in more than one category.

Category	Number of reports	Yeast strains
Plant	36	1,643
Fermented beverages	6	367
Animals	9	239
Non-fermented beverages	11	162
Soil	9	162
Freshwater	6	127
Food	9	121
Wastewater	7	113
Fermentation industries	5	79
Air	7	19
Contaminated environments (petroleum)	2	7
Without information	9 (SIB Collection)	520
<b>Total</b>	<b>106</b>	<b>3,557</b>

The yeast species with the highest number of strains reported in the literature were *Cryptococcus neoformans* (544 strains), followed by *Cryptococcus vini* (formerly *Kloeckera apiculata*), *C. gattii* (243 strains), and *Saccharomyces cerevisiae* (201 strains). Some yeasts were mentioned in a larger number of studies, such as *S. cerevisiae* (35 studies), followed by *Geotrichum* sp. (23), *Candida* sp. (21), and *C. neoformans* (21). By contrast, 59 yeast species were only isolated once or twice. These results correlate with the

importance of each species. For example, *C. neoformans* and *C. gattii* are clinically significant, with several reports studying the spreading of strains in different environments associated with possible hotspots of contamination for humans, such as plants (Granados *et al.*, 2005; Quintero *et al.*, 2005), soil (Firacative *et al.*, 2011), animal faeces (Quintero *et al.*, 2005; Virviescas *et al.*, 2018), food (Lopez *et al.*, 2010; Daza-Merchan 2011; Lopez Molinello, 2011), or wastewater (Osorio-Vanegas, 2019).

In our analyses, yeast species were updated to current names according to Mycobank (Robert *et al.*, 2013). Several yeast names were merged after the initiative 1 Fungus = 1 Name (Taylor, 2011), and other yeasts had taxonomic changes, showing different nomenclatures depending on the report. Therefore, we combined these cases as synonyms. For example, *Wickerhamomyces anomalus* is the accepted name for several isolates reported in Colombia (Lopez-Arboleda *et al.*, 2012; Cuervo-Mulet *et al.*, 2015), although this species was also reported as *Pichia anomala* (Delgadillo-Ordoñez *et al.*, 2017) or *Candida pelliculosa* (Vanegas *et al.*, 2004). A similar case occurred with *Pichia kudriavzevii*, which was reported with the current name (Delgado-Ospina *et al.*, 2020), but also as *Candida krusei* (Herrera-Lopez *et al.*, 2017; Castillo *et al.*, 2018; Osorio-Vanegas 2019) or *Issatchenkia orientalis* (Osorio-Cadavid *et al.*, 2008). Finally, 30 morphotypes of yeasts were identified only at the generic level. This number might reflect the inability to identify species with phenotypical or biochemical tests, the difficulty in separating cryptic species, the inability of chosen molecular marker to separate species within the same genus, or even the possibility that the yeast under discussion is a species that is to science, such as the case for *Candida* (Osorio-Vanegas, 2019) or *Wickerhamomyces* (Ramirez-Castrillon *et al.*, 2019).

#### Yeast genera network

The growth and metabolic activities of yeasts are moderated by a network of strain and species interactions, including interactions with bacteria and other fungi (Fleet, 2007). With the network, we can identify the most frequent and connected yeasts and the association between them. In this sense, we analysed the co-occurrence of different genera for all reports. Our results identified five yeast genera clusters, where cluster 1 included *Candida* spp., *Rhodotorula* spp., and *Geotrichum* spp. as the most frequent yeasts. Other clusters were represented by the most frequent genera. For example, cluster 2 included *Pichia* spp. and *Saccharomyces* spp., cluster 3 included *Cryptococcus* spp., and cluster 4 was represented by *Aureobasidium* spp. (Figure 4a). The most frequent and connected genus was *Candida*, with 42 reports and 61 genera connections. The most frequent and connected Basidiomycota yeast was *Rhodotorula* (36 reports; 58 connections). Other yeast genera were also represented in the networks, such as *Pichia* (26 reports; 53 connections), *Meyerozyma* (16 reports; 45 connections), *Saccharomyces* (23 reports; 40 connections), and *Hanseniaspora* (11 reports; connections). We highlighted that *Candida* was overrepresented in this analysis with 28 species found. On the other hand, we found only five species

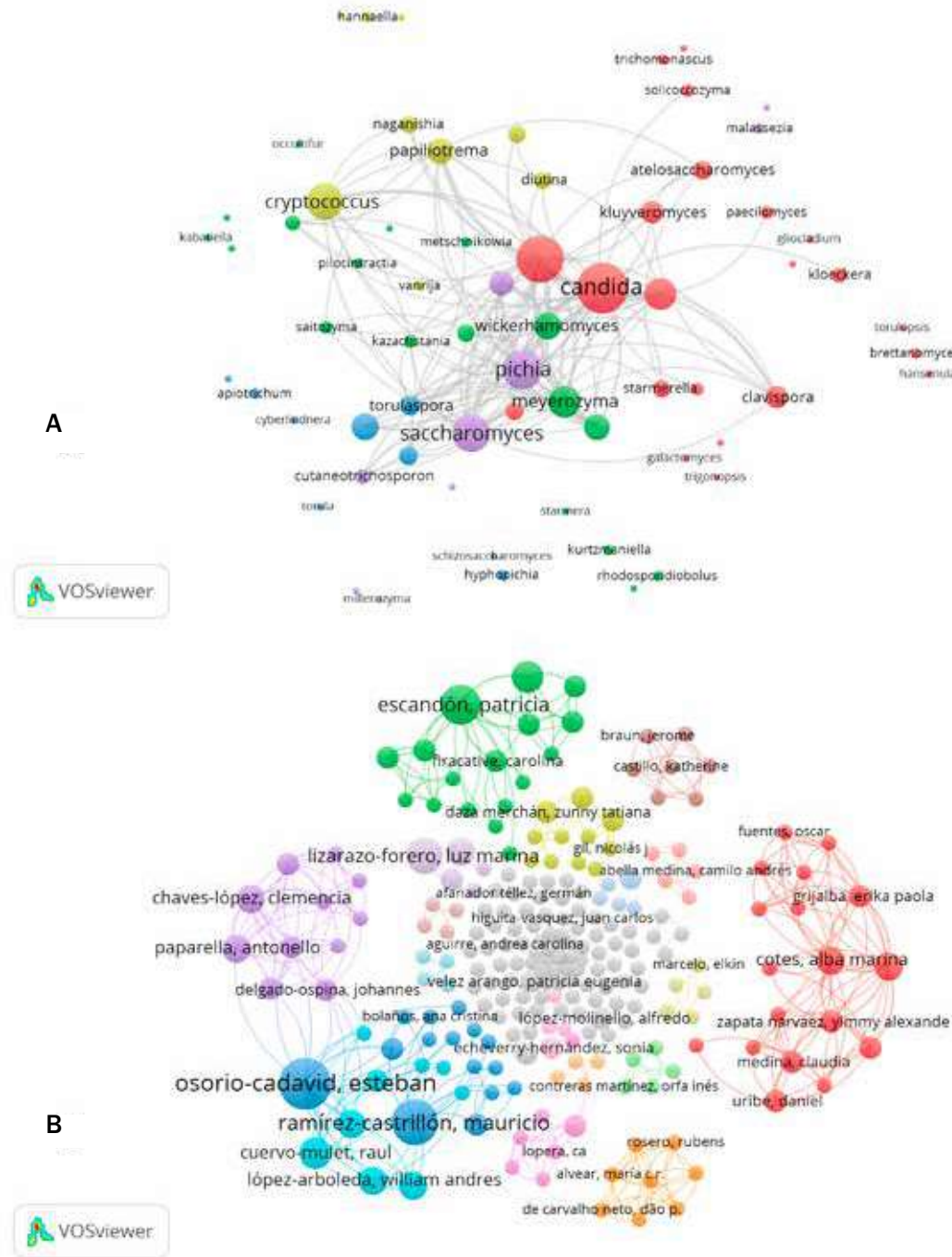


of *Cryptococcus* from 1,297 strains. This network suggests that some coexisting yeasts should be found in the same substrate. The probability of finding yeasts belonging to *Candida* or *Rhodotorula* is high due to their association with other genera (up to 89.7%) and ubiquitous character (Urbina & Aime, 2018). In the same sense, *Pichia* is highly associated with *Saccharomyces* strains, and this result can be related to the artificial substrate of fermentation industries or fruit pulps (Abranches *et al.*, 2001). This analyses offers the potential to compare, quickly and most easily, different and complex

ecosystems in order to understand how the yeast associations may influence the microbial communities. Several reports already support these findings (Barberán *et al.*, 2012; Ma *et al.*, 2021).

#### Useful yeasts

Yeasts represent a significant potential for modern and traditional biotechnology. Since ancient times they have been recognised as protagonists in the production of food, such as in the production of bread, or as beneficial participants in the



**FIGURE 4.** Yeast networks for Colombia. **A** Genera network. **B** Author network. Each colour represents different clusters of yeast genera. The size of the node represents the occurrence of the genus or author by reports.

production of different cheeses (Lopez *et al.*, 2010; Souza *et al.* 2021), probably contributing to the maturation, texture, and flavour of the cheese. They are also protagonists in the production of fermented beverages such as wine (Hernandez *et al.*, 2011), beer (Walteros-Pinzón *et al.*, 2020; Amaya-Jimenez & Diaz-Pascal, 2019), and “guarapo” (Rodríguez Gonzales, 2015), contributing characteristics such as flavour. *Saccharomyces cerevisiae* is the most studied yeast and is very important to the fermentation industry, mainly in bioethanol production (Tesfaw *et al.*, 2014). Several reports isolated wild strains with better performance than commercial strains used in bioethanol, brewing, or bread production. Different strategies were employed to isolate *S. cerevisiae*: first, spontaneous juice fermentation (Daza-Merchan 2011; Argote *et al.*, 2015; Cuervo-Mulet *et al.*, 2015) to produce, fermented beverages, such as champús (Osorio-Cadavid *et al.*, 2008) and chicha (Lopez-Arboleda *et al.*, 2010) (both made with corn) and kumis (whose base is milk) (Chaves-Lopez *et al.*, 2012); and second, use of resources directly associated to bioethanol distillery, such as sugarcane juice, molasses and tanks, among others (Vasquez-Castillo *et al.*, 2016b).

Yeasts are used as sources for obtaining B-complex vitamins, pigments, proteins from unicellular organisms, extracts and biomass, among other products (Vasquez-Castillo *et al.*, 2016a). Some yeasts present biological and antifungal control alternatives that facilitate their use as controllers of spoilage of food (Buitrago-Estrada & Escobar-Romero, 2009), flowers (Zapata-Narvaez *et al.*, 2016), plants, and crops (Cotes *et al.*, 2004). Certain reported yeasts can produce products that have potential industrial applications, such as lipases obtained from *Candida rugosa* (Domínguez de María *et al.*, 2006). These lipases have been widely used in fermentation technologies, biocatalytic assays, detergents, and solvents. Yeasts have been reported as the feedstock of lipids for biodiesel production (Arcos-Velasco 2020). Likewise, there have been some reports of high biomass production of yeasts with few nutrients, and their ease of cultivation reported by Olaya & Ossa (2020) represents an enzymatic capacity that will allow the development of bioremediation methods. To achieve these possibilities, several reports isolated yeasts from natural ecosystems or modified substrates. For example, Romero *et al.* (2017) explored non-fermented juices, but fruit pulps were also sampled (Argote *et al.*, 2015). Natural ecosystems included solid-state fermentation of cocoa (Delgado-Ospina *et al.*, 2020) or coffee (Quintero *et al.*, 2012), but also sampling from soils (Argote *et al.*, 2015) or air (Tolosa-Moreno & Lizarazo-Forero, 2011; Mendez-Puentes *et al.*, 2015). Finally, aquatic systems were sampled to assess lipid-accumulation or pigment production abilities, such as wastewater, lakes or drinking water (Silva-Bedoya *et al.*, 2014; Osorio-Vanegas, 2019; Villota *et al.* 2020).

#### **Research groups working with yeasts in Colombia**

Eight Colombian research groups that work with yeasts were identified from the published reports (Figure 4b). In Cali, the group is led by Dr Esteban Osorio-Cadavid (Universidad

del Valle, Cali), who works with Dr Raul Cuervo-Mulet (Universidad de San Buenaventura, Cali) and Dr Mauricio Ramirez-Castrillon (Universidad Icesi, Cali) (Osorio-Cadavid *et al.*, 2008; Lopez-Arboleda *et al.*, 2010; Gaviria & Osorio 2012; Mambuscay *et al.*, 2013; Silva-Bedoya *et al.*, 2014; Argote *et al.*, 2015; Cuervo-Mulet *et al.*, 2015; Ramirez-Castrillon *et al.*, 2019). In addition, Dr Raul Cuervo-Mulet works in collaboration with Dr Clemencia Chavez-Lopez (University of Teramo). This large group focuses on isolating yeasts from environmental samples for biotechnological purposes, focusing on fermentative yeasts for bioethanol, novelty enzymes, organoleptic characteristics, or diversity. In AGROSAVIA, the group studies yeast for biological pest control and is led by Dr Alba Marina Cotes, who works with Dr Jimmy Zapata and Dr Fernando Rodriguez. They also have a yeast collection in this research Institute (Cotes *et al.*, 2004, 2011; Zapata-Narvaez *et al.*, 2016). In Bogotá, a research line of pathogenic yeasts, including *Cryptococcus*, is led by Dr Patricia Escandón (Instituto Nacional de Salud, Bogotá), who works alongside Dr Elizabeth Castañeda, Dr Carolina Firacative, and others looking for yeasts in environmental samples with serotypes that could affect humans (Escandon *et al.*, 2005, 2010; Firacative *et al.*, 2011; Velez & Escandon 2017; Anaconda *et al.*, 2018; Virviescas *et al.*, 2018). Several studies are not connected with the authors mentioned above, suggesting that these authors possibly did not work directly in a research line related towards yeasts or fungi but occasionally published information about yeast isolations. For example, Dr Luz Marina Lizarazo (Universidad Pedagógica y Tecnológica de Colombia, Tunja), who works with environmental biology, focusing on aerobiology, has frequently isolated yeasts. Other authors, such as Trujillo and Echeverry-Hernandez (2015), Oviedo Zumaque *et al.* (2009) or Lara Mantilla & Burgos Portacio (2012), also were found in this analysis but without connections with research groups focusing on yeasts.

#### **CONCLUSIONS**

From the 97 selected reports for our analyses, we found 173 yeasts belonging to 68 genera, with 73.4% of the yeasts belonging to Ascomycota. The geographic regions with more samples were the Andean and Pacific regions, supported by research groups working with yeasts. We suggest isolating and characterising the yeast diversity in other regions of Colombia, such as the Amazon, Orinoquia, Caribbean, Islands, and Oceans. *Cryptococcus*, *Candida*, and *Saccharomyces* were the most reported genera for Colombia, having the most connections with other genera. Specifically, the most frequent species were *Cryptococcus neoformans*, *C. vini*, *C. gattii*, *Saccharomyces cerevisiae*, *Meyerozyma guilliermondii*, and *Pichia kudriavzevii*. We identified five clusters of co-occurrences of yeasts, where the probability to co-isolate yeasts such as *Saccharomyces* spp. and *Pichia* spp. is high, and should be related to the purpose of the isolation. Finally, the yeast species reported in this chapter showed many possibilities for biotechnological exploration, ranging from fermentation, to food, and biofuel industries.

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*Epicoccum* sp.  
[Marcela Guevara-Suarez]



# Chapter 8

## Micromycetes of Colombia: Focusing on the Hidden Diversity

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### ABSTRACT

Colombia is a Neotropical country with a highly diverse fauna, flora, and microbial biota. However, mycology is still a developing field, and currently, Colombia has reported only 5% of the fungal species known worldwide. The goal of this chapter is to revisit the current state of the knowledge on Colombian microfungi, according to species registered in the ColFungi database, excluding lichens. For this purpose, we categorised each taxon as macro- or micromycete according to the presence or absence of macroscopically visible structures. In our definition, a total of 2,498 (57%) out of the 4,406 non-lichenized species included in the database correspond to microfungi, most of them being members of the subkingdom *Dikarya* (92%). We found that early diverging fungal lineages are underrepresented and need to be prioritised in future diversity surveys. Although next-generation sequencing tools are being used worldwide to explore biodiversity, few studies to date have employed this approach to assess fungal diversity in Colombia. In general, the relevance of performing an assertive polyphasic identification to species level and the necessity to enrich our national culture collections are discussed.

### RESUMEN

Colombia es considerado un país megadiverso en fauna, flora y microorganismos. En cuanto a los hongos, nuestro país ha reportado el 5% de las especies conocidas en el mundo. El objetivo de este capítulo fue estudiar el estado actual de la diversidad de microhongos en Colombia y resaltar los grupos taxonómicos que deben ser priorizados en futuros estudios de diversidad de hongos en el país. Para este fin, se utilizaron las especies registradas en la base de datos de ColFungi y se realizó una categorización adicional de las especies, asignándole a cada una la clasificación de macro- o micromicete, de acuerdo con la presencia o ausencia de estructuras macroscópicamente visibles. Los líquenes fueron excluidos. Del total de 4,406 especies pertenecientes al reino *Fungi* registradas en la base de datos de ColFungi, excluyendo los que son liquenizados, el 57% (2,498) corresponden a registros de microhongos, siendo la mayoría miembros del subreino *Dikarya* (92%). También encontramos que linajes basales de hongos, como por ejemplo los zigomicetes (filos *Mucoromycota* y *Zoopagomycota*), están subrepresentados y deben ser priorizados en futuros estudios de diversidad. En los últimos años, las herramientas de secuenciación de nueva generación han sido usadas para explorar la biodiversidad a nivel mundial. Aunque Colombia ha realizado esfuerzos para evaluar la diversidad fúngica en el país usando estas aproximaciones, aún siguen siendo pocos los estudios que emplean estas estrategias para estimar la diversidad fúngica. En este capítulo resaltamos la importancia de realizar estudios polifásicos dirigidos hasta el nivel de especie, con el fin de tener identificaciones rigurosas y una estimación más precisa de los grupos más representativos de comunidades fúngicas. Además, recalcamos la necesidad de enriquecer las colecciones nacionales de microhongos, para incentivar así las investigaciones en torno al aprovechamiento de la diversidad y bioeconomía.

### INTRODUCTION

*Fungi* are often artificially divided into two informal groups, macro- and micromycetes. This intuitive, human-based grouping is based on our possibility to see – or not – these organisms without the help of any optical instrument. Vegetatively, all members of the kingdom *Fungi*, alongside the oomycetes and myxomycetes, are microscopic, but some can develop macroscopic structures in particular stages of their lifecycle. These structures are mainly related to reproduction (basidiocarps, ascocarps, and stromata), and fungi that produce such structures at sizes that are visible to the naked

eye have traditionally been called macromycetes (Ainsworth, 2008). Macromycetes are only found in the *Basidiomycota* and *Ascomycota*, while micromycetes are found across the entire kingdom *Fungi* (Ainsworth, 2008). Unfortunately, the distinction of macro- versus microfungi is not straightforward, particularly in the *Ascomycota*, and varies according to different workers (see also Chapter 5). Indeed, most fungi produce structures that are visible to the naked eye, and their detection depends on closeness and experience, rather than actual size.

In Colombia, microfungi diversity is generally less surveyed than macrofungal diversity. Nonetheless, in recent years,

special attention has been paid to the study of microfungi. Several efforts have been made to collect specimens from different natural regions, elucidate their taxonomy, understand their ecology, and exploit their biotechnological value (Landínez-Torres *et al.*, 2020). However, there is a need to continue studying microbial life, for example to better understand the functioning of the soil and its ecosystem services (Álvarez-Yela *et al.*, 2017). Thus, the main goal of this chapter was to revisit the current state of knowledge of the microfungi diversity of Colombia, according to the species registered in the ColFungi database, and to highlight the taxonomic groups that need to be prioritised in future fungal diversity studies because they have been overlooked, and also due to their potential biotechnological applications.

To this end, we categorised each species, excluding lichenised fungi, as either macro- or micromycete, depending on the presence or absence of macroscopically visible structures reported for each species. In addition, we cross-checked Mycobank (<https://www.mycobank.org/>) and Index Fungorum (<http://www.indexfungorum.org/Names/Names.asp>) for the current nomenclature and taxonomy placement of each species. We determined the proportion (number of species / taxonomic group) of micromycetes within the current accepted phyla and subphyla of *Fungi* (Li *et al.*, 2021; James *et al.*, 2020). We also performed a search of Google Scholar, without time restriction, to look for studies related to Colombian fungal diversity with the keywords "Micromycetes diversity" AND "Colombia"; "Microfungal diversity" AND "Colombia"; "Microfungi diversity" AND "Colombia", excluding lichens, and the same terms for Macromycetes. We also searched for metagenomics and metabarcoding using the modifiers "Metagenomics" AND "Microfungi" AND "Colombia".

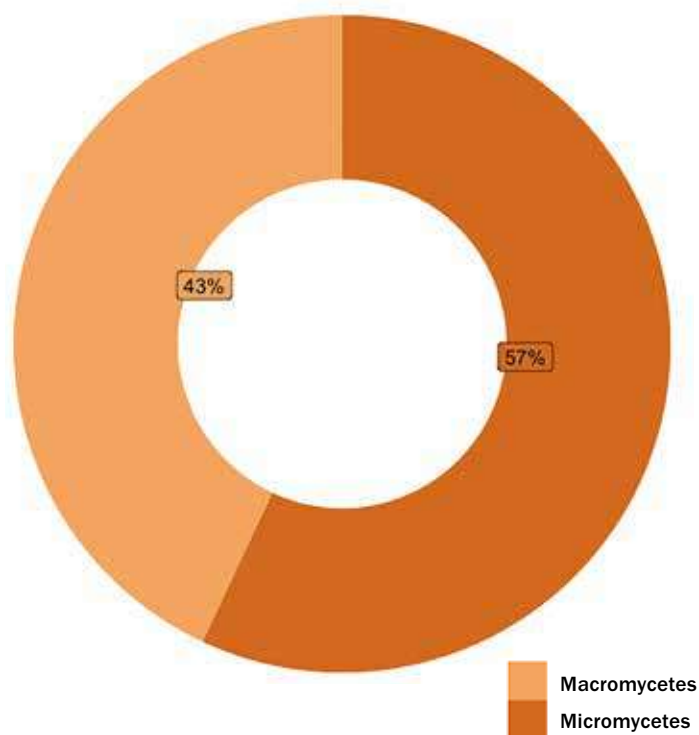
### HOW MANY MICROMYCETES OCCUR IN COLOMBIA?

According to the ColFungi database, of the 4,406 species reported (except for lichenised fungi), 2,498 corresponded to microfungi in our definition (57%) (Figure 1). The observed differences are, however, not as substantial as we expected, possibly due to the fact that comparatively few studies have focused on conducting microfungi inventories (22 in total), compared to 32 surveys assessing the diversity of macromycetes. This scenario is probably not the result of a lack of interest but may reflect the notion that the study of micromycetes is more challenging due to their smallness and often ecologically cryptic nature. To carry out morphological determination of microfungi, it is necessary to perform cultures and to induce the production of reproductive structures, either sexual or asexual (Cepero *et al.*, 2012). These structures represent essential taxonomic characters that are required to identify species adequately. This determination is often demanding, and the assessment of fungal diversity may therefore be much more time-consuming than it is for macrofungi (Wardle & Lindahl, 2014).

In the past few years, the use of molecular phylogenomics and metagenomics have profoundly reshaped research and knowledge in the field, becoming essential tools for the ability to survey fungal diversity and to discover new species

more effectively and to assess even complex habitats with a rich microbiota (Lücking *et al.*, 2020). However, these technically advanced approaches are currently only available for a limited number of laboratories in Colombia. Therefore, hitherto published studies on micromycetes focusing on traditional identification methods often have taxa identified only to the genus or morphospecies level, leading to an underestimation of the diversity of this fungal group in Colombia.

Fungal identifications remain challenging due to constant taxonomic changes. Where possible, species identifications should be based on a polyphasic approach, including morphological, anatomical, chemical, physiological, and molecular data (Lücking *et al.*, 2020). In 2003, DNA barcoding was proposed to standardise the identification of all organisms to the species level (Hebert *et al.*, 2003). The Internal Transcribed Spacer (ITS) region was proposed as a DNA barcode for the kingdom *Fungi* (Schoch *et al.*, 2012). Since then, ITS barcoding has become an essential tool for species identification in fungi. Nonetheless, in some genera, the ITS region is not variable enough for species-level identification, making it necessary to use additional markers, such as  $\beta$ -tubulin (TUB), the DNA-directed RNA polymerase II largest (RPB1) and second-largest (RPB2) subunits, and the elongation factor 1 $\alpha$  (EF1) for accurate identification (Lücking *et al.*, 2020). The method to achieve precise identification of



**FIGURE 1.** Assessment of fungal species reported in the ColFungi database in terms of their grouping into either macro- or micromycetes. Only members of the kingdom *Fungi* are considered. Lichenised fungi were excluded.



microfungal species there depends on the taxonomic group, and researchers are responsible for choosing the best polyphasic approach in each case.

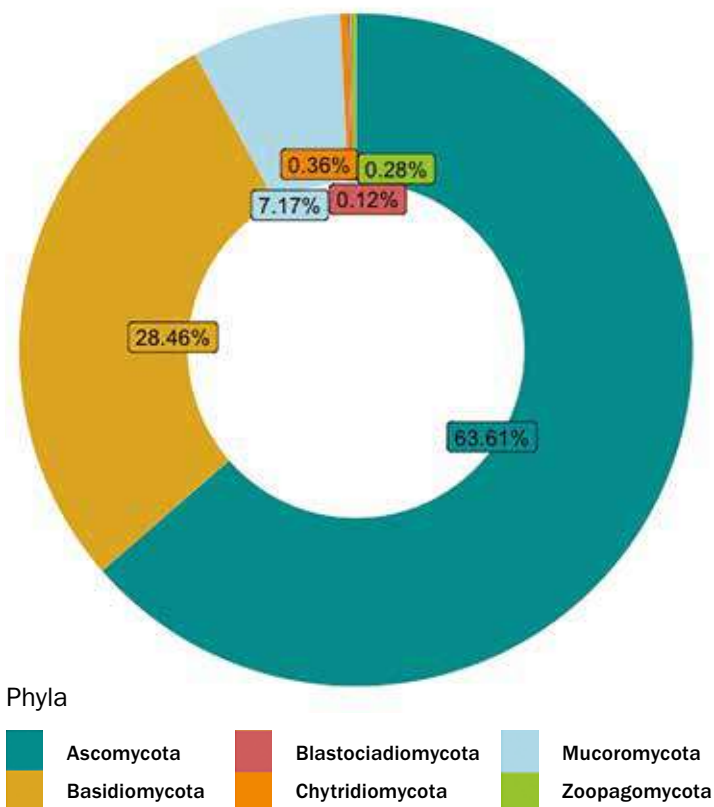
In Colombia, most molecular studies on microfungi are based on the ITS region. However, the diversity of fungal species may be underestimated because many cryptic species often exhibit no variation across the ITS region. For example, *Talaromyces francoae*, a new species isolated from Colombian Amazon rainforests, has an ITS sequence identical to that of *T. apiculatus*. Still, *BenA* and *CaM* (additional molecular markers for this genus) showed that *T. francoae* was a novel species clearly distinct within members of the *Talaromyces* (Yilmaz *et al.*, 2016). Overall, studies have shown that between 6% and 25% of yeast and filamentous fungal species (including human/animal pathogenic fungi) may be indistinguishable by means of the ITS region (Lücking *et al.*, 2020).

In recent years, high-throughput DNA sequencing has been useful for evolutionary and phylogenetic robust analyses. However, genomic data represent a challenge due to heterogeneity, genome quality and annotation, and the difficulty of retrieving true orthologous genes (Li *et al.*, 2021). In Colombia, few studies are using these approaches, with one of the most exciting studies being recently published by Landínez-Torres *et al.* (2019). These authors studied soil fungal biodiversity in upper Andean Colombian agroecosystems in the department of Boyacá, detecting more than 150 species of fungi that belong to the *Ascomycota*—the dominant phylum—followed by *Basidiomycota* and zygomycetes fungi. Several species were reported as first records for Colombia. Although this study was developed using a metabarcoding approach, it was able to relate the composition of the fungal community to different uses of soil in the studied agroecosystems.

Metagenomics of Colombian micromycetes is still a relatively unexplored field of study. The goal of the few studies carried out to date has been to perform metabolic reconstructions rather than to survey fungal community composition. For example, Álvarez-Yela *et al.* (2017) conducted a detailed metagenomic analysis to establish the effect of anthropogenic intervention on microbial communities and on the biogeochemical cycle dynamics in the soil in two páramo ecosystems. However, the authors only reported the effect of the anthropogenic intervention on the abundance of the total fungal community and did not differentiate the fungal taxa associated with each ecosystem.

### DIVERSITY OF MICROMYCETES IN COLFUNGI

Most microfungal species recorded in the ColFungi portal belong to the subkingdom *Dikarya* (92%). According to the Catalogue of Life (<https://www.catalogueoflife.org/data/taxon/SM>), 92,725 species are currently accepted within the *Ascomycota* and 50,385 within the *Basidiomycota*, making these phyla the two largest in the fungal kingdom. Within ColFungi, 63.6% of the reported micromycetes correspond to *Ascomycota*, while 28.5% represent *Basidiomycota*, a proportion rather similar to the global richness of the two



**FIGURE 2.** Distribution of micromycetes species registered in the ColFungi database according to phyla, based on the most recent phylogeny of the *Fungi* (James *et al.*, 2020; Li *et al.*, 2021).

phyla (Figure 2). Within *Pezizomycotina* (*Ascomycota*), the most diverse genera of micromycetes within Colombia are *Penicillium* (68 reported species) and *Trichoderma* (62 reported species). At the same time, for the yeasts within the *Saccharomycotina*, *Candida* was the most representative genus, with 26 reported species.

Although *Basidiomycota* contain a large diversity of macromycetes, micromycetes can be found in all its subphyla or are dominant in early diverging lineages (Cepero *et al.*, 2012). Withinin *Agaricomycotina*, the microfungi recorded for Colombia belong mainly to yeast or yeast-like fungi (Liu *et al.*, 2015) in the *Tremellomycetes* (45 species), including seven species of the genus *Cryptococcus*. *Cryptococcus neoformans* and *C. gattii* are responsible for cryptococcosis, often being isolated from soil and plant debris, respectively (Vélez & Escandón, 2020). The microfungi in the *Ustilaginomycotina* are smut fungi or more rarely yeasts (Spatafora *et al.*, 2017), with the smut genera *Ustilago* and *Sporisorium* each having 12 species reported (see also Chapters 7 and 9). Yeasts are represented by the genus *Malassezia*, among others (Wang *et al.*, 2015a). Species in the *Pucciniomycotina* mainly comprise rust fungi and more rarely yeasts, such as members of the genus *Rhodotorula*, with five reported species (Wang *et al.*, 2015b). The remaining species are included in the *Mucoromycota* (7.2%) and less than 1% in the *Chytridiomycota*, *Blastocladiomycota*, and *Zoopagomycota* (Figure 2).

Within the *Mucoromycota*, the *Glomeromycotina*, comprising arbuscular mycorrhizal fungi, is represented by 106 species, 50 of which belong to three main genera: *Glomus* (20), *Acaulospora* (19), and *Scutellospora* (11). In a literature review conducted in Google Scholar and Web of Knowledge by Landínez-Torres *et al.* (2020), members of these subphyla were reported as the most abundant microfungi of Colombia from the soils in the Amazonian, Caribbean, and Orinoquia regions (Landínez-Torres *et al.*, 2020). Owing to their agronomic relevance, arbuscular mycorrhizal fungi are being studied mainly in cultivated plants, such as *Physalis peruviana* (Solanaceae), *Manihot esculenta* (Euphorbiaceae), *Bactris gasipaes* (Arecaceae), and *Euterpe oleracea* (Arecaceae), among others (Molineros Hurtado *et al.*, 2013; Gómez *et al.*, 2020; Peña-Venegas *et al.*, 2019; Ramírez-Gómez *et al.*, 2019).

In a biogeographic database of arbuscular mycorrhizal fungi, 77 species were recorded for Colombia over the past 50 years, making Colombia one of the Neotropical countries with the highest number of reported species, except for Brazil, with 182, and México, with 87 species. Countries neighboring Colombia, such as Ecuador (28), Peru (52), and Venezuela (37), had fewer species listed, indicating that in the Andean region, this group of micromycetes is better studied in Colombia. However, additional studies are still needed (Stürmer & Kimmelmeier, 2020).

Also, six genera (*Dissophora*, *Actinomortierella*, *Linnemannia*, *Podila*, *Entomortierella*, and *Mortierella*) and 26 species of the *Mortierellomycotina* are reported in the ColFungi database. These species were found in soil samples (Veerkamp & Gams, 1983; Gualdrón-Arenas *et al.*, 1997; Landínez-Torres *et al.*, 2019). Species in the Morteriellaceae have been isolated worldwide from many sources, including roots or decomposing plant material (Vandepol *et al.*, 2020). New species are expected to be described from countries like Colombia, where this fungal group is still underrepresented in listings (Vandepol *et al.*, 2020). Members of this family, as well as members of the orders *Mucorales* and *Umbelopsidales* (*Mucoromycotina*), are considered oleaginous (oil-producing) fungi, valued in the food and bioenergy industries (Zhao *et al.*, 2020), providing an additional incentive for the study of diversity and distribution of these fungi in Colombia.

*Mucoromycotina* is represented by 16 genera and 47 species, with *Mucor* being the most speciose genus, with 14 recorded species in Colombia. Members of this subphylum, such as *Absidia*, *Actinomucor*, *Circinella*, *Cunninghamella*, *Rhizopus*, and *Syncephalastrum*, are commonly isolated from soil (Landínez-Torres *et al.*, 2020). *Apophysomyces variabilis* (Rodríguez *et al.*, 2018), *A. elegans* (Ruiz *et al.*, 2004), *Sacksenaea erythrospora* (Rodríguez *et al.*, 2016), *Lichtheimia corymbifera*, and several species of *Rhizopus*, are responsible for mucormycosis disease in humans, being associated with necrotizing fasciitis (Morales-López *et al.*, 2018).

The *Zoopagomycota* comprises three subphyla: *Zoopagomycotina*, *Kickxellomycotina*, and *Entomophthoromycotina*. In the ColFungi database, only the latter

subphylum is reported, being represented by seven species. *Basidiobolus ranarum* and *Conidiobolus coronatus* are animal pathogens and can cause a human disease known as entomophthoromycosis (Morales-López *et al.*, 2018). The remaining five species are insects pathogens (Barta & Cagáñ, 2006).

Although not yet known from Colombia, members of the *Zoopagomycotina* have bioprospective potential as biological controllers, as they can be found as nematode predators and mycoparasites (Spatafora *et al.*, 2017). In the same way, species in the *Kickxellomycotina* are found in the gut of arthropods that have an aquatic stage (Spatafora *et al.*, 2017). Owing to the high diversity of insects and other arthropods in Colombia, we expect that surveys of their associated fungal diversity will reveal species of these fungal lineages in the country.

The early-diverging lineages of the fungal kingdom, the zoosporic fungi, are represented by nine species of *Chytridiomycota* and three of *Blastocladiomycota*. Among the *Chytridiomycota* found in Colombia, six species are catalogued in the database as plant pathogens. *Batrachochytrium* is the only vertebrate pathogen in this phylum (Cepero *et al.*, 2012), and in Colombia, only *B. dendrobatidis* is reported. The latter is one of the most relevant fungal pathogens because it is responsible for chytridiomycosis, a disease that threatens the amphibian diversity in Colombia and globally (Flechas *et al.*, 2013). In the *Blastocladiomycota*, *Coelomomyces reticulatus* is an animal pathogen that attacks mosquitoes in particular (Gleason *et al.*, 2010). No anaerobic fungi (*Neocallimastigomycota*) have so far been registered in the ColFungi database. Members of this lineage are recognised for their outstanding lignocellulolytic activity (Solomon *et al.*, 2016).

Colombia is likely to be a promising source of zoosporic fungi due to its abundance of marine and freshwater ecosystems. These underrepresented phyla deserve more attention as they are expected to include emerging pathogens (e.g., *Batrachochytrium* spp., *Synchytrium* spp.). The number of species waiting to be described in the zoosporic fungi at a global level is high (Voigt *et al.*, 2013). The trophic modes associated with the microfungi registered in ColFungi are essentially pathogens, either of plants (1,205 species) or animals (236 species), or saprotrophs (450 species). In addition, 252 species are reported as endophytes. This group of fungi is gaining attention among the Colombian research community, possibly because of their bioprospecting potential (Strobel & Daisy, 2003; see Chapter 15).

## CONCLUSIONS

The diversity of Colombian micromycetes in the ColFungi database is mainly represented by *Ascomycota* and *Basidiomycota*. The remaining phyla in the kingdom *Fungi* are underrepresented or absent. We encourage the mycology community to contribute to diversity assessments, emphasising the early-diverging fungal lineages, such as



zygomycetes and zoosporic fungi, which need further studies to better reflect the true diversity of microfungi in Colombia. In addition, we need to enrich our culture collections to preserve microfungial diversity and to make it accessible for applied research. Furthermore, we encourage the use of a polyphasic approach, choosing the best molecular markers for each genus, to assess the microfungial diversity and to achieve assertive identifications to species level.

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*Neoscytalidium dimidiatum*  
[Álvaro Rúa]

*Curvularia* sp.  
[Álvaro Rúa]









*Chardoniella gynoxidis*  
[Mauricio Salazar-Yepes]



# Chapter 9

## Diversity of Rust and Smut Fungi of Colombia

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**Keywords:** biodiversity, Exobasidiales, Tilletiales, Ustilaginales.

### ABSTRACT

Rust and smut fungi are biotrophic and obligate pathogens of vascular plants with a high species richness on plants growing in the wild. This group comprises species that cause economically relevant plant diseases affecting cultivated plants. Rust fungi are represented by Pucciniales (Pucciniomycotina, Basidiomycota), and smut fungi mostly comprise several orders from Ustilaginomycotina (Basidiomycota) and some additional orders from other Basidiomycota subdivisions. The updated checklist of rust fungi of Colombia includes 493 species, and the checklist for smut fungi 71 species, with an additional ten species of Ustilaginomycotina found as yeasts or belonging to Exobasidiales. While the number of rust fungi known for Colombia has increased during recent years, the knowledge on smut fungi has stagnated since 2002, with relatively few new records of yeasts being added. Rust and smut records for different departments of Colombia show substantial information in regions with large urban centres, universities, and active mycologists. By contrast, no records or systematic surveys are available for many other regions of the country. Estimations of species diversity for the rust and smut fungi of Colombia suggest that even though the knowledge regarding these fungi in Colombia has increased throughout the past three decades, we are far from completely documented. Field surveys and analyses of specimens by traditional taxonomic methods and the generation of molecular sequence data are urgently needed for rust and smut fungi of Colombia, including closely related groups such as the Exobasidiales.

### RESUMEN

Colombia es considerado un país biodiverso, lo cual se debe principalmente a su privilegiada ubicación geográfica, localizado en la esquina noroccidental de América del Sur en la zona intertropical. Junto a una alta diversidad de plantas, existe igualmente una elevada diversidad de los microorganismos asociados, entre ellos las royas y carbones, los cuales se caracterizan por ser patógenos obligados de plantas vasculares con una alta diversidad de especies. Se encuentran sobre plantas nativas y varias de sus especies pueden causar pérdidas económicamente relevantes en plantas cultivadas de importancia económica como: arroz, avena, café, caña de azúcar, cebada, frijol, maíz, pinos, soja y trigo entre otras. Ambos, hacen parte de la división Basidiomycota (Fungi), las royas pertenecientes al orden Pucciniales (Pucciniomycotina) y los carbones a diversos órdenes de Ustilaginomycotina, así como algunos órdenes presentes en otros grupos relacionados. El inventario de royas de Colombia incluye 493 especies, y el de carbones 71, además de 10 especies de levaduras del orden Exobasidiales (Ustilaginomycotina). Si bien el número de especies de royas conocidas para Colombia aumentó durante los últimos años, el conocimiento de los carbones se mantiene igual desde 2002. Solo se adicionaron algunos nuevos reportes de especies de levaduras. Los registros de royas y carbones para diferentes departamentos de Colombia muestran que existe un conocimiento relativamente bueno en las regiones con grandes ciudades, universidades y micólogos activos, mientras que en otras regiones del país no se cuenta con estudios micológicos de campo relacionados con este importante grupo de patógenos de plantas. Las estimaciones realizadas sobre la diversidad de especies de royas y carbones existentes en el país confirman que estamos lejos de un registro completo de la Biota de royas y carbones de Colombia. Son necesarias cuanto antes expediciones de campo que permitan recolectar en diferentes departamentos plantas nativas o introducidas de diferentes familias botánicas parasitadas con estos hongos, para luego, realizar los métodos tradicionales de taxonomía morfológica, así como la determinación de secuencias moleculares para las royas y carbones, y grupos relacionados como los Exobasidiales. En Colombia, se hace necesario un mayor esfuerzo por estudiar las royas y carbones presentes, y de esta manera aportar la mayor cantidad de información sobre la biodiversidad presente en las cinco regiones biogeográficas del país, en las cuales tenemos ecosistemas frágiles, amenazados, y con una deforestación descontrolada en algunos de ellos, lo que llevará a que muchas de las nuevas especies de royas y carbones no se conozcan. Este hecho, una vez más, agrega un argumento adicional para la urgente necesidad de su conservación.

## INTRODUCTION

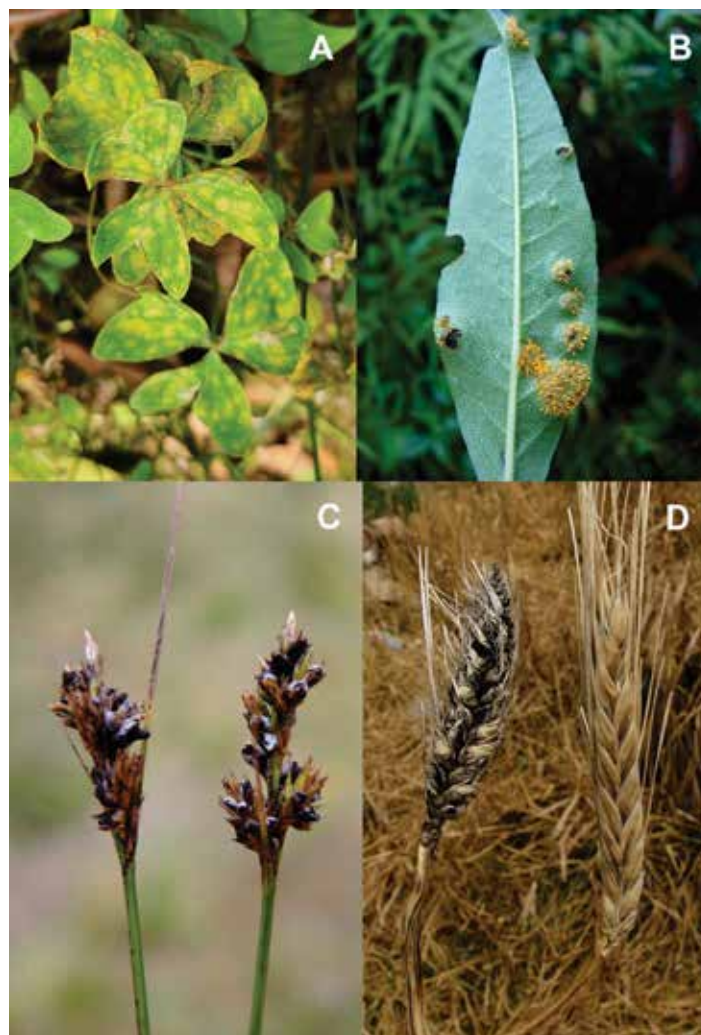
Colombia is the second most biodiverse country worldwide because of its privileged geographical location in the intertropical zone of north-western South America (Andrade, 2011). There are five well-defined biogeographic regions in Colombia (Amazonia, Andean, Caribbean, Orinoquia, and Pacific). The Andes Mountain range presents a substantial variation in elevation, creating different microclimates (Buriticá & Pardo-Cardona, 1996). As a result, the diversity of vascular plants in Colombia is impressive, with 24,530 species (Bernal *et al.*, 2019). So, one can expect a high diversity of their corresponding biotrophic pathogens, such as rust and smut fungi. Three fundamental reasons warrant studies related to the diversity of the Colombian fungi: 1. knowledge on fungi is strategically important to determine necessary *in situ* protection measures; 2. demand on fungal bioprospecting is increasing; and 3. interest in phytopathological control measures and trade agreements that require signatory countries to report potential pathogens present in samples.

In recent years, several species of crop plants have been introduced to Colombia, including forest trees, ornamentals, and aromatic plants, which have gone from small-scale cultivation in gardens and orchards to intensive production for export. As a consequence, new diseases and pathogens have been reported for different cultivated and native plants, especially those caused by Pucciniales, with approximately 500 species recorded in little more than a century (Álvarez Morales & Salazar-Yepes, 2014; Buriticá *et al.*, 2014; Vanegas-Berrouet & Salazar-Yepes, 2015, 2018, 2020; López-Alzate & Salazar-Yepes, 2017; Vanegas-Berrouet *et al.*, 2018; González & Salazar-Yepes, 2019; Barrera-Enriquez & Salazar-Yepes, 2019; Otálora & Berndt, 2020; Salazar-Yepes & Pardo-Cardona, 2020; McTaggart *et al.*, 2020; Zea-Fernández *et al.*, 2021). Crops and ornamental plants in Colombia are commonly affected by species of rusts (Pucciniales) and smuts (Ustilaginomycotina), which may cause severe attacks that reduce their aesthetic value or productivity. In recent years, the number of records for economically important rust fungi has increased in Colombia, with the addition of the species *Puccinia allii*, *P. antirrhini*, *P. arenariae*, *P. kuehni*, and *Uromyces gladioli* (Pardo-Cardona, 2006; Buriticá & Salazar-Yepes, 2007; Buriticá *et al.*, 2014). Among smut fungi, edible galls formed by *Ustilago maydis* on corn (*Zea mays*) are called “huitlacoche” in Mexico. However, most species cause economic losses, examples include: *Sporisorium cruentum* on *Sorghum bicolor*; *S. scitamineum* on sugar cane (*Saccharum* sp. cult.); and *Ustilago* spp. and *Tilletia* spp. on cereals such as barley (*Hordeum vulgare*), oat (*Avena sativa*), and wheat (*Triticum aestivum*).

In the late 1960s, the potential of Pucciniales as biological controllers of weed plants began to be explored. Rusts exhibit favourable characteristics as biological control agents, such as their high host specificity and are included in various successful classical biocontrol programs worldwide (Morin *et al.*, 2006; Hershenthorn *et al.*, 2016). An agreement between Universidad Nacional de Colombia, campus Medellín and CSIRO-Australia has allowed the search for phytopathogens, including rusts in Colombia, for the biological control of weeds such as *Conyza* spp. and *Passiflora foetida*.

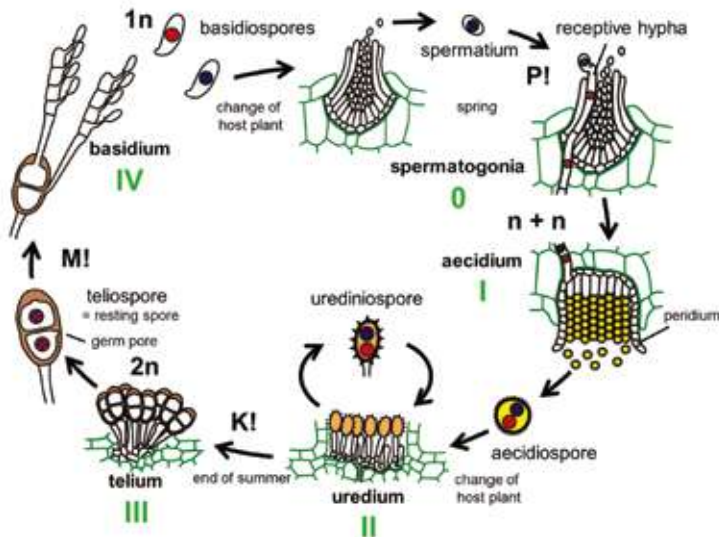
## Morphology and systematics of rust and smut fungi

Rust fungi (Pucciniales) correspond to one of the most significant orders of *Fungi* comprising 18 accepted families and ca. 8,000 species, representing ca. 25% of the described species of Basidiomycota (Aime & McTaggart, 2021). These fungi parasitise a broad spectrum of host plants, including angiosperms, gymnosperms, lycophytes, and ferns (McTaggart *et al.*, 2016). Rust species usually show narrow and specific host ranges (Cummins & Hiratsuka, 2003), representing lineages currently placed in Pucciniales (Pucciniomycetes, Pucciniomycotina) (Begerow *et al.*, 2018). Rust fungi are the most critical pathogens among Basidiomycota, impacting agriculture and/or native plant communities, sometimes as limiting factors for the successful cultivation of internationally essential crops (e.g., beans, coffee, corn, pines, soybeans, sugarcane, wheat, among many others) (Cummins & Hiratsuka, 2003) (Figure 1). Four basic morphological structures are



**FIGURE 1.** Symptoms of rust and smut fungi known from Colombia. **A** *Puccinia oxalidis* on leaves of *Oxalis latifolia*. **B** *Chardonniella gynoxidis* on a leaf of *Ageratina* sp. **C** *Anthracoidea uleana* around ovaries of *Carex bonplandii*. **D** *Ustilago hordei* destroying an inflorescence of *Hordeum vulgare*. (Photographs by the authors).

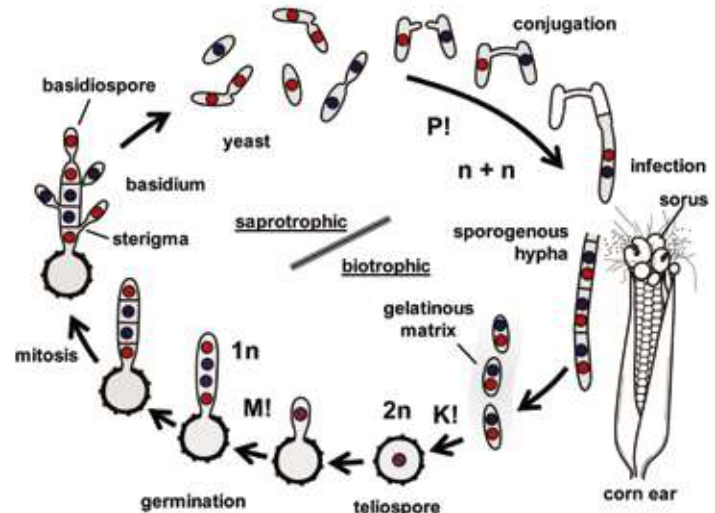




**FIGURE 2.** The life cycle of the rust fungus *Puccinia graminis* (Pucciniales) on *Berberis* sp. (generations 0, I) and on *Triticum aestivum* (generations II and III). 1n: haploid, P!: plasmogamy, n+n: dikaryotic, K!: karyogamy, 2n: diploid, M!: meiosis. (Illustration by M. Piepenbring).

recognized for species belonging to this order: spermatogonia, two anamorphs (aecia and uredinia), teleomorph (telia), and phragmobasidium (basidia). Different spores are formed inside or by the abovementioned structures, such as spermatia, aeciospores, urediniospores, teliospores, and basidiospores (Buriticá *et al.*, 2014). Rust fungi can comprise up to five or six morphological and functionally different types of spores within their life cycle, with several species requiring up to two, usually unrelated species of host plants to complete their life cycle (Figure 2) (Piepenbring, 2015). Additional ultrastructural characters that are typical for rust fungi are nuclei without spindle pole bodies and simple septal pores with characteristic caps formed by the endoplasmic reticulum (Bauer, 1987; O'Donnell & McLaughlin, 1981).

Smut fungi are the second-largest parasitic group of Basidiomycota, currently comprising more than 120 genera and ca. 1,700 species (Kruse *et al.*, 2017). These fungi used to be placed in one (Ustilaginales) or two (Ustilaginales, Tilletiales) orders (Vánky 2012). Owing to their polyphyletic nature revealed by molecular phylogenetics, they are currently placed into an increasing number of orders within Ustilaginomycotina (e.g., Dossansiales, Entylomatales, Georgefischeriales, Tilletiales, Urocystidales, Ustilaginales), alongside other plant-parasitic fungi (e.g., Exobasidiales) and some yeast-forming lineages, such as Malasseziales (Vánky, 2012). Other lineages traditionally classified as smut fungi belong to Microbotryales (Pucciniomycotina) or Entorrhizales (Entorrhizomycetes) (Begerow *et al.*, 2018). Host plants of smut fungi are primarily herbaceous, with Poaceae and Cyperaceae harbouring most of the known smut fungi species (Piepenbring, 2015). The life cycle of smut fungi comprises a single generation of spores (teliospores) developing on a single host plant (Figure 3) (Piepenbring, 2015). In addition



**FIGURE 3.** The life cycle of the smut fungus *Ustilago maydis* (Ustilaginales) on corn (*Zea mays*). 1n: haploid, P!: plasmogamy, n+n: dikaryotic, K!: karyogamy, 2n: diploid, M!: meiosis. (Illustration by M. Piepenbring).

to this developmental stage as a plant parasite, many smut fungi grow as yeasts during a saprotrophic developmental stage. Smut fungi present a high diversity of ultrastructural characteristics of septal pores and host plant interaction structures, reflecting complex systematic relationships (Bauer *et al.*, 2001). These micromorphological features, alongside macromorphological and molecular characters, justify the current classification of smut fungi into different orders (Bauer *et al.*, 2001, 2006; Begerow *et al.*, 2018).

Species of rust fungi present themselves as different stages of spores and smut fungi and as plant pathogens or yeasts. Until recently, it was permissible to apply more than one name to different developmental forms of the same species. Nonetheless, since 2013, according to the International Code of Nomenclature for Algae, Fungi and Plants, only a single name is valid for all developmental forms of a species. This rule has been applied for yeasts of smut fungi by Wang *et al.* (2015). In the case of rust fungi, there are still many species with names that need to be revised according to this rule.

## MATERIALS AND METHODS

We compiled the current knowledge on rust and smut fungi known for Colombia based on literature searches on academic databases (i.e., Google Scholar, MMUNM), including keywords such as “Pucciniales”, “roya”, “smut fungi”, “Tilletiales”, “Uredinales”, and “Ustilaginales”. All retrieved data were compiled into an excel sheet, including the names of families, genera, and species of rust and smut fungi reported for Colombia, besides the plant species they were found parasitizing. In addition, we compared our results from the literature review with the database available at the ColFungi website (<https://colfungi.org/>) and updated it whenever needed.

## RESULTS AND DISCUSSION

### History of the study and cataloguing of rust and smut fungi in Colombia

The first observations of rust fungi in Colombia date back to those made in 1803 by Francisco José de Caldas, who associated the «*polvillo*» (powder) of cereals with a parasitic fungus that consumes its nutrients, today known as the wheat stem rust (*Puccinia graminis*) (Caldas, 1803). The first record of a rust fungus in Colombia was based on specimens collected by Triana and Planchon (Comisión Corográfica-Colombia) identified as *Trichobasis oxalidis* (= *Puccinia oxalidis*) parasitizing *Oxalis pubescens* (Oxalidaceae) collected in the department of Cundinamarca (Léveillé, 1867).

After these initial observations, sporadic records of rust and smut fungi were reported by foreign mycologists throughout the 19th and early 20th centuries, until the first mycological expedition in Colombia was carried out by Mayor (1913). As a result of this expedition, 158 species of rust fungi (Pucciniales) were collected and reported for Colombia, 84 of which were new to science. Based on Mayor's collections, Sydow & Sydow (1914) also published new records of fungi for Colombia, including the first three species of smut fungi. In 1926, Carlos Chardón and his colleague and compatriot Rafael Toro made numerous collections of fungi, including several Pucciniales and smut fungi (Chardón & Toro, 1930). Samples collected were sent to Herbert H. Whetzel and

Frank D. Kern, who published their findings from 1927 to 1954 (Buriticá & Pardo-Cardona, 1996). In the second half of the 20th century and after the turn of the millennium (~1968-2021), research on rust and smut fungi was mainly performed by Colombian researchers, such as Pablo Buriticá, Luis Alfredo Molina-Valero, Víctor Manuel Pardo-Cardona, and Mauricio Salazar-Yepes (Piepenbring, 2002; Buriticá *et al.*, 2014). The second author of this chapter (MP) visited Colombia in 1998 and included her discoveries of smut fungi in an updated annotated checklist of smut fungi known for this country (Piepenbring, 2002).

### Diversity of rust fungi in Colombia

There are three studies presenting catalogues of Pucciniales known from Colombia. The first study reported 204 species (Kern & Whetzel, 1930), the second 316 species (Buriticá & Pardo-Cardona, 1996), and the third 456 species (Buriticá *et al.*, 2014). The current diversity of Pucciniales of Colombia comprises 493 species (see Chapter 16). These species represent 67 genera (58 teleomorphs and nine anamorphs), with *Puccinia* (226), *Uromyces* (60), and *Phakopsora* (18) being the most species-rich genera in Colombia. Four teleomorph genera of Pucciniales have been described on the basis of Colombian specimens, namely *Chardonella*, *Chrysocelis*, *Hennenia* (endemic to Colombia), and *Uncol*. In addition, 86 species of rust fungi have been described as new to science based on type specimens from Colombia.

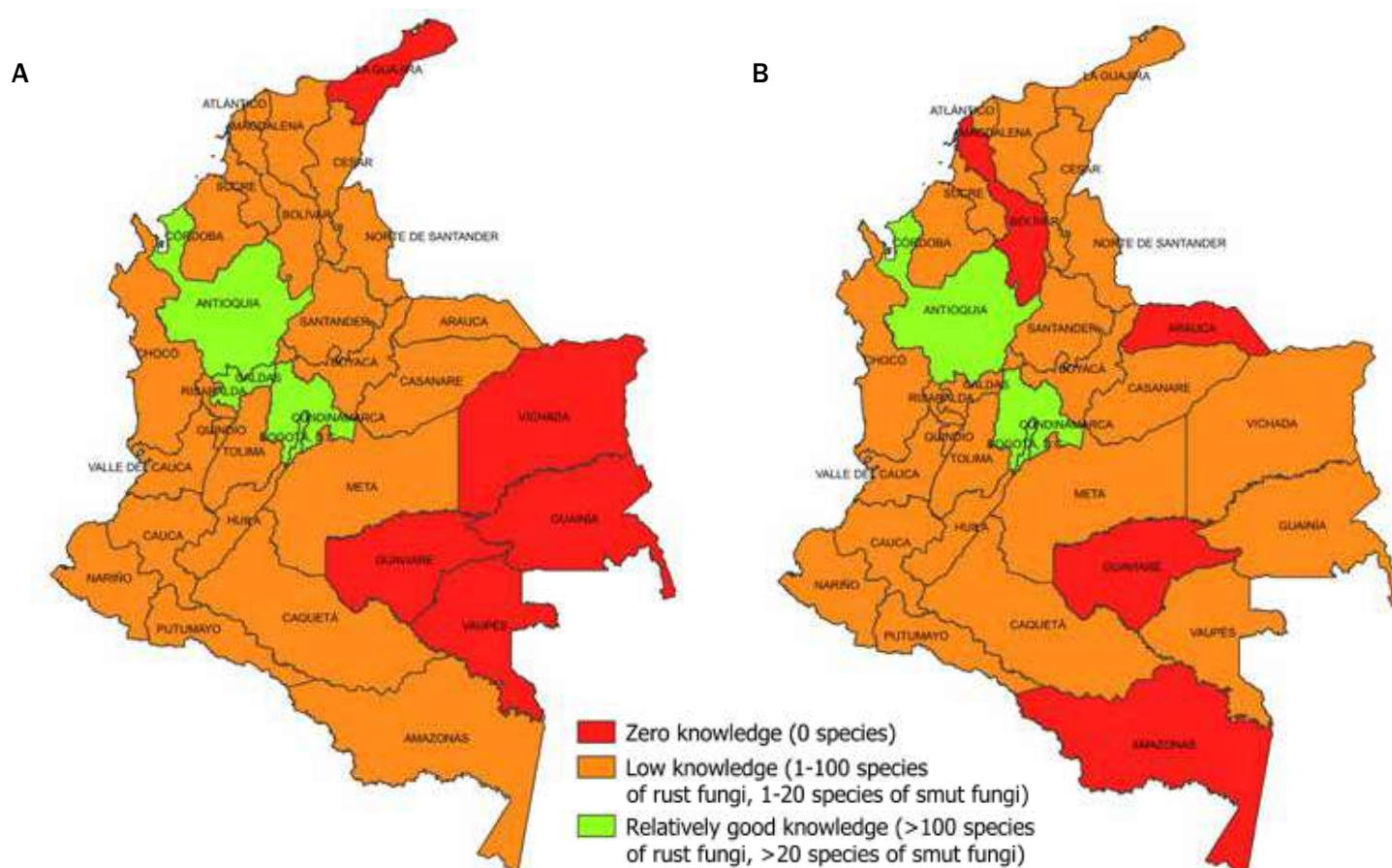


FIGURE 4. Departments of Colombia with numbers of known species. A Rust fungi. B Smut fungi.



Host plants parasitised by rust fungi in Colombia comprise 88 vascular plant families (angiosperms and ferns), with Asteraceae (host species for 173 species of rust fungi), Poaceae (130 spp.), and Leguminosae (90 spp.) being the families with the highest number of reported species of Pucciniales. According to Cárdenas-López & Salinas (2007), some of these host plants are threatened in Colombia, including *Quercus humboldtii* (vulnerable). Their host-specific parasite, *Cronartium quercuum*, is equally threatened (López & Salinas, 2007).

The first molecular phylogenetic study of rust fungi in Colombia was carried out by Zuluaga *et al.* (2011), presenting the first molecular sequences for specimens of rust fungi from Colombia deposited in GenBank. There are sequences for only 37 species of rust fungi, representing only 7% of the diversity currently occurring in Colombia. This figure is a meagre percentage, considering the biological diversity of this large group of plant pathogens.

#### Distribution of known species of rust fungi in Colombia

A distribution map highlighting the 32 departments of Colombia is presented (Figure 4), with different colours reflecting the number of species known for each department. The Antioquia (324 species of rust fungi), Cundinamarca (143 spp.), and Caldas (121 spp.) departments are highlighted in green as they show the highest number of rust species in Colombia. However, 35 out of 125 municipalities in Antioquia (28%) have not yet been explored, lacking any recorded specimen of rust fungi. No rust fungi have been reported yet for the five departments highlighted in red (Guainía, Guaviare, La Guajira, Vaupés, and Vichada) (Figure 4). Lack of research and inadequate rust species surveys in the remaining 24 departments suggest that the diversity of Pucciniales in Colombia might be higher than current estimations. Therefore, intensive research is required to increase our understanding of these fascinating fungi.

#### Estimation of the diversity of species of rust fungi of Colombia

Based on studies carried out in Brazil, Central America, and the United States, Hennen & McCain (1993) proposed that the number of species of rust fungi in a region should be between 5% (1:20) and 25% (1:4) of the number of plant species in the same region. The current rust/plant ratio in Colombia is 1:49 (Table 1). Using the 1:20 (5%) rust fungi/host estimate, the number of species for Colombia would be around 1,226, meaning that we currently know only 40% of the species present in this country. When applying the 1:4 ratio, we obtain an even higher estimate of 6,132 species, of which we currently only know 8%, in tropical countries, such as Brazil, only 6% of the existing species would be known to science, which is similar for Costa Rica (9%) and South Africa (10%) (Table 1). An intermediate ratio of 1:9 (11%) was proposed by Salazar-Yepes & Carvalho (2013). Based on this ratio, Colombia would have 2,725 species of rust fungi (Table 1), of which only 18% are currently known. Therefore, numerous species of tropical rust fungi might still be unknown to Colombia.

**TABLE 1.** Diversity of rusts in Colombia and other tropical countries. Numbers for smut fungi are very low and do not justify such an analysis. <sup>a</sup> Hennen *et al.* (2005); Forzza *et al.* (2010); <sup>b</sup> Berndt (2008); <sup>1</sup> Bernal *et al.* (2019); <sup>2</sup> Flora do Brasil (2020).

Teleomorph genera	Colombia n(%)	Brazil n(%) <sup>a</sup>	Costa Rica n(%) <sup>b</sup>	South Africa n(%) <sup>b</sup>
<i>Puccinia</i>	226(46)	264(35)	136(45)	217(40)
<i>Uromyces</i>	60(12)	107(14)	39(13)	103(19)
<i>Phakopsora</i>	18(3)	28(3)	11(4)	8(5)
<i>Ravenelia</i>	9(2)	41(5)	13(4)	27(5)
<i>Prospodium</i>	7(1)	31(4)	10(3)	–
<b>Total number of species</b>	<b>493</b>	<b>745</b>	<b>300</b>	<b>546</b>
<b>Number of vascular plant species</b>	<b>24,530<sup>1</sup></b>	<b>49,987<sup>2</sup></b>	<b>12,119</b>	<b>21,000</b>
<b>Rust plant ratio</b>	<b>1:49</b>	<b>1:67</b>	<b>1:40</b>	<b>1:39</b>
<b>Rust estimates 1:20</b>	<b>1,226</b>	<b>2,499</b>	<b>605</b>	<b>1,050</b>
<b>1:4</b>	<b>6,132</b>	<b>12,496</b>	<b>3,029</b>	<b>5,250</b>
<b>1:9</b>	<b>2,725</b>	<b>5,554</b>	<b>1,346</b>	<b>2,333</b>

#### Diversity of smut fungi of Colombia

According to the Checklist of Fungi of Colombia (Chapter 16), 71 species of smut fungi are currently known on the basis of collections of infected plants identified by host species and morphology. This number has not increased since 2002, the year of the publication of the most recent checklist (Piepenbring, 2002). It is a relatively similar magnitude as the corresponding numbers published for other countries in the Neotropics, such as Brazil (77), Costa Rica (52), Ecuador (37), and Panama (29) (Piepenbring, 1996, Piepenbring *et al.*, 2011).

Among the 71 species of smut fungi reported for Colombia, 66 species belong to Ustilaginomycotina (Ustilaginales: 42 species, Entylomatales: 8 spp., Tilletiales: 7 spp., Urocystidales: 5 spp., and Georgefischeriales: 4 spp.) and five to Microbotryales (Pucciniomycotina). No species of Entorrhizales (Entorrhizomycetes) and Doassansiales (Ustilaginomycotina) are known from Colombia. The 71 species of smut fungi are placed into 25 genera, with *Ustilago* (11 species), *Sporisorium* (11 spp.), and *Entyloma* (8 spp.) being the most diverse genera in Colombia. In comparison to the species richness reported from temperate regions (e.g., Europe; Vánky, 1994), the number of species belonging to *Sporisorium*, infecting the plant family Poaceae and *Cintractia* and related genera from the plant family Cyperaceae is relatively high for Colombia, while in regions with a temperate climate, species of *Anthracoidea* dominate infections on Cyperaceae and species of *Ustilago* on Poaceae (Piepenbring, 2015).

Five species of smut fungi (*Aurantiosporium colombianum*, *Entyloma galinsogae*, *Kuntzeomyces ruiziana*, *Thecaphora polymniae*, and *Tilletia colombiana*) were described as new species based on specimens from Colombia and are still recognized as valid taxa. In addition to the aforementioned species of smut fungi, five species of Ustilaginales and three species of Malasseziales are cited for Colombia as saprotrophic yeasts (Chapter 16). The order Exobasidiales is represented only by two species in the checklist. As evident by records published for neighbouring countries, such as Panama (Piepenbring *et al.*, 2010), many more species of this group are undoubtedly present in Colombia. Host plants parasitized by smut fungi in Colombia belong to seven families of vascular plants, with Poaceae (34 species) and Cyperaceae (22 spp.) being the families with the highest numbers of reported species. All host plants are herbaceous, except for *Cissus* spp. (Vitaceae), which are woody lianas and hosts of the smut fungus *Mycosyrinx cissi*.

Several recent studies provided identifications of smut yeasts and non-smut fungi based on the sequences of single gene regions obtained from isolated yeasts (e.g., Gaviria & Osorio, 2012) or in the context of metabarcoding studies (e.g., Větrovský *et al.*, 2020). These records should be treated with care as their identifications are not as reliable as those from traditional taxonomic studies. They suffer from incomplete reference databases and improper identification algorithms, such as percentage identities using predefined thresholds. As far as we know, no study to date has ever focused on generating DNA sequences of smut fungi collected in Colombia. In addition, thresholds for species delimitation are not established (and not recommended, see Lücking *et al.*, 2020), and the ecological significance of a fungal species detected only by the presence of its DNA cannot be assessed. Nevertheless, environmental sequence data are helpful to learn about fungal diversity, distribution, and ecological niches used by saprotrophic smut yeasts.

#### **Distribution of known species of smut fungi in Colombia**

The distribution map indicating the numbers of species of smut fungi known for different departments of Colombia (Figure 4B) was based on records published by Chardon & Toro (1930), Molina-Valero (1980), and Piepenbring (2002). It shows patterns similar to those documented for rust fungi because of reasons similar to those cited for rust fungi. Maximum numbers of species of smut fungi are reported for Antioquia (24 species) and Cundinamarca (27 spp.), followed by Valle del Cauca (14 spp.). There are no records for the Amazonas, Arauca, Bolívar, Guainía, and Guaviare departments.

#### **Estimation of the diversity of smut fungi of Colombia**

Using the numbers of species known worldwide (8,000 species of rust fungi: 1,650 species of smut fungi), we may assume a ratio of 4.8:1 for these two groups. By applying the same ratio to estimate the diversity of smut fungi for Colombia, based on the assumption of 2,725 species of rust fungi existing for Colombia (see above), 568 species of smut fungi should exist in Colombia. If this calculation is correct,

our present knowledge (71 species) will correspond to only 12.5% of the existing diversity of smut fungi in Colombia.

## **CONCLUSIONS**

Regions that have never been visited for mycological surveys and estimates of species richness show that our knowledge of the diversity of rust and smut fungi in Colombia is still quite incomplete. Future additional studies are necessary to sample these fungi in all biogeographic regions of Colombia to order to better understand the composition, species diversity, biology, life cycles, and geographic and altitudinal distribution of rust and smut fungi, besides other related fungi and their host plants. In addition, it is vital to investigate morphological characters and to generate new DNA sequences for the collected specimens. Considering the elevated rates of deforestation in Colombia and the lack of human and infrastructure resources available for research, several species of rust and smut fungi might be already extinct and never be known to science. This highlights the urgent need to preserve Colombia's native and endemic host plants alongside their rust and smut fungi species.

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*Cora elephas*  
[Robert Lücking]



# Chapter 10

## A Critical Assessment of Biogeographic Distribution Patterns of Colombian Fungi

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**Keywords:** cryptic species, dispersal, ectomycorrhizae, Gondwanan lineages, Holarctic lineages, lichenised fungi, neotropical distribution, vicariance, saprotroph.

### ABSTRACT

This chapter attempts to assess the distribution patterns of three selected groups of fungi, namely polypores, ectomycorrhizal fungi (EcM), and lichenised fungi in Colombia. Assessing the biogeography of fungi is difficult because of two key issues: 1. information gaps on their distribution and biology in biodiversity-rich countries, such as Colombia, and 2. the traditional, phenotype-based species concepts, which make it difficult to recognise cryptic species or species complexes. This latter aspect is very frequent in fungi, as currently revealed by advanced molecular biology and phylogenetic analysis techniques. For instance, *Polyporus* is a widespread genus, commonly found in Colombia with numerous species recorded as cosmopolitan. However, detailed studies in some *Polyporus sensu lato* in Brazil and Argentina showed a hidden diversity now accommodated in different genera such as *Atroporus*, *Neodictyopus*, and *Bresadolia*. On the other hand, the various fungal lineages show different distribution patterns depending on their biology. This fact evidences how the biogeographic distribution of ectomycorrhizal symbiont fungi (EcM) is closely linked with the distribution patterns of their host plants, but due to information gaps, their real distribution ranges are unknown. It has been observed that the EcM fungi associated with Fagaceae in the Andean region belong to Holarctic lineages, while the species associated with the Fabaceae or Dipterocarpaceae in the Colombian Amazonia Region come from tropical lineages of Gondwanan origin. Finally, for lichenised fungi, we looked at eight genera in four families and two classes and phyla: *Bunodophoron* (Sphaerophoraceae), *Neoprotoparmelia* (Parmeliaceae), *Crocodia*, *Lobariella*, *Podostictina*, *Pseudocyphellaria*, *Sticta* (Peltigeraceae, all Ascomycota), and *Cora* (Hygrophoraceae, Basidiomycota). Comparing traditional taxonomy with modern taxon concepts derived from integrative approaches using molecular and phenotype data revealed that the proportion of distribution types assessed from the data changed substantially. When using a traditional taxon concept, 45% of the species were inferred to have a broad, intercontinental distribution, 39% neotropical, and 12% endemic. On the other hand, using the modern taxon concept indicated that only 4% of them were widespread, 20% neotropical, and 76% potentially endemic. These findings underline the importance of accurate taxon concepts and proper knowledge of evolutionary relationships when performing biogeographical analyses of Colombian fungi. As mycologists, we must then continue to generating information that allows us to understand the historical processes responsible for the geographical distributions of the different lineages of fungi present in the national territory.

### RESUMEN

La biogeografía se encarga de los patrones de distribución global de los organismos, dilucidando los factores y procesos que conducen a estos patrones. Los estudios en esta área se han centrado en organismos macroscópicos, como plantas vasculares y vertebrados, dejando de lado microorganismos como bacterias, protistas, algas, plantas no vasculares y hongos. Por mucho tiempo se consideró que los microorganismos suponían rangos de distribución amplios e intercontinentales para muchas especies. El «todo está en todas partes» se aplicó durante décadas al pensar en la distribución de la mayoría de

los hongos. Sin embargo, los enfoques filogenéticos moleculares, combinados con el estudio de distribuciones y de las comunidades de hongos, han dejado ver que la biogeografía de los hongos es compleja. Estos procesos dependen tanto de la biología de las especies como de modelos de dispersión (expansión de las distribuciones) y vicarianza (fragmentación de las distribuciones), así como de la historia geológica de los continentes, i.e., migración de los hongos a través de puentes continentales, y la disyunción relictual continental. Muchas especies consideradas de distribución cosmopolita representan complejos de especies difíciles de diferenciar con caracteres morfológicos, pero visibles en análisis filogenéticos. Este es el caso del basidiolíquén *Cora* y de las especies del grupo neotropical *Polyporus*. Como se ha explicado en capítulos anteriores, el conocimiento que tenemos hoy en día acerca de la diversidad, ecología, distribución, asociaciones y estado de conservación de los hongos en Colombia es aún incipiente, y esto dificulta entender y definir patrones de distribución de las diferentes especies presentes en el país. En este capítulo hacemos un primer acercamiento para evaluar los patrones de distribución de los hongos poliporoides comparando la riqueza y composición de las especies. Por ejemplo, en el género *Polyporus* son evidentes los sesgos existentes por la falta de estudios en el género *Polyporus* muestra los sesgos existentes por la falta de estudios que integren datos moleculares y análisis filogenéticos, este es el caso de especies que se pensaban ampliamente distribuidas como *Polyporus udus* y *Polyporus dictyopus*, las cuales se consideran complejos de especies e incluso representan géneros nuevos neotropicales, como es el caso de *Neodictyopus*. Por otro lado, diversos linajes de hongos muestran diferentes patrones de distribución. Así es como la distribución biogeográfica de los hongos simbioses ectomicorrízicos (EcM) está íntimamente ligada con los patrones de distribución de sus plantas hospederas, sin embargo, debido a los vacíos de información no se conocen los rangos reales de distribución. Se han reportado un total de 202 especies de hongos EcM en Colombia, de ellas, 56 son especies nuevas descritas a partir de especímenes colombianos y 36 son endémicas, lo que representa una tasa de endemismo de cerca del 20%. Sin embargo, hay que confirmar la distribución de muchas especies con registros antiguos que se conocen de pocos o de un único espécimen. En general se ha observado que los hongos EcM asociados a Fagaceae en la región Andina pertenecen a linajes holárticos, mientras que las especies asociadas a las familias Fabaceae o Dipterocarpaceae en la Amazonía Colombiana provienen de linajes tropicales de origen Gondwanico. Por último, se realizó un análisis con ocho géneros de líquenes y comparando conceptos de la taxonomía tradicional con conceptos de taxón modernos; i.e. derivados de enfoques integradores con datos moleculares y fenotípicos. Encontramos que la proporción de tipos de distribución evaluados a partir de los datos cambió sustancialmente. Al utilizar un concepto tradicional, se infirió un concepto tradicional, se infirió que el 45% de las especies tienen una amplia distribución intercontinental, 39% neotropical y 12% endémica. Mientras que, siguiendo un concepto moderno, solo el 4% tiene distribución amplia, el 20% neotropical y 76 % son potencialmente endémicas. Estos hallazgos subrayan la importancia de conceptos taxonómicos precisos y un conocimiento adecuado de las relaciones evolutivas al realizar análisis biogeográficos de hongos colombianos. Como micólogos, debemos seguir generando información que nos permita comprender los procesos históricos responsables de las distribuciones geográficas del pasado al presente de los diferentes linajes de hongos en el territorio nacional.

## INTRODUCTION

Biogeography deals with the global distribution patterns of organisms and the factors and processes that underlie and lead to these patterns (Lomolino *et al.*, 2017). In the history of biogeographical studies, there usually has been a sharp distinction between macroorganisms, such as vascular plants and vertebrates, and microorganisms, such as bacteria, protists, fungi (including lichenised fungi) and even bryophytes. While macroorganisms were assumed to exhibit specific distribution patterns, allowing elaborate detailed classifications of biogeographic regions (Takhtajan *et al.*, 1986; Olson *et al.*, 2001), for microorganisms, it was generally assumed that “everything is everywhere” (Baas Becking, 1934; De Wit & Bouvier, 2006; O’Malley, 2007). The latter paradigm has frequently been applied for the biogeography of fungi by assuming broad and intercontinental distribution ranges for many species (e.g. Wicklow, 1981; Lücking, 2003; Feuerer & Hawksworth, 2007; Galloway, 2008; Werth, 2011; Ramírez-Camejo *et al.*, 2012; Aguilar *et al.*, 2014; Allen & Lendemer, 2015; Yang *et al.*, 2016). However, the more recent studies among these have pointed out that the biogeography of fungi is much more complex than that implied by such a simplified paradigm.

Molecular phylogenetic approaches, combined with the analysis of distribution patterns and community ecology, have made it possible to derive much more refined distribution patterns for species of fungi, resulting in many variations depending on which lineage and ecological traits are considered (Peay *et al.*, 2010; Summerell *et al.*, 2010; Tedersoo *et al.*, 2014; Song & Cui, 2017). In wood-decomposing polypores, cosmopolitan distributions are not rare, possibly explained by human dispersal through the global wood trade (Mueller *et al.*, 2006). However, this depends on individual cases and the methodological approaches, and on which genetic marker was sequenced. For example, when employing the fungal barcoding marker ITS (Schoch *et al.*, 2012), the widespread split gill fungus, *Schizophyllum commune* (Figure 1a–b), is considered a single species. Still, it shows a distinct geographic structure when employing the intergenic spacer (IGS), demonstrating that the global distribution of these fungi was originally not caused by humans (James *et al.*, 2001). A complex example in lichenised fungi is *Sticta fuliginosa*, a presumably cosmopolitan species forming conspicuous thalli. Molecular data revealed that what has been identified with this name for the past two centuries corresponds to at least 15 often distantly related species, many with restricted distributions





FIGURE 1. A–B *Schizophyllum commune* (split gill fungus) photographed in Colombia (A) and Germany (B). C–D *Sticta fuliginoides*, photographed in Colombia (C) and New Zealand (D). (Photographs by Robert Lücking.)

(Moncada *et al.*, 2014, 2020; Magain & Sérusiaux, 2015). Yet, the true *S. fuliginosa* remains a subcosmopolitan taxon, and a newly recognised taxon within this complex, *Sticta fuliginoides*, is also subcosmopolitan (Figure 1c–d). In microfungi, the situation is challenging: human-pathogenic fungi and those attacking widely utilised crops tend to become widespread following human-induced expansions of the host range and usually evolve into new regional lineages (Summerell *et al.*, 2010).

These issues make it extremely difficult to assess the overall biogeographical patterns of fungi in a biodiversity-rich country, such as Colombia, when relying primarily on phenotype-based or other taxonomic concepts, besides the fact that we do not know the total diversity of the Colombian fungi and the distribution of these species within and outside the country. This chapter refrains from deriving biogeographical patterns from the entire list of known fungal species. Instead, we focus on selected groups and specific examples to assess the realistic distribution patterns of species present in Colombia.

#### BIOGEOGRAPHY OF THE POLYPORES OF COLOMBIA

Polypores are a highly diverse group of fungi characterised by their growth form and ecology (Figure 2a–f), representing 2,300 species from the 21,000 species of Agaricomycetes within Basidiomycota (Kirk *et al.*, 2008). Species of polypores are found in various orders but are concentrated mainly in *Polyporales* and *Hymenochaetales*, which together contain around 80–90% of all polypores. These fungi are most diverse in forest ecosystems on all continents and are morphologically characterised by a typically poroid hymenophore and bracket-shaped to resupinate basidiomata. They almost exclusively occur as saprotrophs or parasites on dead or living trees, not rarely first attacking living trees and then continuing as saprotrophs on the dead trees. Only a few species grow on humus or mineral soil, and even fewer are mycorrhizal (Väisänen *et al.*, 1992; Tedersoo *et al.*, 2007). Polypores are the most critical wood decomposers, playing a pivotal role in forest ecosystems and their food webs by recycling wood, the most critical reservoir of organic carbon in the living world (Watkinson *et al.*, 2006, Krahe *et al.*, 2018).





**FIGURE 2.** Fresh basidiomes of polypores. **A–B** Polyporaceae family. **A** *Polyporus tricholoma*. **B** *Polyporus dictyopus* species complex. **C** *Hydnopolyporus fimbriatus* (Irpicaceae). **D** *Ganoderma resinaceum* (Ganodermataceae). **E** *Flaviporus liebmanii* (Steccherinaceae). **F** *Hymenochaete iodina* (Hymenochaetaceae). (Photographs A, D by Melissa Palacio; B–C, E–F by Viviana Motato-Vásquez).



The species richness and composition of polypores are influenced by climate and tree species composition in forest ecosystems. Higher tree species diversity may result in higher polypore species richness (Hattori, 2017), and tropical forests are recognised for their high diversity of tree species – commonly hundreds of species within 50 ha areas (Condit *et al.*, 2000). However, assessing host specificity can become a challenge in such settings because it may be difficult to identify host species reliably, mainly when the basidiomata are produced on dead trees, fallen trunks, or high up in mature trees. Most polypore species are rare in species-rich tropical forests, whereas there is little evidence for host specificity in more common species (Lindblad, 2000; Gilbert *et al.*, 2002). Preferences for distinctive habitat types may be more important than host specificity in determining the distribution of polypores (Lindblad, 2001).

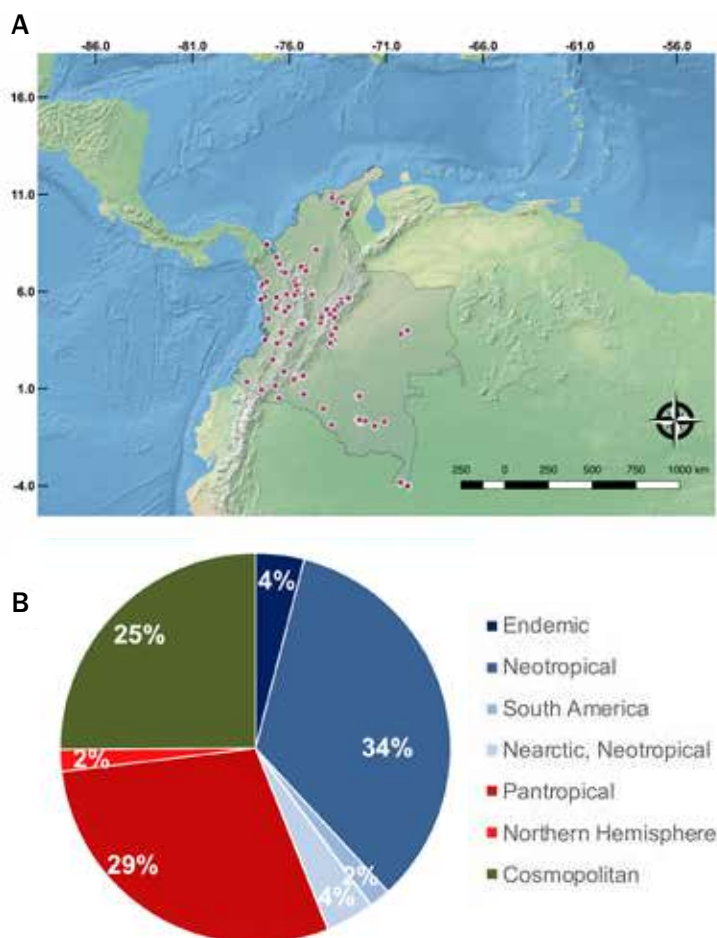
Despite significant efforts to characterise the richness of Neotropical fungi, resulting in essential checklists and inventories of Neotropical polypores (e.g. Carranza & Ruiz-Boyer, 2005; Silveira & Wright, 2005; Robledo & Rajchenberg, 2007; Baltazar & Gibertoni, 2009; Vasco-Palacios & Franco-Molano, 2013), the distribution patterns of polypores remain poorly known. Biogeographic studies on Neotropical polypores are scarce. For instance, De Lima *et al.* (2018) used polypores growing in the Brazilian rainforests to reconstruct biogeographical relationships between the Amazon Forest, Atlantic Forest, and Caatinga domains. Their results showed that polypores have distribution patterns similar to those of woody plants present in Brazilian rainforests. Another study was done with *Phellinotus piptadeniae* in the Neotropics (Salvador-Montoya *et al.*, 2015). This species is a parasitic polypore, causing heart-rot in some Fabaceae, with a disjunct distribution in moist and dry forests, including Argentina, Brazil, and Peru (Elias *et al.*, 2020). The study emphasised the importance of using host distributions in biogeographical analyses of parasitic polypores to assess distribution patterns. This fact illustrates another knowledge gap in Neotropical polypores, namely species biology, as it is often not known whether a species is parasitic or saprotrophic (or both), whether it causes white or brown rot, and whether it is a specialist or a generalist.

Based on accurate taxon concepts, the geographic distribution of species provides the data for biogeography, macroecology, and conservation science assessments. Species distributions are typically assessed through point records, either through human observation or ideally accompanied by voucher specimens that are permanently stored in scientific collections. Unfortunately, data about the geographic distribution of most fungi species known from Colombia are still insufficient, generating the so-called Wallacean knowledge shortfall, defined by the fact that geographical distribution for the majority of taxa is poorly understood and contains many gaps (Hortal *et al.*, 2015). This situation is particularly difficult for species less well-known than more charismatic species. Consequently, any effort to compile and analyse distributional data for Colombian polypores must be considered preliminary at this point.

We used a large, recently compiled database containing

all polypores recorded from Colombia, published through the ColFungi project (Gaya *et al.*, 2021; <https://colfungi.org>), assembling all (reliable) fungi species records for Colombia available in the taxonomic and biodiversity literature. With this dataset, we tried to answer accurately questions such as “where does this polypore species occur in Colombia?” Or even “how many polypore species are known to occur in this specific part (department, region, etc.) of Colombia?” Although we are still far from completing this goal, we hope to show the potential of our initiative in this case study.

A total of 84 genera and 223 polypore species have been recorded from different Colombian biomes (Figure 3a). However, the representation of data in this kind of map is limited as a tool to represent the distribution of species records (instead of representing species distribution *per se*). Each dot on this map can represent either a single record of a species or many records of several species collected at the same locality. Our data showed a high number of species with a single record (35.7% of the records, 80 species), which could be understood more as an index of sampling bias rather than as an indicator of the level of endemism.



**FIGURE 3.** **A** Distribution and occurrence of records of polypore fungi in Colombia. Each dot represents at least one record of a single species. **B** Main areas of the geographical distribution of the 223 species of polyporoid fungi registered in Colombia. Blue tones indicate species distributed at the American continent, whereas species distributed in two continents are represented by red tones, and those distributed in more than two continental areas in green.

In addition, we provide a first quantitative approach to determining the distribution patterns of Colombian polypores based on the assessment of 223 species (Figure 3b). Our results showed that most species are currently reported with a Neotropical distribution (34.1%), followed by Pantropical (27.1%) and Cosmopolitan (25.1%) distributions, whereas endemic species represent only 4%. However, this information may not be accurate because the taxonomic and phylogenetic concepts of many species in the group are still debated. In many cases, it has been shown that species believed to be widely distributed represent species complexes, which is a factor that contributes to substantial gaps and bias in the assessment of fungal biogeography. For instance, in recent decades, phylogenetic studies have shown that traditional genera, such as *Polyporus*, are polyphyletic, and several new genera have been segregated or reinstated since then. For example, *Polyporus udus*, originally described from Indonesia, has been widely recorded in the Neotropics. Motato-Vásquez *et al.* (2018) investigated the phylogenetic relationship of *P. udus* and its purported taxonomic synonyms in South America. This study showed that specimens from Argentina, Brazil, and Paraguay are not conspecific with Paleotropical specimens of *P. udus*. The Neotropical records are now recognised as *Bresadolia paradoxa*. There are several records of *P. udus* in Colombia, and future studies should attempt to untangle these specimens' true identity, especially because it is a species of importance as a food source for Amazonian indigenous tribes (Sanuma *et al.*, 2016).

In the same way, *Polyporus dictyopus* is a species that has been recorded as Cosmopolitan and presents a large number of heterotypic synonyms (with at least 16 known from tropical and subtropical America). Palacio *et al.* (2017) showed that at least five distinct species were hidden under *P. dictyopus*. The authors accommodated these species in two different genera, *Atroporus* and *Neodictyopus*. The study only included samples from Brazil, but *P. dictyopus* has been widely recorded from the Amazonian, Andean, and Pacific regions in Colombia. However, the identity of these specimens remains unknown.

Our compiled data show that the highest concentration of recorded polypores is in the Andes region within Colombia. This fact is not surprising since taxonomists tend to collect more intensively in the vicinity of their workplace. So, areas near important research institutions tend to show a higher concentration of species distribution records (Sobral & Stehmann, 2009). Most of the undercollected regions contain diverse habitats that are suitable for polypores, so the absence of records indicates strong sampling bias (Figure 3a). Nonetheless, sampling bias may not be the only explanation for the high diversity of polypores in the Andean region. This biome is known for its high diversity and endemism for many animals and plant taxa (Mutke *et al.*, 2014, and references therein). The high biodiversity of this biome is possibly related to its topographic and hydrologic heterogeneity, which resulted in species with narrow distribution ranges and the differentiation of small areas of endemism. Thus, the high diversity of polypores in

the Andes biome, compared with that in other Colombian biomes, may also result from the evolutionary history and geo-climatic characteristics of this biome. Currently, in Colombia, nine species of polyporeoid fungi are recognised as endemic: three of them are described from the Andean region, three from the Pacific, two from the Amazon, and one from the Caribbean. It is very premature to assess which region supports the greatest richness of endemic species with our data. For this reason, although logic indicates that we should focus on sampling poorly known places, it is important to consider that better-sampled and species-rich areas, such as the Andes biome, may still hold many undescribed and narrowly distributed species.

### BIOGEOGRAPHY OF ECTOMYCORRHIZAL FUNGI IN COLOMBIA

Ectomycorrhizal (EcM) fungi present different patterns of symbiotic associations with diverse families of Angiosperms and Gymnosperms (Brundett & Tedersoo, 2018; Corrales *et al.* 2018). Owing to the obligate nature of these relationships, the occurrence of EcM fungi generally coincides with the distribution of their associated plant families, which renders plant distributions critical to understanding the biogeography and abundance of EcM fungi. However, processes of dispersal and migration in EcM fungi are not always known. Recent studies have provided data to help to elucidate apparent disjunct distribution patterns, with possible scenarios including long-distance dispersal, community migration across land bridges (with possible symbiont exchange), relictual continental disjunction and multi-hosts (Moser & Horak, 1975; Halling, 1996; Halling *et al.*, 2008; Hosaka *et al.*, 2008; Lumbsch *et al.*, 2008; Matheny *et al.*, 2009; Hackel *et al.*, in press).

In Colombia, the best-studied ectomycorrhizal systems are those associated with the dominant tree in Andean Mountain ranges, *Quercus humboldtii* (Fagaceae) (Vargas & Restrepo, 2020; Peña-Vanegas & Vasco-Palacios, 2019). There is another Fagaceae that forms monodominant EcM systems, *Trigonobalanus excelsa*, but this species is poorly studied (Peña-Vanegas & Vasco-Palacios, 2019). In the Amazonian region in Colombia, studies have been carried out on the diversity of EcM fungi associated with the host tree *Pseudomonotes tropenbosii* (Dipterocarpaceae) and the Fabaceae hosts *Aldina* sp. and *Dicymbe uaiparuensis* (Vasco-Palacios *et al.*, 2018; Peña-Vanegas & Vasco-Palacios, 2019). Most of the research on EcM fungi in Colombia has focused on inventories in few localities in the Andean and Amazon regions, so we do not know the total distribution, biology, or ecology of EcM species in the country (Chapter 4).

A total of 207 species of EcM fungi are known for Colombia. Of those, 56 are new species described from Colombian specimens, including 36 putative endemics, representing a rate of endemism of nearly 18% (Table 1, Figure 4 a–f). Most of these species are associated with Fagaceae in the Andean region of the country (43 species), and about 55% of these new species are endemic (24 species) to the country. Most of these endemic species are known only from



**TABLE 1.** Data about new species of EcM fungi described from Colombian specimens based on their hosts, including the total of endemic species. Biogeographic regions are based on biogeographic realms (<https://ecoregions2017.appspot.com/>)

Plant hosts	Number of endemic species in Colombia	Neotropical South American species	Neotropical Central American species	Holarctic-tropical	Global
Fabaceae (e.g. <i>Dicymbe uaiparuensis</i> )	3	37	0	0	2
Dipterocarpaceae ( <i>Pseudomonotes tropenbosii</i> )	4	40	0	0	1
Fagaceae ( <i>Quercus</i> spp.)	25	0	33	57	12
Fabaceae ( <i>Trigonobalanus excelsa</i> )	2	0	1	0	0
Non-data, tropical lowland forests	2	1	0	0	0
Total general	36	48	34	57	15

the type specimen, or, in some cases, are known just from few collections from the type locality (e.g. *Lactarius caucae* Singer, *Russula idroboi* Singer, *Boletus orquidianus* Halling). Even though mycological expeditions have been conducted in Antioquia, Boyacá, Santander, and Tolima in the past 20 years, those did not yield any additional specimens and localities for most of these endemic species (Vargas & Restrepo, 2020; Peña-Vanegas & Vasco-Palacios, 2019). It is important to consider that a large number of unidentified fungal specimens are deposited in fungal collections around of the country. For example, in the fungal collection of the Herbarium of the Universidad de Antioquia (HUA), which is the largest in the country, houses more than 12,500 specimens, of which only 49% are identified at the species level (David *et al.* 2019; Chapter 14). In addition, most of the endemic species have no associated barcode sequences that would allow corroboration of their inferred restricted distribution.

Based on the information on the distribution of the species available on GBIF (<http://www.gbif.org>), the 207 EcM species have a primarily Neotropical distribution (44%), of those 21% occur in lowland forests in South America, and 16% in mountain areas. Near one third of the species have nordic distribution (14% Nearctic-Neotropical and 12.6% holarctic-Neotropical). Regarding the EcM species hosted by Fagaceae, 18% are endemic, 37% have a Holarctic-Neotropical (17.6%) or Nearctic-Neotropical (19.6%) distribution, and only 22% are Neotropical from mountain areas. In the case of EcM fungi from tropical lowland forests, 11% are endemic, and 76.8% occur in Neotropical-South America (Figure 5A).

*Quercus* (Fagaceae) is an important EcM plant host with Holarctic distribution. In Costa Rica, Panama, and Colombia, oak forests are primarily found in tropical montane ecosystems. The presence of oak forests in Colombia represents the southernmost limit of the geographic distribution of *Quercus* in the Americas, with *Quercus*

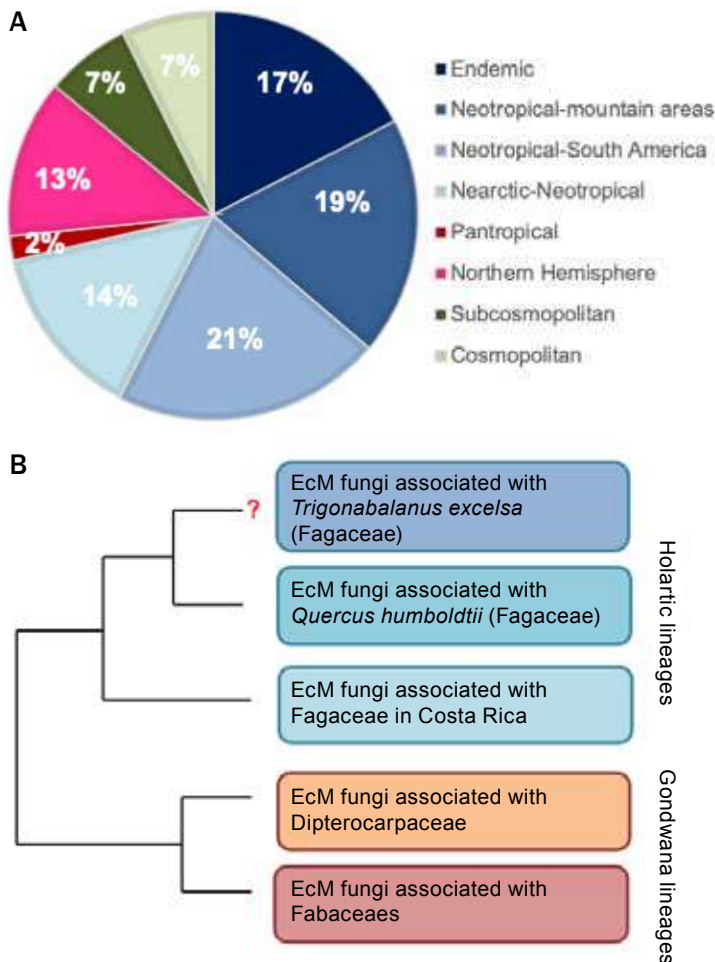
*humboldtii* being the only species present in South America, restricted to the Serranía del Darien, a small mountain range on the border with Panama, and the Andes Mountains in Colombia (Hooghiemstra, 2006; Rangel & Avella, 2011). Floristic studies in Neotropical Central and South America show patterns similar to that of the fauna concerning the Great American Biotic Interchange (GABI), which started with the closure of the Panama Isthmus approximately 3.0 Mya (Leigh *et al.*, 2014; O’Dea *et al.*, 2016). Plant communities in montane regions of Central America and the northern portion of South America are primarily composed of lineages of either Holarctic or Austral-Antarctic origin that subsequently dispersed south- or northwards. Phylogeographically, Costa Rica and Panama are more similar to Colombia than either are to Mexico (Kappelle, 2006). *Quercus* and its associated EcM fungi migrated southwards across the Panama Isthmus during the last glaciation. The remaining populations are now geographically isolated because of the absence of cooler environments, like those from high mountains, connecting Panama and Colombia (Halling 1996; Hooghiemstra, 2006; Halling *et al.*, 2008). Regardless of the available research on Neotropical oak communities, much of the taxonomy, diversity, and biogeographic history of their associated EcM communities in Colombia remains to be explored in-depth. This lack of knowledge is even more pronounced for *Trigonobalanus excelsa*. The other two known species of *Trigonobalanus*, are from SE Asia and this Neotropical species is an example of tropical Amphipacific disjunctions (van der Hammen & Cleef, 1983). Therefore, it is very interesting to know the EcM fungi lineages associated with *T. excelsa*, which could also have a Pantropical origin, contrary to those lineages associated with *Quercus humboldtii*, which has Holarctic origins. Studies of EcM agarics and boletes from *Quercus* forests in Costa Rica and Colombia indicate genus-level affinities with the Northern Hemisphere (59% of all EcM species) rather than those from tropical lowlands



**FIGURE 4.** Endemic species of EcM fungi. **A** *Russula floriformis* subsp. *floriformis*, symbiont with *Quercus humboldtii*. **B** *Phylloporus fibulatus* symbiont with *Q. humboldtii*. **C** *Sarcodon rufobrunneus* associated with *Dicymbe uaiparuensis*. **D** *Gloeocantharellus uitotanus* putatively associated with *Pseudomonotes tropenbosii*. **E** *Austroboletus amazonicus* associated with *P. tropenbosii*. **G** *Ramaria chocoënsis* without information about the possible plant host. (Photographs A by Adriana Corrales; B–E by Aída Vasco-Palacios; and G by Danny Newman.)



and temperate areas in South America (22%) (Halling *et al.*, 2008) (Figure 5b). These groups also tend towards high endemism at the species level (Halling *et al.*, 2008). In Russulaceae, a highly diverse family of EcM fungi, Andean species have different biogeographical patterns compared to those occurring in lowlands in tropical South America. The association of Andean Russulaceae with northern temperate plant lineages suggested recent co-immigration with *Quercus* when the latter colonised the rising Andes during the Pleistocene (Hackel *et al.*, in press). For example, *Russula floriformis* subsp. *floriformis* and *R. floriformis* subsp. *symphoniae* were recently described as new from montane forest dominated by *Quercus* and/or *Oreomunnea* (Fagales) from Colombia and Panama, respectively (Vera *et al.*, 2021) (Figure 4a). These two subspecies' morphological and phylogenetic proximities supported their diversification due to a co-immigration, adaptation and geographic isolation of *Quercus* and their symbionts along the Isthmus of Panama



**FIGURE 5. A** Proportions of distribution of EcM fungi species with occurrence in Colombia, Neotropical. Blue tones indicate species distributed on the American continent, whereas red species distributed in two continents, and green are species in more than two continental areas. **B** EcM fungi in neotropical oak communities belong to Holarctic lineages. By contrast, Gondwanan lineages are represented in the EcM fungi of tropical lowland forests in the Colombian Amazon, African Fabaceae and Asian Dipterocarpaceae.

during the Pleistocene (Vera *et al.*, 2021). While there are some specific examples, in general there is a big gap in the knowledge of EcM fungi, particularly those associated with Fagaceae. For example, the EcM diversity associated with *T. excelsa* is almost unknown, and therefore we do not know whether this plant host share species of EcM fungi with *Q. humboldtii* or not, considering that they present different origins (Tropical Amphi-pacific vs Holarctic). Other little-known patterns that affect the distribution of the species is the arrival of invasive species, such as *Amanita muscaria*, which has been detected on roots of *Q. humboldtii* (Vargas *et al.*, 2019).

In wet tropical lowland forests, Dipterocarpaceae and Fabaceae represent two distantly related plant lineages within the angiosperms that have separately evolved the ability to form EcM symbioses (Wang & Qiu, 2006). As mentioned before, these hosts occur in tropical rainforests in the Amazon region, supporting a surprising diversity of EcM fungi, with a total of 114 morphospecies. However, based on the available information (descriptions or keys), only 61 of those morphospecies are correlated to species names, with 20 corresponding to species that are to science, only some of which are in process of description (Vasco-Palacios 2016; Vasco-Palacios *et al.*, 2014, 2018). Of the 61 species, 45 were associated with *Pseudomonotes tropenbosii* (Dipterocarpaceae) and 42 species with Fabaceae (Table 1). The discovery of the endemic tree *P. tropenbosii* emphasises a phylogeographical link between the Colombian Amazon and continental Africa and Madagascar (Morton *et al.*, 1999). In addition, the EcM status of *P. tropenbosii* indicates that the EcM habit evolved before the continental separation, and that radiations of EcM fungi associated with dipterocarps across continents are explained by co-migrations of the fungus and host partners (Halling *et al.*, 2008; Brearley *et al.*, 2012; Moyersoen, 2012). In addition, several EcM fungal species that were previously restricted to the Guiana Shield were extended to Central Amazonia in Colombia. For example, *Clavulina* is a cosmopolitan genus, with many species recorded growing in Fabaceae- and Cistaceae-dominated forests (Henkel *et al.*, 2012; Smith *et al.*, 2011, 2013). Uehling *et al.* (2012) proposed the Guyana region as a diversification hotspot for *Clavulina*. Eighteen species of this genus were collected from *P. tropenbosii* forests in three years of sampling, representing 72% of the total species reported from Guyana (Vasco-Palacios & Boekhout, 2022). Similarities in the EcM fungi community structure between *P. tropenbosii*, Fabaceae forests, and *Pakaraimaea* (Cistaceae) suggested a low level of host specificity. Nearly 43% of the species associated with *P. tropenbosii* have also been reported from Fabaceae forests in the Neotropics (Vasco-Palacios, 2016). This scenario is the case for the rare ascomycete, *Pseudotulostoma volvatum*, whose type specimen was collected associated with ectomycorrhizal *Dicymbe corymbosa* (Fabaceae) trees and was also found associated with *P. tropenbosii* in Colombia. Species such as *Amanita xerocybe*, *Craterellus atratus*, *Clavulina amazonensis*, and *Coltriciella oblectabilis* are widely distributed in the Amazonian region and the Guyana plateau being associated



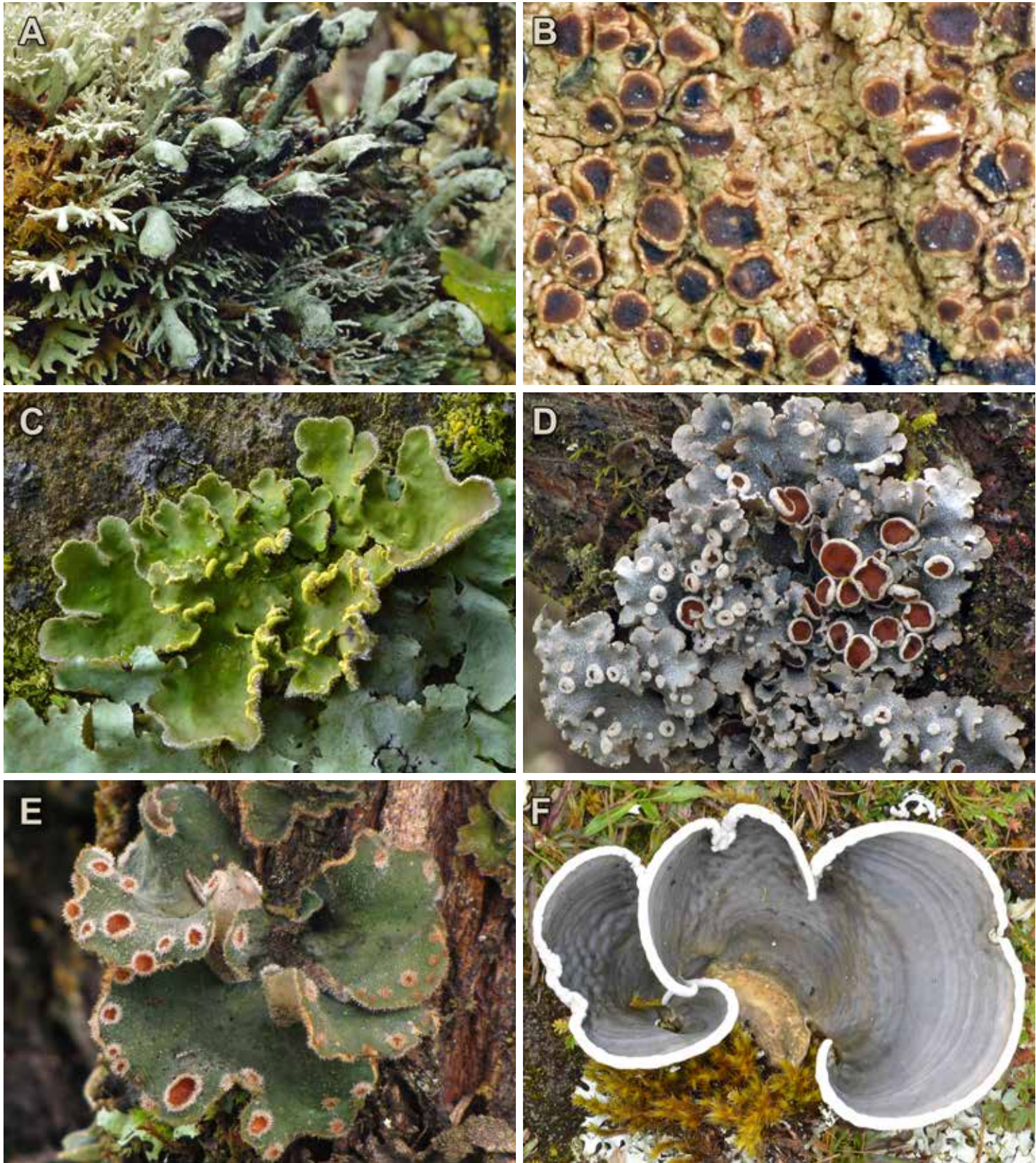


FIGURE 6. Lichenised fungi analysed in this chapter. A *Bunodophoron melanocarpum*. B *Neoprotoparmelia multifera*. C *Crocodia aurata*. D *Lobariella sipmanii*. E *Sticta hirsuta*. F *Cora elephas*. (Photographs by Robert Lücking.)



with multiple hosts (Singer *et al.*, 1983; Henkel *et al.*, 2002, 2012; Smith *et al.*, 2013; Roy *et al.*, 2016). These findings show that, although EcM symbioses seem rare in lowland tropical forests and host plants are often distributed in isolated patches, lowland forest EcM fungi may be abundant and may present broad distribution ranges.

Long-distance dispersal combined with low host specificity may increase the possibility of gene flow between geographically distant populations of these EcM fungi (Roy *et al.*, 2016; Tedersoo *et al.*, 2010; Moyersoen, 2012; Vasco-Palacios *et al.*, 2018). Other important hosts of EcM fungi in tropical lowland forests are Nyctaginaceae (e.g., *Neea*, *Guapira*) and Polygonaceae (e.g., *Coccoloba*), but little is known about these ecosystems and the role of those plant hosts in species distribution throughout the vast territory of the Amazon region (Vasco-Palacios *et al.*, 2020). Phylogenetic studies in tropical lowland EcM lineages are consistent with a Gondwanan origin, i.e., phylogeographic links between South America and Africa (Figure 5b) (Moyersoen, 2012; Hosaka *et al.*, 2008; Matheny, 2009; Koch *et al.*, 2019). Further studies will help us to identify distribution patterns of EcM fungi (dispersal vs vicariance), as well as host specificity and preferences.

#### BIOGEOGRAPHY OF COLOMBIAN LICHENS: TRADITIONAL TAXONOMY VERSUS MOLECULAR DATA

Chapter 6 presents an analysis of the distribution patterns of Colombian lichens, primarily relying on a phenotype-based species concept but including published results from molecular data available for some groups. According to that analysis, more than half of the species (53%) are presumably

widely distributed, including Gondwanan (American-African) and circumpacific (American-Asian) disjunctions, species found across the Northern or the Western Hemisphere, and pantropical and (sub-)cosmopolitan taxa. The largest proportion of a particular distribution type is provided by Neotropical species (35%), whereas endemic species presumably correspond only to 8.5% (Chapter 6).

To assess this pattern, we looked at eight genera for which a large amount of molecular data are available: *Bunodophoron* (Sphaerophoraceae), *Neoprotoparmelia* (Parmeliaceae), *Crocodia*, *Lobariella*, *Podostictina*, *Pseudocyphellaria*, *Sticta* (Peltigeraceae, all Ascomycota), and *Cora* (Hygrophoraceae, Basidiomycota). These lichens include crustose (*Neoprotoparmelia*), fruticose (*Bunodophoron*), and foliose lichens (all other genera; Figure 6a–f). We used the checklist published by Sipman *et al.* (2008) to assess the number of species corresponding to these eight genera in Colombia and their presumed distribution patterns before molecular studies. We then analysed published and unpublished molecular data to estimate the actual number of species in the corresponding trees and their distribution ranges (Moncada *et al.*, 2013, 2014; Lücking *et al.*, 2017a, b; Soto-Medina *et al.*, 2018; Santos *et al.*, 2019).

Based on Sipman *et al.* (2008), the eight genera correspond to 49 mostly phenotypically defined species (Table 2), with primarily broad distribution ranges: about 20% (sub-)Cosmopolitan or in the Southern Hemisphere, 10% pantropical, 12% circumpacific or in the Neotropics and Hawaii, and 2% Gondwanan (Figure 7a). By contrast, 39% were inferred as Neotropical and 12% as endemic, somewhat higher than the overall proportions for all

**TABLE 2.** Species corresponding to the lichenised fungal genera *Bunodophoron*, *Cora*, *Crocodia*, *Lobariella*, *Neoprotoparmelia*, *Podostictina*, *Pseudocyphellaria*, and *Sticta* in the checklist by Sipman *et al.* (2008).

Currently accepted genus	Original genus from Sipman <i>et al.</i> (2018)	Species/variety/form	Family	Distribution
<i>Bunodophoron</i>	<i>Bunodophoron</i>	<i>insigne</i>	Sphaerophoraceae	Southern Hemisphere
<i>Bunodophoron</i>	<i>Bunodophoron</i>	<i>melanocarpum</i>	Sphaerophoraceae	Cosmopolitan
<i>Cora</i>	<i>Dictyonema</i>	<i>glabratum</i>	Hygrophoraceae	Subcosmopolitan
<i>Lobariella</i>	<i>Lobariella</i>	<i>crenulata</i>	Peltigeraceae	Neotropical-Hawaii
<i>Lobariella</i>	<i>Lobariella</i>	<i>exornata</i>	Peltigeraceae	Neotropical
<i>Lobariella</i>	<i>Lobariella</i>	<i>pallida</i>	Peltigeraceae	Neotropical
<i>Lobariella</i>	<i>Lobariella</i>	<i>subexornata</i>	Peltigeraceae	Neotropical-Hawaii
<i>Neoprotoparmelia</i>	<i>Maronina</i>	<i>multifera</i>	Parmeliaceae	Circumpacific
<i>Crocodia</i>	<i>Pseudocyphellaria</i>	<i>arvidssonii</i>	Peltigeraceae	Neotropical
<i>Crocodia</i>	<i>Pseudocyphellaria</i>	<i>aurata</i>	Peltigeraceae	Pantropical
<i>Crocodia</i>	<i>Pseudocyphellaria</i>	<i>clathrata</i>	Peltigeraceae	Pantropical
<i>Pseudocyphellaria</i>	<i>Pseudocyphellaria</i>	<i>crocata</i>	Peltigeraceae	Subcosmopolitan

TABLE 2. (continued)

Currently accepted genus	Original genus from Sipman et al. (2018)	Species/variety/form	Family	Distribution
<i>Podostictina</i>	<i>Pseudocyphellaria</i>	<i>encoensis</i>	Peltigeraceae	Southern Hemisphere
<i>Pseudocyphellaria</i>	<i>Pseudocyphellaria</i>	<i>intricata</i>	Peltigeraceae	Pantropical
<i>Sticta</i>	<i>Sticta</i>	<i>ambavillaria</i>	Peltigeraceae	Gondwanan
<i>Sticta</i>	<i>Sticta</i>	<i>andensis</i>	Peltigeraceae	Neotropical
<i>Sticta</i>	<i>Sticta</i>	<i>andreana</i>	Peltigeraceae	Neotropical
<i>Sticta</i>	<i>Sticta</i>	<i>beauvoisii</i>	Peltigeraceae	Neotropical-North American
<i>Sticta</i>	<i>Sticta</i>	<i>brevior</i>	Peltigeraceae	Endemic
<i>Sticta</i>	<i>Sticta</i>	<i>canariensis</i>	Peltigeraceae	Subcosmopolitan
<i>Sticta</i>	<i>Sticta</i>	<i>cometia</i>	Peltigeraceae	Neotropical
<i>Sticta</i>	<i>Sticta</i>	<i>cordillerana</i>	Peltigeraceae	Endemic
<i>Sticta</i>	<i>Sticta</i>	<i>damicornis</i>	Peltigeraceae	Subcosmopolitan
<i>Sticta</i>	<i>Sticta</i>	<i>dilatata</i>	Peltigeraceae	Neotropical
<i>Sticta</i>	<i>Sticta</i>	<i>filicinella</i>	Peltigeraceae	Neotropical
<i>Sticta</i>	<i>Sticta</i>	<i>fuliginosa</i>	Peltigeraceae	Subcosmopolitan
<i>Sticta</i>	<i>Sticta</i>	<i>granatensis</i>	Peltigeraceae	Endemic
<i>Sticta</i>	<i>Sticta</i>	<i>gyalocarpa</i>	Peltigeraceae	Neotropical
<i>Sticta</i>	<i>Sticta</i>	<i>humboldtii</i>	Peltigeraceae	Neotropical
<i>Sticta</i>	<i>Sticta</i>	<i>impressula</i>	Peltigeraceae	Endemic
<i>Sticta</i>	<i>Sticta</i>	<i>kunthii</i>	Peltigeraceae	Neotropical
<i>Sticta</i>	<i>Sticta</i>	<i>kunthii</i> var. <i>pilosella</i>	Peltigeraceae	?
<i>Sticta</i>	<i>Sticta</i>	<i>laciniata</i>	Peltigeraceae	Neotropical
<i>Sticta</i>	<i>Sticta</i>	<i>laciniata</i> var. <i>denudata</i>	Peltigeraceae	?
<i>Sticta</i>	<i>Sticta</i>	<i>laciniata</i> var. <i>laeviuscula</i>	Peltigeraceae	?
<i>Sticta</i>	<i>Sticta</i>	<i>laevis</i>	Peltigeraceae	Neotropical
<i>Sticta</i>	<i>Sticta</i>	<i>lenormandii</i>	Peltigeraceae	Neotropical
<i>Sticta</i>	<i>Sticta</i>	<i>leucoblepharis</i>	Peltigeraceae	Neotropical
<i>Sticta</i>	<i>Sticta</i>	<i>limbata</i>	Peltigeraceae	Cosmopolitan
<i>Sticta</i>	<i>Sticta</i>	<i>macrophylla</i>	Peltigeraceae	Pantropical
<i>Sticta</i>	<i>Sticta</i>	<i>neolinita</i>	Peltigeraceae	Neotropical
<i>Sticta</i>	<i>Sticta</i>	<i>neopulmonaria</i>	Peltigeraceae	Endemic
<i>Sticta</i>	<i>Sticta</i>	<i>obvoluta</i>	Peltigeraceae	Neotropical-South American
<i>Sticta</i>	<i>Sticta</i>	<i>orizabana</i>	Peltigeraceae	Neotropical
<i>Sticta</i>	<i>Sticta</i>	<i>peltigerella</i>	Peltigeraceae	Endemic
<i>Sticta</i>	<i>Sticta</i>	<i>peruviana</i>	Peltigeraceae	Neotropical
<i>Sticta</i>	<i>Sticta</i>	<i>rudiuscula</i>	Peltigeraceae	?



TABLE 2. (continued)

Currently accepted genus	Original genus from Sipman <i>et al.</i> (2018)	Species/variety/form	Family	Distribution
<i>Sticta</i>	<i>Sticta</i>	<i>sinuosa</i>	Peltigeraceae	Circumpacific
<i>Sticta</i>	<i>Sticta</i>	<i>subcaperata</i>	Peltigeraceae	Circumpacific
<i>Sticta</i>	<i>Sticta</i>	<i>subscrobiculata</i>	Peltigeraceae	Neotropical
<i>Sticta</i>	<i>Sticta</i>	<i>tomentella</i>	Peltigeraceae	Circumpacific
<i>Sticta</i>	<i>Sticta</i>	<i>tomentosa</i>	Peltigeraceae	Pantropical
<i>Sticta</i>	<i>Sticta</i>	<i>tomentosa</i> f. <i>latior</i>	Peltigeraceae	?
<i>Sticta</i>	<i>Sticta</i>	<i>tomentosa</i> f. <i>ornata</i>	Peltigeraceae	?
<i>Sticta</i>	<i>Sticta</i>	<i>tomentosa</i> var. <i>dilatata</i>	Peltigeraceae	?
<i>Sticta</i>	<i>Sticta</i>	<i>weigeli</i>	Peltigeraceae	Subcosmopolitan

lichen fungi (see Chapter 6). However, when analysing the same genera based on molecular data, the total number of species was estimated at 283, almost six times the previous number, demonstrating the high degree of hidden diversity in these taxa. The bulk of these additional species is found in the genera *Cora* and *Sticta*, where many of the phylogenetically defined clades still await formal description (Lücking *et al.*, 2014, 2017a). When inferring the distribution of these lineages, the overwhelming majority (95%) was reconstructed as either endemic or Neotropical (Figure 7b). The exact proportion of truly endemic versus more widespread Neotropical species is difficult to assess due to the lack of dedicated inventories in many other Neotropical areas. However, it is to be expected that many of these species also occur in other South American countries, and some may extend to Central America and/or the Caribbean, so the current 75% endemic versus 20%

Neotropical species will likely shift in favour of the latter. However, the global data for these groups suggest that these species are not intercontinentally widespread.

The observed difference between traditional phenotypic and combined molecular-phenotypic species concepts in these groups is substantial, showing an entirely different picture of biogeographic patterns of Colombian lichens (Figure 7a, b). Nevertheless, it is not possible to extrapolate these results to all lichenised lineages in Colombia. The hyperdiversity of *Cora* in particular is distorting the picture due to the high degree of previously unrecognised, hidden diversity in this genus, from just one to currently 78 species recognised in Colombia. Even so, this exercise suggests that biogeographical distribution patterns derived from traditional, phenotype-based species concepts are not reliable.

## CONCLUSIONS

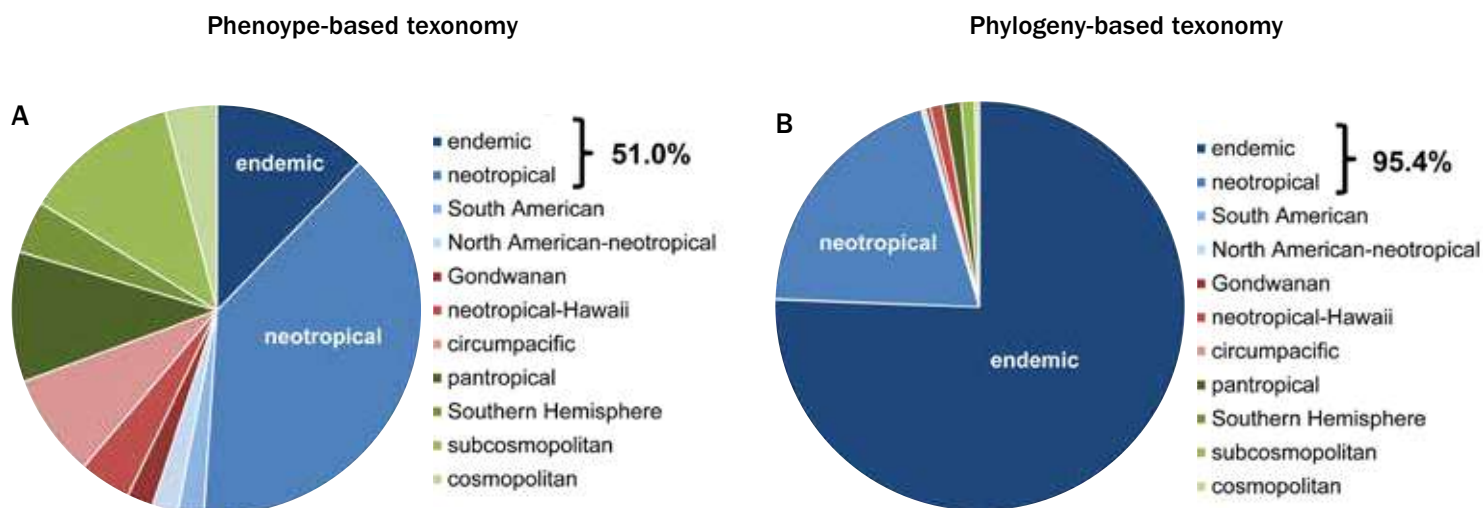


FIGURE 7. Proportions of distribution types among species of eight selected lichen-forming fungal genera in Colombia.

Our assessment of three selected groups of fungi in Colombia shows that various factors contribute to substantial gaps and bias in assessing fungal biogeography in species-rich tropical countries. One of these factors is the often poor knowledge on the ecology and distribution of species and their accurate delimitation. If these factors are not considered, biogeographical assessments can be significantly misleading, both for individual species and for fungi as a whole. This has implications for evaluating their status as potential endemics and their conservation assessment. Precise knowledge of species is one requirement to address this problem, and cataloguing all species on the planet should be the main goal of biodiversity research. However, discovering and naming species is just part of the challenge. Knowing their ecology and geographic distribution is equally important if we intend to fully understand and preserve Earth's biota. Using polypores, ectomycorrhizal fungi, and lichenised fungi as examples, we have demonstrated that species in these groups are generally poorly known, and their biogeographical patterns are hard to assess.

Therefore, fungal distribution ranges are often misrepresented by available records within and outside Colombia. Targeted field explorations, particularly in remote habitats, and phylogeographic studies are needed to provide reliable data to correct these issues. This kind of study should complement important but undervalued, continuously updated species lists and distribution reports. The maintenance and improvement of collection databases, such as ColFungi (<https://colfungi.org>), GBIF (<http://www.gbif.org>), and SIB (<https://sibcolombia.net>) will contribute to the broad distribution of knowledge about the Colombian fungi. All of these efforts require the continued work of trained taxonomists, who continue to be essential assets in the mission to document and understand Colombia's and the world's biodiversity.

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*Amanita xerocybe*

[Aida Marcela Vasco-Palacios]









*Scleroderma flavidum*  
[Robert Lücking]



# Chapter 11

## Diversity, Functional Groups, and Community Structure of Fungi of Colombia

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### ABSTRACT

Owing to its tropical location and great diversity of ecosystems, Colombia hosts a high diversity of fungi, which play fundamental roles in ecosystems as mycorrhizas, saprophytes, endophytes, and pathogens. In this chapter, we describe a literature review of ecological studies focusing on the most - studied fungal functional groups of Colombia: arbuscular mycorrhizas, ectomycorrhizas, saprotrophs, and endophytes. To complement the literature review, we used the University of Antioquia Herbarium (HUA) database, which includes more than 11,000 macrofungi specimens, to run alpha diversity and network analyses. The alpha diversity analyses were performed using species accumulation curves for the total number of specimens and specimens divided by ecosystem types (oak forests, mixed montane forests, Amazonian lowland forests, and extra-Amazonian lowland forests) and with diversity indexes based on Chao 1 and bootstrap estimators. Network analysis was based on correlation matrices among main ecosystem types. These analyses made it possible to compare the species richness and diversity patterns among the main ecosystem types. Our results show a high number of collections of ectomycorrhizal fungi from oak forests, which are typical of this type of ecosystem, and a high alpha diversity for Colombia's Amazonian lowland forests. We highlight significant knowledge gaps regarding ecological research in the country as the diversity patterns of many functional groups of fungi are still unknown. We recommend increasing the number of studies based on environmental sequencing techniques because these will allow the inclusion species of microfungi.

### RESUMEN

Colombia por su ubicación en la región tropical y su gran diversidad de ecosistemas, favorece una alta diversidad en hongos, los cuales son fundamentales en los ecosistemas dado que juegan papeles importantes como hongos micorrízicos, saprófitos, endófitos y patógenos. Para el presente trabajo se realizó una revisión de literatura de estudios ecológicos enfocados en los grupos funcionales de hongos más estudiados en el país. Para complementar la información obtenida en la revisión de literatura, se utilizó la base de datos del herbario de la Universidad de Antioquia (HUA), la cual incluye más de 11.000 colecciones de macrohongos, para realizar análisis de diversidad alfa y análisis de redes. Los análisis de diversidad alfa se realizaron con curvas de acumulación de especies para el total de las colecciones y para las colecciones divididas por tipos de ecosistemas (bosque de roble, bosque montano mixto, tierras bajas amazónicas y otras tierras bajas) y con estimadores de diversidad basados en Chao 1 y análisis de bootstrap. Los análisis de redes se realizaron con base en matrices de correlación entre los principales ecosistemas. Con estos análisis fue posible comparar la riqueza de especies entre los principales tipos de ecosistemas, y a su vez se pudo identificar los principales patrones de diversidad beta para el país. Los resultados muestran una alta diversidad alfa para los bosques amazónicos de tierras bajas del país, ya que con menor número de colecciones se obtuvo un número total de 524 especies, con un número estimado de especies entre 638 y 975. Además, se observó un elevado número de especies (474) en los bosques de roble en su mayoría representados por especies ectomicorrízicas, lo que lo posiciona en el segundo ecosistema más rico en especies de hongos del país con una riqueza estimada de especies entre 566 y 847. Los análisis de redes mostraron un bajo número de especies compartidas entre los bosques de roble y los demás ecosistemas; mientras que los bosques montanos mixtos y los bosques de tierras bajas comparten un número alto de especies. Nuestros resultados muestran la existencia de grandes vacíos de información en cuanto a investigación ecológica en el país, ya que aún se desconocen los patrones de diversidad de muchos grupos funcionales de hongos. En especial, se recomienda realizar estudios basados en técnicas de secuenciación de muestras ambientales, ya que estos permitirán incluir especies de microhongos los cuales no pueden ser estudiados con el uso de colecciones de herbario.

## INTRODUCTION

Fungi are an essential part of Colombia's biodiversity, being fundamental for the country's ecosystem functioning (Dighton, 2018), intervening in biogeochemical cycles, controlling plant species abundance and distribution, and being vital in food webs (Dighton, 2018). Based on the most recent review, there are 7,241 species of fungi reported for Colombia (Gaya *et al.*, 2021). Different species are usually classified into functional groups or guilds based on their strategies for resource acquisition and associated functional traits (Zanne *et al.*, 2020). The main functional groups of plant-associated fungi are saprotrophs, endophytes, mycorrhizae, and pathogenic fungi (Zanne *et al.*, 2020).

Saprotrophs are known for releasing an extensive repertoire of digestive enzymes that transform organic matter into smaller molecules, which can be later used by other fungi, plants, and animals (Mata *et al.*, 2003). Endophytic fungi are microorganisms that grow inside plant tissue without causing disease symptoms (Rodríguez & Lora, 2016). Endophytes help to promote plant growth through various mechanisms such as phosphate solubilisation, iron chelation, and modulation of hormonal levels (Bolívar-Anillo *et al.*, 2016). However, this mutualistic relationship could be altered in extreme conditions such as low nutrient availability, when endophytic fungi could become pathogenic (Orjuela, 2018). Mycorrhizal fungi are mutualistic fungi associated with the roots of plants that provide water and nutrients to the plant in exchange for sugar (Dighton, 2018). There are two main types of mycorrhizal fungi: arbuscular mycorrhizal fungi (AMF), characterised by the formation of arbuscules and vesicles inside the root cells, and ectomycorrhizal (EcM) fungi, characterised by the formation of a hyphal mantle and the Hartig net around the root cells. Finally, pathogenic fungi typically cause disease to their host plant due to their antagonistic interactions for resource acquisition (Dighton, 2018).

The purpose of this chapter is to synthesise the available information for the most - studied fungal functional groups in Colombia—arbuscular and ectomycorrhizal fungi, plant endophytes, and saprotrophic fungi — in order to elucidate their diversity patterns and community structure in Colombian ecosystems. In addition, we used the University of Antioquia Herbarium (HUA, 2020) specimen database, which is the largest fungarium dataset in the country, to identify the main diversity patterns of macrofungi in Colombia.

## MATERIAL AND METHODS

We initially performed a literature review on all topics related to the ecology and biodiversity of fungi in Colombia using the Google Scholar platform. The following keywords were used in English and Spanish: “Ecology of Colombian fungi”, “Diversity of Colombian fungi”, “Endophytes in Colombia”, “Mycorrhizal fungi in Colombia”, and “Saprotrophic fungi in Colombia” without a restriction for the year of publication. All available publications were used, including journal articles, books, and theses.

To complement the ecological information available from the literature review, we used the University of Antioquia Herbarium (HUA, 2020) specimen database to explore the diversity patterns of Colombian macrofungi. This database includes 11,313 herbarium specimens collected between 1962 and 2020 from 21 Colombian departments. This dataset has been previously curated, and the scientific names revised on the basis of the Index Fungorum (<http://www.indexfungorum.org>). From the total number of records, 10,257 had habitat information and they were divided into four ecosystem types and two land covers for this analysis, as follows: oak forests (OF, 3,394 specimens) including all specimens collected in *Quercus humboldtii*- or *Trigonobalanus excelsa*-dominated forests; montane mixed forests (MMF, 1,640 specimens) comprising specimens collected in sites over 1,500 m altitude and that were not reported as oak forests; Amazonian lowland forests (ALF, 2,558 specimens) including specimens that were collected in the departments of Caquetá and Amazonas; extra-Amazonian lowland forests (EALF, 2,300 specimens) comprising specimens collected in sites lower than 1,500 m altitude and that were not collected in the departments of Caquetá or Amazonas; conifer plantations (171 specimens) including specimens collected in habitats with the presence of exotic trees, such as *Pinus patula* or *Cupressus lusitanica*; and urban areas (194 specimens) comprising specimens collected in urban areas such as neighbourhoods or city parks.

Specimens from the dataset were also assigned to functional groups using the primary lifestyle in the FungalTraits database (Pölme *et al.*, 2020). After assignment, the functional groups were reorganised into more general functional groups as follows: animal parasite, ectomycorrhizal (EcM), litter saprotroph, mycoparasite, plant pathogen, wood saprotroph, and unspecified saprotroph (including specimens classified as “soil saprotroph”, “dung saprotroph”, and “unspecified saprotroph” in the FungalTraits database). We also assigned decomposition types, such as white and brown rot, using the same database. Species accumulation curves were used to compare species richness among the main ecosystem types (oak forests, mixed montane forests, Amazonian lowland forests, and extra-Amazonian lowland forests). Total species richness was calculated using the Chao1 and bootstrap estimators in the package *vegan* in the software R v4.1.0 (R Core Team, 2021). A correlation matrix network graph including the main ecosystem types was created using the *corr* package in R. Only nodes with correlations higher than 0.4 were included in the graphic to only show nodes with strong connections in terms of the number of shared species. Herbarium specimens were grouped by collection year for all statistical analyses to create a species abundance matrix covering 49 years.

## RESULTS AND DISCUSSION

### *Arbuscular mycorrhizal fungi (AMF)*

In Colombia, AMF has been the most studied - fungal functional group in terms of ecology, giving its importance to plant growth (Begum *et al.*, 2019). Most studies are based on



spore number counts (e.g., Restrepo *et al.*, 2019; Sandoval & Ordoñez, 2019), evaluation of mycorrhizal colonisation on roots (e.g., Restrepo *et al.*, 2019), and identification of morphotypes based on spore morphology (e.g., Posada *et al.*, 2018). However, during the past five years, there has been an increase in ecological studies using metagenomic approaches (Peña-Venegas *et al.*, 2021). Questions regarding the influence of biotic and abiotic factors on AMF spore number, species richness, and species composition have been addressed in anthropogenic and natural ecosystems throughout the Colombian territory (e.g., López, 2009; Tirado-Ardila, 2017).

In general, it has been shown that soil variables have a substantial effect on all aspects of AMF ecology. For example, Restrepo *et al.* (2019), studying AMF from cattle ranching systems in the department of Antioquia, found that in lowland ecosystems of the Magdalena Medio, spore abundance was negatively correlated with Ca, Mg, K, P, and pH, while in the montane systems of northern Antioquia AMF colonisation was positively correlated with K. Also, Sandoval & Ordoñez (2019) found a negative correlation between pH and AMF spore abundance in more acid soils, showing higher spore counts in secondary montane and bamboo dominated forests. By contrast, in coffee plantations in the same sites, AMF spore abundance was negatively correlated with Na, K, Mg, Ca, and soil compaction. In a similar montane ecosystem, Peña & Botía (2018), studying forests in different successional stages, found that AMF soil spore abundance was positively correlated with soil organic matter content, temperature, and K, but negatively correlated with Fe, P, Ca, Zn, and soil compaction.

Regarding AMF species richness and composition, Peña-Venegas *et al.* (2021), using molecular approaches in lowland rubber plantations, found that AMF species richness was negatively correlated with pH, Ca, Mg, and P. These authors also found that AMF species composition changed along a Na - availability gradient, with soil texture being also an important factor structuring the communities. Using morphotypes extracted from soil and bait cultures from coffee plantations in the Risaralda department, Posada *et al.* (2018) found that AMF species richness was negatively correlated with available P and soil organic carbon content, and had a positive correlation with soil water content and pH. Mahecha-Vásquez *et al.* (2017), in a study done in banana agricultural systems in several Colombian departments with high soil P availability, reported low AMF species diversity, with species composition being exclusive to each site. They also found that species richness was positively correlated with pH, finding more AMF species in plantations with higher pH.

Studies using metagenomic approaches have increased in recent years. A study done by Peña-Venegas *et al.* (2021) comparing traditional morphological and molecular approaches in rubber plantations in Caquetá found, with both approaches, that Glomeraceae was the dominant taxon. However, molecular data showed a higher diversity and more significant differences in species composition among sites when compared with spore morphotype

analysis. In addition, molecular data showed a higher number of Archaeosporaceae and Gigasporaceae and other rare species that are usually undetectable when using spore morphology due to their infrequent sporulation (Peña-Venegas *et al.*, 2021). In another study, Peña-Venegas *et al.* (2020) also compared the diversity of AMF using spore morphology and molecular methods. They found similar species richness with both methods (88 with spore morphology and 85 with molecular methods), with *Glomus* being the dominant genus. Several studies from other sites of Colombia at low and high altitudes also found *Glomus* to be the most dominant genus (Restrepo *et al.*, 2019; Peña-Venegas *et al.*, 2021).

Regarding changes of AMF communities along altitudinal gradients, there have been two studies. Peña-Venegas *et al.* (2020) studied AMF in an altitudinal gradient between 500m and 1,850 m altitude. They found that the abundance of AMF spores had a positive correlation with higher altitudes. This positive correlation with altitude could be associated with increased phosphorus limitation with altitude (Peña-Venegas *et al.*, 2020). Species composition also changed with elevation, with each site showing a characteristic community with few species distributed among altitudes. Regardless of this increase in spore abundance and changes in composition, species richness was constant along the altitudinal gradient (Peña-Venegas *et al.*, 2020). Studies performed in the Andes mountain range at higher altitudes showed a negative relationship between the number of AMF spores in the soil and P content at increasing altitudes (López, 2009; Tirado-Ardila, 2017).

The degree of anthropic intervention or successional states has been shown to alter the species richness of AMF in Colombia. A study by Sandoval & Ordoñez (2019), looking at sites with different levels of anthropogenic disturbance (coffee plantation, bamboo - dominated forest, and secondary forest) in the Cundinamarca department, found that the number of AMF spores in the soil was negatively correlated with the degree of disturbance. Soil from secondary and bamboo dominated forests showed the highest number of AMF spores, while the coffee plantation had the lowest spore count (Sandoval & Ordoñez, 2019). In another study, including five different successional stages (pioneer, early-intermediate, intermediate, late-intermediate, and old mature forest), also in the department of Cundinamarca, Peña & Botía (2018) did not find significant differences in the number of AMF spores in the soil from different successional stages. However, they reported an inverse unimodal trend between the number of AMF spores in the soils and time after abandonment, with old grown forest and the “pioneer” stage showing greater abundances of AMF spores in the soil. This same trend was found by Peña-Venegas *et al.* (2021) in rubber plantations from the Caquetá department, where plantations over nine years old showed a higher richness of AMF than younger plantations. García *et al.* (2004) studied the richness of AMF morphotypes and root mycorrhizal colonisation in plants in different developmental stages (seedlings, saplings, and adults) in well - preserved montane forest and disturbed paramo

communities near Bogotá. They found that individuals in early stages of development growing in sites with minor disturbance showed higher mycorrhizal colonisation than adult individuals or areas with anthropogenic disturbance. In addition, when comparing mycorrhizal colonisation between dry and rainy seasons, there was a higher degree of mycorrhizal colonisation during the rainy season in all species. In terms of AMF species richness, they report a decrease in richness in the sites with less intervention.

### ***Ectomycorrhizal (EcM) fungi***

In Colombia, EcM-dominated systems are rare and represented mainly by oak-dominated systems in Andean montane forests with *Quercus humboldtii* as the primary host and in Dipterocarpaceae/Fabaceae ectomycorrhizal systems in the Amazonian lowland forests (Peña-Venegas & Vasco-Palacios, 2019). The ecology of EcM fungi in Colombia has been mostly studied on the basis of collections of fruiting bodies (e.g., Vargas & Restrepo, 2020). However, some recent studies have used metagenomic approaches (e.g., Vasco-Palacios *et al.*, 2020).

The best-studied systems in the country in terms of EcM ecology are the white sand and *terra-firme* Amazonian forests, with several studies including molecular data and fruiting body surveys. Vasco-Palacios *et al.* (2018) studied EcM fungi associated with *Dicymbe* and *Aldina* trees in white-sand forests in the department of Amazonas. Based on molecular data from fruiting body surveys and root tips, these authors found a high level of endemism and diversity in EcM fungi with a total of 48 species. They also found that some species reported for these hosts in Colombia have already been reported as associated with congeneric hosts in distant sites of Guyana, showing the possibility of long-distance dispersal of EcM fungal species. Also, Vasco-Palacios *et al.* (2020) studied fungal communities from *terra-firme* forests dominated by AMF trees (mixed forest) and EcM trees (*Pseudomonotes tropenbosii*) and white sand forests with the presence of *Dicymbe* and *Aldina* trees. These authors found, based on 454-pyrosequencing, a high diversity of soil fungi, with the most important soil variables structuring the EcM fungal community being soil carbon content and pH. They also found that soil type and not plant community composition were the most important factors determining EcM fungal community composition changes. In the same geographic area, Peña-Venegas & Vasco-Palacios (2019) evaluated the composition of AMF and EcM fungal communities in mature and secondary *terra-firme* forests and after cassava cultivation. They reported a high species diversity of both AMF and EcM fungi after abandoned transitory cultivars of cassava, suggesting that disturbance associated with this agricultural practice does not cause a permanent loss of soil fungal biodiversity. These authors also found that AMF and EcM fungi coexist in these forests. Still, this equilibrium could be altered after disturbance, given that EcM host plants are primarily associated with mature forests.

Oak forests are the most studied system in terms of

the number of collections, but our ecological knowledge of them is still incomplete. Oak forests are a characteristic ecosystem of the Colombian Andes, present near main cities and universities, and therefore there has been a lot of interest in their study. Vargas & Restrepo (2020) and Peña-Venegas & Vasco-Palacios (2019) documented many species associated with oak forests in Colombia. However, very few studies have analysed the influence of abiotic factors on EcM systems in Colombia to date. The only study comparing EcM fungal communities associated with *Quercus humboldtii* in Colombia is that from Sanchez-Tello (2021). This author compared EcM fungal communities in natural and urban ecosystems in the Cundinamarca department using Illumina sequencing data. This author reports a trend for oak trees growing in natural forests to host a higher species richness of EcM fungi than oaks growing in Bogotá. In addition, there was a substantial change in EcM fungal species composition between environments, with *Russula* and *Lactarius* being dominant in natural ecosystems while *Scleroderma* and *Laccaria* dominate in urban trees. These changes in species richness and composition could have been associated with higher levels of nitrogen and other pollutants in urban versus rural areas, as well as gardening practices applied to urban trees.

Given the low number of native EcM host plant species, there has been a notorious the introduction of many exotic EcM host species such as *Pinus* spp., *Eucalyptus* spp., and *Acacia* spp. to Colombia, all of which have been introduced with their associated EcM fungal species. Even though there are many potentially introduced and naturalised EcM fungal species in Colombia, the only species that has been studied in detail is *Amanita muscaria*. Vargas *et al.* (2019) documented *A. muscaria* in exotic tree species and the establishment of the species in native EcM host plants like *Quercus humboldtii*. These authors also reported that *A. muscaria* genotypes found in Colombia have Eurasian origin.

### ***Saprotrophic fungi***

Fungi, being heterotrophic organisms, use organic matter as a source of energy for their development, participating in the degradation of organic matter, releasing simple compounds, and contributing to carbon cycling in ecosystems (Robledo & Urcelay, 2009). Within these saprotrophic fungi are the wood - degrading fungi, composed mainly of the polyporoid group. One of the characteristics of this group is that they are chemoorganotrophs, using organic compounds through oxidation as suppliers of hydrogen to produce energy (Schmidt, 2006). These fungi could generate a brown rot (degradation of cellulose and hemicellulose) or a white rot (degradation of cellulose, hemicellulose, and lignin) (Schmidt, 2006). Given Colombia's high ecosystem diversity, many wood - degrading species have been reported to date. However, ecological studies regarding this group of organisms in Colombia are scarce. Studies on temperate ecosystems have reported that fungal species that cause brown rot are mainly associated with conifer - dominated forests. By contrast, species that generate white rot are



primarily associated with hardwoods (Gilbertson & Ryvardeen, 1993). However, this hypothesis has not yet been tested in tropical ecosystems, such as those from Colombia.

Wood fungi are not the only ones that recycle nutrients. Several studies have shown that mycorrhizal fungi can decompose organic nutrients (Hodge *et al.*, 2001; Aristizábal *et al.*, 2004; Gui *et al.*, 2017). In Colombia, this hypothesis has been tested in two studies. Aristizábal *et al.* (2004), studying fungal colonisation in the litterfall of *Myrcia parvifolia*, *M. pubescens*, and *Paepalanthus* sp. at different soil depths in the Andean region of Colombia, reported the presence of hyphae and vesicles of AMF in the decomposing litterfall from all the species and study sites, showing that this group of fungi could potentially obtain nutrients from decomposing organic matter. In a similar study, Posada *et al.* (2012), showed that litterfall colonisation increases with soil depth in the Colombian Amazon using litterfall of *Eugenia* sp. and *Syzygium* sp. However, saprotrophic fungi decrease with depth due to lower nutrient availability, giving an advantage to AMF in colonising and decomposing the litterfall. Other studies on the decomposition of organic matter in the Colombian Amazon region identified *Trichoderma* sp. as an important species colonising late-stage organic matter, suggesting a primary lifestyle as a decomposer (López-Quintero *et al.*, 2013).

### Endophytic fungi

The richness of endophytic fungi is very high in the tropics, with at least one unique species of these endosymbionts per plant species (Arnold & Lutzone, 2007; Lizarazo-Medina *et al.*, 2015). This richness has been little explored in Colombia, but it is expected to be high, given the great diversity of plants reported for the country (Diazgranados *et al.*, 2019). Until now, the study of endophytic fungi for the country has been directed towards the knowledge of their species diversity and potential applications, especially in agriculture. Vega *et al.* (2010) studied coffee plants' leaves, stems, and beans from Colombia, Hawaii, Mexico, and Puerto Rico. A total of 267 endophytic fungi were isolated from Colombian specimens, corresponding to 32% of all the species from all studied countries. Among the species identified through the analysis of the ITS region were *Penicillium brevicompactum*, *P. brocae*, and *P. oxalicum*, all these isolated from leaves. Additionally, Salazar & Cepero de García (2005), in a study based on isolates from rose leaves (*Rosa hybrida*) collected in urban areas of Bogotá, were able to identify 31 isolates, with *Nigrospora oryzae*, *Xylaria* spp., *Aureobasidium* spp., and *Acremonium* sp. being the most isolated endophytes.

The diversity of endophytes associated with orchids of the genera *Vanilla*, *Stanhopea*, and *Maxillaria* has also been studied. Ordóñez *et al.* (2012) isolated species from the roots of different *Vanilla* plants growing in the wild, reporting a high diversity. In addition, when inoculating the *Vanilla* plants with the isolates, they found that some isolates impacted the aerial biomass, root length, and plant height. In addition, Córdoba-Díaz *et al.* (2015) analysed the roots of the *Stanhopea tricornis* orchid in Valle del Cauca. These

authors isolated 12 fungi belonging to the genera *Curvularia*, *Fusarium*, *Stemphylium*, and *Rhizoctonia*. Lizarazo-Medina *et al.* (2015) analysed leaf and root tissues from *Cattleya* spp. growing under greenhouse conditions, finding differences in the composition of endophytes according to tissue type, with *Aureobasidium*, *Botryotrichum*, and *Colletotrichum* being the only genera in both tissues. Rodríguez & Lora (2016) studied the endophytes of orchids in Quindío. These authors identified four genera of endophytic fungi from root isolates: *Tulasnella*, *Ceratobasidium*, *Sclerotium*, and *Colletotrichum*.

Pastures have also been studied to detect endophytes, with *Festuca* spp. and *Phalaris aquatica* being studied by Serrato (2019). This author found that *Fusarium* spp., *Rhizoctonia* sp., and *Penicillium* sp. are potentially non-systemic endophytic fungi in grasses. Endophytic fungi associated with grasses have also been shown to have the ability to solubilise phosphates. Pérez *et al.* (2012), through the isolation of endophytes in grassroots in the department of Sucre cattle farms, isolated a total of 43 endophyte morphotypes, among which six species belonging to the genera *Aspergillus*, *Penicillium*, and *Paecilomyces* were able to solubilise phosphates. It is also possible that endophytic fungi participate in nitrogen cycling, as reported by Saganome (2016), who studied species isolated from the aquatic macrophyte species *Lemna* sp. in the Cundinamarca department and reported that isolates in the genera *Penicillium* sp. and *Cladosporium* sp. were capable of oxidising ammonium and nitrite.

In addition, various studies have focused on finding possible applications of endophytic fungi, such as evaluating their antagonistic capacity against plant pathogens or their antimicrobial activity (González, 2015; Trujillo, 2016; Montoya, 2019; Mosquera *et al.*, 2020). However, we consider that these studies are mainly associated with phytopathology and therefore they are not included in this chapter.

### Diversity and community structure

Most specimens from the HUA herbarium collection belonged to Basidiomycota (90%), given that this phylum includes most of the macromycete species. Polyporaceae, Marasmiaceae, and Agaricaceae were the most abundant families in lowland and mixed montane forests, while in oak forests, the most abundant families were Russulaceae, Amanitaceae, and Cortinariaceae. These differences between montane forest types are probably due to their dominant mycorrhizal type. Saprotrophic fungi were prevalent in mixed montane forests compared with EcM fungi in oak forests. The Amazonian lowland forests showed a higher proportion of Ganodermataceae (9%) than all other ecosystem types. In comparison, extra-Amazonian lowland forests showed a higher proportion of Xylariaceae (16%) than other ecosystem types (Figure 1a).

Regarding fungal functional groups, the most important functional group in Amazonian lowland forests, extra-Amazonian lowland forests, and mixed montane forests was "wood saprotroph" (36%, 52%, and 31%, respectively).

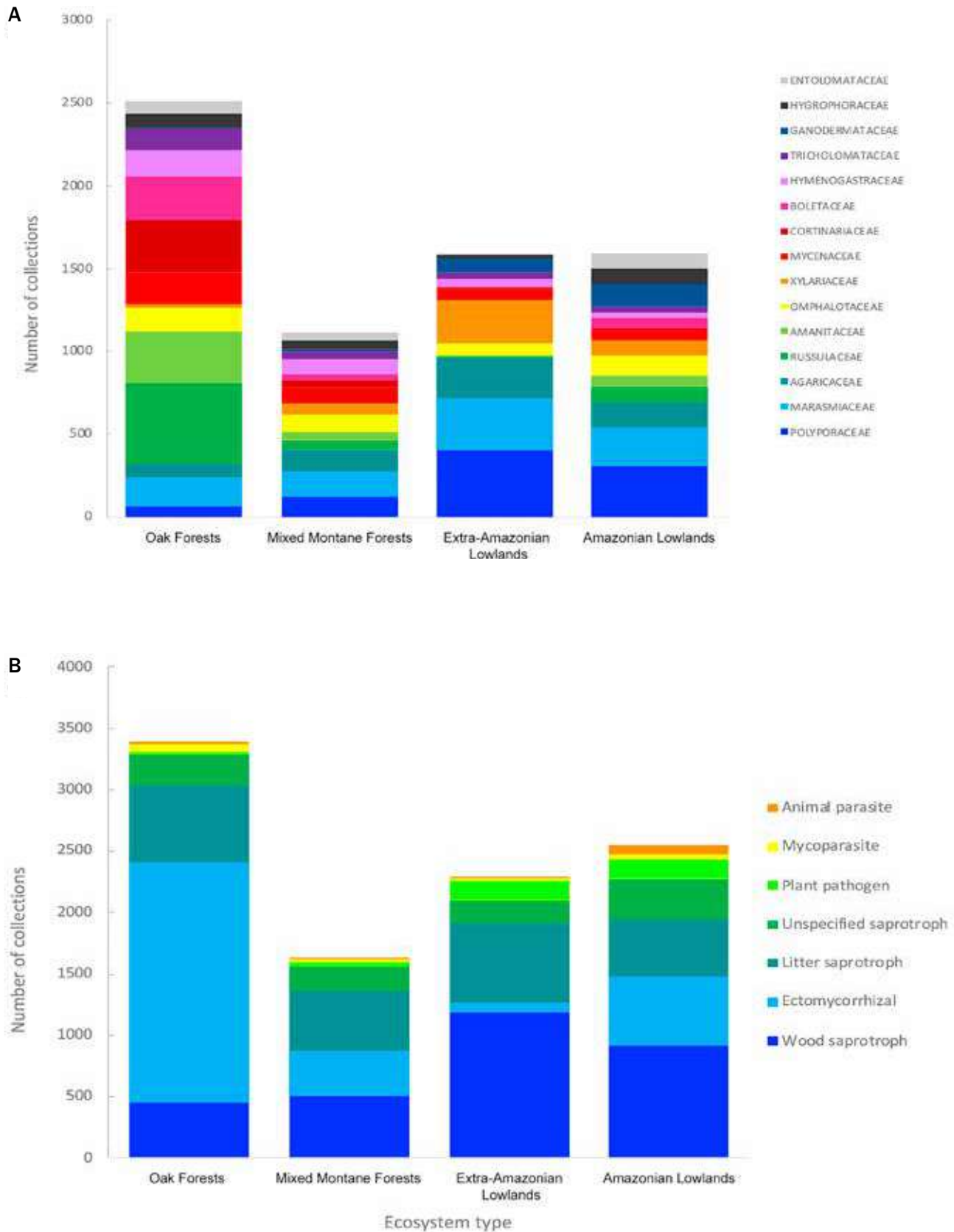


FIGURE 1. Number of specimens per ecosystem type for: A the 15 most abundant families and B fungal functional groups in Colombia.



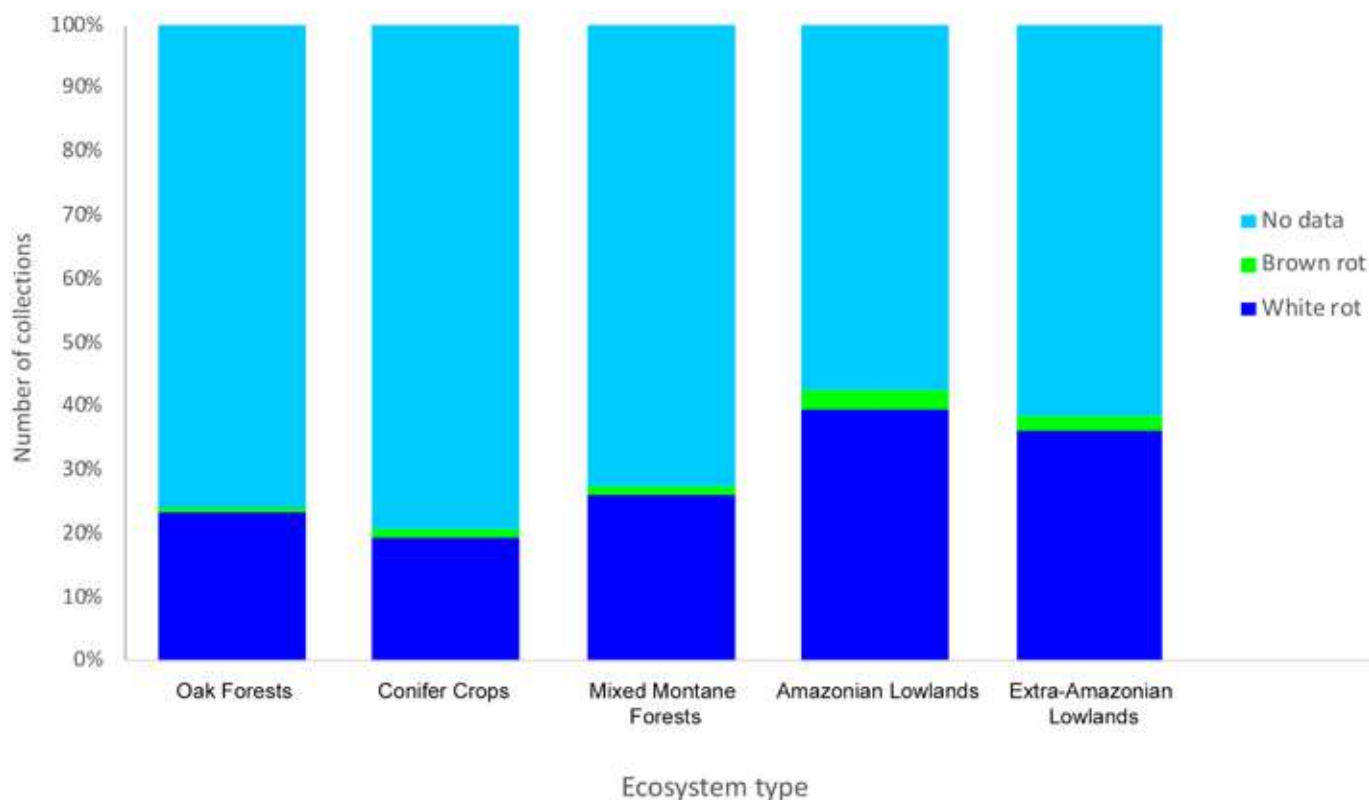
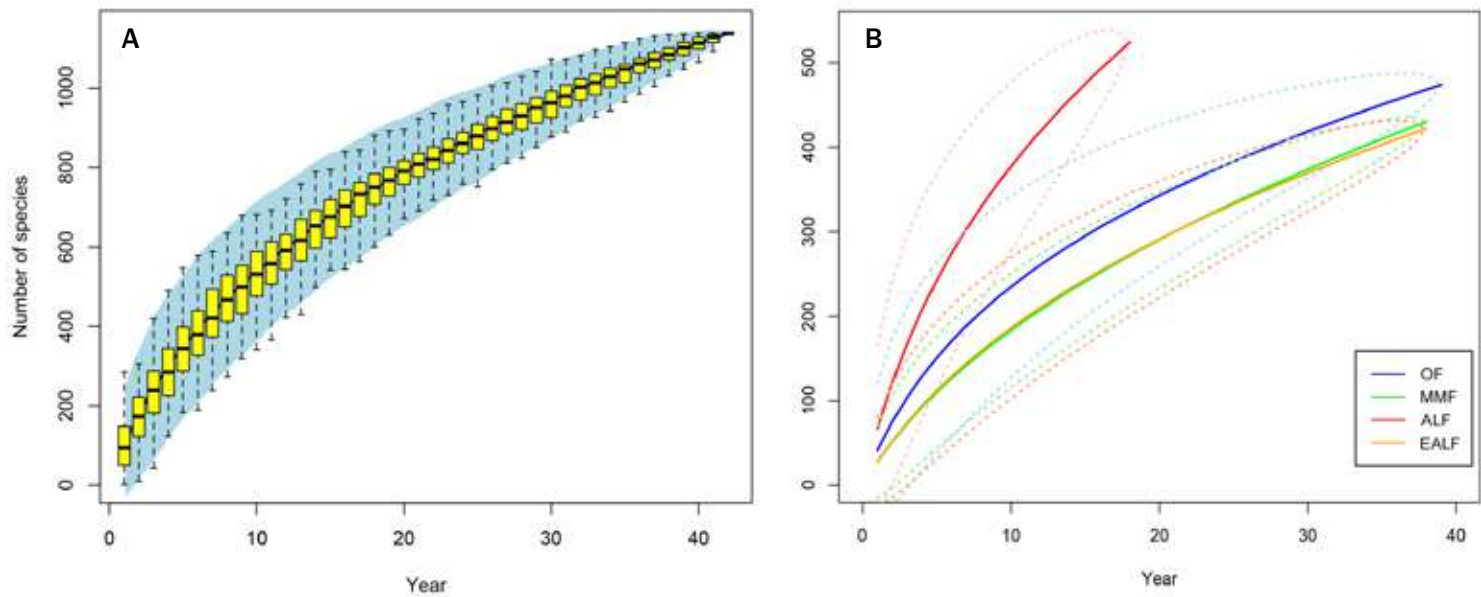


FIGURE 2. Distribution by ecosystem type of fungal species reported as causing white rot, brown rot, or unknown decomposition type.

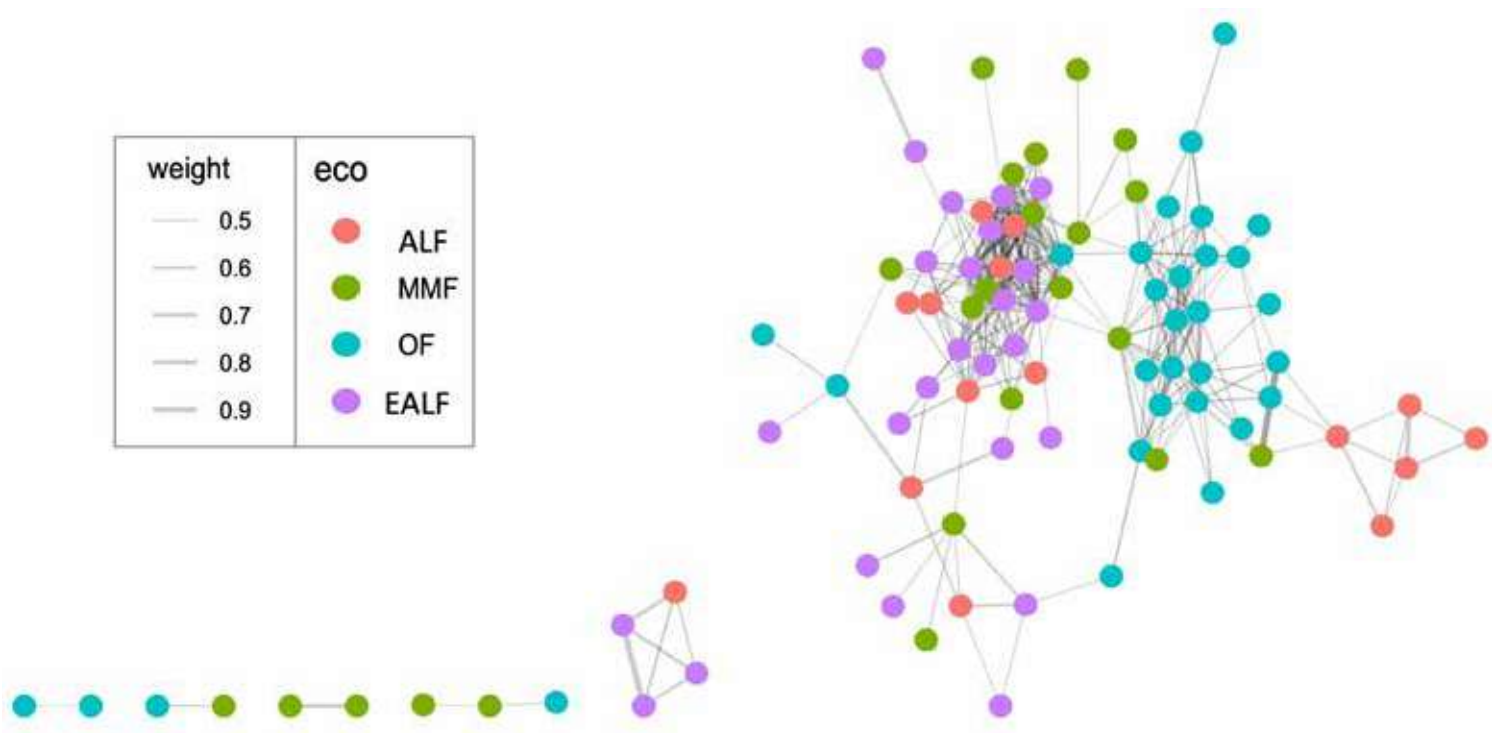
At the same time, the most important functional group in oak forests was, as expected, EcM (58%). The second most important functional group for oak forests, mixed montane forests, and extra-Amazonian lowland forests was “litter saprotroph” (18%, 30%, and 28%, respectively). In comparison, EcM was the second most important group for Amazonian lowland forests (22%) (Figure 1b). This high abundance of EcM fungi was expected for Amazonian lowlands, given the presence of two important EcM host plants in this area. We also found a higher number of species that produce white rot (33%) compared with brown rot (2%; Figure 2) across all ecosystem types (Figure 2). With montane forests showing a lower proportion of white-rot species compared with lowlands (Figure 2). These findings are consistent with previous studies concluding that most forests in Colombia comprise “hardwood” species (132 gymnosperms versus 25,870 angiosperms, according to SiB Colombia, 2020), but this hypothesis remains to be tested. However, it is striking that most species had no known decomposition type (65%).

Regarding alpha diversity, a total of 1,138 species were reported for the country. The species-accumulation curve, including all specimens, did not reach a plateau (Figure 3a), meaning that there are still many species of macrofungi to discover. The potential number of species based on the Chao1 and bootstrap estimators were 1,867

and 1,360, respectively. Mueller *et al.* 2007 proposed that there could be a 5:1 ratio of plant species to macrofungus species in tropical regions. Based on that number, they calculated an expected number of macrofungi for Costa Rica of 2,000 species and predicted that about half of the macrofungi from tropical South America had been recorded to date (6,595 out of 14,000 species). On the basis of these calculations, our estimated number of macrofungus species for Colombia appears conservative. When comparing the alpha diversity patterns among ecosystem types based on the species-accumulation curves, the most diverse ecosystem was the Amazonian lowlands, with 524 species and an estimated number of species of 638 and 975 based on the bootstrap and the Chao1 estimators, respectively. This higher diversity is evidenced in the very steep slope shown in the species accumulation curve when compared to the other ecosystems (Figure 3b). The second most diverse ecosystem type was oak forests (Figure 3b), with 474 species and an estimated number of species of 566 and 847 based on the bootstrap and the Chao1, respectively estimators. The mixed montane forests and extra-Amazonian lowland forests showed very similar alpha diversity patterns (Figure 3b) with 430 and 422 species, respectively, and an estimated number of species between 518 and 856 based on the bootstrap and the Chao1 estimates, respectively. The higher alpha diversity of



**FIGURE 3.** Species accumulation curves of fungi and 95% confidence intervals for Colombia, based on a specimen dataset from the Universidad del Antioquia Herbarium (HUA). **A** Curves for the total number of specimens, **B** Curves per ecosystem type. Abbreviations: OF- Oak forests, MMF- Mixed montane forests, ALF- Amazonian lowland forests, EALF- Extra-Amazonian lowland forests.



**FIGURE 4.** Correlation matrix network graphic with the main ecosystems of Colombia represented by specimens from the Universidad del Antioquia Herbarium (HUA). Abbreviations: OF- Oak dominated forest, MMF- Mixed montane forest, ALL- Amazonian lowland forests, EALF- extra-Amazonian lowland forests.



Amazonian lowlands and oak forest could be associated with a higher collection effort in these areas and the fact that both ecosystems are composed of AMF and EcM plant species, which can increase the local species pool. The correlation matrix network graph showed a higher proportion of species shared between mixed montane forests and lowland ecosystems, (Amazonian and extra-Amazonian lowland forests). Most oak forest data points clustered together and separated from the rest of the ecosystems suggesting a unique species composition. This scenario was expected given that oak forests form ectomycorrhizal associations. By contrast, mixed montane forests and most lowland forests in Colombia are dominated by plant species associated with arbuscular mycorrhizal fungi (Figure 4).

Herbarium collections are a valuable resource for obtaining records of the distribution of macrofungi taxa through space and time (Heberling *et al.*, 2019). In recent last decades, the number of publications using herbarium data has increased significantly on topics such as ecology, conservation, and evaluation of the impact of climate change, showing that these types of data are relevant for ecology research (Nualart *et al.*, 2017; James *et al.*, 2018; Heberling *et al.*, 2019). For example, Wollan *et al.* (2008), through an analysis using generalised models in a matrix with 1,020 herbarium collections and a set of 75 environmental variables, generated potential distribution maps for nine species of macrofungi. These authors demonstrated that temperature is an essential factor determining the distribution of macrofungi in Norway (Europe), indicating that fungi can vigorously respond to global warming. A similar trend could be expected for tropical montane fungi that are adapted to live in cool environments, but field and laboratory research is still necessary to test the response of tropical fungal species.

## CONCLUSIONS

This chapter aimed to summarise the current ecological knowledge about fungi in Colombia and to help to identify the main diversity patterns for fungal communities. The macrofungi diversity analysis based on herbarium data allowed us to compare alpha diversity and sampling completeness among ecosystem types. Our results showed many records from oak forests, which are directly related to the records of ectomycorrhizal fungi typical of this type of ecosystem. We also highlighted the high diversity of the Amazonian forests of Colombia and revealed information gaps for some functional groups, such as endophytes and other microfungi. In general, it is essential to develop studies based on environmental sequencing techniques to improve our knowledge about the diversity of species of microfungi that cannot be studied using on herbarium databases.

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*Chlorociboria aeruginascens*  
[Robert Lücking]









*Pleurotus* sp.  
[Nataly Gómez-Montoya]



# Chapter 12

## Useful Fungi of Colombia

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**Keywords:** useful fungi, categories of use, ethnomycology, human communities, mycology.

### ABSTRACT

Colombia is considered a megadiverse country with a substantial number of fungal species, many of them regarded as useful throughout the history of the country. However, many of the uses for fungi have been lost due to the erosion of knowledge. Making this knowledge visible and compiling it is of great importance as a potential resource for the bioeconomic development of Colombia and as a part of the livelihoods of society. Therefore, the goal of this study was to discuss the main uses and to categorise the useful fungi of Colombia based on a systematic review of secondary data. The taxonomy for the scientific names was checked, the species' uses were grouped by general and specific categories, and the geographical distribution was recorded by Colombian regions. As a result, a list of 382 species of useful fungi was obtained and classified into eight general categories of use. The general category with the highest number of uses is food, followed by medicinal use. Despite several useful fungi having been reported for Colombia, most of them are underutilised in each category. From this analysis, it is possible to highlight that Colombia has an important number of useful fungi, most of which are not yet widely used in the country and constitute a potential resource of natural ingredients and livelihoods, especially for local communities and commercial initiatives.

### RESUMEN

Colombia es considerado un país megadiverso con una gran cantidad de especies de hongos. Muchos de ellos se han considerado útiles a lo largo de la historia del país; sin embargo, gran parte de los usos se han dejado de lado debido a la pérdida del conocimiento. Visibilizar y recopilar este conocimiento es de vital importancia como fuente potencial para el desarrollo bioeconómico del país, y como parte de los medios de vida de la sociedad. Por lo tanto, el objetivo de este trabajo fue discutir los principales usos y categorizar los hongos útiles de Colombia a partir de una revisión sistemática de información secundaria y literatura gris de referencias bibliográficas. Con base en esta revisión, se verificó la taxonomía de los nombres científicos, se agruparon los usos de las especies por categorías generales y específicas y se registró la distribución geográfica por regiones colombianas. Como resultado de esta metodología, se obtuvo una lista de 382 especies de hongos útiles, clasificadas en ocho categorías generales de uso. Respecto a los usos, la categoría general con mayor número de usos es la de alimento, seguida del uso medicinal. A pesar del uso de especies de hongos, la mayoría de ellas están infrautilizadas en cada categoría. A partir de este análisis, es posible resaltar que Colombia cuenta con una cantidad importante de hongos útiles, de los cuales la mayoría no son ampliamente utilizados en el país y constituyen un recurso potencial de ingredientes naturales y medios de subsistencia, especialmente para comunidades locales e iniciativas comerciales. Las número de publicaciones de investigaciones realizadas en el país y un incremento en la inversión en investigación básica y aplicada, permitirá descubrir nuevas alternativas de uso de los hongos para resolver situaciones que afrontamos como sociedad. En este sentido, la conservación de los hongos debe hacerse de la mano con las comunidades y acorde a su aplicación en diferentes campos, buscando hacer un uso sostenible y prevenir los impactos negativos que puedan afectar las poblaciones de hongos y su supervivencia.

### INTRODUCTION

Fungi play crucial ecological roles in ecosystems (Gaya *et al.*, 2021). The adaptation of fungi to diverse habitats, colonisation, and the acquisition of nutrients is facilitated by unique attributes, such as the production of enzymes, secondary metabolites, organic acids, polysaccharides, and pigments, among others (Deak, 2009; Erjavec *et al.*, 2012; de Mattos-Shipley *et al.*, 2016; Kadri *et al.*, 2017; Masi *et al.*, 2018; Hyde *et al.*, 2019). In turn, these unique attributes make fungi of great interest to humans, who harness their

benefits in numerous activities. Hyde *et al.* (2019) reviewed 50 ways in which fungi are potentially useful to humanity, particularly in biotechnology applications, where fungi are used in products such as antibiotics, antiviral/anticancer drugs, biocontrol agents, biofertilisers, brewing, cosmetics, enzymes, food colouring, fungicides, mycoremediation, organic acids, pesticide detoxifiers, pigments, and vitamins, among others. This broad potential applicability necessitates basic and applied research to discover the ways fungi can be useful for human activities in various industries.

Wild macrofungi constitute an essential non-wood forest product that provide different ecosystem services and have traditionally been used by many human cultures worldwide (Gaya *et al.*, 2021). They are used for many human activities, such as those in the biotechnology, food and pharmaceutical industries, and even in the rituals of different indigenous cultures (Gaya *et al.*, 2021). Many local reports evidence the use of edible and medicinal macrofungi around the world. For example, areas with tendencies to use fungi include southern and eastern Europe, Africa, Mexico, Turkey, and most of Asia (Boa, 2004). In the Americas, a high cultural richness related to the collection, recognition, and use of macrofungi has been widely documented in Mexican culture (Ruan-Soto *et al.*, 2014).

Colombia's wide range of climatic zones provides a high diversity of habitats where organisms can grow (World Atlas, 2021). Many papers and field guides have documented the fungi occurring in Colombian ecosystems, and a high number of species is estimated to occur in the country (Gaya

*et al.*, 2021; see also Chapter 3). However, no study has ever categorised the different uses of fungi found in Colombia. Many fungi reported as useful in other countries are not recognised as such in Colombia due to a lack of research or erosion of traditional knowledge on this topic. This study aimed to summarise information and categorise the useful fungi of Colombia, contributing baseline information about their uses, levels of use, and potential uses.

## MATERIALS AND METHODS

We reviewed the literature related to Colombia's useful species of fungi by using the Scopus, Google Scholar, and ISI Web of Knowledge portals. We searched for fungal species lists in Colombia and publications on the utility of fungal species based on the literature published in Colombia. Information on the useful characters of some species that occur in Colombia was included from publications in other countries. All references related to uses, distribution,

**TABLE 1.** Categories of use of fungi in Colombia.

Category of use	Subcategory
Food	Food type – Edible
	Food type – Beverages
	Food type – Food additives
	Food type – Unspecified food type
Environmental use	Environmental use - Biofertilizer
	Environmental use – Indicator plants
	Environmental use – Pollution Control
	Environmental use – Other Environmental Uses
Biological control	Biological control – Type – Control of animal pest
	Biological control – Type – Control of fungi
Materials	Materials – Type – Tannins/Dyestuffs – Pigments
	Materials – Type – Tannins/Dyestuffs – Cosmetics
Poisons	Poisons – type – Antimicrobial
	Poison – type – Antiviral
	Poisons – type – Anthelmintic
	Poison – type – Poison-Toxic
Biotechnology	Biotechnology – Textile processing
	Biotechnology – Paper and pulping
	Biotechnology – Fuels
	Biotechnology – Gene sources
	Biotechnology – Various enzymes functions

**TABLE 1.** (continued)

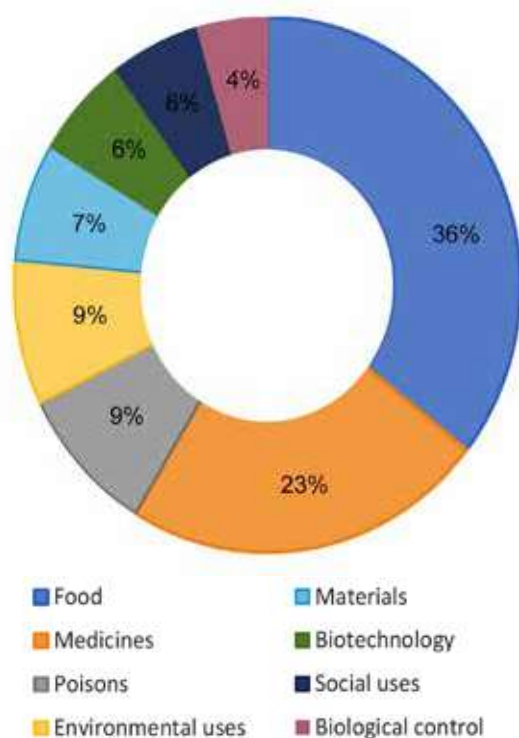
Category of use	Subcategory
Medicines	Medicines – disorders treated – Digestive System Disorders
	Medicines – disorders treated – Genitourinary System Disorders
	Medicines – disorders treated – Mental Disorders
	Medicines – disorders treated – Nervous System Disorders
	Medicines – type – Anticancer
	Medicines – disorders treated – Skin/Subcutaneous Cellular Tissue Disorders
	Medicines – disorders treated – Blood System Disorders
	Medicines – disorders treated – Nutritional Disorders
	Medicines – disorders treated – Unspecified Medicinal Disorders
	Social uses
Social uses – Energy cleansing and purifying	
Social uses – Sacred/spiritual	
Social uses – Symbolic meaning	



ecology, and taxonomy of species included in this study can be consulted in the ColFungi online portal ([www.colfungi.org](http://www.colfungi.org)) as the species dataset included in this study was included in that platform. Species use was systematised using a modified version of Cook's Economic Botany Standard categories of use (Cook, 1995) (Table 1). The search effort was carried out for six months between 2020 and 2021 using English and Spanish keywords and modifiers, such as biofertilisers, biological control, biotechnology, edible fungal species, esoteric, fungal enzymes, magic uses, medicinal fungi, pigments, social uses, and useful fungi. Graphics were made in Excel and the map of Colombian regions was modified from IGAC (1997). The terminology used in this chapter is explained as follows: 1. Useful: a species of fungus categorised according to the modified Economic Botany Standards, regardless of whether it is used or not in Colombia; 2. Used: reports of fungi species used by communities in Colombia; 3. Assessed use: research on the applicability on fungal species in laboratory or field conditions in Colombia; and 4. Underutilised: fungi species occurring in Colombian ecosystems without reports of its use or assessment in Colombia, but their use is reported in other countries.

## RESULTS AND DISCUSSION

A total of 382 species of useful fungi occurring in Colombia were recorded. According to a modified version of the Economic Botany Data Collection Standards, the useful fungi of Colombia are classified into eight general categories (Figure 1, Table 1), with the highest number of species



**FIGURE 1.** Percentage of useful fungi of Colombia by category of use.

in the food category, followed by medicines, poisons, environmental uses, biotechnology, social uses, biological control, and materials. We will focus in the following sections on the discussion: 1. the general aspects of useful fungi, 2. research findings in Colombia, and 3. cases of fungi used by communities in Colombia.

### Useful fungi of Colombia

According to the literature review, 179 species were classified in the food category. Many macrofungi are characterised by producing sporocarps with different morphologies, several of them being edible useful species (Boa, 2004; Prescott *et al.*, 2018). Agaricales (Basidiomycota) is the order comprising most of the useful species in the food category, edible subcategory (Figure 2), which coincides with the high number of reported edible fungi in this taxonomic order (Prescott *et al.*, 2018). Several yeast species involved in the production of fermented beverages are classified in the order in Saccharomycetales (Ascomycota). Species in this order have been consistently involved in the metabolic processes of brewing alcoholic beverages (Hyde *et al.*, 2019).

A total of 131 fungal species were classified in the medicines category. Agaricales (Basidiomycota) has the highest number of useful species in this category, sometimes with important applications, including the treatment of digestive and blood disorders, and as the source of anticancer and antioxidants bioactive compounds (Table 1). Some saprotrophic fungi in Polyporales (Basidiomycota) and entomopathogenic fungi (Hypocreales, Ascomycota) (Figure 2) also have great qualities as medicines, being recognised as essential organisms in traditional medicine, particularly in Asia (Boa, 2004). Saprotrophic fungal species classified in this study as food, medicines, and biotechnology have previously been reported in all regions of Colombia, with saprotrophic fungi showing the highest number of species in each region of the country (Figure 3).

A total of 26 species were assigned to the biological control category, which comprises useful fungi mainly placed in Hypocreales (Ascomycota) (Figure 2). In this order, most entomopathogenic fungi are classified and can function as natural insecticides. Entomopathogenic fungi infect their hosts (arthropods) by penetrating the insect cuticles and colonising their bodies with fungal microscopic structures (Roy *et al.*, 2006; Charnley & Collins, 2007; Wang & Leger, 2014). Most products used in biological control are based on asexual stages of entomopathogenic fungi of Hypocreales (Wang & Leger, 2014). The entomopathogenic species that occur in Colombia found in this category have been reported from all regions of Colombia, except the Caribbean. They are mostly reported in the Andean region (Figure 3).

Regarding the social uses category, a total of 33 species were classified mostly in Agaricales, particularly the hallucinogenic *Psilocybe* species, which are essential sources of compounds, including psilocybin, the focus of many antidepressant studies (Davis *et al.*, 2020). Some *Psilocybe* species that occur in Colombia are used in Mexico as a healing element in religious ceremonies, as important

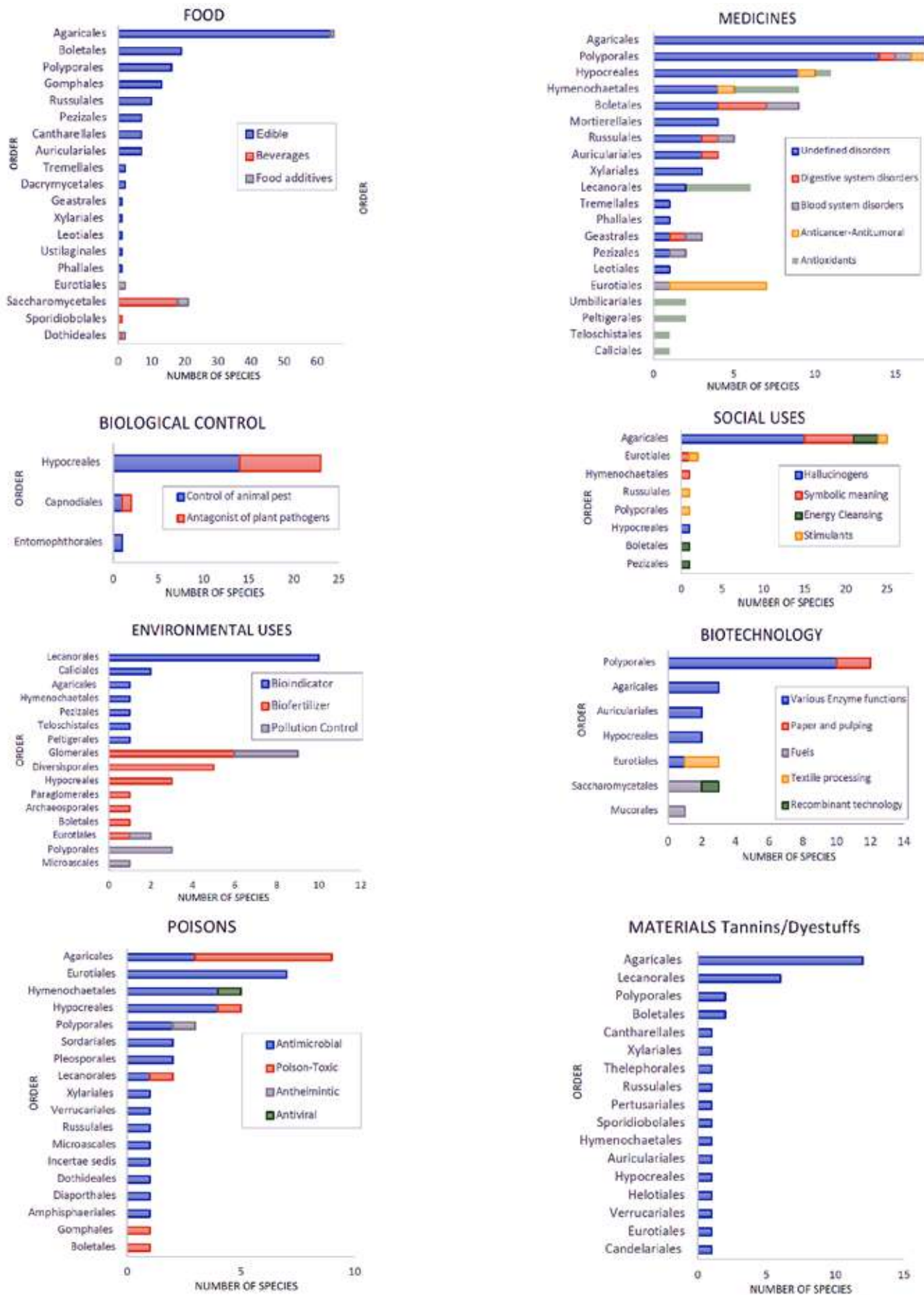


FIGURE 2. Number of fungal species per order and category of use.



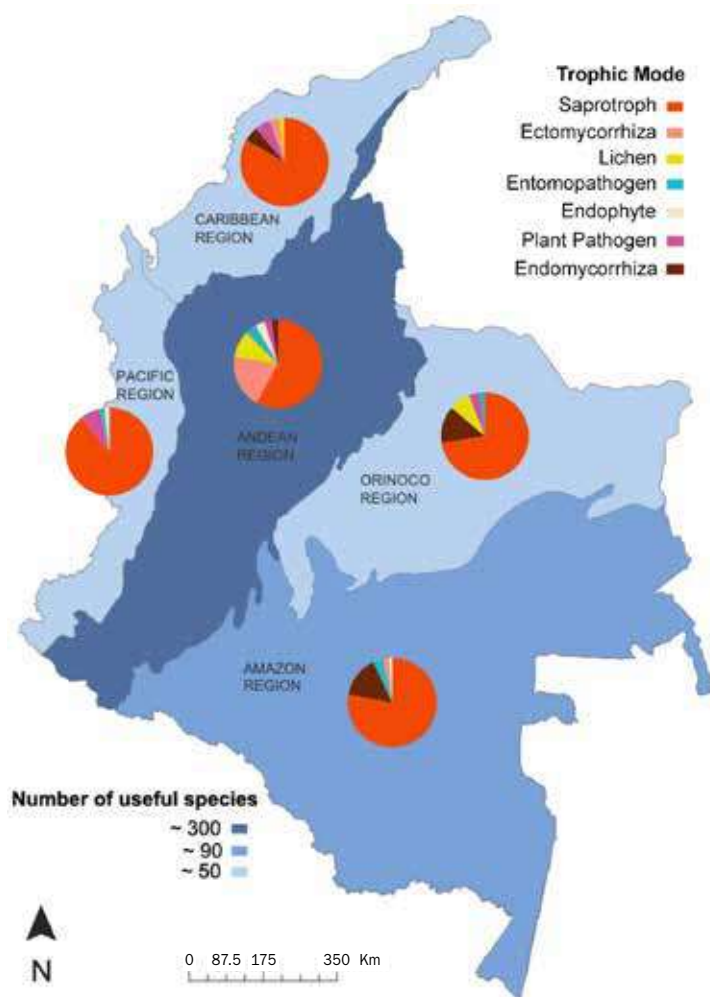


FIGURE 3. Number of useful species per trophic mode in geographic regions of Colombia.

elements in religious rituals with a symbolic meaning and as energy cleansing and purifying elements (Bautista-Gonzalez & Moreno-Fuentes, 2014).

In the environmental uses category, 43 fungal species were classified into three main subcategories: bioindicators, biofertilizers, and pollution control (Table 1). In Lecanorales (Ascomycota), where most lichens are placed, a high number of species (Figure 2) have been reported as potential bioindicators of air quality (Rubiano, 1988; Jaramillo-Ciro & Botero-Botero, 2010; Simijaca-Salcedo *et al.*, 2011; Díaz-Escandón *et al.*, 2016). Figure 3 shows that useful lichens are mainly found in the Andean region. The mycorrhizal fungi also provide environmental services as biofertilizers. Some arbuscular mycorrhizal species of Glomerales and Diversisporales (Glomeromycota) (Figure 2) that occur in Colombia have reports of evaluations or applications in crops or restoration programs (Jaramillo-Padilla *et al.*, 2004; Ramírez-Gil, 2019; Osorio-Cadavid *et al.*, 2008). Mycorrhizal fungi establish a symbiotic relationship between the roots of vascular plants and the fungal mycelium and have been applied in various forestry and agriculture programs (Hyde *et al.*, 2019). Useful mycorrhizal species are associated with

host plants distributed in natural regions of Colombia: the ectomycorrhizal species have been reported mainly in the Andean region (Figure 3), and endomycorrhizal species were mainly reported from the Amazon and Orinoco regions.

According to the Economic Botany Standards (Cook, 1995), the poisons category includes poisonous organisms and species with antimicrobial, antiviral, and anthelmintic activity (Table 1). The ability to inhibit the growth of harmful microorganisms has been studied worldwide (Masi *et al.*, 2018; Aly *et al.*, 2010; Demain & Martens, 2017; Jakubczyk & Dussart, 2020). In this study, 45 fungal species were found to be sources of antimicrobial compounds (Figure 2). Also, toxic species that can be poisonous to humans and animals were grouped in this category. Many fungal species produce a variety of enzymes with potential application in biotechnology. Saprotriphic species adapted to wood substrates classified in the orders Polyporales (bracket fungi), some Agaricales, and some species in the Ascomycota phylum (Figure 2), in particular, have been reported as good sources of enzymes involved in the degradation of pollutants and colourants, and in the production of bioethanol (Arboleda *et al.*, 2008).

Finally, in the materials category, 35 species that occur in Colombia have been evaluated to produce natural pigments (Palacio-Barrera *et al.*, 2019) or have a potential application reported in other countries. For example, lichens (Lecanorales) and Agaricales, Boletales, Polyporales, Auriculariales fungi (Figure 2) produce extracts that have dyeing properties (Brough 1988; Maldonado & Ibarra, 2016; Shukla *et al.*, 2014; Sun *et al.*, 2016).

### Research on useful fungi in Colombia

According to the literature, 88 species of useful fungi have been the focus of research studies in Colombia. This section shows the main results of the leading research activities reported in Colombia (Table 2). In the beverages subcategory (food), yeast species have been isolated in the department of Valle del Cauca and studied from traditional fermented beverages such as *Chicha* (Figure 2, Table 2). In addition, yeasts that can assimilate and ferment xylose to xylitol are reported as a sweetener (Vanegas-Córdoba *et al.*, 2004).

In environmental uses, some lichen species have been tested for their ability as bioindicators of contamination by sulphur and other pollutants (Rubiano, 1988; Díaz-Escandón *et al.*, 2016) (Table 2). In the biofertilizers subcategory, some arbuscular mycorrhizae species have been assessed. For example, *Rhizophagus aggregatus* has been tested in different crops, which showed an increase in plant growth compared to treatments without mycorrhizae (Jaramillo-Padilla *et al.*, 2004). Some endomycorrhizal species have been tested as an alternative for promoting the germination and growth of seedlings in the tropical species *Gmelina arborea* (Zambrano-González & Díaz-Ariza, 2008; Ramírez-Gil, 2019). The effect of mycorrhisation and fertilisation on biomass accumulation in banana plants has also been evaluated (Usuga-Osorio *et al.*, 2008). Similarly, the application of *Trichoderma hamatum* has been tested as a biofertiliser, increasing the productivity

TABLE 2. Fungi uses assessed in Colombia.

Category/Subcategory	Research / Field	References
<b>Food</b>		
Beverages	Saprotrophic yeast isolated from fermented beverages / Laboratory	López-Arboleda <i>et al.</i> , (2010); Osorio-Cadavid <i>et al.</i> , 2008
Additives	Production of inositol by saprotrophic yeast / Laboratory	Vanegas-Córdoba <i>et al.</i> , 2004
<b>Environmental use</b>		
Biofertilizer	Endomycorrhiza and saprotrophic fungi enhancing plant growth / Nursery and field conditions	Zambrano-González & Díaz-Ariza, 2008; Ramírez-Gil, 2019; Usuga-Osorio <i>et al.</i> , 2008; Castro-Toro & Rivillas-Osorio, 2012
Bioindicator	Analyses of lichens and saprotrophs as bioindicators / Field research	Rubiano, 1988; Jaramillo-Ciro & Botero-Botero, 2010; Simijaca-Salcedo <i>et al.</i> , 2011; Díaz-Escandón <i>et al.</i> , 2016; Guzmán <i>et al.</i> , 2004
Pollution control	Endomycorrhizal and saprotrophic fungi / Field research	Morales <i>et al.</i> , 2017; Pérez <i>et al.</i> , 2019
<b>Biological control</b>		
Control of plant pathogens	Entomopathogens, endophytes / Laboratory	Castro-Toro & Rivillas-Osorio, 2012; Smith <i>et al.</i> , 2013
Control of animal pests	Entomopathogens / Laboratory	Castro-Toro & Rivillas-Osorio, 2012; Gámez-Guzmán <i>et al.</i> , 2019; López & Orduz, 2002; Beltrán-Alzate <i>et al.</i> , 2008; Barrios <i>et al.</i> , 2016; Villamizar <i>et al.</i> , 2004; García <i>et al.</i> , 2012
<b>Materials</b>		
Tannins/dyestuffs	Saprotrophic fungi / Laboratory	Palacio-Barrera <i>et al.</i> , 2019
<b>Poisons</b>		
Antimicrobial	Endophytes and saprotrophs tested for their antimicrobial activity / Laboratory	Miles <i>et al.</i> , 2012; Bolívar-Anillo <i>et al.</i> , 2016
<b>Biotechnology</b>		
Enzymes	Evaluation of enzyme production in saprotrophic fungi / Laboratory	Arboleda <i>et al.</i> 2008; Holguín-Múnera <i>et al.</i> , 2017; Chaparro <i>et al.</i> , 2009; Moya-Álvarez 2012; Moya-Alvarez & Torres 2012; Montoya <i>et al.</i> , 2014
Fuels	Saprotrophic yeast / Laboratory	Cifuentes-Triana, 2016
<b>Medicines</b>		
Bioactive compounds-Antioxidants	Saprotroph macrofungi / Laboratory	Moreno <i>et al.</i> , 2011; Duarte-Trujillo <i>et al.</i> , 2020

of crops (Castro-Toro & Rivillas-Osorio, 2012). Some studies have also been carried out in native orchid mycorrhizae, including species of *Ceratobasidium* (Mosquera-Espinosa *et al.*, 2010; Ordóñez *et al.*, 2012; Valadares *et al.*, 2015) that provide plant protection or growth stimulation and have been reported to control fungal plant pathogens on rice seedlings (Mosquera-Espinosa *et al.*, 2013). The potential use of fungal species in pollution control has been assessed mainly in bioaugmentation, biostimulation, biodegradation, and natural attenuation. This topic is currently a promising strategy that oil companies are being encouraged to implement (Trujillo-Toro & Ramírez-Quirama, 2012; García & Arango, 2019).

*Pseudallescheria boydii* has potential in bioremediation because it presents gene families involved that are in the degradation of hydrocarbons, such as chloroalkanes, chlorocyclohexanes, chlorobenzenes, benzoates, toluene, xylene, and polycyclic aromatic hydrocarbons (Morales *et al.*, 2017).

A high percentage of species in the biotechnology category has been the target of several research projects in laboratories and research centres in Colombia (Figure 2, Table 2). Particularly the ability of some species to decolourise Azure B and Coomassie Blue in solid media has been evaluated, and has a potential application in



decolourisation technology (Arboleda *et al.*, 2008) and in the removal of colourants from wastewater (Holguín-Múnera *et al.*, 2017). The potential biotechnological application of the enzymes laccase and cellobiose dehydrogenase from *Lentinus swartzii*, *Lentinus crinitus*, and *Pycnoporus sanguineus* have been tested for their potential application in decolourisation technologies (Chaparro *et al.*, 2009). The laccase enzymes from the edible species *Pleurotus ostreatus* were evaluated for potential application in the textile industry (Pérez-Higuera, 2013). Given the importance of laccase in the industry, the effect of *Cordyceps nidus* extracts on the laccase activity of *P. ostreatus* was evaluated, revealing an improvement in the enzymatic activity. *Cordyceps nidus* extract is a stimulus for other fungi's enzymatic activity and biochemical properties (Durán-Aranguren *et al.*, 2020). On the other hand, the remarkable capacity of *Lentinus crinitus* to transform agricultural residues increases the content of proteins, fibre, and nitrogen of the spent substrate, providing different products of interest for agri-food (animal feed) and agroindustry (Dávila *et al.*, 2020). In addition, some *Mucor* species produce proteases with potential applications in the food industry (Alves *et al.*, 2005).

Novel strains of the yeast *Saccharomyces cerevisiae* have been evaluated as candidates to improve ethanol production due to their ability to consume xylose in the fermentation of hydrolysates (Cifuentes-Triana, 2016). Also, the ability of the yeast *Meyerozyma guilliermondii* to produce oil as raw material for biodiesel has potential as a biodiesel feedstock (Ramírez-Castrillón *et al.*, 2017). Finally, the growth and enzyme production of the anaerobic fungus *Neocallimastix frontalis*, isolated from the rumen of a sheep from a tropical ecosystem, was evaluated in a range of carbon sources and by varying the form of inoculation (mobile and vegetative states) (Mayorga *et al.*, 2005).

Although several entomopathogenic species are currently applied to control animal pests in Colombian crops, some species are being assessed in field and laboratory conditions. For example, a strain of the species *Cladosporium cladosporioides* was evaluated against the spider mite *Tetranychus urticae*, an important polyphagous pest worldwide (Gámez-Guzmán *et al.*, 2019). The biological control of colonies of *Atta cephalotes* with baits prepared with sporulated cultures of *Metarhizium anisopliae* and *Trichoderma viride* has also been evaluated (López & Orduz, 2002). *Akanthomyces lecanii* has been used for the biological control of cattle ticks (Beltrán-Alzate *et al.*, 2008). Likewise, conidia of *M. anisopliae* and *Metarhizium rileyi* have been tested as control agents against *Spodoptera frugiperda* (Grijalba *et al.*, 2018), *Beauveria bassiana*, *Purpureocillium lilacinum*, and *Akanthomyces dipterigenus* has been tested in the control of the poultry red mite *Dermanyssus gallinae* (Machado-Agudelo, 2019) and *B. bassiana*. *Cordyceps fumosorosea* and *P. lilacinum* were also tested for their ability to control *Leptopharsa gibbicarina*, an economically important pest of oil palm plantations (Barrios *et al.*, 2016).

In the poisons category, some filamentous fungi with antimicrobial activity have been tested as antagonists of other fungal plant pathogens in Colombia (Miles *et al.*,

2012; Bolívar-Anillo *et al.*, 2016). Among them are some endophytic species isolated from Frailejón ecosystems with antimicrobial activity against *Botrytis cinerea* and *Phytophthora infestans* (Miles *et al.*, 2012). Some commercial fungal species are the target of research in medicine. For example, that show potential antioxidant and anticancer activities or potential as nutraceuticals have been isolated, identified and analysed from basidiocarps of *Ganoderma lucidum* (Moreno *et al.*, 2011) and *P. ostreatus* (Duarte-Trujillo *et al.*, 2020), respectively.

### **Fungi used in Colombia**

According to our search, ca. 60 species of useful fungi are currently used in rural and urban regions of Colombia.

### **Wild macrofungi used by communities in Colombia**

Wild macrofungi reported to be used by communities in Colombia (Franco-Molano *et al.*, 2005; Ruíz & Henao, 2006; Vasco-Palacios, 2002; Peña-Cañón & Henao-Mejía, 2014; Villalobos *et al.*, 2017) were classified in the food, materials (cosmetics), or medicines categories (Table 3). The food category had the highest number of useful species (Table 3), with 36 wild edible species used by rural communities in Colombia, mainly in the departments of Boyacá, Amazonas, and Putumayo. In addition, six commercial edible species (*Agaricus bisporus*, *Auricularia auricula-judae*, *Lentinula edodes*, *Pleurotus ostreatus*, *P. eryngii*, and *Flammulina velutipes*) are also used in urban areas.

In some regions of Colombia, rural communities have passed on traditional knowledge on the use of edible and medicinal macrofungi (Peña-Cañón & Henao-Mejía, 2014; Pérez & Piragauta, 2006; Ruíz-Roa *et al.*, 2008; Sanjuan, 1999; Vasco-Palacios, 2006). Wild edible macrofungi are used by rural communities in some municipalities in the department of Boyacá (Table 3). During the rainy season, several communities in this region harvest macrofungi for personal use thanks to the oral tradition that transmits knowledge from their elders (Ruíz & Henao, 2006; Peña-Cañón & Henao-Mejía, 2014; Pérez & Piragauta, 2006; Ruíz-Roa *et al.*, 2008). *Macrolepiota colombiana*, known as *lechucitas* or *caicas*, and species of *Ramaria*, known as *manitas*, *guaras*, or *pericocas*, have a cultural significance for rural communities. Among other species used by rural communities in Boyacá are the ectomycorrhizal *Porphyrellus indecisus* and some saprotrophic fungi such as *Crepidotus palmarum*, *Auricularia fuscossuccinea*, *Hericium erinaceus*, *Lentinula boryana*, *L. crinitus*, *Oudemansiella canarii*, and *Cantharellus lateritius*. All species are given common names and are cooked according to local culinary preferences (Ruíz & Henao, 2006; Peña-Cañón & Henao-Mejía, 2014).

Peña-Cañón and Henao-Mejía (2014) contributed to the knowledge of these fungi in the department of Boyacá, recording the use of 16 species by rural communities, of which 11 are reported as useful in the municipalities of Pauna and Chiquinquirá. Pérez & Piragauta (2006) recorded 23 species used by the communities of Arcabuco in the department of Boyacá: 14 species used as food, four as

TABLE 3. Fungi used in Colombia.

Category/Subcategory	Use description	Department	References
<b>Food</b>			
Wild edible macrofungi	Saprotroph and ectomycorrhizal macrofungi used by rural communities	Boyacá	Ruíz & Henao, 2006; Peña-Cañón & Henao-Mejía, 2014; Pérez & Piragauta, 2006; Ruíz-Roa <i>et al.</i> , 2008
Wild edible macrofungi	Saprotroph macrofungi used by Uitoto, Muiname, Andoke, and Inga indigenous people	Amazonas and Putumayo	Franco-Molano <i>et al.</i> , 2005; Vasco-Palacios, 2002; Sanjuan, 1999
Commercial edible mushrooms	Saprotroph macrofungi used in urban and rural areas	Various cities in Colombia	
<b>Medicines</b>			
Fever, Infections, Digestive disorders, Skin disorders	Macrofungi used by Uitoto indigenous people	Amazonas	Franco-Molano <i>et al.</i> , 2005; Primer Coloquio Colombiano de Micología, 2020
	Saprotroph macrofungi used by rural communities	Boyacá	Pérez & Piragauta, 2006
<b>Biological control</b>			
Control of animal pests	Entomopathogens used in field conditions		Espinel-Correal <i>et al.</i> , 2018; Alves <i>et al.</i> , 2002
<b>Materials</b>			
Tannins/Dyestuffs-Cosmetics	Wayuu indigenous people	La Guajira	Villalobos <i>et al.</i> , 2017; Guzmán & Varela, 1978
<b>Social uses</b>			
Symbolic meaning	Saprotroph macrofungi used by Wayuu indigenous people and Uitoto indigenous people	La Guajira, Amazonas	Franco-Molano <i>et al.</i> , 2005; Villalobos <i>et al.</i> , 2017
<b>Environmental use</b>			
Biofertilizer	Commercial product based on ectomycorrhizal species	Bogotá	Fungifert, 2020

medicines, and three as insecticides. In the municipality of Monquirá (Boyacá), 22 species were recorded, with 16 being used as food, four as medicinal, and four as insecticides. Ethnomycolological explorations continue to document the traditional use of macrofungi among Colombian rural communities, expanding the list of municipalities in the department of Boyacá with a tradition of macrofungi use for food and/or medicine. In fact, in a recent expedition to the municipality of Otanche (west of Boyacá), two edible species, *Macrocybe titans* and *Favolus tenuiculus*, were recorded as useful. The abovementioned cases are examples of the personal use of native species, but fewer cases of direct marketing by collectors are reported in Colombia (Peña-Cañón & Henao-Mejía, 2014; Pérez & Piragauta, 2006). Wild macrofungi are shared among people or relatives as a gift and are exchanged for other products such as wheat (Peña-Cañón & Henao-Mejía, 2014). In the municipality of Gachantivá (Boyacá), some farmers collect macrofungi such as *Agaricus* spp. near their homes in rural areas and

commercialise them in the town centre of the municipality of Gachantivá (N. Vargas, pers. observ.).

Several studies have reported the use of fungi by indigenous communities in the Amazon region. Since the 1980s, the use of fungal species has been reported in indigenous ethnic groups. Sanjuan (1999) found that Inganos indigenous communities from Caquetá use six species of fungi, known by them as *kallambas*, including *Oudemansiella canarii*, *Schizophyllum commune*, and *Favolus tenuiculus*. At the beginning of the 2000s, Vasco-Palacios (2002), Franco-Molano *et al.* (2005), and Vasco-Palacios (2006) elaborated a review of the fungal species used by the Uitoto, Muiname, and Andoke indigenous people of the middle Caquetá, reporting their edible and medicinal uses (Table 3). Species such as *Lentinula raphanica*, *Auricularia delicata*, *A. fuscosuccinea*, *Favolus tenuiculus*, and three species of *Lentinus* were reported as edible by the Amazonian indigenous people (Franco-Molano *et al.*, 2005; Vasco-Palacios, 2002; Sanjuan, 1999; Vasco-Palacios, 2006).



For example, in the medicines category, the species *Pycnoporus sanguineus* is reported to treat oral mycosis, and *Daldinia concentrica* is used to treat skin sores (Franco-Molano *et al.*, 2005). Other species such as *Bovista plumbea* and *Psilocybe cubensis* are used to prevent and cure dermatological diseases (Villalobos *et al.*, 2017). In the social uses category, women in Wayuu communities (department of La Guajira) use the spores of some fungi species as sunscreen in religious rituals and dances (Villalobos *et al.*, 2017). In the Andean region, rural communities use the term “dangerous” to refer to the mushroom species *Psilocybe cubensis* (Ruíz & Henao, 2006), reporting that they are sought after by visitors with great interest in their hallucinogenic effects. Despite this, some local experts refer to their medicinal use in hot compresses to treat boils (Pérez & Piragauta, 2006).

In the biological control category, several entomopathogenic species are available in markets as agents to control pathogens in crops. Colombia has a strong tradition in this research field, and companies and research institutes are developing technologies to produce commercial products based on entomopathogens (Espinel-Correal *et al.*, 2018). For example, different products based on *Beauveria bassiana* control the coffee berry borer (Alves *et al.*, 2002). *Cordyceps fumosorosea* is used to control mites, thrips, whiteflies, and *Metarhizium anisopliae* is formulated to control beetle larvae, leaf cutter ants, and mosquito larvae (Espinel-Correal *et al.*, 2018).

### Commercial macrofungi

Regarding non-native macrofungi, a few well-known species are commercialised in markets or consumed in restaurants in urban cities. These species are distributed mainly in cool climates, and their strains have been brought from other countries for cultivation in Colombia. *Agaricus bisporus*, the common *champiñón*, is the most commercialised species in urban centres in Colombia, being sold in supermarkets, squares and small groceries, and dairy and meat stores. The species with the most reports of use in small businesses and entrepreneurship in urban areas is the oyster mushroom *Pleurotus ostreatus*. Different entities, small businesses and research groups have developed studies to optimise its cultivation, the development of value-added products, and the analysis of supply chains (Rodríguez-Valencia & Jaramillo, 2004; Rodríguez-Valencia *et al.*, 2006; Arias-García *et al.*, 2008; López-Rodríguez *et al.*, 2008; Montoya-Barreto *et al.*, 2009; Romero *et al.*, 2010; Suárez-Arango, 2010; Jaramillo-Ruiz *et al.*, 2011; Fernández-Uribe, 2014; Vargas *et al.*, 2019).

On the other hand, one of the most used and studied species at an industrial level is *Ganoderma lucidum*, a species commonly known as the king of fungi and longevity in Asia. In Colombia, it is estimated that its research began 12 years ago, and its industrial cultivation started approximately six years ago, due to the interest generated by its medicinal properties (Giraldo, 2013). Among the culture media used to grow *G. lucidum*, mixtures of substrates such as hardwood

sawdust with wood shavings and rice or sorghum bran, dry wood from plantations of *Quercus* trees (oaks) (Rodríguez & Jaramillo, 2005), and a mixture of sawdust from the coffee stem, coffee grounds, wheat bran, carbonate, gypsum, and sugar (Varón, 2004) have been used in Colombia. To reduce production time and costs, and to increase the production of compounds of interest such as beta-glucans, different studies have been carried out in liquid media, allowing the fungus and its compounds to be more easily absorbed by the human body, and also making them soluble and thermostable (Puerta-Marín & Zapata-Cardona, 2006). *Lentinula edodes* is originally from Asia, and the strains used in Colombia come from imported strains in international stocks, mainly from the United States, Japan, and China. Some studies have tested its cultivation with substrates that produce optimal biological efficiencies (Arias-García *et al.*, 2008; Arredondo-Peña & Pérez-Martínez, 2007).

In Colombia, some entities help to enhance the cultivation of macrofungi. For example, the National Federation of Fungi Growers of Colombia (FEDEFUNGICOL), a non-profit organisation, seeks to provide better support to its members and more opportunities for human communities, sheltering different branches of the fungiculture, such as producers of oyster mushrooms, *Ganoderma*, and shiitake.

### Underutilised fungal species

The number of used and/or assessed useful species in Colombia compared to the underutilised species (reports made in other countries) are shown in Figure 4. Regarding the fungal species present in Colombia and their utility, most categories, particularly food, materials, medicines, poisons, and social uses, have a higher number of underutilised species than the number of used or assessed species.

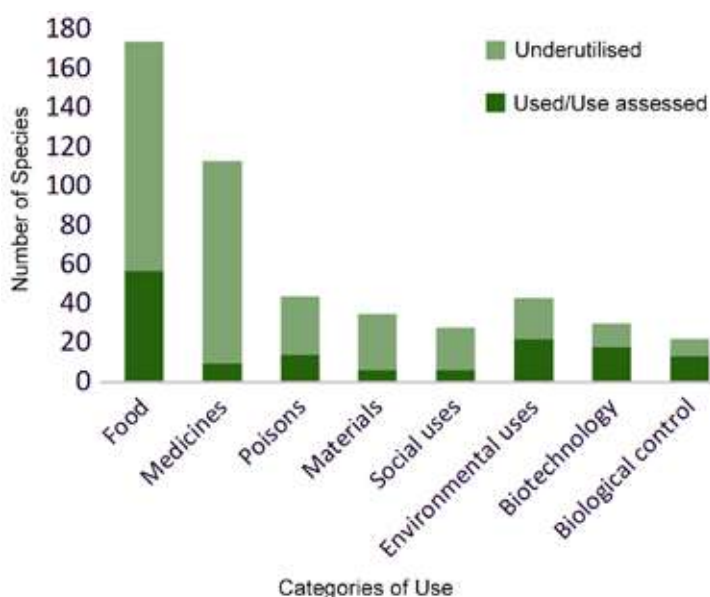


FIGURE 4. Number of fungal species used and assessed in Colombia vs underutilised species.

## CONCLUSIONS

In Colombia, the use of wild fungal species is limited, and it is an infrequent practice, probably given that their recognition and use has been forgotten in some areas of the country, even though fungi were part of pre-Hispanic cultures (Velandia *et al.* 2008). Indeed, with the increase in research involving fungi and the documentation of its uses in unexplored regions, we will understand and elucidate whether Colombian citizens fit into one of the two differential attitudes towards fungi, understood as mycophilia and mycophobia (Ruan-Soto *et al.*, 2014). We showed data on the useful fungi of Colombia, highlighting that a few species are used and some others have been assessed, but most of them are still underutilised. Thus, different sectors, such as academia, research institutions, industry, and entrepreneurs must further explore the potential uses and properties of the Colombian funga. The increase in investment in basic and applied research is an opportunity to explore and discover these properties. Finally, it is essential to highlight that the conservation of fungi should be done hand in hand as society starts to use or apply fungi in different fields. Planning to prevent the impact of humans on fungal populations (e.g., excessive macrofungi harvesting) is a key to their sustainable use (Gibbens, 2021).

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A Colombian fungi producer in the region of Cundinamarca. The species, *Lentinula edodes* (Berk.) Pegler, commonly known as shiitake mushroom, is an edible fungus grown in eucalyptus and acacia sawdust.

[Tatiana Sanjuan]



Agripina Kuecomuay of the indigenous Uitoto of Amazonas, Colombia, showing her mushroom harvest.

[Tatiana Sanjuan]





*Panus neostrigosus*  
[Martha Ortiz-Moreno]



# Chapter 13

## Biotechnology of Fungi of Colombia

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### ABSTRACT

The biotechnological use of fungi has been walking side by side with the development of human well-being since the dawn of civilisation, enriching our diet with new products, increasing the assimilation of plant sources, and even contributing to the conservation of protein sources. A qualitative leap in fungi manipulation was made possible with the development of microbiology, mycology, and the use of molecular tools, laying the foundations for the development of fungal biotechnology. These advances allowed the better identification of promising strains, understanding the relationship between genes and phenotypes, and optimising their culture conditions to maximise the obtention of biomass or metabolites of interest to the industry. In the global context, multiple studies have focused on the characterisation, bioprospecting, and development of fungal biotechnological products, leading to patents and innovative, high-efficiency industrial processes with reduced environmental impact. However, despite the great fungal diversity in Colombia, there is still much to investigate in order to transform the dream of exploiting its funga as a source of biotechnological products that generate social well-being and allow the positioning of technological innovation within the national productive sectors. Therefore, researchers, companies, and consumers are urged to support the development of a Colombian fungal biotechnology strategy as an engine for sustainable economic change.

### RESUMEN

El uso de hongos ha acompañado el desarrollo del bienestar humano desde los albores de la civilización enriqueciendo la dieta con nuevos productos, aumentando la asimilación de fuentes vegetales e inclusive contribuyendo a la conservación de las fuentes de proteína. Pero es con el desarrollo de la microbiología, la micología y el uso de herramientas de biología molecular que se dió un salto cualitativo en la manipulación de los hongos para sentar las bases del desarrollo de la biotecnología fúngica, al lograr una mejor identificación de las cepas promisorias, comprender la relación entre los genes, los fenotipos y cómo optimizar sus condiciones de cultivo para maximizar la obtención de biomasa o de metabolitos de interés para la industria. En el contexto mundial son múltiples los estudios que se han enfocado en la bioprospección, caracterización y desarrollo de productos biotecnológicos fúngicos conducentes al desarrollo de patentes e innovadores procesos industriales de alta eficiencia y con impacto ambiental reducido. Sin embargo, en Colombia a pesar de su amplia diversidad fúngica aún falta mucho por investigar para transformar en realidad el sueño de explotar la funga como fuente de productos biotecnológicos que generen bienestar social y permitan posicionar la innovación tecnológica dentro de los sectores productivos nacionales. Por ende, se insta a los investigadores, empresas y consumidores a apoyar el desarrollo de la biotecnología fúngica nacional como un motor de cambio económico sustentable.

### INTRODUCTION

#### **Biotechnology and its applications**

Biotechnology refers to any technological application that uses biological systems and living organisms or their derivatives to create or modify products or processes for specific uses (United Nations, 1992). Biotechnology comprises basic and applied research that integrates different approaches derived from the technology and application of biological sciences, such as cellular and molecular biology, bioinformatics, and

applied microbiology (Khan *et al.*, 2017). Biotechnology includes research and the production of bioactive substances and functional foods, cellular and molecular diagnosis, disease management with novel approaches, toxicology, genomics and environmental management, biosecurity associated with the cultivation and processing of different organisms, and biofuels, among other applications (Khan *et al.*, 2017).

The organisms studied for biotechnological applications are considered promising because of their tolerance

of environmental stresses, producing metabolites with possible applications in industry. Additionally, fungi have rapid growth and the ability to adapt to the industrial production of biomass (Bekirogullari *et al.*, 2020). They can also be sources of genes of great interest that can be transferred to model organisms (Behera *et al.*, 2017). Some of the most studied organisms in biotechnology are fungi due to their unique biological characteristics (Nevalainen *et al.*, 2017).

Fungi are ubiquitous organisms that are adapted to various ecosystems and habitats. Their enzymes participate in the decomposition of biomass, playing a fundamental role in the development of cultivated plants, and collaborating in the maintenance of soil fertility by decomposing complex molecules (i.e., starch, cellulose, chitin, fats, and proteins) into simple elements that can be absorbed by plants and the soil microbiota (Herrera & Ulloa, 1998; Cepero *et al.*, 2012). Fungi participate in the humification and ammonisation phases within the nitrification process, transforming proteins into amides, amines, amino acids, ammonia, and ammonia salts (Herrera & Ulloa, 1998). Their role in soil fertility is especially important in acidic soils (Herrera & Ulloa, 1998; Hoffland *et al.*, 2004), such as those found in vast areas of Colombia (Fonte *et al.*, 2019). Fungi are also important agents that participate in the ecological balance, establishing symbiotic, mutualistic, synergistic, parasitic, and even predatory interactions with other organisms (Herrera & Ulloa, 1998; Cepero *et al.*, 2012).

Currently, industrialised countries highlight the role of mycology in the human economy due to its great potential in biotechnological applications derived from the metabolic diversity of fungi (Meyer *et al.*, 2020). With sufficient attention and resources, fungal biotechnology, in terms of the production of food and important bioactive products, including enzymatic, medicinal, and pharmacological ones, can in the future contribute to the economy of developing countries (Challa *et al.*, 2019), such as Colombia.

## USES OF FUNGI

Fruiting bodies of certain Basidiomycota and Ascomycota can be used as food by humans (Herrera & Ulloa, 1998; De Román & Boa, 2004). During certain seasons of the year, they constitute a food alternative for rural populations and even a source of income from the commercialisation of sporomes as culinary delicacies (Christensen *et al.*, 2008). Some of these edible mushrooms, such as *Agaricus bisporus*, have been cultivated for many years in various countries, giving rise to an industrial branch of great economic importance (Carrasco *et al.*, 2020). These mushrooms are sold fresh, dried, pickled, or canned (Pardo-Giménez *et al.*, 2017). However, this is not the only use of fungi as they are also used in industrial processes to obtain many products, including food, beverages, and important drugs, with a huge impact on the economy of most countries (Pombeiro-Sponchiado *et al.*, 2017; Singh, 2019).

Since ancient times, yeasts have been used to produce bread, distilled beverages (i.e., beer and wine), and ethyl

alcohol for the pharmaceutical industry, and more recently, for the biofuel industry (Nandy & Srivastava, 2018). Starchy and sugary substrates are used in these fermentation processes. Still, with the development of third-generation fuels, the possibility of saccharifying harvest waste or other substrates to incorporate enzymes of filamentous fungi in fuel ethanol production have been explored (Nanda *et al.*, 2018). Fungal strains are also used to produce citric, acetic, gluconic, gallic, kojic, and itaconic acids, fats, and glycerine, among other chemical products (Herrera & Ulloa, 1998; Money, 2016). Dehydrated yeasts are also an important industrial product, used as nutritional supplements in human and animal food, as they are rich in proteins and B vitamins (Shurson, 2018).

On the other hand, the maturation and fermentation of cheeses such as Roquefort, Camembert, and similar types depend on the metabolic activities of certain moulds (Canellada *et al.*, 2018). Likewise, the enzyme manufacturing industry has only flourished using various fungi to produce amylases, diastases, invertases, lipases, proteases, pectinases, and other enzymes (Wösten, 2019). These enzymes are used to produce textiles, paper, leather, gums, syrups, and fruit juices (Wösten, 2019). The taka-diastase obtained from various *Aspergillus* species is used for industrial and therapeutic purposes, as it consists of an enzyme complex of sucrase, maltase, lactase, dextrinase, amylase, cellulase, pectinase, lipase, peptase, ereptase, renin, trypsin, catalase, inulase, emulsin, tanases and proteases, among others (Herrera & Ulloa, 1998; Kitagaki, 2021).

Several antibiotics have been obtained from different fungi, especially from *Penicillium* and *Aspergillus*, such as penicillin, produced by *Penicillium notatum* and *P. chrysogenum* (García-Estrada *et al.*, 2020). Likewise, an alkaloid called ergotine is extracted from ergot (*Claviceps purpurea*), and used in medicine to combat bleeding associated with childbirth, to induce uterine contractions (Liabsuetrakul *et al.*, 2018), and in the treatment of migraines due to its peripheral vasoconstrictive effect (Tfelt-Hansen & Koehler, 2008). These are some examples of the wide potential of fungi as a biotechnological resource. Thus, the goal of this chapter was to review the state of knowledge of the biotechnological applications of the fungi of Colombia.

## MATERIAL AND METHODS

To elucidate the biotechnological potential of the fungi of Colombia, we performed systematic searches on the reports of biotechnological applications of the genera or species listed in the ColFungi portal during July and August 2021, with a temporal coverage of studies from between 1990 and 2021. Also, a brief review of studies conducted in Colombia that have described endophyte fungi biology was also performed. Most of these studies aimed to describe the diversity and, in some cases, tried to uncover the potential of endophytic fungi as biocontrol agents or as producers of interesting metabolites. We also performed a search in Google Scholar, without time restriction, to



look for studies related to Colombian fungal diversity with the keyword's modifiers "endophytes" AND "Colombia", "Micromycetes diversity" AND "Colombia"; "Microfungal diversity" AND "Colombia"; "Microfungi diversity" AND "Colombia", excluding lichens, and the same terms for Macromycetes. We also searched for metagenomics and metabarcoding studies using the modifiers "Metagenomics" AND "Microfungi" AND "Colombia".

## RESULTS AND DISCUSSION

### **Biotechnological potential of fungi of Colombia**

The ecological role of fungi is very important as they participate in nutrient cycling, playing a fundamental role in diverse ecosystem services, especially in regulatory ones. They can also act as predators and parasites that regulate populations of other biological groups. On the basis of the data from the ColFungi portal from the Royal Botanic Gardens, Kew, we identified eight main trophic modes described for their species: pathogenic fungi feeding only on vascular plants (1,073), on animals (154 species), on animals and vascular plants (2), only on bryophytes (1), on plant endophytes (2), other fungi excluding lichens (23), and lichens (110). There are also saprotroph-pathotroph fungi, which can go from consuming organic matter to parasitising other organisms under certain conditions. These are represented by 176 species that can infect animals, other fungi, bryophytes, and vascular plants. There is also a group of species that can be consumers of organic matter, pathogens, and mutualists depending on environmental conditions. These are represented by 135 species, which can be endophytes, epiphytes, and ectomycorrhizal.

Another important functional group is the pathosymbiotrophs, made up of 119 species, mostly endophytes, although they can eventually parasitise other organisms. In turn, saprotroph-symbiotrophs can go from a free lifestyle to establishing symbiotic associations with different organisms. These are represented by 44 species that have been obtained from manure, litter, and roots. The saprotrophs or consumers of organic matter are one of the most diverse groups with 1,430 species. They have been obtained from manure, leaf litter and decomposing wood, and the soil.

The symbiotrophs that grow in association with organisms in the form of arbuscular mycorrhizae, ectomycorrhizae, endophytes, epiphytes, and lichenised fungi represent 3,074 species. Whereas the symbiotroph-saprotrophs (that is, fungi that predominantly live associated with other organisms but, under certain conditions, can adopt free lifeforms through the consumption of organic matter) were represented by 53 species associated with wood (49) and lichens (4).

Fungi have developed diverse mechanisms to persist in different types of environments, such as the production of lytic enzymes adapted to different environmental conditions, which can even degrade xenobiotics (chemical substances not normally present in the environment of living organisms). They can also release antibiotics to compete with other microorganisms, synthesise complex molecules (e.g.,

alkaloids, terpenoids) to discourage the consumption of their biomass, develop pigments with antioxidant activity, bioaccumulate metals, and produce other biomolecules with biological activities that are of great biotechnological interest (Souza *et al.*, 2015; Hyde *et al.*, 2019). In this sense, it is a priority to advance the knowledge of Colombian fungi as it has great potential to contribute to the sustainable development of the country. From the data from ColFungi, we identified 287 plant symbiotrophs that have potential as promoters of plant growth that could be used in forest production and annual and perennial agriculture. A total of 3,161 species of saprotroph-symbiotrophs could be the source of genes, enzymes, and biomolecules of great industrial importance, to name a few example uses. To illustrate the biotechnological potential of some of the genera recorded in Colombia, some examples will be presented below.

### **Filamentous fungi: *Trametes* and *Xylaria***

One of the most-studied genera of lignin and cellulose-degrading fungi is *Trametes* (Basidiomycota, Polyporales; Figure 1). Several species (*T. pubescens*, *T. elegans*, *T. versicolor*, and *T. villosa*) are used for industrial applications such as the degradation of agricultural waste (Osma *et al.*, 2007; Gonzalez *et al.*, 2013; Velásquez-Riaño *et al.*, 2018), to biocatalyze the production of flavours (Mendez *et al.*, 2018; Jaramillo *et al.*, 2020), and to bioremedy aromatic substances and wastewater (Osma *et al.*, 2007; Ortiz-Monsalve *et al.*, 2019; Mejía-Otálvaro *et al.*, 2021). Degrading activity on plant biomass has also been described for native isolates from Quindío corresponding to the genera *Cookeina*, *Xylaria* (Ascomycota), and *Earliella* (Basidiomycota; Figure 1) (Chaparro *et al.*, 2009), showing that there are many genera that have potential to degrade organic matter that are in need of additional studies in Colombia.

### **Yeasts: *Saccharomyces* and *Meyerozyma***

Yeasts of the genus *Saccharomyces* (Ascomycota; Figure 1) have been used in multiple applications as antioxidants and anti-topoisomerase I and II for the prevention of cardiovascular diseases and cancer (Correa Soto & Gaviria Mendoza, 2010), in ethanol production from native strains (Garzón Castaño & Hernández Londoño, 2009; Peña-Serna *et al.*, 2012; Walteros Pinzón, 2020), and in the processing of by-products such as glycerine (Sierra Arenas *et al.*, 2015) and surplus banana pulp (Oviedo Zumaqué *et al.*, 2009). Likewise, *S. cerevisiae* has been used for lead bioadsorption (Pauro Roque *et al.*, 2009) and animal supplementation (Ramírez *et al.*, 2007). Another widely studied yeast genus is *Meyerozyma*, which has been used as a probiotic in ruminants (*M. guilliermondii*) (Chaparro *et al.*, 2017; Castillo Saldarriaga *et al.*, 2018) and to produce biodiesel (Ramírez-Castrillón *et al.*, 2017). It has also been used for the fermentation of cocoa beans (Fonseca Blanco *et al.*, 2020; Lozano Tovar *et al.*, 2020), and in plant protection against anthracnose in fruits (*M. caribbica*) (Bautista Rosales *et al.*, 2013; Ramírez-Castrillón *et al.*, 2019; Navarro-Herrera & Ortiz-Moreno, 2020).

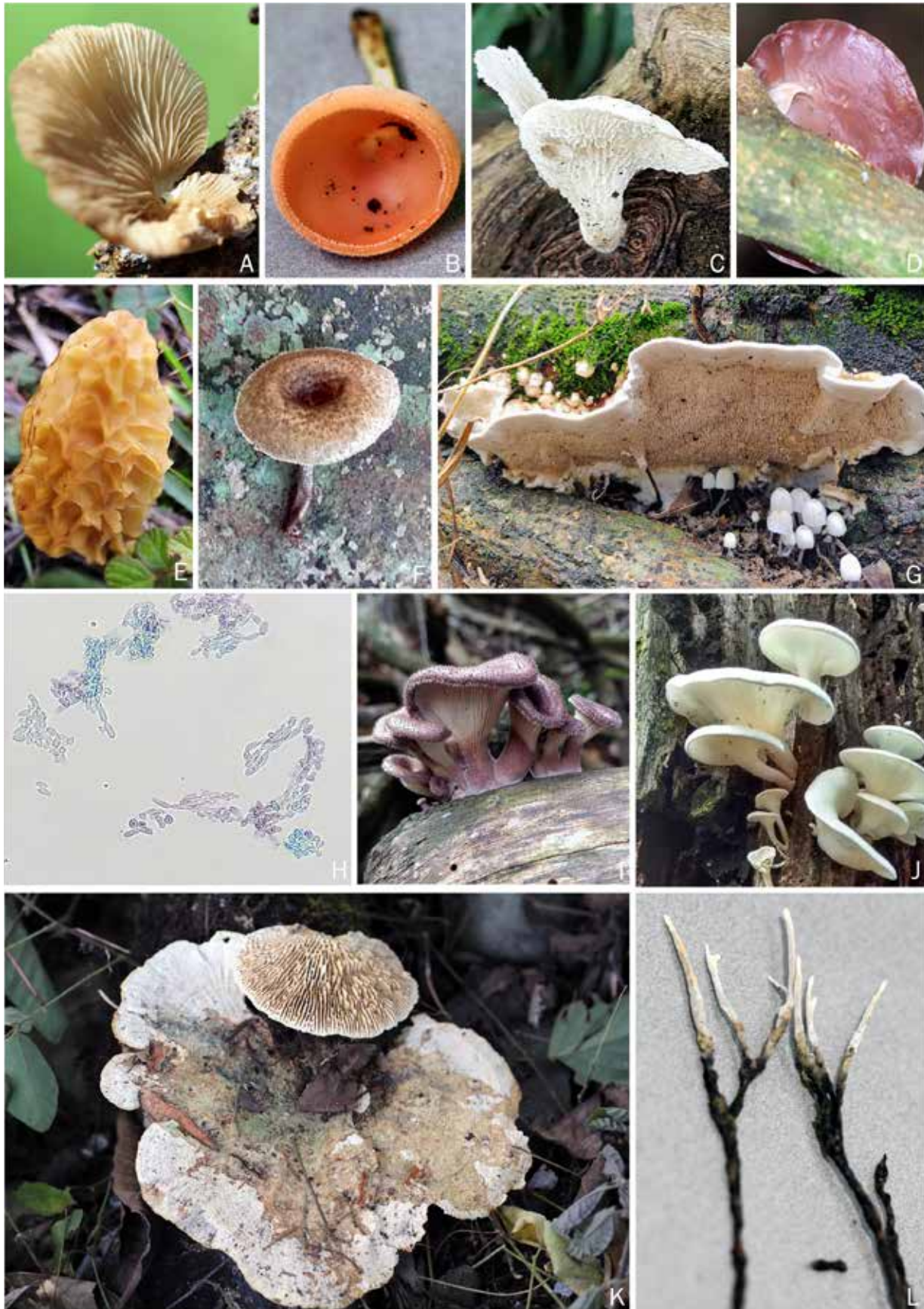


FIGURE 1. A *Crepidotus brasiliensis*, B *Cookeina speciosa*, C *Favolus tenuiculus*, D *Auricularia fuscossuccinea*, E *Morchella* sp., F *Lentinus crinitus*, G *Earliella scabrosa*, H *Saccharomyces* sp., I *Panus neostrigosus*, J *Pleurotus* sp., K *Trametes elegans*, and L *Xylaria hypoxylon*. (All photographs by Martha Ortiz-Moreno.)



**Edible fungi: Auricularia, Favolus, Morchella, and Hericium**

Edible mushrooms are of great interest to biotechnology due to their nutritional value and the possibility of offering the consumer biomolecules that can improve or maintain their health over time (Kües & Badalyan, 2017). Among the native fungi with great potential to be explored in Colombia are species of *Auricularia*, *Favolus*, *Morchella*, and *Hericium* (Figure 1). In *Auricularia*, Wu *et al.* (2014) have reported the cultivation of *A. auricula-judae*, *A. heimuer*, *A. americana*, and *A. villosula* as human food in China. These authors highlight that the consumption of these fungi dates back to Imperial China as a culinary delicacy reserved for emperors. By 2013, approximately 4.75 billion kg (fresh weight) of *A. auricula-judae* and other species known as “Heimuer” were grown, representing a 4 billion USD/year market. This high demand is due to its attributed anti-ageing properties, and the ability of these foods to reduce sugar and fat in the blood, improve immunity, and prevent and treat cancer (Wu *et al.*, 2014).

In Colombia, Niño *et al.* (2017) analysed the cultivation potential of *Auricularia fuscusuccinea* and *Crepidotus palmarum*, species with traditional use reported in rural communities of Boyacá, obtaining positive results regarding their isolation and growth in substrates such as potato dextrose agar and malt extract agar. The consumption of species of *Auricularia*, as well as *Favolus*, *Lentinus*, *Lentinula*, *Panus*, and *Pleurotus* (Figure 1), has been reported in Amazonian indigenous communities. Thus, it is necessary to rediscover these traditional uses in order to find new food products for future world food sovereignty in a context where access to quality protein and vitamins is increasingly limited (Vargas-Isla *et al.*, 2013). In addition, Murillo & Suárez (2020) showed that the cultivation of *Lentinus crinitus* and its use on a laboratory scale is feasible. Meanwhile, Flórez-Sampedro *et al.* (2016) found that *Lentinus* and *Ganoderma* have anti-HIV activity.

On the other hand, *Morchella* (Ascomycota) is an edible fungus highly appreciated in European cuisine. This genus has been reported in Colombia (Pinzón-Osorio *et al.*, 2017; Baroni *et al.*, 2018) to have great biotechnological potential to be explored as it contains immunomodulatory proteins (Wu *et al.*, 2020), as well as antioxidant and antimicrobial activities (Heleno *et al.*, 2013). In turn, the genus *Hericium* has also been recorded in Colombia (Murillo & Suárez, 2020), and shows a pleasant taste, high nutritional value, and hypoglycaemic activity. In addition, this genus has cytoprotective properties for gastric cells (Liao & Huang, 2019), and it is also neuroprotective (Brahmachari, 2017). *Hericium* cultivation conditions have been evaluated by Buchalo *et al.* (2005). Pre-treatment with *Hericium* has even been proposed as a strategy to increase the digestibility of corn stover in ruminants (Moreno *et al.*, 2019).

**Endophytic fungi: the hidden diversity**

Fungal endophytes colonise internal plant tissues without causing any disease symptom, tissue damage, or apparent damage in their hosts (Kogel *et al.*, 2006; Schulz & Boyle, 2005). These fungi have captured the interest of researchers

because: 1. they have been found in every plant species examined to date, 2. researchers keep discovering new species of fungi inhabiting plants, and 3. these fungi produce novel bioactive metabolites that can be used in agricultural or industrial processes (Strobel & Daisy, 2003).

Several problems with the taxonomy of endophytes make their study and proper characterisation difficult (Miles *et al.*, 2012). First, many endophytic fungi do not sporulate under culture conditions. Thus, they are described as sterile mycelium or listed as morphospecies. In some cases, molecular identification can help to clarify their taxonomy or at least helps to group some morphospecies. Second, many represent new species to science or belong to novel groups and do not fit within previously described taxa. Third, most microorganisms do not grow in culture. Keeping these problems in mind, we reviewed the diversity of these fungi in Colombia, focusing mainly on those that could be taxonomically identified.

Several authors, notably Elizabeth Arnold from Arizona University, have extensively studied fungal endophytes in the tropics, resulting in the publication of more than 15 studies by her research group on the diversity of these organisms in several tropical plants (Arnold *et al.*, 2000), postulating that tropical endophytes might be hyper-diverse. Although the diversity of endophytes has been explored in several tropical countries and different plants, the diversity of native Colombian microorganisms has not yet been explored extensively.

The first study of endophytes in Colombia was probably performed by Dreyfuss & Petrini (1984). They isolated a few fungi from the plant families Araceae, Bromeliaceae, and Orchidaceae in Colombia, Brazil, and France. These authors described several species of Ascomycota from orchid species of *Epidendrum* and *Maxillaria*. One of the most ubiquitous genera reported was *Fusarium* and its teleomorphs (Sordariomycetes). Orchids are essential plants in Colombia, encompassing an important commercial crop and the national flower (*Cattleya trianae*) (<https://www.cancilleria.gov.co/simbolos-patrios-y-otros-datos-interes>). The study of endophytes in orchid roots has had exciting potential as the limits between endophytes, mycorrhizae, and parasites have been difficult to draw for the microorganisms living in those tissues. For example, it has not been conclusively demonstrated that either partner benefits from their interaction (Bayman & Otero, 2006).

In Colombia, a significant number of altitudinal climatic regions are likely to harbour many diverse microbial communities. According to Strobel & Daisy (2003), the number of plant species is so great that researchers looking for microorganisms that produce novel bioactive products should use creative and imaginative sampling strategies. For example, one should look for endophytes in plants living in unique environmental sites that show different strategies to survive extreme conditions (Strobel & Daisy, 2003). Following Strobel's rationale for plant selection (Strobel & Daisy, 2003), Miles *et al.* (2012) selected the endemic Andean giant rosettes (*Espeletia* complex: Asteraceae) from the paramo ecosystem to look for endophytes, describe their diversity and study their potential as biocontrol agents.

Their results showed that endophyte communities were dominated by organisms belonging to the Ascomycota, with Sordariomycetes predominating over other classes of fungi. An exciting result of this study was that the taxonomic composition at the class level resembled that from tropical forests more closely than that from temperate regions. This result was surprising as paramo conditions are more similar to temperate locations than to tropical forests. Still, it might reflect the close geographical proximity of the paramos with Colombian tropical forests (pers. observ.).

In Colombia, endophytes have also been studied in cultivated plants (e. g., coffee, Tahiti lime, tomatoes), mainly to find alternatives to control the causal agents of plant diseases. In a first study, 15 morphospecies were isolated from several tissues (branches, leaves, and fruits) of the Tahiti lime (*Citrus x latifolia*), all belonging to the Ascomycota, except for two classified as sterile mycelium (Muñoz-Guerrero *et al.*, 2021). Two isolates showing biocontrol activity were identified using the ITS and EF genetic markers as *Xylaria adscendens* and *Trichoderma atroviride*, again, two Sordariomycetes (Muñoz-Guerrero *et al.*, 2021).

The genus *Fusarium* is frequently found in endophyte studies (Kuldau & Yates, 2000). Isolating endophytes from tomato roots, Andrade-Linares *et al.* (2011) obtained 51 fungal isolates with 20 isolates corresponding to *Fusarium*, eight representing sterile mycelia and seven with dark septate hyphae. The dual nature of *Fusarium* as a pathogen and an endophyte is intriguing, and several hypotheses have been proposed in the literature. Many questions still need to be properly addressed by further studies: could there be avirulent variants? Could they be living in a protected habitat as long as the plant is healthy? Do they show different stages of development?

Other studies have shown the recurrent isolation of *Fusarium* from crops. Parsa *et al.* (2016) described endophytes in germinated seeds of the common bean, *Phaseolus vulgaris* (Leguminosae). Although *Aureobasidium pullulans* was the dominant species, *Fusarium oxysporum*, *Xylaria* sp. and *Cladosporium cladosporioides*, among others, were also isolated (Parsa *et al.*, 2016). Interestingly some of the most important pathogens of the common bean were also found as endophytes: *Colletotrichum lindemuthianum*, *Fusarium solani* (currently *Neocosmospora solani*), and *Macrophomina phaseolina* (Parsa *et al.*, 2016). A more recent study (Henao *et al.*, 2019) isolated 143 endophytes from leaves, roots, pseudostems, and corms obtained from healthy bananas and bananas affected by *Fusarium oxysporum* f. sp. *cubense* race 1. The results showed that *Fusarium* sp. was the most common fungal morphotype in healthy (18.67%) and diseased (25.53%) plants (Henao *et al.*, 2019). Authors found 14 genera belonging to the Ascomycota, distributed in three classes: Sordariomycetes, Dothideomycetes, and Eurotiomycetes.

Coffee is probably the most important or known export product from Colombia. Different tissues sampled from healthy plants belonging to *Coffea arabica*, *C. congensis*, *C. liberica*, and *C. dewevrei* were used to isolate fungi. Interestingly, the species identified among the isolates belonged to the genus *Penicillium*: *P. oxalicum*, *P. brocae*, and

*P. brevicompactum*. In this case, no species of *Penicillium* have ever been reported as pathogens of species of *Coffea*. The authors mentioned that this might imply that these endophytes are not latent pathogens, suggesting that these fungi can protect the plants against insects producing ochratoxin A (Vega *et al.*, 2006). A more diverse group of fungi was found in a posterior study using green coffee seeds (Vega *et al.*, 2008). In this second study, fungi from the following genera and species were identified in Colombia: *Gibberella* sp., *Aspergillus tubingiensis*, and *Penicillium olsonii* (Vega *et al.*, 2008). In a third study, the same and additional genera and species were discovered: *Aspergillus* sp., *A. fumigatus*, *A. oryzae*, *A. pseudodeflectus*, *Beauveria bassiana*, *Beauveria* sp., *Botryosphaeria* sp., *Cercospora* sp., *Cladosporium* sp., *Clonostachys* cf. *rosea*, *Colletotrichum* sp., *Fusarium* sp., *Penicillium* sp., *Phomopsis* sp., *Xylaria* sp., among others (Vega *et al.*, 2010).

The host specificity of endophytes is another wide-open question. In Colombia, one study addressed this issue with the hypothesis that one endophyte from the plant family Melastomataceae, *Chrysoporthe cubensis* (Cryphonectriaceae), had a change of host to infect species of *Eucalyptus* (Myrtaceae) in Colombia. Six plant species from three genera of Melastomataceae were sampled, with three species of the fungal family Cryphonectriaceae (*Aurapex penicillata*, *C. cubensis*, and *C. inopina*) being identified using morphological and molecular techniques (Granados *et al.*, 2020). However, more studies are needed to determine whether host switches are common among endophyte species.

Finally, a substantial amount of information on mycological diversity is reported in documents that frequently are in university library repositories and are on either partly available or not available at all to the public. These include honour theses (Montoya Sánchez, 2019), master's theses (Hurtado Clopatosky, 2020), internal university journals (Melo & Suarez, 2016), and research project final reports. The species lists reported are similar to those in the abovementioned papers, including frequent reports on genera such as *Aspergillus*, *Colletotrichum*, *Fusarium*, and *Trichoderma* (Hurtado Clopatosky, 2020). Remarkably, many of the reports were not directed to the study of biodiversity. Instead, they were mainly focused on the search for practical uses for endophytic fungi, such as the production of metabolites (Charria *et al.* 2021), plant growth stimulation (Ordóñez *et al.*, 2012) or biological control of economic important fungal pathogens (Hurtado Clopatosky, 2020).

#### **Fungal culture collections**

Research related to fungal bioprospection begins with traditional studies on fungal biodiversity, including assertive polyphasic identification and the elaboration of a living (culture) fungi collection (Hyde *et al.*, 2019). This approach has discovered unique features of Micromycetes, showing the potential of these microorganisms in biotechnology (Hyde *et al.*, 2019). The cultures placed in the microbiological collections will then be used in applied research to exploit all their industrial and biotechnological properties (Hyde *et al.*,



2019). One of Colombia's most important microbiological culture collections is in the Pontificia Universidad Javeriana at Bogotá [Member of the World Federation for Culture Collections (WFCC)]. However, only 130 fungal strains are deposited in this collection, representing around 33 genera and 35 species, with no deposits of new fungal taxa (e.g., isotypes or holotypes). This fact is a worrying reality for future applied studies in Colombia. Therefore, strengthening microbiological collections in countries like Colombia that have high biodiversity should be a national priority to better represent fungal material collected and to support bioprospecting and bioeconomy studies based on fungi.

### **Fungal biotechnology in Colombian industry**

According to specialists consulted from the Asociación Colombiana de Micología (ASCOLMIC), there is a broad interest in innovation in Colombian industry, which is why fungal biotechnology processes have been used in the sugar-alcohol, food, chemical, and agricultural products industries. However, many of these bioprocesses are based on the use of strains of fungi imported from other latitudes. This may be related to several factors: the political and legal difficulty of bringing a native fungal strain to the commercialisation phase as this implies costly and cumbersome bureaucratic processes that universities, research centres, or business consortia can hardly take on. There is also the difficulty in legally accessing biological and genetic resources of fungi, which implies a need to maintain reference collections and to obtain permits for the study of fungi to commercialise knowledge. At the same time, many resources are needed to finance high-level research to characterise the native and promising strains of fungi of Colombia and to finance the processes of protecting intellectual property rights for the innovations that are obtained, just as it is complex to involve communities in order to transfer the benefits of biodiversity to them in non-extractive exploitation schemes (Álvarez et al. 2019).

The most successful experiences in national fungal biotechnology have been in agricultural applications, highlighting the development of products such as Trichotec from Agrosavia based on *Trichoderma koningiiopsis* Th003 for the biocontrol of *Fusarium oxysporum*, *Rhizoctonia solani*, *Sclerotinia sclerotium*, *S. minor* and *Botrytis cinerea*, in tomato, rice, lettuce and red fruit crops; this product also has a plant growth-promoting action. In addition to native vesicular-arbuscular mycorrhizae included in their fertilisation and crop management protocols, Biocultivos S.A. produces Fosfobiol based on *Penicillium janthinellum*, which acts as a phosphorus solubiliser for cotton, rice, coffee, sugar cane, corn, pastures and soybeans; Trifisol from *Trichoderma viride*, which can be used as a biocontrol agent (mycoparasite), plant growth promoter, and cellulose degrader; and a residue treatment based on the *Penicillium pinophilum* and *Pleurotus ostreatus* consortium, as cellulose and lignin degraders for the management of plant biomass residues. From the Natural Control company, the products based on native strains of fungi stand out: Anisagro (*Metarhizium anisoplae*), Vercani (*Lecanicillium lecanii*), Bassar (*Beauveria bassiana*),

Fitotripen (*Trichoderma harzianum*, *T. koningii* and *T. viride*), Mycorrhizagro (*Glomus*, *Acaulospora*, *Scutellospora* and *Entrophospora*), and Safelomyces (*Purpureocillium lilacinum* and *Cordyceps fumosorosea*), used as bio controllers, plant growth promoters, plant protectors and soil improvers applicable to different crops. For other companies, such as Orius Biotech and Bio-Crop, with products oriented to the agricultural sector based on fungi, it was not possible to obtain information on the origin of their strains.

### **CONCLUSIONS**

The Colombian funga has an immense biotechnological potential of which much remains unexplored, in addition to building clusters of university research centres and companies that allow the transfer of scientific knowledge into commercial products, strengthening the Colombian productive sector, and generating a true transfer of social well-being with the use of fungal diversity.

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*Sticta peltigerella*  
[Robert Lücking]



# Chapter 14

## Fungal Conservation in Colombia

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### ABSTRACT

There has been increasing activity in fungal conservation in Colombia over the past five years, leading to a higher profile for fungi in conservation efforts. After reviewing the country's fungal conservation status, further development and implementation of measures to conserve fungi are still needed in Colombia. We attribute this to the fact that fungi are not explicitly included as an element of the biological diversity in Colombia. Additionally, the generally low profile of fungi among conservation stakeholders and decision-makers and the limited efforts by fungal scientists to put mycological knowledge into a conservation context has hindered efforts. Colombia needs to focus efforts to advance the knowledge of the fungal diversity of its national territory, including taxonomy, distribution, ecology, and threats, to enable fungi to be included within national conservation agendas. The status of fungal knowledge in Colombia reflects the global situation, with only 7,241 of the estimated 300,000 species documented and registered according to *ColFungi*. As a result, the extinction risk of South American fungal species is only now beginning to be assessed. Colombian mycologists have been active in this field and are among the leaders in fungal conservation efforts. Yet only 22 of the 7,241 species of fungi recorded from Colombia have had their global extinction risk assessed and published by the IUCN Red List. This panorama highlights the urgency with which the fungi of Colombia should be assessed in conservation efforts, making it necessary for national legislation to recognise fungi as pillars of biodiversity and to promote strategies for their conservation.

### RESUMEN

Flora, Fauna y una enorme bolsa de microorganismos (incluyendo los hongos) son los elementos que legalmente conforman la biodiversidad biológica de Colombia. No obstante, la Funga dentro de esta colorida bolsa biodiversa parece ser un elemento invisible o de claros matices, desestimado por los tomadores de decisiones y excluido de los instrumentos legales que protegen las especies y los ecosistemas del país. En parte esta desatención se debe a su desconocimiento, teniendo en cuenta que en este país “fungo diverso” se esperan cerca de 300.000 especies de hongos y se conocen apenas 7.273, incluyendo 2.670 hongos liquenizados. Curiosamente, la Funga se ha estudiado destacando su potencial como insumo en la industria alimentaria, farmacéutica y biotecnológica; incluso se ha puesto en evidencia el conocimiento tradicional y el arraigo cultural hacia los hongos por parte de diferentes grupos étnicos colombianos, así como su potencial como indicadores de calidad ambiental. Sin embargo, estos esfuerzos no han sido suficientes para hacer de los hongos elementos de alto perfil en términos de la conservación y para dirigir la atención de las autoridades ambientales, educativas y políticas de Colombia. Pocos instrumentos legales pueden relacionarse con la protección de la diversidad fúngica pese a que históricamente el Código Nacional de Recursos Naturales Renovables y de Protección al Medio Ambiente obliga a Colombia a tomar cartas en el asunto de la protección de la biodiversidad. Solo algunas resoluciones y acuerdos regionales incluyen a los líquenes y restringen su uso como elementos decorativos en festividades o regulan su extracción en la licencia de proyectos de infraestructura. En contraste, plantas y animales cuentan con listados de especies amenazadas visibilizados dentro de resoluciones ministeriales y más de 40 normas que garantizan su protección. Así mismo, en los recursos de la IUCN se han evaluado y publicado 26.000 especies plantas y 70.000 especies animales, pero solo 425 especies de hongos. Para Colombia se han publicado 22 especies en la Lista roja de especies amenazadas a nivel global, cinco de estas como amenazadas. En Suramérica, los micólogos colombianos han participado activamente en este trabajo y se encuentran entre los líderes en estos esfuerzos. Al día de hoy, hay cerca de 141 especies de hongos no liquenizados se encuentran listas para evaluar en la plataforma de la iniciativa de Lista roja global de hongos, y se espera que en el corto plazo estas sean evaluadas

por los especialistas y publicadas. Debido al especial interés en los líquenes, en 2019 se realizó la evaluación preliminar por el grupo de liquenólogos colombianos de 151 especies, con 57% resultando en alguna categoría de amenaza (convenio No 19-098 adscrito entre el Instituto Humboldt, MADS e ICN). Estas evaluaciones son de suma importancia para visibilizar la Funga en un país donde la deforestación, impulsada por la demanda de combustibles, redes de energía, minería y proyectos de infraestructura amenaza los ecosistemas de Colombia. Este panorama resalta el color rojo en el que se debe subrayar la funga de Colombia, haciendo necesario que la legislación nacional reconozca a los hongos como pilares de la biodiversidad y promueva estrategias para la conservación de los hongos. Para esto se debe robustecer el conocimiento de la diversidad fúngica en el territorio nacional, incluyendo campos como la taxonomía, la diversidad genética y de poblaciones, la evaluación de los servicios ecosistémicos prestados por los hongos y las amenazas que actualmente impactan la diversidad fúngica. Este fortalecimiento debe estar acompañado por la revisión sistemática y fortalecimiento de las colecciones fúngicas, fungarios y ceparios existentes en el país, lo cual se logrará con la capacitación de investigadores y el reclutamiento de micólogos en universidades e institutos de investigación. Con lo anterior se generaría un impacto positivo en la evaluación, categorización y protección de la biodiversidad fúngica colombiana, que indudablemente impactará en la generación de documentos que permitan a los tomadores de decisiones incluir a los hongos en las agendas nacionales de conservación.

## INTRODUCTION

Fungi are estimated to comprise from 2 to 4 million species, representing one of life's major kingdoms – on par with the Animal and Plant kingdoms – but only 150,000 have been described by science to date (Lücking *et al.*, 2021a). Fungi are not immune to habitat loss, pollution, over-harvesting, and climate change, and we do not know how many species of fungi may be in peril. The loss of fungi is troublesome as they provide several direct and indirect benefits to society through the essential ecological and economic roles they play (e.g., as edible species, as significant sources of medicines, as essential symbionts with plants and animals, and as nature's recyclers of dead wood and leaves) (Dix & Webster, 1995; Mueller *et al.*, 2004; Gaya *et al.*, 2021). In short, life on this planet would not exist as we know it without fungi, but the lack of data on their diversity and distribution has severely limited efforts to assess their extinction risk (Goncalves *et al.*, 2021). Currently, data on extinction risk is available for less than 0.3% of described species of fungi, reflecting how rarely they are included in conservation plans and land management decisions.

## COLOMBIA, A BIODIVERSE COUNTRY: FAUNA, FLORA AND A BLACKHOLE OF FUNGI AND OTHER MICROORGANISMS

“This is a megadiverse country” is one of the often-used phrases in papers, books, and other sources regarding biodiversity in Neotropical countries (Koleff & Urquiza-Haas, 2011; Fajardo *et al.*, 2014). Colombia is no exception, hosting close to 10% of the planet's biodiversity. This enormous richness can be attributed to the country's geological history and geographical location, resulting in a great variety of ecosystems (Samper, 1998). Worldwide, Colombia ranks first in species richness of birds (Donegan *et al.*, 2013) and orchids (Betancur *et al.*, 2015), second in plants, butterflies and amphibians, and third in reptiles and palms (Instituto de Investigación de Recursos Biológicos Alexander von Humboldt, 2017). Unfortunately, as shown in the previous chapters of this book, the Colombian funga remains largely understudied.

According to recent data, 7,241 species of fungi have been reported for Colombia (Chapter 3). However, given the number of plants known for the country, we predict that Colombia is a “hyper-diverse” country for fungi with an

expected species richness of 105,600 to 380,000 species, depending on the prediction approach (Chapter 3). Fungi are critical to the environment and to humans, providing essential roles in ecosystem processes, functions, and services (Frąc *et al.*, 2018). They occur ubiquitously in aquatic and terrestrial environments, with species ranging from microscopic unicellular organisms to arguably the largest on the planet (Webster & Weber, 2007). Fungi can be free-living or can establish parasitic, commensalistic, or mutualistic beneficial interactions (Gadd *et al.*, 2007). Humans also widely use fungi for food, medicinal, art or psychoactive purposes (Dugan, 2011; Pérez-Moreno *et al.*, 2020). In Colombia, they are an essential resource in the traditional knowledge and cultural heritage of native indigenous and farming groups (Vasco-Palacios *et al.*, 2008; Peña-Cañon & Enao-Mejía, 2014; Gonzales *et al.*, 2021). Additionally, lichenised fungi are used as bioindicators of ecosystem health and atmospheric pollution (Ramírez-Morán *et al.*, 2016, Correa-Ochoa *et al.*, 2020). Fungi also play key roles in the food, pharmaceutical, biotechnology, and other industries (Gaya *et al.*, 2021). The focus of many researchers in the country is set on fungi as a resource for the development of new products within the framework of the national bioeconomy policy (e.g., López-Legarda *et al.*, 2015; Chiriví *et al.*, 2017; Méndez *et al.*, 2018; Jaramillo *et al.*, 2020, Rodríguez *et al.*, 2015).

Fungi are not explicitly included in biodiversity legislation, biodiversity action plans, and conservation policies in Colombia. The Colombian government only recognises three components of biological diversity: Fauna, Flora, and microorganisms (MADS, 2012). We assume that fungi are placed within microorganisms, alongside many organisms, from different phylogenetic origins, domains, and kingdoms, such as bacteria, microalgae, and protozoa. The development of a biodiversity research strategy for Colombia requires information about the composition, structure, and function of the components of biological diversity. Not surprisingly, an analysis of the current knowledge in Colombia shows that the better-studied groups are vascular plants and some animals, especially mammals and birds (Avendaño *et al.*, 2017; Bello *et al.*, 2014; Bernal *et al.*, 2019). Groups such as invertebrates, fungi, and bacteria have received little attention in Colombia (IPBES, 2021; Chapter 3). It is estimated that we know fewer than 5% of the fungal species (Chapter 3), and natural



regions such as the Caribbean coast, Orinoco and Pacific/Chocó, Insular areas, as well as the Cauca and Magdalena River valleys are even more poorly known (Gaya *et al.*, 2021). Some of those regions currently have the highest rates of deforestation and ecosystems that are highly vulnerable to transformation and loss of ecosystem services (Etter *et al.*, 2018; Clerici *et al.*, 2020; IPBES, 2021). In addition to diversity, data on fungal distribution, endemism, genetic diversity, communities, and ecosystem services are scarce, with the main threats and risks of extinction being unknown for most Colombian fungi. The explicit recognition of fungi as major components of biodiversity in the country's legislation and policy is urgently needed. It should also include the terms Fauna, Flora, and Funga when referring to biodiversity, as recently suggested by the IUCN (IUCN, 2021a).

### CONSERVATION OF BIOLOGICAL DIVERSITY IN COLOMBIA: POLICY AND LEGISLATION

Various national norms regulate critical aspects of biodiversity management and stewarding environmental institutions. The National Code of Renewable and Non-renewable Natural Resources and Protection of the Environment was created in 1974 by the decree-law 2811 (República de Colombia, 1974). With the adoption of the 1991 Colombian Constitution, the country raised the management and protection of natural resources, the environment, and biodiversity (República de Colombia, 1994). The National Biodiversity Policy that has regulated Colombia since 1994 seeks to promote the conservation, knowledge, and sustainable use of biodiversity (MADS, 2012). However, this policy only recognises fauna, flora, and microorganisms as components of biological biodiversity. The fact that fungi were not considered an element of the national biological diversity, at the same level as Flora and Fauna, has left fungi outside the sphere of public policies. For 30 years, fungi have been relegated to the background and not recognised as a component of Colombia's biodiversity. This fact ignores the vital role they play in ecosystems and their close relationship with the country's indigenous and rural cultures, and their potential for the biotechnological development of the country. The lack of explicit recognition under national law has resulted in fungi being unprotected in Colombia.

Local and regional policies have protected diversity, avoiding the over-harvesting of species and the trade of endangered Fauna and Flora, and, exceptionally, also including other organisms like “slimes”, “moulds”, and “parasites” (Resolution 0213 of 1977, INDERENA)<sup>1</sup>. At least four regional resolutions were established to protect non-

vascular plants and lichens from excessive exploitation for traditionally decorated Christmas cribs (CAR<sup>2</sup> Agreement 022 of 1993, CDMB<sup>3</sup> Resolution 1986 of 1984, CORANTIOQUIA<sup>4</sup> Resolution 3183 of 2000, DAMA<sup>5</sup> Resolution 1333 of 1997)<sup>6</sup>. Non-vascular plants and lichens have also been “occasionally” protected from logging and other projects that impact ecosystems and biodiversity. In these cases, projects need special permits that include management plans for Fauna, Flora, non-vascular plants, and lichens. The list of threatened species to be protected was compiled in the Resolution 1912 of 2014 (MADS)<sup>7</sup> based on data published in red list books of groups of animals and plants (vascular and non-vascular: e.g., bryophytes; Linares & Uribe, 2002) and orchids (Calderón-Sáenz, 2007). Unfortunately, species of fungi, even lichenised fungi, were not included in this resolution. A management plan for reducing the loss of biodiversity—sometimes including offsets or restoration of ecosystems and protection of certain species—also became mandatory following a mitigation hierarchy approach and biodiversity offsetting principles (ten Kate *et al.*, 2004; MADS 2018). However, in 2019, decree 2106 (República de Colombia, 2019) dismissed the need for biological diversity impact statements for projects, resulting in adverse effects on the protection of natural ecosystems and the country's biodiversity.

### THE CONVENTION ON BIOLOGICAL DIVERSITY

In the past ten years, the development of the biodiversity research strategy for Colombia has followed the commitments included in the Convention on Biological Diversity (CBD) signed in Rio de Janeiro (Brazil) and ratified by Colombia in 1994. The country has also adopted the Strategic Plan for Biological Diversity (PEDB 2011-2020) (CBD, 2021a), including the Aichi Biodiversity Targets defined under the CBD (2011-2020) (CBD, 2021b). This plan provides an overarching framework for biodiversity management and policy development to halt the loss of biodiversity. This process should begin with a national assessment of biodiversity. However, Colombia did not include information on fungi in any of the first five Biodiversity National Reports (1998, 2005, 2008, 2010, 2014) (CBD, 1998 onwards; Bello *et al.*, 2014; Gómez *et al.*, 2016). For the fourth report, mycologists prepared a short text about fungal diversity in Colombia and a case study on ectomycorrhizal fungi associated with *Quercus humboldtii*. Still, this information was not included in the final report due to “lack of space” (pers. observ.). The 2017 National Biodiversity Strategies and Action Plan (NB) (CBD, 1998 onwards) were designed to

<sup>1</sup> Instituto Nacional de los recursos naturales (INDERENA)

<sup>2</sup> Corporación Autónoma Regional de Cundinamarca (CAR)

<sup>3</sup> Corporación Autónoma Regional para la Defensa de la Meseta de Bucaramanga (CDMB)

<sup>4</sup> Corporación Autónoma Regional del Centro de Antioquia (CORNARE)

<sup>5</sup> Departamento Administrativo del Medio Ambiente (DAMA)

<sup>6</sup> Resumen de la normatividad disponible para levantamientos de veda, disponible en: [https://cvc.gov.co/sites/default/files/Sistema\\_Gestion\\_de\\_Calidad/Procesos%20y%20procedimientos%20vigentes/Normatividad\\_Gnl/Resolucion%20213%20de%201977-Feb-01.pdf](https://cvc.gov.co/sites/default/files/Sistema_Gestion_de_Calidad/Procesos%20y%20procedimientos%20vigentes/Normatividad_Gnl/Resolucion%20213%20de%201977-Feb-01.pdf)

<sup>7</sup> Ministerio de Medio Ambiente y Desarrollo Sostenible (MADS)

identify gaps and weaknesses, as well as design actions to overcome them. In this report, fungi were barely mentioned and always negatively, presenting only examples of plant and animal pathogens. This is very troubling as these reports are essential documents for decision-makers, but they ignore fungal diversity and their importance for ecosystems and humans.

But things are changing, and information on fungi was included for the first time in the Sixth Biodiversity National Report (2019) (CBD, 1998 onwards). This document included only general information taken from repositories of the Humboldt Institute. Although it did not include curated data from mycologists, it was the first time that fungi were mentioned as part of the biological diversity of Colombia. In 2021, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services report was prepared for Colombia (IPBES 2021). It compiled relevant and published information about fungal diversity (genetic, species, and ecosystem diversity levels) and presented attributes such as the composition, structure, and function of this diversity. The report calls for scientific and monitoring programs to focus on the least-sampled groups of Colombia's biodiversity, such as invertebrates, liverworts and hornworts, bacteria, archaea, and fungi (IPBES, 2021).

With the recent creation of a Ministry of Science, Technology, and Innovation and the strengthening of research capacities, the country's high fungal diversity and the recent boom in information on and interest in the potential and importance of fungi has created a massive opportunity for the Colombian government to place this neglected group at the same level as Flora and Fauna.

### RED LIST OF FUNGI

The International Union for Conservation of Nature (IUCN) Red List of threatened species assigns a category to each species according to its risk of extinction. The appropriate category is assigned for each species on the basis of assessments from each standard criteria that could consider their vulnerability and threat characteristics (IUCN, 2021b). Assessments are a powerful tool for supporting conservation policy, planning, and action. They help authorities to delineate protected areas, guide allocation of funding, and influence decision making. Recently a new standard tool was validated as a Red List of Threatened Species ally, the IUCN Green Status of Species, helping to evaluate species recovery and conservation impact (Grace *et al.*, 2021; IUCN, 2021b).

### RED LIST OF FUNGI IN COLOMBIA: LOCAL INITIATIVES

National assessments arise from a predetermined list of species, and there is only one assessment for each taxonomic group. In Colombia, national evaluations of Fauna and Flora are published in the Red Book, but there is no published Red Book of Fungi to date.

In 2007, Aguirre and Rangel carried out an exercise to categorise the threatened species of lichens and mosses of Colombia, partially following the IUCN criteria. For this analysis, they used herbarium collections, distribution data

for each species, and the revision of habitat perturbation in collection sites to allocate threat categories. A total of 841 species of lichenised fungi were assessed, resulting in 432 species listed as Critically Endangered, 180 as Endangered, 159 as Vulnerable, and 69 as Nearly Threatened. Nonetheless, a distributional analysis based on the extent of occurrence (EEO) or area of occupancy (AOO) was not presented in this preliminary evaluation. Also, some names used by the authors were not updated, and a few extralimital species were included, such as *Chaenotheca furfuracea* or *Usnea plicata* - both assessed as Critically Endangered (CR), but recently excluded from the Colombian lichens checklist (Lücking *et al.*, 2021b).

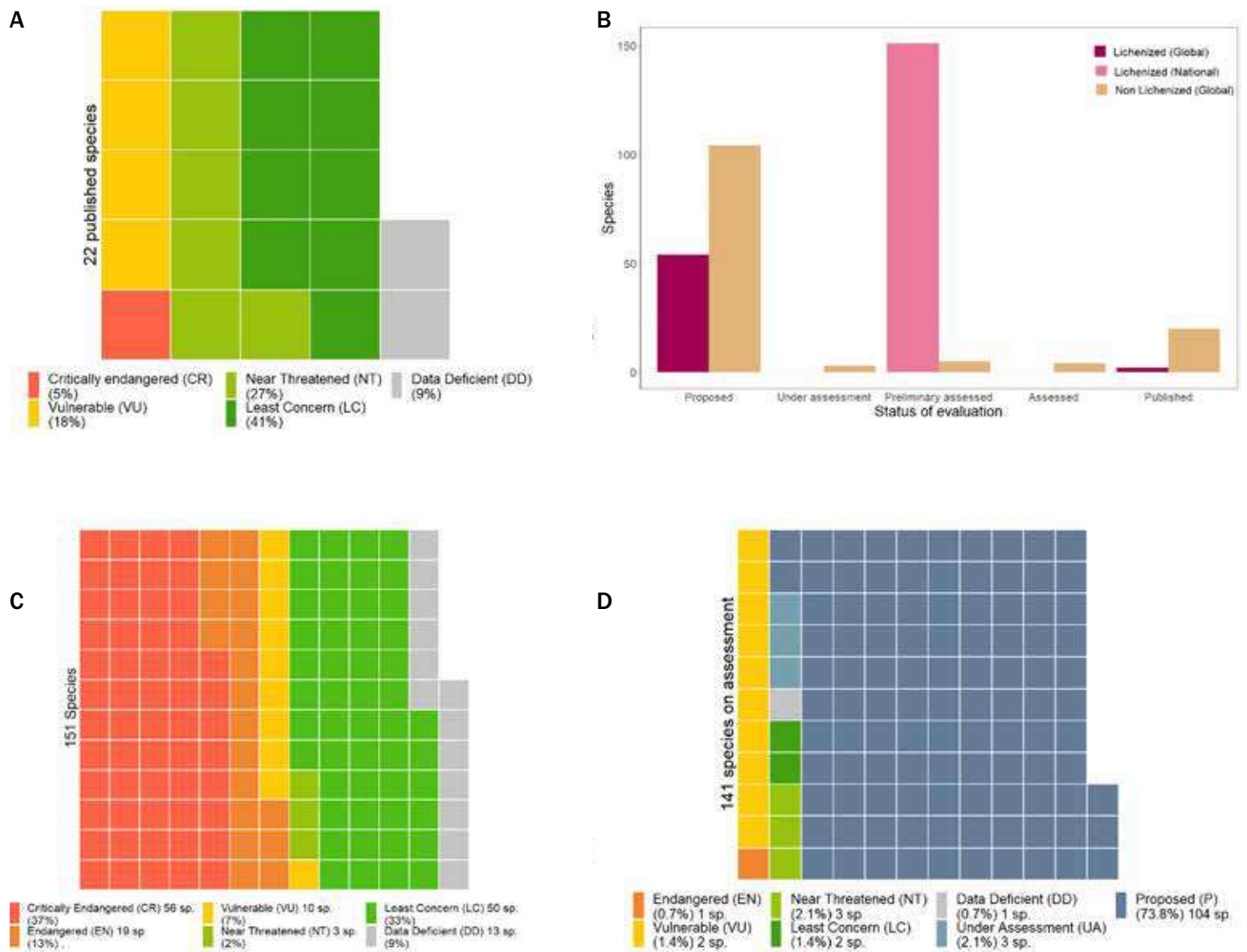
In the same year, Garcia *et al.*, (2007) reviewed the current knowledge of the uredinal-fungi (rust fungi) known from Colombia as the first step to create a Red List for Colombian rust fungi. They observed that most collections had been made on weedy plants, with few records from wild or threatened plants. They proposed some strategies to document the hosts of endangered rusts within the National Program for the Study of the Country's Megadiversity framework in the next 25 Years (Forero, 1999). The strategy included emphasising that collections from wild areas should be prioritised in sites with high endemism rates and where hosts are at risk of disappearing due to climate change (e.g., moors, coasts) as they are colonization fronts and centres of uredinal diversification. They emphasised the importance of working together with botanists who know the hosts, and the same time, advising them to collect botanical specimens showing disease symptoms, drying the material separately, and enriching the collection of rust associated with native plants around the country. Unfortunately, the red list book was never carried out, but the suggestions from 14 years ago remain valid.

As mentioned above, lichens have a different history because initially, they were studied by botanists specializing in bryophytes, making them more visible to the research community (Aguirre & Rangel, 2017). In 2019, the first national assessment of lichens species focusing on endemic species was carried out, thanks to an initiative led by the Instituto Alexander von Humboldt (Humboldt-MADS-ICN agreement No 19-098), in which the national lichenologist community actively contributed. A total of 151 species were preliminarily assessed, of which 57% species were listed as Threatened: 56 species as Critically Endangered (CR), 19 species as Endangered (EN), and ten species as Vulnerable (VU) (Figure 1b, 3a). The resultant list is an important input for biodiversity inventories that are required for infrastructure projects.

### GLOBAL RED LIST OF FUNGI

Assessments of the risk to species made for the Global Red List are being carried out by taxonomic-specialist groups and aim to cover all the existing species in a group. For fungi, there are five specialist groups: i) Chytrid, Zygomycete, Downy Mildew, Slime Mould, ii) Cup-Fungus, Truffle and Ally, iii) Lichen, iv) Mushroom, Bracket and Puffball, and v) Rusts





**FIGURE 1.** **A** Colombian fungal species globally assessed and published in the IUCN Red List (data up to 2021). **B** Colombian fungal species that have been globally proposed and published in The Global Fungal Red List Initiative (data up to July 2021). **C** Results of the preliminary assessment of lichenised species, these evaluations were carried out by the Colombian lichenologist team (Humboldt-MADS-ICN, agreement No 19-098). **D** Status in the evaluation process of all fungal species with distribution in Colombia that are currently on the global fungal red list initiative platform.

and Smuts. A specific platform to assess fungal species has been developed (A Global Fungal Red List, <http://iucn.ekoo.se/en/iucn/welcome>), and the final evaluations are published on the Global Red List (<https://www.iucnredlist.org>). Although fungi are one of the world's most biodiverse groups, they are the most under-represented multicellular taxa on The IUCN Red List, with only 550 assessments of the over 150,000 described fungal species currently published or less than 0.3% (Gonçalves *et al.*, 2021; IUCN 2022).

In comparison, the 2021 edition of the Red List includes 54,127 and 79,858 species of plants and animals, respectively. In recent years—and thanks to the particular

interest of some mycologists—a dynamic process of work for the conservation of fungi has started, encouraged by David Minter and Greg Mueller. Since 2011 various Colombian mycologists have joined the Group for the Conservation of Fungi in Latin America and the Caribbean, associated with the Latin American Mycology Association (ALM). Also, they were appointed to three of the five IUCN specialist groups: Cup-Fungi, Truffles and Allies; Lichens; and Mushrooms, Brackets and Puffballs. By being part of the specialist groups, the researchers could participate in fungal red-listing workshops (2015, 2020). In addition, efforts have been made to increase the number of species proposed





**FIGURE 2.** **A** *Gloiocephala quercetorum*, saprotrophic fungi associated with *Quercus humboldtii* forests in a montane region in Colombia. **B** Basidiomas of the ectomycorrhizal fungi *Leccinum andinum*, associated with *Quercus* species. **C** Basidiomas of the ectomycorrhizal fungi *Tylopilus obscurus* associated with *Quercus* species. **D** Basidiomas of the endemic and ectomycorrhizal fungi *Austroboletus amazonicus*, associated with *Pseudomonotes tropenbosii* (Dipterocarpaceae), Amazonian region. **E** Ascomas of *Pseudolostoma volvatum* associated with *P. tropenbosii* (Dipterocarpaceae), Amazonian region. **F** *Clavulina tepurumenga* associated with *Dicymbe uaipirensis* (Dipterocarpaceae), Amazonian region. **G** Lichen *Sticta peltigerella*. **H** Lichen *Icmadophila aversa*. (Photographs A-F by Aída Vasco; G by Robert Lücking; and H by Bibiana Moncada.)



to be evaluated under the IUCN criteria. Two workshops on applying the IUCN criteria for fungi were recently offered to Latin American mycologists (2020–2021) to encourage the mycological community. The threat status of South American fungal species is only now beginning to be assessed. Colombian mycologists have been active in this work and are among the leaders of these efforts.

Colombia is among the Latin American countries with the highest number of threatened living species on the IUCN Red List, grouping nearly 2.1% of total recorded species (IUCN, 2021b). A total of 721 Colombian plants are included in the 2021 IUCN Red List. Amphibians with 289 listed species follow in second place. Only 22 Colombian fungal species have been globally assessed and published on the IUCN Red List (2021b). All but two of these belong to Agaricomycotina (mushrooms and relatives). The other two are ascomycetes belonging to Pezizomycotina, and two others, lichenised fungi. *Austroboletus amazonicus* is listed as Critically Endangered (Figure 2d). Four species were listed as Vulnerable (VU), six as Nearly Threatened (NT), five as Least Concern (LC) and two as Data Deficient (DD) (Figure 1). This effort has already yielded positive and very encouraging results, with 170 additional species proposed on the global fungal red list initiative site. Those species belonged to different groups that include Macrofungi from Ascomycota and Basidiomycota (106 species), arbuscular mycorrhizae (15 species), myxomycetes (13 species), and lichens (54 species). Most unpublished species are in the preliminary step “proposed”, but others are in various assessment levels (Figure 1b). Data for the 54 lichen species 48 endemic, will be published soon at the IUCN Red List of Threatened Species.

One of the most significant difficulties when evaluating the species is the lack of information, especially on population size, total distribution, and status. The categorisation of most fungal species has been assessed on the basis of species distribution data, biological information, the threats posed to the host plants (e.g.: pathogenic or symbiotrophs) and habitats (Corrales *et al.*, 2020; Vasco *et al.*, 2020). For example, nearly all evaluated species are ectomycorrhizal fungi associated with *Quercus humboldtii* in tropical mountain forests (e.g., Vasco *et al.* 2020). These species have usually been recorded from just a few localities in the country Colombia, which means that their total distribution is unknown. However, the geographic range was established using data on the distribution of oak forests. This extrapolation is possible for fungi that establish this specific interaction type, but it is more difficult for other guilds, such as saprotrophic fungi or arbuscular mycorrhizal fungi.

### MAIN THREATS

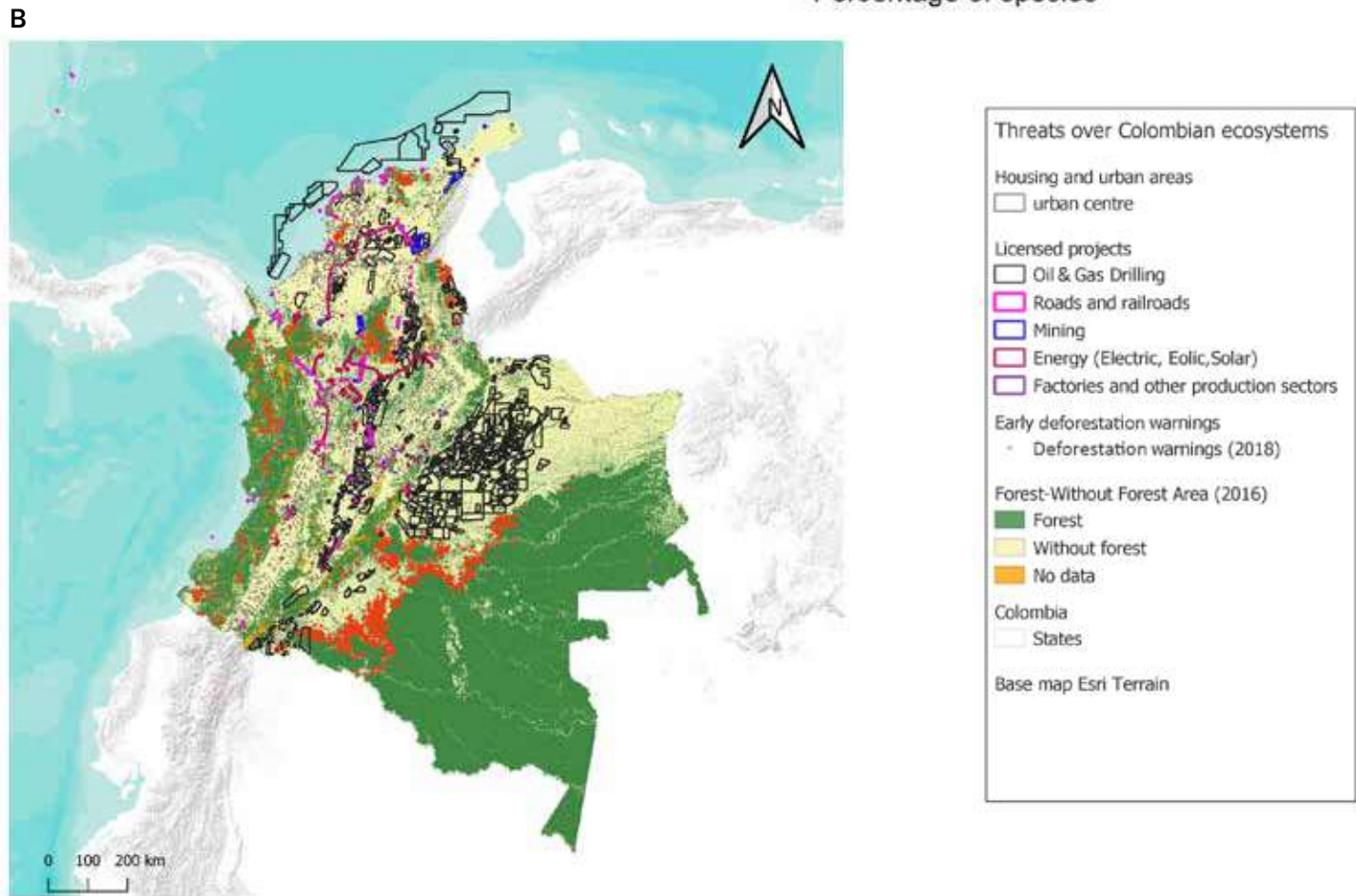
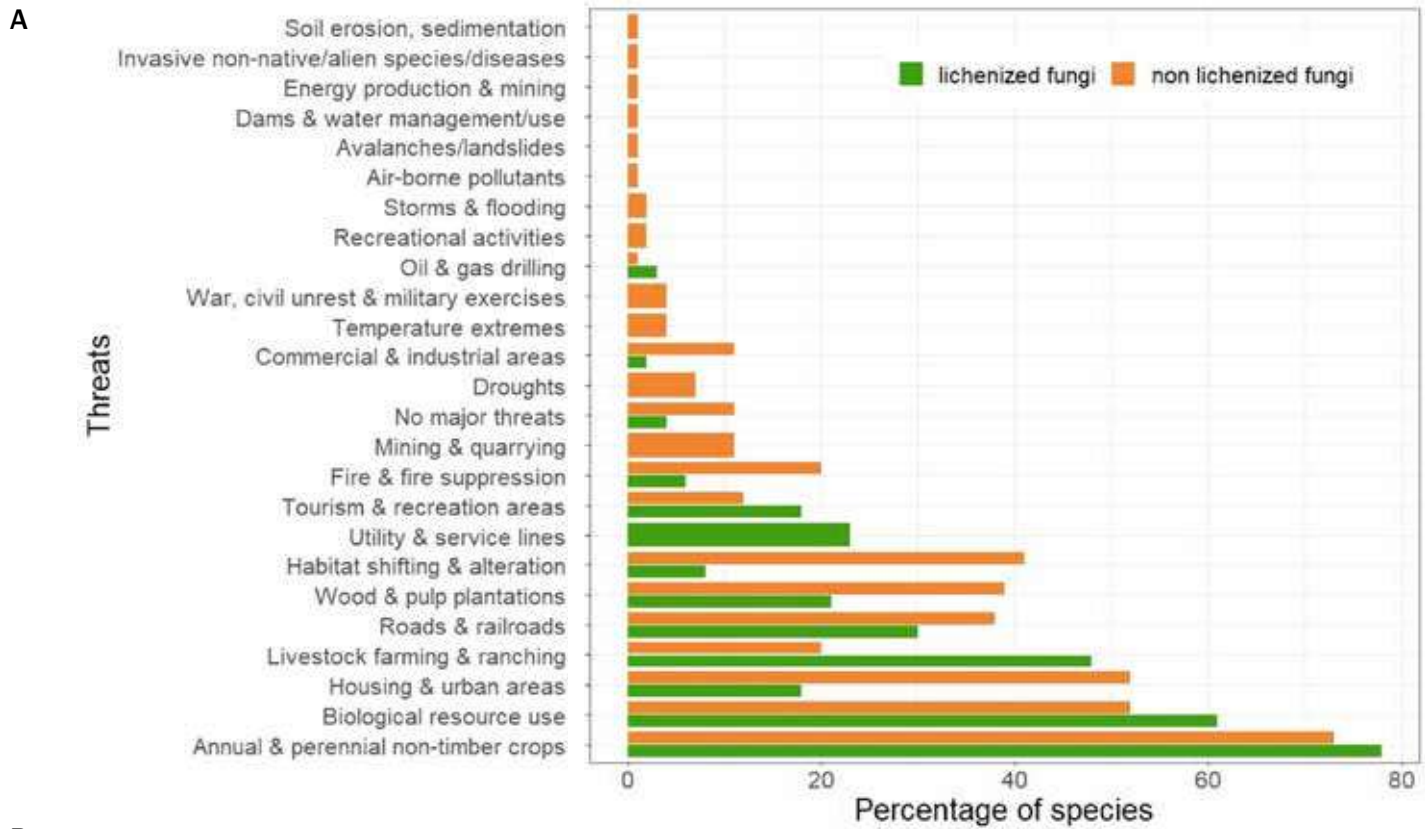
The major causes of biodiversity loss in Colombia are the fragmentation, degradation or loss of habitat, overexploitation, invasive species, pollution, and climate changes (Clerici *et al.*, 2020, 2021 Figure 3a,b). Conversions of primary forests in the country are primarily due to expansion of the agricultural frontier and grazing

lands for cattle, land speculation, legal and illegal mining, urban expanse, and illicit crops (Figure 3b) (Clerici *et al.*, 2021, Etter *et al.*, 2008 Figure 4). Annual and perennial non-timber crops have been identified as the major threat for fungal species. In Colombia, nearly four million hectares are occupied by different crops, with coffee, oil palms, sugar cane, and cotton representing 48.7% of the total area (DANE, 2021). The threat known as biological resource use (logging and wood harvesting), or in other words, deforestation and habitat fragmentation, impacts nearly 50–60% of all preliminarily assessed fungal species (Figure 3a). Deforestation is increasing in the country by about 800,000 hectares per year, mainly through converting native vegetation to pasture and extensive oil palm plantations (Figure 3a, 4) (IDEAM, 2021; IPBES, 2021). Although natural forests in the Andean region are under anthropic pressures and the montane tropical forests currently occupy less than 30% of their original extent (Forero-Medina & Joppa, 2010), the current nuclei of deforestation are located in the Orinoco basin, Amazonian region, Chocó biogeographic, and Serranías in the Caribbean region (Etter *et al.*, 2017; IPBES, 2021, Figure 4). Unfortunately, those correspond to areas where there are the biggest gaps in the knowledge of fungal diversity (Figure 3b, 4) (Chapter 3, 4).

The conservation status of habitats and hosts is also essential for fungi. For example, *Sticta peltigerela* (VU, B1ab (iii)) grows in non-polluted paramo and montane forest environments close to streams or floodplains with clean waters. On the other hand, *Hericium erinaceus* (LC) is probably a weak necrotrophic parasite growing on old deciduous and sclerophyllous trees, mainly old *Quercus*, in mature forests. *Fomitiporia bambusarum* (LC) is a plant pathogen or wood saprotroph which has only been reported growing on bamboos. Ectomycorrhizal fungi depend on their host, and this is the case for *Austroboletus amazonicus*, a species that is restricted to small areas associated with patches of *Pseudomonotes tropenbosii* (Dipterocarpaceae) in the Amazonia region (Vasco *et al.*, 2014, 2020). The ectomycorrhizal species associated with *Quercus* in montane neotropical forests share the category of vulnerable with their plant host, as almost 42% of the *Q. humboldtii* populations in Colombia are already lost (Cárdenas & Salinas, 2007). The remaining populations are also highly fragmented, and the effect of this fragmentation on the diversity of the communities of ectomycorrhizal fungi is unknown.

The introduction of exotic trees and their associated fungi is one aspect that has received little attention in tropical forests. *Amanita muscaria* is a mycobiont associated with *Pinus*, that was introduced with the tree in the nineties. This species is now competing and replacing native ectomycorrhizal fungi on the roots of *Quercus* (Vargas *et al.*, 2019). Some of these exotic species can be aggressive and more tolerant of environmental changes, enabling them to out-compete native species.

The impact of fertilizers and pesticides on the fungal communities in natural systems in Colombia is unknown. Colombia has the highest fertiliser consumption and the



**FIGURE 3. A** Major threats to fungi assessed for the IUCN Red List of Threatened Species. The data were downloaded from the IUCN Red List of Threatened Species (2021-3); **B** Map of current threats affecting biological diversity in Colombia.



second-highest consumption of pesticides per hectare in Latin America ([www.foodandlandusecoalition.org](http://www.foodandlandusecoalition.org)). The effect of anthropogenic nitrogen deposition that rises nitrogen levels, mainly from local and transboundary air pollution and fertilisers and fumigants, has been reported widely in fungal species of temperate forests (Sapsford *et al.*, 2017; Lilleskov *et al.*, 2019). In the tropics, studies show that nitrogen additions may reduce ectomycorrhizal colonization of plant-host roots and may alter the fungal composition (Corrales *et al.*, 2017). Pesticides accumulate in the soil over time, being transported and deposited by air, and can thus contaminate non-agricultural areas. They may affect the nutritional quality of soils, disrupt enzymatic activities, and alter soil fungal communities (Sapsford *et al.*, 2017). For example, insecticides and fungicides inhibit the colonisation of root plants by arbuscular mycorrhizas and ectomycorrhizas (Laatikainen & Heinonen-Tanski, 2002; Karpouzas *et al.*, 2014). This is an issue that must be taken into account for further studies and that impacts the conservation of fungi.

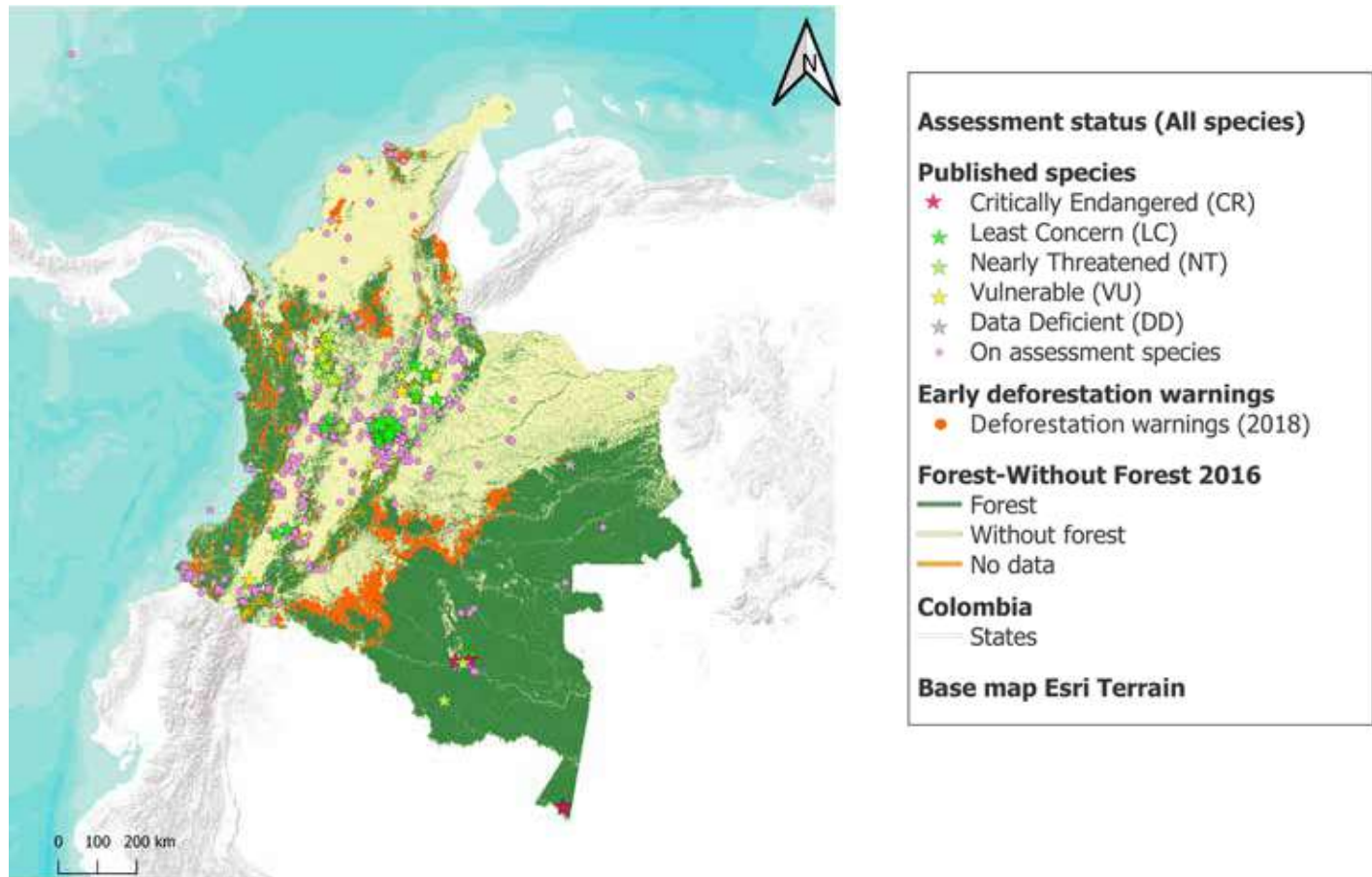
As we mentioned before, fungi play fundamental roles in key ecosystem functions and services, so it is critical that they are included in conservation strategies. Given the lack of information, preserving tropical ecosystems in

their primary condition may be the best near-term solution to protect fungi. In Colombia, fungi have been indirectly protected when habitats for animals and plants are conserved. The country has 56 protected areas (Hurtado-Guerra *et al.*, 2013), with a total area representing more than 10% of the territory, even though this system does not yet include all Colombian ecosystems. In addition, deforestation in protected areas has increased during the post-conflict period (Clerici *et al.*, 2020).

#### WHERE SHOULD EFFORTS FOR FUNGAL CONSERVATION IN COLOMBIA BE CONCENTRATED?

*A primary task should be to ensure that the Colombian legislation recognises fungi on a par with animals and plants.*

There is a greater awareness of the role and importance of fungi in ecosystems. Yet, their impact on life on this planet remains underestimated and unknown by the public, other scientists and policy makers. The explicit recognition of fungi as major components of biodiversity in the country in terms of legislation and policy is urgently needed, promoting the use of the terms fauna, flora and funga. Fungi need active and specific inclusion in national surveys and inventories, not just passive and implicit protection.



**FIGURE 4.** Distribution of the fungal species evaluated under the IUCN criteria (data up to 2021). The stars are published species and pink circles are species that are under assessment. The red circles are the early deforestation warnings (2018).

Here, we summarise the main weakness of fungal conservation in Colombia based on the present analysis and two previous documents: i) SWOT analysis of the status of fungal conservation for Colombia prepared for the First Conservation Strategy Workshop (Vasco-Palacios *et al.*, 2019) and ii) the specific diagnosis for lichenised fungi (CEIBA, 2019).

- Lack of a strategy for Fungal Diversity Conservation.
- Few specialists in some groups of fungi.
- Approximately 7,000 collections waiting in herbaria to be studied.
- Limited information on distributions and habitat preferences.
- Topics focused on fungal diversity conservation are scarce in scientific events, and the belief that fungi are a minor component of ecosystems is widespread.
- Most organisations (government and NGOs) working with biodiversity conservation do not explicitly recognise the Funga in their policy and practices.
- Insufficient popularisation of fungi through radio, television, and other media. Insufficient inclusion of the Funga in Educational Programs.

We propose the following scheme and actions to encourage and guide the Colombian mycological community to fill the gaps in the information necessary to include the Funga in conservation policies and plans.

#### WHAT WE KNOW

- Fungal Biodiversity:
  - Species inventories have been undertaken for less than 4.8% of the predicted fungal diversity.
  - Characterisation has been focused mainly in the Andean region, while threatened ecosystems such as the savannas of Orinoquia, tropical rainforests in the Pacific, the Valle del Cauca Valley and, the Magdalena Valley, dry forests in general, and insular territories are practically unexplored.
  - The complete geographical distribution of most species is unknown.
  - The effect of traditional and modern uses of some fungal species.
- Conservation:
  - Preliminary lists of potentially vulnerable and threatened taxa of fungi consist mainly of lichenised fungi and macrofungi.
  - Type of ecosystems represented in protected areas.
  - Underlying causes of habitat transformation for each region.

#### WHAT WE NEED TO KNOW

Encourage decision-makers to include fungi as elements of the Colombian biodiversity in legislation.

- Fungal biodiversity:
  - Spatial and temporal dynamics of distribution.
  - Phylogenetic relationships of selected taxa.
  - Genetic characterisation of selected taxa.
- Conservation:
  - Long-term viability of biodiversity in protected areas.
  - Trends in populations of threatened, endangered and vulnerable taxa.
  - Ecological impact of exotic species on native biodiversity.
  - Impacts of global climate change on species and ecosystems.
  - Resilience of ecosystems to natural and man-made disturbances.

#### WHAT CAN WE DO IN THE SHORT TERM?

- Fungal biodiversity:
  - Carry out species inventories for fungi in priority geographical areas with an expected high species richness with high levels of endemism and that are potentially threatened.
  - Complete biodiversity inventories in selected areas as a basis for future research.
  - Increase inventories of taxa with economic potential, that are threatened, or that can be used as indicators.
  - Establish DNA banks to facilitate genetic studies.
  - Document the uses of biodiversity by traditional communities.
  - Develop mechanisms to measure goods and services derived from biodiversity.
- Conservation:
  - Assess more species under IUCN Red List categories and criteria, and according to the IUCN Green Status.
  - Produce Red List books for specific taxonomic groups.
  - Evaluate and monitor populations of threatened taxa.
  - Identify legislation gaps and propose clear priorities for action.



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TIPOS

HERBARIO UNIVERSIDAD DE ANTIOQUIA

HOLOTIPO  
*Amanita xyliniivolve*  
& Halling  
Ovrebø, 2487



FUNGI OF  
The New York B

*Amanita flavoconia*

DPTO. ANTIOQUIA: M  
Montaña, ±13 km S of S  
along road to Labores, un

HOLOTYPE

leg: Roy E. Halling, 5067  
det: Rodham E. Tulloss

*Amanita*  
Halling 5067

HERBARIO UNIVERSIDAD DE ANTIOQUIA

*Amanita sororcula*  
(PARATIPO)  
Halling  
Mem. New York. Bot. Gard. 66:17. 1994



Fungi specimens in the fungarium of the Universidad de Antioquia, Colombia.  
[Aida Marcela Vasco-Palacios]



# Chapter 15

## Fungi in Colombian and International Biological Collections

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**Keywords:** biological collections, Colombian funga, cultures, fungarium, herbarium, mycology.

### ABSTRACT

Colombia ranks among the 17 countries considered megadiverse, hosting almost 10% of the planet's biodiversity and only being surpassed by Brazil, a country seven times larger than Colombia. Unfortunately, fungi are mostly left out of these counts. One of the issues faced when attempting to report the fungal diversity in Colombia is the inability to account for the fungal specimens scattered in national and international collections, which are often not properly curated or digitised. In this chapter, we describe the first attempt to compile the available information on fungal collections from Colombia as a contribution towards a more realistic estimation of their diversity and attempt to establish a baseline to improve mycological knowledge in the country. Databases of national and international biological collections and personal databases from several mycologists were consulted, using the keywords “Colombia”, “fungi”, “hongos”, “lichens”, and “liquenes”. Uncatalogued Colombian collections were also examined when possible, and experts and collection managers were also consulted. All metadata associated with the voucher specimens (e.g., locality, collection date, ecology and classification) were extracted and analysed using descriptive statistics. We found, unsurprisingly, that species of fungi that are considered economically important or with potential biotechnological applications, or otherwise conspicuous or enigmatic, were overall the best represented within national and international collections. We highlight the need to increase sampling efforts in the country, as well as the need for regularisation and proper digitisation of specimens from biological collections so that they can be appropriately accounted for in future fungal research. This chapter is expected to be an invitation for mycologists to increase their efforts to improve the knowledge of Colombian funga through proper curation and documentation of their collections, and urges the institutions that promote biological research to support the growth and maintenance of Colombian fungal collections.

### RESUMEN

Colombia está entre los 17 países considerados megadiversos, con casi el 10% de la biodiversidad del planeta, sólo superado por Brasil, un país siete veces mayor que Colombia. Desafortunadamente, la mayoría de los hongos quedan fuera de estos recuentos. Uno de los problemas al intentar informar sobre la diversidad de hongos en el país es la incapacidad de dar cuenta de los especímenes de hongos dispersos en colecciones nacionales e internacionales que a menudo no están debidamente curadas o documentadas. En este capítulo realizamos el primer intento de recopilar la información disponible sobre colecciones de hongos en Colombia para contribuir a una estimación más realista de su diversidad y establecer una base para mejorar el conocimiento micológico en el país. Para ello, se consultaron bases de datos de colecciones biológicas nacionales e internacionales y bases de datos personales de varios micólogos, utilizando los modificadores de palabras clave “Colombia” y “fungi” o “hongos”. También se examinaron colecciones colombianas no catalogadas y se consultaron especialistas y directores de colecciones. Todos los metadatos asociados a los especímenes avalados (por ejemplo, localidad, fecha de recolección, ecología, clasificación, etc.) fueron extraídos y analizados usando estadísticas descriptivas. Encontramos, como era de esperar, que las especies de hongos considerados económicamente importantes o con potenciales aplicaciones biotecnológicas, o alternativamente enigmáticas o conspicuas, fueron en general las mejor representadas dentro de las colecciones nacionales e internacionales. Destacamos aquí la necesidad de incrementar los esfuerzos de muestreo en el país, así como la regularización y adecuada digitalización de los especímenes de colecciones biológicas para que puedan ser debidamente contabilizados en futuras investigaciones fúngicas. Se espera que este capítulo sea una invitación para que los micólogos incrementen sus esfuerzos para mejorar el conocimiento sobre la funga colombiana, mediante la curación y documentación apropiada de sus colecciones, así como instar a las instituciones y entidades de fomento a la investigación biológica a apoyar el crecimiento y mantenimiento de las colecciones de la funga colombiana.

## INTRODUCTION

Biological collections are unique resources that can address broader societal challenges through research and public education (Kvaček *et al.*, 2016; Cuervo *et al.*, 2017; Bakker *et al.*, 2020). Each specimen deposited in a collection represents a unique source of information, comprising a physical sample with its associated taxonomic, spatial, ecological, and temporal information (Andrew *et al.*, 2019; Meineke *et al.*, 2019; Paton *et al.*, 2020). Collections are crucial sources of taxonomic information but are also important to assess species distribution and richness patterns, and they represent the raw data for data modelling and drawing patterns of global change. They also contain useful information to assess the habitat and ecological preferences of species, to assess population trends and to identify priority sites for conservation (Meineke & Daru, 2021). In fungi, biological collections have made it possible to determine shifts in spore-producing phenology due to climate change (Kausserud *et al.*, 2012) and have established correlations between the effect of land use and climatic conditions on the diversity and richness, demonstrating how global change processes affect patterns of fungal richness at a large scale (Andrew *et al.*, 2019). Finally, collections and associated metadata are broadly used in education and ethnomycology (Bolaños & Soto Medina, 2011; Garibay-Orijel *et al.*, 2012).

The first botanical collections (i.e., herbaria) focused exclusively on vascular plants. Nevertheless, other kinds of specimens were incorporated over time, including non-vascular plants such as mosses, liverworts or hornworts, and fungi, including lichens. This scenario reflects the notion that fungi were traditionally considered part of the Plant kingdom and were collected and studied by botanists and stored in herbaria. As recently as the 1960s, fungi were still considered plants in many classifications, although towards the end of the 19th century, their distinct phylogenetic nature had been recognised (Clements, 1897, 1909; Atkinson, 1909). It was not until 1969 that Whittaker (1969) proposed that fungi become a separate kingdom because they evolved separately from plants and have a different bodily organisation and nutritional mode. With the advent of molecular DNA analyses, the phylogenetic relationships of true fungi and other fungus-like organisms were confirmed. The true fungi formed a separate kingdom only distantly related to plants.

As a result of the separation of mycology as a field separate from botany, an increasing number of natural history collections globally have established dedicated fungaria, a trend that was especially seen in large institutions where mycology emerged as a major line of research, such as the RBG Kew (K; 1.25 million fungi specimens), the University of Helsinki (H; 920,000), the New York Botanic Garden (NY; 785,000), the Swedish Museum of Natural History (S; 670,000), the Botanical Garden Berlin (B; 650,000), the Muséum National d'Histoire Naturelle in Paris (PC; more than 512,000 digitised), the University of Oslo (O; 500,000), and the Natural History Museum

London (BM; 400,000). However, although the term “fungarium” was coined several decades ago (Cléménçon, 1978), it has only recently been popularised (Schmitt, 2002; Hawksworth, 2010). To date, only a few collections have formally adopted this term, such as the RBG Kew (<https://www.kew.org/science/collections-and-resources/collections/fungarium>) or Oslo (<https://www.nhm.uio.no/english/research/collections/mycological/fungi>). In many other institutions, fungi, including lichens, are still formally incorporated into botanical collections (i.e., herbaria), often part of the outdated term “cryptogams”, although they are usually kept separately due to different storage needs. In some instances, smaller collections of fungi, including lichens, are kept hidden in general plant herbaria. Fungal collections in Colombia fall into the latter two categories, with fungaria either annexed to herbaria (often as part of “cryptogams”) or stored in herbarium cabinets without separate curation. Fungi are also kept in living collections, so-called strain or culture collections. For example, the CBS-KNAW culture collection, part of the Westerdijk Fungal Biodiversity Institute (KNAW), is the largest one in the world, with almost 60,000 strains of fungi.

For centuries, fungi have been collected and deposited in archival collections by pharmacists, naturalists, amateur mycologists, and researchers. Traditional medicine, recreational hobbies, taxonomic research, and the documentation of fungal diversity have all motivated those collections. For obvious reasons, the best-represented taxa in fungal collections are those producing large spore-bearing structures or sporocarps (formerly termed “fruiting bodies”). Sporocarps are reproductive structures that actively or passively disperse the spores and represent the aboveground manifestations of belowground fungi or within-substrate vegetative mycelia (Andrew *et al.*, 2019). Because of their visible presence and relative ease of preservation, mycologists have often built their collections on macrofungi or larger microfungi in the Ascomycota and Basidiomycota, such as mushrooms (e.g., Agaricales) and bracket fungi (e.g., Polyporales) but also species that form visible ascostromata (e.g., Xylariales). The macro- and microscopic characteristics of fungi were (and still are) the basis of fungal taxonomy, with the most recent incorporation of molecular data, which is now also increasingly applied to old collections. Another well-represented group in fungal collections are lichens. With their perennial structures and few maintenance needs, they were initially popular among botanists focusing on bryophytes, often being integrated within moss collections. Plant-pathogenic fungi on leaves and bark were also collected historically by specialists, and thus plant herbaria are another major source of fungi in collections. With some 350 million estimated specimens worldwide (Soltis, 2017), many host-plant-associated fungi are expected to be found among these collections, such as rust and smut fungi, two important groups of plant pathogens that have been widely studied due to their economic impact on crops. Finally, significant components of fungal collections are type specimens, constituted by critical samples that serve as reference material fixing the application of scientific names.



Given that Colombia is one of the world's most biodiverse countries, the available fungal collections, particularly in Colombian fungaria, do not reflect the projected rich fungal diversity, which remains largely unknown (see Chapter 3 on diversity). With many areas to be mycologically explored in Colombia, the available collections are still very patchy and biased towards certain taxonomic groups, particularly lichens and macrofungi (Gaya *et al.*, 2021; *ColFungi*, 2021). In addition, non-catalogued specimens in Colombian collections urgently need digitisation programs and the confirmation of their identity by specialists or using proper DNA tools. With 7,241 catalogued species, Colombia falls well behind smaller and less diverse countries, such as the UK (see Chapter 3). Therefore, Colombian mycologists need to thoroughly revise the fungal diversity archived in their collections. For this task, it is necessary to have support from both the holding institutions and government entities as these collections are part of the country's natural heritage. This chapter compiles the information available on the biological collections of fungi of Colombia and reviews the history of fungal collections in the country to establish a baseline for the advancement of mycology and its dissemination through the *Catalogue of Fungi of Colombia* (*ColFungi* 2021). In this respect, we refer to collections as the holding institutions, using specimens when referring to individual collections.

## MATERIALS AND METHODS

The compilation of fungal records from Colombian collections was elaborated by reviewing: 1. the Registro Nacional de Colecciones Biológicas website (RNC), 2. the Global Biodiversity Information Facility (GBIF), 3. the Latin American lichen portal, 4. unpublished databases such as that from UDBC (Herbario Forestal Gilberto Emilio Mahecha Vega sección No Vasculares of the Universidad Distrital Francisco José de Caldas), and 5. the personal databases of Colombian mycologists and curators. For records of fungi of Colombia present in international collections, we searched the following databases: 1. Royal Botanic Gardens, Kew, Fungarium, 2. GBIF, 3. the Mycology Collections Portal (MyCoPortal), 4. the Consortium of North American Lichen Herbaria (CNALH), 5. the SpeciesLink Network (SpLink), 6. the Culture Collections Information Worldwide (CCINFO; part of World Data Center for Microorganisms, WDCM), 7. the Culture Collection of Fungi and Yeasts at the Westerdijk Fungal Biodiversity Institute (KNAW), and 8. the Komarov Botanical Institute Culture Collection (LE-BIN). For all searches, we used keywords such as “Colombia”, “fungi”, “hongos”, “lichens”, and “liquenes”. Various datasets were built on the basis of this information, including species name, supra-specific classification, and, when available, locality, ecological information, and use of the taxon. Databases from different collections were separated into different spreadsheets for subsequent evaluation and statistical analyses. All graphics were made from spreadsheets using Microsoft Excel 2019, exported to Microsoft PowerPoint 2019, saved as high-resolution PDF, and posteriorly edited in ADOBE Photoshop Elements 10.

## RESULTS

### *History of the fungal collections of Colombia*

The oldest and some of the largest fungaria globally are in western Europe, the birthplace of modern mycology. Many of them are well-supplied with worldwide collections accumulated during the colonial and post-colonial periods. Biological collections, including fungal collections, from biodiversity-rich tropical countries have experienced severe effects of colonialism and post-colonialism, with specimens being removed from their native country by explorers since the late 1700s and well into the 21st century. National collections were left with deep knowledge gaps, which only started to be slowly filled in the 20th century. The history of Colombia, which became independent in 1810, is an example of the colonial legacy. It was at a this time of important changes in the political history of the American continent that the first inventory of Colombian biodiversity took place as part of the *Royal Botanical Expedition to New Granada*, led by the Spanish priest José Celestino Mutis. This expedition extended from 1783 to 1816, accumulating and documenting ca. 20,000 plants and 7,000 animals (see Chapter 2). As part of this expedition, 15 species of fungi, including lichens, were documented through drawings, representing the first reports of the fungi of Colombia, but apparently, no physical specimens were preserved (Calonge, 1986; see Chapter 2). Contemporaneously, Alexander von Humboldt and Aimé Jacques Alexandre Bonpland (1799–1804) led the Spanish-American expedition, visiting Colombia in 1801, where they met José Celestino Mutis. Fungal specimens collected during their explorations in the Northern Andes (Colombia, Ecuador) were sent to the English botanist Sir William Jackson Hooker for identification, and are now deposited at the RBG Kew fungarium (KM). Hooker (1822) reported 21 species collected in Colombia (see Chapter 2). Other expeditions took place in the Colombian territory during the 19th and the early 20th century, and most collections were deposited in European herbaria [e.g., University of Neuchatel (NEU); Botanischer Garten und Botanisches Museum Berlin (B; part of these specimens were destroyed during World War II); Nylander Herbarium at the University of Helsinki (H-NYL), and the Muséum National d'Histoire Naturelle herbarium (PC); see Chapter 2 for further information]. The first modern inventory of fungi in Colombia was carried out by Carlos Chardón and Rafael Toro, who collected mostly phytopathogenic fungi and some macrofungi (Chardón & Toro, 1930). Most of these collections were deposited in foreign herbaria, such as the Cornell University (CUP) and Pennsylvania State University (PACMA), the latter subsequently transferred to the US National Fungus Collections USDA-ARS (BPI) (see Chapter 2). Some duplicates were temporarily hosted at the Gabriel Gutiérrez Villegas Herbarium (MEDEL), but in 2005 were relocated to the Museo Micológico Universidad Nacional, Sede Medellín (MMUNM). Currently, the oldest fungal specimen deposited in a Colombian collection that we are aware of is a representative of the lichenised genus *Sticta*, collected by José Jerónimo Triana in 1851, in the



**FIGURE 1.** Specimen of *Sticta* sp. collected by José Jerónimo Triana, in 1851, in the Colombian Andes and housed in the Herbario Nacional Colombiano (COL). It is considered the oldest fungal specimen known to date that is deposited in a Colombian collection.

Colombian Andes and housed in the Herbario Nacional Colombiano (COL) (Figure 1).

The first natural history collection in Colombia was founded in Bogotá in the early 19th century, in 1823 to be precise, in Bogotá's Museo de Historia Natural. It encompassed plants and possibly fungi. Unfortunately, attempts to locate specimens from this collection have been unsuccessful, so this first historic collection is deemed lost. The second herbarium in Colombia, to include fungi was established almost a century later, in 1913, in the Museo de la Salle of the Universidad de la Salle. Sadly, a fire destroyed this collection in 1948 and the newly

established collection established after this catastrophe does not include fungi (Parra-O. & Diaz-Piedrahita, 2016).

In 1926, Dr Carlos Chardón founded the MEDEL Herbarium, as part of the School of Agriculture and Veterinary Medicine at the Universidad Nacional de Colombia, Sede Medellín, with a collection of phytoparasitic fungi. A year later, with the support of the Plant Health Service (PHF) of the Ministry of Industries, another phytopathogenic collection was created by Dr Enrique Pérez Arbeláez, including drawings of the plant host, symptoms, and different stages of the fungi (see Chapter 2). The collection is currently housed at the Corporación Colombiana de Investigación Agropecuaria of the AGROSAVIA Institute. The Herbario Nacional de Colombia (COL) was founded in 1930, also by Dr. Enrique Pérez Arbeláez, and in 1948 the Herbario Universidad del Cauca (CAUP) was created. The last fungal collection founded before the 1960s was the Jardín Botánico José Celestino Mutis (BJCM-CV) in 1955 (RNC, 2021; Figure 2). Starting with the 1960s, the numbers of new collections being created steadily increased, and the 2010s was the decade in which the highest number of new fungal collections have been established (14 collections; 32%; see Figure 2).

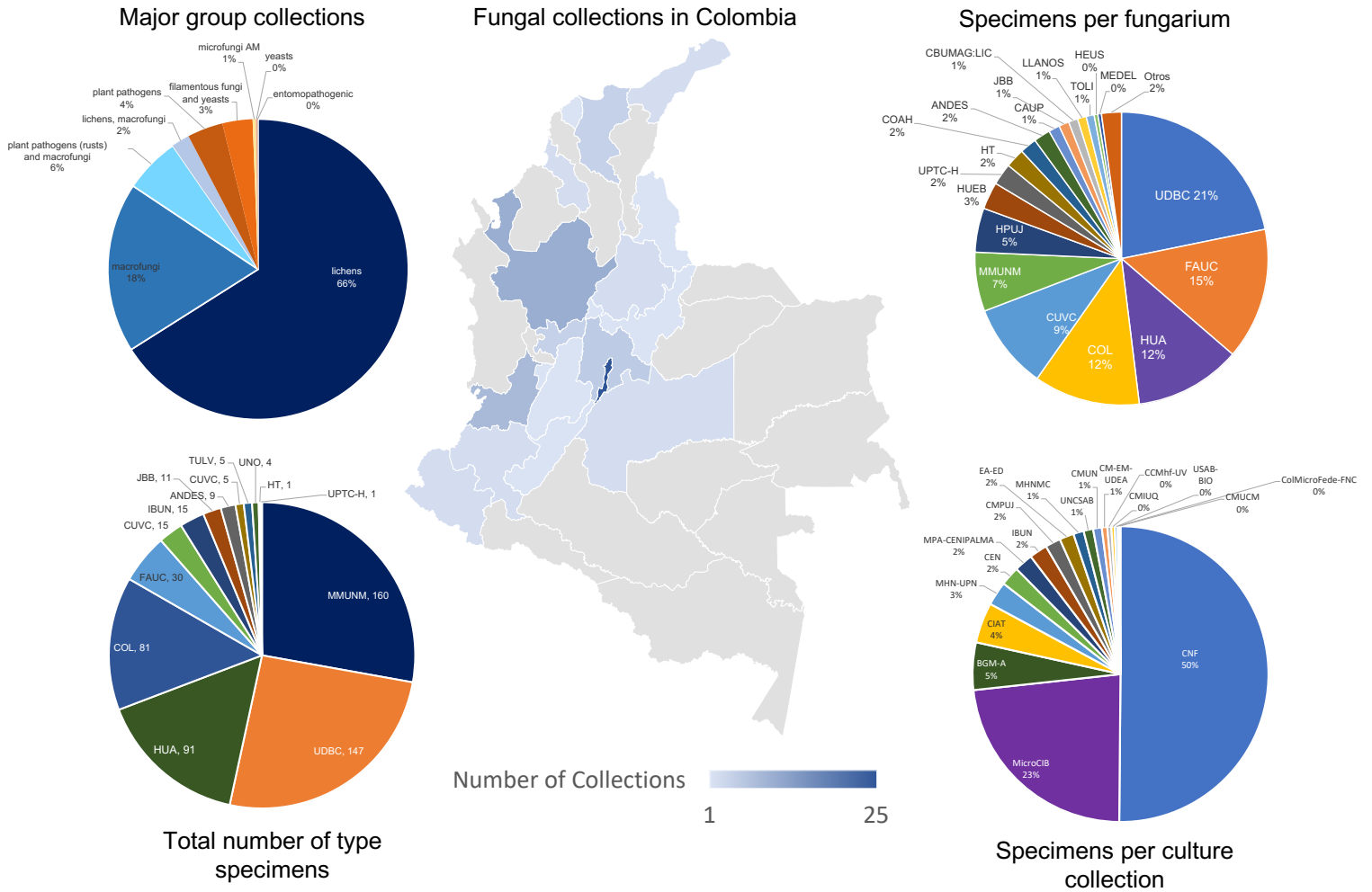
The past decades have also seen an increase in international collaborations and a strong development of mycology in Colombia, facilitating the growth of Colombian fungal knowledge (see Chapter 2). Although fungal specimens were mostly deposited in international collections throughout the 20th century, samples from these efforts have also progressively enriched the representation of fungi in Colombian collections (Guzmán & Varela, 1978; Rogerson & Samuel, 1996; Veerkamp and Gams, 1983; see Chapter 2, 4-9). Most recently, Colombian collections have benefited from a change in the Colombian legislation [Decree 2° of Decree-law 3570 (2011), and Decree 1376 (2013)], that mandates that specimens collected in the country must be deposited in Colombian collections, and so foreign collections can only be held as permanent loans.

In addition, the issuance of the Decree 309 (2000) of the Ministerio del Ambiente of the Republic of Colombia facilitated the gathering and sharing of information on modern collections in the country by creating the Registro Nacional de Colecciones Biológicas (RNC, 2021). From 2000 onwards, many collections were registered with the RNC. This is why the date of registration of the national collections is so posterior to the date of their creation. Until 2014, all new registrations in this database were paper based. From 2014 onwards, the RNC digital platform was implemented, streamlining the registration process, and making information on biological collections globally available (RNC, 2021).

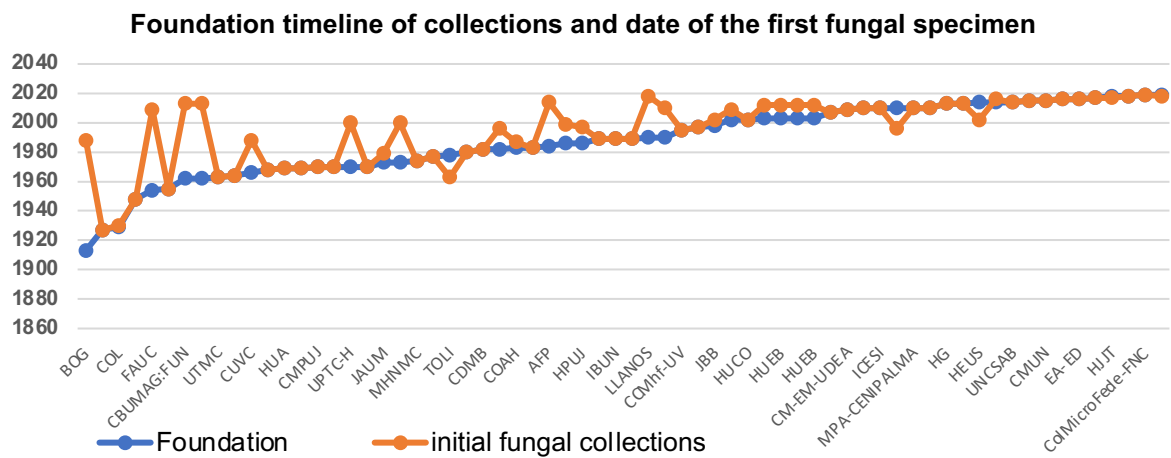
Additionally, in 2013, the Ministerio de Ambiente y Desarrollo Sostenible established the mandatory registration and regular updating of biological collections in Colombia through the Information System on Biodiversity of Colombia (SiB). There are currently 234 biological collections in Colombia formally recognised by the RNC, 66 of them with fungal specimens and/or cultures. Since its creation, an



A



B



**FIGURE 2.** History and composition of fungal collections in Colombia summarised. **A** Centre: intensity map showing the Colombian Departments with the highest concentration of collections. Top left: pie chart depicting the proportion of major life forms found in collections. Bottom left: pie chart depicting the total number of type specimens per fungarium. Top right: pie chart depicting the proportion of specimens per fungarium. Bottom right: pie chart depicting the proportion of specimens present in culture collections in Colombia. **B** Plot depicting the timeline of the foundation of officially registered fungal collections in Colombia and the date of the first fungal specimen being registered for each collection.

average of two biological collections were registered per year in the RNC, with the years 2001 and 2019 holding the highest number of registered collections, with 12 and 8 registrations, respectively. The RNC (2021) reported four major registration gaps during 2004–2007, 2009, 2013–2014, and 2016. Of the 66 registered fungal collections, only 11 have their databases fully to partially available for download on the Information System on Biodiversity of Colombia website (SiB, 2021). The remaining collections do not have their digitised databases available for download on the SiB or GBIF websites.

### ***Fungal collections of Colombia in numbers***

The 234 biological collections recognised by the Registro Nacional de Colecciones (RNC) include over 14 million records comprising all biological groups. A total of  $\approx 181,000$  fungi are listed (<http://rnc.humboldt.org.co/admin/index.php/reporte/reporte>), comprising dry specimens and strain/culture collections. However, this number contains various duplicate entries and some incorrect numbers. After correcting and removing duplicate entries, we reduced the total to 90,000 specimens, representing only half of the original count (see Supplementary Table T1). This illustrates the difficulties in arriving at a clear figure for the number of fungal specimens in the country. How many of these are catalogued, that is, digitised, also remains uncertain. For example, GBIF only contains a little over 15,000 records from Colombian fungaria, most from COL ( $> 9,000$ ), HPUJ (almost 4,000), Unillanos (nearly 600), and ANDES (300). On the other hand, the UDBC collection is fully digitised, but its data are not yet publicly available. This database includes more than 25,000 records, representing at least 10,000 more than the number currently available in GBIF.

After a thorough review of the data on Colombia's fungaria and ceparia (culture collections), including unpublished data provided by curators, we arrived at a total of 138,108 fungal accessions deposited in the 66 Colombian collections across the country. This number represents almost 50,000 more specimens than indicated by the corrected data from the RNC (Table 1, Figure 2A). This difference is partly because 11 of those collections do not have their specimens registered in the RNC. Out of these 138,108 accessions, 124,930 correspond to dry specimens, 10,414 are strain/culture collections, and 2,764 are microscope slides archived in two collections (Table 1; Figure 2A). When considering all fungi, including lichens, Colombia's largest collections are: 1) the Herbario Forestal Gilberto Emilio Mahecha Vega Sección No Vasculares of the Universidad Distrital Francisco José de Caldas (UDBC), the most important collection of lichenised fungi, with 25,670 specimens; 2) the herbarium at the Universidad de Caldas (FAUC) with 18,000 specimens of lichenised fungi; 3) the fungarium of the Universidad de Antioquia (HUA), with the largest collection of macrofungi (13,000 specimens) and 2,500 specimens of lichenised fungi; 4) the Herbario Nacional Colombiano (COL), with over 13,000 specimens, including approximately 4,000 macrofungi mostly collected

for the project "The Mycological Flora of Colombia", carried out by the New York Botanical Garden and the Instituto de Ciencias Naturales (ICN; Universidad Nacional de Colombia; 1978-1983), and over 9,000 lichenised fungi gathered as part of the binational project ECOANDES, with partners from The Netherlands and Colombia (1980–1983); and 5) the Museo Micológico Universidad Nacional Sede Medellín (MMUNM), with 8,301 specimens, 60% of which represent phytopathogens, including the Buriticá collection with 3,000 rusts associated with native plant species of Colombia and duplicates of the phytopathogenic fungi collected by Carlos Chardón and Rafael Toro in the 1920s, as well as 160 type specimens. Other important collections are microscope slide collections, such as the one hosted by Hongos-Univalle (UV-MICO) with 2,514 slides. Additionally, the International Center for Tropical Agriculture (CIAT) has held for years a collection of 466 arbuscular mycorrhizal fungi, with 12 species described from Colombia (Peña-Venegas & Vasco-Palacios, 2019), a collection not yet registered with the RNC (García *et al.*, 2000).

Colombia has 18 fungal culture collections (Figure 2D), the largest one being the Colección Nacional de Fitopatógenos (CNF), which holds 5,295 specimens, followed by the Microorganismos Corporación para Investigaciones Biológicas (MicroCIB), with 2,443 yeasts and filamentous fungi, and the Banco de Germoplasma de Microorganismos – AGROSAVIA (BGM-A), which hosts 548 accessions including arbuscular mycorrhizal fungi, yeast, and filamentous fungi, for biological control. The remaining 15 culture collections comprise between 500 and a single specimen (Figure 2).

When considering type specimens, we found 565 nomenclatural types housed in Colombian collections out of at least 989 types that are based on Colombian fungal specimens. The fungal collections with the highest percentage of nomenclatural types are the Museo Micológico (MMUNM), with 160, Herbario Forestal Gilberto Emilio Mahecha Vega Sección No Vasculares (UDBC), with 147, the Herbario Universidad de Antioquia (HUA), with 91, the Herbario Nacional Colombiano (COL), with 81, the Herbario de la Universidad de Caldas (FAUC), with 30, and the Universidad Nacional de Colombia Sede Medellín (IBUM), with 15 (Table 1, Figure 2). From the remaining fungal collections in Colombia, only ten hold type specimens within their collections.

The Colombian department with the largest number of fungal collections is Bogotá (Distrito Capital), with 17 collections (31%), followed by Antioquia, with nine (16%), Valle del Cauca, with six (11%), and Caldas and Magdalena, with three (5%) each (Figure 2A). Eleven departments (Boyacá, Cauca, La Guajira, Huila, Meta, Nariño, Norte de Santander, Quindío, Santander, Sucre, and Tolima) each hold a single collection, whereas the 15 remaining departments have no fungal collections within their limits (Figure 2A). When it comes to the main life forms of fungi represented in Colombian collections, lichens are predominant (66%), followed by macrofungi (16%), yeasts and filamentous microfungi, such as moulds (13%), and phytopathogenic fungi (12%; Figure 2A).



**TABLE 1.** Colombian biological collections registered in the National Registry of Biological collections (RNC) that contain fungi. Acronym of herbaria/fungaria, Institution, city, Department, major life forms, number of specimens, number of identified species, curator of the collection, and origin of the data are indicated (GBIF, 2021). Data not available in GBIF were obtained directly from specialists.

Acronym	Institution	Department	Major groups	Total number specimens	Proportion identified species	Type specimens	Fungal curator	Data origin
<b>Strain/culture collections</b>								
BGM-A	AGROSAVIA	Cundinamarca	Arbuscular mycorrhiza	25	67%	0	Carolina González Almarío	Carolina González Almarío, RNS
			Yeasts	240	100%	0		
			Filamentous fungi	281	20%	0		
			Nematophagous fungi	2	100%	0		
CCMhf-UV	Universidad del Valle	Valle del Cauca	Filamentous fungi, yeasts	46	100%	0	Germán A. Bolívar	RNC
CEN	Federación Nacional de Cafeteros - CENICAFÉ	Caldas	Filamentous fungi, yeasts	222	70%	0	Carmenza Gongora Botero, Luis Miguel Constantino Chuaire	RNC
CM-EM-UDEA	Universidad de Antioquia	Antioquia	Filamentous fungi, yeasts	63	44%	0	Aída Vasco (environmental fungi), Diana González Gil (clinical fungi)	Aída Vasco
CMIUQ	Universidad del Quindío	Quindío	Filamentous fungi, yeasts	40	60%	0	—	RNC
CMPUJ	Pontificia Universidad Javeriana	Bogotá	Filamentous fungi, yeasts	177	82%	0	Angela María Alvarado Fernández	RNC
CMUCM	Universidad Católica de Manizales	Caldas	Filamentous fungi, yeasts	15	87%	0	—	RNC
CMUN	Universidad de Nariño	Nariño	Filamentous fungi, yeast	100	100%	0	—	RNC
CNF	AGROSAVIA	Cundinamarca	Plant pathogens	5,295	51%	0	—	RNC
ColMicro-Fede-FNC	Federación Nacional de Cacaoteros	Santander	Filamentous fungi	17	0%	0	Diannefair Duarte Hernandez	RNC
EA-ED	Universidad EAFIT	Antioquia	Filamentous fungi	166	10.5%	0	—	RNC
IBUN	Universidad Nacional de Colombia	Bogotá	Filamentous fungi, yeasts	208	5%	15	Daniel Uribe Velez, Fabio Ancizar Aristizabal Gutierrez	RNC

TABLE 1. (continued)

Acronym	Institution	Department	Major groups	Total number specimens	Proportion identified species	Type specimens	Fungal curator	Data origin
MHNMC	Instituto de Investigaciones Marinas y Costeras Invemar	Magdalena	Filamentous fungi	120	7.5%	0	—	RNC
MHN-UPN	Universidad Pedagógica Nacional	Bogotá	Filamentous fungi, yeasts	277	0%	0	Hugo Mauricio	RNC
MicroCIB	Corporación para Investigaciones Biológicas Medellín	Antioquia	Filamentous fungi, yeasts	2,443	88%	0	Marcela Gaviria Camino	RNC, David Parra
MPA-CENIPALMA	Corporación Centro de Investigación en Palma de Aceite	Bogotá	Entomopathogenic fungi, filamentous fungi	73	44%	0	Leidy Johanna Contreras Arias	RNC
				142	32%	0	Yuri Adriana Mestizo Garzón	
UNCSAB	Universidad Nacional de Colombia, sede Medellín	Antioquia	Filamentous fungi, yeasts	110	85%	0	Magally Romero Tabares	RNC
USAB-BIO	Universidad de la Sabana	Bogotá	Filamentous fungi, yeasts	33	79%	0	Luis Alejandro Acosta Gonzalez	RNC
NR	CIAT	Valle del Cauca	Arbuscular mycorrhiza	466	ND	0	—	RNC
<b>Fungaria</b>								
AFP	Fundación Universitaria de Popayán	Cauca	Lichens	470	ND	0	Luis Gerardo Chilito	Luis Gerardo Chilito
ANDES	Universidad de los Andes	Bogotá	Macrofungi	2,339	46.2%	1	Silvia Restrepo (Levaduras y hongos microscópicos)	RNC
BOG	Universidad de la Salle	Bogotá	Macrofungi	31	ND	0	María Fernanda Lozano y Fernando Sarmiento Parra, Conservador: José Warles Díaz	Maria Fernando Lozano
			Lichens	245	ND	0		
CAUP	Universidad del Cauca	Cauca	Lichens	1,558	6%	0	—	RNC



TABLE 1. (continued)

Acronym	Institution	Department	Major groups	Total number specimens	Proportion identified species	Type specimens	Fungal curator	Data origin
CBUMAG	Universidad del Magdalena	Magdalena	Macrofungi	70	ND	0	Kevin Ramírez Roncallo, María A. Negritto, Jorge Luna Fontalvo, Alejandra Barrios and Cristina Abaunza, Alberto Rafael Páez Redondo	Kevin Ramírez
			Lichens	1,300	0%	0		
CDMB	Colección de Plantas Vivas del Jardín Botánico Eloy Valenzuela	Santander	Lichens	69	ND	0	Juan Diego Ramírez Román	Ludy Yaneth Archila Durán
COAH	Instituto SINCHI	Bogotá	Lichens	2,362	ND	0	Wilson Ricardo Álvaro Alba	Curador Dairon Cárdenas
COL	Universidad Nacional de Colombia	Bogotá	Lichens	10,901	ND	39	Jaime Aguirre (Líquenes)	Lauren Raz
			Macrofungi	4,000	ND	42	—	Data from other sources ca. Dumont <i>et al.</i> (1978)
CUVC	Universidad del Valle	Valle del Cauca	Lichens, macrofungi	9,500	75%	15	Edier Soto, Ana Cristina Bolaños	Ana Cristina Bolaños and RNC
FAUC	Herbario Universidad de Caldas	Caldas	Lichens	18,000	ND	30	Luis Fernando Coca	Luis Fernando Coca
			Macrofungi	500	ND	0		
HECASA	Universidad de Pamplona	Norte de Santander	Lichens	250	4%	0	—	RNC
HEUS	Universidad de Sucre	Sucre	Lichens	513	78.5%	0	—	RNC, Jorge David Mercado Gomez
			Macrofungi	14	100%	0	Jorge David Mercado Gomez	
HFAB	Facultad de Agronomía, Universidad Nacional de Colombia	Bogotá	Macrofungi	32	0%	0	—	RNC

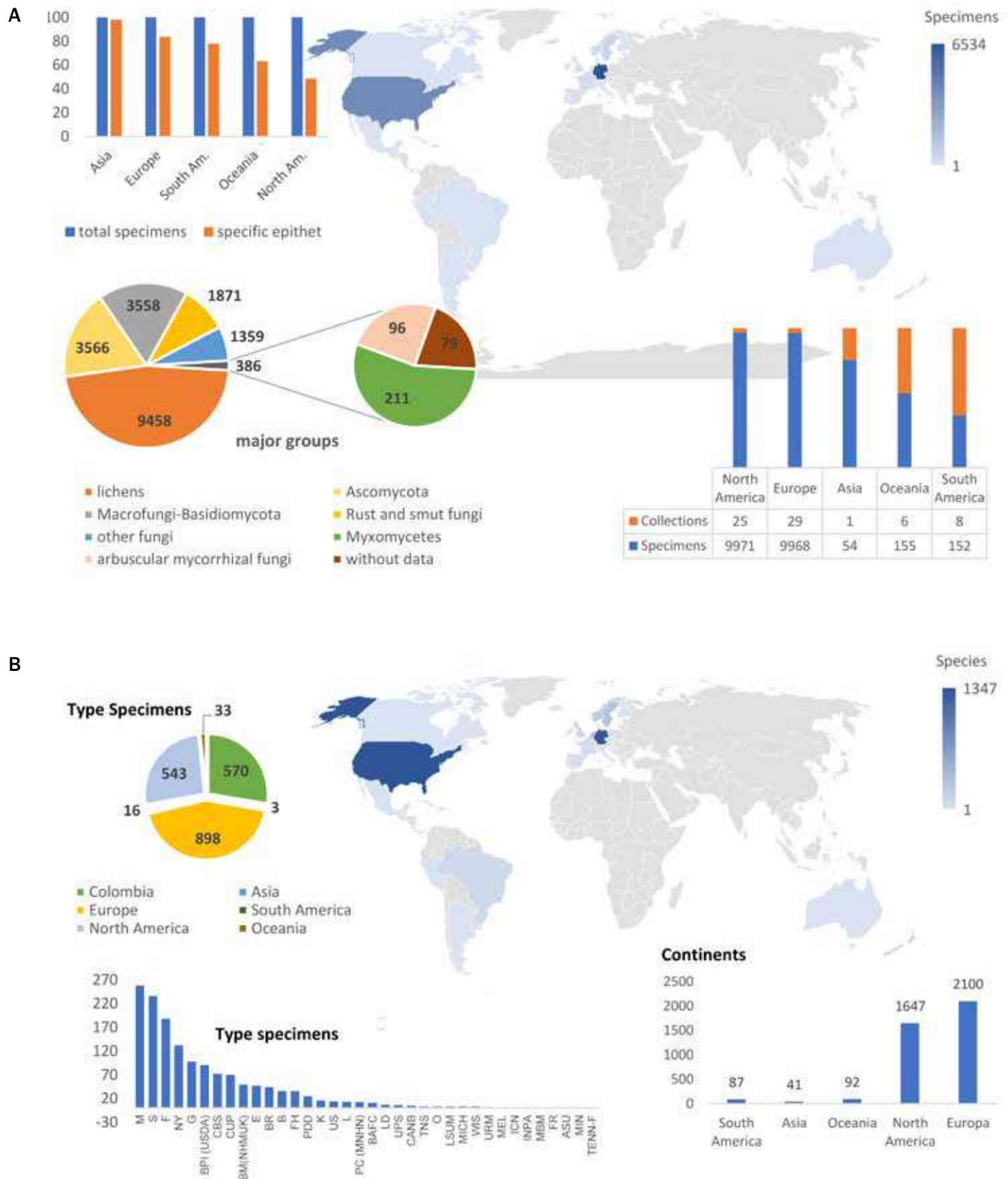
TABLE 1. (continued)

Acronym	Institution	Department	Major groups	Total number specimens	Proportion identified species	Type specimens	Fungal curator	Data origin
HG	Universidad de la Guajira	Guajira	Macrofungi	40	0%	0	—	RNC
			Lichens	25	0%	0		
HJTT	Fundación Trópico Alto	Bogotá	Lichens	40	50%	0	Manuel David Cortés Pardo	Jairo Pinto
HPUJ	Pontificia Universidad Javeriana	Bogotá	Macrofungi	400	22%	0	Miguel León-G	Nestor Julio García
			Lichens	5,800	12%	0		
HT	Herbario Tropical	Bogotá	Macrofungi	1	0%	1	Manuel David Cortés y Daniela Jara	Favio Ávila y Astrid Caro
			Lichens	2,700	90%	0		
HUA	Universidad de Antioquia	Antioquia	Macrofungi (Ascomycota, Basidiomycota, Myxomycetes/ Mycetozoa)	12,443	46%	91	Ana Esperanza Franco, Felipe Cardona, Natalya Gómez Montoya	Esperanza Franco
			Lichens	2,500	ND	0	Margarita Jaramillo Ciro, Giovanni Pérez	Felipe Cardona, Margarita Jaramillo Ciro
HUCO	Universidad Católica de Oriente	Antioquia	Lichens	71	63%	0	—	RNC
HUEB	Universidad del Bosque	Bogotá	Lichens	1,900	ND	0	Hector Orlando Lancheros	RNC
			Macrofungi (Ascomycota, Basidiomycota)	1,922	6%	115		
ICESI	Universidad Icesi	Valle del Cauca	Lichens	13	33%	0	—	Wilmar Oswaldo Diaz Vasco
			Macrofungi	7	0%	0		
JAUM	Jardín Botánico Joaquín Antonio Uribe de Medellín	Antioquia	Lichens	124	ND	0	Jorge Londoño, Margarita Jaramillo y Juan Carlos Benavides	Norberto López
JBB	Jardín Botánico de Bogotá	Bogotá	Lichens	1,430	40%	11	—	Angélica Aponte
JBjCM-CV	Jardín Botánico de Bogotá	Bogotá	Lichens	12	25%	0	—	RNC
LLANOS	Universidad de los Llanos	Meta	Macrofungi	509	38%	0	Martha Lucía Ortiz	Luz Stella Suárez
			Lichens	724	10.6%	0	Mónica Merchán	



TABLE 1. (continued)

Acronym	Institution	Department	Major groups	Total number specimens	Proportion identified species	Type specimens	Fungal curator	Data origin
MEDEL	Universidad Nacional de Colombia	Antioquia	Lichens	500	40%	0	—	RNC
MMUNM	Universidad Nacional Sede, Medellin	Antioquia	Plant pathogens (rusts), macrofungi	8,301	83%	160	Mauricio Salazar Yepes	Mauricio Salazar Yepes
PSO	Universidad de Nariño	Nariño	Lichens	380	ND	0	Aida Elena Baca	Aida Elena Baca
SURCO	Universidad Surcolombiana	Huila	Macrofungi	56	ND	0	—	Hilda Dueñas (Directora)
TOLI	Universidad del Tolima	Tolima	Lichens	1,119	ND	0	Héctor Esquivel	Héctor Esquivel
TULV	Instituto para la Investigación y Preservación del Patrimonio Cultural y Natural del Valle del Cauca - Inciva	Valle del Cauca	Lichens	487	ND	5	Edier Soto, Martha Ruiz, Edgar Linares, Ana Cristina Bolaños, Katherine Osorio, Aura María Rivera	Alejandro Castaño Naranjo
UDBC	Universidad Distrital Francisco José de Caldas	Bogotá	Macrofungi	421	0%	0	Bibiana Moncada, Alejandra Suárez, Diego Simijaca	Bibiana Moncada
			Lichens	27,320	41%	147		
UNO	Universidad del Norte	Atlántico	Lichens	361	ND	4	Pierine España	Maria Cristina Martinez
UPTC-H	Universidad Pedagógica y Tecnológica de Colombia UPTC	Boyacá	Lichens	3,054	3.2%	1	Diego Andrés Moreno, Lina Marcelo Lozano y Maria Eugenia Morales	Maria Eugenia Morales
UTMC	Universidad del Magdalena	Magdalena	Lichens	7	57.2%	0	—	RNC
<b>Microscope slide collections</b>								
HUEB	Universidad del Bosque	Bogotá	Microfungi (Zygomycota)	250	0%	0	Hector Orlando Lancheros Redondo	RNC
UV-MICO	Universidad del Valle	Valle del Cauca	Filamentous fungi, yeasts	2,514	42.8%	0	María Inés Álvarez, Luz Dary Caicedo (Micología Clínica)	RNC



**FIGURE 3.** Colombian fungi in international biological collections. **A** Intensity map showing the global distribution of fungal species. Pie charts display the proportion of species belonging to different life forms and the proportion of species per collection. **B** Intensity map showing the global distribution of fungal specimens. Inset plot shows the total number of fungi collections and specimens per continent. Pie charts display the proportion of major life forms.



### **Fungi of Colombia in international biological collections**

As mentioned above, Colombian specimens were largely deposited in international collections for a long time. Currently, 19,444 specimens and about 2,918 species of fungi collected from Colombia are deposited in 72 international biological collections (GBIF, 2021; Westerdijk Fungal Diversity Centre, 2021). From this total, 37 collections represent fungaria, with 16,988 specimens, and one ceparium (culture collection), comprising 263 specimens (Table 2). No records of Colombian samples were found at the Komarov Botanical Institute Culture Collection (LE-BIN) or the Culture Collections Information Worldwide (CCINFO), part of the World Data Center for Microorganisms (WDCM). It is important to note that these figures only include the available information in databases and are missing data from some crucial collections, such as BAF, which contains some of Singer's collections. We only obtained secondary references on type specimens and the phytopathogenic collections of Mayor that are in NEU (see Chapter 2).

When looking at the global distribution of these international collections, Europe is the continent with the largest number of fungal specimens originating from Colombia housed outside the country (51%), followed by North America (47%), South America (1%), and Oceania (0.3%) (Figure 3). The USA is the country with the largest number of fungal specimens from Colombia (9,079; 42%), followed by Germany (6,867; 37%), Belgium (674; 3%), Sweden and the Netherlands (662; 3% each), Norway (403; 2%), and some others with less than 2% (Figure 3, Table

2). The herbaria or fungaria with the largest percentage of fungal specimens collected in Colombia are B (38%), NY (23%), F (5%), and BR, CUP, and S (about 4% each), with the remaining collections accounting for 1% or less of Colombian specimens (Table 2, Figure 3). When looking at species counts, Europe concentrates the highest diversity (1,927; 56%), followed by North America (1,354; 39%), with the rest of the continents falling below 3%. Country-wise, the USA is the country with the highest number of species counts (1,347; 30%) followed closely by Germany (1,305; 29%), and with much more reduced numbers the Netherlands (433; 10%), Belgium (321; 7%), Sweden (291; 6%); Norway (223; 5%), and the remaining countries with 3% or less (Figure 3).

When looking at main life forms represented in international collections, Berlin (B) was the collection with the largest percentage of lichenised fungi from Colombia (32%), whereas the New York Botanical Garden (NY) has a varied collection with non-lichenised *Ascomycota* representatives, a substantial number of ectomycorrhizal fungi from oak forests collected in the 1980s by R. Halling, G. Mueller and A. Franco-Molano, and the Dumont collections made during the "The Mycological Flora of Colombia" project. The most important plant pathogenic collection was found in BPI (15%). When assessing the main life forms globally, lichenised fungi dominated the collections (9,641 specimens; 58%), followed by non-lichenised *Ascomycota* (3,221; 19%), *Basidiomycota* (2,663; 16%), and rusts and smut fungi (478; 3%), with the remaining forms covering less than 2% (Figure 3).

**TABLE 2.** International biological collections with fungi of Colombia. Acronym of herbaria/fungaria, institution, country, major fungi groups found in the collections, number of specimens, number of determined species, percentage of determined species, and number of type collections are indicated (GBIF, 2021).

Acronym	Institution	Country	Major groups	Total number specimens	Proportion identified species	Type specimens
<b>Strain/culture collections</b>						
CBS	The CBS-KNAW culture collection	The Netherlands	Filamentous fungi (macro- and microfungi), yeasts	264*	99.2%	62
<b>Fungaria</b>						
ASU	The Arizona State University	USA	Lichens	50	98%	1
B	Botanischer Garten Berlin	Germany	Lichens, lichenicolous fungi	6,534	82.4%	36
BAFC	Universidad de Buenos Aires Herbario	Argentina	Macrofungi ( <i>Basidiomycota</i> )	11	100%	11
BCN	University of Barcelona	Spain	Lichens	3	100%	0
BG	University of Bergen	Norway	Lichens	18	94.4%	0
BISH	Bishop Museum	USA	Microfungi ( <i>Ascomycota</i> )	1	100%	0
BM(NHMUK)	The Natural History Museum	UK	Lichens	114	95.6%	49

TABLE 2. (continued)

Acronym	Institution	Country	Major groups	Total number specimens	Proportion identified species	Type specimens
<b>BPI (USDA)</b>	U.S. National Fungus Collections, USDA-ARS	USA	Plant pathogenic, macrofungi, Myxomycetes/Mycetozoa	3,105	87.4%	91
<b>BR</b>	Meise Botanic Garden	Belgium	Lichens, macrofungi (Basidiomycota)	670	86.1%	44
<b>CANB</b>	Australian National Herbarium	Australia	Lichens	33	45.5%	7
<b>CHRB</b>	Rutgers University	USA	Plant pathogens (rusts)	2	100%	0
<b>CMMF</b>	Jardin botanique de Montréal	Canada	Microfungi (Ascomycota)	3	33.3%	0
<b>CNAL</b>	Canadian Museum of Nature	Canada	Lichens	3	100%	0
<b>CUP</b>	Cornell Plant Pathology Herbarium	USA	Plant pathogens	657*	8.2%	70
<b>DAR</b>	Orange Agricultural Institute	Australia	Plant pathogens (rusts)	3	33.3%	0
<b>DUKE</b>	Duke University	USA	Lichens, macrofungi (Basidiomycota)	90	76.7%	0
<b>E</b>	Royal Botanic Garden Edinburgh	UK	Arbuscular mycorrhizal fungi (BRIL), lichens	73	94.8%	47
<b>ECON</b>	Harvard University	USA	Lichens	1	0%	0
<b>F</b>	Field Museum of Natural History	USA	Macrofungi (Basidiomycota), lichens	913	53%	188
<b>FH</b>	Harvard University	USA	plant pathogens (rusts), lichens	81	92.6%	37
<b>FLOR</b>	Universidade Federal de Santa Catarina	Brazil	Macrofungi (Basidiomycota)	3	66.7%	0
<b>FM-UNAM</b>	Universidad Nacional Autónoma de México (UNAM) Facultad de Medicina	Mexico	Human pathogenic fungi	14	100%	0
<b>FR</b>	Senckenberg Gesellschaft für Naturforschung: Senckenberg Forschungsinstitut und Naturmuseum	Germany	Lichens	41	95.1%	0
<b>G</b>	Conservatoire et Jardin botaniques de la Ville de Genève	Switzerland	Lichens	98	94.9%	98
<b>GB</b>	University of Gothenburg	Sweden	Macrofungi (Basidiomycota), lichens	34	94.1%	0
<b>GENT</b>	Ghent University	Belgium	Lichens	4	25%	0
<b>GZU</b>	Karl-Franzens-Universität Graz	Austria	Lichens, plant pathogens (Sordariomycetes)	12	100%	0
<b>H</b>	University of Helsinki	Finland	Lichens	6	100%	0
<b>HO</b>	Tasmanian Museum and Art Gallery	Australia	Lichens	1	100%	0
<b>ICN</b>	Universidade Federal do Rio Grande do Sul	Brazil	Lichens, macrofungi (Basidiomycota)	26	100%	1
<b>IMI</b>	CABI Bioscience UK Centre	UK	Plant pathogens (Sordariomycetes)	154	63.6%	0



TABLE 2. (continued)

Acronym	Institution	Country	Major groups	Total number specimens	Proportion identified species	Type specimens
INPA	Instituto Nacional de Pesquisas da Amazônia	Brazil	Macrofungi (Basidiomycota)	8	87.5%	1
K	Royal Botanic Gardens, Kew	UK	Macrofungi (Basidiomycota)	98	94.9%	16
L	Naturalis	Netherlands	Lichens	261	87.7%	13
LD	Lund University	Sweden	Lichens	30	100%	7
LIL-Fungi	Fundación Miguel Lillo	Argentina	Macrofungi (Basidiomycota)	2	100%	0
LSUM	Louisiana State University	USA	Macrofungi (Basidiomycota), lichens	87	54%	3
M	Staatliche Naturwissenschaftliche Sammlungen Bayerns (SNSB)	Germany	Lichens	291	92.8%	258
MA	Real Jardín Botánico	Spain	Lichens, plant pathogens (rusts)	29	96.6%	0
MAF	Facultad de Farmacia, Universidad Complutense, Madrid	Spain	Lichens	2	50%	0
MBM	Museu Botânico Municipal	Brazil	Macrofungi (Ascomycota)	1	0%	1
MEL	Royal Botanic Gardens Victoria	Australia	Lichens	15	33.3%	1
MEXU	Universidad Nacional Autónoma de México	Mexico	Lichens	15	100%	0
MICH	University of Michigan	USA	Macrofungi (Basidiomycota)	34	97.1%	3
MIL	Milwaukee Public Museum	USA	Macrofungi (Basidiomycota)	3	100%	0
MIN	University of Minnesota	USA	Lichens, plant pathogens (rusts)	52	92.3%	1
MN	Liceo Classico “Virgilio”	Italy	Lichens	2	100%	0
MO	Missouri Botanical Garden	USA	Lichens	1	0%	0
MSC	Michigan State University	USA	Lichens	11	81.8%	0
NSW	Royal Botanic Gardens & Domain Trust	Australia	Lichens	1	0%	0
NY	The New York Botanical Garden	USA	Discomycetes, macrofungi (Basidiomycota)	4,023	69%	132
O	University of Oslo	Norway	Macrofungi (Basidiomycota), lichens	383	86.2%	3
PC (MNHN)	Muséum National d’Histoire Naturelle	France	Lichens	222	84.2%	12
PDD	Manaaki Whenua - Landcare Research	New Zealand	Plant pathogens (rusts)	102	97.1%	25
S	Swedish Museum of Natural History	Sweden	Plant pathogens (rusts), lichens	570	87.5%	236

TABLE 2. (continued)

Acronym	Institution	Country	Major groups	Total number specimens	Proportion identified species	Type specimens
SP-FUNGI	Instituto de Botânica IBT	Brazil	Macrofungi (Basidiomycota)	63	39.7%	0
TAAM	Institute of Agricultural and Environmental Sciences of the Estonian University of Life Sciences	Estonia	Macrofungi (Basidiomycota)	16	87.5%	0
TENN	University of Tennessee	USA	Lichens	2	100%	0
			Macrofungi (Basidiomycota), Sordariomycetes	36	63.9%	1
TNS	National Museum of Nature and Science	Japan	Lichens	54	98.1%	3
TRH	Norwegian University of Science and Technology	Norway	Lichens	2	100%	0
TUF (UTE)	University of Tartu	Estonia	Macrofungi (Basidiomycota), lichens	97	25.8%	0
UARK	University of Arkansas	USA	Myxomycetes/ Mycetozoa	56	100%	0
UFV	Universidad Nacional Federico Villarreal	Peru	Macrofungi (Ascomycota)	1	100%	0
UPS	Museum of Evolution	Sweden	Lichens, macrofungi (Basidiomycota)	28	89.3%	6
URM	Universidade Federal de Pernambuco	Brazil	Macrofungi (Basidiomycota)	40	92.5%	2
US	Smithsonian Institution	USA	Lichens	497	97.2%	14
UTC	Utah State University	USA	Macrofungi (Basidiomycota)	34	94.1%	0
W	Naturhistorisches Museum Wien	Austria	Lichens	7	71.4%	0
WIS	University of Wisconsin Herbarium	USA	Lichens	93	97.8%	3

## DISCUSSION

The ability of fungi to adapt to different environments and establish complex ecological interactions with other organisms allows them to diversify in a unique way. This has been essential for the development of life on the planet and for the evolution of the ecosystems that compose it (Delavaux *et al.*, 2019; Naranjo-Ortiz & Gabaldón, 2019). Unfortunately, we are still just scratching the tip of the iceberg regarding our knowledge of global fungal diversity, with 150,000 described species compared to estimates ranging from 2.2 to 3.8 million species, with the latest estimate at ca. 3 million (Hawksworth & Lücking, 2017). This situation is especially acute in the

tropics, where fungi are largely understudied (Kivlin *et al.*, 2011; Hassett *et al.*, 2020; Liu *et al.*, 2021), and Colombia is no exception. Biodiversity is not equally distributed across the planet, and tropical areas are considered the most diverse for many organisms, including fungi (Myers, 1988; Hawksworth & Lücking, 2017). Biodiversity reaches its maximum expression in so-called “megadiverse” countries that are home to a very high number of species per unit area (Reid, 1998; Mittermeier *et al.*, 2011). Colombia offers these conditions with a ubication in a region of a major exchange between Northern Temperate and South American biota. Yet, the hitherto available fungal collections from Colombia do not reflect the diversity expected within the country. For example,



the number of accessioned Colombian specimens in a global database such as GBIF amounts to only ca. 36,000, a figure that falls behind those for much smaller, temperate countries such as Germany (320,000), Japan (200,000), France (125,000), the UK (80,000), or Italy (54,000).

The reasons for the underestimated numbers of fungi of Colombia are various (see Chapter 3). On the one hand, fungi have not been as extensively studied in Colombia as they have been in other countries. This scenario is partly due to Colombia having a relatively small group of specialised mycologists, especially when compared with other research areas. On the other hand, many of the aforementioned Colombian collections (e.g., COL, MMUNM) and some international collections (e.g., BAF, NEU) are yet to be digitised. These collections may contain unexpected diversity, including species new to science, potentially endemic to Colombia, or species associated with threatened habitats that deserve special conservation status. Uncatalogued collections may also hold lost type specimens. Colombian collections may also add value due to their broader temporal, geographical and taxonomic coverage when compared to collections housed at international institutions. They may hold a higher proportion of specimens collected in ecosystems that are difficult to access. In addition, these collections have a fundamental role in training new generations of Colombian mycologists and in being centres of reference for the development of ecological and environmental research, amongst other disciplines of mycology in Colombia. Nevertheless, unrecognised species and otherwise critical collections may also be found among international collections. Increased cross-institutional communication and collaboration are essential to facilitate access to this information and to foster future fungal research, ultimately facilitating more accurate fungal diversity estimates for Colombia.

Another issue made obvious from our compilation of the available fungaria and culture collections within and outside Colombia is that Colombia has not been uniformly surveyed. Gaya *et al.* (2021) already mentioned that some economically important areas, such as the ‘Eje Cafetero’ or the Andean region, have been more intensively collected than others. The areas particularly affected by the civil conflict are the most unexplored to date (e.g., Amazonia and Orinoquía). This highlights the need to increase sampling efforts in underexplored regions across the Colombian territory. The recently launched *Catalogue of Fungi of Colombia* (ColFungi, 2021) represents a good opportunity to overcome some of these issues and to further promote efforts to increase the quantity, quality, and accessibility of fungal collections in Colombia.

The fungal group that dominates the hitherto gathered and catalogued collections are lichenised fungi. This is an example of research and collection bias and not a reflection of a higher diversity of this functional group in Colombia, given that many of the studies on Colombian fungi to date have focused on lichens (Lücking *et al.*, 2021). The knowledge on and number of collections of lichens might

also be greater than that for other groups of fungi because they are included in the list of veto species that must be assessed in all environmental impact studies for projects that may affect Colombian ecosystems and biodiversity (Decree 0213 of 1977, INDERENA) (Chapter 14). Finally, other groups that have received disproportionate attention are yeasts (Silva-Bedoya *et al.*, 2014; Morales-López *et al.*, 2017, see Chapter 7), rusts (Yepes and González, 2019, see Chapter 9), and smuts (Piepenbring, 2002, see Chapter 9), due to their importance in biotechnology and agriculture.

## CONCLUSIONS

Biological collections play a fundamental role in documenting our planet’s biodiversity across space and time (Pyke & Ehrlich, 2010; Daru *et al.*, 2019; Rønsted *et al.*, 2020). They can be used to reconstruct past and predict future biota, for example, due to climate changes. They provide the foundation for describing and understanding Colombia’s fungal diversity. Their diversity provides a basis for finding solutions on food security, human health, and environmental conservation. Considering that Colombia has turned its gaze to the bioeconomy to sustain economic development, it must support biological collections as a source of information for such development. Therefore, it is important to nourish these collections continuously with further specimens and to provide them with much-needed specialised curators and additional curatorial resources. Combining a well-planned collection digitisation program with the unification of databases, using broadly accepted taxonomy, will greatly increase the accessibility of this natural capital. It will allow for comparative studies, metadata analysis, mapping, and modelling species distributions for biodiversity management, identifying knowledge gaps, or proposing solutions to decision-makers in determining the best compromises between human and environmental needs.

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*Thamnolia vermicularis*  
[Bibiana Moncada]



# Chapter 16

## Annotated Checklist of Fungi of Colombia

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**Keywords:** edible fungi, fungal uses, medicinal fungi, lichens, poisonous fungi, rusts, smuts.

### ABSTRACT

A comprehensive checklist of the fungi known for Colombia is presented in this chapter. This checklist is one of the core outputs of the Useful Plants and Fungi of Colombia (UPFC) project, produced by a multinational team of researchers. The checklist includes supraspecific taxonomic ranks, accepted species and authors, synonyms and authors, common names, species origin (when available), geographic information (regions, departments, elevation range), trophic mode, host/associated species and family (if pertinent), conservation status at global and national levels (assessments of the accepted name), and level 1 of the category of use. The taxonomic coverage and statistics are provided in Chapter 3. Analysis of specific groups of fungi can be found in Chapters 4–9. Notes on the geographic distribution are provided in Chapter 10. Analyses on the conservation status are included in Chapter 14. At the end of the catalogue, indexes of synonyms, families and genera are also provided. For full details on each species, readers should scan the QR codes or click in the species hyperlink to visit the species profiles in *ColFungi*. These include morphological descriptions, geographic distribution and maps, synonymy, notes on uses, links to fungarium specimens, field images of fungi, illustrations, economic botany items, bibliography and additional sources.

## RESUMEN

En este capítulo se presenta una lista de verificación completa de los hongos de Colombia. Éste es uno de los resultados centrales del proyecto Plantas y Hongos Útiles de Colombia (UPFC), desarrollado por un equipo multinacional de investigadores. La lista incluye taxones supraespecíficos, especies aceptadas y autores, sinónimos y autores, nombres comunes, origen de las especies (si estaba disponible), información geográfica (regiones, departamentos, rango de elevación), modo trófico, especies y familias hospedantes o en asociación (si aplica), estado de conservación global y nacional (evaluaciones de riesgo de extinción para nombres aceptados), y nivel 1 de la categoría de uso. La cobertura taxonómica y las estadísticas de diversidad son presentadas en el Capítulo 3. Análisis de grupos específicos de hongos pueden encontrarse en los capítulos 4–9. En el Capítulo 10 se presenta una descripción general de la distribución geográfica. Los análisis sobre el estado de conservación de los hongos se incluyen en el Capítulo 14. Al final del catálogo, también se proporcionan índices de sinónimos, familias y géneros. Para obtener detalles completos sobre la especie, los lectores pueden escanear los códigos QR y visitar los perfiles de especies en *ColFungi* que incluyen descripciones morfológicas, distribución geográfica y mapas, sinonimia, notas sobre usos, enlaces a especímenes de Fungario, imágenes de hongos vivos, ilustraciones, elementos de botánica económica, bibliografía y fuentes adicionales.

## INTRODUCTION

The present catalogue is the first comprehensive checklist of all fungi from Colombia. Previously, only Colombian lichens (Sipman & Aguirre-C., 2016) and some smaller fungal groups, such as rusts and smuts (Piepenbring, 2002), had been catalogued for the country. The elaboration of the checklist followed five main steps: 1. identification and screening of key sources and datasets and for the creation of a primary list of fungi of Colombia including data from Colombian specialist; 2. taxonomic and nomenclatural revision by mycological experts forming part of the present team; 3. annotation of species descriptors; 4. literature screening for uses and their classification, and incorporation of this information into the dataset, uses were also compiled from data give by researchers; and 5. database normalisation.

All fungal species reported by reliable scientific datasets and published literature for Colombia were included, regardless of origin or domestication status. The checklist includes both fungi (7,097 species) and fungus-like organisms (i.e., 33 species of Chromista and 111 species of Protozoa). The later display similar behaviour to fungi and include some important, fungus-like pathogens; they are therefore usually regarded as fungi by the non-scientific world and studied by mycologists alongside true fungi due to their similar lifestyle.

The present checklist contains 7,223 species, including 29 names with unresolved nomenclatural status and two anamorph names in practical use, incorporated to the list due to their importance. A number of invalidly published names without formal descriptions have not been included. The checklist also lists infraspecific categories such as subspecies (1), varieties (25), forms (3), and special forms (9) (*special form is a taxonomic rank of parasites, especially fungi, characterised from a physiological standpoint but scarcely or not at all from a morphological standpoint, in which its nomenclature is not governed by the International Code of Nomenclature for Algae, Fungi, and Plants* (Art. 4 Note 4 of ICN, Turland *et al.*, 2018). Based on the available information, on the total number of species 203 (3%) are endemic to Colombia.

### 1. Identification, digitisation, and compilation of key datasets and sources for the elaboration of checklist of fungi of Colombia

An identification process of datasets and sources was carried out over the period of this project (Nov. 2019–Feb. 2022). Initially, four main resources were used to create a preliminary list of fungi of Colombia: GBIF (2021), Tropicos (2021), SIB Colombia (2021), and the *Catálogo de Plantas y Líquenes de Colombia* (CPLC, Bernal *et al.*, 2016a, b, 2019). GBIF (2021) and Tropicos (2021) were used to extract a list of fungi species occurring in Colombia (including native and non-native species). These lists were merged and integrated with the list of fungal species obtained from SIB Colombia (2021) and with the lichens listed in the CPLC (Bernal *et al.*, 2016a, b, 2019). The list was then integrated with species extracted from other scientific sources such as scientific journal publications, books, technical reports, theses, and databases (the full list of sources is available in the bibliography section of *ColFungi*). Data were also provided by Colombian mycologists. The final master list had a total of 18,828 individual entries of fungal names reported from Colombia, including some duplicates of the same reports extracted from different sources.

### 2. Nomenclatural and taxonomic revision and name reconciliation

The nomenclature primarily follows the taxonomic backbone of Index Fungorum (2021) and Species Fungorum (2021). Index Fungorum was used to extract information on supraspecific taxonomic ranks (kingdom, phylum, subphylum, class, subclass, order, and family), to obtain the Index Fungorum species ID, and to check the correct orthography of species names and authors. Species Fungorum was used to obtain information on accepted names and synonyms; this information was cross-checked by expert taxonomists. Potential homotypic (obligate) synonyms were checked by comparing the final epithet of the name and the basionym author across all records, establishing homotypic name chains. Potential heterotypic (taxonomic) synonyms were checked by consulting recent taxonomic revisions or phylogenetic studies of the



groups in question. Potential homonyms were checked by filtering identical names with different authorship. Correct orthography and author citations were checked by automated comparison with a download of all fungal names from Index Fungorum (2021). For most of these tasks, automated formulas in a Microsoft Excel master file were used. From the master file all listed and checked species records, a master file of currently accepted scientific names was extracted.

The subsequent reconciliation of the list of currently accepted scientific names against Index Fungorum was done primarily using Microsoft Access. The full list of names extracted from the taxonomic backbones mentioned above was matched with our list linking genus and specific epithets. Unmatched names were checked to find the underlying reasons, such as potential misspellings in the sources, invalidly published names, or names not yet registered in Index Fungorum, and errors were corrected in the list, with accompanying updates in Index Fungorum where applicable. For unmatched names not readily reconciled with the taxonomic backbones, taxonomists were consulted for advice. Index Fungorum numbers were assigned to all names.

The reconciled master list of accepted species was again carefully analysed by taxonomists experts on specific fungal groups of Colombia, who provided further corrections and adjustments, including additional information, such as on anamorph names and names with unresolved nomenclatural status.

### 3. Annotation of species-related metadata

Metadata related to the accepted species in the checklist were retrieved from more than 750 scientific resources such as scientific journal publications, books, technical reports, theses, and databases. The full list of sources related to each species is available in the bibliography of *ColFungi*.

Indications of origin (*i.e.*, endemic, native) were obtained from the *Catalogue of Plants and Lichens of Colombia* (Sipman & Aguirre-C., 2016, 2019) for lichens, and through a literature review for other fungal groups. We also combined the geographic information in the CPLC with information coming from other scientific sources to determine the presence of a given species in regions and departments. Information on trophic mode/guild was extracted mainly from FUNGuild (Nguyen *et al.*, 2016) and complemented by other scientific resources as scientific journal publications, books, technical reports, theses. Host/Associated species and families (when pertinent) were extracted from various scientific sources and compiled with the help of mycologists with expertise, such as in smuts and rusts. Fungal habit was compiled from different scientific sources. The global conservation status was retrieved from the IUCN Red List portal (IUCN, 2020) and matched to the CFC using Microsoft Access, considering only the assessments related to the accepted name. National assessments were based on data from the Grupo Colombiano de Liquenología (GCOL), who

provided also information on additional global assessment already revised but not yet published in the IUCN Red List portal. Common names and languages, when available from the original sources, were added to the species. QR codes linking the *ColFungi* species profiles were created for each species from its Permanent URLs using the R package QRcode version 0.1.3 (Teh, 2015).

### 4. Use data and their classification

Metadata on the use of each species were collected from numerous and different scientific resources, details of which are available on bibliography section of each species in *ColFungi*.

The categorisation of fungal uses followed a revised simplified version of the Level 1 states proposed by Cook (1995) in the *Economic Botany Data Collections Standard*, as defined in the WCUP (Diazgranados *et al.*, 2020), adapted for fungi:

- **Animal Food (AF):** for vertebrate animals only;
- **Environmental Uses (EU):** examples include biofertilizers, biocontrol agents, pesticide detoxifiers, wastewater purifiers, indicators of the presence of metals, indicators of the presence of pollution;
- **Fuels (FU):** e.g., used in production of oil as raw material for biodiesels, ethanol production, etc.;
- **Gene Sources (GS):** fungi with beneficial genetic traits e.g. used in recombinant technology;
- **Human Food (HF):** food, including beverages, for humans only;
- **Invertebrate Food (IF):** only fungi eaten by invertebrates useful to humans, such as silkworms, lac insects and edible grubs, are covered here;
- **Materials (MA):** pigments, enzymes with industrial use, used in cosmetics;
- **Medicines (ME):** both human and veterinary;
- **Poisons (PO):** fungi that are poisonous to vertebrates and non-vertebrates (including non-vertebrate animals, plants, bacteria and fungi), both accidentally and purposefully, e.g., for hunting and fishing;
- **Social Uses (SU):** fungi used for social purposes, which are not definable as food or medicines, for instance, masticatories, smoking materials, narcotics, hallucinogens and psychoactive drugs, contraceptives and abortifacients, and fungi with ritual or religious significance (as also proposed by Gruca *et al.* 2014).

### 5. Database normalisation

The data were structured, normalised, and formatted according to the standards agreed for this catalogue and accounting for space limitations. Please see the list of abbreviations used below.

**Example of fungal record**

Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Amanitaceae



1. *Amanita citrina* Pers.

IF id: 205574

Trophic mode/Guild: Symbiotroph.

Ectomycorrhizal. Habit: Solitary.

Uses: HF. Distribution: Wide distribution; elev.: 2580 m a.s.l.; dept.: BOY. Conservation status: Unassessed.

**Abbreviations and codes used**

**Index Fungorum number:** Each name is given a unique IF registration number, which also resolves misspelt names or homonymy. Therefore, we encourage the use of IF codes, which can be seen at the end of the *ColFungi* species profile URLs (e.g., <http://powo.science.kew.org/taxon/urn:lsid:indexfungorum.org:names:533795?site=colfungi>). Fungi and fungus-like organisms are currently the only group of organisms for which registration is mandatory under the Code (Turland *et al.*, 2018), which is why each fungal name has a permanent, unchangeable IF registration number. Besides Index Fungorum the other important registration site is MycoBank [<https://www.mycobank.org>]. Fungal names can be registered in any of these registries and, conveniently, the registration numbers are interchangeable, i.e. one will find a fungal name in MycoBank using its IF identifier.

**Level 1 categories of use:** Animal Food (AF), Environmental Uses (EU), Fuels (FU), Gene Sources (GS), Human Food (HF), Invertebrate Food (IF), Materials (MA), Medicines (ME), Poisons (PO), Social Uses (SU).

**Colombian departments:** Amazonas (AMA), Antioquia (ANT), Arauca (ARA), Atlántico (ATL), Bogotá D.C. (BOG), Bolívar (BOL), Boyacá (BOY), Caldas (CAL), Caquetá (CAQ), Casanare (CAS), Cauca (CAU), Cesar (CES), Chocó (CHO), Córdoba (COR), Cundinamarca (CUN), Guainía (GUA), Guaviare (GUV), Huila (HUI), La Guajira (LAG), Magdalena (MAG), Meta (MET), Nariño (NAR), Norte de Santander (NSA), Putumayo (PUT), Quindío (QUI), Risaralda (RIS), San Andrés y Providencia (SAP), Santander (SAN), Sucre (SUC), Tolima (TOL), Valle del Cauca (VAC), Vaupés (VAU), and Vichada (VID).

**SPECIES COUNTS OF HIGHER TAXA**

Species in the checklist are numbered and presented according to the following order: true fungi, fossil fungi, Chromista and Protozoa.

**Kingdoms:** Fungi (7,079 species), Chromista (33), Protozoa (111).

**Divisions/Phyla:** Amoebozoa (111), Ascomycota (4,535), Basidiomycota (2,311), Blastocladiomycota (3), Cercozoa (2), Chytridiomycota (9), Entomophthoromycota (7), Fossil Fungi (35), Glomeromycota (106), Mucoromycota (73), Oomycota (31).

**Subphyla:** Agaricomycotina (1,638), Chytridiomycotina (8), Endomyxa (2), Entomophthoromycotina (6), Glomeromycotina (106), Incertae sedis (73), Mortierellomycotina (26), Mucoromycotina (47), Mycetozoa (111), Pezizomycotina (4,426), Pucciniomycotina (587), Saccharomycotina (106), Taphrinomycotina (3), Ustilaginomycotina (84).

**Classes:** Agaricomycetes (1,558), Arthoniomycetes (191), Atractiellomycetes (4), Blastocladiomycetes (4), Candelariomycetes (8), Chytridiomycetes (7), Coniocybomycetes (7), Cystobasidiomycetes (5), Dacrymycetes (14), Dothideomycetes (601), Entomophthoromycetes (6), Eurotiomycetes (291), Exobasidiomycetes (21), Geoglossomycetes (4), Glomeromycetes (106), Incertae sedis (102), Laboulbeniomycetes (17), Lecanoromycetes (2,132), Leotiomycetes (224), Lichinomycetes (1), Malasseziomycetes (3), Microbotryomycetes (16), Mortierellomycetes (26), Mucoromycetes (40), Myxogastrea (109), Orbiliomycetes (11), Peronosporae (31), Pezizomycetes (33), Phytomyxea (2), Pneumocystomycetes (1), Protostelea (2), Pucciniomycetes (561), Rhizophydiomycetes (1), Saccharomycetes (106), Schizosaccharomycetes (1), Sordariomycetes (841), Taphrinomycetes (1), Tremellomycetes (66), Umbelopsidomycetes (7), Ustilaginomycetes (60), Xylobotryomycetes (1), Xylonomycetes (1).

**Subclasses:** Acarosporomycetidae (6), Agaricomycetidae (917), Albuginidae (7), Arthoniomycetidae (187), Auriculariomycetidae (30), Candelariomycetidae (8), Ceratiomyxea (2), Chaetothyriomycetidae (127), Chytridiomycetidae (7), Columellinia (59), Coryneliomycetidae (2), Diaporthomycetidae (45), Dothideomycetidae (209), Eurotiomycetidae (157), Exobasidiomycetidae (21), Hypocreomycetidae (471), Incertae sedis (1801), Laboulbeniomycetidae (17), Lecanoromycetidae (1,319), Leotiomycetidae (224), Lichinomycetidae (1), Lucisporinia (27), Meliolomycetidae (27), Mycocaliciomycetidae (5), Myxogastria (23), Orbiliomycetidae (11), Ostropomycetidae (792), Peronosporidae (24), Pezizomycetidae (33), Phallomycetidae (39), Pleosporomycetidae (163), Pneumocystomycetidae (1), Saccharomycetidae (106), Schizosaccharomycetidae (1), Sordariomycetidae (131), Taphrinomycetidae (1), Tremellomycetidae (1), Umbilicariomycetidae (11), Ustilaginomycetidae (54), Xylariomycetidae (156).

**Orders:** Abrothallales (8), Acarosporales (6), Acrospermales (1), Agaricales (833), Albuginales (7), Amphisphaeriales (29), Amylocorticiales (3), Archaeosporales (7), Arthoniales (187), Asterinales (22), Asterotexales (1), Atheliales (9), Atractiellales (4), Auriculariales (30), Baeomycetales (17), Basidiobolales (1), Blastocladales (3), Boletales (68), Botryosphaeriales (21), Caliciales (163), Candelariales (8), Cantharellales (52), Capnodiales (168), Chaetomellales (3), Chaetosphaeriales (5), Chaetothyriales (34), Chytridiales (5), Clastodermatida (1), Coniochaetales (6), Coniocybales (7), Cordanales (1), Coronophorales (3), Corticiales (15), Coryneliales (2), Cribrariida (5), Cyphobasidiales (1), Cystobasidiales (3), Cystofilobasidiales (1), Dacrymycetales



(14), Diaporthales (32), Diversisporales (51), Dothideales (9), Echinosteliida (1), Entomophthorales (6), Entylomatales (9), Eremithallales (6), Erythrobasidiales (1), Eurotiales (136), Exobasidiales (2), Filobasidiales (9), Geastrales (8), Geoglossales (4), Georgefischeriales (4), Gloeophyllales (3), Glomerales (45), Glomerellales (36), Gomphales (19), Graphidales (79), Gyalectales (124), Helicobasidiales (1), Helotiales (187), Herpomycetales (1), Hymenochaetales (109), Hypocreales (405), Incertae sedis (163), Laboulbeniales (16), Lauriomycetales (1), Lecanorales (824), Lecideales (12), Leotiales (10), Lepidostromatales (3), Leprocaulales (1), Liceida (7), Lichenocniales (2), Lichenostigmatales (4), Lichinales (1), Lineolatales (1), Magnaporthales (3), Malasseziales (3), Meliolales (27), Microascales (25), Microbotryales (6), Microthyriales (12), Monoblastiales (13), Mortierellales (26), Mucorales (40), Muyocoprionales (1), Mycocaliciales (5), Mycosphaerellales (1), Myriangiales (6), Mytilinidiales (2), Nephridiophagales (1), Odontotrematales (1), Olpidiales (1), Onygenales (21), Ophiostomatales (4), Orbiliales (11), Ostropales (506), Paraglomerales (3), Parasymphodiellales (1), Patellariales (2), Peltigerales (256), Peronosporales (23), Pertusariales (58), Pezizales (33), Phacidiales (3), Phaeomoniellales (3), Phallales (12), Phomatosporales (1), Phyllachorales (84), Physarida (40), Plasmodiophorida (2), Platyglloeales (4), Pleosporales (150), Pneumocystales (1), Polyporales (258), Protostelida (2), Pucciniales (554), Pyrenulales (75), Rhipidiales (1), Rhizocarpales (11), Rhizophlyctidiales (1), Rhizophydiales (1), Rhytismatales (14), Russulales (90), Saccharomycetales (105), Saccharomycodaceae (1), Schaereriales (1), Schizosaccharomycetales (1), Sebaciales (3), Septobasidiales (2), Sordariales (36), Sporidiobolales (9), Stemonitida (31), Stereopsidales (2), Strigulales (23), Symbiotaphrinales (1), Taphrinales (1), Teloschistales (51), Thelebolales (7), Thelenellales (6), Thelephorales (17), Tilletiales (6), Togniniales (2), Trechisporales (20), Tremellales (40), Triblidiales (1), Trichiida (22), Trichosporales (16), Trypetheliales (102), Tubeufiales (5), Umbelopsidales (7), Umbilicariales (11), Urocystidiales (6), Ustilaginales (54), Valsariales (1), Venturiales (6), Verrucariales (15), Vezdaeales (1), Xylariales (126), Xylobotryales (1).

**Families:** Abrothallaceae (8), Acarosporaceae (6), Acaulosporaceae (21), Acrosporaceae (1), Agaricaceae (43), Ajellomycetaceae (3), Albatrellaceae (1), Albuginaceae (7), Amanitaceae (27), Amaurochaetidae (6), Ambisporaceae (4), Amniculicolaceae (4), Amphisphaeriaceae (9), Amylocorticaceae (3), Ancylistaceae (2), Anthracoideaceae (24), Aphelariaceae (1), Apiosporaceae (3), Apoharknessiaceae (1), Arachnopezizaceae (2), Archaeosporaceae (3), Arthoniaceae (87), Arthopyreniaceae (1), Arthrodermataceae (12), Arthrorhaphidaceae (2), Ascobolaceae (5), Aspergillaceae (132), Asterinaceae (22), Asterotexaceae (1), Astrosphaeriellaceae (2), Atheliaceae (9), Auriculariaceae (18), Auriscalpiaceae (4), Backusellaceae (1), Baeomycetaceae (7), Bankeraceae (5), Bartalinaceae (1), Basidiobolaceae (1), Beltraniaceae (1), Bionectriaceae

(46), Blastocladiaceae (2), Bolbitiaceae (10), Boletaceae (43), Boletinellaceae (5), Botryobasidiaceae (6), Botryosphaeriaceae (16), Brigantiaeaceae (1), Bulleribasidiaceae (2), Cainiaceae (1), Calcarisporiaceae (1), Caliciaceae (75), Callistosporiaceae (3), Calostomataceae (1), Candelariaceae (8), Capnodiaceae (6), Castanediellaceae (2), Catillariaceae (3), Celotheliaceae (3), Cenangiaceae (4), Ceratiomyxidae (2), Ceratobasidiaceae (3), Ceratocystidaceae (7), Cerrenaceae (3), Chaconiaceae (7), Chaetomiaceae (17), Chaetosphaeriaceae (5), Chaetothyriaceae (2), Chlorociboriaceae (2), Choanephoraceae (1), Chromocyphellaceae (4), Chrysotrichaceae (5), Chytridiaceae (1), Cladoniaceae (77), Cladosporiaceae (16), Claroideoglomeraceae (5), Clastodermatidae (1), Clavariaceae (5), Clavicipitaceae (27), Coccocarpiaceae (13), Coccodiniaceae (1), Coccotremataceae (1), Cochlearomycetaceae (2), Coelomomycetaceae (1), Coenogoniaceae (47), Coleosporiaceae (7), Collemataceae (56), Coniochaetaceae (6), Coniocybaceae (7), Coniophoraceae (1), Coniothyriaceae (2), Cordanaceae (1), Cordieritidaceae (8), Cordycipitaceae (38), Corticiaceae (12), Cortinariaceae (21), Coryneliaceae (2), Corynesporascaceae (3), Crepidotaceae (14), Cribrariidae (5), Cronartiaceae (4), Cryphonectriaceae (7), Cryptobasidiaceae (1), Cryptococcaceae (9), Cucurbitariaceae (2), Cuniculitremaceae (2), Cunninghamellaceae (8), Cylindriaceae (1), Cyphellaceae (2), Cyphellophoraceae (1), Cyphobasidiaceae (1), Cystobasidiaceae (3), Cystocoleaceae (1), Cystostereaceae (1), Dacampiaceae (2), Dacrymycetaceae (14), Dactylosporaceae (1), Davidiellaceae (1), Debaryomycetaceae (3), Dianematidae (2), Diaporthaceae (16), Diatrypaceae (5), Didymellaceae (24), Didymiidae (16), Didymosphaeriaceae (6), Diplocystidiaceae (2), Dipodascaceae (6), Discinellaceae (4), Diversisporaceae (7), Dothideaceae (2), Dothidothiaceae (1), Drepanopezizaceae (4), Eballistraceae (2), Echinostelidae (1), Ectolechiaceae (80), Elaphomycetaceae (2), Elsinoaceae (6), Endomelanconiosporaceae (2), Englerulaceae (2), Entolomataceae (27), Entomophthoraceae (4), Entylomataceae (9), Eocronartiaceae (2), Epibryaceae (2), Erysiphaceae (12), Erythrobasidiaceae (1), Etheiophoraceae (1), Euantennariaceae (1), Exobasidiaceae (1), Fibroporiaceae (1), Filobasidiaceae (4), Fomitopsidaceae (9), Fuscideaceae (3), Ganodermataceae (1), Geastraceae (8), Gelatinodiscaceae (4), Geoglossaceae (4), Georgefischeriaceae (1), Gigasporaceae (23), Gloeophyllaceae (3), Glomeraceae (40), Glomerellaceae (29), Glomosporiaceae (3), Gomphaceae (19), Gomphillaceae (79), Graphidaceae (486), Graphostromataceae (13), Grifolaceae (1), Gymnosporangiaceae (1), Gyroporaceae (2), Haematommataceae (10), Halosphaeriaceae (7), Hamatocanthoscyphaceae (1), Hansfordiaceae (1), Harknessiaceae (1), Helicobasidiaceae (1), Helicogoniaceae (1), Helotiaceae (17), Helvellaceae (3), Hericiaceae (3), Herpomycetaceae (1), Herpotrichiellaceae (23), Hyaloriaceae (2), Hyaloscyphaceae (5), Hydnaceae (40), Hydnangiaceae (10), Hydnodontaceae (20), Hygrophoraceae (105), Hymenochaetaceae (65), Hymenogastraceae (56), Hyphodermataceae (14), Hypoc-

reaceae (78), Hypoxylaceae (36), Icmadophilaceae (15), Incertae sedis (462), Incrustoporiaceae (3), Induratiaceae (1), Inocybaceae (9), Irpicaceae (10), Laboulbeniaceae (16), Lachnaceae (50), Laetiporaceae (3), Lamprodermatidae (5), Lasiosphaeriaceae (5), Lauriomycetaceae (1), Lecanographaceae (10), Lecanoraceae (49), Lecideaceae (12), Leotiaceae (4), Lepidostromataceae (3), Leprocaulaceae (1), Leptodontidiaceae (1), Leptosphaeriaceae (4), Letrouitiaceae (4), Liceidae (3), Lichenoconiaceae (2), Lichtheimiaceae (2), Lineolataceae (1), Lophiostomataceae (1), Lycoperdaceae (18), Lyophyllaceae (5), Lyromataceae (1), Macrocystidiaceae (1), Macrovalsariaceae (1), Magnaporthaceae (1), Malasseziaceae (3), Malmideaceae (23), Marasmiaceae (100), Marthamycetaceae (3), Massarinaceae (3), Megalosporaceae (7), Megasporaceae (1), Melampsoraceae (3), Melanommataceae (3), Melaspileaceae (6), Meliolaceae (27), Meripilaceae (6), Meruliaceae (12), Metschnikowiaceae (5), Microascaceae (10), Microbotryaceae (4), Micropeltidiaceae (1), Microsphaeropsidaceae (1), Microtheliopsidaceae (1), Microthyriaceae (11), Mikronegeriaceae (3), Milesiaceae (5), Mniaeciaceae (1), Mollisiaceae (9), Monascaceae (2), Monoblastiaceae (13), Morchellaceae (2), Mortierellaceae (26), Mrakiaceae (1), Mucoraceae (15), Muyocopronaceae (1), Mycenaceae (70), Mycocaliciaceae (4), Mycoporaceae (4), Mycosphaerellaceae (136), Mycosyringaceae (1), Mytiliniaceae (2), Myxotrichaceae (7), Nectriaceae (144), Neolauriomycetaceae (1), Niaceae (8), Niessliaceae (4), Nitschkiaceae (3), Ochrolechiaceae (4), Odontotremataceae (1), Oliveoniaceae (1), Olpidiaceae (1), Omphalotaceae (67), Onygenaceae (4), Opegraphaceae (28), Ophiocordycipitaceae (42), Ophioparmaceae (2), Ophiostomataceae (4), Orbiliaceae (11), Oxyporaceae (1), Panaceae (10), Pannariaceae (36), Paraglomeraceae (3), Parasymphodiaceae (1), Parmeliaceae (411), Parodiellaceae (2), Parodiopsidaceae (4), Patellariaceae (2), Paxillaceae (2), Peltigeraceae (151), Peltulaceae (1), Peniophoraceae (14), Perisporiopsidaceae (2), Peronosporaceae (16), Pertusariaceae (35), Pestalotiopsidaceae (19), Pezizaceae (4), Pezizellaceae (9), Phacidiaceae (2), Phaeococcomycetaceae (4), Phaeodimeriellaceae (1), Phaeosphaeriaceae (10), Phakopsoraceae (43), Phallaceae (12), Phanerochaetaceae (16), Phleogenaceae (4), Phlyctidaceae (4), Phomatosporaceae (1), Phragmidaceae (11), Phragmoxenidiaceae (1), Phyllachoraceae (81), Phyllostictaceae (1), Phyllostictaceae (2), Physalacriaceae (26), Physaridae (40), Physciaceae (88), Pilobolaceae (1), Piskurozymaceae (5), Planistromellaceae (2), Plasmodiophoridae (2), Platygloaceae (2), Plectosphaerellaceae (7), Pleosporaceae (64), Pleurotaceae (27), Ploettnerulaceae (2), Pluteaceae (15), Pneumocystaceae (1), Podoscyphaceae (12), Podosporaceae (2), Polycoccaceae (2), Polyporaceae (121), Polystromellaceae (1), Porinaceae (72), Porothelaceae (1), Protoscyphaceae (1), Psathyrellaceae (22), Pseudeurotiaceae (7), Pseudoperisporiaceae (3), Pseudopyrenochaetaceae (1), Psilolechiaceae (1), Psoraceae (1), Pterulaceae (5), Pucciniaceae (316), Pucciniastraceae (9), Puccinosiraceae (13), Pyrenulaceae (75), Pyriculari-

aceae (2), Pyronemataceae (10), Pythiaceae (7), Radulomycetaceae (3), Ramalinaceae (129), Ramboldiaceae (3), Raveneliaceae (18), Reticulariidae (4), Rhizocarpaceae (11), Rhizophlyctidaceae (1), Rhizopodaceae (3), Rhizopogonaceae (1), Rhynchogastremaceae (6), Rhytismataceae (14), Rickenellaceae (8), Robillardaceae (1), Roccellaceae (49), Roccellographaceae (2), Russulaceae (46), Rutstroemiaceae (11), Saccharomycetaceae (35), Saccharomycodaceae (5), Saccotheciaceae (7), Saksenaeeaceae (6), Salispinaceae (1), Sarcoscyphaceae (6), Sarcosomataceae (2), Schaereriaceae (1), Schizoparmaceae (1), Schizophyllaceae (4), Schizoporaceae (26), Schizosaccharomycetaceae (1), Sclerodermataceae (8), Sclerotiniaceae (13), Sebacinaceae (3), Septobasidiaceae (2), Skierkaceae (1), Solenopezaceae (2), Sordariaceae (5), Sparassidaceae (1), Sphaerophoraceae (3), Sphaer-ophragmiaceae (2), Sphinctrinaceae (1), Spirographaceae (3), Sporidiobolaceae (9), Sporormiaceae (2), Stachybotryaceae (4), Steccheriaceae (17), Stemonitidae (4), Stephanosporaceae (2), Stereaceae (20), Stereocaulaceae (30), Stereopsidaceae (2), Stictidiaceae (17), Strigulaceae (23), Strophariaceae (26), Suillaceae (2), Symbiotaphrinaceae (1), Syncephalastraceae (3), Synchytriaceae (4), Taphrinaceae (1), Telimenaceae (3), Teloschistaceae (39), Tephromelataceae (3), Teratosphaeriaceae (7), Tetraplosphaeriaceae (1), Thelenellaceae (6), Thelephoraceae (12), Tilletiaceae (6), Tilletiariaceae (1), Togniniaceae (2), Torulaceae (2), Tranzscheliaceae (2), Trapeliaceae (10), Trematosphaeriaceae (1), Tremellaceae (16), Tribliidiaceae (1), Trichiidae (20), Tricholomataceae (8), Trichomeriaceae (3), Trichomonascaceae (9), Trichosporonaceae (16), Tricladiaceae (1), Trimorphomycetaceae (2), Trypetheliaceae (100), Tubariaceae (1), Tuberaceae (1), Tubeufiaceae (5), Tulasnellaceae (1), Tympanidaceae (1), Typhulaceae (1), Umbelopsidaceae (7), Umbilicariaceae (6), Uncolaceae (3), Urocystidaceae (2), Uropyxidaceae (12), Ustilaginaceae (30), Ustilentylomataceae (2), Valsaceae (3), Valsariaceae (1), Varicellariaceae (2), Venturiaceae (6), Verrucariaceae (15), Vezdaeaceae (1), Vibrissaceae (1), Vizellaceae (1), Wickerhamomycetaceae (4), Xenasmataceae (6), Xylariaceae (66), Xylobotryaceae (1).

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CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Blastocladiomycota, Incertae sedis, Blastocladiomycetes, Incertae sedis, Blastocladiiales, Blastocladiaceae  
**1. *Blastocladiella colombiensis*** Karling IF No: 103090 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Blastocladiomycota, Incertae sedis, Blastocladiomycetes, Incertae sedis, Blastocladiiales, Blastocladiaceae  
**2. *Clavochytrium colombense*** Doweld IF No: 550342



Fungi, Blastocladiomycota, Incertae sedis, Blastocladiomycetes, Incertae sedis, Blastocladiiales, Coelomomycetaceae  
**3. *Coelomomyces reticulatus*** Couch & A.J. Walker IF No: 114691 **Trophic mode/Guild:** pathotrophy/animal pathogen



Fungi, Chytridiomycota, Chytridiomycotina, Chytridiomycetes, Chytridiomycetidae, Chytridiales, Synchytriaceae  
**4. *Chytridium schenklii*** (P.A. Dang.) Scherff. IF No: 277602 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Chytridiomycota, Chytridiomycotina, Chytridiomycetes, Chytridiomycetidae, Chytridiales, Synchytriaceae  
**5. *Miyabellia secdoides*** (Syd.) S. Ito & Homma IF No: 255900



Fungi, Chytridiomycota, Chytridiomycotina, Chytridiomycetes, Chytridiomycetidae, Chytridiales, Synchytriaceae  
**6. *Synchytrium aequatorense*** (Syd.) Gäum. IF No: 250491 **Common name:** **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Chytridiomycota, Chytridiomycotina, Chytridiomycetes, Chytridiomycetidae, Chytridiales, Synchytriaceae  
**7. *Synchytrium desmodii*** Munas. IF No: 283350 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Chytridiomycota, Chytridiomycotina, Chytridiomycetes, Chytridiomycetidae, Chytridiales, Synchytriaceae  
**8. *Synchytrium phaseoli*** W. Weston IF No: 274198 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Chytridiomycota, Chytridiomycotina, Chytridiomycetes, Chytridiomycetidae, Olpidiales, Olpidiaceae  
**9. *Olpidaster brassicae*** (Woronin) Doweld IF No: 550486



Fungi, Chytridiomycota, Chytridiomycotina, Chytridiomycetes, Chytridiomycetidae, Rhizophyctidiales, Rhizophyctidaceae  
**10. *Karlingia lobata*** Karling IF No: 287362



Fungi, Chytridiomycota, Chytridiomycotina, Rhizophyctidomycetes, Incertae sedis, Rhizophyctidiales, Incertae sedis  
**11. *Batrachochytrium dendrobatidis*** Longcore, Pessier & D.K. Nichols IF No: 450228 **Trophic mode/Guild:** pathotrophy/animal pathogen



Fungi, Chytridiomycota, Incertae sedis, Incertae sedis, Incertae sedis, Nephridiophagales, Incertae sedis  
**12. *Nephridiophaga luchiormetica*** R. Radek, Wellmanns & A. Wolf IF No: 543141



Fungi, Entomophthoromycota, Entomophthoromycotina, Entomophthoromycetes, Incertae sedis, Entomophthorales, Ancylistaceae  
**13. *Candidolobus coronatus*** (Costantin) A. Batko IF No: 283037 **Trophic mode/Guild:** pathotrophy, saprotrophy/animal pathogen, undefined saprotroph



Fungi, Entomophthoromycota, Entomophthoromycotina, Entomophthoromycetes, Incertae sedis, Entomophthorales, Ancylistaceae  
**14. *Neocandidolobus thrombolides*** (Drechsler) B. Huang & Y. Nie IF No: 831606 **Dept.:** VAC **Uses:** PO



Fungi, Entomophthoromycota, Incertae sedis, Blastocladiomycetes, Incertae sedis, Basidiobolales, Basidiobolaceae  
**15. *Basidiobolus ranarum*** Eidam IF No: 224388 **Trophic mode/Guild:** pathotrophy, saprotrophy, symbiotrophy/animal endosymbiont, animal pathogen, undefined saprotroph



Fungi, Entomophthoromycota, Entomophthoromycotina, Entomophthoromycetes, Incertae sedis, Entomophthorales, Entomophthoraceae  
**16. *Entomophthora muscae*** (Cohn) Fresen. IF No: 150965 **Trophic mode/Guild:** pathotrophy/animal pathogen



Fungi, Entomophthoromycota, Entomophthoromycotina, Entomophthoromycetes, Incertae sedis, Entomophthorales, Entomophthoraceae  
**17. *Entomophthora planchoniana*** Cornu IF No: 163373 **Trophic mode/Guild:** pathotrophy/animal pathogen



Fungi, Entomophthoromycota, Entomophthoromycotina, Entomophthoromycetes, Incertae sedis, Entomophthorales, Entomophthoraceae  
**18. *Pandora neoaphidis*** (Remaud. & Hennebert) Humber IF No: 135606 **Trophic mode/Guild:** pathotrophy/animal pathogen



Fungi, Entomophthoromycota, Entomophthoromycotina, Entomophthoromycetes, Incertae sedis, Entomophthorales, Entomophthoraceae  
**19. *Zoophthora radicans*** (Bref.) A. Batko IF No: 341190



Fungi, Mucoromycota, Mortierellomycotina, Mortierellomycetes, Incertae sedis, Mortierellales, Mortierellaceae  
**20. *Dissophora ornata*** (W. Gams) W. Gams IF No: 135572 **Trophic mode/Guild:** saprotrophy/undefined saprotroph



Fungi, Mucoromycota, Mortierellomycotina, Mortierellomycetes, Incertae sedis, Mortierellales, Mortierellaceae  
**21. *Mortierella alliaea*** Linnem. IF No: 301322 **Trophic mode/Guild:** saprotrophy, symbiotrophy/endophyte, litter saprotroph, soil saprotroph, undefined saprotroph



Fungi, Mucoromycota, Mortierellomycotina, Mortierellomycetes, Incertae sedis, Mortierellales, Mortierellaceae  
**22. *Mortierella alpina*** Peyronel IF No: 170280 **Trophic mode/Guild:** saprotroph, symbiotrophy/endophyte, litter saprotroph, soil saprotroph, undefined saprotroph



Fungi, Mucoromycota, Mortierellomycotina, Mortierellomycetes, Incertae sedis, Mortierellales, Mortierellaceae  
**23. *Mortierella amoeboides*** W. Gams IF No: 317879 **Trophic mode/Guild:** saprotroph, symbiotrophy/endophyte, litter saprotroph, soil saprotroph, undefined



Fungi, Mucoromycota, Mortierellomycotina, Mortierellomycetes, Incertae sedis, Mortierellales, Mortierellaceae  
**24. *Mortierella calciphila*** Wrzosek IF No: 814918 **Trophic mode/Guild:** saprotroph, symbiotrophy/endophyte, litter saprotroph, soil saprotroph, undefined saprotroph

**Habitat:** On soil | **Saprotroph Elev.:** 2,900 m **Dept.:** BOY, CUN **Uses:** ME

saprotroph

**Habitat:** On uncultivated woodland and cultivated soils with peach **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Mucoromycota, Mortierellomycotina, Mortierellomycetes, Incertae sedis, Mortierellales, Mortierellaceae  
**25. *Mortierella capitata*** Marchal IF No: 240953 **Trophic mode/Guild:** saprotroph, symbiotrophy/endophyte, litter saprotroph, soil saprotroph, undefined saprotroph



Fungi, Mucoromycota, Mortierellomycotina, Mortierellomycetes, Incertae sedis, Mortierellales, Mortierellaceae  
**26. *Mortierella clonocystis*** W. Gams IF No: 317886 **Trophic mode/Guild:** saprotroph, symbiotrophy/endophyte, litter saprotroph, soil saprotroph, undefined saprotroph



Fungi, Mucoromycota, Mortierellomycotina, Mortierellomycetes, Incertae sedis, Mortierellales, Mortierellaceae  
**27. *Mortierella elongata*** Linnem. IF No: 301325 **Trophic mode/Guild:** saprotroph, symbiotrophy/endophyte, litter saprotroph, soil saprotroph, undefined saprotroph

**Habitat:** On soils cultivated with apple and peach | **Saprotroph Elev.:** 2,900 m **Dept.:** BOY

**Habitat:** On uncultivated and cultivated soils with apple and peach, On woodland soils **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Mucoromycota, Mortierellomycotina, Mortierellomycetes, Incertae sedis, Mortierellales, Mortierellaceae  
**28. *Mortierella epicloadia*** W. Gams & Emden IF No: 317892 **Trophic mode/Guild:** saprotroph, symbiotrophy/endophyte, litter saprotroph, soil saprotroph, undefined saprotroph



Fungi, Mucoromycota, Mortierellomycotina, Mortierellomycetes, Incertae sedis, Mortierellales, Mortierellaceae  
**29. *Mortierella exigua*** Linnem. IF No: 301327 **Trophic mode/Guild:** saprotroph, symbiotrophy/endophyte, litter saprotroph, soil saprotroph, undefined



Fungi, Mucoromycota, Mortierellomycotina, Mortierellomycetes, Incertae sedis, Mortierellales, Mortierellaceae  
**30. *Mortierella fatschederae*** Linnem. IF No: 317894 **Trophic mode/Guild:** saprotroph, symbiotrophy/endophyte, litter saprotroph, soil saprotroph, undefined saprotroph

saprotroph, undefined saprotroph

**Habitat:** On soils cultivated with apple and peach | On soils (intermediate between orchard and woodland) | **Saprotroph Elev.:** 2,900 m **Dept.:** BOY

**Habitat:** On uncultivated or cultivated soils with apple and peach **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Mucoromycota, Mortierellomycotina, Mortierellomycetes, Incertae sedis, Mortierellales, Mortierellaceae  
**31. *Mortierella gamsii*** Milko IF No: 317896 **Trophic mode/Guild:** saprotroph, symbiotrophy/endophyte, litter saprotroph, soil saprotroph **Habitat:** On cultivated and woodland soils **Elev.:** 2,900 m **Dept.:** BOY, CUN **Uses:** ME



Fungi, Mucoromycota, Mortierellomycotina, Mortierellomycetes, Incertae sedis, Mortierellales, Mortierellaceae  
**32. *Mortierella gemmifera*** M. Ellis IF No: 288454 **Trophic mode/Guild:** saprotroph, symbiotrophy/endophyte, litter saprotroph, soil saprotroph, undefined saprotroph



Fungi, Mucoromycota, Mortierellomycotina, Mortierellomycetes, Incertae sedis, Mortierellales, Mortierellaceae  
**33. *Mortierella globulipha*** W. Gams & Veenb.-Rijks IF No: 317897 **Trophic mode/Guild:** saprotroph, symbiotrophy/endophyte, litter saprotroph, soil saprotroph, undefined saprotroph **Habitat:** On soils cultivated | On woodland soils **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Mucoromycota, Mortierellomycotina, Mortierellomycetes, Incertae sedis, Mortierellales, Mortierellaceae  
**34. *Mortierella globulifera*** O. Rostr. IF No: 145731 **Trophic mode/Guild:** saprotroph, symbiotrophy/endophyte, litter saprotroph **Habitat:** On soils cultivated with peach | On soils in uncultivated field (intermediate between orchard and woodland) | **Saprotroph Elev.:** 2,900 m **Dept.:** BOY



Fungi, Mucoromycota, Mortierellomycotina, Mortierellomycetes, Incertae sedis, Mortierellales, Mortierellaceae  
**35. *Mortierella humilis*** Linnem. ex W. Gams IF No: 317898 **Trophic mode/Guild:** saprotroph, symbiotrophy/endophyte, litter saprotroph, soil saprotroph, undefined



Fungi, Mucoromycota, Mortierellomycotina, Mortierellomycetes, Incertae sedis, Mortierellales, Mortierellaceae  
**36. *Mortierella indohii*** C.Y. Chien IF No: 317900 **Trophic mode/Guild:** saprotroph, symbiotrophy/endophyte, litter saprotroph, soil saprotroph, undefined saprotroph **Habitat:** On soils cultivated with apple and peach | **Saprotroph Elev.:** 2,900 m **Dept.:** BOY

On soils in uncultivated field (intermediate between orchard and woodland) | **Saprotroph Elev.:** 2,900 m **Dept.:** BOY

saprotroph **Habitat:** On soil | On soils in uncultivated field (intermediate between orchard and woodland) | On woodland soil **Elev.:** 2,900 m **Dept.:** BOY, CUN **Uses:** ME

**Habitat:** On soils cultivated with apple and peach | **Saprotroph Elev.:** 2,900 m **Dept.:** BOY



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Mucoromycota, Mortierellomycotina, Mortierellomycetes, Incertae sedis, Mortierellales, Mortierellaceae  
37. *Mortierella kuhlmanni* W. Gams IF No: 317901 **Trophic mode/Guild:** saprotroph, symbiotroph/endophyte, litter saprotroph, soil saprotroph, undefined saprotroph



Fungi, Mucoromycota, Mortierellomycotina, Mortierellomycetes, Incertae sedis, Mortierellales, Mortierellaceae  
38. *Mortierella lignicola* (G.W. Martin) W. Gams & R. Moreau IF No: 334505 **Trophic mode/Guild:** saprotroph, symbiotroph/endophyte, litter saprotroph, soil



Fungi, Mucoromycota, Mortierellomycotina, Mortierellomycetes, Incertae sedis, Mortierellales, Mortierellaceae  
39. *Mortierella macrocystis* W. Gams IF No: 433096 **Trophic mode/Guild:** saprotroph, symbiotroph/endophyte, litter saprotroph, soil saprotroph, undefined



Fungi, Mucoromycota, Mortierellomycotina, Mortierellomycetes, Incertae sedis, Mortierellales, Mortierellaceae  
40. *Mortierella minutissima* Tiegh. IF No: 145350 **Trophic mode/Guild:** saprotroph, symbiotroph/endophyte, litter saprotroph, soil saprotroph, undefined saprotroph



Fungi, Mucoromycota, Mortierellomycotina, Mortierellomycetes, Incertae sedis, Mortierellales, Mortierellaceae  
41. *Mortierella paraensis* Pfenning & W. Gams IF No: 359320 **Trophic mode/Guild:** saprotroph, symbiotroph/endophyte, litter saprotroph, soil saprotroph, undefined



Fungi, Mucoromycota, Mortierellomycotina, Mortierellomycetes, Incertae sedis, Mortierellales, Mortierellaceae  
42. *Mortierella samyensis* Miliko IF No: 433103 **Trophic mode/Guild:** saprotroph, symbiotroph/endophyte, litter saprotroph, soil saprotroph, undefined saprotroph

**Habitat:** On soil | **Saprotroph Dept.:** CUN **Uses:** ME

saprotroph

saprotroph

**Habitat:** On soils cultivated with apple and peach | On woodland soils **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Mucoromycota, Mortierellomycotina, Mortierellomycetes, Incertae sedis, Mortierellales, Mortierellaceae  
43. *Mortierella turficola* Y. Ling IF No: 255228 **Trophic mode/Guild:** saprotroph, symbiotroph/endophyte, litter saprotroph, soil saprotroph, undefined



Fungi, Mucoromycota, Mortierellomycotina, Mortierellomycetes, Incertae sedis, Mortierellales, Mortierellaceae  
44. *Mortierella wolffi* B.S. Mehrotra & Bajjal IF No: 334519 **Trophic mode/Guild:** saprotroph, symbiotroph/endophyte, litter saprotroph, soil saprotroph, undefined



Fungi, Mucoromycota, Mortierellomycotina, Mortierellomycetes, Incertae sedis, Mortierellales, Mortierellaceae  
45. *Mortierella zonata* Linnem. ex W. Gams IF No: 317912 **Trophic mode/Guild:** saprotroph, symbiotroph/endophyte, litter saprotroph, soil saprotroph, undefined

saprotroph

saprotroph

saprotroph

**Habitat:** Saprotroph **Dept.:** BOY



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Backusellaceae  
46. *Backusella lamprospora* (Lendn.) Benny & R.K. Benj. IF No: 309408 **Trophic mode/Guild:** saprotroph/ **Habitat:** On soils cultivated with apple and peach **Elev.:**



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Choanephoraceae  
47. *Choanephora cucurbitarum* (Berk. & Ravenel) Thaxt. IF No: 170049 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Cunninghamellaceae  
48. *Absidia anomala* Hesselst. & J.J. Ellis IF No: 325709 **Trophic mode/Guild:** saprotroph/ undefined saprotroph **Habitat:** On soils cultivated with apple and peach

2,900 m **Dept.:** BOY

**Elev.:** 2,900 m **Dept.:** BOY



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Cunninghamellaceae  
49. *Absidia cylindrospora* Hagem IF No: 221421 **Trophic mode/Guild:** saprotroph/ undefined saprotroph



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Cunninghamellaceae  
50. *Absidia glauca* Hagem IF No: 221208 **Trophic mode/Guild:** saprotroph/ undefined saprotroph **Habitat:** On soils cultivated with peach | On soils in uncultivated field (intermediate between orchard and woodland) | Saprotroph **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Cunninghamellaceae  
51. *Absidia repens* Tiegh. IF No: 223578 **Trophic mode/Guild:** saprotroph/ undefined saprotroph **Habitat:** On soils cultivated with peach | Saprotroph **Elev.:**

uncultivated field (intermediate between orchard and woodland) | Saprotroph **Elev.:** 2,900 m **Dept.:** BOY

2,900 m **Dept.:** BOY



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Cunninghamellaceae  
52. *Cunninghamella binariae* R.Y. Zheng IF No: 474175 **Trophic mode/Guild:** saprotroph/ undefined saprotroph



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Cunninghamellaceae  
53. *Cunninghamella echinulata* (Thaxt.) Thaxt. ex Blakeslee IF No: 230047 **Trophic mode/Guild:** saprotroph/ undefined saprotroph



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Cunninghamellaceae  
54. *Cunninghamella elegans* Lendn. IF No: 217421 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Cunninghamellaceae  
55. *Gongronella butleri* (Lendn.) Peyronel & Dal Vesco IF No: 282672 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On soils cultivated with



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Lichthelmiaceae  
56. *Lichthelmia corymbifera* (Cohn) Vuill. IF No: 416447 **Trophic mode/Guild:** pathotroph, saprotroph



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Lichthelmiaceae  
57. *Rhizomucor melehi* (Cooney & R. Emers.) Schipper IF No: 322483 **Trophic mode/Guild:** saprotroph/undefined saprotroph

Arazá (*Eugenia stiptata*) | Saprotroph **Hosts:** *Eugenia stiptata* **Dept.:** GUV



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Mucoraceae  
58. *Actinomucor elegans* (Eidam) C.R. Benj. & Hesselst. IF No: 292136 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Mucoraceae  
59. *Mucor abundans* Povah IF No: 240479 **Trophic mode/Guild:** saprotroph/ **Habitat:** On soils cultivated with apple and peach | Saprotroph **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Mucoraceae  
60. *Mucor ardhahaengiktus* B.S. Mehrotra & B.M. Mehrotra IF No: 317921



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Mucoraceae  
61. *Mucor circinelloides* Tiegh. IF No: 198947 **Trophic mode/Guild:** pathotrophy/animal pathogen, plant pathogen **Habitat:** On soil | In soils cultivated with apple and peach | Saprotroph **Elev.:** 2,900 m **Dept.:** BOY, CUN **Uses:** FU



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Mucoraceae  
62. *Mucor flavus* (Mart.) Fr. IF No: 179815



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Mucoraceae  
63. *Mucor gligasporus* G.Q. Chen & R.Y. Zheng IF No: 126645



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Mucoraceae  
64. *Mucor griseocyanus* Hagem IF No: 373691



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Mucoraceae  
65. *Mucor heterogamus* Vuill. IF No: 249261



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Mucoraceae  
66. *Mucor hiemalis* Wehmer IF No: 249401 **Trophic mode/Guild:** pathotrophy/plant pathogen **Habitat:** On soil | On soils cultivated with peach | Saprotroph **Elev.:** 2,900 m **Dept.:** BOY, CUN **Uses:** MA



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Mucoraceae  
67. *Mucor luteus* Linnem. ex Wrzosek IF No: 515300



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Mucoraceae  
68. *Mucor moelleri* (Vuill.) Lendn. IF No: 433186 **Trophic mode/Guild:** saprotroph/ **Habitat:** On uncultivated soils (between orchards and woodlands) | On woodland soils **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Mucoraceae  
69. *Mucor plumbeus* Bonord. IF No: 237923

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Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Mucoraceae  
**70. *Mucor racemosus*** Fresen.  
**IF No:** 247797 **Trophic mode/Guild:** saprotroph/ **Habitat:** On soils | On soils cultivated with potato (Pastusa Suprema and Parda Pastusa varieties) | On soils alternated with potato crops and grasses | Saprotroph **Elev.:** 3,373 m **Dept.:** CUN **Uses:** MA



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Mucoraceae  
**71. *Mucor silvaticus*** Hagem  
**IF No:** 182519



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Mucoraceae  
**72. *Mucor zychnae*** Bajjal & B.S. Mehrotra **IF No:** 334539 **Trophic mode/Guild:** saprotroph/ **Habitat:** On soils cultivated with peach | Saprotroph **Elev.:** 2,900 m

**Dept.:** BOY



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Pilobolaceae  
**73. *Pilobolus kleinii*** Tiegh. **IF No:** 222561 **Trophic mode/Guild:** saprotroph/dung saprotroph **Elev.:** 2,743 m **Dept.:** BOY, CUN



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Rhizopodaceae  
**74. *Rhizopus arrhizus*** A. Fisch. **IF No:** 167790 **Trophic mode/ Guild:** pathotroph, saprotroph/ plant pathogen, undefined saprotroph



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Rhizopodaceae  
**75. *Rhizopus microsporus*** Tiegh. **IF No:** 177331 **Trophic mode/ Guild:** pathotroph/ plant pathogen **Habitat:** On soils cultivated with apple and peach | Saprotroph **Elev.:** 2,900 m **Dept.:** BOY

2,900 m **Dept.:** BOY



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Rhizopodaceae  
**76. *Rhizopus stolonifer*** (Ehrenb.) Vuill. **IF No:** 119545 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Saksenaaceae  
**77. *Apophysomyces elegans*** P.C. Misra, K.J. Srivast. & Lata **IF No:** 308868 **Trophic mode/ Guild:** saprotroph/undefined saprotroph



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Saksenaaceae  
**78. *Apophysomyces variabilis*** E. Álvarez, Stchigel, Cano, Deanna A. Sutton & Guarro **IF No:** 518842 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Saksenaaceae  
**79. *Saksenaeya erythrospora*** E. Álvarez, Cano, Stchigel & Guarro **IF No:** 518627 **Trophic mode/ Guild:** saprotroph/ undefined saprotroph



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Saksenaaceae  
**80. *Saksenaeya loutrophoriformis*** Deanna A. Sutton, Stchigel, Chandler, Guarro & Cano **IF No:** 820008 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Saksenaaceae  
**81. *Saksenaeya trapezispora*** Deanna A. Sutton, Stchigel, Wiederh., Guarro & Cano **IF No:** 817644 **Trophic mode/Guild:** saprotroph/ undefined saprotroph



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Saksenaaceae  
**82. *Saksenaeya vasiformis*** S.B. Saksena **IF No:** 305482 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Syncephalastraceae  
**83. *Circinella muscae*** (Sorokin) Berl. & De Toni **IF No:** 197197 **Trophic mode/ Guild:** saprotroph/ undefined saprotroph



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Syncephalastraceae  
**84. *Circinella simplex*** Tiegh. **IF No:** 197129 **Trophic mode/Guild:** saprotroph/ undefined saprotroph



Fungi, Mucoromycota, Mucoromycotina, Mucoromycetes, Incertae sedis, Mucorales, Syncephalastraceae  
**85. *Syncephalastrum racemosum*** Cohn ex J. Schröt. **IF No:** 201627 **Trophic mode/ Guild:** saprotroph/undefined saprotroph



Fungi, Mucoromycota, Mucoromycotina, Umbelopsidomycetes, Incertae sedis, Umbelopsidales, Umbelopsidaceae  
**86. *Umbelopsis autotrophica*** (E.H. Evans) W. Gams **IF No:** 373417 **Trophic mode/ Guild:** saprotroph/undefined saprotroph



Fungi, Mucoromycota, Mucoromycotina, Umbelopsidomycetes, Incertae sedis, Umbelopsidales, Umbelopsidaceae  
**87. *Umbelopsis changbalensis*** Y.N. Wang, X.Y. Liu & R.Y. Zheng **IF No:** 803431 **Trophic mode/Guild:** saprotroph/ undefined saprotroph



Fungi, Mucoromycota, Mucoromycotina, Umbelopsidomycetes, Incertae sedis, Umbelopsidales, Umbelopsidaceae  
**88. *Umbelopsis dimorpha*** Mahoney & W. Gams **IF No:** 488621 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Mucoromycota, Mucoromycotina, Umbelopsidomycetes, Incertae sedis, Umbelopsidales, Umbelopsidaceae  
**89. *Umbelopsis isabellina*** (Oudem.) W. Gams **IF No:** 373416 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Mucoromycota, Mucoromycotina, Umbelopsidomycetes, Incertae sedis, Umbelopsidales, Umbelopsidaceae  
**90. *Umbelopsis ovata*** (H.Y. Yip) H.Y. Yip **IF No:** 103877 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Mucoromycota, Mucoromycotina, Umbelopsidomycetes, Incertae sedis, Umbelopsidales, Umbelopsidaceae  
**91. *Umbelopsis ramanniana*** (Möller) W. Gams **IF No:** 373415 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On soils cultivated with apple and peach |



Fungi, Mucoromycota, Mucoromycotina, Umbelopsidomycetes, Incertae sedis, Umbelopsidales, Umbelopsidaceae  
**92. *Umbelopsis vlnacea*** (Dixon-Stew.) Arx **IF No:** 115505 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Archaeosporales, Ambisporaceae  
**93. *Ambispora appendicula*** (Spain, Sieverd. & N.C. Schenck) C. Walker **IF No:** 511420 **Trophic mode/Guild:** symbiotroph /arbuscular mycorrhizal **Habitat:** In soil from native grasses and tropical kudzu | On soil in *Coffea arabica* plantations | Endomycorrhizal **Dept.:** CAU, MET, RIS **Uses:** EU

On soils in uncultivated field (intermediate between and woodland) | Saprotroph **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Archaeosporales, Ambisporaceae  
**94. *Ambispora fecundispora*** (N.C. Schenck & G.S. Sm.) C. Walker **IF No:** 511419 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal **Habitat:** Associated with rhizosphere of angleton grass **Hosts:** *Dichanthium aristatum* **Elev.:** 0–10 m **Dept.:** SUC



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Archaeosporales, Ambisporaceae  
**95. *Ambispora fennica*** C. Walker, Vestberg & A. Schüßler **IF No:** 510210 **Trophic mode/ Guild:** symbiotroph/ arbuscular mycorrhizal **Habitat:** From soil in *Coffea arabica* plantation, Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Archaeosporales, Ambisporaceae  
**96. *Ambispora leptoticha*** (N.C. Schenck & G.S. Sm.) C. Walker, Vestberg & A. Schüßler **IF No:** 510212 **Trophic mode/ Guild:** symbiotroph/ arbuscular mycorrhizal **Habitat:** On soil in *Coffea arabica* plantations | associated with rhizosphere of angleton grass (*Dichanthium*) **Hosts:** *Oenocarpus bacaba*; *Artocarpus altiss*; *Eugenia malacensis*; *Musa* sp.; *Axonopus scoparius*; *Inga edulis*; *Inga nobilis*; *Inga gracilocolo* **Distribution:** Pantropics **Elev.:** 0–1,600 m **Dept.:** CAQ, GUV, RIS, SUC, VID



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Archaeosporales, Archaeosporaceae  
**97. *Archaeospora myriocarpa*** (Spain, Sieverd. & N.C. Schenck) Oehl, G.A. Silva, B.T. Goto & Sieverd. **IF No:** 561657 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal **Habitat:** Native grasses | Endomycorrhiza **Distribution:** Pantropics **Dept.:** MET



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Archaeosporales, Archaeosporaceae  
**98. *Archaeospora schenkii*** (Sieverd. & S. Toro) C. Walker & A. Schüßler **IF No:** 560049 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal **Habitat:** On soil | in sugarcane field | on soil of banana crop | on soil in *Coffea arabica* plantations | Endomycorrhiza **Distribution:** Pantropics **Elev.:** 30 m **Dept.:** CUN, MAG, RIS, VAC



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Archaeosporales, Archaeosporaceae  
**99. *Archaeospora trappae*** (R.N. Ames & Linderman) J.B. Morton & D. Redecker **IF No:** 467737 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal **Habitat:** From soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Acaulosporaceae  
**100. *Acaulospora alpina*** Oehl, Sykorová & Sieverd. **IF No:** 501327 **Trophic mode/ Guild:** symbiotroph/arbuscular mycorrhizal **Habitat:** From soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Acaulosporaceae  
**101. *Acaulospora brasiliensis*** (B.T. Goto, L.C. Maia & Oehl) C. Walker, M. Krüger & A. Schüßler **IF No:** 518748 **Trophic mode/ Guild:** symbiotroph/arbuscular mycorrhizal **Habitat:** In soil of banana crop | Endomycorrhiza **Elev.:** 29–1,317 m **Dept.:** ANT, CUN



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Acaulosporaceae  
**102. *Acaulospora capsicula*** Blaszk. **IF No:** 127959 **Common name:** Trophic mode/Guild: symbiotroph/ arbuscular mycorrhizal **Habitat:** From soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



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Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Acaulosporaceae  
**103. *Acaulospora caverata*** Blaszk. IF No: 126646 **Trophic mode/Guild:** symbiotroph /arbuscular mycorrhizal **Habitat:** From soil in *Coffea arabica* plantations |  
 Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Acaulosporaceae  
**104. *Acaulospora colombiana*** (Spain & N.C. Schenck) Kaonongbua, J.B. Morton & Bever IF No: 515730 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal  
**Habitat:** In soil associated with cassava roots, native grasses, guamo, huito, balso, asaí, plantain, copoazú, pomarros, chilli, pan del árbol and cedro macho | Endomycorrhizal **Distribution:** Panotropics **Dept.:** AMA, CAQ, GUV, MET, RIS, VAU, VID **Uses:** EU



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Acaulosporaceae  
**105. *Acaulospora denticulata*** Sieverd. & S. Toro IF No: 131972 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal  
**Habitat:** From soil in *Coffea arabica* plantations | from garden soil | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Acaulosporaceae  
**106. *Acaulospora elegans*** Trappe & Gerd. IF No: 308076 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal  
**Habitat:** From soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Acaulosporaceae  
**107. *Acaulospora excavata*** Ingleby & C. Walker IF No: 361679 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal  
**Habitat:** In soil of banana crop | Endomycorrhiza **Elev.:** 29-1,317 m **Dept.:** ANT, CUN



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Acaulosporaceae  
**108. *Acaulospora foveata*** Trappe & Janos IF No: 109576 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal  
**Habitat:** In soils, in paddocks | From soil in *Coffea arabica* plantations | From garden soil | Endomycorrhiza **Distribution:** Panotropics **Dept.:** AMA, CAQ, GUA, GUV, PUT, RIS, VAU, VID **Uses:** EU



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Acaulosporaceae  
**109. *Acaulospora laevis*** Gerd. & Trappe IF No: 308078 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal  
**Habitat:** From soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Acaulosporaceae  
**110. *Acaulospora longula*** Spain & N.C. Schenck IF No: 105902 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal  
**Habitat:** In soil associated with native grasses | from soil in *Coffea arabica* | Endomycorrhiza **Distribution:** Endemic **Elev.:** 1,600 m **Dept.:** MET, RIS



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Acaulosporaceae  
**111. *Acaulospora mellea*** Spain & N.C. Schenck IF No: 105903 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal  
**Habitat:** In soils | In tropical savanna, associated to native grasses, cassava, plantain, coffee | Endomycorrhiza **Distribution:** Panotropics, Subtropics **Elev.:** 1,600 m **Dept.:** AMA, MET, RIS **Uses:** EU



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Acaulosporaceae  
**112. *Acaulospora morrowiae*** Spain & N.C. Schenck IF No: 105904 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal  
**Habitat:** In acid soils | In tropical savanna, associated to native grasses, under pastures and stubble covers, associated with legumes | from soil in coffee plantations | Endomycorrhiza **Distribution:** Panotropics **Elev.:** 1,600 m **Dept.:** AMA, CAQ, MET, RIS **Uses:** EU



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Acaulosporaceae  
**113. *Acaulospora paulinae*** Blaszk. IF No: 126652 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal  
**Habitat:** From soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Acaulosporaceae  
**114. *Acaulospora rehmlii*** Sieverd. & S. Toro IF No: 131973 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal  
**Habitat:** On soil | associated with *Inga* sp., *Eugenia stipitata*, *Capsicum* sp., *Ananas comosus*, *Cariniana pyriformis*, *Manihot esculenta*, *Mucuna*, *Anacardium occidentale* | from soil in *Coffea arabica* plantations | Endomycorrhiza **Distribution:** Panotropics, Endemic **Elev.:** 1,600 m **Dept.:** AMA, GUV, VAU, RIS



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Acaulosporaceae  
**115. *Acaulospora scrobiculata*** Trappe IF No: 308079 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal  
**Habitat:** In soil of banana crop | on soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 29-1,600 m **Dept.:** ANT, MAG, RIS



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Acaulosporaceae  
**116. *Acaulospora splinosa*** C. Walker & Trappe IF No: 112049 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal  
**Habitat:** From soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Acaulosporaceae  
**117. *Acaulospora splendida*** Sieverd., Chaverri & I. Rojas IF No: 134248 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal  
**Habitat:** From soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Acaulosporaceae  
**118. *Acaulospora tuberculata*** Janos & Trappe IF No: 109577 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal  
**Habitat:** On soil | associated with *Inga edulis*, *Abarema jupunba*, *Senna bacillaris*, *Inga fastuosa*, *Sacharum officinarum* | Endomycorrhiza **Hosts:** *Inga edulis*; *Abarema jupunba*; *Senna bacillaris*; *Inga fastuosa*; *Sacharum officinarum* **Distribution:** Panotropics **Dept.:** AMA, CAQ, GUV



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Acaulosporaceae  
**119. *Entrophospora infrequens*** (I.R. Hall) R.N. Ames & R.W. Schneid. IF No: 313899 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal  
**Habitat:** From soil in *Coffea arabica* plantations | On soils cultivated with peach | On soils in uncultivated field (intermediate between orchard and woodland) | On woodland soils | Endomycorrhiza **Elev.:** 1,600-2,900 m **Dept.:** BOY, RIS



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Acaulosporaceae  
**120. *Kukkospora kentzensis*** Oehl & Sieverd. IF No: 521374 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal  
**Habitat:** From soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Diversisporaceae  
**121. *Diversispora aurantia*** (Blaszk., Blanke, Renker & Buscot) C. Walker & A. Schüßler IF No: 518473 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal  
**Habitat:** From soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Diversisporaceae  
**122. *Diversispora epigaea*** (B.A. Daniels & Trappe) C. Walker & A. Schüßler IF No: 542916 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Diversisporaceae  
**123. *Diversispora spurca*** (C.M. Pfeiff., C. Walker & Bloss) C. Walker & A. Schüßler IF No: 487795 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Diversisporaceae  
**124. *Diversispora trimurales*** (Koske & Halvorsen) C. Walker & A. Schüßler IF No: 542919 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal  
**Habitat:** From soil in *Coffea arabica* plantations | associated with the rhizosphere of angleton grass | Endomycorrhiza **Hosts:** *Dichanthium aristatum* **Elev.:** 0-1,600 m **Dept.:** RIS, SUC



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Diversisporaceae  
**125. *Otospora bareae*** Palenz., N. Ferrol & Oehl IF No: 533135 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal  
**Habitat:** From soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Diversisporaceae  
**126. *Redeckera fulva*** (Berk. & Broome) C. Walker & A. Schüßler IF No: 633812 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal  
**Habitat:** Panotropics forest. Associated with rhizosphere of angleton grass | Endomycorrhiza **Hosts:** *Dichanthium aristatum* **Elev.:** 0-50 m **Dept.:** CHO, SUC



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Diversisporaceae  
**127. *Sieverdingia tortuosa*** (N.C. Schenck & G.S. Sm.) Blaszk., Niezgoda & B.T. Goto IF No: 832299 **Trophic mode/Guild:** /endomycorrhizal  
**Habitat:** On soils **Distribution:** Panotropics **Dept.:** AMA, CAQ, PUT **Uses:** EU



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Gigasporaceae  
**128. *Cetraspora armenica*** (Blaszk.) Oehl, F.A. Souza & Sieverd. IF No: 511961 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal  
**Habitat:** From soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Gigasporaceae  
**129. *Cetraspora gilmorei*** (Trappe & Gerd.) Oehl, F.A. Souza & Sieverd. IF No: 511958 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal  
**Habitat:** From soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS

CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Gigasporaceae  
**130. *Cetraspora pellucida*** (T.H. Nicolson & N.C. Schenck) Oehl, F.A. Souza & Sieverd.  
**IF No:** 511959 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal

**Habitat:** On sandy soils | Endomycorrhiza | In tropical rainforest  
**Distribution:** Pan tropics **Dept.:** AMA, VID **Uses:** EU



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Gigasporaceae  
**131. *Dentiscutata cerradensis*** Sieverd., F.A. Souza & Oehl **IF No:** 511973 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal **Habitat:** From soil in *Coffea arabica* plantation, Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Gigasporaceae  
**132. *Dentiscutata erythropus*** (Koske & C. Walker) C. Walker & D. Redecker **IF No:** 550090 **Trophic mode/Guild:** symbiotroph /arbuscular mycorrhizal **Habitat:** From soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Gigasporaceae  
**133. *Dentiscutata heterogama*** (T.H. Nicolson & Gerd.) Sieverd., F.A. Souza & Oehl **IF No:** 511975 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal

**Habitat:** From soil | Endomycorrhiza **Hosts:** *Desmodium ovalifolium*, *Paspalum notatum*, *Brachiaria dictyoneura*, *Arachis pintoi* **Elev.:** 366 m **Dept.:** MET



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Gigasporaceae  
**134. *Dentiscutata savannicola*** (R.A. Herrera & Ferrer) C. Walker & A. Schüßler **IF No:** 550803 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal

**Habitat:** From soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Gigasporaceae  
**135. *Fuscutata heterogama*** Oehl, F.A. Souza, L.C. Maia & Sieverd. **IF No:** 511964 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Gigasporaceae  
**136. *Gigaspora albida*** N.C. Schenck & G.S. Sm. **IF No:** 110688 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal

**Habitat:** Associated with rhizosphere of angleton grass **Hosts:** *Dichanthium aristatum* **Elev.:** 0–10 m **Dept.:** SUC



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Gigasporaceae  
**137. *Gigaspora decipiens*** I.R. Hall & L.K. Abbott **IF No:** 106158 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal

**Habitat:** Edomycorrhiza **Hosts:** *Manihot esculenta* **Distribution:** Pan tropics **Dept.:** CAQ



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Gigasporaceae  
**138. *Gigaspora gigantea*** (T.H. Nicolson & Gerd.) Gerd. & Trappe **IF No:** 314484 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Gigasporaceae  
**139. *Gigaspora margarita*** W.N. Becker & I.R. Hall **IF No:** 314488 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal

**Habitat:** From soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Gigasporaceae  
**140. *Scutellospora alboreosa*** (Ferrer & R.A. Herrera) C. Walker & F.E. Sanders **IF No:** 128411 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal

**Habitat:** From soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Gigasporaceae  
**141. *Scutellospora arancicola*** Koske & Halvorson **IF No:** 125545 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal **Habitat:** From soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Gigasporaceae  
**142. *Scutellospora blornata*** Spain, Sieverd. & S. Toro **IF No:** 125548 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Gigasporaceae  
**143. *Scutellospora calospora*** (T.H. Nicolson & Gerd.) C. Walker & F.E. Sanders **IF No:** 128413 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal

**Habitat:** From soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Gigasporaceae  
**144. *Scutellospora castanea*** C. Walker **IF No:** 357925 **Common name:** Trophic mode/Guild: symbiotroph/arbuscular mycorrhizal **Habitat:** Endomycorrhiza **Hosts:** *Manihot esculenta* **Distribution:** Pan tropics **Dept.:** CAQ



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Gigasporaceae  
**145. *Scutellospora dipallosa*** (C. Walker & Koske) C. Walker & F.E. Sanders **IF No:** 128415 **Trophic mode/Guild:** symbiotroph /arbuscular mycorrhizal



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Gigasporaceae  
**146. *Scutellospora fulgida*** Koske & C. Walker **IF No:** 128387 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Gigasporaceae  
**147. *Scutellospora nodosa*** Blaszk. **IF No:** 355274 **Trophic mode/Guild:** symbiotroph /arbuscular mycorrhizal **Habitat:** From soil in *Coffea arabica* | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Gigasporaceae  
**148. *Scutellospora prolecturata*** Kramad. & C. Walker **IF No:** 474413 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal **Habitat:** From soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Gigasporaceae  
**149. *Scutellospora scutata*** C. Walker & Dieder. **IF No:** 125549 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Diversisporales, Gigasporaceae  
**150. *Scutellospora spinosissima*** C. Walker & Cuenca **IF No:** 446696 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal **Habitat:** On soil | Endomycorrhiza **Distribution:** Pan tropics **Dept.:** AMA, CAQ



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Claroideoglomeraceae  
**151. *Claroideoglomerus claroideum*** (N.C. Schenck & G.S. Sm.) C. Walker & A. Schüßler **IF No:** 542407 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal

**Habitat:** From soil in *Coffea arabica* plantations | associated with the rhizosphere of angleton grass | Endomycorrhiza **Hosts:** *Dichanthium aristatum* **Elev.:** 0–1,600 m **Dept.:** RIS, SUC



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Claroideoglomeraceae  
**152. *Claroideoglomerus drummondii*** (Blaszk. & Renker) C. Walker & A. Schüßler **IF No:** 542893 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Claroideoglomeraceae  
**153. *Claroideoglomerus stunicatum*** (W.N. Becker & Gerd.) C. Walker & A. Schüßler **IF No:** 542892 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal

**Habitat:** From soil in *Coffea arabica* plantations | associated with the rhizosphere of angleton grass | Endomycorrhiza **Hosts:** *Dichanthium aristatum* **Elev.:** 0–1,600 m **Dept.:** RIS, SUC



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Claroideoglomeraceae  
**154. *Claroideoglomerus lamellosum*** (Dalpé, Koske & Tews) C. Walker & A. Schüßler **IF No:** 542891 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Claroideoglomeraceae  
**155. *Claroideoglomerus walkerii*** (Blaszk. & Renker) C. Walker & A. Schüßler **IF No:** 542493 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal

**Habitat:** From soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**156. *Domitilka aurea*** (Oehl & Sieverd.) Blaszk., Chwat, G.A. Silva & Oehl **IF No:** 809860 **Trophic mode/Guild:** /arbuscular mycorrhizal **Habitat:** From soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**157. *Funnelliformis coronatus*** (Giovann.) C. Walker & A. Schüßler **IF No:** 633808 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal **Habitat:** From soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**158. *Funnelliformis dimorphicus*** (Boyetchko & J.P. Tewari) Oehl, G.A. Silva & Sieverd. **IF No:** 518447 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal

**Habitat:** Associated with rhizosphere of angleton grass **Hosts:** *Dichanthium aristatum* **Elev.:** 0–10 m **Dept.:** SUC



Fungi, Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**159. *Funnelliformis fragilistratus*** (Skou & I. Jakobsen) C. Walker & A. Schüßler **IF No:** 633809 **Trophic mode/Guild:** symbiotroph /arbuscular mycorrhizal **Habitat:** associated with rhizosphere of angleton grass **Hosts:** *Dichanthium aristatum* **Elev.:** 0–10 m **Dept.:** SUC



CHECKLIST OF FUNGI OF COLOMBIA



Fungl. Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**160. *Funnelliformis gecosporus*** (T.H. Nicolson & Gerd.) C. Walker & A. Schüßler  
**IF No:** 633810 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal

**Habitat:** Associated with rhizosphere of angleton grass **Hosts:** *Dichanthium aristatum* **Elev.:** 0–10 m **Dept.:** SUC



Fungl. Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**161. *Funnelliformis mosseae*** (T.H. Nicolson & Gerd.) C. Walker & A. Schüßler **IF No:** 542895 **Trophic mode/Guild:** symbiotroph / arbuscular mycorrhizal **Habitat:** From soil in *Coffea arabica* plantations | On soils in uncultivated field (intermediate between orchard and woodland) | Coprophilous | Endomycorrhiza **Elev.:** 1,600–2,900 m **Dept.:** BOY, RIS



Fungl. Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**162. *Funnelliformis verruculosus*** (Blaszk.) C. Walker & A. Schüßler **IF No:** 633811 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal



Fungl. Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**163. *Glomus ambisporum*** G.S. Sm. & N.C. Schenck **IF No:** 105331 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal **Habitat:** From soil in *Coffea arabica*,

associated with rhizosphere of angleton grass endomycorrhiza **Hosts:** *Dichanthium aristatum* **Elev.:** 0–1,600 m **Dept.:** RIS, SUC



Fungl. Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**164. *Glomus atroviva*** McGee & Pattinson **IF No:** 374894 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal



Fungl. Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**165. *Glomus boreale*** (Thaxt.) Trappe & Gerd. **IF No:** 314586 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal **Habitat:** Associated with rhizosphere of

angleton grass **Hosts:** *Dichanthium aristatum* **Elev.:** 0–10 m **Dept.:** SUC



Fungl. Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**166. *Glomus brohultii*** R.A. Herrera, Ferrer & Sieverd. **IF No:** 545636 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal **Habitat:** In pasture,

agroforestry systems, stubble and forest | Associated with legumes | On soil in banana crop | On soil in coffee plantation | Endomycorrhiza **Distribution:** Panotropics **Elev.:** 29–1,600 m **Dept.:** AMA, ANT, CAQ, CUN, GUV, MAG, RIS **Uses:** EU



Fungl. Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**167. *Glomus citricola*** D.Z. Tang & M. Zang **IF No:** 106160 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal **Habitat:** From soil | Endomycorrhiza **Hosts:** *Brachiaria dictyoneura* **Elev.:** 366 m **Dept.:** MET



Fungl. Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**168. *Glomus flavisporum*** (M. Lange & E.M. Lund) Trappe & Gerd. **IF No:** 314594 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal **Habitat:** From soil

in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungl. Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**169. *Glomus glomerulatum*** Sieverd. **IF No:** 130437 **Trophic mode/Guild:** symbiotroph / arbuscular mycorrhizal **Habitat:** Endomycorrhiza **Distribution:** Panotropics

**Dept.:** AMA, CAQ, GUV, VID **Uses:** EU



Fungl. Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**170. *Glomus hal*** S.M. Berch **IF No:** 105333 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal



Fungl. Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**171. *Glomus kerguelense*** Dalpé & Strullu **IF No:** 384519 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal **Habitat:** From soil in *Coffea arabica*

plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungl. Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**172. *Glomus liquidambaris*** (C.G. Wu & Z.C. Chen) R.T. Almeida & N.C. Schenck ex Y.J. Yao **IF No:** 413123 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal

**Habitat:** From soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungl. Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**173. *Glomus macrocarpum*** Tul. & C. Tul. **IF No:** 240247 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal **Habitat:** On soil | Endomycorrhiza | From

soil in *Coffea arabica* plantations **Distribution:** Panotropics **Elev.:** 1,600 m **Dept.:** RIS **Uses:** EU



Fungl. Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**174. *Glomus microcarpum*** Tul. & C. Tul. **IF No:** 240095 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal **Habitat:** From soil in *Coffea arabica*

plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungl. Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**175. *Glomus multicaule*** Gerd. & B.K. Bakshi **IF No:** 314605 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal **Habitat:** Associated with rhizosphere of

angleton grass | Endomycorrhiza **Hosts:** *Dichanthium aristatum* **Elev.:** 0–10 m **Dept.:** SUC



Fungl. Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**176. *Glomus pallidum*** I.R. Hall **IF No:** 314606 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal **Habitat:** From soil in *Coffea arabica*

plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungl. Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**177. *Glomus radietum*** (Thaxt.) Trappe & Gerd. **IF No:** 314609 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal **Habitat:** Associated with rhizosphere of

angleton grass **Hosts:** *Dichanthium aristatum* **Elev.:** 0–10 m **Dept.:** SUC



Fungl. Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**178. *Glomus rubiforme*** (Gerd. & Trappe) R.T. Almeida & N.C. Schenck **IF No:** 127937 **Trophic mode/Guild:** symbiotroph / arbuscular mycorrhizal **Habitat:** On soil |

in grasslands, in forests or weeds | On soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** AMA, CAQ, RIS, PUT



Fungl. Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**179. *Glomus sinuosum*** (Gerd. & B.K. Bakshi) R.T. Almeida & N.C. Schenck **IF No:** 127939 **Trophic mode/Guild:** symbiotroph / arbuscular mycorrhizal **Habitat:** On soil in

tropical forests, not tropical with clay soils, desert ecosystems | Endomycorrhiza **Distribution:** Panotropics **Dept.:** AMA **Uses:** EU



Fungl. Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**180. *Glomus spinuliferum*** Sieverd. & Oehl **IF No:** 372534 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal **Habitat:** From soil in *Coffea arabica*

plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungl. Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**181. *Glomus taiwanense*** (C.G. Wu & Z.C. Chen) R.T. Almeida & N.C. Schenck ex Y.J. Yao **IF No:** 413124 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal

**Habitat:** From soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungl. Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**182. *Glomus tenebrosum*** (Thaxt.) S.M. Berch **IF No:** 106848 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal



Fungl. Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**183. *Oehlia diaphana*** (J.B. Morton & C. Walker) Blaszk., Kozłowska, Niezgodna, B.T. Goto & Dalpé **IF No:** 824693 **Habitat:** Associated with rhizosphere of angleton

grass **Hosts:** *Dichanthium aristatum* **Elev.:** 0–10 m **Dept.:** SUC



Fungl. Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**184. *Rhizoglyphus microaggregatum*** (Koske, Gemma & P. D. Olexia) Sieverd., G.A. Silva & Oehl **IF No:** 803200 **Trophic mode/Guild:** symbiotroph/ arbuscular

mycorrhizal **Habitat:** Associated with the rhizosphere | Endomycorrhiza **Hosts:** *Capsicum* sp. **Distribution:** Panotropics **Dept.:** AMA, CAQ, GUV, VID



Fungl. Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**185. *Rhizoglyphus vesiculiferum*** (Thaxt.) Blaszk., Kozłowska, Niezgodna, B.T. Goto & Dalpé **IF No:** 824697 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal

**Habitat:** From soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungl. Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**186. *Rhizoglyphus aggregatus*** (N.C. Schenck & G.S. Sm.) C. Walker **IF No:** 551756 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal

**Habitat:** From soil in *Coffea arabica* plantations | associated with the rhizosphere of angleton grass | Endomycorrhiza **Hosts:** *Dichanthium aristatum* **Elev.:** 0–1,600 m **Dept.:** RIS, SUC



Fungl. Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**187. *Rhizoglyphus clarus*** (T.H. Nicolson & N.C. Schenck) C. Walker & A. Schüßler **IF No:** 542906 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal

**Habitat:** On soil, associated to plant roots | Associated with the rhizosphere of angleton grass | Endomycorrhiza **Hosts:** *Dichanthium aristatum* **Distribution:** Global Distribution **Elev.:** 0–10 m **Dept.:** CAQ, SUC **Uses:** EU



Fungl. Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**188. *Rhizoglyphus fasciculatus*** (Thaxt.) C. Walker & A. Schüßler **IF No:** 542909 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal

**Habitat:** Associated with rhizosphere of angleton grass **Hosts:** *Dichanthium aristatum* **Elev.:** 0–10 m **Dept.:** SUC



Fungl. Glomeromycota, Glomeromycotina, Glomeromycetes, Incertae sedis, Glomerales, Glomeraceae  
**189. *Rhizoglyphus intraradices*** (N.C. Schenck & G.S. Sm.) C. Walker & A. Schüßler **IF No:** 542910 **Trophic mode/Guild:** symbiotroph/ arbuscular

mycorrhizal **Habitat:** On soil, associated to roots of papaya tomato, corn, strawberry, celery, carrot, barley, oats | Endomycorrhiza **Distribution:** Global Distribution **Dept.:** CAQ **Uses:** EU

CHECKLIST OF FUNGI OF COLOMBIA



Fungl. Glomeromycota. Glomeromycotina. Glomeromycetes. Incertae sedis. Glomerales. Glomeraceae  
**190. *Rhizophagus invernalis*** (I.R. Hall) C. Walker **IF No:** 551829 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal **Habitat:** Associated with rhizosphere of angleton grass **Hosts:** *Dichanthium aristatum* **Elev.:** 0–10 m **Dept.:** SUC



Fungl. Glomeromycota. Glomeromycotina. Glomeromycetes. Incertae sedis. Glomerales. Glomeraceae  
**191. *Rhizophagus manihotis*** (R.H. Howeler, Sieverd. & N.C. Schenck) C. Walker & A. Schüßler **IF No:** 542913 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal **Habitat:** On soil | Endomycorrhiza **Distribution:** Panotropics **Dept.:** CAQ **Uses:** EU



Fungl. Glomeromycota. Glomeromycotina. Glomeromycetes. Incertae sedis. Glomerales. Glomeraceae  
**192. *Rhizophagus prolifer*** (Dalpé & Declerck) C. Walker & A. Schüßler **IF No:** 548410 **Trophic mode/Guild:** symbiotroph /arbuscular mycorrhizal **Habitat:** From soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungl. Glomeromycota. Glomeromycotina. Glomeromycetes. Incertae sedis. Glomerales. Glomeraceae  
**193. *Septogloium deserticola*** (Trappe, Bloss & J.A. Menge) G.A. Silva, Oehl & Sieverd. **IF No:** 518463 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal **Habitat:** From soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungl. Glomeromycota. Glomeromycotina. Glomeromycetes. Incertae sedis. Glomerales. Glomeraceae  
**194. *Septogloium viscosum*** (T.H. Nicolson) C. Walker, D. Redecker, Stille & A. Schüßler **IF No:** 550089 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal **Habitat:** On soils | Endomycorrhiza **Distribution:** Panotropics **Dept.:** AMA, CAQ, GUV **Uses:** EU



Fungl. Glomeromycota. Glomeromycotina. Glomeromycetes. Incertae sedis. Glomerales. Glomeraceae  
**195. *Septogloium xanthum*** (Blaszk., Blanke, Renker & Buscot) G.A. Silva, Oehl & Sieverd. **IF No:** 518464 **Trophic mode/Guild:** symbiotroph/arbuscular mycorrhizal **Habitat:** From soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungl. Glomeromycota. Glomeromycotina. Glomeromycetes. Incertae sedis. Paraglomerales. Paraglomeraceae  
**196. *Paragloium brasilianum*** (Spain & J. Miranda) J.B. Morton & D. Redecker **IF No:** 467741 **Trophic mode/Guild:** symbiotroph /arbuscular mycorrhizal **Habitat:** From soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungl. Glomeromycota. Glomeromycotina. Glomeromycetes. Incertae sedis. Paraglomerales. Paraglomeraceae  
**197. *Paragloium laccatum*** (Blaszk.) Renker, Blaszk. & Buscot **IF No:** 510048 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal **Habitat:** From soil in *Coffea arabica* plantations | Endomycorrhiza **Elev.:** 1,600 m **Dept.:** RIS



Fungl. Glomeromycota. Glomeromycotina. Glomeromycetes. Incertae sedis. Paraglomerales. Paraglomeraceae  
**198. *Paragloium occultum*** (C. Walker) J.B. Morton & D. Redecker **IF No:** 467740 **Trophic mode/Guild:** symbiotroph/ arbuscular mycorrhizal **Habitat:** From soil in *Coffea arabica* plantations | associated with the rhizosphere of angleton grass | Endomycorrhiza **Hosts:** *Dichanthium aristatum* **Elev.:** 0–1,600 m **Dept.:** RIS, SUC **Uses:** EU



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Debaryomycetaceae  
**199. *Meyerozyma caribbica*** (Vaughan-Mart., Kurtzman, S.A. Mey, & E.B. O'Neill) Kurtzman & M. Suzuki **IF No:** 513462 **Trophic mode/Guild:** symbiotroph/epiphyte **Habitat:** Isolated from pulps of mango | Saprotriph **Dept.:** VAC



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Debaryomycetaceae  
**200. *Meyerozyma carophila*** (Phaff & M.W. Mill) Yurkov & G. Péter **IF No:** 821665 **Trophic mode/Guild:** saprotroph/ **Habitat:** Isolated from pulps of mango | Saprotriph **Dept.:** VAC



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Debaryomycetaceae  
**201. *Meyerozyma guilliermondii*** (Wick.) Kurtzman & M. Suzuki **IF No:** 513463 **Trophic mode/Guild:** pathotroph/ animal pathogen **Habitat:** Saprotriph yeast **Distribution:** Global Distribution **Dept.:** VAC **Uses:** FU, HF



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Dipodascaceae  
**202. *Dipodascus albidus*** Lagerh. **IF No:** 246592 **Habitat:** Isolated from pulps of mango | Saprotriph **Dept.:** VAC



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Dipodascaceae  
**203. *Dipodascus geotrichum*** (E.E. Butler & L.J. Petersen) Arx **IF No:** 313244 **Trophic mode/Guild:** saprotroph/ **Habitat:** Isolated from milk and milk-related products | It is occasionally encountered as an opportunist e.g. in the human digestive tract | Saprotriph **Distribution:** Global Distribution **Dept.:** VAC **Uses:** HF



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Dipodascaceae  
**204. *Dipodascus tetrasporus*** Nagah. & Abdel-Wahab **IF No:** 533142 **Habitat:** Isolated from milk and milk-related products | It is occasionally encountered as an opportunist e.g. in the human digestive tract | Saprotriph **Distribution:** Global Distribution **Dept.:** VAC **Uses:** HF



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Dipodascaceae  
**205. *Saprochaete capitata*** (Diddens & Lodder) de Hoog & M.T. Sm. **IF No:** 500139 **Trophic mode/Guild:** saprotroph/



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Dipodascaceae  
**206. *Saprochaete suaveolens*** (Krzemacki) de Hoog & M.T. Sm. **IF No:** 500140 **Trophic mode/Guild:** saprotroph/



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Dipodascaceae  
**207. *Yarrowia lipolytica*** (Wick., Kurtzman & Herman) Van der Walt & Arx **IF No:** 108643 **Trophic mode/Guild:** saprotroph/ undefined saprotroph **Habitat:** Substrates containing lipid and hydrocarbon compounds such as oily food and natural environments like oil fields | Saprotriph **Distribution:** Global Distribution **Dept.:** VAC **Uses:** HF



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Metschnikowiaceae  
**208. *Clavispora lusitanae*** Rodr. Mir. **IF No:** 111257 **Trophic mode/Guild:** saprotroph/ **Habitat:** Isolated from pulps of mango and rose apple ("pomaroso") | Saprotriph **Dept.:** VAC



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Metschnikowiaceae  
**209. *Metschnikowia hawaiiiana*** (Lachance, J.M. Bowles & Starmer) Lachance **IF No:** 823539 **Habitat:** Isolated from pulps of mango and rose apple ("pomaroso") | Saprotriph **Dept.:** VAC



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Metschnikowiaceae  
**210. *Metschnikowia koreensis*** S.G. Hong, J. Chun, H.W. Oh & Bae **IF No:** 484845 **Habitat:** Isolated from pulps of mango and rose apple ("pomaroso") | Saprotriph **Dept.:** VAC



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Metschnikowiaceae  
**211. *Metschnikowia kunwilensis*** (S.G. Hong, Bae, M. Herzberg, Titze & Lachance) Brysch-Herzb. **IF No:** 368642 **Trophic mode/Guild:** pathotroph/



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Metschnikowiaceae  
**212. *Metschnikowia pulcherrima*** Pitt & M.W. Mill. **IF No:** 334124 **Habitat:** Isolated from pulps of mango and rose apple ("pomaroso") | Saprotriph **Dept.:** VAC



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Saccharomycetaceae  
**213. *Debaryomyces delbrueckii*** (Lindner) Kudryavtsev **IF No:** 329721 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Widely distributed in nature and has been isolated from soil, fermenting grapes and other berry juices, agave juice, tea-beer and tree bark | Saprotriph **Dept.:** VAC **Uses:** HF



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Saccharomycetaceae  
**214. *Debaryomyces hansenii*** (Zopf) Lodder & Kreger-van Rij **IF No:** 296478 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Saccharomycetaceae  
**215. *Debaryomyces nepalensis*** Goto & Sugiy. **IF No:** 329727 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Saccharomycetaceae  
**216. *Debaryomyces prosopidis*** Phaff, Vaughan-Mart. & Starmer **IF No:** 446521 **Trophic mode/Guild:** saprotroph/ undefined saprotroph



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Saccharomycetaceae  
**217. *Dekkera anomala*** M.T. Sm. & Grinsven **IF No:** 114123 **Trophic mode/Guild:** saprotroph/ **Habitat:** Food, from spoiled carbonated, fruit-based soft drinks | Saprotriph **Distribution:** Global Distribution **Dept.:** VAC **Uses:** HF



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Saccharomycetaceae  
**218. *Issatchenkia orientalis*** Kudryavtsev **IF No:** 332662 **Trophic mode/Guild:** pathotroph, symbiotroph/animal pathogen, animal endosymbiont **Habitat:** Isolated from fruit juice, tea, beer, fermented foods | Saprotriph yeast **Dept.:** VAC **Uses:** HF



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Saccharomycetaceae  
**219. *Issatchenkia terricola*** (Van der Walt) Kurtzman, M.J. Smiley & C.J. Johnson **IF No:** 108093 **Trophic mode/Guild:** pathotroph, symbiotroph/ animal pathogen, animal endosymbiont



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**220. *Kazachstanla exigua*** Kurtzman IF No: 486276 **Trophic mode/Guild:** saprotroph/  
**Habitat:** Diverse food sources | Saprotroph  
**Dept.:** VAC **Uses:** HF



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**221. *Kazachstanla martiniae*** (S.A. James, J.P. Cai, I.N. Roberts & M.D. Collins) Kurtzman IF No: 487696 **Trophic mode/Guild:** saprotroph/  
**Habitat:** Saprotroph  
**Distribution:** Pantropics **Dept.:** VAC **Uses:** HF



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**222. *Kazachstanla unispora*** (A. Jörg) Kurtzman IF No: 487655



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**223. *Kluyveromyces lactis*** (Stell.-Dekk.) Van der Walt IF No: 316059 **Trophic mode/Guild:** saprotroph, symbiotroph/endophyte, undefined saprotroph



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**224. *Kluyveromyces marxianus*** (E.C. Hansen) Van der Walt IF No: 316062 **Trophic mode/Guild:** saprotroph, symbiotroph/endophyte, undefined saprotroph  
**Habitat:** Foods and beverages, especially dairy products | In decaying plant tissue and associated insects | Saprotroph yeast  
**Distribution:** Global Distribution **Dept.:** VAC, ANT **Uses:** HF



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**225. *Komagataella pastoris*** (Guillerm.) Y. Yamada, M. Matsuda, K. Maeda & Mikata IF No: 415539



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**226. *Kurtzmanella cleridarum*** Lachance & Starmer IF No: 511088



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**227. *Kurtzmanella natalensis*** (Van der Walt & Tschuschner) C.A. Rosa, Casareg. & Lachance IF No: 827405 **Trophic mode/Guild:** saprotroph/  
**Habitat:** Isolated from pulps of mango | Saprotroph **Dept.:** VAC



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**228. *Lachancea fermentati*** (Kurtzman) IF No: 487627 **Trophic mode/Guild:** saprotroph/  
**Habitat:** Isolated from sediment of a peppermint beverage, from oak tree, from fruit fly, from fermented beverages | Saprotroph yeast **Dept.:** VAC **Uses:** HF



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**229. *Marthozyma asiatica*** Kurtzman IF No: 812063



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**230. *Pichia fermentans*** Lodder IF No: 252130 **Trophic mode/Guild:** pathotrophy/animal pathogen  
**Habitat:** From cheese, butter, orange juice, as well as isolated from some clinical specimens such as sputum | Saprotroph **Distribution:** Global Distribution **Dept.:** VAC **Uses:** HF



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**231. *Pichia kluyveri*** Bedford ex Kudryavtsev IF No: 289695 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal endosymbiont, animal pathogen, plant pathogen, undefined saprotroph



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**232. *Pichia kudryavzevii*** Boidin, Pignal & Besson IF No: 337013 **Trophic mode/Guild:** pathotrophy/animal pathogen



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**233. *Pichia mandshurica*** Saito IF No: 456437 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal endosymbiont, animal pathogen, plant pathogen, undefined saprotroph



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**234. *Pichia membranifaciens*** (E.C. Hansen) E.C. Hansen IF No: 227217 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal endosymbiont, animal pathogen, plant pathogen, undefined saprotroph



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**235. *Pichia nakasei*** J.A. Barnett, R.W. Payne & Yarrow IF No: 115390 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal endosymbiont, animal pathogen, plant pathogen, undefined saprotroph



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**236. *Pichia norvegensis*** Leask & Yarrow IF No: 320514 **Trophic mode/Guild:** pathotrophy/animal pathogen



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**237. *Pichia occidentalis*** (Kurtzman, M.J. Smiley & C.J. Johnson) Kurtzman, Robnett & Bas.-Powers IF No: 509647 **Trophic mode/Guild:** pathotrophy/animal pathogen



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**238. *Pichia terricola*** Van der Walt IF No: 303642 **Trophic mode/Guild:** pathotroph/animal pathogen  
**Habitat:** Isolated from pulps of rose apple ("pomarrosa") | Saprotroph **Dept.:** VAC



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**239. *Saccharomyces cerevisiae*** (Desm.) Meyen IF No: 492348 **Trophic mode/Guild:** saprotroph/  
**Habitat:** Saprotroph yeast **Distribution:** Global Distribution **Uses:** FU, GS, HF



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**240. *Saccharomyces fermentati*** (Saito) Lodder & Kreger-van Rij IF No: 305451 **Trophic mode/Guild:** saprotroph/



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**241. *Saturnispora diversa*** (Ohara, Nonom. & Yunome ex van Uden & Buckley) Kurtzman IF No: 812065 **Trophic mode/Guild:** saprotroph/  
**Habitat:** Isolated from pulps of mango | Saprotroph **Dept.:** VAC



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**242. *Schwannomyces polymorphus*** (Klöcker) M. Suzuki & Kurtzman IF No: 513478



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**243. *Torulaspora globosa*** (Klöcker) Van der Walt & Johannsen IF No: 324725



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**244. *Torulaspora pretoriensis*** (Van der Walt & Tschuschner) Van der Walt & Johannsen IF No: 324735



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**245. *Zygosaccharomyces bisporus*** H. Nagan. IF No: 433575 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**246. *Zygosaccharomyces rouxii*** (Boutroux) Yarrow IF No: 325702 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**247. *Zygosaccharomyces siamensis*** Saks., M. Suzuki, Chantaw., Ohkuma & Lumyong IF No: 560926 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**248. *Hanseniaspora guilliermondii*** Pijper IF No: 266661 **Trophic mode/Guild:** pathotroph/  
**Habitat:** Saprotroph yeast **Distribution:** Global Distribution **Dept.:** VAC **Uses:** HF



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**249. *Hanseniaspora opuntiae*** Cadež, Foot, Raspor & M.T. Sm. IF No: 488270 **Trophic mode/Guild:** pathotroph/  
**Habitat:** Isolated from pulps of mango and pomarrosa | Saprotroph **Dept.:** VAC



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**250. *Hanseniaspora pseudoguilliermondii*** Cadež, Raspor & M.T. Sm. IF No: 521363 **Trophic mode/Guild:** pathotroph/



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**251. *Hanseniaspora thalindica*** Jindam., Ninomiya, Limtong, H. Kawas. & Nakase IF No: 514508 **Trophic mode/Guild:** pathotroph/  
**Habitat:** Isolated from pulps of mango and rose apple ("pomarrosa") | Saprotroph **Dept.:** VAC



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Saccharomycetaceae  
**252. *Hanseniaspora uvarum*** (Niehaus) Shehata, Mrak & Phaff ex M.T. Sm. IF No: 530461 **Trophic mode/Guild:** pathotroph/animal pathogen  
**Habitat:** Isolated from soil, insects, fruits and fermented products | From marine and freshwater ecosystem | Isolated from pulps of rose apple ("pomarrosa") | Saprotroph **Distribution:** Global Distribution **Dept.:** VAC **Uses:** HF

CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Trichomonasaceae  
253. *Blastobotrys chiropterorum* (Grose & Marink.) Kurtzman & Robnett IF No: 530154



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Trichomonasaceae  
254. *Sugiyamaella smithiae* (Jim.-Jurado) Kurtzman & Robnett IF No: 528979



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Trichomonasaceae  
255. *Trichomonascus ciferrii* (M.T. Sm., Van der Walt & Johannsen) Kurtzman & Robnett IF No: 530083 Trophic mode/Guild: pathotrophy/animal pathogen



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Trichomonasaceae  
256. *Wickerhamiella azyma* (Van der Walt, Johannsen & Yarrow) C. Vega & Lachance IF No: 815719



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Trichomonasaceae  
257. *Wickerhamiella pararugosa* (Nakase, Komag. & Fukaz.) de Vega & Lachance IF No: 815736 Trophic mode/Guild: pathotrophy



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Trichomonasaceae  
258. *Wickerhamiella paracyma* (Lachance) C. Vega & Lachance IF No: 815737



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Trichomonasaceae  
259. *Wickerhamiella sergipiensis* (R.C. Trindade, M.A. Resende, Lachance & C.A. Rosa) C. Vega & Lachance IF No: 815738 Trophic mode/Guild: pathotrophy



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Trichomonasaceae  
260. *Wickerhamiella vanderwaltii* (Vidal-Leir.) C. Vega & Lachance IF No: 815741



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Trichomonasaceae  
261. *Wickerhamiella versatilis* (Etschells & T.A. Bell) de Vega & Lachance IF No: 815742



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Wickerhamomycetaceae  
262. *Barnettozyma pratensis* (Babeva & Reshetova) Kurtzman, Robnett & Bas.-Powers IF No: 508432 Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Wickerhamomycetaceae  
263. *Wickerhamomyces anomalus* (E.C. Hansen) Kurtzman, Robnett & Bas.-Powers IF No: 508390 Trophic mode/Guild: pathotrophy/animal pathogen



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Wickerhamomycetaceae  
264. *Wickerhamomyces onychis* (Yarrow) Kurtzman, Robnett & Bas.-Powers IF No: 508399 Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Wickerhamomycetaceae  
265. *Wickerhamomyces pliperi* (Van der Walt & Tscheuschner) Kurtzman, Robnett & Bas.-Powers IF No: 508400 Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Incertae sedis  
266. *Candida africana* H.-J. Tietz, Hopp, Schmalreck, Sterry & Czaika IF No: 374337 Trophic mode/Guild: pathotroph



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Incertae sedis  
267. *Candida albicans* (C.P. Robin) Berkhout IF No: 256187 Trophic mode/Guild: pathotrophy/animal pathogen  
Habitat: Isolated from pulps of rose apple, Saprotoph Dept.: VAC



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Incertae sedis  
268. *Candida asparagi* F.Y. Bai & H.Z. Lu IF No: 371357 Trophic mode/Guild: pathotrophy



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Incertae sedis  
269. *Candida auris* Satoh & Makimura IF No: 508967 Trophic mode/Guild: pathotrophy/animal pathogen



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Incertae sedis  
270. *Candida boidinii* C. Ramirez IF No: 344025 Trophic mode/Guild: pathotrophy



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Incertae sedis  
271. *Candida braccarensis* A. Correia, P. Samp., S.A. James & C. Pais IF No: 357201 Trophic mode/Guild: pathotrophy/ animal pathogen



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Incertae sedis  
272. *Candida cabralensis* Florez, Belloch, Alv.-Martin, Querol & B. Mayo IF No: 516973 Trophic mode/Guild: pathotroph



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Incertae sedis  
273. *Candida dubliniensis* D.J. Sullivan, Western., K.A. Haynes, Des.E. Benn. & D.C. Coleman IF No: 254786 Trophic mode/Guild: pathotroph



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Incertae sedis  
274. *Candida ethanolicia* Rybářová, Štros & Kock.-Krat. IF No: 111180 Trophic mode/Guild: pathotroph



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Incertae sedis  
275. *Candida glabrata* (H.W. Anderson) S.A. Mey. & Yarrow IF No: 310265 Trophic mode/Guild: pathotroph, saprotroph/animal pathogen, undefined saprotroph



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Incertae sedis  
276. *Candida haemulonii* (Uden & Kolip.) S.A. Mey. & Yarrow IF No: 634000 Trophic mode/Guild: pathotroph



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Incertae sedis  
277. *Candida inconspicua* (Lodder & Kreger-van Rij) S.A. Mey. & Yarrow IF No: 310280 Trophic mode/Guild: pathotrophy/animal pathogen



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Incertae sedis  
278. *Candida intermedia* (Cif. & Ashford) Langeron & Guerra IF No: 252746 Trophic mode/Guild: pathotroph



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Incertae sedis  
279. *Candida jarrowii* Imanishi, Jindam., Mikata, Nagak., Potach, Tantich, & Nakase IF No: 511065 Trophic mode/Guild: pathotroph  
Habitat: Isolated from pulps of mango | Saprotoph Dept.: VAC



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Incertae sedis  
280. *Candida leandrae* Ruivo, Pagnocca, Lachance & C.A. Rosa IF No: 369197 Trophic mode/Guild: pathotroph



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Incertae sedis  
281. *Candida maltosa* Komag., Nakase & Katsuya IF No: 327445 Trophic mode/Guild: pathotrophy/ Habitat: Saprotoph yeast Distribution Dept.: VAC Uses: HF



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Incertae sedis  
282. *Candida metapsilosis* Tavanti, A. Davidson, Gow, M. Maiden & Odds IF No: 500210 Trophic mode/Guild: pathotroph



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Incertae sedis  
283. *Candida nivarensis* Alcoba-Florez, Méndez-Alv., Cano, Guarro, Pérez-Roth & Arévalo IF No: 357391 Trophic mode/Guild: pathotroph



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Incertae sedis  
284. *Candida orthopsilosis* Tavanti, A. Davidson, Gow, M. Maiden & Odds IF No: 500209 Trophic mode/Guild: pathotroph



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Incertae sedis  
285. *Candida parapsilosis* (Ashford) Langeron & Talice IF No: 253819 Trophic mode/Guild: pathotrophy/animal pathogen  
Habitat: On fruits | Saprotoph yeast Distribution Dept.: VAC, ANT Uses: HF



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Incertae sedis  
286. *Candida pseudointermedia* Nakase, Komag. & Fukaz. IF No: 310325 Trophic mode/Guild: pathotrophy/ Habitat: Saprotoph yeast Dept.: VAC Uses: HF



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Incertae sedis  
287. *Candida pseudolabica* M.T. Sm. & Poot IF No: 125461 Trophic mode/Guild: pathotroph



Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetidae, Saccharomycetales, Incertae sedis  
288. *Candida raiensis* C. Ramirez & A.E. González IF No: 105982 Trophic mode/Guild: pathotrophy/animal pathogen



CHECKLIST OF FUNGI OF COLOMBIA



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Incertae sedis  
**289. *Candida sake*** (Saito & M. Ota) Uden & H.R. Buckley ex S.A. Mey. & Ahearn  
 IF No: 283382 **Trophic mode/Guild:** pathotroph



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Incertae sedis  
**290. *Candida solaris*** Lodder & Kreger-van Rij  
 IF No: 294048 **Trophic mode/Guild:** pathotroph



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Incertae sedis  
**291. *Candida tropicalis*** (Castell.) Berkhout  
 IF No: 280770 **Trophic mode/ Guild:** pathotroph, saprotroph, symbiotroph/ animal pathogen, endophyte, undefined saprotroph  
**Habitat:** Isolated from fermented drinks, from Kefyr, from soil, from humans | Saprotroph yeast. Pathogen  
**Dept.:** ANT  
**Uses:** HF



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Incertae sedis  
**292. *Cyberlindnera saturnus*** (Klöcker) Minter  
 IF No: 534394



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Incertae sedis  
**293. *Diutina catenulata*** (Diddens & Lodder) Khunnamw., Lertwatt., Jindam., Limtong & Lachance  
 IF No: 813778



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Incertae sedis  
**294. *Diutina rugosa*** (H.W. Anderson) Khunnamw., Jindam., Limtong & Lachance  
 IF No: 813768 **Trophic mode/Guild:** pathotroph/ animal pathogen



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Incertae sedis  
**295. *Hypophichia burtonii*** (Boidin, Pignal, Lehodey, Vey & Abadie) Arx & Van der Walt  
 IF No: 315565



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Incertae sedis  
**296. *Kodamaea ohmeri*** (Etschells & T.A. Bell) Y. Yamada, Tom. Suzuki, M. Matsuda & Mikata  
 IF No: 436311 **Trophic mode /Guild:** pathotroph/animal pathogen



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Incertae sedis  
**297. *Nakazawaea pomicola*** (Kurtzman, Robnett & Yarrow) Kurtzman & Robnett  
 IF No: 809130



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Incertae sedis  
**298. *Starmerella apicola*** (Hajsig) C.A. Rosa & Lachance  
 IF No: 823610 **Trophic mode/ Guild:** saprotroph



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Incertae sedis  
**299. *Starmerella bombicola*** C.A. Rosa & Lachance  
 IF No: 446948 **Trophic mode/ Guild:** saprotroph



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Incertae sedis  
**300. *Starmerella cellae*** (Pimentel, Lachance & C.A. Rosa) C.A. Rosa & Lachance  
 IF No: 823615 **Trophic mode/Guild:** saprotroph



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Incertae sedis  
**301. *Starmerella magnoliae*** (Lodder & Kreger-van Rij) C.A. Rosa & Lachance  
 IF No: 823639 **Trophic mode/Guild:** saprotroph



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Incertae sedis  
**302. *Starmerella melloninorum*** A.C.P. Teixeira, M.M. Marini, Lachance & C.A. Rosa  
 IF No: 489471 **Trophic mode/Guild:** saprotroph



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Saccharomycetales. Incertae sedis  
**303. *Starmerella sorbosivorens*** (S.A. James, C.J. Bond & I.N. Roberts) C.A. Rosa & Lachance  
 IF No: 823645 **Trophic mode/Guild:** saprotroph



Fungl. Ascomycota. Saccharomycotina. Saccharomycetes. Saccharomycetidae. Incertae sedis. Saccharomycodaceae  
**304. *Nadsonia fulvescens*** (Nadson & Konok.) Syd.  
 IF No: 229742



Fungl. Ascomycota. Taphrinomycotina. Pneumocystomycetes. Pneumocystomycetidae. Pneumocystales. Pneumocystaceae  
**305. *Pneumocystis jirovecii*** Frenkel  
 IF No: 450385 **Trophic mode/Guild:** pathotroph/ animal pathogen



Fungl. Ascomycota. Taphrinomycotina. Schizosaccharomycetes. Schizosaccharomycetidae. Schizosaccharomycetales. Schizosaccharomycetales. Schizosaccharomycetales  
**306. *Schizosaccharomyces pombe*** Lindner  
 IF No: 212377



Fungl. Ascomycota. Taphrinomycotina. Taphrinomycetes. Taphrinomycetidae. Taphrinales. Taphrinaceae  
**307. *Taphrina deformans*** (Berk.) Tul. IF No: 234886 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungl. Ascomycota. Pezizomycotina. Arthoniomycetes. Arthoniomycetidae. Arthoniales. Arthoniaceae  
**308. *Amazonomyces farkaslae*** (Lücking) Lücking, Sérus. & G. Thor  
 IF No: 443803 **Trophic mode/Guild:** symbiotroph/lichenised



Fungl. Ascomycota. Pezizomycotina. Arthoniomycetes. Arthoniomycetidae. Arthoniales. Arthoniaceae  
**309. *Amazonomyces sprucei*** (R. Sant.) Lücking, Sérus. & G. Thor  
 IF No: 443802 **Trophic mode/Guild:** symbiotroph/lichenised

**region:** Pacific **Distribution:** Colombia, Costa Rica, Native **Elev.:** 35–450 m **Dept.:** CHO, NAR

**region:** Amazonia **Distribution:** Neotropics, Native **Elev.:** 250 m **Dept.:** CAQ



Fungl. Ascomycota. Pezizomycotina. Arthoniomycetes. Arthoniomycetidae. Arthoniales. Arthoniaceae  
**310. *Arthonia abnormis*** (Ach.) Nyl. IF No: 376283 **Trophic mode/Guild:** symbiotroph/lichenised



Fungl. Ascomycota. Pezizomycotina. Arthoniomycetes. Arthoniomycetidae. Arthoniales. Arthoniaceae  
**311. *Arthonia accoloris*** Stirt. IF No: 376284 **Trophic mode/ Guild:** symbiotroph/ lichenised



Fungl. Ascomycota. Pezizomycotina. Arthoniomycetes. Arthoniomycetidae. Arthoniales. Arthoniaceae  
**312. *Arthonia aciniformis*** Stirt. IF No: 376286 **Trophic mode/ Guild:** symbiotroph /lichenised

**region:** Amazonia, Pacific **Distribution:** Panotropics, Native **Elev.:** 35–300 m **Dept.:** AMA, CAQ, CHO, NAR

**region:** Amazonia, Pacific **Distribution:** Panotropics, Native **Elev.:** 35–600 m **Dept.:** AMA, CAQ, CHO, MET, NAR



Fungl. Ascomycota. Pezizomycotina. Arthoniomycetes. Arthoniomycetidae. Arthoniales. Arthoniaceae  
**313. *Arthonia adpersa*** (Mont.) Kremp. IF No: 534977 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics, Native **Elev.:** 1,100 m **Dept.:** CUN



Fungl. Ascomycota. Pezizomycotina. Arthoniomycetes. Arthoniomycetidae. Arthoniales. Arthoniaceae  
**314. *Arthonia ambigua*** Nyl. IF No: 376312 **Trophic mode/ Guild:** symbiotroph/lichenised



Fungl. Ascomycota. Pezizomycotina. Arthoniomycetes. Arthoniomycetidae. Arthoniales. Arthoniaceae  
**315. *Arthonia analogella*** Nyl. IF No: 376317 **Trophic mode/ Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 1,200 m **Dept.:** SAN **Conservation:** DD



Fungl. Ascomycota. Pezizomycotina. Arthoniomycetes. Arthoniomycetidae. Arthoniales. Arthoniaceae  
**316. *Arthonia antillarum*** (Fée) Nyl. IF No: 376322 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics, Native **Elev.:** 2,100 m **Dept.:** CUN



Fungl. Ascomycota. Pezizomycotina. Arthoniomycetes. Arthoniomycetidae. Arthoniales. Arthoniaceae  
**317. *Arthonia arthonioides*** (Ach.) A.L. Sm. IF No: 376335



Fungl. Ascomycota. Pezizomycotina. Arthoniomycetes. Arthoniomycetidae. Arthoniales. Arthoniaceae  
**318. *Arthonia atra*** (Pers.) A. Schneid. IF No: 376348 **Trophic mode/Guild:** symbiotroph/lichenised



Fungl. Ascomycota. Pezizomycotina. Arthoniomycetes. Arthoniomycetidae. Arthoniales. Arthoniaceae  
**319. *Arthonia bessalis*** Nyl. IF No: 376363



Fungl. Ascomycota. Pezizomycotina. Arthoniomycetes. Arthoniomycetidae. Arthoniales. Arthoniaceae  
**320. *Arthonia catenulata*** Nyl. IF No: 376387 **Trophic mode/Guild:** symbiotroph/lichenised



Fungl. Ascomycota. Pezizomycotina. Arthoniomycetes. Arthoniomycetidae. Arthoniales. Arthoniaceae  
**321. *Arthonia colombiana*** Etayo IF No: 371938 **Trophic mode/Guild:** pathotroph /lichen parasite



Fungl. Ascomycota. Pezizomycotina. Arthoniomycetes. Arthoniomycetidae. Arthoniales. Arthoniaceae  
**322. *Arthonia complanata*** Fée IF No: 376415 **Trophic mode/ Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics, Native **Elev.:** 1,200 m **Dept.:** CUN



Fungl. Ascomycota. Pezizomycotina. Arthoniomycetes. Arthoniomycetidae. Arthoniales. Arthoniaceae  
**323. *Arthonia cyanea*** Müll. Arg. IF No: 376439 **Trophic mode/ Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Panotropics, Native **Elev.:** 100 m **Dept.:** CHO



Fungl. Ascomycota. Pezizomycotina. Arthoniomycetes. Arthoniomycetidae. Arthoniales. Arthoniaceae  
**324. *Arthonia cyrtodes*** Nyl. IF No: 376440 **Trophic mode/ Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, Native **Elev.:** 10 m **Dept.:** NAR

CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**325. *Arthonia digitispora*** Etayo  
 IF No: 371947 **Trophic mode/ Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**326. *Arthonia erupta*** Nyl. ex Willey IF No: 376484 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**327. *Arthonia excedens*** (Nyl.) Zahlbr. IF No: 376487 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 1,200–2,600 m **Dept.:** CUN, SAN



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**328. *Arthonia explanata*** Nyl. IF No: 376491 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Caribbean **Distribution:** Endemic



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**329. *Arthonia fuscoalbella*** Nyl. IF No: 376508 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,600 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**330. *Arthonia grubelii*** Lücking IF No: 450336 **Trophic mode/ Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, **Dept.:** CAU



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**331. *Arthonia hloramii*** B. de Lesd. IF No: 567029 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**332. *Arthonia illicina*** Taylor IF No: 376560 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**333. *Arthonia leptosperma*** (Müll. Arg.) R. Sant. IF No: 364214 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Pan tropics, **Dept.:** CHO



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**334. *Arthonia macrotheca*** Fée IF No: 376622 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**335. *Arthonia meksomorpha*** Nyl. IF No: 376634 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, **Native Elev.:** 2,400–2,800 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**336. *Arthonia mikrosperma*** Nyl. IF No: 376646 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**337. *Arthonia mira*** R. Sant. IF No: 364220 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Pacific **Distribution:** Pan tropics, **Native Elev.:** 35–350 m **Dept.:** AMA, CAQ, CHO, NAR



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**338. *Arthonia miserula*** Nyl. IF No: 376655 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,700 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**339. *Arthonia nephelina*** Nyl. IF No: 376675 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**340. *Arthonia obesa*** (Müll. Arg.) R. Sant. IF No: 364228 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Neotropics, **Native Elev.:** 250 m **Dept.:** CAQ



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**341. *Arthonia obscurilla*** Müll. Arg. IF No: 376691 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**342. *Arthonia orbignyae*** (H.B.P. Upadhyay) Matzer IF No: 415532 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**343. *Arthonia palmulacea*** (Müll. Arg.) R. Sant. IF No: 364232 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes, Caribbean, Pacific **Distribution:** Pan tropics, **Native Elev.:** 20–2,400 m **Dept.:** CHO, HUI, MAG



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**344. *Arthonia platygraphidea*** Nyl. IF No: 376748 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, **Native Elev.:** 0–300 m **Dept.:** CAU



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**345. *Arthonia pullosella*** Nyl. IF No: 376753 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 1,200–2,600 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**346. *Arthonia prunosella*** Nyl. IF No: 376764



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**347. *Arthonia prunosula*** Nyl. IF No: 376765 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,500 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**348. *Arthonia pullosa*** Nyl. IF No: 376769 **Trophic mode/ Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,600 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**349. *Arthonia purpurissata*** Nyl. IF No: 376773 **Trophic mode/ Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,500 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**350. *Arthonia radlata*** (Pers.) Ach. IF No: 376782 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes **Distribution:** Holarctic and southern regions, **Native Elev.:** 1,200–2,400 m **Dept.:** CUN, GUA, SAN



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**351. *Arthonia redingeri*** Grube IF No: 529473 **Trophic mode/ Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**352. *Arthonia rubella*** (Fée) Nyl. IF No: 119459 **Trophic mode/ Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, **Native Elev.:** 2,100 m **Dept.:** CUN, SAN



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**353. *Arthonia septemlocularis*** Müll. Arg. IF No: 376820 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Dept.:** CUN **Conservation:** CR



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**354. *Arthonia speciosa*** (Müll. Arg.) Grube IF No: 530143 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**355. *Arthonia taedlosa*** Nyl. IF No: 376887 **Trophic mode/ Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**356. *Arthonia tremeloloides*** Etayo IF No: 371957 **Trophic mode/ Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**357. *Arthonia trilocularis*** Müll. Arg. IF No: 376904 **Trophic mode/ Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes, Pacific **Distribution:** Pan tropics, **Native Elev.:** 300–2,050 m **Dept.:** AMA, ANT, CAU, CHO



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Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**358. *Arthonia undenaria*** Nyl.  
 IF No: 376911 **Trophic mode/ Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 1,100 m



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**359. *Arthonia xanthocarpa*** Nyl.  
 IF No: 376935 **Dept.:** CLM



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**360. *Arthothellum taedlosoides*** Giralt & Grube IF No: 412514 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**361. *Coniarthonia pulcherrima*** (Müll. Arg.) Grube IF No: 485060 **Trophic mode/ Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Pantropics, Native **Elev.:** 240 m **Dept.:** AMA



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**362. *Coniocarpon cinnabarinum*** DC. IF No: 383614 **Trophic mode /Guild:** symbiotroph /lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**363. *Crypthothelia albidula*** (Fée) Frisch & G. Thor IF No: 543670 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**364. *Crypthothelia mycelloides*** (Vain.) Frisch & G. Thor IF No: 543676 **Trophic mode/ Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**365. *Crypthothelia aleurocarpa*** (Nyl.) Makhija & Patw. IF No: 103240 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 1,200 m



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**366. *Crypthothelia effusa*** (Müll. Arg.) R. Sant. IF No: 365828 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**367. *Crypthothelia punctosorediata*** Sparrius IF No: 356568 **Trophic mode/ Guild:** symbiotroph/ lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**368. *Crypthothelia scribblitella*** (Nyl.) Makhija & Patw. IF No: 103247 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Pantropics, Native **Elev.:** 0–1,100 m **Dept.:** CAU



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**369. *Crypthothelia scripta*** G. Thor IF No: 442837 **Trophic mode/ Guild:** symbiotroph/ lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**370. *Crypthothelia striata*** G. Thor IF No: 475421 **Trophic mode/ Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 950–1,000 m **Dept.:** HUI, VAC



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**371. *Eremothecella calamicola*** Syd. & P. Syd. IF No: 145347 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Pacific **Distribution:** Pantropics, Native **Elev.:** 35–300 m **Dept.:** AMA, CAQ, CHO, NAR



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**372. *Herpothallium adinatum*** G. Thor IF No: 540560 **Trophic mode/Guild:** symbiotroph /lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**373. *Herpothallium aurantiacoflavum*** (B. de Lesd.) Aptroot, Lücking & G. Thor IF No: 540563 **Trophic mode /Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, Native **Elev.:** 0–300 m **Dept.:** CAU



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**374. *Herpothallium cinereum*** G. Thor IF No: 540566 **Trophic mode/Guild:** symbiotroph /lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**375. *Herpothallium confuentium*** Aptroot & Lücking IF No: 540567 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**376. *Herpothallium echinatum*** Aptroot, Lücking & Will-Wolf IF No: 540570 **Trophic mode/Guild:** symbiotroph/ lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**377. *Herpothallium furturacum*** G. Thor IF No: 540573 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Neotropics, Native



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**378. *Herpothallium globosum*** G. Thor IF No: 540574 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Neotropics, Pantropics **Elev.:** 0–2,000 m **Dept.:** CAU, VAC



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**379. *Herpothallium granulare*** (Sipman) Aptroot & Lücking IF No: 540575 **Trophic mode/Guild:** symbiotroph/ lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**380. *Herpothallium granulolum*** Jagad. Ram & G.P. Sinha IF No: 516912 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**381. *Herpothallium japonicum*** (Zahlbr.) G. Thor IF No: 540577 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**382. *Herpothallium minimum*** Aptroot & Lücking IF No: 540578 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Neotropics, Pantropics **Elev.:** 0–1,000 m **Dept.:** CAU, RIS



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**383. *Herpothallium pustulatum*** G. Thor IF No: 540582 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Neotropics, Native



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**384. *Herpothallium queenslandicum*** (Elix) Elix IF No: 540583 **Trophic mode/Guild:** symbiotroph/ lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**385. *Herpothallium roseocinctum*** (Fr.) Aptroot, Lücking & G. Thor IF No: 540584 **Trophic mode/Guild:** symbiotroph/ lichenised **Distribution:** Neotropics, Africa, Native



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**386. *Herpothallium rubrocinctoides*** (G. Thor) Aptroot, Lücking & G. Thor IF No: 540585 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**387. *Herpothallium rubrocinctum*** (Ehrenb.) Aptroot, Lücking & G. Thor IF No: 540586 **Trophic mode/Guild:** symbiotroph/ lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Neotropics, United States, Native **Elev.:** 20–2,900 m **Dept.:** BOY, CAL, CAU, CUN, MAG, NAR, RIS, SAN, TOL, VAC



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**388. *Herpothallium rubroschlnatum*** Frisch & G. Thor IF No: 548507 **Trophic mode/ Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**389. *Herpothallium rubromaculatum*** G. Thor IF No: 540587 **Trophic mode/ Guild:** symbiotroph/ lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**390. *Myrothecium filicinum*** (Ellis & Everh.) Frisch & G. Thor IF No: 808773 **Trophic mode/Guild:** symbiotroph/ lichenised

CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**391. *Stirtonia latispora*** Seavery & J. Seavery  
 IF No: 809722



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**392. *Tylophoron crassiusculum*** Tibell  
 IF No: 110282 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics,  
 Native **Elev.:** 1,250 m **Dept.:** RIS



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**393. *Tylophoron moderatum*** Nyl. IF No: 247132 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 250–1,200 m **Dept.:** CUN, TOL



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Arthoniaceae  
**394. *Tylophoron protrudens*** Nyl. IF No: 408065 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes **Distribution:** Pan tropics, Native **Elev.:** 350–2,600 m **Dept.:** CAQ, CUN, HUI, SAN



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Chytridiomycetes  
**395. *Byssocaulon ochraceum*** Nyl. IF No: 380859 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,200 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Chytridiomycetes  
**396. *Chysothrix candellaris*** (L.) J.R. Laundon IF No: 112055 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 750–3,130 m **Dept.:** ANT, BOY, CUN, HUI, TOL



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Chytridiomycetes  
**397. *Chysothrix chlorina*** (Ach.) J.R. Laundon IF No: 112186 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 4,175 m **Dept.:** CUN, MET, RIS



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Chytridiomycetes  
**398. *Chysothrix granulosa*** G. Thor IF No: 134630



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Chytridiomycetes  
**399. *Chysothrix xanthina*** (Vain.) Kalb IF No: 475309 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 750–3,100 m **Dept.:** ANT, CUN, VAC



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Lecanographaceae  
**400. *Alyxoria apomelaena*** (A. Massal.) Ertz  
 IF No: 812518 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Lecanographaceae  
**401. *Alyxoria culmigena*** (Lib.) Ertz IF No: 801449



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Lecanographaceae  
**402. *Alyxoria varia*** (Pers.) Ertz & Tehler IF No: 519247 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Lecanographaceae  
**403. *Alyxoria viridipruinosa*** (Coppins & Yahr) Ertz IF No: 801452 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Lecanographaceae  
**404. *Lecanographa lyncea*** (Sm.) Egea & Torrente IF No: 413327 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Lecanographaceae  
**405. *Plectocarpus aequatoriale*** Etayo IF No: 818364 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Lecanographaceae  
**406. *Zwackhia bonplandii*** (Fée) Ertz IF No: 801453 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Lecanographaceae  
**407. *Zwackhia prosodes*** (Afzel.) Ertz IF No: 801455 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Lecanographaceae  
**408. *Zwackhia robusta*** (Vain.) Ertz IF No: 801456 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Lecanographaceae  
**409. *Zwackhia viridis*** (Ach.) Poetsch & Schied. IF No: 410140 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Opegraphaceae  
**410. *Cresponea flava*** (Vain.) Egea & Torrente IF No: 360496 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Opegraphaceae  
**411. *Cresponea leprleurii*** (Mont.) Egea & Torrente IF No: 360499 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 710–2,500 m **Dept.:** CUN, TOL



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Opegraphaceae  
**412. *Cresponea melanocheiloides*** (Vain.) Egea & Torrente IF No: 365481 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Pan tropics, Native



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Opegraphaceae  
**413. *Cresponea plurilocularis*** (Nyl.) Egea & Torrente IF No: 360503 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Opegraphaceae  
**414. *Cresponea premea*** (Ach.) Egea & Torrente IF No: 360504



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Opegraphaceae  
**415. *Cresponea proximata*** (Nyl.) Egea & Torrente IF No: 360506 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Pan tropics, Native



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Opegraphaceae  
**416. *Foureaea fillicina*** (Mont.) Trevis. IF No: 385038 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Opegraphaceae  
**417. *Foureaea pulgarii*** (Müll. Arg.) Zahlbr. IF No: 385040 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Opegraphaceae  
**418. *Opegrapha agelaea*** Fée  
 IF No: 396230 **Trophic mode/Guild:** pathotroph/lichen parasite **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,500–2,700 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Opegraphaceae  
**419. *Opegrapha aperiens*** Vain. IF No: 396246 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Opegraphaceae  
**420. *Opegrapha atratula*** Müll. Arg. IF No: 396264 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Opegraphaceae  
**421. *Opegrapha brachycarpa*** Müll. Arg. IF No: 396279 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Opegraphaceae  
**422. *Opegrapha cylindrica*** Raddi IF No: 396340 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Opegraphaceae  
**423. *Opegrapha dekeselli*** Ertz IF No: 540704 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Pan tropics, Native



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Opegraphaceae  
**424. *Opegrapha difficillior*** Nyl. IF No: 396363 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Opegraphaceae  
**425. *Opegrapha dimidiata*** Müll. Arg. IF No: 396368 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Pan tropics, Native



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Opegraphaceae  
**426. *Opegrapha foreauii*** (C. Moreau & M. Moreau) Hafellner & R. Sant. IF No: 376392 **Trophic mode/Guild:** pathotroph/lichen parasite



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Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Opegraphaceae  
**427. *Opegrapha irosina*** Vain.  
 IF No: 396464 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Pan tropics, Native



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Opegraphaceae  
**428. *Opegrapha microsema*** Nyl. IF No: 396529 **Trophic mode/ Guild:** symbiotroph /lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,400 m **Dept.:**



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Opegraphaceae  
**429. *Opegrapha multiseptata*** Müll. Arg. IF No: 396538 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Opegraphaceae  
**430. *Opegrapha quintana*** Redinger IF No: 368415 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Opegraphaceae  
**431. *Opegrapha subdimidiata*** Ertz IF No: 540707 **Trophic mode/ Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Opegraphaceae  
**432. *Opegrapha subvilgata*** Nyl. IF No: 396725 **Trophic mode/ Guild:** symbiotroph /lichenised **Distribution:** Pan tropics, Native



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Opegraphaceae  
**433. *Sclerophyton elegans*** Eschw. IF No: 405003 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Pan tropics, Native **Elev.:** 10 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Opegraphaceae  
**434. *Sclerophyton extenuatum*** (Nyl.) Sparrus IF No: 368193 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 2,400 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Opegraphaceae  
**435. *Sclerophyton seriale*** (Ach.) Sparrus IF No: 474987 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 1,200 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Opegraphaceae  
**436. *Sclerophyton syncesoides*** Sparrus IF No: 369209 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Opegraphaceae  
**437. *Sclerophyton vertex*** Sparrus IF No: 369206 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, Native **Elev.:** 110 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**438. *Ancistrosporella gracillor*** (Nyl.) Lücking IF No: 558058 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**439. *Ancistrosporella leucophila*** (Nyl.) Ertz IF No: 828693 **Trophic mode/Guild:** symbiotroph/ lichenised **Conservation:** CR



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**440. *Ancistrosporella onchospora*** (Nyl.) Ertz IF No: 828694 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**441. *Chiodecton confundens*** Vain. IF No: 382538 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,200 m **Dept.:**



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**442. *Chiodecton hypochnoides*** Nyl. IF No: 382582 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 2,000-2,400 m **Dept.:** CUN, HUI



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**443. *Chiodecton inconspicuum*** Nyl. IF No: 123053 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Andes **Distribution:** Colombia, Endemic **Elev.:** 150 m



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**444. *Chiodecton malmel*** G. Thor IF No: 354965 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,200 m



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**445. *Chiodecton natalense*** Nyl. IF No: 382616 **Trophic mode/ Guild:** symbiotroph/lichenised **Distribution:** Pan tropics, Native



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**446. *Chiodecton olivaceum*** Fée IF No: 382624 **Trophic mode/ Guild:** symbiotroph/lichenised **Biogeographic region:** Caribbean **Distribution:** Pan tropics, America, Native **Elev.:** 150 m **Dept.:** BOL



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**447. *Chiodecton sphaerale*** Ach. IF No: 382655 **Trophic mode/ Guild:** symbiotroph /lichenised **Biogeographic region:** Amazonia, Andes **Distribution:** Neotropics, Native **Elev.:** 240-2,500 m **Dept.:** AMA, CUN, SAN



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**448. *Chiodecton subordinatum*** Nyl. IF No: 382670 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 1,200 m **Dept.:** SAN



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**449. *Dichosporidium boschianum*** (Mont.) G. Thor IF No: 354439 **Trophic mode/Guild:** symbiotroph/ lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**450. *Dichosporidium nigrochictum*** (Ehrenb.) G. Thor IF No: 354446 **Trophic mode/Guild:** symbiotroph/ lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Neotropics, Native **Elev.:** 35-2,000 **Dept.:** NAR, VAC



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**451. *Enterographa quassilicola*** Fée IF No: 540244 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Neotropics, Native



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**452. *Enterographa tropica*** Sparrus IF No: 369217 **Trophic mode/Guild:** symbiotroph /lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**453. *Ervthrodictyon granulatum*** (Mont.) G. Thor IF No: 354442 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Neotropics, Native



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**454. *Gyronactis elaeocarpa*** (Nyl.) Ertz & Tehler IF No: 808113 **Trophic mode/ Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**455. *Lecanactis eolleuca*** (Nyl.) Tehler IF No: 358647 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,200-2,500 m **Dept.:** CUN, SAN



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**456. *Lecanactis flavisepta*** (Nyl.) Tehler IF No: 358649 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 1,200 m



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**457. *Lecanactis proximens*** (Nyl.) Zahlbr. IF No: 387310 **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,700 m **Dept.:** CUN **Conservation:** CR



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**458. *Mazosia bambusae*** (Vain.) R. Sant. IF No: 367979 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Pacific **Distribution:** Pan tropics, Native **Elev.:** 35-350 m **Dept.:** AMA, CAQ, CHO, NAR



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**459. *Mazosia carneae*** (Eckfeldt) Aptroot & M. Cáceres IF No: 805956 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**460. *Mazosia dispersa*** (J. Hedrick) R. Sant. IF No: 367980 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes, Pacific **Distribution:** Pan tropics, Native **Elev.:** 35-2,200 m **Dept.:** AMA, CAQ, CHO, MAG, NAR, VAU



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**461. *Mazosia leptosticta*** (Nyl.) Sparrus IF No: 368132 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,000 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**462. *Mazosia longispora*** Lücking & Matzer IF No: 416121 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Pacific **Distribution:** Neotropics, Pan tropics, Africa, Native **Elev.:** 100-240 m **Dept.:** AMA, CHO

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Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**463. *Mazosia melanophthalma*** (Müll. Arg.) R. Sant. IF No: 367981 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes, Caribbean

**Pacific Distribution:** Panotropics, Native **Elev.:** 35–2,500 m **Dept.:** AMA, ANT, CAQ, CHO, GUA, MAG, MET, NAR, VAU



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**464. *Mazosia ocellata*** (Nyl.) R.C. Harris IF No: 354514 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics, Native **Elev.:** 2,000 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**465. *Mazosia paupercula*** (Müll. Arg.) R. Sant. IF No: 367982 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics, Native **Elev.:** 1,200 m **Dept.:** NSA



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**466. *Mazosia phyllosema*** (Nyl.) Zahbr. IF No: 395118 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes, Caribbean

**Pacific Distribution:** Panotropics, Native **Elev.:** 35–2,200 m **Dept.:** AMA, CAQ, CHO, CUN, MAG, NAR, VAU



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**467. *Mazosia pilosa*** Kalb & Vězda IF No: 133671 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Panotropics, Native **Elev.:** 300 m **Dept.:** AMA, CAQ



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**468. *Mazosia praemorsa*** (Stirt.) R. Sant. IF No: 367983 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Neotropics, Panotropics, Africa, Native **Elev.:** 100–300 m **Dept.:** AMA, CAQ, VAU



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**469. *Mazosia pseudobambusae*** Kalb & Vězda IF No: 133672 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Caribbean **Distribution:** Panotropics, Native **Elev.:** 100–250 m **Dept.:** AMA, CAQ, CHO



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**470. *Mazosia rotula*** (Mont.) A. Massal. IF No: 395121 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes, Caribbean



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**471. *Mazosia rubropunctata*** R. Sant. IF No: 367984 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes, Pacific **Distribution:** Neotropics, Panotropics, Africa, Native **Elev.:** 300–600 m **Dept.:** AMA, CAQ, MET, NAR, VAU



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**472. *Mazosia tenuissima*** Lücking & Matzer IF No: 415970 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Caribbean, Pacific **Distribution:** Neotropics, Native **Elev.:** 0–300 m **Dept.:** CAU, CHO, NAR, VAU



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**473. *Mazosia tumidula*** (Müll. Arg.) Zahbr. IF No: 395123 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Pacific **Distribution:** Neotropics, Native **Elev.:** 35–300 m **Dept.:** AMA, CAQ, CAU, CHO, NAR, VAU



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**474. *Rocella verruculosa*** Follmann IF No: 114007 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Caribbean **Distribution:** Colombia, Venezuela, Antilles, Native **Elev.:** 0 m **Dept.:** GUA



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**475. *Sageniopsis undulata*** (Fée) Egea, Tehler, Torrente & Sipman IF No: 630748 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Pacific Distribution:** Neotropics, Native **Elev.:** 400–1,200 m **Dept.:** CHO, SAN



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**476. *Schismatomma leucopsarum*** (Nyl.) Zahbr. IF No: 404953 **Trophic mode/Guild:** symbiotroph/lichenised **Conservation:** CR



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**477. *Syncesia byssina*** (Vain.) Tehler IF No: 442914 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**478. *Syncesia decussans*** (Nyl.) Tehler IF No: 442925 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 1,200 m **Dept.:** SAN



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**479. *Syncesia depressa*** (Fée) Tehler IF No: 442926 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, Native **Elev.:** 10 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**480. *Syncesia effusa*** (Fée) Tehler IF No: 442917 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Hawaii, Native **Elev.:** 1,200–2,500 m **Dept.:** CUN, MET, RIS



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**481. *Syncesia farinacea*** (Fée) Tehler IF No: 442918 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes, Caribbean **Distribution:** Neotropics, Native **Elev.:** 500–2,300 m **Dept.:** ANT, BOL, CUN, SAN



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**482. *Syncesia flavescens*** (Nyl.) Tehler IF No: 442927 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,400 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**483. *Syncesia graphica*** (Fr.) Tehler IF No: 442922 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,200–2,600 m **Dept.:** ANT, CUN, SAN



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**484. *Syncesia leprobola*** Nyl. ex Tehler IF No: 442923 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**485. *Syncesia psaroleuca*** (Nyl.) Tehler IF No: 442920 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,500 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellaceae  
**486. *Bactrospora dryina*** (Ach.) A. Massal. IF No: 142829 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellographaceae  
**487. *Dimidiographa longissima*** (Müll. Arg.) Ertz & Tehler IF No: 519257 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Roccellographaceae  
**488. *Fulvophyton subseriale*** (Nyl.) Ertz & Tehler IF No: 519262 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Incertae sedis  
**489. *Bactrospora myriadea*** (Fée) Egea & Torrente. IF No: 360197 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Incertae sedis  
**490. *Bactrospora flavopruinosa*** F. Berger & Aptroot IF No: 538446 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Incertae sedis  
**491. *Tylophorella pyrenocarpoides*** (Müll. Arg.) Egea IF No: 360806 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics, Native **Elev.:** 1,000 m **Dept.:** HUI



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Incertae sedis  
**492. *Brocstigma lobariae*** (Etayo) S.Y. Kondr. & Hur IF No: 834138 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Incertae sedis  
**493. *Helminthocarpon leprevostii*** Fée IF No: 386712 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes, Caribbean **Distribution:** Neotropics, Native **Elev.:** 100 m **Dept.:** BOL



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Arthoniomycetidae, Arthoniales, Incertae sedis  
**494. *Tylophorella pyrenocarpoides*** (Müll. Arg.) Egea IF No: 360806 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Colombia, Endemic **Elev.:** 250 m **Dept.:** TOL



Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Incertae sedis, Lichenostigmatales, Phaeococcocystaceae  
**495. *Lichenostigma alpinum*** (R. Sant., Alstrup & D. Hawksw.) Ertz & Diederich IF No: 804671 **Trophic mode/Guild:** pathotroph/lichen parasite



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	<p>Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Incertae sedis, Lichenostigmatales, Phaeoococcmycetaceae 496. <i>Lichenostigma cosmopolites</i> Hafellner &amp; Calat. IF No: 460740 Trophic mode/Guild: pathotrophy/ lichen parasite</p>		<p>Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Incertae sedis, Lichenostigmatales, Phaeoococcmycetaceae 497. <i>Lichenostigma maureri</i> Hafellner IF No: 109054 Trophic mode/Guild: pathotrophy/ lichen parasite</p>		<p>Fungi, Ascomycota, Pezizomycotina, Arthoniomycetes, Incertae sedis, Lichenostigmatales, Phaeoococcmycetaceae 498. <i>Phaeosporobolus usneae</i> D. Hawksw. &amp; Hafellner IF No: 130106 Trophic mode/Guild: pathotrophy/lichen parasite</p>
	<p>Fungi, Ascomycota, Pezizomycotina, Candeliariomycetes, Candeliariomycetidae, Candeliariales, Candeliariaceae 499. <i>Candeliaria concolor</i> (Dicks.) Arnold IF No: 118877 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Andes Distribution: Cosmopolitan, Native Elev.: 750–2,600 m Dept.: ANT, CAU, CUN, RIS, TOL, VAC</p>		<p>Fungi, Ascomycota, Pezizomycotina, Candeliariomycetes, Candeliariomycetidae, Candeliariales, Candeliariaceae 500. <i>Candeliaria fruticans</i> Poelt. &amp; Oberw. IF No: 341673 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Andes Distribution: Neotropics, Pantropics Africa, Native Elev.: 3,300 m Dept.: ANT, TOL</p>		<p>Fungi, Ascomycota, Pezizomycotina, Candeliariomycetes, Candeliariomycetidae, Candeliariales, Candeliariaceae 501. <i>Candeliarella efflorescens</i> R.C. Harris &amp; W.R. Buck IF No: 341677 Trophic mode/Guild: symbiotrophy/lichenised</p>
	<p>Fungi, Ascomycota, Pezizomycotina, Candeliariomycetes, Candeliariomycetidae, Candeliariales, Candeliariaceae 502. <i>Candeliarella sorelliana</i> Poelt &amp; Reddi IF No: 344803 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Andes Distribution: Pantropics, Native Elev.: 3,975 m Dept.: RIS</p>		<p>Fungi, Ascomycota, Pezizomycotina, Candeliariomycetes, Candeliariomycetidae, Candeliariales, Candeliariaceae 503. <i>Candeliarella vitellina</i> (Hoffm.) Müll. Arg. IF No: 123579 Trophic mode/Guild: symbiotrophy/lichenised Habitat: On rocks and walls   Lichen dispersed, densely aggregated Biogeographic region: Andes Distribution: Cosmopolitan, Global Distribution, Native Elev.: 2,250–2,800 m Dept.: BOY, CUN, NAR Uses: MA</p>		<p>Fungi, Ascomycota, Pezizomycotina, Candeliariomycetes, Candeliariomycetidae, Candeliariales, Candeliariaceae 504. <i>Candeliarella xanthostigma</i> (Pers. ex Ach.) Lettau IF No: 381933 Trophic mode/Guild: symbiotrophy/lichenised</p>
	<p>Fungi, Ascomycota, Pezizomycotina, Candeliariomycetes, Candeliariomycetidae, Candeliariales, Candeliariaceae 505. <i>Candellina mexicana</i> (B. de Lesd.) Poelt IF No: 341683 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Andes Distribution: Neotropics, Native Elev.: 350–1,000 m Dept.: HUI, VAC</p>		<p>Fungi, Ascomycota, Pezizomycotina, Candeliariomycetes, Candeliariomycetidae, Candeliariales, Candeliariaceae 506. <i>Candellina submexicana</i> (B. de Lesd.) Poelt IF No: 341684 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Andes Distribution: Neotropics, Native Elev.: 2,250 m Dept.: BOY</p>		<p>Fungi, Ascomycota, Pezizomycotina, Coniochytriales, Incertae sedis, Coniochytriales, Coniochytraceae 507. <i>Chaenotheca brunnea</i> (Ach.) Müll. Arg. IF No: 382482 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Andes Distribution: Cosmopolitan, Native Elev.: 2,400–3,750 m Dept.: CAL, HUI, RIS</p>
	<p>Fungi, Ascomycota, Pezizomycotina, Coniochytriales, Incertae sedis, Coniochytriales, Coniochytraceae 508. <i>Chaenotheca chlorella</i> (Ach.) Müll. Arg. IF No: 382484 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Andes Distribution: Subcosmopolitan, Native Elev.: 2,400–3,500 m Dept.: ANT, CAL, CUN, HUI</p>		<p>Fungi, Ascomycota, Pezizomycotina, Coniochytriales, Incertae sedis, Coniochytriales, Coniochytraceae 509. <i>Chaenotheca gracillima</i> (Vain.) Tibell IF No: 107464 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Andes Distribution: Subcosmopolitan, Native Elev.: 3,500 m Dept.: CAL</p>		<p>Fungi, Ascomycota, Pezizomycotina, Coniochytriales, Incertae sedis, Coniochytriales, Coniochytraceae 510. <i>Chaenotheca hispidula</i> (Ach.) Zahlbr. IF No: 382490 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Andes Distribution: Subcosmopolitan, Native Elev.: 3,500–3,750 m Dept.: CAL, RIS</p>
	<p>Fungi, Ascomycota, Pezizomycotina, Coniochytriales, Incertae sedis, Coniochytriales, Coniochytraceae 511. <i>Chaenotheca olivaceorufa</i> (Vain.) Zahlbr. IF No: 382493 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Andes Distribution: Neotropics, Australasia, Native Elev.: 2,500–2,600 m Dept.: CUN, HUI</p>		<p>Fungi, Ascomycota, Pezizomycotina, Coniochytriales, Incertae sedis, Coniochytriales, Coniochytraceae 512. <i>Chaenotheca trichialis</i> (Ach.) Hellb. IF No: 121550 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Andes Distribution: Cosmopolitan, Native Elev.: 3,500–3,750 m Dept.: CAL, RIS</p>		<p>Fungi, Ascomycota, Pezizomycotina, Coniochytriales, Incertae sedis, Coniochytriales, Coniochytraceae 513. <i>Sclerophora sanguinea</i> (Tibell) Tibell IF No: 107594 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Andes Distribution: Pantropics, Native Elev.: 2,500–2,600 m Dept.: CUN, HUI</p>
	<p>Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Asterinales, Asterinaceae 514. <i>Asterina antioquiensis</i> (Toró) Garcés IF No: 433309 Trophic mode/Guild: symbiotrophy/endophyte Habitat: On <i>Miconia theaezans</i> Distribution: Pantropics Dept.: ANT</p>		<p>Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Asterinales, Asterinaceae 515. <i>Asterina belluciae</i> Henn. IF No: 192536 Trophic mode/Guild: symbiotrophy/endophyte</p>		<p>Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Asterinales, Asterinaceae 516. <i>Asterina diplocarpa</i> Cooke IF No: 197268 Trophic mode/Guild: symbiotrophy/endophyte Habitat: On <i>Sida</i> sp. Distribution: Pantropics Elev.: 480 m Dept.: MET</p>
	<p>Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Asterinales, Asterinaceae 517. <i>Asterina echinospora</i> Höhn. IF No: 221590 Trophic mode/Guild: symbiotrophy/endophyte</p>		<p>Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Asterinales, Asterinaceae 518. <i>Asterina hypophylla</i> Berk. ex Theiss. IF No: 628314 Trophic mode/Guild: symbiotrophy/endophyte</p>		<p>Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Asterinales, Asterinaceae 519. <i>Asterina megalospora</i> Berk. &amp; M.A. Curtis IF No: 221736 Trophic mode/Guild: symbiotrophy/endophyte Habitat: On <i>Passiflora mollissima</i> Distribution: Pantropics Elev.: 2,600 m Dept.: ANT</p>
	<p>Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Asterinales, Asterinaceae 520. <i>Asterina melanotes</i> Syd. IF No: 270821 Trophic mode/Guild: symbiotrophy/endophyte Habitat: On <i>Miconia granulosa</i> Distribution: Pantropics Elev.: 1,740 m Dept.: ANT</p>		<p>Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Asterinales, Asterinaceae 521. <i>Asterina melastomatacearum</i> (Henn.) Theiss. IF No: 532453 Trophic mode/Guild: symbiotrophy/endophyte</p>		<p>Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Asterinales, Asterinaceae 522. <i>Asterina melastomatis</i> Lév. IF No: 218181 Trophic mode/Guild: symbiotrophy/endophyte</p>
	<p>Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Asterinales, Asterinaceae 523. <i>Asterina miconiae</i> Theiss. IF No: 219462 Trophic mode/Guild: symbiotrophy/endophyte</p>		<p>Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Asterinales, Asterinaceae 524. <i>Asterina phenacis</i> Syd. IF No: 274205 Trophic mode/Guild: symbiotrophy/endophyte Habitat: On <i>Phenax hirtus</i> Distribution: Pantropics Dept.: VAC</p>		<p>Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Asterinales, Asterinaceae 525. <i>Asterina solaracearum</i> Garcés IF No: 284386 Trophic mode/Guild: symbiotrophy/endophyte Habitat: On <i>Solanum</i> sp. Distribution: Pantropics Dept.: CUN</p>
	<p>Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Asterinales, Asterinaceae 526. <i>Asterina tertie</i> Racib. IF No: 151093 Trophic mode/Guild: symbiotrophy/endophyte</p>		<p>Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Asterinales, Asterinaceae 527. <i>Asterina uribel</i> Toró IF No: 281178 Trophic mode/Guild: symbiotrophy/endophyte</p>		<p>Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Asterinales, Asterinaceae 528. <i>Asterina vagans</i> Speg. IF No: 163512 Trophic mode/Guild: symbiotrophy/endophyte</p>

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Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Asterinales, Asteriaceae  
529. *Echidnodelia cavendishiae* Toro IF No: 260148 **Trophic mode/Guild:** symbiotroph/endophyte



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Asterinales, Asteriaceae  
530. *Echidnodelia diaphana* Toro IF No: 263119 **Trophic mode/Guild:** symbiotroph/endophyte



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Asterinales, Asteriaceae  
531. *Lembosia melastomatum* Mont. IF No: 154490 **Trophic mode/Guild:** symbiotroph/endophyte



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Asterinales, Asteriaceae  
532. *Lembosia perseae* Garcés IF No: 287550 **Trophic mode/Guild:** symbiotroph/endophyte **Hosts:** *Persea* sp. **Distribution:** Pan tropics, Endemic **Dept.:**



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Asterinales, Asteriaceae  
533. *Parasterina montagnei* Toro IF No: 271587



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Asterinales, Asteriaceae  
534. *Plicosterina antioquiensis* Toro IF No: 257008 **Trophic mode/Guild:** symbiotroph/endophyte

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Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Asterinales, Asteriaceae  
535. *Prillieuxina winteriana* (Pazschke) G. Arnaud IF No: 160955 **Trophic mode/Guild:** symbiotroph/endophyte



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Asterotexales, Asterotexaceae  
536. *Asterotexis cucurbitacearum* (Rehm) Arx IF No: 118911 **Trophic mode/Guild:** symbiotroph/endophyte **Hosts:** *Cucurbita maxima* **Distribution:** Pan tropics **Elev.:** 750



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Capnodiaceae  
537. *Antennariella placitae* Cheew. & Crous IF No: 513839 **Trophic mode/Guild:** saprotroph/undefined saprotroph

m Dept.: ANT



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Capnodiaceae  
538. *Capnodium citri* Berk. & Desm. IF No: 164508 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Capnodiaceae  
539. *Capnodium mangiferae* Cooke IF No: 537975 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Capnodiaceae  
540. *Scorias brasiliensis* (Puttemans) D.R. Reynolds IF No: 323313 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Capnodiaceae  
541. *Tribospermum camelopardus* Ingold, Dann & P.J. McDougall IF No: 340462 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** From foam in river | Saprotroph **Dept.:** SAN



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Capnodiaceae  
542. *Tribospermum porosporiferum* Matsush. IF No: 360932 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** From foam in river | Saprotroph **Dept.:** SAN



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Cladosporiaceae  
543. *Cladosporium cladosporioides* (Fresen.) G.A. de Vries IF No: 294915 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, epiphyte, plant pathogen **Habitat:** On soil | On food | Indoor | In grasslands of *Calamagrostis effusa* | Saprotroph **Distribution:** Global **Distribution Elev.:** 2,900 m **Dept.:** BOY, CUN **Uses:** PO



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Cladosporiaceae  
544. *Cladosporium colombiae* K. Schub. & Crous IF No: 509559 **Trophic mode/Guild:** pathotroph/



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Cladosporiaceae  
545. *Cladosporium dominicanum* Zalar, de Hoog & Gunde-Cim. IF No: 510995 **Trophic mode/Guild:** pathotroph/



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Cladosporiaceae  
546. *Cladosporium fusiforme* Zalar, de Hoog & Gunde-Cim. IF No: 510997 **Trophic mode/Guild:** pathotroph/



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Cladosporiaceae  
547. *Cladosporium halotolerans* Zalar, de Hoog & Gunde-Cim. IF No: 492439 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Cladosporiaceae  
548. *Cladosporium herbarum* (Pers.) Link IF No: 231458 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Cladosporiaceae  
549. *Cladosporium inversicolor* Bensch, Crous & U. Braun IF No: 517082 **Trophic mode/Guild:** pathotroph/



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Cladosporiaceae  
550. *Cladosporium lycoperdium* Cooke IF No: 217533 **Trophic mode/Guild:** pathotroph/



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Cladosporiaceae  
551. *Cladosporium macrocarpum* Preuss IF No: 217783 **Trophic mode/Guild:** pathotroph/



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Cladosporiaceae  
552. *Cladosporium ossifragi* (Rostr.) U. Braun & K. Schub. IF No: 504575 **Trophic mode/Guild:** pathotroph/



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Cladosporiaceae  
553. *Cladosporium oxysporum* Berk. & M.A. Curtis IF No: 238857 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Cladosporiaceae  
554. *Cladosporium pseudocladosporioides* Bensch, Crous & U. Braun IF No: 517087 **Trophic mode/Guild:** pathotroph/



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Cladosporiaceae  
555. *Cladosporium puyae* Bensch, Crous & U. Braun IF No: 814635 **Trophic mode/Guild:** pathotroph/



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Cladosporiaceae  
556. *Cladosporium sphaerospermum* Penz. IF No: 119529



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Cladosporiaceae  
557. *Cladosporium tenuissimum* Cooke IF No: 145672 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Cladosporiaceae  
558. *Cladosporium velox* Zalar, de Hoog & Gunde-Cim. IF No: 492435 **Trophic mode/Guild:** pathotroph/



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Cystocoleaceae  
559. *Cystocoleus ebeneus* (Dillwyn) Thwaites IF No: 384110 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Cosmopolitan, Native **Elev.:** 3,200–4,400 m **Dept.:** BOY, CAL, CUN



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Davidiellaceae  
560. *Dichocladosporium chlorocephalum* (Fresen.) K. Schub., U. Braun & Crous IF No: 504429



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
561. *Anycosphaerella africana* (Crous & M.J. Wingf.) Quaedv. & Crous IF No: 807781



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
562. *Asperisporium carlicae* (Speg.) Maubl. IF No: 100537 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
563. *Catenulocerospora fusimaculans* (G.F. Atk.) C. Nakash., Videira & Crous IF No: 822745



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
564. *Cercospora althaeina* Sacc. IF No: 233529 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
565. *Cercospora amaryllidis* Ellis & Everh. IF No: 156486 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
566. *Cercospora apii* Fresen. IF No: 161938 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
567. *Cercospora arachidicola* Hori IF No: 119877 **Trophic mode/Guild:** pathotroph/plant pathogen



## CHECKLIST OF FUNGI OF COLOMBIA

	Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 568. <i>Cercospora asparagi</i> Sacc. IF No: 173116 Trophic mode/Guild: pathotroph /plant pathogen		Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 569. <i>Cercospora beticola</i> Sacc. IF No: 162050 Trophic mode/Guild: pathotroph/plant pathogen		Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 570. <i>Cercospora brassicicola</i> Henn. IF No: 152656 Trophic mode/Guild: pathotroph /plant pathogen
	Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 571. <i>Cercospora canescens</i> Ellis & G. Martin IF No: 179841 Trophic mode/Guild: pathotroph/plant pathogen		Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 572. <i>Cercospora carnabii</i> Hara & Fukui IF No: 284900 Trophic mode/Guild: pathotroph/plant pathogen		Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 573. <i>Cercospora capsici</i> Heald & F.A. Wolf IF No: 259712 Trophic mode/Guild: pathotroph/plant pathogen
	Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 574. <i>Cercospora chusqueae</i> Chupp IF No: 294342 Trophic mode/Guild: pathotroph/plant pathogen		Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 575. <i>Cercospora coffeicola</i> Berk. & Cooke IF No: 191536 Trophic mode/Guild: pathotroph/plant pathogen		Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 576. <i>Cercospora erechthidis</i> G.F. Atk. IF No: 150319 Trophic mode/Guild: pathotroph/plant pathogen
	Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 577. <i>Cercospora erythrinae</i> Ellis & Everh. IF No: 150381 Trophic mode/Guild: pathotroph/plant pathogen		Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 578. <i>Cercospora furcaeeae</i> Obreg.-Bot. IF No: 630125 Trophic mode/Guild: pathotroph/plant pathogen		Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 579. <i>Cercospora Ingae</i> Obreg.-Bot. IF No: 284958 Trophic mode/Guild: pathotroph/plant pathogen
	Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 580. <i>Cercospora kikuchii</i> (Tak. Matsumoto & Tomoy.) M.W. Gardner IF No: 252873 Trophic mode/Guild: pathotroph/plant pathogen		Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 581. <i>Cercospora longissima</i> Cooke & Ellis IF No: 490979 Trophic mode/Guild: pathotroph/plant pathogen		Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 582. <i>Cercospora malayensis</i> F. Stevens & Solheim IF No: 171400 Trophic mode/Guild: pathotroph/plant pathogen
	Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 583. <i>Cercospora mikanicola</i> F. Stevens IF No: 120901 Trophic mode/Guild: pathotroph/plant pathogen		Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 584. <i>Cercospora nicotianae</i> Ellis & Everh. IF No: 155078 Trophic mode/Guild: pathotroph/plant pathogen		Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 585. <i>Cercospora physalidis</i> Ellis IF No: 175054 Trophic mode/Guild: pathotroph/plant pathogen
	Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 586. <i>Cercospora richardicola</i> G.F. Atk. IF No: 121304 Trophic mode/Guild: pathotroph/plant pathogen		Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 587. <i>Cercospora rhizophila</i> Sacc. & Berl. IF No: 209413 Trophic mode/Guild: pathotroph/plant pathogen		Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 588. <i>Cercospora sapindi</i> Obreg.-Bot. IF No: 282408 Trophic mode/Guild: pathotroph/plant pathogen
	Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 589. <i>Cercospora smilacigena</i> U. Braun & Crous IF No: 500172 Trophic mode/Guild: pathotroph/plant pathogen		Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 590. <i>Cercospora sorghi</i> Ellis & Everh. IF No: 154316 Trophic mode/Guild: pathotroph/plant pathogen		Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 591. <i>Cercospora vicosa</i> A.S. Mull. & Chupp IF No: 281714 Trophic mode/Guild: pathotroph/plant pathogen
	Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 592. <i>Cercospora zea-maydis</i> Tehon & E.Y. Daniels IF No: 161090 Trophic mode/Guild: pathotroph/plant pathogen		Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 593. <i>Cercospora zinniae</i> Ellis & G. Martin IF No: 174743 Trophic mode/Guild: pathotroph/plant pathogen		Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 594. <i>Cercospora zonata</i> G. Winter IF No: 174847 Trophic mode/Guild: pathotroph /plant pathogen
	Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 595. <i>Cercospora virgaureae</i> (Thüm.) Allesch. IF No: 121662 Trophic mode/Guild: pathotroph/plant pathogen		Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 596. <i>Ciarophilum henningsii</i> (Allesch.) Videira & Crous IF No: 822748		Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 597. <i>Dothistroma septosporum</i> (Dorogin) M. Morelet IF No: 121392 Trophic mode/Guild: pathotroph/plant pathogen
	Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 598. <i>Fulvia fulva</i> (Cooke) Cif. IF No: 297520 Trophic mode/Guild: pathotroph /plant pathogen		Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 599. <i>Lecanosticta paradoxus</i> (Syd. & P. Syd.) J.C. David IF No: 627592		Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 600. <i>Lecanosticta acicola</i> (Thüm.) Syd. IF No: 255702 Trophic mode/Guild: pathotroph/plant pathogen
	Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 601. <i>Lecanosticta pharomachri</i> van der Nest, M.J. Wingf. & I. Barnes IF No: 826876 Trophic mode/Guild: pathotroph/plant pathogen		Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 602. <i>Mycosphaerella berkeleyi</i> W.A. Jenkins IF No: 258363 Trophic mode/Guild: pathotroph/plant pathogen		Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 603. <i>Mycosphaerella brassicicola</i> (Duby) Lindau IF No: 100064 Trophic mode/Guild: pathotroph/plant pathogen
	Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 604. <i>Mycosphaerella colombiensis</i> Crous & M.J. Wingf. IF No: 442957 Trophic mode/Guild: pathotroph/plant pathogen		Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 605. <i>Mycosphaerella dianthi</i> (C.C. Burt) Jørst. IF No: 288625 Trophic mode/Guild: pathotroph/plant pathogen		Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 606. <i>Mycosphaerella drymariae</i> Syd. & P. Syd. IF No: 154708 Trophic mode/Guild: pathotroph/plant pathogen
	Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 607. <i>Mycosphaerella helmi</i> Bouriquet ex Crous IF No: 415105 Trophic mode/Guild: pathotroph/plant pathogen		Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 608. <i>Mycosphaerella henningsii</i> Sivan. IF No: 105550 Trophic mode/Guild: pathotroph/plant pathogen		Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae 609. <i>Mycosphaerella longibasalis</i> Crous & M.J. Wingf. IF No: 442964 Trophic mode/Guild: pathotroph/plant pathogen



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
610. *Mycosphaerella muscicola* R. Leach ex J.L. Mulder IF No: 288652 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
611. *Mycosphaerella punctiformis* (Pers.) Starbäck IF No: 355991



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
612. *Mycosphaerella rubi* Roark IF No: 276921 **Trophic mode/Guild:** pathotroph /plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
613. *Mycovellosiella costeroana* (Petr. & Cif.) X.J. Liu & Y.L. Guo IF No: 135450 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
614. *Neocercosporidium smilacis* (Thüm.) U. Braun, C. Nakash., Videira & Crous IF No: 822765



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
615. *Pallidocercospora konae* (Crous, Joanne E. Taylor & M.E. Palm) Crous IF No: 564827



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
616. *Pantospora guazumae* Cif. IF No: 266617 **Trophic mode/Guild:** saprotroph/ undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
617. *Paracercosporidium microsorum* (Sacc.) U. Braun, C. Nakash., Videira & Crous IF No: 822819



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
618. *Parapallidocercospora colombiensis* (Crous & M.J. Wingf.) Videira & Crous IF No: 822774



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
619. *Passalora aenea* (Cif.) U. Braun & Crous IF No: 445594 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
620. *Passalora ambrosiae* (Chupp) Crous & U. Braun IF No: 467866 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
621. *Passalora cassiae* (Henn.) U. Braun IF No: 437705 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
622. *Passalora castellanii* (Matta & Belliard) U. Braun IF No: 413692 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
623. *Passalora cornifoliae* (Chupp) U. Braun & Crous IF No: 439369 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
624. *Passalora gilbertii* (Speg.) U. Braun IF No: 637681 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
625. *Passalora hypodis* (Speg.) U. Braun IF No: 483034 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
626. *Passalora koepekei* (W. Krüger) U. Braun & Crous IF No: 462987 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
627. *Passalora labii* (Syd. & P. Syd.) U. Braun & Crous IF No: 458525 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
628. *Passalora manihoti* (F. Stevens & Solheim) U. Braun & Crous IF No: 454312 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
629. *Passalora occidentalis* (Cooke) U. Braun IF No: 483042 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
630. *Passalora pteridis* (Siemaszko) U. Braun & Crous IF No: 458465 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
631. *Passalora simulata* (Ellis & Everh.) U. Braun IF No: 362499 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
632. *Passalora stylosanthi* (Speg.) U. Braun IF No: 413709 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
633. *Phaeoalaropsis sphaeroides* (Speg.) L.G. Br. & Morgan-Jones IF No: 319606 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
634. *Phaeoalaropsis scytalidii* (Crous & M.J. Wingf.) Quaedv. & Crous IF No: 807785 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
635. *Polythrincium trifolii* Kunze IF No: 215652 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
636. *Pseudocercospora acetidis* (Chupp) U. Braun & Crous IF No: 380198 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
637. *Pseudocercospora angustata* (Chupp & Solheim) Deighton IF No: 321500 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
638. *Pseudocercospora atromarginalis* (G.F. Atk.) Deighton IF No: 321507 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
639. *Pseudocercospora basitruncata* Crous IF No: 442970 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
640. *Pseudocercospora bahiniiae* (Syd. & P. Syd.) Deighton IF No: 321514 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
641. *Pseudocercospora bradburvae* (E. Young) Deighton IF No: 321522 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
642. *Pseudocercospora byrsonimae* (Maubl.) U. Braun & Mouch. IF No: 623841 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
643. *Pseudocercospora calospilea* (Syd.) Deighton IF No: 321526 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
644. *Pseudocercospora coriariae* (Chupp) X.J. Liu & Y.L. Guo IF No: 126477 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
645. *Pseudocercospora fillense* (M. Morelet) Deighton IF No: 321576 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
646. *Pseudocercospora griseola* (Sacc.) Crous & U. Braun IF No: 500855 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
647. *Pseudocercospora hemidiodiae* (Toro) Deighton IF No: 321593 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
648. *Pseudocercospora leandrae* (Syd.) U. Braun IF No: 460171 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
649. *Pseudocercospora malli* (Ellis & Everh.) Deighton IF No: 283648 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
650. *Pseudocercospora megalopotamica* (Speg.) U. Braun IF No: 483037 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
651. *Pseudocercospora melochiae* (Henn.) Deighton IF No: 321633 **Trophic mode/Guild:** pathotrophy/plant pathogen



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Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
652. *Pseudocercospora miconiae* (Gonz. Frag. & Cif.) U. Braun & Crous IF No: 455681 **Trophic mode/Guild:** pathotroph /plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
653. *Pseudocercospora miconicola* (Chupp) U. Braun & Crous IF No: 440871 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
654. *Pseudocercospora nigricans* (Cooke) Deighton IF No: 321651 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
655. *Pseudocercospora orchidacearum* U. Braun IF No: 809024 **Trophic mode/ Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
656. *Pseudocercospora pilperis* (Pat.) Deighton IF No: 321663 **Trophic mode/ Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
657. *Pseudocercospora polymniae* (Chupp) U. Braun & Crous IF No: 441980 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
658. *Pseudocercospora profusa* (Syd. & P. Syd.) Deighton IF No: 131755 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
659. *Pseudocercospora pteridigena* U. Braun IF No: 805528 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
660. *Pseudocercospora puerariae* (Syd. & P. Syd.) Deighton IF No: 321673 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
661. *Pseudocercospora punicea* (Henn.) Deighton IF No: 321676 **Trophic mode/ Guild:** pathotroph, symbiotroph/ endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
662. *Pseudocercospora stevensii* (E. Young) U. Braun & Crous IF No: 449950 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
663. *Pseudocercospora ulei* (Henn.) B.T. Hora & Mizubuti IF No: 804653 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
664. *Pseudocercospora ulmifoliae* (Oberg. -Bot.) U. Braun & Crous IF No: 456872 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
665. *Pseudocercospora zorniae* (J.M. Yen & Gilles) Deighton IF No: 321738 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
666. *Pseudocercospora lantanicola* (Chupp) U. Braun & Crous IF No: 440973 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
667. *Pseudozasmidium parkii* (Crous & Alfenas) Videira & Crous IF No: 822785



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
668. *Ramularia armoraciae* Fuckel IF No: 165199



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
669. *Ramularia collo-cygni* B. Sutton & J.M. Waller IF No: 133476 **Trophic mode/Guild:** symbiotroph/endophyte



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
670. *Ramularia gossypii* (Speg.) Cif. IF No: 338213 **Trophic mode/Guild:** pathotroph/ plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
671. *Ramularia occidentalis* Ellis & Kellerm. IF No: 199223



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
672. *Ramularia vallisumbrosae* Cavara IF No: 213163



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
673. *Ramulispora allotropoidis* Thirum. & Naras. IF No: 305071 **Trophic mode/ Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
674. *Rhabdospora avocenniae* Kohlm. & E. Kohlm. IF No: 322421 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
675. *Rosicapharella rosicola* (Pass.) U. Braun, C. Nakash., Videira & Crous IF No: 822800



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
676. *Septoria antirrhini* Desm. IF No: 241670 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
677. *Septoria aulicola* Speg. IF No: 144109 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
678. *Septoria asclepiadeae* Sacc. IF No: 237502 **Trophic mode/Guild:** pathotroph /plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
679. *Septoria cucutana* F. Kern & Toro IF No: 262470 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
680. *Septoria glycines* Hemmi IF No: 215541 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
681. *Septoria lactucae* Pass. IF No: 207244 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
682. *Septoria lycopersici* Speg. IF No: 222927 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
683. *Septoria selenophomoides* E.K. Cash & A.M.J. Watson IF No: 305896 **Trophic mode/ Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
684. *Sphaerellothecium arnoldii* (A. Massal.) Hafellner IF No: 833734 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
685. *Sphaerulina ferruginosa* Chardón & Toro IF No: 264793 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
686. *Sphaerulina mimosae-pligrae* H.C. Evans & G. Carrión IF No: 358354 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
687. *Sphaerulina oryzae* Hara IF No: 101370 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
688. *Stigmidium heterodermiae* Etayo IF No: 373311 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
689. *Stigmidium joergensenii* R. Sant. IF No: 136182 **Trophic mode/Guild:** pathotroph/ lichen parasite



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
690. *Stigmidium leptogii* Etayo IF No: 373312 **Trophic mode/Guild:** pathotroph/ lichen parasite



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
691. *Uwebrunlia ellipsoidae* Crous & M.J. Wing. IF No: 415554 **Trophic mode/ Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
692. *Uwebrunlia elaeidis* (Steyaert) Hern.- Restr., Sarria & Crous IF No: 816987



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
693. *Zasmidium eucalyptigenum* Crous & M.J. Wing. IF No: 810605 **Trophic mode/Guild:** saprotroph/undefined saprotroph



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
**694. *Zasmidium eucalyptorum*** (Crous & M.J. Wingf.) Quaedv. & Crous IF No: 807790 **Trophic mode/Guild:** saprotroph /undefined saprotroph



saprotroph

Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Mycosphaerellaceae  
**695. *Zasmidium pseudoparkii*** (Crous & M.J. Wingf.) Crous & U. Braun IF No: 516597 **Trophic mode/Guild:** saprotroph/undefined



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Teratosphaeriaceae  
**696. *Devriesia stauraphora*** (W.B. Kendr.) Seifert & N.L. Nick. IF No: 371260 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Teratosphaeriaceae  
**697. *Penkilella columbilana*** Crous & U. Braun IF No: 504510 **Trophic mode/ Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Teratosphaeriaceae  
**698. *Pseudoteratosphaeria flexuosa*** (Crous & M.J. Wingf.) Quaedv. & Crous IF No: 807825



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Teratosphaeriaceae  
**699. *Pseudoteratosphaeria perpendicularis*** (Crous & M.J. Wingf.) Quaedv. & Crous IF No: 807828



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Teratosphaeriaceae  
**700. *Pseudoteratosphaeria secundaria*** (Crous & Alfenas) Quaedv. & Crous IF No: 807829



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Teratosphaeriaceae  
**701. *Stenella anomocoonis*** de Hoog & Boekhout IF No: 108541 **Trophic mode/ Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Teratosphaeriaceae  
**702. *Suberoteratosphaeria suberosa*** (Crous, F.A. Ferreira, Alfenas & M.J. Wingf.) Quaedv. & Crous IF No: 807839



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Incertae sedis  
**703. *Scolecostigmina mangiferae*** (M.B. Ellis) U. Braun & Mouch. IF No: 450428



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Capnodiales, Incertae sedis  
**704. *Scolecostigmina palmivora*** (Sacc.) Kamal IF No: 568122



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Dothideales, Dothideaceae  
**705. *Endocoonidioma populi*** Tsuneda, Hambl. & Currah IF No: 487733 **Trophic mode/Guild:** saprotroph/ undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Dothideales, Dothideaceae  
**706. *Vestergrenia multipunctata*** (G. Winter) Arx & E. Müll. IF No: 307753



symbiotrophy/animal pathogen, endophyte, epiphyte, plant pathogen, undefined saprotroph **Habitat:** Isolated from pulps of mango | Saprotroph **Dept.:** VAC

Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Dothideales, Saccotrichaceae  
**707. *Aureobasidium melanogenum*** (Herm. & Nijh.) Zalar, Gostinčar & Gunde-Cim. IF No: 807698 **Trophic mode/Guild:** pathotroph, saprotroph,



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Dothideales, Saccotrichaceae  
**708. *Aureobasidium microstictum*** (Bubák) W.B. Cooke IF No: 326821 **Trophic mode/ Guild:** symbiotrophy/endophyte



symbiotrophy/animal pathogen, endophyte, epiphyte, plant pathogen, undefined saprotroph

Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Dothideales, Saccotrichaceae  
**709. *Aureobasidium nambibae*** (Zalar, de Hoog & Gunde-Cim.) Zalar, Gostinčar & Gunde-Cim. IF No: 807701 **Trophic mode /Guild:** pathotroph, saprotroph,



epiphyte, plant pathogen **Habitat:** In soil | leaf surfaces of plants | On seeds | On food | In indoor | Occasionally isolated from skin and nails | Endophyte. Saprotroph. gregarious **Distribution:** Global Distribution **Elev.:** 3,250 m **Dept.:** CUN **Uses:** HF, PO

Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Dothideales, Saccotrichaceae  
**710. *Aureobasidium pullulans*** (de Bary & Löwenthal) G. Arnaud IF No: 101771 **Trophic mode/Guild:** pathotroph, symbiotrophy/ animal pathogen, endophyte,



pathogen, endophyte, epiphyte, plant pathogen, undefined saprotroph **Habitat:** Isolated from pulps of rose apple ("pomarrosa") | Saprotroph **Dept.:** VAC

Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Dothideales, Saccotrichaceae  
**711. *Aureobasidium thailandense*** S.W. Peterson, Manitch. & Leathers IF No: 801148 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotrophy/ animal



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Dothideales, Saccotrichaceae  
**712. *Metasphaeria phyllochoragearum*** Petr. IF No: 274316 **Trophic mode/Guild:** saprotroph/ undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Dothideales, Saccotrichaceae  
**713. *Pseudosydowia eucalypti*** (Verwoerd & du Plessis) Thambug, & K.D. Hyde IF No: 550734



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Mycocronales, Mycocronaceae  
**714. *Peltella insignis*** Toro IF No: 267967



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Mycosphaerellales, Mycosphaerellaceae  
**715. *Sondermania walkerii*** R.F. Park & Keane IF No: 648681 **Trophic mode/ Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Myriangiales, Elsinoaceae  
**716. *Elsinoe arachidis*** (Bitanc. & Jenkins) Rossmann & W.C. Allen IF No: 627254 **Trophic mode/Guild:** pathotroph /plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Myriangiales, Elsinoaceae  
**717. *Elsinoe australis*** Bitanc. & Jenkins IF No: 627260 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Myriangiales, Elsinoaceae  
**718. *Elsinoe brasiliensis*** Bitanc. & Jenkins IF No: 627274 **Trophic mode/ Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Myriangiales, Elsinoaceae  
**719. *Elsinoe cinchonae*** Jenkins IF No: 627287 **Trophic mode/ Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Myriangiales, Elsinoaceae  
**720. *Elsinoe fawcettii*** Bitanc. & Jenkins IF No: 627313 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Myriangiales, Elsinoaceae  
**721. *Elsinoe zorniae*** (Bitanc. & Jenkins) Romberg & W.C. Allen IF No: 627434 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Dothideomycetidae, Incertae sedis, Vizziellaceae  
**722. *Vizella appendiculosa*** (Mont. & Berk.) Theiss. IF No: 207258 **Trophic mode/Guild:** pathotrophy/ **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Mytilinidiales, Mytilinidaceae  
**723. *Taenolobella diederichiana*** Etayo & Calat. IF No: 355970 **Trophic mode/Guild:** pathotrophy/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Mytilinidiales, Mytilinidaceae  
**724. *Taenolobella thekstromatis*** Heuchert & Brackel IF No: 819304 **Trophic mode/ Guild:** pathotrophy/lichen parasite



in river | Saprotroph **Dept.:** SAN

Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Amniculicolaceae  
**725. *Amniculicola longissima*** (Sacc. & P. Syd.) Nadeeshan & K.D. Hyde IF No: 819029 **Trophic mode/Guild:** saprotroph/ undefined saprotroph **Habitat:** From foam



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Amniculicolaceae  
**726. *Anguillospora crassa*** Ingold IF No: 292536



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Amniculicolaceae  
**727. *Anguillospora gigantea*** Ranzoni IF No: 292538



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Amniculicolaceae  
**728. *Anguillospora pseudolongissima*** Ranzoni IF No: 292539 **Trophic mode/Guild:** saprotrophy/ **Habitat:** From foam in river | Saprotroph **Dept.:** SAN



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Arthopyreniaceae  
**729. *Arthopyrenia cerasi*** (Schrad.) A. Massal. IF No: 377023 **Trophic mode/Guild:** symbiotrophy/lichenised



CHECKLIST OF FUNGI OF COLOMBIA



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Astrosphaeriellaceae  
730. *Astrosphaerella stellata* (Pat.) Sacc.  
IF No: 197616 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Coniothyriaceae  
733. *Coniothyrium phyllachorae* Maubl. IF No: 178431 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Corynesporaceae  
736. *Corynespora pseudocassicola* Crous & M.J. Wingf. IF No: 825399 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Astrosphaeriellaceae  
731. *Astrosphaerella trochus* (Penz. & Sacc.) D. Hawksw. IF No: 111138 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Corynesporaceae  
734. *Corynespora cassicola* (Berk. & M.A. Curtis) C.T. Wei IF No: 296024 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, plant pathogen



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Cucurbitariaceae  
737. *Pyrenochaetopsis declipens* (Marchal) Gruyter, Aveskamp & Verkley IF No: 514655 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/endophyte, lichen parasite, undefined saprotroph



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Coniothyriaceae  
732. *Coniothyrium panici* Syd. IF No: 273472 **Trophic mode/ Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Corynesporaceae  
735. *Corynespora glaucospora* (Berk. & Broome) M.B. Ellis IF No: 296028 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Cucurbitariaceae  
738. *Pyrenochaetopsis leptospora* (Sacc. & Briard) Gruyter, Aveskamp & Verkley IF No: 514654 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/endophyte, lichen parasite, undefined saprotroph **Habitat:** On soils cultivated with apple and peach | Saprotroph **Elev.:** 2,900 m **Dept.:** BOY



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Dacampiaceae  
739. *Aosphaerella arxii* (Aa) Aptroot IF No: 412366 **Trophic mode/Guild:** saprotroph /undefined saprotroph



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Didymellaceae  
742. *Ascochyta medicaginicola* Qian Chen & L. Cai IF No: 814129 **Trophic mode/ Guild:** pathotroph/plant pathogen **Habitat:** On soils cultivated with peach | Plant pathogen **Elev.:** 2,900 m **Dept.:** BOY



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Dacampiaceae  
740. *Dacampia leptogilicola* (D. Hawksw.) D. Hawksw. IF No: 511070 **Trophic mode/ Guild:** pathotroph/lichen parasite



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Didymellaceae  
743. *Boeremia exigua* (Desm.) Aveskamp, Gruyter & Verkley IF No: 515624 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, plant pathogen **Habitat:** On soils cultivated with peach | Saprotroph **Elev.:** 2,900 m **Dept.:** BOY



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Didymellaceae  
741. *Ascochyta herbicola* (Wehm.) Qian Chen & L. Cai IF No: 814127 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Didymellaceae  
744. *Boeremia noackiana* (Allesch.) Aveskamp, Gruyter & Verkley IF No: 515636 **Trophic mode/Guild:** pathotroph/endophyte, plant pathogen



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Didymellaceae  
745. *Didymella arachidicola* (Khokhr.) Tomilin IF No: 313038 **Trophic mode/ Guild:** pathotroph, saprotroph/animal pathogen, plant pathogen, undefined saprotroph

saprotroph



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Didymellaceae  
746. *Didymella glomerata* (Corda) Qian Chen & L. Cai IF No: 814105 **Trophic mode/ Guild:** pathotroph, saprotroph/animal pathogen, plant pathogen, undefined saprotroph

pathogen, undefined saprotroph



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Didymellaceae  
747. *Didymella holci* (Tehon) Arx IF No: 128195 **Trophic mode/Guild:** pathotroph, saprotroph/animal pathogen, plant pathogen, undefined saprotroph



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Didymellaceae  
748. *Didymella penniseti* Syd. & P. Syd. IF No: 150883 **Trophic mode/Guild:** pathotroph, saprotroph/animal pathogen, plant pathogen, undefined saprotroph



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Didymellaceae  
749. *Didymella pinodes* (Berk. & A. Bloxam) Petr. IF No: 274545 **Trophic mode/Guild:** pathotroph, saprotroph/animal pathogen, plant pathogen, undefined saprotroph

pathogen, undefined saprotroph



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Didymellaceae  
750. *Didymella rumicicola* (Boerema & Loer.) Q. Chen & L. Cai IF No: 814118



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Didymellaceae  
751. *Didymella vitumicola* (Oudem.) Qian Chen & L. Cai IF No: 814123 **Trophic mode/Guild:** pathotroph, saprotroph/animal pathogen, plant pathogen, undefined saprotroph

undefined saprotroph



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Didymellaceae  
752. *Epicoccum andropogonis* (Ces.) Schol-Schwarz IF No: 297307 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/endophyte, fungal parasite, lichen parasite, plant pathogen, wood saprotroph

lichen parasite, plant pathogen, wood saprotroph



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Didymellaceae  
753. *Epicoccum draecolis* (Berk. ex Cooke) Q. Chen & L. Cai IF No: 814080



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Didymellaceae  
754. *Epicoccum nigrum* Link IF No: 226758 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, lichen parasite, plant pathogen **Habitat:** In soil | seeds | dead parts of plants | insects | human skin | soils cultivated with peach | soils in uncultivated field (intermediate between orchard and woodland) | woodland soils | Saprotroph | Saprotroph | endophytic **Distribution:** Global **Elev.:** 2,900 m **Dept.:** BOY **Uses:** PO

soil | seeds | dead parts of plants | insects | human skin | soils cultivated with peach | soils in uncultivated field (intermediate between orchard and woodland) | woodland soils | Saprotroph | Saprotroph | endophytic **Distribution:** Global **Elev.:** 2,900 m **Dept.:** BOY **Uses:** PO



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Didymellaceae  
755. *Epicoccum sorghinum* (Sacc.) Aveskamp, Gruyter & Verkley IF No: 544157 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/endophyte, fungal parasite, lichen parasite, plant pathogen, wood saprotroph

fungal parasite, lichen parasite, plant pathogen, wood saprotroph



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Didymellaceae  
756. *Leptosphaerulina crassiasca* (Séchet) C.R. Jacks. & D.K. Bell IF No: 333283 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Didymellaceae  
757. *Leptosphaerulina peltigerae* (Fueckel) Riedl IF No: 333291 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Didymellaceae  
758. *Leptosphaerulina trifolii* (Rostr.) Petr. IF No: 299665 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Didymellaceae  
759. *Phoma herbarum* Westend. IF No: 171008



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Didymellaceae  
760. *Phoma levelleii* Boerema & G.J. Bollen IF No: 320130



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Didymellaceae  
761. *Phoma phaseolina* Brunaud IF No: 244350



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Didymellaceae  
762. *Sirmilliphoma crystallifera* (Gruyter, Noordel. & Boerema) Valenz.-Lopez, Crous, Cano, Guarro & Stchigel IF No: 820848



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Didymellaceae  
763. *Stagonosporopsis andigena* (Turkenst.) Aveskamp, Gruyter & Verkley IF No: 515655 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Didymellaceae  
764. *Stagonosporopsis crystalliniformis* (Loer., R. Navarro, M. Lobo & Turkenst.) Aveskamp, Gruyter & Verkley IF No: 515659 **Trophic mode/Guild:** pathotroph/plant pathogen

/plant pathogen



Fungl. Ascomycota. Pezizomycotina. Dothideomycetes. Pleosporomycetidae. Pleosporales. Didymosphaeriaceae  
765. *Paraconiothyrium estuarinum* Verkley & Manuela Silva IF No: 500081 **Trophic mode/Guild:** saprotroph/undefined saprotroph

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Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Didymosphaeriaceae  
**766. *Paraconothyrum fuckellii*** (Sacc.) Verkley & Gruyter IF No: 564787 **Trophic mode/Guild:** saprotrophy/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Didymosphaeriaceae  
**767. *Paraphaenocarpus arcaearum*** Verkley, Göker & Stielow IF No: 800762 **Trophic mode/Guild:** saprotrophy/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Didymosphaeriaceae  
**768. *Paraphaenocarpus parmellae*** Crous & Trakun. IF No: 810834 **Trophic mode/Guild:** saprotrophy/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Didymosphaeriaceae  
**769. *Paraphaenocarpus sporulosa*** (W. Gams & Domsch) Verkley, Göker & Stielow IF No: 800768 **Trophic mode/ Guild:** saprotrophy/undefined saprotroph **Habitat:** In leaves of *Espeletia* spp. | On soil | Endophyte. Saprotroph **Hosts:** *Espeletia* spp. **Elev.:** 3,250 m **Dept.:** CUN **Uses:** PO



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Didymosphaeriaceae  
**770. *Pseudophthomyces chartarum*** (Berk. & M.A. Curtis) Jun F. Li, Ariyaw. & K.D. Hyde IF No: 551393



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Dothidotthiaceae  
**771. *Dothidotthia melanococca*** (Lév.) Aptroot IF No: 500366 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Leptosphaeriaceae  
**772. *Leptosphaeria australensis*** (Cribb & J.W. Cribb) G.C. Hughes IF No: 316706 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Leptosphaeriaceae  
**773. *Leptosphaeria caucana*** Petr. IF No: 299575 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Leptosphaeriaceae  
**774. *Leptosphaeria dolololum*** (Pers.) Ces. & De Not. IF No: 161618 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Leptosphaeriaceae  
**775. *Leptosphaeria zeae-maydis*** Saccas IF No: 299658 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Lophiostomataceae  
**776. *Lophiostoma chamaecyparidis*** (Rehm) Aptroot & K.D. Hyde IF No: 375290 **Trophic mode/Guild:** saprotroph /undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Macrovalsariaceae  
**777. *Macrovalsaria megalospora*** (Mont.) Sivan. IF No: 317110



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Massariaceae  
**778. *Helminthosporiella stilbacea*** Hern.-Restr., Sarnia & Crous IF No: 816939 **Habitat:** On leaves of *Eleaëis oleifera* **Dept.:** SAN



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Massariaceae  
**779. *Helminthosporium solani*** Durieu & Mont. IF No: 174113



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Massariaceae  
**780. *Massarina polytrichadelphi*** Döbberl IF No: 510595 **Trophic mode/Guild:** pathotrophy, saprotrophy/plant pathogen, undefined saprotroph **Habitat:** Bryophilous **Hosts:** *Polytrichadelphus aristatus* **Elev.:** 2,000–2,440 m **Dept.:** ANT, NAR



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Melanommataceae  
**781. *Byssosphaeria rhodophala*** (Berk.) Cooke IF No: 124158 **Trophic mode/ Guild:** saprotrophy/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Melanommataceae  
**782. *Herpotrichia rhodosticta*** (Berk. & Broome) Sacc. IF No: 238423 **Trophic mode/Guild:** saprotrophy/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Melanommataceae  
**783. *Pleotrichocladium opacum*** (Corda) Hern.-Restr., R.F. Castañeda & Gené IF No: 820278



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Microsphaeropsidaceae  
**784. *Microsphaeropsis arundinis*** (S. Ahmad) B. Sutton IF No: 116306 **Trophic mode/Guild:** pathotroph, symbiotrophy/ animal pathogen, epiphyte **Habitat:** On soils in uncultivated field (intermediate between orchard and woodland) | Saprotroph. Human pathogen **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Mycoporaceae  
**785. *Mycoporum compositum*** (A. Massal.) R.C. Harris IF No: 132230 **Trophic mode/ Guild:** saprotroph, symbiotrophy/ undefined saprotroph, lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, North America, Native **Elev.:** 1,200–2,500 **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Mycoporaceae  
**786. *Mycoporum eschweileri*** (Müll. Arg.) R.C. Harris IF No: 413539 **Trophic mode/ Guild:** saprotroph, symbiotrophy/ undefined saprotroph, lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Mycoporaceae  
**787. *Mycoporum lacteum*** (Ach.) R.C. Harris IF No: 413540 **Trophic mode/ Guild:** saprotroph, symbiotrophy/ undefined saprotroph, lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Mycoporaceae  
**788. *Mycoporum sparsillum*** Nyl. IF No: 395788 **Trophic mode/Guild:** saprotroph, symbiotrophy/undefined saprotroph, lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 2,200–2,700 m **Dept.:** TOL



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Phaeosphaeriaceae  
**789. *Ampelomyces quisqualis*** Ces. IF No: 121267 **Trophic mode/Guild:** symbiotrophy /endophyte



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Phaeosphaeriaceae  
**790. *Eudarlucia carlcs*** (Fr.) O.E. Erikss. IF No: 330712 **Trophic mode/Guild:** saprotrophy/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Phaeosphaeriaceae  
**791. *Parastagonospora avenae*** (A.B. Frank) Quaedv., Verkley & Crous IF No: 804436



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Phaeosphaeriaceae  
**792. *Phaeoseptoria musae*** Punith. IF No: 319660 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Phaeosphaeriaceae  
**793. *Phaeosphaeria maydis*** (Henn.) Rane, Payak & Renfro IF No: 441028 **Trophic mode/Guild:** saprotrophy/ undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Phaeosphaeriaceae  
**794. *Setophoma terrestris*** (H.N. Hansen) Gruyter, Aveskamp & Verkley IF No: 514659



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Phaeosphaeriaceae  
**795. *Sphaerolopsis anomala*** Nag Raj IF No: 359676



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Phaeosphaeriaceae  
**796. *Stagonospora atriplicis*** (Westend.) Lind IF No: 118733 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Phaeosphaeriaceae  
**797. *Wojnowickella eucalypti*** Crous, Hern.-Restr. & M.J. Wingf. IF No: 812444



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Phaeosphaeriaceae  
**798. *Wojnowickella viburni*** (Wijayaw., Yong Wang bis & K.D. Hyde) Crous, Hern.-Restr. & M.J. Wingf. IF No: 812445



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**799. *Alternaria alstroemeriae*** E.G. Simmons & C.F. Hill IF No: 505018 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotrophy/ animal pathogen, endophyte, plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**800. *Alternaria alternata*** (Fr.) Keissl. IF No: 119834 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotrophy/ animal pathogen, endophyte, plant pathogen,



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**801. *Alternaria astragalii*** Wangeline & E.G. Simmons IF No: 510572 **Trophic mode/ Guild:** pathotroph, saprotroph, symbiotrophy/ animal pathogen, endophyte,



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**802. *Altemaria brassicae*** (Berk.) Sacc. IF No: 214057 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**803. *Altemaria broccoll-italicae*** E.G. Simmons IF No: 505019 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/ animal pathogen, endophyte, plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**804. *Altemaria colombiana*** E.G. Simmons IF No: 460139 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**805. *Altemaria constricta*** E.G. Simmons IF No: 361698 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/ animal pathogen, endophyte, plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**806. *Altemaria dauci*** (J.G. Kühn) J.W. Groves & Skolko IF No: 284025 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**807. *Altemaria daucicaulis*** E.G. Simmons IF No: 505062 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**808. *Altemaria galsen*** Nagano ex Hara IF No: 252306 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/ animal pathogen, endophyte, plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**809. *Altemaria geophila*** Dasz. IF No: 101214 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**810. *Altemaria gossypina*** (Thüm.) J.C.F. Hopkins IF No: 266270 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**811. *Altemaria infectoria*** E.G. Simmons IF No: 103987 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**812. *Altemaria limoniasperae*** E.G. Simmons IF No: 460136 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**813. *Altemaria longipes*** (Ellis & Everh.) E.W. Mason IF No: 269712 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**814. *Altemaria longissima*** Deighton & MacGarvie IF No: 326055 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**815. *Altemaria oudemansii*** (E.G. Simmons) Woudenb. & Crous IF No: 803715 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**816. *Altemaria padwickii*** (Ganguly) M.B. Ellis IF No: 308514 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**817. *Altemaria passiflorae*** J.H. Simmonds IF No: 273707 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/ animal pathogen, endophyte, plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**818. *Altemaria pellicida*** E.G. Simmons IF No: 127808 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**819. *Altemaria porri*** (Ellis) Cif. IF No: 215273 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**820. *Altemaria radicina*** Meier, Drechsler & E.D. Eddy IF No: 276047 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**821. *Altemaria solani*** Sorauer IF No: 444460 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**822. *Altemaria tangoronis*** E.G. Simmons IF No: 461084 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**823. *Altemaria tenuissima*** (Kunze) Wiltshire IF No: 280005 **Trophic mode/Guild:** pathotroph, symbiotroph/ endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**824. *Altemaria thunbergiae*** E.G. Simmons & Alcorn IF No: 504986



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**825. *Bipolaris cookii*** (Sacc.) Shoemaker IF No: 293675 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**826. *Bipolaris cynodontis*** (Marignoni) Shoemaker IF No: 513895 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**827. *Bipolaris melindis*** Alcorn IF No: 119250 **Trophic mode/ Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**828. *Bipolaris oryzae*** (Breda de Haan) Shoemaker IF No: 48251 8 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**829. *Bipolaris sacchari*** (E.J. Butler) Shoemaker IF No: 293698 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**830. *Bipolaris stenospila*** (Drechsler ex Faris) Shoemaker IF No: 555414 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**831. *Bipolaris zeae*** Sivan, IF No: 105096 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**832. *Bipolaris zeicola*** (G.L. Stout) Shoemaker IF No: 293708 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**833. *Cochilobolus geniculatus*** R.R. Nelson IF No: 328541 **Trophic mode/Guild:** pathotroph, symbiotroph/ endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**834. *Curvularia affinis*** Boedijn IF No: 255972 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**835. *Curvularia brachyspora*** Boedijn IF No: 258787 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**836. *Curvularia cactivora*** (Petr.) Y. Marín & Crous IF No: 832462 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**837. *Curvularia clavata*** B.L. Jain IF No: 329439 **Trophic mode/Guild:** pathotroph/plant pathogen

CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**838. *Curvularia cymbopogonis*** (C.W. Dodge) J.W. Groves & Skolko IF No: 285914 **Trophic mode/Guild:** pathotroph/ plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**839. *Curvularia eragrostidis*** (Henn.) J.A. Mey. IF No: 296246 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**840. *Curvularia lunata*** (Wakker) Boedijn IF No: 269889 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**841. *Curvularia nodulosa*** (Sacc.) Manangoda, Rossman & K.D. Hyde IF No: 809652 **Trophic mode/Guild:** pathotroph/ plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**842. *Curvularia oryzae*** Bugnic. IF No: 282640 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**843. *Curvularia pallescens*** Boedijn IF No: 273299 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**844. *Curvularia penniseti*** (Mitra) Boedijn IF No: 273902 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**845. *Curvularia ravenelli*** (M.A. Curtis ex Berk.) Manangoda, L. Cai & K.D. Hyde IF No: 800547 **Trophic mode/Guild:** pathotroph/ plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**846. *Curvularia senegalensis*** (Speg.) Subram. IF No: 296254 **Trophic mode/Guild:** pathotroph, symbiotroph/ endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**847. *Curvularia spicifera*** (Bainier) Boedijn IF No: 278597 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**848. *Curvularia trifolii*** (Kauffman) Boedijn IF No: 280637 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**849. *Drechslera gigantea*** S. Ito IF No: 265960 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**850. *Exserohilum heteropogoncola*** Sivan. IF No: 106131 **Trophic mode/ Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**851. *Exserohilum oryzicola*** Sivan. IF No: 106134 **Trophic mode/Guild:** pathotroph/ plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**852. *Exserohilum pratense*** K.J. Leonard & Suggs IF No: 314058 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**853. *Exserohilum rostratum*** (Drechsler) K.J. Leonard & Suggs IF No: 314059 **Trophic mode/Guild:** pathotroph /plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**854. *Exserohilum turcicum*** (Pass.) K.J. Leonard & Suggs IF No: 314060 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**855. *Pyrenophora avenae*** S. Ito & Kurib. IF No: 258019 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**856. *Pyrenophora poae*** (Baudyš) Y. Marin & Crous IF No: 829617 **Trophic mode/ Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**857. *Pyrenophora teres*** Drechsler IF No: 255071 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**858. *Pyrenophora tritici-repentis*** (Died.) Drechsler IF No: 255190 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**859. *Stemphyllum beticola*** Woudenb. & Hanse IF No: 815876



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**860. *Stemphyllum botryosum*** Wallr. IF No: 218021 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**861. *Stemphyllum solani*** G.F. Weber IF No: 278352 **Trophic mode/Guild:** pathotroph/ plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pleosporaceae  
**862. *Stemphyllum vesicarium*** (Wallr.) E.G. Simmons IF No: 339660 **Trophic mode/ Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Pseudopyrenochaetaceae  
**863. *Pseudopyrenochaeta lycopersi*** (R.W. Schneid. & Gerlach) Valenz.-Lopez, Crous, Stchigel, Guarro & Cano IF No: 820431



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Sporormiaceae  
**864. *Preussia africana*** Arenal, Platas & Peláez IF No: 501313 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On soils cultivated with peach and apple |

**Trophic mode/Guild:** saprotroph/ **Habitat:** On soils cultivated with peach | **Saprotroph Elev.:** 2,900 m **Dept.:** BOY

On soils in woodland | **Saprotroph Elev.:** 2,900 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Sporormiaceae  
**865. *Preussia tetramera*** (S.I. Ahmed & Cain) Krusys IF No: 543082 **Trophic mode/ Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Tetraplospheariaceae  
**866. *Tetraploa sasicola*** (Kaz. Tanaka & K. Hiray.) Kaz. Tanaka & K. Hiray. IF No: 801977 **Trophic mode/Guild:** saprotroph/ undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Torulaceae  
**867. *Dendryphon nanum*** (Nees) S. Hughes IF No: 296539 **Trophic mode/Guild:** pathotroph/plant pathogen **Habitat:** On soils cultivated with peach |

On soils in uncultivated field (intermediate between orchard and woodland) | On woodland soils | **Saprotroph Elev.:** 2,900 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Torulaceae  
**868. *Torula herbarum*** (Pers.) Link IF No: 199478 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Trematosphaeriaceae  
**869. *Trematosphaeria grisea*** (J.E. Mackinnon, Ferrada & Montem.) Abd. Ahmed, Sande, Fahal & de Hoog IF No: 804854 **Trophic mode/Guild:** saprotroph/ undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Incertae sedis  
**870. *Clavariopsis aquatica*** De Wild. IF No: 215182 **Trophic mode/Guild:** saprotroph/ **Habitat:** From foam in river | **Saprotroph Dept.:** SAN



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Incertae sedis  
**871. *Falciformispora senegalensis*** (Segretain, Baylet, Darasse & Camain) Abd. Ahmed, Sande, Fahal & de Hoog IF No: 804853 **Trophic mode/Guild:** pathotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Incertae sedis  
**872. *Periconia macrospinoso*** Lefebvre & Aar.G. Johnson IF No: 289149 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/endophyte, plant pathogen,



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Incertae sedis  
**873. *Plenodomus trachelophilus*** (Petri) Gruyter, Aveskamp & Verkleij IF No: 564760 **Trophic mode/Guild:** saprotroph/undefined saprotroph

/plant pathogen

wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Pleosporales, Incertae sedis  
**874. *Pseudochaetosphaeronema larense*** (Borelli & R. Zamora) Punith. IF No: 321757



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Tubefuiales, Tubefuaceae  
**875. *Hellomyces roseus*** Link IF No: 237696 **Trophic mode/ Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Tubefuiales, Tubefuaceae  
**876. *Lichenotubeufia erlodermatis*** (Etayo) Etayo IF No: 824085 **Trophic mode/Guild:** pathotroph/ lichen parasite



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Tuberiales, Tuberuliaceae  
**877. *Lichenotubeufia pannariae*** (Etayo) Etayo IF No: 818453 **Trophic mode/Guild:** pathotrophy/ lichen parasite



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Tuberiales, Tuberuliaceae  
**878. *Tubeufia cylindrothecia*** (Seaver) Höhn. IF No: 340543 **Trophic mode/Guild:** saprotrophy/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Tuberiales, Tuberuliaceae  
**879. *Xenosporium berkeleyi*** (M.A. Curtis) Piroz. IF No: 341074 **Trophic mode/Guild:** saprotrophy/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Venturiales, Venturiaceae  
**880. *Botrystroma eupatori*** (F. Stevens) E. Müll. & Arx IF No: 327129 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Venturiales, Venturiaceae  
**881. *Gilbera gulanensis*** (J.A. Stev.) Arx IF No: 331310 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Venturiales, Venturiaceae  
**882. *Napcladlum cariceae*** Chardón & Cif. IF No: 259777 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Venturiales, Venturiaceae  
**883. *Pseudoparodiella veronlae*** F. Stevens IF No: 281562 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Vernonia canescens* **Elev.:** 1,800 m **Dept.:**



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Venturiales, Venturiaceae  
**884. *Robledia tetraspora*** Chardón IF No: 280108



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Pleosporomycetidae, Venturiales, Venturiaceae  
**885. *Uleodothis eupatoriicola*** Garcés IF No: 534843 **Trophic mode/Guild:** pathotrophy/ plant pathogen

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Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Abrothallales, Abrothallaceae  
**886. *Abrothallus eriodermiae*** Sujia, Etayo & Pérez-Ort. IF No: 809368 **Trophic mode/Guild:** pathotrophy/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Abrothallales, Abrothallaceae  
**887. *Abrothallus hypotrachinae*** Etayo & Diederich IF No: 371712 **Trophic mode/Guild:** pathotrophy/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Abrothallales, Abrothallaceae  
**888. *Abrothallus macrosporus*** Etayo & R. Sant. IF No: 810726 **Trophic mode/Guild:** pathotrophy/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Abrothallales, Abrothallaceae  
**889. *Abrothallus parmellarum*** (Sommerf.) Arnold IF No: 216521 **Trophic mode/Guild:** pathotrophy/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Abrothallales, Abrothallaceae  
**890. *Abrothallus stereocaulorum*** Etayo & Diederich IF No: 371738 **Trophic mode/Guild:** pathotrophy/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Abrothallales, Abrothallaceae  
**891. *Abrothallus stictarum*** Etayo IF No: 371740 **Trophic mode/Guild:** pathotrophy/ lichen parasite



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Abrothallales, Abrothallaceae  
**892. *Abrothallus usneae*** Rabenh. IF No: 457669 **Trophic mode/Guild:** pathotrophy/ lichen parasite



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Abrothallales, Abrothallaceae  
**893. *Abrothallus wehwitschii*** Mont. IF No: 228963 **Trophic mode/Guild:** pathotrophy/ lichen parasite



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Acrospermales, Acrospermaeaceae  
**894. *Oomyces carneolibus*** (Lib.) Berk. & Broome IF No: 189698 **Trophic mode/Guild:** saprotrophy/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Botryosphaerales, Botryosphaeriaceae  
**895. *Botryosphaeria dothidea*** (Moug.) Ces. & De Not. IF No: 183247 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Botryosphaerales, Botryosphaeriaceae  
**896. *Lasiodiplodia avicenniae*** J.A. Osorio, Jol. Roux & Z.W. de Beer IF No: 812010 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Botryosphaerales, Botryosphaeriaceae  
**897. *Lasiodiplodia brasiliensis*** M.S.B. Netto, M.W. Marques & A.J.L. Phillips IF No: 812566 **Trophic mode/Guild:** pathotrophy/ plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Botryosphaerales, Botryosphaeriaceae  
**898. *Lasiodiplodia crassispora*** T.I. Burgess & P.A. Barber IF No: 500235 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Botryosphaerales, Botryosphaeriaceae  
**899. *Lasiodiplodia macrospora*** A.R. Machado & O.L. Pereira IF No: 804871 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Botryosphaerales, Botryosphaeriaceae  
**900. *Lasiodiplodia parva*** A.J.L. Phillips, A. Alves & Crous IF No: 510942 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Botryosphaerales, Botryosphaeriaceae  
**901. *Lasiodiplodia pseudothobromae*** A.J.L. Phillips, A. Alves & Crous IF No: 510941 **Trophic mode/Guild:** pathotroph /animal pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Botryosphaerales, Botryosphaeriaceae  
**902. *Lasiodiplodia rubropurpurea*** T.I. Burgess, P.A. Barber & Pegg IF No: 500236 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Botryosphaerales, Botryosphaeriaceae  
**903. *Lasiodiplodia theobromae*** (Pat.) Griffon & Maubl. IF No: 188476 **Trophic mode/Guild:** pathotroph, symbiotroph/ endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Botryosphaerales, Botryosphaeriaceae  
**904. *Lasiodiplodia venezuelensis*** T.I. Burgess, P.A. Barber & Mohali IF No: 500237 **Trophic mode/Guild:** pathotrophy/ plant pathogen **Habitat:** In Vanilla tissues | wood of Acacia mangium | Endophyte **Hosts:** Vanilla sp.; Acacia mangium **Dept.:** CHO



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Botryosphaerales, Botryosphaeriaceae  
**905. *Lasiodiplodia viticola*** Urbez-Torr., Peduto & Gubler IF No: 519955 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Botryosphaerales, Botryosphaeriaceae  
**906. *Leptodothorella marconii*** McPart. IF No: 363195



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Botryosphaerales, Botryosphaeriaceae  
**907. *Macrophomina phaseolina*** (Tassi) Gold. IF No: 300023 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Botryosphaerales, Botryosphaeriaceae  
**908. *Neofusicoccum parvum*** (Pennycook & Samuels) Crous, Slippers & A.J.L. Phillips IF No: 500879 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Botryosphaerales, Botryosphaeriaceae  
**909. *Neofusicoccum ribis*** (Slippers, Crous & M.J. Wingf.) Crous, Slippers & A.J.L. Phillips IF No: 500881 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Botryosphaerales, Botryosphaeriaceae  
**910. *Neoscytalidium dimidiatum*** (Penz.) Crous & Slippers IF No: 500869 **Trophic mode/Guild:** pathotrophy/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Botryosphaerales, Endomelanconiolepisaceae  
**911. *Endomelanconiolepis endophytica*** E.I. Rojas & Samuels IF No: 511838 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Botryosphaerales, Endomelanconiolepisaceae  
**912. *Endomelanconiolepis microspora*** (Verkley & Aa) E.I. Rojas & Samuels IF No: 511839 **Trophic mode/Guild:** pathotrophy/ plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Botryosphaerales, Phyllostictaceae  
**913. *Phyllosticta anibaie*** Masseur IF No: 213430



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Botryosphaerales, Planistromellaceae  
**914. *Microcyclus stuebelii*** (Henn.) E. Müll. & Sanwal IF No: 300993 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Botryosphaerales, Planistromellaceae  
**915. *Microcyclus tinctoria*** (Tul.) Arx IF No: 334159 **Trophic mode/Guild:** pathotrophy/ plant pathogen

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Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Eremithaliales, Melaspileaceae  
**916. *Melaspilea chlonographa*** (Nyl.) Zahlbr. IF No: 395296 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Colombia, Endemic **Elev.:** 2,600 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Eremithaliales, Melaspileaceae  
**917. *Melaspilea diplosospora*** (Nyl.) Müll. Arg. IF No: 395316 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 2,500–2,600 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Eremithaliales, Melaspileaceae  
**918. *Melaspilea heterocarpa*** (Fée) Müll. Arg. IF No: 395329 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Eremithaliales, Melaspileaceae  
**919. *Melaspilea interalbicans*** (Nyl.) Müll. Arg. IF No: 395335 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Colombia, Endemic **Elev.:** 2,000 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Eremithaliales, Melaspileaceae  
**920. *Melaspilea myricarpa*** Fée IF No: 453375 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Neotropics, Native **Dept.:** GUA



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Eremithaliales, Melaspileaceae  
**921. *Melaspilea opegraphoides*** Nyl. IF No: 395360 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Colombia, Endemic **Elev.:** 2,000 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Lichenococcales, Lichenococcaceae  
**922. *Lichenococcium usneae*** (Anzi) D. Hawksw. IF No: 316909 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Lichenococcales, Lichenococcaceae  
**923. *Lichenococcium xanthorae*** M.S. Christ. IF No: 299794 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Lineolatales, Lineolataceae  
**924. *Lineolata rhizophorae*** (Kohlm. & E. Kohlm.) Kohlm. & Volkrm.–Kohlm. IF No: 128208



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Microthyriales, Micropeltidaceae  
**925. *Dictyothyrium minutum*** Toro IF No: 271347



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Microthyriales, Microthyriaceae  
**926. *Calothyrium aplahyrum*** (Speg.) F. Stevens IF No: 257049



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Microthyriales, Microthyriaceae  
**927. *Caribaomyces tetrasporus*** (Toro) Cif. IF No: 327524 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Microthyriales, Microthyriaceae  
**928. *Hansfordiella cupulifera*** (Hansf.) S. Hughes IF No: 298132 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Microthyriales, Microthyriaceae  
**929. *Lichenopeltella communis*** Etayo IF No: 565888 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Microthyriales, Microthyriaceae  
**930. *Lichenopeltella heterodermiae*** Diederich IF No: 437021 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Microthyriales, Microthyriaceae  
**931. *Lichenopeltella minuta*** R. Sant. IF No: 136181 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Microthyriales, Microthyriaceae  
**932. *Lichenopeltella thamnoliae*** R. Sant. IF No: 446223 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Microthyriales, Microthyriaceae  
**933. *Microthyrium phoradendri*** Garcés IF No: 288392 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Hosts:** *Phoradendron* sp. **Distribution:** Pan tropics , Endemic **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Microthyriales, Microthyriaceae  
**934. *Microthyrium rhombisporum*** Garcés IF No: 288394 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On *Rapanea* sp. **Hosts:** *Rapanea* sp. **Distribution:** Pan tropics , Endemic **Elev.:** 1,800 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Microthyriales, Microthyriaceae  
**935. *Platyeltella irregularis*** M.L. Farr IF No: 110031 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Microthyriales, Microthyriaceae  
**936. *Raciborskella lanerensis*** (Müll. Arg.) R. Sant. IF No: 369876 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Monoblastiales, Monoblastiaceae  
**937. *Anisomeridium albidum*** (Nyl.) R.C. Harris IF No: 132197 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Pan tropics, Native **Elev.:** 50 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Monoblastiales, Monoblastiaceae  
**938. *Anisomeridium americanum*** (A. Massal.) R.C. Harris IF No: 412416 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Monoblastiales, Monoblastiaceae  
**939. *Anisomeridium follicola*** R. Sant. & Tibell IF No: 134577 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Pacific **Distribution:** Pan tropics, Native **Elev.:** 35–450 m **Dept.:** AMA, CAQ, NAR



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Monoblastiales, Monoblastiaceae  
**940. *Anisomeridium leptospermum*** (Zahlbr.) R.C. Harris IF No: 412442 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,300 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Monoblastiales, Monoblastiaceae  
**941. *Anisomeridium polycarpum*** (Müll. Arg.) R.C. Harris IF No: 412451 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Monoblastiales, Monoblastiaceae  
**942. *Anisomeridium subnexum*** (Nyl.) R.C. Harris IF No: 412460



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Monoblastiales, Monoblastiaceae  
**943. *Anisomeridium subprostans*** (Nyl.) R.C. Harris IF No: 112742 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 150 m



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Monoblastiales, Monoblastiaceae  
**944. *Anisomeridium tamarindii*** (Fée) R.C. Harris IF No: 112743



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Monoblastiales, Monoblastiaceae  
**945. *Megalotremis lateralis*** Aptroot IF No: 533126 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Monoblastiales, Monoblastiaceae  
**946. *Megalotremis verrucosa*** (Makhija & Patw.) Aptroot IF No: 359163 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Monoblastiales, Monoblastiaceae  
**947. *Monoblastia borinquensis*** R.C. Harris IF No: 413478 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Monoblastiales, Monoblastiaceae  
**948. *Monoblastia rapilli*** Zahlbr. IF No: 411199 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Neotropics, Native



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Monoblastiales, Monoblastiaceae  
**949. *Monoblastia subsquamulosa*** Breuss IF No: 488379 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Patellariales, Patellariaceae  
**950. *Rhytidhysterium columbense*** Soto–Medina & Lücking IF No: 552900 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Patellariales, Patellariaceae  
**951. *Rhytidhysterium rufulum*** (Speg.) Speg. IF No: 121714 **Trophic mode/Guild:** pathotroph/plant pathogen



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Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Strigiales, Strigulaceae  
**952. *Dichoporis viridisca*** (Nyl.) S.H. Jiang, Lücking & Sérus. IF No: 836386



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Strigiales, Strigulaceae  
**953. *Dichoporis phaea*** (Ach.) S.H. Jiang, Lücking & Sérus. IF No: 836381



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Strigiales, Strigulaceae  
**954. *Flavobathellum epiphyllum*** Lücking, Aptroot & G. Thor IF No: 436310 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, Native **Elev.:** 35 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Strigiales, Strigulaceae  
**955. *Phyllobathellum anomalum*** Lücking IF No: 478134 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Neotropics, Native **Elev.:** 240 m **Dept.:** AMA



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Strigiales, Strigulaceae  
**956. *Phyllobathellum firmum*** (Stirt.) Vězda IF No: 489596 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Caribbean, Pacific **Distribution:** Neotropics, Native **Elev.:** 20–600 m **Dept.:** AMA, CAQ, MAG, MET, NAR



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Strigiales, Strigulaceae  
**957. *Phyllobathellum leguminosae*** (Cavalc. & A.A. Silva) Lücking & Sérus. IF No: 443807 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 600 m **Dept.:** MET



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Strigiales, Strigulaceae  
**958. *Phyllocharis orbicularis*** (Fr.) S.H. Jiang, Lücking & Sérus. IF No: 836391



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Strigiales, Strigulaceae  
**959. *Phylloporis obducta*** (Müll. Arg.) R. Sant. & Tibell IF No: 134579 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Strigiales, Strigulaceae  
**960. *Phylloporis phyllogena*** (Müll. Arg.) Clem. IF No: 400509 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Strigiales, Strigulaceae  
**961. *Phylloporis platypoda*** (Müll. Arg.) Vězda IF No: 107125 **Trophic mode/ Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Strigiales, Strigulaceae  
**962. *Phylloporis radiata*** (Lücking) S.H. Jiang, Lücking & J.C. Wei IF No: 833572 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Strigiales, Strigulaceae  
**963. *Phylloporis vulgaris*** (Müll. Arg.) S.H. Jiang, Lücking & J.C. Wei IF No: 833574 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Strigiales, Strigulaceae  
**964. *Pulgarrella nemathora*** (Mont) S.H. Jiang, Lücking & J.C. Wei IF No: 833579 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Strigiales, Strigulaceae  
**965. *Racopilaca maculata*** (Cooke & Massee) S.H. Jiang, Lücking & J.C. Wei IF No: 833584 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Strigiales, Strigulaceae  
**966. *Racopilaca melanobapha*** (Kremp.) S.H. Jiang, Lücking & J.C. Wei IF No: 833586 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Strigiales, Strigulaceae  
**967. *Racopilaca subtilissima*** Fée IF No: 403637 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Strigiales, Strigulaceae  
**968. *Strigula antillarum*** (Fée) Müll. Arg. IF No: 406612 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics, Native **Elev.:** 2,500 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Strigiales, Strigulaceae  
**969. *Strigula concreta*** (Fée) R. Sant. IF No: 370568 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics, Native **Elev.:** 800–2,200 m **Dept.:** CUN, MAG



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Strigiales, Strigulaceae  
**970. *Strigula dichosporidii*** Etayo IF No: 373314 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Strigiales, Strigulaceae  
**971. *Strigula macrocarpa*** Vain. IF No: 406639 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics, Native **Elev.:** 2,500 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Strigiales, Strigulaceae  
**972. *Strigula nitidula*** Mont. IF No: 119305 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes, Pacific **Distribution:** Panotropics, Native **Elev.:** 35–2,300 m **Dept.:** ANT, CAU, CUN, NAR, VAU



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Strigiales, Strigulaceae  
**973. *Strigula schizospora*** R. Sant. IF No: 370578 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Caribbean **Distribution:** Panotropics, Native **Elev.:** 20–60 m **Dept.:** MAG



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Strigiales, Strigulaceae  
**974. *Strigula smaragdula*** Fr. IF No: 431363 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes, Caribbean **Distribution:** Panotropics, Native **Elev.:** 20–2,000 m **Dept.:** AMA, CAQ, CUN, MAG, VAU



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Polycoccaceae  
**975. *Polycoccum squamarfolides*** (Mudd) Arnold IF No: 206844 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Polycoccaceae  
**976. *Polycoccum vermicularum*** (Linds.) D. Hawksw. IF No: 104655 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethelaceae  
**977. *Architrypethellum columbianum*** (Nyl.) Aptroot & Lücking IF No: 816650 **Trophic mode/Guild:** symbiotroph/lichenised **Conservation:** DD



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethelaceae  
**978. *Architrypethellum hyalinum*** Aptroot IF No: 533118 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,900–2,000 m **Dept.:** VAC



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethelaceae  
**979. *Architrypethellum uberinum*** (Fée) Aptroot IF No: 359161



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethelaceae  
**980. *Astrothellum aenascens*** Aptroot IF No: 815206 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethelaceae  
**981. *Astrothellum aenum*** (Eschw.) Aptroot & Lücking IF No: 816652 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethelaceae  
**982. *Astrothellum andamanicum*** (Makhija & Patw.) Aptroot & Lücking IF No: 816656 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethelaceae  
**983. *Astrothellum annulare*** (Fée) Aptroot & Lücking IF No: 816657 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethelaceae  
**984. *Astrothellum chrysoglyphum*** (Vain.) Aptroot & Lücking IF No: 816672 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethelaceae  
**985. *Astrothellum cinnamomeum*** (Eschw.) Müll. Arg. IF No: 377816 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Panotropics, Native **Elev.:** 250 m **Dept.:** CAQ



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethelaceae  
**986. *Astrothellum colombense*** Aptroot IF No: 815209 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethelaceae  
**987. *Astrothellum conicum*** Eschw. IF No: 377819 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Orinoquia **Distribution:** Neotropics, Native **Dept.:** GUA, VID

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Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**988. *Astrothellum crassum*** (Fée) Aptroot IF No: 532768 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Panotropics, Native



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**989. *Astrothellum defossum*** (Müll. Arg.) Aptroot & Lücking IF No: 816679 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**990. *Astrothellum degenerans*** (Vain.) Aptroot & Lücking IF No: 816680 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**991. *Astrothellum diplocarpum*** Nyl. IF No: 377824 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**992. *Astrothellum efulsum*** (Aptroot & Sipman) Aptroot & Lücking IF No: 816682 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**993. *Astrothellum eustomum*** (Mont.) Müll. Arg. IF No: 377825 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Panotropics, Native



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**994. *Astrothellum fallax*** Müll. Arg. IF No: 377826 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**995. *Astrothellum feei*** (C.F.W. Meissn.) Aptroot & Lücking IF No: 816685 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**996. *Astrothellum ferrugineum*** (Müll. Arg.) Aptroot & Lücking IF No: 816686 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**997. *Astrothellum flavoduplex*** Aptroot & M. Cáceres IF No: 815167 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**998. *Astrothellum flordanum*** Zahlbr. ex M. Choisy IF No: 377827 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**999. *Astrothellum fuscoporum*** Soto-Medina, Aptroot & Lücking IF No: 818994 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**1000. *Astrothellum gigasporum*** R.C. Harris IF No: 103071 **Trophic mode/ Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Amazonia, Native **Elev.:** 300 m **Dept.:** AMA



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**1001. *Astrothellum infuscatulum*** (Müll. Arg.) Aptroot & Lücking IF No: 816692 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**1002. *Astrothellum inspersanenum*** E.L. Lima, Aptroot & M. Cáceres IF No: 802575 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**1003. *Astrothellum inspersotuberculosum*** Flakus & Aptroot IF No: 812948 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**1004. *Astrothellum intersectum*** R.C. Harris IF No: 103072 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Amazonia, Native **Elev.:** 35 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**1005. *Astrothellum leucothellum*** Nyl. IF No: 377838 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 1,200 m



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**1006. *Astrothellum lucidomedullatum*** Aptroot IF No: 815221 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**1007. *Astrothellum macrocarpum*** (Fée) Aptroot & Lücking IF No: 816699 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**1008. *Astrothellum megaspermum*** (Mont.) Aptroot & Lücking IF No: 816705 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**1009. *Astrothellum nigratum*** (Müll. Arg.) Aptroot & Lücking IF No: 816709 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**1010. *Astrothellum nitidiusculum*** (Nyl.) Aptroot & Lücking IF No: 816711 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**1011. *Astrothellum novenseptatum*** Aptroot & M. Cáceres IF No: 815175 **Trophic mode/ Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**1012. *Astrothellum ochrothellum*** (Nyl.) Müll. Arg. IF No: 377845 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 300-2,500 m **Dept.:** CUN, TOL



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**1013. *Astrothellum papulosum*** (P.M. McCarthy) Aptroot & Lücking IF No: 816716 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**1014. *Astrothellum papulosum*** (Nyl.) Aptroot & Lücking IF No: 816717 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**1015. *Astrothellum phaeothellum*** (Nyl.) Aptroot & Lücking IF No: 816719 **Trophic mode/Guild:** symbiotroph/lichenised **Conservation:** DD



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**1016. *Astrothellum phytactena*** (Fée) Aptroot & Lücking IF No: 816720 **Trophic mode/ Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**1017. *Astrothellum pseudomegalophthalmum*** Aptroot IF No: 815233 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**1018. *Astrothellum pulcherrimum*** (Fée) Aptroot & Lücking IF No: 816726 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**1019. *Astrothellum punctulatum*** Malme IF No: 377849 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**1020. *Astrothellum pupula*** (Ach.) Aptroot & Lücking IF No: 816727 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**1021. *Astrothellum purpurascens*** (Müll. Arg.) Aptroot & Lücking IF No: 816728 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**1022. *Astrothellum rimosum*** Aptroot IF No: 815234 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**1023. *Astrothellum robustum*** Müll. Arg. IF No: 377852 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**1024. *Astrothellum rufescens*** (Müll. Arg.) Aptroot & Lücking IF No: 816731 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**1025. *Astrothellum scoroides*** (Fée) Aptroot & Lücking IF No: 816739 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypetheliaceae  
**1026. *Astrothellum scoroides*** Nyl. IF No: 377853 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Endemic **Elev.:** 35-1,200 m **Dept.:** NAR



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1027. *Astrothellum scorothellum* Aptroot & Lücking IF No: 816740 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1028. *Astrothellum sepulchrum* Mont. IF No: 377855 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1029. *Astrothellum sphaeroides* (Mont.) Aptroot & Lücking IF No: 816744 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1030. *Astrothellum subdiscretum* (Nyl.) Aptroot & Lücking IF No: 816748 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1031. *Astrothellum subdiscretum* (Müll. Arg.) Aptroot & Lücking IF No: 816749 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1032. *Astrothellum subfuscum* Kremp. IF No: 637050 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Amazonia Distribution: Pan tropics, Native Elev.: 300 m Dept.: AMA



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1033. *Astrothellum subscoria* Flakus & Aptroot IF No: 812954 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1034. *Astrothellum sulphureum* (Eschw.) Nyl. IF No: 121397 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Amazonia, Native Elev.: 1,200–1,700 m Dept.: TOL



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1035. *Astrothellum thelotremoides* (Nyl.) Aptroot & Lücking IF No: 816753 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1036. *Astrothellum tuberculosum* (Vain.) Aptroot & Lücking IF No: 816755 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1037. *Astrothellum variatum* (Nyl.) Aptroot & Lücking IF No: 816757 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1038. *Astrothellum variolosum* (Ach.) Müll. Arg. IF No: 377863 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1039. *Bathellum vezdae* (Makhija & Patw.) Aptroot & Lücking IF No: 816758 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1040. *Bathellum madrepuriforme* (Eschw.) Trevis. IF No: 378652 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Neotropics, Native Elev.: 300 m Dept.: TOL



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1041. *Bathellum mastocheum* Afzel. ex Ach. IF No: 378653 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Neotropics, Native Elev.: 100 m



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1042. *Bathellum phaeomelodes* Müll. Arg. IF No: 378660 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1043. *Bogoriella apposita* (Nyl.) Aptroot & Lücking IF No: 816764 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1044. *Bogoriella capiosa* (Kremp.) Aptroot & Lücking IF No: 816765 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1045. *Bogoriella exigua* (Müll. Arg.) Aptroot & Lücking IF No: 816770 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1046. *Bogoriella hemisphaerica* (Müll. Arg.) Aptroot & Lücking IF No: 816772 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1047. *Bogoriella modesta* (Müll. Arg.) Aptroot & Lücking IF No: 816773 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1048. *Bogoriella nonensis* (Stirt.) Aptroot & Lücking IF No: 816779 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1049. *Bogoriella punctata* (Aptroot) Aptroot & Lücking IF No: 816782 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1050. *Bogoriella queenslandica* (Müll. Arg.) Aptroot & Lücking IF No: 816783 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1051. *Bogoriella subfallens* (Müll. Arg.) Aptroot & Lücking IF No: 816786 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1052. *Bogoriella thelena* (Ach.) Aptroot & Lücking IF No: 816787 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1053. *Bogoriella xanthonica* (Komposch, Aptroot & Hafellner) Aptroot & Lücking IF No: 816789 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1054. *Constrictolumina cinchonae* (Ach.) Lücking, M.P. Nelsen & Aptroot IF No: 816878 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1055. *Diclyomeridium propens* (Nyl.) Aptroot, M.P. Nelsen & Lücking IF No: 816880 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1056. *Marcelaria purpurina* (Nyl.) Aptroot, Nelsen & Parmen IF No: 805453 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1057. *Nigrovrothellum tropicum* (Ach.) Lücking, M.P. Nelsen & Aptroot IF No: 816881 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1058. *Novomicrothella oleosa* (Aptroot) Aptroot, M.P. Nelsen & Lücking IF No: 816882 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1059. *Polymeridium albidum* (Müll. Arg.) R.C. Harris IF No: 102982 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Amazonia Distribution: Pan tropics, Native Elev.: 240–350 m Dept.: AMA



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1060. *Polymeridium albocinereum* (Kremp.) R.C. Harris IF No: 360033 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1061. *Polymeridium catapastum* (Nyl.) R.C. Harris IF No: 103721 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Pan tropics, Native Elev.: 2,600 m Dept.: CUN



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1062. *Polymeridium contendens* (Nyl.) R.C. Harris IF No: 112732 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Neotropics, Native Elev.: 2,300 m Dept.: CUN



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1063. *Polymeridium pyrenuloides* (Fée) Aptroot IF No: 803007 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Amazonia Distribution: Pan tropics, Native Elev.: 250 m Dept.: CAQ



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1064. *Polymeridium subcinereum* (Nyl.) R.C. Harris IF No: 113049 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethellaceae  
1065. *Polymeridium subvirescens* (Leight.) Aptroot IF No: 803003 Trophic mode/Guild: symbiotroph/lichenised

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Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethelaceae  
**1066. *Pseudobogoriella miculiformis*** (Müll. Arg.) Lücking, R. Miranda & Aptroot IF No: 555803 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethelaceae  
**1067. *Pseudopyrenula dlluta*** (Fée) Müll. Arg. IF No: 402501 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Pantropics, Native **Elev.:** 10–2,300 m **Dept.:** ANT, CUN, NAR, SAN



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethelaceae  
**1068. *Pseudopyrenula flavoreagens*** Aptroot & M. Cáceres IF No: 815189 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethelaceae  
**1069. *Pseudopyrenula media*** Aptroot & Diederich IF No: 820219 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethelaceae  
**1070. *Pseudopyrenula sphaerocephala*** Vain. IF No: 402536 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethelaceae  
**1071. *Pseudopyrenula subgregaria*** Müll. Arg. IF No: 402537 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethelaceae  
**1072. *Pseudopyrenula subnudata*** Müll. Arg. IF No: 402538 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Pantropics, Native



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethelaceae  
**1073. *Trypethelium eluteriae*** Spreng. IF No: 122402 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes **Distribution:** Pantropics, Native **Elev.:** 240–1,000 m **Dept.:** AMA, RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethelaceae  
**1074. *Trypethelium platystomum*** Mont. IF No: 407981 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Pantropics, Native



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethelaceae  
**1075. *Trypethelium subeluteriae*** Makhija & Patw. IF No: 358599 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Trypetheliales, Trypethelaceae  
**1076. *Trypethelium tollmense*** Lücking, Moncada & M.C. Gut. IF No: 817286 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Valsariales, Valsariaceae  
**1077. *Myrmaecium rubricosum*** (Fr.) Fuckel IF No: 140021



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Englerulaceae  
**1078. *Questieria monothea*** (Pat. & Gaillard) G. Arnaut IF No: 171146 **Hosts:** *Rapanea ferruginea* **Distribution:** Pantropics **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Englerulaceae  
**1079. *Schiffnerula robusta*** Garcés IF No: 290773 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Rapanea* sp. **Distribution:** Pantropics, Endemic **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Euantennariaceae  
**1080. *Euantennaria tropicicola*** Speng. IF No: 241357 **Trophic mode/Guild:** pathotroph/



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Parodiellaceae  
**1081. *Parodiella hedysari*** (Schwein.) S. Hughes IF No: 302296 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Parodiellaceae  
**1082. *Parodiella perisporioides*** Speng. IF No: 229209 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Parodiopsidaceae  
**1083. *Dimeriella cordilicola*** (Henn.) Hansf. IF No: 286137 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Parodiopsidaceae  
**1084. *Dimeriella sacchari*** (Breda de Haan) Hansf. ex E.V. Abbott IF No: 119462 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Parodiopsidaceae  
**1085. *Dimerium asterinacearum*** M.L. Farr IF No: 128780 **Trophic mode/Guild:** pathotroph/plant pathogen **Habitat:** On *Asterina melastomataceae*, on leaves of *Miconia*: Colombia | **Distribution:** Pantropics, Endemic **Dept.:** CAU



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Parodiopsidaceae  
**1086. *Dimerium costaricense*** Syd. IF No: 262142 **Trophic mode/Guild:** pathotroph/plant pathogen **Habitat:** On mycelium of *Schiffnerula monothea* | **Parasitic: Elev.:** 2,200 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Perisporiopsidaceae  
**1087. *Parodiopsis bicoronata*** Garcés IF No: 289042 **Habitat:** On *Inga* sp. **Distribution:** Pantropics **Elev.:** 1,540 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Perisporiopsidaceae  
**1088. *Parodiopsis stevensii*** G. Arnaut IF No: 221704 **Habitat:** On *Inga* sp. **Distribution:** Pantropics **Elev.:** 1,200 m **Dept.:** TOL



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Phaeodimeriellaceae  
**1089. *Phaeodimeriella melilinae*** (Toro) Toro IF No: 302692 **Trophic mode/Guild:** pathotroph/plant pathogen **Habitat:** On *Melilina chardonii*, on *Clethra brevifolia* **Distribution:** Pantropics, Endemic **Dept.:** NSA



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Polystomellaceae  
**1090. *Dothiella portoricensis*** F. Stevens IF No: 195074 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Protocycphaeae  
**1091. *Protocycpha subtropica*** (G. Winter) Petr. IF No: 279409 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Bryochitonaceae  
**1092. *Bryochiton macrosporus*** Döbbeler IF No: 510593 **Trophic mode/Guild:** pathotroph/plant pathogen **Habitat:** On *Polytrichadelphus aristatus* | **Bryophilous: Distribution:** Pantropics **Elev.:** 2,380–2,440 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Pseudoperisporiaceae  
**1093. *Dimeria eutricha*** (Sacc. & Berl.) Theiss. IF No: 100842 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Pseudoperisporiaceae  
**1094. *Phaeostigma isazanum*** Toro IF No: 268195 **Trophic mode/Guild:** pathotroph/plant pathogen **Habitat:** On *Asterinella antiquensis*, and *Miconia ciliata* **Distribution:** Pantropics **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Achorellaceae  
**1095. *Achorella andina*** (Chardón) Chardón IF No: 256791 **Habitat:** On *Mikania ruiziana* **Distribution:** Pantropics **Elev.:** 2,850 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Incertae sedis  
**1096. *Achorella toroana*** Chardón IF No: 280403 **Trophic mode/Guild:** /parasite **Habitat:** On *Cavendishia* sp. **Distribution:** Pantropics **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Incertae sedis  
**1097. *Bryorella cryptocarpa*** Döbbeler IF No: 309977 **Trophic mode/Guild:** /bryophilous **Habitat:** On *Polytrichadelphus aristatus* **Elev.:** 2,000–2,270 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Incertae sedis  
**1098. *Bryorella limitans*** Döbbeler IF No: 510594 **Trophic mode/Guild:** /bryophilous **Habitat:** On *Polytrichadelphus aristatus* **Distribution:** Pantropics **Elev.:** 2,270–3,000 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Incertae sedis  
**1099. *Buellia colombiana*** Etayo IF No: 372018 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Incertae sedis  
**1100. *Ceratocarpia wrightii*** (Berk. & M.A. Curtis) Toro IF No: 282149



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Incertae sedis  
**1101. *Cercidospora hypotrachynicola*** Etayo IF No: 818308 **Trophic mode/Guild:** pathotroph/lichen parasite



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Incertae sedis  
**1102. *Endococcus apicola*** (J. Steiner) R. Sant. IF No: 632964 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Incertae sedis  
**1103. *Endococcus oropogoncola*** Etayo IF No: 372431 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Incertae sedis  
**1104. *Homostegia ischaeml*** Chardón IF No: 268197 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Incertae sedis  
**1105. *Homostegia pelvetii*** (Hepp ex Linds.) Cooke IF No: 150863 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Incertae sedis  
**1106. *Karschia talcophila*** (Ach.) Körb. IF No: 237207 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Incertae sedis  
**1107. *Laterotheca stevensonii*** Bat. IF No: 332991 **Habitat:** Insect secretions on *Weinmannia tolimensis* **Distribution:** Panotropics **Elev.:** 3,400–3,550 m **Dept.:**

VAC



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Incertae sedis  
**1108. *Leptospora rubella*** (Pers.) Rabenh. IF No: 119461



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Incertae sedis  
**1109. *Melanochlamys leucoptera*** Syd. & P. Syd. IF No: 193224



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Incertae sedis  
**1110. *Norrinia peltigercola*** (Nyl.) Theiss. & Syd. IF No: 121096 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Incertae sedis  
**1111. *Rhopoglyphus bakeri*** Earle IF No: 167819 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Incertae sedis  
**1112. *Rosellinula lopadli*** (Vouaux) D.J. Galloway IF No: 370535 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Incertae sedis  
**1113. *Roumegueria goudotii*** (Lév.) Sacc. ex Clem. & Shear IF No: 432023



Fungi, Ascomycota, Pezizomycotina, Dothideomycetes, Incertae sedis, Incertae sedis, Incertae sedis  
**1114. *Zymoseptoria tritici*** (Roberge ex Desm.) Quaedv. & Crous IF No: 517926 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyriomycetidae, Chaetothyriales, Chaetothyriaceae  
**1115. *Chaetothyrium setosum*** (Zimm.) Hansf. IF No: 294759 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyriomycetidae, Chaetothyriales, Chaetothyriaceae  
**1116. *Phaeosaccardinula samonensis*** Höhn. IF No: 451292 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyriomycetidae, Chaetothyriales, Coccidiniaceae  
**1117. *Dennisiella babingtonii*** (Berk.) Bat. & Cif. IF No: 329804 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyriomycetidae, Chaetothyriales, Cyphelophoraceae  
**1118. *Cyphelophora eucalypti*** Cheew. & Crous IF No: 513844 **Trophic mode/Guild:** pathotroph, saprotroph/animal pathogen, undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyriomycetidae, Chaetothyriales, Epibrayaceae  
**1119. *Epibrayon andinum*** Döbblers IF No: 357179 **Trophic mode/Guild:** pathotroph/plant pathogen **Habitat:** On *Polytrichadelphus aristatus* | Bryophilous **Distribution:** Panotropics **Elev.:** 1,900–3,000 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyriomycetidae, Chaetothyriales, Epibrayaceae  
**1120. *Epibrayon pogonati-urnigeri*** Döbblers IF No: 313926 **Trophic mode/Guild:** pathotroph/plant pathogen **Habitat:** On *Polytrichadelphus aristatus* | Bryophilous **Elev.:** 2,700 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyriomycetidae, Chaetothyriales, Herpotrichiellaceae  
**1121. *Capronia andina*** Etayo IF No: 489135 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyriomycetidae, Chaetothyriales, Herpotrichiellaceae  
**1122. *Capronia coronata*** Samuels IF No: 129142 **Trophic mode/Guild:** symbiotroph/endophyte



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyriomycetidae, Chaetothyriales, Herpotrichiellaceae  
**1123. *Capronia epilobarina*** S.Y. Kondr. & D.J. Galloway IF No: 412702 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyriomycetidae, Chaetothyriales, Herpotrichiellaceae  
**1124. *Capronia hypotrachynae*** Etayo & Diederich IF No: 443793 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyriomycetidae, Chaetothyriales, Herpotrichiellaceae  
**1125. *Capronia leptogli*** Etayo & Diederich IF No: 372304 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyriomycetidae, Chaetothyriales, Herpotrichiellaceae  
**1126. *Capronia normandinae*** R. Sant. & D. Hawksw. IF No: 125688 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyriomycetidae, Chaetothyriales, Herpotrichiellaceae  
**1127. *Capronia santessoniana*** Etayo IF No: 565882 **Trophic mode/Guild:** symbiotroph/endophyte



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyriomycetidae, Chaetothyriales, Herpotrichiellaceae  
**1128. *Capronia trisetata*** (Diederich) Etayo IF No: 444755 **Trophic mode/Guild:** symbiotroph/endophyte



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyriomycetidae, Chaetothyriales, Herpotrichiellaceae  
**1129. *Cladophialophora carrionii*** (Trejos) de Hoog, Kwon-Chung & McGinnis IF No: 412794 **Trophic mode/Guild:** pathotroph/



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyriomycetidae, Chaetothyriales, Herpotrichiellaceae  
**1130. *Cladophialophora chaetospora*** (Grove) Crous & Arzanlou IF No: 504526 **Trophic mode/Guild:** symbiotroph/endophyte



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyriomycetidae, Chaetothyriales, Herpotrichiellaceae  
**1131. *Cladophialophora normandinae*** (Diederich & Etayo) Diederich IF No: 800400 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyriomycetidae, Chaetothyriales, Herpotrichiellaceae  
**1132. *Exophiala attenuata*** Vitale & de Hoog IF No: 483953 **Trophic mode/Guild:** pathotroph/



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyriomycetidae, Chaetothyriales, Herpotrichiellaceae  
**1133. *Exophiala brunnea*** Papendorf IF No: 330806 **Trophic mode/Guild:** pathotroph/



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyriomycetidae, Chaetothyriales, Herpotrichiellaceae  
**1134. *Exophiala jeanselmei*** (Langeron) McGinnis & A.A. Padhye IF No: 314040 **Trophic mode/Guild:** pathotroph/



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyriomycetidae, Chaetothyriales, Herpotrichiellaceae  
**1135. *Exophiala monilae*** de Hoog IF No: 314042 **Trophic mode/Guild:** pathotroph/



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyriomycetidae, Chaetothyriales, Herpotrichiellaceae  
**1136. *Exophiala psychrophila*** O.A. Pedersen & Langvad IF No: 135481 **Trophic mode/Guild:** pathotroph/



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyriomycetidae, Chaetothyriales, Herpotrichiellaceae  
**1137. *Exophiala spinifera*** (H.S. Nielsen & Conant) McGinnis IF No: 314044 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyriomycetidae, Chaetothyriales, Herpotrichiellaceae  
**1138. *Fonsecaea multimorphosa*** Najafz., V.A. Vicente, J. Sun bis, Meis & de Hoog IF No: 519043 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyriomycetidae, Chaetothyriales, Herpotrichiellaceae  
**1139. *Fonsecaea pedrosi*** (Brumpt) Negróni IF No: 253857 **Trophic mode/Guild:** pathotroph/



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyriomycetidae, Chaetothyriales, Herpotrichiellaceae  
**1140. *Phialophora cinereascens*** (Wollenb.) J.F.H. Beyma IF No: 289356 **Trophic mode/Guild:** pathotroph/plant pathogen

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Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Chaetothyriales, Herpotrichiellaceae  
**1141. *Phialophora cyclaminis*** J.F.H. Beyma IF No: 289357



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Chaetothyriales, Herpotrichiellaceae  
**1142. *Phialophora verrucosa*** Medlar IF No: 214996 Trophic mode/Guild: symbiotroph/ endophyte



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Chaetothyriales, Herpotrichiellaceae  
**1143. *Rhizocladella phaeophora*** Veerkamp & W. Gams IF No: 107225 Trophic mode/ Guild: pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Chaetothyriales, Lyrommataceae  
**1144. *Lyromma nectandrae*** Bat. & H. Maia IF No: 345286 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Pan tropics, Native Elev.: 200 m Dept.: ANT



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Chaetothyriales, Microthelopsiaceae  
**1145. *Microthelopsis uleana*** Müll. Arg. IF No: 395632 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Amazonia, Pacific Distribution: Pan tropics, Native Elev.: 35–300 m Dept.: AMA, NAR



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Chaetothyriales, Trichomeriaceae  
**1146. *Phragmocarpus bette*** (Syd., P. Syd. & E.J. Butler) Theiss. & Syd. IF No: 151279 Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Chaetothyriales, Trichomeriaceae  
**1147. *Podoxophium tricolora*** Bat., A.F. Vital & Cf. IF No: 337444



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Chaetothyriales, Trichomeriaceae  
**1148. *Trichomerium coffeicola*** (Puttemans) Speg. IF No: 340357 Trophic mode/ Guild: symbiotroph/endophyte



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Phaeomoniellales, Celotheliaceae  
**1149. *Celothellium aculiferum*** (Nyl.) Vain. IF No: 382353 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Neotropics, Native Elev.: 2,400–2,600 m Dept.: CUN



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Phaeomoniellales, Celotheliaceae  
**1150. *Celothellium clinchanarum*** (Müll. Arg.) Vain. IF No: 382355 Trophic mode/ Guild: symbiotroph/ lichenised Biogeographic region: Amazonia, Pacific Distribution: Neotropics, Native Elev.: 35–300 m Dept.: CAQ, NAR



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Phaeomoniellales, Celotheliaceae  
**1151. *Celothellium dominicanum*** (Vain.) M.B. Aguirre IF No: 360014 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1152. *Anthracotheclium macrosporum*** (Hepp) Müll. Arg. IF No: 376201 Trophic mode/Guild: symbiotroph/ lichenised Biogeographic region: Andes Distribution: Pan tropics, Native Elev.: 1,000 m Dept.: RIS



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1153. *Anthracotheclium prasinum*** (Eschw.) R.C. Harris IF No: 132203 Trophic mode/Guild: symbiotroph/ lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1154. *Clypeopyrenis microsperma*** (Müll. Arg.) Aptroot IF No: 359126 Trophic mode /Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1155. *Distopyrenis americana*** Aptroot IF No: 359127 Trophic mode/Guild: symbiotroph /lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1156. *Lithothellium fluorecens*** Aptroot & Sipman IF No: 533124 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1157. *Lithothellium lilotum*** (Vain.) Aptroot IF No: 359134 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1158. *Lithothellium obtectum*** (Müll. Arg.) Aptroot IF No: 359136 Trophic mode/Guild: symbiotroph/lichenised Distribution: Pan tropics, Native



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1159. *Lithothellium polysemum*** (Nyl.) Aptroot IF No: 359138 Trophic mode/ Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Endemic Elev.: 1,900–2,500 m Dept.: CUN



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1160. *Pyrenulia acutalis*** R.C. Harris IF No: 134418 Trophic mode/Guild: symbiotroph /lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1161. *Pyrenulia acutispora*** Kalb & Hafelner IF No: 359113 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1162. *Pyrenulia adacta*** Fée IF No: 403165 Trophic mode/ Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Neotropics, Pan tropics Africa, Native Elev.: 2,050–2,500 m Dept.: ANT, CUN, HUI



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1163. *Pyrenulia aggregans*** Vain. IF No: 403170 Trophic mode/Guild: symbiotroph /lichenised Biogeographic region: Andes Distribution: Pan tropics, Native Elev.: 1,700 m Dept.: NAR



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1164. *Pyrenulia aggregata*** (Fée) Fée IF No: 403171 Trophic mode/Guild: symbiotroph /lichenised Biogeographic region: Pacific Distribution: Pan tropics, Native Elev.: 0–300 m Dept.: CAU



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1165. *Pyrenulia andina*** Aptroot IF No: 533127 Trophic mode/ Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Colombia, Costa Rica, Native Elev.: 2,300–3,200 m Dept.: CAU, CUN, TOL



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1166. *Pyrenulia anomala*** (Ach.) Vain. IF No: 403184 Trophic mode/Guild: symbiotroph /lichenised Biogeographic region: Amazonia, Pacific Distribution: Pan tropics, Native Elev.: 35–240 m Dept.: AMA, NAR



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1167. *Pyrenulia arthonotheca*** Upreti IF No: 445296 Trophic mode/Guild: symbiotroph /lichenised Biogeographic region: Andes Distribution: Pan tropics, Native Elev.: 2,100 m



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1168. *Pyrenulia aspitaea*** (Afzel. ex Ach.) Ach. IF No: 403194 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes, Pacific Distribution: Pan tropics, Native Elev.: 35–2,600 m Dept.: CUN, NAR



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1169. *Pyrenulia astroides*** (Fée) R.C. Harris IF No: 134419 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Pan tropics, Native Elev.: 2,300–2,500 m Dept.: ANT, CUN



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1170. *Pyrenulia bahiana*** Malme IF No: 403201 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes, Pacific Distribution: Pan tropics, Native Elev.: 10–2,500 m Dept.: CUN, NAR



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1171. *Pyrenulia baliia*** (Kremp.) R.C. Harris IF No: 446200 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Amazonia, Andes, Pacific Distribution: Pan tropics, Native Elev.: 10–2,300 m Dept.: AMA, CAQ, CAU, GUA, NAR, VAU



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1172. *Pyrenulia breutei*** (Müll. Arg.) Aptroot IF No: 563102 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Pan tropics, Native Elev.: 1,600 m Dept.: CUN



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1173. *Pyrenulia cerina*** Eschw. IF No: 403224 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1174. *Pyrenulia chilensis*** (Fée) R.C. Harris IF No: 134420 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Neotropics, Native Elev.: 2,000–2,500 m Dept.: ANT, CUN



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1175. *Pyrenulia circumfinita*** Vain. IF No: 403236 Trophic mode/Guild: symbiotroph/ lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1176. *Pyrenulia cocoes*** Müll. Arg. IF No: 627757 Trophic mode/Guild: symbiotroph /lichenised Biogeographic region: Caribbean, Pacific Distribution: Pan tropics, Native Elev.: 0–300 m Dept.: CAU, SAP



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Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1177. *Pyrenulium complanatum*** (Mont.) Trevis.  
 IF No: 403246 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Pantropics, Native **Elev.:** 10–3,720 **Dept.:** ANT, CAU, CUN, NAR, RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1178. *Pyrenulium concastroma*** R.C. Harris IF No: 414058 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1179. *Pyrenulium confinis*** (Nyl.) R.C. Harris IF No: 414059



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1180. *Pyrenulium crassiuscula*** (Malme) Aptroot IF No: 381018 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,300 m **Dept.:** HUI



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1181. *Pyrenulium cryptostoma*** (Nyl.) Müll. Arg. IF No: 403257 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,200 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1182. *Pyrenulium cryptothella*** (Müll. Arg.) Aptroot & Etayo IF No: 488956 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1183. *Pyrenulium cubana*** (Müll. Arg.) R.C. Harris IF No: 134424 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Neotropics, Native



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1184. *Pyrenulium dermatodes*** (Borrer) Schaer. IF No: 121721 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 2,300–3,200 m **Dept.:** ANT, CAU, CUN



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1185. *Pyrenulium duplicans*** (Nyl.) Aptroot IF No: 532766 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 1,290–2,100 m **Dept.:** CAU, CUN, TOL



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1186. *Pyrenulium erumpens*** R.C. Harris IF No: 134426 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Neotropics, Native



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1187. *Pyrenulium festuca*** (Kremp.) Müll. Arg. IF No: 403291 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1188. *Pyrenulium gahavisulkana*** Aptroot IF No: 437048 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1189. *Pyrenulium globifera*** (Eschw.) Aptroot IF No: 532765 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1190. *Pyrenulium limbosa*** (Stirt.) Zahlbr. IF No: 403341 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 1,250–1,750 m **Dept.:** CAU, RIS



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1191. *Pyrenulium laetior*** Müll. Arg. IF No: 403357 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Neotropics, Native **Elev.:** 10–1,750 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1192. *Pyrenulium laevigata*** (Pers.) Arnold IF No: 403358 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1193. *Pyrenulium leucotrypa*** (Nyl.) Upreti IF No: 445302 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1194. *Pyrenulium luteoprulinosum*** Etayo & Aptroot IF No: 489137



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1195. *Pyrenulium macrospora*** (Degel.) Coppins & P. James IF No: 113989 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1196. *Pyrenulium mamillana*** (Ach.) Trevis. IF No: 403371 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes, Pacific **Distribution:** Pantropics, Native **Elev.:** 10–2,200 m **Dept.:** AMA, CUN, NAR, VAC



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1197. *Pyrenulium massarospora*** (Starbäck) R.C. Harris IF No: 134431 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 1,000 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1198. *Pyrenulium mastophora*** (Nyl.) Müll. Arg. IF No: 403384 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 2,000 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1199. *Pyrenulium mastophoroides*** (Nyl.) Zahlbr. IF No: 403387 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,100–2,500 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1200. *Pyrenulium microcarpa*** Müll. Arg. IF No: 403395 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Pantropics, Native **Elev.:** 0–1,700 m **Dept.:** CAU, NAR



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1201. *Pyrenulium microtheca*** R.C. Harris IF No: 462779 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Neotropics, Native



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1202. *Pyrenulium mlnae*** Aptroot & Lücking IF No: 533128 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, Native **Elev.:** 0–300 m **Dept.:** CAU



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1203. *Pyrenulium minor*** Fée IF No: 403401 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1204. *Pyrenulium nitidula*** (Bres.) R.C. Harris IF No: 436536 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Pantropics, Native



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1205. *Pyrenulium ochraceoflava*** (Nyl.) R.C. Harris IF No: 134434 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Pantropics, Native **Elev.:** 0 m **Dept.:** ATL



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1206. *Pyrenulium ochraceoflavens*** (Nyl.) R.C. Harris IF No: 134435 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1207. *Pyrenulium oleosa*** R.C. Harris IF No: 134436 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1208. *Pyrenulium papillifera*** (Nyl.) Aptroot IF No: 563108



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1209. *Pyrenulium papillifera*** (Leight.) Müll. Arg. IF No: 403439 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Pantropics, Native **Dept.:** GUA



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1210. *Pyrenulium parvinnucula*** (Meyen & Flot.) Aptroot IF No: 436537 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1211. *Pyrenulium platystoma*** (Müll. Arg.) Aptroot IF No: 563109 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Pantropics, Native **Elev.:** 1,290 m **Dept.:** TOL



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothyrionycetidae, Pyrenulales, Pyrenulaceae  
**1212. *Pyrenulium pleiomeria*** (Nyl.) Zahlbr. IF No: 403454 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Endemic **Elev.:** 100 m **Conservation:** DD

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Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothriomycetidae, Pyrenulales, Pyrenulaceae  
**1213. *Pyrenula pyrenuloides*** (Mont.) R.C. Harris IF No: 134438 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 2,000–2,500 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothriomycetidae, Pyrenulales, Pyrenulaceae  
**1214. *Pyrenula pyrgiliospora*** Aptroot IF No: 437055 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothriomycetidae, Pyrenulales, Pyrenulaceae  
**1215. *Pyrenula quassilicola*** Fée IF No: 540259 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothriomycetidae, Pyrenulales, Pyrenulaceae  
**1216. *Pyrenula ravenelli*** (Tuck.) R.C. Harris IF No: 134439 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 2,000 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothriomycetidae, Pyrenulales, Pyrenulaceae  
**1217. *Pyrenula schiffneri*** (Zahlbr.) Aptroot IF No: 563110 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 2,000 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothriomycetidae, Pyrenulales, Pyrenulaceae  
**1218. *Pyrenula septocollaris*** (Eschw.) R.C. Harris IF No: 134440 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Pan tropics, Native **Dept.:** GUA



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothriomycetidae, Pyrenulales, Pyrenulaceae  
**1219. *Pyrenula sexocularis*** (Nyl.) Müll. Arg. IF No: 403491 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Pan tropics, Native **Elev.:** 0–2,200 m **Dept.:** CAU, VAC



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothriomycetidae, Pyrenulales, Pyrenulaceae  
**1220. *Pyrenula subducta*** (Nyl.) Müll. Arg. IF No: 403506 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,200–2,300 m **Dept.:** CUN, TOL



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothriomycetidae, Pyrenulales, Pyrenulaceae  
**1221. *Pyrenula subpraelucida*** Müll. Arg. IF No: 403518 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, Native **Elev.:** 35 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothriomycetidae, Pyrenulales, Pyrenulaceae  
**1222. *Pyrenula subumbilicata*** (C. Knight) Aptroot IF No: 532157 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothriomycetidae, Pyrenulales, Pyrenulaceae  
**1223. *Pyrenula tenuisepta*** R.C. Harris IF No: 134442 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes **Distribution:** Neotropics, Native **Elev.:** 250–2,000 m **Dept.:** AMA, VAC



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothriomycetidae, Pyrenulales, Pyrenulaceae  
**1224. *Pyrenula thelomorpha*** Tuck. IF No: 634614 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothriomycetidae, Pyrenulales, Pyrenulaceae  
**1225. *Pyrenula welwitschii*** (Upreti & Ajay Singh) Aptroot IF No: 563112 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothriomycetidae, Pyrenulales, Pyrenulaceae  
**1226. *Sulcopyrrenula cruciata*** Aptroot IF No: 382796 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothriomycetidae, Verrucariales, Verrucariaceae  
**1227. *Agoniimia foliacea*** (P.M. Jørg.) Lücking & Moncada IF No: 553227 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothriomycetidae, Verrucariales, Verrucariaceae  
**1228. *Agoniimia pacifica*** (H. Harada) Diederich IF No: 436521 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothriomycetidae, Verrucariales, Verrucariaceae  
**1229. *Agoniimia tristicula*** (Nyl.) Zahlbr. IF No: 121594 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 2,700 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothriomycetidae, Verrucariales, Verrucariaceae  
**1230. *Baglietta calciseta*** (DC.) Gueidan & Cl. Roux IF No: 531906 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothriomycetidae, Verrucariales, Verrucariaceae  
**1231. *Dermatocarpon minutum*** (L.) W. Mann IF No: 384229 **Trophic mode/Guild:** symbiotroph/lichenised **Habitat:** On rocks | On dry seepages | Lichen **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Pan tropics, Native **Elev.:** 720 m **Dept.:** ANT **Uses:** MA, PO



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothriomycetidae, Verrucariales, Verrucariaceae  
**1232. *Endocarpon pallidulum*** (Nyl.) Nyl. IF No: 384737 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothriomycetidae, Verrucariales, Verrucariaceae  
**1233. *Endocarpon pallidum*** Ach. IF No: 384738 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothriomycetidae, Verrucariales, Verrucariaceae  
**1234. *Endocarpon pusillum*** Hedw. IF No: 119673 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothriomycetidae, Verrucariales, Verrucariaceae  
**1235. *Flikea papillata*** O.E. Erikss. IF No: 359052 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothriomycetidae, Verrucariales, Verrucariaceae  
**1236. *Normandina acroglypta*** (Norman) Aptroot IF No: 413621 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothriomycetidae, Verrucariales, Verrucariaceae  
**1237. *Normandina pulchella*** (Borrer) Nyl. IF No: 395928 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Cosmopolitan, Native **Elev.:** 1,250–4,130 m **Dept.:** ANT, CAL, CAU, CUN, NAR, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothriomycetidae, Verrucariales, Verrucariaceae  
**1238. *Phylloblastia amazonica*** Kalb & Vězda IF No: 362486 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Pacific **Distribution:** Neotropics, Native **Elev.:** 100–250 m **Dept.:** AMA, CAQ, CHO



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothriomycetidae, Verrucariales, Verrucariaceae  
**1239. *Psoroglaena laevigata*** Lücking IF No: 538319 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, Native **Elev.:** 100 m **Dept.:** CHO



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothriomycetidae, Verrucariales, Verrucariaceae  
**1240. *Verrucaria hochstetteri*** Fr. IF No: 409208 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Chaetothriomycetidae, Verrucariales, Verrucariaceae  
**1241. *Willeya diffractella*** (Nyl.) Müll. Arg. IF No: 410003 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Coryneliales, Coryneliaceae  
**1242. *Cornelia oreophila*** (Speg.) Starbäck IF No: 242347 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Coryneliales, Coryneliaceae  
**1243. *Cornelia uberata*** Fr. IF No: 236359 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Euroiales, Aspergillaceae  
**1244. *Aspergillus aculeatus*** Iizuka IF No: 292831 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Euroiales, Aspergillaceae  
**1245. *Aspergillus amstelodami*** (L. Mangin) Thom & Church IF No: 256730 **Trophic mode/Guild:** pathotroph



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Euroiales, Aspergillaceae  
**1246. *Aspergillus appendiculatus*** Blaser IF No: 309209 **Trophic mode/Guild:** pathotroph



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Euroiales, Aspergillaceae  
**1247. *Aspergillus caelestis*** B.W. Horn IF No: 436955 **Trophic mode/Guild:** pathotroph



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Euroiales, Aspergillaceae  
**1248. *Aspergillus caelestis*** Saito IF No: 205025 **Trophic mode/Guild:** pathotroph/animal pathogen



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Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1249. *Aspergillus candidus*** Link IF No: 204868 **Trophic mode/Guild:** pathotroph/ animal pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1250. *Aspergillus cervinus*** Masee IF No: 211549 **Trophic mode/Guild:** pathotroph/



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1251. *Aspergillus chevalieri*** (L. Mangin) Thom & Church IF No: 292839 **Trophic mode/Guild:** pathotroph/animal pathogen  
**Habitat:** Isolated from food | Saprotroph  
**Distribution:** Global **Dept.:** ANT **Uses:** MA, ME, PO



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1252. *Aspergillus citroscens*** Hubka, A. Nováková & M. Kolařík IF No: 814680  
**Trophic mode/Guild:** pathotroph/



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1253. *Aspergillus fumigatus*** Höhn. IF No: 211485 **Trophic mode/Guild:** pathotroph/



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1254. *Aspergillus flavipes*** (Bainier & R. Sartory) Thom & Church IF No: 265045



=Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1255. *Aspergillus flavus*** Link IF No: 209842 **Trophic mode/ Guild:** pathotroph/



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1256. *Aspergillus fumigatus*** Fresen. IF No: 211776 **Trophic mode/Guild:** pathotroph, saprotroph/animal pathogen, undefined saprotroph **Habitat:** On food | Indoor | on



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1257. *Aspergillus glaucus*** (L.) Link IF No: 161735

decaying palm fruit bunches | Saprotroph **Distribution:** Global  
**Dept.:** MET **Uses:** MA



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1258. *Aspergillus gracilis*** Bainier IF No: 167554 **Trophic mode/Guild:** pathotroph/



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1259. *Aspergillus holandicus*** Samson & W. Gams IF No: 114708



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1260. *Aspergillus infatus*** Varga, Frisvad & Samson IF No: 809590



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1261. *Aspergillus japonicus*** Saito IF No: 160656 **Trophic mode/Guild:** pathotroph /animal pathogen **Habitat:** Isolated from soils | In caves | Saprotroph **Distribution:** Global  
**Uses:** ME



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1262. *Aspergillus kanagawaensis*** Nehira IF No: 292847 **Trophic mode/Guild:** pathotroph/



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1263. *Aspergillus lentulus*** Balajee & K.A. Marr IF No: 356679 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1264. *Aspergillus neoniveus*** Samson, S.W. Peterson, Frisvad & Varga IF No: 560395  
**Trophic mode/Guild:** pathotroph/



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1265. *Aspergillus nidulans*** (Eidam) G. Winter IF No: 182069 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On decaying palm fruit bunches |



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1266. *Aspergillus niger*** Tiegh. IF No: 284309 **Trophic mode/ Guild:** pathotroph/  
**Habitat:** Food | Indoor | In Vanilla leaves | Saprotroph, Endophyte **Distribution:** Global  
**Uses:** HF, MA, ME

Saprotroph **Distribution:** Global **Dept.:** MET **Uses:** MA



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1267. *Aspergillus nomiae*** Kurtzman, B.W. Horn & Hessel. IF No: 634998 **Trophic mode/Guild:** pathotroph/



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1268. *Aspergillus ochraceus*** G. Wih. IF No: 190223 **Trophic mode/Guild:** pathotroph /animal pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1269. *Aspergillus parasiticus*** Speare IF No: 191085 **Trophic mode/Guild:** pathotroph /plant pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1270. *Aspergillus proliferans*** G. Sm. IF No: 284312 **Trophic mode/Guild:** pathotroph/  
**Habitat:** On soils cultivated with peach and apple | Saprotroph **Elev.:** 2,900 m **Dept.:**



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1271. *Aspergillus rapae*** Stolk & J.A. Mey. IF No: 292858 **Trophic mode/Guild:** pathotroph/



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1272. *Aspergillus restrictus*** G. Sm. IF No: 276290 **Trophic mode/Guild:** pathotroph/

BOY



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1273. *Aspergillus rugulosus*** Thom & Raper IF No: 277104 **Trophic mode/Guild:** pathotroph/animal pathogen **Habitat:** Saprotroph **Dept.:** CUN **Uses:** PO



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1274. *Aspergillus sydowii*** (Bainier & Sartory) Thom & Church IF No: 279636  
**Trophic mode/Guild:** pathotroph/animal pathogen **Habitat:** On food, indoor |



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1275. *Aspergillus tamarii*** Kita IF No: 191425 **Trophic mode/ Guild:** pathotroph/  
**Habitat:** Food | Common in tropical commodities, espices, corn |  
**Distribution:** Global **Uses:** HF

Saprotroph **Distribution:** Pantropics **Uses:** HF



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1276. *Aspergillus terreus*** Thom IF No: 191719 **Trophic mode/Guild:** pathotroph/



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1277. *Aspergillus tubingenis*** Mosseray IF No: 255209 **Trophic mode/Guild:** pathotroph/



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1278. *Aspergillus versicolor*** (Vuill.) Tirab. IF No: 172159 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1279. *Aspergillus wentii*** Wehmer IF No: 172623



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1280. *Paecilomyces varfolti*** Bainier IF No: 248517 **Trophic mode/Guild:** pathotroph /animal pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1281. *Penicillium claviformis*** Solms IF No: 120178 **Trophic mode/Guild:** saprotroph/ undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1282. *Penicillium zonata*** (Kwon-Chung & Fennell) Samson, Houbraken & Frisvad IF No: S19185 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1283. *Penicillium adametzii*** K.W. Zaleski IF No: 119777



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1284. *Penicillium angulare*** S.W. Peterson, E.M. Bayer & Wicklow IF No: 487891



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1285. *Penicillium araracuense*** Houbraken, López-Quint., Frisvad & Samson IF No: 518025



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1286. *Penicillium amarilii*** Houbraken, Visagie, Samson & Seifert IF No: 809955



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1287. *Penicillium atrosanguineum*** B.X. Dong IF No: 319260

CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1288. *Penicillium aurantiogriseum*** Dierckx  
 IF No: 247956 **Trophic mode/ Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1289. *Penicillium blawiezensense*** K.W. Zaleski  
 IF No: 258429



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1290. *Penicillium blalae*** Chalab.  
 IF No: 302379



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1291. *Penicillium brasilianum*** Bat.  
 IF No: 302381 **Trophic mode/Guild:** pathotroph /animal pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1292. *Penicillium brevicompactum*** Dierckx  
 IF No: 149773 **Trophic mode/Guild:** symbiotroph/ endophyte **Habitat:** On soils cultivated with peach | On woodland soils  
 | Saprotrroph **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1293. *Penicillium brocae*** S.W. Peterson, Jeann. Pérez, F.E. Vega & Infante  
 IF No: 373658



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1294. *Penicillium canescens*** Sopp  
 IF No: 153765 **Trophic mode/Guild:** symbiotroph /endophyte **Habitat:** On uncultivated soils (between orchards and woodland) On woodland soils | Saprotrroph **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1295. *Penicillium catenatum*** D.B. Scott  
 IF No: 335719 **Trophic mode/Guild:** saprotroph **Habitat:** On woodland soils | Saprotrroph **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1296. *Penicillium christenseniae*** Houbraken, Frisvad & Samson  
 IF No: 563187



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1297. *Penicillium chrysogenum*** Thom  
 IF No: 165757 **Trophic mode/Guild:** pathotroph/plant pathogen **Habitat:** Indoor environments | On food products | Saprotrroph **Distribution:** Global **Uses:** ME



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1298. *Penicillium citreonigrum*** Dierckx  
 IF No: 165197 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1299. *Penicillium citrinum*** Thom  
 IF No: 165293



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1300. *Penicillium commune*** Thom  
 IF No: 164241 **Trophic mode/Guild:** pathotroph /animal pathogen **Habitat:** Indoor environments | On food products | Saprotrroph, Endophyte **Distribution:** Global **Uses:** PO



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1301. *Penicillium coryophilum*** Dierckx  
 IF No: 178294



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1302. *Penicillium daleae*** K.W. Zaleski  
 IF No: 262773



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1303. *Penicillium decaturensense*** S.W. Peterson, E.M. Bayer & Wicklow  
 IF No: 487890



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1304. *Penicillium decumbens*** Thom  
 IF No: 156582 **Trophic mode/Guild:** pathotroph /animal pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1305. *Penicillium digitatum*** (Pers.) Sacc.  
 IF No: 169502 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1306. *Penicillium elleniae*** Houbraken, López-Quint, Frisvad & Samson  
 IF No: 518028 **Trophic mode/Guild:** saprotroph/ **Habitat:** Saprotrroph **Distribution:** Pantropics, Endemic **Dept.:** AMA



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1307. *Penicillium expansum*** Link  
 IF No: 159382 **Trophic mode/Guild:** pathotroph /plant pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1308. *Penicillium fluviserpens*** S.W. Peterson, Jurjević & Frisvad  
 IF No: 807370 **Trophic mode/Guild:** saprotroph/ **Habitat:** On soils cultivated with peach and apple | Saprotrroph **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1309. *Penicillium frequentans*** Westling  
 IF No: 152118



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1310. *Penicillium glabrum*** (Wehmer)  
 Westling IF No: 120545 **Trophic mode/ Guild:** pathotroph/plant pathogen **Habitat:** On forest soils | Saprotrroph **Elev.:** 3,373 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1311. *Penicillium glaucicola*** (Oudem.) Seifert & Samson  
 IF No: 114761



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1312. *Penicillium implicatum*** Biourge  
 IF No: 267728



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1313. *Penicillium isariforme*** Stolk & J.A. Mey.  
 IF No: 302403



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1314. *Penicillium italicum*** Wehmer  
 IF No: 162660



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1315. *Penicillium lanczewskii*** K.W. Zaleski  
 IF No: 120703 **Trophic mode/ Guild:** saprotroph/ **Habitat:** On soil | foods | Saprotrroph **Dept.:** CUN **Uses:** PO



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1316. *Penicillium javanicum*** J.F.H. Beyma  
 IF No: 268394



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1317. *Penicillium jensenii*** K.W. Zaleski  
 IF No: 120708



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1318. *Penicillium lanosum*** Westling  
 IF No: 178497



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1319. *Penicillium lividum*** Westling  
 IF No: 178817



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1320. *Penicillium macrosporum*** Frisvad, Filt., Samson & Stolk  
 IF No: 506787



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1321. *Penicillium madriti*** G. Sm.  
 IF No: 335747 **Trophic mode/Guild:** saprotroph/ **Habitat:** On soils, in woodlands | Saprotrroph **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1322. *Penicillium malmesburiense*** Visage, Houbraken & K. Jacobs  
 IF No: 809969 **Trophic mode/Guild:** saprotroph/ **Habitat:** On soils **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1323. *Penicillium meleagrinum*** Biourge  
 IF No: 270843



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1324. *Penicillium melinii*** Thom  
 IF No: 270876 **Trophic mode/ Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1325. *Penicillium mlozyskii*** K.W. Zaleski  
 IF No: 271171 **Trophic mode/Guild:** saprotroph **Habitat:** On soils in Páramo **Dept.:** CUN **Uses:** EU



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1326. *Penicillium montanense*** M. Chr. & Backus  
 IF No: 335752



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Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1327. *Penicillium olsonii* Bainier & Sartory  
IF No: 121021



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1328. *Penicillium ovatum* (K. Ando & Nawawi) Houbraken & Samson  
IF No: 561961



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1329. *Penicillium oxalicum* Currie & Thom  
IF No: 121033 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1330. *Penicillium parvum* Raper & Fennell  
IF No: 289101



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1331. *Penicillium pasqualense* Houbraken, Frisvad & Samson  
IF No: 563190



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1332. *Penicillium paxillii* Bainier  
IF No: 203838



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1333. *Penicillium penarotense* Houbraken, López-Quint, Frisvad & Samson  
IF No: 518024 **Trophic mode/Guild:** saprotroph/  
**Distribution:** Pantropics **Dept.:** AMA



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1334. *Penicillium ranomafanaense* Houbraken & F. Hagen  
IF No: 809971



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1335. *Penicillium roffii* Thom  
IF No: 276674



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1336. *Penicillium roseopurpureum* Dierckx  
IF No: 213447 **Trophic mode/Guild:** saprotrophy **Habitat:** On soils cultivated with peach | Saprotroph **Elev.:** 2,900 m



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1337. *Penicillium scabrosum* Frisvad, Samson & Stolk  
IF No: 136735 **Trophic mode/Guild:** saprotroph/ **Habitat:** On soils cultivated with apple and peach | On soils



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1338. *Penicillium senticosum* D.B. Scott  
IF No: 335764

**Dept.:** BOY

in uncultivated field (intermediate between orchard and woodland) | On woodland soils | Saprotroph **Elev.:** 2,900 m  
**Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1339. *Penicillium simplicissimum* (Oudem.) Thom  
IF No: 278201 **Trophic mode/Guild:** saprotrophy/wood saprotroph **Habitat:** On woodland soils | Saprotroph



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1340. *Penicillium swiecickii* K.W. Zaleski  
IF No: 580393



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1341. *Penicillium thomii* Maire  
IF No: 202819 **Trophic mode/Guild:** saprotroph/ **Habitat:** In Páramo | Saprotroph **Distribution:** Global **Dept.:** RIS

**Elev.:** 2,900 m **Dept.:** BOY

**Uses:** EU



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1342. *Penicillium vancouverense* Houbraken, Frisvad & Samson  
IF No: 563207 **Trophic mode/ Guild:** saprotroph/ **Habitat:** On soils cultivated with apple and peach | On soils in uncultivated field (intermediate between orchard and woodland) | On woodland soils | Saprotroph **Elev.:** 2,900 m



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1343. *Penicillium vanderhammenii* Houbraken, López-Quint., Frisvad & Samson  
IF No: 518027 **Trophic mode/Guild:** saprotroph/ **Habitat:**



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1344. *Penicillium varratense* Visagie & Samson  
IF No: 808271

**Dept.:** BOY

**Saprotroph Distribution:** Pantropics **Dept.:** AMA



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1345. *Penicillium verhaegii* Houbraken  
IF No: 809979



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1346. *Penicillium verrucosum* Dierckx  
IF No: 212252 **Trophic mode/Guild:** pathotrophy/ animal pathogen **Habitat:** On soils | In Páramo | Saprotroph **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1347. *Penicillium vlnaceum* J.C. Gilman & E.V. Abbott  
IF No: 281754 **Trophic mode/ Guild:** saprotroph/ **Habitat:** On soils cultivated with peach | On soils in uncultivated field (intermediate between orchard and woodland) | On woodland soils | Saprotroph **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1348. *Penicillium virgatum* Nirenberg & Kwasna  
IF No: 341488 **Trophic mode/Guild:** saprotroph/ **Habitat:** On uncultivated soils (between orchards and woodlands) | On woodland soils | Saprotroph **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1349. *Penicillium westlingii* K.W. Zaleski  
IF No: 282076



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1350. *Penicillium westlingii* Houbraken, López-Quint., Frisvad & Samson  
IF No: 518026 **Trophic mode/ Guild:** saprotroph/ **Habitat:** Saprotroph **Distribution:** Pantropics **Dept.:** AMA



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1351. *Talaromyces amazonensis* L. Wang  
IF No: 805945



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1352. *Rasamsonia pulvercolae* Tanney & Seifert  
IF No: 804677 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1353. *Talaromyces aculeatus* (Raper & Fennell) Samson, N. Yilmaz, Frisvad & Seifert  
IF No: 560639 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1354. *Talaromyces amazonensis* N. Yilmaz, López-Quint., Vasco-Pal., Frisvad & Houbraken  
IF No: 816230 **Trophic mode/ Guild:** saprotroph/undefined saprotroph **Habitat:** On leaf litter from Amazon forests | Saprotroph **Distribution:** Pantropics , Endemic **Dept.:** AMA **Uses:** ME



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1355. *Talaromyces arnestoldiae* N. Yilmaz, Houbraken, Frisvad & Samson  
IF No: 801358 **Trophic mode/Guild:** pathotrophy/ animal pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1356. *Talaromyces caldicanius* (J.L. Chen) Samson, N. Yilmaz & Frisvad  
IF No: 560645 **Trophic mode/Guild:** saprotroph /undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1357. *Talaromyces columbiensis* N. Yilmaz, López-Quint., Vasco-Pal., Frisvad & Houbraken  
IF No: 816231 **Trophic mode/ Guild:** saprotroph/undefined saprotroph **Habitat:** On leaf litter from Amazon forests | Saprotroph **Distribution:** Pantropics , Endemic **Dept.:** AMA **Uses:** PO



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1358. *Talaromyces flavus* (Klöcker) Stolk & Samson  
IF No: 324416 **Trophic mode/Guild:** saprotroph/ undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
1359. *Talaromyces francoe* N. Yilmaz, López-Quint., Vasco-Pal. & Houbraken  
IF No: 816232 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On leaf litter from Amazon forests | Saprotroph **Distribution:** Pantropics , Endemic **Dept.:** AMA **Uses:** ME

**Dept.:** PO

**Dept.:** AMA **Uses:** ME

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Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1360. *Talaromyces funiculosus*** (Thom) Samson, N. Yilmaz, Frisvad & Seifert IF No: 560653 **Trophic mode/Guild:** pathotroph /animal pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1361. *Talaromyces minioluteus*** (Dierckx) Samson, N. Yilmaz, Frisvad & Seifert IF No: 560657 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1362. *Talaromyces neofusisporus*** L. Wang IF No: 811447 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1363. *Talaromyces oumae-annae*** Visagie, N. Yilmaz, Seifert & Samson IF No: 809187 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1364. *Talaromyces pinophilus*** (Hedg.) Samson, N. Yilmaz, Frisvad & Seifert IF No: 560662 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1365. *Talaromyces purgamentorum*** N. Yilmaz, López-Quint, Vasco-Pal. & Houbraken IF No: 816233 **Trophic mode/Guild:** saprotroph/undefined saprotroph  
**Habitat:** On leaf litter from Amazon forests | Saprotroph  
**Distribution:** Pan tropics , Endemic **Dept.:** AMA **Uses:** ME



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1366. *Talaromyces purpureogenus*** Samson, N. Yilmaz, Houbraken, Spierenb., Seifert, Peterson, Varga & Frisvad IF No: 585068 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1367. *Talaromyces ruber*** (Stoll) N. Yilmaz, Houbraken, Frisvad & Samson IF No: 801360 **Trophic mode/Guild:** pathotroph /animal pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1368. *Talaromyces rugulosus*** (Thom) Samson, N. Yilmaz, Frisvad & Seifert IF No: 560672 **Trophic mode/Guild:** pathotroph /animal pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1369. *Talaromyces scorteus*** (Nakaz., Y. Takeda & Suematsu) S.W. Peterson & Jurjević IF No: 804734 **Trophic mode/Guild:** saprotroph/undefined



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1370. *Talaromyces solicola*** Visagie & K. Jacobs IF No: 564328 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1371. *Talaromyces stipitatus*** (Thom ex C.W. Emmons) C.R. Benj. IF No: 306722 **Trophic mode/Guild:** saprotroph /undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1372. *Talaromyces veerkampii*** Visagie, N. Yilmaz & Samson IF No: 808233 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1373. *Talaromyces verruculosus*** (Peyronel) Samson, N. Yilmaz, Frisvad & Seifert IF No: 560678 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1374. *Talaromyces viridulus*** Samson, N. Yilmaz & Frisvad IF No: 560679 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Aspergillaceae  
**1375. *Talaromyces wortmannii*** (Klöcker) C.R. Benj. IF No: 344294 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Elaphomycetaceae  
**1376. *Elaphomyces muricatus*** Fr. IF No: 203760 **Trophic mode/Guild:** symbiotroph /ectomycorrhizal **Habitat:** Hypogeous in soil, in oak forest | Ectomycorrhizal hypogeous  
**Distribution:** European, Global **Distribution Elev.:** 2,600 m **Dept.:** CUN **Uses:** ME, SU



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Elaphomycetaceae  
**1377. *Pseudotulostoma volvatum*** O.K. Mill. & T.W. Henkel IF No: 528773 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Conservation:** LC



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Monacaceae  
**1378. *Monascus purpureus*** Went IF No: 235390 **Trophic mode/Guild:** saprotroph /undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Eurotiales, Monacaceae  
**1379. *Monascus ruber*** Tiegh. IF No: 234876 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Onygenales, Ajellomycetaceae  
**1380. *Histoplasma capsulatum*** Darling IF No: 102749 **Trophic mode/Guild:** pathotroph, saprotroph/animal pathogen, dung saprotroph



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Onygenales, Ajellomycetaceae  
**1381. *Paracoccidioides brasiliensis*** (Splend.) F.P. Almeida IF No: 258811 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Onygenales, Ajellomycetaceae  
**1382. *Paracoccidioides restrepoana*** Turissini, O.M. Gomez, M.M. Teixeira, McEwen & Matute IF No: 829088 **Trophic mode/Guild:** saprotroph/undefined



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Onygenales, Arthrodermataceae  
**1383. *Epidermophyton floccosum*** (Harz) Langeron & Miloch. IF No: 252200 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Onygenales, Arthrodermataceae  
**1384. *Microsporium canis*** E. Bodin ex Guég. IF No: 160689 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Onygenales, Arthrodermataceae  
**1385. *Microsporium fulvum*** Urburu IF No: 361755 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Onygenales, Arthrodermataceae  
**1386. *Microsporium gypseum*** (E. Bodin) Guiart & Grigoraki IF No: 252496 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Onygenales, Arthrodermataceae  
**1387. *Microsporium incurvatum*** (Stockdale) P.L. Sun & Y.M. Ju IF No: 803967 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Onygenales, Arthrodermataceae  
**1388. *Trichophyton ajellii*** (Vanbreus.) Ajello IF No: 340385 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Onygenales, Arthrodermataceae  
**1389. *Trichophyton concentricum*** R. Blanch. IF No: 101447 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Onygenales, Arthrodermataceae  
**1390. *Trichophyton mentagrophytes*** (C.P. Robin) Sabour. IF No: 185902 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Onygenales, Arthrodermataceae  
**1391. *Trichophyton pictor*** R. Blanch. IF No: 124251 **Trophic mode/Guild:** saprotroph /undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Onygenales, Arthrodermataceae  
**1392. *Trichophyton rubrum*** (Castell.) Sabour. IF No: 254498 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Onygenales, Arthrodermataceae  
**1393. *Trichophyton terrestre*** Durie & D. Frey IF No: 307101 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Onygenales, Arthrodermataceae  
**1394. *Trichophyton tonsurans*** Malmsten IF No: 193973 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Onygenales, Onygenaceae  
**1395. *Aphanoascus keratinophilus*** Punsola & Cano IF No: 127403 **Trophic mode/Guild:** saprotroph/undefined saprotroph



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Onygenales, Onygenaceae  
**1396. *Auxarthron umbrinum*** (Boud.) G.F. Orr & Plunkett IF No: 326847 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On soils cultivated with apple and peach | Saprotroph **Elev.:** 2,900 m **Dept.:** BOY

apple and peach | Saprotroph **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Onygenales, Onygenaceae  
**1397. *Chrysosporium lobatum*** Scharapov IF No: 311108 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On soils cultivated with apple and peach | On soils in uncultivated field (intermediate between orchard and woodland) | Saprotroph **Elev.:** 2,900 m **Dept.:** BOY

uncultivated field (intermediate between orchard and woodland) | Saprotroph **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Onygenales, Onygenaceae  
**1398. *Coccidioides immitis*** C.W. Stiles IF No: 416228 **Trophic mode/Guild:** pathotroph, saprotroph/animal pathogen, soil saprotroph



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Onygenales, Incertae sedis  
**1399. *Arthrospira truncata*** Sigler, M.T. Dunn & J.W. Carmich. IF No: 109606 **Trophic mode/Guild:** pathotroph, saprotroph/animal pathogen, undefined

saprotroph



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Eurotiomycetidae, Onygenales, Incertae sedis  
**1400. *Lacazia lobii*** Taborda, V.A. Taborda & McGinnis IF No: 459430



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Mycocaliomycetidae, Mycocaliciales, Mycocaliaceae  
**1401. *Chaenothecopsis debilis*** (Sm.) Tibell IF No: 341712 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 2,600 m **Dept.:** HUI

Subcosmopolitan, Native **Elev.:** 2,600 m **Dept.:** HUI



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Mycocaliomycetidae, Mycocaliciales, Mycocaliaceae  
**1402. *Chaenothecopsis nivea*** (F. Wilson) Tibell IF No: 131059 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Australasia, Native **Elev.:** 1,000 m **Dept.:** HUI

Australasia, Native **Elev.:** 1,000 m **Dept.:** HUI



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Mycocaliomycetidae, Mycocaliciales, Mycocaliaceae  
**1403. *Chaenothecopsis pusilla*** (Ach.) A.F.W. Schmidt IF No: 341717 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 2,500 m **Dept.:** CUN

Subcosmopolitan, Native **Elev.:** 2,500 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Mycocaliomycetidae, Mycocaliciales, Mycocaliaceae  
**1404. *Mycocalcium americanum*** (R. Sant.) Tibell IF No: 131063 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Biogeographic region:** Andes **Distribution:** Neotropics, Australasia, Native **Elev.:** 1,000 m **Dept.:** HUI

Neotropics, Australasia, Native **Elev.:** 1,000 m **Dept.:** HUI



Fungi, Ascomycota, Pezizomycotina, Eurotiomycetes, Mycocaliomycetidae, Mycocaliciales, Sphinctrinaceae  
**1405. *Pyrgidium montellium*** (Beltr.) Tibell IF No: 110065 **Trophic mode/Guild:** pathotroph/lichen parasite **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 1,900 m **Dept.:** CUN

Subcosmopolitan, Native **Elev.:** 1,900 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Geoglossomycetes, Incertae sedis, Geoglossales, Geoglossaceae  
**1406. *Geoglossum fallax*** E.J. Durand IF No: 158264 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On soils in uncultivated field (intermediate between orchard and woodland) | Saprotroph **Elev.:** 2,900 m **Dept.:** BOY

between orchard and woodland) | Saprotroph **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Geoglossomycetes, Incertae sedis, Geoglossales, Geoglossaceae  
**1407. *Geoglossum nigratum*** (Pers.) Cooke IF No: 168102 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Geoglossomycetes, Incertae sedis, Geoglossales, Geoglossaceae  
**1408. *Trichoglossum hirsutum*** (Pers.) Boud. IF No: 187796 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Geoglossomycetes, Incertae sedis, Geoglossales, Geoglossaceae  
**1409. *Trichoglossum waiteri*** (Berk.) E.J. Durand IF No: 183615 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Conservation:** VU



Fungi, Ascomycota, Pezizomycotina, Laboulbeniomycetes, Laboulbeniomycetidae, Herpomycetales, Herpomycetaceae  
**1410. *Herpomyces paranaensis*** Thaxt. IF No: 544172 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Laboulbeniomycetes, Laboulbeniomycetidae, Laboulbeniales, Laboulbeniaceae  
**1411. *Corethromyces brasiliensis*** Thaxt. IF No: 180936 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Laboulbeniomycetes, Laboulbeniomycetidae, Laboulbeniales, Laboulbeniaceae  
**1412. *Laboulbenia anchonoderi*** Thaxt. IF No: 151166 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Laboulbeniomycetes, Laboulbeniomycetidae, Laboulbeniales, Laboulbeniaceae  
**1413. *Laboulbenia columbiana*** Thaxt. IF No: 242022 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Laboulbeniomycetes, Laboulbeniomycetidae, Laboulbeniales, Laboulbeniaceae  
**1414. *Laboulbenia declivens*** Thaxt. IF No: 245192 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Laboulbeniomycetes, Laboulbeniomycetidae, Laboulbeniales, Laboulbeniaceae  
**1415. *Laboulbenia flagellata*** Peyr. IF No: 193832 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Laboulbeniomycetes, Laboulbeniomycetidae, Laboulbeniales, Laboulbeniaceae  
**1416. *Laboulbenia guerlinii*** C.P. Robin IF No: 190426 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Laboulbeniomycetes, Laboulbeniomycetidae, Laboulbeniales, Laboulbeniaceae  
**1417. *Laboulbenia latonae*** Thaxt. IF No: 222685 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Laboulbeniomycetes, Laboulbeniomycetidae, Laboulbeniales, Laboulbeniaceae  
**1418. *Laboulbenia media*** Thaxt. IF No: 226486 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Laboulbeniomycetes, Laboulbeniomycetidae, Laboulbeniales, Laboulbeniaceae  
**1419. *Laboulbenia mexicana*** Thaxt. IF No: 216462 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Laboulbeniomycetes, Laboulbeniomycetidae, Laboulbeniales, Laboulbeniaceae  
**1420. *Laboulbenia producta*** Thaxt. IF No: 142719 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Laboulbeniomycetes, Laboulbeniomycetidae, Laboulbeniales, Laboulbeniaceae  
**1421. *Laboulbenia pterostichi*** Thaxt. IF No: 146090 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Laboulbeniomycetes, Laboulbeniomycetidae, Laboulbeniales, Laboulbeniaceae  
**1422. *Laboulbenia punctata*** Thaxt. IF No: 145627 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Laboulbeniomycetes, Laboulbeniomycetidae, Laboulbeniales, Laboulbeniaceae  
**1423. *Laboulbenia trichognathi*** Thaxt. IF No: 534680 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Laboulbeniomycetes, Laboulbeniomycetidae, Laboulbeniales, Laboulbeniaceae  
**1424. *Laboulbenia triordnata*** Thaxt. IF No: 247232 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Laboulbeniomycetes, Laboulbeniomycetidae, Laboulbeniales, Laboulbeniaceae  
**1425. *Milnesomyces latonae*** (Thaxt.) Thaxt. IF No: 269090 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Laboulbeniales, Laboulbeniaceae  
**1426. *Rhachomyces longissimus*** (Thaxt.) Thaxt. IF No: 186213 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Acarosporomycetidae, Acarosporales, Acarosporaceae  
**1427. *Acarospora chrysops*** (Tuck.) H. Magn. IF No: 375514 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Neotropics, Native **Elev.:** 1,000–2,250 m



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Acarosporomycetidae, Acarosporales, Acarosporaceae  
**1428. *Acarospora congregata*** K. Knudsen & Flakus IF No: 814414 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Acarosporomycetidae, Acarosporales, Acarosporaceae  
**1429. *Acarospora socialis*** H. Magn. IF No: 375721 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Acarosporomycetidae, Acarosporales, Acarosporaceae  
**1430. *Acarospora strigata*** (Nyl.) Jatta IF No: 375730 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Acarosporomycetidae, Acarosporales, Acarosporaceae  
**1431. *Acarospora xanthophana*** (Nyl.) Jatta IF No: 375779 **Biogeographic region:** Andes **Distribution:** South America **Elev.:** 2,250–2,600 m **Dept.:** BOY, CUN

**Dept.:** BOY, HUI, NAR

CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Acarosporomycetidae, Acarosporales, Acarosporaceae  
**1432. *Myriospora smaragdula*** (Wahlenb.) Nägeli ex Uloth IF No: 395807 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1433. *Amandinea efflorescens*** (Müll. Arg.) Marbach IF No: 464826 **Trophic mode/Guild:** symbiotroph/lichenised **Habitat:** On bark **Elev.:** 3,600 m **Dept.:** CAU **Uses:** EU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1434. *Amandinea endochroa*** (Malme) Marbach IF No: 464828 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1435. *Amandinea errata*** Marbach IF No: 464829 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1436. *Amandinea extenuata*** (Müll. Arg.) Marbach IF No: 464830 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Subcosmopolitan, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1437. *Amandinea lecidinea*** (H. Mayrhofer & Poelt) Scheid. & H. Mayrhofer IF No: 361293 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1438. *Amandinea medfospora*** Marbach IF No: 464833 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1439. *Amandinea megaspora*** Marbach IF No: 464834 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 3,500–3,975 m **Dept.:** CUN, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1440. *Amandinea natalensis*** (Vain.) Marbach IF No: 464839 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1441. *Amandinea punctata*** (Hoffm.) Coppins & Scheid. IF No: 361294 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1442. *Amandinea submontana*** Marbach IF No: 464843 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1443. *Baculifera cinereocincta*** (Müll. Arg.) Marbach IF No: 464846 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Subcosmopolit. **Elev.:** 2,700 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1444. *Baculifera remensa*** (Stirt.) Marbach IF No: 464857 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Pan-tropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1445. *Buellia aesthalea*** (Ach.) Th. Fr. IF No: 380161 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Cosmopolitan, Native **Elev.:** 2,600 m **Dept.:** BOY, CAL, CAU, CUN, HUI, MET, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1446. *Buellia arborea*** Coppins & Tønsberg IF No: 358663 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1447. *Buellia bahiana*** Malme IF No: 380222 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1448. *Buellia conspurans*** (Nyl.) Vain. IF No: 380291 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 250 m **Dept.:** TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1449. *Buellia demutans*** Zahlbr. IF No: 380313 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1450. *Buellia disciformis*** (Fr.) Mudd IF No: 380326 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1451. *Buellia dispersula*** Müll. Arg. IF No: 380333 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Caribbean **Distribution:** Neotropics, Native **Dept.:** SAP



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1452. *Buellia erubescens*** Arnold IF No: 380371 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1453. *Buellia glaziovana*** (Kremp.) Müll. Arg. IF No: 380410 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Caribbean **Distribution:** Neotropics, Native **Dept.:** SAP



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1454. *Buellia mamillana*** (Tuck.) W.A. Weber IF No: 129386 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1455. *Buellia stellulata*** (Taylor) Mudd IF No: 380719 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 2,600 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1456. *Buellia subjuncta*** (Nyl.) Müll. Arg. IF No: 380747 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 50–2,600 m **Conservation:** DD



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1457. *Buellia versicolor*** Müll. Arg. IF No: 380825 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Caribbean **Distribution:** Neotropics, Native **Elev.:** 50 m **Dept.:** SAP



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1458. *Callicium abietinum*** Pers. IF No: 380946 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantemperate, Native **Elev.:** 2,200–2,700 m **Dept.:** ANT, BOY



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1459. *Callicium chlorosporum*** F. Wilson IF No: 380983 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan-tropics, Native **Elev.:** 2,400 m



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1460. *Callicium glaucellum*** Ach. IF No: 381024 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantemperate, Native **Elev.:** 1,750–3,750 m **Dept.:** CUN, RIS, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1461. *Callicium hypereloides*** Nyl. IF No: 381034 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan-tropics, Native **Elev.:** 2,000–2,500 m **Dept.:** ANT, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1462. *Callicium lentiginale*** Ach. IF No: 381041 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 2,600–3,500 m **Dept.:** CAL, HUI, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1463. *Callicium salicinum*** Pers. IF No: 381113 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 3,500–3,750 m **Dept.:** CAL, CUN, HUI



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1464. *Callicium tricolor*** F. Wilson IF No: 381152 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 2,400 m **Dept.:** HUI



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1465. *Cratiria aggedriensis*** (Stirt.) Marbach IF No: 464866 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan-tropics, Native **Elev.:** 1,750 m **Dept.:** CAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1466. *Cratiria americana*** (Fée) Kalb & Marbach IF No: 464867 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan-tropics, Native **Elev.:** 1,000–3,370 m **Dept.:** CAL, CUN, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
**1467. *Cratiria lauri-cassiae*** (Fée) Marbach IF No: 464865 **Trophic mode/Guild:** symbiotroph/lichenised



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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Caliciaceae  
**1468. *Cratiria obscurior*** (Stirt.) Marbach & Kalb IF No: 464629 **Trophic mode/Guild:** symbiotroph/lichenised



Neotropics, Native **Dept.:** HUI



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Caliciaceae  
**1470. *Dimelaena tenulis*** (Müll. Arg.) H. Mayrhofer & Wipfel IF No: 434540 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Panotropics, Native **Elev.:** 350 m **Dept.:** AMA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Caliciaceae  
**1471. *Diploicia canescens*** (Dicks.) A. Massal. IF No: 118802 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Caliciaceae  
**1472. *Dirinaria aegialita*** (Afzel. ex Ach.) B.J. Moore IF No: 283772 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Panotropics, Native



Panotropics, Native **Elev.:** 1,000–2,500 m **Dept.:** CUN, RIS, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Caliciaceae  
**1474. *Dirinaria aspera*** (H. Magn.) D.D. Awasthi IF No: 344959 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Panotropics, Native **Dept.:** CAU



Panotropics, Native **Elev.:** 400 m



Taiwan, Native **Dept.:** TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Caliciaceae  
**1477. *Dirinaria consimilis*** (Stirt.) D.D. Awasthi IF No: 341896 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Caliciaceae  
**1478. *Dirinaria melanocarpa*** C.W. Dodge IF No: 475486 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** South America, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Caliciaceae  
**1479. *Dirinaria papillulifera*** (Nyl.) D.D. Awasthi IF No: 344960 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Caliciaceae  
**1480. *Dirinaria picta*** (Sw.) Clem. & Shear IF No: 433365 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Panotropics, Native **Elev.:** 100–1,100 m **Dept.:** CAU, NAR, RIS, TOL, VAC



Africa, Native **Elev.:** 250 m **Dept.:** CUN



**Distribution:** Panotropics South America, Native **Elev.:** 350 m **Dept.:** AMA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Caliciaceae  
**1483. *Gasscurtia catasema*** (Tuck.) Marbach IF No: 464639 **Trophic mode/Guild:** symbiotroph/lichenised



Africa, Native **Elev.:** 300–1,200 m **Dept.:** CAQ



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Caliciaceae  
**1485. *Gasscurtia elzae*** (Tuck.) Marbach IF No: 464644 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Caliciaceae  
**1486. *Gasscurtia vaccinii*** (Vain.) Marbach, Elix & Kalb IF No: 464874 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics, Native **Elev.:** 2,600 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Caliciaceae  
**1487. *Orcularia insperata*** (Nyl.) Kalb & Giralt IF No: 563560 **Trophic mode/Guild:** symbiotroph/lichenised



Native **Elev.:** 1,000–2,250 m **Dept.:** BOY, CUN, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Caliciaceae  
**1489. *Pyxine astrildiana*** Kalb IF No: 130712 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Neotropics, Native



Native **Elev.:** 840–2,400 m **Dept.:** CAL, CAU, CUN, HUI, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Caliciaceae  
**1491. *Pyxine coccifera*** (Fée) Nyl. IF No: 403580 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Caliciaceae  
**1492. *Pyxine coccos*** (Sw.) Nyl. IF No: 279552 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 1,200–2,250 m **Dept.:** BOY, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Caliciaceae  
**1493. *Pyxine coccos var. pallida*** Kalb IF No: 627772



1,750 m **Dept.:** SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Caliciaceae  
**1495. *Pyxine corallifera*** Malme IF No: 403589 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Africa, Native **Elev.:** 1,250 m **Dept.:** RIS



Native **Elev.:** 1,750 m **Dept.:** CUN, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Caliciaceae  
**1497. *Pyxine endolites*** Kalb IF No: 130714 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Caliciaceae  
**1498. *Pyxine eschweileri*** (Tuck.) Vain. IF No: 403595 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics, Native **Elev.:** 1,500 m **Dept.:** RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Caliciaceae  
**1499. *Pyxine lisdiphora*** (Müll. Arg.) Imshaug IF No: 369869 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Neotropics, Native



Native **Elev.:** 350 m **Dept.:** AMA

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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
 1501. *Pyxine petricola* Nyl.  
 IF No: 355845 Trophic mode/ Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 850–2,250 m **Dept.:** BOY, CAL, CUN, HUI



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
 1502. *Pyxine pyxinoides* (Müll. Arg.) Kalb IF No: 130717 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
 1503. *Pyxine rhodeslaca* Vain. ex Lyngbe IF No: 369875 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
 1504. *Pyxine soledata* (Ach.) Mont. IF No: 403621 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 250–1,400 m **Dept.:** CUN, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
 1505. *Pyxine subcinerea* Stirt. IF No: 403622 Trophic mode/ Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 500–1,500 m **Dept.:** CUN, RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
 1506. *Stigmatochroma eplmartum* (Nyl.) Marbach IF No: 545047 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
 1507. *Stigmatochroma gerontoides* (Stirt.) Marbach IF No: 464815 Trophic mode/ Guild: symbiotroph/lichenised  
**Biogeographic region:** Caribbean **Distribution:** Neotropics, Native **Dept.:** SAP



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Calliciaceae  
 1508. *Tetramela reglomontanus* Marbach IF No: 464818 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
 1509. *Heterodermia albicans* (Pers.) Swinscow & Krog IF No: 342134 Trophic mode/Guild: symbiotroph/lichenised  
**Habitat:** Lichen **Biogeographic region:** Andes, Pacific **Distribution:** Neotropics, Africa, Native **Elev.:** 0–2,700 m **Dept.:** BOY, CAL, CAU, CUN, RIS, SAN **Uses:** EU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
 1510. *Heterodermia antillarum* (Vain.) Swinscow & Krog IF No: 342137 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Africa, Native **Elev.:** 2,500 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
 1511. *Heterodermia barbifera* (Nyl.) Kr.P. Singh IF No: 108908 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
 1512. *Heterodermia comosa* (Eschw.) Follmann & Redón IF No: 283773 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 1,600–2,970 m **Dept.:** ANT, BOY, CUN, HUI, NAR, RIS, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
 1513. *Heterodermia crocea* R.C. Harris IF No: 355045 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
 1514. *Heterodermia diademata* (Taylor) D.D. Awasthi IF No: 342147 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 1,750–2,460 m **Dept.:** CAU, NAR, RIS, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
 1515. *Heterodermia fiabellata* (Fée) D.D. Awasthi IF No: 342149 Trophic mode/ Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 1,750–2,950 m **Dept.:** ANT, BOY, CAU, CUN, HUI, MET, NAR, PUT, RIS, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
 1516. *Heterodermia galactophylla* (Tuck.) W.L. Culb. IF No: 345067 Trophic mode/ Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,050–3,730 m **Dept.:** ANT, CAL, CUN, HUI, RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
 1517. *Heterodermia isidiphora* (Nyl.) D.D. Awasthi IF No: 342155 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes, Orinoquia **Distribution:** Neotropics, Africa, Native **Elev.:** 100–2,840 m **Dept.:** CAU, CUN, NAR, RIS, VID



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
 1518. *Heterodermia kurokawae* Trass IF No: 447478 Trophic mode/Guild: symbiotroph/lichenised  
**Distribution:** Neotropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
 1519. *Heterodermia lamellifera* (Taylor) Trass IF No: 358393 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 3,200 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
 1520. *Heterodermia obscurata* (Nyl.) Trevis. IF No: 386839 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 1,000–2,900 m **Dept.:** BOY, CUN, HUI, NAR, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
 1521. *Heterodermia parva* Moberg IF No: 580413 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Pantropics, Andes, Native **Elev.:** 3,000–4,250 m **Dept.:** ARA, CAU, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
 1522. *Heterodermia peruviana* (Kashiw. & Kurok.) Trass IF No: 358036 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
 1523. *Heterodermia podocarpa* (Bél.) D.D. Awasthi IF No: 342165 Trophic mode/Guild: symbiotroph/lichenised  
**Habitat:** On twigs and small branches in oak and pine forests | Lichen **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Pantropics, Native **Elev.:** 1,500–2,950 m **Dept.:** ANT, CAU, CUN, HUI, NAR, PUT, RIS, SAN, TOL **Uses:** ME



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
 1524. *Heterodermia pseudospectiosa* (Kurok.) W.L. Culb. IF No: 345070 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
 1525. *Heterodermia speciosa* (Wulfen) Trevis. IF No: 386840 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 1,000–3,730 m **Dept.:** ANT, BOY, CAL, CAU, CUN, HUI, NAR, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
 1526. *Heterodermia subcomosa* (Nyl.) Elix IF No: 114449 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 1,670–2,650 m **Dept.:** CUN, QUI, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
 1527. *Heterodermia tremulans* (Müll. Arg.) W.L. Culb. IF No: 345072 Trophic mode/ Guild: symbiotroph/lichenised  
**Distribution:** Neotropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
 1528. *Heterodermia tropica* (Kurok.) Sipman IF No: 415655 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
 1529. *Hyperphyscia adglutinata* (Flörke) H. Mayrhofer & Poelt IF No: 342215 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
 1530. *Hyperphyscia confusa* Essl., C.A. Morse & S.D. Leav. IF No: 563653 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** North America, Neotropics, Native **Elev.:** 750–2,800 m **Dept.:** ANT, CUN



CHECKLIST OF FUNGI OF COLOMBIA



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1531. *Hyperphyscia minor* (Fée) Kalb IF No: 134485 Trophic mode/Guild: symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1532. *Hyperphyscia mobergii* Kalb IF No: 125758 Trophic mode/Guild: symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1533. *Hyperphyscia pandani* (H. Magn.) Moberg IF No: 132506



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1534. *Hyperphyscia pyrrhocarda* (Müll. Arg.) Moberg & Aptroot IF No: 133521



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1535. *Hyperphyscia syncolle* (Tuck. ex Nyl.) Kalb IF No: 109508 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Andes Distribution: Neotropics, Africa, Native Elev.: 1,200–2,600 m Dept.: CUN



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1536. *Leucodermia boryi* (Fée) Kalb IF No: 813828 Trophic mode/Guild: symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1537. *Leucodermia circinalis* (Zahlbr.) Kalb IF No: 813831 Trophic mode/Guild: symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1538. *Leucodermia leucomelos* (L.) Kalb IF No: 813827 Trophic mode/Guild: symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1539. *Leucodermia lutescens* (Kurok.) Kalb IF No: 813833 Trophic mode/Guild: symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1540. *Leucodermia vulgaris* (Vain.) Kalb IF No: 813834 Trophic mode/Guild: symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1541. *Phaeophyscia ciliata* (Hoffm.) Moberg IF No: 343202 Trophic mode/Guild: symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1542. *Phaeophyscia endococcinodes* (Poelt) Essl. IF No: 343206 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Andes Distribution: Elev.: 2,600–2,700 m Dept.: BOY, CUN, RIS



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1543. *Phaeophyscia hirsuta* (Mereschk.) Essl. IF No: 533855 Trophic mode/Guild: symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1544. *Phaeophyscia hispidula* (Ach.) Essl. IF No: 533856 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Andes Distribution: Pantropics, Native Elev.: 1,750–2,900 m Dept.: ANT, BOY, CAL, CAU, CUN, RIS, SAN Conservation: LC



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1545. *Phaeophyscia orbicularis* (Neck.) Moberg IF No: 343218 Trophic mode/Guild: symbiotroph/lichenised Distribution: Neotropics, Native



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1546. *Phaeophyscia pusilloides* (Zahlbr.) Essl. IF No: 343219 Trophic mode/Guild: symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1547. *Physcia alpola* (Ehrh. ex Humb.) Fűrnr. IF No: 400553 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Andes Distribution: Cosmopolitan, Native Elev.: 1,750 m Dept.: ANT, CAU



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1548. *Physcia alba* (Fée) Müll. Arg. IF No: 400554 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Andes Distribution: Neotropics, Native Elev.: 2,050–2,500 m Dept.: ANT, CUN



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1549. *Physcia albata* (F. Wilson) Hale IF No: 345611 Trophic mode/Guild: symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1550. *Physcia atrostriata* Moberg IF No: 129125 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Andes Distribution: Pantropics, Native Elev.: 5–1,750 m Dept.: CAU, HUI, NAR, RIS, SAN



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1551. *Physcia caesia* (Hoffm.) Fűrnr. IF No: 400579 Trophic mode/Guild: symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1552. *Physcia cinerea* Moberg IF No: 126955 Trophic mode/Guild: symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1553. *Physcia convexa* Müll. Arg. IF No: 400603 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Andes Distribution: South America, Native Elev.: 2,600 m Dept.: BOY



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1554. *Physcia convexella* Moberg IF No: 126956



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1555. *Physcia crispa* Nyl. IF No: 400606 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Andes Distribution: Neotropics, Native Dept.: CUN



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1556. *Physcia crispa* Müll. Arg. IF No: 400607 Trophic mode/Guild: symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1557. *Physcia decorticata* Moberg IF No: 126958 Trophic mode/Guild: symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1558. *Physcia dilatata* Nyl. IF No: 400621 Trophic mode/Guild: symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1559. *Physcia dubia* (Hoffm.) Lettau IF No: 411613



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1560. *Physcia arumpeae* Moberg IF No: 129126 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Andes Distribution: Pantropics, Native Elev.: 1,000–1,980 m Dept.: RIS



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1561. *Physcia integrata* Nyl. IF No: 400690 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Andes Distribution: Neotropics, Pantropics Africa, Native Elev.: 1,200–1,980 m Dept.: ANT, CAL, CUN, RIS



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1562. *Physcia krogiae* Moberg IF No: 129127 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Andes Distribution: Pantropics, Native Elev.: 1,750 m Dept.: CAU, CUN



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1563. *Physcia laciniata* Müll. Arg. IF No: 400702



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1564. *Physcia lobulata* Moberg IF No: 126960 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Andes Distribution: Neotropics, Native Elev.: 1,725 m Dept.: RIS



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1565. *Physcia lopesii* Moberg IF No: 126961 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Andes Distribution: Neotropics, Native Elev.: 2,050–2,900 m Dept.: ANT, BOY, CAU



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1566. *Physcia manuellii* Moberg IF No: 126962

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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1567. *Physcia pachyphyla* Müll. Arg. IF No: 400758 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1568. *Physcia poncinsi* Hue IF No: 400782 Trophic mode/ Guild: symbiotroph/lichenised Biogeographic region: Andes, Pacific Distribution: Pantropics, Native Elev.: 0–3,200 m Dept.: ANT, CAU, CUN, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1569. *Physcia soledosa* (Vain.) Lynge IF No: 400814 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes, Pacific Distribution: Pantropics, Native Elev.: 30–2,500 m Dept.: ANT, CAU, CUN, HUI, NAR, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1570. *Physcia tenella* (Scop.) DC. IF No: 411620 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1571. *Physcia tenuis* Moberg IF No: 126965 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1572. *Physcia triacela* (Ach.) Nyl. IF No: 400848 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Subcosmopolitan, Native Elev.: 2,550 m Dept.: ANT, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1573. *Physcia undulata* Moberg IF No: 129128 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Pacific Distribution: Pantropics, Native Elev.: 35 m Dept.: NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1574. *Polyblastidium appendiculatum* (Kurok.) Kalb IF No: 813838 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1575. *Polyblastidium casarettianum* (A. Massal.) Kalb IF No: 813854 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1576. *Polyblastidium chilense* (Kurok.) Kalb IF No: 813839 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1577. *Polyblastidium coralophorum* (Taylor) Kalb IF No: 813852 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1578. *Polyblastidium fragillissimum* (Kurok.) Kalb IF No: 813840 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1579. *Polyblastidium hypoleucum* (Ach.) Kalb IF No: 813843 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1580. *Polyblastidium japonicum* (M. Satô) Kalb IF No: 813844 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1581. *Polyblastidium magellanicum* (Zahlbr.) Kalb IF No: 813850 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1582. *Polyblastidium microphyllum* (Kurok.) Kalb IF No: 813845 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1583. *Polyblastidium neglectum* (Lendemer, R.C. Harris & E.A. Tripp) Kalb IF No: 813853 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1584. *Polyblastidium propagulliferum* (Vain.) Kalb IF No: 813846 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1585. *Polyblastidium squamulosum* (Degel.) Kalb IF No: 813841 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1586. *Rinodina calcarea* (Hepp ex Arnold) Arnold IF No: 404245 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1587. *Rinodina colobnoides* (Nyl.) Müll. Arg. IF No: 404267 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Neotropics, Native Elev.: 2,600 m Dept.: CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1588. *Rinodina diplichia* (Nyl.) Zahlbr. IF No: 404302 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Neotropics, Native Elev.: 2,600 m Dept.: CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1589. *Rinodina fimbriata* Körb. IF No: 404333 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1590. *Rinodina gulanensis* Aptroot IF No: 476433 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1591. *Rinodina homobola* (Nyl.) Malme IF No: 404360 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Neotropics, Native Elev.: 2,700 m Dept.: BOY



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1592. *Rinodina milvina* (Wahlenb.) Th. Fr. IF No: 357190 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1593. *Rinodina neglecta* Aptroot IF No: 477660 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1594. *Rinodina oleae* Bagl. IF No: 404437 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1595. *Rinodina posthabita* (Nyl.) Aptroot IF No: 135621 Trophic mode/Guild: symbiotroph/lichenised Distribution: Neotropics, Native Elev.: 200 m Dept.: TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Caliciales, Physciaceae  
1596. *Rinodina sophodes* (Ach.) A. Massal. IF No: 404497 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
1597. *Aquacidia trachona* (Ach.) Aptroot IF No: 824170 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
1598. *Bapalmula araucuarensis* Sipman & Lücking IF No: 538377 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Amazonia Distribution: Endemic Elev.: 250 m Dept.: CAQ Conservation: LC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
1599. *Bapalmula palmularis* (Müll. Arg.) Sérus. IF No: 361783 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Amazonia, Andes, Pacific Distribution: Pantropics, Native Elev.: 35–2,500 m Dept.: AMA, ANT, CAQ, CUN, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
1600. *Brasillcia brasiliensis* (Müll. Arg.) Lücking, Kalb & Sérus. IF No: 537067 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Amazonia, Andes, Pacific Distribution: Neotropics, Native Elev.: 35–2,050 m Dept.: AMA, ANT, CAQ, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
1601. *Byssolecania deplanata* (Müll. Arg.) R. Sant. IF No: 365051 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Amazonia, Pacific Distribution: Pantropics, Native Elev.: 30–250 m Dept.: AMA, CAQ, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
1602. *Byssolecania fumosonigrifans* (Müll. Arg.) R. Sant. IF No: 365052 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Amazonia, Andes, Pacific Distribution: Pantropics, Native Elev.: 30–350 m Dept.: AMA, CAQ, CHO, MET, NAR



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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1603. *Byssolecania hymenocarpa*** (Vain.) Kalb, Vězda & Lücking IF No: 489901  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia, Andes  
**Distribution:** Pan tropics, Native  
**Elev.:** 350–600 m **Dept.:** CAQ, MET



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1604. *Byssolecania variabilis*** Vězda, Kalb & Lücking IF No: 489900  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Pacific  
**Distribution:** Pan tropics, Native  
**Elev.:** 100 m **Dept.:** CHO



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1605. *Byssoloma absconditum*** Farkas & Vězda IF No: 361588  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia, Andes, Pacific  
**Distribution:** Neotropics, Africa, Native  
**Elev.:** 100–350 m **Dept.:** AMA, CAQ, CHO, MET



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1606. *Byssoloma amazonicum*** Kalb & Vězda IF No: 126862  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia  
**Distribution:** Neotropics, Native  
**Elev.:** 240–350 m **Dept.:** AMA, CAQ



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1607. *Byssoloma anomalum*** Kalb & Vězda IF No: 126863  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia, Pacific  
**Distribution:** Neotropics, Native  
**Elev.:** 240–300 m **Dept.:** AMA, CAQ



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1608. *Byssoloma aurantacum*** Kalb & Vězda IF No: 126864  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia, Pacific  
**Distribution:** Pan tropics, Native  
**Elev.:** 100–300 m **Dept.:** AMA, CHO



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1609. *Byssoloma chlorinum*** (Vain.) Zahlbr. IF No: 380866  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes, Pacific  
**Distribution:** Pan tropics, Native  
**Elev.:** 0–2,300 m **Dept.:** ANT, CAU, HUI, VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1610. *Byssoloma discordans*** (Vain.) Zahlbr. IF No: 380870  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Pan tropics, Native  
**Elev.:** 2,050 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1611. *Byssoloma farkasiae*** Sipman IF No: 586970  
**Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1612. *Byssoloma fuscothallinum*** Lücking IF No: 521275  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia  
**Distribution:** Neotropics, Native  
**Elev.:** 240–300 m **Dept.:** AMA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1613. *Byssoloma guttiferae*** (Bat. & Peres) Lücking & Sérus. IF No: 443806  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia  
**Distribution:** Neotropics, Pan tropics, Africa, Native  
**Elev.:** 240–350 m **Dept.:** AMA, CAQ



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1614. *Byssoloma hypophyllum*** Lücking & Kalb IF No: 489897  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia  
**Distribution:** Amazonia, Native  
**Elev.:** 250 m **Dept.:** CAQ



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1615. *Byssoloma leucoblepharum*** (Nyl.) Vain. IF No: 380877  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia, Andes, Pacific  
**Distribution:** Pan tropics, Native  
**Elev.:** 35–2,940 m **Dept.:** AMA, ANT, CAQ, CAU, CHO, CUN, HUI, MAG, MET, NAR, RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1616. *Byssoloma minutissimum*** Kalb & Vězda IF No: 126865  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia, Andes, Pacific  
**Distribution:** Pan tropics, Native  
**Elev.:** 35–600 m **Dept.:** AMA, ANT, CAQ, MET, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1617. *Byssoloma permutans*** (Nyl.) Lücking IF No: 802898  
**Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1618. *Byssoloma tubromarginatum*** Messuti & de la Rosa IF No: 531909  
**Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1619. *Byssoloma sprucei*** (C. Bab. ex Müll. Arg.) Lücking & M. Cáceres IF No: 538369  
**Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1620. *Byssoloma subdiscordans*** (Nyl.) P. James IF No: 341627  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia, Andes, Pacific  
**Distribution:** Pan tropics, Native  
**Elev.:** 0–3,200 m **Dept.:** AMA, ANT, CAQ, CAU, CHO, CUN, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1621. *Byssoloma subleucoblepharum*** G. Thor, Lücking & Tat. Matsumoto IF No: 467398  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia  
**Distribution:** Pan tropics, Native  
**Elev.:** 240 m **Dept.:** AMA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1622. *Byssoloma tricholumum*** (Mont.) Zahlbr. IF No: 380884  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia, Andes, Pacific  
**Distribution:** Pan tropics, Native  
**Elev.:** 240–2,000 m **Dept.:** CAQ, CUN, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1623. *Byssoloma vandeystii*** Sérus. IF No: 341629  
**Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1624. *Calopadia editiae*** Vězda ex Chaves & Lücking IF No: 585206  
**Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1625. *Calopadia follicola*** (Fée) Vězda IF No: 103107  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes, Pacific  
**Distribution:** Pan tropics, Native  
**Elev.:** 100–600 m **Dept.:** CHO, MET



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1626. *Calopadia fusca*** (Müll. Arg.) Vězda IF No: 103108  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia, Andes  
**Distribution:** Pan tropics, Native  
**Elev.:** 240–1,750 m **Dept.:** AMA, CAQ, CAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1627. *Calopadia lecanorella*** (Nyl.) Kalb & Vězda IF No: 130726  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Pacific  
**Distribution:** Neotropics, Native  
**Elev.:** 50 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1628. *Calopadia lucida*** Lücking & R. Sant. IF No: 474499  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Pacific  
**Distribution:** Pan tropics, Native  
**Elev.:** 0–300 m **Dept.:** CAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1629. *Calopadia perpallida*** (Nyl.) Vězda IF No: 103110  
**Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1630. *Calopadia phyllogena*** (Müll. Arg.) Vězda IF No: 103111  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia, Andes, Pacific  
**Distribution:** Pan tropics, Native  
**Elev.:** 100–300 m **Dept.:** AMA, ANT, CHO, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1631. *Calopadia puligera*** (Müll. Arg.) Vězda IF No: 103112  
**Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1632. *Calopadia subperulescens*** (Zahlbr.) Vězda IF No: 133771  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Pacific  
**Distribution:** Pan tropics, Native  
**Elev.:** 0–300 m **Dept.:** CAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1633. *Eugeniella atrichoides*** (Malme) Lücking, Sérus. & Kalb IF No: 538330  
**Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1634. *Eugeniella corallifera*** (Lücking) Lücking, Sérus. & Kalb IF No: 538331  
**Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1635. *Eugeniella leucocollis*** (Tuck.) Lücking, Sérus. & Kalb IF No: 538295  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia  
**Distribution:** Neotropics, Pan tropics, Africa, Native  
**Elev.:** 240 m **Dept.:** AMA

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Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1636. *Eugeniella newtoniana*** (Henriq.) Lücking, Sérus. & Kalb IF No: 538304  
**Trophic mode/Guild:** symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1637. *Eugeniella nigroclisca*** M. Cáceres, D.S. Andrade & Aptroot IF No: 801121  
**Trophic mode/Guild:** symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1638. *Eugeniella ortzli*** (Lücking) Lücking, Sérus. & Kalb IF No: 538294  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Pacific  
**Distribution:** Neotropics, Native  
**Elev.:** 0–300 m **Dept.:** CAU



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1639. *Eugeniella paleola*** Breuss & Lücking IF No: 807098  
**Trophic mode/Guild:** symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1640. *Eugeniella psychotriae*** (Müll. Arg.) Lücking, Sérus. & Kalb IF No: 537069  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia, Andes  
**Distribution:** Neotropics, Native  
**Elev.:** 35–600 m **Dept.:** AMA, CAQ, MET, NAR



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1641. *Fellhanera boutelouae*** (Desm.) Vězda IF No: 103333  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia, Andes  
**Distribution:** Cosmopolitan, Native  
**Elev.:** 350–3,200 m **Dept.:** CAQ, CUN, RIS



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1642. *Fellhanera fragilis*** (Vězda) Lücking & Kalb IF No: 475539  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia, Andes  
**Distribution:** Neotropics, Pantropics Africa, Native  
**Elev.:** 250–2,400 m **Dept.:** CAQ, HUI



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1643. *Fellhanera fuscata*** (Müll. Arg.) Vězda IF No: 103340  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes, Pacific  
**Distribution:** Pantropics, Native  
**Elev.:** 1,800–2,000 m **Dept.:** CHO, MAG, NAR



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1644. *Fellhanera ilsovskae*** (Vězda) Vězda IF No: 103341  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia, Andes  
**Distribution:** Neotropics, Pantropics Africa, Native  
**Elev.:** 240–600 m **Dept.:** AMA, CAQ, MET



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1645. *Fellhanera longispora*** Lücking IF No: 443063  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Neotropics, Pantropics Africa, Native  
**Elev.:** 2,500 m **Dept.:** CUN



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1646. *Fellhanera misonensis*** L.I. Ferraro & Lücking IF No: 463957  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Neotropics, Native  
**Elev.:** 1,750 m **Dept.:** NAR



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1647. *Fellhanera montana*** Lücking IF No: 443064  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Colombia, Costa Rica, Native  
**Elev.:** 2,500 m **Dept.:** ANT



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1648. *Fellhanera pauciseptata*** (R. Sant.) Lücking IF No: 443069  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes, Pacific  
**Distribution:** Endemic  
**Elev.:** 100–1,700 m **Dept.:** CAU, CHO



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1649. *Fellhanera rhabdophylli*** (Rehm) Vězda IF No: 586953  
**Trophic mode/Guild:** symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1650. *Fellhanera rubida*** (Müll. Arg.) Lücking IF No: 443067  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia, Andes  
**Distribution:** Neotropics, Pantropics Africa, Native  
**Elev.:** 240–1,700 m **Dept.:** AMA, CAU



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1651. *Fellhanera santessonii*** Barillas & Lücking IF No: 360993  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Pacific  
**Distribution:** Neotropics, Native  
**Elev.:** 35 m **Dept.:** NAR



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1652. *Fellhanera stanhopeae*** (Müll. Arg.) Lücking, Lumbsch & Elix IF No: 567449  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia, Andes, Pacific  
**Distribution:** Pantropics, Native  
**Elev.:** 35–2,000 m **Dept.:** AMA, BOY, CAQ, CUN, MET, NAR



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1653. *Fellhanera sublecanorina*** (Nyl.) Vězda IF No: 132738  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes, Pacific  
**Distribution:** Pantropics, Native  
**Elev.:** 100–2,000 m **Dept.:** CHO, CUN



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1654. *Fellhanera substanhopeae*** Lücking IF No: 463958  
**Trophic mode/Guild:** symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1655. *Fellhanera subternella*** (Nyl.) Vězda IF No: 103346  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia  
**Distribution:** Pantropics, Native  
**Elev.:** 250–350 m **Dept.:** AMA, CAQ



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1656. *Lasiolema arachnoidium*** (Kremp.) R. Sant. IF No: 366717  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia  
**Distribution:** Pantropics, Native  
**Elev.:** 300 m **Dept.:** AMA



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1657. *Lofhammia ephylla*** (Fée) Lücking & Vězda IF No: 460705  
**Trophic mode/Guild:** symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1658. *Lofhammia gabriellae*** (Müll. Arg.) Vězda IF No: 103540  
**Trophic mode/Guild:** symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1659. *Lofhammiopsis brasiliensis*** Lücking & Kalb IF No: 489709  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia  
**Distribution:** Neotropics, Pantropics Africa, Native  
**Dept.:** AMA, CAQ



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1660. *Logilvia gliva*** (Müll. Arg.) Vězda IF No: 103542  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Pantropics, Native  
**Elev.:** 2,300 m **Dept.:** ANT



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1661. *Micarea albastrites*** (Nyl.) Coppins IF No: 110806



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1662. *Scutula effusa*** (Auerw. ex Rabenh.) Kistenich, Tindal, Bendiksy & S. Ekman IF No: 824489  
**Trophic mode/Guild:** pathotroph/lichen parasite



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1663. *Scutula epilastematia*** (Wallr.) Rehm IF No: 120398  
**Trophic mode/Guild:** pathotroph/lichen parasite



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1664. *Septotrappella glauca*** Aptroot & Chaves IF No: 528934  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Pantropics, Native  
**Elev.:** 1,700 m **Dept.:** NAR



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1665. *Septotrappella usuka*** (Sipman) Kalb & Bungartz IF No: 804376  
**Trophic mode/Guild:** symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1666. *Sporopodium antoninlanum*** Elix, Lumbsch & Lücking IF No: 414183  
**Trophic mode/Guild:** symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1667. *Sporopodium lepreurii*** Mont. IF No: 405658  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia, Andes, Pacific  
**Distribution:** Pantropics, Native  
**Elev.:** 35–600 m **Dept.:** AMA, CAQ, CHO, MET, NAR



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
**1668. *Sporopodium phyllocharis*** (Mont.) A. Massal. IF No: 123055  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia, Andes, Pacific  
**Distribution:** Pantropics, Native  
**Elev.:** 10–1,750 m **Dept.:** AMA, CAQ, CAU, NAR



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Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
1669. *Sporopodium xantholeucum* (Müll. Arg.) Zahlbr. IF No: 405683 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes

**Distribution:** Pan-tropics, Native **Elev.:** 240–2,200 m **Dept.:** AMA, MAG



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
1670. *Szczawinska tsugae* A. Funk IF No: 115096 Trophic mode/Guild: symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
1671. *Tapellaria ephrylla* (Müll. Arg.) R. Sant. IF No: 370594 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes, Pacific

**Distribution:** Pan-tropics, Native **Elev.:** 10–3,200 m **Dept.:** ANT, BOY, CUN, MAG, NAR



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
1672. *Tapellaria malmi* R. Sant. IF No: 370595 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Amazonia

**Distribution:** Neotropics, Native **Elev.:** 240 m **Dept.:** AMA



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
1673. *Tapellaria nana* (Fée) R. Sant. IF No: 370597 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes, Pacific

**Distribution:** Pan-tropics, Native **Elev.:** 10–2,300 m **Dept.:** ANT, NAR



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
1674. *Tapellaria nigrata* (Müll. Arg.) R. Sant. IF No: 370598 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes

**Distribution:** Pan-tropics, Native **Elev.:** 3,200 m **Dept.:** CUN



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
1675. *Tapellaria phyllophila* (Stirt.) R. Sant. IF No: 370599 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes

**Distribution:** Pan-tropics, Native **Elev.:** 2,500 m **Dept.:** ANT



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ectolechiaceae  
1676. *Tapellaria pulgarrilii* (Müll. Arg.) R. Sant. IF No: 476568 Trophic mode/Guild: symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Catillariaceae  
1677. *Catillaria aphanis* (Nyl.) Coppins IF No: 135742 Trophic mode/Guild: symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Catillariaceae  
1678. *Catillaria melanella* (Nyl.) Zahlbr. IF No: 382108 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes

**Distribution:** Endemic **Elev.:** 2,000 m **Dept.:** CUN



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Catillariaceae  
1679. *Catillaria pernilima* (Nyl.) Zahlbr. IF No: 382149 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes

**Distribution:** Endemic **Elev.:** 2,000 m **Dept.:** CUN



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
1680. *Cladia aggregata* (Sw.) Nyl. IF No: 118670 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes

**Distribution:** Pan-tropics, Temperate regions of the South, Native **Elev.:** 250–4,550 m **Dept.:** AMA, ANT, ARA, BOY, CAL, CAU, CUN, HUI, MAG, MET, NAR, NSA, RIS, SAN, TOL, VAC



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
1681. *Cladia terebrata* (Laurer) Parmen & Lumbsch IF No: 803447 Trophic mode/Guild: symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
1682. *Cladonia aleurospora* Vain. IF No: 477460 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes

**Distribution:** Neotropics, Native **Elev.:** 3,800–4,250 m **Dept.:** BOY, CAL, CAU, CUN, NAR, RIS



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
1683. *Cladonia andesia* Vain. IF No: 382753 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes

**Distribution:** Neotropics, Pan-tropics, Africa, Native **Elev.:** 2,100–3,900 m **Dept.:** ANT, ARA, BOY, CAL, CAU, CUN, HUI, MAG, MET, NAR, SAN, TOL, VAC



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
1684. *Cladonia apodocarpa* Robbins IF No: 382756 Trophic mode/Guild: symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
1685. *Cladonia arbuscula* (Wallr.) Flot. IF No: 355869 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes

**Distribution:** Neotropics, Native **Elev.:** 1,500–4,000 m **Dept.:** ANT, ARA, BOY, CAL, CAU, CUN, MET, NAR, SAN, TOL



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
1686. *Cladonia arcuata* Ahti IF No: 344853 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes

**Distribution:** Neotropics, Native **Elev.:** 2,100–3,950 m **Dept.:** ANT, ARA, BOY, CAL, CAU, CHO, CUN, MET, NAR, NSA, SAN, TOL



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
1687. *Cladonia boliviana* Ahti IF No: 344856 Trophic mode/Guild: symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
1688. *Cladonia borealis* S. Stenroos IF No: 136321 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes

**Distribution:** Subcosmopolitan, Native **Elev.:** 3,615–4,170 m **Dept.:** BOY, MET



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
1689. *Cladonia calycantha* Delise ex Nyl. IF No: 382776 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes

**Distribution:** Pan-tropics, Native **Elev.:** 3,700 m **Dept.:** CAU



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
1690. *Cladonia ceratophylla* (Sw.) Spreng. IF No: 382787 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes

**Distribution:** Neotropics, Pan-tropics, Africa, Sri Lanka, Native **Elev.:** 1,900–2,940 m **Dept.:** ANT, BOY, CUN, HUI, NAR, RIS, SAN, TOL, VAC



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
1691. *Cladonia chlorophaea* (Förke ex Sommerf.) Spreng. IF No: 122175 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes

**Distribution:** Neotropics, Temperate regions, Native **Elev.:** 3,755–4,350 m **Dept.:** ARA, BOY, CAU, CUN, MET, RIS, TOL



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
1692. *Cladonia chondrotypa* Vain. IF No: 382792 Trophic mode/Guild: symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
1693. *Cladonia coccifera* (L.) Willd. IF No: 120192 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes

**Distribution:** Cosmopolitan, Native **Elev.:** 2,150–4,350 m **Dept.:** BOY, CAL, CAU, CUN, HUI, MAG, MET, NSA, TOL



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
1694. *Cladonia colombiana* Sipman IF No: 341754 Trophic mode/Guild: symbiotroph/lichenised



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
1695. *Cladonia confusa* R. Sant. IF No: 365618 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes

**Distribution:** Pan-tropics, Temperate, Native **Elev.:** 1,280–4,000 m **Dept.:** ANT, ARA, BOY, CAL, CAS, CAU, CHO, CUN, HUI, MAG, MET, NAR, NSA, SAN, TOL, VAC



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
1696. *Cladonia confusa* f. *bicolor* (Müll. Arg.) Ahti & DePriest IF No: 467893



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
1697. *Cladonia corallifera* (Kunze) Nyl. IF No: 382806 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Amazonia, Orinoquia

**Distribution:** Pan-tropics, South America, Native **Elev.:** 100–350 m **Dept.:** AMA, CAQ, GUA, MET, VAU, VID



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
1698. *Cladonia corniculata* Ahti & Kashiw. IF No: 115042 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes

**Distribution:** Neotropics, Temperate regions of the South, Native **Elev.:** 2,000–4,350 m **Dept.:** ANT, BOY, CAU, HUI, RIS, TOL



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
1699. *Cladonia corymbosula* Nyl. IF No: 475328 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes, Caribbean

**Distribution:** Neotropics, Native **Elev.:** 1,100 m **Dept.:** BOY, SAP, SAN



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
1700. *Cladonia corymbosula* Nyl. IF No: 382810 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Neotropics, Native

**Elev.:** 3,100–4,315 m **Dept.:** ARA, BOY, CUN, MAG, MET, RIS, TOL



Fungl. Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
1701. *Cladonia crassiuscula* Ahti IF No: 128444 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Amazonia

**Distribution:** Pan-tropics, South America, Native **Elev.:** 350 m **Dept.:** AMA, CAQ

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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1702. *Cladonia crispata*** (Ach.) Flot. IF No: 382812 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 1,750–1,900 m **Dept.:** ANT, CUN, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1703. *Cladonia cristatella*** Tuck. IF No: 382813 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1704. *Cladonia cryptochlorophaea*** Asahina IF No: 365621 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 1,900–3,810 m **Dept.:** BOY, CUN, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1705. *Cladonia dactylova*** Tuck. IF No: 382818 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,750–3,300 m **Dept.:** ANT, BOY, CAU, CHO, CUN, HUI, NAR, RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1706. *Cladonia dityma*** (Fee) Vain. IF No: 119675 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes **Distribution:** Pan tropics, Amazonia, Andes **Elev.:** 350–3,670 m **Dept.:** AMA, ANT, BOY, CAL, CAQ, CAU, CUN, HUI, MAG, MET, NAR, SAN, TOL, VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1707. *Cladonia furcata*** (Huds.) Schrad. IF No: 382853 **Trophic mode/Guild:** symbiotroph/lichenised **Habitat:** On rocks, moss, rarely on decaying wood | Lichen **Biogeographic region:** Andes **Distribution:** Cosmopolitan, Global **Elev.:** 2,700–4,100 m **Dept.:** ANT, ARA, BOY, CUN, MAG, MET, NAR, SAN, TOL **Uses:** PO



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1708. *Cladonia furraceoides*** Ahti & Sipman IF No: 587708 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Pan tropics South America, Native **Elev.:** 350 m **Dept.:** AMA, CAQ



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1709. *Cladonia granulosa*** (Vain.) Ahti IF No: 128445 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, temperate Chile, Native **Elev.:** 2,250–3,130 m **Dept.:** ANT, BOY, CUN, HUI, MET, NAR, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1710. *Cladonia grayi*** G. Merr. ex Sandst. IF No: 382863 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 2,400–3,620 m **Dept.:** CAU, CUN, HUI, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1711. *Cladonia halei*** (Ahti) Ahti & DePriest IF No: 467896 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics andes, Native **Elev.:** 3,160–4,100 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1712. *Cladonia hians*** Ahti IF No: 474320 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Colombia, Venezuela, Native **Dept.:** AMA, CAQ



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1713. *Cladonia humilis*** (With.) J.R. Laundon IF No: 106017 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1714. *Cladonia isabellina*** Vain. IF No: 382875 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Pan tropics, Native **Elev.:** 2,450–4,330 m **Dept.:** ANT, ARA, BOY, CAL, CAU, CUN, HUI, MET, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1715. *Cladonia leprocephala*** Ahti & S. Stenroos IF No: 128467 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics Andes, Native **Elev.:** 4,250 m **Dept.:** CAL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1716. *Cladonia lopezii*** S. Stenroos IF No: 136325 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,730–3,900 m **Dept.:** ANT, ARA, BOY, CAU, CUN, NAR, QUI



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1717. *Cladonia maclenta*** Hoffm. IF No: 382888 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Cosmopolitan, Native **Elev.:** 1,750–3,700 m **Dept.:** ANT, BOY, CUN, MET, NAR, SAN, TOL, VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1718. *Cladonia maclentoides*** Ahti & Fleig IF No: 412784 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1719. *Cladonia melanopoda*** Ahti IF No: 442792 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1720. *Cladonia mertensii*** Ahti & S. Stenroos IF No: 128468 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics Andes, Native **Elev.:** 2,880–4,475 m **Dept.:** ANT, ARA, BOY, CAL, CAU, CUN, HUI, MAG, MET, RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1721. *Cladonia merochlorophaea*** Asahina IF No: 365664 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 3,690 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1722. *Cladonia mexicana*** Vain. IF No: 382900 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1723. *Cladonia microsophya*** Ahti & S. Stenroos IF No: 128469 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,300–3,800 m **Dept.:** ANT, CUN, MAG, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1724. *Cladonia mlinista*** G. Mey. IF No: 382902 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 3,900 m **Dept.:** BOY, NSA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1725. *Cladonia nana*** Vain. IF No: 382911 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,000 m **Dept.:** MAG, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1726. *Cladonia novochlorophaea*** (Sipman) Brodo & Ahti IF No: 415623 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 3,300 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1727. *Cladonia ochrochlora*** Flörke IF No: 119674 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 2,000–3,800 m **Dept.:** ANT, BOY, CAL, CAU, CUN, HUI, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1728. *Cladonia poecilium*** (Nyl.) Müll. Arg. IF No: 382927 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Pacific **Distribution:** Pan tropics South America, Native **Elev.:** 5–350 m **Dept.:** AMA, CAQ, CAU, GUA, GUV, VAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1729. *Cladonia pertricosia*** Kremp. IF No: 458025 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1730. *Cladonia pleurota*** (Flörke) Schaer. IF No: 382933 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** North temperate regions, Native **Elev.:** 2,900–3,735 m **Dept.:** BOY, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1731. *Cladonia poecilium*** (Ach.) O.J. Rich. IF No: 121177 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Cosmopolitan, Native **Dept.:** MET, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1732. *Cladonia polysophya*** Ahti & L. Xavier IF No: 360837 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Pan tropics South America, Native **Elev.:** 350 m **Dept.:** AMA, CAQ



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1733. *Cladonia prancei*** Ahti IF No: 474279 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Pan tropics South America, Native **Dept.:** CAQ



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1734. *Cladonia pulviniformis*** Ahti IF No: 127030 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Pan tropics South America, Native **Elev.:** 350–500 m **Dept.:** AMA, CAQ



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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1735. *Cladonia pyxidata*** (L.) Hoffm.  
 IF No: 382942 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Cosmopolitan,  
 Native **Elev.:** 1,750–4,425 m **Dept.:** ARA, CAL, CUN, MET, RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1736. *Cladonia ramulosa*** (With.) J.R. Laundon IF No: 106019 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Cosmopolitan, Native  
**Elev.:** 2,800–3,000 m **Dept.:** CUN, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1737. *Cladonia rangiferina*** (L.) Weber IF No: 382945 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics  
 Andes, Native **Elev.:** 1,500–4,050 m **Dept.:** ANT, BOY, CUN, NAR, NSA, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1738. *Cladonia rappii*** A. Evans IF No: 356338 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native  
**Elev.:** 1,450–3,490 m **Dept.:** ANT, BOY, CAS, CUN, HUI, MAG, NAR, SAN, TOL, VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1739. *Cladonia rappii* var. *exillor*** (Abbayes) Ahti IF No: 116971



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1740. *Cladonia rotundata*** Ahti IF No: 344872 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Pantropics South America, Native **Dept.:** AMA, VAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1741. *Cladonia scabruscula*** (Delise) Nyl. IF No: 119473 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1742. *Cladonia secundana*** Nyl. IF No: 475374 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Pantropics South America, Native **Elev.:** 350–2,200 m **Dept.:** AMA, ANT, CAQ, GUA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1743. *Cladonia signata*** (Eschw.) Vain. IF No: 382958 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Pantropics South America, Native **Elev.:** 350 m **Dept.:** AMA, ANT, CAQ, SAN, VAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1744. *Cladonia splanii*** Ahti IF No: 474326 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1745. *Cladonia splinea*** Ahti IF No: 128450 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Pantropics South America, Native **Elev.:** 350–500 m **Dept.:** AMA, CAQ, GUA, MET



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1746. *Cladonia sprucei*** Ahti IF No: 344875 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Pantropics South America, Native **Elev.:** 5–350 m **Dept.:** AMA, CAQ



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1747. *Cladonia squamosa*** (Scop.) Hoffm. IF No: 382965 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes **Distribution:** Cosmopolitan, Native **Elev.:** 1,750–4,510 m **Dept.:** ANT, ARA, BOY, CAL, CAU, CUN, GUA, HUI, MET, NAR, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1748. *Cladonia squamosa* var. *subsquamosa*** (Nyl. ex Leight.) Vain. IF No: 415177



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1749. *Cladonia strepsilis*** (Ach.) Grognot IF No: 382969 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 2,200–2,970 m **Dept.:** ANT, BOY



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1750. *Cladonia subservicornis*** (Vain.) Kernst. IF No: 382972 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1751. *Cladonia subradicata*** Vain. ex Asahina IF No: 477464 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1752. *Cladonia subradicata*** (Vain.) Sandst. IF No: 382977 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 230–4,550 m **Dept.:** ANT, BOY, CAL, CUN, MET, NAR, RIS, SAN, TOL, VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1753. *Cladonia subsquamosa*** Kremp. IF No: 463552 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 1,750–4,150 m **Dept.:** ANT, ARA, BOY, CAL, CAU, CUN, HUI, MET, NAR, PUT, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1754. *Cladonia symphoriza*** Nyl. IF No: 382993 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 1,600 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1755. *Cladonia vareschii*** Ahti IF No: 128452 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Colombia, Venezuela, Guyana, Native **Elev.:** 350 m **Dept.:** AMA, CAQ



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1756. *Cladonia variegata*** Ahti IF No: 127032 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Colombia, Venezuela, Guyana, Native **Elev.:** 350 m **Dept.:** AMA, CAQ



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1757. *Cladonia verruculosa*** (Vain.) Ahti IF No: 341784 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** North America, Native **Elev.:** 3,100–4,550 m **Dept.:** ARA, BOY, CAL, CAU, CUN, MET, RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1758. *Pilophorus cereolus*** (Ach.) Th. Fr. IF No: 400946 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 3,750 m **Dept.:** RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Cladoniaceae  
**1759. *Relia fulligrosa*** (Filson) S. Stenroos, Pino-Bodas and Ahti IF No: 828617 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Dactylosporaceae  
**1760. *Sclerococcum porphyreum*** (Hafellner & Kalb) Ertz & Diederich IF No: 827733 **Trophic mode/Guild:** pathotroph, symbiotroph/lichen parasite, lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Haematommataceae  
**1761. *Haematomma africanum*** (J. Steiner) C.W. Dodge IF No: 342108 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 1,750–2,050 m **Dept.:** ANT, CAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Haematommataceae  
**1762. *Haematomma collatum*** (Stirt.) C.W. Dodge IF No: 342113 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 2,600–2,700 m **Dept.:** BOY, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Haematommataceae  
**1763. *Haematomma flexuosum*** Hillmann IF No: 366472 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 1,000–2,180 m **Dept.:** HUI



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Haematommataceae  
**1764. *Haematomma guyanense*** Kalb & Staiger IF No: 413153 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Haematommataceae  
**1765. *Haematomma infuscum*** (Stirt.) R.W. Rogers IF No: 110716 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Colombia, Mexico, Australia, Native **Elev.:** 2,700 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Haematommataceae  
**1766. *Haematomma ivorense*** Kalb & Staiger IF No: 413154 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Haematommataceae  
**1767. *Haematomma lepraloides*** (Vain.) Vain. IF No: 386637 **Trophic mode/Guild:** symbiotroph/lichenised

CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Haematommataceae  
**1768. *Haematomma persoonii*** (Fée) A. Massal. IF No: 386643 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1771. *Lecanora achroa*** Nyl. IF No: 387537 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics,

Native Dept.: MAG



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1774. *Lecanora albella*** (Pers.) Ach. IF No: 387576 **Trophic mode/Guild:** symbiotroph /lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1777. *Lecanora bogotana*** Nyl. IF No: 387745 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 200–2,600 m **Dept.:** CUN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1780. *Lecanora caesiobubella subsp. glaucomodes*** (Nyl.) Imshaug & Brodo IF No: 351254



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1783. *Lecanora chlorotera*** Nyl. IF No: 387866 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 1,200–2,600 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1786. *Lecanora farinacea*** Fée IF No: 388221 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 2,800 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1789. *Lecanora fuscococcinea*** Nyl. IF No: 388297 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Africa, Native **Elev.:** 2,000–2,250 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1792. *Lecanora helva*** Stizenb. IF No: 388408 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 1,750 m **Dept.:** CAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1795. *Lecanora leprosa*** Fée IF No: 122743 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Dept.:** MAG



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1798. *Lecanora myricarpoides*** Vain. IF No: 388776 **Trophic mode/Guild:** symbiotroph /lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1801. *Lecanora polytropa*** (Ehrr.) Rabenh. IF No: 389015 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Cosmopolitan, Native **Elev.:** 3,200 m **Dept.:** CAU, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1799. *Lecanora oreinoides*** (Körb.) Hertel & Rambold IF No: 125874 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 2,250 m **Dept.:** BOY, HUI



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1802. *Lecanora praeferenda*** (Nyl.) Nyl. IF No: 389028 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,200–2,600 m **Dept.:** CUN, HUI, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1797. *Lecanora mesoxantha*** Nyl. IF No: 388709 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,700 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Haematommataceae  
**1769. *Haematomma rufidulum*** (Fée) A. Massal. IF No: 386649 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1772. *Lecanora achrooides*** Vain. IF No: 639949



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1775. *Lecanora argentata*** (Ach.) Röhl. IF No: 387644 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Cosmopolitan, Native **Elev.:** 1,200 m **Dept.:** ANT, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1778. *Lecanora brunelii*** Imshaug & Brodo IF No: 530373 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1781. *Lecanora caesiolora*** Poelt IF No: 351257 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1784. *Lecanora chlorophaeiza*** Vain. IF No: 387871 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Caribbean **Distribution:** Neotropics, Native **Dept.:** SAP



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1787. *Lecanora flavidomarginata*** B. de Lesd. IF No: 388251 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 3,300 m **Dept.:** CAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1790. *Lecanora galactitiza*** Nyl. IF No: 388309 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 1,000 m **Dept.:** HUI, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1793. *Lecanora intricata*** (Ach.) Ach. IF No: 388495 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Andes **Distribution:** Cosmopolitan, Native **Elev.:** 3,200 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1796. *Lecanora lyngelii*** Zahlbr. IF No: 388653 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1800. *Lecanora pallidiflava*** Fée IF No: 388887 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1803. *Lecanora prosecha*** Ach. IF No: 389041



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Haematommataceae  
**1770. *Haematomma sordidatum*** R.W. Rogers IF No: 110718 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1773. *Lecanora alba*** Lumbsch IF No: 413339 **Trophic mode/Guild:** symbiotroph/lichenised



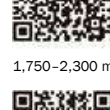
Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1776. *Lecanora arthonellinella*** Lumbsch IF No: 434415 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 2,500 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1779. *Lecanora caesiobubella*** Ach. IF No: 356369 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Andes, Caribbean **Distribution:** Pan tropics, Native **Elev.:** 1,200–3,200 m **Dept.:** BOY, CUN, SAP



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1782. *Lecanora chloronella*** Nyl. IF No: 387865 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,750–2,300 m **Dept.:** ANT, CAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1785. *Lecanora concilians*** Nyl. IF No: 646649 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 2,000 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1788. *Lecanora fulvastra*** Kremp. IF No: 388282 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 1,750–2,050 m **Dept.:** ANT, CAU, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1791. *Lecanora glaucodes*** Nyl. IF No: 388344 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Hawaii, Native **Elev.:** 2,295–2,700 m **Dept.:** BOY, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1794. *Lecanora jamesii*** J.R. Laundon IF No: 345157 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1797. *Lecanora mesoxantha*** Nyl. IF No: 388709 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,700 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1800. *Lecanora pallidiflava*** Fée IF No: 388887 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Lecanoraceae  
**1803. *Lecanora prosecha*** Ach. IF No: 389041



## CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Lecanoraceae  
1804. *Lecanora pseudistera* Nyl.  
IF No: 389056 Trophic mode/Guild:  
symbiotroph/lichenised **Biogeographic  
region:** Andes **Distribution:**  
Subcosmopolitan, Native **Elev.:** 2,600–2,800 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Lecanoraceae  
1807. *Lecanora subcrenulata* Müll. Arg. IF  
No: 389316 Trophic mode/Guild:  
symbiotroph/lichenised **Biogeographic  
region:** Andes **Distribution:** Neotropics,  
Native **Elev.:** 2,000–3,400 m **Dept.:** CUN, SAN



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Lecanoraceae  
1810. *Lecanora sublimergens* Vain. IF  
No: 389344 Trophic mode/Guild:  
symbiotroph/lichenised **Biogeographic  
region:** Andes **Distribution:**  
Subcosmopolitan, Native **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Lecanoraceae  
1813. *Lecanora wilsonii* Müll. Arg. IF No:  
389593 Trophic mode/Guild: symbiotroph  
/lichenised **Biogeographic region:** Andes  
**Distribution:** Panotropics, Native **Elev.:**  
2,000 m **Dept.:** SAN



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Lecanoraceae  
1816. *Myriolecis crenulata* (Ach.) Šliwa,  
Zhao Xin & Lumbsch IF No: 814267  
Trophic mode/Guild: symbiotroph/  
lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Lecanoraceae  
1819. *Vainilonora flavovirens* (Fée) Kalb IF  
No: 362889 Trophic mode/Guild:  
symbiotroph/lichenised **Biogeographic  
region:** Andes **Distribution:** Panotropics,  
Native **Elev.:** 2,500 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Malmideaceae  
1822. *Malmidea aurigera* (Fée) Kalb, Rivas  
Plata & Lumbsch IF No: 547087 Trophic  
mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Malmideaceae  
1825. *Malmidea demutans* (Nyl.) Lücking  
IF No: 558065 Trophic mode/Guild:  
symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Malmideaceae  
1828. *Malmidea fulva* (Malme) Kalb & van  
den Boom IF No: 807066 Trophic mode/  
Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Malmideaceae  
1831. *Malmidea granifera* (Ach.) Kalb,  
Rivas Plata & Lumbsch IF No: 547092  
Trophic mode/Guild: symbiotroph/  
lichenised **Biogeographic region:** Amazonia  
**Distribution:** Panotropics, Native **Elev.:** 240–350 m **Dept.:** AMA,  
CAQ



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Malmideaceae  
1834. *Malmidea leptoloma* (Müll. Arg.)  
Kalb & Lücking  
IF No: 547089 Trophic mode/Guild:  
symbiotroph/lichenised **Distribution:**  
Panotropics, Native



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Lecanoraceae  
1805. *Lecanora soreldifera* Fée  
IF No: 536369 Trophic mode/ Guild:  
symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Lecanoraceae  
1808. *Lecanora subflava* Tuck. IF No:  
389331 Trophic mode/ Guild: symbiotroph  
/lichenised **Biogeographic region:**  
Caribbean **Distribution:** Antilles, Native  
**Dept.:** SAP



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Lecanoraceae  
1811. *Lecanora subimmersa* (Fée) Vain. IF  
No: 389345 Trophic mode/Guild:  
symbiotroph/lichenised **Biogeographic  
region:** Andes **Distribution:** Panotropics,  
Native **Elev.:** 250 m **Dept.:** TOL



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Lecanoraceae  
1814. *Lecidella elaeochroma* (Ach.) M.  
Choisy IF No: 392922 Trophic mode/Guild:  
symbiotroph/lichenised **Biogeographic  
region:** Andes **Distribution:**  
Subcosmopolitan, Native **Elev.:** 2,400–2,600 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Lecanoraceae  
1817. *Myriolecis dispersa* (Pers.) Šliwa,  
Zhao Xin & Lumbsch IF No: 814268  
Trophic mode/Guild: symbiotroph/  
lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Lecanoraceae  
1820. *Vainilonora warmingii* (Müll. Arg.)  
Kalb IF No: 362891 Trophic mode/Guild:  
symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Malmideaceae  
1823. *Malmidea badmildoides* (M. Cáceres  
& Lücking) M. Cáceres & Kalb IF No:  
547065 Trophic mode/Guild:  
symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Malmideaceae  
1826. *Malmidea duplomarginata* (Papong  
& Kalb) Kalb & Papong IF No: 547062  
Trophic mode/Guild:  
symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Malmideaceae  
1829. *Malmidea fufuriosa* (Tuck. ex Nyl.)  
Kalb & Lücking IF No: 547094 Trophic  
mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Pacific **Distribution:**  
Neotropics, Native **Elev.:** 35 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Malmideaceae  
1832. *Malmidea gyalectoides* (Vain.) Kalb  
& Lücking IF No: 547091 Trophic  
mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Malmideaceae  
1835. *Malmidea nigromarginata* (Malme)  
Lücking & Breuss IF No: 807111 Trophic  
mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Lecanoraceae  
1806. *Lecanora strobilina* (Spreng.) Kieff.  
IF No: 389285 Trophic mode/Guild:  
symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Lecanoraceae  
1809. *Lecanora subgranulata* Nyl. IF No:  
389340 Trophic mode/Guild: symbiotroph  
/lichenised **Biogeographic region:** Andes  
**Distribution:** Endemic **Elev.:** 1,200 m **Dept.:**  
CUN



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Lecanoraceae  
1812. *Lecanora tropica* Zahlbr. IF No:  
389513 Trophic mode/ Guild: symbiotroph  
/lichenised **Biogeographic region:** Andes  
**Distribution:** Panotropics, Native **Elev.:** 200–  
3,200 m **Dept.:** BOY, CAU, CUN, SAN, TOL



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Lecanoraceae  
1815. *Lecidella punctuliformis* (Nyl.) Kalb  
IF No: 132421 Trophic mode/Guild:  
symbiotroph/lichenised **Biogeographic  
region:** Andes **Distribution:** Neotropics,  
Native **Elev.:** 2,600 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Lecanoraceae  
1818. *Myriolecis hagenii* (Ach.) Šliwa, Zhao  
Xin & Lumbsch IF No: 814277 Trophic  
mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Malmideaceae  
1821. *Malmidea amazonica* (Redinger)  
Kalb, Rivas Plata & Lumbsch  
IF No: 547068



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Malmideaceae  
1824. *Malmidea ceylanica* (Zahlbr.) Kalb,  
Rivas Plata & Lumbsch IF No: 547064  
Trophic mode/Guild: symbiotroph/  
lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Malmideaceae  
1827. *Malmidea feilhaneroides* (Lücking)  
Kalb & Lücking IF No: 547061 Trophic  
mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Malmideaceae  
1830. *Malmidea fuscella* (Müll. Arg.) Kalb  
& Lücking IF No: 547071 Trophic mode/  
Guild: symbiotroph/lichenised  
**Distribution:** Panotropics, Native



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Malmideaceae  
1833. *Malmidea hyometaeana* (Nyl.) Kalb  
& Lücking IF No: 548206 Trophic  
mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Lecanoromycetidae,  
Lecanorales, Malmideaceae  
1836. *Malmidea piparina* (Zahlbr.) Aptroot  
& Breuss  
IF No: 807110 Trophic mode/Guild:  
symbiotroph/lichenised

CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Malmideaceae  
**1837. *Malmidea piperis*** (Spreng.) Kalb, Rivas Plata & Lumbsch IF No: 547086  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 710–2,700 m **Dept.:** CUN, RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Malmideaceae  
**1838. *Malmidea pschotrioides*** (Kalb & Lücking) Kalb, Rivas Plata & Lumbsch IF No: 547095 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Pantropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Malmideaceae  
**1839. *Malmidea rhodopsis*** (Tuck.) Kalb, Rivas Plata & Lumbsch IF No: 569711  
**Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Malmideaceae  
**1840. *Malmidea trilliana*** (Müll. Arg.) Kalb, Rivas Plata & Lumbsch IF No: 547081  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia **Distribution:** Amazonia, Native **Elev.:** 100–300 m **Dept.:** AMA, CAQ, VAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Malmideaceae  
**1841. *Malmidea variabilis*** Kalb IF No: 547067 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Malmideaceae  
**1842. *Malmidea vinosa*** (Eschw.) Kalb, Rivas Plata & Lumbsch IF No: 547080 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,750–2,500 m **Dept.:** CAU, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Malmideaceae  
**1843. *Spruceidea fuscula*** (Nyl.) Lücking IF No: 558069 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1844. *Alecortia ochroleuca*** (Schrank) A. Massal. IF No: 122973 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Temperate regions of the North and South, Andes, Native **Elev.:** 3,410–4,510 m **Dept.:** ARA, BOY, CAL, CAU, CUN, MAG, MET, NAR, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1845. *Anzia americana*** Yoshim. & Sharp IF No: 344650 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,300–2,550 m **Dept.:** ANT, HUI



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1846. *Anzia leucobates*** (Nyl.) Müll. Arg. IF No: 376261 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Pantropics **Elev.:** 2,200–3,510 m **Dept.:** ANT, CUN, HUI, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1847. *Anzia leucobatoidea*** (Nyl.) Zahlbr. IF No: 376262 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1848. *Anzia lopezii*** Yoshim. IF No: 415706  
**Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Pantropics Andes, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1849. *Anzia masonii*** Yoshim. IF No: 415705 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Pantropics andes, Panama, Native **Elev.:** 2,800–3,400 m **Dept.:** CAU, CUN, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1850. *Anzia parasitica*** (Fée) Zahlbr. IF No: 376264 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Pantropics andes, Costa Rica, Native **Elev.:** 2,300–3,500 m **Dept.:** ANT, CUN, HUI



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1851. *Bryoria furcellata*** (Fr.) Brodo & D. Hawksw. IF No: 341503 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Holarctic region, Native **Elev.:** 3,500 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1852. *Bulbothrix apophysata*** (Hale & Kurok.) Hale IF No: 341589 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1853. *Bulbothrix atrichella*** (Nyl.) Hale IF No: 341590 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Pantropics Andes, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1854. *Bulbothrix confederata*** (W.L. Culb.) Hale IF No: 341594 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1855. *Bulbothrix coronata*** (Fée) Hale IF No: 341596 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Orinoquia **Distribution:** Neotropics, Africa, Native **Dept.:** VID



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1856. *Bulbothrix trichocoma*** (Lyngé) Hale IF No: 341598 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia **Distribution:** Neotropics, Native **Elev.:** 240 m **Dept.:** AMA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1857. *Bulbothrix goebellii*** (Zenker) Hale IF No: 341599 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia, Andes, Pacific **Distribution:** Pantropics, Native **Elev.:** 35–1,200 m **Dept.:** AMA, CAU, NAR, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1858. *Bulbothrix kildiza*** (Nyl.) Hale IF No: 341602 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1859. *Bulbothrix klemetti*** Hale IF No: 341603 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1860. *Bulbothrix laevigatula*** (Nyl.) Hale IF No: 341604 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,700–3,500 m **Dept.:** SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1861. *Bulbothrix lepreurii*** Aube! IF No: 358463 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia **Distribution:** Pantropics **Elev.:** 240 m **Dept.:** AMA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1862. *Bulbothrix pigmentacea*** (Hale) Hale IF No: 341607 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1863. *Bulbothrix suffixa*** (Stirt.) Hale IF No: 341618 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Africa, Native **Elev.:** 1,500–1,900 m **Dept.:** RIS, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1864. *Bulbothrix ventricosa*** (Hale & Kurok.) Hale IF No: 341620 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Africa, Native **Elev.:** 1,500–1,725 m **Dept.:** RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1865. *Canoparmelia amazonica*** (Nyl.) Elix & Hale IF No: 128700 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia, Andes **Distribution:** Pantropics, Native **Elev.:** 100–1,800 m **Dept.:** AMA, NAR, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1866. *Canoparmelia caroliniana*** (Nyl.) Elix & Hale IF No: 128704 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 1,500–2,600 m **Dept.:** ANT, BOY, CAU, HUI, RIS, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1867. *Canoparmelia texana*** (Tuck.) Elix & Hale IF No: 128723 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 1,200–2,250 m **Dept.:** ANT, BOY, CAU, CUN, NAR, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1868. *Cetraria aculeata*** (Schreb.) Fr. IF No: 382371 **Trophic mode/Guild:** symbiotroph/lichenised  
**Habitat:** Attached to mosses and to other lichens | **Lichen Distribution:** Subcosmopolitan, Global **Distribution:** Native **Dept.:** BOG **Uses:** ME



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1869. *Cetraria arenaria*** Kärnfelt IF No: 341699 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Boreal America and Pantropics **Elev.:** 2,700–3,815 m **Dept.:** BOY, CUN



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1870. *Cetraria islandica*** (L.) Ach.  
 IF No: 382416 **Trophic mode/ Guild:** symbiotroph/lichenised **Habitat:** On rocks and the bark of trees **Biogeographic region:** Andes **Distribution:** Global Distribution, Holarctic region, tropical Andes, Native **Elev.:** 3,590–4,474 **Dept.:** BOY, CUN, MET, TOL **Uses:** ME



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1871. *Cetraria nigricans*** Nyl. IF No: 382431 **Trophic mode/ Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Holarctic region, tropical mountains, Native **Elev.:** 4,320 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1872. *Crespoa carneoprunata*** (Zahlbr.) Lendemer & B.P. Hodk. IF No: 564130 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1873. *Crespoa crozalsiana*** (B. de Lesd. ex Harm.) Lendemer & B.P. Hodk. IF No: 564134 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1874. *Dolichousnea longissima*** (Ach.) Articus IF No: 371241 **Trophic mode/Guild:** symbiotroph/lichenised **Habitat:** In open or shaded forests, near bodies of water | **Lichen Distribution:** Global Distribution **Dept.:** ANT **Uses:** MA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1875. *Eumitria baileyi*** Stirt. IF No: 384925 **Trophic mode/ Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1876. *Flavoparmelia caperata*** (L.) Hale IF No: 103353 **Trophic mode/Guild:** symbiotroph/lichenised **Habitat:** On broad leaved trees, shrubs and fence posts in open habitats | **Lichen Subcosmopolitan, Global Distribution, Native Elev.:** 2,600–3,400 m **Dept.:** BOY, CUN **Uses:** MA **Conservation:** LC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1877. *Flavoparmelia ecuadorensis*** T.H. Nash, Elix & J. Johnst. IF No: 627178 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1878. *Flavoparmelia gerlachii*** (Zahlbr.) Hale IF No: 103356 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Andes, Antarctica, Native **Elev.:** 3,700 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1879. *Flavoparmelia sorecilans*** (Nyl.) Hale IF No: 103364



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1880. *Flavopunctelia flaventior*** (Stirt.) Hale IF No: 106819 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Cosmopolitan, Native **Elev.:** 1,750–2,950 m **Dept.:** BOY, CAU, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1881. *Hyogymnia bitteri*** (Lynge) Ahti IF No: 345080 **Trophic mode /Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Holarctic region, Africa, Native **Elev.:** 3,700–4,550 m **Dept.:** CUN, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1882. *Hypotrachyna ahtiana*** Elix, T.H. Nash & Sipman IF No: 541823 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1883. *Hypotrachyna anderseni*** Hale IF No: 342234 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics, Native **Elev.:** 1,900–3,300 **Dept.:** CAU, CUN, RIS, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1884. *Hypotrachyna anzeana*** Elix, T.H. Nash & Sipman IF No: 541824 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics, Native **Elev.:** 3,500 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1885. *Hypotrachyna bogotensis*** (Vain.) Hale IF No: 342238 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, temperate region of the South, Native **Elev.:** 2,700–3,800 m **Dept.:** ANT, BOY, CAL, CAU, CUN, MET, NAR, NSA, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1886. *Hypotrachyna boquetensis*** (Hale) Hale IF No: 342239 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 4,130 m **Dept.:** RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1887. *Hypotrachyna brevicaetiata*** Sipman, Elix & T.H. Nash IF No: 5421260 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1888. *Hypotrachyna brevirhiza*** (Kurok.) Hale IF No: 342241 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics, Native **Elev.:** 3,750–4,325 m **Dept.:** BOY, CAL, CUN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1889. *Hypotrachyna caracensis*** (Taylor) Hale IF No: 342242 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,400–4,300 m **Dept.:** BOY, CAL, CAU, CUN, HUI, MAG, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1890. *Hypotrachyna catawblensis*** (Degel.) Divakar, A. Crespo, Sipman, Elix & Lumbsch IF No: 803557 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1891. *Hypotrachyna chilota*** (Hale) Hale IF No: 342244 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 5–4,200 m **Dept.:** ARA, BOY, CUN, MET



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1892. *Hypotrachyna chlorina*** (Müll. Arg.) Hale IF No: 342245 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,750–2,550 m **Dept.:** CUN, HUI, NSA, RIS, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1893. *Hypotrachyna cibrhata*** (Fr.) Divakar, A. Crespo, Sipman, Elix & Lumbsch IF No: 803559 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1894. *Hypotrachyna citrella*** (Kurok.) Hale IF No: 342246 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics, Tasmania, Native **Elev.:** 2,500–3,380 m **Dept.:** MAG, MET



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1895. *Hypotrachyna cleefii*** (Sipman) Divakar, A. Crespo, Sipman, Elix & Lumbsch IF No: 803583 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1896. *Hypotrachyna columbiensis*** (Zahlbr.) Divakar, A. Crespo, Sipman, Elix & Lumbsch IF No: 803560 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1897. *Hypotrachyna consimilis*** (Vain.) Hale IF No: 342247



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1898. *Hypotrachyna convexa*** Baayen & Rugebr. ex Sipman, Elix & T.H. Nash IF No: 541826 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics Andes, Native **Elev.:** 3,650–4,510 m **Dept.:** ARA, BOY, CUN, MET, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1899. *Hypotrachyna croceopustulata*** (Kurok.) Hale IF No: 342252 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 1,500–3,000 m **Dept.:** ANT, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1900. *Hypotrachyna cryptochlora*** (Vain.) D. Hawksw. & A. Crespo IF No: 561370 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1901. *Hypotrachyna culbersoniorum*** Elix & T.H. Nash IF No: 375030 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**1902. *Hypotrachyna dactylifera*** (Vain.) Hale IF No: 342253 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,300–2,600 m **Dept.:** CUN, HUI, NSA

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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1903. *Hypotrachyna degelli* (Hale) Hale IF No: 342254 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Pantropics **Elev.:** 1,980 m **Dept.:** CUN, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1904. *Hypotrachyna densirhizinata* (Kurok.) Hale IF No: 342255 **Trophic mode /Guild:** symbiotroph /lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Pantropics **Elev.:** 2,550–3,900 m **Dept.:** BOY, CAL, CAU, CUN, MET, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1905. *Hypotrachyna dentella* (Hale & Kurok.) Hale IF No: 342256 **Trophic mode /Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,100–2,550 m **Dept.:** CAU, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1906. *Hypotrachyna divaricaticea* Elix & T.H. Nash IF No: 413216 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1907. *Hypotrachyna dubitans* (Sipman) Divakar, A. Crespo, Sipman, Elix & Lumbsch IF No: 803547 **Trophic mode /Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1908. *Hypotrachyna ducaulis* (Jatta) Hale IF No: 342258 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Pantropics **Elev.:** 3,400 m **Dept.:** ANT, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1909. *Hypotrachyna ecuadorensis* (R. Sant.) Divakar, A. Crespo, Sipman, Elix & Lumbsch IF No: 822852 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1910. *Hypotrachyna elongata* Kurok. & K.H. Moon IF No: 466121 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1911. *Hypotrachyna endrythraea* (Zahlbr.) Hale IF No: 342260 **Trophic mode /Guild:** symbiotroph /lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 3,500 m **Dept.:** CAL, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1912. *Hypotrachyna endochlora* (Leight.) Hale IF No: 342261 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 1,900–2,970 m **Dept.:** ANT, HUI, MAG, NAR, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1913. *Hypotrachyna ensifolia* (Kurok.) Hale IF No: 342262 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, New Zealand, Native **Elev.:** 3,500–3,900 m **Dept.:** ANT, BOY, CAL, CAU, CUN, MET, NSA, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1914. *Hypotrachyna erythrodes* (Zahlbr.) Hale IF No: 342263 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** South America, South Africa, Native **Elev.:** 3,200–3,400 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1915. *Hypotrachyna evemlastroides* Sipman IF No: 103463 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Andes **Distribution:** Colombia, Costa Rica, Native **Elev.:** 2,300–3,000 m **Dept.:** ANT, HUI



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1916. *Hypotrachyna exsplendens* (Hale) Hale IF No: 342265 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 3,950 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1917. *Hypotrachyna flavida* (Zahlbr.) Hale IF No: 342267 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,500–3,700 m **Dept.:** BOY, CAU, CUN, MET, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1918. *Hypotrachyna flavospinulosa* Sipman, Elix & T.H. Nash IF No: 541827 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Andes **Distribution:** Pantropics **Elev.:** 3,900 m **Dept.:** CAL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1919. *Hypotrachyna flavovirens* (Kurok.) Hale IF No: 342268 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1920. *Hypotrachyna fragilis* (Sipman) Divakar, A. Crespo, Sipman, Elix & Lumbsch IF No: 803563 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1921. *Hypotrachyna galbina* Elix, Laily & Wahid IF No: 413217 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1922. *Hypotrachyna gandolphophora* (Hale) Hale IF No: 342272 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,550–2,900 m **Dept.:** BOY, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1923. *Hypotrachyna halei* Sipman, Elix & T.H. Nash IF No: 541829 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Andes **Distribution:** Pantropics **Elev.:** 2,550–3,900 m **Dept.:** ANT, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1924. *Hypotrachyna horrescens* (Taylor) Krog & Swinscow IF No: 130745 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1925. *Hypotrachyna hypoalectorialica* Elix & T.H. Nash IF No: 413219 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1926. *Hypotrachyna imbricatula* (Zahlbr.) Hale IF No: 342275 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 1,000–3,730 m **Dept.:** ANT, CAU, CUN, HUI, MAG, NSA, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1927. *Hypotrachyna immaculata* (Kurok.) Hale IF No: 342276 **Trophic mode/Guild:** symbiotroph/lichenised **Habitat:** Lichen **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 1,980–3,780 m **Dept.:** CAU, CUN, RIS **Uses:** EU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1928. *Hypotrachyna intercalanda* (Vain.) Hale IF No: 342279 **Trophic mode/Guild:** symbiotroph /lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1929. *Hypotrachyna isidocera* (Nyl.) Hale IF No: 342280 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Hawaii, Native **Elev.:** 1,725–2,460 m **Dept.:** CUN, RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1930. *Hypotrachyna isolopezii* Elix, T.H. Nash & Sipman IF No: 541830 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics **Elev.:** 3,200–3,780 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1931. *Hypotrachyna klauskalbii* A. Fletcher ex Sipman, Elix & T.H. Nash IF No: 581629 **Trophic mode/Guild:** symbiotroph /lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1932. *Hypotrachyna laevigata* (Sm.) Hale IF No: 342285 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, both temperate zones, Native **Elev.:** 1,250–4,130 m **Dept.:** ANT, BOY, CAL, CAU, CUN, HUI, MAG, MET, NAR, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1933. *Hypotrachyna limiformis* (Taylor) Divakar, A. Crespo, Sipman, Elix & Lumbsch IF No: 803565 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1934. *Hypotrachyna lineariloba* (Kurok.) Hale IF No: 342287 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1935. *Hypotrachyna lliidifera* (Hale & M. Wirth) Divakar, A. Crespo, Sipman, Elix & Lumbsch IF No: 803550 **Trophic mode/Guild:** symbiotroph/lichenised



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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1936. *Hypotrachyna lividescens* (Kurok.) Hale IF No: 342289 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Neotropics, Africa, Australia, Native Elev.: 2,050–2,550 m Dept.: ANT, BOY, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1937. *Hypotrachyna longiloba* (H. Magn.) C.W. Sm. IF No: 357814 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Amazonia, Andes Distribution: Neotropics, Hawaii, Native Elev.: 2,200–3,900 m Dept.: BOY, CAL, CAU, CUN, MAG, MET, NSA, RIS, SAN, VAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1938. *Hypotrachyna lopezii* Hale IF No: 342291 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1939. *Hypotrachyna malmi* (Lynge) Hale IF No: 342294 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1940. *Hypotrachyna meridiensis* Hale & López-Fig. IF No: 342297 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Neotropics, Native Elev.: 3,100 m Dept.: CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1941. *Hypotrachyna meyeri* (Zahlbr.) Streimann IF No: 129343 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1942. *Hypotrachyna microblasta* (Vain.) Hale IF No: 342298 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Pantropics, Native Elev.: 1,650–3,975 m Dept.: ANT, BOY, CAL, CAU, CUN, HUI, MAG, RIS, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1943. *Hypotrachyna microblastella* Elix, T.H. Nash & Sipman IF No: 541833 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Pantropics Andes, Native Elev.: 2,400–3,000 m Dept.: ANT, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1944. *Hypotrachyna minarum* (Vain.) Krog & Swinscow IF No: 130747 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1945. *Hypotrachyna minuscula* C.H. Ribeiro & Marcelli IF No: 373981 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1946. *Hypotrachyna monilifera* (Kurok.) Hale IF No: 342300 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Pantropics Andes, Costa Rica, Native Elev.: 3,200–3,400 m Dept.: CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1947. *Hypotrachyna nana* Marcelli & C.H. Ribeiro IF No: 373979 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1948. *Hypotrachyna neocirrhata* (Hale & M. Wirth) Divakar, A. Crespo, Sipman, Elix & Lumbsch IF No: 803567 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1949. *Hypotrachyna neocrenata* Elix, T.H. Nash & Sipman IF No: 541834 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1950. *Hypotrachyna neodissecta* (Hale) Hale IF No: 342301 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1951. *Hypotrachyna neoscytodes* Elix, T.H. Nash & Sipman IF No: 541835 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Endemic Elev.: 3,500 m Dept.: CUN Conservation: LC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1952. *Hypotrachyna neotropica* Divakar, A. Crespo, Sipman, Elix & Lumbsch IF No: 803569 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1953. *Hypotrachyna nigrocollata* (B. de Lesd.) Divakar, A. Crespo, Sipman, Elix & Lumbsch IF No: 803571 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1954. *Hypotrachyna norlopezii* Elix, T.H. Nash & Sipman IF No: 541836 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Neotropics, Native Elev.: 3,000–3,400 m Dept.: CUN, MET, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1955. *Hypotrachyna obscurilla* (Vain.) Hale IF No: 342305 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Pantropics South America, Native Elev.: 3,400 m Dept.: CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1956. *Hypotrachyna osorioi* (Hale) Hale IF No: 342308 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1957. *Hypotrachyna osseovalba* (Vain.) Y.S. Park & Hale IF No: 134548 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Subcosmopolitan, Native Elev.: 2,000–2,600 m Dept.: CUN, HUI



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1958. *Hypotrachyna osteoleuca* (Nyl.) Hale IF No: 342309 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Pantropics South America, Native Elev.: 1,500–3,200 m Dept.: CUN, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1959. *Hypotrachyna paramensis* W.L. Culb. & C.F. Culb. IF No: 111540 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1960. *Hypotrachyna paraphyscoides* Sipman IF No: 517785 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Endemic Elev.: 2,880 m Dept.: MAG Conservation: LC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1961. *Hypotrachyna partita* Hale IF No: 342311 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Neotropics, Native Elev.: 3,200–3,750 m Dept.: CAL, CAU, CUN, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1962. *Hypotrachyna peruviana* (Nyl.) Hale IF No: 342312 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1963. *Hypotrachyna physcoides* (Nyl.) Hale IF No: 342313 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Pantropics, Native Elev.: 2,400–4,130 m Dept.: ANT, BOY, CAL, CAU, CHO, CUN, HUI, NSA, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1964. *Hypotrachyna physodolca* (Hale) Hale IF No: 342314 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Pantropics andes, Native Elev.: 3,200–3,900 m Dept.: BOY, CAL, CAU, CUN, NAR, RIS, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1965. *Hypotrachyna plana* (Sipman) Divakar, A. Crespo, Elix & Lumbsch IF No: 803594 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1966. *Hypotrachyna pluriformis* (Nyl.) Hale IF No: 342315 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1967. *Hypotrachyna primitiva* Hale & López-Fig. IF No: 342316 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Pantropics Andes, Native Elev.: 3,440–3,835 m Dept.: ARA, BOY, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1968. *Hypotrachyna producta* Hale IF No: 342317 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Neotropics, Native Elev.: 2,300–3,300 m Dept.: CAU, CUN, HUI, SAN, TOL

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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1969. *Hypotrachyna prolongata* (Kurok.) Hale IF No: 342318 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,700–3,800 m **Dept.:** CAL, CAU, CUN, MAG, MET, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1970. *Hypotrachyna protenta* Hale IF No: 342319 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,000–2,050 **Dept.:** CUN, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1971. *Hypotrachyna protoboliviana* (Hale) Hale IF No: 342320 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1972. *Hypotrachyna protocetrarica* Elix, T.H. Nash & Sipman IF No: 581632 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1973. *Hypotrachyna protochlorina* Sipman, Elix & T.H. Nash IF No: 581633 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1974. *Hypotrachyna protoformosana* Elix, T.H. Nash & Sipman IF No: 541837 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1975. *Hypotrachyna pseudosinuosa* (Asahina) Hale IF No: 342321 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 1,750–2,700 m **Dept.:** CAU, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1976. *Hypotrachyna pulvinata* (Fée) Hale IF No: 342322 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Azores, Native **Elev.:** 1,200–4,300 m **Dept.:** ARA, BOY, CAL, CAU, CUN, MAG, MET, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1977. *Hypotrachyna reducens* (Nyl.) Hale IF No: 342324 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,980–4,175 m **Dept.:** BOY, CAL, CAU, CUN, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1978. *Hypotrachyna revoluta* (Flörke) Hale IF No: 342325 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 1,700–3,400 m **Dept.:** ANT, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1979. *Hypotrachyna rockii* (Zahlbr.) Hale IF No: 342329 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 1,600–3,900 m **Dept.:** ANT, BOY, CAL, CUN, HUI, NAR, NSA, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1980. *Hypotrachyna saniosensis* Elix, T.H. Nash & Sipman IF No: 541838 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1981. *Hypotrachyna sinuosa* (Sm.) Hale IF No: 342335 Trophic mode/Guild: symbiotroph/lichenised **Habitat:** Lichen **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 1,200–4,540 m **Dept.:** ANT, BOY, CAL, CAU, CUN, NAR, NSA, RIS, SAN, TOL **Uses:** EU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1982. *Hypotrachyna sinuosella* Elix, T.H. Nash & Sipman IF No: 541839 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1983. *Hypotrachyna sorochella* (Vain.) Divakar, A. Crespo, Sipman, Elix & Lumbsch IF No: 803576 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1984. *Hypotrachyna spumosa* (Asahina) Krog & Swinscow IF No: 130749 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1985. *Hypotrachyna steysmarkii* (Hale) Hale IF No: 342336 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1986. *Hypotrachyna stictifera* Kurok. & K.H. Moon IF No: 466126 Trophic mode/Guild: symbiotroph/lichenised **Habitat:** Lichen **Elev.:** 3,600 m **Dept.:** CAU **Uses:** EU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1987. *Hypotrachyna subfatiszens* (Kurok.) Swinscow & Krog IF No: 133752 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1988. *Hypotrachyna sublaevigata* (Nyl. ex Tuck.) Hale IF No: 342338 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 2,000–3,800 m **Dept.:** BOY, CUN, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1989. *Hypotrachyna subphosdalica* (Hale) Hale IF No: 342339 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Colombia, Chile, New Guinea, Native **Dept.:** CHO



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1990. *Hypotrachyna subplana* (Sipman) Divakar, A. Crespo, Sipman, Elix & Lumbsch IF No: 803578 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1991. *Hypotrachyna subpustulifera* Elix IF No: 360115 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1992. *Hypotrachyna subvexans* (Sipman) Divakar, A. Crespo, Sipman, Elix & Lumbsch IF No: 803580 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1993. *Hypotrachyna swinscowii* (Hale) Krog & Swinscow IF No: 130750 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1994. *Hypotrachyna tariensis* Elix IF No: 413221 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, New Guinea, Native **Elev.:** 3,000–3,900 m **Dept.:** CAL, CAU, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1995. *Hypotrachyna tibellii* Elix, T.H. Nash & Sipman IF No: 541841 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1996. *Hypotrachyna vexans* (Zahlbr. ex W.L. Culb. & C.F. Culb.) Divakar, A. Crespo, Sipman, Elix & Lumbsch IF No: 803581 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1997. *Hypotrachyna wirthii* Sipman, Elix & T.H. Nash IF No: 581640 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics Andes, Native **Elev.:** 3,190 m **Dept.:** RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1998. *Hypotrachyna zamorensis* Sipman, Elix & T.H. Nash IF No: 581641 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 1999. *Imshaugia angustior* (Nyl.) Sipman IF No: 558063 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Dept.:** RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2000. *Imshaugia venezolana* (Hale) Elix IF No: 487980 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,750–3,750 m **Dept.:** ANT, CAU, CUN, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2001. *Menegazzia* Neotropics a Bjerke IF No: 484412 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 3,300 m **Dept.:** CAU, CUN, RIS



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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2002. *Menezazla terebrata* (Hoffm.) A. Massal. IF No: 357429 **Trophic mode/ Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2005. *Neoprotoparmelia rubrofusca* Lücking & L.A. Santos IF No: 832319  
**Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2008. *Oropogon atranorinus* Essl. IF No: 111705 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,800–3,750 m **Dept.:** CUN, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2011. *Oropogon bolivianus* Essl. IF No: 135772 **Trophic mode/ Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Pan tropics

Andes, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2014. *Oropogon fissuratus* Essl. IF No: 135778 **Trophic mode/ Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 3,050 m **Dept.:** TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2017. *Oropogon halei* Essl. IF No: 135780  
**Trophic mode/ Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2020. *Oropogon iorobic* Essl. IF No: 135784 **Trophic mode/ Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Native **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2023. *Oropogon pendulus* Essl. IF No: 135790 **Trophic mode/ Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2026. *Oropogon striatulus* Essl. IF No: 135795 **Trophic mode/ Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,840–3,120 m **Dept.:** CUN, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2029. *Parmelinopsis subinfata* (Hale) Benatti & Marcelli IF No: 515687



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2032. *Parmotrema arnoldii* (Du Rietz) Hale IF No: 343013 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Holarctic and southern regions, Native **Elev.:** 1,950–3,935 m **Dept.:** ANT, BOY, CUN, HUI, MAG, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2003. *Myelochroa lindmanii* (Lynge) Elix & Hale IF No: 130571 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,750–1,980 m **Dept.:** ANT, RIS, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2006. *Nephromopsis laureri* (Kremp.) Kurok. IF No: 128244 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Holarctic region, Native **Elev.:** 4,080 m



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2009. *Oropogon barbaticus* Essl. IF No: 135770 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 3,600–3,820 m **Dept.:** CUN, RIS, VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2012. *Oropogon collar* Essl. IF No: 135776 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2015. *Oropogon formosanus* Asahina IF No: 368446 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Est Asia, Native **Elev.:** 2,550–4,000 m **Dept.:** ANT, BOY, CUN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2018. *Oropogon herzogii* Essl. IF No: 135781 **Trophic mode/ Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Pan tropics Andes, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2021. *Oropogon loxensis* (Fée) Zekal IF No: 396805 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,460–4,130 m **Dept.:** ANT, ARA, BOY, CAL, CAU, CHO, CUN, MAG, MET, NAR, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2024. *Oropogon pseudoloxensis* Essl. IF No: 135791 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2027. *Parmelia saxatilis* (L.) Ach. IF No: 398223 **Trophic mode/ Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2030. *Parmotrema andinum* (Müll. Arg.) Hale IF No: 343009 **Trophic mode/Guild:** symbiotroph/lichenised  
**Distribution:** Pan tropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2033. *Parmotrema aurantiacoparvum* Sipman IF No: 358465 **Trophic mode/ Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia **Distribution:** Amazonia, Native **Elev.:** 240 m **Dept.:** AMA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2004. *Neoprotoparmelia multifer* (Nyl.) Garima Singh, Lumbsch & I. Schmitt IF No: 827479 **Trophic mode/ Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2007. *Oropogon americanus* Essl. IF No: 135769 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 3,300–3,400 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2010. *Oropogon bicolor* Essl. IF No: 135771 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 3,450–4,130 m **Dept.:** BOY, CAU, CUN, RIS, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2013. *Oropogon diffractatus* Essl. IF No: 135777 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2016. *Oropogon granulatus* Essl. IF No: 135779 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2019. *Oropogon lopezii* Essl. IF No: 111706 **Trophic mode/ Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,880–3,150 m **Dept.:** CUN, MAG



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2022. *Oropogon parietinus* Essl. IF No: 135789 **Trophic mode/ Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2025. *Oropogon sperlingii* Essl. IF No: 135794 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,550–4,100 m **Dept.:** ANT, BOY, CUN, NAR, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2028. *Parmellinella salecinifera* (Hale) Marcelli & Benatti IF No: 810474 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2031. *Parmotrema aptropii* Aabel IF No: 358464 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Amazonia **Distribution:** Amazonia, Native **Elev.:** 240 m **Dept.:** AMA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
 2034. *Parmotrema austrosinense* (Zahlbr.) Hale IF No: 343014 **Trophic mode/Guild:** symbiotroph/lichenised  
**Habitat:** Lichen **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 850–2,940 m **Dept.:** BOY, CAU, CUN, HUI, NAR, RIS, TOL **Uses:** EU

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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2035. *Parmotrema bengii* (Vain.) Hale IF No: 343016 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Pan-tropics  
 Andes, Native Elev.: 2,500 m Dept.: ANT, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2036. *Parmotrema blanchetianum* (Müll. Arg.) Kalb IF No: 132424 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2037. *Parmotrema bonplandii* (Mata) O. Blanco, A. Crespo, Divakar, Elix & Lumbsch IF No: 501425 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2038. *Parmotrema cetratum* (Ach.) Hale IF No: 343018 Trophic mode/Guild: symbiotroph/lichenised Habitat: On rocks | Lichen Biogeographic region: Andes Distribution: Subcosmopolitan, Pan-tropics, Native Elev.: 1,750–3,400 m Dept.: BOY, CAU, CUN, MET, NAR, NSA, SAN Uses: ME



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2039. *Parmotrema cilliferum* Hale IF No: 126743 Trophic mode/Guild: symbiotroph/lichenised Distribution: Neotropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2040. *Parmotrema commensuratum* (Hale) Hale IF No: 343020 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Central America, Native Elev.: 1,000–2,480 m Dept.: ANT, HUI, NSA, RIS, SAN, VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2041. *Parmotrema conferendum* Hale IF No: 343023 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Pan-tropics, Native Elev.: 1,200–2,600 m Dept.: RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2042. *Parmotrema conformatum* (Vain.) Hale IF No: 343024 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Neotropics, Pan-tropics Africa, Native Elev.: 1,750–2,300 m Dept.: ANT, CUN, NSA, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2043. *Parmotrema comutum* (Lyngé) Hale IF No: 343028 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2044. *Parmotrema crinitum* (Ach.) M. Choisy IF No: 368891 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Cosmopolitan, Native Elev.: 1,700–3,400 m Dept.: ANT, BOY, CUN, NAR, NSA, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2045. *Parmotrema cristiferum* (Taylor) Hale IF No: 343031 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Amazonia, Andes Distribution: Pan-tropics, Native Elev.: 5–1,500 m Dept.: AMA, ANT, CAU, MAG, NAR, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2046. *Parmotrema diffractulum* (Essl.) Hale IF No: 343037 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2047. *Parmotrema dilatatum* (Vain.) Hale IF No: 343038 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Pan-tropics, Native Elev.: 2,700–3,460 m Dept.: CUN, NSA, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2048. *Parmotrema dispersum* (Nyl.) Hale IF No: 343040 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2049. *Parmotrema dissimile* Fleig IF No: 460391 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2050. *Parmotrema dominicanum* (Vain.) Hale IF No: 343043 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes, Caribbean Distribution: Pan-tropics, Native Elev.: 35–3,800 m Dept.: NAR, SAP



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2051. *Parmotrema eborinum* (Hale) Hale IF No: 343044 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes, Caribbean Distribution: Neotropics, Native Elev.: 350–2,500 m Dept.: CUN, MET, SAP



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2052. *Parmotrema scillatum* (Nyl.) Hale IF No: 343045 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2053. *Parmotrema endosulphureum* (Hillmann) Hale IF No: 343046 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes, Caribbean Distribution: Neotropics, Pan-tropics Africa, Native Elev.: 35–250 m Dept.: BOL, CHO, NAR, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2054. *Parmotrema enteroxanthum* Hale IF No: 343047 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Pan-tropics, Native Elev.: 1,750 m Dept.: SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2055. *Parmotrema eunetum* (Stirt.) Hale IF No: 343049 Trophic mode/Guild: symbiotroph/lichenised Distribution: Neotropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2056. *Parmotrema fasciculatum* (Vain.) Hale IF No: 343053 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Neotropics, Pan-tropics Africa, Native Elev.: 3,780 m Dept.: CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2057. *Parmotrema flavescens* (Kremp.) Hale IF No: 343054 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Neotropics, Native Elev.: 1,300–1,900 m Dept.: NAR, NSA, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2058. *Parmotrema flavotinctum* (Hale) Hale IF No: 343056 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Amazonia Distribution: Amazonia, Native Elev.: 240–250 m Dept.: AMA, VAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2059. *Parmotrema fractum* (Hale) Hale IF No: 343057 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Endemic Elev.: 2,300–3,950 m Dept.: BOY, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2060. *Parmotrema gardneri* (C.W. Dodge) Sérus. IF No: 107092 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2061. *Parmotrema granatum* (Hue) Hale IF No: 343059 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Pan-tropics, Native Dept.: ANT



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2062. *Parmotrema granatum* Hale IF No: 648680 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Amazonia, Andes Distribution: Neotropics, Native Elev.: 235–2,460 m Dept.: MET, RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2063. *Parmotrema habiblanum* (Gyeln.) Hale IF No: 343060 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Pan-tropics, Native Elev.: 700 m Dept.: ANT



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2064. *Parmotrema halilense* (Hale) Hale IF No: 343061 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Neotropics, Native Elev.: 1,000–2,120 m Dept.: CUN, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2065. *Parmotrema horridum* Fleig IF No: 460392 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2066. *Parmotrema hypoleucinum* (J. Steiner) Hale IF No: 343065 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
 2067. *Parmotrema indicum* Hale IF No: 343067 Trophic mode/Guild: symbiotroph/lichenised



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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
2068. *Parmotrema interexum* (Nyl.) Hale ex DePriest & B.W. Hale IF No: 443713  
Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
2069. *Parmotrema latissimum* (Fée) Hale IF No: 343071 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Andes, Orinoquia, Pacific  
Distribution: Pan-tropics, Native Elev.: 0–1,800 m Dept.: CAL, CHO, VAC, VID



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
2070. *Parmotrema lopezii* Hale IF No: 343074 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Andes Distribution: Pan-tropics  
Andes, Native Elev.: 3,170 m Dept.: CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
2071. *Parmotrema louisiana* (Hale) Hale IF No: 626864 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
2072. *Parmotrema maclayanum* (Müll. Arg.) Hale IF No: 343078 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Andes Distribution: Pan-tropics Africa, Neotropics, Native Elev.: 2,250 m Dept.: BOY



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
2073. *Parmotrema madagascariaceum* (Hue) Hale IF No: 343080 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Andes Distribution: Pan-tropics, Native Elev.: 1,000–2,600 m Dept.: BOY, CUN, NSA, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
2074. *Parmotrema melanochaetum* (Kurok.) O. Blanco, A. Crespo, Divakar, Elix & Lumbsch IF No: 501431 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
2075. *Parmotrema mellissii* (C.W. Dodge) Hale IF No: 343083 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Andes Distribution: Pan-tropics, Native Elev.: 1,250–2,400 m Dept.: ANT, CUN, MAG, RIS, SAN, VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
2076. *Parmotrema mesogenes* (Nyl.) Hale IF No: 343085 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Caribbean Distribution: Neotropics, Native Dept.: SAP



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
2077. *Parmotrema mesotropum* (Müll. Arg.) Hale IF No: 343086 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Amazonia  
Distribution: Neotropics, Native Elev.: 250–500 m Dept.: CAQ, MET



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
2078. *Parmotrema niranandum* (Hale) Hale IF No: 343088 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
2079. *Parmotrema muelleri* (Vain.) O. Blanco, A. Crespo, Divakar, Elix & Lumbsch IF No: 501432 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Andes Distribution: Neotropics, Native Elev.: 1,300–1,750 m Dept.: CAL, CAU, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
2080. *Parmotrema nylanderi* (Lyngb) Hale IF No: 343095 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
2081. *Parmotrema peralbidum* (Hale) Hale IF No: 343103 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Andes Distribution: Neotropics, Native Elev.: 1,650–2,740 m Dept.: ANT, MAG, NSA, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
2082. *Parmotrema perforatum* (Jacq.) A. Massal. IF No: 398620 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Andes Distribution: Neotropics, Europe, Native Elev.: 2,000–2,800 m Dept.: CAU, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
2083. *Parmotrema perlatum* (Huds.) M. Choisy IF No: 368896 Trophic mode/Guild: symbiotroph/lichenised  
Habitat: Lichen  
Biogeographic region: Amazonia, Andes  
Distribution: Cosmopolitan, Pan-tropics, Native Elev.: 1,600–2,600 m Dept.: ANT, CAU, CUN, GUA, NAR, NSA Uses: EU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
2084. *Parmotrema pilosum* (Stizenb.) Krog & Swinscow IF No: 109155 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
2085. *Parmotrema praesorediosum* (Nyl.) Hale IF No: 343106 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Andes Distribution: Pan-tropics, Native Elev.: 500 m Dept.: TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
2086. *Parmotrema rampodense* (Nyl.) Hale IF No: 343114 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Andes Distribution: Pan-tropics, Native Elev.: 1,200–3,000 m Dept.: ANT, CAU, HUI, MAG, NAR, RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
2087. *Parmotrema reclinatum* (Nyl.) Hale IF No: 343116 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Andes Distribution: Pan-tropics, Native Elev.: 840 m Dept.: TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
2088. *Parmotrema rellii* Hale IF No: 343117 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Andes Distribution: Neotropics, Native Dept.: SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
2089. *Parmotrema reticulatum* (Taylor) M. Choisy IF No: 357464 Trophic mode/Guild: symbiotroph/lichenised  
Habitat: On trees in open habitats, rarely on rocks | Lichen  
Biogeographic region: Andes Distribution: Pan-tropics, Cosmopolitan, Native Elev.: 1,000–3,600 m Dept.: ANT, BOY, CAL, CAU, CUN, NAR, NSA, RIS, SAN, TOL, VAC Uses: MA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
2090. *Parmotrema robustum* (Degel.) Hale IF No: 343120 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Andes Distribution: Subcosmopolitan, Native Elev.: 1,600–3,800 m Dept.: ANT, BOY, CAU, CUN, HUI, MAG, NAR, NSA, RIS, SAN, TOL, VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
2091. *Parmotrema rubifaciens* (Hale) Hale IF No: 343121 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Amazonia Distribution: Neotropics, Native Elev.: 240 m Dept.: AMA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
2092. *Parmotrema sancti-angelii* (Lyngb) Hale IF No: 343123 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Andes Distribution: Pan-tropics, Native Elev.: 1,250–2,350 m Dept.: ANT, CAL, CAU, CUN, RIS, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
2093. *Parmotrema simulans* (Hale) Hale IF No: 343125 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Andes Distribution: Neotropics, Native Elev.: 2,000–2,340 m Dept.: ANT, BOY, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
2094. *Parmotrema sondliffrum* Hale IF No: 104598 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
2095. *Parmotrema stuppeum* (Taylor) Hale IF No: 343128 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
2096. *Parmotrema subcaeratum* (Kremp.) Hale IF No: 343130 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmellaceae  
2097. *Parmotrema subisidiosum* (Müll. Arg.) Hale IF No: 343134 Trophic mode/Guild: symbiotroph/lichenised  
Biogeographic region: Andes Distribution: Pan-tropics, Native Elev.: 1,250–2,970 m Dept.: ANT, BOY, CUN, HUI, MAG, NAR, NSA, RIS, TOL

CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2098. *Parmotrema subsumptum*** (Nyl.) Hale IF No: 343137 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Pantropics **Africa, Native Elev.:** 2,130 m **Dept.:** ANT, RIS, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2099. *Parmotrema subinctorium*** (Zahlbr.) Hale IF No: 343138 **Trophic mode/Guild:** symbiotroph / lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2100. *Parmotrema succlineti*** (Eliasaro & Adler) O. Blanco, A. Crespo, Divakar, Elix & Lumbsch IF No: 501439 **Trophic mode/Guild:** symbiotroph / lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2101. *Parmotrema sulphuratum*** (Nees & Flot.) Hale IF No: 343139 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Pantropics, Native **Elev.:** 240 m **Dept.:** AMA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2102. *Parmotrema tinctorum*** (Despr. ex Nyl.) Hale IF No: 343140 **Trophic mode/Guild:** symbiotroph/lichenised **Habitat:** On trunks | Lichen **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Pantropics, Native **Elev.:** 1,250–2,250 m **Dept.:** ANT, BOY, CAU, CUN, NAR, RIS, SAN **Uses:** MA, ME



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2103. *Parmotrema ultralucens*** (Krog) Hale IF No: 343142 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics,



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2104. *Parmotrema virescens*** Hale IF No: 104599 **Trophic mode/Guild:** symbiotroph / lichenised **Biogeographic region:** Andes **Distribution:** Pantropics **Andes, Native Elev.:** 1,750–2,550 m **Dept.:** ANT, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2105. *Parmotrema viridiflavum*** (Hale) Hale IF No: 343145 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Central America, Native **Elev.:** 1,650–2,500 m **Dept.:** CUN, HUI, MAG



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2106. *Parmotrema xanthum*** (Müll. Arg.) Hale IF No: 343147 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Neotropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2107. *Parmotrema zollingeri*** (Hepp) Hale IF No: 343149 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes **Distribution:** Pantropics, Native **Elev.:** 350–3,000 m **Dept.:** ANT, CUN, MET, NSA, VAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2108. *Pseudovernia antillensis*** (Nyl.) Elix & Hale IF No: 130599 **Trophic mode/Guild:** symbiotroph / lichenised **Biogeographic region:** Andes **Distribution:** Antilles, Native **Elev.:** 1,500–2,500 m **Dept.:** BOY, CAU, NAR, RIS, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2109. *Pseudoparmelia thalictola*** (A. Massal.) Triebel & Rambold IF No: 134636 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2110. *Pseudoparmelia badia*** (Hoffm.) Hafellner IF No: 107576 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2111. *Pseudovernia intensa*** (Nyl.) Hale & W.L. Culb. IF No: 345702 **Trophic mode/Guild:** symbiotroph/lichenised **Habitat:** Usually on conifers, in mixed conifer forests | Lichen **Distribution:** Pantropics **Dept.:** SAN **Uses:** ME



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2112. *Pseudoparmelia chapadensis*** (Lynge) Hale IF No: 343384 **Trophic mode/Guild:** symbiotroph / lichenised **Biogeographic region:** Amazonia **Distribution:** Pantropics **South America, Africa, Native Elev.:** 350 m **Dept.:** CAQ



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2113. *Pseudoparmelia cubensis*** (Nyl.) Elix & T.H. Nash IF No: 443411



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2114. *Pseudoparmelia uleana*** (Müll. Arg.) Elix & T.H. Nash IF No: 443417



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2115. *Punctelia distincta*** (Nyl.) Hale IF No: 135876 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2116. *Punctelia borrei*** (Turner) Krog IF No: 110966 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Cosmopolitan, Native **Dept.:** ANT, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2117. *Punctelia colombiana*** Sérus. IF No: 105739 **Trophic mode/Guild:** symbiotroph / lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2118. *Punctelia constantimontium*** Sérus. IF No: 108439 **Trophic mode/Guild:** symbiotroph / lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Africa, Native **Elev.:** 3,700 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2119. *Punctelia crispa*** Marcelli, Jungbluth & Elix IF No: 512456 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2120. *Punctelia digitata*** Jungbluth, Marcelli & Elix IF No: 512457 **Trophic mode/Guild:** symbiotroph / lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2121. *Punctelia hypoleucites*** (Nyl.) Krog IF No: 110971 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2122. *Punctelia microsticta*** (Müll. Arg.) Krog IF No: 110973 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2123. *Punctelia negata*** (Nyl.) Krog IF No: 110974 **Trophic mode/Guild:** symbiotroph / lichenised **Distribution:** Neotropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2124. *Punctelia neutralis*** (Hale) Krog IF No: 110975 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2125. *Punctelia oxyspora*** (Tul.) Divakar, A. Crespo & Lumbsch IF No: 820184 **Trophic mode/Guild:** symbiotroph / lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2126. *Punctelia punctata*** (Hale) Krog IF No: 110977 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Africa, Native **Elev.:** 1,880 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2127. *Punctelia reddenda*** (Stirt.) Krog IF No: 110978 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 2,050 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2128. *Punctelia rudecta*** (Ach.) Krog IF No: 110980 **Trophic mode/Guild:** symbiotroph / lichenised **Habitat:** On rocks and on mosses, or bark | Lichen **Biogeographic region:** Andes **Distribution:** Cosmopolitan, Native **Elev.:** 1,600–2,800 m **Dept.:** BOY, CAU, CUN, NAR, RIS **Uses:** MA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2129. *Punctelia stictica*** (Delise ex Duby) Krog IF No: 110983 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** America, Africa, Europe, Native **Elev.:** 2,600–4,080 m **Dept.:** BOY, CAU, CUN, MET, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2130. *Punctelia subriava*** (Taylor) Elix & J. Johnst. IF No: 133594 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2131. *Punctelia subrudecta*** (Nyl.) Krog IF No: 110985 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Cosmopolitan, Native **Elev.:** 2,550–3,160 m **Dept.:** BOY, CUN, NAR, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2132. *Punctelia toxodes*** (Stirt.) Kalb & M. Götz IF No: 529991 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Subcosmopolitan, Native **Elev.:** 1,600–2,550 m **Dept.:** BOY, CAU, CUN, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2133. *Relicina abstrusa*** (Vain.) Hale IF No: 343536 **Trophic mode/Guild:** symbiotroph / lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 1,400 m **Dept.:** CUN



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2134. *Relicina colombiana*** Elix & Sipman  
 IF No: 517810 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:**

3,700 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2135. *Relicina relicinella*** (Nyl.) Hale **IF No:** 343553 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Colombia, Brasil, Native **Dept.:**

SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2136. *Remototrachyna agulrei*** (Sipman, Elix & T.H. Nash) Flakus, Kukwa & Sipman **IF No:** 561981 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics andes, Costa Rica, Native **Elev.:** 1,750–2,000 m **Dept.:** CAU, RIS

**region:** Andes **Distribution:** Pantropics andes, Costa Rica, Native **Elev.:** 1,750–2,000 m **Dept.:** CAU, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2137. *Remototrachyna consimilis*** (Vain.) Flakus, Kukwa & Sipman **IF No:** 561982 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2138. *Remototrachyna costaricensis*** (Nyl.) Divakar, Lumbsch, Ferencová, Prado & A. Crespo **IF No:** 546535 **Trophic mode/Guild:** symbiotroph/lichenised

**Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 1,000–3,200 m **Dept.:** ANT, CAU, CHO, CUN, HUI, NAR, NSA, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2139. *Remototrachyna rhabdiformis*** (Kurok.) Divakar & A. Crespo **IF No:** 548405 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 1,980–3,190 m **Dept.:** RIS

**region:** Andes **Distribution:** Pantropics, Native **Elev.:** 1,980–3,190 m **Dept.:** RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2140. *Remototrachyna singularis*** (Hale) Flakus, Kukwa & Sipman **IF No:** 561983 **Trophic mode/Guild:** symbiotroph/lichenised **Habitat:** Lichen **Biogeographic region:** Andes **Distribution:** Pantropics, tropical Andes, Native **Elev.:** 2,000–3,600 m **Dept.:** CAU, CUN **Uses:** EU

**region:** Andes **Distribution:** Pantropics, tropical Andes, Native **Elev.:** 2,000–3,600 m **Dept.:** CAU, CUN **Uses:** EU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2141. *Usnea acanthella*** (L.M. Lamb) F.J. Walker **IF No:** 105857 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics Andes, Native

Pantropics Andes, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2142. *Usnea alata*** Motyka **IF No:** 370979 **Trophic mode/Guild:** symbiotroph/lichenised

**Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 1,980–3,190 m **Dept.:** RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2143. *Usnea amabilis*** Motyka **IF No:** 370984 **Trophic mode/Guild:** symbiotroph/lichenised **Habitat:** Epiphyte **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,000–2,500 m **Dept.:** ANT, CUN

Neotropics, Native **Elev.:** 1,000–2,500 m **Dept.:** ANT, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2144. *Usnea andina*** Motyka **IF No:** 412001 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,800–2,900 m **Dept.:** CUN

2,800–2,900 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2145. *Usnea angulata*** Ach. **IF No:** 408310 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,750–3,500 m **Dept.:** ANT, CAU, CUN, HUI, NAR

1,750–3,500 m **Dept.:** ANT, CAU, CUN, HUI, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2146. *Usnea aranea*** Truong & P. Clerc **IF No:** 811375 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2147. *Usnea arbusculiformis*** Motyka **IF No:** 412003 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,900 m **Dept.:** CUN

Native **Elev.:** 2,900 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2148. *Usnea arthroclada*** Fée **IF No:** 408318 **Trophic mode/Guild:** symbiotroph/lichenised

**Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,900 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2149. *Usnea articulata*** (L.) Hoffm. **IF No:** 408319 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 2,300 m **Dept.:** ANT

**Elev.:** 2,300 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2150. *Usnea aspera*** (Eschw.) Vain. **IF No:** 408320 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,700–2,500 m **Dept.:** ANT, CUN, NSA, TOL

1,700–2,500 m **Dept.:** ANT, CUN, NSA, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2151. *Usnea aureola*** Motyka **IF No:** 412010 **Trophic mode/Guild:** symbiotroph/lichenised

**Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,700–2,500 m **Dept.:** ANT, CUN, NSA, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2152. *Usnea australis*** Fr. **IF No:** 408323 **Trophic mode/Guild:** symbiotroph/lichenised **Habitat:** Epiphyte **Biogeographic region:** Andes **Distribution:** Neotropics, Hawaii, Native **Elev.:** 2,000–2,600 m **Dept.:** CUN

**Elev.:** 2,000–2,600 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2153. *Usnea barbata*** (L.) F.H. Wigg. **IF No:** 408326 **Trophic mode/Guild:** symbiotroph/lichenised **Habitat:** On bark (especially *Quercus* spp. and shrubs) in oak–pine woodlands or in the mountains in mixed conifer forests | Lichen **Biogeographic region:** Orinoquia **Distribution:** Global Distribution, Holarctic region, Native **Dept.:** VID **Uses:** ME

woodlands or in the mountains in mixed conifer forests | Lichen **Biogeographic region:** Orinoquia **Distribution:** Global Distribution, Holarctic region, Native **Dept.:** VID **Uses:** ME



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2154. *Usnea bogotensis*** Vain. **IF No:** 408329 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics **Elev.:** 2,200–3,950 m **Dept.:** BOY, CUN, MAG

Andes, Native **Elev.:** 2,200–3,950 m **Dept.:** BOY, CUN, MAG



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2155. *Usnea brasiliensis*** (Zahlbr.) Motyka **IF No:** 371015 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,600 m **Dept.:** ANT

Native **Elev.:** 1,600 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2156. *Usnea ceratina*** Ach. **IF No:** 408337 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 1,600–3,700 m **Dept.:** ANT, BOY, CAL, CAU, CUN, HUI, NAR, SAN, TOL

**Elev.:** 1,600–3,700 m **Dept.:** ANT, BOY, CAL, CAU, CUN, HUI, NAR, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2157. *Usnea cinchonae*** (Willd.) Zahlbr. **IF No:** 408343 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Subcosmopolitan, Native

**Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2158. *Usnea citrosa*** Motyka **IF No:** 412032 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Dept.:** CUN

**Distribution:** Neotropics, Native **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2159. *Usnea columbiana*** Motyka ex Räsänen **IF No:** 371042 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Dept.:** CUN

Neotropics, Native **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2160. *Usnea complexa*** Motyka **IF No:** 412039 **Trophic mode/Guild:** symbiotroph/lichenised

**Biogeographic region:** Andes **Distribution:** South America, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2161. *Usnea concinna*** Stirt. **IF No:** 408349 **Trophic mode/Guild:** symbiotroph/lichenised

**Biogeographic region:** Andes **Distribution:** South America, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2162. *Usnea cornuta*** Körb. **IF No:** 408356 **Trophic mode/Guild:** symbiotroph/lichenised **Habitat:** Lichen **Elev.:** 3,600 m **Dept.:** CAU **Uses:** EU

**Elev.:** 3,600 m **Dept.:** CAU **Uses:** EU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2163. *Usnea crassula*** Motyka **IF No:** 412047 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** South America, Native

**Biogeographic region:** Andes **Distribution:** South America, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2164. *Usnea crenulata*** Truong & P. Clerc **IF No:** 800747 **Trophic mode/Guild:** symbiotroph/lichenised

**Biogeographic region:** Andes **Distribution:** South America, Native **Elev.:** 2,000–2,550 m **Dept.:** CUN, HUI, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2165. *Usnea cristatula*** Motyka **IF No:** 412049 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** South America, Native **Elev.:** 2,000–2,550 m **Dept.:** CUN, HUI, NAR

North temperate region, Native **Elev.:** 2,000–2,550 m **Dept.:** CUN, HUI, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2166. *Usnea crocata*** Truong & P. Clerc **IF No:** 561213 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics **Elev.:** 2,300–2,600 m **Dept.:** ANT, HUI

andes, Native **Elev.:** 2,300–2,600 m **Dept.:** ANT, HUI

CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2167. *Usnea dasaea*** Stirt. IF No: 408359  
 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2168. *Usnea dasopoga*** (Ach.) Nyl. IF No: 581809  
 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2169. *Usnea deformis*** Motyka  
 IF No: 412055  
 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2170. *Usnea densirostra*** Taylor IF No: 408365  
 Trophic mode/ Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2171. *Usnea dimorpha*** (Müll. Arg.) Motyka  
 IF No: 37 1070  
 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2172. *Usnea diplotypus*** Vain.  
 IF No: 408369  
 Trophic mode/ Guild: symbiotroph/lichenised

2,800–3,000 m **Dept:** MAG



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2173. *Usnea dodgii*** Motyka IF No: 412059  
 Trophic mode/ Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Neotropics, Native **Dept:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2174. *Usnea dorogawensis*** Asahina IF No: 371076  
 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2175. *Usnea durletzi*** Motyka IF No: 412061  
 Trophic mode/ Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Andes, Native **Elev.:** 3,200–4,080 m **Dept:** BOY, CAU, CUN, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2176. *Usnea entoviolata*** Motyka  
 IF No: 412065  
 Trophic mode/ Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Subcosmopolit, Native **Elev.:** 1,880–2,600 m **Dept:** BOY, CUN, HUI



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2177. *Usnea erinacea*** Vain.  
 IF No: 408377  
 Trophic mode/ Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Subcosmopolit, Native **Elev.:** 1,750–2,700 m **Dept:** CAU, CUN, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2178. *Usnea esperantana*** P. Clerc IF No: 360729  
 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2179. *Usnea firma*** Motyka IF No: 412080  
 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2180. *Usnea flavocardiella*** Räsänen IF No: 412086  
 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Subcosmopolit, Native **Elev.:** 3,500–4,160 m **Dept:** CUN, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2181. *Usnea fragiliscens*** Hav. ex Lynge IF No: 408396  
 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2182. *Usnea fragiliscens* var. *mollis*** (Vain.) P. Clerc IF No: 130547



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2183. *Usnea fruticans*** Motyka  
 IF No: 412088  
 Trophic mode/ Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Neotropics, Native **Elev.:** 3,525–3,700 m **Dept:** CHO, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2184. *Usnea furfurisula*** (Zahlbr.) Motyka  
 IF No: 37 1123  
 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Neotropics, Native **Dept:** ANT, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2185. *Usnea glabrata*** (Ach.) Vain. IF No: 408400  
 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2186. *Usnea glabrescens*** (Nyl. ex Vain.) Vain. IF No: 408401  
 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2187. *Usnea gracilis*** Ach. IF No: 408404  
 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Africa, Native **Elev.:** 2,500 m **Dept:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2188. *Usnea granadensis*** Motyka IF No: 412100  
 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Neotropics, Native **Elev.:** 2,700–3,100 m **Dept:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2189. *Usnea hirta*** (L.) F.H. Wigg.  
 IF No: 408411  
 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2190. *Usnea horrida*** Motyka IF No: 412114  
 Trophic mode/ Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Neotropics, Native **Elev.:** 1,800 m **Dept:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2191. *Usnea jamaicensis*** Ach.  
 IF No: 408423  
 Trophic mode/Guild: symbiotroph/lichenised  
**Distribution:** Neotropics, Native **Dept:** TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2192. *Usnea jelskii*** Motyka IF No: 371174  
 Trophic mode/ Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Neotropics, Native **Elev.:** 3,500–4,000 m **Dept:** ANT, CAL, CUN, HUI, RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2193. *Usnea jelskii*** P. Clerc  
 IF No: 5217 11  
 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2194. *Usnea laevis*** (Eschw.) Nyl.  
 IF No: 408428  
 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Neotropics, Native **Elev.:** 2,650–3,000 m **Dept:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2195. *Usnea leucopoda*** (Zahlbr.) Motyka IF No: 371193  
 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Neotropics, Native **Dept:** ANT, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2196. *Usnea lesdainii*** Motyka  
 IF No: 412137  
 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Neotropics, Native **Elev.:** 2,500 m **Dept:** CUN, NSA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2197. *Usnea malmi*** Motyka  
 IF No: 412150  
 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2198. *Usnea meridionalis*** Zahlbr. IF No: 408443  
 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Neotropics, Native **Dept:** ANT, CUN, MAG



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2199. *Usnea mexicana*** Vain. IF No: 408444  
 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2200. *Usnea mollis*** Stirt. IF No: 408447  
 Trophic mode/ Guild: symbiotroph/lichenised  
**Distribution:** Europe, North Africa, Native **Dept:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2201. *Usnea morellana*** Motyka IF No: 412166  
 Trophic mode/ Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Neotropics, Native **Elev.:** 2,740–3,800 m **Dept:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
**2202. *Usnea nidulans*** Motyka  
 IF No: 412173  
 Trophic mode/ Guild: symbiotroph/lichenised



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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2203. *Usnea parvula* Motyka IF No: 412186 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Neotropics, Native Elev.:

2,600 Dept.: CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2204. *Usnea perthipsidella* J. Steiner IF No: 408466 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2205. *Usnea perplexans* Stirt. IF No: 408467 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Temperate region of the

North, Native Dept.: CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2206. *Usnea pilcata* (L.) Weber ex F.H. Wigg. IF No: 355663 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2207. *Usnea praetervisa* (Asahina) P. Clerc IF No: 370247 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2208. *Usnea regnellii* Motyka IF No: 371294 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2209. *Usnea rigida* Vain. IF No: 205235 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2210. *Usnea robusta* Stirt. IF No: 408488 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2211. *Usnea roccellina* Motyka IF No: 412212 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Neotropics, Native Elev.:

1,700–2,900 m Dept.: BOY, CUN, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2212. *Usnea rubicunda* Stirt. IF No: 408491 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Cosmopolitan, Native Elev.:

1,700–2,500 m Dept.: BOY, CAU, CUN, NAR, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2213. *Usnea sanctae-ritae* P. Clerc & Herrera–Camp. IF No: 445505 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2214. *Usnea sanguinea* Swinscow & Krog IF No: 343829 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Pantrotics, Native Elev.: 1,500–2,500 m Dept.: CAU, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2215. *Usnea scabrata* Nyl. IF No: 355665 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2216. *Usnea setulosa* Motyka IF No: 371322 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Neotropics, Native Elev.: 1,700–2,200 m Dept.: ANT, CES, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2217. *Usnea silvestra* Motyka IF No: 408501 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2218. *Usnea sphacelata* R. Br. IF No: 408506 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Cold regions, Native Elev.: 4,500–4,550 m Dept.: CAL, RIS, VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2219. *Usnea steineri* Zahlbr. IF No: 408510 Trophic mode/Guild: symbiotroph/lichenised Distribution: Neotropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2220. *Usnea strigosa* (Ach.) Pers. IF No: 587522 Trophic mode/Guild: symbiotroph/lichenised Distribution: North America, Native Dept.: CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2221. *Usnea subaranae* Truong & P. Clerc IF No: 811378 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2222. *Usnea subcornuta* Stirt. IF No: 408517 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2223. *Usnea subdasaea* Truong & P. Clerc IF No: 561216 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Neotropics, Native Elev.: 1,750 m Dept.: SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2224. *Usnea subelegans* (Vain.) Motyka ex B. de Lesd. IF No: 412247 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Neotropics, Native Elev.: 2,300–2,740 m Dept.: ANT, CES, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2225. *Usnea subflammae* P. Clerc IF No: 521713 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2226. *Usnea subfloridana* Stirt. IF No: 408519 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Holarctic region, Native Dept.: CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2227. *Usnea subglabrata* Truong & P. Clerc IF No: 811379 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2228. *Usnea subgraecilla* Vain. IF No: 408521 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2229. *Usnea subrubicunda* P. Clerc IF No: 569748 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Neotropics, North America, Native Elev.: 2,750 m Dept.: CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2230. *Usnea subscabrosa* Nyl. ex Motyka IF No: 371360 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2231. *Usnea substerilis* Motyka IF No: 356466 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2232. *Usnea tenuis* Motyka IF No: 412262 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Neotropics, Native Dept.: CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2233. *Usnea transitoria* Motyka IF No: 412269 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2234. *Usnea trichinella* Motyka IF No: 412271 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2235. *Usnea trichodea* Ach. IF No: 119591 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2236. *Usnea wasmuthii* Räsänen IF No: 355718 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2237. *Xanthoparmelia camtschadalis* (Ach.) Hale IF No: 343875 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2238. *Xanthoparmelia chlorochroa* (Tuck.) Hale IF No: 343880 Trophic mode/Guild: symbiotroph/lichenised Habitat: On sandy soil | Lichen Biogeographic region: Andes Distribution: America, Native Elev.: 2,550 m Dept.: CUN Uses: MA, PO

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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2239. *Xanthoparmelia conspersa* (Ehrh. ex Ach.) Hale IF No: 343884 Trophic mode/Guild: symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Holarctic region, Neotropics, Native **Elev.:** 1,880 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2240. *Xanthoparmelia cumberlandia* (Gyeln.) Hale IF No: 343889 Trophic mode/Guild: symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2241. *Xanthoparmelia lecanorica* (Hale) Hale IF No: 343916 Trophic mode/Guild: symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2242. *Xanthoparmelia microspora* (Müll. Arg.) Hale IF No: 343920 Trophic mode/Guild: symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** South America, Native **Elev.:** 980–2,600 m **Dept.:** BOY, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2243. *Xanthoparmelia mougeotii* (Schaer. ex D. Dietr.) Hale IF No: 343923 Trophic mode/Guild: symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Holarctic region, Neotropics, South Africa, Native **Elev.:** 2,600 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2244. *Xanthoparmelia neowomingica* Hale IF No: 135857 Trophic mode/Guild: symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Colombia to Peru, Native **Elev.:** 2,550 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2245. *Xanthoparmelia plittii* (Gyeln.) Hale IF No: 343930 Trophic mode/Guild: symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 2,700 m **Dept.:** CUN, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2246. *Xanthoparmelia rogersii* Elix & J. Johnst. IF No: 128683 Trophic mode/Guild: symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Colombia, Kenya, Australia, Native **Elev.:** 2,250 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2247. *Xanthoparmelia simulans* Hale IF No: 128870 Trophic mode/Guild: symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2248. *Xanthoparmelia sipmanii* T.H. Nash & Elix IF No: 414395 Trophic mode/Guild: symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** South America, Native **Elev.:** 2,550 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2249. *Xanthoparmelia stenophylla* (Ach.) Ahti & D. Hawksw. IF No: 356009 Trophic mode/Guild: symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 2,550–2,950 m **Dept.:** BOY, CUN, NSA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2250. *Xanthoparmelia subplittii* Hale IF No: 132335 Trophic mode/Guild: symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** South America, Native **Elev.:** 2,250 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2251. *Xanthoparmelia subramigera* (Gyeln.) Hale IF No: 343947 Trophic mode/Guild: symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 1,880 m **Dept.:** NAR, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2252. *Xanthoparmelia substenophylloides* Hale IF No: 135873 Trophic mode/Guild: symbiotrophy/lichenised  
**Biogeographic region:** Amazonia, Andes **Distribution:** Neotropics, South Africa, Native **Elev.:** 350–2,250 m **Dept.:** BOY, CAQ, HUI



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2253. *Xanthoparmelia subulcerosa* T.H. Nash & Elix IF No: 414399 Trophic mode/Guild: symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Pantropics Andes, Native **Elev.:** 2,600 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2254. *Xanthoparmelia ulcerosa* (Zahlbr.) Hale IF No: 343956 Trophic mode/Guild: symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** South America, Pantropics Andes, Native **Elev.:** 2,550 m **Dept.:** BOY, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Parmeliaceae  
2255. *Xanthoparmelia wildeae* (C.W. Dodge) Hale IF No: 343960 Trophic mode/Guild: symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Pantropics South America, Native **Elev.:** 2,550 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Psilolechiaceae  
2256. *Psilolechia lucida* (Ach.) M. Choisy IF No: 118645 Trophic mode/Guild: symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Cosmopolitan, Native **Elev.:** 2,380 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Psoraceae  
2257. *Protomleares limosa* (Ach.) Hafellner IF No: 483676 Trophic mode/Guild: symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
2258. *Auricularia byssomorpha* (Nyl.) Kalb IF No: 134479 Trophic mode/Guild: symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,900–2,600 m **Dept.:** ANT, CUN, VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
2259. *Bacidia albomaculans* (Nyl.) Zahlbr. IF No: 377907 Trophic mode/Guild: symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,000 m



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
2260. *Bacidia andita* (Nyl.) Zahlbr. IF No: 377920 Trophic mode/Guild: symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 250 m **Dept.:** TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
2261. *Bacidia arceuthina* (Ach.) Arnold IF No: 377927



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
2262. *Bacidia beckhausii* Körb. IF No: 377960 Trophic mode/Guild: symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Holarctic region, Native **Elev.:** 250 m **Dept.:** TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
2263. *Bacidia campales* (Tuck.) S. Ekman & Kalb IF No: 444701



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
2264. *Bacidia fluminensis* (Malme) M. Cáceres & Lücking IF No: 540311 Trophic mode/Guild: symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
2265. *Bacidia fulgidula* (Nyl.) Zahlbr. IF No: 378105 Trophic mode/Guild: symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 150 m



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
2266. *Bacidia hostelskoldes* (Nyl.) Zahlbr. IF No: 378151 Trophic mode/Guild: symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 1,200 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
2267. *Bacidia insularis* Zahlbr. IF No: 378176



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
2268. *Bacidia melachella* (Nyl.) Zahlbr. IF No: 378184 Trophic mode/Guild: symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 1,200 m



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
2269. *Bacidia ischnospora* (Nyl.) Zahlbr. IF No: 378187 Trophic mode/Guild: symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,900 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
2270. *Bacidia laurocerasi* (Delise ex Duby) Zahlbr. IF No: 415044 Trophic mode/Guild: symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
2271. *Bacidia melachella* (Nyl.) Zahlbr. IF No: 378249 Trophic mode/Guild: symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 1,200 m



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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2272. *Bacidina millegrana* (Taylor) Zahlbr.  
 IF No: 378267 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Pan tropics,  
 Native **Elev.:** 1,200–2,700 m **Dept.:** CUN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2273. *Bacidina neofusconigrescens*  
 Lücking IF No: 558059 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2274. *Bacidina personata* Malmé  
 IF No: 410318 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2275. *Bacidina polychroa* (Th. Fr.) Körb. IF No: 378350 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2276. *Bacidina proposita* (Nyl.) Zahlbr. IF No: 378363 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 200 m **Dept.:** TOL **Conservation:** CR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2277. *Bacidina rubella* (Hoffm.) A. Massal. IF No: 378397 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 2,600 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2278. *Bacidina russeola* (Kremp.) Zahlbr. IF No: 378414 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2279. *Bacidina salmonae* S. Ekman IF No: 444705 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2280. *Bacidina schweinftzi* (Fr. ex Tuck.) A. Schneid. IF No: 119479



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2281. *Bacidina segregata* (Müll. Arg.) Zahlbr. IF No: 378427 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 250 m **Dept.:** TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2282. *Bacidina smaragdascens* (Nyl.) Zahlbr. IF No: 378435 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,900 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2283. *Bacidina sororilla* (Nyl.) Zahlbr. IF No: 378442 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,000 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2284. *Bacidina squamulosula* (Nyl.) Zahlbr. IF No: 378452 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2285. *Bacidina surfusa* (Fr.) A. Schneid. IF No: 378504 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2286. *Bacidina trichospora* (Nyl.) Zahlbr. IF No: 378526 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 1,200 m



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2287. *Bacidina aenea* S. Ekman IF No: 444706 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2288. *Bacidina apalhica* (Müll. Arg.) Vězda IF No: 136777 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Amazonia, Andes, Pacific  
**Distribution:** Subcosmopolitan, Native **Elev.:** 35–2,500 m **Dept.:** AMA, ANT, CAQ, CAU, CUN, MET, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2289. *Bacidina brittoniana* (Riddle) LaGreca & S. Ekman IF No: 808754 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2290. *Bacidina lacerata* (Timdal) Kistenich, Timdal, Bendiksy & S. Ekman IF No: 824364 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2291. *Bacidina medialis* (Tuck. ex Nyl.) Kistenich, Timdal, Bendiksy & S. Ekman IF No: 824494 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2292. *Bacidina multiseptata* M. Cáceres & Lücking IF No: 540314 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2293. *Bacidina pallidocarpa* (Müll. Arg.) Vězda IF No: 136771 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 1,700 m **Dept.:** CAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2294. *Bacidina pseudohyphorifera* (Lücking & Sérus.) Lücking IF No: 538366 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Amazonia  
**Distribution:** Paleotropics, Native **Elev.:** 240 m **Dept.:** AMA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2295. *Bacidina scutellifera* (Vězda) Vězda IF No: 136769 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes, Pacific **Distribution:** Pan tropics, Native **Elev.:** 450–2,500 m **Dept.:** ANT, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2296. *Bacidina simplex* Farkas & Vězda IF No: 361587 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2297. *Bacidina varia* S. Ekman IF No: 444713 Trophic mode/Guild: symbiotroph/lichenised  
**Habitat:** Lichen **Elev.:** 3,600 m **Dept.:** CAU **Uses:** EU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2298. *Bacidlopsora mtrophyllina* Kalb IF No: 371429 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2299. *Bacidlopsora psorina* (Nyl.) Kalb IF No: 371408 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2300. *Bacidlopsora silvicola* (Malmé) Kalb IF No: 371406 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2301. *Bacidlopsora silvicola* (Malmé) Kalb IF No: 371406 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Amazonia, Pacific **Distribution:** Neotropics, Africa, Native **Elev.:** 35–300 m **Dept.:** AMA, CAQ, CHO, GUA, NAR, NSA, VAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2302. *Bacidina pallidula* (Kremp.) Vězda IF No: 103081 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Amazonia, Pacific **Distribution:** Pan tropics, Native **Elev.:** 100–350 m **Dept.:** AMA, CAQ, CHO



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2303. *Bacidina tuckermanni* (R. Sant.) Lücking, Lumbsch & Eliax IF No: 362834 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2304. *Bacidina tuckermanni* (R. Sant.) Lücking, Lumbsch & Eliax IF No: 362834 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Pacific **Distribution:** Neotropics, Native **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2305. *Bellicidia incompta* (Borrer) Kistenich, Timdal, Bendiksy & S. Ekma IF No: 824446 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2306. *Biatora globulosa* (Flörke) Fr. IF No: 378932 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Amazonia **Distribution:** Europe, Native **Dept.:** GUA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaceae  
 2307. *Bilbya vermifera* (Nyl.) Kistenich, Timdal, Bendiksy & S. Ekman IF No: 824370

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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2308. *Catilochroma endochromum*** (Fée) Kalb IF No: 545040 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2309. *Eschatogonia prolifera*** (Mont.) R. Sant. IF No: 475533 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes, Pacific



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2310. *Lecanla dubitans*** (Nyl.) A.L. Sm. IF No: 387398 **Trophic mode/Guild:** symbiotroph/lichenised

**Distribution:** Neotropics, Pantropics Africa, Native **Elev.:** 35–2,000 m **Dept.:** AMA, CAQ, NAR, VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2311. *Lecanella prasinoidea*** (Elenkin) S.Y. Kondr. IF No: 832167 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2312. *Lopezaria isidiza*** (Makhija & Nagarkar) Aptroot & Sipman IF No: 501228 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Pantropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2313. *Lopezaria versicolor*** (Flot.) Kalb & Hafellner IF No: 125762 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,200–3,510 **Dept.:** ANT, CAL, CAU, CUN, HUI, NAR, NSA, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2314. *Parallopsora labriformis*** (Tindal) Kistenich, Tindal & Bendiksy IF No: 824443 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2315. *Parallopsora leucophyllina*** (Nyl.) Kistenich, Tindal & Bendiksy IF No: 824441 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2316. *Phyllopsora breviuscula*** (Nyl.) Müll. Arg. IF No: 400513 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Neotropics, Native **Dept.:** GUA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2317. *Phyllopsora buettneri*** (Müll. Arg.) Zahlbr. IF No: 355899 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes **Distribution:** Pantropics, Native **Elev.:** 350 m **Dept.:** AMA, CUN, HUI



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2318. *Phyllopsora byssidea*** (Nyl. ex Hue) Zahlbr. IF No: 400515 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2319. *Phyllopsora canoumbriana*** (Vain.) Brako IF No: 135666 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2320. *Phyllopsora chlorophaea*** (Müll. Arg.) Zahlbr. IF No: 400516 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2321. *Phyllopsora cinchonarum*** (Fée) Tindal IF No: 534007 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2322. *Phyllopsora confusa*** Swinscow & Krog IF No: 111799 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Pantropics Africa, Native **Dept.:** TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2323. *Phyllopsora corallina*** (Eschw.) Müll. Arg. IF No: 355900 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes **Distribution:** Neotropics, Native **Elev.:** 1,200 m **Dept.:** AMA, VAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2324. *Phyllopsora cuyabensis*** (Malme) Zahlbr. IF No: 411604 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2325. *Phyllopsora furfuracea*** (Pers.) Zahlbr. IF No: 400521 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 1,200–2,100 m **Dept.:** CUN, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2326. *Phyllopsora gossypina*** (Sw.) Kistenich, Tindal, endiksy & S. Ekman IF No: 824408 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2327. *Phyllopsora intermediella*** (Nyl.) Zahlbr. IF No: 400524 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Pantropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2328. *Phyllopsora isidiotya*** (Vain.) Riddle IF No: 400525 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2329. *Phyllopsora lanei*** (Müll. Arg.) Swinscow & Krog IF No: 111801 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2330. *Phyllopsora kalbi*** Brako IF No: 361993 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2331. *Phyllopsora longiuscula*** (Nyl.) Zahlbr. IF No: 400526 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2332. *Phyllopsora mauritana*** (Taylor) Gotht. Schneid. IF No: 476152 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2333. *Phyllopsora microphyllina*** (Tuck.) Swinscow & Krog IF No: 111804 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2334. *Phyllopsora nemoralis*** Tindal & Krog IF No: 466455 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2335. *Phyllopsora nigroclincta*** Tindal IF No: 534014 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2336. *Phyllopsora ochroxantha*** (Nyl.) Zahlbr. IF No: 411607 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2337. *Phyllopsora parvifolia*** (Pers.) Müll. Arg. IF No: 355901 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes **Distribution:** Neotropics, Native **Elev.:** 100–2,900 m **Dept.:** CUN, GUA, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2338. *Phyllopsora pyrromelaena*** (Tuck.) Swinscow & Krog IF No: 111806 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2339. *Phyllopsora pyxinoides*** (Nyl.) Kistenich, Tindal, Bendiksy & S. Ekman IF No: 824409 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2340. *Phyllopsora santensis*** (Tuck.) Swinscow & Krog IF No: 111807 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2341. *Phyllopsora sorallifera*** Tindal IF No: 534015 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2342. *Physclia endococcinea*** Zahlbr. IF No: 400872 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales  
**2343. *Physclia squamulosa*** Tuck. IF No: 400873 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Neotropics, Native **Dept.:** GUA



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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2344. *Ramalina wrightii*** Tuck.  
 IF No: 400874 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Panotropics,  
 Native **Elev.:** 350 **Dept.:** AMA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2345. *Ramalina africana*** (Stein) C.W. Dodge  
 IF No: 343491 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2346. *Ramalina anceps*** Nyl.  
 IF No: 357046 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2347. *Ramalina andina*** V. Marcano & A. Morales  
 IF No: 362275 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2348. *Ramalina asahinae*** W.L. Culb. & C.F. Culb.  
 IF No: 343493 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2349. *Ramalina attenuata*** (Pers.) Tuck. IF No: 542040 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Caribbean **Distribution:** Antilles,  
 Native **Dept.:** SAP



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2350. *Ramalina bogotensis*** Nyl.  
 IF No: 403663 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,300–2,700 m **Dept.:** CUN, HUI



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2351. *Ramalina calcarata*** Krog & Swinscow  
 IF No: 343495 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2352. *Ramalina camptospora*** Nyl. IF No: 403670 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2353. *Ramalina canaguensis*** V. Marcano & A. Morales  
 IF No: 362344 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2354. *Ramalina canaliculata*** Taylor  
 IF No: 403671 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2355. *Ramalina capitata*** (Ach.) Nyl. IF No: 403674 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2356. *Ramalina celestrii*** (Spreng.) Krog & Swinscow  
 IF No: 343497 **Trophic mode/Guild:** symbiotroph/lichenised **Habitat:** Lichen **Biogeographic region:** Andes, Pacific **Distribution:** Panotropics, Native **Elev.:** 250–3,400 m **Dept.:** ANT, BOY, CAL, CAU, CUN, HUI, NAR, QUI, RIS, SAN **Uses:** EU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2357. *Ramalina chiquarensis*** V. Marcano & A. Morales  
 IF No: 362276 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2358. *Ramalina cumanensis*** Bertero ex Nyl. IF No: 403678 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2359. *Ramalina cochlearis*** Zahlbr. IF No: 403680 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,250–3,130 m **Dept.:** ANT, BOY, CAU, CUN, HUI, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2360. *Ramalina complanata*** (Sw.) Ach. IF No: 403682 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics, Native **Elev.:** 250–1,750 m **Dept.:** CAU, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2361. *Ramalina cumanensis*** Fée IF No: 403691 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,000–3,765 m **Dept.:** ANT, BOY, CUN, HUI, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2362. *Ramalina dendroscoides*** Nyl. IF No: 403700 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2363. *Ramalina denticulata*** (Eschw.) Nyl. IF No: 403702 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,200 m **Dept.:** SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2364. *Ramalina dictyota*** C.W. Dodge & Vareschi  
 IF No: 369900 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,880–2,900 m **Dept.:** MAG



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2365. *Ramalina disparata*** Krog & Swinscow  
 IF No: 343499 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2366. *Ramalina fastigiata*** (Pers.) Ach. IF No: 403716 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2367. *Ramalina hypodectodes*** Nyl. IF No: 403740 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,200 m **Dept.:** SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2368. *Ramalina inflata*** (Hook. f. & Taylor) Hook. f. & Taylor  
 IF No: 403745 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2369. *Ramalina interponens*** Nyl. IF No: 403748 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 1,000 m **Dept.:** VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2370. *Ramalina luciae*** Molho, Bodo, W.L. Culb. & C.F. Culb.  
 IF No: 111876 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2371. *Ramalina peruviana*** Ach. IF No: 403795 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics, Native **Elev.:** 2,700 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2372. *Ramalina pollinaria*** (Westr.) Ach. IF No: 356436 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2373. *Ramalina protensa*** (Nyl.) Zahlbr. IF No: 403806 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Colombia, Endemic **Elev.:** 2,100 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2374. *Ramalina pulgarii*** Müll. Arg. IF No: 403808 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2375. *Ramalina pusillula*** Müll. Arg. IF No: 403812 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Africa, Native **Elev.:** 1,600–1,850 m **Dept.:** CAU, CUN, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2376. *Ramalina rectangularis*** Nyl. IF No: 403814 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2377. *Ramalina reducta*** Krog & Swinscow  
 IF No: 343514 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Africa, Native **Elev.:** 2,500–4,325 m **Dept.:** BOY, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2378. *Ramalina rigida*** Ach. IF No: 403819 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 250 m **Dept.:** TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinaeae  
**2379. *Ramalina sintensisii*** Müll. Arg. IF No: 403832 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Caribbean **Distribution:** Antilles, Native **Dept.:** SAP

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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales, Ramalinaceae  
**2380. *Ramalina subfraxinea*** Nyl. IF No: 355854 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 2,750–2,900 m **Dept.:** BOY, CUN, MAG



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales, Ramalinaceae  
**2381. *Ramalina subpollinaria*** Nyl. IF No: 403848 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,600–2,950 m **Dept.:** BOY, CUN, HUI



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales, Ramalinaceae  
**2382. *Ramalina tenuis*** Fr. & Tuck. IF No: 403857 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales, Ramalinaceae  
**2383. *Ramalina tenuissima*** V. Marciano & A. Morales IF No: 362281 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales, Ramalinaceae  
**2384. *Ramalina tovarensis*** V. Marciano & A. Morales IF No: 362282 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales, Ramalinaceae  
**2385. *Ramalina usnea*** (L.) R. Howe IF No: 403866 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes, Caribbean **Distribution:** Neotropics, Native **Elev.:** 150–2,750 m **Dept.:** ATL, CUN, GUV, MAG, PUT



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramalinales, Ramalinaceae  
**2386. *Ramalina vareschii*** V. Marciano & A. Morales IF No: 362630 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramboldiales, Ramboldiaceae  
**2387. *Ramboldia haematites*** (Fée) Kalb, Lumbsch & Elix IF No: 511015 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramboldiales, Ramboldiaceae  
**2388. *Ramboldia heterocarpa*** (Fée) Kalb, Lumbsch & Elix IF No: 511016 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Ramboldiales, Ramboldiaceae  
**2389. *Ramboldia russula*** (Ach.) Kalb, Lumbsch & Elix IF No: 511020 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes, Orinoquia **Distribution:** Subcosmopolitan, Native **Elev.:** 100–2,900 m **Dept.:** BOY, CAU, CUN, HUI, RIS, SAN, VID



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Sphaerophoraceae  
**2390. *Bunodophoron crespoeae*** Soto, M. Prieto & Wedin IF No: 821588 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Sphaerophoraceae  
**2391. *Bunodophoron flabellatum*** (Hue) Soto, M. Prieto & Wedin IF No: 821589 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Sphaerophoraceae  
**2392. *Bunodophoron melanocarpum*** (Sw.) Wedin IF No: 412621 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 1,800–4,510 m **Dept.:** ANT, ARA, BOY, CAL, CAU, CHO, CUN, HUI, MAG, MET, NAR, NSA, QUI, RIS, TOL, VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2393. *Lepraria albicans*** (Th. Fr.) Lendemer & B.P. Hodk. IF No: 564051 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2394. *Lepraria alpina*** (B. de Lesd.) Tretlach & Baruffo IF No: 501303 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2395. *Lepraria arbuscula*** (Nyl.) Lendemer & B.P. Hodk. IF No: 564052 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2396. *Lepraria caesiola*** (B. de Lesd.) J.R. Laundon IF No: 358675 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 4,300–4,500 m **Dept.:** CAL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2397. *Lepraria congesta*** (Nyl.) Lendemer & B.P. Hodk. IF No: 623130 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2398. *Lepraria incana*** (L.) Ach. IF No: 393255 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Cosmopolitan, Native **Elev.:** 1,940 m **Dept.:** TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2399. *Lepraria sipmaniana*** (Kümmerl. & Leuckert) Kukwa IF No: 373890 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 2,200 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2400. *Lepraria subalbicans*** (I.M. Lamb) Lendemer & B.P. Hodk. IF No: 564056 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2401. *Lepraria vouauxii*** (Hue) R.C. Harris IF No: 132223 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Cosmopolitan, Native **Elev.:** 4,300 m **Dept.:** CAL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2402. *Stereocaulon comutum*** Müll. Arg. IF No: 335051 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2403. *Stereocaulon atlanticum*** (I.M. Lamb) I.M. Lamb IF No: 343671 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Africa, Native **Elev.:** 3,100–4,500 m **Dept.:** BOY, CAL, CAU, CUN, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2404. *Stereocaulon claviceps*** Th. Fr. IF No: 405938 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Africa, Native **Elev.:** 3,750–4,300 m **Dept.:** CAL, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2405. *Stereocaulon comutum*** Müll. Arg. IF No: 405952 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2406. *Stereocaulon crambidlocephalum*** I.M. Lamb IF No: 370465 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics Andes, Native **Elev.:** 3,100–4,340 m **Dept.:** ARA, CUN, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2407. *Stereocaulon delisei*** Bory ex Duby IF No: 405960 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 3,750–4,340 m **Dept.:** CAL, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2408. *Stereocaulon didymicum*** I.M. Lamb IF No: 343675 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,875–3,400 m **Dept.:** CAU, CHO, HUI, NAR, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2409. *Stereocaulon glareosum*** (Savicz) H. Magn. IF No: 405978 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 4,000–4,530 m **Dept.:** BOY, CAL, CAU, CUN, MET, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2410. *Stereocaulon globisorum*** Sipman IF No: 103838 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics Andes, Native **Elev.:** 3,750–4,340 m **Dept.:** CAL, CAU, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2411. *Stereocaulon meyeri*** Stein IF No: 406004 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Africa, Native **Elev.:** 3,100–4,300 m **Dept.:** BOY, CAL, CUN, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2412. *Stereocaulon meyeri* var. *farinosum*** (Th. Fr.) I.M. Lamb IF No: 479952



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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2413. *Stereocaulon microcarpum*** Müll. Arg. IF No: 406005 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Tahiti, Native **Elev.:** 1,400–3,500 m **Dept.:** ANT, BOY, CUN, MAG, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2414. *Stereocaulon myrocarpum*** Th. Fr. IF No: 406008 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** America, Asia, Native **Elev.:** 2,800–4,200 m **Dept.:** BOY, CUN, NSA, QUI



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2415. *Stereocaulon novogranatense*** I.M. Lamb IF No: 343686 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics, andes, Native **Elev.:** 1,700–3,750 m **Dept.:** BOY, CAU, CHO, HUI, PUT, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2416. *Stereocaulon obesum*** Th. Fr. IF No: 406013 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 3,950–4,160 m **Dept.:** CAL, CAU, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2417. *Stereocaulon pachycephalum*** Vain. IF No: 406018 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,500–4,200 m **Dept.:** CAL, CAU, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2418. *Stereocaulon pilyrizans*** Nyl. IF No: 406024 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,200–3,500 m **Dept.:** ANT, CAL, CAU, NAR, NSA, RIS, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2419. *Stereocaulon pomiferum*** P.A. Duvign. IF No: 370501 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,530–3,750 m **Dept.:** ANT, BOY, CAU, CUN, MAG, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2420. *Stereocaulon ramulosum*** Rausch. IF No: 357060 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Temperate regions of the South, Native **Elev.:** 2,000–4,500 m **Dept.:** ANT, BOY, CAL, CAS, CAU, CUN, HUI, MAG, MET, NAR, NSA, PUT, QUI, RIS, SAN, TOL, VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2421. *Stereocaulon ramulosum f. tomentosulum*** I.M. Lamb IF No: 350890



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2422. *Stereocaulon ramulosum var. gracillius*** (Müll. Arg.) I.M. Lamb IF No: 354141



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2423. *Stereocaulon strictum*** Th. Fr. IF No: 406049 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,100–4,500 m **Dept.:** ANT, BOY, CAL, CAQ, CAU, CES, CUN, HUI, MAG, MET, NAR, NSA, PUT, RIS, SAN, TOL, VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2424. *Stereocaulon strictum var. compressum*** (Nyl.) I.M. Lamb IF No: 354104 **Habitat:** On soil | Lichen **Distribution:** Panotropics **Dept.:** ANT, BOY, CAL, CAU, CUN, HUI, MAG, MET, NAR, NSA, RIS, TOL, VAC **Uses:** ME



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2425. *Stereocaulon tomentosum*** Fr. IF No: 406056 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Holarctic region, Neotropics, Native **Elev.:** 2,300–4,400 m **Dept.:** BOY, CAL, CAU, CES, CUN, HUI, MET, NSA, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2426. *Stereocaulon tomentosum var. alpestris*** Flot. IF No: 444294



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2427. *Stereocaulon vesuvianum*** Pers. IF No: 406065 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Cosmopolitan, Native **Elev.:** 3,050–5,000 m **Dept.:** ANT, ARA, BOY, CAL, CAU, CUN, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2428. *Stereocaulon vesuvianum var. efflorescens*** (Räsänen) I.M. Lamb IF No: 480017



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Stereocaulaceae  
**2429. *Stereocaulon vesuvianum var. nodulosum*** (Wallr.) I.M. Lamb IF No: 354345



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Tephromelataceae  
**2430. *Calvitimela aglaea*** (Sommerf.) Hafellner IF No: 483640 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 3,870–4,250 m **Dept.:** BOY, MET



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Tephromelataceae  
**2431. *Tephromela americana*** (Fée) Kalb IF No: 107597 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecanorales, Tephromelataceae  
**2432. *Tephromela atra*** (Huds.) Hafellner IF No: 110392 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Cosmopolitan, Native **Elev.:** 1,400–3,730 m **Dept.:** ANT, BOY, CAU, CUN, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecideales, Lecideaceae  
**2433. *Lecidea lactea*** Flörke ex Schaer. IF No: 391162 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Cosmopolitan, Native **Elev.:** 2,600 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecideales, Lecideaceae  
**2434. *Lecidea lapicida*** (Ach.) Ach. IF No: 391184 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecideales, Lecideaceae  
**2435. *Lecidea lithophila*** (Ach.) Ach. IF No: 391295 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecideales, Lecideaceae  
**2436. *Lecidea mayoralii*** Lindau IF No: 613094 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecideales, Lecideaceae  
**2437. *Lecidea mutabilis*** Fée IF No: 391554 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 2,100–2,200 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecideales, Lecideaceae  
**2438. *Lecidea plana*** (J. Lahm) Nyl. IF No: 391896 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecideales, Lecideaceae  
**2439. *Lecidea promiscens*** Nyl. IF No: 392006 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecideales, Lecideaceae  
**2440. *Lecidea sorridula*** Nyl. IF No: 392304 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecideales, Lecideaceae  
**2441. *Lecidea subsimilis*** Nyl. IF No: 392558 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Endemic



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecideales, Lecideaceae  
**2442. *Lecidea tessellata*** Flörke IF No: 392664 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecideales, Lecideaceae  
**2443. *Porpidia flavicunda*** (Ach.) Gowan IF No: 135821 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Lecideales, Lecideaceae  
**2444. *Porpidia macrocarpa*** (DC.) Hertel & A.J. Schwab IF No: 107570 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Cosmopolitan, Native **Elev.:** 2,600 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Leprocaulales, Leprocaulaceae  
**2445. *Leprocaulon microscopium*** (Vill.) Gams ex D. Hawksw. IF No: 342453 **Trophic mode/Guild:** symbiotroph/lichenised

CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Coccocarpiaceae  
**2446. *Coccocarpla dissecta*** Swinscow & Krog IF No: 341787 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 2,600 m **Dept.:** BOY, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Coccocarpiaceae  
**2447. *Coccocarpla dominicensis*** Vain. IF No: 383075 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes **Distribution:** Pan tropics, Native **Elev.:** 240–3,000 m **Dept.:** AMA, ANT, CAL, CAQ, CAU, HUI, NAR, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Coccocarpiaceae  
**2448. *Coccocarpla ephiphylia*** (Fée) Kremp. IF No: 123300 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Neotropics, Native **Elev.:** 250–300 m **Dept.:** AMA, CAQ, GUA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Coccocarpiaceae  
**2449. *Coccocarpla erythroxyli*** (Spreng.) Swinscow & Krog IF No: 341788 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes, Pacific **Distribution:** Cosmopolitan, Native **Elev.:** 240–3,300 m **Dept.:** AMA, ANT, BOY, CAL, CAU, CHO, CUN, GUA, HUI, QUI, RIS, SAN, TOL, VAL, VID



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Coccocarpiaceae  
**2450. *Coccocarpla filiformis*** Arv. IF No: 108775 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Neotropics, Madagascar, Native **Elev.:** 168–1,900 m **Dept.:** CAL, CHO, RIS, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Coccocarpiaceae  
**2451. *Coccocarpla glauca*** Kremp. IF No: 383083 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 2,240 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Coccocarpiaceae  
**2452. *Coccocarpla imbricascens*** Nyl. IF No: 383085 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Pacific **Distribution:** Neotropics, Native **Elev.:** 35–240 m **Dept.:** AMA, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Coccocarpiaceae  
**2453. *Coccocarpla microphyllina*** Lücking & Aptroot IF No: 638587 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,600–3,000 m **Dept.:** RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Coccocarpiaceae  
**2454. *Coccocarpla palmicola*** (Spreng.) Arv. & D.J. Galloway IF No: 341791 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes, Caribbean, Pacific **Distribution:** Pan tropics, Native **Elev.:** 200–3,200 m **Dept.:** AMA, BOY, CAL, CAU, CHO, CUN, HUI, MAG, MET, NAR, RIS, SAP, SAN, VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Coccocarpiaceae  
**2455. *Coccocarpla pelita*** (Ach.) Müll. Arg. IF No: 383092 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Pan tropics, Native **Elev.:** 1,000–2,740 m **Dept.:** ANT, CAL, CAU, CHO, CUN, HUI, NAR, RIS, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Coccocarpiaceae  
**2456. *Coccocarpla prostrata*** Lücking, Aptroot & Sipman IF No: 529582 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,000 m **Dept.:** CAL, CHO, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Coccocarpiaceae  
**2457. *Coccocarpla stellata*** Tuck. IF No: 383097 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes **Distribution:** Neotropics, Pan tropics, Africa, Native **Elev.:** 240–2,600 m **Dept.:** AMA, ANT, BOY, CAQ, HUI, RIS, VAL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemaataceae  
**2458. *Collema tenuissima*** Müll. Arg. IF No: 383099 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Neotropics, Native **Elev.:** 300 m **Dept.:** AMA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemaataceae  
**2459. *Collema turfuraceum*** (Schaer.) Du Rietz IF No: 383275 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemaataceae  
**2460. *Collema glaucophthalmum*** Nyl. IF No: 383287 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Temperate regions of the South, Native **Elev.:** 1,100–3,500 m **Dept.:** CAL, CUN, HUI, NSA, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemaataceae  
**2461. *Collema implicatum*** Nyl. IF No: 383304 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemaataceae  
**2462. *Collema leptaleum*** Tuck. IF No: 356988 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemaataceae  
**2463. *Collema nigrescens*** (Huds.) DC. IF No: 383370 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemaataceae  
**2464. *Collema pulcellum*** Ach. IF No: 531595 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemaataceae  
**2465. *Collema stellatum*** Tuck. IF No: 383451 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemaataceae  
**2466. *Collema subconveniens*** Nyl. IF No: 383457 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemaataceae  
**2467. *Collema texanum*** Tuck. IF No: 383477 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** America, East Asia, Native **Elev.:** 770 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemaataceae  
**2468. *Collema texanum var. stellatum*** (Tuck.) Degel. IF No: 350676



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemaataceae  
**2469. *Enchylium conglomeratum*** (Hoffm.) Otálora, P.M. Jørg. & Wedin IF No: 805675 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemaataceae  
**2470. *Lethagrium cristatum*** (L.) Otálora, P.M. Jørg. & Wedin IF No: 805684 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemaataceae  
**2471. *Leptogium aciculare*** P.M. Jørg. IF No: 342458 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1980 m **Dept.:** RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemaataceae  
**2472. *Leptogium andinum*** P.M. Jørg. IF No: 342460 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Andes, Costa Rica, Native **Elev.:** 2,000–3,950 m **Dept.:** ANT, BOY, CAL, CAU, CUN, NAR, RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemaataceae  
**2473. *Leptogium austroamericanum*** (Malm) C.W. Dodge IF No: 367830 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Africa, Native **Elev.:** 1,580 m **Dept.:** TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemaataceae  
**2474. *Leptogium azureum*** (Sw.) Mont. IF No: 393327 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Cosmopolitan, Native **Elev.:** 1,200–4,250 m **Dept.:** ANT, ARA, BOY, CAL, CAU, CHO, CUN, NAR, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemaataceae  
**2475. *Leptogium brebissonii*** Mont. IF No: 393334 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemaataceae  
**2476. *Leptogium britannicum*** P.M. Jørg. & P. James IF No: 109033 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemaataceae  
**2477. *Leptogium bullatum*** (Sw.) Mont. IF No: 393338 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemaataceae  
**2478. *Leptogium burgessii*** (L.) Mont. IF No: 414711 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 2,000–4,325 m **Dept.:** BOY, CAL, CAU, CUN, HUI, MAG, NAR, RIS, TOL



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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2479. *Leptogium caperatum*** P.M. Jørg. & A.K. Wallace IF No: 442814 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Andes, Native **Dept.:** SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2480. *Leptogium chloromelum*** (Ach.) Nyl. IF No: 393351 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 1,000–2,450 m **Dept.:** ANT, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2481. *Leptogium cochleatum*** (Dicks.) P.M. Jørg. & P. James IF No: 109034 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 1,800–2,500 m **Dept.:** ANT, MAG, MET, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2482. *Leptogium coralloideum*** (Meyen & Flot.) Vain. IF No: 393356 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 1,000–3,975 m **Dept.:** ANT, BOY, CAL, CAU, CUN, NAR, RIS, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2483. *Leptogium corticola*** (Taylor) Tuck. IF No: 367834 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 2,500 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2484. *Leptogium cyanescens*** (Ach.) Körb. IF No: 393368 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Cosmopolitan, Native **Elev.:** 500–2,940 m **Dept.:** BOY, CUN, HUI, MAG, MET, NAR, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2485. *Leptogium denticulatum*** Nyl. IF No: 569382 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,300 m **Dept.:** CAU, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2486. *Leptogium diaplanum*** (Sw.) Mont. IF No: 393378 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,300–2,700 m **Dept.:** ANT, CAU, CUN, HUI, NAR, RIS, SAN, VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2487. *Leptogium dilatatum*** (A. Massal.) Zahlbr. IF No: 393380 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** South America, Africa, Native **Elev.:** 1,500–3,975 m **Dept.:** MET, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2488. *Leptogium erodermoides*** Arv. & P.M. Jørg. IF No: 442815 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2489. *Leptogium foveolatum*** Nyl. IF No: 393389 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2490. *Leptogium inversum*** P.M. Jørg. & A.K. Wallace IF No: 442816 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 4,070 m **Dept.:** CUN, MET **Conservation:** VU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2491. *Leptogium isidocellum*** (Riddle) Sierk IF No: 345249 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Neotropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2492. *Leptogium javanicum*** Mont. IF No: 393406 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2493. *Leptogium juressianum*** Tav. IF No: 367838 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Africa, Atlantic Europe, Native **Elev.:** 3,300–3,500 m **Dept.:** CAU, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2494. *Leptogium laceroides*** B. de Lesd. IF No: 367839 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 1,900–3,975 m **Dept.:** CAL, CAU, CUN, NAR, RIS, TOL, VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2495. *Leptogium leptophyllum*** (Meyen & Flot.) Zahlbr. IF No: 393413 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Caribbean **Distribution:** Neotropics, Native **Dept.:** SAP



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2496. *Leptogium malmel*** P.M. Jørg. IF No: 342468 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2497. *Leptogium mandoni*** P.M. Jørg. IF No: 342469 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Andes, Native **Elev.:** 1,000– 4,325 m **Dept.:** BOY, CAL, CUN, HUI, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2498. *Leptogium marginellum*** (Sw.) Gray IF No: 393420 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 710–1,500 m **Dept.:** ANT, CAU, CUN, RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2499. *Leptogium menziesii*** (Sm.) Mont. IF No: 393425 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2500. *Leptogium milligranum*** Sierk IF No: 345252



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2501. *Leptogium moluccanum*** (Pers.) Vain. IF No: 393434 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Pan tropics, Native **Elev.:** 0–300 m **Dept.:** CAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2502. *Leptogium papillosum*** (B. de Lesd.) C.W. Dodge IF No: 411126 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,500–3,500 m **Dept.:** CAL, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2503. *Leptogium phyllocarpum*** (Pers.) Mont. IF No: 121129 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes **Distribution:** Pan tropics, Native **Elev.:** 1,200–3,750 m **Dept.:** ANT, BOY, CAL, CAU, CUN, GUA, HUI, NAR, PUT, RIS, SAN, TOL, VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2504. *Leptogium phyllocarpum var. campestre*** Malmé IF No: 478151



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2505. *Leptogium phyllocarpum var. macrocarpum*** Nyl. IF No: 454690



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2506. *Leptogium pseudoliveaceum*** Lücking IF No: 558064 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2507. *Leptogium resupinans*** Nyl. IF No: 393476 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Africa, Native **Elev.:** 2,910–4,285 m **Dept.:** ARA, CAL, CAU, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2508. *Leptogium reticulatum*** Mont. IF No: 393477 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, Native **Elev.:** 35–600 m **Dept.:** MET, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2509. *Leptogium rugosum*** Sierk IF No: 345255 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2510. *Leptogium saturninum*** (Dicks.) Nyl. IF No: 414986 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
**2511. *Leptogium sessile*** Vain. IF No: 393491 **Trophic mode/Guild:** symbiotroph/lichenised

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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
 2512. *Leptogium tremelloides* (Ach.) Gray  
 IF No: 356391 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Amazonia, Andes  
**Distribution:** Pantropics, Native  
**Elev.:** 400–2,600 m **Dept.:** CUN, GUA, MET, SAN, VAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
 2513. *Leptogium tuckerianii* C.W. Dodge  
 IF No: 411132 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
 2514. *Leptogium ulvaceum* (Pers.) Vain. IF No: 393513 Trophic mode/Guild: symbiotroph/lichenised  
**Distribution:** Pantropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
 2515. *Leptogium velutinum* P.M. Jørg. IF No: 442821 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Pantropics  
**Elev.:** 3,120 m **Dept.:** RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
 2516. *Leptogium vesiculosum* (Sw.) Malm IF No: 393517 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Pantropics  
**Elev.:** 1,200–3,000 m **Dept.:** ANT, BOY, CAU, CUN, HUI, NAR, RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Collemales  
 2517. *Rostania callibotrys* (Tuck.) Otálora, P.M. Jørg. & Wedin IF No: 805695 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
 2518. *Erloerma barbellatum* P.M. Jørg. & Arv. IF No: 478120 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Pantropics  
**Elev.:** 3,300–3,750 m **Dept.:** CAU, CUN, NAR, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
 2519. *Erloerma cyathophorum* P.M. Jørg. & Arv. IF No: 372445 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
 2520. *Erloerma divinum* P.M. Jørg. & Arv. IF No: 372447 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Neotropics, Pantropics  
**Elev.:** 2,500–3,540 m **Dept.:** ARA, CUN, MAG



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
 2521. *Erloerma glabrum* P.M. Jørg. IF No: 475525 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
 2522. *Erloerma gloriosum* P.M. Jørg. & Arv. IF No: 475526 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Pantropics  
**Elev.:** 2,300–3,400 m **Dept.:** ANT, CUN, HUI, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
 2523. *Erloerma granulosum* P.M. Jørg. & Arv. IF No: 478121 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Neotropics, Pantropics  
**Elev.:** 1,750–3,750 m **Dept.:** ANT, CAL, CAU, CUN, MAG



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
 2524. *Erloerma leytandii* (Taylor) Müll. Arg. IF No: 384906 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Pantropics, Native  
**Elev.:** 2,050 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
 2525. *Erloerma marcei* (P.M. Jørg. & Arv.) IF No: 478119 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Neotropics, Pantropics  
**Elev.:** 3,000–3,200 m **Dept.:** CAU, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
 2526. *Erloerma mollissimum* (Samp.) Du Rietz IF No: 384910 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Neotropics, Pantropics  
**Elev.:** 1,750–2,550 m **Dept.:** ANT, CAU, NAR, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
 2527. *Erloerma nelsonii* P.M. Jørg. & Arv. IF No: 374839 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Pantropics  
**Elev.:** 1,900–3,400 m **Dept.:** CUN, HUI, NAR, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
 2528. *Erloerma papyraceum* P.M. Jørg. & Arv. IF No: 372449 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Pantropics  
**Elev.:** 2,970–3,200 m **Dept.:** CUN, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
 2529. *Erloerma peruvianum* P.M. Jørg. & Arv. IF No: 372450 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
 2530. *Erloerma rycnidiferum* P.M. Jørg. & Arv. IF No: 372452 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Pantropics  
**Elev.:** 3,200–3,500 m **Dept.:** CAU, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
 2531. *Erloerma sinuatum* P.M. Jørg. & Arv. IF No: 372453 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
 2532. *Erloerma sorediatum* D.J. Galloway & P.M. Jørg. IF No: 341939 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Pantropics, Native  
**Elev.:** 2,550–3,200 m **Dept.:** ANT, CUN, NAR, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
 2533. *Erloerma verruculosum* (Vain.) Zahlbr. IF No: 384919 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Neotropics, Native  
**Elev.:** 1,750–3,370 m **Dept.:** CAU, CUN, HUI, RIS, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
 2534. *Erloerma wrightii* Tuck. IF No: 384920 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Neotropics, Native  
**Elev.:** 1,900 m **Dept.:** SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
 2535. *Leioerma sorediatum* D.J. Galloway & P.M. Jørg. IF No: 130639 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Pantropics, Native  
**Elev.:** 2,300 m **Dept.:** CAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
 2536. *Lepidocolema brisbanense* (C. Knight) P.M. Jørg. IF No: 807994 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
 2537. *Lepidocolema marianum* (Fr.) P.M. Jørg. IF No: 808004 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
 2538. *Leptodilum dendricum* (Nyl.) Nyl. IF No: 393301 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
 2539. *Nebularia incrassata* (P.M. Jørg.) P.M. Jørg. IF No: 808013



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
 2540. *Pannaria andina* P.M. Jørg. & Sipman IF No: 487736 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Neotropics, Native  
**Elev.:** 1,700–3,650 m **Dept.:** HUI, NAR, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
 2541. *Pannaria conopsea* (Ach.) Bory IF No: 396875 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Cosmopolitan, Native  
**Elev.:** 2,300–3,500 m **Dept.:** BOY, CAL, CAU, CUN, NAR, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
 2542. *Pannaria malmi* C.W. Dodge IF No: 411316 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Neotropics, Native  
**Elev.:** 2,300 m **Dept.:** CAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
 2543. *Pannaria mosenii* C.W. Dodge IF No: 411317 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
 2544. *Pannaria rubiginosa* (Ach.) Delise IF No: 396988 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Cosmopolitan, Native  
**Elev.:** 1,800–4,325 m **Dept.:** ANT, BOY, CAL, CAU, CUN, MAG, MET, NAR, RIS, TOL



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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
**2545. *Pannaria tavaresii*** P.M. Jørg. IF No: 342754 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
**2546. *Parmellella angustiloba*** P.M. Jørg. & Arv. IF No: 367098 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
**2547. *Parmellella miradorensis*** Vain. IF No: 398547 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,750–3,750 m **Dept.:** ANT, CAU, CUN, NAR, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
**2548. *Parmellella nigrocincta*** (Mont.) Müll. Arg. IF No: 398551 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes **Distribution:** Temperate regions of the South, Native **Elev.:** 200–4,130 m **Dept.:** BOY, CAL, CAU, CUN, GUA, RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
**2549. *Parmellella pannosa*** (Sw.) Müll. Arg. IF No: 398554 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 1,750–2,500 m **Dept.:** ANT, CAU, CUN, HUI, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
**2550. *Parmellella thriptophylla*** (Ach.) Müll. Arg. IF No: 635714 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
**2551. *Parmellella thysanota*** (Stirt.) Zahlbr. IF No: 398568 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
**2552. *Psoroma hypnorum*** (Vahl) Gray IF No: 402777 **Biogeographic region:** Andes **Distribution:** Cosmopolitan, Native **Elev.:** 3,700–4,550 m **Dept.:** CAL, CUN, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Pannariaceae  
**2553. *Psoroma paleaceum*** (Fr.) Tindal & Tønsberg IF No: 819748 **Biogeographic region:** Andes **Distribution:** Temperate regions, Native **Elev.:** 4,150–4,175 m **Dept.:** RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
**2554. *Crocodyla arvidssonii*** (D.J. Galloway) D.J. Galloway & Elix IF No: 550883 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
**2555. *Crocodyla aurata*** (Ach.) Link IF No: 383764 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
**2556. *Crocodyla clathrata*** (De Not.) Trevis. IF No: 383767 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
**2557. *Emmanuelia cuprea*** (Müll. Arg.) Lücking, Moncada & Ant. Simon IF No: 834646 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
**2558. *Emmanuelia excosa*** (Müll. Arg.) Lücking, Moncada & Ant. Simon IF No: 834649 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
**2559. *Emmanuelia patinifera*** (Taylor) Lücking, M. Cáceres & Ant. Simon IF No: 834653 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
**2560. *Emmanuelia tenuis*** (Vain.) Lücking, Moncada & Gumboski IF No: 834655 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
**2561. *Lobarbella angustata*** Moncada & Lücking IF No: 801881 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 600–800 m **Dept.:** CAS **Conservation:** VU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
**2562. *Lobarbella auriculata*** Moncada & Lücking IF No: 801882 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,800–2,850 m **Dept.:** BOY, CUN, NSA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
**2563. *Lobarbella botryoides*** (Yoshim. & Arv.) Moncada & Lücking IF No: 548105 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** North Andes, Native **Elev.:** 3,200–3,500 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
**2564. *Lobarbella crenulata*** (Hook.) Yoshim. IF No: 375218 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,800–3,670 m **Dept.:** CAU, CUN, MAG, NSA, RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
**2565. *Lobarbella scorticata*** Moncada & Lücking IF No: 801884 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 3,000 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
**2566. *Lobarbella exornata*** (Zahlbr.) Yoshim. IF No: 375238 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,800–3,500 m **Dept.:** BOY, CAU, NAR, NSA, QUI



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
**2567. *Lobarbella flavomedullosa*** Moncada, Betanc. & Lücking IF No: 801885 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,300–3,000 m **Dept.:** BOY, CUN **Conservation:** VU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
**2568. *Lobarbella isidiata*** Moncada & Lücking IF No: 801886 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,800–2,850 m **Dept.:** BOY **Conservation:** LC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
**2569. *Lobarbella nashii*** Moncada & Lücking IF No: 801887 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,800 m **Dept.:** NSA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
**2570. *Lobarbella olivascens*** Moncada & Lücking IF No: 801888 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,300–3,600 m **Dept.:** CUN, NSA, RIS **Conservation:** LC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
**2571. *Lobarbella pallida*** (Hook.) Moncada & Lücking IF No: 548106 **Trophic mode/Guild:** symbiotroph/lichenised **Habitat:** Symbiotroph-Lichenised. Epiphytic on branches, stems and trunks of shrubs and trees in montane to subandine forests and paramo **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,800–3,900 m **Dept.:** CAL, CAU, CUN, NAR, NSA, RIS **Uses:** EU, ME



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
**2572. *Lobarbella pallidocrenulata*** Moncada & Lücking IF No: 801889 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,800–3,700 m **Dept.:** CAU, CUN, NSA, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
**2573. *Lobarbella papillifera*** Moncada & Lücking IF No: 801890 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
**2574. *Lobarbella parmelloides*** Moncada & Lücking IF No: 801891 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 3,000–3,400 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
**2575. *Lobarbella peltata*** Moncada & Lücking IF No: 801892 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
**2576. *Lobarbella pseudocrenulata*** Moncada & Lücking IF No: 801893 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 600–800 m **Dept.:** CAS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
**2577. *Lobarbella reticulata*** Moncada & Lücking IF No: 801894 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,900–3,700 m **Dept.:** CUN

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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2578. *Lobarbella rugulosa* Moncada & Lücking IF No: 801895 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2579. *Lobarbella slomanii* Moncada, Betanc. & Lücking IF No: 519082 **Trophic mode/Guild:** symbiotrophy/lichenised  
**Habitat:** On stems and trunks of small *Diplostephium revolutum* | Lichen **Biogeographic region:** Andes **Distribution:** Pantropics, Endemic **Elev.:** 3,600–3,725 m **Dept.:** CAU, CUN **Uses:** EU **Conservation:** LC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2580. *Lobarbella sorcellana* Moncada, Betanc. & Lücking IF No: 801896 **Trophic mode/Guild:** symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 3,500–3,800 m **Dept.:** BOY, CUN **Conservation:** LC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2581. *Lobarbella stenroosiae* Moncada & Lücking IF No: 801898 **Trophic mode/Guild:** symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,800–2,850 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2582. *Lobarbella subcorallophora* Moncada & Lücking IF No: 801899 **Trophic mode/Guild:** symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,800–3,600 m **Dept.:** NSA **Conservation:** LC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2583. *Lobarbella subcrenulata* Moncada & Lücking IF No: 801900 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2584. *Lobarbella subexornata* (Yoshim.) Yoshim. IF No: 375240 **Trophic mode/Guild:** symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,000–3,500 m **Dept.:** CAL, NAR, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2585. *Nephroma tropicum* (Müll. Arg.) Zahlbr. IF No: 395885 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2586. *Peltigera austroamericana* Zahlbr. IF No: 399282 **Trophic mode/Guild:** symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,000–3,650 m **Dept.:** ANT, BOY, CAU, CUN, MET



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2587. *Peltigera canina* (L.) Willd. IF No: 399287 **Trophic mode/Guild:** symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Cosmopolitan, Native **Elev.:** 3,200–3,900 m **Dept.:** BOY, CAL, CAU, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2588. *Peltigera collina* (Ach.) Schrad. IF No: 399293 **Trophic mode/Guild:** symbiotrophy/lichenised  
**Distribution:** Subcosmopolitan, Native **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2589. *Peltigera didactyla* (With.) J.R. Laundon IF No: 106335 **Trophic mode/Guild:** symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Cosmopolitan, Native **Elev.:** 1,900–4,680 m **Dept.:** ARA, BOY, CAL, CAU, CUN, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2590. *Peltigera dollichorhiza* (Nyl.) Nyl. IF No: 635933 **Trophic mode/Guild:** symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Pantropics, Temperate regions of the South, Native **Elev.:** 1,000–3,750 m **Dept.:** ANT, ARA, BOY, CAU, CUN, HUI, NAR, RIS, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2591. *Peltigera extenuata* (Nyl. ex Vain.) Løjka IF No: 399305 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2592. *Peltigera fibrilloides* (Gyeln.) Vitik. IF No: 446787 **Trophic mode/Guild:** symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,600 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2593. *Peltigera hymenina* (Ach.) Delise IF No: 399313 **Trophic mode/Guild:** symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2594. *Peltigera laciniata* (G. Merr.) Gyeln. IF No: 368947 **Trophic mode/Guild:** symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,400–3,300 m **Dept.:** ANT, CAU, CUN, MAG, NAR, PUT, RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2595. *Peltigera leptoderma* Nyl. IF No: 399317 **Trophic mode/Guild:** symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Native **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2596. *Peltigera mexicana* Gyeln. IF No: 399328 **Trophic mode/Guild:** symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Native **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2597. *Peltigera microdactyla* Nyl. IF No: 399329 **Trophic mode/Guild:** symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Pantropics, Andes, Native **Elev.:** 3,300 m **Dept.:** CUN, QUI



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2598. *Peltigera neopolydactyla* (Gyeln.) Gyeln. IF No: 368953 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2599. *Peltigera polydactylon* (Neck.) Hoffm. IF No: 399347 **Trophic mode/Guild:** symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Cosmopolitan, Native **Elev.:** 2,500–3,800 m **Dept.:** CUN, NAR, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2600. *Peltigera pulverulenta* (Taylor) Nyl. IF No: 399351 **Trophic mode/Guild:** symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,750–4,400 m **Dept.:** ANT, ARA, BOY, CAL, CAU, CUN, HUI, MET, NAR, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2601. *Peltigera rufescens* (Weiss) Humb. IF No: 399354 **Trophic mode/Guild:** symbiotrophy/lichenised  
**Habitat:** On dunes and on well-drained soils | Lichen **Biogeographic region:** Andes **Distribution:** Global Distribution, Holarctic region, Native **Elev.:** 2,600–3,700 m **Dept.:** RIS, ARA, CAL, CUN, MET, TOL **Uses:** ME



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2602. *Peltigera soreclifans* Vitik. IF No: 362141 **Trophic mode/Guild:** symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 3,200–3,750 m **Dept.:** BOY, CAL, CAU, CUN, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2603. *Peltigera spurcella* Vain. IF No: 399361 **Trophic mode/Guild:** symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 3,100–3,750 m **Dept.:** BOY, CAU, CUN, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2604. *Pseudocyphellaria citrina* Müll. Arg. IF No: 399373 **Trophic mode/Guild:** symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 2,000–4,150 m **Dept.:** CAU, CUN, RIS, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2605. *Peltigera vainioi* Gyeln. IF No: 399375 **Trophic mode/Guild:** symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,000–3,200 m **Dept.:** CUN, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2606. *Podostictina encoensis* (R. Sant.) D.J. Galloway & de Lange IF No: 553232 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2607. *Pseudocyphellaria citrina* (Pers.) Lücking, Moncada & S. Stenroos IF No: 823161 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2608. *Pseudocyphellaria dozvana* (Mont. & Bosch) D.J. Galloway IF No: 104671 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2609. *Pseudocyphellaria hawaiiensis* H. Magn. IF No: 369700 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2610. *Pseudocyphellaria insculpta* (Stizenb.) D.J. Galloway IF No: 104674 **Trophic mode/Guild:** symbiotrophy/lichenised



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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2611. *Pseudocyphellaria intricata* (Delise) Vain. IF No: 402452 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 3,190–3,280 m **Dept.:** CAU, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2612. *Pseudocyphellaria sandwicensis* (Zahlbr.) Moncada & Lücking IF No: 822288 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2613. *Pseudocyphellaria xanthosticta* (Pers.) Moncada & Lücking IF No: 811533 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2614. *Solorina simensis* Hochst. ex Flot. IF No: 405279 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2615. *Solorina spongiosa* (Ach.) Anzi IF No: 405281 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 3,675 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2616. *Sticta ambavillaria* (Bory) Ach. IF No: 406081 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2617. *Sticta andensis* (Nyl.) Trevis. IF No: 406085 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,900–4,400 m **Dept.:** CAL, CUN, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2618. *Sticta andina* Moncada, Lücking & Sérus. IF No: 836871



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2619. *Sticta andreae* (Müll. Arg.) Zahlbr. IF No: 406086 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 1,300–3,600 m **Dept.:** CAU, MET, NAR **Conservation:** LC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2620. *Sticta arachnoiduliginosa* Moncada & Lücking IF No: 801843 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Andes **Elev.:** 2,600–3,800 m **Dept.:** BOY, CAL, CAU, CUN, HUI, NSA, RIS, TOL **Conservation:** LC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2621. *Sticta arbuscula* Moncada & Lücking IF No: 801844 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics **Elev.:** 3,000–3,600 m **Dept.:** ANT, CAU, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2622. *Sticta arbusculotomentosa* Moncada & Betanc. IF No: 801843 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,600–3,600 m **Dept.:** ANT, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2623. *Sticta atroandensis* Moncada & Lücking IF No: 804394 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 3,610–3,800 m **Dept.:** BOY, CUN, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2624. *Sticta beauvoisii* Delise IF No: 406099 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2625. *Sticta boliviana* Nyl. IF No: 406105 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2626. *Sticta brevior* Moncada & Lücking IF No: 804395 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,300–3,600 m **Dept.:** CAU, CUN, HUI



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2627. *Sticta calliginosa* D.J. Galloway IF No: 108547 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2628. *Sticta canariensis* (Bory) Bory ex Delise IF No: 406113 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Holarctic region, Native **Elev.:** 3,000 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2629. *Sticta cillata* Taylor IF No: 406124 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2630. *Sticta cornetella* Ach. IF No: 406132 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Neotropics, Native **Dept.:** GUA, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2631. *Sticta cornetella* Vain. IF No: 406133 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2632. *Sticta cordillerana* Gyeln. IF No: 370530 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 1,300 m **Dept.:** TOL **Conservation:** LC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2633. *Sticta damicornis* (Sw.) Ach. IF No: 406148 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2634. *Sticta dilatata* (Nyl.) Vain. IF No: 406159 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2635. *Sticta fillinella* (Nyl.) Vain. IF No: 406192 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Neotropics, Native **Elev.:** 2,000–3,300 m **Dept.:** CHO, MAG, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2636. *Sticta fuliginoides* Magain & Sérus. IF No: 813824 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2637. *Sticta fuliginosa* (Dicks.) Ach. IF No: 122533 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 1,600–4,400 m **Dept.:** ANT, ARA, BOY, CAL, CAU, CUN, NAR, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2638. *Sticta fuscotomentosa* Moncada, Coca & Lücking IF No: 551488 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2639. *Sticta gallowayana* Moncada & Lücking IF No: 550805 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Central and Eastern Cordilleras, Endemic **Elev.:** 2,100–4,285 m **Dept.:** ARA, BOY, CAL, CUN, RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2640. *Sticta globulifuliginosa* Moncada, A. Suárez & Lücking IF No: 550806 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,400–4,000 m **Dept.:** BOY, CAL, CAU, CUN, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2641. *Sticta granatensis* Nyl. IF No: 406222 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,125–3,750 m **Dept.:** CAL, CAU, CUN, MAG, RIS, TOL **Conservation:** LC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2642. *Sticta gyalocarpa* (Nyl.) Trevis. IF No: 406228 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,750–4,330 m **Dept.:** BOY, CAL, CAU, CUN, HUI, NAR, RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
 2643. *Sticta hirsutifuliginosa* Moncada, A. Suárez & Lücking IF No: 636215 **Trophic mode/Guild:** symbiotroph/lichenised **Conservation:** LC

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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2644. *Sticta hirta* (Nyl.) Trevis.  
IF No: 406235 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2645. *Sticta humboldtii* Hook.  
IF No: 406243 Trophic mode/ Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics  
Andes, Native **Elev.:** 2,300–3,975 m **Dept.:** CAL, CAS, CAU, CUN, HUI, MET, NAR, RIS, TOL, VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2646. *Sticta impressula* (Nyl.) Zahlbr. IF No: 406247 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, LC  
Native **Elev.:** 2,000–3,975 m **Dept.:** CUN, RIS **Conservation:** LC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2647. *Sticta isidokunthii* Moncada & Lücking IF No: 801845 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics  
Andes, Native **Elev.:** 2,490–3,800 m **Dept.:** BOY, CUN, NSA, TOL **Conservation:** LC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2648. *Sticta jaguirreana* Moncada, A. Suárez & Lücking IF No: 550808 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Central and Eastern Cordilleras, Endemic **Elev.:** 2,400–3,000 m **Dept.:** BOY, CUN, QUI



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2649. *Sticta kunthii* Hook. IF No: 406257 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,600–2,900 m **Dept.:** ANT, CUN, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2650. *Sticta lacinata* Ach. IF No: 406259 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes **Distribution:** Neotropics, Amazonia, Andes **Elev.:** 1,800–3,100 m **Dept.:** CAU, CUN, GUA, NAR, QUI, RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2651. *Sticta lacinosa* D.J. Galloway IF No: 634834 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2652. *Sticta laevis* (Nyl.) Vain. IF No: 406264 Trophic mode/ Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,800 m **Dept.:** CUN **Conservation:** LC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2653. *Sticta lenormandii* (Nyl.) Kremp. IF No: 406269 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,200–3,300 m **Dept.:** CAU, CUN, HUI **Conservation:** LC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2654. *Sticta leucobolopharis* Mont. IF No: 406270 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2655. *Sticta limbata* (Sm.) Ach. IF No: 406275 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 1,700–3,200 m **Dept.:** BOY, CUN, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2656. *Sticta lineariloba* (Mont.) Nyl. IF No: 406276 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2657. *Sticta lobarioides* Moncada & Coca IF No: 804484 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2658. *Sticta lumbschiana* Moncada & Lücking IF No: 804396 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,100–3,750 m **Dept.:** ANT, CUN, NAR, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2659. *Sticta macrocephellata* Moncada & Coca IF No: 804397 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,200–3,400 m **Dept.:** CUN, MAG, MET **Conservation:** LC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2660. *Sticta macrofuliginosa* Moncada & Lücking IF No: 550809 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Central and Eastern Cordilleras, Endemic **Elev.:** 3,000–4,400 m **Dept.:** BOY, CAL, CAU, CUN, NSA, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2661. *Sticta macrothallina* Moncada & Coca IF No: 804485 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2662. *Sticta mesculofuliginosa* Moncada & Lücking IF No: 801846 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics  
Andes, Native **Elev.:** 1,700–3,510 m **Dept.:** ANT, BOY, CES, RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2663. *Sticta microcephellata* Moncada & Lücking IF No: 801847 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics  
Andes, Native **Elev.:** 1,900–3,700 m **Dept.:** CHO, HUI, NSA, SAN, VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2664. *Sticta minutula* Moncada, A. Suárez & Lücking IF No: 550810 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 1,750–3,500 m **Dept.:** CUN, NAR, NSA **Conservation:** LC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2665. *Sticta neolintha* Gyein. IF No: 370538 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 3,540–3,800 m **Dept.:** TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2666. *Sticta neopulmonaria* Gyein. IF No: 370539 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 3,200 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2667. *Sticta neopulmonaria* Moncada & Coca IF No: 804486 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2668. *Sticta orbabana* Nyl. IF No: 406315 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 3,130–3,900 m **Dept.:** RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2669. *Sticta papillata* Moncada & Lücking IF No: 801848 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics  
Andes, Native **Elev.:** 2,720–3,200 m **Dept.:** CUN, NAR, NSA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2670. *Sticta parahumboldtii* Moncada & Lücking IF No: 804398 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 3,000–3,900 m **Dept.:** CAU, CUN, MET, RIS, TOL, VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2671. *Sticta peltigerella* (Nyl.) Trevis. IF No: 406327 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,500–2,800 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2672. *Sticta phyllidoluliginosa* Moncada, A. Suárez & Lücking IF No: 636216 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2673. *Sticta phyllidokunthii* Moncada & Lücking IF No: 804487 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2674. *Sticta plumbeociliata* Moncada, A. Suárez & Lücking IF No: 550812 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 1,750–3,430 m **Dept.:** ANT, CAU, CUN, MAG, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2675. *Sticta pseudohumboldtii* Moncada & Lücking IF No: 804399 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,000–3,900 m **Dept.:** ANT, BOY, CAL, CAU, CUN, HUI, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2676. *Sticta pseudobolbaria* Moncada & Coca IF No: 804488 Trophic mode/Guild: symbiotroph/lichenised



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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2677. *Sticta pulmonaroides* Moncada & Coca IF No: 804489 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2678. *Sticta rhizinata* Moncada & Lücking IF No: 801849 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Endemic Elev.: 2,300–2,730 m Dept.: BOY, CUN, RIS Conservation: LC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2679. *Sticta rubropulvinosa* Moncada & Lücking IF No: 801850 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Endemic Elev.: 1,780 m Dept.: ANT



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2680. *Sticta rudiuscula* (Vain.) Moncada & Lücking IF No: 558070 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2681. *Sticta scabrosa* B. Moncada, Merc. – Diaz & Bungartz IF No: 836872 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2682. *Sticta silverstonei* Moncada & Lücking IF No: 565222 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2683. *Sticta sinuosa* Pers. IF No: 406383 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Pantropics, Native Elev.: 2,000–3,700 m Dept.: ANT, CAL, CUN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2684. *Sticta subcapitata* (Nyl.) Nyl. IF No: 406389 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Subcosmopolitan, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2685. *Sticta subdenudata* Moncada & Lücking IF No: 558071



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2686. *Sticta subfilicina* Moncada, Coca & Lücking IF No: 551576 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2687. *Sticta subsorbiculata* (Nyl.) Gyele. IF No: 370543 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Endemic Elev.: 1,500–3,800 m Dept.: CAU, CUN, QUI, TOL Conservation: LC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2688. *Sticta sylvatica* (Huds.) Ach. IF No: 406401 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2689. *Sticta tatamana* Moncada & Coca IF No: 804490 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2690. *Sticta tomentella* Nyl. IF No: 406404 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Neotropics, Native Elev.: 3,650 m Dept.: TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2691. *Sticta tomentosa* (Sw.) Ach. IF No: 406405 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Amazonia, Andes Distribution: Pantropics, Native Elev.: 100–4,330 m Dept.: ANT, BOY, CAL, CAU, CHO, CUN, GUA, MAG, MET, RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2692. *Sticta tunjensis* Moncada & Lücking IF No: 801852 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Pantropics Andes, Endemic Elev.: 1,900–3,800 m Dept.: BOY, SAN Conservation: VU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2693. *Sticta venosa* Lücking, Moncada & Robayo IF No: 517812 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2694. *Sticta viviana* Alej. Suárez & Lücking IF No: 802891 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Pantropics Andes, Endemic Elev.: 2,400–3,350 m Dept.: CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2695. *Sticta weilgii* (Ach.) Vain. IF No: 406414 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Subcosmopolitan, Native Elev.: 1,000–4,550 m Dept.: ANT, BOY, CAL, CAU, CUN, MAG, NAR, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2696. *Yoshimuriella carassensis* (Vain.) Moncada & Lücking IF No: 801863 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2697. *Yoshimuriella corrossa* (Ach.) Moncada & Lücking IF No: 801864 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Amazonia, Andes Distribution: Neotropics, Native Elev.: 200–2,800 m Dept.: ANT, CUN, GUA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2698. *Yoshimuriella denudata* (Taylor) Moncada & Lücking IF No: 558073 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2699. *Yoshimuriella cleplanata* (Nyl.) Moncada & Lücking IF No: 801880 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Paleotropics, Native Elev.: 2,200 m



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2700. *Yoshimuriella dissecta* (Sw.) Moncada & Lücking IF No: 801869 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Amazonia, Andes Distribution: Neotropics, Native Elev.: 200–3,800 m Dept.: CAU, CUN, GUA, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2701. *Yoshimuriella fendleri* (Tuck. & Mont.) Moncada & Lücking IF No: 801865 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Neotropics, Native Elev.: 2,600–3,700 m Dept.: CAL, CUN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2702. *Yoshimuriella peltigera* (Vain.) Lücking & Moncada IF No: 801866 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2703. *Yoshimuriella subcorrossa* (Nyl.) Moncada & Lücking IF No: 801867 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Peltigerales, Peltigeraceae  
2704. *Yoshimuriella subdissecta* (Nyl.) Moncada & Lücking IF No: 801868 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Neotropics, Native Elev.: 1,800–3,500 m Dept.: BOY, CAL, CAU, CHO, CUN, HUI, NAR, RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Rhizocarpaceae, Rhizocarpaceae  
2705. *Rhizocarpon arctogenum* Gelting IF No: 369979 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Rhizocarpaceae, Rhizocarpaceae  
2706. *Rhizocarpon concentricum* (Davies) Beltr. IF No: 403973 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Subcosmopolitan, Native Elev.: 2,600 m Dept.: CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Rhizocarpaceae, Rhizocarpaceae  
2707. *Rhizocarpon geographicum* (L.) DC. IF No: 404005 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Cosmopolitan, Native Elev.: 2,250–3,200 m Dept.: ANT, BOY, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Rhizocarpaceae, Rhizocarpaceae  
2708. *Rhizocarpon grande* (Flörke ex Flot.) Arnold IF No: 404009 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Rhizocarpaceae, Rhizocarpaceae  
2709. *Rhizocarpon lecanorinum* Anders IF No: 355572 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Holarctic region, Native Elev.: 3,200 m Dept.: CUN

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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Rhizocarpaceae, Rhizocarpaceae  
2710. *Rhizocarpon leptolepis* Anzi IF No: 404032 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Rhizocarpaceae, Rhizocarpaceae  
2711. *Rhizocarpon petraeum* (Wulfen) A. Massal. IF No: 404063 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Rhizocarpaceae, Rhizocarpaceae  
2712. *Rhizocarpon subblavatium* Fryday IF No: 466142 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Rhizocarpaceae, Rhizocarpaceae  
2713. *Rhizocarpon submodestum* (Vain.) Vain. IF No: 404099 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Rhizocarpaceae, Rhizocarpaceae  
2714. *Rhizocarpon superficiale* (Schaer.) Malmé IF No: 355659 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Rhizocarpaceae, Rhizocarpaceae  
2715. *Rhizocarpon viridistratum* (Wulfen) Körb. IF No: 404114 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 2,600 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Brigantheaceae  
2716. *Briganthea leucoxantha* (Spreg.) R. Sant. & Hafellner IF No: 110522 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 1,200–2,500 m **Dept.:** ANT, CAU, CUN, HUI, VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Letrouiliaceae  
2717. *Letrouilia domingensis* (Pers.) Hafellner & Bellem. IF No: 110778 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Pantropics, Native **Elev.:** 250–1,250 m **Dept.:** CHO, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Letrouiliaceae  
2718. *Letrouilia flavidula* (Tuck.) Hafellner IF No: 109041 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,000 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Letrouiliaceae  
2719. *Letrouilia transgressa* (Malmé) Hafellner & Bellem. IF No: 109047 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 1,000–1,150 m **Dept.:** HUI, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Letrouiliaceae  
2720. *Letrouilia vulpina* (Tuck.) Hafellner & Bellem. IF No: 110781 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Pantropics, Native **Elev.:** 10–35 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Megalosporaceae  
2721. *Megaloblastenia marginiflexa* (Hook. f. & Taylor) Sipman IF No: 124614 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 2,300–2,600 m **Dept.:** ANT, HUI



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Megalosporaceae  
2722. *Megaloblastenia marginiflexa* var. *dilnota* (Malmé) Sipman IF No: 124705 **Dept.:** CLM



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Megalosporaceae  
2723. *Megalospora admixta* (Nyl.) Sipman IF No: 104468 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,130–4,130 m **Dept.:** ARA, BOY, CAU, CUN, HUI, MET, RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Megalosporaceae  
2724. *Megalospora coccoades* (Bél.) Sipman IF No: 124618 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 1,900 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Megalosporaceae  
2725. *Megalospora kalbi* Sipman IF No: 124622 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Megalosporaceae  
2726. *Megalospora sulphurata* Meyen IF No: 395176 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 2,500–2,940 m **Dept.:** CUN, HUI, NAR, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Megalosporaceae  
2727. *Megalospora tuberculosa* (Fée) Sipman IF No: 124631 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 240–3,750 m **Dept.:** AMA, ANT, CAL, CAU, CUN, HUI, NAR, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Megalosporaceae  
2728. *Sipmanella sulfureofusca* (Fée) Kalb IF No: 541004 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2729. *Athalia holocarpa* (Hoffm.) Arup, Frödén & Sächting IF No: 802022 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2730. *Athalia pyrroca* (Ach.) Arup, Frödén & Sächting IF No: 802023 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2731. *Blastenia subferruginea* (Nyl.) Müll. Arg. IF No: 379970 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes **Distribution:** Endemic **Elev.:** 2,600 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2732. *Brownlieella cinabarina* (Ach.) S.Y. Kondr., Kärefelt, A. Thell, Elix, Jung Kim, A.S. Kondr. & Hur IF No: 805005 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2733. *Calogaya arnoldii* (Wedd.) Arup, Frödén & Sächting IF No: 802314 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2734. *Calogaya saxicola* (Hoffm.) Vondrák IF No: 815508 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2735. *Caloplaca brebissonii* (Fée) J. Sant. ex Hafellner & Poelt IF No: 341646 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 1,750–3,400 m **Dept.:** ANT, BOY, CAU, CUN, HUI, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2736. *Caloplaca concilians* (Nyl.) H. Olivier IF No: 381444 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2737. *Caloplaca conlungans* (Nyl.) Zahlbr. IF No: 381452 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2738. *Caloplaca crocantha* (Nyl.) Zahlbr. IF No: 381468 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,800 m



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2739. *Caloplaca euvulvifera* (Vain.) Zahlbr. IF No: 381473 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2740. *Caloplaca diducta* (Nyl.) Zahlbr. IF No: 381487 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 250 m **Dept.:** TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2741. *Caloplaca ephora* (Taylor) C.W. Dodge IF No: 341652



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2742. *Caloplaca erythrantha* (Tuck.) Zahlbr. IF No: 381510 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,100 m **Dept.:** CUN



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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2743. *Caloplaca erythroleuca* (Nyl.) Zahlbr.  
IF No: 381515 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Pantropics **Africa, Native Elev.:** 2,500 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2744. *Caloplaca erythroleucodes* (Nyl.) Zahlbr. IF No: 381516 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2745. *Caloplaca granularis* (Müll. Arg.) Zahlbr. IF No: 381575 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2746. *Caloplaca ochraceofulva* (Müll. Arg.) Jatta IF No: 381691 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Africa, Native **Elev.:** 1,880 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2747. *Caloplaca oregona* H. Magn. IF No: 365251 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2748. *Caloplaca quadricoloris* (Nyl.) Zahlbr. IF No: 381742 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Hawaii, Native **Elev.:** 1,900 m **Dept.:** SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2749. *Caloplaca russeola* (Nyl.) Zahlbr. IF No: 381761 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,600 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2750. *Caloplaca xanthopa* (Hue) Zahlbr. IF No: 381856 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,600 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2751. *Flavoplaaca citrina* (Hoffm.) Arup, Frödén & Söchting IF No: 802063 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2752. *Flavoplaaca oasis* (A. Massal.) Arup, Frödén & Söchting IF No: 802076 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2753. *Gallowayella webberii* (S.Y. Kondr. & Kärnefelt) S.Y. Kondr., Fedorenko, S. Stenroos, Kärnefelt, Elix, Hur & A. Thell IF No: 586795 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2754. *Gyalolechia flavovirescens* (Wulfen) Söchting, Frödén & Arup IF No: 802214 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2755. *Gyalolechia xanthostigmoides* (Räsänen) Söchting, Frödén & Arup IF No: 802960 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2756. *Huneckia pollinii* (A. Massal.) S.Y. Kondr., Kärnefelt, Elix, A. Thell, Jung Kim, A.S. Kondr. & Hur IF No: 807195 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2757. *Leproplaca xantholyta* (Nyl.) Nyl. IF No: 393296 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2758. *Norma chrysophthalma* (L.) S.Y. Kondr., Kärnefelt, Elix, A. Thell, M.H. Jeong & Hur IF No: 805019 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2759. *Norma hypoglaucia* (Nyl.) S.Y. Kondr., Kärnefelt, Elix, A. Thell, M.H. Jeong & Hur IF No: 805016 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2760. *Polycaulonia candelaria* (L.) Frödén, Arup & Söchting IF No: 802634 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2761. *Polycaulonia stellata* (Wetmore & Kärnefelt) Arup, Frödén & Söchting IF No: 802105 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2762. *Rusavskia elegans* (Link) S.Y. Kondr. & Kärnefelt IF No: 528990 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2763. *Solitaria chrysophthalma* (Degel.) Arup, Söchting & Frödén IF No: 802116



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2764. *Teloschistes exilis* (Michx.) Vain. IF No: 122463 Trophic mode/Guild: symbiotroph/lichenised  
**Habitat:** Lichen  
**Distribution:** Neotropics, Africa, Native **Elev.:** 2,400–2,900 m **Dept.:** BOY, CUN, PUT **Uses:** EU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2765. *Teloschistes flavicans* (Sw.) Norman IF No: 355609 Trophic mode/Guild: symbiotroph/lichenised  
**Distribution:** Subcosmopolit, Native **Elev.:** 850–3,190 m **Dept.:** ANT, BOY, CAL, CAU, CUN, HUI, MAG, NAR, PUT, RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2766. *Varlopora aurantia* (Pers.) Arup, Frödén & Söchting IF No: 802240 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Teloschistales, Teloschistaceae  
2767. *Xanthoria parietina* (L.) Th. Fr. IF No: 533795 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Lecanoromycetidae, Incertae sedis, Incertae sedis  
2768. *Scythoria durietzii* (H. Magn.) S.Y. Kondr. IF No: 834636 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Baeomycetales, Baeomycetaceae  
2769. *Ainoa geochroa* (Körb.) Lumbsch & I. Schmitt IF No: 466534 Trophic mode/Guild: symbiotroph/lichenised  
**Distribution:** Native **Elev.:** 3,000m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Baeomycetales, Baeomycetaceae  
2770. *Ainoa mooreana* (Carroll) Lumbsch & I. Schmitt IF No: 462815 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Temperate regions of the North and South, Native **Elev.:** 3,000–3,750 m **Dept.:** CAU, CUN, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Baeomycetales, Baeomycetaceae  
2771. *Baeomyces rufus* (Huds.) Rebert. IF No: 378626 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 4,150 m **Dept.:** BOY, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Baeomycetales, Baeomycetaceae  
2772. *Parainoa subconcolor* (Anzi) Resl & T. Sprib. IF No: 810871 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Baeomycetales, Baeomycetaceae  
2773. *Phyllobaëlis erythrella* (Mont.) Kalb IF No: 360410 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Amazonia, Andes, Caribbean, Pacific **Distribution:** Neotropics, Native **Elev.:** 500–2,500 m **Dept.:** ANT, ATL, BOY, CAQ, CHO, HUI, NAR, PUT, TOL, VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Baeomycetales, Baeomycetaceae  
2774. *Phyllobaëlis imbricata* (Hook.) Kalb & Gierl IF No: 360409 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,200–4,400 m **Dept.:** ANT, BOY, CAL, CAU, CHO, CUN, HUI, MAG, MET, NAR, NSA, QUI, RIS, SAN, TOL, VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Baeomycetales, Baeomycetaceae  
2775. *Phyllobaëlis linearis* (B.G. de Vries) V. Marcano & Sipman IF No: 415657 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Pantropics **Andes, Native Elev.:** 1,750–3,300 m **Dept.:** BOY, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Baeomycetales, Trapellaceae  
2776. *Placopsis cribellans* (Nyl.) Räsänen IF No: 369445 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Temperate regions of the South, Native **Elev.:** 3,000–4,300 m **Dept.:** CAL, CAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Baeomycetales, Trapellaceae  
2777. *Placopsis fuscidula* I.M. Lamb ex Räsänen IF No: 369448 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Andes, Temperate regions of the South, Native **Elev.:** 3,750–4,000 m **Dept.:** CAU, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Baeomycetales, Trapellaceae  
2778. *Placopsis gellida* (L.) Linds. IF No: 401366 Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes **Distribution:** Subcosmopolit, Native **Elev.:** 3,400–3,500 m **Dept.:** CUN

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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Baecorycetales, Trapellaceae  
2779. *Placopsis lambii* Hertel & V. Wirth IF No: 132762 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:**

Subcosmopolitan, Native **Elev.:** 3,750–4,170 m **Dept.:** CAU, MET, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Baecorycetales, Trapellaceae  
2780. *Placopsis parellina* (Nyl.) I.M. Lamb IF No: 369452 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** South America, Native **Elev.:** 3,750–4,500 m **Dept.:** CAL, RIS

Native **Elev.:** 3,750–4,500 m **Dept.:** CAL, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Baecorycetales, Trapellaceae  
2781. *Placopsis rhodocarpa* (Nyl.) Nyl. IF No: 533476 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Andes, Temperate regions of the South, Native **Elev.:** 2,200–3,750 m **Dept.:** ANT, CAL, CAU, CUN, NAR

Temperate regions of the South, Native **Elev.:** 2,200–3,750 m **Dept.:** ANT, CAL, CAU, CUN, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Baecorycetales, Trapellaceae  
2782. *Placopsis suborbellans* (I.M. Lamb) D.J. Galloway IF No: 373593 Trophic mode/Guild: symbiotroph/lichenised

D.J. Galloway IF No: 373593 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Baecorycetales, Trapellaceae  
2783. *Placynthiella lcnalea* (Ach.) Coppins & P. James IF No: 106370 **Biogeographic region:** Andes **Distribution:** Subcosmopolit, Native **Elev.:** 4,350 m **Dept.:** RIS

Native **Elev.:** 4,350 m **Dept.:** RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Baecorycetales, Trapellaceae  
2784. *Trapelia coarctata* (Turner) M. Choisy IF No: 370873 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Cosmopolitan, Native **Elev.:** 200–2,600 m **Dept.:** ANT, CUN, HUI, TOL

Native **Elev.:** 200–2,600 m **Dept.:** ANT, CUN, HUI, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Baecorycetales, Trapellaceae  
2785. *Trapellopsis glaucopleidea* (Nyl.) Gotht. Schneid. IF No: 124689 Trophic mode/Guild: symbiotroph/lichenised

Gotht. Schneid. IF No: 124689 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidiales, Gomphillaceae  
2786. *Actinoplaca gemmifera* (Lücking) Lücking, Sérus. & Vězda IF No: 347841 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, Native **Elev.:** 0–300 m **Dept.:** CAU

**Distribution:** Neotropics, Native **Elev.:** 0–300 m **Dept.:** CAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidiales, Gomphillaceae  
2787. *Actinoplaca strigulosa* Müll. Arg. IF No: 375844 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes **Distribution:** Neotropics, Native **Elev.:** 600–2,600 m **Dept.:** ANT, CUN, MAG, MET, VAU

Neotropics, Native **Elev.:** 600–2,600 m **Dept.:** ANT, CUN, MAG, MET, VAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidiales, Gomphillaceae  
2788. *Aderkomycetes albostrigosus* (R. Sant.) Lücking, Sérus. & Vězda IF No: 347335 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Neotropics, Native **Elev.:** 100–2,000 m **Dept.:** CHO, MAG, NAR

Pacific **Distribution:** Neotropics, Native **Elev.:** 100–2,000 m **Dept.:** CHO, MAG, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidiales, Gomphillaceae  
2789. *Aderkomycetes coequele* Bat. IF No: 344574 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Amazonia, Pacific **Distribution:** Neotropics, Native **Elev.:** 100–450 m **Dept.:** AMA, CHO, NAR

Native **Elev.:** 100–450 m **Dept.:** AMA, CHO, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidiales, Gomphillaceae  
2790. *Aderkomycetes gomazii* Lücking IF No: 538310 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, Native **Elev.:** 100 m **Dept.:** CHO

m **Dept.:** CHO



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidiales, Gomphillaceae  
2791. *Aderkomycetes heterellus* (Stirt.) Lücking, Sérus. & Vězda IF No: 347565 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Amazonia, Pacific **Distribution:** Neotropics, Native **Elev.:** 35–300 m **Dept.:** AMA, CAQ, CAU, CHO, NAR

Amazonia, Pacific **Distribution:** Neotropics, Native **Elev.:** 35–300 m **Dept.:** AMA, CAQ, CAU, CHO, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidiales, Gomphillaceae  
2792. *Aderkomycetes papilliferus* (Lücking) Lücking, Sérus. & Vězda IF No: 347921 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Amazonia, Pacific **Distribution:** Neotropics, Native **Elev.:** 0–350 m **Dept.:** AMA, CAU, NAR

Amazonia, Pacific **Distribution:** Neotropics, Native **Elev.:** 0–350 m **Dept.:** AMA, CAU, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidiales, Gomphillaceae  
2793. *Aderkomycetes subbalbostrigosus* (Lücking) Lücking, Sérus. & Vězda IF No: 347948 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Neotropics, Native **Elev.:** 0–2,400 m **Dept.:** CAU, CHO, HUI

Pacific **Distribution:** Neotropics, Native **Elev.:** 0–2,400 m **Dept.:** CAU, CHO, HUI



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidiales, Gomphillaceae  
2794. *Arthothelopsis planicarpa* (Lücking) Lücking, Sérus. & Vězda IF No: 347944 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Neotropics, Native **Elev.:** 240–350 m **Dept.:** AMA, CAQ

Amazonia **Distribution:** Neotropics, Native **Elev.:** 240–350 m **Dept.:** AMA, CAQ



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidiales, Gomphillaceae  
2795. *Arthothelopsis tricharoides* (Kalb & Vězda) Lücking, Sérus. & Vězda IF No: 344580 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, Native **Elev.:** 100–600 m **Dept.:** CHO, MET

**Distribution:** Neotropics, Native **Elev.:** 100–600 m **Dept.:** CHO, MET



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidiales, Gomphillaceae  
2796. *Asterothyrium leucophthalmum* (Müll. Arg.) R. Sant. IF No: 364419 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Pantropics Africa, Native **Elev.:** 2,500–3,400 m **Dept.:** ANT, CUN

Neotropics, Pantropics Africa, Native **Elev.:** 2,500–3,400 m **Dept.:** ANT, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidiales, Gomphillaceae  
2797. *Asterothyrium microsporium* R. Sant. IF No: 364420 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes **Distribution:** Pantropics, Native **Elev.:** 1,700 m **Dept.:** AMA, CAU

Pantropics, Native **Elev.:** 1,700 m **Dept.:** AMA, CAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidiales, Gomphillaceae  
2798. *Asterothyrium pitleri* Müll. Arg. IF No: 123069 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Pantropics, Native **Dept.:** AMA

Native **Dept.:** AMA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidiales, Gomphillaceae  
2799. *Aulaxina dictyospora* R. Sant. IF No: 364424 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Pantropics, Native **Elev.:** 350–2,500 m **Dept.:** ANT, NAR

**Elev.:** 350–2,500 m **Dept.:** ANT, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidiales, Gomphillaceae  
2800. *Aulaxina intermedia* Lücking IF No: 437129 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, Native **Elev.:** 100 m **Dept.:** CHO

m **Dept.:** CHO



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidiales, Gomphillaceae  
2801. *Aulaxina microphana* (Vain.) R. Sant. IF No: 122861 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Pantropics, Native **Elev.:** 240–350 m **Dept.:** AMA, CAQ

Native **Elev.:** 240–350 m **Dept.:** AMA, CAQ



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidiales, Gomphillaceae  
2802. *Aulaxina minuta* R. Sant. IF No: 364427 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Amazonia, Pacific **Distribution:** Neotropics, Pantropics Africa, Native **Elev.:** 35–450 m **Dept.:** AMA, CAQ, CHO, NAR

Neotropics, Pantropics Africa, Native **Elev.:** 35–450 m **Dept.:** AMA, CAQ, CHO, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidiales, Gomphillaceae  
2803. *Aulaxina opegraphina* Féé IF No: 122988 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Pantropics, Native **Elev.:** 240–250 m **Dept.:** AMA, CAQ

Native **Elev.:** 240–250 m **Dept.:** AMA, CAQ



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidiales, Gomphillaceae  
2804. *Aulaxina quadrangula* (Stirt.) R. Sant. IF No: 364429 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes, Pacific **Distribution:** Pantropics, Native **Elev.:** 35–2,000 m **Dept.:** AMA, CAQ, CHO, MAG, MET, NAR, VAU

**Distribution:** Pantropics, Native **Elev.:** 35–2,000 m **Dept.:** AMA, CAQ, CHO, MAG, MET, NAR, VAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidiales, Gomphillaceae  
2805. *Bulliatina aspidota* (Vain.) Vězda & Poelt IF No: 131103 Trophic mode/Guild: symbiotroph/lichenised

symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidiales, Gomphillaceae  
2806. *Calenia depressa* Müll. Arg. IF No: 380928 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Pantropics, Native **Elev.:** 0–300 m **Dept.:** CAU

Native **Elev.:** 0–300 m **Dept.:** CAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidiales, Gomphillaceae  
2807. *Calenia dictyospora* Lücking IF No: 437131 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, Native **Elev.:** 350 m **Dept.:** NAR

m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidiales, Gomphillaceae  
2808. *Calenia echinoplaoides* Lücking IF No: 538363 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, Native **Elev.:** 20–60 m **Dept.:** CHO, MAG, NAR

Native **Elev.:** 0–300 m **Dept.:** CAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidiales, Gomphillaceae  
2809. *Calenia graphidea* Vain. IF No: 380929 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Pantropics, Native **Elev.:** 35–300 m **Dept.:** CAU, CHO

Native **Elev.:** 35–300 m **Dept.:** CAU, CHO



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidiales, Gomphillaceae  
2810. *Calenia lueckingii* C. Hartmann IF No: 415815 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, Native **Elev.:** 100 m **Dept.:** CHO

Native **Elev.:** 100 m **Dept.:** CHO



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidiales, Gomphillaceae  
2811. *Calenia phyllogena* (Müll. Arg.) R. Sant. IF No: 365062 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Caribbean, Pacific **Distribution:** Pantropics, Native **Elev.:** 20–60 m **Dept.:** CHO, MAG, NAR

Pantropics, Native **Elev.:** 20–60 m **Dept.:** CHO, MAG, NAR



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2812. *Calenia thelotremella*** Vain. IF No: 380939 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Panotropics, Native **Elev.:** 35–100 m **Dept.:** CHO, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2813. *Calenia triseptata*** Zahlbr. IF No: 380940 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Neotropics, Native **Elev.:** 240–300 m **Dept.:** AMA, CAQ, MET, VAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2814. *Calenopsis laevigata*** (Müll. Arg.) Vězda & Poelt IF No: 131105 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Panotropics, Native **Elev.:** 240–350 m **Dept.:** AMA, CAQ, GUA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2815. *Corticifraga tuckelli*** (Rehm) D. Hawksw. & R. Sant. IF No: 126770 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2816. *Diploschistella athaloides*** (Nyl.) Lücking, Knudsen & Fryday IF No: 529670



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2817. *Diploschistella lithophila*** (G. Thor & Vězda) Lücking, Sérus. & Vězda IF No: 344538 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 2,000 m **Dept.:** RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2818. *Diploschistella trapperi*** (Kalb & Vězda) Lücking, Sérus. & Vězda IF No: 344581 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,700–2,000 m **Dept.:** NAR, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2819. *Diploschistella urceolata*** Vain. IF No: 384437 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 3,240–4,040 m



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2820. *Echinoplaca diffluens*** (Müll. Arg.) R. Sant. IF No: 366097 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Caribbean, Pacific **Distribution:** Panotropics, Native **Elev.:** 20–300 m **Dept.:** AMA, CAQ, MAG, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2821. *Echinoplaca ephiphyla*** Féé IF No: 384576 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Pacific **Distribution:** Panotropics, Native **Elev.:** 32–350 m **Dept.:** AMA, CAU, CHO, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2822. *Echinoplaca ephiphylloides*** Lücking IF No: 538303 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, Native **Elev.:** 0–300 m **Dept.:** CAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2823. *Echinoplaca furcata*** Sérus. IF No: 125914 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes, Pacific **Distribution:** Neotropics, Native **Elev.:** 300–1,750 m **Dept.:** AMA, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2824. *Echinoplaca handelli*** (Zahlbr.) Lücking IF No: 437139 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Pacific **Distribution:** Panotropics, Native **Elev.:** 32–350 m **Dept.:** AMA, CAQ, CHO, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2825. *Echinoplaca hispida*** Sipman IF No: 359910 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2826. *Echinoplaca incrustatocillata*** Sérus. IF No: 437015 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Panotropics, Native **Elev.:** 350 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2827. *Echinoplaca intercedens*** Vězda IF No: 341917 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Neotropics, Panotropics Africa, Native **Elev.:** 300 m **Dept.:** AMA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2828. *Echinoplaca leucotrichoides*** (Vain.) R. Sant. IF No: 366100 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Panotropics, Native **Elev.:** 100–2,300 m **Dept.:** ANT, CHO, MET



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2829. *Echinoplaca lucernifera*** Kalb & Vězda IF No: 133647 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 3,200 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2830. *Echinoplaca marginata*** Lücking IF No: 437140 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Panotropics, Native **Elev.:** 600 m **Dept.:** MET



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2831. *Echinoplaca pellicula*** (Müll. Arg.) R. Sant. IF No: 366102 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes, Pacific **Distribution:** Panotropics, Native **Elev.:** 35–2,200 m **Dept.:** AMA, BOY, CAQ, CHO, MAG, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2832. *Echinoplaca tetrapla*** (Zahlbr.) Lücking IF No: 475501 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Panotropics, Native **Elev.:** 100 m **Dept.:** CHO



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2833. *Echinoplaca verrucifera*** Lücking IF No: 437142 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, Native **Elev.:** 0–300 m **Dept.:** CAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2834. *Gomphillus hyalinus*** (Pat.) Lücking, Kalb & Vězda IF No: 529717 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,700 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2835. *Gyalectidium thilcinum*** Müll. Arg. IF No: 386475 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes, Pacific **Distribution:** Subcosmopolitan, Native **Elev.:** 35–2,200 m **Dept.:** AMA, ANT, CAQ, CAU, CHO, MAG, MET, NAR, NSA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2836. *Gyalectidium imperfectum*** Vězda IF No: 362404 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2837. *Gyalidea costaricensis*** Vězda & Hafellner IF No: 355061 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2838. *Gyalidea hyalinescens*** (Nyl.) Vězda IF No: 345041 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 1,720–3,000 m **Dept.:** ANT, CAU, NAR, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2839. *Gyalideopsis chicaque*** Moncada & Lücking IF No: 517778 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,300 m **Dept.:** CUN **Conservation:** CR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2840. *Gyalideopsis gigantea*** Kalb & Vězda IF No: 489784 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,900 m **Dept.:** SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2841. *Gyalideopsis lambinonii*** Vězda IF No: 342095 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics, Native **Elev.:** 1,900 m **Dept.:** SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2842. *Gyalideopsis montana*** Lücking IF No: 437148 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,500 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2843. *Gyalideopsis parvula*** Hafellner & Vězda IF No: 133657 **Trophic mode/Guild:** pathotroph/lichen parasite **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,500 m **Dept.:** RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
**2844. *Gyalideopsis peruviana*** G. Merr. ex Vězda IF No: 342101 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 3,460 m **Dept.:** MET, RIS

CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
2845. *Gyalideopsis philloplae* Vězda IF No: 342102 Trophic mode/Guild: symbiotroph /lichenised



CAU

Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
2846. *Gyalideopsis piceicola* (Nyl.) Vězda & Poelt IF No: 354523 Trophic mode/Guild: symbiotroph/lichenised Distribution: Pan tropics , Native Elev.: 0–300 m Dept: CAU



Distribution: Neotropics, Native Elev.: 35–2,000 m Dept.: CAU, MAG, NAR, NSA

Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
2847. *Gyalideopsis vulgaris* (Müll. Arg.) Lücking IF No: 437151 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes, Pacific



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
2848. *Linnaria philippinensis* Rehm IF No: 169789 Trophic mode/Guild: symbiotroph /lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
2849. *Paragyvalideopsis breussii* Etayo IF No: 818361



Pacific Distribution: Pan tropics, Native Elev.: 100–2,500 m Dept.: AMA, ANT, CHO

Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
2850. *Phyllogyalidea epiphylla* (Vězda) Lücking & Aptroot IF No: 537071 Trophic mode/Guild: symbiotroph /lichenised Biogeographic region: Amazonia, Andes, Pacific



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
2851. *Rolueckia conspersa* (Stirt.) Papong, Thammath. & Boonpr. IF No: 511142 Trophic mode/Guild: symbiotroph /lichenised



Distribution: Neotropics, Native Elev.: 100–250 m Dept.: AMA, CAQ, CHO

Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
2852. *Rubrotricha subhelmintospora* Lücking IF No: 342821 Trophic mode/Guild: symbiotroph /lichenised Biogeographic region: Amazonia, Pacific



Native Elev.: 0–300 m Dept.: CAU

Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
2853. *Tricharia amazonia* Vain. IF No: 407837 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Pacific Distribution: Neotropics,



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
2854. *Tricharia carnea* (Müll. Arg.) R. Sant. IF No: 370878 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Amazonia, Caribbean, Pacific



CAU

Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
2855. *Tricharia cuneata* L.L. Ferraro & Vězda IF No: 135801 Trophic mode/Guild: symbiotroph/lichenised Distribution: Neotropics, Native Elev.: 0–300 m Dept: CAU



Neotropics, Native Elev.: 0–2,300 m Dept.: ANT, CAU, NAR

Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
2856. *Tricharia farinosa* R. Sant. IF No: 370879 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes, Pacific Distribution:

Distribution: Pan tropics, Native Elev.: 20–300 m Dept.: AMA, CAQ, MAG, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
2857. *Tricharia hyalina* Kalb & Vězda IF No: 133665 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Amazonia, Pacific Distribution: Neotropics, Native Elev.: 35–600 m Dept.: AMA, CAQ, CHO, MET



Neotropics, Native Elev.: 100–300 m Dept.: AMA, CHO

Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
2858. *Tricharia longispora* Kalb & Vězda IF No: 133667 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Amazonia, Pacific Distribution: Pan tropics, Native Elev.: 35–240 m Dept.: AMA, NAR



Pan tropics, Native Elev.: 35–240 m Dept.: AMA, NAR

Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
2859. *Tricharia santessoniana* Kalb & Vězda IF No: 133668 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Amazonia, Pacific Distribution: Pan tropics, Native Elev.: 3,200 m Dept.: CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
2860. *Tricharia santessonii* D. Hawksw. IF No: 343795 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Pacific Distribution: Pan tropics, Native Elev.: 100 m Dept.: CHO



300 m Dept.: CAU

Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
2861. *Tricharia similis* Vězda IF No: 343796 Trophic mode/Guild: symbiotroph /lichenised Biogeographic region: Pacific Distribution: Neotropics, Native Elev.: 0–



Pan tropics, Native Elev.: 3,200 m Dept.: CUN

Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
2862. *Tricharia slomanii* Lücking IF No: 538309 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes, Pacific Distribution: Pan tropics, Native Elev.: 100–300 m Dept.: CAU, CHO, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Graphidales, Gomphillaceae  
2863. *Tricharia urceolata* (Müll. Arg.) R. Sant. IF No: 370883 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Amazonia, Andes, Pacific Distribution: Neotropics, Pan tropics Africa, Native Elev.: 35–2,000 m Dept.: AMA, CAQ, CAU, MAG, NAR



Pan tropics, Native Elev.: 0–2,500 m Dept.: AMA, ANT, CAQ, CAU, CHO, NAR

Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
2864. *Tricharia veinibi* R. Sant. IF No: 123539 Trophic mode/Guild: symbiotroph /lichenised Biogeographic region: Amazonia, Andes, Pacific Distribution: Pan tropics, Native Elev.: 0–300 m Dept.: CHO



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
2865. *Coenogonium acrocephalum* Müll. Arg. IF No: 383111 Trophic mode/Guild: symbiotroph /lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
2866. *Coenogonium bacilliferum* (Malme) Lücking, Aptroot & Sipman IF No: 501141 Trophic mode/Guild: symbiotroph /lichenised



Pan tropics, Native Elev.: 0–300 m Dept.: CHO

Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
2867. *Coenogonium ciliatum* Kalb & Lücking IF No: 489882 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Amazonia, Pacific Distribution: Neotropics, Native Elev.: 100–350 m Dept.: CHO



Distribution: Neotropics, Native Elev.: 100–350 m Dept.: CHO

Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
2868. *Coenogonium confervoides* Nyl. IF No: 383117 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Amazonia, Andes Distribution: Neotropics, Native Elev.: 100–2,700 m Dept.: CUN, VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
2869. *Coenogonium dilucidum* (Kremp.) Kalb & Lücking IF No: 458096 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Amazonia, Pacific Distribution: Pan tropics, Native Elev.: 100–300 m Dept.: AMA, CHO



Native Elev.: 0–300 m Dept.: CAU

Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
2870. *Coenogonium congense* C.W. Dodge IF No: 630334 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Pacific Distribution: Pan tropics, Native Elev.: 0–300 m Dept.: CAU



Neotropics, Native Elev.: 2,900 m Dept.: CUN

Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
2871. *Coenogonium consimile* Vain. IF No: 822308 Trophic mode/Guild: symbiotroph /lichenised Biogeographic region: Andes Distribution: Endemic Dept.: CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
2872. *Coenogonium fallaciosum* (Müll. Arg.) Kalb & Lücking IF No: 458097 Trophic mode/Guild: symbiotroph /lichenised Biogeographic region: Amazonia, Pacific Distribution: Pan tropics, Native Elev.: 100–300 m Dept.: AMA, CHO



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
2873. *Coenogonium disjunctum* Nyl. IF No: 383125 Trophic mode/Guild: symbiotroph /lichenised



Neotropics, Native Elev.: 2,900 m Dept.: CUN

Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
2874. *Coenogonium eximium* (Nyl.) Kalb & Lücking IF No: 501143 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Neotropics, Native Elev.: 100–2,000 m Dept.: CHO, VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
2875. *Coenogonium flavicans* (Vězda & Farkas) Kalb & Lücking IF No: 477898 Trophic mode/Guild: symbiotroph /lichenised Biogeographic region: Amazonia, Pacific Distribution: Pan tropics, Native Elev.: 300 m Dept.: AMA



Distribution: Pan tropics, Native Elev.: 300 m Dept.: AMA

Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
2876. *Coenogonium gerlense* (Henn.) Lücking IF No: 538364 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes, Pacific Distribution: Neotropics, Native Elev.: 100–2,000 m Dept.: CHO, VAC



Distribution: Neotropics, Native Elev.: 100–2,000 m Dept.: CHO, VAC

Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
2877. *Coenogonium gerlense* (Henn.) Lücking IF No: 538364 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes, Pacific Distribution: Neotropics, Native Elev.: 100–2,000 m Dept.: CHO, VAC



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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2878. *Coenogonium hyopophyllum*** (Vězda) Kalb & Lücking IF No: 458098 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Pacific  
**Distribution:** Pan tropics, Native **Elev.:** 100–300 m **Dept.:** AMA, CAQ, CHO, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2879. *Coenogonium implexum*** Nyl. IF No: 122658 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Pan tropics, Native  
**Elev.:** 250 m **Dept.:** CAQ



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2880. *Coenogonium interplexum*** Nyl. IF No: 383134 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes, Pacific  
**Distribution:** Pan tropics, Native **Elev.:** 100–2,200 m **Dept.:** CHO, CUN, GUA, VAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2881. *Coenogonium interpositum*** Nyl. IF No: 383136 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Pan tropics,  
**Native Elev.:** 100 m **Dept.:** GUA, VAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2882. *Coenogonium isidiatum*** (G. Thor & Vězda) Lücking, Aptroot & Sipman IF No: 501145



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2883. *Coenogonium isidiatum*** (Lücking) Lücking IF No: 475396 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2884. *Coenogonium isidiosum*** (Breuss) Rivas Plata, Lücking, L. Umaña & Chaves IF No: 501147 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2885. *Coenogonium labyrinthicum*** Lücking & Kalb IF No: 475397 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Pan tropics,  
**Native Elev.:** 0–300 m **Dept.:** CAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2886. *Coenogonium leporiellii*** (Mont.) Nyl. IF No: 383137 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes, Pacific  
**Distribution:** Pan tropics, Native **Elev.:** 10–2,200 m **Dept.:** AMA, ANT, CAQ, CUN, NAR, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2887. *Coenogonium linkii*** Ehrenb. IF No: 383138 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes  
**Distribution:** Pan tropics, Native **Elev.:** 35–2,500 m **Dept.:** ANT, CAU, CUN, NAR, VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2888. *Coenogonium lissoskidi*** (Vězda) Lücking IF No: 477899 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Pan tropics, Native  
**Elev.:** 100 m **Dept.:** CHO



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2889. *Coenogonium luteoctrinum*** Rivas Plata, Lücking & L. Umaña IF No: 501134 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Neotropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2890. *Coenogonium luteolum*** (Kalb) Kalb & Lücking IF No: 501148 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2891. *Coenogonium luteum*** (Dicks.) Kalb & Lücking IF No: 458099 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes, Pacific  
**Distribution:** Cosmopolitan, Native **Elev.:** 0–2,600 m **Dept.:** BOY, CAU, CHO, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2892. *Coenogonium magdalenae*** Rivas Plata, Lücking & Lizano IF No: 501135 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Neotropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2893. *Coenogonium minimum*** (Müll. Arg.) Lücking IF No: 478035 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, Native  
**Elev.:** 100 m **Dept.:** CHO



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2894. *Coenogonium moniliforme*** Tuck. IF No: 383139 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Pan tropics, Native  
**Elev.:** 100 m **Dept.:** CHO



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2895. *Coenogonium nepalense*** (G. Thor & Vězda) Lücking, Aptroot & Sipman IF No: 501149 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2896. *Coenogonium pannosum*** Müll. Arg. IF No: 383143 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2897. *Coenogonium phineti*** (Ach.) Lücking & Lumbsch IF No: 488113 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2898. *Coenogonium pyrroththalmum*** (Mont.) Lücking, Aptroot & Sipman IF No: 501155 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes  
**Distribution:** Pan tropics, Native **Elev.:** 2,600–3,900 m **Dept.:** BOY, CAU, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2899. *Coenogonium queenslandicum*** (Kalb & Vězda) Lücking IF No: 477889 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Pan tropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2900. *Coenogonium roumeguerianum*** (Müll. Arg.) Kalb IF No: 475400 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2901. *Coenogonium rubrofusum*** (Vězda & Malcolm) Malcolm IF No: 347334 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2902. *Coenogonium saepincola*** Aptroot, Sipman & Lücking IF No: 501136 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2903. *Coenogonium skultrense f. denticulatum*** (Lücking) Lücking IF No: 521150 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, Native  
**Elev.:** 100 m **Dept.:** CHO



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2904. *Coenogonium skultrense f. denticulatum*** Rivas Plata & Lücking IF No: 501137



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2905. *Coenogonium stenoporum*** (Malme) Lücking, Aptroot & Sipman IF No: 501156 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Neotropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2906. *Coenogonium strigosum*** Rivas Plata, Lücking & Chaves IF No: 501138 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2907. *Coenogonium subdentatum*** (Vězda & G. Thor) Rivas Plata, Lücking, L. Umaña & Chaves IF No: 501158 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes  
**Distribution:** Pan tropics, Native  
**Elev.:** 1,900–2,000 m **Dept.:** VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2908. *Coenogonium subulatum*** (Malme) Kalb IF No: 832390 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2909. *Coenogonium subulatum*** (Rehm) Kalb & Lücking IF No: 458100 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Pacific  
**Distribution:** Pan tropics, Native **Elev.:** 300 m **Dept.:** AMA, CAQ, CHO, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2910. *Coenogonium subzonatum*** (Lücking) Lücking & Kalb IF No: 478030 **Trophic mode/Guild:** symbiotroph/lichenised

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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2911. *Coenogonium tuckermanii*** Mont. IF No: 383153 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Coenogoniaceae  
**2912. *Coenogonium zonatum*** (Müll. Arg.) Kalb & Lücking IF No: 458101 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Pantropics, Native **Dept.:** CHO



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Phycitaceae  
**2913. *Phycitis andensis*** Nyl. IF No: 400369 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,200–2,900 m **Dept.:** ANT, CAU, CUN, HUI, NAR, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Phycitaceae  
**2914. *Phycitis boliviana*** Nyl. IF No: 400372 **Trophic mode/ Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Phycitaceae  
**2915. *Phycitis brasiliensis*** Nyl. IF No: 400373 **Trophic mode/ Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Phycitaceae  
**2916. *Phycitis endecamera*** (Nyl.) Lücking & Sipman IF No: 558068 **Trophic mode/ Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,750–3,500 m **Dept.:** ANT, BOY, CAL, CAU, CUN, HUI



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2917. *Flabelloporina squamulifera*** (Breuss, Lücking & Navarro) Sobreira, M. Cáceres & Lücking IF No: 826749



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2918. *Myelocoinis erumpens*** P.M. McCarthy & Elix IF No: 415645 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2919. *Myelocoinis guyanensis*** P.M. McCarthy & Elix IF No: 415647 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2920. *Porina africana*** Müll. Arg. IF No: 401948 **Trophic mode/ Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2921. *Porina alba*** (R. Sant.) Lücking IF No: 476020 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes, Pacific **Distribution:** Pantropics, Native **Elev.:** 35–600 m **Dept.:** AMA, CAQ, CAU, CHO, MET, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2922. *Porina americana*** Fée IF No: 401958 **Trophic mode/ Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Pantropics, Native **Dept.:** VAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2923. *Porina atlantica*** (Erichsen) P.M. Jørg. IF No: 369589 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2924. *Porina atriceps*** (Vain.) Vain. IF No: 401967 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Pantropics, Native **Elev.:** 350 m **Dept.:** CAQ



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2925. *Porina atropunctata*** Lücking & Vězda IF No: 445247 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2926. *Porina barbifera*** Lücking IF No: 538350 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2927. *Porina barvica*** Lücking IF No: 128273 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 600–2,500 m **Dept.:** ANT, CAU, HUI, MET



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2928. *Porina belonospora*** (Nyl.) Müll. Arg. IF No: 401977 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Colombia, India, Native **Elev.:** 400 m **Dept.:** MET



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2929. *Porina brisbanensis*** Müll. Arg. IF No: 401983 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2930. *Porina columbiana*** H. Magn. IF No: 369593 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2931. *Porina conspersa*** Malmé IF No: 402017 **Trophic mode/ Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2932. *Porina cryptostoma*** Mont. IF No: 514871 **Trophic mode/ Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2933. *Porina curvula*** Malmé IF No: 402027 **Trophic mode/ Guild:** symbiotroph/lichenised **Distribution:** Neotropics, Native **Dept.:** CHO



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2934. *Porina distans*** Vězda & Vivant IF No: 362406 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Pantropics, Native **Elev.:** 100 m **Dept.:** CHO



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2935. *Porina dolichophora*** (Nyl.) Müll. Arg. IF No: 402041 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, India, Native **Elev.:** 1,800–2,500 m **Dept.:** ANT, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2936. *Porina eminentior*** (Nyl.) P.M. McCarthy IF No: 464339 **Trophic mode / Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2937. *Porina endochrysea*** C. Bab. IF No: 402050 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 2,000 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2938. *Porina epiluctida*** Sipman IF No: 360823 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Amazonia, Native **Elev.:** 250 m **Dept.:** AMA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2939. *Porina ephylula*** Fée IF No: 122419 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes **Distribution:** Pantropics, Native **Elev.:** 100–2, 200 m **Dept.:** AMA, CAQ, MAG, MET, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2940. *Porina exasperatula*** Vain. IF No: 402058 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes **Distribution:** Neotropics, Native **Elev.:** 240–2,500 m **Dept.:** AMA, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2941. *Porina exocha*** (Nyl.) P.M. McCarthy IF No: 464335 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2942. *Porina fusca*** Lücking IF No: 128274 **Trophic mode/ Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Pacific **Distribution:** Pantropics, Native **Elev.:** 35–350 m **Dept.:** CAQ, CHO, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2943. *Porina guaranitica*** Malmé IF No: 402091 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2944. *Porina guentheri*** (Flot.) Zahrf. IF No: 402092 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2945. *Porina haehndelli*** Henssen & Lücking IF No: 538348 **Trophic mode / Guild:** symbiotroph/lichenised **Distribution:** Colombia, Bolivia, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2946. *Porina imitatrix*** Müll. Arg. IF No: 402105 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes, Pacific **Distribution:** Pantropics, Native **Elev.:** 0–2,000 m **Dept.:** CAQ, CAU, MAG



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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2947. *Porina internigrans* (Nyl.) Müll. Arg.  
IF No: 402114 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2948. *Porina kamatakensis* Makhija, Adaw. & Patw. IF No: 413879 **Trophic mode/Guild:** symbiotroph/lichenised  
**Biogeographic region:** Andes, Pacific  
**Distribution:** Pantropics, Native **Elev.:** 100–600 m **Dept.:** CHO, MET



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2949. *Porina limbulata* (Kremp.) Vain. IF No: 122768 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Pacific **Distribution:** Pantropics, Native **Elev.:** 35–2,500 m **Dept.:** AMA, ANT, CHO, NAR, VAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2950. *Porina luctata* R. Sant. IF No: 369610 **Trophic mode/ Guild:** symbiotroph /lichenised **Biogeographic region:** Amazonia, Andes, Pacific **Distribution:** Pantropics, Native **Elev.:** 35–600 m **Dept.:** AMA, CAU, MET, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2951. *Porina mastochea* (Ach.) Müll. Arg. IF No: 402155 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes, Pacific  
**Distribution:** Pantropics, Native **Elev.:** 35–2,000 m **Dept.:** AMA, CAU, CUN, NAR, VAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2952. *Porina melanops* Malme IF No: 402162 **Trophic mode/ Guild:** symbiotroph/lichenised **Distribution:** Neotropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2953. *Porina nucula* Ach. IF No: 402188 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Pantropics, Native **Elev.:** 35–2,600 m **Dept.:** ANT, CAU, CUN, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2954. *Porina nuculastrum* (Müll. Arg.) R.C. Harris IF No: 413883 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2955. *Porina ocellata* (Malme) P.M. McCarthy IF No: 361941 **Trophic mode /Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2956. *Porina octomera* (Müll. Arg.) F. Schill. IF No: 402193 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes, Caribbean **Distribution:** Pantropics, Native **Elev.:** 20–2,200 m **Dept.:** MAG, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2957. *Porina ornata* Vězda IF No: 343331 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2958. *Porina papillifera* F. Schill. IF No: 402200 **Trophic mode/ Guild:** symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Neotropics, Native **Elev.:** 35 m **Dept.:** BOY, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2959. *Porina radiata* Kalb, Lücking & Vězda IF No: 445254 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Pacific **Distribution:** Neotropics, Pantropics Africa, Native **Elev.:** 35–250 m **Dept.:** AMA, CAQ, CHO, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2960. *Porina repanda* (Stirt.) Lücking & R. Sant. IF No: 450578 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, Native **Elev.:** 35 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2961. *Porina rubescens* (Lücking) Hafellner & Kalb IF No: 413885 **Trophic mode/Guild:** symbiotroph/ lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Pantropics Africa, Native **Elev.:** 600 m **Dept.:** MET



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2962. *Porina rubrophaera* R. Sant. IF No: 369621 **Trophic mode/Guild:** symbiotroph /lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2963. *Porina rufula* (Kremp.) Vain. IF No: 402257 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Amazonia, Andes, Pacific **Distribution:** Pantropics, Native **Elev.:** 100–2,500 m **Dept.:** AMA, ANT, CAQ, CAU, CHO, CUN, HUI, MAG, MET



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2964. *Porina simulans* Müll. Arg. IF No: 402271 **Trophic mode/ Guild:** symbiotroph/lichenised **Distribution:** Neotropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2965. *Porina subepiphylla* Lücking & Vězda IF No: 445257 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,750 m **Dept.:** CAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2966. *Porina subinterstes* (Nyl.) Müll. Arg. IF No: 402287 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Dept.:** MAG



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2967. *Porina subnucula* Lumbsch, Lücking & Vězda IF No: 445258 **Trophic mode/ Guild:** symbiotroph/ lichenised **Distribution:** Pantropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2968. *Porina tetracerae* (Ach.) Müll. Arg. IF No: 402306 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Pacific **Distribution:** Pantropics, Native **Elev.:** 35–350 m **Dept.:** AMA, CAQ, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2969. *Porina tetramera* (Malme) R. Sant. IF No: 369626 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Pantropics, Native **Elev.:** 600–2,200 m **Dept.:** CHO, CUN, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2970. *Porina tlucana* Müll. Arg. IF No: 120810 **Trophic mode/ Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,000 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2971. *Porina triseptata* (Vězda) Lücking IF No: 445259 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Pantropics, Native **Elev.:** 100–2,500 m **Dept.:** ANT, CHO



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2972. *Porina umbilicata* (Müll. Arg.) F. Schill. IF No: 402318 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,400 m **Dept.:** HUI



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2973. *Porina vezdae* Lücking IF No: 128275 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 1,750 m **Dept.:** CAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2974. *Trichothelium africa*, num Lücking IF No: 538357 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Pacific **Distribution:** Pantropics, Native **Elev.:** 60 m **Dept.:** CHO



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2975. *Trichothelium akassii* U. Becker & Lücking IF No: 580627 **Trophic mode/ Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2976. *Trichothelium albostrum* Vain. IF No: 119704 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2977. *Trichothelium album* Lücking IF No: 128276 **Trophic mode/Guild:** symbiotroph /lichenised **Biogeographic region:** Andes **Distribution:** Costa Rica, Colombia, Native **Elev.:** 2,500 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2978. *Trichothelium annulatum* (P. Karst.) R. Sant. IF No: 370887 **Trophic mode/ Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes, Pacific **Distribution:** Pantropics, Native **Elev.:** 35–2,200 m **Dept.:** AMA, CAQ, CHO, MAG, NAR, VAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
2979. *Trichothelium bipindense* F. Schill. IF No: 407855 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes, Pacific **Distribution:** Pantropics, Native **Elev.:** 100–2,500 m **Dept.:** CAQ, CHO, CUN

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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2980. *Trichothellum ephryllum*** Müll. Arg.  
 IF No: 431364 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes, Pacific  
**Distribution:** Panotropics, Native **Elev.:** 35–2,400 m **Dept.:** AMA, CAQ, CAU, CHO, HUI, MAG, MET, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2981. *Trichothellum javanicum*** (F. Schill.) Vězda  
 IF No: 362408 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2982. *Trichothellum longisporum*** Lücking  
 IF No: 128279 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, Native **Elev.:** 35 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2983. *Trichothellum minus*** Vain.  
 IF No: 370891 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Neotropics, Native **Elev.:** 600–2,200 m **Dept.:** CHO, MAG, MET



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2984. *Trichothellum minutum*** (Lücking) Lücking  
 IF No: 445486 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Pacific **Distribution:** Neotropics, Native **Elev.:** 100–350 m **Dept.:** CAQ, CHO



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2985. *Trichothellum montanum*** Lücking  
 IF No: 538343 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,500 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2986. *Trichothellum pallescens*** (Müll. Arg.) F. Schill.  
 IF No: 476632 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, Native **Elev.:** 35 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2987. *Trichothellum sipmanii*** Lücking  
 IF No: 445490 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Pacific **Distribution:** Neotropics, Native **Elev.:** 100–350 m **Dept.:** CAQ, CHO



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Porinaceae  
**2988. *Trichothellum ulei*** F. Schill.  
 IF No: 476635 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Neotropics, Native **Elev.:** 250–350 m **Dept.:** CAQ



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Gyalectales, Incertae sedis  
**2989. *Platygraphopsis interrupta*** (Fée) Müll. Arg.  
 IF No: 401550 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,200–2,700 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Odontotrematales, Odontotremataceae  
**2990. *Rogella triseptata*** Döbbeler  
 IF No: 357178 **Trophic mode/Guild:** saprotroph /undefined saprotroph **Habitat:** On *Polytrichadelphus aristatus* | Bryophilous **Distribution:** Tropics, **Elev.:** 2,700–3,100 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**2991. *Acanthothecis hololeucoides*** (Nyl.) Staiger & Kalb  
 IF No: 464213 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Neotropics, Native **Elev.:** 1,900 m **Dept.:** SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**2992. *Acanthothecis tetraphora*** (Nyl.) Staiger & Kalb  
 IF No: 463974 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,600 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**2993. *Acanthotrema bicellulare*** Sipman & Lücking  
 IF No: 800069 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**2994. *Acanthotrema brasilianum*** (Hale) Frisch  
 IF No: 334934 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, Native **Elev.:** 35 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**2995. *Acanthotrema kalbi*** Lücking  
 IF No: 800070 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**2996. *Allographa acharii*** (Fée) Lücking & Kalb  
 IF No: 827648 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**2997. *Allographa adressa*** (Vain.) Lücking & Kalb  
 IF No: 554572 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**2998. *Allographa altamirensis*** (Sipman & Lücking) Lücking & Kalb  
 IF No: 554574 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**2999. *Allographa anguilliradians*** Lücking  
 IF No: 554739 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3000. *Allographa angustata*** (Eschw.) Lücking & Kalb  
 IF No: 554576 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3001. *Allographa argentata*** (Lücking & Umaña) Lücking & Kalb  
 IF No: 554580 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3002. *Allographa asterzans*** (Nyl.) Lücking & Kalb  
 IF No: 554581 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3003. *Allographa atrocelata*** (A.W. Archer) Lücking & Kalb  
 IF No: 827650 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3004. *Allographa balbisi*** (Fée) Lücking & Kalb  
 IF No: 554582 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3005. *Allographa bettinae*** (Lücking, Umaña, Chaves & Sipman) Lücking & Kalb  
 IF No: 554585 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3006. *Allographa bifer*** (Zahlbr.) Lücking & Kalb  
 IF No: 554586 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3007. *Allographa carassensis*** (Vain.) Lücking & Kalb  
 IF No: 554590 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3008. *Allographa chlorocarpa*** (Fée) Lücking & Kalb  
 IF No: 554595 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3009. *Allographa chrysocarpa*** (Raddi) Lücking & Kalb  
 IF No: 554596 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3010. *Allographa cinerea*** (Fée) Lücking & Kalb  
 IF No: 554597 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3011. *Allographa cleistomma*** (Nyl.) Lücking & Kalb  
 IF No: 554599 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3012. *Allographa cognata*** (Müll. Arg.) Lücking & Kalb  
 IF No: 554600 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3013. *Allographa cornea*** (Ach.) Lücking & Kalb  
 IF No: 554601 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3014. *Allographa contorta*** (Müll. Arg.) Lücking & Kalb  
 IF No: 554605 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3015. *Allographa contortuplicata*** (Müll. Arg.) Lücking & Kalb  
 IF No: 554606 **Trophic mode/Guild:** symbiotroph/lichenised



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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3016. *Allographa dalniansis*** (A.W. Archer) Lücking & Kalb IF No: 554609  
**Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3017. *Allographa dealbata*** (Nyl.) Lücking & Kalb IF No: 554610 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3018. *Allographa dolichographa*** (Nyl.) Lücking & Kalb IF No: 554612 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3019. *Allographa elongata*** (Zenker) Lücking & Kalb IF No: 827651 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3020. *Allographa farinulenta*** (Müll. Arg.) Lücking & Kalb IF No: 554619 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3021. *Allographa flavens*** (Müll. Arg.) Lücking & Kalb IF No: 554622 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3022. *Allographa flavoaltamirensis*** (Sipman & Lücking) Lücking & Kalb IF No: 554623 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3023. *Allographa flavominilata*** (Moncada & Lücking) Lücking & Kalb IF No: 554624 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3024. *Allographa fournerli*** (Lizano & Lücking) Lücking & Kalb IF No: 554625 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3025. *Allographa fullanensis*** (Z.F. Jia & J.C. Wei) Lücking & Kalb IF No: 554627 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3026. *Allographa funillina*** (Aptroot) Lücking & Kalb IF No: 554628 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3027. *Allographa glauconigra*** (Vain.) Lücking & Kalb IF No: 554629 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3028. *Allographa gomazii*** (Lücking, Will-Wolf & L. Umaña) Lücking & Kalb IF No: 554631 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3029. *Allographa hoeselii*** (Vain.) Lücking & Kalb IF No: 827652 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3030. *Allographa illinata*** (Eschw.) Lücking & Kalb IF No: 554637 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3031. *Allographa ingarum*** (Vain.) Lücking & Kalb IF No: 554640 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3032. *Allographa inturgescens*** (Kremp.) Lücking & Kalb IF No: 554642 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3033. *Allographa leprographa*** (Nyl.) Lücking & Kalb IF No: 554649



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3034. *Allographa longula*** (Kremp.) Lücking & Kalb IF No: 554653 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3035. *Allographa lourdesina*** (Aptroot) Lücking & Kalb IF No: 554654 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3036. *Allographa lumbrifolia*** (Vain.) Lücking & Kalb IF No: 827654 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3037. *Allographa macella*** (Kremp.) R. Lücking & K. Kalb IF No: 827655 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3038. *Allographa malacodes*** (Nyl.) Lücking & Kalb IF No: 554657 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3039. *Allographa marginata*** (Raddi) Lücking & Kalb IF No: 827656 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3040. *Allographa mexicana*** (Hale) Lücking & Kalb IF No: 554658 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3041. *Allographa mihlata*** (Redinger) Lücking & Kalb IF No: 554659 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3042. *Allographa mirabilis*** (Lücking, Sipman, Umaña & Chaves) Lücking & Kalb IF No: 554660 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3043. *Allographa multisulcata*** (Müll. Arg.) Lücking & Kalb IF No: 554662 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3044. *Allographa nana*** (Fée) Lücking & Kalb IF No: 554665 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3045. *Allographa nuda*** (H. Magn.) Lücking & Kalb IF No: 827674 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3046. *Allographa nudaeformis*** (Lücking) Lücking & Kalb IF No: 554667 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3047. *Allographa ochracea*** (C.W. Dodge) Lücking & Kalb IF No: 554669 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3048. *Allographa ovata*** (Fée) Lücking & Kalb IF No: 554673 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3049. *Allographa parallela*** (Müll. Arg.) Lücking & Kalb IF No: 554676 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3050. *Allographa pectunculata*** (Bungartz & Aptroot) Lücking & Kalb IF No: 554678 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3051. *Allographa phaeospora*** (Vain.) Lücking & Kalb IF No: 827659 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3052. *Allographa pilarenis*** (Cáceres & Lücking) Lücking & Kalb IF No: 554679



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3053. *Allographa pittieri*** (Lücking, Umaña, Sipman & Chaves) Lücking & Kalb IF No: 554681 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3054. *Allographa plurispora*** (Redinger) Lücking & Kalb IF No: 554684 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3055. *Allographa rhizocla*** (Fée) Lücking & Kalb IF No: 827660 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3056. *Allographa rimulosa*** (Mont.) Lücking & Kalb IF No: 827661 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3057. *Allographa rutiziana*** (Fée) Lücking & Kalb IF No: 554690 **Trophic mode/Guild:** symbiotroph/lichenised

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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3058. *Allographa rustica*** (Kremp.) Lücking & Kalb IF No: 827663 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3059. *Allographa sarawakensis*** (Hale ex Lücking) Lücking & Kalb IF No: 554693 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3060. *Allographa sauroidea*** (Leight.) Lücking & Kalb IF No: 827664 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3061. *Allographa scaphella*** (Ach.) Lücking & Kalb IF No: 554695 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3062. *Allographa seminuda*** (Müll. Arg.) Lücking & Kalb IF No: 827665 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3063. *Allographa sitiana*** (Vain.) Lücking & Kalb IF No: 554697 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3064. *Allographa stratula*** (Ach.) Lücking & Kalb IF No: 827667 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3065. *Allographa subbasimilis*** (Müll. Arg.) Lücking & Kalb IF No: 554701 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3066. *Allographa subcelata*** (A.W. Archer) Lücking & Kalb IF No: 554702 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3067. *Allographa subdisserpens*** (Nyl.) Lücking & Kalb IF No: 827668 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3068. *Allographa subflexibillis*** (Lücking & Chaves) Lücking & Kalb IF No: 554704 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3069. *Allographa subradata*** (Nyl.) Lücking & Kalb IF No: 554707 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3070. *Allographa subrutiana*** (Sipman, Chaves & Lücking) Lücking & Kalb IF No: 554708 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3071. *Allographa subserpens*** (Staiger) Lücking & Kalb IF No: 554709 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3072. *Allographa triphora*** (Nyl.) Lücking & Kalb IF No: 554714 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3073. *Allographa tumidula*** (Fée) Lücking & Kalb IF No: 554715 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3074. *Allographa uruguayensis*** Lücking IF No: 554748



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3075. *Allographa vestitoides*** (Fink) Lücking & Kalb IF No: 827672 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3076. *Allographa xanthospora*** (Müll. Arg.) Lücking & Kalb IF No: 827673



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3077. *Ampilotrema ampilus*** (Nyl.) Kalb IF No: 521259 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes, Pacific



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3078. *Ampilotrema auratum*** (Tuck.) Kalb IF No: 521861 **Trophic mode/Guild:** symbiotroph/lichenised

**Distribution:** Neotropics, Native **Elev.:** 10–1,200 m **Dept.:** AMA, CAU, GUA, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3079. *Ampilotrema discolor*** (Ach.) Kalb IF No: 521860 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Colombia, Panama, Native **Elev.:** 2,500 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3080. *Ampilotrema lepidinoides*** (Leight.) Kalb IF No: 521857 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Neotropics, Native **Elev.:** 240–300 m **Dept.:** AMA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3081. *Ampilotrema palaeoampilus*** (Aptroot & Sipman) Kalb IF No: 521858 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3082. *Ampilotrema panamense*** (Hale) Sipman & Lücking IF No: 800055 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3083. *Anomomorphia aggregans*** (Nyl.) Staiger IF No: 371879 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Endemic **Elev.:** 2,200 m



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3084. *Asterion platycarpoides*** (Tuck.) I. Medeiros, Lücking & Lumbsch IF No: 818205 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3085. *Astrochapsa astroidea*** (Berk. & Broome) Parmen, Lücking & Lumbsch IF No: 801502 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3086. *Astrochapsa lassae*** (Mangold) Parmen, Lücking & Lumbsch IF No: 801505 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3087. *Astrochapsa platycarpella*** (Vain.) Parmen, Lücking & Lumbsch IF No: 801510 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3088. *Austrotrema myriocarpum*** (Fée) I. Medeiros, Lücking & Lumbsch IF No: 818210 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3089. *Carbacanthographis candidata*** (Nyl.) Staiger & Kalb IF No: 372313 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3090. *Carbacanthographis chlonophora*** (Redinger) Staiger & Kalb IF No: 372315 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3091. *Carbacanthographis marcescens*** (Fée) Staiger & Kalb IF No: 372330 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Pacific



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3092. *Carbacanthographis salazinhae*** (A.W. Archer) A.W. Archer IF No: 368098 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3093. *Carbacanthographis stictica*** Staiger & Kalb IF No: 372336 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3094. *Chapsa albida*** (Nyl.) Lücking & Sipman IF No: 516853 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 2,300 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3095. *Chapsa alborosella*** (Nyl.) Frisch IF No: 521285 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Pantropics, Native **Elev.:** 10–2,000 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3096. *Chapsa defectosoredata*** Lücking IF No: 800072 **Trophic mode/Guild:** symbiotroph/lichenised



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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3097. *Chapsa diploschistoides* (Zahlbr.) Frisch IF No: 521288 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3098. *Chapsa discoides* (Stirt.) Lücking IF No: 800046 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3099. *Chapsa dissuta* (Hale) Mangold IF No: 540394 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Neotropics, Native **Elev.:** 240–350 m **Dept.:** AMA, CAQ



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3100. *Chapsa farinosa* Lücking & Sipman IF No: 800073



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3101. *Chapsa leprocarpa* (Nyl.) Frisch IF No: 521292 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Pan tropics, Native **Elev.:** 10 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3102. *Chapsa subillacina* (Ellis & Everh.) M. Cáceres & Lücking IF No: 540406 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, Native **Elev.:** 35 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3103. *Chapsa subillacina* var. *cyanea* Lücking IF No: 800105



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3104. *Chroodiscus coccineus* (Leight.) Müll. Arg. IF No: 382710 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes, Pacific **Distribution:** Neotropics, Native **Elev.:** 35–2,500 m **Dept.:** AMA, ANT, CHO, MAG, MET, NAR, VAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3105. *Chroodiscus neotropicus* Kalb & Vězda IF No: 362484 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Neotropics, Native **Elev.:** 240 m **Dept.:** AMA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3106. *Clandestinitrema cathomelzans* (Nyl.) Rivas Plata, Lücking & Lumbsch IF No: 563417 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3107. *Clandestinitrema clandestinum* (Ach.) Rivas Plata, Lücking & Lumbsch IF No: 563418 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 35–2,600 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3108. *Clandestinitrema arumpens* (H. Magn.) Rivas Plata, Lücking & Lumbsch IF No: 563420 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 2,340–2,500 m **Dept.:** TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3109. *Clandestinitrema leucomelanum* (Nyl.) Rivas Plata, Lücking & Lumbsch IF No: 585308 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3110. *Clandestinitrema pauperius* (Nyl.) Rivas Plata, Lücking & Lumbsch IF No: 563424 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3111. *Crutamidina petraetoides* (P.M. Jørg. & Brodo) Parmen. Lücking & Lumbsch IF No: 801518 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3112. *Dlongima antillarum* (Vain.) Nelsen, Lücking & Rivas Plata IF No: 564116 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3113. *Dlongima circumfusum* (Stirt.) Kalb, Staiger & Elix IF No: 476077 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3114. *Dlongima confuens* (Fée) Kalb, Staiger & Elix IF No: 366089 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Neotropics, Native **Elev.:** 35–1,250 m **Dept.:** CAU, NAR, RIS, VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3115. *Dlongima epliducum* (Müll. Arg.) Kalb, Staiger & Elix IF No: 366038 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Neotropics, Native **Elev.:** 35–1,120 m **Dept.:** MET, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3116. *Dlongima erythrellum* (Mont. & Bosch) Kalb, Staiger & Elix IF No: 475619 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3117. *Dlongima hieroglyphicum* (Pers.) Staiger & Kalb IF No: 476008 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Pan tropics, Native **Elev.:** 35–2,000 m **Dept.:** CUN, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3118. *Dlongima junghuhni* (Mont. & Bosch) Kalb, Staiger & Elix IF No: 475607 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 100 m



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3119. *Dlongima microsorum* M. Cáceres & Lücking IF No: 517763 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** United States, Colombia, Native **Dept.:** TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3120. *Dlongima minisporum* Kalb, Staiger & Elix IF No: 367441 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,900–2,000 m **Dept.:** VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3121. *Dlongima monophorum* (Nyl.) Kalb, Staiger & Elix IF No: 366028 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,000–2,500 m **Dept.:** ANT, CUN, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3122. *Dlongima pachygraphum* (Nyl.) Kalb, Staiger & Elix IF No: 366024 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 1,400 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3123. *Dlongima poltaei* (Fée) Kalb, Staiger & Elix IF No: 366404 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Neotropics, Native **Elev.:** 35–250 m **Dept.:** NAR, RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3124. *Dlongima pruinosum* (Eschw.) Kalb, Staiger & Elix IF No: 475193 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Pan tropics, Native **Elev.:** 10 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3125. *Dlongima reniforme* (Fée) Kalb, Staiger & Elix IF No: 366023 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Neotropics, Africa, Native **Elev.:** 50–1,900 m **Dept.:** CUN, NAR, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3126. *Dlongima rufopruinosum* (A.W. Archer) Kalb, Staiger & Elix IF No: 479437 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3127. *Dlongima tibellii* Kalb, Staiger & Elix IF No: 367431 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Pan tropics, Native **Elev.:** 35 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3128. *Diploschistes actinostomus* (Ach.) Zahlbr. IF No: 118658 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3129. *Diploschistes bartlettii* (Lumbsch) Lücking IF No: 558060 Trophic mode/Guild: symbiotroph/lichenised

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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3130. *Diploschistes cinereocaeus*** (Sw.) Vain. IF No: 384450 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 3,000–4,450 m **Dept.:** ANT, ARA, BOY, CAL, CAU, CUN, HUI, MAG, MET, NAR, RIS, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3131. *Diploschistes dilacapsis*** (Ach.) Lumbsch IF No: 132470 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Dept.:** MET



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3132. *Diploschistes euganeus*** (A. Massal.) J. Steiner IF No: 120416 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3133. *Diploschistes gypsaceus*** (Ach.) Zahlbr. IF No: 384460 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3134. *Diploschistes muscorum*** (Scop.) R. Sant. IF No: 113763 **Trophic mode/Guild:** pathotroph, symbiotroph/lichen parasite, lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 1,900– 4,300 m **Dept.:** CAL, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3135. *Diploschistes rampoddensis*** (Nyl.) Zahlbr. IF No: 384471 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3136. *Diploschistes scruposus*** (Schreb.) Norman IF No: 384474 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Cosmopolitan, Native **Elev.:** 1,200–2,800 m **Dept.:** ANT, CUN, NSA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3137. *Dyplotydia afzeilli*** (Ach.) A. Massal. IF No: 384571 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes, Pacific **Distribution:** Panotropics, Native **Elev.:** 100–1,200 m **Dept.:** CAQ, GUA, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3138. *Dyplotydia oryzoides*** (Leight.) Kalb & Staiger IF No: 488980 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Neotropics, Native **Elev.:** 300 m **Dept.:** CAQ



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3139. *Fibrillithecia confusa*** Lücking, Kalb & Rivas Plata IF No: 516874 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3140. *Fibrillithecia dehlacens*** (Leight.) Mangold, Lücking & Lumbsch IF No: 560147 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Colombia, Endemic **Dept.:** GUA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3141. *Fibrillithecia inspersa*** Kalb IF No: 537989 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3142. *Fibrillithecia pachystoma*** (Nyl.) Sipman IF No: 800067 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,900–2,200 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3143. *Fissurina amazonica*** M. Cáceres, Aptroot & Lücking IF No: 807291 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3144. *Fissurina chapsoides*** Sipman IF No: 807356 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3145. *Fissurina columbina*** (Tuck.) Staiger IF No: 372503



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3146. *Fissurina dumastii*** Fée IF No: 385008 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Pacific **Distribution:** Panotropics, Native **Elev.:** 35–350 m **Dept.:** AMA, CAQ, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3147. *Fissurina furturacea*** (Leight.) A.W. Archer IF No: 542064 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Panotropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3148. *Fissurina incrustans*** Fée IF No: 385012 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Pacific **Distribution:** Panotropics, Native **Elev.:** 35–300 m **Dept.:** AMA, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3149. *Fissurina insculpta*** Mont. IF No: 385014 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3150. *Fissurina linoana*** Lücking, Moncada & G. Rodr. IF No: 828114 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3151. *Fissurina nigririms*** (Nyl.) A.W. Archer IF No: 521145



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3152. *Fissurina nigririms* var. *deficiens*** (A.W. Archer) A.W. Archer IF No: 356284



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3153. *Fissurina nitidescens*** (Nyl.) Nyl. IF No: 385024 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Panotropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3154. *Fissurina pseudostromatica*** Lücking & Rivas Plata IF No: 560006 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Panotropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3155. *Fissurina radiata*** Mont. IF No: 385029 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Panotropics, Native **Elev.:** 35–2,000 m **Dept.:** CUN, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3156. *Fissurina rufula*** (Mont.) Staiger IF No: 372517 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Panotropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3157. *Fissurina tachygrapha*** (Nyl.) Staiger IF No: 372519 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,600 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3158. *Fissurina triticea*** (Nyl.) Staiger IF No: 372521 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics, Native **Elev.:** 2,200 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3159. *Glaucotrema glaucophaenum*** (Kremp.) Rivas Plata & Lumbsch IF No: 801249 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3160. *Glyphis cistrifosa*** Ach. IF No: 120154 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Panotropics, Native **Elev.:** 35–2,000 m **Dept.:** CAU, CUN, NAR, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3161. *Glyphis scyphulifera*** (Ach.) Staiger IF No: 372541 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics, Native **Elev.:** 1,000 m **Dept.:** CUN, HUI



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3162. *Glyphis substratula*** (Nyl.) Staiger IF No: 372542 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,700 m **Dept.:** BOY



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	Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3163. <i>Graphis albislima</i> Müll. Arg. IF No: 385527 Trophic mode/Guild: symbiotroph/lichenised		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3164. <i>Graphis albostrata</i> Vain. IF No: 385534 Trophic mode/Guild: symbiotroph/lichenised		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3165. <i>Graphis amallana</i> Amórtegui, Moncada & Lücking IF No: 829817 Trophic mode/Guild: symbiotroph/lichenised
	Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3166. <i>Graphis analoga</i> Nyl. IF No: 385537 Trophic mode/Guild: symbiotroph/lichenised <b>Biogeographic region:</b> Andes <b>Distribution:</b> Pan-tropics, Native <b>Elev.:</b> 1,200– 2,400 m <b>Dept.:</b> CUN		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3167. <i>Graphis anfractuosa</i> (Eschw.) Eschw. IF No: 385538 Trophic mode/Guild: symbiotroph/lichenised <b>Biogeographic region:</b> Amazonia, Andes <b>Distribution:</b> Pan-tropics, Native <b>Elev.:</b> 840 m <b>Dept.:</b> GUA, TOL		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3168. <i>Graphis arcuata</i> Vain. IF No: 385549 Trophic mode/ Guild: symbiotroph/lichenised
	Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3169. <i>Graphis argentea</i> Makhija & Adaw. IF No: 342156 Trophic mode/Guild: symbiotroph/lichenised		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3170. <i>Graphis aurita</i> Eschw. IF No: 122352 Trophic mode/ Guild: symbiotroph/lichenised		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3171. <i>Graphis bipartita</i> (Müll. Arg.) Lücking IF No: 508703
	Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3172. <i>Graphis brahmanensis</i> Aptroot IF No: 540517 Trophic mode/Guild: symbiotroph/lichenised		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3173. <i>Graphis caesiocarpa</i> Redinger IF No: 410748 Trophic mode/Guild: symbiotroph/lichenised <b>Distribution:</b> Pan-tropics, Native <b>Elev.:</b> 0–300 m <b>Dept.:</b> CAU		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3174. <i>Graphis capillacea</i> Stirt. IF No: 385613 Trophic mode/Guild: symbiotroph/lichenised
	Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3175. <i>Graphis carmenelleana</i> Moncada, Motta & Lücking IF No: 829818 Trophic mode/Guild: symbiotroph/lichenised		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3176. <i>Graphis chlorotica</i> A. Massal. IF No: 385629 Trophic mode/Guild: symbiotroph/lichenised <b>Biogeographic region:</b> Caribbean <b>Distribution:</b> Pan-tropics, Native <b>Dept.:</b> ATL		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3177. <i>Graphis cogitata</i> Stirt. IF No: 385652 Trophic mode/Guild: symbiotroph/lichenised
	Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3178. <i>Graphis componens</i> Nyl. IF No: 385667 Trophic mode/Guild: symbiotroph/lichenised <b>Biogeographic region:</b> Andes <b>Distribution:</b> Neotropics, Native <b>Elev.:</b> 1,200– 2,000 m <b>Dept.:</b> CUN		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3179. <i>Graphis conferta</i> Zenker IF No: 385672 Trophic mode/Guild: symbiotroph/lichenised		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3180. <i>Graphis conglomerata</i> Spreng. IF No: 385676 Trophic mode/Guild: symbiotroph/lichenised
	Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3181. <i>Graphis consimilis</i> Vain. IF No: 385680 Trophic mode/Guild: symbiotroph/lichenised		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3182. <i>Graphis copelandii</i> Vain. IF No: 385687 Trophic mode/Guild: symbiotroph/lichenised		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3183. <i>Graphis cupelii</i> Vain. ex Lücking IF No: 540521 Trophic mode/Guild: symbiotroph/lichenised
	Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3184. <i>Graphis cymbetographa</i> Leight. IF No: 385698 Trophic mode/Guild: symbiotroph/lichenised <b>Biogeographic region:</b> Amazonia <b>Distribution:</b> Endemic <b>Dept.:</b> VAU		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3185. <i>Graphis dendrogramma</i> Nyl. IF No: 385708 Trophic mode/Guild: symbiotroph/lichenised <b>Biogeographic region:</b> Caribbean <b>Distribution:</b> Pan-tropics, Native <b>Dept.:</b> COR		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3186. <i>Graphis dendroidea</i> Leight. IF No: 385709 Trophic mode/Guild: symbiotroph/lichenised <b>Biogeographic region:</b> Amazonia <b>Distribution:</b> Endemic <b>Dept.:</b> GUA
	Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3187. <i>Graphis deserpens</i> Vain. IF No: 385715		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3188. <i>Graphis dimidiata</i> Vain. IF No: 385726 Trophic mode/Guild: symbiotroph/lichenised		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3189. <i>Graphis disserpens</i> Nyl. IF No: 122456 Trophic mode/Guild: symbiotroph/lichenised <b>Biogeographic region:</b> Andes <b>Distribution:</b> Neotropics, Native <b>Elev.:</b> 1,300 m <b>Dept.:</b> SAN
	Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3190. <i>Graphis dracaenae</i> Vain. IF No: 823827 Trophic mode/Guild: symbiotroph/lichenised		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3191. <i>Graphis dupaxana</i> Vain. IF No: 385746 Trophic mode/Guild: symbiotroph/lichenised <b>Biogeographic region:</b> Caribbean <b>Distribution:</b> Pan-tropics, Native <b>Dept.:</b> CES		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3192. <i>Graphis duplicata</i> Ach. IF No: 385748 Trophic mode/ Guild: symbiotroph/lichenised <b>Biogeographic region:</b> Caribbean <b>Distribution:</b> Pan-tropics, Native <b>Dept.:</b> CES
	Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3193. <i>Graphis duplicatoinspersa</i> Lücking IF No: 508706 Trophic mode/Guild: symbiotroph/lichenised		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3194. <i>Graphis elegans</i> (Borrer ex Sm.) Ach. IF No: 385752 Trophic mode/Guild: symbiotroph/lichenised <b>Biogeographic region:</b> Andes <b>Distribution:</b> Cosmopolitan, Native <b>Elev.:</b> 3,200 m <b>Dept.:</b> BOY		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3195. <i>Graphis emersa</i> Müll. Arg. IF No: 385758 Trophic mode/ Guild: symbiotroph/lichenised
	Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3196. <i>Graphis erythrocardia</i> Müll. Arg. IF No: 385769 Trophic mode/Guild: symbiotroph/lichenised		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3197. <i>Graphis evrescens</i> (Redinger) Lücking IF No: 540522 Trophic mode/Guild: symbiotroph/lichenised		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae 3198. <i>Graphis exalbata</i> Nyl. IF No: 385774 Trophic mode/Guild: symbiotroph/lichenised

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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3199, *Graphis ferruginea* Vain.  
IF No: 385788 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3200, *Graphis ficicola* Vain.  
IF No: 385789 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3201, *Graphis fumosa* Müll. Arg.  
IF No: 385805 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3202, *Graphis furcata* Fée IF No: 385806  
Trophic mode/Guild: symbiotroph/  
lichenised **Biogeographic region:** Caribbean  
**Distribution:** Pan tropics, Native **Dept.:** COR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3203, *Graphis geraensis* Redinger IF No: 627534  
Trophic mode/Guild: symbiotroph/  
lichenised **Biogeographic region:** Andes  
**Distribution:** Neotropics, Native **Elev.:** 1,700 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3204, *Graphis glaucescens* Fée  
IF No: 385813 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes  
**Distribution:** Pan tropics, Native **Elev.:** 100–2400 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3205, *Graphis handelli* Zahlbr.  
IF No: 385838 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3206, *Graphis hiacens* (Fée) Nyl.  
IF No: 385846



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3207, *Graphis homographiza* Nyl. IF No: 385853  
Trophic mode/Guild: symbiotroph/  
lichenised **Biogeographic region:** Andes  
**Distribution:** Endemic **Elev.:** 1,900 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3208, *Graphis hypoxea* Staiger  
IF No: 372574 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3209, *Graphis hypocrellina* Lücking & Chaves IF No: 508715  
Trophic mode/Guild: symbiotroph/lichenised  
**Biogeographic region:** Andes  
**Distribution:** Neotropics, Native **Elev.:** 2,460 m **Dept.:** RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3210, *Graphis immersella* Müll. Arg.  
IF No: 385870



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3211, *Graphis immersicans* A.W. Archer  
IF No: 483617 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3212, *Graphis implicata* Fée  
IF No: 385874 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3213, *Graphis insulana* (Müll. Arg.) Lücking & Sipman IF No: 508717  
Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3214, *Graphis internigricans* Nyl.  
IF No: 385895 Trophic mode/Guild: symbiotroph/lichenised **Conservation:** DD



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3215, *Graphis intricata* Fée  
IF No: 385902 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes  
**Distribution:** Pan tropics, Native **Elev.:** 1,200– 2,800 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3216, *Graphis inversa* R.C. Harris IF No: 355023  
Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3217, *Graphis kavintuca* Motta, Moncada & Lücking IF No: 829819  
Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3218, *Graphis lapidcola* Fée  
IF No: 385929 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3219, *Graphis leptocarpa* Fée  
IF No: 385941 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3220, *Graphis leptoclada* Müll. Arg. IF No: 385942  
Trophic mode/Guild: symbiotroph/  
lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3221, *Graphis librata* C. Knight  
IF No: 385952 Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3222, *Graphis lineola* Ach.  
IF No: 385955 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Andes  
**Distribution:** Pan tropics, Native **Elev.:** 1,100 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3223, *Graphis litoralis* Lücking, Sipman & Chaves IF No: 508718  
Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3224, *Graphis longiramea* Müll. Arg. IF No: 385959  
Trophic mode/Guild: symbiotroph/  
lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3225, *Graphis luciflora* R.C. Harris IF No: 355024  
Trophic mode/Guild: symbiotroph/  
lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3226, *Graphis lurtzana* Lücking, Moncada & Celis IF No: 828115  
Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3227, *Graphis maritima* (A.W. Archer) A.W. Archer IF No: 516933



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3228, *Graphis modesta* Zahlbr.  
IF No: 385999 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3229, *Graphis mokanarum* Lücking, Moncada & M.C. Martínez IF No: 828116  
Trophic mode/Guild: symbiotroph/  
lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3230, *Graphis murali-elegans* Sipman IF No: 807359  
Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3231, *Graphis myrtacea* (Müll. Arg.) Lücking IF No: 508721  
Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3232, *Graphis nanodes* Vain.  
IF No: 386010 Trophic mode/Guild: symbiotroph/lichenised **Biogeographic region:** Caribbean **Distribution:** Pan tropics, Native **Dept.:** COR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3233, *Graphis negrosina* (Vain.) Lücking IF No: 540535  
Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3234, *Graphis oligospora* Zahlbr.  
IF No: 386033 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3235, *Graphis oxyclada* Müll. Arg. IF No: 386040  
Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3236, *Graphis permambucoradlans* M. Cáceres & Lücking IF No: 540541  
Trophic mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3237, *Graphis perstriatula* Nyl.  
IF No: 386068



## CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3238. *Graphis plnicola* Zahlbr.  
IF No: 386081 Trophic mode/ Guild: symbiotroph/lichenised **Biogeographic region:** Caribbean **Distribution:** Panotropics,

Native Dept.: CES



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3239. *Graphis pltycarpa* Eschw.  
IF No: 386085 Trophic mode/ Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics,

Native Elev.: 1,200–2,700 m Dept.: BOY, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3240. *Graphis plumierae* Vain.  
IF No: 386089 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3241. *Graphis proserpens* Vain.  
IF No: 386100 Trophic mode/ Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics,

Native Elev.: 2,700 m Dept.: TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3242. *Graphis prunicola* Vain.  
IF No: 386105 Trophic mode/ Guild: symbiotroph/lichenised **Biogeographic region:** Caribbean **Distribution:** Panotropics,

Native Dept.: COR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3243. *Graphis pseudanahoga* Vain. IF No: 386106 Trophic mode/ Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics,

Native Elev.: 1,750 m



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3244. *Graphis pseudoserpens* Chaves & Lücking IF No: 508731 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3245. *Graphis pulgarrii* (Müll. Arg.) Lücking IF No: 508732 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3246. *Graphis pulverulenta* (Pers.) Ach. IF No: 122522 Trophic mode/ Guild: symbiotroph/lichenised **Distribution:** Panotropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3247. *Graphis pyrrochelloides* Zahlbr. IF No: 320097 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3248. *Graphis rosaliniana* Moncada, Amortegui & Lücking IF No: 829820 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3249. *Graphis santanderana* Motta, Moncada & Lücking IF No: 829821 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3250. *Graphis scriffneri* Zahlbr.  
IF No: 386159 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3251. *Graphis schroederi* Zahlbr.  
IF No: 386164 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3252. *Graphis scripta* (L.) Ach.  
IF No: 386168 Trophic mode/ Guild: symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes, Caribbean **Distribution:** Holarctic region, Native **Elev.:** 2,400–2,800 m **Dept.:** ATL, COR, CUN, GUA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3253. *Graphis solmariana* Motta, Moncada & Lücking IF No: 829822 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3254. *Graphis stellata* M. Cáceres & Lücking IF No: 540546 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3255. *Graphis strebllocarpa* (Bél.) Nyl. IF No: 386213 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3256. *Graphis subasahinae* Nagarkar & Patw. IF No: 109808 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3257. *Graphis subcontorta* (Müll. Arg.) Lücking & Chaves IF No: 508735 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3258. *Graphis subhirsuta* (Müll. Arg.) Lücking IF No: 508737 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3259. *Graphis subintermedians* Hale ex Lücking IF No: 540549 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3260. *Graphis submarginata* Lücking IF No: 508738 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3261. *Graphis subserpentina* Nyl. IF No: 386249 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3262. *Graphis subtracta* (Nyl.) Lücking IF No: 540551 Trophic mode/ Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics,



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3263. *Graphis subtracta* Nyl.  
IF No: 386254 Trophic mode/ Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics,



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3264. *Graphis suburgidula* Lücking & Sipman IF No: 508741



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3265. *Graphis subvirginiae* Nyl.  
IF No: 386259 Trophic mode/ Guild: symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Neotropics,



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3266. *Graphis supraecola* A.W. Archer IF No: 483622 Trophic mode/ Guild: symbiotroph/lichenised **Biogeographic region:** Caribbean **Distribution:** Panotropics,



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3267. *Graphis symplecta* Nyl.  
IF No: 386264 Trophic mode/ Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics,

Native Dept.: GUA

Native Dept.: COR

Native Elev.: 1,200–2,000 m Dept.: CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3268. *Graphis tenella* Ach. IF No: 386269 Trophic mode/ Guild: symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes **Distribution:** Panotropics,



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3269. *Graphis sunocae* Zahlbr.  
IF No: 386291 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3270. *Graphis urandae* Vain.  
IF No: 386303 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3271. *Graphis virescens* Müll. Arg. IF No: 386324 Trophic mode/ Guild: symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics, Native **Elev.:** 1,900–2,000 m **Dept.:** SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3272. *Graphis vittata* Müll. Arg.  
IF No: 386330 Trophic mode/ Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
3273. *Graphis xylophaga* (R.C. Harris) Lendemer IF No: 511042 Trophic mode/ Guild: symbiotroph/lichenised

CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3274. *Gymnographopsis korealensis*** (Sipman) Lücking & Sipman IF No: 558061  
**Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3275. *Gyrotrema album*** Kalb  
 IF No: 537990 **Trophic mode/ Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3276. *Gyrotrema sinuosum*** (Sipman) Frisch IF No: 334874 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Panotropics  
 South America, Native **Elev.:** 300 m **Dept.:** AMA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3277. *Gyrotrema wirhilii*** Rivas Plata, Lücking & Lumbsch IF No: 543704 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3278. *Helomasia sipmanii*** (Aptroot, Lücking & Rivas Plata) Nelsen, Lücking & Rivas Plata IF No: 516052 **Trophic mode/ Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3279. *Jocatoa agminalis*** (Nyl.) Lücking, Herrera-Camp. & R. Miranda IF No: 834678 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3280. *Kallographa cabballistica*** (Nyl.) Lücking IF No: 558062 **Trophic mode/ Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3281. *Lecoruma patellulium*** (Fée) Staiger  
 IF No: 372881 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3282. *Leucodecton dactyliferum*** (Hale) Lücking IF No: 800057 **Trophic mode/ Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, Native **Elev.:** 35 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3283. *Leucodecton occultum*** (Eschw.) Frisch IF No: 521383 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Caribbean **Distribution:** Panotropics,  
 Native **Elev.:** 0 m **Dept.:** ATL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3284. *Leucodecton subcompunctum*** (Nyl.) Frisch IF No: 521385 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Panotropics,  
 Native **Elev.:** 10–35 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3285. *Malmographina pilcosa*** (C.F.W. Meissn.) M. Cáceres, Rivas Plata & Lücking IF No: 563385 **Trophic mode/ Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3286. *Melanotrema comosum*** Sipman IF No: 807361 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3287. *Melanotrema lycocodes*** (Nyl.) Rivas Plata, Lücking & Lumbsch IF No: 807660 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3288. *Melanotrema platystomum*** (Mont.) Frisch IF No: 334794 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Panotropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3289. *Myriochapsa chocoensis*** Sipman IF No: 807465 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3290. *Myriotrema aggregans*** Sipman & Lücking IF No: 800078 **Trophic mode/ Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3291. *Myriotrema barroense*** (Hale) Hale IF No: 113582 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3292. *Myriotrema clandestinum*** (Fée) Hale IF No: 113881 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics,  
 Native **Elev.:** 1,200–2,200 m



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3293. *Myriotrema concretum*** (Fée) Hale IF No: 113882 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics,  
 Native **Elev.:** 2,200–3,190 m **Dept.:** CUN, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3294. *Myriotrema fragile*** (Hale) Hale IF No: 113595 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 100–



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3295. *Myriotrema frondosolucens*** Lücking IF No: 800081 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3296. *Myriotrema frondosum*** Hale IF No: 112464 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3297. *Myriotrema hartii*** (Müll. Arg.) Hale IF No: 113598 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes **Distribution:** Panotropics, Native **Elev.:** 240–2,600 m **Dept.:** AMA, ANT, HUI



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3298. *Myriotrema myrioporoides*** (Müll. Arg.) Hale IF No: 113608 **Trophic mode/ Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3299. *Myriotrema myrioporum*** (Tuck.) Hale IF No: 113891 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Neotropics,  
 Native **Elev.:** 300–350 m **Dept.:** AMA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3300. *Myriotrema myriotremoides*** (Nyl.) Hale IF No: 113609 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Neotropics, Native **Elev.:** 35–1,150 m **Dept.:** NAR, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3301. *Myriotrema neofrondosum*** Sipman IF No: 358762 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics,  
 Native **Elev.:** 35 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3302. *Myriotrema norsticticum*** (Hale) Hale IF No: 113610 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics,  
 Native **Elev.:** 230 m **Dept.:** VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3303. *Myriotrema olivaceum*** Fée IF No: 395810 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes **Distribution:** Panotropics, Native **Elev.:** 200–2,000 m **Dept.:** CUN, GUA, VAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3304. *Myriotrema protocetrarium*** (Hale) Hale IF No: 113614 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3305. *Myriotrema pulverulentum*** (Hale) Hale IF No: 113615 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3306. *Myriotrema rugiferum*** (Ham.) Hale IF No: 113894 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3307. *Myriotrema sphinctrinellum*** (Nyl.) Hale IF No: 113618 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3308. *Myriotrema thalldancium*** Homchant. & Coppins IF No: 475951 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3309. *Nadvornikia expallescens*** (Nyl.) I. Medeiros, Lücking & Lumbsch IF No: 818213 **Trophic mode/Guild:** symbiotroph/lichenised



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	<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3310. <i>Ocellularia albobullata</i></b> Lücking, Sipman &amp; Grube IF No: 517800 <b>Trophic mode/Guild:</b> symbiotroph/lichenised</p>		<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3311. <i>Ocellularia albocincta</i></b> (Hale) Divakar &amp; Mangold IF No: 516895 <b>Trophic mode/Guild:</b> symbiotroph/lichenised</p>		<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3312. <i>Ocellularia ascoldidea</i></b> Hale IF No: 112480 <b>Trophic mode/Guild:</b> symbiotroph/lichenised</p>
	<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3313. <i>Ocellularia suberfanoides</i></b> (Nyl.) Müll. Arg. IF No: 484256 <b>Trophic mode/Guild:</b> symbiotroph/lichenised  <b>Biogeographic region:</b> Andes <b>Distribution:</b> Neotropics, Native <b>Elev.:</b> 300–2,000 m <b>Dept.:</b> CUN, TOL</p>		<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3314. <i>Ocellularia bahiana</i></b> (Ach.) Frisch IF No: 521404 <b>Trophic mode/Guild:</b> symbiotroph/lichenised <b>Biogeographic region:</b> Andes <b>Distribution:</b> Panotropics, Native <b>Elev.:</b> 300–2,400 m <b>Dept.:</b> CUN, TOL</p>		<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3315. <i>Ocellularia bonplandii</i></b> (Fée) Müll. Arg. IF No: 395965 <b>Trophic mode/Guild:</b> symbiotroph/lichenised</p>
	<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3316. <i>Ocellularia bucklii</i></b> Lücking IF No: 811185 <b>Trophic mode/Guild:</b> symbiotroph/lichenised</p>		<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3317. <i>Ocellularia bullata</i></b> Hale IF No: 342663 <b>Trophic mode/Guild:</b> symbiotroph/lichenised</p>		<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3318. <i>Ocellularia calvescens</i></b> (Fée) Müll. Arg. IF No: 395966 <b>Trophic mode/Guild:</b> symbiotroph/lichenised <b>Biogeographic region:</b> Amazonia, Andes <b>Distribution:</b> Panotropics, Native <b>Elev.:</b> 240–2,400 m <b>Dept.:</b> AMA, CAQ, CUN</p>
	<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3319. <i>Ocellularia cavata</i></b> (Ach.) Müll. Arg. IF No: 118826 <b>Trophic mode/Guild:</b> symbiotroph/lichenised <b>Biogeographic region:</b> Amazonia, Andes, Pacific <b>Distribution:</b> Panotropics, Native <b>Elev.:</b> 35–2,600 m <b>Dept.:</b> AMA, CUN, HUI, NAR, SAN</p>		<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3320. <i>Ocellularia conferta</i></b> (Nyl.) C.W. Dodge IF No: 345339 <b>Trophic mode/Guild:</b> symbiotroph/lichenised</p>		<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3321. <i>Ocellularia crocea</i></b> (Kremp.) Overeem &amp; D. Overeem IF No: 368298 <b>Trophic mode/Guild:</b> symbiotroph/lichenised <b>Biogeographic region:</b> Amazonia <b>Distribution:</b> Panotropics, Native <b>Elev.:</b> 250 m <b>Dept.:</b> CAQ</p>
	<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3322. <i>Ocellularia decorata</i></b> Hale IF No: 342672 <b>Trophic mode/Guild:</b> symbiotroph/lichenised</p>		<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3323. <i>Ocellularia diplolema</i></b> (Nyl.) Zahlbr. IF No: 395992 <b>Trophic mode/Guild:</b> symbiotroph/lichenised</p>		<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3324. <i>Ocellularia dotecamera</i></b> (Nyl.) R.N. Peláez, Moncada &amp; Lücking IF No: 807520 <b>Trophic mode/Guild:</b> symbiotroph/lichenised</p>
	<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3325. <i>Ocellularia domingensis</i></b> (Fée ex Nyl.) Müll. Arg. IF No: 395997 <b>Trophic mode/Guild:</b> symbiotroph/lichenised <b>Biogeographic region:</b> Andes <b>Distribution:</b> Neotropics, Native <b>Elev.:</b> 2,000–2,600 m <b>Dept.:</b> CUN</p>		<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3326. <i>Ocellularia fecunda</i></b> (Vain.) Hale IF No: 342677 <b>Trophic mode/Guild:</b> symbiotroph/lichenised</p>		<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3327. <i>Ocellularia fumosa</i></b> (Ach.) Müll. Arg. IF No: 120502 <b>Trophic mode/Guild:</b> symbiotroph/lichenised</p>
	<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3328. <i>Ocellularia garoana</i></b> Patw. &amp; Nagarkar IF No: 113917 <b>Trophic mode/Guild:</b> symbiotroph/lichenised</p>		<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3329. <i>Ocellularia gerardoi</i></b> Sipman IF No: 545028 <b>Trophic mode/Guild:</b> symbiotroph/lichenised</p>		<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3330. <i>Ocellularia gracilis</i></b> Müll. Arg. IF No: 396014 <b>Trophic mode/Guild:</b> symbiotroph/lichenised <b>Distribution:</b> Neotropics, Native</p>
	<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3331. <i>Ocellularia granulata</i></b> (Nyl.) Zahlbr. IF No: 396016 <b>Trophic mode/Guild:</b> symbiotroph/lichenised</p>		<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3332. <i>Ocellularia gymnocarpe</i></b> (Nyl.) Zahlbr. IF No: 396019 <b>Trophic mode/Guild:</b> symbiotroph/lichenised  <b>Biogeographic region:</b> Andes <b>Distribution:</b> Endemic <b>Elev.:</b> 1,200 m</p>		<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3333. <i>Ocellularia inspersula</i></b> Lücking &amp; Aptroot IF No: 800088 <b>Trophic mode/Guild:</b> symbiotroph/lichenised</p>
	<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3334. <i>Ocellularia inturgescens</i></b> (Müll. Arg.) Mangold IF No: 540696 <b>Trophic mode/Guild:</b> symbiotroph/lichenised</p>		<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3335. <i>Ocellularia laeviuscula</i></b> (Nyl.) Kraichak, Lücking &amp; Lumbsch IF No: 807664 <b>Trophic mode/Guild:</b> symbiotroph/lichenised</p>		<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3336. <i>Ocellularia laeviusculoides</i></b> Sipman &amp; Lücking IF No: 800091 <b>Trophic mode/Guild:</b> symbiotroph/lichenised <b>Distribution:</b> Neotropics, Native</p>
	<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3337. <i>Ocellularia lendronii</i></b> Hale IF No: 342686 <b>Trophic mode/Guild:</b> symbiotroph/lichenised</p>		<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3338. <i>Ocellularia leucomycetoides</i></b> (Nyl.) Lücking IF No: 558066 <b>Trophic mode/Guild:</b> symbiotroph/lichenised</p>		<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3339. <i>Ocellularia mauritiana</i></b> Hale IF No: 342690 <b>Trophic mode/Guild:</b> symbiotroph/lichenised <b>Biogeographic region:</b> Amazonia, Andes, Pacific <b>Distribution:</b> Neotropics, Panotropics, Africa, Native <b>Elev.:</b> 35–2,400 m <b>Dept.:</b> AMA, CAQ, HUI, NAR</p>
	<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3340. <i>Ocellularia maxima</i></b> (Hale) Lumbsch &amp; Mangold IF No: 800066 <b>Trophic mode/Guild:</b> symbiotroph/lichenised  <b>Biogeographic region:</b> Andes <b>Distribution:</b> Neotropics, Native <b>Elev.:</b> 2,550 m <b>Dept.:</b> ANT</p>		<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3341. <i>Ocellularia microscidulum</i></b> (Vain.) Zahlbr. IF No: 396039 <b>Trophic mode/Guild:</b> symbiotroph/lichenised</p>		<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3342. <i>Ocellularia natashae</i></b> Rivas Plata &amp; Lücking IF No: 800211 <b>Trophic mode/Guild:</b> symbiotroph/lichenised</p>
	<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3343. <i>Ocellularia obturascens</i></b> (Nyl.) Hale IF No: 132231 <b>Trophic mode/Guild:</b> symbiotroph/lichenised <b>Distribution:</b> Neotropics, Native</p>		<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3344. <i>Ocellularia papillata</i></b> (Leight.) Zahlbr. IF No: 396052 <b>Trophic mode/Guild:</b> symbiotroph/lichenised <b>Biogeographic region:</b> Amazonia, Pacific <b>Distribution:</b> Panotropics, Native <b>Elev.:</b> 35–250 m <b>Dept.:</b> AMA, CAQ, NAR</p>		<p>Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  <b>3345. <i>Ocellularia papillifera</i></b> L.I. Ferraro, Lücking, Aptroot &amp; M. Cáceres IF No: 807260</p>

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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3346. *Ocellularia percolumellata*** Sipman  
 IF No: 362136 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3347. *Ocellularia perforata*** (Leight.) Müll. Arg.  
 IF No: 396055 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Andes, Pacific

**Distribution:** Pantropics, Native **Elev.:** 0–2,550 m **Dept.:** AMA, ANT, CAQ, CAU, MET



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3348. *Ocellularia phaeotropa*** (Kremp.) Zahlbr. IF No: 396058 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3349. *Ocellularia pluriporoides*** Homchant. & Coppins IF No: 376196 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3350. *Ocellularia polydisca*** Redinger IF No: 411277 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3351. *Ocellularia postposita*** (Nyl.) Frisch IF No: 521411 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Pantropics Africa, Native **Elev.:** 2,500 m **Dept.:** GUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3352. *Ocellularia praestans*** (Müll. Arg.) Hale IF No: 113654 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, Native **Elev.:** 35 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3353. *Ocellularia psorbarruensis*** Sipman IF No: 800094 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3354. *Ocellularia refta*** Hale IF No: 342702 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3355. *Ocellularia rhabdospora*** (Nyl.) Redinger IF No: 368309 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes, Pacific



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3356. *Ocellularia rhodostroma*** (Mont.) Zahlbr. IF No: 396076 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3357. *Ocellularia riplei*** Hale IF No: 342704 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, Native **Elev.:** 35 m **Dept.:** NAR

**Distribution:** Neotropics, Native **Elev.:** 35–1,200 m **Dept.:** NAR, SAN

**Distribution:** Neotropics, Native **Elev.:** 240 m **Dept.:** AMA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3358. *Ocellularia subpraestans*** (Hale) Hale IF No: 113658 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, Native **Elev.:** 0–300 m **Dept.:** CAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3359. *Ocellularia subpyrenuloides*** Lücking IF No: 800096 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3360. *Ocellularia tacarcunae*** Lücking IF No: 800098 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3361. *Ocellularia terebrata*** (Ach.) Müll. Arg. IF No: 396090 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia, Pacific **Distribution:** Pantropics, Native **Elev.:** 10–350 m **Dept.:** AMA, CAQ, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3362. *Ocellularia umbilicata*** Müll. Arg. IF No: 396097 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3363. *Ocellularia umbilicatoides*** R.N. Peláez, Moncada & Lücking IF No: 807518 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3364. *Ocellularia usnicolor*** R.N. Peláez, Moncada & Lücking IF No: 807519 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3365. *Ocellularia xantholeuca*** Frisch IF No: 521412 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3366. *Ocellularia xanthostroma*** (Nyl.) Zahlbr. IF No: 396103 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Pacific **Distribution:** Neotropics, Native **Elev.:** 35 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3367. *Ocellularia vulcanisorediata*** Merc.-Díaz, Lücking & Parmen IF No: 808429 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3368. *Pallidogramme chlorocarpoides*** (Nyl.) Staiger, Kalb & Lücking IF No: 508698 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3369. *Pallidogramme chryseron*** (Mont.) Staiger, Kalb & Lücking IF No: 508699 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3370. *Opegrapha vulgata*** (Ach.) Ach. IF No: 396770 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Cosmopolitan, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3371. *Phaeographis arthonoides*** (Vain.) Zahlbr. IF No: 400132 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3372. *Phaeographis asteroides*** (Fink) Lendemer IF No: 511164 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3373. *Phaeographis amazonica*** Staiger IF No: 373123 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3374. *Phaeographis caesioidisca*** Staiger IF No: 373125 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3375. *Phaeographis caesiordians*** (Leight.) A.W. Archer IF No: 365329 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3376. *Phaeographis brasiliensis*** (A. Massal.) Kalb & Matthes–Leicht IF No: 476127 **Trophic mode/Guild:** symbiotroph/lichenised **Distribution:** Neotropics, Native **Elev.:** 1,900–2,000 m **Dept.:** VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3377. *Phaeographis decolorascens*** (Nyl.) Lücking IF No: 558067 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3378. *Phaeographis delightonii*** C.W. Dodge IF No: 369200 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3379. *Phaeographis declivens*** Müll. Arg. IF No: 400152



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3380. *Phaeographis decolorascens*** (Nyl.) Lücking IF No: 558067 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3381. *Phaeographis delightonii*** C.W. Dodge IF No: 369200 **Trophic mode/Guild:** symbiotroph/lichenised



## CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3382. *Phaeographis dendritica*** (Ach.) Müll. Arg. IF No: 400153 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Cosmopolitan, Native **Elev.:** 0–2,940 m **Dept.:** CAU, CUN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3383. *Phaeographis divdicens*** (Nyl.) Kr. P. Singh & Swarnal. IF No: 588064 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3384. *Phaeographis flavicans*** Kashw. IF No: 110874 **Trophic mode/Guild:** symbiotrophy/lichenised **Distribution:** Pan tropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3385. *Phaeographis fulgurans*** (Nyl.) Zahlbr. IF No: 411579 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Amazonia **Distribution:** Endemic **Dept.:** GUA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3386. *Phaeographis fusca*** Staiger IF No: 373127 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3387. *Phaeographis galeanae*** Lücking, Moncada & B. Salgado-N. IF No: 826117 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3388. *Phaeographis haematites*** (Fée) Müll. Arg. IF No: 400179 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Neotropics, Native **Elev.:** 35–1,800 m **Dept.:** CAU, CUN, NAR, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3389. *Phaeographis heterochroides*** Zahlbr. IF No: 400181 **Trophic mode/Guild:** symbiotrophy/lichenised **Distribution:** Neotropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3390. *Phaeographis inconspicua*** (Fée) Müll. Arg. IF No: 400186 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3391. *Phaeographis intricans*** (Nyl.) Staiger IF No: 489646 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 1,700–2,600 m **Dept.:** CUN, NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3392. *Phaeographis inusta*** (Ach.) Müll. Arg. IF No: 400190 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 2,600–2,700 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3393. *Phaeographis kalbii*** Staiger IF No: 373128 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3394. *Phaeographis leogrammodes*** (Kremp.) Müll. Arg. IF No: 400199 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Amazonia **Distribution:** Neotropics, Native **Elev.:** 300 m **Dept.:** CAQ, GUA



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3395. *Phaeographis leprleurii*** (Mont.) Staiger IF No: 373130 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Amazonia **Distribution:** Endemic **Elev.:** 2,200 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3396. *Phaeographis leucochella*** (Fée) Müll. Arg. IF No: 400203 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,200 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3397. *Phaeographis lindigiana*** Müll. Arg. IF No: 400205 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 1,600 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3398. *Phaeographis lobata*** (Eschw.) Müll. Arg. IF No: 400206 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 1,000–2,500 m **Dept.:** ANT, HUI



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3399. *Phaeographis major*** (Kremp.) Lücking IF No: 513411 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3400. *Phaeographis medusiformis*** (Kremp.) Müll. Arg. IF No: 400215 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3401. *Phaeographis mesographa*** (Nyl.) Müll. Arg. IF No: 400220 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3402. *Phaeographis neotricosa*** Redinger IF No: 411589 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3403. *Phaeographis nylanderii*** (Vain.) Zahlbr. IF No: 400224 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3404. *Phaeographis paratypha*** Müll. Arg. IF No: 641253 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,500 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3405. *Phaeographis platycarpa*** Müll. Arg. IF No: 355675 **Trophic mode/Guild:** symbiotrophy/lichenised **Distribution:** Pan tropics, Native



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3406. *Phaeographis punctiformis*** (Eschw.) Müll. Arg. IF No: 400240 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3407. *Phaeographis quadrifera*** (Nyl.) Staiger IF No: 373131 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3408. *Phaeographis scalpturata*** (Ach.) Staiger IF No: 373133 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Andes **Distribution:** Pan tropics, Native **Elev.:** 100–2,600 m **Dept.:** CUN, HUI, VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3409. *Phaeographis spondalca*** (Nyl.) Lücking IF No: 811511 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3410. *Phaeographis subtrifida*** (Vain.) Zahlbr. IF No: 400265 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3411. *Phaeographis tortuosa*** (Ach.) Müll. Arg. IF No: 400269 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3412. *Platygramme arechavaletae*** (Müll. Arg.) A.W. Archer IF No: 365246 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3413. *Platygramme caesiopruinosa*** (Fée) Fée IF No: 475559 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Amazonia, Andes, Pacific **Distribution:** Pan tropics, Native **Elev.:** 35–2,300 m **Dept.:** AMA, ANT, CAQ, CAU, GUA, NAR, SAN, VAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3414. *Platygramme colubrosa*** (Nyl.) Staiger IF No: 373180 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,200 m



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3415. *Platygramme discurrens*** (Nyl.) Staiger IF No: 373183 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3416. *Platygramme pachyspora*** (Redinger) Staiger IF No: 373185 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3417. *Platythecium allopsorellum*** (Nyl.) Staiger IF No: 373191 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Amazonia **Distribution:** Neotropics, Native **Elev.:** 250 m **Dept.:** AMA, CAQ

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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3418. *Platythecium dimorphodes*** (Nyl.) Staiger IF No: 373197 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3419. *Platythecium grammis*** (Fée) Staiger IF No: 373198 **Trophic mode/Guild:** symbiotrophy/lichenised  
**Biogeographic region:** Amazonia, Andes  
**Distribution:** Neotropics, Native **Elev.:** 240–2,000 m **Dept.:** AMA, CAQ, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3420. *Platythecium lelogramma*** (Nyl.) Staiger IF No: 373203 **Trophic mode/Guild:** symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Neotropics, Africa, Native **Elev.:** 1,100–1,800 m **Dept.:** CUN, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3421. *Platythecium serpentinellum*** (Nyl.) Staiger IF No: 373204 **Trophic mode/Guild:** symbiotrophy/lichenised  
**Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 2,000–2,120 m **Dept.:** CUN, RIS **Conservation:** CR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3422. *Pilariona montagnei*** (Bosch) A. Massal. IF No: 401667



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3423. *Pseudochapsa albomaculata*** (Sipman) Parmen., Lücking & Lumbsch IF No: 801519 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3424. *Pseudochapsa dilatata*** (Müll. Arg.) Parmen., Lücking & Lumbsch IF No: 801521 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3425. *Pseudochapsa phycidaloides*** (Müll. Arg.) Parmen., Lücking & Lumbsch IF No: 801528 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3426. *Pseudochapsa pseudoschizostoma*** (Hale) Parmen., Lücking & Lumbsch IF No: 801530 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3427. *Pycnotrema pycnoporellum*** (Nyl.) Rivas Plata & Lücking IF No: 563433 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Pacific  
**Distribution:** Neotropics, Native **Elev.:** 35 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3428. *Redingeria glyphica*** (Nyl.) Frisch IF No: 521461 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,000 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3429. *Redingeria lelostoma*** (Tuck.) Frisch IF No: 334776 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Africa, Native **Elev.:** 1,900–2,000 m **Dept.:** VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3430. *Redingeria microspora*** (Zahlbr.) M. Cáceres & Lücking IF No: 800587 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3431. *Reimnitzia santensis*** (Tuck.) Kalb IF No: 474298 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3432. *Rhabdodiscus anamorphoides*** (Nyl.) Vain. IF No: 566915



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3433. *Rhabdodiscus auberianus*** (Mont.) Vain. IF No: 403888 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3434. *Rhabdodiscus crassus*** (Müll. Arg.) Frisch IF No: 565220 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3435. *Rhabdodiscus emersus*** (Kremp.) Rivas Plata, Lücking & Lumbsch IF No: 801257 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3436. *Rhabdodiscus fissus*** (Müll. Arg.) Vain. IF No: 403892 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3437. *Rhabdodiscus granulatus*** (Tuck.) Rivas Plata, Lücking & Lumbsch IF No: 801259 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3438. *Rhabdodiscus integer*** (Müll. Arg.) Rivas Plata, Lücking & Lumbsch IF No: 801260 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3439. *Rhabdodiscus isidifer*** (Hale) Rivas Plata, Lücking & Lumbsch IF No: 801261 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3440. *Rhabdodiscus lankeensis*** (Hale) Lücking IF No: 807631 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3441. *Rhabdodiscus metaphoricus*** (Nyl.) Vain. IF No: 403898 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3442. *Rhabdodiscus reconditus*** (Stirt.) Rivas Plata, Lücking & Lumbsch IF No: 801267 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3443. *Rhabdodiscus subcaevatus*** (Nyl.) Rivas Plata, Lücking & Lumbsch IF No: 801269 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3444. *Rhabdodiscus subemersus*** (Müll. Arg.) Rivas Plata, Lücking & Lumbsch IF No: 801270 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3445. *Rhabdodiscus tanzanicus*** (Frisch) Rivas Plata, Lücking & Lumbsch IF No: 801271 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3446. *Sanguinolotrema wightii*** (Taylor) Lücking IF No: 814226 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3447. *Sarcographa cinchonarum*** Fée IF No: 404799 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Pantropics, Native **Elev.:** 0–1,200 m **Dept.:** CAU, CUN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3448. *Sarcographa dilatascens*** (Vain.) Zahlbr. IF No: 404808



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3449. *Sarcographa heteroclitia*** (Mont.) Zahlbr. IF No: 411784 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Pacific **Distribution:** Pantropics, Native **Elev.:** 35 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3450. *Sarcographa labyrinthica*** (Ach.) Müll. Arg. IF No: 404825 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Pantropics, Native **Elev.:** 35–1,200 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3451. *Sarcographa medusulina*** (Nyl.) Müll. Arg. IF No: 404831 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Andes, Pacific **Distribution:** Endemic **Elev.:** 0–300 m **Dept.:** CAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3452. *Sarcographa ramificans*** (Kremp.) Staiger IF No: 373277 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Pacific **Distribution:** Pantropics, Native **Elev.:** 10–35 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Graphidaceae  
**3453. *Sarcographa tricolora*** (Ach.) Müll. Arg. IF No: 121553 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 100 m



## CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Graphidaceae  
3454. *Stegobolus anomorphus* (Nyl.)  
Frisch & Kalb IF No: 521477 Trophic  
mode/Guild: symbiotroph/lichenised

**Biogeographic region:** Amazonia  
**Distribution:** Neotropics, Native **Elev.:** 250 m **Dept.:** AMA



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Graphidaceae  
3455. *Stegobolus berkeleyanus* Mont. IF  
No: 405881 Trophic mode/Guild:  
symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Graphidaceae  
3456. *Stegobolus gualanensis* (Sipman)  
Frisch IF No: 521486



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Graphidaceae  
3457. *Stegobolus wrightii* (Tuck.) Frisch IF  
No: 521500 Trophic mode/Guild:  
symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Graphidaceae  
3458. *Thalloioma angulum* (Mont.)  
Trevis. IF No: 406886 Trophic mode/Guild:  
symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Graphidaceae  
3459. *Thalloioma astroideum* (Müll. Arg.)  
Staiger IF No: 373316 Trophic mode/  
Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Graphidaceae  
3460. *Thalloioma buriticum* (Redinger)  
Staiger IF No: 373317 Trophic mode/  
Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Graphidaceae  
3461. *Thalloioma cinnabarinum* (Fée)  
Staiger IF No: 373320 Trophic mode/  
Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Graphidaceae  
3462. *Thalloioma haemographum* (Nyl.)  
Staiger IF No: 373324 Trophic mode/  
Guild: symbiotroph/lichenised

**Biogeographic region:** Andes **Distribution:**  
Neotropics, Native **Elev.:** 1,100 m

**Endemic Elev.:** 2,700 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Graphidaceae  
3463. *Thalloioma hypoleptum* (Nyl.)  
Staiger IF No: 373326 Trophic mode/  
Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Graphidaceae  
3464. *Thalloioma scribblans* (Nyl.) Lücking  
IF No: 558072 Trophic mode/Guild:  
symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Graphidaceae  
3465. *Thelotrema adjectum* Nyl.  
IF No: 407160 Trophic mode/Guild:  
symbiotroph/lichenised

**Biogeographic region:** Andes **Distribution:**  
Pantropics, Native **Elev.:** 2,400 m **Dept.:** ANT, CUN

**Biogeographic region:** Andes **Distribution:** Pantropics,  
Native **Elev.:** 1,900–2,000 m **Dept.:** VAC



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Graphidaceae  
3466. *Thelotrema conueniens* Nyl. IF No:  
478169 Trophic mode/Guild: symbiotroph  
/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Graphidaceae  
3467. *Thelotrema lugale* (Müll. Arg.)  
Lücking IF No: 800227 Trophic mode/  
Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Graphidaceae  
3468. *Thelotrema lacteum* Kremp. IF No:  
407328 Trophic mode/Guild: symbiotroph  
/lichenised

**Distribution:** Neotropics, Native **Elev.:**  
2,500–2,550 m **Dept.:** ANT, CUN

**Elev.:** 1,700 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Graphidaceae  
3469. *Thelotrema lepadinum* (Ach.) Ach. IF  
No: 407340 Trophic mode/Guild:  
symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Graphidaceae  
3470. *Thelotrema lepadodes* Tuck. IF No:  
357400 Trophic mode/Guild: symbiotroph  
/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Graphidaceae  
3471. *Thelotrema monosporum* Nyl. IF No:  
407385 Trophic mode/Guild: symbiotroph  
/lichenised

**Biogeographic region:** Andes **Distribution:** Cosmopolitan,  
Native **Elev.:** 2,500–3,730 m **Dept.:** ANT, CUN, NAR, TOL

**Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:**  
1,200 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Graphidaceae  
3472. *Thelotrema oclusum* Nyl.  
IF No: 407397 Trophic mode/Guild:  
symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Graphidaceae  
3473. *Thelotrema pachysporum* Nyl. IF No:  
407402 Trophic mode/Guild: symbiotroph  
/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Graphidaceae  
3474. *Thelotrema paludosum* Sipman IF  
No: 807366 Trophic mode/Guild:  
symbiotroph/lichenised

**Biogeographic region:** Andes **Distribution:** Neotropics,  
Native **Elev.:** 1,100–2,700 m **Dept.:** HUI, SAN, TOL



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Graphidaceae  
3475. *Thelotrema porinoides* Mont. &  
Bosch IF No: 407429 Trophic mode/Guild:  
symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Graphidaceae  
3476. *Thelotrema suecicum* (H. Magn.) P.  
James IF No: 343760 Trophic mode/Guild:  
symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Graphidaceae  
3477. *Wirhlotrema duploimarginatum*  
Lücking, Mangold & Lumbsch IF No:  
800104 Trophic mode/Guild:  
symbiotroph/lichenised

**Biogeographic region:** Pacific **Distribution:** Pantropics,  
Native **Elev.:** 0–300 m **Dept.:** CAU



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Graphidaceae  
3478. *Wirhlotrema glaucopallens* (Nyl.)  
Rivas Plata & Kalb IF No: 512787 Trophic  
mode/Guild: symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Spirographaceae  
3479. *Spirographa fusisporella* (Nyl.)  
Zahlbr. IF No: 448854 Trophic mode/  
Guild: pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Spirographaceae  
3480. *Spirographa hypotrachynae* (Etayo)  
Flakus, Etayo & Miadl. IF No: 833350  
Trophic mode/Guild: pathotroph/lichen  
parasite

**Biogeographic region:** Pacific **Distribution:**  
Pantropics, Native **Elev.:** 35 m **Dept.:** CAU, NAR



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Spirographaceae  
3481. *Spirographa ophurospora* (Etayo)  
Flakus, Etayo & Miadl. IF No: 833355  
Trophic mode/Guild: pathotroph/lichen  
parasite



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Stictidaceae  
3482. *Blastictis psychotriae* (Mont.)  
Sherwood IF No: 309551 Trophic mode  
/Guild: saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Stictidaceae  
3483. *Nanostictis confusa* Etayo  
IF No: 818347 Trophic mode/Guild:  
pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Stictidaceae  
3484. *Nanostictis peltigerae* M.S. Christ. IF  
No: 301706 Trophic mode/Guild:  
pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Stictidaceae  
3485. *Nanostictis pluriseptata* Etayo IF No:  
373023 Trophic mode/Guild:  
pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Stictidaceae  
3486. *Nanostictis stictae* Etayo  
IF No: 373024 Trophic mode/Guild:  
pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Stictidaceae  
3487. *Schizoxylon emergens* Sherwood IF  
No: 323156 Trophic mode/Guild:  
symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Stictidaceae  
3488. *Schizoxylon sulfurinum* Sherwood IF  
No: 323172 Trophic mode/Guild:  
symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina,  
Lecanoromycetes, Ostropomycetidae,  
Ostropales, Stictidaceae  
3489. *Stictis carnea* Seaver & Waterston  
IF No: 291210 Trophic mode/Guild:  
symbiotroph/lichenised

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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Stictidaceae  
**3490. *Stictis cundinamareae*** Sherwood IF No: 324095 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Stictidaceae  
**3491. *Stictis irribilis*** (W. Phillips & Plowr.) Sacc. & Traverso IF No: 250181 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Stictidaceae  
**3492. *Stictis hawalensis*** E.K. Cash IF No: 266850 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Stictidaceae  
**3493. *Stictis heliospora*** Sherwood IF No: 324105 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Stictidaceae  
**3494. *Stictis hypophylla*** Sherwood IF No: 324106 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Stictidaceae  
**3495. *Stictis prominens*** Sherwood IF No: 324117 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Stictidaceae  
**3496. *Stictis radiata*** (L.) Pers. IF No: 248730 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Stictidaceae  
**3497. *Stictis radiata var. uncinata*** W. Phillips ex Sherwood IF No: 348877



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Stictidaceae  
**3498. *Stictis ramuligera*** Starbäck IF No: 248388 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Ostropales, Stictidaceae  
**3499. *Stictis stellata*** Wallr. IF No: 216566 **Trophic mode/ Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Coccotremataceae  
**3500. *Parasiphula complanata*** (Hook. f. & Taylor) Kantvilas & Grube IF No: 522032 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Lecanodophilaaceae  
**3501. *Dibaels absoluta*** (Tuck.) Kalb & Gierl IF No: 360412 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 1,200–3,750 m **Dept.:** BOY, CUN, VAC



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Lecanodophilaaceae  
**3502. *Dibaels arcuata*** (Stirt.) Kalb & Gierl IF No: 360415 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Lecanodophilaaceae  
**3503. *Dibaels baecomyces*** (L. f.) Rambold & Hertel IF No: 360416



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Lecanodophilaaceae  
**3504. *Dibaels columbiana*** (Vain.) Kalb & Gierl IF No: 360418 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Lecanodophilaaceae  
**3505. *Dibaels fungoides*** (Sw.) Kalb & Gierl IF No: 360419 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,280–3,950 m **Dept.:** ANT, BOY, CAL, CAU, CUN, HUI, MET, QUI, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Lecanodophilaaceae  
**3506. *Dibaels globulifera*** Kalb & Gierl IF No: 360420 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,700–3,000 m **Dept.:** ANT, NAR, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Lecanodophilaaceae  
**3507. *Dibaels hobstlii*** (Müll. Arg.) Kalb & Gierl IF No: 360421 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,700 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Lecanodophilaaceae  
**3508. *Dibaels sorediata*** Kalb & Gierl IF No: 360413 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Lecanodophilaaceae  
**3509. *Lecanodophila aversa*** (Nyl.) Rambold & Hertel IF No: 361289 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Lecanodophilaaceae  
**3510. *Siphula carassana*** Müll. Arg. IF No: 646511 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Neotropics, Native **Elev.:** 350 m **Dept.:** AMA, CAQ



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Lecanodophilaaceae  
**3511. *Siphula ceratites*** (Wahlenb.) Fr. IF No: 405207 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 3,100 m **Dept.:** CAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Lecanodophilaaceae  
**3512. *Siphula decumbens*** Nyl. IF No: 405211 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Amazonia **Distribution:** Panotropics, Native **Elev.:** 350 m **Dept.:** AMA, CAQ



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Lecanodophilaaceae  
**3513. *Siphula fastigiata*** (Nyl.) Nyl. IF No: 405215 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 3,000–4,560 m **Dept.:** ARA, BOY, CAU, CUN, MET, PUT



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Lecanodophilaaceae  
**3514. *Siphula pteruloides*** Nyl. IF No: 405225 **Trophic mode/ Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 3,000–4,560 m **Dept.:** ANT, BOY, CAU, CUN, HUI, MAG, MET, SAN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Lecanodophilaaceae  
**3515. *Thamnomla vermicularis*** (Sw.) Schaer. IF No: 406896 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Cosmopolitan, Native **Elev.:** 3,550–4,550 m **Dept.:** BOY, CAL, CUN, MET, RIS, SAN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Megasporaceae  
**3516. *Megaspora verrucosa*** (Ach.) Arcadia & A. Nordin IF No: 564838 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Cosmopolitan, Native **Elev.:** 3,830–4,540 m **Dept.:** BOY, CAL, MET, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Ochrolechiaceae  
**3517. *Ochrolechia africana*** Vain. IF No: 396108 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Panotropics, Native **Elev.:** 1,750 m **Dept.:** CAU



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Ochrolechiaceae  
**3518. *Ochrolechia inaequata*** (Nyl.) Zahlbr. IF No: 396131 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 1,200 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Ochrolechiaceae  
**3519. *Ochrolechia parella*** (L.) A. Massal. IF No: 396140 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Ochrolechiaceae  
**3520. *Ochrolechia subpalesscens*** Verseghy IF No: 345364 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae  
**3521. *Lepra acrosyphoides*** (Sipman) I. Schmitt, B.P. Hodk. & Lumbsch IF No: 820747 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae  
**3522. *Lepra albescens*** (Huds.) Hafellner IF No: 818748 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae  
**3523. *Lepra amara*** (Ach.) Hafellner IF No: 818749



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae  
**3524. *Lepra corallina*** (L.) Hafellner IF No: 818751 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae  
**3525. *Lepra hypothamallia*** (Dibben) Lendemer & R.C. Harris IF No: 821149 **Trophic mode/Guild:** symbiotroph/lichenised



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	Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae 3526. <i>Lepra multipuncta</i> (Turner) Hafellner IF No: 818769 Trophic mode/Guild: symbiotrophy/lichenised		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae 3527. <i>Lepra subventosa</i> (Malmé) I. Schmitt & Lumbsch IF No: 820274 Trophic mode/Guild: symbiotrophy/lichenised		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae 3528. <i>Lepra ventosa</i> (Malmé) Lendemé & R.C. Harris IF No: 821154 Trophic mode/Guild: symbiotrophy/lichenised
	Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae 3529. <i>Pertusaria achroza</i> Nyl. IF No: 399390 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Andes Distribution: Endemic Elev.: 2,200 m		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae 3530. <i>Pertusaria albidella</i> Nyl. IF No: 399397 Trophic mode/Guild: symbiotrophy/lichenised Distribution: Endemic Elev.: 1,100 m Dept.: CUN		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae 3531. <i>Pertusaria assimilans</i> Nyl. IF No: 399435 Trophic mode/Guild: symbiotrophy/lichenised Distribution: Endemic Elev.: 2,600 m Dept.: CUN
	Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae 3532. <i>Pertusaria carneola</i> (Eschw.) Müll. Arg. IF No: 399456 Trophic mode/Guild: symbiotrophy/lichenised		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae 3533. <i>Pertusaria cicutricosa</i> Müll. Arg. IF No: 399468 Trophic mode/Guild: symbiotrophy/lichenised		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae 3534. <i>Pertusaria confundens</i> Nyl. IF No: 399494 Trophic mode/Guild: symbiotrophy/lichenised Distribution: Endemic Elev.: 2,900 m Dept.: CUN
	Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae 3535. <i>Pertusaria dealbata</i> (Ach.) Cromb. IF No: 399523 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Andes Distribution: Temperate region of the North, Native Elev.: 2,600 m Dept.: CUN		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae 3536. <i>Pertusaria leolopaca</i> (Ach.) DC. IF No: 399653 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Andes Distribution: Subcosmopolitan, Native Elev.: 100–2,500 m Dept.: CUN		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae 3537. <i>Pertusaria lichexanthoverrucosa</i> Aptroot & Cáceres IF No: 824158 Trophic mode/Guild: symbiotrophy/lichenised
	Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae 3538. <i>Pertusaria ochrotheliza</i> Nyl. IF No: 399740 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Andes Distribution: Endemic Elev.: 1,800 m Dept.: CUN		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae 3539. <i>Pertusaria pustulata</i> (Ach.) Duby IF No: 399805 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Andes Distribution: Cosmopolitan, Native Elev.: 2,700–2,800 m Dept.: BOY, CUN		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae 3540. <i>Pertusaria pycnanhora</i> Nyl. IF No: 399806 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Andes Distribution: Endemic Elev.: 2,800 m Dept.: CUN
	Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae 3541. <i>Pertusaria quassiae</i> (Fée) Nyl. IF No: 399810		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae 3542. <i>Pertusaria rhodiza</i> Nyl. IF No: 399816 Trophic mode/Guild: symbiotrophy/lichenised		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae 3543. <i>Pertusaria rhodostoma</i> Nyl. IF No: 399819 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Andes Distribution: Endemic Elev.: 1,100 m Dept.: CUN Conservation: DD
	Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae 3544. <i>Pertusaria simplicata</i> Vain. IF No: 399841 Trophic mode/Guild: symbiotrophy/lichenised		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae 3545. <i>Pertusaria subvaginata</i> Nyl. IF No: 399897 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Andes Distribution: Subcosmopolitan, Native Elev.: 1,200 m Dept.: CUN		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae 3546. <i>Pertusaria tetrathalamia</i> (Fée) Nyl. IF No: 399917 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Andes Distribution: Neotropics, Native Elev.: 1,200–2,400 m Dept.: CUN
	Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae 3547. <i>Pertusaria thelocarpoides</i> Nyl. IF No: 399921 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Andes Distribution: Endemic Elev.: 2,500 m Dept.: CUN		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae 3548. <i>Pertusaria tryptelliformis</i> Nyl. IF No: 399940 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Andes Distribution: Neotropics, Native Elev.: 1,200–2,000 m Dept.: CUN, SAN		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae 3549. <i>Pertusaria tuberculifera</i> Nyl. IF No: 399941 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Andes Distribution: Endemic Elev.: 1,900–2,600 m Dept.: CUN
	Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae 3550. <i>Porina atrocoerulea</i> Müll. Arg. IF No: 401968 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Pacific Distribution: Pan tropics, Native Elev.: 100 m Dept.: CHO		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae 3551. <i>Porina fulvella</i> Müll. Arg. IF No: 402069 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Amazonia, Andes Distribution: Pan tropics, Native Elev.: 240–2,400 m Dept.: AMA, ANT, CAQ, HUI		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae 3552. <i>Porina leptosperma</i> Müll. Arg. IF No: 402134 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Amazonia, Andes, Pacific Distribution: Pan tropics, Native Elev.: 35–2,500 m Dept.: AMA, ANT, CAQ, CHO, HUI, MET, NAR
	Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae 3553. <i>Porina leptospermoides</i> Müll. Arg. IF No: 402135 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Pacific Distribution: Neotropics, Native Elev.: 35–350 m Dept.: CHO, NAR		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae 3554. <i>Porina nitidula</i> Müll. Arg. IF No: 402183 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Andes, Caribbean Distribution: Pan tropics, Native Elev.: 20–1,700 m Dept.: CAU, HUI, MAG, MET		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Pertusariaceae 3555. <i>Porina rubentior</i> (Sirt.) Müll. Arg. IF No: 402252 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Amazonia, Andes, Pacific Distribution: Pan tropics, Native Elev.: 35–350 m Dept.: AMA, CAQ, MET, NAR, VAL
	Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Varicellariaceae 3556. <i>Varicellaria culbersonii</i> (Vězda) I. Schmitt & Lumbsch IF No: 800038 Trophic mode/Guild: symbiotrophy/lichenised		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Varicellariaceae 3557. <i>Varicellaria velata</i> (Turner) I. Schmitt & Lumbsch IF No: 800042 Trophic mode/Guild: symbiotrophy/lichenised		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Pertusariales, Schaeeriaceae, Schaeeriaceae 3558. <i>Schaeeria fuscocinerea</i> (Nyl.) Clauzade & Cl. Roux IF No: 103805 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Andes Distribution: Cosmopolitan, Native Elev.: 2,600 m Dept.: CUN
	Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Thelenellales, Thelenellaceae 3559. <i>Aspidothellum olnerascens</i> Vain. IF No: 377787 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Andes Distribution: Pan tropics, Native Elev.: 1,700–2,300 m Dept.: ANT, MAG, NAR		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Thelenellales, Thelenellaceae 3560. <i>Aspidothellum fugiens</i> (Müll. Arg.) R. Sant. IF No: 364410 Trophic mode/Guild: symbiotrophy/lichenised Biogeographic region: Amazonia, Pacific Distribution: Pan tropics, Native Elev.: 20–600 m Dept.: AMA, CAQ, CHO, MAG, MET		Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Thelenellales, Thelenellaceae 3561. <i>Aspidothellum papillicarpum</i> Lücking IF No: 538352 Trophic mode/Guild: symbiotrophy/lichenised

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Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Thelenellales, Thelenellaceae  
**3562. *Aspidothellum scutellcarpum***  
 Lücking IF No: 450606 **Trophic mode/Guild:** symbiotrophy/ lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Thelenellales, Thelenellaceae  
**3563. *Aspidothellum silverstonei*** Soto-Medina, Aptroot & Lücking IF No: 818993  
**Trophic mode/Guild:** symbiotrophy/ lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Ostropomycetidae, Thelenellales, Thelenellaceae  
**3564. *Polyblastopsis intrusa*** (Nyl.) Zahlbr. IF No: 401873 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:**

2,500 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Umbilicariomycetidae, Umbilicariales, Fuscideaceae  
**3565. *Fuscidea cyathoides*** (Ach.) V. Wirth & Vězda IF No: 342002 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Umbilicariomycetidae, Umbilicariales, Fuscideaceae  
**3566. *Fuscidea umbricolor*** (Nyl.) Hertel IF No: 342015 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Umbilicariomycetidae, Umbilicariales, Fuscideaceae  
**3567. *Lettaula hypotrachynae*** Etayo IF No: 372905 **Trophic mode/Guild:** symbiotrophy/ lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Umbilicariomycetidae, Umbilicariales, Ophioparmaceae  
**3568. *Hypocenomyce scalaris*** (Ach.) M. Choisy IF No: 119475 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Andes **Distribution:**

Subcosmopolitan, Native **Elev.:** 3,750 m **Dept.:** RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Umbilicariomycetidae, Umbilicariales, Ophioparmaceae  
**3569. *Ophioparma ventosa*** (L.) Norman IF No: 396783 **Trophic mode/Guild:** symbiotrophy/lichenised



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Umbilicariomycetidae, Umbilicariales, Umbilicariaceae  
**3570. *Umbilicaria africana*** (Jatta) Krog & Swinscow IF No: 103878 **Trophic mode/Guild:** symbiotrophy/lichenised

**Biogeographic region:** Andes **Distribution:** Neotropics, Africa, Native **Elev.:** 3,400–4,750 m **Dept.:** BOY, CAL, CUN, MAG, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Umbilicariomycetidae, Umbilicariales, Umbilicariaceae  
**3571. *Umbilicaria calvescens*** Nyl. IF No: 408083



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Umbilicariomycetidae, Umbilicariales, Umbilicariaceae  
**3572. *Umbilicaria leprosa*** (Zahlbr.) Frey IF No: 478042 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 3,200–4,300 m **Dept.:** BOY, CAL, CAU, RIS



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Umbilicariomycetidae, Umbilicariales, Umbilicariaceae  
**3573. *Umbilicaria nylanderiana*** (Zahlbr.) H. Magn. IF No: 370951 **Trophic mode/Guild:** symbiotrophy/lichenised **Habitat:** On siliceous rocks | Lichen **Biogeographic region:** Andes **Distribution:** Global **Distribution:** Subcosmopolitan, Native **Elev.:** 3,820–4,750 m **Dept.:** BOY, CAL, RIS, TOL **Uses:** ME



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Umbilicariomycetidae, Umbilicariales, Umbilicariaceae  
**3574. *Umbilicaria polyrhiza*** (L.) Baumg. IF No: 408146 **Trophic mode/Guild:** symbiotrophy/lichenised **Habitat:** On siliceous rocks | Lichen **Biogeographic region:** Andes **Distribution:** Cosmopolitan, Native **Elev.:** 3,400–4,330 m **Dept.:** CUN, RIS **Uses:** ME



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Umbilicariomycetidae, Umbilicariales, Umbilicariaceae  
**3575. *Umbilicaria polyrhiza*** (L.) Fr. IF No: 408148 **Trophic mode/Guild:** symbiotrophy/ lichenised **Biogeographic region:** Andes **Distribution:** Subcosmopolitan, Native **Elev.:** 3,200–3,850 m **Dept.:** BOY, CUN, MAG



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Incertae sedis, Incertae sedis, Arthrohaphidaceae  
**3576. *Arthrohaphis alpina*** (Schaer.) R. Sant. IF No: 113731 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Andes **Distribution:** Holarctic and southern regions, Native **Elev.:** 4,300 m **Dept.:** CAL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Incertae sedis, Incertae sedis, Arthrohaphidaceae  
**3577. *Arthrohaphis citrinella*** (Ach.) Poelt IF No: 344680 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Andes **Distribution:** Cosmopolitan, Native **Elev.:** 3,600–4,300 m **Dept.:** CAL, CUN



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Incertae sedis, Incertae sedis, Piccoliaceae  
**3578. *Piccolia conspersa*** (Fée) Hafellner IF No: 413834 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 2,500–2,700 m **Dept.:** CUN, TOL



Fungi, Ascomycota, Pezizomycotina, Lecanoromycetes, Incertae sedis, Incertae sedis, Piccoliaceae  
**3579. *Piccolia wrightii*** (Tuck.) Hafellner IF No: 413837 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Andes **Distribution:** Neotropics, Native **Elev.:** 1,000 m **Dept.:** NAR



Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomycetidae, Chaetomiales, Marthamycetaceae  
**3580. *Cyclosumma mhus*** (Butin) DiCosmo, Peredo & Minter IF No: 107887 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomycetidae, Chaetomiales, Marthamycetaceae  
**3581. *Marthamycos quadrifidus*** (Lév.) Minter IF No: 488896 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomycetidae, Chaetomiales, Marthamycetaceae  
**3582. *Propolis farinosa*** (Pers.) Fr. IF No: 433503 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomycetidae, Helotiales, Arachnopezizaceae  
**3583. *Arachnopeziza aurata*** Fuckel IF No: 176160 **Trophic mode/Guild:** saprotrophy/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomycetidae, Helotiales, Arachnopezizaceae  
**3584. *Arachnopeziza aurella*** (Pers.) Fuckel IF No: 175992 **Trophic mode/Guild:** saprotrophy/ undefined saprotroph **Habitat:** Saprotroph **Elev.:** 2,700 m



Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomycetidae, Helotiales, Cenangiaceae  
**3585. *Chlorenchocella torta*** (Schwein.) J.R. Dixon IF No: 311053 **Trophic mode/Guild:** saprotrophy/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomycetidae, Helotiales, Cenangiaceae  
**3586. *Chlorenchocella versiformis*** (Pers.) J.R. Dixon IF No: 311054 **Trophic mode/Guild:** saprotrophy/ undefined saprotroph **Habitat:** Saprotroph **Elev.:** 2,450–3,100 m



Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomycetidae, Helotiales, Cenangiaceae  
**3587. *Clithris platyplacum*** (Berk. & M.A. Curtis) Tehon IF No: 454542 **Trophic mode/Guild:** saprotrophy/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomycetidae, Helotiales, Cenangiaceae  
**3588. *Encocella heteromera*** (Mont.) Nannf. IF No: 252569 **Trophic mode/Guild:** saprotrophy/ undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomycetidae, Helotiales, Chlorocloriaceae  
**3589. *Chlorocloria aeruginascens*** (Nyl.) Kanouse ex C.S. Ramamurthi, Korf & L.R. Batra IF No: 285167 **Trophic mode/Guild:** pathotrophy/wood saprotroph **Habitat:** On



Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomycetidae, Helotiales, Chlorocloriaceae  
**3590. *Chlorocloria aeruginosa*** (Oeder) Seaver ex C.S. Ramamurthi, Korf & L.R. Batra IF No: 294810 **Trophic mode/Guild:** pathotrophy/wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomycetidae, Helotiales, Cordieritidaceae  
**3591. *Cordierites gulanensis*** Mont. IF No: 120575

decaying wood, mainly on oak trees | In disturbed secondary forest | Saprotroph scattered, gregarious **Distribution:** Global **Distribution:** Global **Elev.:** 1,700–2,400 m **Dept.:** ANT, CUN, MAG, SAN, VAC **Uses:** MA



Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomycetidae, Helotiales, Cordieritidaceae  
**3592. *Ionomidotis sprucei*** (Berk.) E.J. Durand IF No: 254811 **Trophic mode/Guild:** saprotrophy/undefined saprotroph **Habitat:** Saprotroph **Distribution:**

Pantropics **Elev.:** 1,250–1,500 m **Dept.:** MAG



Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomycetidae, Helotiales, Cordieritidaceae  
**3593. *Lawreyella lobarrella*** (S.Y. Kondr. & D.J. Galloway) Flakus, Etayo, Kukwa & Rodr. Flakus IF No: 833333



Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomycetidae, Helotiales, Cordieritidaceae  
**3594. *Skyttea anziae*** Etayo & Diederich IF No: 373281 **Trophic mode/Guild:** pathotrophy/lichen parasite



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Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Cordieritiaceae  
**3595. *Skytzea caesi*** (Diederich & Etayo) IF No: 466422 **Trophic mode/Guild:** pathotrophy/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Cordieritiaceae  
**3598. *Ungulcularopsis ravenelli*** (Berk. & M.A. Curtis) W.Y. Zhuang & Korf IF No: 131135 **Trophic mode/Guild:** pathotroph /lichen parasite **Elev.:** 1,372 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Discinellaceae  
**3601. *Gyoservyella speciosa*** (K. Miura) Dudka IF No: 283469 **Trophic mode/Guild:** saprotroph/ undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Drepanopezizaceae  
**3604. *Diplocarpon rosae*** (Lib.) F.A. Wolf IF No: 189722 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Cordieritiaceae  
**3596. *Skytzea megalosporae*** Etayo & Diederich IF No: 443796 **Trophic mode/Guild:** pathotroph/ lichen parasite



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Discinellaceae  
**3599. *Articulospora atra*** Descals IF No: 110483 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** From foam in river | Saprotroph **Dept.:** SAN



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Discinellaceae  
**3602. *Varicosporium giganteum*** J.L. Crane IF No: 340860



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Drepanopezizaceae  
**3605. *Marssonina agaves*** (Earle) Magnus IF No: 100557 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Cordieritiaceae  
**3597. *Thamnogalla cromblei*** (Mudd) D. Hawksw. IF No: 114062 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Discinellaceae  
**3600. *Gyoservyella craginiformis*** (R.H. Petersen) Marvanová IF No: 331606 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Drepanopezizaceae  
**3603. *Diplocarpon mespili*** (Sorauer) B. Sutton IF No: 116275 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Drepanopezizaceae  
**3606. *Pseudopeziza medicaginis*** (Lib.) Sacc. IF No: 162637 **Trophic mode/Guild:** pathotroph/plant pathogen **Habitat:** Plant pathogen **Distribution:** Panotropics **Dept.:**

CUN



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Erysiphaceae  
**3608. *Blumeria graminis*** (DC.) Speer IF No: 309596 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Erysiphaceae  
**3610. *Oidium mangiferae*** Berthet IF No: 120853 **Trophic mode/Guild:** pathotroph /plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Erysiphaceae  
**3613. *Podosphaera fusca*** (Fr.) U. Braun & Shishkoff IF No: 464560 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Erysiphaceae  
**3616. *Pseudoidium caricae*** (F. Noack) U. Braun & R.T.A. Cook IF No: 561409 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Gelatinodiscaceae  
**3619. *Ascocoryne albida*** (Berk.) Seifert IF No: 808792 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Erysiphaceae  
**3608. *Erysiphe polygoni*** DC. IF No: 121183 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Erysiphaceae  
**3611. *Pleochaeta polychaeta*** (Berk. & M.A. Curtis) Kimbr. & Korf IF No: 337176 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Erysiphaceae  
**3614. *Podosphaera leucotricha*** (Ellis & Everh.) E.S. Salmon IF No: 122748 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Erysiphaceae  
**3617. *Pseudoidium hortensiae*** (Jørst. ex S. Blumer) U. Braun & R.T.A. Cook IF No: 561475 **Trophic mode/Guild:** pathotroph /plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Gelatinodiscaceae  
**3620. *Ascocoryne sarcoides*** (Jacq.) J.W. Groves & D.E. Wilson IF No: 326593 **Trophic mode/Guild:** saprotroph/ undefined saprotroph **Habitat:** In cloud forest **Elev.:** 1,700–2,200 m **Dept.:** VAC



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Erysiphaceae  
**3609. *Golytomyces alchoracearum*** (DC.) V.P. Heluta IF No: 134335 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Erysiphaceae  
**3612. *Podosphaera fulliginea*** (Schltdl.) U. Braun & S. Takam. IF No: 464561 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Erysiphaceae  
**3615. *Podosphaera pannosa*** (Wallr.) de Bary IF No: 461807 **Trophic mode/Guild:** pathotroph/ plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Erysiphaceae  
**3618. *Pseudoidium neolycopersici*** (L. Kiss) L. Kiss IF No: 561493 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Gelatinodiscaceae  
**3622. *Ombrophila microspora*** (Ellis & Everh.) Sacc. & P. Syd. IF No: 209217 **Distribution:** Panotropics **Elev.:** 1,940 m **Dept.:** ANT, CAU, CHO, MAG, VAC



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Helotiaceae  
**3625. *Dicaphalospora rufocomes*** (Berk. & Broome) Spooner IF No: 130937 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Helotiaceae  
**3628. *Hymenoscyphus caudatus*** (P. Karst.) Dennis IF No: 332330 **Trophic mode/Guild:** saprotroph/ litter saprotroph **Dept.:** ANT, BOY



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Helotiaceae  
**3631. *Hymenoscyphus laslopodius*** (Pat.) Dennis IF No: 332352 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/ bryophyte parasite, ectomycorrhizal, ericoid mycorrhizal, undefined saprotroph **Dept.:** BOY, CAU, CAQ, CUN, HUI, PUT, SAN, VAC



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Hamatocanthosphaeraceae  
**3623. *Hamatocanthosphaera heliocotricha*** Huhtinen IF No: 127911 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Helotiaceae  
**3626. *Gloeotinia granklana*** (Qué.) T. Schumach. IF No: 283466



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Helotiaceae  
**3629. *Hymenoscyphus clavatus*** (Pers.) W. Phillips IF No: 461994 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/bryophyte parasite, ectomycorrhizal, ericoid mycorrhizal, undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Helotiaceae  
**3632. *Hymenoscyphus leucopsis*** (Berk. & M.A. Curtis) Dennis IF No: 332354 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/bryophyte parasite, ectomycorrhizal, ericoid mycorrhizal, undefined saprotroph **Distribution:** Panotropics



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Helotiaceae  
**3624. *Bisporella triseptata*** (Dennis) S.E. Carp. & Dumont IF No: 309579 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Elev.:** 300–2,600 m **Dept.:** BOY, CUN, NSA



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Helotiaceae  
**3627. *Helotium circulare*** (Singer) Redhead IF No: 106568 **Dept.:** VAC



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Helotiaceae  
**3630. *Hymenoscyphus ephiphylus*** (Pers.) Rehm ex Kauffmann IF No: 315470 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/bryophyte parasite, ectomycorrhizal, ericoid mycorrhizal, undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Helotiaceae  
**3633. *Hymenoscyphus rufescens*** (Kanouse) T. Schumach. IF No: 127048 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/bryophyte parasite, ectomycorrhizal, ericoid mycorrhizal, undefined saprotroph

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Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Helotiaceae  
**3634. *Hymenoscyphus sclerogenus*** (Berk. & M.A. Curtis) Dennis IF No: 332375  
**Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/ bryophyte parasite, ectomycorrhizal, ericoid mycorrhizal, undefined saprotroph  
**Distribution:** Pantropics **Dept.:** ANT, BOY, CAU, CHO, CAQ, CUN, PUT, SAN, VAC



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Helotiaceae  
**3635. *Hymenoscyphus scutulula*** (Pers.) W. Phillips IF No: 1791118  
**Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/ bryophyte parasite, ectomycorrhizal, ericoid mycorrhizal, undefined saprotroph  
**Distribution:** Global Distribution **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Helotiaceae  
**3636. *Hymenoscyphus serotinus*** (Pers.) W. Phillips IF No: 178882  
**Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/ bryophyte parasite, ectomycorrhizal, ericoid mycorrhizal, undefined saprotroph  
**Distribution:** Global Distribution **Dept.:** ANT, BOY, CAU, CUN



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Helotiaceae  
**3637. *Hymenotorrendiella communis*** Crous & P.R. Johnst.  
**IF No:** 835413



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Helotiaceae  
**3638. *Hymenotorrendiella eucalypti*** (Berk.) P.R. Johnst., Baral & R. Galán  
**IF No:** 550523



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Helotiaceae  
**3639. *Pithyella anonyma*** (Rehm) Korf & W.Y. Zhuang IF No: 130739  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Helotiaceae  
**3640. *Tatraea macrospora*** (Peck) Baral IF No: 459801  
**Trophic mode/Guild:** saprotroph/ undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Hyaloscyphaceae  
**3641. *Hegermilia andina*** (Pat.) Raitv. IF No: 414926  
**Trophic mode/Guild:** saprotroph/undefined saprotroph  
**Habitat:** Saprotroph  
**Distribution:** Pantropics **Elev.:** 3,500 m



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Hyaloscyphaceae  
**3642. *Hegermilia vermispora*** Raitv. & Järv  
**IF No:** 434619  
**Trophic mode/Guild:** saprotroph/ undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Hyaloscyphaceae  
**3643. *Hyaloscypha bicolor*** (Hambl. & Sigler) Vohnik, Fehrer & Réblová IF No: 825016  
**Trophic mode/Guild:** saprotroph /undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Hyaloscyphaceae  
**3644. *Hyaloscypha usitata*** Huhtinen IF No: 127926  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Hyaloscyphaceae  
**3645. *Incurpila aspidii*** (Lib.) Raitv. IF No: 315799  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Lachnaceae  
**3646. *Albotricha albotestacea*** (Desm.) Raitv. IF No: 308447  
**Trophic mode/Guild:** saprotroph/undefined saprotroph  
**Habitat:** Saprotroph **Elev.:** 4,330 m



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Lachnaceae  
**3647. *Dasyyscyphella acutijila*** E.K. Cash IF No: 250470  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Lachnaceae  
**3648. *Dasyyscyphella appressa*** E.K. Cash IF No: 250741  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Lachnaceae  
**3649. *Dasyyscyphella nivea*** (R. Hedw.) Raitv. IF No: 312694  
**Trophic mode/Guild:** saprotroph/ undefined saprotroph  
**Habitat:** Saprotroph **Distribution:** Global Distribution  
**Elev.:** 3,600–3,900 m



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Lachnaceae  
**3650. *Dasyyscyphella schroeteriana*** Rehm IF No: 199401  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Lachnaceae  
**3651. *Dasyyscyphella subcorticalls*** (Pat.) E.K. Cash IF No: 285998  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Lachnaceae  
**3652. *Dasyyscyphus espeletiae*** Dennis IF No: 329669  
**Trophic mode/Guild:** saprotroph/undefined saprotroph  
**Habitat:** Saprotroph **Distribution:** Pantropics **Elev.:** 3,650 m



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Lachnaceae  
**3653. *Dasyyscyphus glabrescens*** (Cooke & W. Phillips) Sacc. IF No: 191783  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Lachnaceae  
**3654. *Dasyyscyphus pch/nchensis*** Dennis IF No: 312720  
**Trophic mode/Guild:** saprotroph/undefined saprotroph  
**Habitat:** Saprotroph **Elev.:** 2,400–3,600 m



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Lachnaceae  
**3655. *Dasyyscyphus raphidoforus*** (Berk. & M.A. Curtis) Dennis IF No: 581054  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Lachnaceae  
**3656. *Dasyyscyphus trisepatus*** Dennis IF No: 329702  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Lachnaceae  
**3657. *Erioscyphella abnormis*** (Mont.) Baral, Šandová & B. Perić IF No: 812341  
**Trophic mode/Guild:** saprotroph/



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Lachnaceae  
**3658. *Erioscyphella bambusina*** (Bres.) Kirschst. IF No: 258167  
**Trophic mode/Guild:** saprotroph/ **Elev.:** 2,450–3,100 m



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Lachnaceae  
**3659. *Erioscyphella brasiliensis*** (Mont.) Baral, Šandová & B. Perić IF No: 812324  
**Trophic mode/Guild:** saprotroph/ **Elev.:** 2,400–3,100 m



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Lachnaceae  
**3660. *Erioscyphella sclerotii*** (A.L. Sm.) Baral, Šandová & B. Perić IF No: 812340  
**Trophic mode/Guild:** saprotroph/



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Lachnaceae  
**3661. *Lachnum albidulum*** (Penz. & Sacc.) M.P. Sharma IF No: 129267  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Lachnaceae  
**3662. *Lachnum albidum*** (Penz. & Sacc.) W.Y. Zhuang IF No: 487762  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Lachnaceae  
**3663. *Lachnum apalum*** (Berk. & Broome) Nannf. IF No: 257028  
**Trophic mode/Guild:** saprotroph/ undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Lachnaceae  
**3664. *Lachnum bambusae*** (Rick) J.H. Haines IF No: 358775  
**Trophic mode/Guild:** saprotroph/ undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Lachnaceae  
**3665. *Lachnum callimorphum*** (P. Karst.) P. Karst. IF No: 225135  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Lachnaceae  
**3666. *Lachnum calosporum*** (Pat. & Gaillard) J.H. Haines & Dumont IF No: 106951  
**Trophic mode/Guild:** saprotroph /undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Lachnaceae  
**3667. *Lachnum caricis*** (Desm.) Höhn. IF No: 433600  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Lachnaceae  
**3668. *Lachnum carneolum*** (Sacc.) Rehm IF No: 225493  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Lachnaceae  
**3669. *Lachnum chusqueae*** (Pat.) J.H. Haines & Dumont IF No: 106952  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



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	Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Lachnaceae <b>3670. <i>Lachnum cruciferum</i></b> (W. Phillips) Nannf. IF No: 262383 <b>Trophic mode/Guild:</b> saprotroph/ undefined saprotroph		Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Lachnaceae <b>3671. <i>Lachnum cyphelloides</i></b> (Pat.) J.H. Haines & Dumont IF No: 106953 <b>Trophic mode/Guild:</b> saprotroph/undefined saprotroph <b>Habitat:</b> Saprotroph		Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Lachnaceae <b>3672. <i>Lachnum diminutum</i></b> (Roberge ex Desm.) Rehm IF No: 433598 <b>Trophic mode/Guild:</b> saprotroph/undefined saprotroph
	Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Lachnaceae <b>3673. <i>Lachnum fimbriiferum</i></b> (Berk. & M.A. Curtis) J.H. Haines IF No: 358770 <b>Trophic mode/Guild:</b> saprotroph/undefined saprotroph		Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Lachnaceae <b>3674. <i>Lachnum flavitulum</i></b> (Rehm) J.H. Haines IF No: 105429 <b>Trophic mode/Guild:</b> saprotroph/undefined saprotroph		Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Lachnaceae <b>3675. <i>Lachnum fuscescens</i></b> (Pers.) P. Karst. IF No: 433584 <b>Trophic mode/Guild:</b> saprotroph/undefined saprotroph <b>Habitat:</b> Saprotroph
	Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Lachnaceae <b>3676. <i>Lachnum kumaoncum</i></b> (M.P. Sharma) M.P. Sharma IF No: 104424 <b>Trophic mode/Guild:</b> saprotroph/undefined saprotroph		Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Lachnaceae <b>3677. <i>Lachnum lachnoderma</i></b> (Berk.) G.G. Hahn & Ayers IF No: 268777 <b>Trophic mode/Guild:</b> saprotroph/undefined saprotroph <b>Habitat:</b> Saprotroph		Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Lachnaceae <b>3678. <i>Lachnum lagerhelmi</i></b> J.H. Haines & Dumont IF No: 106957 <b>Trophic mode/Guild:</b> saprotroph/ undefined saprotroph <b>Habitat:</b> Saprotroph <b>Distribution:</b> Pantropics <b>Elev.:</b> 2,125 m
	Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Lachnaceae <b>3679. <i>Lachnum lassei</i></b> (Dennis) W.Y. Zhuang IF No: 467806 <b>Trophic mode/Guild:</b> saprotroph/ undefined saprotroph		Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Lachnaceae <b>3680. <i>Lachnum nudipes</i></b> (Fuekel) Nannf. IF No: 272504 <b>Trophic mode/Guild:</b> saprotroph/undefined saprotroph <b>Habitat:</b> Saprotroph <b>Distribution:</b> Global Distribution <b>Elev.:</b> 2,400–3,600 m		Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Lachnaceae <b>3681. <i>Lachnum papyraceum</i></b> (P. Karst.) P. Karst. IF No: 218540 <b>Trophic mode/Guild:</b> saprotroph/ undefined saprotroph <b>Habitat:</b> Saprotroph <b>Dept.:</b> VAC
	Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Lachnaceae <b>3682. <i>Lachnum paterna</i></b> (Lév.) J.H. Haines & Dumont IF No: 106959 <b>Trophic mode/Guild:</b> saprotroph/undefined saprotroph		Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Lachnaceae <b>3683. <i>Lachnum pteridophyllum</i></b> (Rodway) Spooner IF No: 130965 <b>Trophic mode/Guild:</b> saprotroph/undefined saprotroph		Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Lachnaceae <b>3684. <i>Lachnum pygmaeum</i></b> (Fr.) Bres. IF No: 219675 <b>Trophic mode/Guild:</b> saprotroph/ undefined saprotroph
	Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Lachnaceae <b>3685. <i>Lachnum rhytismatis</i></b> (W. Phillips) Nannf. IF No: 254383 <b>Trophic mode/Guild:</b> saprotroph/ undefined saprotroph		Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Lachnaceae <b>3686. <i>Lachnum singerianum</i></b> (Dennis) W.Y. Zhuang & Zheng Wang IF No: 443613 <b>Trophic mode/Guild:</b> saprotroph/undefined saprotroph		Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Lachnaceae <b>3687. <i>Lachnum soppitii</i></b> (Masse) Raitv. IF No: 129223 <b>Trophic mode/Guild:</b> saprotroph/undefined saprotroph
	Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Lachnaceae <b>3688. <i>Lachnum tenuissimum</i></b> (Kuntze) Korf & W.Y. Zhuang IF No: 105431 <b>Trophic mode/Guild:</b> saprotroph/undefined saprotroph		Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Lachnaceae <b>3689. <i>Lachnum varians</i></b> (Rehm) M.P. Sharma IF No: 129277 <b>Trophic mode/Guild:</b> saprotroph/ undefined saprotroph		Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Lachnaceae <b>3690. <i>Lachnum virgineum</i></b> (Batsch) P. Karst. IF No: 356658 <b>Trophic mode/Guild:</b> saprotroph/ undefined saprotroph <b>Habitat:</b> Saprotroph <b>Distribution:</b> Global Distribution <b>Elev.:</b> 2,940 m
	Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Lachnaceae <b>3691. <i>Neodasyascypha cerina</i></b> (Pers.) Spooner IF No: 365160		Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Lachnaceae <b>3692. <i>Perrotia aurea</i></b> (Masse) Dennis IF No: 302559 <b>Trophic mode/Guild:</b> saprotroph/undefined saprotroph <b>Habitat:</b> Saprotroph <b>Distribution:</b> Pantropics <b>Dept.:</b> BOG, CUN		Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Lachnaceae <b>3693. <i>Perrotia flammula</i></b> (Alb. & Schwein.) Boud. IF No: 196568 <b>Trophic mode/Guild:</b> saprotroph/ undefined saprotroph
	Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Lachnaceae <b>3694. <i>Proliferodiscus earoleucus</i></b> (Berk. & Broome) J.H. Haines & Dumont IF No: 109185 <b>Trophic mode/Guild:</b> saprotroph /undefined saprotroph		Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Lachnaceae <b>3695. <i>Proliferodiscus inspersus</i></b> (Berk. & M.A. Curtis) J.H. Haines & Dumont IF No: 109186 <b>Trophic mode/Guild:</b> saprotroph /undefined saprotroph		Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Leptodontidiaceae <b>3696. <i>Leptodontidium trabinellum</i></b> (P. Karst.) Baral, Platas & R. Galán IF No: 551399 <b>Trophic mode/Guild:</b> symbiotroph /endophyte
	Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Mollisiaceae <b>3697. <i>Belonopsis aciculispora</i></b> E.K. Cash IF No: 250455 <b>Trophic mode/Guild:</b> saprotroph/ undefined saprotroph		Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Mollisiaceae <b>3698. <i>Belonopsis ingae</i></b> Seaver IF No: 267902 <b>Trophic mode/Guild:</b> saprotroph/undefined saprotroph		Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Mollisiaceae <b>3699. <i>Mollisia caesia</i></b> (Fuekel) Sacc. IF No: 158923 <b>Trophic mode/Guild:</b> pathotroph, symbiotroph/endophyte, plant pathogen <b>Elev.:</b> 2,940 m
	Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Mollisiaceae <b>3700. <i>Mollisia cinerea</i></b> (Batsch) P. Karst. IF No: 151567 <b>Trophic mode/Guild:</b> pathotroph/plant pathogen <b>Elev.:</b> 2,400–3,600 m		Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Mollisiaceae <b>3701. <i>Mollisia dextrinospora</i></b> Korf IF No: 113571 <b>Trophic mode/Guild:</b> pathotroph, symbiotroph/endophyte, plant pathogen		Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Mollisiaceae <b>3702. <i>Niptera aureotincta</i></b> Syd. & P. Syd. IF No: 239369
	Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Mollisiaceae <b>3703. <i>Niptera calathae</i></b> Henn. IF No: 239299		Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Mollisiaceae <b>3704. <i>Phialocephala humicola</i></b> S.C. Jong & E.E. Davis IF No: 319822 <b>Trophic mode/Guild:</b> symbiotroph/endophyte <b>Habitat:</b> On soils cultivated with peach and apple   Saprotroph   Endophyte <b>Elev.:</b> 2,900 m <b>Dept.:</b> BOY		Fungi, Ascomycota, Pezizomycotina, Leotiomycetes, Leotiomyctidae, Helotiales, Mollisiaceae <b>3705. <i>Tapesia cucitella</i></b> (Cooke & Ellis) Sacc. IF No: 246820 <b>Trophic mode/Guild:</b> pathotroph/ plant pathogen <b>Elev.:</b> 4,400 m

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Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Myxotrichaceae  
**3706. *Oldiodendron chlamydsporicum*** Morrall IF No: 335316 **Trophic mode/Guild:** pathotroph, symbiotroph/ericoid mycorrhizal



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Myxotrichaceae  
**3707. *Oldiodendron griseum*** Robak IF No: 266571 **Trophic mode/Guild:** pathotroph, symbiotroph/ericoid mycorrhizal



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Myxotrichaceae  
**3708. *Oldiodendron malus*** G.L. Barron IF No: 631696 **Trophic mode/Guild:** pathotroph, symbiotroph/ericoid mycorrhizal



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Myxotrichaceae  
**3709. *Oldiodendron periconioides*** Morrall IF No: 335321 **Trophic mode/Guild:** pathotroph, symbiotroph/ericoid mycorrhizal



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Myxotrichaceae  
**3710. *Oldiodendron rhodogenum*** Robak IF No: 276432 **Trophic mode/Guild:** pathotroph, symbiotroph/ericoid mycorrhizal



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Myxotrichaceae  
**3711. *Oldiodendron setiferum*** Essl. IF No: 128777 **Trophic mode/Guild:** pathotroph, symbiotroph/ericoid mycorrhizal



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Myxotrichaceae  
**3712. *Oldiodendron tenuissimum*** (Peck) S. Hughes IF No: 301950 **Trophic mode/Guild:** pathotroph, symbiotroph/ericoid mycorrhizal **Habitat:** On soils in uncultivated field (intermediate between orchard and woodland) | Saprotroph. Human pathogen **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Neolauriomycetaceae  
**3713. *Lareunlonomyces eucalypticola*** Crous IF No: 832871



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Pezizellaceae  
**3714. *Calycellina punctata*** (Fr.) Lowen & Dumont IF No: 105963 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Global **Elev.:** 3,185 m



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Pezizellaceae  
**3715. *Calycina citrina*** (Hedw.) Gray IF No: 491731 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Pezizellaceae  
**3716. *Calycina claroflava*** (Grev.) Kuntze IF No: 587813 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Pezizellaceae  
**3717. *Calycina herbarum*** (Pers.) Gray IF No: 431491 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/bryophyte parasite, ectomycorrhizal, ericoid mycorrhizal, undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Pezizellaceae  
**3718. *Calycina sulfurina*** (Qué.) Kuntze IF No: 523911 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Pezizellaceae  
**3719. *Chalara vaccinii*** Carris IF No: 135427 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/endophyte, plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Pezizellaceae  
**3720. *Pezizella stictae*** Etayo IF No: 373113 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Pezizellaceae  
**3721. *Phaeoclypha cladii*** (Nag Raj & W.B. Kendr.) Spooner IF No: 107116 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Pezizellaceae  
**3722. *Psalichnum chrysostigmum*** (Fr.) Raitv. IF No: 321894 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Ploetneriaceae  
**3723. *Belonium rimosum*** E.K. Cash IF No: 254402 **Trophic mode/Guild:** saprotroph/Habitat: Saprotroph **Elev.:** 1,500–2,300 m **Dept.:** MAG



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Ploetneriaceae  
**3724. *Cadophora orchidicola*** (Sigler & Currah) M.J. Day & Currah IF No: 561689 **Trophic mode/Guild:** symbiotroph/endophyte



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Rutstroemiaceae  
**3725. *Lambertella acuminata*** Dumont IF No: 316293 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Pantropics **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Rutstroemiaceae  
**3726. *Lambertella aurantia*** V.P. Tewari & D.C. Pant IF No: 332943 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Pantropics **Elev.:** 2,499 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Rutstroemiaceae  
**3727. *Lambertella colombiana*** E.K. Cash & Whetzel IF No: 287498 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Rutstroemiaceae  
**3728. *Lambertella microspora*** (Seaver) Dumont IF No: 316309 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Pantropics **Dept.:** CUN, VAC



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Rutstroemiaceae  
**3729. *Lambertella nipponica*** Dumont & Korf IF No: 316313 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Pantropics **Elev.:** 1,707–2,499 m **Dept.:** BOY, CUN, PUT



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Rutstroemiaceae  
**3730. *Lambertella spadiceoatra*** (Mont.) Dumont IF No: 112393 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 2,560 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Rutstroemiaceae  
**3731. *Lambertella tewarii*** Dumont IF No: 316320 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Pantropics **Elev.:** 2,713–2,499 m **Dept.:** PUT



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Rutstroemiaceae  
**3732. *Lambertella zeylanica*** Dumont IF No: 316323 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Rutstroemiaceae  
**3733. *Lanzia cunicull*** (Boud.) Dumont IF No: 316341 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Rutstroemiaceae  
**3734. *Lanzia livida*** (Mont.) Dumont IF No: 112399 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Pantropics **Dept.:** BOG



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Rutstroemiaceae  
**3735. *Neometulocladosporella eucalypti*** Crous & M.J. Wingf. IF No: 825407



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Sclerotiniaceae  
**3736. *Botryotinia fockelliana*** (de Bary) Whetzel IF No: 284645 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Sclerotiniaceae  
**3737. *Botrytis acida*** Fresen. IF No: 234362 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Sclerotiniaceae  
**3738. *Botrytis cinerea*** Pers. IF No: 217312 **Trophic mode/Guild:** pathotroph, saprotroph/



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Sclerotiniaceae  
**3739. *Botrytis fabae*** Sardiña IF No: 264556 **Trophic mode/Guild:** pathotroph, saprotroph/

























Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Sclerotiniaceae  
**3740. *Moellerodiscus guttulatus*** Dumont IF No: 317777 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Sclerotiniaceae  
**3741. *Moellerodiscus lentus*** (Berk. & Broome) Dumont IF No: 317779 **Trophic mode/Guild:** saprotroph/undefined saprotroph



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	Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Sclerotiniaceae <b>3742. <i>Monillinia fructicola</i></b> (G. Winter) Honey IF No: 236989 Trophic mode/Guild: pathotrophy/ plant pathogen		Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Sclerotiniaceae <b>3743. <i>Monillinia fructigena</i></b> (Pers.) Honey IF No: 120492 Trophic mode/Guild: pathotrophy/ plant pathogen		Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Sclerotiniaceae <b>3744. <i>Monillinia laxa</i></b> (Aderh. & Ruhland) Honey IF No: 119179 Trophic mode/Guild: pathotrophy/ plant pathogen
	Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Sclerotiniaceae <b>3745. <i>Sclerotinia minor</i></b> Jagger IF No: 271273 Trophic mode/Guild: pathotrophy/ plant pathogen		Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Sclerotiniaceae <b>3746. <i>Sclerotinia sclerotiorum</i></b> (Lib.) de Bary IF No: 212553 Trophic mode/Guild: pathotrophy/ plant pathogen		Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Sclerotiniaceae <b>3747. <i>Sclerotinia trifolorum</i></b> Erikss. IF No: 207563 Trophic mode/Guild: pathotroph /plant pathogen
	Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Sclerotiniaceae <b>3748. <i>Stromatinia cepvora</i></b> (Berk.) Whetzel IF No: 291245 Trophic mode/Guild: pathotrophy/ plant pathogen		Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Solenopezaceae <b>3749. <i>Lasiolebonium cazenoviae</i></b> (Ellis & Everh.) Raitv. IF No: 112986		Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Solenopezaceae <b>3750. <i>Lasiolebonium subflavidum</i></b> Ellis & Everh. IF No: 248292 Distribution: Panotropics Elev.: 2,987 m Dept.: BOY
	Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Tricladaceae <b>3751. <i>Mycocalcella calcarata</i></b> Marvanová, Om-Kalth. & J. Webster IF No: 357725 Trophic mode/Guild: saprotrophy/ Habitat: From foam in river Dept.: CAQ, SAN		Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Vibrissaceae <b>3752. <i>Vibrissia vibrissoides</i></b> (Peck) Kjeller IF No: 340918 Trophic mode/Guild: saprotrophy/undefined saprotroph		Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Incertae sedis <b>3753. <i>Bioscypha pteridicola</i></b> Samuels & Rogerson IF No: 127044 Trophic mode/Guild: saprotrophy/undefined saprotroph
	Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Incertae sedis <b>3754. <i>Crocodreas bambusicola</i></b> S.E. Carp. IF No: 114133 Trophic mode/Guild: saprotrophy/undefined saprotroph		Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Incertae sedis <b>3755. <i>Crocodreas sessilis</i></b> Samuels & Rogerson IF No: 127045 Trophic mode/Guild: saprotrophy/undefined saprotroph		Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Incertae sedis <b>3756. <i>Crocodreas triseptatum</i></b> S.E. Carp. IF No: 111378 Trophic mode/Guild: saprotrophy/undefined saprotroph
	Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Incertae sedis <b>3757. <i>Dactylaria fusiformis</i></b> Shearer & J.L. Crane IF No: 283423 Trophic mode/Guild: pathotrophy/ plant pathogen		Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Incertae sedis <b>3758. <i>Filosporaella versimorpha</i></b> Marvanová, P.J. Fisher, Aimer & B.C. Segedin IF No: 358285		Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Incertae sedis <b>3759. <i>Grovesia pulchella</i></b> Dennis IF No: 331526 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Saprotroph Elev.: 2,400–3,800 m
	Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Incertae sedis <b>3760. <i>Leohumicola atra</i></b> H.D.T. Nguyen & Seifert IF No: 512015 Trophic mode/Guild: saprotrophy/ undefined saprotroph		Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Incertae sedis <b>3761. <i>Leohumicola levissima</i></b> H.D.T. Nguyen & Seifert IF No: 512013 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: On soils in uncultivated field (intermediate between orchard and woodland)   Saprotroph Elev.: 2,900 m Dept.: BOY		Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Incertae sedis <b>3762. <i>Leohumicola minima</i></b> (de Hoog & Grinb.) Seifert & Hambl. IF No: 500251 Trophic mode/Guild: symbiotroph/ endophyte
	Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Incertae sedis <b>3763. <i>Polydesmia dumontii</i></b> (Korf) Korf IF No: 320875 Trophic mode/Guild: saprotrophy/ undefined saprotroph		Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Incertae sedis <b>3764. <i>Polydesmia fructicola</i></b> Korf IF No: 320876 Trophic mode/Guild: saprotrophy/undefined saprotroph		Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Incertae sedis <b>3765. <i>Scytalidium album</i></b> L. Beyer & Klingström IF No: 339007 Trophic mode /Guild: saprotrophy/wood saprotroph
	Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Incertae sedis <b>3766. <i>Strossmayeria sordida</i></b> (E.K. Cash) Iturr. IF No: 127958 Trophic mode/Guild: saprotrophy/undefined saprotroph		Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Incertae sedis <b>3767. <i>Tetracladium apense</i></b> R.C. Sinclair & Eicker IF No: 112657 Trophic mode/Guild: saprotrophy/undefined saprotroph		Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Incertae sedis <b>3768. <i>Tetracladium furcatum</i></b> Descals IF No: 110127 Trophic mode/Guild: symbiotroph/endophyte
	Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Helotiales, Incertae sedis <b>3769. <i>Tetracladium marchalianum</i></b> De Wild. IF No: 243554 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: From foam in river   Saprotroph Dept.: SAN		Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Leotiales, Cochlearomycetaceae <b>3770. <i>Cochlearomyces eucahyi</i></b> Crous IF No: 823366		Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Leotiales, Cochlearomycetaceae <b>3771. <i>Satchmopsis brasiliensis</i></b> B. Sutton & Hodges IF No: 323110 Trophic mode/Guild: saprotrophy/undefined saprotroph
	Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Leotiales, Leotiaceae <b>3772. <i>Leotia chlorocephala</i></b> Schwein. IF No: 214036 Trophic mode/Guild: saprotrophy/undefined saprotroph		Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Leotiales, Leotiaceae <b>3773. <i>Leotia lubrica</i></b> (Scop.) Pers. IF No: 168196 Trophic mode/Guild: saprotrophy/ undefined saprotroph Habitat: On soil, mainly in oak forest   In mixed oak-dominated forest   Saprotroph gregarious, scattered Distribution: Global Distribution Elev.: 2,500–2,840 m Dept.: ANT, BOY, SAN Uses: HF, ME		Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Leotiales, Leotiaceae <b>3774. <i>Leotia viscosa</i></b> Fr. IF No: 191170 Trophic mode/Guild: saprotrophy/ undefined saprotroph
	Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Leotiales, Leotiaceae <b>3775. <i>Minlanpora allisoniensis</i></b> Marvanová & Bärli. IF No: 125416		Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Leotiales, Mniacellaceae <b>3776. <i>Epitharmolia atrolazulina</i></b> (Etayo) Diederich IF No: 827776 Trophic mode/Guild: pathotrophy/ lichen parasite		Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Leotiales, Tympanidaceae <b>3777. <i>Gelathomyces slamsensis</i></b> Sanoam., Jitjak, Rootong & Whalley IF No: 804027
	Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Leotiales, Incertae sedis <b>3778. <i>Alatospora acuminata</i></b> Ingold IF No: 284002 Trophic mode/Guild: saprotrophy/ undefined saprotroph Habitat: From foam in river   Saprotroph Dept.: SAN		Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Leotiales, Incertae sedis <b>3779. <i>Flagellospora curvula</i></b> Ingold IF No: 286465 Trophic mode/Guild: saprotrophy/ Habitat: From foam in river   Saprotroph Dept.: SAN		Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Phacidiales, Helicogoniaceae <b>3780. <i>Helicogonium gemmisporum</i></b> (S.E. Carp.) Baral IF No: 460615

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Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Phacidiales, Phacidaceae  
**3781. *Allantophomopsis cytisporae*** (Fr.) Petr. IF No: 262734 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Phacidiales, Phacidaceae  
**3782. *Phacidium depressum*** Hook. ex Berk. IF No: 240230 **Trophic mode/Guild:** pathotrophy/ plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Rhytismatales, Rhytismataceae  
**3783. *Cerion leucophaeum*** (Speg.) Dennis IF No: 294657 **Trophic mode/Guild:** pathotrophy/ plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Rhytismatales, Rhytismataceae  
**3784. *Coccomyces annulatus*** Sherwood IF No: 118531 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Rhytismatales, Rhytismataceae  
**3785. *Coccomyces clusiae*** (Lév.) Sacc. IF No: 180599 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Rhytismatales, Rhytismataceae  
**3786. *Coccomyces crystalligerus*** Sherwood IF No: 118537 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Rhytismatales, Rhytismataceae  
**3787. *Coccomyces leptosporus*** Speg. IF No: 182586 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Rhytismatales, Rhytismataceae  
**3788. *Coccomyces monticola*** Sherwood IF No: 118542 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Rhytismatales, Rhytismataceae  
**3789. *Coccomyces pampeanus*** Speg. IF No: 191301 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Rhytismatales, Rhytismataceae  
**3790. *Colpoma guadueticola*** T. Raymundo, R. Soto-Agudelo & R. Valenzuela IF No: 820664 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Rhytismatales, Rhytismataceae  
**3791. *Meloderma desmazieri*** (Duby) Darker IF No: 120323 **Trophic mode/Guild:** pathotrophy/ plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Rhytismatales, Rhytismataceae  
**3792. *Myriophacidium corticola*** Sherwood IF No: 113878 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Rhytismatales, Rhytismataceae  
**3793. *Myriophacidium tridentatum*** (Lév.) Sherwood IF No: 113879 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Rhytismatales, Rhytismataceae  
**3794. *Pseudorhizisma bistortae*** (DC.) Juel IF No: 118768 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Rhytismatales, Rhytismataceae  
**3795. *Terriera minor*** (Tehon) P.R. Johnst. IF No: 488911 **Trophic mode/Guild:** pathotrophy/ plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Rhytismatales, Rhytismataceae  
**3796. *Terriera pandani*** (Tehon) P.R. Johnst. IF No: 483066 **Trophic mode/Guild:** pathotrophy/ plant pathogen



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Thelebolales, Pseudeurotiaceae  
**3797. *Geomyces auratus*** Traaen IF No: 178834



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Thelebolales, Pseudeurotiaceae  
**3798. *Geomyces luteus*** Kwašna & G.L. Bateman ined. IF No: 499381



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Thelebolales, Pseudeurotiaceae  
**3799. *Gymnostellatospora canadensis*** T.C. Lumley, Sigler & Currah IF No: 466185 **Trophic mode/Guild:** saprotrophy/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Thelebolales, Pseudeurotiaceae  
**3800. *Pseudeurotium hydrophilum*** (Sogonov, W. Gams, Summerb. & Schroers) Minnis & D.L. Lindner IF No: 804766 **Trophic mode/Guild:** saprotrophy/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Thelebolales, Pseudeurotiaceae  
**3801. *Pseudeurotium ovale*** Stolk IF No: 304334 **Trophic mode/Guild:** saprotrophy/dung saprotroph

**Habitat:** In soils cultivated with apple and peach | **Saprotroph** **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Thelebolales, Pseudeurotiaceae  
**3802. *Pseudogymnoascus pannorum*** (Link) Minnis & D.L. Lindner IF No: 804769 **Trophic mode/Guild:** saprotrophy/ **Habitat:** On soils cultivated with peach | **Saprotroph** **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Leotiomyces, Leotiomycetidae, Thelebolales, Pseudeurotiaceae  
**3803. *Pseudogymnoascus roseus*** Rallo IF No: 276803



Fungi, Ascomycota, Pezizomycotina, Lichinomycetes, Lichinomycetidae, Lichinales, Peltulaceae  
**3804. *Peltula tortuosa*** (Ach.) Wetmore IF No: 343167 **Trophic mode/Guild:** symbiotrophy/lichenised **Biogeographic region:** Orinoquia **Distribution:** Neotropics, Africa, Native **Elev.:** 200 m **Dept.:** VID



Fungi, Ascomycota, Pezizomycotina, Orbiliomycetes, Orbiliomycetidae, Orbiliales, Orbiliaceae  
**3805. *Arthrobotrys flagrans*** (Dudd.) Mekht. IF No: 440818 **Trophic mode/Guild:** saprotrophy/ undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Orbiliomycetes, Orbiliomycetidae, Orbiliales, Orbiliaceae  
**3806. *Arthrobotrys musiformis*** Drechsler IF No: 271900 **Trophic mode/Guild:** saprotrophy/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Orbiliomycetes, Orbiliomycetidae, Orbiliales, Orbiliaceae  
**3807. *Arthrobotrys oligosporus*** Fresen. IF No: 626890 **Trophic mode/Guild:** saprotrophy/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Orbiliomycetes, Orbiliomycetidae, Orbiliales, Orbiliaceae  
**3808. *Arthrobotrys robustus*** Dudd. IF No: 626917 **Trophic mode/Guild:** saprotrophy/ undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Orbiliomycetes, Orbiliomycetidae, Orbiliales, Orbiliaceae  
**3809. *Arthrobotrys thauasius*** (Drechsler) S. Schenck, W.B. Kendr. & Pramer IF No: 627000 **Trophic mode/Guild:** saprotroph /undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Orbiliomycetes, Orbiliomycetidae, Orbiliales, Orbiliaceae  
**3810. *Orbilia auricolor*** (A. Bloxam) Sacc. IF No: 119949 **Trophic mode/Guild:** saprotrophy/wood saprotroph **Habitat:** On dead wood and other vegetable matter | **Saprotroph** **Distribution:** Global **Elev.:** 2,400–3,600 m



Fungi, Ascomycota, Pezizomycotina, Orbiliomycetes, Orbiliomycetidae, Orbiliales, Orbiliaceae  
**3811. *Orbilia colombiana*** Baral & Priou IF No: 813600 **Trophic mode/Guild:** saprotrophy/wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Orbiliomycetes, Orbiliomycetidae, Orbiliales, Orbiliaceae  
**3812. *Orbilia gallardii*** Sacc. IF No: 438780 **Trophic mode/Guild:** saprotroph /wood saprotroph **Habitat:** On dead wood | **Saprotroph** **Distribution:** Panotropics **Elev.:** 3,900 m



Fungi, Ascomycota, Pezizomycotina, Orbiliomycetes, Orbiliomycetidae, Orbiliales, Orbiliaceae  
**3813. *Orbilia locl-simlarum*** Henn. IF No: 547837 **Trophic mode/Guild:** saprotroph /wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Orbiliomycetes, Orbiliomycetidae, Orbiliales, Orbiliaceae  
**3814. *Orbilia sarrazinhiana*** Boud. IF No: 210613 **Trophic mode/Guild:** saprotrophy/wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Orbiliomycetes, Orbiliomycetidae, Orbiliales, Orbiliaceae  
**3815. *Orbilia xanthostigma*** (Fr.) Fr. IF No: 163890 **Trophic mode/Guild:** saprotrophy/wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Ascobolaceae  
**3816. *Ascobolus magnificus*** B.O. Dodge IF No: 235985 **Trophic mode/Guild:** saprotrophy/dung saprotroph, wood saprotroph **Habitat:** Saprotroph **Dept.:** VAC



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Ascobolaceae  
**3817. *Ascobolus scatigenus*** (Berk. & M.A. Curtis) Brumm. IF No: 326523 **Trophic mode/Guild:** saprotrophy/dung saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Ascobolaceae  
**3818. *Saccobolus globuliferellus*** Seaver IF No: 266137 **Trophic mode/Guild:** saprotrophy/dung saprotroph **Habitat:** On soils cultivated with peach | **Saprotroph** **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Ascobolaceae  
**3819. *Saccobolus minimus*** Velen. IF No: 271257 **Trophic mode/Guild:** saprotroph /dung saprotroph



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Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Ascobolaceae  
**3820. *Thecothelus pelletieri*** (P. Crouan & H. Crouan) Boud. IF No: 148883 **Trophic mode/Guild:** saprotroph/dung saprotroph



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Helvellaceae  
**3821. *Helvella elastica*** Bull. IF No: 208124 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On the soil, rarely on rotting wood, in conifers or hardwoods | Saprotroph or mycorrhizal gregarious, solitary  
**Distribution:** Global **Uses:** HF



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Helvellaceae  
**3822. *Helvella lacunosa*** Afzel. IF No: 147441 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil, or frequently on wet, rotten logs and stumps  
**Distribution:** Global **Dept.:** ANT, NAR **Uses:** HF, ME, SU



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Helvellaceae  
**3823. *Helvella macropus*** (Pers.) P. Karst. IF No: 237869 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil, among moss, on litter in oak forests | Ectomycorrhizal gregarious, scattered  
**Distribution:** Global **Elev.:** 2,430 m **Dept.:** ANT **Uses:** HF



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Morchellaceae  
**3824. *Morchella esculenta*** (L.) Pers. IF No: 247978 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprophytic species, grows in soil **Distribution:** Global  
**Elev.:** 2,000-3,000 m **Dept.:** TOL **Uses:** HF



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Morchellaceae  
**3825. *Morchella gracilis*** T.J. Baroni, Iturr. & Laessle IF No: 823941 **Trophic mode/Guild:** saprotroph, symbiotroph/ectomycorrhizal, undefined saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Pezizaceae  
**3826. *Iodophanus carneus*** (Pers.) Korf IF No: 332604 **Trophic mode/Guild:** saprotroph/dung saprotroph **Habitat:** Saprotroph **Distribution:** Global  
**Dept.:** VAC



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Pezizaceae  
**3827. *Iodophanus testaceus*** (Moug.) Korf IF No: 332605 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Cloth decaying | Saprotroph **Distribution:** Global



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Pezizaceae  
**3828. *Paragalactinia michelli*** (Boud.) Van Vooren IF No: 835932 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Dept.:** MET



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Pyrenomataceae  
**3829. *Peziza ostracoderma*** Korf IF No: 336055



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Pyrenomataceae  
**3830. *Aleuria aurantia*** (Pers.) Fuckel IF No: 473871 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On clay soils, along the road | in Paramo with Espeletia | Saprotroph **Distribution:** Panotropics **Elev.:** 3,200 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Pyrenomataceae  
**3831. *Byssoconitria fusispora*** (Berk.) Rogerson & Korf IF No: 310031 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Pyrenomataceae  
**3832. *Chelivmenia fimicola*** (Bagl.) Dennis IF No: 311033 **Trophic mode/Guild:** saprotroph/dung saprotroph **Habitat:** Saprotroph **Distribution:** Global  
**Elev.:** 2,430 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Pyrenomataceae  
**3833. *Chelivmenia granulata*** (Bull.) J. Moravec IF No: 126998 **Trophic mode/Guild:** saprotroph/dung saprotroph, undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Pyrenomataceae  
**3834. *Genea hispidula*** Berk. ex Tul. & C. Tul. IF No: 173593 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Pyrenomataceae  
**3835. *Scutellinia asperima*** (Ellis & Everh. ex Seaver) Le Gal IF No: 305685 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Pyrenomataceae  
**3836. *Scutellinia orniata*** (Bull.) Lambotte IF No: 433534 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Pyrenomataceae  
**3837. *Scutellinia scutellata*** (L.) Lambotte IF No: 119491 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** In riparian forest | Saprotroph **Distribution:** Global **Elev.:** 1,700-2,430 m **Dept.:** ANT, VAC



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Pyrenomataceae  
**3838. *Sphaerosporium lignatile*** Schwein. IF No: 231282



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Pyrenomataceae  
**3839. *Wilcoxina rehmlii*** Chin S. Yang & Korf IF No: 104862 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Sarcoscyphaceae  
**3840. *Cookeina colombiana*** Raymundo, Montes-Fuentes & R. Valenz. IF No: 838007 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Sarcoscyphaceae  
**3841. *Cookeina speciosa*** (Fr.) Dennis IF No: 362244 **Common name:** Olla de madremonite, used by Uitoto people **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On decaying trunks and branches | In mature forests | In tropical forest | Saprotroph gregarious, solitary **Distribution:** Panotropics **Elev.:** 50-2,100 m **Dept.:** AMA, ANT, CAL, CAQ, CHO **Uses:** EU, HF, IF



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Sarcoscyphaceae  
**3842. *Cookeina sulcipes*** (Berk.) Kuntze IF No: 123427 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On wood, including twigs and branches | Saprotroph gregarious, scattered **Distribution:** Panotropics **Dept.:** ANT, CHO, HUI, MAG, MET, QUI, VAC **Uses:** HF



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Sarcoscyphaceae  
**3843. *Cookeina trichotoma*** (Mont.) Kuntze IF No: 121551 **Common name:** Olla de Jitoma, used by Uitoto people **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On decaying trunks and branches | In mature forests | In tropical forest | In disturbed tropical vegetation | Saprotroph gregarious, solitary **Distribution:** Panotropics **Elev.:** 50-1,340 m **Dept.:** AMA, ANT, CAQ, CHO, QUI, MET **Uses:** HF



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Sarcoscyphaceae  
**3844. *Cookeina venezuelae*** (Berk. & M.A. Curtis) Le Gal IF No: 295629 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Panotropics **Elev.:** 2,400 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Sarcoscyphaceae  
**3845. *Phyllisia dominicensis*** (Berk.) Berk. ex Denison IF No: 122362 **Common name:** Chichileltapachtli (Náhuatl); Etlitapachtli (Náhuatl); Hígado de perro (Spanish); Hígado (Spanish); Chikinte morado (Spanish) **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On decayed wood | Saprotroph solitary, gregarious **Distribution:** Panotropics, **Elev.:** 200-760 m **Dept.:** ANT, CAQ, CES, MAG, MET, VAC, BOY **Uses:** HF



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Sarcoscyphaceae  
**3846. *Plectania melastoma*** (Sowerby) Fuckel IF No: 235417 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Elev.:** 2,430 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Sarcoscyphaceae  
**3847. *Pseudoplectania nigrella*** (Pers.) Fuckel IF No: 188201 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 2,400 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Pezizomycetes, Pezizomycetidae, Pezizales, Tubercarieae  
**3848. *Tuber melanosporum*** Vittad. IF No: 192144 **Common name:** Trufa negra (Spanish) **Trophic mode/Guild:** symbiotroph/lichenised **Habitat:** Ectomycorrhiza **Uses:** HF



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Coniochaetales, Coniochaetaceae  
**3849. *Coniochaeta angustispora*** D. Hawksw. & H.Y. Yip IF No: 111274 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, dung saprotroph, endophyte, lichen parasite, plant pathogen, undefined saprotroph

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Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Coniochaetales, Coniochaetalesae  
**3850. *Coniochaeta decumbens*** (J.F.H. Beyma) Z.U. Khan, Gené & Guarro **IF No:** 803417 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotrophy/animal pathogen, undefined saprotroph

dung saprotroph, endophyte, lichen parasite, plant pathogen, undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Coniochaetales, Coniochaetalesae  
**3851. *Coniochaeta lignilaria*** (Grev.) Cooke **IF No:** 120790 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Coniochaetales, Coniochaetalesae  
**3852. *Coniochaeta mutabilis*** (J.F.H. Beyma) Z.U. Khan, Gené & Guarro **IF No:** 803419 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotrophy/animal pathogen, undefined saprotroph

dung saprotroph, endophyte, lichen parasite, plant pathogen, undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Coniochaetales, Coniochaetalesae  
**3853. *Coniochaeta scatigena*** (Berk. & Broome) Cain **IF No:** 277595 **Trophic mode/Guild:** saprotroph/dung saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Coniochaetales, Coniochaetalesae  
**3854. *Coniochaeta tetraspora*** Cain **IF No:** 328775 **Trophic mode/Guild:** saprotroph, symbiotroph/dung saprotroph, endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Cordanales, Cordanalesae  
**3855. *Cordana terrestris*** (Timonin) Hern. - Restr., Gené & Guarro **IF No:** 807979 **Trophic mode/Guild:** pathotroph, saprotroph/



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Apoharknessiaceae  
**3856. *Apoarknessia insueta*** (B. Sutton) Crous & S.J. Lee **IF No:** 500066



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Cryphonectriaceae  
**3857. *Aurapex penicillata*** Gryzenh. & M.J. Wingf. **IF No:** 501068 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Cryphonectriaceae  
**3858. *Chysofolia colombiana*** Crous, Rodas & M.J. Wingf. **IF No:** 812451 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Cryphonectriaceae  
**3859. *Chysoporthe cubensis*** (Bruner) Gryzenh. & M.J. Wingf. **IF No:** 500034 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Cryphonectriaceae  
**3860. *Chysoporthe hodgesiana*** Gryzenh. & M.J. Wingf. ex Chungu, Gryzenh. & M.J. Wingf. **IF No:** 515496 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Cryphonectriaceae  
**3861. *Chysoporthe inopina*** Gryzenh. & M.J. Wingf. **IF No:** 510495 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Cryphonectriaceae  
**3862. *Cryphonectria parasitica*** (Murrill) M.E. Barr **IF No:** 312329



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Cryphonectriaceae  
**3863. *Microthia havanensis*** (Bruner) Gryzenh. & M.J. Wingf. **IF No:** 500793 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Diaporthaceae  
**3864. *Diaporthe anacardi*** (Early & Punith.) R.R. Gomes, Glienke & Crous **IF No:** 802923 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, plant pathogen

pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Diaporthaceae  
**3865. *Diaporthe citri*** (H.S. Fawc.) F.A. Wolf **IF No:** 260952 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Diaporthaceae  
**3866. *Diaporthe columaris*** (D.F. Farr & Castl.) Udayanga & Castl. **IF No:** 819020 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Diaporthaceae  
**3867. *Diaporthe discoidispora*** F. Huang, K.D. Hyde & Hong Y. Li **IF No:** 810580 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, plant pathogen

**Habitat:** On soils cultivated with peach | On soils in uncultivated field | On woodland soils | Saprotroph **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Diaporthaceae  
**3868. *Diaporthe eucalyptorum*** Crous & R.G. Shivas **IF No:** 800374 **Trophic mode/Guild:** pathotroph, symbiotroph /endophyte, plant pathogen **Habitat:** In Vanilla tissues | Endophyte **Hosts:** *Vanilla* sp. **Dept.:** CHO



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Diaporthaceae  
**3869. *Diaporthe hongkongensis*** R.R. Gomes, Glienke & Crous **IF No:** 802934 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Diaporthaceae  
**3870. *Diaporthe passiflorae*** Crous & L. Lombard **IF No:** 800372 **Trophic mode/Guild:** pathotroph, symbiotroph /endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Diaporthaceae  
**3871. *Diaporthe pemlicosa*** Marchal & É.J. Marchal **IF No:** 273986 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Diaporthaceae  
**3872. *Diaporthe pterocarpicola*** Udayanga, Xing Z. Liu & K.D. Hyde **IF No:** 801053 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Diaporthaceae  
**3873. *Phomopsis caryophylli*** (Cooke) Grove **IF No:** 120122



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Diaporthaceae  
**3874. *Phomopsis erythroxyl*** Novoss. **IF No:** 252038



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Diaporthaceae  
**3875. *Phomopsis lithocarp*** Y.H. Gao, W. Sun & L. Cai **IF No:** 815971



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Diaporthaceae  
**3876. *Phomopsis manihot*** (Speg.) Chevaug. **IF No:** 303205



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Diaporthaceae  
**3877. *Phomopsis orchidophil*** E.K. Cash & A.M.J. Watson **IF No:** 303210 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Diaporthaceae  
**3878. *Phomopsis phaseoli*** (Desm.) Sacc. **IF No:** 274192 **Trophic mode/Guild:** /endophyte **Habitat:** In leaves, in petiole | Endophyte **Hosts:** *Espeletia* spp.; *Maytenis ilicifolia* **Distribution:** Pantropics **Elev.:** 3,250 m **Dept.:** CUN **Uses:** PO



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Diaporthaceae  
**3879. *Phomopsis vexans*** (Sacc. & P. Syd.) Harter **IF No:** 121648



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Harknessiaceae  
**3880. *Harknessia hawaiiensis*** F. Stevens & P.A. Young **IF No:** 266853



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Schizoparmaceae  
**3881. *Coniella wangfensis*** (Crous & Summerell) L.V. Alvarez & Crous **IF No:** 817836 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Valsaceae  
**3882. *Cytospora eucalypti*** (Cooke & Harkn.) D.P. Lawr., L.A. Holland & Trouillas **IF No:** 824284 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/endophyte, plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Valsaceae  
**3883. *Cytospora rhizophorae*** Kohlm. & E. Kohlm. **IF No:** 312590 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/endophyte, plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Valsaceae  
**3884. *Valsa fabianae*** G.C. Adams, M.J. Wingf. & Jol. Roux **IF No:** 500214 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/endophyte, plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Incertae sedis  
**3885. *Botryodiplodia symbolanthi*** (Syd. & P. Syd.) Syd. **IF No:** 279647 **Trophic mode/Guild:** pathotroph/plant pathogen

wood saprotroph

wood saprotroph



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Incertae sedis  
3886. *Pseudotoxla coccodes* (Lév.) Theiss. & Syd. IF No: 120194



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Diaporthales, Incertae sedis  
3887. *Stenocarpella maydis* (Berk.) B. Sutton IF No: 116258 Trophic mode/Guild: pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Ophiostomatales, Ophiostomataceae  
3888. *Sporothrix globosa* Marimon, Cano, Gené, Deanna A. Sutton, H. Kawas. & Guarro IF No: 501167 Trophic mode/Guild: pathotrophy/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Ophiostomatales, Ophiostomataceae  
3889. *Sporothrix guttuliformis* de Hoog IF No: 323934 Trophic mode/Guild: pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, plant saprotroph, soil saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Ophiostomatales, Ophiostomataceae  
3890. *Sporothrix insectorum* de Hoog & H.C. Evans IF No: 323936 Trophic mode/Guild: pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, plant saprotroph, soil saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Ophiostomatales, Ophiostomataceae  
3891. *Sporothrix schenckii* Hektoen & C.F. Perkins IF No: 101184 Trophic mode/Guild: pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, plant saprotroph, soil saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Togniniales, Togniniaceae  
3892. *Phaeoacremonium luteum* Gramaje, T.I. Burgess & Armengol IF No: 808419 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Diaporthomycetidae, Togniniales, Togniniaceae  
3893. *Phaeoacremonium parasiticum* (Ajello, Georg & C.J.K. Wang) W. Gams, Crous & M.J. Wingf. IF No: 415651 Trophic mode/Guild: pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Coronophorales, Nitschkiaceae  
3894. *Nitschkea acanthostroma* (Mont.) Nannf. IF No: 318668



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Coronophorales, Nitschkiaceae  
3895. *Rhagadostomella gregaria* Etayo IF No: 373246 Trophic mode/Guild: pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Coronophorales, Nitschkiaceae  
3896. *Rhagadostomella hypobariella* Etayo & Flakus IF No: 833339 Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Glomerellaceae  
3897. *Colletotrichum acutum* J.H. Simmonds IF No: 440865 Trophic mode/Guild: pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Glomerellaceae  
3898. *Colletotrichum annellatum* Damm, P.F. Cannon & Crous IF No: 560734 Trophic mode/Guild: pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Glomerellaceae  
3899. *Colletotrichum asianum* Prihast., L. Cai & K.D. Hyde IF No: 515408 Trophic mode/Guild: pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Glomerellaceae  
3900. *Colletotrichum beverii* Damm, P.F. Cannon & P.R. Johnst. IF No: 560735 Trophic mode/Guild: pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Glomerellaceae  
3901. *Colletotrichum boninense* Moriwaki, Toy, Sato & Tsukib. IF No: 372362 Trophic mode/Guild: pathotroph, symbiotroph/endophyte, plant pathogen  
Habitat: In *Vanilla* tissues | Endophyte Dept.: CHO



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Glomerellaceae  
3902. *Colletotrichum brassicicola* Damm, P.F. Cannon & Crous IF No: 560737 Trophic mode/Guild: pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Glomerellaceae  
3903. *Colletotrichum cigarro* (B.S. Weir & P.R. Johnst.) A. Cabral & P. Talhinhas IF No: 830326



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Glomerellaceae  
3904. *Colletotrichum coccodes* (Wallr.) S. Hughes IF No: 295323 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Glomerellaceae  
3905. *Colletotrichum colombense* Damm, P.F. Cannon & Crous IF No: 560738 Trophic mode/Guild: pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Glomerellaceae  
3906. *Colletotrichum dematium* (Pers.) Grove IF No: 120313 Trophic mode/Guild: pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Glomerellaceae  
3907. *Colletotrichum falcatum* Went IF No: 157602 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Glomerellaceae  
3908. *Colletotrichum fructicola* Prihast., L. Cai & K.D. Hyde IF No: 515409 Trophic mode/Guild: pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Glomerellaceae  
3909. *Colletotrichum fructivorum* V.P. Doyle, P.V. Oudem. & S.A. Rehner IF No: 801462 Trophic mode/Guild: pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Glomerellaceae  
3910. *Colletotrichum gloeosporioides* (Penz.) Penz. & Sacc. IF No: 158410 Trophic mode/Guild: pathotroph, symbiotroph/endophyte, plant pathogen  
Habitat: In *Vanilla* tissues | Pathogen Dept.: CHO



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Glomerellaceae  
3911. *Colletotrichum godetiae* Neerg. IF No: 440867 Trophic mode/Guild: pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Glomerellaceae  
3912. *Colletotrichum gossypii* Southw. IF No: 178392 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Glomerellaceae  
3913. *Colletotrichum kahawae* J.M. Waller & Bridge IF No: 360355 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Glomerellaceae  
3914. *Colletotrichum karsti* You L. Yang, Zuo Y. Liu, K.D. Hyde & L. Cai IF No: 581687 Trophic mode/Guild: symbiotroph/endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Glomerellaceae  
3915. *Colletotrichum latipophilum* Damm, P.F. Cannon & Crous IF No: 800505 Trophic mode/Guild: pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Glomerellaceae  
3916. *Colletotrichum lindemuthianum* (Sacc. & Magnus) Briosi & Cavara IF No: 173509 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Glomerellaceae  
3917. *Colletotrichum musae* (Berk. & M.A. Curtis) Arx IF No: 295348 Trophic mode/Guild: pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Glomerellaceae  
3918. *Colletotrichum pseudomajus* F. Liu, L. Cai, Crous & Damm IF No: 807165 Trophic mode/Guild: pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Glomerellaceae  
3919. *Colletotrichum radicle* F. Liu, L. Cai, Crous & Damm IF No: 807166 Trophic mode/Guild: pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Glomerellaceae  
3920. *Colletotrichum saisciae* B.S. Weir & P.R. Johnst. IF No: 563589 Trophic mode/Guild: pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Glomerellaceae  
3921. *Colletotrichum silamense* Prihast., L. Cai & K.D. Hyde IF No: 515410 Trophic mode/Guild: pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Glomerellaceae  
3922. *Colletotrichum tamarilloi* Damm, P.F. Cannon & Crous IF No: 800516 Trophic mode/Guild: pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Glomerellaceae  
3923. *Colletotrichum theobromicola* Delacr. IF No: 159865 Trophic mode/Guild: pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Glomerellaceae  
3924. *Colletotrichum tropicale* E.I. Rojas, S.A. Rehner & Samuels IF No: 515222 Trophic mode/Guild: symbiotroph/endophyte

CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Plectosphaerellaceae  
**3925. *Colletotrichum truncatum*** (Schwein.) Andrus & W.D. Moore **IF No:** 280780 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Plectosphaerellaceae  
**3926. *Brunneochlamydsorolium nepalense*** (W. Gams) Giraldo López & Crous **IF No:** 828056



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Plectosphaerellaceae  
**3927. *Furcateridium furcatum*** (C. Moreau & Moreau ex W. Gams) Giraldo López & Crous **IF No:** 828042 **Trophic mode/Guild:** saprotroph/ | **Habitat:** On soils cultivated with peach | **Saprotroph Elev.:** 2,900 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Plectosphaerellaceae  
**3928. *Muscidium theobromae*** (Turconi) Zare & W. Gams **IF No:** 510697 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Plectosphaerellaceae  
**3929. *Musidium stromaticum*** (W. Gams & R.H. Stover) Giraldo López & Crous **IF No:** 828046



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Plectosphaerellaceae  
**3930. *Plectosphaerella cucumerina*** (Lindf.) W. Gams **IF No:** 320609 **Trophic mode/Guild:** symbiotroph/endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Plectosphaerellaceae  
**3931. *Verticillium biguttatum*** W. Gams **IF No:** 111087 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, fungal parasite, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Glomerellales, Plectosphaerellaceae  
**3932. *Verticillium dahliae*** Kleb. **IF No:** 196942 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae  
**3933. *Aphanotria paradoxa*** Döbblers **IF No:** 510592 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On *Polytrichadelphus aristatus* | **Bryophilous Distribution:** Pantropics **Elev.:** 2,700 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae  
**3934. *Bionectria aureofulva*** (Cooke & Ellis) Schroers & Samuels **IF No:** 444718 **Trophic mode/Guild:** pathotroph, saprotroph/fungal parasite, undefined



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae  
**3935. *Bionectria byssicola*** (Berk. & Broome) Schroers & Samuels **IF No:** 444719 **Trophic mode/Guild:** pathotroph, saprotroph/fungal parasite, undefined



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae  
**3936. *Bionectria graminispora*** (Ferd. & Winge) Schroers & Samuels **IF No:** 485149 **Trophic mode/Guild:** pathotroph, saprotroph/fungal parasite, undefined **Habitat:** On bark of dying and recently dead woody plants | less frequently on fruit | on palm inflorescence | **Saprotroph Distribution:** Pantropics **Dept.:** NSA

saprotroph

undefined saprotroph

saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae  
**3937. *Bionectria impariphalis*** (Samuels) Schroers **IF No:** 485163 **Trophic mode/Guild:** pathotroph, saprotroph/fungal parasite, undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae  
**3938. *Bionectria lucifer*** (Samuels) Schroers & Samuels **IF No:** 485155 **Trophic mode/Guild:** pathotroph, saprotroph/fungal parasite, undefined



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae  
**3939. *Bionectria oblongispora*** Schroers **IF No:** 485114 **Trophic mode/Guild:** pathotroph, saprotroph/fungal parasite, undefined saprotroph

**Habitat:** On bark of live or recently dead trees | **Saprotroph Distribution:** Pantropics **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae  
**3940. *Bionectria ochroleuca*** (Schwein.) Schroers & Samuels **IF No:** 444720 **Trophic mode/Guild:** pathotroph/fungal parasite **Distribution:** Global Distribution



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae  
**3941. *Bionectria parviphalis*** (Samuels) Schroers **IF No:** 485165 **Trophic mode/Guild:** pathotroph, saprotroph/fungal parasite, undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae  
**3942. *Bionectria pseudochroleuca*** Schroers & Samuels **IF No:** 485135 **Trophic mode/Guild:** pathotroph, saprotroph/fungal parasite, undefined

Dept.: ANT

saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae  
**3943. *Bionectria ralfsii*** (Berk. & Broome) Schroers & Samuels **IF No:** 485141 **Trophic mode/Guild:** pathotroph, saprotroph/fungal parasite, undefined



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae  
**3944. *Bionectria rossmaniae*** Schroers **IF No:** 485161 **Trophic mode/Guild:** pathotroph, saprotroph/fungal parasite, undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae  
**3945. *Bionectria samuelisii*** Schroers **IF No:** 485139 **Trophic mode/Guild:** pathotroph, saprotroph/fungal parasite, undefined saprotroph

saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae  
**3946. *Bionectria sesquicillii*** (Samuels) Schroers **IF No:** 485171 **Trophic mode/Guild:** pathotroph, saprotroph/fungal parasite, undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae  
**3947. *Bionectria solani*** (Reinke & Berthold) Schroers **IF No:** 456097 **Trophic mode/Guild:** pathotroph, saprotroph/fungal parasite, undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae  
**3948. *Bionectria sporochloalis*** Schroers **IF No:** 485124 **Trophic mode/Guild:** pathotroph, saprotroph/fungal parasite, undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae  
**3949. *Bionectria subquaternata*** (Berk. & Broome) Schroers & Samuels **IF No:** 485153 **Trophic mode/Guild:** pathotroph, saprotroph/fungal parasite, undefined



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae  
**3950. *Clonostachys apocyni*** (Peck) Rossman, L. Lombard & Crous **IF No:** 810968 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae  
**3951. *Clonostachys candelabrum*** (Bonord.) Schroers **IF No:** 485173 **Trophic mode/Guild:** pathotroph/plant pathogen **Habitat:** On soils cultivated with peach and apple | On soils in uncultivated field (intermediate between orchard and woodland) | **Saprotroph Elev.:** 2,900 m **Dept.:** BOY

saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae  
**3952. *Clonostachys compactuscula*** (Sacc.) D. Hawksw. & W. Gams **IF No:** 311398 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae  
**3953. *Clonostachys divergens*** Schroers **IF No:** 456092 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae  
**3954. *Clonostachys pseudosetosus*** (Samuels) Schroers **IF No:** 485166 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae  
**3955. *Clonostachys rosea*** (Link) Schroers, Samuels, Seifert & W. Gams **IF No:** 461067 **Trophic mode/Guild:** pathotroph/plant pathogen **Habitat:** On soils alternated with potato crops and grasses | **Saprotroph Elev.:** 3,373 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae  
**3956. *Clonostachys tornata*** (Höhn.) Rossman, L. Lombard & Crous **IF No:** 810975 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae  
**3957. *Globonectria cohenensis*** Etayo **IF No:** 372531 **Trophic mode/Guild:** saprotroph/undefined saprotroph



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	Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae <b>3958. <i>Hydrophisphaera pachyderma</i></b> (Rossman) Rossman & Samuels IF No: 461029 <b>Trophic mode/Guild:</b> saprotroph/undefined saprotroph		Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae <b>3959. <i>Hydrophisphaera suffulta</i></b> (Berk. & M.A. Curtis) Rossman & Samuels IF No: 461028 <b>Trophic mode/Guild:</b> saprotroph /undefined saprotroph <b>Habitat:</b> Saprotroph		Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae <b>3960. <i>Luhya dityospora</i></b> (Rossman) Rossman & Samuels IF No: 459478 <b>Trophic mode/Guild:</b> saprotroph/undefined saprotroph
	Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae <b>3961. <i>Nectropsis guamuesii</i></b> Etayo IF No: 373025		Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae <b>3962. <i>Nectropsis heterodermiae</i></b> Etayo IF No: 373033		Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae <b>3963. <i>Nectropsis lichenophila</i></b> (Speg.) Etayo IF No: 373036
	Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae <b>3964. <i>Nectropsis tatrensis</i></b> (Alstrup) Lisická & Alstrup IF No: 512494		Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae <b>3965. <i>Ovicucullispora parmaellae</i></b> (Berk. & M.A. Curtis) Etayo IF No: 565895		Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae <b>3966. <i>Peristomialis berkeleyi</i></b> Boud. IF No: 431896 <b>Distribution:</b> Panotropics <b>Elev.:</b> 2,469–2,774 m <b>Dept.:</b> CUN, NAR
	Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae <b>3967. <i>Pronectria leptogii</i></b> Etayo IF No: 373214 <b>Trophic mode/Guild:</b> pathotroph/lichen parasite		Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae <b>3968. <i>Pronectria mlrosopora</i></b> Etayo IF No: 373217 <b>Trophic mode/Guild:</b> pathotroph/lichen parasite		Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae <b>3969. <i>Pronectria parmotrematis</i></b> Etayo IF No: 484316 <b>Trophic mode/Guild:</b> pathotroph/lichen parasite
	Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae <b>3970. <i>Pronectria roseopunctata</i></b> Etayo IF No: 373219 <b>Trophic mode/Guild:</b> pathotroph/lichen parasite		Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae <b>3971. <i>Pronectria sticticola</i></b> Etayo IF No: 373220 <b>Trophic mode/ Guild:</b> pathotroph/lichen parasite		Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae <b>3972. <i>Protocepsis pertusa</i></b> (Pat.) Samuels & Rossman IF No: 460116 <b>Trophic mode/Guild:</b> saprotroph/undefined saprotroph <b>Elev.:</b> 2,500 m <b>Dept.:</b> CUN
	Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae <b>3973. <i>Stephanonectria kelthii</i></b> (Berk. & Broome) Schroers & Samuels IF No: 460028 <b>Trophic mode/Guild:</b> saprotroph /undefined saprotroph <b>Habitat:</b> On soils cultivated with peach <b>Elev.:</b> 2,900 m <b>Dept.:</b> BOY		Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae <b>3974. <i>Stilboecia hypocreoides</i></b> (Kalchbr. & Cooke) Seaver IF No: 478009 <b>Trophic mode/Guild:</b> saprotroph/ undefined saprotroph		Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae <b>3975. <i>Trichonectria hyotrachynae</i></b> Etayo IF No: 373334 <b>Trophic mode/Guild:</b> saprotroph/ undefined saprotroph
	Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae <b>3976. <i>Trichonectria setadpressa</i></b> Etayo IF No: 373335 <b>Trophic mode/Guild:</b> saprotroph/undefined saprotroph		Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae <b>3977. <i>Trichonectria usnelcola</i></b> Etayo IF No: 373336 <b>Trophic mode/Guild:</b> saprotroph/undefined saprotroph		Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Blonectriaceae <b>3978. <i>Xanthonectria pseudopeziza</i></b> (Desm.) Lechat, J. Fourn. & P.-A. Moreau IF No: 816961
	Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Calcarisporiaceae <b>3979. <i>Calcarisporium arbuscula</i></b> Preuss IF No: 196959 <b>Trophic mode/Guild:</b> pathotroph/fungal parasite		Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Clavicipitaceae <b>3980. <i>Aschersonia aleyrodis</i></b> Webber IF No: 246965		Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Clavicipitaceae <b>3981. <i>Aschersonia cubensis</i></b> Berk. & M.A. Curtis IF No: 149762
	Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Clavicipitaceae <b>3982. <i>Aschersonia goldiana</i></b> Sacc. & Ellis IF No: 235285		Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Clavicipitaceae <b>3983. <i>Balsania claviceps</i></b> Speg. IF No: 230287		Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Clavicipitaceae <b>3984. <i>Claviceps africana</i></b> Freder., Mantle & De Milliano IF No: 355279 <b>Trophic mode/ Guild:</b> pathotroph/plant pathogen
	Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Clavicipitaceae <b>3985. <i>Claviceps purpurea</i></b> (Fr.) Tul. IF No: 162059 <b>Common name:</b> Cornezuelo del centeno (Spanish) <b>Trophic mode /Guild:</b> pathotroph/plant pathogen <b>Habitat:</b> On spikes of rye and other grasses   Parasite <b>Distribution:</b> Global <b>Uses:</b> ME, PO, SU		Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Clavicipitaceae <b>3986. <i>Hypocrella disciformis</i></b> P. Chaverri & K.T. Hodge IF No: 511383		Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Clavicipitaceae <b>3987. <i>Hypocrella turbinata</i></b> (Berk.) Seaver IF No: 280881
	Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Clavicipitaceae <b>3988. <i>Metacordyceps chlamydosporia</i></b> (H.C. Evans) G.H. Sung, J.M. Sung, Hywel-Jones & Spatafora IF No: 504186 <b>Trophic mode/Guild:</b> pathotroph/insect pathogen <b>Habitat:</b> On woodland soils <b>Elev.:</b> 2,900 m <b>Dept.:</b> BOY, CAQ		Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Clavicipitaceae <b>3989. <i>Metapochonia bulbillosa</i></b> (W. Gams & Malla) Kepler, S.A. Rehner & Humber IF No: 806071		Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Clavicipitaceae <b>3990. <i>Metapochonia cordyclopticonsociata</i></b> (H. Huang, Mu Wang & L. Cai) Labuda, Bernreiter & Kubátová IF No: 829503
	Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Clavicipitaceae <b>3991. <i>Metarhizium anisopliae</i></b> (Metschn.) Sorokin IF No: 101834 <b>Trophic mode/ Guild:</b> pathotroph/animal pathogen <b>Habitat:</b> Entomopathogen <b>Distribution:</b> Global <b>Uses:</b> CUN <b>Dept.:</b> CUN		Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Clavicipitaceae <b>3992. <i>Metarhizium carneum</i></b> (Duché & R. Heim) Kepler, S.A. Rehner & Humber IF No: 806080 <b>Trophic mode/Guild:</b> pathotroph/ animal pathogen		Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Clavicipitaceae <b>3993. <i>Metarhizium flavoviride</i></b> W. Gams & Rozsypal IF No: 317596 <b>Trophic mode/ Guild:</b> pathotroph/animal pathogen
	Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Clavicipitaceae <b>3994. <i>Metarhizium majus</i></b> (J.R. Johnst.) J.F. Bisch., S.A. Rehner & Humber IF No: 512410 <b>Trophic mode/Guild:</b> pathotroph/ animal pathogen		Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Clavicipitaceae <b>3995. <i>Metarhizium marquandii</i></b> (Masseé) Kepler, S.A. Rehner & Humber IF No: 806091 <b>Trophic mode/Guild:</b> pathotroph /animal pathogen		Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Clavicipitaceae <b>3996. <i>Metarhizium rileyi</i></b> (Farl.) Kepler, S.A. Rehner & Humber IF No: 807862 <b>Trophic mode/Guild:</b> pathotroph/animal pathogen <b>Habitat:</b> Isolated from natural infected larvae of <i>Spodoptera frugiperda</i> <b>Distribution:</b> Global <b>Uses:</b> MET <b>Dept.:</b> MET

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Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Clavicipitaceae  
3997. *Metarhizium robertsii* J.F. Bisch., S.A. Rehner & Humber IF No: 512411  
**Trophic mode/Guild:** pathotrophy/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Clavicipitaceae  
3998. *Moelleriella epiphylla* (Masse) P. Chaverri & K.T. Hodge IF No: 511367  
**Trophic mode/Guild:** pathotrophy/ animal pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Clavicipitaceae  
3999. *Moelleriella phylogena* (Mont.) P. Chaverri & K.T. Hodge IF No: 511377  
**Trophic mode/Guild:** pathotrophy/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Clavicipitaceae  
4000. *Moelleriella turbinate* (Petch) P. Chaverri & K.T. Hodge IF No: 511380  
**Trophic mode/Guild:** pathotrophy/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Clavicipitaceae  
4001. *Myriogenospora atramentosa* (Berk. & M.A. Curtis) Diehl IF No: 301651



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Clavicipitaceae  
4002. *Myriogenospora bresadolana* Henn. IF No: 316068



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Clavicipitaceae  
4003. *Myriogenospora paspali* G.F. Atk. IF No: 228705



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Clavicipitaceae  
4004. *Neobarya ciliaris* Etayo IF No: 373040



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Clavicipitaceae  
4005. *Nigella martiale* (Speg.) Luangsa-ard & Thanakitp. IF No: 553231



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Clavicipitaceae  
4006. *Ustilaginoldea virens* (Cooke) Takah. IF No: 123571 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Cordycipitaceae  
4007. *Akanthomyces aculeatus* Lebert IF No: 431365 **Trophic mode/Guild:** pathotrophy/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Cordycipitaceae  
4008. *Akanthomyces lecanii* (Zimm.) Spatafora, Kepler & B. Shrestha IF No: 820881 **Trophic mode/Guild:** pathotroph /animal pathogen **Habitat:** On insects in the orders lepidopteran, homopteran, and dipteran | Entomopathogen **Distribution:** Panotropics **Dept.:** CUN **Uses:** PO



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Cordycipitaceae  
4009. *Akanthomyces sabanensis* (Chir.-Salom., S. Restrepo & T.I. Sanjuan) Chir.-Salom., T.I. Sanjuan & S. Restrepo IF No: 820862 **Trophic mode/Guild:** pathotroph/animal pathogen **Habitat:** On female adults of *Pulvinaria caballeramosae* that are infesting leaves, twigs, branches, and the trunk of *Ficus soatensis* | Entomopathogen **Distribution:** Panotropics, Endemic **Dept.:** CUN **Uses:** PO



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Cordycipitaceae  
4010. *Ascopolyporus polychrous* Möller IF No: 207502 **Trophic mode/Guild:** pathotrophy/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Cordycipitaceae  
4011. *Beauveria acridiphila* (T. Sanjuan & Franco-Mol.) T. Sanjuan, B. Shrestha, Kepler & Spatafora IF No: 820883 **Trophic mode/Guild:** pathotroph/animal pathogen **Habitat:** On insects | Entomopathogenic on *Acridomorpha* sp. **Distribution:** Panotropics, Endemic **Dept.:** AMA, PUT

animal pathogen **Habitat:** On female adults of *Pulvinaria caballeramosae* that are infesting leaves, twigs, branches, and the trunk of *Ficus soatensis* | Entomopathogen **Distribution:** Panotropics, Endemic **Dept.:** CUN **Uses:** PO

**Habitat:** On insects | Entomopathogenic on *Acridomorpha* sp. **Distribution:** Panotropics, Endemic **Dept.:** AMA, PUT



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Cordycipitaceae  
4012. *Beauveria bassiana* (Bals.-Criv.) Vuill. IF No: 199430 **Trophic mode/Guild:** pathotroph/animal pathogen **Habitat:** On insects, on soil, Endophytic **Distribution:** Global **Dept.:** CAL, CUN **Uses:** PO



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Cordycipitaceae  
4013. *Beauveria brongnartii* (Sacc.) Petch IF No: 309469 **Trophic mode/Guild:** pathotroph/animal pathogen **Habitat:** Entomopathogen **Distribution:** Global



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Cordycipitaceae  
4014. *Beauveria caledoniae* Bissett & Widden IF No: 133326 **Trophic mode/Guild:** pathotroph/animal pathogen **Habitat:** On soils cultivated with peach | Saprotrroph **Elev.:** 2,900 m **Dept.:** BOY

Global Distribution **Dept.:** CAL, CUN **Uses:** PO

Distribution **Uses:** PO



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Cordycipitaceae  
4015. *Beauveria diapheromorphila* (T. Sanjuan & S. Restrepo) T. Sanjuan, B. Shrestha, Kepler & Spatafora IF No: 820882 **Trophic mode/Guild:** pathotroph /animal pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Cordycipitaceae  
4016. *Beauveria locustiphila* (Henn.) B. Shrestha, Kepler & Spatafora IF No: 820884 **Trophic mode/Guild:** pathotroph /animal pathogen **Habitat:** On insects | Entomopathogenic on *Colpophola* sp. **Distribution:** Panotropics **Dept.:** CHO, TOL



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Cordycipitaceae  
4017. *Beauveria loelensis* Luangsa-ard, Tasan., Khons., Thanakitp. & Somrith. IF No: 551324 **Trophic mode/Guild:** pathotroph/animal pathogen

/animal pathogen

Entomopathogenic on *Colpophola* sp. **Distribution:** Panotropics **Dept.:** CHO, TOL



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Cordycipitaceae  
4018. *Beauveria pseudobassiana* S.A. Rehner & Humber IF No: 519125 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Cordycipitaceae  
4019. *Blackwellomyces cardinalis* (G.H. Sung & Spatafora) Spatafora & Luangsa-ard IF No: 820865 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Cordycipitaceae  
4020. *Cordyceps amoene-roseae* (Henn.) Kepler, B. Shrestha & Spatafora IF No: 820975 **Trophic mode/Guild:** pathotroph /insect pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Cordycipitaceae  
4021. *Cordyceps catenannulata* (Z.Q. Liang) Kepler, B. Shrestha & Spatafora IF No: 820976 **Trophic mode/Guild:** pathotroph/insect pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Cordycipitaceae  
4022. *Cordyceps catenoblilqua* (Z.Q. Liang) Kepler, B. Shrestha & Spatafora IF No: 820977 **Trophic mode/Guild:** pathotroph /insect pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Cordycipitaceae  
4023. *Cordyceps dolana* Kobayasi IF No: 114315 **Trophic mode/Guild:** pathotroph/insect pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Cordycipitaceae  
4024. *Cordyceps farinosa* (Holmsk.) Kepler, B. Shrestha & Spatafora IF No: 820979 **Trophic mode/Guild:** pathotroph /insect pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Cordycipitaceae  
4025. *Cordyceps tumosoroesea* (Wize) Kepler, B. Shrestha & Spatafora IF No: 820980 **Trophic mode/Guild:** pathotroph /insect pathogen **Habitat:** Entomopathogen **Dept.:** CUN, VAC **Uses:** PO



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Cordycipitaceae  
4026. *Cordyceps kintrichloa* (B.A. Borisov & Tarasov) Kepler, B. Shrestha & Spatafora IF No: 820983 **Trophic mode/Guild:** pathotroph/insect pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Cordycipitaceae  
4027. *Cordyceps militaris* (L.) Fr. IF No: 237604 **Trophic mode/Guild:** pathotroph/insect pathogen **Habitat:** Paramo with *Espeletia* | In *Pinus patula* and *P. radiata* plantation | Entomopathogen **Distribution:** Global **Elev.:** 3,000–3,500 m **Dept.:** CUN **Uses:** ME



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Cordycipitaceae  
4028. *Cordyceps nidus* T. Sanjuan, Chir.-Salom. & S. Restrepo IF No: 817601 **Trophic mode/Guild:** pathotroph/insect pathogen **Habitat:** On young trapdoor spiders (Idiopidae family), in tropical rain forests | Entomopathogen gregarious **Hosts:** Idiopidae **Distribution:** Panotropics **Dept.:** AMA, CHO, CUN, TOL **Uses:** ME, PO



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Cordycipitaceae  
4029. *Cordyceps pillifera* Kobayasi IF No: 626641 **Trophic mode/Guild:** pathotroph /insect pathogen

spiders (Idiopidae family), in tropical rain forests | Entomopathogen gregarious **Hosts:** Idiopidae **Distribution:** Panotropics **Dept.:** AMA, CHO, CUN, TOL **Uses:** ME, PO



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Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Cordycipitaceae  
4030. *Cordyceps polvarthra* Möller IF No: 154318 Trophic mode/Guild: pathotrophy/insect pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Cordycipitaceae  
4033. *Cordyceps tenuipes* (Peck) Kepler, B. Shrestha & Spatafora IF No: 820986 Trophic mode/Guild: pathotrophy/insect pathogen Habitat: Entomopathogen

Distribution: Panotropics Elev.: 3,195–3,550 m Dept.: QUI Uses: PO



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Cordycipitaceae  
4036. *Hyperdermium bertonii* (Speg.) J.F. White, R.F. Sullivan, Bills & Hywel-Jones IF No: 467591



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Cordycipitaceae  
4039. *Lecanicillium fusisporum* (W. Gams) Zare & W. Gams IF No: 484546 Trophic mode/Guild: pathotrophy/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Cordycipitaceae  
4042. *Simpliicillium lamellicola* (F.E.V. Sm.) Zare & W. Gams IF No: 484552 Trophic mode/Guild: pathotrophy/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Cylindriaceae  
4045. *Cylindrium purgamentum* (Crous) Crous IF No: 824772



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4048. *Hypocrea brunneolutes* Yoshim. Doi IF No: 315601 Trophic mode/Guild: saprotrophy/wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4051. *Hypocrea muralana* I. Hino & Katum. IF No: 298829 Trophic mode/Guild: saprotrophy/wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4054. *Hypocrea succinea* Bres. IF No: 166634 Trophic mode/Guild: saprotrophy/wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4057. *Hypocrea chrysospermus* Tul. & C. Tul. IF No: 204359 Trophic mode/Guild: pathotrophy/fungal parasite



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4060. *Sphaerostilbella aurifila* (W.R. Gerard) Rossman, L. Lombard & Crous IF No: 810979



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4063. *Trichoderma afrocharitatum* P. Chaverri, F.B. Rocha, Degenkolb & Druzhin. IF No: 809945



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4066. *Trichoderma appalachense* Samuels & Jaklitsch IF No: 803627



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4069. *Trichoderma atroviride* P. Karst. IF No: 451289 Trophic mode/Guild: saprotrophy Habitat: On soil | Saprotroph Distribution: Panotropics Dept.: SAN Uses:

PO



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Cordycipitaceae  
4031. *Cordyceps pruinosa* Petch IF No: 165068 Trophic mode/Guild: pathotrophy/insect pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Cordycipitaceae  
4034. *Gibbellula pulchra* (Sacc.) Cavara IF No: 215909 Trophic mode/Guild: pathotrophy/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Cordycipitaceae  
4037. *Isaria acaricida* Pat. IF No: 212358



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Cordycipitaceae  
4040. *Pseudogibbellula formicarum* (Mains) Samson & H.C. Evans IF No: 321787 Elev.: 400–600 m Dept.: PUT



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Cordycipitaceae  
4043. *Torrubella colombiana* Kobayasi IF No: 110135 Trophic mode/Guild: pathotrophy/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4046. *Hypocrea andinogelatinosa* Yoshim. Doi IF No: 315598 Trophic mode/Guild: saprotrophy/wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4049. *Hypocrea caquetensis* Yoshim. Doi IF No: 315602 Trophic mode/Guild: saprotrophy/wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4052. *Hypocrea protoctirinoles* Yoshim. Doi IF No: 315621 Trophic mode/Guild: saprotrophy/wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4055. *Hypocopsis macrostoma* (Berk. & M.A. Curtis) E. Müll. IF No: 332436



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4058. *Lichenobanya usneae* (Etayo) Etayo, Diederich & Lawrey IF No: 811833 Trophic mode/Guild: pathotrophy/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4061. *Sporophagomyces chysostomus* (Berk. & Broome) K. Pöldmaa & Samuels IF No: 460797 Trophic mode/Guild: pathotrophy/fungal parasite



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4064. *Trichoderma aggressivum* Samuels & W. Gams IF No: 484638



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4067. *Trichoderma asperelloides* Samuels IF No: 515220 Trophic mode/Guild: pathotrophy/animal pathogen Habitat: On leaves | In mature and flooded forest |

Saprotroph Dept.: AMA



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4070. *Trichoderma aureoviride* Rifai IF No: 340298 Trophic mode/Guild: symbiotroph/endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Cordycipitaceae  
4032. *Cordyceps takaomontana* Yakush. & Kumaz. IF No: 285612 Trophic mode/Guild: pathotrophy/insect pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Cordycipitaceae  
4035. *Hevansia novoguineensis* (Samson & B.L. Brady) Luangsa-ard, Hywel-Jones & Spatafora IF No: 820892



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Cordycipitaceae  
4038. *Lecanicillium flavidum* (W. Gams & Zaayen) W. Gams & Zare IF No: 510865 Trophic mode/Guild: pathotrophy/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Cordycipitaceae  
4041. *Simpliicillium chinense* F. Liu & L. Cai IF No: 800157 Trophic mode/Guild: pathotrophy/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Cordycipitaceae  
4044. *Torrubella gonypleptida* (Möller) Petch IF No: 145384 Trophic mode/Guild: pathotrophy/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4047. *Hypocrea aurantifolia* Yoshim. Doi IF No: 315599 Trophic mode/Guild: saprotrophy/wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4050. *Hypocrea insignis* Berk. & M.A. Curtis IF No: 145816 Trophic mode/Guild: saprotrophy/wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4053. *Hypocrea subflavomliata* Yoshim. Doi IF No: 315631 Trophic mode/Guild: saprotrophy/wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4056. *Hymenocys armeniacus* Tul. & C. Tul. IF No: 119895 Trophic mode/Guild: pathotrophy/fungal parasite



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4059. *Protocrea farinosa* (Berk. & Broome) Petch IF No: 264653 Trophic mode/Guild: pathotrophy/fungal parasite



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4062. *Trichoderma afarasin* P. Chaverri & F.B. Rocha IF No: 809944



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4065. *Trichoderma alutaceum* Jaklitsch IF No: 516665 Habitat: In riparian forest Elev.: 1,700–2,200 m Dept.: VAC



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4068. *Trichoderma asperillum* Samuels, Lieckf. & Nirenberg IF No: 461012 Trophic mode/Guild: symbiotroph/endophyte Habitat: On soil | Saprotroph Distribution: Global Distribution Dept.: CUN, AMA Uses: PO



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4071. *Trichoderma barbatum* Samuels IF No: 519539

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Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4072. *Trichoderma brevicompactum*** G.F. Kraus, C.P. Kubicek & W. Gams IF No: 487780 **Trophic mode/ Guild:** saprotroph/ **Habitat:** On soil | **Saprotroph Distribution:** Pantropics **Dept.:** BOL, MAG **Uses:** PO



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4073. *Trichoderma caerulecens*** (Jaklitsch & Voglmayr) Jaklitsch & Voglmayr IF No: 807422



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4074. *Trichoderma capillare*** Samuels & C.P. Kubicek IF No: 563903



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4075. *Trichoderma caribbaeum*** Samuels & Schroers IF No: 499930



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4076. *Trichoderma chlorosporum*** P. Chaverri & Samuels IF No: 488515



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4077. *Trichoderma citrinella*** (Ellis) W.Y. Zhuang & Z.Q. Zeng IF No: 570289



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4078. *Trichoderma citrinoviride*** Bissett IF No: 107345



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4079. *Trichoderma cremeum*** P. Chaverri & Samuels IF No: 488508



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4080. *Trichoderma deliquescens*** (Sopp) Jaklitsch IF No: 516684



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4081. *Trichoderma eplmyces*** Jaklitsch IF No: 512096 **Habitat:** On roots | In mature forest **Dept.:** AMA



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4082. *Trichoderma erinaceum*** Bissett, C.P. Kubicek & Szakács IF No: 488348 **Trophic mode/Guild:** saprotroph/ **Habitat:** On soil | **Saprotroph Distribution:** Pantropics **Dept.:** COR **Uses:** EU



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4083. *Trichoderma evansi*** Samuels IF No: 512453



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4084. *Trichoderma fertile*** Bissett IF No: 359081



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4085. *Trichoderma ghanense*** Yoshim. Doi, Y. Abe & Sugiy. IF No: 131765



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4086. *Trichoderma gukhouense*** Q.R. Li, McKenzie & Yong Wang bis IF No: 563664



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4087. *Trichoderma hamatum*** (Bonord.) Bainier IF No: 165799 **Trophic mode/ Guild:** saprotroph/ **Habitat:** On soil | **Saprotroph Distribution:** Global Distribution **Dept.:** ANT **Uses:** EU



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4088. *Trichoderma harzianum*** Rifai IF No: 340299 **Trophic mode/Guild:** pathotroph /endophyte, fungal parasite, plant pathogen **Habitat:** In soil of African palm cultivation | **Saprotroph Hosts:** *Elaeis guineensis* **Distribution:** Global Distribution **Dept.:** MAG, BOY **Uses:** PO



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4089. *Trichoderma inhamatum*** Veerkamp & W. Gams IF No: 107346 **Habitat:** Isolated from soil under maize **Distribution:** Pantropics **Dept.:** MET



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4090. *Trichoderma intricatum*** Samuels & Dodd IF No: 501040



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4091. *Trichoderma kavae*** (Yoshim. Doi) Jaklitsch & Voglmayr IF No: 804565



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4092. *Trichoderma koningi*** Oudem. IF No: 120733 **Trophic mode/Guild:** pathotroph, symbiotroph/ endophyte, plant pathogen **Habitat:** On soils alternated with potato crops and grasses | **Saprotroph Elev.:** 3,373 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4093. *Trichoderma koninglopsis*** Samuels, Carm. Suárez & H.C. Evans IF No: 487454 **Trophic mode/Guild:** saprotroph/ **Habitat:** On soil | **Saprotroph Distribution:** Pantropics **Dept.:** ANT, BOY **Uses:** PO



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4094. *Trichoderma lentiforme*** (Rehm) P. Chaverri, Samuels & F.B. Rocha IF No: 809992



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4095. *Trichoderma leickfeldiae*** Samuels IF No: 512454



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4096. *Trichoderma lilii*** (Pat.) P. Chaverri IF No: 809999 **Trophic mode/Guild:** /endophyte **Habitat:** In Vanilla tissues | **Endophyte Dept.:** CHO



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4097. *Trichoderma longibrachiatum*** Rifai IF No: 340300 **Trophic mode/Guild:** pathotroph, symbiotroph/ endophyte, plant pathogen **Habitat:** On soil | **Saprotroph Distribution:** Global Distribution **Dept.:** BOG, RIS **Uses:** PO



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4098. *Trichoderma longiphallidicum*** Q.V. Montoya, L.A. Meirelles, P. Chaverri & A. Rodrigues IF No: 835942



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4099. *Trichoderma longipilis*** Bissett IF No: 359083



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4100. *Trichoderma martiale*** Samuels IF No: 511887 **Trophic mode/Guild:** symbiotroph/endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4101. *Trichoderma orientale*** (Samuels & Petrini) Jaklitsch & Samuels IF No: 807441



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4102. *Trichoderma parareesei*** Atan., Jaklitsch, Komon-Zel, C.P. Kubicek & Druzhin. IF No: 515503



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4103. *Trichoderma paraviridescens*** Jaklitsch, Samuels & Voglmayr IF No: 803623



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4104. *Trichoderma patella*** (Cooke & Peck) Jaklitsch & Voglmayr IF No: 807444



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4105. *Trichoderma patellotropicum*** Samuels IF No: 812059



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4106. *Trichoderma peltatum*** (Berk.) Samuels, Jaklitsch & Voglmayr IF No: 807511



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4107. *Trichoderma piluliferum*** J. Webster & Rifai IF No: 340302



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4108. *Trichoderma pseudogelatinosum*** (M. Komatsu & Yoshim. Doi) Chang S. Kim IF No: 580224



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4109. *Trichoderma pseudokoningii*** Rifai IF No: 340304



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
**4110. *Trichoderma pubescens*** Bissett IF No: 359086 **Trophic mode/Guild:** symbiotroph/endophyte



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4111. *Trichoderma reesei* E.G. Simmons IF No: 324906 **Trophic mode/Guild:** saprotrophy **Habitat:** On soil | Saprotroph **Distribution:** Panotropics **Dept.:** CES **Uses:**

MA



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4114. *Trichoderma semlorbils* (Berk.) Jaklitsch & Voglmayr **IF No:** 807451



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4112. *Trichoderma rogersonii* Samuels IF No: 501045 **Trophic mode/Guild:** saprotrophy **Habitat:** On leaves | In successional forest | Saprotroph **Dept.:**

AMA



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4115. *Trichoderma spirale* Bissett IF No: 359087 **Trophic mode/Guild:** saprotroph/**Habitat:** On soil | Saprotroph **Distribution:** Panotropics **Dept.:** AMA **Uses:** PO



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4113. *Trichoderma rufobrunneum* Z.X. Zhu & W.Y. Zhuang IF No: 805907



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4116. *Trichoderma stilboboxylii* Samuels & Schroers IF No: 501047 **Trophic mode/Guild:** saprotroph/**Habitat:** On leaves | In mature forest | Saprotroph **Dept.:** CAQ



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4117. *Trichoderma strigosellum* López-Quint, W. Gams, Boekhout & Druzhin. IF No: 804931 **Habitat:** Isolated from litter **Distribution:** Panotropics **Elev.:** 200–300 m

Dept.: AMA



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4118. *Trichoderma strigosum* Bissett IF No: 359088 **Trophic mode/Guild:** saprotroph/**Habitat:** On leaves | In mature and successional forests | Saprotroph

Dept.: AMA, CAQ



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4119. *Trichoderma stramatium* Samuels & Pardo-Schulth. IF No: 467441 **Trophic mode/Guild:** symbiotroph/endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4120. *Trichoderma subtrachycarpum* (Yoshim. Doi) Jaklitsch & Voglmayr IF No: 804568



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4121. *Trichoderma virens* (J.H. Mill., Giddens & A.A. Foster) Arx IF No: 128198 **Trophic mode/Guild:** symbiotroph/endophyte **Habitat:** On decayed wood | In

Vanilla tissues | Saprotroph. Endophyte **Hosts:** *Vanilla* sp. **Distribution:** Global Distribution **Dept.:** AMA, CHO **Uses:** PO



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4122. *Trichoderma viride* Pers. IF No: 181950 **Trophic mode/Guild:** saprotroph/**Habitat:** On decaying wood, also isolated from soils | Saprotroph **Distribution:** Global Distribution **Dept.:** CUN **Uses:** PO



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Hypocreaceae  
4123. *Trichoderma viridescens* (A.S. Horne & H.S. Will.) Jaklitsch & Samuels IF No: 501049 **Trophic mode/Guild:** saprotroph/**Habitat:** On soil | Saprotroph **Distribution:** Global Distribution **Dept.:** ANT **Uses:** PO

Global Distribution



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
4124. *Albionectria rigidiuscula* (Berk. & Broome) Rossman & Samuels IF No: 460215 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, plant pathogen

Habitat: Saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
4125. *Aquanectria penicilloldes* (Ingold) L. Lombard & Crous IF No: 810950



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
4126. *Aquanectria submersa* (H.J. Huds.) L. Lombard & Crous IF No: 810162 **Trophic mode/Guild:** saprotroph/**Habitat:** From foam in river | Saprotroph **Dept.:** SAN



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
4127. *Calonectria acicola* Gadgil & M.A. Dick IF No: 367724 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
4128. *Calonectria brachlatia* L. Lombard, M.J. Wingf., & Crous IF No: 512998 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
4129. *Calonectria clavata* Alfieri, El-Gholl & E.L. Barnard IF No: 357717 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
4130. *Calonectria colihouii* Peeraly IF No: 310093 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
4131. *Calonectria colombiana* L. Lombard, Crous & M.J. Wingf. IF No: 515065 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
4132. *Calonectria colombiensis* Crous IF No: 500105 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
4133. *Calonectria gracillipes* Crous & Mchau IF No: 437691 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
4134. *Calonectria hongkongensis* Crous IF No: 500107 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
4135. *Calonectria kyotensis* Terash. IF No: 327266 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
4136. *Calonectria ophiopora* Rossman IF No: 108732 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
4137. *Calonectria orientalis* L. Lombard, M.J. Wingf., & Crous IF No: 515532 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
4138. *Calonectria pacifica* (J.C. Kang, Crous & C.L. Schoch) L. Lombard, M.J. Wingf., & Crous IF No: 515551 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
4139. *Calonectria parvispora* L. Lombard & Crous IF No: 820844 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
4140. *Calonectria plni* L. Lombard, M.J. Wingf., & Crous IF No: 515533 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
4141. *Calonectria pseudoretaudii* L. Lombard, M.J. Wingf., & Crous IF No: 513264 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
4142. *Calonectria pyrochroa* (Desm.) Sacc. IF No: 152990 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
4143. *Calonectria spathulata* El-Gholl, Kimbr., E.L. Barnard, Alfieri & Schout. IF No: 103106 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
4144. *Calonectria stipitata* L. Lombard & Crous IF No: 818715 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
4145. *Calostibe strispora* (Ellis & Everh.) Seaver IF No: 279007 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
4146. *Campylocarpon fasciculare* Schroers, Halleen & Crous IF No: 500116



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
4147. *Chaetopsina polyblastia* Samuels IF No: 105143



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
4148. *Cinnamomeonectria cinnamomea* (Brayford & Samuels) Salgado & P. Chaverri IF No: 816466



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
4149. *Corallomycesella repens* (Berk. & Broome) Rossman & Samuels IF No: 460217

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Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4150. *Corallonectria latrophae*** (Möller) C.S. Herrera & P. Chaverri IF No: 803109  
**Trophic mode/Guild:** saprotrophy/ Habitat: On wood **Distribution:** Pantropics



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4151. *Cosmospora annulohypoxyl*** C.S. Herrera & P. Chaverri IF No: 808499



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4152. *Cosmospora flammea*** (Berk. & Ravenel) Rossman & Samuels IF No: 461059



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4153. *Cosmospora glabra*** (Rossman) Rossman & Samuels IF No: 460233



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4154. *Cosmospora ustulinae*** (Teng) C.S. Herrera & P. Chaverri IF No: 808505



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4155. *Cylindrocarpum diorymum*** (Harting) Wollenw. IF No: 251843 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4156. *Cylindrocarpum lichenicola*** (C. Massal.) D. Hawksw. IF No: 312456  
**Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4157. *Cylindrocarpum musae*** C. Booth & R.H. Stover IF No: 312459 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4158. *Cylindrocladium clavatum*** Hodges & L.C. May IF No: 312475 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4159. *Dactyloectria estremocensis*** (A. Cabral, T. Nascim. & Crous) L. Lombard & Crous IF No: 810145



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4160. *Dactyloectria macrocladyma*** (Halleen, Schroers & Crous) L. Lombard & Crous IF No: 810147 **Trophic mode/Guild:** saprotrophy/ **Habitat:** On soils cultivated with peach **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4161. *Dialonectria epsphaeria*** (Tode) Cooke IF No: 431582 **Trophic mode/Guild:** pathotrophy/fungal parasite **Habitat:** Patotroph **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4162. *Dialonectria sanguinea*** (Bolton) Cooke IF No: 433646 **Trophic mode/Guild:** pathotrophy/fungal parasite **Habitat:** Patotroph **Elev.:** 1,600 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4163. *Fusarium acuminatum*** Ellis & Everh. IF No: 219366 **Trophic mode/Guild:** pathotrophy, saprotrophy, symbiotrophy/ animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4164. *Fusarium abidum*** (Rossman) O'Donnell & Geiser IF No: 800574 **Trophic mode/Guild:** pathotrophy, saprotroph, symbiotrophy/animal pathogen, endophyte, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4165. *Fusarium asiaticum*** O'Donnell, T. Aoki, Kistler & Geiser IF No: 367415 **Trophic mode/Guild:** pathotrophy, saprotrophy, symbiotrophy/animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4166. *Fusarium avenaceum*** (Fr.) Sacc. IF No: 161610 **Trophic mode/Guild:** pathotrophy, symbiotrophy/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4167. *Fusarium begoniae*** Nirenberg & O'Donnell IF No: 444881 **Trophic mode/Guild:** pathotrophy, saprotrophy, symbiotrophy/animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4168. *Fusarium chlamydosporum*** Wollenw. & Reinking IF No: 260522 **Trophic mode/Guild:** pathotrophy, saprotrophy, symbiotrophy/animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4169. *Fusarium cirratum*** Nirenberg & O'Donnell IF No: 444883 **Trophic mode/Guild:** pathotrophy, saprotrophy, symbiotrophy/ animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4170. *Fusarium concentricum*** Nirenberg & O'Donnell IF No: 444884 **Trophic mode/Guild:** pathotrophy, saprotrophy, symbiotrophy/ animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4171. *Fusarium crookwellense*** L.W. Burgess, P.E. Nelson & Toussoun IF No: 110201 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4172. *Fusarium culmorum*** (Wm.G. Sm.) Sacc. IF No: 196997 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4173. *Fusarium equiseti*** (Corda) Sacc. IF No: 199819 **Trophic mode/Guild:** pathotrophy, saprotrophy, symbiotrophy/ animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph  
**Habitat:** On soil | in Páramo | In soils cultivated with apple and peach **Distribution:** Global **Elev.:** 2,900 m **Dept.:** BOY, CUN **Uses:** EU



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4174. *Fusarium foetens*** Schroers, O'Donnell, Baayen & Hooftman IF No: 488581 **Trophic mode/Guild:** pathotrophy, saprotrophy, symbiotrophy/animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4175. *Fusarium fracticaudum*** Herron, Marinc. & M.J. Wing. IF No: 809885 **Trophic mode/Guild:** pathotrophy, saprotrophy, symbiotrophy/animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4176. *Fusarium fulvikuroi*** Nirenberg IF No: 314213 **Trophic mode/Guild:** pathotrophy, saprotrophy, symbiotrophy/animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4177. *Fusarium graminearum*** Schwabe IF No: 200256 **Trophic mode/Guild:** pathotrophy/plant pathogen **Habitat:** On soil | in Páramo | Saprotroph. Plant pathogen **Distribution:** Global **Dept.:** CUN **Uses:** MA



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4178. *Fusarium heterosporum*** Nees & T. Nees IF No: 197260 **Trophic mode/Guild:** pathotrophy, saprotrophy, symbiotrophy/ animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4179. *Fusarium incarnatum*** (Desm.) Sacc. IF No: 231142 **Trophic mode/Guild:** pathotrophy, saprotrophy, symbiotrophy/ animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4180. *Fusarium lateritium*** Nees IF No: 225937 **Trophic mode/Guild:** pathotrophy, symbiotrophy/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4181. *Fusarium marasolanum*** Herron, Marinc. & M.J. Wing. IF No: 809887 **Trophic mode/Guild:** pathotrophy, saprotrophy, symbiotrophy/animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4182. *Fusarium napiforme*** Marasas, P.E. Nelson & Rabie IF No: 102631 **Trophic mode/Guild:** pathotrophy/animal pathogen



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Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4183. *Fusarium nelsonii*** Marasas & Logrieco IF No: 443596 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4184. *Fusarium necosmosporiellum*** O'Donnell & Geiser IF No: 800615 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4185. *Fusarium odoratissimum*** Maryani, L. Lombard, Kema & Crous IF No: 826800 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4186. *Fusarium oxysporum*** Schldt. IF No: 218372 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4187. *Fusarium oxysporum f.sp. cubense*** W.C. Snyder & H.N. Hansen IF No: 100056 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4188. *Fusarium oxysporum f.sp. dlanthi*** W.C. Snyder & H.N. Hansen IF No: 416241 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4189. *Fusarium oxysporum f.sp. elaeidis*** Toovey IF No: 100058 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4190. *Fusarium oxysporum f.sp. lycopersici*** W.C. Snyder & H.N. Hansen IF No: 416243 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4191. *Fusarium oxysporum f.sp. passiflorae*** W.L. Gordon IF No: 434079 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4192. *Fusarium oxysporum f.sp. phaseoli*** J.B. Kendr. & W.C. Snyder IF No: 431352 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4193. *Fusarium oxysporum f.sp. tracheliphilum*** W.C. Snyder & H.N. Hansen IF No: 416248 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4194. *Fusarium oxysporum f.sp. vasinfectum*** W.C. Snyder & H.N. Hansen IF No: 100061 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4195. *Fusarium pallidoroseum*** (Cooke) Sacc. IF No: 232434 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4196. *Fusarium parvisporum*** Herron, Marinc. & M.J. Wingf. IF No: 809886 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4197. *Fusarium petroliophilum*** (Q.T. Chen & X.H. Fu) Geiser, O'Donnell, D.P.G. Short & N. Zhang IF No: 802539 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4198. *Fusarium pininemorale*** Herron, Marinc. & M.J. Wingf. IF No: 809888 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4199. *Fusarium poae*** (Peck) Wollenw. IF No: 119380 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4200. *Fusarium polyhalidicum*** Marasas, P.E. Nelson, Toussoun & P.S. van Wyk IF No: 102972 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4201. *Fusarium proliferatum*** (Matsush.) Nirenberg ex Gerlach & Nirenberg IF No: 509381 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph **Habitat:** On food, orchids, fruits and cereals **Distribution:** Global Distribution **Dept.:** CUN **Uses:** PO



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4202. *Fusarium pseudocircinatum*** O'Donnell & Nirenberg IF No: 444889 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4203. *Fusarium ramigenum*** O'Donnell & Nirenberg IF No: 444891 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4204. *Fusarium redolens*** Wollenw. IF No: 205091 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4205. *Fusarium robustum*** Gerlach IF No: 314220 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4206. *Fusarium roseum*** Link IF No: 211139 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4207. *Fusarium sacchari*** (E.J. Butler & Hafiz Khan) W. Gams IF No: 314221 **Trophic mode/Guild:** pathotroph/animal pathogen, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4208. *Fusarium solani*** (Mart.) Sacc. IF No: 190352



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4209. *Fusarium solani-melongenae*** O'Donnell, Geiser, Kasson & T. Aoki IF No: 557706 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4210. *Fusarium sororula*** Herron, Marinc. & M.J. Wingf. IF No: 809889 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4211. *Fusarium stilboides*** Wollenw. IF No: 254855 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4212. *Fusarium sulphureum*** Schldt. IF No: 146962 **Trophic mode/Guild:** pathotroph/plant pathogen

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Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4213. *Fusarium trilineatum*** (Corda) Sacc. IF No: 142388 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4214. *Fusarium vernucosum*** (Pat.) O'Donnell & Geiser IF No: 800610 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, lichen parasite, plant pathogen, soil saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4215. *Fusicolla merismoides*** (Corda) Gräfenhan, Seifert & Schroers IF No: 519438



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4216. *Fusicolla violacea*** Gräfenhan & Seifert IF No: 519439



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4217. *Gilcocephalotrichum bacillisporum*** Decock & Huret IF No: 501190 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4218. *Gilcocephalotrichum bulbillum*** J.J. Ellis & Hessel. IF No: 331344 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4219. *Gilcocephalotrichum longibrachium*** Decock & Charue IF No: 501189 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4220. *Gilcocephalotrichum ohlense*** L.H. Huang & J.A. Schmitt IF No: 314501 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4221. *Gilcocephalotrichum simmonsii*** L. Lombard, Serrato-Diaz & Crous IF No: 805193 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4222. *Gilocladopsis curvata*** L. Lombard & Crous IF No: 564399 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4223. *Gilocladopsis pegdii*** L.E. Parkinson, E.K. Dann & R.G. Shivas IF No: 817264 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4224. *Heliscus tentaculus*** Umphlett IF No: 331785 **Trophic mode/Guild:** saprotroph/  
**Habitat:** From foam in river | Saprotroph  
**Dept.:** SAN



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4225. *Macronectria lungneri*** (Henn.) Saigado & P. Chaverri IF No: 816458



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4226. *Mariannaea elegans*** (Corda) Samson IF No: 300242



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4227. *Mariannaea pinkola*** L. Lombard & Crous IF No: 810164



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4228. *Mariannaea samuelsii*** Seifert & Bissett IF No: 519447



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4229. *Nectria bactriloides*** Berk. & Broome IF No: 179197 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, fungal parasite, lichen parasite, plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4230. *Nectria cinnabarina*** (Tode) Fr. IF No: 249710 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Habitat:** In riparian forest and paddock | Saprotroph **Elev.:** 1700-2200 **Dept.:** VAC



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4231. *Nectria dealbata*** Berk. & Broome IF No: 244244 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, fungal parasite, lichen parasite, plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4232. *Nectria flavoviridis*** (Fuckel) Wollenw. IF No: 265078 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, fungal parasite, lichen parasite, plant pathogen, wood saprotroph **Elev.:** 1,800 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4233. *Nectria follicola*** Berk. & M.A. Curtis IF No: 189743 **Trophic mode/Guild:** pathotroph/plant pathogen **Habitat:** On *Chusquea* sp. | Saprotroph on dead leaves  
**Distribution:** Panotropics **Dept.:** BOG



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4234. *Nectria fusispora*** Rossman IF No: 109097 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, fungal parasite, lichen parasite, plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4235. *Nectria gracillipes*** (Tul. & C. Tul.) Wollenw. IF No: 266314 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4236. *Nectria ingae*** Chardón IF No: 505846 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, fungal parasite, lichen parasite, plant pathogen, wood saprotroph **Habitat:** Saprotroph **Dept.:** VAC



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4237. *Nectria microdisca*** Rossman IF No: 109104 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, fungal parasite, lichen parasite, plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4238. *Nectria ptyrodes*** (Mont.) Mont. IF No: 211881 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, fungal parasite, lichen parasite, plant pathogen, wood saprotroph **Habitat:** On bark **Distribution:** Panotropics **Elev.:** 250 m **Dept.:** ANT, BOY, CHO, PUT, RIS **Uses:** PO



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4239. *Nectria pseudotrichia*** Berk. & M.A. Curtis IF No: 206961 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Habitat:** Saprotroph  
**Dept.:** CAL



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4240. *Nectria rubrostoma*** Rossman IF No: 109112 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, fungal parasite, lichen parasite, plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4241. *Nectria setofusarii*** Samuels & Nirenberg IF No: 125909 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, fungal parasite, lichen parasite, plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4242. *Nectria splrostrata*** Rossman IF No: 109449 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, fungal parasite, lichen parasite, plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4243. *Nectria subfalcata*** Henn. IF No: 221584 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, fungal parasite, lichen parasite, plant pathogen, wood saprotroph  
**Habitat:** Saprotroph **Elev.:** 400-800 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4244. *Nectria sylvana*** Mouton IF No: 121490 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, fungal parasite, lichen parasite, plant pathogen, wood saprotroph  
**Habitat:** Saprotroph **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4245. *Nectria tucumanensis*** Speg. IF No: 223256 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph  
**Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4246. *Nectria venusta*** Syd. IF No: 281494 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, fungal parasite, lichen parasite, plant pathogen **Habitat:** Saprotroph **Elev.:** 1,800 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4247. *Neocosmospora bostryoides*** (Wollenweber & Reinking) M. Sandoval-Denis, L. Lombard & P.W. Crous IF No: 831174 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4248. *Neocosmospora falcoformis*** (Carrón) L. Lombard & Crous IF No: 810958 **Trophic mode/Guild:** saprotroph/undefined saprotroph



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Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4249. *Neocosmospora keratoplastica*** (Geiser, O'Donnell, D.P.G. Short & Ning Zhang) Sand.-Den. & Crous IF No: 822900  
**Trophic mode/Guild:** saprotroph/undefined

saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4250. *Neocosmospora metavorans*** (Al-Hatmi, S.A. Ahmed & de Hoog) Sand.-Den. & Crous IF No: 823687  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4251. *Neocosmospora rubicola*** L. Lombard & Crous IF No: 810243  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4252. *Neocosmospora solani*** (Mart.) L. Lombard & Crous IF No: 810964  
**Trophic mode/Guild:** saprotroph/undefined saprotroph  
**Habitat:** On soil | In *Vanilla*

tissues | on wood | In Páramo | Saprotroph, Plant pathogen  
**Distribution:** Global **Dept.:** CUN, CHO **Uses:** ME



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4253. *Neonectria coccolinea*** (Pers.) Rossman & Samuels IF No: 460455  
**Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4254. *Neonectria dumontii*** Brayford & Samuels IF No: 488572  
**Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4255. *Neonectria obtusispora*** (Cooke & Harkn.) Rossman, L. Lombard & Crous IF No: 810156  
**Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4256. *Neonectria phaeodisca*** (Rossman) Brayford & Samuels IF No: 546830  
**Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4257. *Ophionectria trichospora*** (Berk. & Broome) Sacc. IF No: 185626  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4258. *Paracromonium inflatum*** L. Lombard & Crous IF No: 810268  
**Habitat:** On soils cultivated with apple and peach | On soils in uncultivated field (intermediate)

between orchard and woodland | Saprotroph **Elev.:** 2,900 m  
**Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4259. *Penicillifer martinii*** P. Wong, Y.P. Tan & R.G. Shivas  
**IF No:** 808332



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4260. *Pseudocosmospora villor*** (Starbäck) C.S. Herrera & P. Chaverri IF No: 802442  
**Trophic mode/Guild:** /parasite  
**Habitat:** On stromata of Fungi | Parasitic **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4261. *Stytonectria wegeliniana*** (Rehm) Gräfenhan, Voglmayr & Jaklitsch  
**IF No:** 519454



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4262. *Thelonectria acrotija*** (Brayford & Samuels) Salgado & P. Chaverri IF No: 564257  
**Trophic mode/Guild:** saprotroph/



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4263. *Thelonectria coronata*** (Penz. & Sacc.) P. Chaverri & Salgado IF No: 518568  
**Trophic mode/Guild:** saprotroph/  
**Habitat:** Saprotroph **Distribution:** Pantropics **Elev.:** 1,300 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4264. *Thelonectria discophora*** (Mont.) P. Chaverri & Salgado IF No: 518569  
**Trophic mode/Guild:** saprotroph/ **Habitat:** On bark of recently killed, dying or diseased trees,

often causing small cankers, sometimes on rotting roots | Saprotroph **Elev.:** 2,400 m **Dept.:** ANT, CUN, VAC



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4265. *Thelonectria luclata*** (Höhn.) P. Chaverri & Salgado IF No: 518571  
**Trophic mode/Guild:** saprotroph/



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4266. *Ustilaginoidella musaeperda*** Essed IF No: 160761  
**Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4267. *Ustilaginoidella cedripigera*** Essed IF No: 503884  
**Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4268. *Volvutella ciliata*** (Alb. & Schwein.) Fr. IF No: 208513  
**Habitat:** Petiole of *Oreopanax* sp. **Distribution:** Global **Dept.:** BOG



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4269. *Volvutella ciliata*** (Ellis & Everh.) J. Luo, X.M. Zhang & W.Y. Zhuang IF No: 561606  
**Trophic mode/Guild:** saprotroph/ **Habitat:** On decaying plant debris or woody substrates | Saprotroph **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4270. *Xenonectriella leptaleoides*** (Leão & Lôbo) L. Lombard & Crous IF No: 810272



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4271. *Xenocylindrocladium gulanense*** Crous & Decock IF No: 483218



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4272. *Xenocylindrocladium serpens*** Decock, Hennebert & Crous IF No: 437170



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4273. *Xenonectriella leptaleoides*** (Etayo) Etayo IF No: 536970  
**Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4274. *Xenonectriella rugulatispora*** Etayo IF No: 818428  
**Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Nectriaceae  
**4275. *Xenonectriella strellmannii*** (S.Y. Kondr.) Rossman IF No: 460461  
**Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Niessliaceae  
**4276. *Niesslia evae*** Etayo IF No: 818353  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Niessliaceae  
**4277. *Niesslia globospora*** Etayo IF No: 373064  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Niessliaceae  
**4278. *Niesslia schizospora*** Etayo IF No: 373065  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Niessliaceae  
**4279. *Niesslia tetrahedrospora*** Etayo IF No: 373068  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Ophlocordycipitaceae  
**4280. *Hirsutella rossiiensis*** Minter & B.L. Brady IF No: 113538  
**Trophic mode/Guild:** symbiotroph/endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Ophlocordycipitaceae  
**4281. *Hirsutella stilbelliformis*** H.C. Evans & Samson IF No: 109853  
**Trophic mode/Guild:** pathotroph/animal pathogen  
**Habitat:** Entomopathogen **Elev.:** 400–600 m **Dept.:** PUT



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Ophlocordycipitaceae  
**4282. *Hirsutella thompsonii*** F.E. Fisher IF No: 298460  
**Trophic mode/Guild:** pathotroph/animal pathogen  
**Habitat:** On *Phyllocoptruta oleivora* | Entomopathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Ophlocordycipitaceae  
**4283. *Ophlocordyceps albacongiuae*** Araújo, H.C. Evans & D.P. Hughes IF No: 822297  
**Trophic mode/Guild:** pathotroph, symbiotroph/endophyte,



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Ophlocordycipitaceae  
**4284. *Ophlocordyceps araucarensis*** Sanjuan & Spatafora IF No: 805232  
**Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, insect pathogen  
**Habitat:** On nymph of *Cicadomorpha* sp. buried in the ground | Entomopathogen solitary **Elev.:** 100 m **Dept.:** AMA

Uses: PO

insect pathogen

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Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Ophiocordycipitaceae 4285. *Ophiocordyceps australis* (Speg.) G.H. Sung, J.M. Sung, Hywel-Jones & Spatafora IF No: 504229 **Trophic mode/Guild:** pathotroph, symbiotroph/ endophyte, insect pathogen **Habitat:** On Hymenoptera | Entomopathogen solitary **Distribution:** Pan Tropics **Uses:** ME



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Ophiocordycipitaceae 4286. *Ophiocordyceps binata* (H.C. Evans & Samson) J.P.M. Araújo, H.C. Evans & D.P. Hughes IF No: 831081 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte,



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Ophiocordycipitaceae 4287. *Ophiocordyceps buquetii* (Mont. & C.P. Robin) Spatafora, Kepler & C.A. Quandt IF No: 814734 **Trophic mode/Guild:** pathotroph, symbiotroph/



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Ophiocordycipitaceae 4288. *Ophiocordyceps caloceroides* (Berk. & M.A. Curtis) Petch IF No: 251199 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, insect pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Ophiocordycipitaceae 4289. *Ophiocordyceps camponoti-rufipedis* H.C. Evans & D.P. Hughes IF No: 550001 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte,



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Ophiocordycipitaceae 4290. *Ophiocordyceps curcullionum* (Tul. & C. Tul.) G.H. Sung, J.M. Sung, Hywel-Jones & Spatafora IF No: 504246 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte,



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Ophiocordycipitaceae 4291. *Ophiocordyceps daceti* Araújo, H.C. Evans & D.P. Hughes IF No: 822289 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, insect pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Ophiocordycipitaceae 4292. *Ophiocordyceps dilpaterigena* (Berk. & Broome) G.H. Sung, J.M. Sung, Hywel-Jones & Spatafora IF No: 504250 **Trophic mode/Guild:** pathotroph, symbiotroph/



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Ophiocordycipitaceae 4293. *Ophiocordyceps engleriana* (Henn.) G.H. Sung, J.M. Sung, Hywel-Jones & Spatafora IF No: 504260 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte,



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Ophiocordycipitaceae 4294. *Ophiocordyceps entomorphiza* (Dicks.) G.H. Sung, J.M. Sung, Hywel-Jones & Spatafora IF No: 504261 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte,



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Ophiocordycipitaceae 4295. *Ophiocordyceps evansii* Sanjuan IF No: 805413 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, insect pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Ophiocordycipitaceae 4296. *Ophiocordyceps fulgoromorphila* Sanjuan IF No: 805227 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, insect pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Ophiocordycipitaceae 4297. *Ophiocordyceps gracillioides* (Kobayasi) G.H. Sung, J.M. Sung, Hywel-Jones & Spatafora IF No: 504276 **Trophic mode/Guild:** pathotroph, symbiotroph/



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Ophiocordycipitaceae 4298. *Ophiocordyceps gracillima* (Kobayasi) Sanjuan & Spatafora IF No: 811229 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, insect pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Ophiocordycipitaceae 4299. *Ophiocordyceps humbertii* (C.P. Robin) Petch IF No: 631618 **Trophic mode/Guild:** pathotroph, symbiotroph/ endophyte, insect pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Ophiocordycipitaceae 4300. *Ophiocordyceps kniphofoides* (H.C. Evans & Samson) G.H. Sung, J.M. Sung, Hywel-Jones & Spatafora IF No: 504288 **Trophic mode/Guild:** pathotroph,



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Ophiocordycipitaceae 4301. *Ophiocordyceps lloydii* (H.S. Fawc.) G.H. Sung, J.M. Sung, Hywel-Jones & Spatafora IF No: 504296 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte,



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Ophiocordycipitaceae 4302. *Ophiocordyceps melalonthae* (Tul. & C. Tul.) G.H. Sung, J.M. Sung, Hywel-Jones & Spatafora IF No: 504300 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte,



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Ophiocordycipitaceae 4303. *Ophiocordyceps nutans* (Pat.) G.H. Sung, J.M. Sung, Hywel-Jones & Spatafora IF No: 504313 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, insect pathogen **Habitat:** On insects species belonging to Hemiptera | Entomopathogen solitary **Distribution:** Pan Tropics **Dept.:** CAQ **Uses:** ME



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Ophiocordycipitaceae 4304. *Ophiocordyceps odontomachi* J.P.M. Araújo, H.C. Evans & D.P. Hughes IF No: 831080 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte,



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Ophiocordycipitaceae 4305. *Ophiocordyceps ponnerianum* (H.C. Evans & Samson) Sanjuan & Kepler IF No: 810374 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, insect pathogen **Habitat:** Entomopathogen **Elev.:** 400-600 m **Dept.:** PUT



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Ophiocordycipitaceae 4306. *Ophiocordyceps sinensis* (Berk.) G.H. Sung, J.M. Sung, Hywel-Jones & Spatafora IF No: 504340 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, insect pathogen **Habitat:** Parasitizes larvae of moths belonging to the order Lepidoptera, especially *Hepialus* and *Thitarodes*. In high mountain areas | Entomopathogen solitary **Distribution:** Introduced **Uses:** ME **Conservation:** VU



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Ophiocordycipitaceae 4307. *Ophiocordyceps sobolifera* (Hill ex Watson) G.H. Sung, J.M. Sung, Hywel-Jones & Spatafora IF No: 504342 **Trophic mode/Guild:** pathotroph, symbiotroph/



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Ophiocordycipitaceae 4308. *Ophiocordyceps sphaecoccephala* (Klotzsch ex Berk.) G.H. Sung, J.M. Sung, Hywel-Jones & Spatafora IF No: 504343 **Trophic mode/Guild:** pathotroph,



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Ophiocordycipitaceae 4309. *Ophiocordyceps tricentri* (Yasuda) G.H. Sung, J.M. Sung, Hywel-Jones & Spatafora IF No: 504352 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte,



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Ophiocordycipitaceae 4310. *Ophiocordyceps unilateralis* (Tul. & C. Tul.) Petch IF No: 281145 **Trophic mode/Guild:** pathotroph, symbiotroph/ endophyte, insect pathogen **Habitat:** Entomopathogen **Elev.:** 400-600 m **Dept.:** PUT **Uses:** PO



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Ophiocordycipitaceae 4311. *Ophiocordyceps variabilis* (Petch) G.H. Sung, J.M. Sung, Hywel-Jones & Spatafora IF No: 504354 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte,



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Ophiocordycipitaceae 4312. *Paraisaria amazonica* (Henn.) Luangsa-ard, Mongkols. & Samson IF No: 831112 **Trophic mode/Guild:** pathotroph/ fungal parasite



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Ophiocordycipitaceae 4313. *Paraisaria biattaroides* (Sanjuan & Spatafora) Luangsa-ard, Mongkols. & Samson IF No: 831113 **Trophic mode/Guild:** pathotroph/fungal parasite



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocreales, Ophiocordycipitaceae 4314. *Polyccephalomycetes sinensis* (Q.T. Chen, S.R. Xiao & Z.Y. Shi) W.J. Wang, X.L. Wang, Y. Li, S.R. Xiao & Y.J. Yao IF No: 550007 **Trophic mode/Guild:** pathotroph/ fungal parasite **Habitat:** In leaves of *Espeletia* spp. | Originally isolated from *Ophiocordyceps sinensis* | Saprotroph. Endophyte **Distribution:** Pan Tropics **Dept.:** CUN **Uses:** PO



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Ophiocordycipitaceae  
**4315. *Purpureocillium atypicola*** (Yasuda) Spatafora, Hywel-Jones & Luangsa-ard  
**IF No:** 816152 **Trophic mode/Guild:** pathotroph/fungal parasite



On soil | On Hemiptera | Entomopathogen **Dept.:** CUN, RIS, SAN, VAC **Uses:** PO

Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Ophiocordycipitaceae  
**4316. *Purpureocillium lilacinum*** (Thom) Luangsa-ard, Houbraeken, Hywel-Jones & Samson **IF No:** 519530 **Trophic mode/Guild:** pathotroph/fungal parasite **Habitat:** pathotroph, symbiotroph/animal pathogen



clavicipitaceous endophyte, fungal parasite **Dept.:** ANT

Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Ophiocordycipitaceae  
**4317. *Tolyposcladium capitatum*** (Holmsk.) C.A. Quandt, Kepler & Spatafora **IF No:** 808699 **Trophic mode/Guild:** pathotroph, symbiotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Ophiocordycipitaceae  
**4318. *Tolyposcladium cylindrosporium*** W. Gams **IF No:** 324638 **Trophic mode/Guild:** pathotroph, symbiotroph/animal pathogen, clavicipitaceous endophyte, fungal parasite



clavicipitaceous endophyte, fungal parasite

Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Ophiocordycipitaceae  
**4319. *Tolyposcladium intermedium*** (S. Imai) C.A. Quandt, Kepler & Spatafora **IF No:** 808703 **Trophic mode/Guild:** pathotroph, symbiotroph/animal pathogen



clavicipitaceous endophyte, fungal parasite

Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Ophiocordycipitaceae  
**4320. *Tolyposcladium longisegmentatum*** (Ginns) C.A. Quandt, Kepler & Spatafora **IF No:** 821659 **Trophic mode/Guild:** pathotroph, symbiotroph/animal pathogen



clavicipitaceous endophyte, fungal parasite **Habitat:** On species of the genus *Elaphomyces* | Entomopathogen **Distribution:** Global Distribution **Dept.:** SAN **Uses:** ME, PO

Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Ophiocordycipitaceae  
**4321. *Tolyposcladium ophioglossoides*** (J.F. Gmel.) C.A. Quandt, Kepler & Spatafora **IF No:** 808859 **Trophic mode/Guild:** pathotroph, symbiotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Stachybotryaceae  
**4322. *Paramyrothecium roridum*** (Tode) L. Lombard & Crous **IF No:** 815989



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Stachybotryaceae  
**4323. *Parvothecium terrestre*** L. Lombard & Crous **IF No:** 816020



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Stachybotryaceae  
**4324. *Stachybotrys chartarum*** (Ehrenb.) S. Hughes **IF No:** 306362 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Stachybotryaceae  
**4325. *Stachybotrys panisporus*** S. Hughes **IF No:** 626923



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Incertae sedis  
**4326. *Acromoniopsis suttoniae*** A. Giraldo, Gené & Guarro **IF No:** 823103 **Trophic mode/Guild:** saprotroph/undefined saprotroph



endophyte, fungal parasite, plant pathogen, wood saprotroph

Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Incertae sedis  
**4327. *Acromonium chrysogenum*** (Thurmer & Sukapure) W. Gams **IF No:** 308135 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Incertae sedis  
**4328. *Acromonium persicinum*** (Nicot) W. Gams **IF No:** 308180 **Trophic mode/Guild:** pathotroph/animal pathogen



fungal parasite, plant pathogen, wood saprotroph

Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Incertae sedis  
**4329. *Acromonium polychromum*** (J.F.H. Beyma) W. Gams **IF No:** 308183 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, wood saprotroph



parasite, plant pathogen, wood saprotroph

Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Incertae sedis  
**4330. *Acromonium psammosporum*** W. Gams **IF No:** 308184 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, fungal parasite, plant pathogen, wood saprotroph



animal pathogen, endophyte, fungal parasite, plant pathogen, wood saprotroph

Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Incertae sedis  
**4331. *Acromonium sclerotigenum*** (Moreau & R. Moreau ex Valenta) W. Gams **IF No:** 308196 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Incertae sedis  
**4332. *Eucasphaeria capensis*** Crous **IF No:** 501094 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Incertae sedis  
**4333. *Gilomastix cerealis*** (P. Karst.) C.H. Dickinson **IF No:** 331354 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Incertae sedis  
**4334. *Illosporium mayarii*** Syd. & P. Syd. **IF No:** 229025 **Trophic mode/Guild:** pathotroph/lichen parasite



Saprotroph **Distribution:** Global Distribution **Dept.:** CUN

Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Incertae sedis  
**4335. *Ilynoectria destructans*** (Zinssm.) Rossmann, L. Lombard & Crous **IF No:** 810954 **Trophic mode/Guild:** pathotroph/plant pathogen **Habitat:** Root pathogen.



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Incertae sedis  
**4336. *Ilynoectria mors-panacis*** (A.A. Hildebr.) A. Cabral & Crous **IF No:** 560115 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Incertae sedis  
**4337. *Ilynoectria radicolata*** (Gerlach & L. Nilsson) P. Chaverri & Salgado **IF No:** 518560 **Trophic mode/Guild:** pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Incertae sedis  
**4338. *Peloronectria vinosa*** Möller **IF No:** 242713 **Trophic mode/Guild:** /parasite **Habitat:** Parasitic **Distribution:** Panotropics **Elev.:** 2,800-3,109 m **Dept.:** CUN, NAR



peach | Saprotroph **Elev.:** 2,900 m **Dept.:** BOY

Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Incertae sedis  
**4339. *Sarocladium bactrocephalum*** (W. Gams) Summerb. **IF No:** 519590 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On soils cultivated with peach



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Incertae sedis  
**4340. *Sarocladium glaucum*** (W. Gams) Summerb. **IF No:** 519591 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Incertae sedis  
**4341. *Sarocladium implicatum*** (J.C. Gilman & E.V. Abbott) A. Giraldo, Gené & Guarro **IF No:** 807946 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Incertae sedis  
**4342. *Sarocladium killense*** (Grütz) Summerb. **IF No:** 519592 **Trophic mode/Guild:** pathotroph/animal pathogen



*Calamagrostis effusa* **Distribution:** Panotropics **Dept.:** CUN **Uses:** HF

Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Incertae sedis  
**4343. *Sarocladium strictum*** (W. Gams) Summerb. **IF No:** 519594 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On soil | In grasslands of *Calamagrostis effusa*



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Incertae sedis  
**4344. *Sarocladium subulatum*** A. Giraldo, Gené & Guarro **IF No:** 807948 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Hypocerales, Incertae sedis  
**4345. *Sarocladium terricola*** (J.H. Mill., Giddens & A.A. Foster) A. Giraldo, Gené & Guarro **IF No:** 807950 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Microascales, Ceratocystidaceae  
**4346. *Berkeleyomyces basicola*** (Berk. & Broome) W.J. Nel, Z.W. de Beer, T.A. Duong & M.J. Wingf. **IF No:** 822839



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Microascales, Ceratocystidaceae  
**4347. *Ceratocystis cacaofunesta*** Engelber. & T.C. Harr. **IF No:** 501395 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph

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Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Microascales, Ceratocystidaceae  
**4348. *Ceratocystis colombiana*** M. van Wyk & M.J. Wingf. IF No: 511243 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Microascales, Ceratocystidaceae  
**4349. *Ceratocystis fimbriata*** Ellis & Halst. IF No: 167245 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Microascales, Ceratocystidaceae  
**4350. *Ceratocystis neglecta*** M. van Wyk, Jol. Roux & Rodas IF No: 510947 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Microascales, Ceratocystidaceae  
**4351. *Ceratocystis papillata*** M. van Wyk & M.J. Wingf. IF No: 511244 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Microascales, Ceratocystidaceae  
**4352. *Ceratocystis paradoxa*** (Dade) C. Moreau IF No: 294224 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Microascales, Halosphaeriaceae  
**4353. *Antennosporium quadricornuta*** (Cribb & J.W. Cribb) T.W. Johnson IF No: 292555 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Microascales, Halosphaeriaceae  
**4354. *Chadefaudia corallinarum*** (P. Crouan & H. Crouan) E. Müll. & Arx IF No: 310844 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Microascales, Halosphaeriaceae  
**4355. *Clavatospora filiformis*** Nawawi IF No: 311241 **Trophic mode/Guild:** saprotroph/Habitat: From foam in river | Saprotroph **Dept.:** SAN



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Microascales, Halosphaeriaceae  
**4356. *Clavatospora tentacula*** Sv. Nilsson IF No: 328384 **Trophic mode/Guild:** saprotroph/Habitat: From foam in river | Saprotroph **Dept.:** SAN



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Microascales, Halosphaeriaceae  
**4357. *Corollospora maritima*** Werderm. IF No: 270595 **Trophic mode/Guild:** symbiotroph/endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Microascales, Halosphaeriaceae  
**4358. *Halyangia salina*** (Meyers) K.L. Pang & E.B.G. Jones IF No: 535843 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Microascales, Halosphaeriaceae  
**4359. *Thalassosphaeria sphaerica*** Kohlm. & Volk.-Kohlm. IF No: 132448 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Microascales, Microasaceae  
**4360. *Kernia nitida*** (Sacc.) Nieuwl. IF No: 100251 **Trophic mode/Guild:** saprotroph /dung saprotroph, undefined saprotroph **Habitat:** On soils cultivated with peach and apple **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Microascales, Microasaceae  
**4361. *Microascus brevicaulis*** S.P. Abbott IF No: 443784 **Trophic mode/Guild:** saprotroph/pathogen **Habitat:** In leaves of Espeletia spp., on soil, wood, stems, straw, grains, dead insect, dung, paper, animals, food products, skin lesions | Endophyte, Saprotroph. Pathogen **Distribution:** Global **Dept.:** CUN **Uses:** PO



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Microascales, Microasaceae  
**4362. *Microascus palisii*** (Pollacci) Sand.-Den., Gené & Guarro IF No: 809213

apple | Saprotroph

contaminated with oil



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Microascales, Microasaceae  
**4363. *Petriella setifera*** (Alf. Schmidt) Curzi IF No: 278020 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On soils cultivated with apple | Saprotroph **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Microascales, Microasaceae  
**4364. *Pseudallescheria boydii*** (Shear) McGinnis, A.A. Padhye & Ajello IF No: 110950 **Trophic mode/Guild:** pathotroph /animal pathogen **Habitat:** In soils | Saprotroph **Distribution:** Global



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Microascales, Microasaceae  
**4365. *Pseudallescheria ellipsoides*** (Arx & Fassat.) McGinnis, A.A. Padhye & Ajello IF No: 110952 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Microascales, Microasaceae  
**4366. *Pseudallescheria fusuldea*** (Arx) McGinnis, A.A. Padhye & Ajello IF No: 110947 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Microascales, Microasaceae  
**4367. *Scodsporium dehogii*** Gilgado, Cano, Gené & Guarro IF No: 538388 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On soils cultivated with peach and apple **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Microascales, Microasaceae  
**4368. *Scodsporium prolificans*** (Hennebert & B.G. Desai) E. Guého & de Hoog IF No: 128175 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Microascales, Microasaceae  
**4369. *Wardomyces moseri*** W. Gams IF No: 414367 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Isolated from dead petiole of the palm *Mauritia minor* **Distribution:** Panotropics **Dept.:** MET



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Microascales, Incertae sedis  
**4370. *Cephalotrichiella penicillata*** Crous IF No: 808955



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Incertae sedis, Etheiophoraceae  
**4371. *Etheiophora blepharospora*** (Kohlm. & E. Kohlm.) Kohlm. & Volk.-Kohlm. IF No: 135941



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Hypocreomycetidae, Incertae sedis, Incertae sedis  
**4372. *Stilbella aleurata*** (Berk. & M.A. Curtis) Seifert IF No: 104790 **Trophic mode/Guild:** saprotroph, symbiotroph/dung saprotroph, endophyte, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Melliolomycetidae, Melliolales, Melliolaceae  
**4373. *Appendiculella calostroma*** (Desm.) Höhn. IF No: 120067 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Melliolomycetidae, Melliolales, Melliolaceae  
**4374. *Appendiculella sororcula*** (Speg.) Hansf. IF No: 326407 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Melliolomycetidae, Melliolales, Melliolaceae  
**4375. *Asteridiella chardonii*** (Toró) S. Hughes IF No: 361236 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Melliolomycetidae, Melliolales, Melliolaceae  
**4376. *Asteridiella exilis*** (Syd. & P. Syd.) Hansf. IF No: 482292 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Melliolomycetidae, Melliolales, Melliolaceae  
**4377. *Asteridiella fidelis*** (Toró) Hansf. IF No: 482272 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Melliolomycetidae, Melliolales, Melliolaceae  
**4378. *Asteridiella glabra*** (Berk. & M.A. Curtis) Hansf. IF No: 482094 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Melliolomycetidae, Melliolales, Melliolaceae  
**4379. *Asteridiella longipoda*** (Gaillard) Hansf. IF No: 482117 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Melliolomycetidae, Melliolales, Melliolaceae  
**4380. *Asteridiella obesa*** (Speg.) Hansf. IF No: 482156 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Melliolomycetidae, Melliolales, Melliolaceae  
**4381. *Asteridiella perseae*** (F. Stevens) Hansf. IF No: 482208 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Melliolomycetidae, Melliolales, Melliolaceae  
**4382. *Asteridiella pittieri*** (Toró) Hansf. IF No: 482244 **Trophic mode/Guild:** pathotroph/plant pathogen **Habitat:** On *Durania repens* **Distribution:** Panotropics



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Melliolomycetidae, Melliolales, Melliolaceae  
**4383. *Asteridiella plebeja*** (Speg.) Hansf. IF No: 482074 **Trophic mode/Guild:** pathotroph/plant pathogen

Dept.: BOY



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Melliolomycetidae, Melliolales, Melliolaceae  
4384. *Irenina obtusa* Toro  
IF No: 272620



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Melliolomycetidae, Melliolales, Melliolaceae  
4385. *Irenopsis aciculosa* (G. Winter) F. Stevens  
IF No: 255715 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Melliolomycetidae, Melliolales, Melliolaceae  
4386. *Irenopsis moelleriana* (G. Winter) F. Stevens  
IF No: 271491 Trophic mode/Guild: pathotroph/plant pathogen  
Habitat: On *Sida acuta*  
Elev.: 480 m Dept.: MET



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Melliolomycetidae, Melliolales, Melliolaceae  
4387. *Meliola ambigua* Pat. & Gaillard  
IF No: 140964 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Melliolomycetidae, Melliolales, Melliolaceae  
4388. *Meliola antioquiensis* Garcés  
IF No: 288114 Trophic mode/Guild: pathotroph/plant pathogen  
Habitat: On *Persea petiolaris*  
Distribution: Pantropics Endemic  
Elev.: 1,540 m Dept.: ANT



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Melliolomycetidae, Melliolales, Melliolaceae  
4389. *Meliola bicornis* G. Winter  
IF No: 149240 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Melliolomycetidae, Melliolales, Melliolaceae  
4390. *Meliola colombiensis* Hansf.  
IF No: 300524 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Melliolomycetidae, Melliolales, Melliolaceae  
4391. *Meliola ellisi* Roum.  
IF No: 414663 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Melliolomycetidae, Melliolales, Melliolaceae  
4392. *Meliola integriseta* (Speg.) Speg.  
IF No: 197408 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Melliolomycetidae, Melliolales, Melliolaceae  
4393. *Meliola lantanae* Syd. & P. Syd.  
IF No: 229326 Trophic mode/Guild: pathotroph/plant pathogen  
Habitat: On *Lantana fucata*  
Distribution: Pantropics  
Elev.: 1,700 m Dept.: ANT



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Melliolomycetidae, Melliolales, Melliolaceae  
4394. *Meliola panicl* Earle  
IF No: 234849 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Melliolomycetidae, Melliolales, Melliolaceae  
4395. *Meliola pithecellobicola* Speg.  
IF No: 528777 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Melliolomycetidae, Melliolales, Melliolaceae  
4396. *Meliola psidii* Fr.  
IF No: 178886 Trophic mode/Guild: pathotroph/plant pathogen  
Habitat: On *Psidium* sp.  
Distribution: Pantropics Dept.: MET



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Melliolomycetidae, Melliolales, Melliolaceae  
4397. *Meliola rudolphiae* F. Stevens  
IF No: 141480 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Melliolomycetidae, Melliolales, Melliolaceae  
4398. *Meliola trichostroma* (Kunze) Toro  
IF No: 300851 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Melliolomycetidae, Melliolales, Melliolaceae  
4399. *Meliola xylosumicola* Garcés  
IF No: 300880 Trophic mode/Guild: pathotroph/plant pathogen  
Habitat: On *Xylosum spiculiferum*  
Distribution: Endemic Dept.: CUN



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Chaetosphaeriales, Chaetosphaeriaceae  
4400. *Chaetosphaeria lapaziana* (G.C. Carroll & Munk) F.A. Fernández & Huhndorf  
IF No: 346550



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Chaetosphaeriales, Chaetosphaeriaceae  
4401. *Chaetosphaeria vermiliaroides* (Sacc. & Roum.) W. Gams & Hol.-Jech.  
IF No: 310971  
Habitat: On soils cultivated with peach and apple | On soils in uncultivated field (intermediate between orchard and woodland) | On woodland soils | Saprotroph  
Elev.: 2,900 m Dept.: BOY



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Chaetosphaeriales, Chaetosphaeriaceae  
4402. *Codinaea acaciae* Crous & M.J. Wingf.  
IF No: 812419 Trophic mode/Guild: pathotroph, saprotroph/plant pathogen, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Chaetosphaeriales, Chaetosphaeriaceae  
4403. *Eucalyptostroma eucalyptorum* Crous & M.J. Wingf.  
IF No: 825411



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Chaetosphaeriales, Chaetosphaeriaceae  
4404. *Thozetella fabacearum* R.H. Perera & K.D. Hyde  
IF No: 552537 Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Magnaporthales, Magnaporthaceae  
4405. *Gaeumannomyces graminis* (Sacc.) Arx & D.L. Olivier  
IF No: 297567 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Magnaporthales, Pyriculariaceae  
4406. *Pyricularia grisea* Cooke ex Sacc.  
IF No: 224559 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Magnaporthales, Pyriculariaceae  
4407. *Pyricularia oryzae* Cavara  
IF No: 224486 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
4408. *Anisochora chardonii* Garcés  
IF No: 284174



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
4409. *Aposphaeria guaranítica* (Speg.) Höhn.  
IF No: 122587 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
4410. *Camarotella colombiana* Gómez-Zap. & Salazar-Yepes  
IF No: 823065



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
4411. *Catacauma caballi* Garcés  
IF No: 284803 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
4412. *Catacauma paramoense* Chardón  
IF No: 273576 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
4413. *Coccidella advena* (Syd. ex Chardón & Toro) I. Hino & Katum.  
IF No: 328502 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
4414. *Coccidella melastomatum* (Lév.) I. Hino & Katum.  
IF No: 532452 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
4415. *Coccidella miconiae* (Duby) I. Hino & Katum.  
IF No: 328512 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
4416. *Coccidella miconicola* (Garcés) I. Hino & Katum.  
IF No: 328513 Trophic mode/Guild: pathotroph/plant pathogen  
Habitat: On *Miconia squamulosa*  
Distribution: Pantropics  
Elev.: 3,000 m Dept.: CUN



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
4417. *Coccidella neurophila* (Theiss.) I. Hino & Katum.  
IF No: 328517 Trophic mode/Guild: pathotroph/plant pathogen  
Habitat: On *Miconia caudata*  
Distribution: Pantropics  
Elev.: 1,750 m Dept.: ANT



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
4418. *Coccostroma peribebuyense* (Speg.) Arx & E. Müll.  
IF No: 344069 Trophic mode/Guild: pathotroph/plant pathogen  
Habitat: On *Miconia versicolor*  
Distribution: Pantropics  
Elev.: 2,600 m Dept.: CAU



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
4419. *Endotrabutia tequendamensis* Chardón  
IF No: 280021

CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4420. *Geminiispora mimosae*** Pat. IF No: 158888 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4421. *Linochora polydelpha*** Syd. IF No: 274896 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4422. *Munkdotothis hilaronii*** Chardón IF No: 267153



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4423. *Ophlobothella cuervoi*** Chardón IF No: 262473 **Trophic mode/Guild:** pathotrophy/plant pathogen **Habitat:** On leaves of *Vaccinium caracasenum*



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4424. *Ophlobothella orchidearum*** E.K. Cash & A.M.J. Watson IF No: 302061 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4425. *Phaeotrabutia isabellae*** Garcés IF No: 289330 **Habitat:** On leaves of *Xylosma spiculiferum* **Distribution:** Panotropics **Dept.:** CUN

**Distribution:** Endemic **Dept.:** NSA



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4426. *Phylachora abutilonis*** Garcés IF No: 289487 **Habitat:** On *Abutilon* sp. **Distribution:** Panotropics **Elev.:** 1,650 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4427. *Phylachora acutispora*** Speg. IF No: 248822



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4428. *Phylachora amphibia*** Syd. IF No: 256704 **Habitat:** On *Inga* sp. **Distribution:** Panotropics **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4429. *Phylachora applanata*** G. Winter IF No: 241766



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4430. *Phylachora bogotensis*** Petr. IF No: 289495



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4431. *Phylachora chusqueana*** Garcés IF No: 289499



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4432. *Phylachora clavata*** Garcés IF No: 289500 **Habitat:** On *Myrica* sp. **Distribution:** Panotropics **Elev.:** 2,700 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4433. *Phylachora columbiensis*** (Chardón) P.F. Cannon IF No: 509459



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4434. *Phylachora conica*** (Chardón) Petr. IF No: 261721



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4435. *Phylachora crotonis*** (Cooke) Sacc. IF No: 200816



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4436. *Phylachora cymodonis*** Niessl IF No: 229926 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4437. *Phylachora dolichogena*** (Berk. & Broome) Sacc. IF No: 207603



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4438. *Phylachora erlochloae*** Speg. IF No: 173899



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4439. *Phylachora espeletiae*** Syd. & P. Syd. IF No: 155538



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4440. *Phylachora gouaniae*** Gonz. Frag. & Cif. IF No: 225319



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4441. *Phylachora gratissimae*** Rehm IF No: 646459 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4442. *Phylachora guaduae*** Chardón IF No: 266593



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4443. *Phylachora guazumae*** Henn. IF No: 198446



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4444. *Phylachora gynericola*** Garcés IF No: 631470 **Habitat:** On *Gynerium* saccharoides **Distribution:** Panotropics **Elev.:** 1,650 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4445. *Phylachora ischaemi*** Syd. & P. Syd. IF No: 219403



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4446. *Phylachora lasiacis*** Syd. IF No: 269023



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4447. *Phylachora lehmanniana*** Henn. IF No: 232168



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4448. *Phylachora litseae*** Koord. IF No: 160277



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4449. *Phylachora machaerilcola*** (Henn.) Theiss. & Syd. IF No: 102478



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4450. *Phylachora macroloculata*** Chardón IF No: 289530



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4451. *Phylachora maydis*** Maubl. IF No: 167673 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4452. *Phylachora mayorii*** Chardón IF No: 270701



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4453. *Phylachora medellinensis*** (Chardón) Petr. IF No: 303305



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4454. *Phylachora melatephra*** Syd. IF No: 270839



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4455. *Phylachora microspora*** Chardón IF No: 271124



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4456. *Phylachora microstroma*** Chardón IF No: 271162



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4457. *Phylachora microtheca*** (Speg.) Chardón IF No: 447296



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4458. *Phylachora minutissima*** (Welw. & Curr.) A.L. Sm. IF No: 172868 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4459. *Phylachora montserratis*** (Chardón) Petr. IF No: 303310



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4460. *Phylachora nitens*** (Lév.) Cooke IF No: 447302 **Habitat:** On *Dioecia sericea* **Distribution:** Panotropics **Elev.:** 1,150 m **Dept.:** VAC



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4461. *Phylachora notabilis*** Petr. & Cif. IF No: 272444 **Habitat:** On *Stigmatophyllon* sp. **Distribution:** Panotropics **Elev.:** 2,200 m **Dept.:** VAC



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4462. *Phylachora ospinae*** Chardón  
 IF No: 273119



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4463. *Phylachora oxyspora*** Starbäck IF No: 224636  
 Habitat: On *Sorghastrum stipoides* Distribution: Panotropics Elev.: 1,750 m Dept.: ANT



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4464. *Phylachora panici*** (Schwein.) Sacc.  
 IF No: 198079



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4465. *Phylachora paspalicola*** Henn.  
 IF No: 228125



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4466. *Phylachora pennellii*** Seaver  
 IF No: 273900



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4467. *Phylachora pennissetha*** Syd. IF No: 273907  
 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4468. *Phylachora perlata*** Syd. & P. Syd.  
 IF No: 225374



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4469. *Phylachora phylloplaca*** (Kunze ex Mont.) Sacc. IF No: 230008



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4470. *Phylachora puncta*** (Cooke) Cooke  
 IF No: 289555



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4471. *Phylachora rapanelicola*** Garcés  
 IF No: 289556



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4472. *Phylachora renealmiae*** Rehm  
 IF No: 227287



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4473. *Phylachora setaricola*** Speg.  
 IF No: 121401



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4474. *Phylachora slimabae-cedronis*** Henn. IF No: 186561



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4475. *Phylachora sphaerosperma*** G. Winter IF No: 208171  
 Habitat: On *Cenchrus brownii* Distribution: Panotropics Elev.: 1,000 m Dept.: VAC



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4476. *Phylachora taruma*** Speg.  
 IF No: 241886



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4477. *Phylachora torol*** Chardón  
 IF No: 280407



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4478. *Phylachora tragiae*** (Schwein.) Sacc.  
 IF No: 142140



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4479. *Phylachora urvilleana*** Speg.  
 IF No: 191071



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4480. *Phylachora vallecaucana*** Chardón  
 IF No: 281326



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4481. *Phylachora vismliae*** F. Stevens IF No: 281919  
 Habitat: On *Vismia latifolia* Distribution: Panotropics Elev.: 498 m Dept.: MET



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4482. *Phylachora wirli*** (Chardón) P.F. Cannon IF No: 354666



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4483. *Phylachora quiltensis*** (Pat.) Höhn. IF No: 431982  
 Trophic mode/Guild: pathotroph/plant pathogen Distribution: Panotropics Dept.: ANT, CAU, VAC



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4484. *Sphaerodothis circumscripta*** (Berk.) Theiss. & Syd. IF No: 100595  
 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4485. *Sphaerodothis gaultheriae*** Petr. IF No: 339414  
 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4486. *Sphaerodothis merianiae*** Garcés IF No: 291108  
 Trophic mode/Guild: pathotroph/plant pathogen Habitat: On *Meriania nobilis* Distribution: Panotropics Elev.: 2,400 m Dept.: ANT



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4487. *Telmenochora abortiva*** (F. Stevens) Sivan. IF No: 130925  
 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Phylachoraceae  
**4488. *Trabutia calarcana*** Chardón  
 IF No: 259344



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Telmeniaceae  
**4489. *Telmenia insueta*** (Syd.) Mardones, Trampe & M. Piepenbr. IF No: 821733  
 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Telmeniaceae  
**4490. *Telmenia ruelliae*** (Chardón) Mardones, Trampe & M. Piepenbr. IF No: 821754  
 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Phylachorales, Telmeniaceae  
**4491. *Telmenia ulii*** (G. Winter) Mardones, T. Trampe & M. Piepenbr. IF No: 818228  
 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Beltraniaceae  
**4492. *Beltrania pseudorhombica*** Crous & Y. Zhang ter IF No: 808942  
 Trophic mode/Guild: saprotroph, symbiotroph/endophyte, undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Chaetomiaceae  
**4493. *Arcopilus flavigenus*** (Van Warmelo) X. Wei Wang & Samson  
 IF No: 818858



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Chaetomiaceae  
**4494. *Botryotrichum murorum*** (Corda) X. Wei Wang & Samson IF No: 818837  
 Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Chaetomiaceae  
**4495. *Chaetomidium leptoderma*** (C. Booth) Greif & Currah IF No: 510052  
 Trophic mode/Guild: saprotroph/dung saprotroph, undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Chaetomiaceae  
**4496. *Chaetomidium cochilodes*** Palliser IF No: 257241  
 Trophic mode/Guild: saprotroph/Habitat: On soils | On paper, straw, dung Distribution: Global



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Chaetomiaceae  
**4497. *Chaetomidium globosum*** Lodha  
 IF No: 328047



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Chaetomiaceae  
**4498. *Chaetomidium globosum*** Kunze IF No: 172545  
 Trophic mode/Guild: pathotroph, saprotroph, symbiotroph/dung saprotroph, endophyte, wood saprotroph Habitat: In



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Chaetomiaceae  
**4499. *Collariella botrychodes*** (Zopf) X. Wei Wang & Samson  
 IF No: 818862



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Chaetomiaceae  
**4500. *Collariella robusta*** (L.M. Ames) X. Wei Wang & Samson  
 IF No: 818872

soil, on plant remains, frequently isolated from archives, wall paper, textiles | In leaves of *Espeletia* spp. | In soils cultivated with apple and peach Elev.: 2900 Dept.: BOY, CUN Uses: PO

Distribution Dept.: CUN Uses: PO

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Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Chaetomiaceae  
**4501. *Dichotomoplius Indicus*** (Corda)  
 X. Wei Wang & Samson IF No: 818842  
**Trophic mode/Guild:** saprotrophy/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Chaetomiaceae  
**4502. *Humicola fuscoatra*** Traaen  
 IF No: 188714



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Chaetomiaceae  
**4503. *Humicola olivacea*** X. Wei Wang & Samson IF No: 818848



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Chaetomiaceae  
**4504. *Humicola udagawae*** (Sergeeva ex Udagawa) X. Wei Wang & Houbraken IF No: 824451  
**Trophic mode/Guild:** saprotrophy/  
**Habitat:** On soils cultivated with apple and peach | On soils in uncultivated field (intermediate between orchard and woodland) **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Chaetomiaceae  
**4505. *Ovatospora brasiliensis*** (Bat. & Pontual) X. Wei Wang & Samson  
 IF No: 818851



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Chaetomiaceae  
**4506. *Trichocladium acerpullum*** (X. Wei Wang) X. Wei Wang & Houbraken IF No: 824462  
**Trophic mode/Guild:** saprotrophy/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Chaetomiaceae  
**4507. *Trichocladium asperum*** Harz IF No: 171452  
**Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On soils alternated with potato crops and grasses | Saprotroph **Elev.:** 3,373 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Chaetomiaceae  
**4508. *Trichocladium canadense*** S. Hughes IF No: 307019  
**Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On soils alternated with potato crops and grasses **Elev.:** 3,373 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Chaetomiaceae  
**4509. *Trichocladium griseum*** (Traaen) X. Wei Wang & Houbraken IF No: 824469  
**Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On soils alternated with potato crops and grasses **Elev.:** 3,373 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Lasiosphaeriaceae  
**4510. *Aplosporaria terrestris*** (S. C. Jong & E. E. Davis) J. C. Krug, Udagawa & Jeng IF No: 108692  
**Trophic mode/Guild:** saprotroph/dung saprotroph, undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Lasiosphaeriaceae  
**4511. *Apodus oryzae*** Carolis & Arx IF No: 308867  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Lasiosphaeriaceae  
**4512. *Fimetariella rabenhorstii*** (Niessl) N. Lundq. IF No: 330892  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Lasiosphaeriaceae  
**4513. *Lasiosphaeria ovina*** (Pers.) Ces. & De Not. IF No: 201441  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Lasiosphaeriaceae  
**4514. *Triangularia philophoroides*** (Mouch. & W. Gams) X. Wei Wang & Houbraken IF No: 829891  
**Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On soils cultivated with peach and apple **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Podosporaceae  
**4515. *Podospora infratula*** Cain IF No: 337409  
**Trophic mode/Guild:** saprotroph, symbiotroph/dung saprotroph, endophyte, litter saprotroph, undefined



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Podosporaceae  
**4516. *Podospora leporina*** (Cain) Cain IF No: 337412  
**Trophic mode/Guild:** saprotroph, symbiotroph/dung saprotroph, endophyte, litter saprotroph, undefined saprotroph **Habitat:** On soils in uncultivated field (intermediate between orchard and woodland) | Coprophilous **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Sordariaceae  
**4517. *Neurospora crassa*** Shear & B.O. Dodge IF No: 262212  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Sordariaceae  
**4518. *Neurospora retispora*** (Cain) Dania Garcia, Stchigel & Guarro IF No: 488638  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Sordariaceae  
**4519. *Neurospora sitophila*** Shear & B.O. Dodge IF No: 278268  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Sordariaceae  
**4520. *Neurospora terricola*** Goch. & Backus IF No: 335154  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Sordariaceae  
**4521. *Sordaria fimicola*** (Roberge ex Desm.) Ces. & De Not. IF No: 147988  
**Trophic mode/Guild:** saprotroph/dung saprotroph, wood saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Incertae sedis  
**4522. *Madurella mycetomatis*** (Laveran) Brumpt IF No: 535193  
**Trophic mode/Guild:** pathotrophy/animal pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Incertae sedis  
**4523. *Phaeosporis melasperma*** (Nyl.) Clem. IF No: 400275



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Incertae sedis  
**4524. *Rosellinia cladoniae*** (Anzi) Matzer & Hafellner IF No: 128803  
**Trophic mode/Guild:** pathotrophy/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Incertae sedis  
**4525. *Rosellinia papuana*** Diederich IF No: 437061  
**Trophic mode/Guild:** pathotrophy/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Incertae sedis  
**4526. *Rosellinia ramirezii*** Etayo IF No: 373248  
**Trophic mode/Guild:** pathotrophy/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Sordariales, Incertae sedis  
**4527. *Rosellinia strictae*** Etayo IF No: 373249  
**Trophic mode/Guild:** pathotrophy/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Incertae sedis, Aplosporaceae  
**4528. *Aplospora sparsa*** Earle IF No: 171860  
**Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen **Habitat:** On dead culms of some slender grass **Distribution:** Pantropics **Dept.:** MAG



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Incertae sedis, Aplosporaceae  
**4529. *Arthrrium arundinis*** (Corda) Dyko & B. Sutton IF No: 308985  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Sordariomycetidae, Incertae sedis, Aplosporaceae  
**4530. *Arthrrium puccinoides*** Kunze IF No: 249465  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Amphisphaeriales, Amphisphaeriaceae  
**4531. *Beltranelia acaciae*** Crous IF No: 819053  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Amphisphaeriales, Amphisphaeriaceae  
**4532. *Microdochium albescens*** (Thüm.) Hern.-Restr. & Crous IF No: 812167



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Amphisphaeriales, Amphisphaeriaceae  
**4533. *Microdochium bolleyi*** (R. Sprague) de Hoog & Herm. -Nijh. IF No: 317661  
**Trophic mode/Guild:** pathotrophy/plant pathogen **Habitat:** On soils cultivated with peach | Saprotroph **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Amphisphaeriales, Amphisphaeriaceae  
**4534. *Microdochium colombiense*** Hern.-Restr. & Crous IF No: 811873



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Amphisphaeriales, Amphisphaeriaceae  
**4535. *Microdochium lycopolidum*** (Jaklitsch, Siepe & Voglmayr) Hern.-Restr. & Crous IF No: 811969



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Amphisphaeriales, Amphisphaeriaceae  
**4536. *Microdochium maydis*** (E. Müll. & Samuels) Hern.-Restr. & Crous IF No: 811970



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Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Amphisphaerales, Amphisphaeriaceae  
4537. *Microdochlum nivale* (Fr.) Samuels & L.C. Hallett IF No: 108213 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Amphisphaerales, Amphisphaeriaceae  
4538. *Monochaetia dimorphospora* T. Yokoy. IF No: 317826 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Amphisphaerales, Amphisphaeriaceae  
4539. *Pestalotia cavendishiae* Chardón & Toro IF No: 260149 Trophic mode/Guild: pathotroph, saprotroph/plant pathogen, wood saprotroph Habitat: On living leaves of *Cavendishia pubescens* Distribution: Pan tropics Dept.: ANT, CUN



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Amphisphaerales, Bartalinaceae  
4540. *Truncatella angustata* (Pers.) S. Hughes IF No: 307155 Trophic mode/Guild: pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Amphisphaerales, Pestalotiopsidaceae  
4541. *Neopestalotopsis egyptica* A.M. Ismail, G. Perrone & Crous IF No: 813637



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Amphisphaerales, Pestalotiopsidaceae  
4542. *Neopestalotopsis foedans* (Sacc. & Ellis) Maharachch., K.D. Hyde & Crous IF No: 809768



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Amphisphaerales, Pestalotiopsidaceae  
4543. *Neopestalotopsis surnamensis* Maharachch., K.D. Hyde & Crous IF No: 809781



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Amphisphaerales, Pestalotiopsidaceae  
4544. *Pestalotopsis adusta* (Ellis & Everh.) Steyaert IF No: 302600 Trophic mode/Guild: pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Amphisphaerales, Pestalotiopsidaceae  
4545. *Pestalotopsis anacardiacearum* Yan M. Zhang, Maharachch., & K.D. Hyde IF No: 802354 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Amphisphaerales, Pestalotiopsidaceae  
4546. *Pestalotopsis australasiae* Maharachch., K.D. Hyde & Crous IF No: 809730 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Amphisphaerales, Pestalotiopsidaceae  
4547. *Pestalotopsis australis* Maharachch., K.D. Hyde & Crous IF No: 809731 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Amphisphaerales, Pestalotiopsidaceae  
4548. *Pestalotopsis colombiensis* Maharachch., K.D. Hyde & Crous IF No: 809736 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Amphisphaerales, Pestalotiopsidaceae  
4549. *Pestalotopsis disseminata* (Thüm.) Steyaert IF No: 289195 Trophic mode/Guild: pathotroph/plant pathogen Habitat: On leaves of *Espeletia* spp. and *Eucalyptus* spp., endophyte, saprotroph Distribution: Global Distribution Elev.: 3,250 m Dept.: CUN Uses: PO



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Amphisphaerales, Pestalotiopsidaceae  
4550. *Pestalotopsis funerea* (Desm.) Steyaert IF No: 120504 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Amphisphaerales, Pestalotiopsidaceae  
4551. *Pestalotopsis jinzhongensis* F. Liu & L. Cai IF No: 818917 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Amphisphaerales, Pestalotiopsidaceae  
4552. *Pestalotopsis microspora* (Speg.) G.C. Zhao & Nan Li IF No: 437946 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Amphisphaerales, Pestalotiopsidaceae  
4553. *Pestalotopsis palmarum* (Cooke) Steyaert IF No: 289215 Trophic mode/Guild: pathotroph, symbiotroph/endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Amphisphaerales, Pestalotiopsidaceae  
4554. *Pestalotopsis sydowiana* (Bres.) B. Sutton IF No: 336022 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Amphisphaerales, Pestalotiopsidaceae  
4555. *Pestalotopsis telopeae* Maharachch., K.D. Hyde & Crous IF No: 809752 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Amphisphaerales, Pestalotiopsidaceae  
4556. *Pestalotopsis versicolor* (Speg.) Steyaert IF No: 289223 Trophic mode/Guild: symbiotroph/endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Amphisphaerales, Pestalotiopsidaceae  
4557. *Pestalotopsis zonata* (Ellis & Everh.) G.C. Zhao & Nan Li IF No: 434475 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Amphisphaerales, Pestalotiopsidaceae  
4558. *Pseudopestalotopsis simlithae* (Yu Song, Tangthir., K.D. Hyde & Y. Wang) Maharachch., & K.D. Hyde IF No: 551720



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Amphisphaerales, Pestalotiopsidaceae  
4559. *Pseudopestalotopsis theae* (Sawada) Maharachch., K.D. Hyde & Crous IF No: 809756 Trophic mode/Guild: /endophyte Habitat: In *Vanilla* leaves



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Cainiaceae  
4560. *Seynesia santanderiana* Toro IF No: 277424

Dept.: CHO



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Castanedelliaceae  
4561. *Castanedella acaciae* Crous, Hern.-Restr. & M.J. Wingf. IF No: 812430 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Castanedelliaceae  
4562. *Castanedella couratarif* (C. Ram) Hern.-Restr. & Crous IF No: 812166 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Diatrypaceae  
4563. *Diatrype albobrunnea* (Schwein.) Cooke IF No: 247137 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Diatrypaceae  
4564. *Diatrype bermudensis* Rappaz IF No: 132549 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Diatrypaceae  
4565. *Diatrype enteroxantha* (Sacc.) Berl. IF No: 454899 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Diatrypaceae  
4566. *Eutypella portoricensis* (Petr.) Rappaz IF No: 132585 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Diatrypaceae  
4567. *Peroneutypa scoparia* (Schwein.) Carmarán & A.I. Romero IF No: 500713 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Graphostromataceae  
4568. *Biscogniauxia atropunctata* (Schwein.) Pouzar IF No: 309558 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Healthy stem and leaf tissues | Foliar epiphyte Dept.: CHO



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Graphostromataceae  
4569. *Biscogniauxia mediterranea* (De Not.) Kuntze IF No: 439307 Trophic mode/Guild: saprotrophy/undefined saprotroph Distribution: Global Distribution

Dept.: CHO

Elev.: 2,020 m



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Graphostromataceae  
4570. *Biscogniauxia nummularia* (Bull.) Kuntze IF No: 433657 Trophic mode/Guild: saprotrophy/undefined saprotroph Elev.: 1,000–2,500 m



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Graphostromataceae  
4571. *Camillea coroniformis* J.D. Rogers, F. San Martín & Y.M. Ju IF No: 374325 Trophic mode/Guild: saprotrophy/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Graphostromataceae  
4572. *Camillea cyclops* Mont. IF No: 203941 Trophic mode/Guild: saprotroph/undefined saprotroph Distribution: Pan tropics Dept.: VAC

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Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Graphostromataceae  
4573. *Camillea hainesii* (J.D. Rogers & Dumont) Læssøe, J.D. Rogers & Whalley IF No: 135963 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Graphostromataceae  
4574. *Camillea heterostoma* (Mont.) Læssøe, J.D. Rogers & Whalley IF No: 135964 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Graphostromataceae  
4575. *Camillea labelium* Mont. IF No: 211699 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Graphostromataceae  
4576. *Camillea lepreurii* (Mont.) Mont. IF No: 211550 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On weeds | **Distribution:** Secondary Forest **Elev.:** 200 m **Dept.:** AMA, CAQ



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Graphostromataceae  
4577. *Camillea mucronata* Mont. IF No: 211740 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Graphostromataceae  
4578. *Camillea scribblita* (Mont.) Læssøe, J.D. Rogers & Whalley IF No: 135969 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Graphostromataceae  
4579. *Camillea venezuelensis* (J.H. Mill.) Dennis IF No: 310190 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Graphostromataceae  
4580. *Nummularia diatrypoides* Rehm IF No: 162961 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hansfordiaceae  
4581. *Hansfordia pulvinata* (Berk. & M.A. Curtis) S. Hughes IF No: 298125 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4582. *Annulohypoxylon annulatum* (Schwein.) Y.M. Ju, J.D. Rogers & H.M. Hsieh IF No: 500299 **Trophic mode/Guild:** symbiotroph/endophyte **Habitat:** symbiotroph/endophyte **Dept.:** TOL



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4583. *Annulohypoxylon archeri* (Berk.) Y.M. Ju, J.D. Rogers & H.M. Hsieh IF No: 500300 **Trophic mode/Guild:** saprotroph, symbiotroph/endophyte, undefined saprotroph **Habitat:** Symbiotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4584. *Annulohypoxylon moriforme* (Henn.) Y.M. Ju, J.D. Rogers & H.M. Hsieh IF No: 500315 **Trophic mode/Guild:** saprotroph, symbiotroph/endophyte, undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4585. *Annulohypoxylon purpureonitens* (Y.M. Ju & J.D. Rogers) Y.M. Ju, J.D. Rogers & H.M. Hsieh IF No: 500323 **Trophic mode/Guild:** saprotroph, symbiotroph/undefined saprotroph **Habitat:** endophyte, undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4586. *Annulohypoxylon stygium* (Lév.) Y.M. Ju, J.D. Rogers & H.M. Hsieh IF No: 500326 **Trophic mode/Guild:** saprotroph, symbiotroph/endophyte, undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4587. *Annulohypoxylon thourarslanum* (Lév.) Y.M. Ju, J.D. Rogers & H.M. Hsieh IF No: 500328 **Trophic mode/Guild:** saprotroph, symbiotroph/endophyte, undefined saprotroph **Habitat:** In oak forests **Elev.:** 2,100–2,600 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4588. *Annulohypoxylon truncatum* (Starbäck) Y.M. Ju, J.D. Rogers & H.M. Hsieh IF No: 500330 **Trophic mode/Guild:** symbiotroph/endophyte **Habitat:** In oak forests **Distribution:** Subtropics, Pantropics **Elev.:** 2,600 m **Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4589. *Daldinia caldarorum* Henn. IF No: 247207 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4590. *Daldinia clavata* Henn. IF No: 247027 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4591. *Daldinia concentrica* (Bolton) Ces. & De Not. IF No: 146158 **Common name:** Vulva de madre monte, used by Uitoto people **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On decaying wood | On burned wood | In chagras | Saprotroph gregarious **Distribution:** Global **Distribution:** Pantropics, Subtropics **Elev.:** 200–3,110 m **Dept.:** AMA, ANT, CAQ, CUN, MAG, VAC **Uses:** HF, ME



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4592. *Daldinia eschscholtzii* (Ehrenb.) Rehm IF No: 544992 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On decaying wood | Saprotroph **Distribution:** Pantropics **Dept.:** CHO, MET **Uses:** ME



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4593. *Entonaema likuescens* Möller IF No: 183350 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4594. *Hypomontagnella monticulosa* (Mont.) Sir, L. Wendt & C. Lamb. IF No: 827252 **Habitat:** On dead branches **Dept.:** MAG



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4595. *Hypomontagnella rubiginosae* (Rehm) Sir, L. Wendt & C. Lamb. IF No: 827254



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4596. *Hypoxylon amoldiae* J.D. Rogers & Dumont IF No: 443827 **Trophic mode/Guild:** saprotroph **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4597. *Hypoxylon chusqueae* Henn. IF No: 204874 **Trophic mode/Guild:** saprotroph **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4598. *Hypoxylon croceum* J.H. Mill. IF No: 262352 **Trophic mode/Guild:** saprotroph **Distribution:** Pantropics



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4599. *Hypoxylon dieckmannii* Theiss. IF No: 214370 **Trophic mode/Guild:** saprotroph **Distribution:** Pantropics



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4600. *Hypoxylon fendleri* Berk. ex Cooke IF No: 206066 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4601. *Hypoxylon flavoargillaceum* J.H. Mill. IF No: 265055 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4602. *Hypoxylon fragiforme* (Pers.) J. Kickx f. IF No: 444018 **Trophic mode/Guild:** pathotroph, symbiotroph/undefined saprotroph, endophyte, plant pathogen



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4603. *Hypoxylon haematostroma* Mont. IF No: 156076 **Trophic mode/Guild:** saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4604. *Hypoxylon hypomilium* Mont. IF No: 158066 **Trophic mode/Guild:** saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4605. *Hypoxylon investiens* (Schwein.) M.A. Curtis IF No: 174324 **Trophic mode/Guild:** symbiotroph/endophyte **Habitat:** Saprotroph **Distribution:** Pantropics



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4606. *Hypoxylon lenormandii* Berk. & M.A. Curtis IF No: 152747 **Trophic mode/Guild:** saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4607. *Hypoxylon pulicoidum* J. Fourn., Polishook & Bills IF No: 800260 **Trophic mode/Guild:** saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4608. *Hypoxylon rubiginosum* (Pers.) Fr. IF No: 213808 **Trophic mode/Guild:** symbiotroph/endophyte **Habitat:** Saprotroph **Distribution:** Global Distribution **Dept.:** SAN



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Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4609. *Hypoxylon subdilvum* Berk. & Broome IF No: 215553  
Trophic mode/Guild: saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4610. *Hypoxylon subrutulum* Starbäck IF No: 215471 Trophic mode/Guild: saprotroph Dept.: ANT



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4611. *Hypoxylon theissenii* Bres. IF No: 280190 Trophic mode/ Guild: saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4612. *Jackrogersella cohaerens* (Pers.) L. Wendt, Kuhnert & M. Stadler IF No: 819744 Trophic mode/Guild: saprotroph /wood saprotroph Distribution: Global



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4613. *Jackrogersella minutella* (Syd. & P. Syd.) L. Wendt, Kuhnert & M. Stadler IF No: 819749 Trophic mode/ Guild: saprotroph /wood saprotroph Habitat: On dead



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4614. *Jackrogersella multiformis* (Fr.) L. Wendt, Kuhnert & M. Stadler IF No: 819743 Trophic mode/Guild: saprotroph /wood saprotroph Distribution: Global

Distribution Elev.: 1,600 m Dept.: ANT

branches and trunks

Distribution Dept.: VAC



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4615. *Phylacla globosa* Lévl. IF No: 431942 Trophic mode/Guild: saprotroph/undefined saprotroph Distribution: Pantropics Dept.: TOL, VAC



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4616. *Phylacla poculiformis* (Mont.) Mont. IF No: 121178 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: On decayed wood in mature forest



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Hypoxylaceae  
4617. *Thamnomycetes chordalis* Fr. IF No: 149332 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: On decayed wood | Saprotroph

Distribution: Pantropics Elev.: 200–2,100 m Dept.: AMA, CAL, CAQ, CHO, GUA, VAU

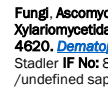
Distribution: Pantropics Elev.: 200 m Dept.: AMA, CAQ



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Induratiaceae  
4618. *Indurata suturae* (Kudalkar, Strobel & Riy.-Ul-Hass.) Samarak., Thongbai, K.D. Hyde & M. Stadler IF No: 833463 Trophic mode/Guild: saprotroph/ undefined



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Robillardaceae  
4619. *Robillarda sessilis* (Sacc.) Sacc. IF No: 225336



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4620. *Dematophora acutispora* (Theiss.) C. Lamb, Wittstein & M. Stadler IF No: 827530 Trophic mode/Guild: saprotroph /undefined saprotroph

saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4621. *Dematophora bunodes* (Berk. & Broome) C. Lamb, Wittstein & M. Stadler IF No: 827535 Trophic mode/Guild: saprotroph/undefined saprotroph Dept.:



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4622. *Dematophora necatrix* R. Hartig IF No: 216282 Trophic mode/Guild: pathotroph/plant pathogen

VAC



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4623. *Kretzschmaria cetroroides* (Welw. & Curr.) Sacc. IF No: 168273 Trophic mode/Guild: saprotroph/ undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4624. *Kretzschmaria clavus* (Fr.) Sacc. IF No: 168400 Trophic mode /Guild: saprotroph/undefined saprotroph Habitat: On decayed wood Distribution: Global

VAC



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4625. *Kretzschmaria cetroroides* (Welw. & Curr.) Sacc. IF No: 168273 Trophic mode/Guild: saprotroph/ undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4626. *Kretzschmaria clavus* (Fr.) Sacc. IF No: 168400 Trophic mode /Guild: saprotroph/undefined saprotroph Habitat: On decayed wood Distribution: Global

Distribution: Global

Distribution Dept.: AMA



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4627. *Kretzschmaria deusta* (Hoffm.) P.M.D. Martin IF No: 316081 Trophic mode/Guild: pathotroph, symbiotroph/ endophyte, plant pathogen Habitat: In riparian forest | Saprotroph Elev.: 1,700–2,200 m Dept.: VAC



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4628. *Kretzschmaria lucidula* (Mont.) Dennis IF No: 316083 Trophic mode/ Guild: saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4629. *Kretzschmaria macrosperma* (Mont.) J.D. Rogers & Y.M. Ju IF No: 437997 Trophic mode/Guild: saprotroph/undefined saprotroph

riparian forest | Saprotroph Elev.: 1,700–2,200 m Dept.: VAC



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4630. *Nemania bipapillata* (Berk. & M.A. Curtis) Pouzar IF No: 106291 Trophic mode/Guild: symbiotroph/ endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4631. *Nemania serpens* (Pers.) Gray IF No: 355591 Trophic mode/Guild: symbiotroph /endophyte Habitat: Saprotroph Dept.: CAL



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4632. *Rosellinia desmazieri* (Berk. & Broome) Sacc. IF No: 223419 Trophic mode/Guild: saprotroph/undefined saprotroph Dept.: ANT



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4633. *Xylaria alicantoides* (Berk.) Fr. IF No: 184500 Trophic mode/ Guild: saprotroph, symbiotroph/wood saprotroph, endophyte Habitat: On wood Dept.: CHO



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4634. *Xylaria arbuscula* Sacc. IF No: 179275 Trophic mode/Guild: saprotroph, symbiotroph/wood saprotroph, endophyte Habitat: On stump, in

Dept.: VAC

Distribution: Subtropics Elev.: 1,100–2,100 m Dept.: ANT, CAL, CUN, VAC

Distribution: Global



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4635. *Rosellinia desmazieri* (Berk. & Broome) Sacc. IF No: 223419 Trophic mode/Guild: saprotroph/undefined saprotroph Dept.: ANT



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4636. *Xylaria aeneae* Mont. IF No: 535638 Trophic mode/ Guild: saprotroph, symbiotroph/wood saprotroph, endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4637. *Xylaria aeneae* Mont. IF No: 535638 Trophic mode/ Guild: saprotroph, symbiotroph/wood saprotroph, endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4638. *Xylaria alicantoides* (Berk.) Fr. IF No: 184500 Trophic mode/ Guild: saprotroph, symbiotroph/wood saprotroph, endophyte Habitat: On wood Dept.: CHO



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4639. *Xylaria anisopleura* (Mont.) Fr. IF No: 190626 Trophic mode/Guild: saprotroph, symbiotroph/wood saprotroph, endophyte Distribution: Global Distribution Elev.:



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4640. *Xylaria anisopleura* (Mont.) Fr. IF No: 190626 Trophic mode/Guild: saprotroph, symbiotroph/wood saprotroph, endophyte Distribution: Global Distribution Elev.:

1,150–2,400 m



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4641. *Xylaria arbuscula* Sacc. IF No: 179275 Trophic mode/Guild: saprotroph, symbiotroph/wood saprotroph, endophyte Habitat: On stump, in



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4642. *Xylaria bambusicola* Y.M. Ju & J.D. Rogers IF No: 464224 Trophic mode/ Guild: saprotroph, symbiotroph/wood saprotroph, endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4643. *Xylaria castorea* Berk. IF No: 182287 Trophic mode/Guild: saprotroph, symbiotroph/wood saprotroph, endophyte Elev.: 1,500–2,300 m Dept.: MAG

premontane moist forest Distribution: Pantropics Elev.: 50–1,660 m Dept.: ANT, CHO

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Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4645. *Xylaria chordiformis*** Lloyd  
 IF No: 635921 **Trophic mode/ Guild:** saprotroph, symbiotroph/wood saprotroph, endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4646. *Xylaria clusiae*** K.F. Rodrigues, J.D. Rogers & Samuels IF No: 359436 **Trophic mode/Guild:** saprotroph, symbiotroph /wood saprotroph, endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4647. *Xylaria coccophora*** Mont.  
 IF No: 187621 **Trophic mode/ Guild:** saprotroph, symbiotroph/wood saprotroph, endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4648. *Xylaria comosa*** (Mont.) Fr.  
 IF No: 184471 **Trophic mode/ Guild:** saprotroph, symbiotroph/wood saprotroph, endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4649. *Xylaria corniculata*** Sacc.  
 IF No: 193073 **Trophic mode/ Guild:** saprotroph, symbiotroph/wood saprotroph, endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4650. *Xylaria cubensis*** (Mont.) Fr. IF No: 179243 **Trophic mode/ Guild:** saprotroph, symbiotroph/wood saprotroph, endophyte  
**Habitat:** In tropical rain forest **Elev.:** 200–3,100 m **Dept.:** CAQ, SUC



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4651. *Xylaria curta*** Fr. IF No: 179336 **Trophic mode/ Guild:** saprotroph, symbiotroph/wood saprotroph, endophyte  
**Habitat:** On stump, in premontane moist forest **Elev.:** 1,475–1,660 m **Dept.:** ANT



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4652. *Xylaria cylindrica*** Lévl. IF No: 179209 **Trophic mode/ Guild:** saprotroph, symbiotroph/wood saprotroph, endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4653. *Xylaria digitata*** (L.) Grév. IF No: 191897 **Trophic mode/ Guild:** saprotroph, symbiotroph/wood saprotroph, endophyte  
**Habitat:** Saprotroph **Dept.:** MAG



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4654. *Xylaria enterogena*** Mont.  
 IF No: 250347 **Trophic mode/Guild:** saprotroph, symbiotroph/wood saprotroph, endophyte **Habitat:** In tropical rainforest



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4655. *Xylaria fockei*** (Miq.) Cooke  
 IF No: 244058 **Trophic mode/Guild:** saprotroph, symbiotroph/wood saprotroph, endophyte **Habitat:** In secondary forest



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4656. *Xylaria grammica*** (Mont.) Mont. IF No: 195134 **Trophic mode/Guild:** saprotroph, symbiotroph/wood saprotroph, endophyte **Dept.:** MAG

**Dept.:** VAU

**Elev.:** 1,700–2,200 m **Dept.:** VAC



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4657. *Xylaria guianensis*** (Mont.) Fr. IF No: 224590 **Trophic mode/Guild:** saprotroph, symbiotroph/wood saprotroph, endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4658. *Xylaria hypoxylon*** (L.) Grév. IF No: 228616 **Trophic mode/Guild:** saprotroph, symbiotroph/wood saprotroph, endophyte  
**Habitat:** On decayed wood | in forest | In disturbed secondary forest **Distribution:** Panotropics **Subtropics**



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4659. *Xylaria juruensis*** Henn.  
 IF No: 226795 **Trophic mode/Guild:** saprotroph, symbiotroph/wood saprotroph, endophyte

**Elev.:** 1,700–3,100 m **Dept.:** CAQ, SAN, VAC



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4660. *Xylaria kretzschmarloidea*** J.D. Rogers & Rossman IF No: 132614 **Trophic mode/Guild:** saprotroph, symbiotroph /wood saprotroph, endophyte **Habitat:** In riparian forest | On tree fern stump



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4661. *Xylaria melanura*** (Lévl.) Sacc. IF No: 204403 **Trophic mode/Guild:** saprotroph, symbiotroph/wood saprotroph, endophyte  
**Distribution:** Panotropics **Elev.:** 1,900 m



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4662. *Xylaria mellacearum*** Læssøe IF No: 362559 **Trophic mode/Guild:** saprotroph, symbiotroph/wood saprotroph, endophyte

**VAC**

**Dept.:** CUN



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4663. *Xylaria mellissii*** (Berk.) Cooke IF No: 318809 **Trophic mode/Guild:** saprotroph, symbiotroph/wood saprotroph, endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4664. *Xylaria metaxiformis*** Lévl. IF No: 204586 **Trophic mode/ Guild:** saprotroph, symbiotroph/wood saprotroph, endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4665. *Xylaria monticulosa*** Lévl.  
 IF No: 206446 **Trophic mode/ Guild:** saprotroph, symbiotroph/wood saprotroph, endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4666. *Xylaria multiplex*** (Kunze) Fr. IF No: 203909 **Trophic mode/Guild:** saprotroph, symbiotroph/wood saprotroph, endophyte  
**Habitat:** Saprotroph, **Dept.:** CAQ



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4667. *Xylaria obovata*** (Berk.) Berk. IF No: 208072 **Trophic mode/Guild:** saprotroph, symbiotroph/wood saprotroph, endophyte  
**Habitat:** On wood **Distribution:** Panotropics



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4668. *Xylaria oligotoma*** Sacc. & Paol. IF No: 154540 **Trophic mode/Guild:** saprotroph, symbiotroph/wood saprotroph, endophyte

**Elev.:** 1,860–2,020 m **Dept.:** CAQ



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4669. *Xylaria ophlopoda*** Sacc.  
 IF No: 170851 **Trophic mode/ Guild:** saprotroph, symbiotroph/wood saprotroph, endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4670. *Xylaria pallida*** Berk. & Cooke IF No: 160178 **Trophic mode/Guild:** saprotroph, symbiotroph/wood saprotroph, endophyte  
**Distribution:** Panotropics **Elev.:** 1,860 m



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4671. *Xylaria palmicola*** G. Winter IF No: 174950 **Trophic mode/Guild:** saprotroph, symbiotroph/wood saprotroph, endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4672. *Xylaria papyrifera*** (Link) Fr. IF No: 154099 **Trophic mode/Guild:** saprotroph, symbiotroph/wood saprotroph, endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4673. *Xylaria platypoda*** (Lévl.) Fr.  
 IF No: 147430 **Trophic mode/Guild:** saprotroph, symbiotroph/wood saprotroph, endophyte **Distribution:** Panotropics **Dept.:** TOL



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4674. *Xylaria poltei*** (Lévl.) Fr.  
 IF No: 543208 **Trophic mode/Guild:** saprotroph, symbiotroph/wood saprotroph, endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4675. *Xylaria polymorpha*** (Pers.) Grév. IF No: 246876 **Common name:** Hongo negro (Spanish); Dead man's fingers (English)  
**Trophic mode/Guild:** saprotroph,



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4676. *Xylaria rhizocolla*** (Mont.) Mont. IF No: 180313 **Trophic mode/ Guild:** saprotroph, symbiotroph/wood saprotroph, endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
**4677. *Xylaria rickii*** Theiss. IF No: 185869 **Trophic mode/ Guild:** saprotroph, symbiotroph/wood saprotroph, endophyte

symbiotroph/ wood saprotroph, endophyte **Habitat:** On decaying wood | In tropical forest | In riparian forest | In mixed oak-dominated forest | Saprotroph gregarious **Distribution:** Panotropics **Elev.:** 50–2,800 m **Dept.:** ANT, CAQ, CES, CHO, CUN, VAC **Uses:** ME, PO



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4678. *Xylaria schwelntzii* Berk. & M.A. Curtis IF No: 191549  
Trophic mode/Guild: saprotroph, symbiotroph/wood saprotroph, endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4679. *Xylaria scopiformis* Mont. ex Berk. & Broome IF No: 181990  
Trophic mode/Guild: saprotroph, symbiotroph/wood saprotroph, endophyte

Distribution: Panotropics Dept.: VAC



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4680. *Xylaria scruposa* (Fr.) Fr. IF No: 187600  
Trophic mode/ Guild: saprotroph, symbiotroph/wood saprotroph, endophyte Elev.: 200–1,980 m Dept.: CES,

TOL, VAU



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4681. *Xylaria telfairii* (Berk.) Sacc. IF No: 191825  
Trophic mode/Guild: saprotroph, symbiotroph/wood saprotroph, endophyte

Habitat: On decaying dicot trunks | In disturbed secondary forest | Saprotroph solitary, gregarious  
Distribution: Panotropics Elev.: 200–2,350 m Dept.: ANT, CAQ, CHO, MET, SAN, SUC, TOL, VAC, VAU Uses: ME



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4682. *Xylaria tracheina* (Lév.) Cooke IF No: 192623  
Trophic mode/Guild: saprotroph, symbiotroph/wood saprotroph, endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4683. *Xylaria trianae* Lév. IF No: 192410  
Trophic mode/ Guild: saprotroph, symbiotroph/wood saprotroph, endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4684. *Xylaria willsi* Berk. ex Cooke IF No: 240728  
Trophic mode/Guild: saprotroph, symbiotroph/wood saprotroph, endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Xylariales, Xylariaceae  
4685. *Xylaria xanthinovelutina* (Mont.) Mont. IF No: 588740  
Trophic mode/Guild: saprotroph, symbiotroph/wood saprotroph, endophyte



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Xylariomycetidae, Incertae sedis, Incertae sedis  
4686. *Dinemaspodium pseudodindicum* Crous & M. Chr. IF No: 800163  
Trophic mode/Guild: saprotroph/ undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Incertae sedis, Parasympodiellales, Parasympodiellaceae  
4687. *Parasympodiella elongata* Crous, M.J. Wingf. & W.B. Kendr. IF No: 413680  
Trophic mode/Guild: saprotroph/ undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Incertae sedis, Phomatosporales, Phomatosporaceae  
4688. *Phomatosporea dinemaspodium* J. Webster IF No: 303149



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Incertae sedis, Incertae sedis  
4689. *Allantonectria creonecroides* Chardón IF No: 262288  
Trophic mode/ Guild: pathotrophy/plant pathogen Habitat: Patotroph Dept.: VAC



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Incertae sedis, Incertae sedis  
4690. *Cryptophylachora ambrosiae* (Sacc.) L. Kiss, Kovács, P.F. Cannon & R.G. Shivas IF No: 825651



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Incertae sedis, Incertae sedis  
4691. *Hypotrachyna rubra* Etayo IF No: 372796  
Trophic mode/Guild: pathotroph /lichen parasite



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Incertae sedis, Incertae sedis  
4692. *Neoceromyces aristata* (B. Sutton & Hodges) Crous & M.J. Wingf. IF No: 812453



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Incertae sedis, Incertae sedis  
4693. *Nigrospora oryzae* (Berk. & Broome) Petch IF No: 253729  
Trophic mode/Guild: pathotroph, symbiotroph/endophyte, plant pathogen Habitat: In rice leaves | In



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Incertae sedis, Incertae sedis  
4694. *Nigrospora sacchari* (Speg.) E.W. Mason IF No: 254531  
Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Incertae sedis, Incertae sedis  
4695. *Phialemonopsis cornearis* Perdono, Dania García, Gené, Cano & Guarro IF No: 563875  
Trophic mode/Guild: pathotrophy/animal pathogen

*Espeletia* spp. from páramo  
Dept.: BOY, CUN Uses: PO



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Incertae sedis, Incertae sedis  
4696. *Phialemonopsis curvata* (W. Gams & W.B. Cooke) Perdono, Dania García, Gené, Cano & Guarro IF No: 563876



Fungi, Ascomycota, Pezizomycotina, Sordariomycetes, Incertae sedis, Incertae sedis  
4697. *Stromatographum stromaticum* (Berk.) Höhn. IF No: 247624



Fungi, Ascomycota, Pezizomycotina, Xylotryales, Xylotryaceae  
4698. *Xylotryum portentosum* (Mont.) Pat. IF No: 181540



Fungi, Ascomycota, Pezizomycotina, Xylonomycetes, Incertae sedis, Symblotaphrinales, Symblotaphrinaceae  
4699. *Symblotaphrina kochii* Jurzitza ex W. Gams & Arx IF No: 114059



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Lauriomycetales, Lauriomycetaceae  
4700. *Laurlomyces bellulus* Crous & M.J. Wingf. IF No: 363121  
Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Triblidiales, Triblidaceae  
4701. *Pseudographis pinicola* (Nyl.) Rehm IF No: 215403  
Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: In paddock Elev.: 1,700–2,200 m Dept.: VAC



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Vezdaeales, Vezdaeaceae  
4702. *Vezdaea aestivalis* (Ohlert) Tscherm.-Woess & Poelt IF No: 343855  
Trophic mode/Guild: symbiotroph/ lichenised



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis  
4703. *Allophoron farinosum* Nád. IF No: 364018  
Trophic mode/Guild: symbiotroph /lichenised Biogeographic region: Andes Distribution: Endemic Elev.: 2,600 m Dept.: CUN Conservation: CR



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis  
4704. *Aysidellea eucahypti* (Crous & M.J. Wingf.) Cheew. & Crous IF No: 518725



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis  
4705. *Aysidellea parastitica* Crous IF No: 510005



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis  
4706. *Bachmanniomyces punctum* (A. Massal.) Diederich & Pino-Bodas IF No: 827773  
Trophic mode/Guild: pathotrophy/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis  
4707. *Cacumisporium pleurocondiophorum* (Davydkina & Melnik) R.F. Castañeda, Heredia & Iturr. IF No: 510702



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis  
4708. *Camposporium pellucidum* (Grove) S. Hughes IF No: 294002



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis  
4709. *Campotomeris leucaenae* (F. Stevens & Dalbey) Syd. IF No: 269320



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis  
4710. *Campylospora chaetocladia* Ranzoni IF No: 294012  
Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: From foam in river Dept.: CAQ, SAN



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis  
4711. *Campylospora filicladia* Nawawi IF No: 310213  
Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: From foam in river Dept.: CAQ, SAN



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis  
4712. *Campylospora parvula* Kuzuha IF No: 310214  
Trophic mode/Guild: saprotroph/ undefined saprotroph Habitat: From foam in river | Saprotroph Dept.: SAN



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis  
4713. *Chaetoseptoria wellmani* J.A. Stev. IF No: 285141  
Trophic mode/Guild: pathotrophy/plant pathogen

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Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4714. *Chardonella rosea* Cif.  
IF No: 276736



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4715. *Clypeolum fontibonense* Toro  
IF No: 265194



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4716. *Delortia palmicola* Pat. & Gaillard  
IF No: 158945



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4717. *Dendrosporium lobatum* Plakidas & Edgerton ex J.L. Crane  
IF No: 312835



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4718. *Diplociadiella scalarioides* G. Arnaud ex M.B. Ellis  
IF No: 296790



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4719. *Elabelliospora acuminata* Descals  
IF No: 110675 Trophic mode/Guild: saprotroph  
Habitat: From foam in river  
Dept.: CAQ



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4720. *Elabelliospora crassa* Alas.  
IF No: 330895



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4721. *Elabelliospora verticillata* Alas. IF No: 330896 Trophic mode/Guild: saprotroph/  
Habitat: From foam in river Dept.: SAN



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4722. *Gilmanella humicola* G.L. Barron  
IF No: 331330 Trophic mode/Guild: saprotroph/dung saprotroph  
Habitat: On soils alternated with potato crops and grasses  
Elev.: 3,373 m Dept.: CUN



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4723. *Gyrotrix verticillata* (Goeld.) S. Hughes & Piroz.  
IF No: 314844



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4724. *Hellscella stellata* (Ingold & V.J. Cox) Marvanová IF No: 113222 Trophic mode/Guild: saprotroph  
Habitat: From foam in river Dept.: SAN



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4725. *Hyalocomposporium longiflagellatum* Révay & Gönczöl  
IF No: 510552



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4726. *Hymenopsis argentinensis* (Speg.) B. Sutton  
IF No: 116245



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4727. *Hyphopolytoma tropicale* Nag Raj  
IF No: 315566



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4728. *Intralichen lichenum* (Diederich) D. Hawksw. & M.S. Cole  
IF No: 477187 Trophic mode/Guild: pathotrophy/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4729. *Knufia peltigerae* (Fuckel) Réblová & Unter. IF No: 803681 Trophic mode/Guild: pathotrophy/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4730. *Leprieurina winteriana* G. Arnaud  
IF No: 204186



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4731. *Lichenostella hypotrachynae* Etayo & Calat. IF No: 460841 Trophic mode/Guild: pathotrophy/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4732. *Lunulospora curvula* Ingold IF No: 287848 Trophic mode/Guild: symbiotroph /endophyte  
Habitat: From foam in river | Saprotroph Dept.: SAN



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4733. *Milospium graphideorum* (Nyl.) D. Hawksw. IF No: 317758 Trophic mode/Guild: pathotroph, symbiotroph/lichen parasite, lichenised



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4734. *Mycochlamys macrospora* S. Marchand & Cabral IF No: 318058 Trophic mode/Guild: saprotroph/  
Habitat: On soils cultivated with apple and peach | Saprotroph Elev.: 2,900 m Dept.: BOY



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4735. *Nawawia filiformis* (Nawawi) Marvanová IF No: 113008



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4736. *Nectriopsis paspali* (G.F. Atk.) B. Sutton & Alcorn IF No: 318641



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4737. *Nigromaculula unseptata* (D. Hawksw.) D. Hawksw. IF No: 390798 Trophic mode/Guild: pathotrophy/lichen parasite



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4738. *Ochroconis cordanae* Samerp., Crous & de Hoog IF No: 519170 Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4739. *Orphanocoela maydis* (Latterell & A.E. Rossi) Nag Raj IF No: 126350 Trophic mode/Guild: plant pathogen/  
Habitat: On leaving leaves of *Zea mays* | Phytopathogen Distribution: Pantropics Elev.: 2,093 m Dept.: ANT



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4740. *Paraphthomyces citoriae* Alcorn IF No: 359709 Dept.: CAU



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4741. *Penzigomyces nodipes* (Penz. & Sacc.) Subram. IF No: 359878



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4742. *Phaeocytostroma sacchari* (Ellis & Everh.) B. Sutton IF No: 336098 Trophic mode/Guild: pathotrophy/plant pathogen



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4743. *Phalangispora constricta* Nawawi & J. Webster IF No: 110882 Trophic mode/Guild: saprotroph/  
Habitat: From foam in river | Saprotroph Dept.: SAN



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4744. *Phalangispora nawawi* Kuthub. IF No: 133399



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4745. *Pleuropedium triciadioides* Marvanová & S.H. Iqbal IF No: 320700



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4746. *Pleurophragmium capense* (Thüm.) S. Hughes  
IF No: 303948



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4747. *Podosporium bakeri* Earle  
IF No: 145213



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4748. *Pyramidospora ramificata* Miura  
IF No: 322119



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4749. *Rhinotrichella globulifera* G. Arnaud ex de Hoog  
IF No: 322471



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4750. *Sarcopodium flavolanatum* (Berk. & Broome) L. Lombard & Crous IF No: 810181 Trophic mode/Guild: parasite  
Habitat: On bark of living plants | on dead wood Dept.: CAU



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4751. *Scutisporus brunneus* K. Ando & Tubaki IF No: 104749 Trophic mode/Guild: saprotroph/  
Habitat: From foam in river Dept.: SAN



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4752. *Sedeciella taiwanensis* K.L. Pang, Alias & E.B.G. Jones IF No: 518531 Trophic mode/Guild: saprotroph  
Habitat: On soils cultivated with peach Elev.: 2,900 m Dept.: BOY



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Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4753. *Stachyldium bicolor* Link  
IF No: 166350 Trophic mode/Guild: saprotrophy/Habitat: On soils cultivated with peach Elev.: 2,900 m Dept.: BOY



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4754. *Tracylla arisata* (Cooke) Tassi  
IF No: 215906



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4755. *Tracylla eucalypti* Crous  
IF No: 825424



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4756. *Trichothelium disseminatum* Syd.  
IF No: 263346



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4757. *Triscelophorus acuminatus* Nawawi  
IF No: 325054 Trophic mode/Guild: symbiotroph/endophyte Habitat: From foam in river Dept.: SAN



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4758. *Triscelophorus curviramifer* Matsush.  
IF No: 360929 Trophic mode/Guild: symbiotroph/endophyte Habitat: From foam in river | Saprotroph Dept.: SAN



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4759. *Triscelophorus konajensis* K.R. Sridhar & Kaver.  
IF No: 132535 Trophic mode/Guild: symbiotroph/endophyte Habitat: From foam in river | Saprotroph Dept.: SAN



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4760. *Triscelophorus monosporus* Ingold  
IF No: 291610 Trophic mode/Guild: symbiotroph/endophyte Habitat: From foam in river | Saprotroph Dept.: CAQ, SAN



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4761. *Xepicula leucotricha* (Peck) Nag Raj  
IF No: 359685



Fungi, Ascomycota, Pezizomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
4762. *Zevadla peroccidentalis* J.C. David & D. Hawksw.  
IF No: 414410 Trophic mode/Guild: pathotroph/lichen parasite



Fungi, Basidiomycota, Pucciniomycotina, Atractiellales, Phleogenaceae  
4763. *Helicogloea inconspicua* G.E. Baker  
IF No: 286889 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: On decaying wood Elev.: 1,200–1,400 m Dept.: MAG



Fungi, Basidiomycota, Pucciniomycotina, Atractiellales, Phleogenaceae  
4764. *Helicogloea lagerheimii* Pat.  
IF No: 245898 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: On rotten wood Distribution: Pantropics Elev.: 1,250–1,500 m Dept.: MAG



Fungi, Basidiomycota, Pucciniomycotina, Atractiellales, Phleogenaceae  
4765. *Hobsonia gigaspora* Berk. ex Masee  
IF No: 248237 Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Basidiomycota, Pucciniomycotina, Atractiellales, Phleogenaceae  
4766. *Hobsonia mirabilis* (Peck) Linder  
IF No: 271386 Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Basidiomycota, Pucciniomycotina, Cystobasidiales, Cyphobasidiaceae  
4767. *Cyphobasidium usneicola* (Diederich & Alstrup) Millanes, Diederich & Wedin  
IF No: 815653 Trophic mode/Guild: pathotroph/lichen parasite



Fungi, Basidiomycota, Pucciniomycotina, Cystobasidiales, Cystobasidiaceae  
4768. *Cystobasidium calyptogenae* (Nagah., Hamam., Nakase & Horikoshi) Yurkov, Kachalkin, H.M. Daniel, M. Groenew., Libkind, V. de García, Zalar, Gouliam., Boekhout & Begerow  
IF No: 809346 Trophic mode/Guild: pathotroph/fungal parasite



Fungi, Basidiomycota, Pucciniomycotina, Cystobasidiales, Cystobasidiaceae  
4769. *Cystobasidium minutum* (Cif. & Redaelli) Yurkov, Kachalkin, H.M. Daniel, M. Groenew., Libkind, V. de García, Zalar, Gouliam., Boekhout & Begerow  
IF No: 809340 Trophic mode/Guild: pathotroph/fungal parasite



Fungi, Basidiomycota, Pucciniomycotina, Cystobasidiales, Cystobasidiaceae  
4770. *Cystobasidium sebaceum* G.W. Martin  
IF No: 277777 Trophic mode/Guild: pathotroph/fungal parasite



Fungi, Basidiomycota, Pucciniomycotina, Cystobasidiales, Erythrobasidiaceae  
4771. *Erythrobasidium hasegawae* (Y. Yamada & Komag.) Hamam., Sugiy. & Komag.  
IF No: 125149



Fungi, Basidiomycota, Pucciniomycotina, Microbotryales, Microbotryaceae  
4772. *Microbotryum bistortarum* (DC.) Vánky  
IF No: 443618 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Microbotryales, Ustilidiales  
4773. *Microbotryum reticulatum* (Liro) R. Bauer & Oberw.  
IF No: 437862 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Polygonum segetum* Dept.: ANT, CUN



Fungi, Basidiomycota, Pucciniomycotina, Microbotryales, Microbotryaceae  
4774. *Microbotryum tenuisporum* (Cif.) Vánky  
IF No: 443664 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Polygonum hydropiperoides*, *Polygonum punctatum* Dept.: CUN, MET



Fungi, Basidiomycota, Pucciniomycotina, Microbotryales, Microbotryaceae  
4775. *Sphaelotheca hydropiperis* (Schumach.) de Bary  
IF No: 227738 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Polygonum hydropiperoides*, *Polygonum punctatum*, *Polygonum segetum* Dept.: ANT, BOY, CUN, RIS



Fungi, Basidiomycota, Pucciniomycotina, Microbotryales, Ustilidiales  
4776. *Aurantiosporium colombianum* M. Piepenbr.  
IF No: 489906 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Scleria lagoensis* Dept.: MAG



Fungi, Basidiomycota, Pucciniomycotina, Microbotryales, Ustilidiales  
4777. *Aurantiosporium subnitens* (J. Schröt. & Henn.) M. Piepenbr., Vánky & Oberw.  
IF No: 414736 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Scleria melaleuca* Dept.: NSA



Fungi, Basidiomycota, Pucciniomycotina, Microbotryales, Ustilidiales  
4778. *Rhodospordiobolus colostrii* (T. Castelli) Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout  
IF No: 813375 Trophic mode/Guild: pathotroph, saprotroph/animal endosymbiont, animal pathogen, endophyte, plant pathogen, undefined saprotroph



Fungi, Basidiomycota, Pucciniomycotina, Microbotryales, Ustilidiales  
4779. *Rhodospordiobolus ruineniae* (Holzschu, Tredick & Phaff) Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout  
IF No: 813371 Trophic mode/Guild: saprotroph Habitat: Isolated from pulps of rose apple ("pomarrosa") Dept.: VAC



Fungi, Basidiomycota, Pucciniomycotina, Microbotryales, Ustilidiales  
4780. *Rhodotorula dalrenensis* (T. Haseg. & I. Banno) Denchev & T. Denchev  
IF No: 558291 Trophic mode/Guild: pathotroph, saprotroph/animal endosymbiont, animal pathogen, endophyte, plant pathogen, undefined saprotroph



Fungi, Basidiomycota, Pucciniomycotina, Microbotryales, Ustilidiales  
4781. *Rhodotorula glutinis* (Fresen.) F.C. Harrison  
IF No: 266169 Trophic mode/Guild: symbiotroph/endophyte Habitat: Saprotroph yeast Distribution: Global Dept.: VAC Uses: HF, MA



Fungi, Basidiomycota, Pucciniomycotina, Microbotryales, Ustilidiales  
4782. *Rhodotorula graminis* Di Menna  
IF No: 305278 Trophic mode/Guild: pathotroph, saprotroph/animal endosymbiont, animal pathogen, endophyte, plant pathogen, undefined saprotroph Habitat: On soils cultivated with peach | Saprotroph Elev.: 2,900 m Dept.: BOY



Fungi, Basidiomycota, Pucciniomycotina, Microbotryales, Ustilidiales  
4783. *Rhodotorula mucilaginosus* (A. Jörg.) F.C. Harrison  
IF No: 271749 Trophic mode/Guild: pathotroph/animal pathogen



Fungi, Basidiomycota, Pucciniomycotina, Microbotryales, Ustilidiales  
4784. *Rhodotorula paludigena* (Fell & Tallman) Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout  
IF No: 813354 Trophic mode/Guild: pathotroph, saprotroph/animal endosymbiont, animal pathogen, endophyte, plant pathogen, undefined saprotroph



Fungi, Basidiomycota, Pucciniomycotina, Microbotryales, Ustilidiales  
4785. *Rhodotorula taiwanensis* F.L. Lee & C.H. Huang ex Denchev & T. Denchev  
IF No: 558289 Trophic mode/Guild: pathotroph, saprotroph/animal endosymbiont, animal pathogen, endophyte, plant pathogen, undefined saprotroph

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Fungl. Basidiomycota, Pucciniomycotina, Microbotryomycetes, Incertae sedis, Sporidiobolales, Sporidiobolaceae  
**4786. *Rhodotorula toruloides*** (I. Banno) Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout IF No: 813358 **Trophic mode/Guild:** pathotroph, saprotroph/animal

endosymbiont, animal pathogen, endophyte, plant pathogen, undefined saprotroph



Fungl. Basidiomycota, Pucciniomycotina, Microbotryomycetes, Incertae sedis, Incertae sedis, Incertae sedis  
**4787. *Curvibasidium cygneicollum*** J.P. Samp. IF No: 371278



Fungl. Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Helicobasidiales, Helicobasidiaceae  
**4788. *Helicobasidium purpureum*** (Tul.) Pat. IF No: 243767 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungl. Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Platygoeales, Eoconarntiaceae  
**4789. *Eoconarntium muscicola*** (Pers.) Fitzp. IF No: 244453 **Trophic mode/Guild:** pathotroph/ plant pathogen



Fungl. Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Platygoeales, Eoconarntiaceae  
**4790. *Jola hookeriarum*** Möller IF No: 151223



Fungl. Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Platygoeales, Platygoeaceae  
**4791. *Achroomyces blastomyces*** (Möller) Wojewoda IF No: 115603 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, undefined saprotroph



Fungl. Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Platygoeales, Platygoeaceae  
**4792. *Achroomyces effusus*** (J. Schröt.) Mig. IF No: 438128 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, undefined saprotroph



Fungl. Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Chaconiaceae  
**4793. *Chaconia Inga*** (Syd.) Cummins IF No: 282614 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Inga adenophylla*, *Inga edulis*, *Inga holtonii*, *Inga holtonii*, *Inga lindeniana*, *Inga aff punctata*, *Inga rubiginosa*, *Inga spuria*, *Inga vera*, *Inga* sp.



Fungl. Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Chaconiaceae  
**4794. *Gopiana ecuadorica*** Syd. IF No: 263758 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Dioscorea* sp.



Fungl. Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Chaconiaceae  
**4795. *Gopiana ribis-andicola*** Berndt IF No: 460843 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Ribes andicola*, *Ribes ecuadorensis*, *Ribes* sp.



Fungl. Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Chaconiaceae  
**4796. *Maravalia manettiae*** Jørst. IF No: 300237 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Borreria capitata*, *Manettia calycosa*, *Manettia coccocypseloides*, *Manettia suratensis*, *Manettia tori*.



Fungl. Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Chaconiaceae  
**4797. *Olvea capituliformis*** (Henn.) Arthur IF No: 217435 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Alchornea bogotensis*, *Alchornea latifolia*, *Alchornea* sp.



Fungl. Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Chaconiaceae  
**4798. *Olvea fimbriata*** (Mains) Cummins & Y. Hirats. IF No: 115294 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Vitex* sp.



Fungl. Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Chaconiaceae  
**4799. *Olvea tectonae*** (Racib.) Thirum. IF No: 288870 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungl. Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Coleosporiaceae  
**4800. *Coleosporium asterum*** (Dieterl) Syd. & P. Syd. IF No: 119921 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Aster x Solidago*, *Solidago polyglossa*, *Solidago* sp.



Fungl. Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Coleosporiaceae  
**4801. *Coleosporium bocconiae*** (Mayor) P. Syd. & Syd. IF No: 172912 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungl. Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Coleosporiaceae  
**4802. *Coleosporium fischeri*** Mayor IF No: 178537 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungl. Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Coleosporiaceae  
**4803. *Coleosporium ipomoeae*** (Schwein.) Burrii IF No: 239841 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Evolvulus* sp., *Ipomoea batatas*, *Ipomoea caloneura*, *Ipomoea carnea*, *Ipomoea hederacea*, *Ipomoea nil*, *Ipomoea tiliacea*, *Ipomoea* sp., *Jacquemontia sphaerostigma*, *Jacquemontia* sp.



Fungl. Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Coleosporiaceae  
**4804. *Coleosporium plumeriae*** Pat. IF No: 121173 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Plumeria alba*, *Plumeria rubra*, *Plumeria* sp.



Fungl. Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Coleosporiaceae  
**4805. *Coleosporium steylae*** Arthur IF No: 221163 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Eupatorium macrophyllum*



Fungl. Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Coleosporiaceae  
**4806. *Coleosporium vernoniae*** Berk. & M.A. Curtis IF No: 223567 **Trophic mode /Guild:** pathotroph/plant pathogen **Hosts:** *Chaetospora funkii*, *Elephantopus mollis*, *Elephantopus* sp., *Lepidaploa canescens*, *Pseudelephantopus spicatus*, *Pseudelephantopus* sp.



Fungl. Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Cronartiaceae  
**4807. *Cronartium plni*** (Willd.) Jørst. IF No: 416318 **Trophic mode/Guild:** pathotroph /plant pathogen



Fungl. Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Cronartiaceae  
**4808. *Cronartium quercuum*** (Berk.) Miyabe ex Shirai IF No: 240633 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Quercus humboldtii*, *Quercus* sp.



Fungl. Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Cronartiaceae  
**4809. *Cronartium uleanum*** Syd. & P. Syd. IF No: 535824 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungl. Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Cronartiaceae  
**4810. *Cronartium wilsonianum*** Arthur & J.R. Johnst. IF No: 101117 **Trophic mode /Guild:** pathotroph/plant pathogen



Fungl. Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Gymnosporangiaceae  
**4811. *Gymnosporangium sabinas*** (Dicks.) G. Winter IF No: 155313 **Trophic mode /Guild:** pathotroph/plant pathogen



Fungl. Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Melampsoraceae  
**4812. *Melampsora coleosporioides*** Dietel IF No: 218676 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Salix babylonica*



Fungl. Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Melampsoraceae  
**4813. *Melampsora euphorbiae*** (Ficinus & C. Schub.) Castagne IF No: 223157 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Euphorbia pepulus pyramidalis*, *Populus* sp.



Fungl. Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Melampsoraceae  
**4814. *Melampsora lartcis-populina*** Kleb. IF No: 189306 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Populus nigra* var. *italica*, *Populus*



Fungl. Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Mikronegeriaceae  
**4815. *Blastospora colombiana*** (Burticá) M. Salazar, A.A. Carvalho & J.F. Hennen IF No: 519609 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Blechnum occidentale*, *Blechnum* sp.



Fungl. Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Mikronegeriaceae  
**4816. *Chrysocallis lupini*** Lagerh. & Dietel IF No: 220630 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Lupinus bogotensis*, *Lupinus humifusus*, *Lupinus mutabilis*, *Lupinus paniculatus*, *Lupinus* sp.



Fungl. Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Mikronegeriaceae  
**4817. *Chrysocallis muehlenbeckiae*** Lagerh. & Dietel IF No: 220392 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Muehlenbeckia tamnifolia*, *Muehlenberkia* sp.



Fungl. Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Mitesinaceae  
**4818. *Milesina australis*** (Arthur) Hirats. IF No: 257967 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Blechnum occidentale*, *Blechnum* sp.



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Milesiaceae  
**4819. *Milesina blechni*** (Syd. & P. Syd.) Arthur ex Fauli IF No: 122066 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Milesiaceae  
**4820. *Milesina columbensis*** Dietel IF No: 202939 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Milesiaceae  
**4821. *Milesina dennstaedtii*** Dietel IF No: 203021 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Milesiaceae  
**4822. *Milesina murariae*** (Magnus) Grove IF No: 209406 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Asplenium monanthes*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4823. *Anglospora camelliae*** (Mayor) Mains IF No: 251212 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4824. *Arthura columbiana*** (F. Kern & Whetzel) Cummins IF No: 120208 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Croton funkianus*, *Croton gossypifolius*, *Croton polycarpus*, *Croton* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4825. *Batislopsora pistilla*** Buriticá & J.F. Hennen IF No: 542011 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Annona spraguei*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4826. *Catenulopsora petraea*** Pardo - Card. IF No: 489894 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Petrea aspera*, *Petrea volubilis*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4827. *Catenulopsora praelonga*** (Speg.) Buriticá IF No: 412706 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Abutilon* sp., *Hibiscus* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4828. *Cerotelium coccolobae*** Buriticá & J.F. Hennen IF No: 804982 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Triplaris americana*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4829. *Cerotelium ficli*** (Castagne) Arthur IF No: 100242 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4830. *Cerotelium ficicola*** Buriticá & J.F. Hennen IF No: 804977 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Ficus* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4831. *Crossospora bkiae*** Buriticá IF No: 312314 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Bixa orellana*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4832. *Crossospora hymenaeae*** Dianese, Buriticá & J.F. Hennen IF No: 363653 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Hymenaea courbaril*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4833. *Crossospora mateleae*** W.T. Dale IF No: 533419 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Matelea hirsuta*, *Matelea maritima*, *Matelea* sp., Asclepiadaceae



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4834. *Crossospora pleris*** Berndt, F.O. Freire & C.N. Bastos IF No: 374745 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Piper* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4835. *Crossospora stevensii*** Syd. IF No: 150511 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Mandevilla mollissima*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4836. *Crossosporella byrsonimae*** (Henn.) E.S.C. Souza, Aime, Galvão - Elias & Dianese IF No: 823953 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Byrsonima* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4837. *Kwellingia divina*** (Syd.) Buriticá IF No: 464056 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Arthrostyidium* sp., *Bambusa vulgaris*, *Bambusa* sp., *Chusquea* sp., *Guadua angustifolia*, Poaceae



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4838. *Phakospora aeshynomenes*** (Arthur) Arthur IF No: 100567 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4839. *Phakospora apoda*** (Har. & Pat.) Mains IF No: 257078 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4840. *Phakospora argentinensis*** (Speg.) Arthur IF No: 100681 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Croton hirtus*, *Croton hondensis*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4841. *Phakospora cheoana*** Cummins IF No: 302784 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Cedrela odorata*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4842. *Phakospora coca*** Buriticá & J.F. Hennen IF No: 442845 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Erythroxylon* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4843. *Phakospora compressa*** (Mains) Buriticá & J.F. Hennen IF No: 442848 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4844. *Phakospora crotonis*** (Cooke) Arthur IF No: 451304 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Croton sanguifolius*, *Croton* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4845. *Phakospora cupheae*** Buriticá IF No: 413774 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Cuphea balsamona*, *Cuphea carthagenensis*, *Cuphea racemosa*, *Cuphea serpyllifolia*, *Cuphea strigulosa*, *Cuphea* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4846. *Phakospora desmum*** (Berk. & Broome) Cummins IF No: 289338 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4847. *Phakospora euvitis*** Y. Ono IF No: 464688 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4848. *Phakospora fenestralis*** (Arthur) Arthur IF No: 100682 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Phyllanthus niruri*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4849. *Phakospora latrophila*** (Arthur) Cummins IF No: 457688 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4850. *Phakospora melibomiae*** (Arthur) Arthur IF No: 102469 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Aeshynomene americana*, *Aeshynomene ciliata*, *Aeshynomene sensitiva*, *Aeshynomene villosa*, *Aeshynomene* sp., *Centrosema macrocarpum*, *Crotalaria anagyroides*, *Crotalaria incana*, *Desmodium adscendens*, *Desmodium* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4851. *Phakospora neocharimollae*** Buriticá & J.F. Hennen IF No: 546833 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Annona cherimola*, *Annona* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4852. *Phakospora pachyrhizi*** Syd. & P. Syd. IF No: 121037 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Glycine max*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4853. *Phakospora pallascens*** (Arthur) Buriticá & J.F. Hennen IF No: 442885 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Tripsacum lanceolatum*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4854. *Phakospora pardo-cardonae*** Buriticá IF No: 820700 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Gutteria cestriifolia*

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Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4855. *Phakopsora tomentosae*** Ferreira & Gasparotto IF No: 646506 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Licania tomentosa*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4856. *Phakopsora zaeae*** (Mains) Buriticá IF No: 442854 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Zea diploperennis*, *Zea mays*id.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4857. *Phragmidella blignoniacearum*** (W.T. Dale) Buriticá & J.F. Hennen IF No: 804985 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Cydista* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4858. *Phragmidella holwayi*** (H.S. Jacks.) Buriticá IF No: 442878 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Arrabidaea magnifica*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4859. *Phragmidella minuta*** (Arthur) Buriticá & J.F. Hennen IF No: 804987 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** Bignoniaceae



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4860. *Physopella agrostidis*** Pardo-Card. & Gjaerum IF No: 464020 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Agrostis humboldtiana*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4861. *Physopella artocarp*** (Berk. & Broome) Arthur IF No: 546501



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4862. *Physopella caucensis*** (Mayor) Buriticá IF No: 442897



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4863. *Physopella paspaliicola*** (Henn.) Buriticá & J.F. Hennen IF No: 442849



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4864. *Physopella sporobol*** Pardo-Card. IF No: 464021 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Sporobolus indicus*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phakosporaceae  
**4865. *Uredendo anthurii*** Barrera-Enriquez & Salazar IF No: 833200 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Anthurium alatum*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phragmidaceae  
**4866. *Gerwasia columbensis*** (F. Kern & Whetzel) Buriticá IF No: 442862 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Rubus* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phragmidaceae  
**4867. *Gerwasia cundinamarcensis*** (Mayor) Buriticá IF No: 442863 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Rubus bogotensis*, *Rubus nubigenus*, *Rubus peruvianus*, *Rubus robustus*, *Rubus* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phragmidaceae  
**4868. *Gerwasia lagerhelmi*** (Magnus) Buriticá IF No: 442864 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phragmidaceae  
**4869. *Gerwasia mayrli*** (H.S. Jacks.) Buriticá IF No: 442865 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Rubus adenotrichos*, *Rubus megalococcus*, *Rubus floribundus*, *Rubus guyanensis*, *Rubus robustus* var. *robustus*, *Rubus* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phragmidaceae  
**4870. *Gerwasia quiltensis*** (Lagerh.) Buriticá IF No: 442860 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phragmidaceae  
**4871. *Gerwasia rubi-urticifolii*** (Mayor) Buriticá IF No: 442866 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Rubus adenotrichos*, *Rubus bogotensis*, *Rubus floribundus*, *Rubus porphyromallos*, *Rubus robustus* var. *robustus*, *Rubus urticifolius*, *Rubus* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phragmidaceae  
**4872. *Gerwasia tayronensis*** Salazar-Yepes, Pardo-Card. & Buriticá IF No: 529711 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Rubus robustus*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phragmidaceae  
**4873. *Gerwasia variabilis*** (Mayor) Buriticá IF No: 442867 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Rubus acanthophyllus*, *Rubus compactus*, *Rubus floribundus*, *Rubus guianensis*, *Rubus guyanensis*, *Rubus idaeus*, *Rubus macrocarpus*, *Rubus megalococcus*, *Rubus porphyromallos*, *Rubus robustus*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phragmidaceae  
**4874. *Kuehneola loeseneriana*** (Henn.) H.S. Jacks. & Holw. IF No: 269677 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Rubus compactus*, *Rubus floribundus*, *Rubus glabratus*, *Rubus macrocarpus*, *Rubus megalococcus*, *Rubus robustus*, *Rubus trichomallus*, *Rubus urticifolius*, *Rubus* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phragmidaceae  
**4875. *Phragmidium mexicanum*** (Mains) H.Y. Yun, Minnis & Aime IF No: 561256 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Duchesnea indica*, *Duchesnea* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Phragmidaceae  
**4876. *Phragmidium mucronatum*** (Pers.) Schindl. IF No: 211060 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Rosa indica*, *Rosa* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4877. *Gynocyclus cestri*** (Diétel & Henn.) Syd. IF No: 260360 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Cestrum marikitense*, *Cestrum* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4878. *Gynoxys sp.*** IF No: 210521 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Gynoxys* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4879. *Dicaeoma trinlochloae*** (Arthur & Holw.) Arthur & Fromme IF No: 280696



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4880. *Endophyllum circumscriptionum*** (Schwein.) Whetzel & Olive IF No: 178992 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Cissus sicyoides*, *Cissus* sp., Vitaceae



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4881. *Endophyllum decoloratum*** (Schwein.) Whetzel & Olive IF No: 120304 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Clibadium surinamensis*, *Clibadium surinamensis* var. *asperum*, *Clibadium zarucii*, *Clibadium* sp., *Sphagnetocola trilobata*, *Wedelia* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4882. *Endophyllum stachytarphetae*** (Henn.) Whetzel & Olive IF No: 121449 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Stachytarpheta cayennensis*, *Stachytarpheta jamaicensis*, *Stachytarpheta mutabilis*, *Stachytarpheta* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4883. *Endophyllum wedeliae*** (Earle) Whetzel & Olive IF No: 162930 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4884. *Micropuccinia spegazzinii*** (De Toni) Arthur & H.S. Jacks. IF No: 278517



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4885. *Poltona nivea*** (Holw.) Arthur IF No: 120984 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4886. *Poltona pallidissima*** (Speg.) Syd. IF No: 273333 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4887. *Poltona reniformis*** León-Gall. & Cummins IF No: 115631 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Geranium caucense*, *Geranium hirsutum*, *Geranium hirtum*, *Geranium lindenianum*, *Geranium mexicanum*, *Geranium multipartitum*



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4888. *Puccinia unilateralis*** (Arthur) J.W. Baxter & Cummins IF No: 304112 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4889. *Puccinia abrepota*** F. Kern IF No: 200829 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Cyperus caracasanus, Cyperus ferax, Cyperus laxus, Cyperus odoratus, Cyperus sp.*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4890. *Puccinia acetosae*** (Schumach.) Körn. IF No: 196110 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Rumex acetosella*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4891. *Puccinia acnistii*** Arthur IF No: 195945 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Acnistus arborescens*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4892. *Puccinia alla*** H.S. Jacks. & Holw. IF No: 256377 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Baccharis trinervis*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4893. *Puccinia ancizarii*** Mayor IF No: 237051 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Baccharis nitida, Baccharis sp.*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4894. *Puccinia angustata*** R. Stone IF No: 188831 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Rhynchospora corymbosa, Rhynchospora kunthii*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4895. *Puccinia anoda*** P. Syd. & Syd. IF No: 185849 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Anoda cristata, Anoda hastata*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4896. *Puccinia anthephorae*** (Syd. & P. Syd.) Arthur & J.R. Johnst. IF No: 101933 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Anthephora*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4897. *Puccinia antioquiensis*** Mayor IF No: 191381 **Trophic mode/Guild:** pathotroph /plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4898. *Puccinia antirrhini*** Dietel & Holw. IF No: 191732 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Antirrhinum majus*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4899. *Puccinia arachidis*** Speg. IF No: 182957 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Arachis hypogaea, Arachis pintoi, Zornia diphylla*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4900. *Puccinia araguata*** F. Kern IF No: 257161 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Paspalum saccharoides*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4901. *Puccinia arechavaletae*** Speg. IF No: 230833 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Cardiospermum grandiflorum, Cardiospermum halicacabum, Cardiospermum sp., Serjania brevipes, Serjania clematidea, Serjania grandidens, Serjania sp., Urvillea ulmacea,*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4902. *Puccinia arenariae*** (Schumach.) J. Schröt. IF No: 231157 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Dianthus barbatus, Dianthus sp.*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4903. *Puccinia arracachae*** Lagerh. & Lindr. IF No: 216553 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Arracacia xanthorrhiza*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4904. *Puccinia aulica*** H.S. Jacks. & Holw. IF No: 257829 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Solanum sp.*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4905. *Puccinia baccharidis*** Dietel & Holw. IF No: 238163 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Baccharis latifolia*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4906. *Puccinia baccharidis-antioquiensis*** Vanegas-Berrouet & Salazar-Yepes IF No: 828239 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Baccharis*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4907. *Puccinia baccharidis-rhexoides*** Mayor IF No: 238577 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Baccharis rhexoides*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4908. *Puccinia barranquillae*** Mayor IF No: 243528 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Sipilanthus urens*

antioquiensis



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4909. *Puccinia beckii*** Mayor IF No: 148462 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Lepidaploa canescens, Lepidaploa cotoneaster, Lepidaploa trilactorum, Vernonia sp.*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4910. *Puccinia bimbergii*** Mayor IF No: 635271 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Heliopsis bupththalmoides, Heliopsis oppositifolia, Vigulera mucronata*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4911. *Puccinia biechi*** Lagerh. IF No: 633985 **Trophic mode/Guild:** pathotroph/plant pathogen

Lepidaploa trilactorum, Vernonia sp.

oppositifolia, Vigulera mucronata



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4912. *Puccinia bogotensis*** Mayor IF No: 146054 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Geranium multiceps*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4913. *Puccinia bomareae*** Henn. IF No: 239003 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Bomarea lehmannii, Bomarea racemosa*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4914. *Puccinia bomareae*** Dietel IF No: 239473 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Bomarea sp.*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4915. *Puccinia brachypodii*** G.H. Oth IF No: 249291 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Alopecurus aequalis, Anthoxanthum odoratum, Poa annua, Poa infirma, Poa pratensis, Poidium juergensii*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4916. *Puccinia bupleurii*** F. Rudolphi IF No: 158317 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Bupleurum rotundifolium*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4917. *Puccinia burtiliae*** Pardo-Card. IF No: 464067 **Trophic mode/Guild:** pathotroph/plant pathogen

odoratum, Poa annua, Poa infirma, Poa pratensis, Poidium juergensii

rotundifolium



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4918. *Puccinia caeomatiformis*** Lagerh. IF No: 152667 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Baccharis floribunda, Baccharis latifolia, Baccharis polyantha, Baccharis pululahuensis, Baccharis trinervis, Baccharis sp.*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4919. *Puccinia caldasii*** Salazar-Yepes & Burticá IF No: 546497 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Euphorbia laurifolia*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4920. *Puccinia caleae*** Arthur IF No: 152521 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Calea jamaicensis, Calea glomerata*

Baccharis polyantha, Baccharis pululahuensis, Baccharis trinervis, Baccharis sp.

Euphorbia laurifolia



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4921. *Puccinia canaliculata*** (Schwein.) Lagerh. IF No: 179101 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Cyperus ferax, Cyperus rotundus, Cyperus surinamensis, Cyperus sp.*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4922. *Puccinia capsici*** Mayor IF No: 178734 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Capsicum baccatum, Capsicum dimorphum, Capsicum sp.*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4923. *Puccinia capsici*** F. Kern & Thurst. IF No: 290153 **Trophic mode/Guild:** pathotroph /plant pathogen

surinamensis, Cyperus sp.

dimorphum, Capsicum sp.

CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4924. *Puccinia caracasana*** Syd. IF No: 259734 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Wedelia frutescens*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4925. *Puccinia carolina*** DC. IF No: 156990 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Carex bonplandii*, *Carex luridiformis*, *Carex* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4926. *Puccinia cenchrif*** Dietel & Holw. IF No: 158928 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Cenchrus echinatus*, *Cenchrus* sp., *Pennisetum bambusiforme*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4927. *Puccinia cephalotes*** W.T. Dale IF No: 304596 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Rhynchospora* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4928. *Puccinia chaetochloae*** (Arthur) Arthur IF No: 161822 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Paspalum macrophyllum*, *Paspalum virgatum*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4929. *Puccinia chardonensis*** Pardo-Card. IF No: 464068 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Baccharis trinervis*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4930. *Puccinia chaseana*** Arthur & Fromme IF No: 118839 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Anthepha hermaprodita*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4931. *Puccinia circinata*** (Schwein.) Arthur IF No: 180688 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Stigmaphyllon aff. bogotense*, *Stigmaphyllon* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4932. *Puccinia claviformis*** Lagerh. IF No: 190619 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Lycianthes radiata*, *Solanum diversifolium*, *Solanum dolichosepalum*, *Solanum ecuadorensis*, *Solanum hirtum*, *Solanum myrianthum*, *Solanum ovalifolium*, *Solanum pseudolulo*, *Solanum scorpioides*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4933. *Puccinia cnici-oleracei*** Pers. IF No: 187763 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Acmella americana*, *Acmella ciliata*, *Acmella mutisii*, *Acmella* sp., *Ayapana turbacensis*, *Calendula officinalis*, *Eclipta prostata*, *Eleutheranthera ruderalis*, *Eleuthe* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4934. *Puccinia colligintae*** Speg. IF No: 637801 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Boerhavia* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4935. *Puccinia conocephala*** Seem. IF No: 215559 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Ageratum conyzoides*, *Ageratum conyzoides* var. *inaequipaleaceum*, *Asplundianthus densus*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4936. *Puccinia conspersa*** Dietel IF No: 203155 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Salvia carnea*, *Salvia* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4937. *Puccinia conyzella*** H.S. Jacks. & Holw. IF No: 487461 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Baccharis decussata*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4938. *Puccinia conturbata*** H.S. Jacks. & Holw. IF No: 261845 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Salvia palifolia*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4939. *Puccinia convolvulacearum*** Mayor IF No: 203379 **Trophic mode/Guild:** pathotroph /plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4940. *Puccinia conyzella*** P. Syd. & Syd. IF No: 212137 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Conyza bonariensis*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4941. *Puccinia cordifolia*** Arthur IF No: 208288 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Cordia alliodora*, *Cordia* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4942. *Puccinia cordilarum*** M. Salazar & J.C. Gómez IF No: 823064 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Cordia cylindrostachya*, *Cordia* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4943. *Puccinia cordifolia*** Pardo-Card. IF No: 464040 **Trophic mode/Guild:** pathotroph /plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4944. *Puccinia coronata*** Corda IF No: 143930 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Agrostis humboldtiana*, *Agrostis perennans*, *Avena sativa*, *Brachypodium mexicanum*, *Bromus pitensis*, *Calamagrostis planifolia*, *Festuca arundinacea*, *Festuca* sp., *Holcus* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4945. *Puccinia crassipes*** Berk. & M.A. Curtis IF No: 247815 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Ipomoea batatas*, *Ipomoea caloneura*, *Ipomoea congesta*, *Ipomoea carnea*, *Ipomoea hederifolia*, *Ipomoea nil*, *Ipomoea tiliacea*, *Ipomoea trifida*, *Ipomoea* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4946. *Puccinia cundinamarcensis*** Mayor IF No: 219311 **Trophic mode/Guild:** pathotroph /plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4947. *Puccinia cyanoph*** Schwein. IF No: 216440 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Exolobus* sp., *Mesechites trifidus*, *Oxyptalum cordifolium*, *Sarcostemma glaucum*, *Apocynaceae*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4948. *Puccinia cynodontis*** Lacroix ex Desm. IF No: 224089 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Cynodon dactylon*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4949. *Puccinia cyperi*** Arthur IF No: 223536 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Erigeron bonariensis*, *Cyperus caracasana*, *Cyperus globulosus*, *Cyperus mutisii*, *Cyperus* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4950. *Puccinia cyperi-tagetiformis*** (Henn.) F. Kern IF No: 223695 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Cyperus surinamensis*, *Cyperus rotundus*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4951. *Puccinia dichromenae*** (Arthur) H.S. Jacks. IF No: 251836 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Dichromena ciliata*, *Dichromena polystachys*, *Dichromena radicans*, *Dichromena* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4952. *Puccinia dioliceae*** Magnus IF No: 243502 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Carex bonplandii*, *Carex cf. chordalis*, *Carex brasiliensis*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4953. *Puccinia discreta*** H.S. Jacks. & Holw. IF No: 144322 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Lepidaploa canescens*, *Vernonanthura*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4954. *Puccinia dolosa*** Arthur & Fromme IF No: 118950 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Paspalum paniculatum*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4955. *Puccinia dubia*** Mayor IF No: 207939 **Trophic mode/Guild:** pathotroph /plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**4956. *Puccinia duthiei*** Ellis & Tracy IF No: 535790 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Andropogon leucostachyus*, *Andropogon seloanus*, *Bothriochloa pertusa*, *Dichanthium aristatum*, *Dichanthium* sp.



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4957. *Puccinia emilliae* Henn. IF No: 202761 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Emilia coccinea*, *Emilia sagittata*, *Emilia*

*sonchifolia*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4960. *Puccinia epiphylla* (L.) Wettst. IF No: 214121 **Trophic mode/Guild:** pathotroph /plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4963. *Puccinia erythraeensis* Pазschke IF No: 170149 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4966. *Puccinia eupatoriicola* Mayor IF No: 159071 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Ageratum conyzoides*, *Critoniella vargasiana*, *Fleischmannia pycnocephala*, *Eupatorium schiedeanum*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4969. *Puccinia exilis* P. Syd. & Syd. IF No: 167266 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Pavonia* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4972. *Puccinia festata* H.S. Jacks. & Holw. IF No: 241564 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Euphorbia* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4975. *Puccinia flaccida* Berk. & Broome IF No: 149013 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Echinochloa crus-galli*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4978. *Puccinia fusagasugensis* Salazar-Yepes & Burittica IF No: 546491 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Baccharis decussata*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4981. *Puccinia gesneriacearum* Dietel IF No: 182655 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Columnnea picta*, Gesneriaceae



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4984. *Puccinia gouaniae* Holw. IF No: 165220 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Gouania tomentosa*, *Gouania* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4987. *Puccinia heliconiae* (Dietel) Arthur IF No: 175107 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Heliconia latispatha*, *Heliconia* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4990. *Puccinia hemerocallidis* Thüm. IF No: 157213 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Hemerocallis x hybrida*, *Hemerocallis* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4958. *Puccinia eragrostidicola* Pardo-Card. IF No: 489572 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Alternanthera polygonoides*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4961. *Puccinia eragrostidicola* F. Kern, Thurst. & Whetzel IF No: 264111 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Eragrostis inconstans*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4964. *Puccinia esclavensis* Dietel & Holw. IF No: 169730 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Paspalum prostratum*, *Pennisetum bambusiforme*, *Trichachne insularis*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4967. *Puccinia eupatori-columblani* Mayor IF No: 159269 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Chromolaena columbiana*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4970. *Puccinia exornata* Arthur IF No: 120440 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Baccharis conyzoides*, *Baccharis trinervis*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4973. *Puccinia filopos* Arthur & Holw. IF No: 242132 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Buettneria carthagenensis*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4976. *Puccinia fuhrmannii* Mayor IF No: 628758 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Justicia filibracteolata*, *Justicia secunda* var.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4979. *Puccinia garcesispora* Pardo-Card. IF No: 464127 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Chaenocephalus arboreus*, *Verbesina nudipes*, *Verbesina* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4982. *Puccinia gnaphallicola* Henn. IF No: 165299 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Gnaphalium antennarioides*, *Gnaphalium spicatum*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4985. *Puccinia graminis* Pers. IF No: 159822 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Agrostis perennans*, *Agrostis* sp., *Anthoxanthum odoratum*, *Avena sativa*, *Calamagrostis pittieri*, *Echinochloa colonum*, *Hordeum vulgare*, *Phalaris* sp., *Phleum pratense*, *Sporobolus* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4988. *Puccinia helicocarpi* P. Syd. & Syd. IF No: 175451 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4991. *Puccinia heterospora* Berk. & M.A. Curtis IF No: 245528 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Abutilon umbellatum*, *Anoda cristata*, *Anoda acerifolia*, *Anoda hastata*, *Bastardia viscosa*, *Hampea thespesioides*, *Malva sylvestris*, *Malvastrum peruvianum*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4959. *Puccinia encelliae* Dietel & Holw. IF No: 212375 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Tithonia diversifolia*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4962. *Puccinia ertraeensis* Pазschke IF No: 622955 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Andropogon gayanus*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4965. *Puccinia eupatori* Dietel IF No: 158929 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Eupatorium ballotifolium*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4968. *Puccinia evadensis* Harkn. IF No: 172822 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Baccharis cassiniifolia*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4971. *Puccinia ferox* Dietel & Holw. IF No: 154273 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Verbesina conyzoides*, *Verbesina nudipes*, *Verbesina verbascifolia*, *Verbesina* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4974. *Puccinia fimbriatylidis* Arthur IF No: 241644 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Fimbristylis annua*, *Fimbristylis complanata*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4977. *Puccinia fumosa* Holw. IF No: 144216 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Loeselia glandulosa*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4980. *Puccinia garcilassae* Pardo-Card. IF No: 442879 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Garcilassa rivularis*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4983. *Puccinia gonzaezii* Mayor IF No: 503547 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4986. *Puccinia hellanthi* Schwein. IF No: 174997 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Helianthus annuus*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4989. *Puccinia heliotropii* F. Kern & Kellerm. IF No: 157790 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Heliotropium indicum*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4992. *Puccinia hieracii* (Röhl.) H. Mart. IF No: 245124 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Hieracium avilae*, *Hieracium frigidum*, *Hieracium* sp., *Taraxacum officinale*

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Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4993, *Puccinia hordei* G.H. Otth  
IF No: 444035 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Festuca detonenis*, *Holcus lanatus*, *Hordeum*

vulgare



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4994, *Puccinia horiana* Henn.  
IF No: 239781 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Chrysanthemum* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4995, *Puccinia huberi* Henn. IF No: 250148 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Panicum trichoides*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4996, *Puccinia humahuacensis* J.C. Lindq.  
IF No: 119089



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4997, *Puccinia hydrocotyles* (Mont.) Cooke  
IF No: 242783 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Hydrocotyle asiatica*, *Hydrocotyle bonplandii*, *Hydrocotyle bonariensis*, *Hydrocotyle humboldtii*, *Hydrocotyle leucocephala*, *Hydrocotyle quinqueloba*, *Hydrocotyle umbellata*, *Hydrocotyle* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4998, *Puccinia hydrophylli* Peck & Clinton  
IF No: 242470 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Hydrophyllum* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
4999, *Puccinia hyptidis* (M.A. Curtis) Tracy & Earle IF No: 147116 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Hyptis brachiata*, *Hyptis capitata*, *Hyptis*

excelsa, *Hyptis* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5000, *Puccinia hyptidis-mutabilis* Mayor  
IF No: 147528 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Hyptis mutabilis*, *Hyptis* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5001, *Puccinia ichnanthi* Mains  
IF No: 252666 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Ichnanthus* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5002, *Puccinia imitans* P. Syd. & Syd. IF No: 235326 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Solanum nigrum*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5003, *Puccinia immensispora* F. Kern & Thurst. IF No: 290204 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Diplostephium* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5004, *Puccinia impedita* Mains & Holw. IF No: 235419 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Salvia cataractarum*, *Salvia mayorii*, *Salvia petiolaris*, *Salvia scutellaroides*, *Salvia* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5005, *Puccinia improcera* H.S. Jacks. & Holw. IF No: 267735 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Baccharis* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5006, *Puccinia inaequata* H.S. Jacks. & Holw. IF No: 142463 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Vernonanthura patens*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5007, *Puccinia inanis* Dietel & Holw. IF No: 141774 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Condylium iresinoides*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5008, *Puccinia inclita* Arthur  
IF No: 141848 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Ichnanthus ichnodes*, *Ichnanthus pallens*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5009, *Puccinia inlepti* Buriticá  
IF No: 322035 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5010, *Puccinia insueta* G. Winter  
IF No: 145828 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Stigmaphyllon* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5011, *Puccinia interfecta* H.S. Jacks. IF No: 268020 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Baccharis latifolia*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5012, *Puccinia invaginata* Arthur & J.R. Johnst. IF No: 101083 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Gouania* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5013, *Puccinia investita* Schwein. IF No: 234540 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Achyrocline alata*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5014, *Puccinia irregularis* Dietel  
IF No: 234803 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Chaenocephalus arboreus*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5015, *Puccinia isachnicola* Pardo-Card. IF No: 309853 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Isachne arundinacea*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5016, *Puccinia jericocensis* Pardo-Card. IF No: 464042 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Aspilia lehmannii*, *Aspilia quinquevervis*, *Aspilia*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5017, *Puccinia justiciae* Puttemans IF No: 119145 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Justicia pectoralis*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5018, *Puccinia kuehnii* (W. Krüger) E.J. Butler IF No: 243512 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Saccharum officinarum*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5019, *Puccinia kyllingae-brevifoliae* Miura  
IF No: 268728 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Kyllinga brevifolia*, *Kyllinga odorata*, *Kyllinga* sp.



lopez-palacii, *L. maxima*, *L. moritziana*, *L. lilifolia*, *L. trifolia*, *Lantana* sp.

Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5020, *Puccinia lantanae* Farl. IF No: 141637 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Elytraria acaulis*, *Lantana armata*, *L. camara*, *L. hispida*, *L.*



*Blechnum* sp.

Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5021, *Puccinia lateripes* Berk. & Ravenel  
IF No: 141317 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Blechnum blechnum*, *Blechnum pyramidatum*,



*Spermacoe assurgens*, *Spermacoe capitata*, *Spermacoe confusa*, *Spermacoe laevis*, *Spermacoe latifolia*, *Spermacoe ocyroides*, *Spermacoe spinosa*

Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5022, *Puccinia lateritia* Berk. & M.A. Curtis  
IF No: 141582 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Diodia cymosa*, *Diodia* sp., *Spermacoe alata*,



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5023, *Puccinia leonotidicola* Henn. IF No: 219327 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Leonotis nepetifolia*, *Leonotis* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5024, *Puccinia leptochloae* Arthur & Fromme IF No: 119185 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Talinum patens*



*decumbens*, *Digitaria bicornis*, *Digitaria sanguinalis*, *Isachne arundinacea*, *Manisuris granularis*, *Paspalum fourmierianum*

Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5025, *Puccinia levis* (Sacc. & Bizz.) Magnus IF No: 216640 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Axonopus scoparius*, *Brachiaria*



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Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5026. *Puccinia libi*** Mayor IF No: 224640  
**Trophic mode/ Guild:** pathotrophy/plant pathogen **Hosts:** *Liabum hastatum*, *Liabum hastifolium*, *Liabum* sp., *Onoseris*

*onoseroideis*



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5027. *Puccinia longiana*** F. Kern & Thurst. IF No: 290219 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Liabum* sp.



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5028. *Puccinia lucumae*** F. Kern IF No: 224154 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Eleocharis geniculata*



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5029. *Puccinia lithospermi*** Ellis & Kellerm. IF No: 228662 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Evolvulus villosus*, *Evolvulus* sp.



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5030. *Puccinia longiana*** Syd. & P. Syd. IF No: 218935 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Ruellia tuberosa*



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5031. *Puccinia lucumae*** F. Kern, Thurst. & Whetzel IF No: 269844 **Trophic mode/Guild:** pathotrophy/ plant pathogen **Hosts:** *Lucuma* sp.



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5032. *Puccinia macra*** Arthur & Holw. IF No: 239253 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Paspalum candidum*, *Paspalum paniculatum*, *Paspalum prostratum*, *Paspalum trianae*



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5033. *Puccinia macropoda*** Speg. IF No: 239703 **Trophic mode/Guild:** pathotrophy/ plant pathogen **Hosts:** *Iresine paniculata*, *Iresine* sp.



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5034. *Puccinia maluscula*** H.S. Jacks. & Holw. IF No: 270381 **Trophic mode/Guild:** pathotrophy/ plant pathogen **Hosts:** *Senecio* sp.



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5035. *Puccinia malvearum*** Bertero ex Mont. IF No: 241623 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Althaea rosea*, *Anoda hastata*, *Hibiscus* sp., *Malva parviflora*, *Malva sylvestris*, *Malva* sp., *Malvastrum americanum*, *Malvastrum corchorifolium*, *Malvastrum coromandelianum*, *Malvastrum peruvianum*



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5036. *Puccinia marsci*** Mayor IF No: 149357 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Cyperus flavomarisicus*, *Cyperus hermaphroditus*,



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5037. *Puccinia mayreri*** Mayor IF No: 234304 **Trophic mode/Guild:** pathotrophy /plant pathogen **Hosts:** *Baccharis nitida*, *Baccharis orinocensis*

*parviflora*, *Malva sylvestris*, *Malva* sp., *Malvastrum americanum*, *Malvastrum corchorifolium*, *Malvastrum coromandelianum*, *Malvastrum peruvianum*

*Cyperus* sp.



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5038. *Puccinia medellinensis*** Mayor IF No: 143389 **Trophic mode/Guild:** pathotrophy/ plant pathogen **Hosts:** *Hyptis mutabilis*, *Hyptis pectinata*



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5039. *Puccinia melampodii*** Dietel & Holw. IF No: 142996 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Melampodium divaricatum*



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5040. *Puccinia melanocephala*** Syd. & P. Syd. IF No: 143424 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Saccharum officinarum*



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5041. *Puccinia menthae*** Pers. IF No: 233447 **Trophic mode/Guild:** pathotrophy/ plant pathogen **Hosts:** *Hyptis mutabilis* var. *spicata*, *Mentha aquatica*, *Mentha viridis*, *Mentha* sp., *Origanum vulgare*



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5042. *Puccinia menthae* var. *basiporula*** J.W. Baxter IF No: 350198 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Hyptis mutabilis* var. *spicata*, *Mentha aquatica*, *Mentha viridis*, *Mentha* sp., *Origanum vulgare*



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5043. *Puccinia microvallis*** Salazar-Yepes & Buriticá IF No: 546490 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Thumbergia* sp.

*Mentha* sp., *Origanum vulgare*

*aquatica*, *Mentha viridis*, *Mentha* sp., *Origanum vulgare*



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5044. *Puccinia mogibhanis*** (Juel) Arthur IF No: 120928 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Alternanthera halimifolia*



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5045. *Puccinia montoya*** Mayor IF No: 246931 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Baccharis floribunda*



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5046. *Puccinia montoya*** Mayor IF No: 246866 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Baccharis bogotensis*



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5047. *Puccinia mutisae*** Lagerh. IF No: 207485 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Jungia ferruginea*, *Jungia* sp.



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5048. *Puccinia nakanishikii*** Dietel IF No: 214825 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Cymbopogon citratus*



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5049. *Puccinia narinensis*** F. Kern & Whetzel IF No: 272039 **Trophic mode /Guild:** pathotrophy/ plant pathogen



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5050. *Puccinia neorotundata*** Cummins IF No: 304715 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Vernonanthura brasiliiana*, *Vernonanthura patens*, *Vernonia scabra*, *Vernonia* sp.



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5051. *Puccinia oahuensis*** Ellis & Everh. IF No: 176327 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Digitaria decumbens*, *Digitaria horizontalis*, *Digitaria sanguinalis*



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5052. *Puccinia obliqua*** Berk. & M.A. Curtis IF No: 241723 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5053. *Puccinia obliqueptata*** Vienn. – Bourg. IF No: 304721 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Pariana* sp.



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5054. *Puccinia oblongula*** H.S. Jacks. & Holw. IF No: 272580 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Rynchospora archeri*, *Rynchospora* sp.



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5055. *Puccinia obregonensis*** Pardo – Card. IF No: 474790 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5056. *Puccinia obrepita*** H.S. Jacks. & Holw. IF No: 272587 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Wedelia latifolia*



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5057. *Puccinia obtusata*** Arthur IF No: 249150 **Trophic mode/ Guild:** pathotroph /plant pathogen **Hosts:** *Zornia diphylla*



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5058. *Puccinia oncidii*** Cummins IF No: 337962 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Pleurothallis* sp.



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5059. *Puccinia orthophylli*** Vanegas – Berrouet & Salazar – Yepes IF No: 828240 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Oritrophium peruvianum*



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5060. *Puccinia ortizii*** Mayor IF No: 629753 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Brachistum hebephyllum*



Fungi, Basidiomycota, Puccinliomycotina, Puccinliomycetes, Incertae sedis, Pucciniales, Puccinliaceae  
**5061. *Puccinia oxalidis*** Dietel & Ellis IF No: 191096 **Trophic mode/Guild:** pathotrophy/ plant pathogen **Hosts:** *Oxalis corniculata*, *Oxalis latifolia*, *Oxalis lotoides*, *Oxalis martiana*, *Oxalis pubescens*, *Oxalis* sp.

*martiana*, *Oxalis pubescens*, *Oxalis* sp.

CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5062, *Puccinia oyedaeae* Mayor  
IF No: 181668 Trophic mode/Guild: pathotrophy/plant pathogen  
Hosts: *Oyedaea aff. buphthalmoides*



*Bomarea patacocensis*

Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5063, *Puccinia pallor* Arthur & Holw. IF No: 194704 Trophic mode/Guild: pathotrophy/plant pathogen  
Hosts: *Bomarea bredemeyera*, *Bomarea caldasii*



*Capsicum frutescens*, *Capsicum sp.*, *Dunalia solanacea*

Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5064, *Puccinia pampaeana* Speg. IF No: 201376 Trophic mode/Guild: pathotrophy/plant pathogen  
Hosts: *Capsicum annuum*, *Capsicum baccatum*, *Capsicum chinense*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5065, *Puccinia paramensis* Mayor IF No: 196166 Trophic mode/Guild: pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5066, *Puccinia paranahybae* Henn. IF No: 195957 Trophic mode/Guild: pathotrophy/plant pathogen



*zonale*, *Pelargonium sp.*

Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5067, *Puccinia pelargonii-zonalis* Doidge IF No: 273824 Trophic mode/Guild: pathotrophy/plant pathogen  
Hosts: *Pelargonium odoratissimum*, *Pelargonium zonale*, *Pelargonium sp.*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5068, *Puccinia peperomiae* J.C. Lindq. IF No: 304734 Trophic mode/Guild: pathotrophy/plant pathogen  
Hosts: *Peperomia pennellii*, *Piper antiquiense*, *Piper cabellense*, *Piper crassinervium*, *Piper hartwegianum*, *Piper umbellatum*, *Piper sp.*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5069, *Puccinia peresiae* Henn. IF No: 167788 Trophic mode/Guild: pathotrophy/plant pathogen  
Hosts: *Perezia multiflora*



*Chusquea scandens*

Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5070, *Puccinia phyllostachydis* Kusano IF No: 160813 Trophic mode/Guild: pathotrophy/plant pathogen  
Hosts: *Bambusa vulgaris*, *Bambusa sp.*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5071, *Puccinia pimpinellae* (F. Strauss) Link IF No: 173427 Trophic mode/Guild: pathotrophy/plant pathogen  
Hosts: *Pimpinella anisum*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5072, *Puccinia pitcairniae* Lagerh. IF No: 151736 Trophic mode/Guild: pathotrophy/plant pathogen  
Hosts: *Pitcairnia trianae*, *Pitcairnia sp.*, *Tillandsia sp.*



*andigenum*, *Solanum nigrum*, *Solanum tuberosum*, *Solanum sp.*

Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5073, *Puccinia pittieriana* Henn. IF No: 151891 Trophic mode/Guild: pathotrophy/plant pathogen  
Hosts: *Lycopersicon esculentum*, *Solanum andigenum*, *Solanum nigrum*, *Solanum tuberosum*, *Solanum sp.*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5074, *Puccinia poarum* Nielsen IF No: 194454 Trophic mode/Guild: pathotrophy/plant pathogen  
Hosts: *Poa sp.*



*Persicaria hydroperoides*, *Persicaria persicarioides*, *Persicaria punctata*, *Persicaria sp.*, *Polygonum acre*, *Polygonum acetosum*, *Polygonum punctatum*, *Polygonum sp.*

Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5075, *Puccinia polygami-amphibii* Pers. IF No: 227792 Trophic mode/Guild: pathotrophy/plant pathogen  
Hosts: *Persicaria hydroperoides*, *Persicaria persicarioides*, *Persicaria punctata*, *Persicaria sp.*, *Polygonum acre*, *Polygonum acetosum*, *Polygonum punctatum*, *Polygonum sp.*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5076, *Puccinia polymniae* H.S. Jacks. & Holw. IF No: 274950 Trophic mode/Guild: pathotrophy/plant pathogen  
Hosts: *Polymnia pyramidalis*, *Polymnia riparia*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5077, *Puccinia polysora* Underw. IF No: 179511 Trophic mode/Guild: pathotrophy/plant pathogen  
Hosts: *Tripsacum laxum*, *Zea mays*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5078, *Puccinia porphyretica* H.S. Jacks. & Holw. IF No: 275092 Trophic mode/Guild: pathotrophy/plant pathogen  
Hosts: *Stachys mayrii*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5079, *Puccinia porri* (Sowerby) G. Winter IF No: 190235 Trophic mode/Guild: pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5080, *Puccinia posadensis* Sacc. & Trotter IF No: 184853 Trophic mode/Guild: pathotrophy/plant pathogen  
Hosts: *Andropogon sp.*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5081, *Puccinia pseudocentra* Cummins IF No: 290258 Trophic mode/Guild: pathotrophy/plant pathogen  
Hosts: *Paspalum trianae*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5082, *Puccinia punctata* Link IF No: 204628 Trophic mode/Guild: pathotrophy/plant pathogen  
Hosts: *Reibunium hypocarpium*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5083, *Puccinia purpurea* Cooke IF No: 209479 Trophic mode/Guild: pathotrophy/plant pathogen  
Hosts: *Sorghum halapense*, *Sorghum bicolor*, *Sorghum sp.*



*Ipomoea carnea*

Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5084, *Puccinia puta* H.S. Jacks. & Holw. ex F. Kern, Thurst. & Whetzel IF No: 306181 Trophic mode/Guild: pathotrophy/plant pathogen  
Hosts: *Ipomoea batatas*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5085, *Puccinia puttemansii* Henn. IF No: 244304 Trophic mode/Guild: pathotrophy/plant pathogen  
Hosts: *Panicum sciurotis*, *Panicum sellowii*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5086, *Puccinia pygmaea* Erikss. IF No: 143782 Trophic mode/Guild: pathotrophy/plant pathogen  
Hosts: *Agrostis sp.*, *Calamagrostis effusa*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5087, *Puccinia raunkiaeri* Ferd. & Winge IF No: 145027 Trophic mode/Guild: pathotrophy/plant pathogen  
Hosts: *Rivina humilis*



*bogotensis*, *Secale cereale*, *Triticum aestivum*

Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5088, *Puccinia reconditia* Roberge ex Desm. IF No: 145187 Trophic mode/Guild: pathotrophy/plant pathogen  
Hosts: *Bromus pitensis*, *Bromus unioloides*, *Calamagrostis bogotensis*, *Secale cereale*, *Triticum aestivum*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5089, *Puccinia rviniae* Speg. IF No: 172199 Trophic mode/Guild: pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5090, *Puccinia roseanae* Arthur IF No: 165878 Trophic mode/Guild: pathotrophy/plant pathogen  
Hosts: *Eucharis sp.*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5091, *Puccinia rouliniae* Henn. IF No: 238982 Trophic mode/Guild: pathotrophy/plant pathogen  
Hosts: *Cynanchum sp.*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5092, *Puccinia ruderaria* H.S. Jacks. & Holw. IF No: 277009 Trophic mode/Guild: pathotrophy/plant pathogen  
Hosts: *Baccharis jelskii*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5093, *Puccinia ruelliae* Lagerh. IF No: 247461 Trophic mode/Guild: pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5094, *Puccinia ruzensis* Mayor IF No: 246721 Trophic mode/Guild: pathotrophy/plant pathogen  
Hosts: *Oreomyrrhis andicola*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5095, *Puccinia salvicola* Dietel & Holw. IF No: 237646 Trophic mode/Guild: pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5096, *Puccinia sampelii* Mayor IF No: 238001 Trophic mode/Guild: pathotrophy/plant pathogen  
Hosts: *Chaenocephalus arboreus*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
5097, *Puccinia sana* H.S. Jacks. & Holw. IF No: 277390 Trophic mode/Guild: pathotrophy/plant pathogen  
Hosts: *Salvia sp.*



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5098. *Puccinia sarachae*** Mayor IF No: 141063 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Jaltomata* sp., *Saracha edulis*, *Saracha jaltomata*, *Jaltomata* cf. *repandidentata*, *Witheringia solanacea*



*Schistocarpha* sp.

Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5101. *Puccinia schistocarphae*** H.S. Jacks. & Holw. IF No: 146818 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Schistocarpha eupatorioides*,



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5099. *Puccinia schedonnardi*** Kellerm. & Swingle IF No: 279203 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Sporobolus indicus*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5102. *Puccinia schultesiaeranthi*** Pardo, Gallo, Salazar & Buriticá IF No: 646507 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Schultesiaanthus coriacea*



*Passiflora* sp., *Scleria melaleuca*, *Scleria neogranatensis*, *Scleria* sp.

Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5100. *Puccinia schileana*** Speg. IF No: 242106 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Parthenium hysterophorus*, *Viguiera* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5103. *Puccinia scleriae*** (Paszchke) Arthur IF No: 119486 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Passiflora ambigua*, *Passiflora capsularis*, *Passiflora melaleuca*, *Scleria neogranatensis*, *Scleria* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5104. *Puccinia scleritcola*** Arthur IF No: 250360 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Passiflora* sp., *Scleria bracteata*, *Scleria* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5105. *Puccinia smilacis*** Schwein. IF No: 181720 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Smilax cumanensis*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5106. *Puccinia solanicolae*** Mayor IF No: 225980 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5107. *Puccinia solani-micranthi*** Pardo IF No: 646683 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5108. *Puccinia solani-tristis*** Henn. IF No: 225821 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Solanum* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5109. *Puccinia soledadensis*** Mayor IF No: 198932 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Salvia bogotensis*, *Salvia calocalicina*, *Salvia latens*, *Salvia laurifolia*, *Salvia occidentalis*, *Salvia pauciserrata*, *Salvia scutellarioides*, *Salvia* sp., *Lamiaceae*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5110. *Puccinia sonsonensis*** Vanegas, Pardo-Cardona & Salazar-Yepez IF No: 823741 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Rhynchospora* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5111. *Puccinia sorghi*** Schwein. IF No: 194826 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Zea mays*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5112. *Puccinia sphenospora*** P. Syd. & Syd. IF No: 231109 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5113. *Puccinia splanthicola*** Mayor IF No: 196365 **Trophic mode/Guild:** pathotroph /plant pathogen



*Steiractinia oyedaeoides*, *Steiractinia* sp.

Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5114. *Puccinia steiractiniae*** H.S. Jacks. & Holw. IF No: 278776 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Steiractinia klattii*, *Steiractinia rosei*, *Steiractinia oyedaeoides*, *Steiractinia* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5115. *Puccinia striiformis*** Westend. IF No: 227064 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Calamagrostis effusa*, *Calamagrostis pitterii*, *Calamagrostis viridiflavescens*, *Dactylis glomerata*, *Holcus lanatus*, *Hordeum vulgare*, *Triticum aestivum*, *Triticum* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5116. *Puccinia striolata*** (Speg.) Arthur & J.R. Johnst. IF No: 478006 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5117. *Puccinia subcoronata*** Henn. IF No: 229282 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Cyperus diffusus*, *C. hermaphroditus*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5118. *Puccinia subdigitata*** Arthur & Holw. IF No: 229353 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Brachypodium* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5119. *Puccinia substrata*** Ellis & Barthol. IF No: 216641 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Chaetochloa geniculata*, *Digitaria*



*patula*, *Tagetes* sp.

Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5120. *Puccinia tagetiscola*** Dietel & Holw. IF No: 218560 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Tagetes erecta*, *Tagetes microglossa*, *Tagetes*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5121. *Puccinia tanacetii*** DC. IF No: 168442 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Artemisia dracunculina*, *Artemisia* sp., *Chrysanthemum* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5122. *Puccinia thalae*** Dietel IF No: 170747 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Calathea lutea*, *Calathea* sp., *Canna coccinea*, *Canna edulis*, *Canna indica*, *Canna* sp., *Maranta* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5123. *Puccinia tillandsiae*** Cummins & Pollack IF No: 322072 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Tillandsia* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5124. *Puccinia tolimensis*** Mayor IF No: 166240 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Ayapana turbacensis*, *Eupatorium* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5125. *Puccinia trifolii*** R. Hedw. IF No: 167373 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5126. *Puccinia tripsacii*** Dietel & Holw. IF No: 167347 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Tripsacum* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5127. *Puccinia varfabilis*** Grev. IF No: 162621 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Taraxacum officinale*, *Taraxacum dens-leonis*, *Taraxacum* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5128. *Puccinia varfolides*** Jørst. IF No: 121633 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Aphelandra* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5129. *Puccinia verbeniphila*** J.C. Lindq. IF No: 322076 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Verbena hispida*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniaceae  
**5130. *Puccinia vernoniae-mollis*** Mayor IF No: 157464 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Lepidaploa canescens*, *Vernonia* sp.

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Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5131. *Puccinia vietica*** J.F. Hennen & Cummins IF No: 322077 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Porophyllum ruderale*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5132. *Puccinia wedelliae*** Mayor IF No: 194480 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5133. *Puccinia zexmenilcola*** F. Kern, Cif. & Thurst. IF No: 282316 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Zexmenia iners*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5134. *Uromyces anguriae*** H.S. Jacks. & Holw. IF No: 256874 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Gurania* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5135. *Uromyces antioquiensis*** Mayor IF No: 214812 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Rhynchospora nervosa, Rhynchospora polyphylla*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5136. *Uromyces appendiculatus*** (Pers.) Link IF No: 204781 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Macroptilium atropurpureum, Macroptilium lathyroides, Phaseolus aff. dumosus, Phaseolus lunatus, Phaseolus vestitus, Phaseolus vulgaris, Phaseolus sp.*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5137. *Uromyces asclepladis*** Cooke IF No: 213741 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5138. *Uromyces beticola*** (Belynyck) Boerema, Loer. & Hamers IF No: 131936 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5139. *Uromyces bidenticola*** (Henn.) Arthur IF No: 101940 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Bidens cynapifolia, Bidens pilosa, Bidens rubifolia, Bidens squarrosa, Bidens sp.*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5140. *Uromyces bidentis*** Lagerh. IF No: 176897 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Bidens cynapifolia, Bidens pilosa*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5141. *Uromyces celosiae*** Dietel & Holw. IF No: 165885 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Iresine diffusa*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5142. *Uromyces cestri*** (Bertero ex Mont.) Lévl. IF No: 515771 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Cestrum parviflorum, Cestrum tomentosum, Cestrum sp., Solanaceae*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5143. *Uromyces csernaeanus*** Speg. IF No: 177654 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Sapium taburu*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5144. *Uromyces cianus*** H.S. Jacks. & Holw. IF No: 208759 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Iresine paniculata, Iresine sp.*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5145. *Uromyces ciliomyi*** Pat. & Har. IF No: 208689 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Bothriochloa pertusa, Botriochloa, Brachiaria distachya, Dichanthium annulatum, Dichanthium aristatum*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5146. *Uromyces colombianus*** Barrera-Enriquez & Salazar-Yepes IF No: 833211 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Struthanthus sp.*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5147. *Uromyces columbianus*** Mayor IF No: 204730 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Melanthera aspera*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5148. *Uromyces commelinae*** Cooke IF No: 205098 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Callisia cordifolia, Callisia gracilis, Callisia repens, Commelina diffusa, Commelina erecta, Commelina elegans, Commelina virginica, Commelina sp., Geogenanthus sp., Tradescantia sp.*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5149. *Uromyces costaricensis*** Syd. IF No: 262168 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Lasiacis ruscolifolia, Lasiacis sorghoidea*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5150. *Uromyces crotalariae-nitens*** Salazar-Yepes & Burticá IF No: 546499 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Crotalaria anagyroides, Crotalaria nitens*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5151. *Uromyces cruchetii*** Mayor IF No: 635265 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Borreria tenella*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5152. *Uromyces dianthi*** (Pers.) Niessl IF No: 212761 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Dianthus cariophyllus, Dianthus longeracemosus, Rhynchosia minima*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5153. *Uromyces dollcholl*** Arthur IF No: 155843 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Cajanus cajan, Cajanus indicus, Rhynchosia aff. longeracemosus, Rhynchosia minima*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5154. *Uromyces emmeorhiza*** Syd. IF No: 505813 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Emmeorhiza umbellata*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5155. *Uromyces eragrostidis*** Tracy IF No: 160891 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Eragrostis ciliaris, Eragrostis pilosa, Eragrostis tephrosanthos*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5156. *Uromyces euphorbiae*** Cooke & Peck IF No: 152953 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Chamaesyce brasiliensis, Chamaesyce hirta, Chamaesyce hypericifolia, Chamaesyce hyssopifolia, Euphorbia glomerifera, Euphorbia heterophylla, Euphorbia lasiocarpa*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5157. *Uromyces fallens*** (Arthur) Barthol. IF No: 252093 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5158. *Uromyces garani*** (DC.) G.H. Oth & Wartm. IF No: 220572 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5159. *Uromyces gigantiformis*** Salazar-Yepes & Burticá IF No: 546494 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Bidens sp.*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5160. *Uromyces gladioli*** Henn. IF No: 232342 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Gladiolus x hortulanus, Gladiolus sp.*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5161. *Uromyces guraniae*** Mayor IF No: 224356 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Gurania sp.*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5162. *Uromyces hedyssari-paniculati*** (Schwein.) Farl. IF No: 229458 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Desmodium axillare, Desmodium cajanifolium, Desmodium intortum, Desmodium mexicanum, Desmodium scorpiurus, Desmodium tortuosum, Desmodium uncinatum, Desmodium sp.*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Puccinaceae  
**5163. *Uromyces illotus*** Arthur & Holw. IF No: 237757 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Mucuna sp.*



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Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5164. *Uromyces indigoferae*** Dietel & Holw. IF No: 247710 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Indigofera trita*



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5165. *Uromyces iresines*** Lagerh. IF No: 149399 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Iresine diffusa, Iresine paniculata*



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5166. *Uromyces latrophae*** Dietel & Holw. IF No: 236615 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Manihot esculenta*



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5167. *Uromyces manihoti*** Henn. IF No: 198653 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Manihot esculenta*



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5168. *Uromyces mayorii*** Tranzschel IF No: 198615 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Chamaesyce hirta, Euphorbia orbiculata*



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5169. *Uromyces megalosporus*** Spieg. IF No: 230931 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5170. *Uromyces mullini*** J. Schröt. IF No: 201140 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Azorella crenata*



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5171. *Uromyces myrsines*** Dietel IF No: 230497 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Myrsine coriacea*



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5172. *Uromyces niterovensis*** Rangel IF No: 230463 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Panicum sellowii* *Setaria parviflora*



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5173. *Uromyces nothoscordii*** Syd. & P. Syd. IF No: 229933 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5174. *Uromyces novissimus*** Spieg. IF No: 196010 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Cayaponia racemosa, Cayaponia sp., Cissampelos sp., Luffa sp., Melothria guadalupensis*



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5175. *Uromyces novissimus var. cissampeli*** (Dietel) Berndt IF No: 545176



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5176. *Uromyces occultus*** J.C. Lindq. IF No: 307571 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Juncus densiflorus, Juncus echinocephalus*



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5177. *Uromyces phituruae*** Mayor IF No: 189783 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5178. *Uromyces polymniae*** (Henn.) Dietel & Holw. IF No: 187171 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Polymnia glabrata* *Polymnia sp.*



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5179. *Uromyces porcensis*** Mayor IF No: 187155 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5180. *Uromyces ratoides*** Jørst. IF No: 307578 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Cayaponia simplicifolia, Cayaponia sp.*



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5181. *Uromyces rumiclis*** (Schumach.) G. Winter IF No: 208977 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Rumex crispus, Rumex nepalensis, Rumex obtusifolius, Rumex sp.*



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5182. *Uromyces scleriae*** Henn. IF No: 235957 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Scleria melaleuca*



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5183. *Uromyces setariae-italicae*** Yoshino IF No: 209913 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Brachiaria humidicola, Brachiaria mutica, Brachiaria plantaginea, Brachiaria radicans, Brachiaria sp., Melinis minutiflora*



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5184. *Uromyces smilaes*** Mayor IF No: 214617 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Smilax sp.*



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5185. *Uromyces soclus*** Arthur & Holw. IF No: 214740 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Struthanthus sp.*



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5186. *Uromyces solani*** Dietel & Holw. IF No: 204819 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Solanum sp.*



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5187. *Uromyces spegazzinii*** (De Toni) Arthur IF No: 210279 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5188. *Uromyces striatus*** J. Schröt. IF No: 207871 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Medicago hispida, Medicago sativa*



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5189. *Uromyces tenuistipes*** Dietel & Holw. IF No: 166778 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Desmodium adscendens*



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5190. *Uromyces transversalis*** (Thüm.) G. Winter IF No: 209938 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Gladiolus sp.*



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5191. *Uromyces triquetrus*** Cooke IF No: 121556 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Hypericum silenoides, Hypericum thesifolium, Hypericum uliginosum, Hypericum sp.*



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5192. *Uromyces urbanianus*** Henn. IF No: 160395 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Antidaphne fendleri, Loranthus leptostachyus, Loranthus sp., Oryctanthus botryostachys, Oryctanthus occidentalis, Oryctanthus spicatus, Oryctanthus sp., Pithirusa pyrifolia*



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5193. *Uromyces viclae-fabae*** (Pers.) J. Schröt. IF No: 281700 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Vicia faba*



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5194. *Uromyces vigneae*** Barclay IF No: 231908 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Lens culinaris, Lens sp., Vigna luteola, Vigna occidentalis, Vigna vexillata, Vigna sp.*



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5195. *Hyalopora obovata*** (Arthur) Cummins IF No: 287064 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5196. *Melampsordium betulinum*** (Pers.) Kleb. IF No: 205898 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5197. *Melampsordium hirsukanum*** S. Ito ex Hirats. f. IF No: 267189 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Alnus acuminata, Alnus jorullensis, Alnus sp.*



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5198. *Miliesia cupheae*** (Henn.) Buriticá IF No: 413469 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Basidiomycota, Puccinlomycotina, Puccinlomycetetes, Incertae sedis, Pucciniales, Puccinlanceae  
**5199. *Miliesia lygodi*** (Har.) Buriticá IF No: 442900 Trophic mode/Guild: pathotroph/plant pathogen

CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniastraceae  
5200. *Thekopsora minima* (Arthur) P. Syd. & Syd. IF No: 546834 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Vaccinium corymbosum*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniastraceae  
5201. *Uredinopsis macrospora* (Cooke) Magnus IF No: 119225 Trophic mode/Guild: pathotroph/ plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniastraceae  
5202. *Uredinopsis mayorana* Dietel IF No: 170752 Trophic mode/Guild: pathotroph /plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniastraceae  
5203. *Uredinopsis pteridis* Dietel & Holw. IF No: 170724 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Pteridium aquilinum*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniastraceae  
5204. *Alveolaria cordiae* Lagerh. ex Sacc. IF No: 206335 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Cordia acuta*, *Cordia cylindrostachys*, *Cordia ferruginea*, *Cordia laxiflora*, *Cordia spinescens*, *Cordia* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniastraceae  
5205. *Baeodromus eupatori* (Arthur) Arthur IF No: 236709 Trophic mode/Guild: pathotroph/ plant pathogen Hosts: *Ageratina pichinchensis*, *Ageratina* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniastraceae  
5206. *Baeodromus senecionis* P. Syd. & Syd. IF No: 236934 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Senecio formosus*, *Senecio* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniastraceae  
5207. *Charadonia acuta* Buriticá & J.F. Hennen IF No: 111241 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Eupatorium amplum*, *Eupatorium* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniastraceae  
5208. *Charadonia gynoche* F. Kern IF No: 266709 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Ageratina ampla*, *Ageratina angustifolia*, *Ageratina pomaderifolia*, *Ageratina popayanense*, *Ageratina tinifolia*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniastraceae  
5209. *Clonothrix praelonga* (G. Winter) Arthur IF No: 121205 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Ageratina pomaderifolia*, *Ageratina popayanensis*, *Austro eupatorium inulifolium*, *Chromolaena odorata*, *Chromolaena tacotana*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniastraceae  
5210. *Diastella holwayi* (H.S. Jacks.) Buriticá & J.F. Hennen IF No: 111428 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Salpichroa tristis*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniastraceae  
5211. *Diastella portoricensis* (Whetzel & Olive) Buriticá & J.F. Hennen IF No: 111429 Trophic mode/Guild: pathotroph /plant pathogen Hosts: *Mikania guaco*, *Mikania* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniastraceae  
5212. *Puccinosira albida* Buriticá & Pardo-Card. IF No: 464066 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Triumfetta lappula*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniastraceae  
5213. *Puccinosira arthurii* Buriticá & J.F. Hennen IF No: 111870 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Ageratina gracilis*, *Ageratina pichinchensis*, *Eupatorium macrophyllum*, *Eupatorium* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniastraceae  
5214. *Puccinosira pallidula* (Speg.) Henn. IF No: 121040 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Pavonia paniculata*, *Triumfetta lappula*, *Triumfetta mollissima*, *Triumfetta semitriloba*, *Triumfetta* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniastraceae  
5215. *Puccinosira solani* Lagerh. ex Sacc. IF No: 184937 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Cestrum* sp., *Solanum aphyodendron*, *Solanum* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Pucciniastraceae  
5216. *Puccinosira umanensis* Buriticá IF No: 442881 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Acalypha* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Ravenelliaceae  
5217. *Diabole cubensis* (Arthur & J.R. Johnst.) Arthur IF No: 262443 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Fabaceae*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Ravenelliaceae  
5218. *Dicheirnia bhata* (Berk. & M.A. Curtis) Arthur IF No: 120003 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Erythrina glauca*, *Erythrina poeppigiana*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Ravenelliaceae  
5219. *Dicheirnia manosensis* (Henn.) Cummins IF No: 270465 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Lonchocarpus* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Ravenelliaceae  
5220. *Diorchidium brachiarum* Wakef. & Hansf. IF No: 296783 Trophic mode/Guild: pathotroph/ plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Ravenelliaceae  
5221. *Diorchidium tricholaeae* Syd. & P. Syd. IF No: 191926 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Ravenelliaceae  
5222. *Kernkampella appendiculata* (Lagerh. & Dietel) G.F. Laundon IF No: 316037 Trophic mode/Guild: pathotroph /plant pathogen Hosts: *Phyllanthus botryanthus*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Ravenelliaceae  
5223. *Ravenella cogniana* Henn. IF No: 163473 Trophic mode/Guild: pathotroph /plant pathogen Hosts: *Acacia* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Ravenelliaceae  
5224. *Ravenella hermosa* Cummins & J.W. Baxter IF No: 322371 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Leucaena* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Ravenelliaceae  
5225. *Ravenella indigoferae* Tranzschel ex Dietel IF No: 167950 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Indigofera subulata*, *Indigofera suffruticosa*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Ravenelliaceae  
5226. *Ravenella malnsiana* Arthur & Holw. IF No: 178822 Trophic mode/Guild: pathotroph/ plant pathogen Hosts: *Mimosa albida*, *Mimosa floribunda*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Ravenelliaceae  
5227. *Ravenella mimosae-pudicae* F. Kern, Thurst. & Whetzel IF No: 271215 Trophic mode/Guild: pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Ravenelliaceae  
5228. *Ravenella mimosae-sensitivae* Henn. IF No: 151457 Trophic mode/Guild: pathotroph/ plant pathogen Hosts: *Mimosa alba*, *Mimosa albida*, *Mimosa sensitiva*, *Mimosa* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Ravenelliaceae  
5229. *Ravenella mirandensis* F. Kern & Thurst. IF No: 290424 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Senna pallida*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Ravenelliaceae  
5230. *Ravenella pithecellobii* Arthur IF No: 528798 Trophic mode/Guild: pathotroph /plant pathogen Hosts: *Pithecellobium dulce*, *Pithecellobium lanceolatum*, *Pithecellobium* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Ravenelliaceae  
5231. *Ravenella stevensii* Arthur IF No: 248774 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Acacia riparia*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Ravenelliaceae  
5232. *Sphenospora kevorkianii* Linder IF No: 291125 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Comparettia* sp., *Epidendrum* sp., *Gongora* sp., *Miltonia warszewiczii*, *Miltoniopsis vexillaria*, *Oncidium* sp., *Pleurothallis* sp., *Rodriguezia granadensis*, *Stanhopea* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Ravenelliaceae  
5233. *Sphenospora smilacina* Syd. IF No: 208257 Trophic mode/Guild: pathotroph /plant pathogen Hosts: *Smilax spinosa*, *Smilax* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Ravenelliaceae  
5234. *Ypsilopora tucumanensis* J.R. Hern. & J.F. Hennen IF No: 489194 Trophic mode/Guild: pathotroph/plant pathogen Hosts: *Inga edulis*, *Inga* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Skierkiaceae  
5235. *Skierka cristata* (Speg.) Mains IF No: 262335 Trophic mode/Guild: pathotroph /plant pathogen Hosts: *Cupania* sp.



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Sphaerophragmiaceae  
5236. *Austropuccinia psidii* (G. Winter) Beenken IF No: 819171 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Callistemon citrinus*, *Eucalyptus*

*grandis*, *Eugenia* sp., *Myrcia acuminata*, *Myrcia fallax*, *Myrcia paivae*, *Myrcia popayanensis*, *Myrcia splendens*, *Myrcia xylopioides*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Sphaerophragmiaceae  
5237. *Sphaerophragmium acaciae* (Cooke) Magnus IF No: 147532 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Albizia* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Tranzscheliaceae  
5238. *Tranzschella arthurii* Tranzschel & M.A. Litv. IF No: 119907 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Prunus serotina* subsp. *capuli*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Tranzscheliaceae  
5239. *Tranzschella discolor* (Fuekel) Tranzschel & M.A. Litv. IF No: 251863 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Prunus armeniaca*,

*Prunus domestica*, *Prunus persica*, *Prunus* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Uncolaceae  
5240. *Callidion cenicaceae* Salazar-Yepes & Buriticá IF No: 546505 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Polypodium adnatum*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Uncolaceae  
5241. *Callidion dumontii* Buriticá IF No: 310056 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Uncolaceae  
5242. *Uncol diazii* Buriticá & P.A. Rodr. IF No: 467456 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Thelypteris* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Uropyxidaceae  
5243. *Canasta amphillophii* López-Alzate & Salazar-Yepes IF No: 823066 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Amphiphilium paniculatum*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Uropyxidaceae  
5244. *Canasta garcesii* (F. Kern & Thurst.) A.A. Carvalho & J.F. Hennen IF No: 513364 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Arrabidaea magnifica*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Uropyxidaceae  
5245. *Dasyaspora gregaria* (Kunze) Henn. IF No: 231652 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Xylopia* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Uropyxidaceae  
5246. *Prospodium aculeatum* (Cummins) A.A. Carvalho & J.F. Hennen IF No: 513366 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Tecoma stans* var.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Uropyxidaceae  
5247. *Prospodium appendiculatum* (Kuntze) Arthur IF No: 119705 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Tecoma stans*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Uropyxidaceae  
5248. *Prospodium cadenae* Salazar-Yepes & Buriticá IF No: 546496 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Tabebuia rosea*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Uropyxidaceae  
5249. *Prospodium delostomae* (H.S. Jacks. & Holw.) López-Alzate & Salazar-Yepes IF No: 823068 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:**



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Uropyxidaceae  
5250. *Prospodium trinidadense* Cummins IF No: 123504 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** Bignoniaceae



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Uropyxidaceae  
5251. *Prospodium tuberculatum* (Kuntze) Arthur IF No: 121565 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Lantana camara*, *Lantana lopez-palacii*,

*Lantana trifolia*, *Lantana* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Uropyxidaceae  
5252. *Prospodium vunguntenii* (Mayor) Dietel IF No: 255441 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Lippia americana*, *Lippia schlimii*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Uropyxidaceae  
5253. *Uropyxis croatariae* Arthur IF No: 141173 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Uropyxidaceae  
5254. *Uropyxis farlowii* (Arthur) J.W. Baxter IF No: 307601 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Dalea* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5255. *Aecidium adenariae* Mayor IF No: 202055 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Adenaria floribunda*, *Adenaria floribunda* fo. *purpurata*, *Adenaria* sp., *Pehria compacta*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5256. *Aecidium amagense* Mayor IF No: 158503 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5257. *Aecidium aridum* Dietel & Neger IF No: 230061 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Berberis* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5258. *Aecidium bocconiae* Mayor IF No: 167740 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5259. *Aecidium bogotense* Mayor IF No: 166284 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5260. *Aecidium bomareae* Mayor IF No: 166474 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5261. *Aecidium borneriae* Pat. IF No: 165859 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Hemidiodia ocyimifolia*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5262. *Aecidium brasiliense* Dietel IF No: 178616 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Cordia curassavica*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5263. *Aecidium cilibadlii* Syd. & P. Syd. IF No: 191948 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5264. *Aecidium conyzae-colombiensis* Pardo-Card. IF No: 464022 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Conyza bonariensis*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5265. *Aecidium detritum* Thüm. IF No: 187276 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Phyllanthus salvifolius*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5266. *Aecidium erigeronis* F. Kern & Whetzel IF No: 264145 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5267. *Aecidium fuchsiae* H.S. Jacks. & Holw. IF No: 265395 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Fuchsia putumayensis*, *Fuchsia* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5268. *Aecidium gymnomiiae* Mayor IF No: 234223 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5269. *Aecidium hellopsidis* Mayor IF No: 143932 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5270. *Aecidium huallagense* Henn. IF No: 147074 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Guatteria* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5271. *Aecidium kuntzii-friderici* Magnus IF No: 143983 **Trophic mode/Guild:** pathotrophy/plant pathogen **Hosts:** *Gentiana cocuyana*

CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5272. *Aecidium lantanae*** Mayor IF No: 237353 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Lantana hispida*, *Lantana lopez-palacii*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5273. *Aecidium leonense*** Cummins IF No: 283958 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Dioscorea* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5274. *Aecidium libbi*** Mayor IF No: 250188 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Liabum igniarium*, *Liabum melastomoides*, *Munnozia senecionidis*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5275. *Aecidium manettiae*** F. Kern & Wnetzel IF No: 270480 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5276. *Aecidium medellinense*** Mayor IF No: 175081 **Trophic mode/Guild:** pathotroph /plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5277. *Aecidium paramense*** Mayor IF No: 211376 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Fleischmannia obscurifolia*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5278. *Aecidium puracense*** Petr. IF No: 292206 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Dioscorea* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5279. *Aecidium tournafortiae*** Henn. IF No: 168844 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Tournefortia bicolor*, *Tournefortia peruviana*, *Tournefortia scabrida*, *Tournefortia* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5280. *Aecidium tubulosum*** Pat. & Gaillard IF No: 157628 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5281. *Aecidium turnerae*** Henn. IF No: 167741 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Turnera ulmifolia*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5282. *Aecidium vemoniae-mollis*** Mayor IF No: 172183 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5283. *Aecidium xyloplae*** Henn. IF No: 166047 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Xylopia* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5284. *Caecoma cyclostoma*** Lévl. IF No: 205516 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Conyza bonariensis*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5285. *Caecoma occidentale*** Arthur IF No: 197132 **Trophic mode/Guild:** pathotroph /plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5286. *Desmellea anelmae*** (Henn.) Syd. & P. Syd. IF No: 431570 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Dennstaedtia cicutaria*, *Dryopteris* sp., *Pityrogramma trifoliata*, *Peris podophylla*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5287. *Desmosorus oncidii*** Ritschel, Oberw. & Berndt IF No: 356750 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Orchis* sp., *Stelis* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5288. *Eadythea berberidis*** (Lagerh. ex Arthur) H.S. Jacks. IF No: 258342 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Berberis glauca*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5289. *Eadythea palmae*** (J.F. Hennen & Y. Ono) Cummins & Y. Hirats. IF No: 115162 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5290. *Eadythea tenella*** H.S. Jacks. & Holw. IF No: 211257 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Berberis goudotii*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5291. *Hemileia vastatrix*** Berk. & Broome IF No: 182962 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Coffea arabica*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5292. *Hennelia ditella*** Burticá IF No: 413174 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Annona ambotay*, *Annona* sp., *Annonaceae*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5293. *Neophytopella ampelopsidis*** (Dietel & P. Syd.) Jing X. Ji & Kakish. IF No: 830298



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5294. *Neophytopella uva*** (Burticá & J.F. Hennen) Jing X. Ji & Kakish. IF No: 829735 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Vitis rotundifolia*, *Vitis* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5295. *Neophytopella vitis*** (P. Syd.) Jing X. J. & Kakish. IF No: 829736



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5296. *Uredo agerati*** Mayor IF No: 209071 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5297. *Uredo amagensis*** Mayor IF No: 206745 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5298. *Uredo anisoderma*** P. Syd. & Syd. IF No: 586046 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Lepidaploa canescens*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5299. *Uredo anthurii*** Har. IF No: 169708 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Anthurium flexuosum*, *Anthurium longgeniculatum*, *Anthurium* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5300. *Uredo archeriana*** F. Kern, Cif. & Thurst. IF No: 257216 **Trophic mode/Guild:** pathotroph/ plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5301. *Uredo baccharidis-anomalae*** Mayor IF No: 223620 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Baccharis anomala*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5302. *Uredo calaseae*** Mayor IF No: 243749 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5303. *Uredo calotropidis*** Cummins IF No: 344311 **Trophic mode/Guild:** pathotroph/ plant pathogen **Hosts:** *Calotropis procera*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5304. *Uredo chusqueae*** Pardo-Card. IF No: 442883 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5305. *Uredo clusiae*** Arthur IF No: 229014 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Clusia* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5306. *Uredo cundinamaricensis*** Mayor IF No: 232546 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Apium ternatum* var. *ranunculifolium*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5307. *Uredo cyathulae*** Mayor IF No: 218382 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Cyathula achyranthoides*, *Cyathula* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5308. *Uredo dioclecola*** F. Kern & Thurst. IF No: 307380 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Dioclea columbiana*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5309. *Uredo diplostephii*** F. Kern & Thurst. IF No: 307382 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Diplostephium eriphorum*, *Diplostephium* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5310. *Uredo epidendri*** Henn. IF No: 194871 **Trophic mode/Guild:** pathotroph/plant pathogen



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5311. *Uredo eupatoriorum* Mayor IF No: 226417 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Asplundianthus densus*, *Candylidium iresinoides*,

*Critoniella vargasiana*, *Fleischmannia microstemon*, *Lourteigia ballotifolia*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5312. *Uredo famelica* Arthur & Cummins IF No: 264636 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Mucuna hottonii*, *Mucuna* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5313. *Uredo guacae* Mayor IF No: 190743 **Trophic mode/ Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5314. *Uredo gynoxidis* H.S. Jacks. & Holw. IF No: 266712 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Gynoxys sancti-antonii*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5315. *Uredo hamellae* Arthur IF No: 179242 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Hamelia patens*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5316. *Uredo hymenaeae* Mayor IF No: 184667 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5317. *Uredo hypoxidis* (Bres.) Henn. IF No: 119101 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Hypoxis decumbens*, *Hypoxis hirsuta*, *Hypoxis* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5318. *Uredo hypoxidis-atrorubens* Mayor IF No: 191931 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Hyptis atrorubens*, *Hyptis lantanifolia*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5319. *Uredo kyllingiae* Henn. IF No: 119160 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5320. *Uredo lafoenseae* H.S. Jacks. & Holw. IF No: 204644 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Lafoesia speciosa*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5321. *Uredo mandevillae* Mayor IF No: 234545 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5322. *Uredo muelhlenbeckiae* Pardo-Card. IF No: 464129 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Eleutheranthera tenella*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5323. *Uredo meridae* F. Kern, Thurst. & Whetzel IF No: 270956 **Trophic mode/Guild:** pathotroph/ plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5324. *Uredo mirinis* González-Ceballos, Salazar-Yepes & Buriticá IF No: 828026 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Solanum pseudocapsicum*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5325. *Uredo muelhlenbeckiae* H.S. Jacks. & Holw. IF No: 119285 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Muehlenbeckia* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5326. *Uredo myrciae* Mayor IF No: 141889 **Trophic mode/ Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5327. *Uredo nephrolepis* Dietel IF No: 142518 **Trophic mode/Guild:** pathotroph/ plant pathogen **Hosts:** *Nephrolepis pendula*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5328. *Uredo neurolepis* Pardo-Card. IF No: 464191 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Neurolepis aperta*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5329. *Uredo nidularii* Henn. IF No: 144471 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Bromelia* sp., *Guzmania mosquerae*, *Guzmania musaica*, *Guzmania* sp., *Tillandsia* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5330. *Uredo noelivola* H.S. Jacks. & Holw. IF No: 144415 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Cyperus ferax*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5331. *Uredo omithidii* F. Kern, Cif. & Thurst. IF No: 273065 **Trophic mode/Guild:** pathotroph/ plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5332. *Uredo pehrtae* F. Kern & Thurst. IF No: 291798 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Adenaria floribunda*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5333. *Uredo philodendri* Pardo-Card. IF No: 489552 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Philodendron* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5334. *Uredo pleurothallidis* Keissl. IF No: 195341 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Pleurothallis mathewsii*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5335. *Uredo psychotricola* Henn. IF No: 157768 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Hoffmannia subauriculata*, *Palicourea* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5336. *Uredo quitensis* H.S. Jacks. & Holw. IF No: 275993 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Valeriana* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5337. *Uredo rectangulata* F.C. Albuquerque IF No: 325329 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5338. *Uredo rubescens* Arthur IF No: 174628 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Dorstenia contrajerva*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5339. *Uredo salviarum* Mayor IF No: 171884 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5340. *Uredo scabiles* Cooke IF No: 161628 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Maxillaria venusta*, *Vanilla planifolia*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5341. *Uredo terramii* Mayor IF No: 170850 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5342. *Uredo theresiae* Neger IF No: 170918 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Crotalaria anagyroides*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5343. *Uredo tollmensis* F. Kern & Whetzel IF No: 280357 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Solanum* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5344. *Uredo torulinii* Henn. IF No: 638018 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Cyperus ferax*



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5345. *Uredo trichiliae* Arthur IF No: 152675 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Trichilia* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
5346. *Uredo vernoniae* Mayor IF No: 150875 **Trophic mode/Guild:** pathotroph/plant pathogen

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Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5347. *Uredo zarumae*** H.S. Jacks. & Holw. IF No: 177391 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Clusia* sp.



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Pucciniales, Incertae sedis  
**5348. *Uredo zeugites*** Arthur & Holw. IF No: 121704 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Zeugites americanus*, *Zeugites mexicanus*,



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Septobasidiales, Septobasidiaceae  
**5349. *Aphelariopsis colombiana*** (A.L. Weiden) Jülich IF No: 110477 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Basidiomycota, Pucciniomycotina, Pucciniomycetes, Incertae sedis, Septobasidiales, Septobasidiaceae  
**5350. *Septobasidium rhabarbarinum*** (Mont.) Bres. IF No: 219459 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Basidiomycota, Pucciniomycotina, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**5351. *Kryptastrina inclusa*** Oberw. IF No: 129663



Fungi, Basidiomycota, Ustilaginomycotina, Exobasidiomycetes, Exobasidiomycetidae, Entylomatales, Entylomataceae  
**5352. *Entyloma amaranthi*** Mol. -Val. IF No: 113207 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Amaranthus dubius*



Fungi, Basidiomycota, Ustilaginomycotina, Exobasidiomycetes, Exobasidiomycetidae, Entylomatales, Entylomataceae  
**5353. *Entyloma australe*** Speg. IF No: 217682 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Physalis peruviana* **Dept.:** ANT, CUN



Fungi, Basidiomycota, Ustilaginomycotina, Exobasidiomycetes, Exobasidiomycetidae, Entylomatales, Entylomataceae  
**5354. *Entyloma bidentis*** Henn. IF No: 230677 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Bidens pilosa* **Dept.:** CUN, QUI



Fungi, Basidiomycota, Ustilaginomycotina, Exobasidiomycetes, Exobasidiomycetidae, Entylomatales, Entylomataceae  
**5355. *Entyloma browalliae*** Syd. IF No: 258965 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Browallia americana* **Dept.:** CUN



Fungi, Basidiomycota, Ustilaginomycotina, Exobasidiomycetes, Exobasidiomycetidae, Entylomatales, Entylomataceae  
**5356. *Entyloma calendulae*** (Oudem.) de Bary IF No: 221949 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Calendula officinalis* **Dept.:** CUN, QUI



Fungi, Basidiomycota, Ustilaginomycotina, Exobasidiomycetes, Exobasidiomycetidae, Entylomatales, Entylomataceae  
**5357. *Entyloma compositarum*** Farl. ex G.P. Clinton IF No: 622329 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Eupatorium* sp.



Fungi, Basidiomycota, Ustilaginomycotina, Exobasidiomycetes, Exobasidiomycetidae, Entylomatales, Entylomataceae  
**5358. *Entyloma dahliae*** Syd. & P. Syd. IF No: 140741 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Dahlia pinnata*, *Dahlia* sp., *Dahlia variabilis* **Dept.:** ANT, CAL, CUN



Fungi, Basidiomycota, Ustilaginomycotina, Exobasidiomycetes, Exobasidiomycetidae, Entylomatales, Entylomataceae  
**5359. *Entyloma galinsogae*** Syd. & P. Syd. IF No: 244269 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Galinsoga caracasana*, *Galinsoga* sp. **Dept.:** ANT, CUN, QUI, VAC



Fungi, Basidiomycota, Ustilaginomycotina, Exobasidiomycetes, Exobasidiomycetidae, Entylomatales, Entylomataceae  
**5360. *Entyloma splianthis*** Speg. IF No: 235991 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Acmella oppositifolia*, *Acmella* sp. **Dept.:** ANT, CUN, QUI



Fungi, Basidiomycota, Ustilaginomycotina, Exobasidiomycetes, Exobasidiomycetidae, Exobasidiales, Cryptobasidiaceae  
**5361. *Acaromyces ingoldii*** Boekhout, Scorzetti, Gerson & Szejnib. ex Denchev & T. Denchev IF No: 558279 **Trophic mode/Guild:** saprotroph/yeast isolated from



Fungi, Basidiomycota, Ustilaginomycotina, Exobasidiomycetes, Exobasidiomycetidae, Exobasidiales, Exobasidiaceae  
**5362. *Exobasidium gaylussaciae*** Henn. IF No: 244270 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Gaultheria anastomosans* **Dept.:** ANT



Fungi, Basidiomycota, Ustilaginomycotina, Exobasidiomycetes, Exobasidiomycetidae, Geogfischeriales, Eballistraceae  
**5363. *Eballistra lineata*** (Cooke) R. Bauer, Begerow, A. Nagler & Oberw. IF No: 467756 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Gynerium argenteum* **Dept.:** BOY



Fungi, Basidiomycota, Ustilaginomycotina, Exobasidiomycetes, Exobasidiomycetidae, Geogfischeriales, Eballistraceae  
**5364. *Eballistra oryzae*** (Syd. & P. Syd.) R. Bauer, Begerow, A. Nagler & Oberw. IF No: 467754 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Oryza sativa* **Dept.:** CES



Fungi, Basidiomycota, Ustilaginomycotina, Exobasidiomycetes, Exobasidiomycetidae, Geogfischeriales, Geogfischeriaceae  
**5365. *Jamesdicksonia brunki*** (Ellis & Galloway) J. Walker & R.G. Shivas IF No: 446564 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Hyparrhenia rufa* **Dept.:** BOY



Fungi, Basidiomycota, Ustilaginomycotina, Exobasidiomycetes, Exobasidiomycetidae, Geogfischeriales, Tilletiaceae  
**5366. *Tolyposporella chrysopogonis*** G.F. Atk. IF No: 205765 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Hyparrhenia rufa* **Dept.:** CAQ



Fungi, Basidiomycota, Ustilaginomycotina, Exobasidiomycetes, Exobasidiomycetidae, Tilletiales, Tilletiaceae  
**5367. *Conidiosporomyces ayresii*** (Berk.) Vánky & R. Bauer IF No: 354749 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Panicum maximum* **Dept.:** ANT, MET, QUI, RIS, SAN, VAC



Fungi, Basidiomycota, Ustilaginomycotina, Exobasidiomycetes, Exobasidiomycetidae, Tilletiales, Tilletiaceae  
**5368. *Oberwinkleria anulata*** Vánky & C. Vánky IF No: 363449 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Lorenzochloa erectifolia* **Dept.:** SAN



Fungi, Basidiomycota, Ustilaginomycotina, Exobasidiomycetes, Exobasidiomycetidae, Tilletiales, Tilletiaceae  
**5369. *Tilletia carles*** (DC.) Tul. & C. Tul. IF No: 156642 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Triticum aestivum* **Dept.:** NAR



Fungi, Basidiomycota, Ustilaginomycotina, Exobasidiomycetes, Exobasidiomycetidae, Tilletiales, Tilletiaceae  
**5370. *Tilletia colombiana*** Vánky IF No: 414281 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Brachypodium mexicanum* **Dept.:** CUN



Fungi, Basidiomycota, Ustilaginomycotina, Exobasidiomycetes, Exobasidiomycetidae, Tilletiales, Tilletiaceae  
**5371. *Tilletia laevis*** J.G. Kühn IF No: 120748 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Triticum aestivum*



Fungi, Basidiomycota, Ustilaginomycotina, Exobasidiomycetes, Exobasidiomycetidae, Tilletiales, Tilletiaceae  
**5372. *Tilletia rugispora*** Ellis IF No: 175708 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Paspalum paniculatum* **Dept.:** ANT, CAU, VAC



Fungi, Basidiomycota, Ustilaginomycotina, Malasseziomycetes, Incertae sedis, Malasseziales, Malasseziaceae  
**5373. *Malassezia furfur*** (C.P. Robin) Bail. IF No: 121793 **Trophic mode/Guild:** human pathogen/yeast



Fungi, Basidiomycota, Ustilaginomycotina, Malasseziomycetes, Incertae sedis, Malasseziales, Malasseziaceae  
**5374. *Malassezia pachydermatis*** (Weidman) C.W. Dodge IF No: 253759 **Trophic mode/Guild:** human pathogen/yeast



Fungi, Basidiomycota, Ustilaginomycotina, Malasseziomycetes, Incertae sedis, Malasseziales, Malasseziaceae  
**5375. *Malassezia restricta*** E. Guého, J. Guillot & Midgley IF No: 437921 **Trophic mode/Guild:** human pathogen/yeast



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Anthracoideaceae  
**5376. *Anthracoidea altiphila*** Vánky & M. Piepenbr. IF No: 362223 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Carex chordalis*, *Carex fecunda*, *Carex jamesonii*, *Carex lemniiana*, *Carex pichinchensis* **Dept.:** BOY, CAU, CUN, HUI, NAR, QUI, RIS, SAN, TOL



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Anthracoideaceae  
**5377. *Anthracoidea caribis*** (Pers.) Bref. IF No: 199403 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Anthracoideaceae  
**5378. *Anthracoidea pannucea*** (Liro) Vánky IF No: 416090 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Anthracoideaceae  
**5379. *Anthracoidea uleana*** (Syd. & P. Syd.) Vánky IF No: 534432 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Carex bonplandii* **Dept.:** CAU, CUN, HUI, MAG, MET, PUT, QUI, SAN, TOL, VAC



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Anthracoideaceae  
**5380. *Cintractia amazonica*** Syd. & P. Syd. IF No: 232179 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Rhynchospora barbata* **Dept.:** MET



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Anthracoideaceae  
**5381. *Cintractia axicola*** (Berk.) Cornu IF No: 196424 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Fimbristylis dichotoma*, *Fimbristylis diphylla* **Dept.:** ANT, CAQ, SAN, VAC



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Anthracoideaceae  
**5382. *Cintractia limbita*** G.P. Clinton IF No: 127603 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Cyperus ferax*, *Cyperus mutsii*, *Cyperus odoratus*, *Cyperus rotundus* **Dept.:** CES, COR, SUC, TOL, VAC



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Anthracoideaceae  
5383. *Cintractia occulta* Mol.-Val. IF No: 113167 **Trophic mode/Guild:** pathotroph /plant pathogen



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Anthracoideaceae  
5384. *Cintractia vesiculata* Mol.-Val. IF No: 113168 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Anthracoideaceae  
5385. *Fansia chardoniana* Zundel IF No: 286441 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Carex polystachya* **Dept.:** ANT



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Anthracoideaceae  
5386. *Fansia corniculata* Vánky IF No: 355518 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Carex jamesonii*, *Carex lemanneliana*, *Carex luridiformis*, *Carex pichinchensis* **Dept.:** CUN, NAR, TOL



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Anthracoideaceae  
5387. *Fansia thuenenii* (A.A. Fisch. Waidh.) Nannf. IF No: 297419 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Carex haenkeana* **Dept.:** CUN, HUI



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Anthracoideaceae  
5388. *Fansia venezuelana* Zundel IF No: 286444 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Carex polystachya*, *Carex porrecta* **Dept.:** ANT, CAU, NAR, QUI



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Anthracoideaceae  
5389. *Kuntzeomyces ruiziana* M. Piepenbr. IF No: 467777 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Rhynchospora ruiziana* **Dept.:** CUN,



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Anthracoideaceae  
5390. *Kuntzeomyces ustilaginoideus* (Henn.) Sacc. & P. Syd. IF No: 156437 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Rhynchospora macrochaeta*, *Rhynchospora* sp. **Dept.:** BOY, CUN, HUI, NAR



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Anthracoideaceae  
5391. *Leucocintractia leucoderma* (Berk.) M. Piepenbr. IF No: 466390

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Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Anthracoideaceae  
5392. *Leucocintractia scleriae* (DC.) M. Piepenbr., Begerow & Oberw. IF No: 459661 **Hosts:** *Rhynchospora corymbosa*, *Rhynchospora* sp. **Dept.:** ANT, CAU, VAC



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Anthracoideaceae  
5393. *Plicocintractia fimbriatylidcola* (Pavgl & Mundk.) Vánky IF No: 510113 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Fimbristylis spadicea* **Dept.:** COR,



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Anthracoideaceae  
5394. *Testicularia minor* (Juel) L. Ling IF No: 306769 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Rhynchospora corymbosa* **Dept.:** ANT



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Anthracoideaceae  
5395. *Trichocintractia utriculicola* (Henn.) M. Piepenbr. IF No: 414305 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Rhynchospora corymbosa* **Dept.:** ANT, BOY, CHO, MET, SAN



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Anthracoideaceae  
5396. *Ustanclosporium neomontagnei* M. Piepenbr. & Begerow IF No: 466411 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Rhynchospora globosa*



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Anthracoideaceae  
5397. *Ustanclosporium rhynchosporae* Vánky IF No: 450583 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Rhynchospora rugosa* **Dept.:** ANT



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Anthracoideaceae  
5398. *Ustanclosporium standleyanum* (Zundel) M. Piepenbr. IF No: 466418 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Rhynchospora caucana*, *Rhynchospora rugosa* **Dept.:** ANT, PUT, SAN



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Anthracoideaceae  
5399. *Ustanclosporium taubertianum* (Henn.) M. Piepenbr. & Begerow IF No: 466419 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Rhynchospora tenuis* **Dept.:** SAN, VAC



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Anthracoideaceae  
5400. *Anthracozygote panicol-leucophaeae* (Bref.) McTaggart & R.G. Shivas IF No: 801662 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Paspalum saccharoides*, *Trichachne insularis* **Dept.:** CES, VAC



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Ustilaginaceae  
5401. *Mecalonomyces spermophorus* (Berk. & M.A. Curtis ex de Toni) Vánky IF No: 488076 **Trophic mode/Guild:** pathotroph/yeast



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Ustilaginaceae  
5402. *Moeszomyces aphidis* (Henninger & Windisch) Q.M. Wang, Begerow, F.Y. Bai & Boekhout IF No: 812715 **Trophic mode/Guild:** saprotroph/yeast



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Ustilaginaceae  
5403. *Moeszomyces parantarcticus* (Sugita, M. Takash., Mekha & Poonwan) Q.M. Wang, Begerow, F.Y. Bai & Boekhout IF No: 812717 **Trophic mode/Guild:** saprotroph/yeast



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Ustilaginaceae  
5404. *Pseudozyma hubelensis* F.Y. Bai & Q.M. Wang IF No: 357370 **Trophic mode/Guild:** saprotroph/yeast



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Ustilaginaceae  
5405. *Pseudozyma prunii* G.Y. Liou, Y.H. Wei & F.L. Lee IF No: 514357 **Trophic mode/Guild:** saprotroph/yeast



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Ustilaginaceae  
5406. *Sporisorium bicorne* (Henn.) Vánky IF No: 415726 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Andropogon bicornis* **Dept.:** RIS



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Ustilaginaceae  
5407. *Sporisorium concealatum* (Zundel) M. Piepenbr. IF No: 489560 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Ischaemum latifolium*, *Panicum pilosum* **Dept.:** ANT



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Ustilaginaceae  
5408. *Sporisorium cordobense* (Speg.) Vánky IF No: 464141 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Trichachne insularis* **Dept.:** CES, HUI, VAC



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Ustilaginaceae  
5409. *Sporisorium cruentum* (J.G. Kühn) Vánky IF No: 105795 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Sorghum bicolor* **Dept.:** VAC



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Ustilaginaceae  
5410. *Sporisorium culmiperdum* (J. Schröt.) Vánky IF No: 357773 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Andropogon bicornis* **Dept.:** CAQ, CAS, CHO, MET, PUT, SUC



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Ustilaginaceae  
5411. *Sporisorium holwayi* (G.P. Clinton & Zundel) Vánky IF No: 360466 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Andropogon bicornis* **Dept.:** ANT, MET



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Ustilaginaceae  
5412. *Sporisorium microsporium* (J. Schröt. & Henn.) M. Piepenbr. IF No: 460501 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Ustilaginaceae  
5413. *Sporisorium paspali-notati* (Henn. ex G.P. Clinton) M. Piepenbr. IF No: 509502 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Paspalum notatum*, *Paspalum plicatulum* **Dept.:** VAC



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Ustilaginaceae  
5414. *Sporisorium reilianum* (J.G. Kühn) Langdon & Full. IF No: 323849 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Zea mays* **Dept.:** CUN, NAR



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Ustilaginaceae  
5415. *Sporisorium sacchari* (Rabenh.) Vánky IF No: 105802 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Saccharum officinarum* **Dept.:** VAC



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Ustilaginaceae  
5416. *Sporisorium scitamineum* (Syd.) M. Piepenbr., M. Stoll & Oberw. IF No: 484933 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Saccharum* sp. **Dept.:** CES



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Ustilaginaceae  
5417. *Sporisorium veracruzianum* (Zundel & Dunlap) M. Piepenbr. IF No: 414181 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Dichanthium viscidellum* **Dept.:** ANT



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Ustilaginaceae  
5418. *Ustilago affinis* Ellis & Everh. IF No: 121863 **Trophic mode/Guild:** pathotroph /plant pathogen **Hosts:** *Stenotaphrum secundatum*

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Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Ustilaginaceae  
**5419. *Ustilago avenae*** (Pers.) Rostr. IF No: 183268 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Avena sativa* **Dept.:** CUN



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Ustilaginaceae  
**5420. *Ustilago bullata*** Berk. IF No: 207444 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Bromus catharticus* **Dept.:** CUN



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Ustilaginaceae  
**5421. *Ustilago hordei*** (Pers.) Lagerh. IF No: 244519 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Hordeum vulgare* **Dept.:** CUN, PUT



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Ustilaginaceae  
**5422. *Ustilago maydis*** (DC.) Corda IF No: 169566 **Common name:** Huillacoche (Spanish) **Trophic mode/Guild:** pathotroph/plant pathogen **Habitat:** Growing on corn **Distribution:** Pantropics, Introduced **Dept.:** ANT, BOY, CES, CUN **Uses:** HF



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Ustilaginaceae  
**5423. *Ustilago nuda*** (C.N. Jensen) Kellerm. & Swingle IF No: 199384 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Hordeum vulgare* **Dept.:** BOY, CUN



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Ustilaginaceae  
**5424. *Ustilago schroeteriana*** Henn. IF No: 175553 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** Poaceae **Dept.:** CAQ, RIS



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Ustilaginaceae  
**5425. *Ustilago striformis*** (Westend.) Niessl IF No: 236251 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Holcus lanatus* **Dept.:** BOY, CUN, QUI



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Ustilaginaceae  
**5426. *Ustilago synthetis*** (Schwein.) Peck IF No: 100067 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Andropogon* sp., *Cenchrus* sp., *Panicum* sp.



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Ustilaginaceae  
**5427. *Ustilago trichophora*** (Link) Kunze IF No: 144085 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Echinochloa colona* **Dept.:** CES, SUC, VAC



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Ustilaginaceae  
**5428. *Ustilago tritici*** (Bjerk.) Rostr. IF No: 234386 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Triticum aestivum*, *Triticum vulgare* **Dept.:** CUN



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Ustilaginomycetidae, Ustilaginales, Ustilaginaceae  
**5429. *Ustilago venezuelana*** Syd. & P. Syd. IF No: 142440 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Paspalum scabrum* **Dept.:** CUN



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Incertae sedis, Urocystidales, Glomosporiaceae  
**5430. *Thecaphora pustulata*** G.P. Clinton IF No: 275819 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Bidens pilosa* **Dept.:** ANT, TOL



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Incertae sedis, Urocystidales, Glomosporiaceae  
**5431. *Thecaphora solani*** (Thurum. & M.J. O'Brien) Mordue IF No: 135374 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Lycopersicon esculentum*, *Solanum tuberosum* **Dept.:** BOY, CUN



Fungi, Basidiomycota, Ustilaginomycotina, Ustilaginomycetes, Incertae sedis, Urocystidales, Urocystidaceae  
**5435. *Urocystis ranunculii*** (Lib.) Moesz IF No: 307500 **Trophic mode/Guild:** pathotroph/plant pathogen **Hosts:** *Ranunculus pilosus*, *Ranunculus* sp. **Dept.:** ANT, CAL



Fungi, Basidiomycota, Agaricomycotina, Dacrymycetes, Incertae sedis, Dacrymycetales, Dacrymycetaceae  
**5436. *Arthyridia involuta*** (Schwein.) Coker IF No: 268100 **Trophic mode/Guild:** saprotroph/



Fungi, Basidiomycota, Agaricomycotina, Dacrymycetes, Incertae sedis, Dacrymycetales, Dacrymycetaceae  
**5437. *Calocera cornea*** (Batsch) Fr. IF No: 237408 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On the barkless wood of oaks and other hardwoods | In tropical forest | Saprotroph gregarious, scattered **Distribution:** Global **Elev.:** 50 m **Dept.:** CAL, CHO, CUN, MAG, MET, PUT **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Dacrymycetes, Incertae sedis, Dacrymycetales, Dacrymycetaceae  
**5441. *Dacrymyces deliquescens*** (Bull.) Duby IF No: 242274 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Elev.:** 2,700–2,940 m



Fungi, Basidiomycota, Agaricomycotina, Dacrymycetes, Incertae sedis, Dacrymycetales, Dacrymycetaceae  
**5442. *Dacrymyces stillatus*** Nees IF No: 151900 **Trophic mode/Guild:** saprotroph/wood saprotroph **Dept.:** RIS



Fungi, Basidiomycota, Agaricomycotina, Dacrymycetes, Incertae sedis, Dacrymycetales, Dacrymycetaceae  
**5440. *Dacrymyces capitus*** Schwein. IF No: 240471 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Dacrymycetes, Incertae sedis, Dacrymycetales, Dacrymycetaceae  
**5444. *Dacrymyces dennisii*** McNabb IF No: 329595 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Distribution:** Pantropics **Elev.:** 3,400–3,800 m



Fungi, Basidiomycota, Agaricomycotina, Dacrymycetes, Incertae sedis, Dacrymycetales, Dacrymycetaceae  
**5445. *Dacrymyces elegans*** (Berk. & M.A. Curtis) G.W. Martin IF No: 285969 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Dacrymycetes, Incertae sedis, Dacrymycetales, Dacrymycetaceae  
**5446. *Dacrymyces martinii*** Lowy IF No: 312610 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Distribution:** Pantropics **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Dacrymycetes, Incertae sedis, Dacrymycetales, Dacrymycetaceae  
**5447. *Dacrymyces martinii*** Lowy IF No: 312610 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Distribution:** Pantropics **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Dacrymycetes, Incertae sedis, Dacrymycetales, Dacrymycetaceae  
**5448. *Dacrymyces martinii*** Lowy IF No: 312610 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Distribution:** Pantropics **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Dacrymycetes, Incertae sedis, Dacrymycetales, Dacrymycetaceae  
**5449. *Dacrymyces martinii*** Lowy IF No: 312610 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Distribution:** Pantropics **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Dacrymycetes, Incertae sedis, Dacrymycetales, Dacrymycetaceae  
**5450. *Dacrymyces martinii*** Lowy IF No: 312610 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Distribution:** Pantropics **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Dacrymycetes, Incertae sedis, Dacrymycetales, Dacrymycetaceae  
**5451. *Dacrymyces martinii*** Lowy IF No: 312610 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Distribution:** Pantropics **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Dacrymycetes, Incertae sedis, Dacrymycetales, Dacrymycetaceae  
**5449. *Guepinopsis buccina*** (Pers.) L.L. Kenn. IF No: 414437 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Elev.:** 3,185–3,725 m



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Tremellomycetidae, Cystoflobasidiales, Mrakiaceae  
**5450. *Tausonia pullulans*** (Lindner) Xin Zhan Liu, F.Y. Bai, M. Groenew. & Boekhout IF No: 812190 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On trunks with different degrees of decomposition, in chagras | In tropical forest | Saprotroph gregarious **Distribution:** American continent **Elev.:** 50–2,100 m **Dept.:** AMA, ANT, BOG, CAL, CAQ, CAU, CHO, VAC **Uses:** HF, ME



Fungi, Basidiomycota, Agaricomycotina, Dacrymycetes, Incertae sedis, Dacrymycetales, Dacrymycetaceae  
**5448. *Filobasidium floriforme*** (Lloyd) McNabb IF No: 330148

VAC



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Filobasidiales, Filobasidiaceae  
**5451. *Filobasidium floriforme*** L.S. Olive IF No: 330885 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On soils cultivated with peach | Saprotroph **Elev.:** 2,900 m **Dept.:** BOY



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Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Filobasidiales, Filobasidiaceae  
**5452. *Filobasidium magnum*** (Lodder & Kreger-van Rij) Xin Zhan Liu, F.Y. Bai, M. Groenew. & Boekhout **IF No:** 812192  
**Trophic mode/Guild:** saprotrophy/undefined

saprotroph



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Filobasidiales, Filobasidiaceae  
**5453. *Filobasidium stepposium*** (Golubev & J.P. Samp.) Xin Zhan Liu, F.Y. Bai, M. Groenew. & Boekhout **IF No:** 812194  
**Trophic mode/Guild:** saprotrophy/undefined

saprotroph



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Filobasidiales, Filobasidiaceae  
**5454. *Heterocephalacra physalacearum*** (Diederich) Milanes & Wedin **IF No:** 813260 **Trophic mode/Guild:** pathotrophy/lichen parasite



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Filobasidiales, Piskurozomycetaceae  
**5455. *Piskurozomya silvicola*** (Golubev & J.P. Samp.) Xin Zhan Liu, F.Y. Bai, M. Groenew. & Boekhout **IF No:** 812209



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Filobasidiales, Piskurozomycetaceae  
**5456. *Piskurozomya taiwanensis*** Nakase, Tsuzuki & M. Takash. ex Xin Zhan Liu, F.Y. Bai, M. Groenew. & Boekhout **IF No:** 831670



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Filobasidiales, Piskurozomycetaceae  
**5457. *Solicozomya aerea*** (Saito) Yurkov **IF No:** 812198 **Habitat:** On soils cultivated with apple and peach | On soils in uncultivated field (intermediate between orchard and woodland) | Saprotroph **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Filobasidiales, Piskurozomycetaceae  
**5458. *Solicozomya terrea*** (Di Menna) Yurkov **IF No:** 817387 **Trophic mode/Guild:** saprotroph/ **Habitat:** On soils cultivated with apple and peach | On soils in uncultivated field (intermediate between orchard and woodland) | On woodland soils **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Filobasidiales, Piskurozomycetaceae  
**5459. *Solicozomya terricola*** (T.A. Pedersen) Yurkov **IF No:** 812205



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Bulleribasidiaceae  
**5460. *Hannella oryzae*** (Nakase & M. Suzuki) F.Y. Bai & Q.M. Wang **IF No:** 508463



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Bulleribasidiaceae  
**5461. *Vishniacozyma victoriae*** (M.J. Montes, Belloch, Galiana, M.D. García, C. Andrés, S. Ferrer, Torr.-Rodr. & J. Guinea) Xin Zhan Liu, F.Y. Bai, M. Groenew. & Boekhout **IF No:** 813285



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Cryptococcaceae  
**5462. *Cryptococcus bacillisporus*** Kwon - Chung & J.E. Benn. **IF No:** 312342 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, epiphyte, undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Cryptococcaceae  
**5463. *Cryptococcus deneoformans*** F. Hagen & Boekhout **IF No:** 810281 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, epiphyte, undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Cryptococcaceae  
**5464. *Cryptococcus gattii*** (Vanbreus. & Takashio) Kwon - Chung & Boekhout **IF No:** 372381 **Trophic mode/Guild:** pathotroph /animal pathogen



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Cryptococcaceae  
**5465. *Cryptococcus neoveanensis*** (Groen.) Baptist & Kurtzman **IF No:** 312342 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/animal pathogen, endophyte, epiphyte, undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Cryptococcaceae  
**5466. *Cryptococcus neoformans*** (San Felice) Vuill. **IF No:** 119294 **Trophic mode/Guild:** pathotroph / animal pathogen



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Cryptococcaceae  
**5467. *Cryptococcus pseudolongus*** M. Takash., Sugita, Shinoda & Nakase **IF No:** 484854 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/ animal pathogen, endophyte, epiphyte, undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Cryptococcaceae  
**5468. *Cryptococcus vini*** Kütz. **IF No:** 456264 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/ animal pathogen, endophyte, epiphyte, undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Cryptococcaceae  
**5469. *Naganishia albida*** (Saito) Xin Zhan Liu, F.Y. Bai, M. Groenew. & Boekhout **IF No:** 813141



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Cryptococcaceae  
**5470. *Naganishia diffluens*** (Zach) Xin Zhan Liu, F.Y. Bai, M. Groenew. & Boekhout **IF No:** 813172



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Cuniculitremaeae  
**5471. *Fellomyces borneensis*** Prillinger, G. Kraep. & Lopandić **IF No:** 461050



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Cuniculitremaeae  
**5472. *Fellomyces polyborus*** (D.B. Scott & Van der Walt) Y. Yamada & I. Banno **IF No:** 105318



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Hyaloriaceae  
**5473. *Hyaloria pilacre*** Möller **IF No:** 208615 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Pantropics **Elev.:** 1,250-1,500 m **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Phragmoxenidiaceae  
**5474. *Phylogloea singeri*** Lowy **IF No:** 336707 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Pantropics **Elev.:** 3,320 m **Dept.:** CAU



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Rhyzogastremaceae  
**5475. *Papillotrema flavescens*** (Saito) Xin Zhan Liu, F.Y. Bai, M. Groenew. & Boekhout **IF No:** 813289



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Rhyzogastremaceae  
**5476. *Papillotrema laurentii*** (Kuff.) Xin Zhan Liu, F.Y. Bai, M. Groenew. & Boekhout **IF No:** 813295



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Rhyzogastremaceae  
**5477. *Papillotrema nemorosum*** (Golubev, Gadanho, J.P. Samp. & N.W. Golubev) Xin Zhan Liu, F.Y. Bai, M. Groenew. & Boekhout **IF No:** 821306



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Rhyzogastremaceae  
**5478. *Papillotrema rajasthanensis*** (Saiju & G.S. Prasad) Xin Zhan Liu, F.Y. Bai, M. Groenew. & Boekhout **IF No:** 813301



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Rhyzogastremaceae  
**5479. *Rhyzogastrema complexa*** (Landell, Pagnocca, Sette, Passarini, K.M. Garcia, J.R.A. Ribeiro, C.F. Lee, L.R. Brandão, C.A. Rosa & P. Valente) Xin Zhan Liu, F.Y. Bai, M. Groenew., Boekhout & Yurkov **IF No:** 831689 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Rhyzogastremaceae  
**5480. *Tetragonomycus uliginosus*** (P. Karst.) Oberw. & Bandoni **IF No:** 112658 **Trophic mode/Guild:** pathotrophy/fungal parasite



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Tremellaceae  
**5481. *Phaeotremella fimbriata*** (Pers.) Spirin & V. Malysheva **IF No:** 821826



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Tremellaceae  
**5482. *Phaeotremella foliacea*** (Pers.) Wedin, J.C. Zamora & Milanes **IF No:** 816932 **Habitat:** In paddock **Elev.:** 1,700-2,200 m **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Tremellaceae  
**5483. *Tremella aurantia*** Schwein. **IF No:** 218255 **Trophic mode/Guild:** pathotroph/ **Habitat:** *Quercus humboldtii* forest | Saprotroph **Elev.:** 2,700 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Tremellaceae  
**5484. *Tremella cladoniae*** Diederich & M.S. Christ. **IF No:** 415279 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Tremellaceae  
**5485. *Tremella compacta*** Möller **IF No:** 229195 **Trophic mode/Guild:** pathotrophy/ **Habitat:** In tropical forest | Saprotroph **Distribution:** Pantropics **Elev.:** 50 m **Dept.:** CHO



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Tremellaceae  
**5486. *Tremella fibulifera*** Möller **IF No:** 221022 **Trophic mode/Guild:** pathotrophy/ **Habitat:** In tropical forest | Saprotroph **Distribution:** Pantropics **Elev.:** 50 m **Dept.:** CHO



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Tremellaceae  
**5487. *Tremella fucoformis*** Berk. **IF No:** 173606 **Trophic mode/Guild:** pathotroph /fungal parasite **Habitat:** On decaying wood in disturbed secondary forest | Saprotroph solitary, gregarious **Distribution:** Pantropics, Subtropics **Elev.:** 50-2,200 m **Dept.:** AMA, CAQ, CHO, VAC **Uses:** HF

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Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Tremellaceae  
**5488. *Tremella globispora*** D.A. Reid IF No: 324843 **Trophic mode/Guild:** pathotroph/fungal parasite **Habitat:** Fungal Parasite **Elev.:** 1,250–1,500 m **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Tremellaceae  
**5489. *Tremella globulosa*** Speg. IF No: 151763 **Trophic mode/Guild:** pathotroph/



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Tremellaceae  
**5490. *Tremella leptogii*** Diederich IF No: 415288 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Tremellaceae  
**5491. *Tremella lobarlacearum*** Diederich & M.S. Christ. IF No: 415289 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Tremellaceae  
**5492. *Tremella mesenterica*** Retz. IF No: 154470 **Trophic mode/Guild:** pathotroph/**Habitat:** On decaying wood | In disturbed secondary forest and in paddocks | In mixed oak-dominated forest | Saprotrroph solitary, gregarious **Distribution:** Global Distribution **Elev.:** 200–2,800 m **Dept.:** AMA, ANT, CAL, CAQ, CHO, VAC **Uses:** HF, ME



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Tremellaceae  
**5493. *Tremella parmellarum*** Diederich IF No: 415297 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Tremellaceae  
**5494. *Tremella rhytidhysterii*** J.L. Bezerra & Kimbr. IF No: 324846 **Trophic mode/Guild:** pathotroph/



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Tremellaceae  
**5495. *Tremella rufolutea*** Berk. & M.A. Curtis IF No: 152918 **Trophic mode/Guild:** pathotroph/



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Tremellaceae  
**5496. *Tremella strictae*** Diederich IF No: 415308 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Trimorphomycetaceae  
**5497. *Saltzoyma flava*** (Saito) Xin Zhan Liu, F.Y. Bai, M. Groenew. & Boekhout IF No: 813368



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Trimorphomycetaceae  
**5498. *Saltzoyma podzolica*** (Babeva & Reshetova) Xin Zhan Liu, F.Y. Bai, M. Groenew. & Boekhout IF No: 813373 **Trophic mode/Guild:** saprotroph/ **Habitat:** On soils cultivated with apple and peach | On soils in uncultivated field (intermediate between orchard and woodland) | On woodland soils | Saprotrroph **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Tremellales, Trichosporonaceae  
**5499. *Biatoropsis usnearum*** Räsänen IF No: 281203 **Trophic mode/Guild:** pathotroph/lichen parasite



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Trichosporonales, Trichosporonaceae  
**5500. *Aplotrimum dulcitum*** (Boekhout) Yurkov & Boekhout IF No: 813412 **Trophic mode/Guild:** saprotroph/soil saprotroph



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Trichosporonales, Trichosporonaceae  
**5501. *Aplotrimum gamsii*** (Middelhoven, Scorzetti, Sigler & Fell) Yurkov & Boekhout IF No: 813413 **Trophic mode/Guild:** saprotroph/soil saprotroph **Habitat:** On soil



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Trichosporonales, Trichosporonaceae  
**5502. *Aplotrimum laibachii*** (Windisch) Yurkov & Boekhout IF No: 813415 **Trophic mode/Guild:** saprotroph/soil saprotroph



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Trichosporonales, Trichosporonaceae  
**5503. *Aplotrimum porosum*** Stautz IF No: 275086 **Trophic mode/Guild:** saprotroph/soil saprotroph



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Trichosporonales, Trichosporonaceae  
**5504. *Aplotrimum wieringae*** (Middelhoven) Yurkov & Boekhout IF No: 813425 **Trophic mode/Guild:** saprotroph/soil saprotroph



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Trichosporonales, Trichosporonaceae  
**5505. *Aplotrimum xylopii*** S.O. Suh, C.F. Lee, Gujjari & J.J. Zhou ex Kachalkin, Yurkov & Boekhout IF No: 831708 **Trophic mode/Guild:** saprotroph/soil

saprotroph



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Trichosporonales, Trichosporonaceae  
**5506. *Cutaneotrichosporon arboriforme*** (Sugita, M. Takash., A. Sano, Nishim., Kinebuchi, S. Yamag. & Osana) Xin Zhan Liu, F.Y. Bai, M. Groenew. & Boekhout



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Trichosporonales, Trichosporonaceae  
**5507. *Cutaneotrichosporon dermatis*** (Sugita, M. Takash., Nakase & Shinoda) Xin Zhan Liu, F.Y. Bai, M. Groenew. & Boekhout IF No: 813400



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Trichosporonales, Trichosporonaceae  
**5508. *Cutaneotrichosporon lirioveli*** (Fragner) Xin Zhan Liu, F.Y. Bai, M. Groenew. & Boekhout IF No: 813401

IF No: 818664



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Trichosporonales, Trichosporonaceae  
**5509. *Cutaneotrichosporon smithiae*** (Middelhoven, Scorzetti, Sugita & Fell) Xin Zhan Liu, F.Y. Bai, M. Groenew. & Boekhout IF No: 813404



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Trichosporonales, Trichosporonaceae  
**5510. *Eftuseotrichosporon vanderwaltii*** (Motaung, Albertyn, Kock, C.F. Lee, S.O. Suh, M. Blackw. & C.H. Pohl) Yurkov, Xin Zhan Liu, F.Y. Bai, M. Groenew. & Boekhout IF No: 814774



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Trichosporonales, Trichosporonaceae  
**5511. *Trichosporon asahi*** Akagi ex Sugita, A. Nishikawa & Shinoda IF No: 415474 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Trichosporonales, Trichosporonaceae  
**5512. *Trichosporon belgellii*** (Küchenm. & Rabenh.) Vuill. IF No: 432135 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Trichosporonales, Trichosporonaceae  
**5513. *Trichosporon faecale*** (Bat. & J.S. Silveira) E. Guého & M.T. Sm. IF No: 357928 **Trophic mode/Guild:** pathotroph/animal pathogen



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Trichosporonales, Trichosporonaceae  
**5514. *Trichosporon insectorum*** Fuent., S.O. Suh, Landell, Faganello, A. Schrank, Vainstein, M. Blackw. & P. Valente IF No: 510822 **Trophic mode/Guild:** pathotroph

/animal pathogen



Fungi, Basidiomycota, Agaricomycotina, Tremellomycetes, Incertae sedis, Trichosporonales, Trichosporonaceae  
**5515. *Vanilla humicola*** (Dasz.) R.T. Moore IF No: 112012



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
**5516. *Agaricus arvensis*** Schaeff. IF No: 325880 **Trophic mode/Guild:** saprotroph/soil saprotroph **Conservation:** LC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
**5517. *Agaricus augustus*** Fr. IF No: 205947 **Common name:** Chinas (Spanish), Chinita (Spanish), Truenos (Spanish) **Trophic mode/Guild:** saprotroph/soil

saprotroph **Habitat:** Saprotrroph **Distribution:** Pantropics, Subtropics **Dept.:** BOY **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
**5518. *Agaricus bisporus*** (J.E. Lange) Imbach IF No: 531546 **Common name:** Champiñón (Spanish), Seta del sol (Spanish) **Trophic mode/Guild:** saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
**5519. *Agaricus blazei*** Murrill IF No: 308341 **Trophic mode/ Guild:** saprotroph/soil saprotroph **Habitat:** Saprotrroph **Uses:** HF, ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
**5520. *Agaricus campestris*** L. IF No: 356498 **Common name:** Chinitas (Spanish) **Trophic mode/Guild:** saprotroph /soil saprotroph **Habitat:** On soil, dung,

meadows and fields, soils cultivated with peach | Saprotrroph solitary, gregarious **Distribution:** Global Distribution **Elev.:** 2,900 m **Dept.:** BOY, CUN **Uses:** HF **Conservation:** LC

/soil saprotroph **Habitat:** In soil, in open grasslands | Saprotrroph gregarious **Distribution:** Global Distribution, Cultivated **Elev.:** 1,470–2,600 m **Dept.:** ANT, BOY, CUN **Uses:** HF, ME



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5521. *Agaricus endoxanthus* Berk. & Broome IF No: 226162 Trophic mode/Guild: saprotroph/soil saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5522. *Agaricus subrufescens* Peck IF No: 248259 Trophic mode/Guild: saprotroph/soil saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5523. *Agaricus trinitatis* R.E.D. Baker & W.T. Dale IF No: 292320 Common name: Mojicó (Spanish), Cuaremeros (Spanish)  
Trophic mode/Guild: saprotroph/soil saprotroph Habitat: Saprotroph Distribution: Pantropics Dept.: BOY Uses: HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5524. *Chlorophyllum hortense* (Murrill) Vellinga IF No: 374396 Trophic mode/Guild: saprotroph/Habitat: On soil | Saprotroph solitary, gregarious

Distribution: Global Distribution Dept.: ANT Uses: HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5525. *Chlorophyllum molybdites* (G. Mey.) Massee IF No: 604726 Trophic mode/Guild: saprotroph/Habitat: On soil | Frequently occurs after heavy rains on lawns and grasslands | Saprotroph scattered, gregarious

Distribution: Global Distribution, Pantropics, Subtropics Elev.: 1,450–1,550 m Dept.: ANT, MAG, NAR Uses: PO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5526. *Coprinus comatus* (O.F. Müll.) Pers. IF No: 148667 Trophic mode/Guild: saprotroph/soil saprotroph Habitat: on the grass | on soil | Roadsides | In Trails and disturbed soils | Saprotroph gregarious, solitary Distribution: Global Distribution Elev.: 1,475–1,750 m Dept.: ANT, TOL Uses: HF Conservation: LC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5527. *Curucispora ponapensis* Matsush. IF No: 124378



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5528. *Cystolepota hemisclera* (Berk. & M.A. Curtis) Pegler IF No: 108831 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Among litter and humus Distribution: Pantropics Elev.: 250 m Dept.: AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5529. *Echinoderma rubellum* (Bres.) Migl. IF No: 467704 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Dept.: MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5530. *Holcotydon brandegeeanum* Lloyd IF No: 241659 Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5531. *Jansuaria amazônica* Singer IF No: 131567 Dept.: AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5532. *Lepiota betinae* Dörffelt IF No: 109927 Trophic mode/Guild: saprotroph/soil saprotroph Habitat: Saprotroph Distribution: Pantropics Dept.: MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5533. *Lepiota cygneolaria* (Bull.) P. Kumm. IF No: 216879 Trophic mode/Guild: saprotroph/soil saprotroph Habitat: Saprotroph Distribution: Global Distribution Elev.: 400 m Dept.: ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5534. *Lepiota cristata* (Bolton) P. Kumm. IF No: 221078 Trophic mode/Guild: saprotroph/soil saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5535. *Lepiota erythrosticta* (Berk. & Broome) Sacc. IF No: 222890 Trophic mode/Guild: saprotroph/soil saprotroph Habitat: Saprotroph Distribution: Pantropics Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5536. *Lepiota guatopoensis* Dennis IF No: 333120 Trophic mode/Guild: saprotroph/soil saprotroph Habitat: Saprotroph Distribution: Pantropics Dept.: AMA, CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5537. *Lepiota montagnelii* (Kalchbr.) Sacc. IF No: 168127 Trophic mode/Guild: saprotroph/soil saprotroph Habitat: Saprotroph Distribution: Pantropics Elev.: 370 m Dept.: ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5538. *Lepiota quintanarensis* Guzm.–Dáv. & Guzmán IF No: 108139 Trophic mode/Guild: saprotroph/soil saprotroph Habitat: Saprotroph Distribution: Pantropics Elev.: 400 m Dept.: ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5539. *Lepiota subflavescens* Murrill IF No: 204216 Trophic mode/Guild: saprotroph/soil saprotroph Habitat: Saprotroph Distribution: Pantropics Elev.: 370 m Dept.: ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5540. *Lepiota subgranulosa* Murrill IF No: 203982 Trophic mode/Guild: saprotroph/soil saprotroph Habitat: On soil | Saprotroph Distribution: Pantropics Elev.: 2,500–3,000 m Dept.: CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5541. *Leucoagaricus amazonicus* A. Ortiz & Franco-Mol. IF No: 512219 Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5542. *Leucoagaricus cinerascens* (Qué.) Bon & Boiffard IF No: 316776 Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5543. *Leucoagaricus gongylophorus* (Möller) Singer IF No: 357960 Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5544. *Leucoagaricus leucothites* (Vittad.) Wasser IF No: 355733 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: On soil in paddocks | Saprotroph solitary, gregarious Distribution: Global Distribution Dept.: CUN Uses: HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5545. *Leucoagaricus rubrotinctus* (Peck) Singer IF No: 287717 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: On soil or wood | Sometimes in oak forests

| Saprotroph gregarious, scattered Distribution: Pantropics Dept.: ANT, CAU, QUI Uses: HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5546. *Leucoagaricus serenus* (Fr.) Bon & Boiffard IF No: 316804 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Dept.: ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5547. *Leucoagaricus sulphurellus* (Pegler) B.P. Akers IF No: 622053 Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5548. *Leucocoprinus blrbaumii* (Corda) Singer IF No: 333327 Common name: Hongo amarillo de macetas (Spanish)  
Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: On soil | on decaying wood | It occurs in gardens and plant pots | Saprotroph gregarious

Distribution: Pantropics, Subtropics Elev.: 200–2,100 m Dept.: AMA, ANT, CAL, CAQ, CES, CHO, MET, VID Uses: PO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5549. *Leucocoprinus brunneolutes* Capelari & Gimenes IF No: 510207 Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5550. *Leucocoprinus brunnescens* (Peck) Pegler IF No: 109052 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5551. *Leucocoprinus cepstipes* (Sowbery) Pat. IF No: 102263 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Distribution: Global Distribution Elev.: 750 m Dept.: ANT, MET



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5552. *Leucocoprinus fragilisimus* (Ravenel ex Berk. & M.A. Curtis) Pat. IF No: 101889 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: On soil | Saprotroph solitary, gregarious Distribution: Pantropics, Subtropics Elev.: 2,200 m Dept.: ANT, CAQ, MET Uses: PO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
5553. *Leucocoprinus submontagnelii* Heinem. IF No: 316830 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Distribution: Pantropics Dept.: ANT

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Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
**5554. *Macrolepota colombiana*** Franco-Mol. IF No: 318604 **Common name:** Lechucitas (Spanish) **Trophic mode/Guild:** saprotroph/soil saprotroph **Habitat:** On soil, in meadows | Saprotroph solitary **Distribution:** Neotropics **Elev.:** 1,700–3,000 m **Dept.:** ANT, BOY, CUN, NAR **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
**5555. *Macrolepota procera*** (Scoop.) Singer IF No: 287857 **Trophic mode/Guild:** saprotroph/soil saprotroph **Habitat:** In woods or at the edges of woods, or in pastures, on trails, and in other disturbed-ground areas | Saprotroph solitary, gregarious **Distribution:** Global Distribution **Elev.:** 1,800–3,000 m **Dept.:** CUN **Uses:** HF, ME, SU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
**5556. *Phellorinia herculeana*** (Pers.) Kreisel IF No: 336277 **Common name:** Merra (Wayunaiki, translated in Spanish) **Trophic mode/Guild:** saprotroph/soil saprotroph **Habitat:** On soil | Saprotroph solitary **Distribution:** Global Distribution **Dept.:** LAG **Uses:** MA, SU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
**5557. *Podaxis pistillaris*** (L.) Fr. IF No: 356687 **Common name:** Merra de diablo (Wayunaiki, translated in Spanish) **Trophic mode/Guild:** saprotroph/soil saprotroph **Habitat:** On soil | in arid, desert settings—including wasteland, fields, and urban locations | Saprotroph solitary **Distribution:** Pantropics **Dept.:** LAG, CES **Uses:** MA, SU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Agaricaceae  
**5558. *Rugosopora pseudorubiginosa*** (Cifuentes & Guzmán) Guzmán & Bandala IF No: 132622 **Trophic mode/Guild:** symbiotroph/lichenised **Habitat:** In tropical rainforest | Saprotroph **Distribution:** Pantropics **Elev.:** 400 m **Dept.:** ANT, CES, MAG, SUC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Amanitaceae  
**5559. *Amanita advena*** Tulloss, Ovrebo & Halling IF No: 359391 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | Ectomycorrhiza **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Amanitaceae  
**5560. *Amanita arocheae*** Tulloss, Ovrebo & Halling IF No: 359392 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | Ectomycorrhiza **Distribution:** Endemic **Dept.:** ANT, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Amanitaceae  
**5561. *Amanita aureoconille*** Tulloss & Franco-Mol. IF No: 359393 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** Endomycorrhiza **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Amanitaceae  
**5562. *Amanita brunneocolularis*** Tulloss, Ovrebo & Halling IF No: 359394 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in montane forests with oaks | In paddocks | Ectomycorrhizal solitary **Distribution:** Neotropics **Elev.:** 1,700–2,200 m **Dept.:** ANT, BOY, TOL, VAC **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Amanitaceae  
**5563. *Amanita brunneocolularis var. pallida*** N. Vargas IF No: 800647



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Amanitaceae  
**5564. *Amanita campharanae*** Bas IF No: 308543 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | associated to *Dicymbe* sp., in tropical rainforest | Ectomycorrhiza **Hosts:** *Dicymbe* sp. **Distribution:** Pantropics **Dept.:** AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Amanitaceae  
**5565. *Amanita cecilliae*** (Berk. & Broome) Bas IF No: 107714 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | Ectomycorrhiza **Dept.:** BOY **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Amanitaceae  
**5566. *Amanita citrina*** Pers. IF No: 205574 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in montane forests. Ectomycorrhizal solitary **Distribution:** Global Distribution **Elev.:** 2,580 m **Dept.:** BOY **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Amanitaceae  
**5567. *Amanita colombiana*** Tulloss, Ovrebo & Halling IF No: 359388 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | Ectomycorrhiza solitary or in couples **Distribution:** Pantropics **Dept.:** ANT, BOY **Uses:** PO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Amanitaceae  
**5568. *Amanita crebresulcata*** Bas IF No: 308549 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | associated to *Dicymbe* sp., in tropical rainforest | Ectomycorrhiza solitary **Distribution:** Pantropics **Elev.:** 572 m **Dept.:** CES, AMA **Uses:** EU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Amanitaceae  
**5569. *Amanita cruzii*** O.K. Mill. & Lodge IF No: 474290 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Amanitaceae  
**5570. *Amanita flavoconia*** G.F. Atk. IF No: 206277 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | Ectomycorrhiza solitary or in couples **Elev.:** 2,460–2,900 m **Dept.:** ANT, CAU, CUN, NAR, BOY **Uses:** HF, PO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Amanitaceae  
**5571. *Amanita fuliginosca*** Tulloss, Ovrebo & Halling IF No: 359389 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | Ectomycorrhiza with *Quercus* sp. solitary or in couples **Elev.:** 2,750–2,900 m **Dept.:** ANT, BOY, NAR **Uses:** PO **Conservation:** VU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Amanitaceae  
**5572. *Amanita fuva*** Fr. IF No: 212682 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Amanitaceae  
**5573. *Amanita gemmata*** (Fr.) Bertill. IF No: 202929 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in exotic plantations and in *Quercus* forests | Ectomycorrhizal solitary, gregarious **Elev.:** 2,600 m **Dept.:** CUN **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Amanitaceae  
**5574. *Amanita humboldtii*** Singer IF No: 326098 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | in *Quercus humboldtii* forests | Ectomycorrhiza **Distribution:** Pantropics **Elev.:** 2,600 m **Dept.:** BOY, CUN, NAR



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Amanitaceae  
**5575. *Amanita janivolve*** Bas IF No: 308564 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | associated to *Dicymbe* sp., in tropical rainforest | Ectomycorrhiza **Distribution:** Pantropics **Dept.:** AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Amanitaceae  
**5576. *Amanita muscaria*** (L.) Lam. IF No: 161267 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in exotic plantations and in *Quercus* forests | Ectomycorrhizal solitary, gregarious **Distribution:** Introduced **Elev.:** 1,900–3,419 m **Dept.:** ANT, CUN, BOY, SAN, QUI **Uses:** ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Amanitaceae  
**5577. *Amanita picea*** Tulloss, Ovrebo & Halling IF No: 359396 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** Endomycorrhiza **Dept.:** BOY, NAR



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Amanitaceae  
**5578. *Amanita porphyria*** Alb. & Schwein. IF No: 171128 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Amanitaceae  
**5579. *Amanita rubescens*** Pers. IF No: 172799 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in exotic plantations | Ectomycorrhizal solitary, gregarious **Distribution:** Introduced **Dept.:** ANT, CUN **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Amanitaceae  
**5580. *Amanita xerocybe*** N. Vargas & Restrepo IF No: 550794 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Conservation:** VU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Amanitaceae  
**5581. *Amanita sororcula*** Tulloss, Ovrebo & Halling IF No: 359390 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in montane forest | Ectomycorrhiza solitary or in couples **Distribution:** Pantropics **Elev.:** 2,460–2,700 m **Dept.:** ANT, BOY **Uses:** PO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Amanitaceae  
**5582. *Amanita virosa*** Bertill. IF No: 163692 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in Andean forest | Ectomycorrhiza solitary **Distribution:** Global Distribution **Dept.:** ANT, BOY, VAC **Uses:** PO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Amanitaceae  
**5583. *Amanita xerocybe*** Bas IF No: 308602 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | associated to *Dicymbe* sp., in tropical rainforest | Ectomycorrhiza **Distribution:** Pantropics **Dept.:** AMA



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Amanitaceae  
**5584. *Amanita xylinvolve*** Tulloss, Ovrebo & Halling IF No: 359387 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | Ectomycorrhiza solitary or in couples **Dept.:** ANT, CAU, CUN, NAR, SAN **Uses:** PO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Amanitaceae  
**5585. *Aspidella aureofloccosa*** (Bas) Vizzini & Contu IF No: 803948 **Trophic mode/Guild:** saprotroph/Habitat: On soil | Saprotroph solitary, gregarious **Distribution:** Pantropics **Elev.:** 381–587 m **Dept.:** CES **Uses:** PO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Amanitaceae  
**5586. *Sapromanita savannae*** (Tulloss & Franco-Mol.) Redhead, Vizzini, Drehmel & Contu IF No: 816362 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Bolbitaceae  
**5587. *Bolbitis tubens*** (Bull.) Fr. IF No: 175350 **Trophic mode/Guild:** saprotroph/dung saprotroph, leaf saprotroph **Habitat:** In grasslands | Saprotroph solitary **Distribution:** Global **Elev.:** 2,640–3,120 m **Dept.:** CUN, BOG, BOY **Uses:** MA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Bolbitaceae  
**5588. *Conocybe inopinata*** Hauskn. & Contu IF No: 531939 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Bolbitaceae  
**5589. *Conocybe junliana*** (Velen.) Hauskn. & Svrček IF No: 459797 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Bolbitaceae  
**5590. *Conocybe mesospora*** Kühner ex Watling IF No: 111295 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Global **Elev.:** 2,450–3,100 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Bolbitaceae  
**5591. *Conocybe mexicana*** (Murrill) Watling IF No: 111296 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Bolbitaceae  
**5592. *Conocybe utricystidata*** (Enderle & H.-J. Hübner) Somhorst IF No: 587833 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Bolbitaceae  
**5593. *Conocybe velutipes*** (Velen.) Hauskn. & Svrček IF No: 459517 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Bolbitaceae  
**5594. *Descolea antarctica*** Singer IF No: 296578 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Conservation:** LC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Bolbitaceae  
**5595. *Pholiotina altoandina*** Singer IF No: 125013 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 3,600–3,800 m **Dept.:** RIS



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Bolbitaceae  
**5596. *Pholiotina caricicola*** Singer IF No: 125014 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Under *Carex pichinchensis* **Distribution:** Pantropics **Dept.:** RIS



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Callistosporiaceae  
**5597. *Callistosporium luteo-olivaceum*** (Berk. & M.A. Curtis) Singer IF No: 284697 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On wet wood **Elev.:** 3,800–4,300 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Callistosporiaceae  
**5598. *Macrocybe titans*** (H.E. Bigelow & Kimbr.) Pegler, Lodge & Nakasone IF No: 443595 **Common name:** Tocinas (Spanish), nWnOTO YniOKiLOi, used by Hoti indigenous people **Trophic mode/Guild:** saprotroph **Habitat:** On soil in the shade at the base of a tree or on the edge of the road | Saprotroph gregarious, cespitose **Distribution:** Neotropics **Elev.:** 500–907 m **Dept.:** ANT, SAN, BOY **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Callistosporiaceae  
**5599. *Pleurocylbia pulcherrima*** Singer IF No: 320688 **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Chromocyphellaceae  
**5600. *Chromocyphella muscicola*** (Fr.) Donk IF No: 328185 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** In disturbed secondary forest **Elev.:** 1,700–2,200 m **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Chromocyphellaceae  
**5601. *Phaeosolenia densa*** (Berk.) W.B. Cooke IF No: 336175 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Chromocyphellaceae  
**5602. *Phaeosolenia inconspicua*** (Sacc.) Donk IF No: 336178 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Pantropics **Elev.:** 1,250–1,500 m **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Chromocyphellaceae  
**5603. *Phaeosolenia platensis*** Speg. IF No: 164407 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Clavariaceae  
**5604. *Clavaria zollingeri*** Lévl. IF No: 154126 **Habitat:** On moss bank, in montane forest **Distribution:** Global **Elev.:** 2,430 m **Dept.:** ANT **Conservation:** VU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Clavariaceae  
**5605. *Clavulinopsis amoena*** (Zoll. & Moritz) Corner IF No: 295032 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Clavariaceae  
**5606. *Clavulinopsis fusiformis*** (Sowerby) Corner IF No: 295057 **Common name:** Escoba de madremonite, used by Uitoto people **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On soil in forests | on decaying wood | Saprotroph solitary, cespitose **Distribution:** Global **Elev.:** 200 m **Dept.:** AMA, CAQ, CAU, SAN **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Clavariaceae  
**5607. *Clavulinopsis laeticolor*** (Berk. & M.A. Curtis) R.H. Petersen IF No: 328402 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On soil in montane forest | in *Cupressus lusitanica* plantation **Distribution:** Global **Elev.:** 2,000–2,430 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Clavariaceae  
**5608. *Ramaropsis kunzei*** (Fr.) Corner IF No: 338194 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Cortinariaceae  
**5609. *Cortinarius amazonicus*** Singer & I.J.A. Aguiar IF No: 110301 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Cortinariaceae  
**5610. *Cortinarius arcubucensis*** M.M. Moser IF No: 311869 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Cortinariaceae  
**5611. *Cortinarius aurantobrunneus*** Ammirati, Halling & Garnica IF No: 531942 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | in Andean forest | Ectomycorrhiza **Distribution:** Pantropics **Elev.:** 2,830 m **Dept.:** SAN **Conservation:** NT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Cortinariaceae  
**5612. *Cortinarius aureopigmentatus*** Ammirati, Halling & Garnica IF No: 531943 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Cortinariaceae  
**5613. *Cortinarius boyacensis*** Singer IF No: 328998 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | in Andean forest | Ectomycorrhiza solitary **Distribution:** Pantropics **Dept.:** ANT, BOY, TOL



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Cortinariaceae  
**5614. *Cortinarius carranzae*** Ammirati, Halling & Garnica IF No: 531944 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | Ectomycorrhiza **Distribution:** Pantropics **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Cortinariaceae  
**5615. *Cortinarius casimiri*** (Velen.) Huijsman IF No: 628453 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Cortinariaceae  
**5616. *Cortinarius colombianus*** (Halling & Ovrebo) Peintner, E. Horak, M.M. Moser & Vilgaly IF No: 374590 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | in Andean forest | Ectomycorrhiza **Distribution:** Pantropics **Elev.:** 2,500–2,800 m **Dept.:** ANT

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Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Cortinariaceae  
5617. *Cortinarius flavotomentosus* (M.M. Moser) G. Garnier IF No: 450291 Trophic mode/Guild: symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Cortinariaceae  
5618. *Cortinarius harrisonii* Ammirati, Niskanen & Limat. IF No: 800333 Trophic mode/Guild: symbiotroph/ectomycorrhizal Dept.: SAN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Cortinariaceae  
5619. *Cortinarius lodes* Berk. & M.A. Curtis IF No: 220464 Trophic mode/Guild: symbiotroph/ectomycorrhizal Habitat: On soil | In mixed oak-dominated forest | Ectomycorrhiza solitary, gregarious Distribution: Pantropics Elev.: 2,200–2,800 m Dept.: ANT, BOY, CUN, NAR, SAN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Cortinariaceae  
5620. *Cortinarius lugubris* M.M. Moser IF No: 312009 Trophic mode/Guild: symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Cortinariaceae  
5621. *Cortinarius neotropicus* E. Harrower IF No: 811660 Trophic mode/Guild: symbiotroph/ectomycorrhizal Habitat: With *Quercus copeyensis*, *Q. seemannii*, *Q. costaricensis*, *Q. humboldtii*, and *Trigobalanus* sp. Ectomycorrhiza. Elev.: 2,200–2,880 m Dept.: HUI, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Cortinariaceae  
5622. *Cortinarius picosporus* M.M. Moser IF No: 312089 Trophic mode/Guild: symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Cortinariaceae  
5623. *Cortinarius praelatus* M.M. Moser IF No: 312094 Trophic mode/Guild: symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Cortinariaceae  
5624. *Cortinarius purpurascens* Fr. IF No: 176760 Trophic mode/Guild: symbiotroph/ectomycorrhizal Uses: HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Cortinariaceae  
5625. *Cortinarius rapiolens* M.M. Moser IF No: 312112 Trophic mode/Guild: symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Cortinariaceae  
5626. *Cortinarius ropancensis* M.M. Moser IF No: 312115 Trophic mode/Guild: symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Cortinariaceae  
5627. *Cortinarius rubellus* Cooke IF No: 166839 Trophic mode/Guild: symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Cortinariaceae  
5628. *Cortinarius violaceus* (L.) Gray IF No: 239546 Trophic mode/Guild: symbiotroph/ectomycorrhizal Habitat: On soil in forests associated with oak | Ectomycorrhizal solitary Distribution: Global Distribution Elev.: 2,300–2,785 m Dept.: ANT, BOY, HUI Uses: HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Cortinariaceae  
5629. *Pyroglossum pyrhum* (Berk. & M.A. Curtis) Singer IF No: 290355 Habitat: In tropical forest Elev.: 50–1,340 m Dept.: ANT, CHO, CUN, QUI



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Crepidotaceae  
5630. *Crepidotus anillarum* (Pat.) Singer IF No: 312241 Trophic mode/Guild: saprotroph/wood saprotroph Habitat: Saprotroph Distribution: Pantropics Elev.: 1,150–2,400 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Crepidotaceae  
5631. *Crepidotus applanatus* (Pers.) P. Kumm. IF No: 184669 Trophic mode/Guild: saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Crepidotaceae  
5632. *Crepidotus brasiliensis* Rick IF No: 251057 Trophic mode/Guild: saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Crepidotaceae  
5633. *Crepidotus brunswickianus* (Speg.) Sacc. IF No: 191828 Trophic mode/Guild: saprotroph/wood saprotroph Habitat: In riparian forest Elev.: 1,700–2,200 m Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Crepidotaceae  
5634. *Crepidotus cesatii* (Rabenh.) Sacc. IF No: 191614 Trophic mode/Guild: saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Crepidotaceae  
5635. *Crepidotus cuneiformis* Pat. IF No: 187409 Trophic mode/Guild: saprotroph/wood saprotroph Habitat: On rotten wood. Saprotroph. Dept.: AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Crepidotaceae  
5636. *Crepidotus levisporus* Singer IF No: 312256 Trophic mode/Guild: saprotroph/wood saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Crepidotaceae  
5637. *Crepidotus mollis* (Schaeff.) Stauda IF No: 204426 Trophic mode/Guild: saprotroph/wood saprotroph Habitat: On dead wood in Paramo with Espeletia Distribution: Global Distribution Elev.: 3,200 m Dept.: CAU Uses: HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Crepidotaceae  
5638. *Crepidotus nephrodes* (Berk. & M.A. Curtis) Sacc. IF No: 204569 Common name: Sakitaj venenoso (Tsotsil, Mayan language) Trophic mode/Guild: saprotroph/wood saprotroph Habitat: On trunks | Saprotroph gregarious Elev.: 2,000–3,400 m Dept.: CUN, MAG, VAC Uses: PO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Crepidotaceae  
5639. *Crepidotus palmarum* Singer IF No: 296085 Common name: Nacumas (Spanish); Orejas blancas (Spanish) Trophic mode/Guild: saprotroph/wood saprotroph Habitat: On dead wood | Saprotroph Distribution: Pantropics Dept.: BOY Uses: HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Crepidotaceae  
5640. *Crepidotus roseus* Singer IF No: 285839 Trophic mode/Guild: saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Crepidotaceae  
5641. *Crepidotus uber* (Berk. & M.A. Curtis) Sacc. IF No: 248148 Trophic mode/Guild: saprotroph/wood saprotroph Habitat: On fallen trunks | Saprotroph Distribution: Global Distribution Elev.: 60–3,000 m Dept.: CHO, CUN, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Crepidotaceae  
5642. *Pleuroflammula flavomarginata* (Berk. & Broome) Singer IF No: 303942 Trophic mode/Guild: saprotroph/undefined saprotroph Dept.: CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Crepidotaceae  
5643. *Pleuroflammula squarulosa* Singer IF No: 320696 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: On wood | Saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Cyphellaceae  
5644. *Campanophyllum proboscideum* (Fr.) Cifuentes & R.H. Petersen IF No: 488791 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Distribution: Pantropics Dept.: CAU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Cyphellaceae  
5645. *Incrustocarytella columbiana* Agerer IF No: 108088 Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Cystostereaceae  
5646. *Cericium luteolincrustatum* (Hjortstam & Ryvarden) Hjortstam IF No: 412747 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Elev.: Sea level Dept.: MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Entolomataceae  
5647. *Clitopilus argentinus* Singer IF No: 295207 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Elev.: 2,125 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Entolomataceae  
5648. *Clitopilus testaceus* (Dennis) Noordel. & Co-David IF No: 509953 Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Entolomataceae  
5649. *Entoloma albellum* (Romagn.) Singer IF No: 131555 Trophic mode/Guild: pathotroph, saprotroph, symbiotroph/ectomycorrhizal, fungal parasite, soil saprotroph, undefined saprotroph Dept.: VAC



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Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Entolomataceae  
5650, *Entoloma arachnoides* (Berk. & M.A. Curtis) Singer IF No: 328891 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/ectomycorrhizal, fungal

parasite, soil saprotroph, undefined saprotroph  
**Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Entolomataceae  
5651, *Entoloma avilinum* (Dennis) E. Horak IF No: 313675 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/ectomycorrhizal, fungal parasite, soil

saprotroph, undefined saprotroph **Habitat:** Saprotroph  
**Elev.:** 1,800 m **Dept.:** QUI



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Entolomataceae  
5652, *Entoloma ciltocyboides* E. Horak & Singer IF No: 115430 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/ectomycorrhizal, fungal parasite, soil

saprotroph, undefined saprotroph **Habitat:** Fallen leaves | Saprotroph **Dept.:** CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Entolomataceae  
5653, *Entoloma conspicuocystidiosum* E. Horak & Singer IF No: 115431 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/ectomycorrhizal, fungal

parasite, soil saprotroph, undefined saprotroph **Habitat:** On soil among litter in forest **Dept.:** AMA, CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Entolomataceae  
5654, *Entoloma dennisii* E. Horak IF No: 313704 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/ectomycorrhizal, fungal parasite, soil saprotroph, undefined

saprotroph **Habitat:** On soil in bamboo plantation. **Dept.:** AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Entolomataceae  
5655, *Entoloma dragonosporum* (Singer) E. Horak IF No: 313707 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/ectomycorrhizal, fungal

parasite, soil saprotroph, undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Entolomataceae  
5656, *Entoloma dysthales* (Peck) Sacc. IF No: 202121 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/ectomycorrhizal, fungal parasite, soil

saprotroph, undefined saprotroph **Habitat:** On soil under *Myrcogenella* **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Entolomataceae  
5657, *Entoloma ferrugineogranulatum* (Singer) E. Horak IF No: 313714 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/ectomycorrhizal, fungal

parasite, soil saprotroph, undefined saprotroph **Habitat:** Saprotroph **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Entolomataceae  
5658, *Entoloma flavotinctum* E. Horak & Corner IF No: 115433 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/ectomycorrhizal, fungal parasite, soil

saprotroph, undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Entolomataceae  
5659, *Entoloma hochstetteri* (Reichardt) G. Stev. IF No: 330487 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/ectomycorrhizal, fungal

parasite, soil saprotroph, undefined saprotroph **Habitat:** On soil | Saprotroph solitary, gregarious **Distribution:** Global **Elev.:** 1,500-1,680 m **Dept.:** CAQ, SAN **Uses:** PO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Entolomataceae  
5660, *Entoloma howellii* (Peck) Dennis IF No: 297243 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/ectomycorrhizal, fungal parasite, soil

saprotroph, undefined saprotroph **Habitat:** In tropical forest | Saprotroph **Elev.:** 50 m **Dept.:** CHO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Entolomataceae  
5661, *Entoloma hyphilliforme* (Singer) E. Horak IF No: 313755 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/ectomycorrhizal, fungal parasite, soil

saprotroph, undefined saprotroph **Habitat:** Saprotroph **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Entolomataceae  
5662, *Entoloma naranjanum* Dennis IF No: 297246 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/ectomycorrhizal, fungal parasite, soil saprotroph, undefined

saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Entolomataceae  
5663, *Entoloma pinnum* (Romagn.) Dennis IF No: 297251 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/ectomycorrhizal, fungal parasite, soil

saprotroph, undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Entolomataceae  
5664, *Entoloma pseudopapillatum* (Pegler) Courtec. & Fard IF No: 371220 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/ectomycorrhizal, fungal

parasite, soil saprotroph, undefined saprotroph **Dept.:** AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Entolomataceae  
5665, *Entoloma sericeum* Quéf. IF No: 202631 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal

symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Entolomataceae  
5666, *Entoloma singeri* Mešić & Tkalčec IF No: 817508 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/ectomycorrhizal, fungal parasite, soil

saprotroph, undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Entolomataceae  
5667, *Entoloma sibirianum* Dennis IF No: 297254 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/ectomycorrhizal, fungal parasite, soil saprotroph, undefined

saprotroph **Habitat:** On soil | Saprotroph **Dept.:** AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Entolomataceae  
5668, *Entoloma underwoodii* Dennis IF No: 297259 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/ectomycorrhizal, fungal parasite, soil saprotroph, undefined

saprotroph **Habitat:** On termite mound | Saprotroph solitary **Distribution:** Neotropics **Dept.:** CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Entolomataceae  
5669, *Entoloma venezolanum* (Dennis) E. Horak IF No: 313843 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/ectomycorrhizal, fungal parasite, soil

saprotroph, undefined saprotroph **Habitat:** In riparian forest **Elev.:** 1,700-2,200 m **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Entolomataceae  
5670, *Entoloma virgale* (Pegler) Courtec. IF No: 521342 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/ectomycorrhizal, fungal parasite, soil

saprotroph, undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Entolomataceae  
5671, *Inocephalus cystidlophorus* (Dennis) Karstedt & Capelari IF No: 519498 **Trophic mode/Guild:** saprotroph/undefined saprotroph

saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Entolomataceae  
5672, *Rhodocybe gilvoldes* (Rick) Singer IF No: 305187 **Trophic mode/Guild:** saprotroph/undefined saprotroph

saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Entolomataceae  
5673, *Rhodophana nitellina* (Fr.) Papetti IF No: 551107 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On soil | Saprotroph **Dept.:** CAQ

saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hydnangiaceae  
5674, *Hydnangium carneum* Wallr. IF No: 221851 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** Hypogeous under a thick layer of leaves

and debris in plantation of *E. camaldulensis* **Elev.:** 3,078 m **Dept.:** TOL



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hydnangiaceae  
5675, *Laccaria amethystina* Cooke IF No: 433576 **Common name:** Laccaria amatista (Spanish) **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On

soil | in oak forests | in coniferous forests | Ectomycorrhizal solitary, gregarious, scattered **Distribution:** Global **Elev.:** 2,600 m **Dept.:** ANT, HUI, CUN **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hydnangiaceae  
5676, *Laccaria fraterna* (Sacc.) Pegler IF No: 332792 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | Eucalyptus spp. plantations |

Ectomycorrhiza scattered, gregarious **Distribution:** Global **Elev.:** 2,690 m **Dept.:** BOY, ANT, CUN, HUI, VAC **Uses:** EU, HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hydnangiaceae  
5677, *Laccaria gomezii* Singer & G.M. Muell. IF No: 135152 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil, associated to *Quercus*,

Ectomycorrhizal solitary, gregarious **Distribution:** Endemic **Elev.:** 2,270 m **Dept.:** ANT, HUI



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hydnangiaceae  
5678, *Laccaria lacata* (Scop.) Cooke IF No: 119173 **Common name:** Laccaria lacada (Spanish) **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On

soil, in exotic plantations, in oak forests | Ectomycorrhizal solitary, gregarious **Distribution:** Global **Elev.:** 1,800-3,400 m **Dept.:** ANT, BOY, CAL, CAU, CUN, HUI, MAG, NAR, QUI **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hydnangiaceae  
5679, *Laccaria lateritia* Malençon IF No: 332794 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On woodland soils | Saprotroph gregarious **Elev.:** 2,900

m **Dept.:** BOY **Uses:** HF

CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hydnangiaceae  
**5680. *Laccaria ohlenis*** (Mont.) Singer IF No: 287397 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | on sandy soils | in riparian forest  
**Distribution:** Pantropics, Subtropics **Elev.:** 1,700–2,200 m **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hydnangiaceae  
**5681. *Laccaria proxima*** (Boud.) Pat. IF No: 438537 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil, in exotic plantations | Ectomycorrhizal gregarious, scattered **Distribution:** Introduced **Dept.:** ANT **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hydnangiaceae  
**5682. *Laccaria tetraspora*** Singer IF No: 287398 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** Endomycorrhiza **Dept.:** ANT, CAU, CUN, HUI



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hydnangiaceae  
**5683. *Laccaria trichodermophora*** G.M. Muell. IF No: 106945 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil, in exotic plantations | Ectomycorrhizal gregarious, scattered **Distribution:** Introduced **Dept.:** CUN **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5684. *Acantholichen variabilis*** Dal-Forno, Coca & Lücking IF No: 814553 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5685. *Armenia ainetora*** (Singer) Redhead IF No: 106606 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5686. *Cora acclipter*** Moncada, Madriñán & Lücking IF No: 552381 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5687. *Cora applanata*** Moncada, Soto-Medina & Lücking IF No: 552382 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5688. *Cora arachnodavidea*** Moncada, Dal-Forno & Lücking IF No: 552383 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5689. *Cora arachnoidea*** J.E. Hern. & Lücking IF No: 805376 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5690. *Cora arborescens*** Dal-Forno, Chaves & Lücking IF No: 552384 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5691. *Cora arcabucana*** Moncada, C. Rodríguez & Lücking IF No: 552385 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5692. *Cora aspera*** Wilk, Lücking & E. Morales IF No: 805377 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5693. *Cora aturuca*** Lücking, Moncada & C. Vargas IF No: 552386 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5694. *Cora barbifera*** Moncada, Patiño & Lücking IF No: 552388 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5695. *Cora byssoides*** Lücking & Moncada IF No: 805378 **Trophic mode/Guild:** symbiotroph/lichenised **Conservation:** CR



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5696. *Cora casanarensis*** L.Y. Vargas, Moncada & Lücking IF No: 810489 **Trophic mode/Guild:** symbiotroph/lichenised **Conservation:** VU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5697. *Cora caucensis*** Moncada, M.C. Gut. & Lücking IF No: 552395 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5698. *Cora celestina*** Moncada, Cabr. – Amaya & Lücking IF No: 552396 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5699. *Cora ciferrii*** (Tomas.) Lücking, A. Grall & Thüs IF No: 808696 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5700. *Cora coralliesila*** Moncada, Suárez – Corr. & Lücking IF No: 552399 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5701. *Cora crispocostata*** Moncada, J.A. Molina & Lücking IF No: 552400 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5702. *Cora cyphellifera*** Dal-Forno, Bungartz & Lücking IF No: 805379 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5703. *Cora distibana*** Moncada, Madriñán & Lücking IF No: 552402 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5704. *Cora davibogotana*** Lücking, Moncada & Coca IF No: 552403 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5705. *Cora davicrinia*** Moncada, Madriñán & Lücking IF No: 552404 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5706. *Cora davidia*** Moncada, L.Y. Vargas & Lücking IF No: 552405 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5707. *Cora dewisanti*** Moncada, Suárez – Corr. & Lücking IF No: 552406 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5708. *Cora elephas*** Lücking, Moncada & L.Y. Vargas IF No: 552408 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5709. *Cora fimbriata*** L.Y. Vargas, Moncada & Lücking IF No: 810490 **Trophic mode/Guild:** symbiotroph/lichenised **Conservation:** EN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5710. *Cora fuscodavidiiana*** Lücking, Moncada & L.Y. Vargas IF No: 552409 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5711. *Cora garagoa*** Simijaca, Moncada & Lücking IF No: 552410 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5712. *Cora gigantea*** Lücking, Moncada & Coca IF No: 552411 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5713. *Cora glabrata*** (Spreng.) Fr. IF No: 383684 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5714. *Cora haresceaeortensis*** Moncada, Lücking & R.-E. Peláez IF No: 552414 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5715. *Cora hawksworthiana*** Dal-Forno, P.R. Nelson & Lücking IF No: 552416 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5716. *Cora hirsuta*** (Moncada & Lücking) Moncada & Lücking IF No: 805388 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5717. *Cora inversa*** Lücking & Moncada IF No: 805380 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5718. *Cora lesilactuca*** Lücking, Moncada & R.-E. Peláez IF No: 552421 **Trophic mode/Guild:** symbiotroph/lichenised



CHECKLIST OF FUNGI OF COLOMBIA

	Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5719. <i>Cora minor</i> (Lücking, E. Navarro & Sipman) Lücking IF No: 805389 Trophic mode/Guild: symbiotroph/lichenised		Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5720. <i>Cora paraciferii</i> Lücking, Moncada & J.E. Hern. IF No: 552427 Trophic mode /Guild: symbiotroph/lichenised		Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5721. <i>Cora pastorum</i> Moncada, Patiño & Lücking IF No: 552429 Trophic mode/Guild: symbiotroph/lichenised
	Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5722. <i>Cora pavonia</i> (Weber & D. Mohr) Mont. IF No: 163226 Trophic mode/Guild: symbiotroph/lichenised		Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5723. <i>Cora pikynasa</i> J.-M. Torres, Moncada & Lücking IF No: 552431 Trophic mode/Guild: symbiotroph/lichenised		Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5724. <i>Cora putumayensis</i> L.J. Arias, Moncada & Lücking IF No: 552434 Trophic mode/Guild: symbiotroph/lichenised
	Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5725. <i>Cora quillacinga</i> Moncada, F. Ortega & Lücking IF No: 552435 Trophic mode /Guild: symbiotroph/lichenised		Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5726. <i>Cora reticulifera</i> Vain. IF No: 383690		Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5727. <i>Cora rotheslorum</i> Moncada, Madrián & Lücking IF No: 552436 Trophic mode/Guild: symbiotroph/lichenised
	Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5728. <i>Cora schizophylloides</i> Moncada, C. Rodríguez & Lücking IF No: 552439 Trophic mode/Guild: symbiotroph/lichenised		Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5729. <i>Cora setosa</i> L.Y. Vargas, Moncada & Lücking IF No: 810491 Trophic mode/Guild: symbiotroph/lichenised Conservation: CR		Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5730. <i>Cora subdavrinita</i> Moncada, J.A. Molina & Lücking IF No: 552442 Trophic mode/Guild: symbiotroph/lichenised
	Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5731. <i>Cora udebecana</i> Moncada, R.-E. Peláez & Lücking IF No: 552446 Trophic mode/Guild: symbiotroph/lichenised		Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5732. <i>Cora undulata</i> L.Y. Vargas, Moncada & Lücking IF No: 810492 Trophic mode/Guild: symbiotroph/lichenised Conservation: CR		Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5733. <i>Cora ureolata</i> Moncada, Coca & Lücking IF No: 552447 Trophic mode/Guild: symbiotroph/lichenised
	Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5734. <i>Cora verionensis</i> Lücking, Moncada & Dal-Forno IF No: 552448 Trophic mode/Guild: symbiotroph/lichenised		Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5735. <i>Cora villosa</i> Lücking, Chaves & Soto-Medina IF No: 552449 Trophic mode/Guild: symbiotroph/lichenised		Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5736. <i>Corella brasiliensis</i> Vain. IF No: 383696 Trophic mode/Guild: saprotroph/undefined saprotroph
	Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5737. <i>Corella melvini</i> (Chaves, Lücking & L. Umaña) Lücking, Dal-Forno & Lawrey IF No: 805394 Trophic mode/Guild: saprotroph/undefined saprotroph		Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5738. <i>Corella zahlbruckneri</i> Schiffn. IF No: 383698 Trophic mode/Guild: saprotroph/undefined saprotroph		Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5739. <i>Cuphophyllus pratensis</i> (Pers.) Bon IF No: 105223 Trophic mode/Guild: saprotroph/undefined saprotroph Uses: HF
	Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5740. <i>Cuphophyllus virgineus</i> (Wulfen) Kovalenko IF No: 127382 Trophic mode /Guild: saprotroph/undefined saprotroph Uses: HF		Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5741. <i>Cyphelostereum pusillum</i> (Berk. & M.A. Curtis) D.A. Reid IF No: 329527 Trophic mode/Guild: symbiotroph/lichenised Distribution: Pan tropics, Native Elev.: 1,700–2,050 m Dept.: ANT, NAR		Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5742. <i>Diclyonema giganteum</i> L.Y. Vargas, Moncada & Lücking IF No: 810493 Trophic mode/Guild: symbiotroph/lichenised
	Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5743. <i>Diclyonema hernandezii</i> Lücking, Lawrey & Dal-Forno IF No: 517761 Trophic mode/Guild: symbiotroph/lichenised		Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5744. <i>Diclyonema irpichinum</i> Mont. IF No: 186042 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Amazonia, Andes Distribution: Pan tropics, Native Elev.: 50–1,900 m Dept.: CAQ, RIS, SAN		Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5745. <i>Diclyonema irigatum</i> (Berk. & M.A. Curtis) Lücking IF No: 805393 Trophic mode/Guild: symbiotroph/lichenised
	Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5746. <i>Diclyonema ligulatum</i> (Kremp.) Zahlbr. IF No: 365988 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Andes Distribution: Pan tropics, Native Elev.: 1,800 m Dept.: CHO		Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5747. <i>Diclyonema membranaceum</i> C. Agardh IF No: 185858 Trophic mode/Guild: symbiotroph/lichenised		Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5748. <i>Diclyonema metallicum</i> Lücking, Dal-Forno & Lawrey IF No: 805385 Trophic mode/Guild: symbiotroph/lichenised
	Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5749. <i>Diclyonema obscuratum</i> Lücking, A.A. Spielm. & Marcelli IF No: 805386 Trophic mode/Guild: symbiotroph/lichenised		Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5750. <i>Diclyonema phyllophilum</i> (Parmasto) Lücking, Dal-Forno & Lawrey IF No: 805390 Trophic mode/Guild: symbiotroph/lichenised		Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5751. <i>Diclyonema schenckianum</i> (Müll. Arg.) Zahlbr. IF No: 384320 Trophic mode/Guild: symbiotroph/lichenised
	Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5752. <i>Diclyonema sericeum</i> (Sw.) Berk. IF No: 478578 Trophic mode/Guild: symbiotroph/lichenised Biogeographic region: Amazonia, Andes, Pacific Distribution: Pan tropics, Native Elev.: 240–2,940 m Dept.: AMA, CAU, CHO, CUN, GUA, NAR, RIS, VAC, VAU		Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5753. <i>Diclyonema thelephora</i> (Spreng.) Zahlbr. IF No: 384323 Trophic mode/Guild: symbiotroph/lichenised		Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5754. <i>Gilophorus laetus</i> (Pers.) Herink IF No: 103375 Trophic mode/Guild: saprotroph/ Habitat: On soil, In mixed oak-dominated forest   Saprotroph Elev.: 2,500–2,800 m Dept.: ANT
	Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5755. <i>Hygroaster cleefii</i> Franco-Mol. & López-Quint. IF No: 510469 Distribution: Pan tropics Dept.: CAQ, CHO, CAU		Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5756. <i>Hygroaster nodulisporus</i> (Dennis) Ralaiv., Niskanen & Liimat. IF No: 556369 Trophic mode/Guild: saprotroph/ Habitat: On decayed wood   on soil, solitary Distribution: Global Distribution Elev.: 200 m Dept.: AMA, CAQ		Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae 5757. <i>Hygrocybe aphylla</i> Læssøe & Boertm. IF No: 511355 Trophic mode/Guild: saprotroph/

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Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5758. *Hygrocybe astatogala*** R. Heim ex Heinem. IF No: 332155  
**Trophic mode/Guild:** saprotroph/soil saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5759. *Hygrocybe batistae*** Singer IF No: 332159 **Trophic mode/ Guild:** saprotroph/ **Habitat:** Saprotroph **Distribution:** Panotropics **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5760. *Hygrocybe calciphila*** Arnolds IF No: 104317 **Trophic mode/Guild:** saprotroph/ **Habitat:** In tropical forest **Distribution:** Temperate **Elev.:** 50 m **Dept.:** CHO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5761. *Hygrocybe chloochlora*** Pegler & Flard IF No: 315375 **Trophic mode/Guild:** saprotroph/ **Habitat:** Saprotroph **Distribution:** Panotropics **Dept.:** CAU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5762. *Hygrocybe chlorophana*** (Fr.) Wünsche IF No: 356815 **Trophic mode/Guild:** saprotroph/ **Habitat:** In riparian forest **Elev.:** 1,700–2,200 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5763. *Hygrocybe coccolinea*** (Schaeff.) P. Kumm. IF No: 355640 **Trophic mode/ Guild:** saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5764. *Hygrocybe conica*** (Schaeff.) P. Kumm. IF No: 356885 **Trophic mode/ Guild:** saprotroph **Habitat:** On soil in forests, rarely in meadows | Saprotroph solitary, gregarious **Distribution:** Global **Elev.:** 200–2,100 m **Dept.:** ANT, CAL, CAQ, QUI, MAG **Uses:** PO



Dept.: VAC

Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5765. *Hygrocybe hondurensis*** Murrill IF No: 546425 **Trophic mode/Guild:** saprotroph **Distribution:** Panotropics **Elev.:** 2,400–3,600 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5766. *Hygrocybe hypohaemacta*** (Corner) Pegler IF No: 315388 **Trophic mode/Guild:** saprotroph/ **Habitat:** Saprotroph **Elev.:** 400 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5767. *Hygrocybe miniata*** (Fr.) P. Kumm. IF No: 356816 **Trophic mode/Guild:** saprotroph/ **Habitat:** On soil | Among moss | Among leaves | On decaying wood | Saprotroph scattered **Distribution:** Global **Elev.:** 200–3,100 m **Dept.:** AMA, ANT, QUI, TOL, SAN **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5768. *Hygrocybe naranjana*** Pegler IF No: 315394 **Trophic mode/Guild:** saprotroph/ **Habitat:** Saprotroph **Elev.:** 3,600–3,800 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5769. *Hygrocybe nigrescens*** (Qué.) Kühner IF No: 355613 **Trophic mode/Guild:** saprotroph/



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5770. *Hygrocybe occidentalis*** (Dennis) Pegler IF No: 315395 **Trophic mode/Guild:** saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5771. *Hygrocybe prieta*** Lodge & Pegler IF No: 133411 **Trophic mode/Guild:** saprotroph/



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5772. *Hygrocybe rosea*** Murrill IF No: 454913 **Trophic mode/Guild:** saprotroph/ **Habitat:** Saprotroph **Distribution:** Panotropics **Dept.:** BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5773. *Hygrocybe rubroflava*** Singer IF No: 315403 **Trophic mode/Guild:** saprotroph **Habitat:** Saprotroph **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5774. *Hygrocybe subcaespitosa*** Murrill IF No: 546427 **Trophic mode/Guild:** saprotroph/ **Habitat:** On ground **Elev.:** 90 m **Dept.:** AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5775. *Hygrocybe subflavida*** Murrill IF No: 546429 **Trophic mode/Guild:** saprotroph/ **Habitat:** Saprotroph **Distribution:** Panotropics **Elev.:** 2,000 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5776. *Hygrocybe trinitensis*** (Dennis) Pegler IF No: 315415 **Trophic mode/Guild:** saprotroph/ **Habitat:** Fallen leaves | in chagra | Saprotroph **Distribution:** Panotropics **Elev.:** 200 m **Dept.:** CAQ



Dept.: VAC

Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5777. *Hygrocybe trovana*** Murrill IF No: 546432 **Trophic mode/ Guild:** saprotroph/ **Habitat:** In secondary forest | on soil | Saprotroph **Elev.:** 1,700–2,200 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5778. *Hygrocybe buccinulus*** (Speg.) Dennis IF No: 298685 **Trophic mode/ Guild:** symbiotroph/ectomycorrhizal **Habitat:** On litter, in mixed oak-dominated forest | Saprotroph **Elev.:** 2,500–2,800 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5779. *Hygrocybe cossus*** (Sowerby) Fr. IF No: 203105 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | in Andean forest | Ectomycorrhiza **Distribution:** Global **Dept.:** BOY, CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5780. *Hygrocybe niveicolor*** (Murrill) A.H. Sm. & Hesler IF No: 287135 **Trophic mode /Guild:** symbiotroph/ ectomycorrhizal **Habitat:** On clay-swampy soil, but firm. **Elev.:** 100 m **Dept.:** AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5781. *Hygrocybe niveicolor*** (Murrill) A.H. Sm. & Hesler IF No: 287135 **Trophic mode /Guild:** symbiotroph/ ectomycorrhizal **Elev.:** 2,400–3,600 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5782. *Hygrocybe quercuum*** Singer IF No: 315443 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Distribution:** Global **Dept.:** BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5783. *Leptoglossum galeatum*** W.B. Cooke IF No: 333170 **Distribution:** Panotropics **Elev.:** 2,400–3,800 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5784. *Lichenomphalia alpina*** (Britzelm.) Redhead, Lutzoni, Moncalvo & Vilgalys IF No: 375162 **Trophic mode/Guild:** symbiotroph/lichenised **Dept.:** TOL



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5785. *Lichenomphalia aurantacea*** (Redhead & Kuyper) Redhead, Lutzoni, Moncalvo & Vilgalys IF No: 375163 **Trophic mode/Guild:** symbiotroph/ lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 3,000–4,000 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastreae  
**5786. *Lichenomphalia hudsoniana*** (H.S. Jenn.) Redhead, Lutzoni, Moncalvo & Vilgalys IF No: 375187 **Trophic mode/ Guild:** symbiotroph/lichenised **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5787. *Lichenomphalia lobata*** (Redhead & Kuyper) Redhead, Lutzoni, Moncalvo & Vilgalys IF No: 375196 **Trophic mode/ Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Endemic **Elev.:** 3,000–4,000 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hygrophoraceae  
**5788. *Lichenomphalia luteovittellina*** (Pilat & Nanf.) Redhead, Lutzoni, Moncalvo & Vilgalys IF No: 586485 **Trophic mode/ Guild:** symbiotroph/lichenised **Dept.:** CUN



undefined saprotroph, wood saprotroph **Habitat:** On soil | associated with mosses, muddy humus of swamps | Saprotroph gregarious **Distribution:** Global **Elev.:** 2,400–3,800 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastreae  
**5790. *Galerina columbiana*** Singer IF No: 314267 **Trophic mode/Guild:** pathotroph, saprotroph/bryophyte parasite, leaf saprotroph, soil saprotroph, undefined saprotroph, wood saprotroph **Habitat:** Saprotroph **Dept.:** BOY



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Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5791. *Galerina discernibillis* Singer IF No: 314268 Trophic mode/Guild: pathotroph, saprotroph/bryophyte parasite, leaf saprotroph, soil saprotroph, undefined  
saprotroph, wood saprotroph **Habitat:** Saprotroph  
**Distribution:** Panotropics **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5792. *Galerina emmetensis* A.H. Sm. & Singer IF No: 297615 Trophic mode/Guild: pathotroph, saprotroph/bryophyte parasite, leaf saprotroph, soil saprotroph, undefined  
saprotroph, wood saprotroph **Habitat:** Saprotroph  
**Elev.:** 2,400–3,600 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5793. *Galerina hysryza* Singer IF No: 331092 Trophic mode/Guild: pathotroph, saprotroph/bryophyte parasite, leaf saprotroph, soil saprotroph, undefined  
saprotroph, wood saprotroph **Habitat:** Saprotroph  
**Elev.:** 1,239 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5794. *Galerina mycenoides* (Fr.) Kühner IF No: 253483 Trophic mode/Guild: pathotroph, saprotroph/bryophyte parasite, leaf saprotroph, soil saprotroph, undefined  
saprotroph, wood saprotroph **Dept.:** BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5795. *Galerina oligocalytrata* Singer IF No: 124826 Trophic mode/Guild: pathotroph, saprotroph/bryophyte parasite, leaf saprotroph, soil saprotroph, undefined  
saprotroph, wood saprotroph **Distribution:** Panotropics  
**Dept.:** BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5796. *Galerina pumila* (Pers.) Singer IF No: 331133 Trophic mode/Guild: pathotroph, saprotroph/bryophyte parasite, leaf saprotroph, soil saprotroph, undefined  
saprotroph, wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5797. *Galerina quinteroensis* Singer IF No: 331134 Trophic mode/Guild: pathotroph, saprotroph/bryophyte parasite, leaf saprotroph, soil saprotroph, undefined  
saprotroph, wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5798. *Galerina yungicola* Singer IF No: 331160 Trophic mode/Guild: pathotroph, saprotroph/bryophyte parasite, leaf saprotroph, soil saprotroph, undefined  
saprotroph, wood saprotroph **Habitat:** Saprotroph **Distribution:** Panotropics  
**Elev.:** 3,600–3,800 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5799. *Gymnopilus chrysopellus* (Berk. & M.A. Curtis) Murrill IF No: 451329 Trophic mode/Guild: saprotroph/wood saprotroph  
**Habitat:** On trunk **Elev.:** 220 m **Dept.:** CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5800. *Gymnopilus dilepis* (Berk. & Broome) Singer IF No: 445575 Trophic mode/Guild: saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5801. *Gymnopilus epiletum* Ryvarden IF No: 501307 Trophic mode/Guild: saprotroph/wood saprotroph  
**Habitat:** Saprotroph **Elev.:** 2,300 m **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5802. *Gymnopilus juronius* (Fr.) P.D. Orton IF No: 331593 Trophic mode/Guild: saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5803. *Gymnopilus lateritius* (Pat.) Murrill IF No: 451331 Trophic mode/Guild: saprotroph/wood saprotroph  
**Habitat:** On wood, in mixed oak-dominated forest |  
Wood saprotroph **Elev.:** 2,500–2,800 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5804. *Gymnopilus lepidotus* Hesler IF No: 314787 Trophic mode/Guild: saprotroph/wood saprotroph  
**Habitat:** On decayed wood | in chagra | Saprotroph **Elev.:** 200 m **Dept.:** AMA, CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5805. *Gymnopilus parvisporus* B.J. Rees IF No: 459679 Trophic mode/Guild: saprotroph/wood saprotroph  
**Habitat:** On decayed wood | in chagra | Saprotroph **Elev.:** 2,100 m **Dept.:** AMA, CAL



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5806. *Gymnopilus purpureosquamulosus* Høil. IF No: 447006 Trophic mode/Guild: saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5807. *Gymnopilus rugulosus* R. Valenz., Guzmán & J. Castillo IF No: 110713 Trophic mode/Guild: wood saprotroph  
**Habitat:** Sa-protroph **Elev.:** 2,500–3,200 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5808. *Gymnopilus tuxtensis* Guzm.–Dáv. IF No: 361720 Trophic mode/Guild: saprotroph/wood saprotroph  
**Habitat:** Saprotroph **Elev.:** 400 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5809. *Phaeocollybia ambigua* E. Horak & Halling IF No: 355265 Trophic mode/Guild: symbiotroph/ectomycorrhizal  
**Habitat:** On soil in montane *Quercus humboldtii* forest | Saprotroph **Distribution:** Panotropics **Elev.:** 2,500–2,700 m **Dept.:** ANT, NAR



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5810. *Phaeocollybia caudata* E. Horak & Halling IF No: 355266 Trophic mode/Guild: symbiotroph/ectomycorrhizal **Distribution:** Panotropics **Elev.:** 716–2,500 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5811. *Phaeocollybia columbiana* Singer IF No: 319535 Trophic mode/Guild: symbiotroph/ectomycorrhizal **Elev.:** 500 m **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5812. *Phaeocollybia oligopora* Singer IF No: 131574 Trophic mode/Guild: symbiotroph/ectomycorrhizal **Distribution:** Panotropics **Elev.:** 2,350–2,500 m **Dept.:** ANT, NAR



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5813. *Phaeocollybia pseudodolugbrif* Bandala & E. Horak IF No: 415152 Trophic mode/Guild: symbiotroph/ectomycorrhizal  
**Habitat:** In forests of *Abies religiosa* and Pinus | Saprotroph **Elev.:** 2,750 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5814. *Phaeocollybia quercetorum* Singer IF No: 131575 Trophic mode/Guild: symbiotroph/ectomycorrhizal  
**Habitat:** On litter | in mature forest | Saprotroph **Distribution:** Panotropics **Elev.:** 2,100–2,500 m **Dept.:** ANT, CAL



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5815. *Phaeocollybia singularis* E. Horak & Halling IF No: 355267 Trophic mode/Guild: symbiotroph/ectomycorrhizal **Distribution:** Panotropics **Elev.:** 2,700 m **Dept.:** NAR



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5816. *Psilocybe antioquiensis* Guzmán, Saldarr., Pineda, G. García & L.-F. Velázquez IF No: 362240 Trophic mode/Guild: saprotroph/ Habitat: On soil in subtropical zone | Saprotroph solitary, gregarious **Distribution:** Panotropics **Dept.:** ANT **Uses:** SU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5817. *Psilocybe argentina* (Speg.) Singer IF No: 337834 Trophic mode/Guild: saprotroph/dung saprotroph  
**Habitat:** On cow dung | Saprotroph **Distribution:** Austral **Elev.:** 1,900–3,400 m **Dept.:** BOY, CHO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5818. *Psilocybe bispora* Guzmán, Franco-Mol. & Ram.–Guill. IF No: 563522 Trophic mode/Guild: saprotroph/ Habitat: Saprotroph **Elev.:** 2,500 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5819. *Psilocybe bullicae* (Bull.) P. Kumm. IF No: 414619 Trophic mode/Guild: saprotroph/ Habitat: Saprotroph **Distribution:** Temperate, Europe **Elev.:** 2,500 m **Dept.:** BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5820. *Psilocybe cablensis* Guzmán, M. Torres & Ram.–Guill. IF No: 370729 Trophic mode/Guild: saprotroph/ Habitat: In tropical forest | Saprotroph **Elev.:** 50 m **Dept.:** CHO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5821. *Psilocybe caeruleascens* Murrill IF No: 259270 Trophic mode/Guild: saprotroph/ Habitat: On soil or on sugar cane mulch, mostly in shaded places or on rich soil recently moved or altered | Saprotroph gregarious, cespitose **Distribution:** Panotropics, Subtropics **Elev.:** 1,475 m **Dept.:** ANT **Uses:** ME, SU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5822. *Psilocybe clavata* Guzmán IF No: 109209 Trophic mode/Guild: saprotroph **Habitat:** Saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogastraceae  
5823. *Psilocybe columbiana* Guzmán IF No: 321917 Trophic mode/Guild: saprotroph/ Habitat: On soil, in Paramo with *Espeletia argentea* | Saprotroph solitary, gregarious **Distribution:** Panotropics **Elev.:** 3,200–3,500 m **Dept.:** CUN **Uses:** SU

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Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogasteraceae  
**5824. *Psilocybe heliconiae*** (Earle) Singer IF No: 290107 **Common name:** Hongo de San Isidro Labrador (Spanish); Hongo que emborracha, used by Uitoto people **Trophic mode/Guild:** saprotroph/ **Habitat:** On dung | In meadows | In disturbed tropical vegetation | Saprotroph solitary, gregarious **Distribution:** Panotropics, Subtropics **Elev.:** Sea level–3,000 m **Dept.:** AMA, ANT, BOY, CHO, CAL, CAQ, CUN, MET, SAN, TOL, VAC **Uses:** ME, SU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogasteraceae  
**5825. *Psilocybe fimicola*** Guzmán IF No: 321923 **Trophic mode/Guild:** saprotroph/ **Habitat:** On dung | Saprotroph **Elev.:** 3,500 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogasteraceae  
**5826. *Psilocybe guatapensis*** Guzmán, Saldarr., Pineda, G. García & L.-F. Velázquez IF No: 362241 **Trophic mode/Guild:** saprotroph/ **Habitat:** In orange brown clay soil covered by mosses, in subtropical forests | Saprotroph gregarious, cespitose **Distribution:** Panotropics **Dept.:** ANT **Uses:** SU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogasteraceae  
**5827. *Psilocybe heliconiae*** Guzmán, Saldarr., Pineda, G. García & L.-F. Velázquez IF No: 362242 **Trophic mode/Guild:** saprotroph/ **Habitat:** On soil in subtropical zone | Saprotroph solitary, cespitose **Distribution:** Panotropics **Dept.:** ANT, CAQ **Uses:** SU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogasteraceae  
**5828. *Psilocybe hoogshagenii*** R. Heim IF No: 109476 **Trophic mode/Guild:** saprotroph/ **Habitat:** On dung | Saprotroph solitary, gregarious **Distribution:** Panotropics



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogasteraceae  
**5829. *Psilocybe mexicana*** R. Heim IF No: 304487 **Trophic mode/Guild:** saprotroph/ **Habitat:** Saprotroph solitary, gregarious **Distribution:** Panotropics **Dept.:** ANT **Uses:** SU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogasteraceae  
**5830. *Psilocybe mullercula*** Singer & A.H. Sm. IF No: 304489 **Trophic mode/Guild:** saprotroph/



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogasteraceae  
**5831. *Psilocybe naematoliformis*** Guzmán IF No: 321939 **Trophic mode/Guild:** saprotroph/



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogasteraceae  
**5832. *Psilocybe peruviana*** Singer IF No: 337859 **Trophic mode/Guild:** saprotroph/



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogasteraceae  
**5833. *Psilocybe plintronii*** Guzmán IF No: 321944 **Trophic mode/Guild:** saprotroph/ **Habitat:** On soil, in Paramo | Saprotroph solitary, gregarious **Distribution:** Panotropics **Elev.:** 3,450–3,600 m **Dept.:** CUN **Uses:** SU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogasteraceae  
**5834. *Psilocybe pleurocystidiosa*** Guzmán IF No: 109214 **Trophic mode/Guild:** saprotroph/ **Habitat:** On soil or humus in subtropical forest | Saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogasteraceae  
**5835. *Psilocybe plintronii*** (Berk. & M.A. Curtis) Sacc. IF No: 223344 **Trophic mode/Guild:** saprotroph/ **Habitat:** On soil, in tropical rain forest | On decaying wood and rotting logs | Saprotroph solitary, gregarious **Distribution:** Panotropics **Elev.:** 50 m **Dept.:** CHO **Uses:** SU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogasteraceae  
**5836. *Psilocybe semilangustipileurocystidata*** Guzmán, Ram.–Guill. & M. Torres IF No: 370701 **Trophic mode/Guild:** saprotroph/ **Habitat:** In tropical forest | Saprotroph **Elev.:** 50 m **Dept.:** CHO, MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogasteraceae  
**5837. *Psilocybe subcubensis*** Guzmán IF No: 321955 **Trophic mode/Guild:** saprotroph/ **Habitat:** On dung | Saprotroph gregarious **Distribution:** Panotropics, Subtropics **Elev.:** 400 m **Dept.:** ANT, BOY, SAN **Uses:** SU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogasteraceae  
**5838. *Psilocybe subhellconiae*** Guzmán, Ram.–Guill. & M. Torres IF No: 370695 **Trophic mode/Guild:** saprotroph/ **Habitat:** In tropical forest | Saprotroph **Elev.:** 50 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogasteraceae  
**5839. *Psilocybe subhoogshagenii*** Guzmán, M. Torres & Ram.–Guill. IF No: 370687 **Trophic mode/Guild:** saprotroph/ **Habitat:** In tropical forest | Saprotroph **Elev.:** 50 m **Dept.:** CHO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogasteraceae  
**5840. *Psilocybe subhyperella*** Singer IF No: 321957 **Trophic mode/Guild:** saprotroph/ **Habitat:** Saprotroph **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogasteraceae  
**5841. *Psilocybe subviscida*** (Peck) Kauffman IF No: 446058 **Trophic mode/Guild:** saprotroph/



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogasteraceae  
**5842. *Psilocybe wrightii*** Guzmán IF No: 321965 **Trophic mode/Guild:** saprotroph/ **Habitat:** Saprotroph **Elev.:** 2,800 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogasteraceae  
**5843. *Psilocybe yungensis*** Singer & A.H. Sm. IF No: 313043 **Trophic mode/Guild:** saprotroph/ **Habitat:** Saprotroph **Elev.:** 2,640–2,900 m **Dept.:** CAL, CUN, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Hymenogasteraceae  
**5844. *Psilocybe zapotecorum*** R. Heim IF No: 304501 **Common name:** Corona de Cristo (Spanish) **Trophic mode/Guild:** saprotroph/ **Habitat:** Grow near rivers, sometimes, it also grows on the moss on steep, ravine walls | On humus | On sandy soil, on decayed wood | Saprotroph solitary **Distribution:** Panotropics, Subtropics **Elev.:** 2,000–2,350 m **Dept.:** ANT, MAG **Uses:** ME, SU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Inocybaceae  
**5845. *Inocybe hystrix*** (Fr.) P. Karst. IF No: 191435 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | Ectomycorrhiza **Elev.:** 2,500–2,800 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Inocybaceae  
**5846. *Inocybe jalapensis*** (Murrill) Singer IF No: 509639 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** Forest with oak | Saprotroph **Distribution:** Subtropics **Elev.:** 200–2,100 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Inocybaceae  
**5847. *Inocybe tahquamenonensis*** D.E. Stuntz IF No: 298980 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | in Andean forest | Ectomycorrhiza **Dept.:** BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Inocybaceae  
**5848. *Inocybe tequendamae*** Singer IF No: 332570 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** Endomycorrhiza **Distribution:** Panotropics **Elev.:** 2,100 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Inocybaceae  
**5849. *Inosperma calamistratum*** (Fr.) Matheny & Esteve–Rav. IF No: 830345 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Elev.:** 3,000 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Inocybaceae  
**5850. *Inosperma maculatum*** (Boud.) Matheny & Esteve–Rav. IF No: 830376 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Inocybaceae  
**5851. *Inosperma saragum*** (K.P.D. Latha & Manimohan) Matheny & Esteve–Rav. IF No: 830401 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Inocybaceae  
**5852. *Pseudosperma rimosum*** (Bull.) Matheny & Esteve–Rav. IF No: 830693 **Trophic mode/Guild:** saprotroph/ **Habitat:** In oak and pine forests | Saprotroph **Distribution:** Europe **Elev.:** 2,600 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Inocybaceae  
**5853. *Pseudosperma umbrinellum*** (Bres.) Matheny & Esteve–Rav. IF No: 830700



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Lycoperdaceae  
**5854. *Apopordon pyriforme*** (Schaeff.) Vizzini IF No: 819914 **Trophic mode/Guild:** saprotroph/ **Habitat:** On branches, decaying trunks | on soil | Saprotroph gregarious, scattered **Distribution:** Global **Elev.:** 1,475 m **Dept.:** ANT, MAG, PUT, VAC **Uses:** HF, ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Lycoperdaceae  
**5855. *Bovista colorata*** (Peck) Kreisel IF No: 327156 **Trophic mode/Guild:** saprotroph/soil saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Lycoperdaceae  
**5856. *Bovista dominicensis*** (Masse) Kreisel IF No: 327159 **Trophic mode/Guild:** saprotroph/soil saprotroph **Habitat:** In tropical forest | Saprotroph **Distribution:** Panotropics **Elev.:** 50 m **Dept.:** CHO



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Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Lycoperdaceae  
**5857. *Bovista fusca*** Lévl. IF No: 201595  
**Trophic mode/Guild:** saprotrophy/soil saprotroph **Habitat:** On soil, in open spaces near oak trees | Saprotroph **Elev.:** 2,100–3,900 m **Dept.:** CUN **Uses:** ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Lycoperdaceae  
**5858. *Bovista plumbea*** Pers. IF No: 209632 **Trophic mode/Guild:** saprotrophy/soil saprotroph **Habitat:** On mosses. **Distribution:** Tropics, probably introduced **Elev.:** 2,000–3,000 m **Dept.:** TOL



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Lycoperdaceae  
**5859. *Bovista pusilla*** (Batsch) Pers. IF No: 209390 **Trophic mode/Guild:** saprotroph /soil saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Lycoperdaceae  
**5860. *Bovista trachyspora*** (Lloyd) Kreisel IF No: 327175 **Trophic mode/Guild:** saprotrophy/soil saprotroph **Habitat:** Saprotroph **Elev.:** 3,800–4,300 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Lycoperdaceae  
**5861. *Calvatia cyathiformis*** (Bosc) Morgan IF No: 356862 **Trophic mode/Guild:** saprotrophy/soil saprotroph **Habitat:** In grass, lawns, meadows | Saprotroph solitary, gregarious, scattered **Distribution:** Global **Elev.:** 1,475–1,660 m **Dept.:** ANT, CUN, VAC **Uses:** HF, ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Lycoperdaceae  
**5862. *Calvatia gigantea*** (Batsch) Lloyd IF No: 265958 **Trophic mode/Guild:** saprotrophy/soil saprotroph **Habitat:** In grass, often at the edges of meadows, in drainage ditches, or under brush | Saprotroph solitary, gregarious **Distribution:** Global **Dept.:** NAR **Uses:** ME, PO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Lycoperdaceae  
**5863. *Lycoperdon abyssinicum*** (Mont.) Dring IF No: 333483 **Trophic mode/Guild:** saprotrophy/soil saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Lycoperdaceae  
**5864. *Lycoperdon dermozanthum*** Vittad. IF No: 232356 **Trophic mode/Guild:** saprotrophy/soil saprotroph **Habitat:** On humus in sun–exposed, dry, acid grasslands extending to margins of woodland and road verges **Distribution:** Probably cosmopolitan **Elev.:** 520 m **Dept.:** BOY, CHO, CUN, RIS



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Lycoperdaceae  
**5865. *Lycoperdon fuligininum*** Berk. & M.A. Curtis IF No: 216221 **Trophic mode/Guild:** saprotrophy/soil saprotroph **Distribution:** Pantropics **Elev.:** 1,340–1,800 m **Dept.:** QUI



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Lycoperdaceae  
**5866. *Lycoperdon lividum*** Pers. IF No: 414454 **Trophic mode/Guild:** saprotrophy/soil saprotroph **Habitat:** On ground **Dept.:** ANT, BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Lycoperdaceae  
**5867. *Lycoperdon nkressense*** Pers. IF No: 218442 **Trophic mode/Guild:** saprotroph /soil saprotroph **Habitat:** On very humose sand, acidic woodland, heathland and grassland including moss–rich lawns on acid soils. **Elev.:** 2,560 m **Dept.:** BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Lycoperdaceae  
**5868. *Lycoperdon perlatum*** Pers. IF No: 220647 **Trophic mode/Guild:** saprotroph /soil saprotroph **Habitat:** On wood under hardwoods or conifers | Common along roadsides and in urban settings | Decomposing the litter of trees | Saprotroph gregarious, solitary **Distribution:** Temperate, Europe, North America **Elev.:** 3,000 m **Dept.:** ANT, BOY, CAL, CAU, CHO, CUN, MET **Uses:** HF **Conservation:** LC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Lycoperdaceae  
**5869. *Lycoperdon umbrinum*** Pers. IF No: 232824 **Trophic mode/Guild:** saprotrophy/soil saprotroph **Habitat:** On woods under conifers | Saprotroph solitary, scattered **Distribution:** Global **Dept.:** ANT, VAC **Uses:** HF, ME, SU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Lycoperdaceae  
**5870. *Lycoperdon velutinum*** Berk. & M.A. Curtis IF No: 197111 **Trophic mode/Guild:** saprotrophy/soil saprotroph **Habitat:** Mostly on deciduous wood, especially on dead corticate or decorticate branches, either fallen to the ground or still hanging, less often on lying logs. It occurs also on coniferous wood, on dead, still hanging branches of Pinus and Juniperus **Elev.:** 2,743 m **Dept.:** BOY, CHO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Lycoperdaceae  
**5871. *Morganella mexicana*** Zeller IF No: 288452 **Trophic mode/Guild:** saprotrophy/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Lyophyllaceae  
**5872. *Asterocephala parasitica*** (Bull.) Singer IF No: 293497 **Trophic mode/Guild:** /parasite **Habitat:** In oak forest | growing over *Lactarius* or *Russula* basidiomes | Parasitic **Elev.:** 2,600 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Lyophyllaceae  
**5873. *Blastosporella zonata*** T.J. Baroni & Franco–Mol. IF No: 510721 **Habitat:** On decaying leaves, small sticks or soil among mosses. In mixed forest with *Quercus humboldtii* **Distribution:** Neotropics **Elev.:** 2,950–3,180 m **Dept.:** TOL



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Lyophyllaceae  
**5874. *Calocybe cyanea*** Singer ex Redhead & Singer IF No: 284702



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Lyophyllaceae  
**5875. *Hysizygus mamoreus*** (Peck) H.E. Bigelow IF No: 315778 **Trophic mode/Guild:** saprotrophy/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Lyophyllaceae  
**5876. *Hysizygus tessulatus*** (Bull.) Singer IF No: 287202 **Trophic mode/Guild:** saprotrophy/undefined saprotroph **Habitat:** On wood | Saprotroph gregarious, solitary **Distribution:** Cultivated **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Macrocyttidiaceae  
**5877. *Macrocyttidia occidentalis*** Singer IF No: 299962 **Trophic mode/Guild:** saprotrophy/undefined saprotroph **Habitat:** In premontane moist forest | Saprotroph **Distribution:** Neotropics **Elev.:** 1,475 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
**5878. *Brunneocorticium cornecarpon*** (Kunze) R.A. Koch, Lodge, Nakasone & Aime IF No: 825519 **Trophic mode/Guild:** saprotrophy/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
**5879. *Calathella columbiana*** Agerer IF No: 107778 **Trophic mode/Guild:** saprotroph /undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
**5880. *Campanella aeruginea*** Singer IF No: 310193 **Trophic mode/Guild:** saprotroph /undefined saprotroph **Habitat:** On bamboo | Saprotroph gregarious **Elev.:** 20–2,400 m **Dept.:** CHO, CUN, BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
**5881. *Campanella caesia*** Romagn. IF No: 112153 **Trophic mode/Guild:** saprotroph /undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
**5882. *Campanella castaneipes*** Singer IF No: 310198 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** BOY, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
**5883. *Campanella elongatispora*** Singer IF No: 310200 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Dept.:** BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
**5884. *Campanella tenuitunicata*** Singer IF No: 293998 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Pantropics **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
**5885. *Chaetocalathus illiputianus*** (Mont.) Singer IF No: 285127 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On fallen trunks and logs | Saprotroph gregarious **Distribution:** Global **Elev.:** 150–2,700 m **Dept.:** ANT, VAC, BOY, CUN, RIS



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
**5886. *Chaetocalathus magnus*** Halling IF No: 360155 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 2,350 m **Dept.:** ANT

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Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5887. *Crinipellis alcalivrens* Singer IF No: 312290 Trophic mode/Guild: saprotroph /leaf saprotroph Habitat: Saprotroph Elev.: 2,400–3,600 m Dept.: CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5888. *Crinipellis careconois* (Berk. & M.A. Curtis) Singer IF No: 285849 Trophic mode/Guild: saprotroph/leaf saprotroph Habitat: Saprotroph Distribution: Pantropics Elev.: 1,725 m Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5889. *Crinipellis eggersii* Pat. IF No: 235124 Trophic mode/Guild: saprotroph/leaf saprotroph Habitat: Saprotroph Distribution: Pantropics Elev.: 340 m Dept.: AMA, ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5890. *Crinipellis metalolophora* Singer IF No: 131558 Trophic mode/Guild: saprotroph/leaf saprotroph Habitat: Saprotroph Elev.: 2,800 m Dept.: HUI



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5891. *Crinipellis pseudostiptaria* Singer IF No: 357218 Trophic mode/Guild: saprotroph/leaf saprotroph Habitat: Saprotroph Distribution: Pantropics Elev.: 1,600 m Dept.: ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5892. *Crinipellis purpurea* Singer IF No: 312300 Trophic mode/Guild: saprotroph/leaf saprotroph Habitat: Saprotroph Distribution: Pantropics Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5893. *Crinipellis stupparia* (Berk. & M.A. Curtis) Pat. IF No: 451390 Trophic mode/Guild: saprotroph/leaf saprotroph Habitat: Saprotroph Distribution: Pantropics Elev.: 1,150–2,400 m Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5894. *Crinipellis tucumanensis* Singer IF No: 312305 Trophic mode/Guild: saprotroph/leaf saprotroph Habitat: Saprotroph Dept.: ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5895. *Marasmius atrorubens* (Berk.) Mont. IF No: 356826 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Fallen leaves | in secondary forest | Saprotroph gregarious Dept.: CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5896. *Marasmius bambusinus* Fr. IF No: 209475 Trophic mode/Guild: saprotroph /undefined saprotroph Habitat: Saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5897. *Marasmius bellus* Berk. IF No: 209092 Trophic mode/Guild: saprotroph /undefined saprotroph Habitat: On fallen trunks | Saprotroph scattered Elev.: 1,950–2,000 m Dept.: ANT, MAG Uses: PO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5898. *Marasmius beniensis* Singer IF No: 333671 Trophic mode/Guild: saprotroph /undefined saprotroph Dept.: ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5899. *Marasmius berteroi* (Lév.) Murrill IF No: 357314 Trophic mode/Guild: saprotroph/undefined saprotroph Dept.: ANT, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5900. *Marasmius berteroi* var. *major* Singer IF No: 353597



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5901. *Marasmius bezeriae* Singer IF No: 317271 Trophic mode/Guild: saprotroph /undefined saprotroph Dept.: ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5902. *Marasmius buzae* Dennis IF No: 333677 Trophic mode/Guild: saprotroph /undefined saprotroph Dept.: ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5903. *Marasmius callensis* Singer IF No: 317274 Trophic mode/Guild: saprotroph /undefined saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5904. *Marasmius carneotinctus* Singer IF No: 317277 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: In subandean forest Distribution: Pantropics Elev.: 1,200–1,950 m Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5905. *Marasmius cladophyllus* Berk. IF No: 240643 Trophic mode/Guild: saprotroph /undefined saprotroph Dept.: AMA, ANT, CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5906. *Marasmius cohaerens* (Pers.) Cooke & Quél. IF No: 118871 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: On leaf litter | In humus | Saprotroph solitary, caespitose Distribution: Global Distribution Elev.: 200–3,250 m Dept.: ANT, CAQ, TOL Uses: HF, ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5907. *Marasmius confertus* Berk. & Broome IF No: 207778 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Fallen leaves | Saprotroph Dept.: CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5908. *Marasmius corrugatus* (Pat.) Sacc. & P. Syd. IF No: 202993 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: On rotting fallen leaves. On decaying log in subprimary hygrophitic forest. On rotting leaves in degraded mesophytic forest. Elev.: 1,600 m Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5909. *Marasmius crinis-equi* F. Muell. ex Kalchbr. IF No: 356828 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: On fallen branches | The rhizomorphs cover the branches and foliage of young trees | Saprotroph. Parasitic solitary Distribution: Pantropics Elev.: 1,900–2,350 m Uses: HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5910. *Marasmius cyrtella* Singer IF No: 317285 Trophic mode/Guild: saprotroph/undefined saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5911. *Marasmius cundinamarcae* Singer IF No: 317286 Trophic mode/Guild: saprotroph/undefined saprotroph Dept.: CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5912. *Marasmius cupressiformis* Berk. IF No: 149212 Trophic mode/Guild: saprotroph/undefined saprotroph Dept.: ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5913. *Marasmius cyrtella* Dennis IF No: 333688 Trophic mode/Guild: saprotroph /undefined saprotroph Dept.: CAU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5914. *Marasmius delectans* Morgan IF No: 239696 Trophic mode/Guild: saprotroph /undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5915. *Marasmius echinosphaerus* Singer IF No: 333693 Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5916. *Marasmius echinulatus* (Murrill) Sacc. & Trotter IF No: 161868 Trophic mode/Guild: saprotroph/undefined saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5917. *Marasmius eorotula* Singer IF No: 317292 Trophic mode/Guild: saprotroph /undefined saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5918. *Marasmius flaridii* Singer IF No: 109062 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: On wood of mature forest Dept.: AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5919. *Marasmius flammans* Berk. IF No: 242099 Trophic mode/Guild: saprotroph /undefined saprotroph Habitat: Fallen leaves in secondary forest Dept.: CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5920. *Marasmius fulvoferrugineus* Gilliam IF No: 317296 Trophic mode/Guild: saprotroph/undefined saprotroph Dept.: ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5921. *Marasmius graminum* (Lib.) Berk. IF No: 248929 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: On grass | Saprotroph Distribution: Global Distribution Elev.: 60 m Dept.: CHO Uses: ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5922. *Marasmius griseoradiatus* Desjardin & Ovrebo IF No: 501122 Trophic mode/Guild: saprotroph/undefined saprotroph



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Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5923. *Marasmius griseoroseus* (Mont.) Singer IF No: 317298 Trophic mode/Guild: saprotroph/undefined saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5924. *Marasmius haedinus* Berk. IF No: 244106 Trophic mode/Guild: saprotroph /undefined saprotroph Habitat: Fallen leaves | in mature and secondary forest | Saprotrroph gregarious Dept.: AMA, CAQ, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5925. *Marasmius haematocephalus* (Mont.) Fr. IF No: 244588 Trophic mode /Guild: saprotroph/ undefined saprotroph Habitat: On fallen leaves | on fallen logs | in chagras | in tropical rainforest | Saprotrroph gregarious Distribution: Global Distribution Elev.: 70–200 m Dept.: ANT, CAQ, CHO, SUC, VAC Uses: PO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5926. *Marasmius helvoloides* Singer IF No: 317301 Trophic mode/Guild: saprotroph /undefined saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5927. *Marasmius helvolus* Berk. IF No: 167437 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Fallen leaves | in secondary forest | Saprotrroph Dept.: CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5928. *Marasmius hypophaeus* Berk. & M.A. Curtis IF No: 195008 Trophic mode/Guild: saprotroph/undefined saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5929. *Marasmius idroboi* Singer IF No: 317304 Trophic mode/Guild: saprotroph/undefined saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5930. *Marasmius jalapensis* Murrill IF No: 200160 Trophic mode/Guild: saprotroph /undefined saprotroph Dept.: ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5931. *Marasmius leoninus* Berk. IF No: 198914 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: On fallen leaves | on logs | in secondary forest | Saprotrroph Dept.: CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5932. *Marasmius leucozonitiformis* Singer IF No: 317308 Trophic mode/Guild: saprotroph/ undefined saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5933. *Marasmius marulipensis* Singer IF No: 333723 Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5934. *Marasmius marasmioides* (Singer) Singer IF No: 109063 Trophic mode/Guild: saprotroph/undefined saprotroph Dept.: BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5935. *Marasmius marthae* Singer IF No: 300195 Trophic mode/Guild: saprotroph /undefined saprotroph Dept.: ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5936. *Marasmius martinii* Singer IF No: 300196 Trophic mode/Guild: saprotroph/undefined saprotroph Dept.: MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5937. *Marasmius microhaedinus* Singer IF No: 333733 Trophic mode/Guild: saprotroph/undefined saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5938. *Marasmius multiceps* Berk. & M.A. Curtis IF No: 160805 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: On trunks | Saprotrroph Distribution: Neotropics Elev.: 120 m Dept.: CHO Uses: EU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5939. *Marasmius munyozii* Singer IF No: 333736 Trophic mode/Guild: saprotroph /undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5940. *Marasmius mycocephalus* Singer IF No: 317315 Trophic mode/Guild: saprotroph/undefined saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5941. *Marasmius napeensis* Singer IF No: 317316 Trophic mode/Guild: saprotroph /undefined saprotroph Habitat: Fallen leaves | Saprotrroph Dept.: CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5942. *Marasmius nebularium* Singer IF No: 333737 Trophic mode/Guild: saprotroph /undefined saprotroph Dept.: BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5943. *Marasmius neglectus* Singer IF No: 317317 Trophic mode/Guild: saprotroph /undefined saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5944. *Marasmius oreades* (Bolton) Fr. IF No: 174712 Common name: Hongo corralito (Spanish) Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: On soil | In riparian forest Distribution: Global Distribution Elev.: 1,700–2,200 m Dept.: VAC Uses: HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5945. *Marasmius pallidocinctus* Singer IF No: 317325 Trophic mode/Guild: saprotroph /undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5946. *Marasmius proleptarius* Singer IF No: 333747 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Fallen leaves | in secondary forest | Saprotrroph Dept.: CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5947. *Marasmius perlongispermus* Singer IF No: 317329 Trophic mode/Guild: saprotroph/undefined saprotroph Distribution: Endemic Dept.: CAU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5948. *Marasmius praeadlinus* Singer IF No: 333757 Trophic mode/Guild: saprotroph/undefined saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5949. *Marasmius proleptarius* Berk. & M.A. Curtis IF No: 484213 Trophic mode/Guild: saprotroph/undefined saprotroph Dept.: ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5950. *Marasmius pseudonheus* Singer IF No: 333760 Trophic mode/Guild: saprotroph/undefined saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5951. *Marasmius robertsonii* Singer IF No: 333762 Trophic mode/Guild: saprotroph /undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5952. *Marasmius rotalis* Berk. & Broome IF No: 156152 Trophic mode/Guild: saprotroph/undefined saprotroph Dept.: BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5953. *Marasmius rotula* (Scop.) Fr. IF No: 156778 Trophic mode/Guild: saprotroph /undefined saprotroph Habitat: In secondary forest Elev.: 1,700–2,200 m Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5954. *Marasmius ruber* Singer IF No: 333763 Trophic mode/Guild: saprotroph /undefined saprotroph Habitat: On fallen trunks | Saprotrroph Distribution: Neotropics Elev.: 70–120 m Dept.: MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5955. *Marasmius rubromarginatus* Dennis IF No: 300217 Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5956. *Marasmius rufomarginatus* Singer IF No: 300218 Trophic mode/Guild: saprotroph/undefined saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5957. *Marasmius rufototula* Singer IF No: 287956 Trophic mode/Guild: saprotroph /undefined saprotroph Habitat: In riparian forest | on wood | Saprotrroph Elev.: 1,700–2,200 m Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
5958. *Marasmius schultzei* Singer IF No: 317341 Trophic mode/Guild: saprotroph /undefined saprotroph Habitat: Fallen leaves | in mature forest | Saprotrroph gregarious Elev.: 200 m Dept.: AMA, CAQ, VAU

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Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
**5959. *Marasmius scopulatus*** Desjardin & Ovrebo IF No: 501123 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** In cloud forest **Elev.:** 1,700–

2,200 m **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
**5960. *Marasmius selunctus*** Singer IF No: 317343 **Trophic mode/Guild:** saprotroph /undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
**5961. *Marasmius setulosifolius*** Singer IF No: 486903 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On soil | on logs | Saprotroph **Elev.:** 200 m

**Dept.:** CAQ, CHO, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
**5962. *Marasmius siccus*** (Schwein.) Fr. IF No: 210716 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
**5963. *Marasmius spiculosus*** Singer IF No: 333766 **Trophic mode/Guild:** saprotroph /undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
**5964. *Marasmius splachnoides*** (Hornem.) Fr. IF No: 208079 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On litter | Saprotroph **Distribution:** Europe **Elev.:** 2,600–2,670 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
**5965. *Marasmius spiltgerberti*** (Mont.) Singer IF No: 333767 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Fallen leaves | on fallen coconut fruit | in mature forest | Saprotroph **Elev.:** 60 m **Dept.:** AMA, CAQ, MAG, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
**5966. *Marasmius taeticolor*** Berk. IF No: 157809 **Trophic mode/Guild:** saprotroph /undefined saprotroph **Habitat:** On soil | on fallen leaves | in mature and secondary forest | Saprotroph **Elev.:** 200–2,000 m **Dept.:** AMA, ANT, CAQ, CHO, CUN, MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
**5967. *Marasmius tenuisetulosus*** (Singer) Singer IF No: 317352 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
**5968. *Marasmius trinitatis*** Dennis IF No: 300230 **Trophic mode/Guild:** saprotroph /undefined saprotroph **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
**5969. *Marasmius trinitatis* var. *immarginatus*** Singer IF No: 349797



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
**5970. *Marasmius varlabliceps*** Singer IF No: 333777 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
**5971. *Marasmius venezuelanus*** Dennis IF No: 333778 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
**5972. *Marasmius vergeliensis*** Singer IF No: 317356 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
**5973. *Marasmius violaceotails*** Singer IF No: 317357 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
**5974. *Monilophthora pernicioso*** (Stahel) Aime & Phillips–Mora IF No: 500896 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
**5975. *Monilophthora roreri*** (Cif.) H.C. Evans, Stalpers, Samson & Benny IF No: 317823 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
**5976. *Tetrapyrgeos alba*** (Berk. & M.A. Curtis) E. Horak IF No: 131348 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On twigs | in mature forest | Saprotroph **Elev.:** 2,100–3,100 m **Dept.:** ANT, CAL, TOL



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
**5977. *Tetrapyrgeos nigripes*** (Fr.) E. Horak IF No: 131354 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Fallen leaves | in secondary forest | on stumps | Saprotroph **Distribution:** Pan tropics **Elev.:** 200–2,800 m **Dept.:** AMA, ANT, CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
**5978. *Tetrapyrgeos parvispora*** Honan & Desjardin IF No: 813639 **Trophic mode /Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Marasmiaceae  
**5979. *Tetrapyrgeos reductus*** (Singer) E. Horak IF No: 131357 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 2,350 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**5980. *Favolaschia absohila*** Singer IF No: 314073 **Trophic mode/Guild:** saprotroph /wood saprotroph **Habitat:** Saprotroph **Elev.:** 1,900 m **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**5981. *Favolaschia amoene-rosea*** Henn. IF No: 350780 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On decayed wood | Saprotroph **Elev.:** 475 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**5982. *Favolaschia andina*** Singer IF No: 314074 **Trophic mode/ Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Elev.:** 3,700 m **Dept.:** CUN, BOG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**5983. *Favolaschia cinnabarina*** (Berk. & M.A. Curtis) Pat. IF No: 101685 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On decayed wood | Saprotroph **Distribution:** Pan tropics **Elev.:** 1,000 m **Dept.:** ANT, VAC, MET **Uses:** MA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**5984. *Favolaschia dealbata*** Singer IF No: 283337 **Trophic mode/Guild:** saprotroph /wood saprotroph **Habitat:** In stems of *Chusquea* sp. in decomposition | in mountain Pan tropics Forest | Saprotroph **Hosts:** *Chusquea* sp. **Distribution:** Pan tropics **Elev.:** 2,400–3,800 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**5985. *Favolaschia fendleri*** Singer IF No: 314080 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**5986. *Favolaschia flexa*** (Bres.) Kuntze IF No: 297424 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On trunks | Saprotroph **Elev.:** 2,000–3,100 m **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**5987. *Favolaschia intermedia*** (Berk. & M.A. Curtis) Singer IF No: 314083 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Distribution:** Pan tropics **Elev.:** 1,250–2,125 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**5988. *Favolaschia manipularis*** (Berk.) Teng IF No: 330839 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On trunks | Saprotroph **Elev.:** 1,800–2,000 m **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**5989. *Favolaschia moelleri*** (Bres.) Singer IF No: 314086 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On *Chusquea* sp. **Distribution:** Pan tropics **Elev.:** 2,125 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**5990. *Favolaschia oligopora*** Singer IF No: 314089 **Trophic mode/Guild:** saprotroph /wood saprotroph **Habitat:** Saprotroph **Distribution:** Pan tropics **Elev.:** 50 m **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**5991. *Favolaschia pantherina*** Singer IF No: 314090 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On wood, in mixed oak-dominated forest | Saprotroph **Elev.:** 2,500–3,800 m **Dept.:** ANT



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
5992, *Favolaschia pteridigena* Singer IF No: 297428 Trophic mode/Guild: saprotroph /wood saprotroph Habitat: Saprotroph Elev.: 2,700 m Dept.: ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
5993, *Favolaschia pygmaea* (Speg.) Singer IF No: 297430 Trophic mode/Guild: saprotroph/wood saprotroph Habitat: Saprotroph Elev.: 2,400–3,600 m Dept.:



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
5994, *Favolaschia rossogrisea* Singer IF No: 314092 Trophic mode/Guild: saprotroph/wood saprotroph Habitat: Saprotroph Distribution: Pan tropics Elev.: 1,814–2,467 m Dept.: CUN, TOL



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
5995, *Favolaschia sellioana* Henn. IF No: 469146 Trophic mode/Guild: saprotroph /wood saprotroph Habitat: Saprotroph Distribution: Pan tropics Elev.: 2,050–



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
5996, *Favolaschia sprucei* (Berk.) Singer IF No: 286452 Trophic mode/Guild: saprotroph/wood saprotroph Habitat: On decayed wood | in mature forest | Saprotroph Distribution: Pan tropics Elev.: 200 m Dept.: AMA, CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
5997, *Favolaschia subamyloidea* Singer IF No: 314094 Trophic mode/Guild: saprotroph/wood saprotroph Habitat: On dead woody twigs or bark and on dead herbaceous stems, always on Dicotyledones.

2,100 m Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
5998, *Favolaschia subceracea* (Henn.) Donk IF No: 330842 Trophic mode/Guild: saprotroph/wood saprotroph Habitat: Saprotroph Distribution: Pan tropics Elev.: 1,150–3,600 m Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
5999, *Favolaschia vararotecta* Singer IF No: 286455 Trophic mode/Guild: saprotroph/wood saprotroph Habitat: Saprotroph Distribution: Pan tropics Elev.:



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
6000, *Filoboletus gracilis* (Klotzsch ex Berk.) Singer IF No: 286462 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: On fallen trunks | Saprotroph gregarious Distribution: Pan tropics Elev.: 200–2,000 m Dept.: ANT, BOY, CAQ, CES, CUN, MAG, MET, VAC Uses: SU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
6001, *Flabellimycena flava* (Singer) Redhead IF No: 106815 Trophic mode /Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
6002, *Hemimycena crispiformis* Singer IF No: 315105 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
6003, *Hydropus cavipes* (Pat. & Gaillard) Dennis IF No: 315341 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: On decaying wood, in shady places | Saprotroph gregarious, cespitose Distribution: Pan tropics Dept.: AMA, CAQ, VAC Uses: HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
6004, *Hydropus hydrophoroides* Singer IF No: 108942 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
6005, *Hydropus hygrophilus* Singer IF No: 315349 Trophic mode/Guild: saprotroph /undefined saprotroph Habitat: Saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
6006, *Hydropus irrortatus* (Pat.) Singer IF No: 332137 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Elev.: 1,340 m Dept.: QUI



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
6007, *Hydropus lutescentipes* Singer IF No: 108947 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Elev.: 2,700 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
6008, *Hydropus nigrita* (Berk. & M.A. Curtis) Singer IF No: 315353 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: On decaying wood | Saprotroph gregarious Distribution: Neotropics Dept.: ANT, CAL, CAU, CAQ, CUN, MAG Uses: PO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
6009, *Hydropus occidentalis* Singer IF No: 108955 Trophic mode/Guild: saprotroph /undefined saprotroph Habitat: Saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
6010, *Hydropus omphaliniformis* Singer IF No: 315354 Trophic mode/Guild: saprotroph/undefined saprotroph Distribution: Pan tropics Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
6011, *Hydropus parvulus* Singer IF No: 315356 Trophic mode/Guild: saprotroph /undefined saprotroph Habitat: Saprotroph Distribution: Pan tropics Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
6012, *Hydropus semimarginellus* Singer IF No: 315359 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: On ground Elev.: 220 m Dept.: AMA, CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
6013, *Hydropus subcartilagineus* (Murrill) Singer IF No: 315362 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Distribution: Pan tropics Dept.:



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
6014, *Mycena alcalina* (Fr.) P. Kumm. IF No: 225722 Trophic mode/Guild: pathotroph, saprotroph/leaf saprotroph, plant pathogen, undefined saprotroph, wood saprotroph Habitat: On decaying wood, on humus under conifers and oak | On litter | in mature forest | Saprotroph gregarious, cespitose Distribution: Global Distribution Elev.: 2,540–3,100 m Dept.: ANT, CAL, TOL Uses: HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
6015, *Mycena aliphthora* (Berk.) Sacc. IF No: 220250 Trophic mode/Guild: pathotroph, saprotroph/leaf saprotroph, plant pathogen, undefined saprotroph, wood saprotroph Habitat: In cloud forest | Saprotroph Elev.: 1,150–3,600 m Dept.: VAC

ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
6016, *Mycena chlorinosma* Singer IF No: 260537 Trophic mode/Guild: pathotroph, saprotroph/leaf saprotroph, plant pathogen, undefined saprotroph, wood saprotroph Dept.: CAU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
6017, *Mycena citricolor* (Berk. & M.A. Curtis) Sacc. IF No: 164943 Trophic mode/Guild: pathotroph, saprotroph/leaf saprotroph, plant pathogen, undefined saprotroph, wood saprotroph Habitat: On rotting leaves. On fallen leaves on forest floor. On dead fallen leaf in forest. On rubaceous leaves. In fallen leaves in montane forest. On creeping herb Dept.: MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
6018, *Mycena conriniformis* Speg. IF No: 154821 Trophic mode/Guild: pathotroph, saprotroph/leaf saprotroph, plant pathogen, undefined saprotroph, wood saprotroph Habitat: Saprotroph Elev.: 2,400–3,600 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
6019, *Mycena dumontii* Singer IF No: 124961 Trophic mode/Guild: pathotroph, saprotroph/leaf saprotroph, plant pathogen, undefined saprotroph, wood saprotroph Habitat: Saprotroph Dept.: CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
6020, *Mycena euspilea* (Berk. & M.A. Curtis) Sacc. IF No: 229157 Trophic mode /Guild: pathotroph, saprotroph/leaf saprotroph, plant pathogen, undefined saprotroph, wood saprotroph Habitat: Saprotroph Elev.: 1,725 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
6021, *Mycena fuscosordidata* Singer IF No: 124962 Trophic mode/Guild: pathotroph, saprotroph/leaf saprotroph, plant pathogen, undefined saprotroph, wood saprotroph Habitat: Saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
6022, *Mycena gelatinomarginata* Lodge IF No: 133914 Trophic mode/Guild: pathotroph, saprotroph/leaf saprotroph, plant pathogen, undefined saprotroph, wood saprotroph Elev.: 1,800 m Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
6023, *Mycena griseoradiata* Singer IF No: 124966 Trophic mode/Guild: pathotroph, saprotroph/leaf saprotroph, plant pathogen, undefined saprotroph, wood saprotroph Habitat: Saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
6024, *Mycena haematopus* (Pers.) P. Kumm. IF No: 228153 Trophic mode/Guild: pathotroph, saprotroph/leaf saprotroph, plant pathogen, undefined saprotroph, wood saprotroph

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Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**6025. *Mycena holoporphyra*** (Berk. & M.A. Curtis) Singer IF No: 334594 **Trophic mode/Guild:** pathotroph, saprotroph/leaf saprotroph, plant pathogen, undefined saprotroph **Habitat:** Saprotroph  
**Dept.:** ANT, TOL



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**6026. *Mycena lealana*** (Berk.) Sacc. IF No: 122737 **Trophic mode/Guild:** pathotroph, saprotroph/leaf saprotroph, plant pathogen, undefined saprotroph, wood saprotroph **Habitat:** Saprotroph **Elev.:** 2,700 m **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**6027. *Mycena multicaudata*** Singer IF No: 317990 **Trophic mode/Guild:** pathotroph, saprotroph/leaf saprotroph, plant pathogen, undefined saprotroph, wood saprotroph **Habitat:** Saprotroph **Dept.:** CAU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**6028. *Mycena lunquillina*** Dennis IF No: 334601 **Trophic mode/Guild:** pathotroph, saprotroph/leaf saprotroph, plant pathogen, undefined saprotroph, wood saprotroph **Habitat:** Saprotroph **Elev.:** 2,700 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**6029. *Mycena lealana*** (Berk.) Sacc. IF No: 122737 **Trophic mode/Guild:** pathotroph, saprotroph/leaf saprotroph, plant pathogen, undefined saprotroph, wood saprotroph **Habitat:** In secondary forest | in paddocks **Elev.:** 1,700-2,200 m **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**6030. *Mycena multicaudata*** Singer IF No: 318000 **Trophic mode/Guild:** pathotroph, saprotroph/leaf saprotroph, plant pathogen, undefined saprotroph, wood saprotroph **Habitat:** Saprotroph **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**6031. *Mycena oragonsensis*** A.H. Sm. IF No: 273022 **Trophic mode/Guild:** pathotroph, saprotroph/leaf saprotroph, plant pathogen, undefined saprotroph, wood saprotroph **Habitat:** In cloud forest | Saprotroph **Elev.:** 1,700-2,200 m **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**6032. *Mycena parabolica*** (Fr.) Quél. IF No: 184179 **Trophic mode/Guild:** pathotroph, saprotroph/leaf saprotroph, plant pathogen, undefined saprotroph, wood saprotroph **Habitat:** Saprotroph **Elev.:** 2,600 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**6033. *Mycena paraboliformis*** Singer IF No: 301445 **Trophic mode/Guild:** pathotroph, saprotroph/leaf saprotroph, plant pathogen, undefined saprotroph, wood saprotroph **Habitat:** Saprotroph **Elev.:** 2,400-2,739 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**6034. *Mycena plectophylla*** (Mont.) Dennis IF No: 318012 **Trophic mode/Guild:** pathotroph, saprotroph/leaf saprotroph, plant pathogen, undefined saprotroph, wood saprotroph **Habitat:** On twigs and fallen trunks | in mature forest | on forest soil | Saprotroph gregarious **Distribution:** Panotropics **Elev.:** 200-2,100 m **Dept.:** ANT, CAL, CAQ, MAG, BOY **Uses:** MA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**6035. *Mycena pruni*** Velen. IF No: 275350 **Trophic mode/Guild:** pathotroph, saprotroph/leaf saprotroph, plant pathogen, undefined saprotroph, wood saprotroph **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**6036. *Mycena pura*** (Pers.) P. Kumm. IF No: 188082 **Trophic mode/Guild:** saprotroph/litter saprotroph **Habitat:** On moss, humus or decaying logs | In Páramo with *Espeletia* sp. | on degraded forest | Saprotroph solitary, gregarious **Distribution:** Global **Elev.:** 200-3,500 m **Dept.:** ANT, CAQ, CAU, CUN, VAC **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**6037. *Mycena sanguinolenta*** (Alb. & Schwein.) P. Kumm. IF No: 205959 **Trophic mode/Guild:** saprotroph/leaf saprotroph **Habitat:** On litter | in mature forest | Saprotroph **Elev.:** 2,100 m **Dept.:** ANT, CAL



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**6038. *Mycena spinosissima*** (Singer) Desjardin IF No: 413520 **Trophic mode/Guild:** pathotroph, saprotroph, plant pathogen, undefined saprotroph, wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**6039. *Mycena stylobates*** (Pers.) P. Kumm. IF No: 203527 **Trophic mode/Guild:** pathotroph, saprotroph/leaf saprotroph, plant pathogen, undefined saprotroph, wood saprotroph **Habitat:** Saprotroph **Elev.:** 2,700 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**6040. *Mycena tenerima*** (Berk.) Quél. IF No: 237894 **Trophic mode/Guild:** pathotroph, saprotroph/leaf saprotroph, plant pathogen, undefined saprotroph, wood saprotroph **Habitat:** In secondary forest | In riparian forest | In paddocks | Saprotroph **Elev.:** 1,700-2,200 m **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**6041. *Mycena tessellata*** (Mont.) Dennis IF No: 535218 **Trophic mode/Guild:** pathotroph, saprotroph/leaf saprotroph, plant pathogen, undefined saprotroph, wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**6042. *Mycena xanthocephala*** Singer IF No: 318034 **Trophic mode/Guild:** pathotroph, saprotroph/leaf saprotroph, plant pathogen, undefined saprotroph, wood saprotroph **Habitat:** Saprotroph **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**6043. *Panellus nubigenus*** Singer IF No: 335569 **Trophic mode/Guild:** saprotroph /wood saprotroph **Habitat:** On culms of *Chusquea* | Saprotroph **Hosts:** *Chusquea* sp. **Distribution:** Panotropics **Dept.:** BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**6044. *Panellus pusillus*** (Pers. ex Lévl.) Burds. & O.K. Mill. IF No: 319152 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On decaying wood and fallen twigs | Saprotroph gregarious **Distribution:** Panotropics, Subtropics **Elev.:** 1,070-3,100 m **Dept.:** ANT, BOG, CAU, CUN, MAG, NAR, SAN, TOL, VAC **Uses:** ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**6045. *Panellus stypticus*** (Bull.) P. Karst. IF No: 355858 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On trunks or decayed wood | on branches | Saprotroph **Distribution:** Temperate, North America, Europe **Elev.:** 2,600 m **Dept.:** ANT, CUN, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**6046. *Resinomyces saccharifera*** (Berk. & Broome) Redhead IF No: 106438 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 3,185-3,555 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**6047. *Xeromphalina campanella*** (Batsch) Kühner & Maire IF No: 259499 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Global **Elev.:** 2,600 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Mycenaceae  
**6048. *Xeromphalina helbergeri*** Singer IF No: 307865 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Niaceae  
**6049. *Flagelloscypha tenuipes*** (Schwein.) A.H. Sm. IF No: 307869 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 200-2,100 m **Dept.:** BOY, CAQ, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Niaceae  
**6050. *Flagelloscypha subglobospora*** D.A. Reid IF No: 329524 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 3,800-4,300 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Niaceae  
**6051. *Flagelloscypha fustispora*** Agerer IF No: 112936 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Niaceae  
**6052. *Flagelloscypha oblongispora*** Agerer IF No: 112937 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 3,800-4,300 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Niaceae  
**6053. *Flagelloscypha subnuda*** Agerer IF No: 107979 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Niaceae  
**6054. *Flagelloscypha tetradrispora*** Agerer IF No: 112938 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Niaceae  
**6055. *Lachnella albiviolascens*** (Alb. & Schwein.) Fr. IF No: 414590 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Niaceae  
**6056. *Lachnella disseminata*** Agerer IF No: 108117 **Trophic mode/Guild:** saprotroph /wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Niaceae  
**6057. *Lachnella sauteri*** (Sacc.) Boud. IF No: 566611 **Trophic mode/Guild:** saprotroph/wood saprotroph



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6058. *Gymnopus androsaceus*** (L.) Della Magg. & Trassin. IF No: 550654 **Trophic mode/Guild:** saprotroph/



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6059. *Gymnopus aurantiacus*** Murrill IF No: 250878 **Trophic mode/Guild:** saprotroph/ **Habitat:** Saprotroph **Elev.:** 1,700 m **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6060. *Gymnopus dryophilus*** (Bull.) Murrill IF No: 438406 **Common name:** Colibia de los robles (Spanish) **Trophic mode/Guild:** saprotroph/ **Habitat:** On humus | On soil in forest | In bamboo plantation | Saprotroph gregarious, cespitose **Distribution:** Temperate, Subtropics, Pantropics **Elev.:** 2,100–3,100 m **Dept.:** ANT, BOY, CAL, CUN **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6061. *Gymnopus foetidus*** (Sowerby) P.M. Kirk IF No: 550462 **Trophic mode/Guild:** saprotroph/



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6062. *Gymnopus jamaicensis*** Murrill IF No: 215889 **Trophic mode/Guild:** saprotroph/ **Habitat:** On fallen twig in primary hygrophytic forest **Dept.:** AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6063. *Gymnopus johnstonii*** (Murrill) A.W. Wilson, Desjardin & E. Horak IF No: 487966 **Trophic mode/Guild:** saprotroph **Habitat:** Fallen leaves | secondary forest |

Saprotroph **Dept.:** CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6064. *Gymnopus macropus*** Halling IF No: 436937 **Trophic mode/Guild:** saprotroph/ **Habitat:** On soil among litter | in mature forest | Saprotroph gregarious **Distribution:**

Pantropics **Elev.:** 1,800–2,800 m **Dept.:** ANT, CAL, NAR, QUI



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6065. *Gymnopus montagnel*** (Berk.) Redhead IF No: 550582 **Trophic mode/Guild:** saprotroph **Habitat:** On decayed wood | Saprotroph **Elev.:** 200 m **Dept.:**

AMA, CAQ, VID



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6066. *Gymnopus neobrevipes*** R.H. Petersen IF No: 555346 **Trophic mode/Guild:** saprotroph/ **Habitat:** Saprotroph **Elev.:** 2,500 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6067. *Gymnopus omphalodes*** (Berk.) Halling & J.L. Mata IF No: 371188 **Trophic mode/Guild:** saprotroph/ **Habitat:** On fallen trunks | in forest | Saprotroph gregarious

**Distribution:** Pantropics **Elev.:** 2,350–2,675 m **Dept.:** ANT, CAL, CHO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6068. *Gymnopus spongiosus*** (Berk. & M.A. Curtis) Halling IF No: 436936 **Trophic mode/Guild:** saprotroph/ **Habitat:** Saprotroph **Distribution:** Pantropics **Dept.:**

ANT, NAR



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6069. *Lentinula sclutospora*** J.L. Mata & R.H. Petersen IF No: 467579 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On fallen oak wood | Saprotroph

**Distribution:** Pantropics **Dept.:** BOY **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6070. *Lentinula boyana*** (Berk. & Mont.) Pegler IF No: 316466 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On decaying wood | On stumps of many forest

trees, especially on species of *Sloanea* sp. | Saprotroph gregarious **Distribution:** Pantropics, Subtropics **Elev.:** 1,800–2,900 m **Dept.:** ANT, BOY, CUN, QUI, TOL **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6071. *Lentinula eododes*** (Berk.) Pegler IF No: 316467 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On the dead wood of a wide range of tree

hosts | Saprotroph gregarious **Distribution:** Cultivated **Dept.:** Uses: HF, MA, ME, PO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6072. *Lentinula raphanica*** (Murrill) Mata & R.H. Petersen IF No: 474236 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On oak wood, in forest vegetation

| on decaying wood in crop sites | Saprotroph gregarious **Distribution:** Pantropics, Subtropics **Elev.:** 200 m **Dept.:** AMA, CAQ **Uses:** AF, HF, IF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6073. *Marasmiellus amphioctis*** Singer IF No: 317143 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6074. *Marasmiellus aporoseptus*** Singer IF No: 317148 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6075. *Marasmiellus baecoporus*** Singer IF No: 317151 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6076. *Marasmiellus bisporiger*** Singer IF No: 317154 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6077. *Marasmiellus bolivianus*** Singer IF No: 317155 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On decayed branches | in mature forest |

Saprotroph gregarious **Elev.:** 1,955–2,690 m **Dept.:** BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6078. *Marasmiellus calami*** (Petch) Singer IF No: 300069 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6079. *Marasmiellus cnacopollus*** Singer IF No: 317166 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** CAU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6080. *Marasmiellus columbianus*** Singer IF No: 317168 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** CAU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6081. *Marasmiellus confuens*** (Pers.) J.S. Oliveira IF No: 828475 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On leaf litter | On plant and woody

debris | Saprotroph **Distribution:** Global Distribution **Dept.:** CHO **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6082. *Marasmiellus conophloeus*** Singer IF No: 317172 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6083. *Marasmiellus daguae*** Singer IF No: 317176 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6084. *Marasmiellus dealbatus*** (Berk. & M.A. Curtis) Singer IF No: 300082 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6085. *Marasmiellus defibulatus*** Singer IF No: 300083 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6086. *Marasmiellus distantifolius*** (Murrill) Singer IF No: 333633 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On litter, in mixed oak-dominated forest |

Saprotroph **Elev.:** 2,500–2,800 m **Dept.:** ANT, TOL



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6087. *Marasmiellus strumeus*** (Theiss.) Singer IF No: 317380 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6088. *Marasmiellus epochnous*** (Berk. & M.A. Curtis) Singer IF No: 300091 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6089. *Marasmiellus gilvus*** (Pat.) Singer IF No: 300097 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6090. *Marasmiellus gilvus* var. *cundinamarcae*** Singer IF No: 348396

CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6091. *Marasmiellus idroboi*** Singer IF No: 317193 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6092. *Marasmiellus incamataipallens*** Singer IF No: 317195 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6093. *Marasmiellus inconspicuus*** Murrill IF No: 188095 Trophic mode/Guild: saprotrophy/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6094. *Marasmiellus inodermatoides*** Singer IF No: 317196 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6095. *Marasmiellus laurifoliae*** Singer IF No: 317198 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6096. *Marasmiellus merullius*** (Bertero ex Mont.) Singer IF No: 317199 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6097. *Marasmiellus neotropicus*** (Singer) J.S. Oliveira IF No: 828586 Trophic mode/Guild: saprotrophy/undefined saprotroph Elev.: 200–2,940 m Dept.: ANT, CAQ, MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6098. *Marasmiellus nivosus*** (Berk.) Singer IF No: 317206 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6099. *Marasmiellus nubigenus*** Singer IF No: 317207 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6100. *Marasmiellus papillatormarginatus*** Singer IF No: 317213 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Saprotroph Dept.: CAU, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6101. *Marasmiellus peckii*** (Murrill) Singer IF No: 317215 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Saprotroph Dept.: ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6102. *Marasmiellus perangustispermus*** Singer IF No: 621250 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6103. *Marasmiellus platyhyphes*** Singer IF No: 317222 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6104. *Marasmiellus pseudoparaphysatus*** Singer IF No: 317225 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6105. *Marasmiellus querulus*** Singer IF No: 317226 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Saprotroph Dept.: CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6106. *Marasmiellus ramealis*** (Bull.) Singer IF No: 287907 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Saprotroph Elev.: 2,400–3,600 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6107. *Marasmiellus rhodophyllus*** Singer IF No: 317229 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Saprotroph Dept.: CAU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6108. *Marasmiellus sanctae-marthae*** Singer IF No: 317231 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Saprotroph Dept.: MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6109. *Marasmiellus stenophylloides*** (Dennis) Dennis IF No: 317238 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6110. *Marasmiellus subcoracinus*** (Berk. & M.A. Curtis) Singer IF No: 300144 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6111. *Marasmiellus subolivaceomelleus*** Singer IF No: 317246 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6112. *Marasmiellus synodiscus*** (Kunze ex Fr.) Singer IF No: 300152 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6113. *Marasmiellus tener*** Singer IF No: 317247 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6114. *Marasmiellus troyanus*** (Murrill) Dennis IF No: 283525 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Saprotroph Dept.: CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6115. *Marasmiellus umbilicatus*** Singer IF No: 317253 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6116. *Marasmiellus volvatus*** Singer IF No: 124903 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: On decayed wood | Saprotroph gregarious  
**Distribution:** Neotropics **Elev.:** 200 m **Dept.:** AMA, CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6117. *Micromphale latisporum*** Singer IF No: 317676 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Saprotroph Dept.: CAU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6118. *Micromphale occidentale*** Singer IF No: 317678 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6119. *Mycethis copelandii*** (Peck) A.W. Wilson & Desjardin IF No: 501415 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Saprotroph Elev.: 2,250 m Dept.: ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6120. *Neonothopanus hygrophanus*** (Mont.) De Kesel & Degreef IF No: 569713 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: On dead wood | On stumps | In degraded forest | Saprotroph gregarious **Distribution:** Panotropics **Dept.:** ANT **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6121. *Neonothopanus nambi*** (Speg.) R.H. Petersen & Krisai IF No: 460803 Trophic mode/Guild: saprotrophy/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6122. *Rhodocollybia antioquiensis*** J.L. Mata & Halling IF No: 370574 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Saprotroph **Distribution:** Panotropics **Elev.:** 2,900 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6123. *Rhodocollybia monticola*** Halling & J.L. Mata IF No: 370545 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Saprotroph **Distribution:** Panotropics **Elev.:** 1,640–2,650 m **Dept.:** ANT, CAU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6124. *Rhodocollybia popayanica*** (Halling) Halling IF No: 437649 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Saprotroph **Elev.:** 1,800–2,205 m **Dept.:** ANT, CAU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Omphalotaceae  
**6125. *Rhodocollybia turpis*** (Halling) Halling IF No: 437653 Trophic mode/Guild: saprotrophy/undefined saprotroph Habitat: Saprotroph **Distribution:** Panotropics **Elev.:** 2,350–2,500 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Phylloporoidaceae  
**6126. *Phylloopsis nidularis*** (Pers.) Singer IF No: 272228



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Phyllotopsidaceae  
6127. *Phyllotopsis subnidulans* (Overh.) Singer IF No: 277830



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Physalacriaceae  
6128. *Armillaria mellea* (Vahl) P. Kumm. IF No: 190066 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Pathogen of various hardwood species | **Distribution:** Global **Dept.:** CAL, QUI, RIS **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Physalacriaceae  
6129. *Armillaria pulsgarii* Speg. IF No: 179595 **Trophic mode/Guild:** saprotroph /undefined saprotroph **Habitat:** On very decayed log. **Saprotroph Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Physalacriaceae  
6130. *Armillariella obovata* (Rick) Singer IF No: 292711 **Trophic mode/Guild:** pathotroph/plant pathogen



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Physalacriaceae  
6131. *Cylindrobasidium torrendii* (Bres.) Hjortstam IF No: 108826 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 2,700 m **Dept.:** CU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Physalacriaceae  
6132. *Cyptotrama asprata* (Berk.) Redhead & Ginns IF No: 118606 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On decayed log | In premontane moist forest | **Saprotroph Distribution:** Pan tropics, Subtropics **Elev.:** 1,100-2,700 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Physalacriaceae  
6133. *Cyptotrama chrysopepla* (Berk. & M.A. Curtis) Singer IF No: 517515 **Trophic mode/Guild:** saprotroph/ undefined saprotroph **Dept.:** CAU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Physalacriaceae  
6134. *Cyptotrama depauperata* Singer IF No: 517516 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Physalacriaceae  
6135. *Dactyloporina glutinosa* (Singer) R.H. Petersen IF No: 567924 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Pan tropics **Elev.:** 30-200 m **Dept.:** CAQ, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Physalacriaceae  
6136. *Dactyloporina macracantha* (Singer) Dörfelt IF No: 105237 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Pan tropics **Elev.:** 200 m **Dept.:** CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Physalacriaceae  
6137. *Dactyloporina stefanii* (Rick) Dörfelt IF No: 105238 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On logs | **Saprotroph Distribution:** Pan tropics **Elev.:** 200-2,350 m **Dept.:** AMA, ANT, CAQ, CES, MAG **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Physalacriaceae  
6138. *Fiammullina callistosporioides* (Singer) Singer IF No: 530275 **Trophic mode/Guild:** saprotroph/ undefined saprotroph **Habitat:** Saprotroph **Elev.:** 2,400-3,600 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Physalacriaceae  
6139. *Fiammullina velutipes* (Curtis) Singer IF No: 330940 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Habitat:** On dead tree trunks and branches | **Saprotroph cespitose Distribution:** Cultivated **Uses:** HF **Conservation:** LC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Physalacriaceae  
6140. *Gloiocephala allomorpha* Singer IF No: 314568 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Physalacriaceae  
6141. *Gloiocephala confusa* Singer IF No: 331418 **Trophic mode/Guild:** Saprotroph /undefined saprotroph **Habitat:** Saprotroph **Elev.:** 2,400-3,600 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Physalacriaceae  
6142. *Gloiocephala lamellosa* Singer IF No: 331420 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 2,185-3,600 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Physalacriaceae  
6143. *Gloiocephala longicrinata* Singer IF No: 314575 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Physalacriaceae  
6144. *Gloiocephala quercetorum* Ald.-Göm. & Franco-Mol. IF No: 474751 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On soil among litter | In montane forests dominated by oak (*Quercus*) | **Saprotroph scattered, gregarious Distribution:** **Elev.:** 2,450-2,700 m **Dept.:** ANT, BOY, SAN **Conservation:** NT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Physalacriaceae  
6145. *Gloiocephala quintsii* Singer IF No: 314580 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 2,350 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Physalacriaceae  
6146. *Mucidula mucida* (Schrad.) Pat. IF No: 456952 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** CES



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Physalacriaceae  
6147. *Oudemansella australis* G. Stev. & G.M. Taylor IF No: 335480 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Physalacriaceae  
6148. *Oudemansella canari* (Jungh.) Höhn. IF No: 178851 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On branches | on trunks of living or decaying trees | **Saprotroph lignicolous gregarious Distribution:** Pan tropics **Elev.:** 60-2,000 m **Dept.:** AMA, ANT, CAQ, CES, CHO, CUN, MET, MAG, VAC **Uses:** HF, MA, PO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Physalacriaceae  
6149. *Oudemansella cubensis* (Berk. & M.A. Curtis) R.H. Petersen IF No: 568044 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Physalacriaceae  
6150. *Oudemansella platensis* (Speg.) Speg. IF No: 179000 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On dead branches, on tree trunk, **Saprotroph Distribution:** Pan tropics **Elev.:** 1,475 m **Dept.:** ANT **Uses:** AF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Physalacriaceae  
6151. *Physalacria andina* (Pat.) Pat. IF No: 221271 **Trophic mode/Guild:** saprotroph /undefined saprotroph **Habitat:** Saprotroph **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Physalacriaceae  
6152. *Physalacria sanctae-martae* G.W. Martin & A.C. Baker IF No: 289672 **Trophic mode/Guild:** saprotroph/ undefined saprotroph **Habitat:** Saprotroph **Distribution:** Pan tropics **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Physalacriaceae  
6153. *Xerula hispida* Halling & G.M. Muel. IF No: 460380 **Trophic mode/Guild:** pathotroph/plant pathogen **Habitat:** Saprotroph **Distribution:** Pan tropics **Elev.:** 2,540-3,000 m **Dept.:** ANT, NAR



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pleurotaceae  
6154. *Hohenbuehelia angustata* (Berk.) Singer IF No: 298465 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On trunks, Saprotroph **Distribution:** Neotropics **Elev.:** 600 m **Dept.:** CHO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pleurotaceae  
6155. *Hohenbuehelia atrocoerulea* (Fr.) Singer IF No: 298468 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On wood, in mixed oak-dominated forest | **Saprotroph Distribution:** Global **Distribution:** **Elev.:** 2,500-2,800 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pleurotaceae  
6156. *Hohenbuehelia barbatula* (Berk. & M.A. Curtis) Dennis IF No: 315218 **Trophic mode/Guild:** saprotroph/ undefined saprotroph **Habitat:** Saprotroph **Distribution:** Pan tropics **Elev.:** 3,800-4,300 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pleurotaceae  
6157. *Hohenbuehelia calongei* Singer IF No: 315219 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pleurotaceae  
6158. *Hohenbuehelia espeletiae* Singer IF No: 124852 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** TOL



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pleurotaceae  
6159. *Hohenbuehelia fluxilis* (Fr.) P.D. Orton IF No: 332000 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On decayed trunks | in tropical dry forest | **Saprotroph gregarious Distribution:** Global **Distribution:** **Dept.:** SUC

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Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pleurotaceae  
**6160. *Hohenbuehella grisea*** (Peck) Singer  
 IF No: 298476 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** In cloud forest | Saprotroph **Elev.:** 1,700–

2,200 m **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pleurotaceae  
**6161. *Hohenbuehella nigra*** (Schwein.) Singer  
 IF No: 298481 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On wood | in chagras | Saprotroph  
**Distribution:** Global Distribution **Elev.:** 200–2,200 m **Dept.:** AMA, ANT, CAQ

gregarious, scattered



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pleurotaceae  
**6162. *Hohenbuehella pergelatinosa*** Singer  
 IF No: 315223 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On the bark of dicotyledons in tropical–

montane forest **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pleurotaceae  
**6163. *Hohenbuehella silvana*** (Sacc.) O.K. Mill.  
 IF No: 129834 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Pantropics **Elev.:**

3,600–3,800 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pleurotaceae  
**6164. *Hohenbuehella singeriana*** Contu & Padovan  
 IF No: 580055 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pleurotaceae  
**6165. *Nothopanus candidissimus*** (Sacc.) Kühner  
 IF No: 107646 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Dept.:** BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pleurotaceae  
**6166. *Nothopanus vinosofuscus*** (Bres.) Singer  
 IF No: 288813 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pleurotaceae  
**6167. *Pleurotus cantharelloides*** Sacc.  
 IF No: 120850 **Trophic mode/Guild:** pathotroph, saprotroph/endophyte, plant pathogen, wood saprotroph **Elev.:** 2,400 m

**Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pleurotaceae  
**6168. *Pleurotus citrinopileatus*** Singer  
 IF No: 303973 **Trophic mode/Guild:** pathotroph, saprotroph/endophyte, plant pathogen, wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pleurotaceae  
**6169. *Pleurotus djamor*** (Rumph. ex Fr.) Boedijn  
 IF No: 355683 **Common name:** Orellana (Spanish) **Trophic mode/Guild:** pathotroph, saprotroph/endophyte, plant pathogen, wood saprotroph **Habitat:** On hardwoods | in tropical forest | Saprotroph gregarious **Distribution:** Global Distribution, Cultivated **Elev.:** 50 m **Dept.:** ANT, BOG, CAL, CHO, VAC **Uses:** HF, IF, MA, ME, SU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pleurotaceae  
**6170. *Pleurotus eryngii*** (DC.) Quéf.  
 IF No: 170772 **Common name:** Seta de cardo (Spanish), Eryngii (Spanish) **Trophic mode/Guild:** pathotroph, saprotroph/endophyte, plant pathogen, wood saprotroph **Habitat:** Saprotroph **Distribution:** Global Distribution, Cultivated **Uses:** HF, ME

**Distribution:** Global Distribution, Cultivated **Uses:** HF, ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pleurotaceae  
**6171. *Pleurotus flabellatus*** Sacc.  
 IF No: 164548 **Trophic mode/Guild:** pathotroph, saprotroph/endophyte, plant pathogen, wood saprotroph **Habitat:** Trunk, Saprotroph **Elev.:** 200 m **Dept.:** CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pleurotaceae  
**6172. *Pleurotus floridanus*** Singer  
 IF No: 289777 **Common name:** Orellana (Spanish) **Trophic mode/Guild:** pathotroph, saprotroph/endophyte, plant pathogen, wood saprotroph **Habitat:** On sandy soils | In old lawns | On roadsides | Saprotroph **Dept.:** MET **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pleurotaceae  
**6173. *Pleurotus hygrophanus*** (Earle) Sacc. & Traverso  
 IF No: 158366 **Trophic mode/Guild:** pathotroph, saprotroph/endophyte, plant pathogen, wood

saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pleurotaceae  
**6174. *Pleurotus microleucus*** Singer  
 IF No: 320723 **Trophic mode/Guild:** pathotroph, saprotroph/endophyte, plant pathogen, wood saprotroph **Habitat:** Saprotroph **Elev.:** 2,125 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pleurotaceae  
**6175. *Pleurotus ostreatus*** (Jacq.) P. Kumm.  
 IF No: 174220 **Common name:** Orellana (Spanish) **Trophic mode/Guild:** pathotroph, saprotroph/endophyte, plant pathogen, wood saprotroph **Habitat:** On decaying wood | On trunks | Saprotroph gregarious **Distribution:** Global Distribution, Cultivated **Elev.:** 1,700–2,200 m **Dept.:** CAL, VAC **Uses:** HF, ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pleurotaceae  
**6176. *Pleurotus pulmonarius*** (Fr.) Quéf.  
 IF No: 143543 **Common name:** Orellana (Spanish) **Trophic mode/Guild:** pathotroph, saprotroph/endophyte, plant pathogen, wood saprotroph **Habitat:** On dead and living wood of hardwoods | Saprotroph gregarious **Distribution:** Global Distribution, Cultivated **Elev.:** 1,700–2,200 m **Dept.:** VAC **Uses:** HF, ME

wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pleurotaceae  
**6177. *Resupinatus appllicatus*** (Batsch) Gray  
 IF No: 119873 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Global Distribution

**Elev.:** 1,725 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pleurotaceae  
**6178. *Resupinatus cinereus*** (Pat.) J.V. McDonald & Thorn  
 IF No: 557009 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pleurotaceae  
**6179. *Resupinatus poriaeformis*** (Pers.) Thorn, Moncalvo & Redhead  
 IF No: 500914 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 2,840 m **Dept.:** CUN

**Elev.:** 2,840 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pleurotaceae  
**6180. *Resupinatus trichotis*** (Pers.) Singer  
 IF No: 338269 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 2,700–3,800 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pleurotaceae  
**6181. *Pluteus cervinus*** (Schaeff.) P. Kumm.  
 IF No: 114780 **Trophic mode/Guild:** saprotroph/leaf saprotroph, wood saprotroph **Habitat:** On the dead wood of hardwoods | Saprotroph solitary, gregarious **Distribution:** Global Distribution **Dept.:** BOY **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pluteaceae  
**6182. *Pluteus chrysophlebus*** (Berk. & M.A. Curtis) Sacc.  
 IF No: 230720 **Trophic mode/Guild:** pathotroph, saprotroph/bryophyte parasite, litter saprotroph, wood

saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pluteaceae  
**6183. *Pluteus globiger*** Singer  
 IF No: 304021 **Trophic mode/Guild:** pathotroph, saprotroph/bryophyte parasite, litter saprotroph, wood **Habitat:** Saprotroph **Elev.:** 2,100–2,400 m **Dept.:** ANT

saprotroph **Habitat:** Saprotroph **Elev.:** 2,100–2,400 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pluteaceae  
**6184. *Pluteus harrisii*** Murrill  
 IF No: 149829 **Trophic mode/Guild:** pathotroph, saprotroph/bryophyte parasite, litter saprotroph, wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pluteaceae  
**6185. *Pluteus haywardii*** Singer  
 IF No: 304022 **Trophic mode/Guild:** pathotroph, saprotroph/bryophyte parasite, litter saprotroph, wood

saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pluteaceae  
**6186. *Pluteus lamacensis*** Murrill  
 IF No: 150465 **Trophic mode/Guild:** pathotroph, saprotroph/bryophyte parasite, litter saprotroph, wood saprotroph **Habitat:** Saprotroph **Elev.:** 2,400–3,600 m

Saprotroph **Elev.:** 2,400–3,600 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pluteaceae  
**6187. *Pluteus minor*** G. Stev.  
 IF No: 283630



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pluteaceae  
**6188. *Pluteus minor* var. *quercuum*** Singer  
 IF No: 348641 **Habitat:** Saprotroph **Dept.:** CAU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pluteaceae  
**6189. *Pluteus nigropallescens*** Singer  
 IF No: 337317 **Trophic mode/Guild:** pathotroph, saprotroph/bryophyte parasite, litter saprotroph, wood **Habitat:** On ground

saprotroph **Habitat:** On ground



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pluteaceae  
**6190. *Pluteus romellii*** (Britzelm.) Sacc.  
 IF No: 248908 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pluteaceae  
**6191. *Pluteus rugosoculcatus*** Singer  
 IF No: 304043 **Trophic mode/Guild:** pathotroph, saprotroph/bryophyte parasite, litter saprotroph, wood

saprotroph **Habitat:** On rotten wood.



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pluteaceae  
**6192. *Pluteus salicinus*** (Pers.) P. Kumm.  
 IF No: 148877 **Trophic mode/Guild:** pathotroph, saprotroph/bryophyte parasite, litter saprotroph, wood

saprotroph



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Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pluteaceae  
**6193. *Pluteus thomsonii*** (Berk. & Broome) Dennis IF No: 344243 **Trophic mode/Guild:** pathotroph, saprotroph/ bryophyte parasite, litter saprotroph, wood

saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pluteaceae  
**6194. *Pluteus xylophilus*** (Speg.) Singer IF No: 304061 **Trophic mode/Guild:** pathotroph, saprotroph/bryophyte parasite, litter saprotroph, wood

saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pluteaceae  
**6195. *Volvariella bombycina*** (Schaeff.) Singer IF No: 307781 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pluteaceae  
**6196. *Volvariella volvacea*** (Bull.) Singer IF No: 307802 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Porotheliales  
**6197. *Phloeomana speirea*** (Fr.) Redhead IF No: 550124



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Psathyrellaceae  
**6198. *Coprinellus curtus*** (Kalchbr.) Vilgalys, Hopple & Jacq. Johnson IF No: 474356 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Psathyrellaceae  
**6199. *Coprinellus disseminatus*** (Pers.) J.E. Lange IF No: 107842 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On decaying wood, in chagras (fields



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Psathyrellaceae  
**6200. *Coprinellus mlaceus*** (Bull.) Vilgalys, Hopple & Jacq. Johnson IF No: 474361 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On lawns, along



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Psathyrellaceae  
**6201. *Coprinellus pellucidus*** (P. Karst.) Redhead, Vilgalys & Moncalvo IF No: 474638 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 2,400–3,600 m

originating from slash-and-burn agriculture) and in terra firme areas | In tropical forest | In paddocks | Saprotroph gregarious, cespitose **Distribution:** Global Distribution **Elev.:** 50–2,200 m **Dept.:** AMA, ANT, CHO, CAL, CAQ, MET, SAN, VAC **Uses:** HF

sidewalks | In riparian forest and paddock | Saprotroph gregarious, cespitose **Distribution:** Global Distribution **Elev.:** 1,700–2,600 m **Dept.:** CUN, VAC **Uses:** HF, ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Psathyrellaceae  
**6202. *Coprinellus verrucospermus*** (Joss. & Enderle) Redhead, Vilgalys & Moncalvo IF No: 474648 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Psathyrellaceae  
**6203. *Coprinopsis atramentaria*** (Bull.) Redhead, Vilgalys & Moncalvo IF No: 474167 **Trophic mode/Guild:** saprotroph **Habitat:** On decaying wood. Often growing



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Psathyrellaceae  
**6204. *Coprinopsis chereia*** (Schaeff.) Redhead, Vilgalys & Moncalvo IF No: 474379 **Trophic mode/Guild:** saprotroph/undefined saprotroph

from senescent roots around stumps. Frequently urban, but also found in woods, Saprotroph gregarious **Distribution:** Global Distribution **Dept.:** CAL **Uses:** HF, ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Psathyrellaceae  
**6205. *Coprinopsis lagopus*** (Fr.) Redhead, Vilgalys & Moncalvo IF No: 319071 **Trophic mode/Guild:** saprotroph/litter saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Psathyrellaceae  
**6206. *Coprinopsis luteocephala*** (Watling) Redhead, Vilgalys & Moncalvo IF No: 474614 **Trophic mode/Guild:** saprotroph/



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Psathyrellaceae  
**6207. *Coprinopsis mexicana*** (Murrill) Redhead, Vilgalys & Moncalvo IF No: 474620 **Trophic mode/Guild:** saprotroph/ **Habitat:** Saprotroph **Elev.:** 370 m **Dept.:**



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Psathyrellaceae  
**6208. *Coprinopsis nivea*** (Pers.) Redhead, Vilgalys & Moncalvo IF No: 474625 **Trophic mode/Guild:** saprotroph/



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Psathyrellaceae  
**6209. *Coprinopsis radiata*** (Bolton) Redhead, Vilgalys & Moncalvo IF No: 474190 **Trophic mode/Guild:** saprotroph/dung saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Psathyrellaceae  
**6210. *Coprinopsis urticicola*** (Berk. & Broome) Redhead, Vilgalys & Moncalvo IF No: 474340 **Trophic mode/Guild:** saprotroph/ **Habitat:** Saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Psathyrellaceae  
**6211. *Homophron spadiceum*** (P. Kumm.) Orstadius & E. Larss. IF No: 811631



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Psathyrellaceae  
**6212. *Parasola pilcatilis*** (Curtis) Redhead, Vilgalys & Hopple IF No: 474758 **Trophic mode/Guild:** saprotroph/ undefined saprotroph **Habitat:** Saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Psathyrellaceae  
**6213. *Psathyrella argillospora*** Singer IF No: 321105 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Dept.:** CAU

**Distribution:** Global Distribution **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Psathyrellaceae  
**6214. *Psathyrella bifrons*** (Berk.) A.H. Sm. IF No: 290023 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Psathyrellaceae  
**6215. *Psathyrella candolleana*** (Fr.) Maire IF No: 100849 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Distribution:** Global



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Psathyrellaceae  
**6216. *Psathyrella cystidiosa*** (Peck) A.H. Sm. IF No: 321150 **Trophic mode/Guild:** saprotroph/wood saprotroph

**Distribution:** Temperate **Elev.:** 2,600 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Psathyrellaceae  
**6217. *Psathyrella murrillii*** A.H. Sm. IF No: 321266 **Trophic mode/Guild:** saprotroph/ wood saprotroph **Habitat:** On soil | Saprotroph gregarious **Distribution:**



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Psathyrellaceae  
**6218. *Psathyrella pseudograecilis*** (Romagn.) M.M. Moser IF No: 304309 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** In tropical rainforest



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Psathyrellaceae  
**6219. *Psathyrella villosa*** Dennis IF No: 337698 **Trophic mode/Guild:** saprotroph/ wood saprotroph **Habitat:** On soil, associated to moss in Páramo vegetation |

Pantropics **Elev.:** 190–1,680 m **Dept.:** CES

**Dept.:** SUC

Saprotroph **Elev.:** 3,300–4,300 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pterulaceae  
**6220. *Chaetothyphula columbiana*** Singer IF No: 310977 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pterulaceae  
**6221. *Chaetothyphula hyalina*** (Jungh.) Corner IF No: 294780 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 1,250–1,500 m **Dept.:**



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pterulaceae  
**6222. *Pterula multifida*** (Chevall.) Fr. IF No: 171303

MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pterulaceae  
**6223. *Pterula plumosa*** (Schwein.) Fr. IF No: 160883 **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Pterulaceae  
**6224. *Pterulicium sprucei*** (Mont.) Leal-Dutra, Dentinger & G.W. Grif. IF No: 831039 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Radulomycetaceae  
**6225. *Radulomyces confuens*** (Fr.) M.P. Christ. IF No: 338148 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Global Distribution

**Elev.:** 2,700 m **Dept.:** CUN

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Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Radulomycetales  
**6226. *Radulomyces rickii*** (Bres.) M.P. Christ. IF No: 338156 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 2,700 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Radulomycetales  
**6227. *Radulomyces subisimoldes*** Hjortstam & Ryarden IF No: 474235 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 1,900 m **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Schizophyllales  
**6228. *Porodisculus pendulus*** (Fr.) Murrill IF No: 431969 **Trophic mode/Guild:** pathotroph/plant pathogen, wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Schizophyllales  
**6229. *Schizophyllum commune*** Fr. IF No: 208403 **Common name:** Karabaja-Kallamba (Quechua Inga) **Trophic mode/Guild:** pathotroph, saprotroph/animal pathogen, endophyte, wood saprotroph **Habitat:** On decaying wood | In disturbed areas | In tropical forest | In paddocks | On decayed tree stump | In mixed oak-dominated forest | Saprotroph. Parasitic gregarious **Distribution:** Global **Elev.:** 50-2,900 m **Dept.:** AMA, ANT, BOY, CAL, CAQ, CAU, CES, CHO, COR, CUN, MAG, MET, QUI, VAC **Uses:** HF, ME, PO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Schizophyllales  
**6230. *Schizophyllum lepraeurii*** Linder IF No: 215760 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Elev.:** 1,250-2,300 m **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Schizophyllales  
**6231. *Schizophyllum umbrinum*** Berk. IF No: 205848 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On branch of Mangifera indica | Saprotroph **Elev.:** 1,475 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Stephanosporaceae  
**6232. *Cyanobasidium microverruculatum*** (N. Maek.) Hjortstam & Ryarden IF No: 346975 **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Stephanosporaceae  
**6233. *Lindtneria chordulata*** (D.P. Rogers) Hjortstam IF No: 129768 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Distribution:** Pantropics, Subtropics **Elev.:** 500 m **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Strophariaceae  
**6234. *Agroclype earlei*** (Murrill) Dennis ex Singer IF No: 283354 **Trophic mode/Guild:** saprotroph/dung saprotroph, soil saprotroph, undefined saprotroph **Habitat:** Saprotroph **Distribution:** Pantropics **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Strophariaceae  
**6235. *Agroclype praecox*** (Pers.) Fayod IF No: 356699 **Trophic mode/Guild:** saprotroph/dung saprotroph, soil saprotroph, undefined saprotroph **Habitat:** In grass or on wood debris | Saprotroph gregarious, solitary **Dept.:** CUN **Uses:** HF, ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Strophariaceae  
**6236. *Bogbodylla uda*** (Pers.) Redhead IF No: 550126 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On moist soil with Phagnalon | in Paramo **Distribution:** Holarctic **Elev.:** 3,550-3,600 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Strophariaceae  
**6237. *Deconica castanella*** (Peck) Noordel. IF No: 515382 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Strophariaceae  
**6238. *Deconica coprophila*** (Bull.) P. Karst. IF No: 178700 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On cow dung | Saprotroph gregarious **Distribution:** Global **Elev.:** 1,650 m **Dept.:** SAN, ANT, CAS, PUT, CUN **Uses:** SU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Strophariaceae  
**6239. *Deconica inquilina*** (Fr.) Romagn. IF No: 438249 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Dept.:** CAU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Strophariaceae  
**6240. *Deconica montana*** (Pers.) P.D. Orton IF No: 329735 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On moss | on soil in Paramo | Saprotroph **Distribution:** Temperate **Elev.:** 2,100-3,600 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Strophariaceae  
**6241. *Deconica phillipsii*** (Berk. & Broome) Noordel. IF No: 580559 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Strophariaceae  
**6242. *Deconica phyllogena*** (Sacc.) Noordel. IF No: 515379 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On cow dung | Saprotroph **Distribution:** Global **Elev.:** 3,450-3,500 m **Dept.:** BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Strophariaceae  
**6243. *Hypholoma fasciculare*** (Huds.) P. Kumm. IF No: 152334 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On stumps and logs | Saprotroph **Distribution:** Global **Elev.:** 1,600-2,350 m **Dept.:** QUI, MAG, VAC **Uses:** PO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Strophariaceae  
**6244. *Hypholoma lateritium*** (Schaeff.) P. Kumm. IF No: 455825 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 2,205 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Strophariaceae  
**6245. *Kuehneromyces nudus*** Singer IF No: 299192 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On dead wood of oak (*Quercus humboldtii*) **Dept.:** BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Strophariaceae  
**6246. *Leratiomyces ceras*** (Cooke & Massee) Spooner & Bridge IF No: 511252



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Strophariaceae  
**6247. *Melanotus alpiniae*** (Berk.) Pilát ex Pegler IF No: 451336 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On monocots and dicots | In tropical forest | In mixed oak-dominated forest **Elev.:** 50-2,800 m **Dept.:** ANT, CAQ, CHO, MET, PUT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Strophariaceae  
**6248. *Melanotus castilcolor*** (Berk.) Singer IF No: 495989 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Strophariaceae  
**6249. *Melanotus dumonti*** Singer IF No: 124950 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Strophariaceae  
**6250. *Phollota aberrans*** A.H. Sm. & Hesler IF No: 319916 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Elev.:** 2,373-2,500 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Strophariaceae  
**6251. *Phollota baesoperna*** Singer IF No: 303032 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Strophariaceae  
**6252. *Phollota naucortolides*** Singer IF No: 303050 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Distribution:** Pantropics **Elev.:** 2,400-3,600



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Strophariaceae  
**6253. *Phollota orinocensis*** Pat. & Gaillard IF No: 247812 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Strophariaceae  
**6254. *Phollota prvigina*** (Speg.) Singer IF No: 336468 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Strophariaceae  
**6255. *Phollota squarrosa*** (Vahl) P. Kumm. IF No: 241744 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Strophariaceae  
**6256. *Phollota vernalis*** (Sacc.) A.H. Sm. & Hesler IF No: 320085 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Global **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Strophariaceae  
**6257. *Protostropharia semilobata*** (Batsch) Redhead, Moncalvo & Vilgalys IF No: 550115 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On dung | In Paramo | Saprotroph **Distribution:** Temperate, Global **Elev.:** 3,000-3,450 m **Dept.:** CAL, CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Strophariaceae  
**6258. *Stropharia aphahyna*** (Speg.) Cortez & R.M. Silveira IF No: 510883 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph



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Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Strophariaceae  
**6259. *Stropharia rugosoannulata*** Farl. ex Murrill IF No: 145219 **Trophic mode/Guild:** saprotroph/



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Tricholomataceae  
**6260. *Leucocopaxillus gracillimus*** Singer & A.H. Sm. IF No: 287762 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Pantropics **Elev.:** 1,300–2,400 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Tricholomataceae  
**6261. *Tricholoma aurantium*** (Schaeff.) Ricken IF No: 356852 **Trophic mode/Guild:** pathotroph, symbiotroph/ectomycorrhizal, fungal parasite **Habitat:** Endomycorrhiza **Dept.:** NAR



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Tricholomataceae  
**6262. *Tricholoma caligatum*** (Viv.) Ricken IF No: 259381 **Trophic mode/Guild:** pathotroph, symbiotroph/ectomycorrhizal, fungal parasite **Habitat:** On soil in oak forests | Ectomycorrhizal solitary, scattered **Distribution:** Global **Dept.:** BOY **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Tricholomataceae  
**6263. *Tricholoma ciliatipes*** Courtec. IF No: 103859 **Trophic mode/Guild:** pathotroph, symbiotroph/ectomycorrhizal, fungal parasite **Habitat:** On soil **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Tricholomataceae  
**6264. *Tricholoma focale*** (Fr.) Ricken IF No: 355595 **Trophic mode/Guild:** pathotroph, symbiotroph/ectomycorrhizal, fungal parasite



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Tricholomataceae  
**6265. *Tricholoma margarita*** (Murrill) Murrill IF No: 291537 **Habitat:** Endomycorrhiza **Elev.:** 2,100–2,350 m **Dept.:** ANT, TOL



On soil in oak forests | Ectomycorrhizal solitary, cespitose **Distribution:** Global **Elev.:** 2,500 m **Dept.:** NAR **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Tricholomataceae  
**6267. *Tricholoma sulphureum*** (Bull.) P. Kumm. IF No: 227491 **Trophic mode/Guild:** pathotroph, symbiotroph/ectomycorrhizal, fungal parasite **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Tubariaceae  
**6268. *Phaeomarasmius mercedis*** Singer IF No: 125004 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** CUN, BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Typhulaceae  
**6269. *Typhula scarotoides*** (Pers.) Fr. IF No: 158050 **Trophic mode/Guild:** pathotroph/plant pathogen **Habitat:** Patotroph **Elev.:** 2,400–3,600 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6270. *Aleurocystis hakgaliae*** (Berk. & Broome) G. Cunn. IF No: 292367 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6271. *Aleurocystis magnispora*** (Burt) P.A. Lemke IF No: 325990 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 2,700 m **Dept.:** BOG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6272. *Amparolna heteracantha*** Singer IF No: 308644 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6273. *Aphyllotus campanelliformis*** Singer IF No: 308821 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Pantropics **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6274. *Arthromyces claviformis*** T.J. Baroni & Lodge IF No: 510712 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6275. *Calyptella pteridophytorum*** Singer IF No: 310128 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6276. *Calycybe columbiana*** Singer IF No: 311323 **Trophic mode/Guild:** pathotroph, saprotroph **Dept.:** CAU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6277. *Calycybe pulgaria*** Speg. IF No: 230255 **Trophic mode/Guild:** pathotroph, saprotroph/undefined saprotroph **Habitat:** On soil | in tropical rainforest | in mixed oak-dominated forest | Ectomycorrhiza **Elev.:** 2,500–2,800 m **Dept.:** AMA, ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6278. *Calycybe azurea*** Singer IF No: 311384 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6279. *Calycybe brasiliensis*** (Berk. & Mont.) Dennis IF No: 295375 **Trophic mode/Guild:** pathotroph, saprotroph/fungal parasite, plant pathogen **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6280. *Colybia gilva*** (Pat.) Singer IF No: 344073 **Trophic mode/Guild:** pathotroph, saprotroph/fungal parasite, plant pathogen **Habitat:** Saprotroph **Elev.:** 2,125 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6281. *Colybia margarita*** (Murrill) Singer IF No: 295404 **Trophic mode/Guild:** pathotroph, symbiotroph/ectomycorrhizal, fungal parasite



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6282. *Colybia nivea*** (Mont.) Dennis IF No: 295409 **Trophic mode/Guild:** pathotroph, saprotroph/fungal parasite, plant pathogen **Habitat:** On litter, in forest | Saprotriph gregarious **Distribution:** Pantropics **Elev.:** 785m **Dept.:** CES **Uses:** MA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6283. *Colybia purpurea*** (Berk. & M.A. Curtis) Dennis IF No: 295426 **Trophic mode/Guild:** pathotroph, saprotroph/fungal parasite, plant pathogen **Habitat:** On dead rotting wood. Saprotroph **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6284. *Colybia syringea*** Singer IF No: 295437 **Trophic mode/Guild:** pathotroph, saprotroph/fungal parasite, plant pathogen **Habitat:** Saprotroph **Elev.:** 2,350 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6285. *Crucibulum cyathiforme*** H.J. Brodie IF No: 312320 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Paramo with Espeletia **Distribution:** Pantropics **Elev.:** 3,200 m **Dept.:** CAU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6286. *Cyathus intermedius*** (Mont.) Tul. & C. Tul. IF No: 140290 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** In tropical forest **Distribution:** Pantropics **Elev.:** 50 m **Dept.:** CHO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6287. *Cyathus oia*** (Batsch) Pers. IF No: 215509 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** In tropical rainforest **Distribution:** Global **Dept.:** ANT, SUC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6288. *Cyathus pedicellatus*** H.J. Brodie IF No: 312432 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6289. *Cyathus poeppigii*** Tul. & C. Tul. IF No: 205559 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Global **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6290. *Cyathus stercorius*** (Schwein.) De Toni IF No: 211346 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Global **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6291. *Cyathus striatus*** (Huds.) Willd. IF No: 211223 **Trophic mode/Guild:** undefined saprotroph **Habitat:** On decaying wood or leaves | On soil | On compost | Saprotriph **Distribution:** Global **Elev.:** 200–2,100 m **Dept.:** AMA, ANT, CAL, CAQ **Uses:** EU

CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6292. *Cyphelocalathus cecropiae*** (Singer) Agerer IF No: 112256 Elev.: 430 m Dept.: CHO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6293. *Cystoderma amlanthinum*** (Scop.) Fayod IF No: 121919 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Páramo with Espeletia | Saprotroph  
**Distribution:** Panotropics, Subtropics Elev.: 3,500 m Dept.: CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6294. *Cystoderma carcharias*** (Pers.) Fayod IF No: 357219 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Elev.: 2,100 m Dept.: NAR



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6295. *Cystoderma chocoanum*** Franco-Mol. IF No: 360752 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: On decayed wood, in disturbed forest | Saprotroph Elev.: 70 m Dept.: CHO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6296. *Deligloria amoena*** Agerer IF No: 113181 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Elev.: 2,650 m Dept.: CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6297. *Deligloria modesta*** Agerer IF No: 112796 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Elev.: 1,830 m Dept.: CHO, CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6298. *Deligloria pulchella*** Agerer IF No: 112797 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Elev.: 2,650 m Dept.: CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6299. *Deligloria pulcherrima*** Agerer IF No: 112798 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Elev.: 1,750–2,650 m Dept.: ANT, CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6300. *Dendrothele acerina*** (Pers.) P.A. Lemke IF No: 329775 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: In tropical montane cloud forest | Saprotroph  
**Distribution:** Global Distribution Elev.: 2,737–2,832 m Dept.: CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6301. *Dendrothele incrustans*** (P.A. Lemke) P.A. Lemke IF No: 329781 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Elev.: 2,400–4,300 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6302. *Dendrothele mexicana*** (P.A. Lemke) P.A. Lemke IF No: 329786 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Elev.: 2,400–3,700 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6303. *Dendrothele nivosa*** (Berk. & M.A. Curtis ex Höhn. & Litsch.) P.A. Lemke IF No: 329789 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Elev.: 1,900 m Dept.: MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6304. *Dendrothele strumosa*** (Fr.) P.A. Lemke IF No: 329793 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Elev.: 2,400–3,700 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6305. *Fistulina hepatica*** (Schaeff.) With. IF No: 193923 Trophic mode/Guild: pathotroph, saprotroph/plant pathogen, wood saprotroph Habitat: Saprotroph, Pathotroph  
**Distribution:** Global Distribution Uses: HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6306. *Gerronema calongae*** Singer IF No: 314430 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Elev.: 1,600 m Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6307. *Gerronema citrinum*** (Coker) Pegler IF No: 108896 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: On decayed logs in secondary mesophytic forest or amongst bamboos Dept.: AMA, CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6308. *Gerronema cyathiforme*** (Berk. & M.A. Curtis) Singer IF No: 297771 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: On fallen twig, in secondary hygrophytic forest Dept.: AMA, CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6309. *Gerronema daguense*** Singer IF No: 124833 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6310. *Gerronema retiarum*** (Berk.) Singer IF No: 314450 Trophic mode/Guild: saprotroph/undefined saprotroph Elev.: 180 m Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6311. *Gerronema strombodes*** (Berk. & Mont.) Singer IF No: 331295 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: In secondary forest Elev.: 1,700–2,200 m Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6312. *Gerronema tenue*** Dennis IF No: 331296 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Associated with mosses  
**Distribution:** Global Distribution Elev.: 2,000 m Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6313. *Glabrocynhella palmarum*** (Berk. & M.A. Curtis) W.B. Cooke IF No: 331340 Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6314. *Lactocollibia epia*** (Berk. & Broome) Pegler IF No: 103506 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: On stump of *Ficus elastica*  
**Distribution:** Pantropics Elev.: 500–1,660 m Dept.: AMA, ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6315. *Lactocollibia lacrimosa*** (R. Heim) Singer IF No: 252917 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Elev.: 370 m Dept.: ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6316. *Lepista nuda*** (Bull.) Cooke IF No: 356735 Trophic mode/Guild: saprotroph/leaf saprotroph Habitat: On compost or organic debris in open areas, gardens, under bushes, and along paths | Saprotroph gregarious, solitary  
**Distribution:** Global Distribution Dept.: CUN Uses: HF, ME, SU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6317. *Lepista subisabellina*** (Murrill) Kreisel IF No: 316563 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: On soil | Saprotroph  
**Distribution:** Neotropics Elev.: 1,475–1,660 m Dept.: ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6318. *Lepista tarda*** (Peck) Murrill IF No: 495629 Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6319. *Lycogalopsis solmsii*** E. Fisch. IF No: 209949 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: In fallen trunks and logs | in tropical forest | Saprotroph  
**Distribution:** Panotropics Elev.: 50 m Dept.: CHO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6320. *Megacollibia platyphyla*** (Pers.) Kott. & Pouzar IF No: 317427 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: On soil | Saprotroph  
**Distribution:** gregarious, solitary Dept.: ANT Uses: HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6321. *Melanophthalia baesopora*** Singer IF No: 317485 Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6322. *Melanophthalia columbiana*** Singer IF No: 317486 Dept.: BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6323. *Metulocynhella rostrata*** Agerer IF No: 108212 Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6324. *Nochascypha dumontii*** Agerer IF No: 108273 Trophic mode/Guild: saprotroph/undefined saprotroph



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6325. *Omphalina chellocystidiata*** (Singer) Raithehl. IF No: 357677 **Trophic mode/Guild:** saprotroph/leaf saprotroph **Habitat:** Saprotroph **Elev.:** 500 m **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6326. *Omphalina columblana*** Singer IF No: 318965 **Trophic mode/Guild:** saprotroph/leaf saprotroph **Habitat:** Saprotroph **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6327. *Omphalina cotopatae*** (Singer) Raithehl. IF No: 357680 **Trophic mode/Guild:** saprotroph/leaf saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6328. *Omphalina pseudofibula*** Dennis IF No: 335384 **Trophic mode/Guild:** saprotroph/leaf saprotroph **Habitat:** Saprotroph **Elev.:** 4,150



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6329. *Panaeolus foeniseolii*** (Pers.) Maire IF No: 265153 **Trophic mode/Guild:** saprotroph/soil saprotroph **Habitat:** On soil in grasslands | Saprotroph **Distribution:** Global Distribution, Temperate **Elev.:** 1,800–2,640 m **Dept.:** BOG, CUN, QUI



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6330. *Panaeolus antillarum*** (Fr.) Dennis IF No: 335553 **Common name:** Blanquito loco (Spanish); Hongo de los corrales (Spanish); j+faiyag+, used by Uitoto people (Spanish) | **Trophic mode/Guild:** saprotroph/dung saprotroph **Habitat:** On pastures | Growing on cow dung | Saprotroph solitary **Distribution:** Panotropics, Subtropics, Global Distribution **Elev.:** 60–2,640 m **Dept.:** AMA, CAL, PUT, VAC **Uses:** SU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6331. *Panaeolus cambodginiensis*** Olan & R. Heim IF No: 335554 **Trophic mode/Guild:** saprotroph/dung saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6332. *Panaeolus cyanescens*** Sacc. IF No: 169479 **Trophic mode/Guild:** saprotroph/dung saprotroph **Habitat:** On dung | On manured soils | Saprotroph gregarious, solitary **Distribution:** Panotropics, Subtropics **Elev.:** 1,400–2,000 m **Dept.:** BOY, CUN **Uses:** SU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6333. *Panaeolus fimicola*** (Pers.) Gillet IF No: 158646 **Trophic mode/Guild:** saprotroph/soil saprotroph **Habitat:** Saprotroph **Dept.:** BOY **Uses:** ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6334. *Panaeolus papilionaceus*** (Bull.) Quel. IF No: 151194 **Trophic mode/Guild:** saprotroph/dung saprotroph **Habitat:** On pastures growing on cow dung | in Páramo with *Espeletia* sp. | in disturbed tropical vegetation | on soil, in mixed oak-dominated forest | Saprotroph **Distribution:** Global Distribution, Subtropics **Elev.:** 0–2,800 m **Dept.:** ANT, CAL, CAU, CHO, CUN, TOL, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6335. *Panaeolus semiglobatus*** (Murrill) Sacc. & Trotter IF No: 176462 **Trophic mode/Guild:** saprotroph/dung saprotroph **Habitat:** On pastures | Saprotroph **Elev.:** 2,640–2,900 m **Dept.:** CAL



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6336. *Panaeolus semiovatus*** (Sowerby) S. Lundell & Nann. IF No: 414609 **Trophic mode/Guild:** saprotroph/dung saprotroph **Habitat:** On dung | Saprotroph **Distribution:** Global Distribution **Elev.:** 2,800–4,300 m **Dept.:** CAL, CUN, PUT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6337. *Panaeolus subbalteatus*** (Berk. & Broome) Sacc. IF No: 176403 **Trophic mode/Guild:** saprotroph/dung saprotroph **Habitat:** Saprotroph **Distribution:** Global Distribution **Elev.:** 1,000 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6338. *Phaeodepas nutans*** Singer IF No: 319563 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** ANT, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6339. *Phaeolepta aurea*** (Matt.) Maire IF No: 250886 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6340. *Physocystidium cinnamomeum*** (Dennis) Singer IF No: 336976



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6341. *Pleurocybella pannoloides*** (Dennis) Raithehl. IF No: 360810 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Dept.:** CUN, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6342. *Pseudofistulina radicata*** (Schwein.) S. Burds. IF No: 321783 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6343. *Pseudomphalina arsitophylli*** Singer IF No: 321850 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6344. *Ripartitella alba*** Halling & Franco-Mol. IF No: 435711 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On litter | in mature forest **Distribution:** Panotropics **Elev.:** 2,100 m **Dept.:** CAL, QUI



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6345. *Ripartitella brasiliensis*** (Speg.) Singer IF No: 305309 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** ANT, MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6346. *Skepperella spathularia*** (Berk. & M.A. Curtis) Pilát IF No: 278496 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Panotropics **Elev.:** 300 m **Dept.:** AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6347. *Tricholomopsis aurea*** (Beeli) Desjardin & B.A. Perry IF No: 821170 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On decayed wood | Saprotroph gregarious **Distribution:** Panotropics, **Elev.:** 250–2,739 m **Dept.:** ANT, CAQ, MAG, MET **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6348. *Tricholomopsis humboldtii*** Singer, Ovrebo & Halling IF No: 127487 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Distribution:** Panotropics **Elev.:** 2,550 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6349. *Tricholomopsis tropica*** Dennis IF No: 307074 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On sandy soil **Dept.:** AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6350. *Trogia buccinalis*** (Mont.) Pat. IF No: 440743 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On decayed wood in mature forest, Saprotroph **Distribution:** Panotropics **Dept.:** CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6351. *Trogia cantharelloides*** (Mont.) Pat. IF No: 255748 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Panotropics **Elev.:** 370 m **Dept.:** ANT, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6352. *Trogia icterina*** (Singer) Corner IF No: 340494 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On soil | in mature and secondary forest | Saprotroph **Elev.:** 200 m **Dept.:** AMA, CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Agaricales, Incertae sedis  
**6353. *Trogia papyracea*** (Berk. & M.A. Curtis) Corner IF No: 340503 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Panotropics **Elev.:** 1,800 m **Dept.:** ANT, CUN, QUI, NAR, SAN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Amylocorticiales, Amylocorticiaceae  
**6354. *Amylocorticiellum luteolum*** (Hjortstam & Ryvarden) Gorjón, Gresl. & Rajchenb. IF No: 519220 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 1,900 m **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Amylocorticiales, Amylocorticiaceae  
**6355. *Amylocorticiellum africanum*** Hjortstam IF No: 108681 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Amylocorticiales, Amylocorticiaceae  
**6356. *Ceraceomyces simulans*** (Berk. & Broome) Hjortstam IF No: 136696 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 2,100 m **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Atheliales, Atheliceae  
**6357. *Amphinema byssoides*** (Pers.) J. Erikss. IF No: 292495 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal

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Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Atheliales, Atheliales  
**6358. *Athelia declivans*** (Höhn. & Litsch.) J. Erikss. IF No: 293539 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/epiphyte, leaf saprotroph, lichen parasite, lichenised, plant pathogen, wood saprotroph **Habitat:** On leaf **Distribution:** Panotropics **Elev.:** 2,400 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Atheliales, Atheliales  
**6359. *Athelia ephylia*** Pers. IF No: 226995 **Trophic mode/ Guild:** pathotroph, saprotroph, symbiotroph/epiphyte, leaf saprotroph, lichen parasite, lichenised, plant pathogen, wood saprotroph **Habitat:** On leaves **Distribution:** Panotropics **Elev.:** 2,400 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Atheliales, Atheliales  
**6360. *Athelia rolfsii*** (Curzi) C.C. Tu & Kimbr. IF No: 309351 **Trophic mode/Guild:** pathotroph, saprotroph, symbiotroph/epiphyte, leaf saprotroph, lichen parasite, lichenised, plant pathogen, wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Atheliales, Atheliales  
**6361. *Athelopsis colombiensis*** Hjortstam & Ryvarden IF No: 474233 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Atheliales, Atheliales  
**6362. *Athelopsis curvispora*** Hjortstam & Ryvarden IF No: 517281 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Atheliales, Atheliales  
**6363. *Athelopsis lembospora*** (Bourdot) Oberw. IF No: 309360 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 3,700 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Atheliales, Atheliales  
**6364. *Leptosporomyces septentrionalis*** (J. Erikss.) Krieglst. IF No: 129394 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 2,400–3,800 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Atheliales, Atheliales  
**6365. *Ploderma byssinum*** (P. Karst.) Jülich IF No: 337038 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6366. *Aureoboletus auriporus*** (Peck) Pouzar IF No: 326826 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in montane forests with oaks | Ectomycorrhizal solitary, gregarious **Distribution:** Panotropics, Subtropics, Temperate **Elev.:** 2,500 m **Dept.:** ANT **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6367. *Aureoboletus russelli*** (Frost) G. Wu & Zhu L. Yang IF No: 818394 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in montane forests | Ectomycorrhizal with oaks and other hardwoods solitary, scattered **Distribution:** Panotropics **Dept.:** CAU **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6368. *Austroboletus amazonicus*** Vasco-Palac. & López-Quint. IF No: 805436 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | associated to *Pseudomonotes tropenbosii*, in tropical rainforest, solitary **Distribution:** Panotropics **Endemic Elev.:** 200–300 m **Dept.:** AMA **Conservation:** CR



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6369. *Austroboletus festivus*** (Singer) Wolfe IF No: 118428 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Conservation:** VU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6370. *Austroboletus neotropical*** Singer, J. García & L.D. Gómez IF No: 354928 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On dead wood **Dept.:** NAR



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6371. *Austroboletus subflavidus*** (Murrill) Wolfe IF No: 118437 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil, in Andean forest | Ectomycorrhiza **Distribution:** Panotropics **Dept.:** NAR



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6372. *Austroboletus subvirens*** (Hongo) Wolfe IF No: 118438 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | Ectomycorrhiza **Dept.:** ANT, HUI



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6373. *Boletellus ananas*** (M.A. Curtis) Murrill IF No: 100683 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in montane forests with oaks | Ectomycorrhizal solitary **Distribution:** Global Distribution **Dept.:** ANT, NAR, VAC **Uses:** HF, PO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6374. *Boletellus coccineus*** (Sacc.) Singer IF No: 358698 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6375. *Boletus fuliginosus*** Singer IF No: 309685 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil, in Andean forest | Ectomycorrhiza **Distribution:** Panotropics **Elev.:** 1,800 m **Dept.:** CAU, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6376. *Boletus neoregillus*** Halling & G.M. Muell. IF No: 460561 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil, in Andean forest associated with *Quercus humboldtii* | Ectomycorrhiza **Distribution:** Panotropics **Elev.:** 2,500 m **Dept.:** ANT, BOY, CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6377. *Boletus purpurascens*** Hook. IF No: 198556 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6378. *Boletus pyrrosceles*** Halling IF No: 358347 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil, in Andean forest | Ectomycorrhiza **Distribution:** Panotropics **Dept.:** ANT, NAR



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6379. *Boletus reticulatus*** Schaeff. IF No: 200521 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in montane forests, Ectomycorrhizal **Distribution:** Global Distribution **Dept.:** CAU **Uses:** HF **Conservation:** LC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6380. *Chalciaporus caribaeus*** Pegler IF No: 108761 **Trophic mode/Guild:** pathotroph/fungal parasite **Habitat:** On soil, in mixed oak-dominated forest | Ectomycorrhiza **Elev.:** 2,500–2,800 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6381. *Chalciaporus piperatus*** (Bull.) Bataille IF No: 311021 **Trophic mode/Guild:** pathotroph/fungal parasite **Habitat:** On soil in plantations | Ectomycorrhizal with conifers solitary, gregarious, scattered **Distribution:** Introduced **Dept.:** ANT **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6382. *Chalciaporus pseudorubellus*** (A.H. Sm. & Thiers) L.D. Gómez IF No: 450560 **Trophic mode/Guild:** pathotroph/fungal parasite **Habitat:** On soil, in Andean forest associated with oak | Ectomycorrhiza **Elev.:** 1,800 m **Dept.:** ANT, CAU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6383. *Cyanoboletus pulverulentus*** (Opat.) Gelardi, Vizzini & Simonini IF No: 550673 **Dept.:** CUN, NAR, VAC **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6384. *Fistulinella campinaranae*** Singer IF No: 314143 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | in tropical rainforest, associated with *Pseudomonotes tropenbosii* | Ectomycorrhiza gregarious **Distribution:** Endemic **Elev.:** 200–300 m **Dept.:** AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6385. *Fistulinella gloeocarpa*** Pegler IF No: 124413 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6386. *Leccinellum rugosiceps*** (Peck) C. Hahn IF No: 834586 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6387. *Leccinum talamancae*** Halling, L.D. Gómez & Lannoy IF No: 459942 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil, in mixed oak-dominated forest **Distribution:** Panotropics **Elev.:** 2,500–2,800 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6388. *Phylloporus centramericanus*** Singer & L.D. Gómez IF No: 106363 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Distribution:** Panotropics **Elev.:** 2,550 m **Dept.:** ANT, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6389. *Phylloporus fibulatus*** Singer, Ovrebø & Halling IF No: 127486 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Elev.:** 2,500 m **Dept.:** ANT, NAR, TOL



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6390. *Phylloporus phaeoxanthus*** Singer & L.D. Gómez IF No: 106364 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Distribution:** Panotropics **Elev.:** 1,800–2,730 m **Dept.:** ANT, BOY, CAU, NAR, TOL



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Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6391. *Phylloporus purpurellus*** Singer IF No: 320302 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Distribution:** Panotropics **Dept.:** CAU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6392. *Porphyrellus indecisus*** (Peck) E.-J. Gilbert IF No: 252705 **Common name:** Hongo panelo (Spanish); Tusos (Spanish) **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in oak forests | Ectomycorrhizal solitary, gregarious **Distribution:** Panotropics **Dept.:** BOY **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6393. *Porphyrellus umbrosus*** (G.F. Atk.) Singer, J. García & L.D. Gómez IF No: 354391 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6394. *Pulveroboletus atkinsonianus*** (Murrill) L.D. Gómez IF No: 450124 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Dept.:** ANT, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6395. *Pulveroboletus ravenelli*** (Berk. & M.A. Curtis) Murrill IF No: 100667 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** In disturbed tropical cloud forest **Dept.:** ANT, NAR, VAC **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6396. *Rugiboletus andinus*** (Halling) Halling & B. Ortiz IF No: 830007 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6397. *Singerocomus inundabilis*** (Singer) T.W. Henkel & Huasbands IF No: 811839 **Trophic mode/Guild:** /ectomycorrhizal **Habitat:** On soil | in tropical rainforest, associated with *Dyckim* sp. | Ectomycorrhiza **Distribution:** Panotropics **Dept.:** AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6398. *Strobilomyces confusus*** Singer IF No: 291241 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in montane forests. Ectomycorrhizal solitary **Distribution:** Panotropics, Subtropics **Dept.:** HUI **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6399. *Tylopilus bulbosus*** Halling & G.M. Muell. IF No: 489164 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** In soil of montane forests | Ectomycorrhiza **Distribution:** Panotropics **Dept.:** ANT **Conservation:** NT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6400. *Tylopilus obscurus*** Halling IF No: 134922 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | in Andean forest | Ectomycorrhiza **Distribution:** Panotropics **Elev.:** 2,350 m **Dept.:** ANT, HUI, NAR, SAN **Conservation:** NT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6401. *Tylopilus pakaramensis*** T.W. Henkel IF No: 467831 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6402. *Xanthoconium separans*** (Peck) Halling & Both IF No: 445515 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in montane forests, associated with oak | Ectomycorrhizal solitary, gregarious **Distribution:** Global Distribution **Dept.:** ANT, NAR **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6403. *Xerocomellus chrsenterson*** (Bull.) Sütara IF No: 511893 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in montane forests. Ectomycorrhizal solitary, gregarious **Distribution:** Global Distribution **Dept.:** ANT, NAR **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6404. *Xerocomellus truncatus*** (Singer, Snell & E.A. Dick) Klotz IF No: 563567 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil, in Andean forest associated with oak | Ectomycorrhiza **Elev.:** 2,500 m **Dept.:** ANT **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6405. *Xerocomus amazonicus*** Singer IF No: 325602 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6406. *Xerocomus orquidlanus*** (Halling) L.D. Gómez IF No: 450496 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil, in Andean forest associated with oak | Ectomycorrhiza **Elev.:** 1,300–1,400 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6407. *Xerocomus subtomentosus*** (L.) Quéf. IF No: 121483 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in montane forests. Ectomycorrhizal **Distribution:** Global Distribution **Dept.:** ANT, CAU **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6408. *Xerocomus tenax*** Nuhn & Halling IF No: 811407 **Trophic mode/Guild:** symbiotroph/animal associated biotroph, **Habitat:** On soil, in Andean forest associated with oak | Ectomycorrhiza **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6409. *Boletellus exiguus*** (Singer & Diglio) Watling IF No: 443005 **Trophic mode/Guild:** saprotroph, symbiotroph/animal associated biotroph, root associate **Habitat:** On soil | in mature forest | In disturbed tropical cloud forest | Ectomycorrhiza **Distribution:** Panotropics **Elev.:** 1,300–2,400 m **Dept.:** ANT, CAL, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6410. *Boletellus monticola*** (Singer) Watling IF No: 443007 **Trophic mode/Guild:** saprotroph, symbiotroph/animal associated biotroph, root associate **Distribution:** Panotropics **Dept.:** ANT, HUI



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6411. *Phlebopus beniensis*** (Singer & Diglio) Heinem. & Rammeloo IF No: 110251 **Trophic mode/Guild:** saprotroph, symbiotroph/animal associated biotroph, **Habitat:** On soil | Ectomycorrhiza gregarious **Distribution:** Panotropics **Elev.:** 400–1,600 m **Dept.:** CES, MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6412. *Phlebopus brasiliensis*** Singer IF No: 110367 **Trophic mode/Guild:** saprotroph, symbiotroph/animal associated biotroph, root associate **Distribution:** Panotropics **Elev.:** 250 m **Dept.:** MET



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6413. *Phlebopus braunii*** (Bres.) Heinem. IF No: 282816 **Trophic mode/Guild:** saprotroph, symbiotroph/animal associated biotroph, root associate **Habitat:** On decayed wood | in chagras | Saprotroph **Distribution:** Panotropics **Dept.:** CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Boletaceae  
**6414. *Calostoma cinnabarinum*** Desv. IF No: 156972 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil, in oak forest **Distribution:** Panotropics **Elev.:** 2,100–2,800 m **Dept.:** ANT, BOY, CAL, CAU **Uses:** HF, ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Coniophoraceae  
**6415. *Gyrodontium sacchari*** (Spreng.) Hjortstam IF No: 413146 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Diplocystidiaceae  
**6416. *Astraeus hygrometricus*** (Pers.) Morgan IF No: 122650 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** In dry sandy grassland | Ectomycorrhizal solitary, gregarious **Distribution:** Global **Dept.:** CUN **Uses:** HF, ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Diplocystidiaceae  
**6417. *Tremellogaster surinamensis*** E. Fisch. IF No: 279596 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | in mature forest | Saprotroph **Distribution:** Panotropics **Elev.:** 200 m **Dept.:** AMA, CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Gyroporaceae  
**6418. *Gyroporus castaneus*** (Bull.) Quéf. IF No: 356881 **Common name:** Chesnut bolete (English) **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in montane forests | Ectomycorrhizal with *Quercus cespitosa*, scattered **Distribution:** Global Distribution **Elev.:** 1,640 m **Dept.:** CAU **Uses:** HF, ME, SU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Gyroporaceae  
**6419. *Gyroporus paralogicystidiatus*** Davoodian IF No: 822350 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Elev.:** 1,640 m **Dept.:** CAU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Paxillaceae  
**6420. *Melorganium curtisii*** (Berk.) Singer, J. García & L.D. Gómez IF No: 361650 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal

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Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Paxillaceae  
**6421. *Paxillus gymnopus*** C. Hahn IF No: 415134 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Sclerodermataceae  
**6424. *Pisolithus tinctorius*** (Mont.) E. Fisch. IF No: 296623 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On sandy soils | In old lawns | On roadsides | Saprotrroph **Dept.:** BOG **Uses:** EU, HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Sclerodermataceae  
**6427. *Scleroderma bovista*** Fr. IF No: 186199 **Trophic mode/ Guild:** symbiotroph/ectomycorrhizal **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Sclerodermataceae  
**6430. *Scleroderma verrucosum*** (Bull.) Pers. IF No: 211519 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Incertae sedis  
**6433. *Corneromyces kinabalu*** Ginns IF No: 311835 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotrroph **Elev.:** 2,100 m **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Lepidostromatales, Lepidostromataceae  
**6436. *Sulzbacheromyces tutunendo*** Coca, Lücking & Moncada IF No: 827271 **Trophic mode/Guild:** symbiotroph/lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Auriculariomycetidae, Auriculariales, Auriculariaceae  
**6439. *Auricularia cornea*** Ehrenb. IF No: 167247 **Trophic mode/Guild:** saprotroph /undefined saprotroph **Habitat:** On damp old wood | In tropical forest | Saprotrroph solitary, gregarious **Distribution:** Global **Elev.:** 50 m **Dept.:** CHO **Uses:** HF, ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Auriculariomycetidae, Auriculariales, Auriculariaceae  
**6442. *Auricularia mesenterica*** (Dicks.) Pers. IF No: 178140 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On dead wood | Saprotrroph **Distribution:** Global **Elev.:** 1,100 m **Dept.:** AMA, CAL, CAQ, CES, CHO, MET, VAC **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Auriculariomycetidae, Auriculariales, Auriculariaceae  
**6445. *Elchlerella shearii*** (Burt) Spirin & Malysheva IF No: 818025 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Auriculariomycetidae, Auriculariales, Auriculariaceae  
**6448. *Heterochaete albida*** Pat. IF No: 240743 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Auriculariomycetidae, Auriculariales, Auriculariaceae  
**6451. *Heterochaete minuta*** Pat. IF No: 145288 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Rhizopogonaceae  
**6422. *Rhizopogon roseolus*** (Corda) Th. Fr. IF No: 100130 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Sclerodermataceae  
**6425. *Scleroderma albidum*** Pat. & Trab. IF No: 213256 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in *Quercus* forests and *Eucalyptus* plantations | Ectomycorrhiza **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Sclerodermataceae  
**6428. *Scleroderma citrinum*** Pers. IF No: 181865 **Trophic mode/Guild:** symbiotroph /ectomycorrhizal **Habitat:** On soil, often found in mossy areas | Ectomycorrhizal with hardwoods or conifers solitary, gregarious **Distribution:** Global **Elev.:** 1,340 m **Dept.:** QUI **Uses:** HF, ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Sulliacae  
**6431. *Sullius brunnescens*** A.H. Sm. & Thiers IF No: 339841 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Lepidostromatales, Lepidostromataceae  
**6434. *Lepidostroma calocentrum*** (G.W. Martin) Oberw. IF No: 107531 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 120-1,500 m **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Incertae sedis, Incertae sedis  
**6437. *Phycitbasidium polyporoleum*** (Berk. & M.A. Curtis) Jülich IF No: 319899 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Auriculariomycetidae, Auriculariales, Auriculariaceae  
**6440. *Auricularia delicata*** (Mont. ex Fr.) Henn. IF No: 122319 **Common name:** Hongo gelatinoso, used by Uitoto people; Oreja de venado, used by Uitoto people **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On decaying wood | In chagras | Saprotrroph gregarious, cespitose **Distribution:** Pantropics, Subtropics **Elev.:** 200-2,900 m **Dept.:** AMA, ANT, CAL, CAS, CAQ, CUN, HUI, MAG, MET, NSA, QUI, RIS, VAC **Uses:** AF, HF, ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Auriculariomycetidae, Auriculariales, Auriculariaceae  
**6443. *Auricularia nigricans*** (Sw.) Birkebak, Looney & Sánchez-García IF No: 803171 **Trophic mode/Guild:** saprotroph /undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Auriculariomycetidae, Auriculariales, Auriculariaceae  
**6446. *Elmerina curvae*** (Schwein.) D.A. Reid IF No: 354655 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Elev.:** 370 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Auriculariomycetidae, Auriculariales, Auriculariaceae  
**6449. *Heterochaete gelatinosa*** (Berk. & M.A. Curtis) Pat. IF No: 145598 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Auriculariomycetidae, Auriculariales, Auriculariaceae  
**6452. *Heterochaete ochracea*** Pat. IF No: 145676 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Sclerodermataceae  
**6423. *Pisolithus arhizus*** (Scop.) Rauschert IF No: 276857 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Sclerodermataceae  
**6426. *Scleroderma areolatum*** Ehrenb. IF No: 203292 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in woods and gardens | Ectomycorrhiza **Distribution:** Global **Dept.:** ANT, BOY, CUN **Uses:** HF, ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Sclerodermataceae  
**6429. *Scleroderma duckelii*** B.D.B. Silva, M.P. Martín & Baseia IF No: 818097 **Trophic mode/Guild:** symbiotroph /ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Boletales, Sulliacae  
**6432. *Sullius luteus*** (L.) Roussel IF No: 120823 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil, in exotic plantations | Ectomycorrhizal gregarious **Distribution:** Global **Elev.:** 2,200-3,000 m **Dept.:** ANT, BOY, CAL, CUN **Uses:** HF, ME **Conservation:** LC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Agaricomycetidae, Lepidostromatales, Lepidostromataceae  
**6435. *Sulzbacheromyces chococensis*** Coca, Lücking & Moncada IF No: 827270 **Trophic mode/Guild:** symbiotroph /lichenised



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Auriculariomycetidae, Auriculariales, Auriculariaceae  
**6438. *Auricularia auricula-judae*** (Bull.) Quéf. IF No: 102281 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On dead wood, on stumps | Saprotrroph gregarious **Distribution:** Temperate **Elev.:** 50-2,900 m **Dept.:** ANT, CAL, CHO, MET, TOL, VAC **Uses:** HF, MA, ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Auriculariomycetidae, Auriculariales, Auriculariaceae  
**6441. *Auricularia fuscosuccinea*** (Mont.) Henn. IF No: 309392 **Common name:** Hongo gelatinoso, used by Uitoto people; Oreja de venado, used by Uitoto people **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On wood in oak forest | On decaying wood | In tropical forest | In chagras | Saprotrroph gregarious, cespitose **Distribution:** Pantropics **Elev.:** 200-2,800 m **Dept.:** ANT, AMA, BOY, CAQ, CAU, CHO, CUN, NSA, QUI, VAC **Uses:** AF, MA, ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Auriculariomycetidae, Auriculariales, Auriculariaceae  
**6444. *Auricularia tenuis*** (Lév.) Farl. IF No: 158602 **Trophic mode/Guild:** saprotroph /undefined saprotroph **Habitat:** Saprotrroph **Dept.:** ANT, SAN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Auriculariomycetidae, Auriculariales, Auriculariaceae  
**6447. *Exidiopsis effusa*** (Bref. ex Sacc.) Müller IF No: 169072 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On fallen *Corylus* branch, On decorticated log of *Pinus radiata*, On dead attached *Fagus* branch, Fern worthy Forest, On fallen *Fagus* branches **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Auriculariomycetidae, Auriculariales, Auriculariaceae  
**6450. *Heterochaete himenoides*** (Pat.) K. Wells IF No: 331957 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Auriculariomycetidae, Auriculariales, Auriculariaceae  
**6453. *Heterochaete sanctae-martae*** Bodman IF No: 298422 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotrroph **Elev.:** 1,250-1,500 m **Dept.:** MAG



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Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Auriculariomycetidae, Auriculariales, Auriculariaceae  
**6454. *Heterochaete verruculosa*** (Möller) Bodman IF No: 298425 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Auriculariomycetidae, Auriculariales, Auriculariaceae  
**6455. *Heteroradulum lividofusum*** (Pat.) Spirin & Malysheva IF No: 818033 **Dept.:** TOL



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Auriculariomycetidae, Auriculariales, Hyaloriaceae  
**6456. *Myxarium nucleatum*** Wallr. IF No: 123613 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Dept.:** ANT, CAU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Auriculariomycetidae, Auriculariales, Oliveaceae  
**6457. *Oliveola fibrillosa*** (Burt) Donk IF No: 301973 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On decayed wood, in tropical montane cloud forest | Saprotroph **Distribution:** Global Distribution **Elev.:** 1,250–2,832 m **Dept.:** CUN, MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Auriculariomycetidae, Auriculariales, Incertae sedis  
**6458. *Basidiodendron cinereum*** (Bres.) Luck–Allen IF No: 326925 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Auriculariomycetidae, Auriculariales, Incertae sedis  
**6459. *Basidiodendron eyrei*** (Wakef.) Luck–Allen IF No: 326927 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 1,250–1,500 m **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Auriculariomycetidae, Auriculariales, Incertae sedis  
**6460. *Basidiodendron fulvum*** (Masse) Ginns IF No: 110501 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Auriculariomycetidae, Auriculariales, Incertae sedis  
**6461. *Basidiodendron radicans*** (Rick) P. Roberts IF No: 483584 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Auriculariomycetidae, Auriculariales, Incertae sedis  
**6462. *Ductifera pululahuana*** (Pat.) Donk IF No: 297040 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Pantropics **Elev.:** 1,250–1,500 m **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Auriculariomycetidae, Auriculariales, Incertae sedis  
**6463. *Guepinia fissa*** Berk. IF No: 189723 **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Auriculariomycetidae, Auriculariales, Incertae sedis  
**6464. *Patouillardina cinerea*** Bres. IF No: 186844



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Auriculariomycetidae, Auriculariales, Incertae sedis  
**6465. *Protomerulius minor*** (A. Möller) V. Spirin & O. Miettinen IF No: 830961 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Auriculariomycetidae, Auriculariales, Incertae sedis  
**6466. *Pseudohydnum gelatinosum*** (Scop.) P. Karst. IF No: 120525 **Trophic mode/Guild:** saprotroph/parasite **Habitat:** On decaying wood | In tropical forest | Saprotroph, Parasite gregarious **Distribution:** Global Distribution **Elev.:** 50–2,200 m **Dept.:** CAL, CHO, VAC **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Auriculariomycetidae, Auriculariales, Incertae sedis  
**6467. *Stypella griffeti*** (Boud.) P. Roberts IF No: 447071 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Geastrales, Geastraceae  
**6468. *Geastrum javanicum*** Lévy IF No: 356878 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Geastrales, Geastraceae  
**6469. *Geastrum lageniforme*** Vittad. IF No: 120749 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Geastrales, Geastraceae  
**6470. *Geastrum mirabile*** Mont. IF No: 119270 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Geastrales, Geastraceae  
**6471. *Geastrum rufescens*** Pers. IF No: 121327 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On soil | In tropical dry forest | Saprotroph solitary **Distribution:** Global Distribution **Dept.:** SUC **Uses:** PO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Geastrales, Geastraceae  
**6472. *Geastrum saccatum*** Fr. IF No: 118342 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On soil | In tropical forest | Saprotroph solitary, scattered **Distribution:** Global Distribution **Elev.:** 50–2,100 m **Dept.:** AMA, CAL, CAQ, CAU, CHO, MAG, VAC **Uses:** ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Geastrales, Geastraceae  
**6473. *Geastrum schweinitzii*** (Berk. & M.A. Curtis) Zeller IF No: 286611 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Geastrales, Geastraceae  
**6474. *Geastrum subcuculosum*** Cooke & Masse IF No: 164516 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Geastrales, Geastraceae  
**6475. *Geastrum triplex*** Jungh. IF No: 119601 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On soil in forests | Saprotroph gregarious, solitary **Distribution:** Global Distribution **Dept.:** ANT, CUN **Uses:** ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Gomphales, Gomphaceae  
**6476. *Gloeocantharellus uitotanus*** Vasco–Pal. & Franco–Mol. IF No: 336604 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On soil | in mature forest | Saprotroph **Elev.:** 250 m **Dept.:** AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Gomphales, Gomphaceae  
**6477. *Gomphus cavipes*** Corner IF No: 314681 **Dept.:** AMA, ANT, CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Gomphales, Gomphaceae  
**6478. *Phaeoclavulina abietina*** (Pers.) Giachini IF No: 512962 **Trophic mode/Guild:** symbiotrophy/ectomycorrhizal **Habitat:** On woodland soils | Saprotroph **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Gomphales, Gomphaceae  
**6479. *Phaeoclavulina cokeri*** (R.H. Petersen) Giachini IF No: 512945 **Trophic mode/Guild:** symbiotrophy/ectomycorrhizal **Habitat:** On soil **Dept.:** CAU, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Gomphales, Gomphaceae  
**6480. *Phaeoclavulina cyanocephala*** (Berk. & M.A. Curtis) Giachini IF No: 512947 **Trophic mode/Guild:** symbiotrophy/ectomycorrhizal **Elev.:** 75 m **Dept.:** CHO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Gomphales, Gomphaceae  
**6481. *Phaeoclavulina zippellii*** (Lév.) Overeem IF No: 282346 **Trophic mode/Guild:** symbiotrophy/ectomycorrhizal **Habitat:** Soil in anectotrophic forests | Saprotroph gregarious **Distribution:** Global Distribution **Dept.:** CAQ, CAU **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Gomphales, Gomphaceae  
**6482. *Ramaria surantramosa*** (Marr & D.E. Stuntz) Franchi & M. Marchetti IF No: 554469 **Trophic mode/Guild:** symbiotrophy/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Gomphales, Gomphaceae  
**6483. *Ramaria aurea*** (Schaeff.) Quéf. IF No: 414477 **Trophic mode/Guild:** symbiotrophy/ectomycorrhizal **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Gomphales, Gomphaceae  
**6484. *Ramaria botrytis*** (Pers.) Bourdot IF No: 356843 **Trophic mode/Guild:** symbiotrophy/ectomycorrhizal **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Gomphales, Gomphaceae  
**6485. *Ramaria choconensis*** C. Hahn & Christian IF No: 627780 **Trophic mode/Guild:** symbiotrophy/ectomycorrhizal **Elev.:** 40–75 m **Dept.:** CHO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Gomphales, Gomphaceae  
**6486. *Ramaria cyaneliramosa*** Marr & D.E. Stuntz IF No: 322253 **Common name:** Manitas (Spanish); Manos (Spanish) **Trophic mode/Guild:** symbiotrophy/ectomycorrhizal **Habitat:** On soil in montane forests. Ectomycorrhizal solitary, gregarious **Distribution:** Temperate, North America **Dept.:** BOY **Uses:** HF

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Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Gomphales, Gomphaceae  
**6487. *Ramaria cystidophora*** (Kauffman) Corner IF No: 304953 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in montane forests. Ectomycorrhizal  
**Distribution:** Pan tropics **Dept.:** NAR **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Gomphales, Gomphaceae  
**6488. *Ramaria flava*** (Schaeff.) Quél. IF No: 356923 **Common name:** Manitas (Spanish); Manos (Spanish) **Trophic mode/Guild:** symbiotroph/ectomycorrhizal  
**Habitat:** On soil in montane forests. Ectomycorrhizal  
**Distribution:** Temperate, Europe **Dept.:** BOY **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Gomphales, Gomphaceae  
**6489. *Ramaria flavosaponaria*** R.H. Petersen IF No: 104709 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal  
**Dept.:** NAR



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Gomphales, Gomphaceae  
**6490. *Ramaria formosa*** (Pers.) Quél. IF No: 355626 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil, in montane Forest | Ectomycorrhizal  
**Distribution:** Global Distribution **Dept.:** CAL  
**Uses:** HF, PO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Gomphales, Gomphaceae  
**6491. *Ramaria reticulata*** (Berk. & Cooke) Corner IF No: 338186 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Distribution:** Pan tropics **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Gomphales, Gomphaceae  
**6492. *Ramaria secunda*** (Berk.) Corner IF No: 304997 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in montane forests. Ectomycorrhizal  
**Distribution:** Global Distribution **Dept.:** BOY **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Gomphales, Gomphaceae  
**6493. *Ramaria stricta*** (Pers.) Quél. IF No: 355674 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On stumps or buried wood, in montane forests |  
**Distribution:** Global Distribution **Dept.:** SAN **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Gomphales, Gomphaceae  
**6494. *Ramaricium albo-ochraceum*** (Bres.) Jülich IF No: 322291 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Phallales, Phallaceae  
**6495. *Blumeneria angolensis*** (Welw. & Curr.) Dring IF No: 113149 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Phallales, Phallaceae  
**6496. *Blumeneria rhacodes*** Möller IF No: 241046 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Phallales, Phallaceae  
**6497. *Clathrus archeri*** (Berk.) Dring IF No: 112725 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Phallales, Phallaceae  
**6498. *Clathrus columnatus*** Bosc IF No: 200050 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On soil near woody debris in lawns, gardens, cultivated soil | Saprotroph solitary, gregarious  
**Distribution:** Global Distribution **Dept.:** CAU **Uses:** ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Phallales, Phallaceae  
**6499. *Laternea dringii*** A. López, D. Martínez & J. García IF No: 110758 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Phallales, Phallaceae  
**6500. *Laternea pusilla*** Berk. & M.A. Curtis IF No: 238999 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Lower mountain humid rainforest |  
**Distribution:** Pan tropics **Elev.:** 2,761 m **Dept.:** BOG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Phallales, Phallaceae  
**6501. *Laternea triscapa*** Turpin IF No: 239726 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Pan tropics **Elev.:** 2,600–2,700 m **Dept.:** BOY, CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Phallales, Phallaceae  
**6502. *Lysurus gardneri*** Berk. IF No: 198732 **Trophic mode/Guild:** saprotroph/dung saprotroph, soil saprotroph **Habitat:** Paramo with *Espeletia* sp. **Distribution:** Pan tropics **Elev.:** 3,500 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Phallales, Phallaceae  
**6503. *Mutinus caninus*** (Huds.) Fr. IF No: 223415 **Trophic mode/Guild:** saprotroph/leaf saprotroph **Habitat:** Saprotroph **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Phallales, Phallaceae  
**6504. *Phallus impudicus*** L. IF No: 245934 **Trophic mode/Guild:** saprotroph/litter saprotroph, soil saprotroph, wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Phallales, Phallaceae  
**6505. *Phallus indusiatus*** Vent. IF No: 245788 **Common name:** Hongo de tierra, used by Uitoto people; Corazón de tierra, used by Uitoto people **Trophic mode/Guild:** saprotroph/litter saprotroph, soil saprotroph, wood saprotroph **Habitat:** In soil with litter. Saprotroph, solitary **Distribution:** Global Distribution **Dept.:** AMA, CAQ **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Phallomycetidae, Phallales, Phallaceae  
**6506. *Stahelomyces cinctus*** E. Fisch. IF No: 219534 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Aphelariaceae  
**6507. *Aphelaria trispora*** Corner IF No: 326363 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Pan tropics **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Botrybasidiaceae  
**6508. *Botrybasidium digitatum*** (D.P. Rogers) G. Langer IF No: 412603 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Elev.:** 1,900 m **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Botrybasidiaceae  
**6509. *Botrybasidium isabellinum*** (Fr.) D.P. Rogers IF No: 252790 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Elev.:** 2,400 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Botrybasidiaceae  
**6510. *Botrybasidium lembosporum*** (D.P. Rogers) Donk IF No: 293776 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Elev.:** 2,400 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Botrybasidiaceae  
**6511. *Botrybasidium pulinatum*** (Bres.) J. Erikss. IF No: 293780 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Elev.:** 1,800 m **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Botrybasidiaceae  
**6512. *Botrybasidium subcoronatum*** (Höhn. & Litsch.) Donk IF No: 254907 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Elev.:** 1,900 m **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Botrybasidiaceae  
**6513. *Botrybasidium verrucisporum*** (Burd. & Gils.) G. Langer IF No: 412613 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Elev.:** 2,400 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Ceratobasidiaceae  
**6514. *Rhizoctonia noxia*** (Donk) Oberw., R. Bauer, Garnica & R. Kirschner IF No: 805621



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Ceratobasidiaceae  
**6515. *Rhizoctonia solani*** J.G. Kühn IF No: 229666 **Trophic mode/Guild:** pathotroph/plant pathogen **Habitat:** On an unidentified plant **Elev.:** 2,700 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Ceratobasidiaceae  
**6516. *Torospora scaberula*** (Hjortstam & Ryvarden) Hjortstam & Ryvarden IF No: 505172 **Trophic mode/Guild:** saprotroph/**Habitat:** Saprotroph **Distribution:** Pan tropics **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
**6517. *Cantharellus cilbarius*** Fr. IF No: 200345 **Common name:** Rebozuelo (Spanish) **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil, in montane mixed oak-dominated forests **Distribution:** Global Distribution **Elev.:** 200–2,800 m **Dept.:** ANT, CAQ, CAU, CUN, HUI **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
**6518. *Cantharellus cinereus*** Pers. IF No: 197287 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in montane forests | Ectomycorrhizal with hardwoods **Distribution:** Global Distribution **Dept.:** CUN **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
**6519. *Cantharellus cinnabarinus*** (Schwein.) Schwein. IF No: 356863 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in montane forests | In sandy soils | Ectomycorrhizal with hardwoods solitary, gregarious, scattered **Distribution:** North America, Caribbean **Dept.:** CUN **Uses:** HF



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Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6520. *Cantharellus guyanensis* Mont. IF No: 240517 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | in tropical rainforest, associated with *Dicymbe* **Distribution:** Pantropics **Elev.:** 200 m **Dept.:** AMA, CAQ **Conservation:** LC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6521. *Cantharellus lateralis* (Berk.) Singer IF No: 294074 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in montane oak forests | **Ectomycorrhizal with** *Quercus* solitary, gregarious, scattered **Distribution:** Pantropics, Subtropics **Elev.:** 2,700 m **Dept.:** CUN, BOY, NAR **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6522. *Cantharellus rhodophyllus* Heinem. IF No: 294081 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** In tropical forest, Ectomycorrhiza **Elev.:** 50 m **Dept.:** CHO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6523. *Clavulina amazonensis* Corner IF No: 468812 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | in tropical rainforest | **Ectomycorrhiza** **Distribution:** Pantropics **Dept.:** AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6524. *Clavulina chinera* (Bull.) J. Schröt. IF No: 114574 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6525. *Clavulina chinereglebosa* Uehling, Aime & T.W. Henkel IF No: 561189 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6526. *Clavulina cibrata* (Berk.) Corner IF No: 295008 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6527. *Clavulina connata* (Berk.) Corner IF No: 295010 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in tropical rainforest | **Ectomycorrhiza** **Distribution:** Pantropics **Dept.:** AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6528. *Clavulina craterelloides* Thacker & T.W. Henkel IF No: 488561 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | in tropical rainforest | **Ectomycorrhiza** **Distribution:** Pantropics **Dept.:** AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6529. *Clavulina effusa* Uehling, T.W. Henkel & Aime IF No: 561190 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | in tropical rainforest | **Ectomycorrhiza** **Distribution:** Pantropics **Dept.:** AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6530. *Clavulina giseochumicola* T.W. Henkel, Meszaros & Aime IF No: 357124 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6531. *Clavulina guyanensis* Uehling & T.W. Henkel IF No: 564684 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6532. *Clavulina kunmuclitsa* T.W. Henkel & Aime IF No: 518848 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in tropical rainforest **Distribution:** Pantropics **Dept.:** AMA **Conservation:** DD



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6533. *Clavulina nigricans* Thacker & T.W. Henkel IF No: 488562 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6534. *Clavulina rosiramea* Uehling, T.W. Henkel & Aime IF No: 564665 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6535. *Clavulina sprucei* (Berk.) Corner IF No: 295026 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | in tropical rainforest | **Ectomycorrhiza** **Distribution:** Pantropics **Dept.:** AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6536. *Clavulina tepurimenga* T.W. Henkel & Aime IF No: 518849 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Conservation:** DD



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6537. *Craterellus atratoides* T.W. Henkel, Aime & A.W. Wilson IF No: 564237 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in tropical rainforest associated with *Dicymbe* sp. **Distribution:** Endemic **Dept.:** AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6538. *Craterellus atratus* (Corner) Yomyart, Watling, Phosri, Piap. & Sihan. IF No: 563344 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | in tropical rainforest associated with *Dicymbe* sp. **Distribution:** Endemic **Dept.:** AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6539. *Craterellus boyacensis* Singer IF No: 329220 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | in Andean forest | **Ectomycorrhiza** gregarious **Distribution:** Pantropics **Elev.:** 2,270–2,900 m **Dept.:** ANT, CUN, HUI, BOY **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6540. *Craterellus chinereofimbriatus* T.W. Henkel & A.W. Wilson IF No: 803952 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | in tropical rainforest associated with *Dicymbe* sp. | **Ectomycorrhiza** **Distribution:** Endemic **Dept.:** AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6541. *Craterellus cornucopioides* (L.) Pers. IF No: 153130 **Common name:** Trompetas de la muerte (Spanish) **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil among litter | **Ectomycorrhizal**. On soil in montane forests/ **Ectomycorrhizal** with hardwoods gregarious **Distribution:** Global **Dept.:** AMA, BOY, CAQ **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6542. *Craterellus strigosus* T.W. Henkel, Aime & A.W. Wilson IF No: 564238 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | in tropical rainforest associated with *Dicymbe* sp. | **Ectomycorrhiza** **Distribution:** Endemic **Dept.:** AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6543. *Gloeomucro flavus* (G.W. Martin) R.H. Petersen IF No: 113771 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6544. *Hydnium albidum* Peck IF No: 141384 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Elev.:** 2,350 m **Dept.:** ANT **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6545. *Hydnium repandum* L. IF No: 225014 **Common name:** The Hedgehog mushroom (English) **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | In mixed oak-dominated forest | **Ectomycorrhiza** gregarious, solitary **Distribution:** Global **Elev.:** 2,200–2,800 m **Dept.:** ANT **Uses:** HF, ME **Conservation:** LC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6546. *Multiclavula coronilla* (G.W. Martin) R.H. Petersen IF No: 337750 **Trophic mode/Guild:** symbiotroph/lichenised **Elev.:** 1,250–1,500 m **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6547. *Multiclavula corymboides* (Peck) R.H. Petersen IF No: 334548 **Trophic mode/Guild:** symbiotroph/lichenised **Elev.:** 3,800–4,300 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6548. *Multiclavula mucida* (Pers.) R.H. Petersen IF No: 334552 **Trophic mode/Guild:** symbiotroph/lichenised **Biogeographic region:** Andes **Distribution:** Pantropics, Native **Elev.:** 1,400 m **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6549. *Pseudocraterellus sinuosus* (Fr.) Corner IF No: 337750 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6550. *Pseudocraterellus undulatus* (Pers.) Rauschert IF No: 102638 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6551. *Repetobasidium mlrfficum* J. Erikss. IF No: 305090 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On decayed wood of *Pinus* sp. **Hosts:** *Pinus* sp. **Distribution:** Temperate **Elev.:** 3,700 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
 6552. *Sistotrema brinkmannii* (Bres.) J. Erikss. IF No: 305986 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Elev.:** 2,700 m **Dept.:** CUN

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Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
**6553. *Sistotrema clademiferum*** (Bourdrot & Galzin) Donk IF No: 305988 **Trophic mode/Guild:** saprotrophy/wood saprotroph **Habitat:** Saprotroph **Elev.:** 2,700 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
**6554. *Sistotrema octosporum*** (J. Schröt. ex Höhn. & Litsch.) Hallenb. IF No: 115327 **Trophic mode/Guild:** saprotrophy/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
**6555. *Sistotrema raduloides*** (P. Karst.) Donk IF No: 305991 **Trophic mode/Guild:** saprotrophy/wood saprotroph **Habitat:** Saprotroph **Elev.:** 2,400 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Hydnaceae  
**6556. *Sistotrema perpusilla*** Hjortstam IF No: 115329 **Trophic mode/Guild:** saprotrophy/undefined saprotroph **Habitat:** On *Picea abies* **Elev.:** 2,400 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Tulasnellaceae  
**6557. *Tulasnella violae*** (Quéf.) Bourdot & Galzin IF No: 414502 **Trophic mode/Guild:** saprotroph, symbiotrophy/ectomycorrhizal, **Elev.:** 1,250–1,500 m **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Cantharellales, Incertae sedis  
**6558. *Minimedusa polyspora*** (Hotsón) Weresub & P.M. LeClair IF No: 317759



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Corticiales, Corticiaceae  
**6559. *Corticium koleroga*** (Cooke) Höhn. IF No: 120730 **Dept.:** NSA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Corticiales, Corticiaceae  
**6560. *Corticium roseum*** Pers. IF No: 154203 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Corticiales, Corticiaceae  
**6561. *Erythricium salmonicolor*** (Berk. & Broome) Burds. IF No: 103294 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Corticiales, Corticiaceae  
**6562. *Galzinia Incrustans*** Parmasto IF No: 331165 **Trophic mode/Guild:** saprotrophy/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 3,600–3,800 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Corticiales, Corticiaceae  
**6563. *Lawreymyces bogotensis*** Lücking & Moncada IF No: 553220 **Trophic mode/Guild:** pathotrophy/lichen parasite



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Corticiales, Corticiaceae  
**6564. *Lawreymyces columbensis*** Lücking & Moncada IF No: 553221 **Trophic mode/Guild:** pathotrophy/lichen parasite



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Corticiales, Corticiaceae  
**6565. *Lawreymyces confusus*** Lücking & Moncada IF No: 553222 **Trophic mode/Guild:** pathotrophy/lichen parasite



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Corticiales, Corticiaceae  
**6566. *Lawreymyces foliaceae*** Lücking & Moncada IF No: 553223 **Trophic mode/Guild:** pathotrophy/lichen parasite



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Corticiales, Corticiaceae  
**6567. *Lawreymyces pallae*** Lücking & Moncada IF No: 553224 **Trophic mode/Guild:** pathotrophy/lichen parasite



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Corticiales, Corticiaceae  
**6568. *Lawreymyces pulchellae*** Lücking & Moncada IF No: 553225 **Trophic mode/Guild:** pathotrophy/lichen parasite



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Corticiales, Corticiaceae  
**6569. *Lawreymyces sprilliae*** Lücking & Moncada IF No: 553226 **Trophic mode/Guild:** pathotrophy/lichen parasite



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Corticiales, Corticiaceae  
**6570. *Waltea circinata*** Warcup & P.H.B. Talbot IF No: 340988 **Trophic mode/Guild:** pathotrophy/plant pathogen



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Corticiales, Incertae sedis  
**6571. *Leptocorticium cyathaeae*** (S. Ito & S. Imai) Hjortstam & Ryvarde IF No: 484292 **Trophic mode/Guild:** saprotrophy/undefined saprotroph **Habitat:** On bamboo | on palm



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Corticiales, Incertae sedis  
**6572. *Leptocorticium tenellum*** Nakasone IF No: 341582 **Trophic mode/Guild:** saprotrophy/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Corticiales, Incertae sedis  
**6573. *Melzerodontia rasilis*** Hjortstam & Ryvarde IF No: 437816 **Trophic mode/Guild:** saprotrophy/undefined saprotroph **Habitat:** On bark | Saprotroph **Distribution:** Pantropics **Elev.:** 2,400 m **Dept.:** CUN

trees | on wood | Saprotroph **Distribution:** Pantropics **Elev.:** 2,400–2,700 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Gloeophyllales, Gloeophyllaceae  
**6574. *Boreostereum vibrans*** (Berk. & M.A. Curtis) Davydkina & Bondartseva IF No: 309835 **Trophic mode/Guild:** saprotrophy/wood saprotroph **Habitat:** Dead hardwood with a white rot. Saprotroph **Elev.:** 1,250–1,500 m **Dept.:** CUN, MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Gloeophyllales, Gloeophyllaceae  
**6575. *Gloeophyllum striatum*** (Fr.) Murrill IF No: 445922 **Trophic mode/Guild:** saprotrophy/wood saprotroph **Habitat:** Burned decayed wood | Saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Gloeophyllales, Gloeophyllaceae  
**6576. *Stiptophyllum erubescens*** (Berk.) Ryvarde IF No: 324209 **Trophic mode/Guild:** saprotrophy/undefined saprotroph

**Distribution:** Pantropics, Global Distribution **Elev.:** 200–2,100 m **Dept.:** CAQ, CUN, SAN, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales  
**6577. *Botryodontia semispathulata*** Hjortstam & Ryvarde IF No: 468344 **Trophic mode/Guild:** saprotrophy/undefined saprotroph **Habitat:** Saprotroph **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales  
**6578. *Coltricia barbata*** Ryvarde & de Meijer IF No: 468828 **Trophic mode/Guild:** symbiotrophy/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales  
**6579. *Coltricia cinnamomea*** (Jacq.) Murrill IF No: 119718 **Trophic mode/Guild:** symbiotrophy/ectomycorrhizal **Habitat:** On soil | in tropical rainforest associated with *Dicymbe* | in Andean forest | Ectomycorrhiza solitary, gregarious **Distribution:** Global Distribution **Elev.:** 100–2,430 m **Dept.:** AMA, ANT, TOL



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales  
**6580. *Coltricia dependella*** A.M. Vasco-Pal. & Ryvarde IF No: 551094 **Trophic mode/Guild:** symbiotrophy/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales  
**6581. *Coltricia foecicola*** (Berk. & M.A. Curtis) Murrill IF No: 454835 **Trophic mode/Guild:** symbiotrophy/ectomycorrhizal **Habitat:** Common in oak forests | Ectomycorrhiza gregarious **Distribution:** Subtropics **Elev.:** 2,100–2,600 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales  
**6582. *Coltricia fonssecoensis*** W.B. Cooke & Bonar IF No: 344443 **Trophic mode/Guild:** symbiotrophy/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales  
**6583. *Coltricia harmata*** (Romell) Ryvarde IF No: 311549 **Trophic mode/Guild:** symbiotrophy/ectomycorrhizal **Habitat:** On soil | in tropical rainforest | Ectomycorrhiza scattered, gregarious **Dept.:** AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales  
**6584. *Coltricia perennis*** (L.) Murrill IF No: 356793 **Trophic mode/Guild:** symbiotrophy/ectomycorrhizal **Habitat:** In *Pinus patula* plantation | Ectomycorrhiza gregarious **Distribution:** Global Distribution **Elev.:** 2,100–2,430 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales  
**6585. *Coltricia verrucata*** Aime, T.W. Henkel & Ryvarde IF No: 491208 **Trophic mode/Guild:** symbiotrophy/ectomycorrhizal **Habitat:** On soil | in tropical rainforest associated with *Dicymbe* sp. | Ectomycorrhiza scattered, gregarious **Elev.:** 144 m **Dept.:** AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales  
**6586. *Coltriciella dependens*** (Berk. & M.A. Curtis) Murrill IF No: 445568 **Trophic mode/Guild:** symbiotrophy/ectomycorrhizal **Habitat:** On soil | in tropical rainforest associated with *Dicymbe* sp. | Ectomycorrhiza gregarious **Elev.:** 200–300 m **Dept.:** AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales  
**6587. *Coltriciella oblectabilis*** (Lloyd) Kottl., Pouzar & Ryvarde IF No: 106710 **Trophic mode/Guild:** symbiotrophy/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales  
**6588. *Cyclomyces setiporus*** (Berk.) Pat. IF No: 468971 **Trophic mode/Guild:** saprotrophy/wood saprotroph **Habitat:** On decayed wood | in secondary forest | Saprotroph **Elev.:** 200 m **Dept.:** CAQ



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6589, *Dichochaete setosa* (Sw.) Parmasto IF No: 474582 Tropic mode/Guild: saprotroph/undefined saprotroph Dept.: MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6590, *Fomitiporella coruscans* (Murrill) Salvador-Montoya & Popoff IF No: 830784 Tropic mode/Guild: saprotroph /undefined saprotroph Habitat: On dead trunk | Saprotroph Dept.: CES



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6591, *Fomitiporia aplahyna* (Spæg.) Robledo, Decock & Rajchenb. IF No: 516533 Tropic mode/Guild: pathotroph, saprotroph/plant pathogen, wood saprotroph Habitat: Often on living sabal palm (Arecaceae) but also on other substrates Dept.: ANT, CAU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6592, *Fomitiporia bambusarum* (Rick) Camp.-Sant. & Decock IF No: 809550 Tropic mode/Guild: pathotroph, saprotroph/plant pathogen, wood saprotroph Dept.: CUN Conservation: LC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6593, *Fomitiporia punctata* (P. Karst.) Murrill IF No: 266493 Tropic mode/Guild: pathotroph, saprotroph/plant pathogen, wood saprotroph Elev.: 1,830 m Dept.: CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6594, *Fuiviformes merrilli* (Murrill) Baltazar & Gibertoni IF No: 515287 Tropic mode/Guild: saprotroph/undefined saprotroph Habitat: On dead wood | Saprotroph Dept.: CES Uses: ME, PO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6595, *Fuscoporia callimorpha* (Lév.) Groposo, Log.-Leite & Góes-Neto IF No: 510730 Tropic mode/Guild: saprotroph /undefined saprotroph Habitat: Saprotroph Elev.: 730 m Dept.: MET



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6596, *Fuscoporia chrysea* (Lév.) Baltazar & Gibertoni IF No: 515288 Tropic mode/Guild: saprotroph/undefined saprotroph Habitat: Known only on angiosperm from the type locality in Colombia, but is probably to be found elsewhere in South-America and the West Indies.



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6597, *Fuscoporia contigua* (Pers.) G. Cunn. IF No: 282428 Tropic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Elev.: 460 m Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6598, *Fuscoporia ferrea* (Pers.) G. Cunn. IF No: 286518 Tropic mode/Guild: saprotroph/undefined saprotroph Habitat: In tropical montane cloud forest | Saprotroph Elev.: 2,737-2,832 m Dept.: CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6599, *Fuscoporia ferruginosa* (Schrad.) Murrill IF No: 122487 Tropic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Elev.: 910 m Dept.: CAU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6600, *Fuscoporia rhabarbarina* (Berk.) Groposo, Log.-Leite & Góes-Neto IF No: 510733 Tropic mode/Guild: saprotroph /undefined saprotroph Habitat: On wood | In tropical rainforest | In dicot tree stump | Saprotroph Elev.: 20 m Dept.: CES, CHO, SUC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6601, *Hydnoporia corrugata* (Fr.) K.H. Larss. & Spirin IF No: 830589 Dept.: CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6602, *Hydnoporia tabacina* (Sowbery) Spirin, Miettinen & K.H. Larss. IF No: 830599 Dept.: CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6603, *Hymenochaete cervina* Berk. & M.A. Curtis IF No: 224735 Tropic mode/Guild: saprotroph/undefined saprotroph Elev.: 2,200 m Dept.: MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6604, *Hymenochaete cinnamomea* (Pers.) Bres. IF No: 224858 Tropic mode/Guild: saprotroph/undefined saprotroph Habitat: Both on coniferous and deciduous wood, twigs of *Rubus*, stumps of *Abies alba*, branches of *Larix decidua*, *Quercus ilex* and *Juniperus oxycedrus*. Elev.: 2,650 m Dept.: CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6605, *Hymenochaete damicornis* (Link) Lév. IF No: 228605 Tropic mode/Guild: saprotroph/undefined saprotroph Habitat: On decayed wood | in chagra | in tropical forest | Saprotroph Elev.: 50 m Dept.: CHO, CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6606, *Hymenochaete globispora* G.A. Escobar IF No: 129182 Tropic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Dept.: CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6607, *Hymenochaete leonina* Berk. & M.A. Curtis IF No: 231947 Tropic mode/Guild: saprotroph/undefined saprotroph Habitat: On bark of fallen branches or on dead deciduous trunks (*Nectandra*, *Aspidosperma*). Saprophyte of white rot Elev.: 2,025 m Dept.: MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6608, *Hymenochaete luteobadia* (Fr.) Höhn. & Litsch. IF No: 439980 Tropic mode/Guild: saprotroph/undefined saprotroph Habitat: On wood. Saprotroph Elev.: 427 m Dept.: CAQ, MET



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6609, *Hymenochaete mlkrospora* A.L. Welden IF No: 129187 Tropic mode/Guild: saprotroph/undefined saprotroph Habitat: On bark or decorticated branches of deciduous and coniferous trees. Saprophyte of white rot Dept.: CAU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6610, *Hymenochaete minuscula* G. Cunn. IF No: 298732 Tropic mode/Guild: saprotroph/undefined saprotroph Habitat: On bark or decorticated branches of deciduous and coniferous trees. Saprophyte of white rot Elev.: 3,231 m Dept.: NAR



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6611, *Hymenochaete papyracea* G.A. Escobar IF No: 129184 Tropic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Dept.: CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6612, *Hymenochaete rheicolor* (Mont.) Lév. IF No: 215960 Tropic mode/Guild: saprotroph/undefined saprotroph Habitat: On the underside of trunks and on fallen deciduous branches. Saprophyte of white rot Elev.: 823 m Dept.: BOY, CAU, CUN, MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6613, *Hymenochaete rubiginosa* (Dicks.) Lév. IF No: 215861 Tropic mode/Guild: saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6614, *Hymenochaete villosa* (Lév.) Bres. IF No: 174417 Tropic mode/Guild: saprotroph/undefined saprotroph Habitat: On bark, decorticated branches or on fallen trunks of *Acacia*, *Casuarina*, *Eucalyptus*, *Phyllocladus*. Saprophyte of white rot.



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6615, *Inonotus calceatus* (Berk. & M.A. Curtis) Gomes-Silva & Gibertoni IF No: 564574 Tropic mode/Guild: saprotroph /wood saprotroph Habitat: On decayed wood | Saprotroph Elev.: 200 m Dept.: AMA, CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6616, *Inonotus crocinctus* (Berk. & M.A. Curtis) Ryarden IF No: 315901 Tropic mode/Guild: saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6617, *Inonotus hispidus* (Bull.) P. Karst. IF No: 100985 Tropic mode/Guild: saprotroph/wood saprotroph Habitat: On live oaks in *Quercus* sp., *Quercus-Pinus* mixed forests | Saprotroph. On decayed wood | Saprotroph solitary Distribution: Global Distribution Dept.: MET Uses: ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6618, *Inonotus pachyphloeus* (Pat.) T. Wagner & M. Fisch. IF No: 373925 Tropic mode/Guild: saprotroph/wood saprotroph Habitat: On wood | Saprotroph Elev.: 200-3,600 m Dept.: CAQ, ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6619, *Inonotus rickii* (Pat.) D.A. Reid IF No: 298996 Common name: Mapúa chepa o paipai (Wayunaiki) Tropic mode/Guild: saprotroph/wood saprotroph Distribution: Pantropics Dept.: LAG Uses: MA, SU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6620, *Inonotus tabacinus* (Mont.) G. Cunn. IF No: 121567 Tropic mode/Guild: saprotroph/wood saprotroph Habitat: In montane disturbed forest | Wood Saprotroph Elev.: 640-2,740 m Dept.: ANT, BOG, CUN, MET



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetaceae 6621, *Phellinidium ruffinatum* (Berk. & M.A. Curtis ex A.L. Sm.) Bondartseva & S. Herrera IF No: 358549 Tropic mode/Guild: saprotroph/undefined saprotroph

CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales 6622, *Phellinus conchata* (Pers.) Y.C. Dai IF No: 518932 **Trophic mode/Guild:** saprotrophy/undefined saprotroph **Habitat:** In oak forest | Saprotroph **Distribution:** Temperate, North America **Elev.:** 1,950 m **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales 6623, *Phellinus cinchonensis* (Murrill) Ryvar den IF No: 319748 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Distribution:** Pantropics **Elev.:** 150–370 m **Dept.:** ANT, HUI



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales 6624, *Phellinus fastuosus* (Lév.) S. Ahmad IF No: 473348 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Distribution:** Global **Elev.:** 140–2,680 m **Dept.:** CHO, CUN, MET



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales 6625, *Phellinus ferrugineovelutinus* (Henn.) Ryvar den IF No: 319755 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Distribution:** Pantropics **Elev.:** 370 m **Dept.:** CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales 6626, *Phellinus gilvus* (Schwein.) Pat. IF No: 120542 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Habitat:** On wood of deciduous trees, mostly *Quercus* | Saprotroph **Distribution:** Temperate **Elev.:** 370–1,950 m **Dept.:** ANT, CAQ, CES, RIS, VAC **Uses:** ME, PO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales 6627, *Phellinus grenadensis* (Murrill) Ryvar den IF No: 319762 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Habitat:** In tropical montane cloud forest | Saprotroph **Distribution:** Pantropics **Elev.:** 2,737–2,832 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales 6628, *Phellinus igniarius* (L.) Qué. IF No: 120661 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Habitat:** On wood of deciduous trees | Parasitic imbricate **Distribution:** Global **Dept.:** VAC **Uses:** ME, PO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales 6629, *Phellinus nilgherlensis* (Mont.) G. Cunn. IF No: 336254 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Dept.:** ANT, MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales 6630, *Phellinus punctatiformis* (Murrill) Ryvar den IF No: 319784 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Distribution:** Pantropics **Elev.:** 370 m **Dept.:** CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales 6631, *Phellinus rimosus* (Berk.) Pilát IF No: 289350 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Habitat:** On living and dead trees | Saprotroph solitary, gregarious **Distribution:** Pantropics **Elev.:** 2,400 m **Dept.:** ANT **Uses:** ME, PO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales 6632, *Phellinus sancti-georgii* (Pat.) Ryvar den IF No: 319792 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Habitat:** On decayed wood, in tropical montane cloud forest | Saprotroph **Distribution:** Neotropics **Elev.:** 2,737–2,832 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales 6633, *Phellinus sarcotus* (Fr.) Ryvar den IF No: 319795 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Habitat:** On dead angiosperms | In tropical montane cloud forest | Saprotroph **Distribution:** Pantropics **Elev.:** 2,737–2,832 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales 6634, *Phylloporia parasitica* Murrill IF No: 183019 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On the under side of living leaves | Parasitic **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales 6635, *Phylloporia pectinata* (Klotzsch) Ryvar den IF No: 460306 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Distribution:** Pantropics **Elev.:** 580 m **Dept.:** MET



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales 6636, *Phylloporia spathulata* (Hook.) Ryvar den IF No: 460305 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Distribution:** Global **Elev.:** 1,415 m **Dept.:** MET, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales 6637, *Porodaedalea plni* (Brot.) Murrill IF No: 431973 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On wood of deciduous trees, mostly conifers, on dead wood | Saprotroph | parasitic solitary **Distribution:** Global **Dept.:** VAC **Uses:** ME, PO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales 6638, *Pythoderma lamaense* (Murrill) L.W. Zhou & Y.C. Dai IF No: 829085 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On decayed trunks | in tropical dry forest | Saprotroph gregarious **Distribution:** Pantropics **Dept.:** SUC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales 6639, *Trocoporus linteus* (Berk. & M.A. Curtis) L.W. Zhou & Y.C. Dai IF No: 812159 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On decayed wood | Saprotroph **Elev.:** 200 m **Dept.:** CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales 6640, *Trocoporus tropicalis* (M.J. Larsen & Lombard) L.W. Zhou & Y.C. Dai IF No: 812163 **Elev.:** 370 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Hymenochaetales 6641, *Tubulkrihis hamatus* (H.S. Jacks.) Donk IF No: 307185 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** In tropical montane cloud forest | Saprotroph **Elev.:** 2,700–3,700 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Oxyporaceae 6642, *Oxyporus mollis* Gibertoni & Ryvar den IF No: 513385 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Rickenellaceae 6643, *Cotylidia aurantiaca* (Pat.) A.L. Welden IF No: 296052 **Habitat:** In tropical forest **Elev.:** 50 m **Dept.:** CHO, MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Rickenellaceae 6644, *Cotylidia diaphana* (Cooke) Lentz IF No: 344083



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Rickenellaceae 6645, *Peniophorella pubera* (Bres.) K.H. Larss. IF No: 510105 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Global **Elev.:** 2,700 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Rickenellaceae 6646, *Peniophorella praetermissa* (P. Karst.) K.H. Larss. IF No: 510106 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** In tropical montane cloud forest | Saprotroph **Distribution:** Global **Elev.:** 2,700–4,300 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Rickenellaceae 6647, *Peniophorella pubera* (Fr.) P. Karst. IF No: 212717 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Global **Elev.:** 2,400 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Rickenellaceae 6648, *Peniophorella ruda* (Bres.) K.H. Larss. IF No: 510107 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 2,400 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Rickenellaceae 6649, *Resinidium luteosulphureum* (Rick) Baltazar & Rajchenb. IF No: 815708 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Rickenellaceae 6650, *Rickenella fibula* (Bull.) Raithehl. IF No: 322818 **Trophic mode/Guild:** pathotroph/bryophyte parasite **Habitat:** Bryophyte Parasite **Dept.:** BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Schizoporaceae 6651, *Alutaceodontia alutacea* (Fr.) Hjørtstam & Ryvar den IF No: 484290 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 1,900 m **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Schizoporaceae 6652, *Fibrodontia brevidens* (Pat.) Hjørtstam & Ryvar den IF No: 344739 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 2,700 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Schizoporaceae 6653, *Hyphodontia alutaria* (Burt.) J. Erikss. IF No: 414445 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Global **Elev.:** 2,400 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Schizoporaceae 6654, *Hyphodontia arguta* (Fr.) J. Erikss. IF No: 298786 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On bark and wood of decaying, fallen trunks of frondose trees **Elev.:** 2,100 m **Dept.:** MAG



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Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Schizoporaceae  
6655. *Hyphodontia barba-lovis* (Bull.) J. Erikss. IF No: 298788 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On bark or lignum of decayed wood

normally of deciduous trees (*Alnus*, *Betula*, *Corylus*, *Quercus*, *Salix*), both fallen and dead, still standing trunks or hanging branches



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Schizoporaceae  
6656. *Hyphodontia curvispora* J. Erikss. & Hjortstam IF No: 332402 **Trophic mode /Guild:** saprotroph/undefined saprotroph **Habitat:** On decayed wood, in tropical montane cloud forest | Saprotroph | **Distribution:** Global Distribution **Elev.:** 2,737 m **Dept.:** CUN

montane cloud forest | Saprotroph | **Distribution:** Global Distribution **Elev.:** 2,737 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Schizoporaceae  
6657. *Hyphodontia granulosa* (Pers.) Bernicchia IF No: 134698 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Dept.:** TOL



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Schizoporaceae  
6658. *Hyphodontia microspora* J. Erikss. & Hjortstam IF No: 315550 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Schizoporaceae  
6659. *Hyphodontia orasinusensis* Gilb. & M. Blackw. IF No: 134907 **Trophic mode /Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Schizoporaceae  
6660. *Hyphodontia tropica* Sheng H. Wu IF No: 466205 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Schizoporaceae  
6661. *Knelffella lanata* (Burd. & Nakasone) Riebesehl & Langer IF No: 820383 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On slightly decayed wood, in tropical montane cloud forest | Saprotroph **Distribution:** Pantropics **Elev.:** 2,737–2,832 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Schizoporaceae  
6662. *Paliferia wrightii* (Hjortstam & Ryvarde) Hjortstam & Ryvarde IF No: 501312 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On dead wood | Saprotroph **Elev.:** 2,400–2,700 m **Dept.:** CUN

wood | Saprotroph **Elev.:** 2,400–2,700 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Schizoporaceae  
6663. *Schizopora paradoxa* (Schrad.) Donk IF No: 338860 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Elev.:** 2,450–3,100 m **Dept.:** BOY

BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Schizoporaceae  
6664. *Xylodon apacheriensis* (Gilb. & Canf.) Hjortstam & Ryvarde IF No: 509766 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 500 m **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Schizoporaceae  
6665. *Xylodon asper* (Fr.) Hjortstam & Ryvarde IF No: 562045 **Trophic mode /Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 2,400–3,600 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Schizoporaceae  
6666. *Xylodon brevisetus* (P. Karst.) Hjortstam & Ryvarde IF No: 509771 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 2,700 m **Dept.:** CUN

**Elev.:** 2,700 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Schizoporaceae  
6667. *Xylodon candidissimus* (Berk. & M.A. Curtis) Hjortstam & Ryvarde IF No: 509772 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On twigs | Saprotroph **Elev.:** 3,700 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Schizoporaceae  
6668. *Xylodon detriticus* (Bourdot) K.H. Larss., Viner & Spirin IF No: 825366 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 2,400–3,800 m **Dept.:** CUN

**Elev.:** 2,400–3,800 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Schizoporaceae  
6669. *Xylodon flaviporus* (Berk. & M.A. Curtis ex Cooke) Riebesehl & Langer IF No: 820378 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** ANT, CAQ, CUN, RIS

**Elev.:** 370–2,800 m **Dept.:** ANT, CAQ, CUN, RIS



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Schizoporaceae  
6670. *Xylodon gamundiae* (Gresl. & Rajchenb.) Riebesehl & Langer IF No: 827761 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Schizoporaceae  
6671. *Xylodon nesporii* (Bres.) Hjortstam & Ryvarde IF No: 634976 **Trophic mode /Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Schizoporaceae  
6672. *Xylodon nlemelai* (Sheng H. Wu) Hjortstam & Ryvarde IF No: 514269 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 1,900 m **Dept.:** MAG

**Elev.:** 1,900 m **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Schizoporaceae  
6673. *Xylodon raduloides* Riebesehl & Langer IF No: 820421 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** In tropical montane cloud forest | Saprotroph **Elev.:** 2,737–2,832 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Schizoporaceae  
6674. *Xylodon rudis* (Hjortstam & Ryvarde) Hjortstam & Ryvarde IF No: 509790 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On bark | Saprotroph **Distribution:** Pantropics **Elev.:** 2,300–3,700 m **Dept.:** CUN

Saprotroph **Distribution:** Pantropics **Elev.:** 2,300–3,700 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Schizoporaceae  
6675. *Xylodon stratosus* (Hjortstam & Ryvarde) Hjortstam & Ryvarde IF No: 505168 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On bark | Saprotroph **Distribution:** Pantropics **Elev.:** 2,700 m **Dept.:** CUN

Saprotroph **Distribution:** Pantropics **Elev.:** 2,700 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Schizoporaceae  
6676. *Xylodon verucundus* (G. Cunn.) Yurchenko & Riebesehl IF No: 827765 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 2,700 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Incertae sedis  
6677. *Kurtia argillacea* (Bres.) Karasiński IF No: 550543 **Distribution:** Global **Elev.:** 500–3,700 m **Dept.:** CUN, MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Incertae sedis  
6678. *Trichaptum abietinum* (Pers. ex J.F. Gmel.) Ryvarde IF No: 324865 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Incertae sedis  
6679. *Trichaptum bifforme* (Fr.) Ryvarde IF No: 324867 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Distribution:** Temperate **Elev.:** 1,800 m **Dept.:** CAU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Incertae sedis  
6680. *Trichaptum byssogenum* (Jung.) Ryvarde IF No: 324868 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Incertae sedis  
6681. *Trichaptum fumosovellaneum* (Romell) Rajchenb. & Bianchin. IF No: 129727 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Incertae sedis  
6682. *Trichaptum perrotteii* (Lév.) Ryvarde IF No: 324871 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On decayed wood | In chagra | In tropical forest | Saprotroph **Distribution:** Pantropics **Elev.:** 50–200 m **Dept.:** AMA, CAQ, CHO **Uses:** EU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Incertae sedis  
6683. *Trichaptum sector* (Ehrenb.) Kreisell IF No: 324872 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** In tropical rainforest **Elev.:** 150 m **Dept.:** HUI

SUC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Cerrnenaceae  
6684. *Cerrena hydnooides* (Sw.) Zmitr. IF No: 466361 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On trunk | on wooden poles | on decaying wood in secondary forest | in tropical forest | Parasitic. Saprotroph **Distribution:** Pantropics **Elev.:** 50–1,100 m **Dept.:** CAL, CAQ, CHO, MET, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Hymenochaetales, Incertae sedis  
6685. *Trichaptum trichomallum* (Berk. & Mont.) Murrill IF No: 432159 **Trophic mode /Guild:** saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Cerrnenaceae  
6686. *Cerrena hydnooides* (Sw.) Zmitr. IF No: 466361 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On trunk | on wooden poles | on decaying wood in secondary forest | in tropical forest | Parasitic. Saprotroph **Distribution:** Pantropics **Elev.:** 50–1,100 m **Dept.:** CAL, CAQ, CHO, MET, VAC

wood in secondary forest | in tropical forest | Parasitic. Saprotroph **Distribution:** Pantropics **Elev.:** 50–1,100 m **Dept.:** CAL, CAQ, CHO, MET, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Cerrnenaceae  
6687. *Cerrena unicolor* (Bull.) Murrill IF No: 356790 **Trophic mode/Guild:** patrophy/ plant pathogen **Habitat:** On decayed wood | in mature forest | Saprotroph **Elev.:** 2,100 m **Dept.:** CAL

2,100 m **Dept.:** CAL

CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Cerreraeaceae  
6688, *Pseudolagarobasidium venustum* (Hjortstam & Ryvarden) Nakasone & D.L. Lindner IF No: 563655 **Trophic mode/Guild:** saprotroph/undefined saprotroph

**Habitat:** Saprotroph **Elev.:** Sea level **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Fibroporiaceae  
6689, *Fibroporia vallantii* (DC.) Parmasto IF No: 330872 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Fomitopsidaceae  
6690, *Daedalea microsticta* Cooke IF No: 212456 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Fomitopsidaceae  
6691, *Daedalea quercina* (L.) Pers. IF No: 246294 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Fomitopsidaceae  
6692, *Fomitopsis nivosa* (Berk.) Gilb. & Ryvarden IF No: 114752 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Fomitopsidaceae  
6693, *Fomitopsis officinalis* (Vill.) Bondartsev & Singer IF No: 297501 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood

saprotroph **Habitat:** On coniferous hosts | Ca Uses brown rot | Parasite | Saprotroph solitary, gregarious **Distribution:** Global **Uses:** ME **Conservation:** EN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Fomitopsidaceae  
6694, *Fomitopsis palustris* (Berk. & M.A. Curtis) Gilb. & Ryvarden IF No: 105322 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood

saprotroph **Habitat:** On *Pinus palustris* **Elev.:** 2,000 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Fomitopsidaceae  
6695, *Pliatoporus durescens* (Overh. ex J. Lowe) Zmitr. IF No: 827603 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Fomitopsidaceae  
6696, *Ranadiva modesta* (Kunze ex Fr.) Zmitr. IF No: 827588 **Trophic mode/Guild:** saprotroph/wood

saprotroph **Habitat:** On dead wood of deciduous trees in mature forest | Saprotroph **Elev.:** 190–1,680 m **Dept.:** CAQ, CES



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Fomitopsidaceae  
6697, *Rhodofomitopsis cupreorosea* (Berk.) B.K. Cui, M.L. Han & Y.C. Dai IF No: 812662



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Fomitopsidaceae  
6698, *Rhodofomitopsis feii* (Fr.) B.K. Cui, M.L. Han & Y.C. Dai IF No: 812663 **Trophic mode/Guild:** saprotroph/wood

**Dept.:** CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Ganodermataceae  
6699, *Sanguinolodermis rubea* (Berk.) Y.F. Sun, D.H. Costa & B.K. Cui IF No: 828446 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Grifoliaceae  
6700, *Grifolia frondosa* (Dicks.) Gray IF No: 362177 **Common name:** Maitake (Japanese) **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen,

wood saprotroph **Habitat:** On wood | Saprotroph gregarious, imbricate **Distribution:** Cultivated **Uses:** HF, ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Hyphodermataceae  
6701, *Hyphoderma amoenum* (Burt) Donk IF No: 298757 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Hyphodermataceae  
6702, *Hyphoderma gemmeum* (D.P. Rogers) Donk IF No: 298764 **Trophic mode/Guild:** saprotroph/wood saprotroph

Pantropics **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Hyphodermataceae  
6703, *Hyphoderma litschaueri* (Burt) J. Erikss. & Å. Strid IF No: 315523 **Trophic mode/Guild:** saprotroph/wood saprotroph

**Habitat:** Saprotroph **Distribution:** Global **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Hyphodermataceae  
6704, *Hyphoderma microcystidium* Sheng H. Wu IF No: 127520 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Hyphodermataceae  
6705, *Hyphoderma obtusiforme* J. Erikss. & Å. Strid IF No: 315528 **Trophic mode/Guild:** saprotroph/wood saprotroph

**Habitat:** Saprotroph **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Hyphodermataceae  
6706, *Hyphoderma romaeroae* C.E. Gómez, Baltazar & Rajchenb. IF No: 807723 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Hyphodermataceae  
6707, *Hyphoderma setigerum* (Fr.) Donk IF No: 298779 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** In tropical montane cloud forest | Saprotroph

**Distribution:** Global **Elev.:** 2,700–3,700 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Hyphodermataceae  
6708, *Hyphoderma transiens* (Bres.) Parmasto IF No: 332398 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Hyphodermataceae  
6709, *Hyphoderma varolousum* Boidin, Lanq. & Gilles IF No: 355003 **Trophic mode/Guild:** saprotroph/wood saprotroph

**Habitat:** Saprotroph **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Hyphodermataceae  
6710, *Lyomyces crustosus* (Pers.) P. Karst. IF No: 440071 **Habitat:** Mostly on deciduous wood, especially on dead corticate or decorticate branches, either

fallen to the ground or still hanging, less often on lying logs. It occurs also on coniferous wood, especially on dead, still hanging branches of *Pinus* and *Juniperus* **Elev.:** 2,400–3,700 m **Dept.:** CUN, MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Hyphodermataceae  
6711, *Lyomyces griseuliniae* (G. Cunn.) Riebesehl & Langer IF No: 820379 **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Hyphodermataceae  
6712, *Lyomyces juniperi* (Bourdodt & Galzin) Riebesehl & Langer IF No: 820381 **Elev.:** 500 m **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Hyphodermataceae  
6713, *Mutatoderma heterocystidium* (Burt) C.E. Gómez IF No: 317951 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Elev.:** 2,700 m **Dept.:** BOG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Hyphodermataceae  
6714, *Mutatoderma mutatum* (Peck) C.E. Gómez IF No: 317952 **Trophic mode/Guild:** saprotroph/undefined saprotroph

**Habitat:** In cloud forest **Elev.:** 1,700–2,200 m **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Incrustoporiaceae  
6715, *Skeletocutis nivea* (Jungb.) Jean Keller IF No: 323593 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Elev.:** 2,870 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Incrustoporiaceae  
6716, *Tyromyces angulatusporus* Ryvarden IF No: 622305 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Incrustoporiaceae  
6717, *Tyromyces venustus* (A. David & Rajchenb.) Ryvarden IF No: 552571 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Irpiciaceae  
6718, *Byssoomerellus cortum* (Pers.) Parmasto IF No: 327227 **Trophic mode/Guild:** saprotroph/undefined saprotroph

**Habitat:** Saprotroph **Elev.:** 2,400–2,700 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Irpiciaceae  
6719, *Ceriporia spissa* (Schwein. ex Fr.) Rajchenb. IF No: 108755 **Trophic mode/Guild:** saprotroph/wood saprotroph

**Habitat:** Saprotroph **Elev.:** 670 m **Dept.:** PUT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Irpiciaceae  
6720, *Ceriporia viridans* (Berk. & Broome) Donk IF No: 356865 **Trophic mode/Guild:** saprotroph/wood saprotroph

**Habitat:** On slightly decayed wood, in tropical montane cloud forest | Saprotroph **Distribution:** Global **Elev.:** 2,832 m **Dept.:** CUN



CHECKLIST OF FUNGI OF COLOMBIA



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Irpicaceae  
**6721. *Ceriporia xylostromatoides*** (Berk.) Ryvarden IF No: 116157 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Elev.:** 180 m **Dept.:**

ANT



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Irpicaceae  
**6722. *Flavodon flavus*** (Klotzsch) Ryvarden IF No: 314170 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Irpicaceae  
**6723. *Gloeoporus thelephoroides*** (Hook.) G. Cunn. IF No: 331394 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On decayed trunks | in tropical dry forest | Saprotroph solitary **Distribution:** Global **Dept.:** SUC **Uses:** PO



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Irpicaceae  
**6724. *Hydnopolyporus fimbriatus*** (Cooke) D.A. Reid IF No: 332101 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Habitat:** On buried dead wood or at the base of trees | subtropical and tropical forests | Saprotroph cespitose **Distribution:** Global **Elev.:** 2,600 m **Dept.:** VAC, CUN **Uses:** EU



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Irpicaceae  
**6725. *Hydnopolyporus palmatus*** (Hook.) O. Fidalgo IF No: 332103 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Habitat:** On decaying logs. Soil. Saprophytic species growing on decomposing logs although it is also possible to find it on soil **Distribution:** Neotropics **Elev.:** 1,600–2,400 m **Dept.:** AMA, ANT **Uses:** HF



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Irpicaceae  
**6726. *Irpex lacteus*** (Fr.) Fr. IF No: 177211 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Distribution:** Global **Dept.:** CAL



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Irpicaceae  
**6727. *Irpex trachydodon*** (Lév.) Berk. & M.A. Curtis IF No: 451620 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Laetiporaceae  
**6728. *Laetiporus gilbertsonii*** Burds. IF No: 372853 **Trophic mode/Guild:** saprotroph /wood saprotroph



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Laetiporaceae  
**6729. *Laetiporus sulphureus*** (Bull.) Murrill IF No: 299348 **Common name:** Chicken of the woods (English) **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On living and dead hardwoods | Saprotroph gregarious, solitary **Distribution:** Global **Elev.:** 250 m **Dept.:** CAU, CAQ, MET **Uses:** HF



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Laetiporaceae  
**6730. *Phaeolus schweinitzii*** (Fr.) Pat. IF No: 121352 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Distribution:** Global **Elev.:** 1,250–4,500 m **Dept.:** MAG, MET



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Meripilaceae  
**6731. *Rigidoporus hokoensis*** (Bres. ex Lloyd) Ryvarden IF No: 322834 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On wood | Saprotroph **Elev.:** 200 m **Dept.:** CAQ



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Meripilaceae  
**6732. *Rigidoporus lineatus*** (Pers.) Ryvarden IF No: 322837 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Elev.:** 140–2,740 m **Dept.:** ANT, BOG, BOY, CHO, CUN, MET, PUT, VAC



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Meripilaceae  
**6733. *Rigidoporus microporus*** (Sw.) Overeem IF No: 271072 **Trophic mode/Guild:** saprotroph/ wood saprotroph **Habitat:** Saprotroph **Elev.:** 170–370 m **Dept.:** ANT, CHO, SAN



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Meripilaceae  
**6734. *Rigidoporus sanguinolentus*** (Alb. & Schwein.) Donk IF No: 338623 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Elev.:** 370–1,520 m **Dept.:** CHO, CUN



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Meripilaceae  
**6735. *Rigidoporus ulmarus*** (Sowerby) Imazeki IF No: 338624 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On hardwoods and dead trees | Parasite | Saprotroph solitary, gregarious **Distribution:** Global **Dept.:** ANT, CES, MAG **Uses:** ME



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Meripilaceae  
**6736. *Rigidoporus vinctus*** (Berk.) Ryvarden IF No: 322840 **Trophic mode/Guild:** saprotroph/ wood saprotroph **Habitat:** Saprotroph **Elev.:** 430–640 m **Dept.:** CAQ, CHO, VAC



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Merullaceae  
**6737. *Aurantiporus mayensis*** (Ginns, D.L. Lindner & T.J. Baroni) Zmitr. IF No: 827390 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Merullaceae  
**6738. *Ceriporiopsis allantospora*** Ryvarden IF No: 630711 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Merullaceae  
**6739. *Ceriporiopsis subvermispora*** (Piliát) Gilb. & Ryvarden IF No: 105132 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Merullaceae  
**6740. *Diacanthodes Neotropialis*** Palacio & Robledo IF No: 830968 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Merullaceae  
**6741. *Mycocacia livida*** (Pers.) Zmitr. IF No: 827437 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Dept.:** MAG



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Merullaceae  
**6742. *Mycocacia rubiginosa*** Hjortstam & Ryvarden IF No: 371031 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Dept.:** MAG



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Merullaceae  
**6743. *Mycocacia udu*** (Fr.) Donk IF No: 255241 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On slightly decayed wood, in tropical montane cloud forest | Saprotroph **Distribution:** Global **Elev.:** 2,832 m **Dept.:** CUN



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Merullaceae  
**6744. *Phlebia coccineafulva*** Schwein. IF No: 207683 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On rotten wood | Saprotroph **Elev.:** 500 m **Dept.:** MAG



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Merullaceae  
**6745. *Phlebia fascicularia*** (Rick) Nakasone & Burds. IF No: 413798 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Elev.:** 2,400 m **Dept.:** CUN



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Merullaceae  
**6746. *Phlebia radiata*** Fr. IF No: 204324 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Distribution:** Global **Elev.:** 2,450–3,100 m **Dept.:** MAG



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Merullaceae  
**6747. *Phlebia rufa*** (Pers.) M.P. Christ. IF No: 336335 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Distribution:** Global **Elev.:** 2,400 m **Dept.:** CUN



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Merullaceae  
**6748. *Phlebia tremellosa*** (Schrad.) Nakasone & Burds. IF No: 106356 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Distribution:** Global **Elev.:** 1,665–1,900 m **Dept.:** MAG



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Panaceae  
**6749. *Cymatoderma caperatum*** (Berk. & Mont.) D.A. Reid IF No: 296333 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** In tropical forest | Saprotroph gregarious **Distribution:** Global **Elev.:** 1,200–1,951 m **Dept.:** VAC, CAU, NSA **Uses:** PO



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Panaceae  
**6750. *Cymatoderma dendriticum*** (Pers.) D.A. Reid IF No: 296334 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 762 m **Dept.:** BOY, CHO, CAU



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Panaceae  
**6751. *Cymatoderma elegans*** Jungh. IF No: 210287 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On decaying wood | Saprotroph solitary, cespitose **Distribution:** Africa **Dept.:** CAL **Uses:** HF



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Panaceae  
**6752. *Cymatoderma sclerotoides*** (Lloyd) D.A. Reid IF No: 296340 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On decayed wood | Saprotroph **Elev.:** 200 m **Dept.:** AMA, CAQ **Conservation:** NT



Fungl. Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Panaceae  
**6753. *Panus conchatus*** (Bull.) Fr. IF No: 160358 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** In tropical forest | Saprotroph **Distribution:** Global **Elev.:** 50–2,577 m **Dept.:** BOG, CHO

CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Panaceae  
**6754. *Panus neostrigosus*** Drechsler-Santos & Warchow IF No: 801445  
**Common name:** Jaayo' go and Yamoroño, used by Uitoto people  
**Trophic mode/Guild:** saprotroph/undefined saprotroph  
**Habitat:** In cultivation areas, stubble | On recently burned or decomposing logs, in places exposed to the sun | In tropical forest | Saprotroph lignicolous gregarious, caespitose  
**Distribution:** Panotropics **Elev.:** 50-2,100 m **Dept.:** AMA, CHO, CAQ, CES, MET, NSA, SAN, VAC **Uses:** AF, HF



CAQ

Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Panaceae  
**6755. *Panus rudis*** Fr. IF No: 240204  
**Trophic mode/Guild:** saprotroph/undefined saprotroph  
**Habitat:** Saprotroph  
**Distribution:** Subtropics **Elev.:** 400 m **Dept.:**



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Panaceae  
**6756. *Panus slimilis*** (Berk. & Broome) T.W. May & A.E. Wood IF No: 413666  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Pantropics

Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Panaceae  
**6757. *Panus strigelus*** (Berk.) Overh. IF No: 454604  
**Trophic mode/Guild:** saprotroph/undefined saprotroph  
**Habitat:** On trunk | Saprotroph  
**Distribution:** Pantropics **Elev.:** 200-1,660 m **Dept.:** AMA, ANT, CAQ, MET, VAC **Uses:** IF



mature forest and chagrass

Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Panaceae  
**6758. *Panus tephroleucus*** (Mont.) T.W. May & A.E. Wood IF No: 413667  
**Trophic mode/Guild:** saprotroph/undefined saprotroph  
**Habitat:** On dead wood | in mature forest and chagrass  
**Distribution:** Pantropics **Elev.:** 200 m **Dept.:** AMA, ANT, CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Phanerochaetaceae  
**6759. *Athelachaete sanguinea*** (Fr.) Spirin & Zmitr. IF No: 560457  
**Trophic mode/Guild:** saprotroph/undefined saprotroph  
**Elev.:** 2,400 m **Dept.:** CUN



Distribution:

Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Phanerochaetaceae  
**6760. *Blerkandera adusta*** (Willd.) P. Karst. IF No: 100902  
**Trophic mode/Guild:** saprotroph/wood saprotroph  
**Habitat:** On dead wood | Saprotroph imbricate  
**Distribution:** Global **Dept.:** EU



bamboo

Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Phanerochaetaceae  
**6761. *Hjortstamia novae-gratae*** (A.L. Welden) Hjortstam & Ryvarden IF No: 637350  
**Trophic mode/Guild:** saprotroph/undefined saprotroph  
**Habitat:** On bamboo



CUN

Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Phanerochaetaceae  
**6762. *Hyphoderma corrugata*** (Fr.) J. Erikss. & Ryvarden IF No: 315541  
**Trophic mode/Guild:** pathotroph/plant pathogen  
**Habitat:** Saprotroph **Elev.:** 2,400 m **Dept.:**



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Phanerochaetaceae  
**6763. *Phaeohelbopsis ravenelli*** (Cooke) Zmitr. IF No: 827389  
**Habitat:** On wood  
**Dept.:** MAG



Sea level

Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Phanerochaetaceae  
**6764. *Phanerochaete australis*** Jülich IF No: 113039  
**Trophic mode/Guild:** saprotroph/wood saprotroph  
**Habitat:** Saprotroph  
**Distribution:** Pantropics **Elev.:**



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Phanerochaetaceae  
**6765. *Phanerochaete bambusicola*** Sheng H. Wu IF No: 825013  
**Trophic mode/Guild:** saprotroph/wood saprotroph



2,400 m

Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Phanerochaetaceae  
**6766. *Phanerochaete exilis*** (Burt) Burds. IF No: 103669  
**Trophic mode/Guild:** saprotroph/wood saprotroph  
**Habitat:** Saprotroph  
**Distribution:** Pantropics **Elev.:** 2,400 m **Dept.:** CUN



Distribution

Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Phanerochaetaceae  
**6767. *Phanerochaete sordida*** (P. Karst.) J. Erikss. & Ryvarden IF No: 319728  
**Trophic mode/Guild:** saprotroph/wood saprotroph  
**Habitat:** Saprotroph  
**Distribution:** Global **Elev.:** 2,400-3,800 m **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Phanerochaetaceae  
**6768. *Phlebobopsis crassa*** (Lév.) Floudas & Hibbett IF No: 811935  
**Trophic mode/Guild:** saprotroph/undefined saprotroph  
**Elev.:** 500 m **Dept.:** MAG



Dept.:

Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Phanerochaetaceae  
**6769. *Phlebobopsis friesii*** (Lév.) Spirin & Miettinen IF No: 817924  
**Trophic mode/Guild:** saprotroph/undefined saprotroph  
**Habitat:** On decayed wood | Saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Phanerochaetaceae  
**6770. *Phlebobopsis papyrina*** (Mont.) Miettinen & Spirin IF No: 817926  
**Trophic mode/Guild:** saprotroph/undefined saprotroph  
**Dept.:** MAG, MET



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Phanerochaetaceae  
**6771. *Porostereum novae-gratum*** (A.L. Welden) Hjortstam & Ryvarden IF No: 132775



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Phanerochaetaceae  
**6772. *Porostereum spadiceum*** (Pers.) Hjortstam & Ryvarden IF No: 132780  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Saprotroph

Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Phanerochaetaceae  
**6773. *Rhizochaete filamentosa*** (Berk. & M.A. Curtis) Gresl., Nakasone & Rajchenb. IF No: 488116  
**Trophic mode/Guild:** saprotroph/undefined saprotroph  
**Habitat:** Saprotroph **Elev.:** 1,900 m **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Phanerochaetaceae  
**6774. *Rhizochaete radicata*** (Henn.) Gresl., Nakasone & Rajchenb. IF No: 488114  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Distribution:

Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Podocypaceae  
**6775. *Abortiporus blennis*** (Bull.) Singer IF No: 283905  
**Trophic mode/Guild:** saprotroph/wood saprotroph  
**Habitat:** On wood | Saprotroph solitary, gregarious  
**Distribution:** Global **Uses:** HF, ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Podocypaceae  
**6776. *Podocypa bolleana*** (Mont.) Boidin IF No: 337353  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



AMA

Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Podocypaceae  
**6777. *Podocypa brasiliensis*** D.A. Reid IF No: 337354  
**Trophic mode/Guild:** saprotroph/undefined saprotroph  
**Habitat:** Trunk. Saprotroph **Elev.:** 22 m **Dept.:** CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Podocypaceae  
**6778. *Podocypa elegans*** (G. Mey.) Pat. IF No: 100998  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Podocypaceae  
**6779. *Podocypa fulviventris*** (Berk.) D.A. Reid IF No: 337361  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Podocypaceae  
**6780. *Podocypa mellissii*** (Berk. ex Sacc.) Bres. IF No: 318817  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Distribution:

Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Podocypaceae  
**6781. *Podocypa nitidula*** (Berk.) Pat. IF No: 102294  
**Trophic mode/Guild:** saprotroph/undefined saprotroph  
**Habitat:** On decayed trunk | Saprotroph  
**Distribution:** Pantropics, Subtropics **Dept.:** MAG, SUC **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Podocypaceae  
**6782. *Podocypa ovalispora*** D.A. Reid IF No: 337366  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Podocypaceae  
**6783. *Podocypa petalodes*** (Berk.) Boidin IF No: 304088  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Podocypaceae  
**6784. *Podocypa ravenelli*** (Berk. & M.A. Curtis) Pat. IF No: 100964  
**Trophic mode/Guild:** saprotroph/undefined saprotroph  
**Habitat:** Saprotroph **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Podocypaceae  
**6785. *Podocypa tomentipes*** (Overh.) D.A. Reid IF No: 337371  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Podocypaceae  
**6786. *Podocypa venustula*** (Speg.) D.A. Reid IF No: 337373  
**Trophic mode/Guild:** saprotroph/undefined saprotroph



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6787. *Amauroderma boleticeum*** (Pat. & Gaillard) Torrend IF No: 461929 **Trophic mode/Guild:** saprotrophy/wood saprotroph **Habitat:** On dead hardwood | Saprotroph  
**Distribution:** Pan tropics **Dept.:** CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6788. *Amauroderma calcigenum*** (Berk.) Torrend IF No: 319150 **Common name:** Donñébeihé, used by Andoke people; Hongo oreja de mico nocturno (Spanish)  
**Trophic mode/Guild:** saprotrophy/wood saprotroph **Habitat:** On decayed wood | on soil | in mature and secondary forest | in tropical rainforest | Saprotroph solitary **Distribution:** Pan tropics **Elev.:** 50 m **Dept.:** AMA, CAQ, CHO, SUC **Uses:** SU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6789. *Amauroderma camerarium*** (Berk.) J.S. Furtado IF No: 308615 **Trophic mode/Guild:** saprotrophy/wood saprotroph **Habitat:** Saprotroph, Basidiocarps develop from buried roots when the host is dead. Parasitic **Elev.:** 370 m **Dept.:** ANT, BOY, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6790. *Amauroderma exile*** (Berk.) Torrend IF No: 252068 **Trophic mode/Guild:** saprotrophy/wood saprotroph **Habitat:** On dead hardwood or on the ground | Saprotroph **Distribution:** Pan tropics **Elev.:** 40 m **Dept.:** CHO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6791. *Amauroderma faculum*** Henao-M. IF No: 464018 **Trophic mode/Guild:** saprotrophy/wood saprotroph **Habitat:** On soil, in tropical rainforest | In lowland tropical rainforest **Distribution:** Neotropics **Elev.:** 40 m **Dept.:** CHO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6792. *Amauroderma omphalodes*** (Berk.) Torrend IF No: 292467 **Common name:** nWELni Yni OKi lLOi, used by Hoti indigenous people **Trophic mode/Guild:** saprotrophy/wood saprotroph **Habitat:** On dead wood | In mature forest | on soil | Saprotroph solitary **Distribution:** Pan tropics **Elev.:** 1.850 m **Dept.:** AMA, ANT, CAQ, CES, MAG **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6793. *Amauroderma praetervisum*** (Pat.) Torrend IF No: 451637 **Trophic mode/Guild:** saprotrophy/wood saprotroph **Habitat:** On soil, in tropical rainforest | Saprotroph **Distribution:** Neotropics **Elev.:** 30 m **Dept.:** CHO, MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6794. *Amauroderma preussii*** (Henn.) Steyaert IF No: 308622 **Trophic mode/Guild:** saprotrophy/wood saprotroph **Habitat:** In tropical forest, Saprotroph **Distribution:** Pan tropics **Elev.:** 50 m **Dept.:** CHO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6795. *Amauroderma schomburgkii*** (Mont. & Berk.) Torrend IF No: 356780 **Trophic mode/Guild:** saprotrophy/wood saprotroph **Habitat:** In tropical rainforest | Saprotroph **Elev.:** 430 m **Dept.:** ANT, MAG, SUC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6796. *Amauroderma tapetellum*** Henao-M. IF No: 464019 **Trophic mode/Guild:** saprotrophy/wood saprotroph **Habitat:** On soil, in lowland tropical rainforest | Saprotroph **Distribution:** Neotropics **Elev.:** 60–90 m **Dept.:** CHO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6797. *Bresadolia uda*** (Jungh.) Audet IF No: 552687 **Trophic mode/Guild:** saprotrophy/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6798. *Cerioporus cavernulosus*** (Berk.) Zmitr. IF No: 827127 **Trophic mode/Guild:** saprotrophy/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6799. *Cerioporus flavus*** (Sw.) Zmitr. IF No: 827190 **Trophic mode/Guild:** pathotrophy/wood saprotroph **Elev.:** 1.800 m **Dept.:** QUI



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6800. *Cerioporus mollis*** (Sommerf.) Zmitr. & Kovalenko IF No: 812039 **Trophic mode/Guild:** pathotrophy/wood saprotroph **Dept.:** CUN, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6801. *Cerioporus scutellatus*** (Schwein.) Zmitr. IF No: 827123 **Trophic mode/Guild:** pathotrophy/wood saprotroph **Habitat:** On culm od *Chusquea* **Elev.:** 910 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6802. *Cerioporus varius*** (Pers.) Zmitr. & Kovalenko IF No: 812042 **Trophic mode/Guild:** pathotrophy/wood saprotroph **Habitat:** Burned decayed wood | in secondary forest | On decayed wood | Saprotroph **Distribution:** Pan tropics **Elev.:** 2,150 m **Dept.:** ANT, CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6803. *Coriolopsis brunneoleuca*** (Berk.) Ryvarden IF No: 311815 **Trophic mode/Guild:** saprotrophy/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6804. *Coriolopsis byrsina*** (Mont.) Ryvarden IF No: 311816 **Trophic mode/Guild:** saprotrophy/wood saprotroph **Habitat:** Saprotroph **Distribution:** Global Distribution **Elev.:** 730 m **Dept.:** MET



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6805. *Coriolopsis occidentalis*** (Klotzsch) Murrill IF No: 120997 **Trophic mode/Guild:** saprotrophy/wood saprotroph **Habitat:** Saprotroph **Distribution:** Pan tropics **Elev.:** 400–2,900 m **Dept.:** ANT, BOY, CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6806. *Coriolopsis rhocha*** (Berk. & Broome) Murrill IF No: 100249 **Trophic mode/Guild:** saprotrophy/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6807. *Cubamycos cubensis*** (Mont.) Murrill IF No: 468969 **Trophic mode/Guild:** saprotrophy/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6808. *Cubamycos menziesii*** (Berk.) Lücking IF No: 836821 **Trophic mode/Guild:** saprotrophy/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6809. *Cyanosporus subcaesiatus*** (A. David) B.K. Cui, L.L. Shen & Y.C. Dai IF No: 819275 **Dept.:** TOL



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6810. *Earliella scabrosa*** (Pers.) Gilb. & Ryvarden IF No: 105299 **Trophic mode/Guild:** saprotrophy/wood saprotroph **Habitat:** On dead wood | In tropical forest | Saprotroph resupinate **Distribution:** Global Distribution **Elev.:** 10–910 m **Dept.:** AMA, ANT, CAQ, CHO, QUI, VAC **Uses:** MA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6811. *Echinochaete brachypora*** (Mont.) Ryvarden IF No: 355801 **Trophic mode/Guild:** saprotrophy/undefined saprotroph **Habitat:** On decayed trunks | in tropical dry forest | Saprotroph solitary **Distribution:** Pan tropics **Elev.:** 1,600–1,800 m **Dept.:** SUC, VAC **Uses:** PO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6812. *Epitele malalensis*** Boidin & Lanq. IF No: 108873 **Trophic mode/Guild:** saprotrophy/undefined saprotroph **Elev.:** 2,300 m **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6813. *Favolus elongoporus*** (Drechster-Santos & Ryvarden) Zmitr. & Kovalenko IF No: 812045



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6814. *Favolus philippinensis*** (Berk.) Sacc. IF No: 375142 **Trophic mode/Guild:** saprotrophy/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6815. *Favolus tenuiculus*** P. Beauv. IF No: 242812 **Common name:** Adamasik, used by Yanomamo indigenous people in Brazil **Trophic mode/Guild:** saprotrophy/wood saprotroph **Habitat:** On decaying logs | In tropical forest | Saprotroph solitary, caespitose **Distribution:** Pan tropics, Subtropics **Elev.:** 50–2,200 m **Dept.:** AMA, ANT, CAL, CAQ, CHO, CUN, MAG, MET, VAC **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6816. *Fomes fasciatus*** (Sw.) Cooke IF No: 228729 **Trophic mode/Guild:** saprotrophy/wood saprotroph **Habitat:** On living and dead hardwoods in numerous genera, also *Nothofagus* **Dept.:** AMA, ANT, CHO, NSA

CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6817. *Fomes melleae*** (Underw.) Murrill IF No: 445897 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Mainly on hardwoods but occasionally on conifers **Elev.:** 4,200 m **Dept.:** CAQ, MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6820. *Funalia aspera*** (Jungth.) Zmitr. & Malysheva IF No: 803405 **Trophic mode /Guild:** saprotroph/undefined saprotroph **Habitat:** On fallen log, in forest clearing | **Elev.:** 20–160 m **Dept.:** ANT, CHO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6823. *Furtadoa brasiliensis*** (Singer) Costa-Rezende, Robledo & Drechsler-Santos IF No: 819017



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6826. *Ganoderma amazonense*** Weir IF No: 256601 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Habitat:** In tropical rainforest | on slightly decayed wood, in tropical montane cloud forest **Distribution:** Neotropics **Elev.:** 50–2,832 m **Dept.:** CHO, CUN, SUC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6829. *Ganoderma brownii*** (Murrill) Gilb. IF No: 331171 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Habitat:** In oak forest | **Distribution:** North America **Elev.:** 2,100–2,600 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6832. *Ganoderma chocense*** J.A. Flores, C.W. Barnes & Ordoñez IF No: 827824 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6835. *Ganoderma dorsale*** (Lloyd) Torrend IF No: 469306 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6838. *Ganoderma lucidum*** (Curtis) P. Karst. IF No: 148413 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Habitat:** On wood | In tropical forest | Saprotroph gregarious, cespitose **Distribution:** Global Distribution, Subtropics, Introduced **Elev.:** 50–2,100 m **Dept.:** AMA, CAQ, CES, CHO, CUN, MAG, VAC **Uses:** MA, ME, SU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6841. *Ganoderma oerstedii*** (Fr.) Torrend IF No: 445576 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Habitat:** On stumps of undetermined hardwoods, fallen trunks, dead *Quercus sober*, *Pinus* spp., *Ocotea acutifolia*, *Casuarina cunninghamiana*, *Spiraea cantoniensis*, *Scotia buxifolia*, *Lonchocarpus* sp. **Dept.:** BOL



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6844. *Ganoderma resinaceum*** Boud. IF No: 123196 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Habitat:** On decayed wood | Saprotroph gregarious **Elev.:** 190–1,680 m **Dept.:** CES **Uses:** PO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6818. *Fomitella supina*** (Sw.) Murrill IF No: 431660 **Trophic mode/Guild:** saprotroph /wood saprotroph **Habitat:** Saprotroph **Elev.:** 1,520–2,740 m **Dept.:** BOY, CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6821. *Funalia caperata*** (Berk.) Zmitr. & Malysheva IF No: 803406 **Trophic mode /Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6824. *Fuscoerena portoricensis*** (Fr.) Ryvarden IF No: 109768 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Distribution:** Pantropics **Elev.:** 1,560 m **Dept.:** BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6827. *Ganoderma applanatum*** (Pers.) Pat. IF No: 119872 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Habitat:** On fallen logs | On wounds in living trees | Saprotroph | Parasite gregarious, scattered **Distribution:** Global Distribution **Elev.:** 430–2,290 m **Dept.:** AMA, CAQ, MET, NAR, SAN, VAC **Uses:** ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6830. *Ganoderma carnosum*** Pat. IF No: 240250 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6833. *Ganoderma coninum*** Ryvarden IF No: 464689 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Habitat:** Saprotroph **Dept.:** CHO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6836. *Ganoderma gibbosum*** (Blume & T. Nees) Pat. IF No: 250058 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6839. *Ganoderma multiplicatum*** (Mont.) Pat. IF No: 357308 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Habitat:** Dead hardwoods **Distribution:** Pantropics **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6842. *Ganoderma orbiforme*** (Fr.) Ryvarden IF No: 464692 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6845. *Ganoderma stipitatum*** (Murrill) Murrill IF No: 451185 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Habitat:** On wood | Saprotroph **Distribution:** Pantropics **Dept.:** ANT, CAL **Uses:** MA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6819. *Foraminispora rugosa*** (Berk.) Costa-Rezende, Drechsler-Santos & Robledo IF No: 819019 **Habitat:** On dead wood | in mature and secondary forest | Saprotroph **Distribution:** Pantropics **Dept.:** AMA, CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6822. *Funalia floccosa*** (Jungth.) Zmitr. & Malysheva IF No: 803407 **Trophic mode /Guild:** saprotroph/undefined saprotroph **Habitat:** Burned decayed wood | **Dept.:** CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6825. *Ganoderma adpersum*** (Schulzer) Donk IF No: 314302 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Habitat:** In tropical montane cloud forest **Elev.:** 2,737–2,832 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6828. *Ganoderma australe*** (Fr.) Pat. IF No: 100745 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Habitat:** On decayed wood | in tropical forest | Saprotroph solitary **Distribution:** Global **Elev.:** 50–2,585 m **Dept.:** AMA, BOG, CAQ, CHO **Uses:** ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6831. *Ganoderma chalcium*** (Cooke) Steyaert IF No: 331172 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Habitat:** On dead hardwood | Saprotroph **Distribution:** Pantropics **Dept.:** VAU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6834. *Ganoderma curtisii*** (Berk.) Murrill IF No: 100480 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6837. *Ganoderma lobatum*** (Cooke) G.F. Atk. IF No: 286591 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Habitat:** On decaying logs and stumps of various hardwoods | Saprotroph gregarious, solitary **Distribution:** Pantropics **Uses:** ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6840. *Ganoderma nitidum*** Murrill IF No: 141052 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Habitat:** On decayed wood | in mature forest | Saprotroph **Distribution:** Global **Elev.:** 200 m **Dept.:** CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6843. *Ganoderma perzonatum*** Murrill IF No: 534208 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph **Dept.:** SAP



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
**6846. *Ganoderma weberianum*** (Bres. & Henn. ex Sacc.) Steyaert IF No: 314330 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen, wood saprotroph



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6847. *Grammothele fuligo* (Berk. & Broome) Ryvarden IF No: 314701 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** In tropical forest **Elev.:**

50 m **Dept.:** CHO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6848. *Haddowia neurospora* (J.S. Furtado) Teixeira IF No: 357808 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen **Habitat:** Known from dead wood of deciduous trees **Distribution:** Neotropics



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6849. *Hexagonia bartlettii* Masseur IF No: 142662



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6850. *Hexagonia cucullata* (Mont.) Murrill IF No: 451427 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6851. *Hexagonia glabra* (P. Beauv.) Ryvarden IF No: 473867



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6852. *Humphreya coffeata* (Berk.) Steyaert IF No: 315260 **Trophic mode/Guild:** pathotroph, saprotroph/plant pathogen **Habitat:** In tropical forest | **Distribution:** Neotropics **Elev.:** 50–2,740 m **Dept.:** BOY, CES, CHO, CUN, MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6853. *Lentinus arcularius* (Batsch) Zmitr. IF No: 543135 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On decayed wood | In secondary forest | In mixed oak-dominated forest | **Saprotroph Elev.:** 2,240–3,050 m **Dept.:** AMA, ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6854. *Lentinus badius* (Berk.) Berk. IF No: 473358 **Trophic mode/Guild:** saprotroph /wood saprotroph **Habitat:** In shaded areas | **Saprotroph Distribution:** Pan tropics, **Elev.:** 1,250 m **Dept.:** CES



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6855. *Lentinus berteroi* (Fr.) Fr. IF No: 499398 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On decaying wood | In soil | **Saprotroph** solitary, scattered **Distribution:** Pan tropics **Dept.:** CAQ **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6856. *Lentinus concavus* (Berk.) Corner IF No: 111605 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On decaying wood | **Saprotroph** cespitose **Distribution:** Pan tropics **Dept.:** AMA, CAQ **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6857. *Lentinus crinitus* (L.) Fr. IF No: 262317 **Common name:** Jiduriño, used by Uitoto people **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On freshly cut or decaying logs | In open areas | In tropical forest | In mixed oak-dominated forest | **Saprotroph** cespitose, gregarious **Distribution:** Pan tropics **Elev.:** 50–2,800 m **Dept.:** AMA, ANT, CAQ, CES, CHO, COB, CUN, MAG, MET, NSA, SAN, TOL, VAC **Uses:** AF, HF, MA, ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6858. *Lentinus levis* (Berk. & M.A. Curtis) Murrill IF No: 445946 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6859. *Lentinus sajor-caju* (Fr.) Fr. IF No: 197304 **Trophic mode/Guild:** saprotroph /wood saprotroph **Habitat:** On dead wood | In dense rainforest, mountain forest, swamp forest, open forest | **Saprotroph** gregarious **Distribution:** Global **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6860. *Lentinus scleropus* (Pers.) Fr. IF No: 226736 **Trophic mode/Guild:** saprotroph /wood saprotroph **Habitat:** In cultivated areas, in mature forest, on decaying logs | **Saprotroph** cespitose, solitary **Distribution:** Neotropics **Elev.:** 200 m **Dept.:** AMA, CAQ **Uses:** AF, HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6861. *Lentinus swartzii* Berk. IF No: 144847 **Trophic mode/Guild:** saprotroph /wood saprotroph **Habitat:** On decaying wood | **Saprotroph** gregarious **Distribution:** Pan tropics, Subtropics **Elev.:** 200–2,100 m **Dept.:** BOY, CAL, CAQ **Uses:** HF, MA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6862. *Lentinus tigrinus* (Bull.) Fr. IF No: 164542 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6863. *Lentinus tricholoma* (Mont.) Zmitr. IF No: 543137 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Elev.:** 340–790 m **Dept.:** ANT, MET



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6864. *Lentinus velutinus* Fr. IF No: 169641 **Trophic mode/Guild:** saprotroph /wood saprotroph **Habitat:** On decaying wood | **Saprotroph** gregarious **Distribution:** Pan tropics **Dept.:** ANT, CAQ, MAG, SAN, VAC **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6865. *Lentinus villosus* Klotzsch IF No: 159232 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Distribution:** Pan tropics **Elev.:** 2,000 m **Dept.:** NSA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6866. *Lenzites betulinus* (L.) Fr. IF No: 318614 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On dead hardwoods, also occasionally on conifers | **Saprotroph** solitary **Distribution:** Pan tropics **Dept.:** CAQ **Uses:** MA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6867. *Lenzites myriophyllus* Lév. IF No: 628477 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6868. *Megasporoporia setulosa* (Henn.) Rajchenb. IF No: 110222 **Trophic mode/Guild:** saprotroph/ wood saprotroph **Elev.:** 1,220 m **Dept.:** BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6869. *Microporrellus dealbatus* (Berk. & M.A. Curtis) Murrill IF No: 431804 **Trophic mode/Guild:** saprotroph/wood saprotroph **Elev.:** 200 m **Dept.:** AMA, MET



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6870. *Microporrellus obovatus* (Jungh.) Ryvarden IF No: 317697 **Trophic mode/Guild:** saprotroph/ wood saprotroph **Habitat:** On decayed wood, in tropical montane cloud forest | **Saprotroph** **Distribution:** Global **Elev.:** 370–2,737 m **Dept.:** ANT, CUN, RIS



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6871. *Pachykytospora alabamiae* (Berk. & Cooke) Ryvarden IF No: 319091 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Distribution:** Pan tropics **Elev.:** 1,070–1,980 m **Dept.:** NAR, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6872. *Pachykytospora paucyracea* (Cooke) Ryvarden IF No: 319092 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On fallen twig, in oak forest | **Saprotroph** **Distribution:** North and South America **Elev.:** 2,600–3,230 m **Dept.:** ANT, BOG, CAU, CUN, NAR



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6873. *Perenniporia medulla-panis* (Jacq.) Donk IF No: 335815 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** In oak and pine mixed forest **Distribution:** Global **Elev.:** 2,450 m **Dept.:** ANT, CUN **Conservation:** NT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6874. *Perenniporia roseosabellina* (Pat. & Gaillard) Ryvarden IF No: 107108 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6875. *Perenniporia stipitata* Ryvarden IF No: 131487 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** on deciduous wood **Distribution:** Pan tropics **Elev.:** 122 m **Dept.:** CHO, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6876. *Perenniporiella pendula* Decock & Ryvarden IF No: 373652 **Trophic mode/Guild:** saprotroph/undefined saprotroph

CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6877, *Picipes badius* (Pers.) Zmitr. & Kovalenko IF No: 812028 Dept.: CAU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6878, *Picipes virgatus* (Berk. & M.A. Curtis) J.L. Zhou & B.K. Cui IF No: 817144 Trophic mode/Guild: Saprotroph/ Habitat: On decayed wood | in mature forest |

Saprotroph Dept.: AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6879, *Polyporus dicitvopus* Mont. IF No: 225686 Trophic mode/Guild: Saprotroph/wood saprotroph Habitat: On decayed wood | in mature and secondary forests | in tropical forest | in oak forest Elev.: 50–3,050 m Dept.: ANT, BOY, CAU, CHO, CAL, CAQ, CUN, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6880, *Polyporus gulanensis* Mont. IF No: 453180 Trophic mode/Guild: Saprotroph/wood saprotroph Habitat: On decayed wood | in mature and secondary forests |

Saprotroph Elev.: 200–790 m Dept.: AMA, CAL, CAQ, MET, QUI



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6881, *Polyporus leprleurii* Mont. IF No: 161105 Trophic mode/Guild: Saprotroph/wood saprotroph Habitat: On decayed wood | in mature and secondary forests | in tropical forest | in montane forest Elev.: 50–2,430 m Dept.: ANT, CHO, CAQ, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6882, *Polyporus lindigii* Lévl. IF No: 151394 Trophic mode/Guild: Saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6883, *Polyporus luteonitidus* Lloyd IF No: 487417 Trophic mode/Guild: Saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6884, *Polyporus polycanthophorus* Nakasone IF No: 812357 Trophic mode/Guild: Saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6885, *Polyporus tenax* Lévl. IF No: 473953 Trophic mode/Guild: Saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6886, *Porogramme albocincta* (Cooke & Massee) Gibertoni IF No: 803222 Trophic mode/Guild: Saprotroph/undefined Saprotroph Habitat: Saprotroph Elev.: 370–1,560 m Dept.: ANT, BOY, CHO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6887, *Pseudofavolus tenuis* (Fr.) G. Cunn. IF No: 337761 Trophic mode/Guild: Saprotroph/wood saprotroph Habitat: On wood | in chagras | in tropical forest Elev.: 50 m Dept.: CAQ, CHO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6888, *Pycnoporus cinnabarinus* (Jacq.) P. Karst. IF No: 120171 Trophic mode/Guild: Saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6889, *Pycnoporus coccineus* (Fr.) Bondartsev & Singer IF No: 304848 Trophic mode/Guild: Saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6890, *Pycnoporus sanguineus* (L.) Murrill IF No: 121361 Trophic mode/Guild: Saprotroph/wood saprotroph Habitat: In chagras | On freshly burned logs and in different degrees of decomposition | In places exposed to the sun | On stubble | Common in disturbance areas | In tropical forest | In mixed oak-dominated forest | Saprotroph solitary, gregarious Distribution: Panotropics Elev.: 50–2,430 m Dept.: AMA, ANT, BOL, BOY, VAC, CAL, CAS, CAU, CAQ, CES, CHO, COR, MAG, MET, PUT, VAC, VAU Uses: MA, ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6891, *Tinctoporellus epimilithus* (Berk. & Broome) Ryarden IF No: 324633 Trophic mode/Guild: Saprotroph/wood saprotroph Elev.: 60–370 m Dept.: CHO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6892, *Trametes cihriifer* (Berk. & M.A. Curtis) Lloyd IF No: 567060 Trophic mode/Guild: Saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6893, *Trametes elegans* (Spreng.) Fr. IF No: 178276 Trophic mode/Guild: Saprotroph/wood saprotroph Habitat: On logs and stumps | Saprotroph solitary, gregarious Distribution: Panotropics Elev.: 200–2,560 m Dept.: AMA, ANT, BOG, BOL, CAL, CAQ, CAU, CHO, CUN, MAG, MET, NSA, SAN, VAC, VAU Uses: EU, ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6894, *Trametes flavida* (Lévl.) Zmitr., Wasser & Ezhov IF No: 561990 Trophic mode/Guild: Saprotroph/wood saprotroph Habitat: On decayed wood | Saprotroph gregarious Distribution: Panotropics Dept.: CES



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6895, *Trametes hirsuta* (Wulfen) Lloyd IF No: 531523 Trophic mode/Guild: Saprotroph/wood saprotroph Habitat: Saprotroph Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6896, *Trametes maxima* (Mont.) A. David & Rajchenb. IF No: 105833 Trophic mode/Guild: Saprotroph/wood saprotroph Habitat: On dead wood | Saprotroph gregarious, imbricate Distribution: Panotropics Dept.: MAG, BOL, MET, SUC Uses: MA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6897, *Trametes membranacea* (Sw.) Kreisel IF No: 324801 Trophic mode/Guild: Saprotroph/wood saprotroph Habitat: On burned decayed wood | In tropical rainforest | In chagras | On cypress tree stump Distribution: Panotropics Elev.: 200–2,430 m Dept.: ANT, CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6898, *Trametes pavonia* (Hook.) Ryarden IF No: 473349 Trophic mode/Guild: Saprotroph/wood saprotroph Habitat: On decayed trunks | Saprotroph gregarious Distribution: Global Distribution Elev.: 370–910 m Dept.: ANT, CAU, CUN, SUC Uses: HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6899, *Trametes polyzona* (Pers.) Justo IF No: 561896 Trophic mode/Guild: Saprotroph/wood saprotroph Habitat: On decayed wood | in mature forest | in tropical forest | on tree stump | Saprotroph Distribution: Panotropics Elev.: 50–1,660 m Dept.: ANT, CAQ, CHO, SUC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6900, *Trametes pubescens* (Schumach.) Pilát IF No: 275567 Trophic mode/Guild: Saprotroph/wood saprotroph Habitat: Saprotroph Distribution: Global Distribution Elev.: 3,050 m Dept.: ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6901, *Trametes repanda* (Pers.) Justo IF No: 805417 Trophic mode/Guild: Saprotroph/wood saprotroph Habitat: Saprotroph Dept.: SAN, VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6902, *Trametes sacotrana* Cooke IF No: 214535 Trophic mode/Guild: Saprotroph/wood saprotroph Habitat: On decayed wood | In tropical rainforest | Saprotroph gregarious Elev.: 190–1,680 m Dept.: CES, SUC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6903, *Trametes troglit* Berk. IF No: 208715 Trophic mode/Guild: Saprotroph/wood saprotroph Uses: MA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6904, *Trametes variegata* (Berk.) Zmitr., Wasser & Ezhov IF No: 561999 Trophic mode/Guild: Saprotroph/wood saprotroph Habitat: On dead wood | In tropical forest | Saprotroph solitary, imbricate Distribution: Panotropics Elev.: 50–2,200 m Dept.: CHO, MAG, MET, VAC Uses: ME, PO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6905, *Trametes versicolor* (L.) Lloyd IF No: 281625 Trophic mode/Guild: Saprotroph/wood saprotroph Habitat: On logs and stumps | Saprotroph imbricate Distribution: Global Distribution Elev.: 2,560 m Dept.: ANT, BOY, CUN, MET, NAR, VAC Uses: EU, MA, ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6906, *Trametes villosa* (Sw.) Kreisel IF No: 324810 Trophic mode/Guild: Saprotroph/wood saprotroph Habitat: On logs and stumps | Common in disturbance areas | In tropical forest | Wood Saprotroph gregarious Distribution: Panotropics, Subtropics Elev.: 50–1,750 m Dept.: ANT, BOY, CAL, CAU, CES, CHO, MAG, SAN, TOL, VAC Uses: ME



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Polyporaceae  
6907. *Truncospora rosealba* (Jungh.) Zmitr. IF No: 827314 Elev.: 430 m Dept.: CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Sparassidaceae  
6908. *Sparassis spathulata* (Schwein.) Fr. IF No: 228313 Trophic mode/Guild: pathotroph, saprotroph/plant pathogen, wood saprotroph Habitat: Growing from the roots or bases of trees | Found primarily under hardwoods, especially oaks | Pathogenic and saprobic Distribution: Global Distribution Dept.: BOY Uses: HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Steccherinaceae  
6909. *Cabalodontia subcretacea* (Litsch.) Piatek IF No: 510163 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Elev.: 3,700 m Dept.: CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Steccherinaceae  
6910. *Flaviporus hydrophilus* (Berk. & M.A. Curtis) Ginns IF No: 113515 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: On fallen trunks | Saprotroph Elev.: 20 m Dept.: CHO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Steccherinaceae  
6911. *Flaviporus liebmanni* (Fr.) Ginns IF No: 113516 Trophic mode/Guild: saprotroph/undefined saprotroph Elev.: 170-1,710 m Dept.: ANT, BOY, CHO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Steccherinaceae  
6912. *Jungkuhnia nitida* (Pers.) Ryvarden IF No: 315983 Trophic mode/Guild: pathotroph/fungal parasite Habitat: On fallen log, in forest clearing Distribution: Global Distribution Elev.: 20-2,500 m Dept.: ANT, BOY, CHO, CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Steccherinaceae  
6913. *Lamelloporus americanus* Ryvarden IF No: 131482 Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Steccherinaceae  
6914. *Loweyomyces fractipes* (Berk. & M.A. Curtis) Jülich IF No: 110787 Trophic mode/Guild: saprotroph/wood saprotroph Habitat: On decayed wood | in mature forest | Saprotroph Dept.: CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Steccherinaceae  
6915. *Nigroporus durus* (Jungh.) Murrill IF No: 101786 Trophic mode/Guild: saprotroph/wood saprotroph Habitat: On dead trees. Saprotroph Dept.: MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Steccherinaceae  
6916. *Nigroporus vinosus* (Berk.) Murrill IF No: 431864 Trophic mode/Guild: saprotroph/wood saprotroph Habitat: Saprotroph Elev.: 910 m Dept.: CAU, CES



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Steccherinaceae  
6917. *Steccherinum albobifiliosum* (Hjortstam & Ryvarden) Hallenb. & Hjortstam IF No: 133859 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Elev.: 2,700 m Dept.: CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Steccherinaceae  
6918. *Steccherinum ciliolatum* (Berk. & M.A. Curtis) Gilb. & Budington IF No: 283706 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: In tropical montane cloud forest | Saprotroph Elev.: 2,700-2,850 m Dept.: CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Steccherinaceae  
6919. *Steccherinum hydneum* Rick ex Maas Geest. IF No: 324028 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Elev.: 2,700 m Dept.: CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Steccherinaceae  
6920. *Steccherinum laeticolor* (Berk. & M.A. Curtis) Banker IF No: 440453 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Elev.: 2,400-3,600 m Dept.: CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Steccherinaceae  
6921. *Steccherinum ochraceum* (Pers. ex J.F. Gmel.) Gray IF No: 122972 Trophic mode/Guild: pathotroph/plant pathogen Habitat: Saprotroph Elev.: 2,400 m Dept.: CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Steccherinaceae  
6922. *Steccherinum reniforme* (Berk. & M.A. Curtis) Banker IF No: 440454 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Steccherinaceae  
6923. *Steccherinum robustius* (J. Erikss. & S. Lundell) J. Erikss. IF No: 306421 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Elev.: 2,450-3,100 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Steccherinaceae  
6924. *Steccherinum undigerum* (Berk. & M.A. Curtis) Westphalen & Tomšovský IF No: 822518 Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Steccherinaceae  
6925. *Trullella duracina* (Pat.) Zmitr. IF No: 827469 Trophic mode/Guild: saprotroph/Habitat: Burned decayed wood | in chagra In disturbed natural forest | Wood saprotroph Elev.: 2,000 m Dept.: ANT, CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Xenasmataceae  
6926. *Xenasma aculeatum* C.E. Gómez IF No: 325581 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Elev.: 2,700 m Dept.: CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Xenasmataceae  
6927. *Xenasma pulverulentum* (H.S. Jacks.) Donk IF No: 307836 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Elev.: 2,400 m Dept.: CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Xenasmataceae  
6928. *Xenasma rimicola* (P. Karst.) Donk IF No: 307837 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Elev.: 2,400-2,700 m Dept.: CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Xenasmataceae  
6929. *Xenasma tulasnelloideum* (Höhn. & Litsch.) Donk IF No: 307839 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Elev.: 2,700 m Dept.: CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Xenasmataceae  
6930. *Xenasmatella borealis* (K.H. Larss. & Hjortstam) Duhem IF No: 517402 Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Xenasmataceae  
6931. *Xenasmatella vaga* (Fr.) Stalpers IF No: 474103 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Elev.: 2,400 m Dept.: CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Incertae sedis  
6932. *Amaropostia stipitica* (Pers.) B.K. Cui, L.L. Shen & Y.C. Dai IF No: 819257 Trophic mode/Guild: saprotroph/Habitat: On pine tree stump Elev.: 2,430 m Dept.: ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Incertae sedis  
6933. *Aquascypha hydrophora* (Berk.) D.A. Reid IF No: 326417 Trophic mode/Guild: saprotroph/Habitat: Saprotroph Dept.: AMA, CAQ, VAU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Incertae sedis  
6934. *Candelabrochaete discipar* Hjortstam & Ryvarden IF No: 103131 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Elev.: 500 m Dept.: MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Incertae sedis  
6935. *Candelabrochaete simulans* Hjortstam IF No: 412698 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Elev.: 1,900 m Dept.: MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Incertae sedis  
6936. *Dicranthodes novoguineensis* (Henn.) O. Fidalgo IF No: 329835 Trophic mode/Guild: saprotroph/wood saprotroph Habitat: Wood Saprotroph Elev.: 1,220 m Dept.: VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Incertae sedis  
6937. *Diplomitoporus hondurensis* (Murrill) Ryvarden IF No: 464050 Trophic mode/Guild: saprotroph/wood saprotroph Habitat: Saprotroph Elev.: 730 m Dept.: MET



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Incertae sedis  
6938. *Hypochnicium punctulatum* (Cooke) J. Erikss. IF No: 298818 Trophic mode/Guild: saprotroph/undefined saprotroph Habitat: Saprotroph Dept.: MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Incertae sedis  
6939. *Inflatostereum glabrum* (Pat.) D.A. Reid IF No: 332534 Trophic mode/Guild: saprotroph/undefined saprotroph

CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Incertae sedis  
6940. *Nigrohydnum nigrum* Ryvarden  
IF No: 131483



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Incertae sedis  
6941. *Phanerochaete chrysosporium* (Burd.) Hjortstam & Ryvarden IF No: 517285  
Trophic mode/Guild: saprotroph /undefined saprotroph  
Habitat: On dead wood | Saprotroph  
Uses: EU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Incertae sedis  
6942. *Phanerochaete subquercina* (Henn.) Hjortstam & Ryvarden IF No: 517288  
Trophic mode/Guild: saprotroph/undefined saprotroph  
Habitat: Saprotroph  
Distribution: Panotropics  
Elev.: 1,900 m Dept.: MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Polyporales, Incertae sedis  
6943. *Phlebiella californica* (Liberta) K.H. Larss. & Hjortstam IF No: 131329  
Trophic mode/Guild: saprotroph/undefined saprotroph  
Habitat: On palm  
Elev.: 3,700 m Dept.: CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Albatrellaceae  
6944. *Polyporotietus subinvidus* Snell IF No: 279276  
Trophic mode/Guild: symbiotroph /ectomycorrhizal  
Habitat: On decayed wood | Saprotroph  
Elev.: 200 m Dept.:



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Auriscalpiaceae  
6945. *Artomyces pyxidatus* (Pers.) Jülich IF No: 110490  
Common name: Cocas (Spanish)  
Trophic mode/Guild: saprotroph /undefined saprotroph  
Habitat: On the dead wood of hardwoods | Saprotroph solitary, gregarious  
Distribution: Global Distribution  
Dept.: BOY  
Uses: HF, ME



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Auriscalpiaceae  
6946. *Auriscalpium villipes* (Lloyd) Snell & E.A. Dick IF No: 293564  
Trophic mode/Guild: pathotroph, saprotroph/plant pathogen, wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Auriscalpiaceae  
6947. *Auriscalpium vulgare* Gray IF No: 101255  
Trophic mode/Guild: pathotroph, saprotroph/plant pathogen, wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Auriscalpiaceae  
6948. *Lentinellus ursinus* (Fr.) Kühner IF No: 255281  
Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Hericiaceae  
6949. *Dentipellis dissita* (Berk. & Cooke) Maas Geest. IF No: 312859  
Trophic mode/Guild: saprotroph/undefined saprotroph  
Habitat: In tropical montane cloud forest  
Elev.: 2,400–2,850 m Dept.: CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Hericiaceae  
6950. *Hericium erinaceus* (Bull.) Pers. IF No: 356812  
Common name: Chivos (Spanish), Ubres de vaca (Spanish), Polillos (Spanish)  
Trophic mode/Guild: saprotroph/undefined saprotroph  
Habitat: On deadwood | From the wounds of living oaks and other hardwoods, Parasite solitary  
Distribution: Global Distribution, Introduced  
Dept.: BOY  
Uses: HF, ME  
Conservation: LC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Hericiaceae  
6951. *Laxitextum incuratum* Hjortstam & Ryvarden IF No: 112401  
Trophic mode/Guild: saprotroph/undefined saprotroph  
Habitat: On bark or decorticated wood of branches and logs on the ground. Saprophyte of white rot of angiosperms, except one collection on pine



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Peniophoraceae  
6952. *Asterostroma andinum* Pat. IF No: 227968  
Trophic mode/Guild: saprotroph/undefined saprotroph  
Habitat: Saprotroph  
Dept.: MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Peniophoraceae  
6953. *Asterostroma muscicola* (Berk. & M.A. Curtis) Massee IF No: 199608  
Trophic mode/Guild: saprotroph/undefined saprotroph  
Habitat: Saprotroph  
Elev.: 2,400–2,700 m Dept.: BOG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Peniophoraceae  
6954. *Baltazaria galactina* (Fr.) Leal-Dutra, Dentinger & G.W. Grifff. IF No: 825235  
Dept.: MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Peniophoraceae  
6955. *Dichostereum effuscatum* (Cooke & Ellis) Boidin & Lanq. IF No: 312966  
Trophic mode/Guild: saprotroph/undefined saprotroph  
Habitat: In tropical montane cloud forest  
Distribution: Panotropics, Subtropics  
Elev.: 2,700 m Dept.: BOG, CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Peniophoraceae  
6956. *Lachnocladium schweinfurthianum* Henn. IF No: 203917  
Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Peniophoraceae  
6957. *Peniophora albobadia* (Schwein.) Boidin IF No: 335776  
Trophic mode/Guild: pathotroph, saprotroph/plant pathogen, wood saprotroph  
Habitat: On wood | Saprotroph | parasitic  
Elev.: 2,400 m Dept.: BOY, CAU, CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Peniophoraceae  
6958. *Peniophora carnea* (Berk. & Cooke) Cooke IF No: 174149  
Trophic mode/Guild: pathotroph, saprotroph/plant pathogen, wood saprotroph  
Habitat: Saprotroph  
Distribution: Global Distribution  
Elev.: 457–701 m Dept.: MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Peniophoraceae  
6959. *Peniophora confusa* C.E. Gómez IF No: 319308  
Trophic mode/Guild: pathotroph, saprotroph/plant pathogen, wood saprotroph  
Habitat: In soil on branches of Ocotea. Saprotroph  
Elev.: 2,700 m Dept.: CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Peniophoraceae  
6960. *Peniophora nuda* (Fr.) Bres. IF No: 122950  
Trophic mode/Guild: pathotroph, saprotroph/plant pathogen, wood saprotroph  
Habitat: On tree bark



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Peniophoraceae  
6961. *Peniophora versiformis* (Berk. & M.A. Curtis) Bourdot & Galzin IF No: 255366  
Trophic mode/Guild: pathotroph, saprotroph/plant pathogen, wood saprotroph  
Habitat: Saprotroph  
Dept.: MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Peniophoraceae  
6962. *Scytinostroma lusitanicum* (Trotter) P.M. Kirk IF No: 550464  
Trophic mode/Guild: saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Peniophoraceae  
6963. *Scytinostroma portentosum* (Berk. & M.A. Curtis) Donk IF No: 305711  
Trophic mode/Guild: saprotroph/undefined saprotroph  
Habitat: Saprotroph  
Elev.: 500 m Dept.: MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Peniophoraceae  
6964. *Vararia gomezii* Boidin & Lanq. IF No: 325411



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Peniophoraceae  
6965. *Vararia sphaerocarpa* Gilb. IF No: 340854  
Elev.: 1,900 m Dept.: MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
6966. *Lactarius atrovirdis* Peck IF No: 226377  
Trophic mode/Guild: symbiotroph/ectomycorrhizal  
Habitat: On soil, associated to *Quercus* | Ectomycorrhiza solitary, gregarious  
Distribution: Panotropics  
Elev.: 2,500–2,918 m Dept.: ANT, BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
6967. *Lactarius camphoratus* (Bull.) Fr. IF No: 233655  
Trophic mode/Guild: symbiotroph/ectomycorrhizal  
Habitat: On soil | in Andean forest | Ectomycorrhiza  
Distribution: Global Distribution  
Dept.: ANT, NAR, SAN, TOL  
Uses: HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
6968. *Lactarius caucaseus* Singer IF No: 316222  
Trophic mode/Guild: symbiotroph /ectomycorrhizal  
Habitat: Endomycorrhiza  
Distribution: Panotropics  
Dept.: CAU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
6969. *Lactarius chrysorheus* Fr. IF No: 233874  
Trophic mode/Guild: symbiotroph /ectomycorrhizal  
Habitat: On soil | Ectomycorrhiza  
Distribution: Global  
Elev.: 2,600 m Dept.: ANT, CUN  
Uses: HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
6970. *Lactarius costaricensis* Singer IF No: 110340  
Trophic mode/Guild: symbiotroph /ectomycorrhizal  
Habitat: On soil | Ectomycorrhiza  
Distribution: Panotropics  
Elev.: 2,700 m Dept.: NAR



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
6971. *Lactarius gararii* Peck IF No: 229026  
Trophic mode/Guild: symbiotroph /ectomycorrhizal  
Habitat: On soil in montane oak forests | Ectomycorrhizal with *Quercus* solitary  
Distribution: Global Distribution  
Dept.: ANT  
Uses: HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
6972. *Lactarius indigo* (Schwein.) Fr. IF No: 220303  
Trophic mode/Guild: symbiotroph /ectomycorrhizal  
Habitat: On soil in montane oak forests  
Distribution: Subtropics, Panotropics  
Elev.: 2,200–2,400 m Dept.: ANT, BOY, CAU, CUN, NAR, VAC  
Uses: HF, ME, SU



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 6973. *Lactarius kabansus* Pegler & Pearce IF No: 112981 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 6974. *Lactarius lignyotellus* A.H. Sm. & Hesler IF No: 332892 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Dept.:** ANT, SAN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 6975. *Lactarius rimosellus* Fr. IF No: 165811 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | in Andean forest | **Ectomycorrhiza Elev.:** 2,830 m **Dept.:** SAN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 6976. *Lactarius obscuratus* (Lasch) Fr. IF No: 316240 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 6977. *Lactarius quercuum* Singer IF No: 332905 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | **Ectomycorrhiza Distribution:** Panotropics



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 6978. *Lactarius xanthogalactus* Peck IF No: 168401 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | in Andean forest | **Ectomycorrhiza Elev.:** 2,540–2,850 m **Dept.:** ANT, SAN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 6979. *Lactarius rubidus* (Hesler & A.H. Sm.) Methven IF No: 803100 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Uses:** HF **Conservation:** LC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 6980. *Lactarius subumbrinus* Hesler & A.H. Sm. IF No: 116123 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | in Andean forest |



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 6981. *Lactarius xanthogalactus* Peck IF No: 196072 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** Endomycorrhiza **Dept.:** NAR



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 6982. *Lactifolius annulifer* (Singer) Nuytinck IF No: 563171 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 6983. *Lactifolius brasiliensis* (Singer) Silva-Filho & Warshaw IF No: 831815 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 6984. *Lactifolius castaneibaebus* (Pegler) De Crop IF No: 814202 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 6985. *Lactifolius deceptivus* (Peck) Kuntze IF No: 228626 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 6986. *Lactifolius hallingii* Delgat & De Wilde IF No: 831085 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in montane forests with *Quercus humboldtii*, *Q. seemannii*, *Q. copeyensis*, *Quercus* sp., Ectomycorrhizal solitary **Distribution:** Neotropics **Elev.:** 2,500–2,900 m **Dept.:** ANT, BOY **Uses:** HF **Conservation:** VU



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 6987. *Lactifolius subciliatus* S.L. Mill., Aime & T.W. Henkel IF No: 564265 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | in tropical rainforest associated with *Dicymbe* sp. | **Ectomycorrhiza Distribution:** Endemic **Dept.:** AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 6988. *Lactifolius venezuelanus* (Dennis) De Crop IF No: 814211 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 6989. *Russula boycensis* Singer IF No: 338679 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | **Ectomycorrhiza solitary Distribution:** Panotropics **Dept.:** BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 6990. *Russula brevipes* Peck IF No: 166953 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in montane oak forests | In degraded secondary forest | **Ectomycorrhizal solitary, gregarious Elev.:** 2,100 m **Dept.:** CAL, CES, CUN **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 6991. *Russula burlinghamiae* Singer IF No: 324430 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 6992. *Russula caucensis* Singer IF No: 125044 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | **Ectomycorrhiza Distribution:** Panotropics



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 6993. *Russula columbiana* Singer IF No: 338683 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | **Ectomycorrhiza Distribution:** Panotropics



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 6994. *Russula compacta* Frost IF No: 181887 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | **Ectomycorrhiza Elev.:** 2,500 m **Dept.:** ANT **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 6995. *Russula cremoricolor* Earle IF No: 190319 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 6996. *Russula crustosa* Peck IF No: 190063 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 6997. *Russula cyanoxantha* (Schaeff.) Fr. IF No: 190250 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in montane forests. **Ectomycorrhizal solitary, gregarious Distribution:** Global **Dept.:** BOY, SAN **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 6998. *Russula emetica* (Schaeff.) Pers. IF No: 191650 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 6999. *Russula foetens* Pers. IF No: 187177 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 7000. *Russula gelatinivela* S.L. Mill., Aime & T.W. Henkel IF No: 564267 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 7001. *Russula humboldtii* Singer IF No: 338698 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | **Ectomycorrhiza Distribution:** Panotropics **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 7002. *Russula hygrophytica* Pegler IF No: 113091 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | in tropical rainforest, associated with *Dycimbe* sp. | **Ectomycorrhiza Distribution:** Panotropics **Dept.:** AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 7003. *Russula idrobel* Singer IF No: 338699 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | **Ectomycorrhiza Elev.:** 2,000 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 7004. *Russula peckii* Singer IF No: 290657 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | **Ectomycorrhiza Elev.:** 3,100 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
 7005. *Russula pulgarrii* (Speg.) Singer IF No: 305401 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal

CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
**7006. *Russula rosea*** Pers.  
 IF No: 465253 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | in tropical rainforest |  
 Ectomycorrhiza **Dept.:** AMA **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
**7007. *Russula sanguinea*** Fr.  
 IF No: 205048 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
**7008. *Russula sardonla*** Fr. IF No: 204740  
**Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in montane forests. Ectomycorrhizal solitary  
**Distribution:** Global **Dept.:** BOY **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
**7009. *Russula semillacea*** Singer IF No: 125052 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil |  
 Ectomycorrhiza **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
**7010. *Russula silvestris*** (Singer) Reumaux IF No: 445434 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | in mixed oak-dominated forest |  
 Ectomycorrhiza **Elev.:** 2,500–2,800 m **Dept.:** ANT



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Russulaceae  
**7011. *Russula virescens*** (Schaeff.) Fr. IF No: 203449 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil in montane forests. Ectomycorrhizal solitary, growing in groups of two  
**Distribution:** Global **Dept.:** ANT **Uses:** HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Stereaceae  
**7012. *Aleurodiscus andinus*** Núñez & Ryvar den IF No: 437421 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Stereaceae  
**7013. *Aleurodiscus australiensis*** Wakef. IF No: 151211 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On bark of *Eucalyptus* sp. and *Phillipa* sp.



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Stereaceae  
**7014. *Aleurodiscus croceus*** Pat. IF No: 213547 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On unidentified deciduous trees **Elev.:** 2,700 m **Dept.:** BOY, CAU, CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Stereaceae  
**7015. *Aleurodiscus disciformis*** (DC.) Pat. IF No: 439663 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Always on *Quercus* **Dept.:** TOL



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Stereaceae  
**7016. *Aleurodiscus mirabilis*** (Berk. & M.A. Curtis) Höhn. IF No: 120915 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** In tropical montane cloud forest |  
 Saprotroph **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Stereaceae  
**7017. *Aleurodiscus vitellinus*** (Lév.) Pat. IF No: 213756 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Stereaceae  
**7018. *Conteritulum ochraceum*** (Fr.) Hallenb. IF No: 112778 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Dept.:** TOL



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Stereaceae  
**7019. *Stereum cinereobadium*** Fr. IF No: 473706 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Stereaceae  
**7020. *Stereum complicatum*** (Fr.) Fr. IF No: 169676 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 2,400 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Stereaceae  
**7021. *Stereum gausapatum*** (Fr.) Fr. IF No: 193672 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 2,940 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Stereaceae  
**7022. *Stereum hirsutum*** (Willd.) Pers. IF No: 189826 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** On bark and wood of trunks, twigs, or stumps



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Stereaceae  
**7023. *Stereum insignitum*** Quéf. IF No: 182771 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On decayed wood | Saprotroph **Dept.:** MET

of a wide range of dead or living deciduous trees | In disturbed tropical cloud forest | In mixed oak-dominated forest | Saprotroph imbricate, gregarious **Distribution:** Global **Elev.:** 1,700–2,850 m **Dept.:** ANT, BOG, BOY, CAQ, CAU, CHO, CUN, HUI, MAG, MET, NAR, VAC **Uses:** ME, PO



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Stereaceae  
**7024. *Stereum ochraceoflavum*** (Schwein.) Sacc. IF No: 193355 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Stereaceae  
**7025. *Stereum oestra*** (Blume & T. Nees) Fr. IF No: 180792 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On montane forest | Saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Stereaceae  
**7026. *Stereum rugosum*** Pers. IF No: 192347 **Trophic mode/Guild:** saprotroph/undefined saprotroph

**Distribution:** Temperate, Global **Elev.:** 1,100–2,870 m **Dept.:** ANT, CAL, CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Stereaceae  
**7027. *Stereum striatum*** (Fr.) Fr. IF No: 215666 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Stereaceae  
**7028. *Stereum subtomentosum*** Pouzar IF No: 339694 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Stereaceae  
**7029. *Xylobolus frustulatus*** (Pers.) P. Karst. IF No: 307888 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Stereaceae  
**7030. *Xylobolus illudens*** (Berk.) Boidin IF No: 307889 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On hardwood log | Saprotroph **Elev.:** 2,700 m **Dept.:** MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Stereaceae  
**7031. *Xylobolus subpileatus*** (Berk. & M.A. Curtis) Boidin IF No: 307892 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 2,450–3,100 m



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Stereaceae  
**7032. *Gloeodontia discolor*** (Berk. & M.A. Curtis) Boidin IF No: 331386 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On hardwood **Dept.:** CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Russulales, Stereaceae  
**7033. *Gloeodontia pyramidata*** (Berk. & M.A. Curtis) Hjortstam IF No: 132977 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Distribution:** Pantropics **Elev.:** 2,700 m **Dept.:** BOG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Sebaciniales, Sebacinaceae  
**7034. *Sebacinia candida*** L.S. Olive IF No: 305716



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Sebaciniales, Sebacinaceae  
**7035. *Sebacinia fuliginosa*** (Rick) L.S. Olive IF No: 305717 **Trophic mode/Guild:** saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Sebaciniales, Sebacinaceae  
**7036. *Tremeloscypna dichroa*** (Lloyd) Oberw., Garnica & K. Riess IF No: 808189 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Stereopsidiales, Stereopsidaceae  
**7037. *Stereopsis hiscens*** (Berk. & Ravenel) D.A. Reid IF No: 339677 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** In cloud forest |  
 Saprotroph **Elev.:** 1,700–2,200 m **Dept.:** VAC



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Stereopsidiales, Stereopsidaceae  
**7038. *Stereopsis radicans*** (Berk.) D.A. Reid IF No: 339681 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On decayed wood | in mature forest **Elev.:** 200 m **Dept.:** CAQ, MAG



CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Thelephorales, Bankeraceae  
**7039. *Hydnellum singeri*** Maas Geest. IF No: 315321 **Habitat:** Moist spot, under *Quercus humboldtii* on woody humus **Dept.:** VAC



associated with *Dyckia* sp. **Distribution:** Panotropics **Dept.:** CAQ



associated with *Pseudomonas tropenbosii* **Distribution:** Panotropics **Dept.:** AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Thelephorales, Bankeraceae  
**7042. *Sarcodon pallidogriseus*** A.C. Grupe & Vasco-Pal. IF No: 813076 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Habitat:** On soil | in tropical rainforest, associated with *Dyckia* sp. **Distribution:** Panotropics **Dept.:** CAQ



associated with *Dyckia* sp. **Distribution:** Panotropics **Dept.:** AMA



associated with *Pseudomonas tropenbosii* **Distribution:** Panotropics **Dept.:** AMA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Thelephorales, Thelephoraceae  
**7045. *Amaurodon viridis*** (Alb. & Schwein.) J. Schröt. IF No: 431418 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Dept.:** MAG



*Quercus nigra* **Distribution:** Panotropics, Subtropics **Elev.:** 500 m **Dept.:** MAG



Saprotroph **Dept.:** AMA, CAQ



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Thelephorales, Thelephoraceae  
**7048. *Phellodon niger*** (Fr.) P. Karst. IF No: 246562 **Trophic mode/Guild:** symbiotroph/ectomycorrhizal **Distribution:** Global **Elev.:** 1,750 m **Dept.:** VAC



Global Distribution **Elev.:** 2,430 m **Dept.:** ANT, MAG, SAN



Global Distribution **Elev.:** 2,430 m **Dept.:** ANT, MAG, SAN

Uses: HF



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Thelephorales, Thelephoraceae  
**7051. *Thelephora cervicornis*** Corner IF No: 340029 **Trophic mode/Guild:** saprotroph/Endomycorrhiza **Elev.:** 1,800 m **Dept.:** QUI



Global Distribution **Elev.:** 2,430 m **Dept.:** ANT, MAG, SAN



Global Distribution **Elev.:** 2,430 m **Dept.:** ANT, MAG, SAN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Thelephorales, Thelephoraceae  
**7054. *Thelephora terrestris*** Ehrh. IF No: 193195 **Trophic mode/Guild:** saprotroph/Endomycorrhiza **Distribution:** Global **Dept.:** BOY



Global Distribution **Elev.:** 2,430 m **Dept.:** ANT, MAG, SAN



Global Distribution **Elev.:** 2,430 m **Dept.:** ANT, MAG, SAN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Trechisporales, Hydnodontaceae  
**7057. *Brevicellium flavovirens*** Hjortstam IF No: 474231 **Trophic mode/Guild:** saprotroph/undefined saprotroph



Panotropics **Elev.:** 2,400 m **Dept.:** CUN



Dept.: MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Trechisporales, Hydnodontaceae  
**7060. *Litschauerella clematidis*** (Bourdot & Galzin) J. Erikss. & Ryvarden IF No: 316946 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** On decayed wood and bark **Distribution:** Temperate **Elev.:** 2,400 m **Dept.:** CUN



Panotropics **Elev.:** 2,400 m **Dept.:** CUN



3,700 m **Dept.:** CUN



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Trechisporales, Hydnodontaceae  
**7063. *Subulcystidium longisporum*** (Pat.) Parmasto IF No: 339833 **Trophic mode/Guild:** saprotroph/undefined saprotroph **Habitat:** Saprotroph **Elev.:** 500–3,800 m **Dept.:** CUN, MAG



Panotropics **Elev.:** 2,400 m **Dept.:** CUN



apple and peach **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Trechisporales, Hydnodontaceae  
**7066. *Trechispora clancularis*** (Park. – Rhodes) K.H. Larss. IF No: 362539 **Trophic mode/Guild:** saprotroph/wood saprotroph



**Elev.:** 500–2,700 m **Dept.:** CUN, MAG



apple and peach **Elev.:** 2,900 m **Dept.:** BOY



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Trechisporales, Hydnodontaceae  
**7069. *Trechispora nivea*** (Pers.) K.H. Larss. IF No: 414296 **Trophic mode/Guild:** saprotroph/wood saprotroph **Habitat:** Saprotroph **Elev.:** 2,400–2,700 m **Dept.:** CUN



Global Distribution **Elev.:** 2,430 m **Dept.:** ANT, MAG, SAN



CUN

CHECKLIST OF FUNGI OF COLOMBIA



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Trechisporales, Hydnodontaceae  
**7072. *Trechispora thelephora*** (Lév.) Ryvarden IF No: 471949 Trophic mode/  
 Guild: saprotroph/ wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Trechisporales, Hydnodontaceae  
**7073. *Trechispora verruculosa*** (G. Cunn.) K.H. Larss. IF No: 436323 Trophic mode/  
 Guild: saprotroph/wood saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Trechisporales, Hydnodontaceae  
**7074. *Tubulicium dussii*** (Pat.) Oberw. ex Jülich IF No: 325100 Trophic mode/  
 Guild: saprotroph/ undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Trechisporales, Hydnodontaceae  
**7075. *Tubulicium erectum*** Hjortstam & Ryvarden IF No: 507306 Trophic mode/  
 Guild: saprotroph/undefined saprotroph



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Incertae sedis  
**7076. *Minotrosyria discoidalis*** Hjortstam & Ryvarden IF No: 474234 Trophic mode/  
 Guild: saprotroph/undefined saprotroph  
 Habitat: Saprotroph Dept.: MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Incertae sedis, Incertae sedis  
**7077. *Odonticium flabellradatum*** (J. Erikss. & Hjortstam) Zmir. IF No: 529194 Trophic mode/  
 Guild: saprotroph/undefined saprotroph Dept.: MAG



Fungi, Basidiomycota, Agaricomycotina, Agaricomycetes, Incertae sedis, Incertae sedis, Incertae sedis  
**7078. *Odonticium helgae*** Hjortstam & Ryvarden IF No: 103621 Trophic mode  
 /Guild: saprotroph/undefined saprotroph  
 Habitat: Saprotroph Distribution: Europe, South America Elev.: 500 m Dept.: MAG



Fungi, Basidiomycota, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7079. *Brevicelopsis allantopora*** (Hjortstam & Ryvarden) Hjortstam & Ryvarden IF No: 507301 Trophic mode  
 /Guild: saprotroph/ undefined saprotroph



Fungi, Basidiomycota, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7080. *Radulodonta pyriformis*** Hjortstam & Ryvarden IF No: 507302 Trophic mode/  
 Guild: saprotroph/undefined saprotroph



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7081. *Asterinites colombensis*** Doub. & D. Pons ex Kalgutkar & Janson. IF No: 483252 Trophic mode/  
 Guild: fossil Fungi



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7082. *Asterinites tellezii*** Doub. & D. Pons ex Kalgutkar & Janson. IF No: 483253 Trophic mode/  
 Guild: fossil Fungi



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7083. *Dicellaesporites magnus*** Doub. & D. Pons IF No: 485252 Trophic mode/  
 Guild: fossil Fungi



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7084. *Diceliosporites elongatus*** Hammen IF No: 330110 Trophic mode/  
 Guild: fossil Fungi



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7085. *Diceliosporites minutiporus*** Hammen IF No: 330111 Trophic mode/  
 Guild: fossil Fungi



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7086. *Diceliosporites minutus*** Hammen IF No: 330112 Trophic mode/  
 Guild: fossil Fungi



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7087. *Inapertisporites minutus*** Hammen IF No: 332523 Trophic mode/  
 Guild: fossil Fungi



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7088. *Inapertisporites typicus*** Hammen IF No: 332524 Trophic mode/  
 Guild: fossil Fungi



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7089. *Inapertisporites variabilis*** Hammen IF No: 332525 Trophic mode/  
 Guild: fossil Fungi



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7090. *Incertisporites polygranulatus*** Hammen IF No: 332526 Trophic mode/  
 Guild: fossil Fungi



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7091. *Lacrimasporonites arcuatus*** Doub. & D. Pons IF No: 485259 Trophic mode/  
 Guild: fossil Fungi



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7092. *Lacrimasporonites ovalis*** Doub. & D. Pons IF No: 485260 Trophic mode/  
 Guild: fossil Fungi



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7093. *Mediaveruinites fourrieri*** Elsik & Jarzen IF No: 568010 Trophic mode/  
 Guild: fossil Fungi



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7094. *Mediaveruinites magnus*** Elsik & Jarzen IF No: 568012 Trophic mode/  
 Guild: fossil Fungi



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7095. *Monoporisporites annulatus*** Hammen IF No: 334446 Trophic mode/  
 Guild: fossil Fungi



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7096. *Monoporisporites buerglii*** Hammen IF No: 334447 Trophic mode/  
 Guild: fossil Fungi



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7097. *Monoporisporites grandis*** Hammen IF No: 334449 Trophic mode/  
 Guild: fossil Fungi



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7098. *Monoporisporites minutus*** Hammen IF No: 334450 Trophic mode/  
 Guild: fossil Fungi



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7099. *Multicellaesporites cerrejonensis*** Doub. & D. Pons IF No: 485250



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7100. *Pluricellaesporites erdtmani*** Hammen IF No: 337279 Trophic mode/  
 Guild: fossil Fungi



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7101. *Pluricellaesporites filiformis*** Hammen IF No: 337280 Trophic mode/  
 Guild: fossil Fungi



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7102. *Pluricellaesporites krausei*** Hammen IF No: 337282 Trophic mode/  
 Guild: fossil Fungi



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7103. *Pluricellaesporites minutigranulatus*** Hammen IF No: 337283 Trophic mode/  
 Guild: fossil Fungi



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7104. *Pluricellaesporites typicus*** Hammen IF No: 337287 Trophic mode/  
 Guild: fossil Fungi



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7105. *Polyadosporites firbasii*** Hammen IF No: 337454 Trophic mode/  
 Guild: fossil Fungi



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7106. *Polyadosporites garciabarrigae*** Hammen IF No: 337455 Trophic mode/  
 Guild: fossil Fungi



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7107. *Polyadosporites suecaae*** Hammen IF No: 337456 Trophic mode/  
 Guild: fossil Fungi



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7108. *Polytrichosporites elongatus*** Hammen IF No: 337477 Trophic mode/  
 Guild: fossil Fungi



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7109. *Spirotremesporites duenasii*** Elsik IF No: 130384 Trophic mode/  
 Guild: fossil Fungi



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7110. *Spirotremesporites ecuatorialis*** Dueñas IF No: 112635 Trophic mode/  
 Guild: fossil Fungi



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7111. *Spirotremesporites multiplex*** Dueñas IF No: 112636 Trophic mode/  
 Guild: fossil Fungi














































Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7112. *Spirotremesporites simplex*** Dueñas IF No: 112637 Trophic mode/  
 Guild: fossil Fungi



Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis  
**7113. *Striadosporites constrictus*** Dueñas IF No: 112047 Trophic mode/  
 Guild: fossil Fungi



CHECKLIST OF FUNGI OF COLOMBIA

	Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis 7114. <i>Striodyadosporites elongatus</i> Dueñas IF No: 112651 Trophic mode/ Guild: fossil Fungi		Fungi, Fossil Fungi, Incertae sedis, Incertae sedis, Incertae sedis, Incertae sedis 7115. <i>Triporosporites minutus</i> Hammen IF No: 340461 Trophic mode/Guild: fossil Fungi		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Clastodermatida, Clastodermatidae 7116. <i>Clastoderma debaryanum</i> A. Blytt IF No: 248890
	Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Echinostellida, Echinostellidae 7117. <i>Echinostellum minutum</i> de Bary IF No: 184024		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7118. <i>Badhamia capsulifera</i> (Bull.) Berk. IF No: 244059		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7119. <i>Badhamia cinerascens</i> G.W. Martin IF No: 260781
	Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7120. <i>Craterium aureum</i> (Schumach.) Rostaf. IF No: 181399		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7121. <i>Craterium concinnum</i> Rex IF No: 181471		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7122. <i>Craterium leucocephalum</i> (Pers.) Ditmar IF No: 192765
	Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7123. <i>Craterium minutum</i> (Leers) Fr. IF No: 182597		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7124. <i>Craterium paraguayense</i> (Speg.) G. Lister IF No: 502082		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7125. <i>Fulligo septica</i> (L.) F.H. Wigg. IF No: 149977
	Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7126. <i>Leocarporum fragilis</i> (Dicks.) Rostaf. IF No: 207070		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7127. <i>Physarella oblonga</i> (Berk. & M.A. Curtis) Morgan IF No: 178631		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7128. <i>Physarum bitectum</i> G. Lister IF No: 434174
	Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7129. <i>Physarum bivalve</i> Pers. IF No: 162941		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7130. <i>Physarum bogorlense</i> Racib. IF No: 162327		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7131. <i>Physarum brunneolum</i> (W. Phillips) Massee IF No: 415210
	Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7132. <i>Physarum cinereum</i> (Batsch) Pers. IF No: 166471		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7133. <i>Physarum citrinum</i> Schumach. IF No: 215457		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7134. <i>Physarum compressum</i> Alb. & Schwein. IF No: 261574
	Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7135. <i>Physarum dictyosporum</i> G.W. Martin IF No: 336966		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7136. <i>Physarum dldermoides</i> (Ach. ex Pers.) Rostaf. IF No: 203302		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7137. <i>Physarum echinosporum</i> Lister IF No: 210888
	Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7138. <i>Physarum flavicomum</i> Berk. IF No: 208360		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7139. <i>Physarum fulgens</i> Pat. IF No: 208313		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7140. <i>Physarum galbeum</i> Wingate IF No: 214775
	Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7141. <i>Physarum globuliferum</i> (Bull.) Pers. IF No: 204726		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7142. <i>Physarum gyrosom</i> Rostaf. IF No: 215806		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7143. <i>Physarum javanicum</i> Racib. IF No: 434172
	Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7144. <i>Physarum leucopus</i> Link IF No: 208156		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7145. <i>Physarum melleum</i> (Berk. & Broome) Massee IF No: 216143		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7146. <i>Physarum notabile</i> T. Macbr. IF No: 320453
	Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7147. <i>Physarum nutans</i> Pers. IF No: 222855		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7148. <i>Physarum oblatum</i> T. Macbr. IF No: 232879		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7149. <i>Physarum ovisporum</i> G. Lister IF No: 273170
	Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7150. <i>Physarum psittacinum</i> Ditmar IF No: 247841		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7151. <i>Physarum pusillum</i> (Berk. & M.A. Curtis) G. Lister IF No: 121249		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7152. <i>Physarum roseum</i> Berk. & Broome IF No: 243061
	Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7153. <i>Physarum sessile</i> Brändzä IF No: 278006		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7154. <i>Physarum stellatum</i> (Massee) G.W. Martin IF No: 289681		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7155. <i>Physarum tenerum</i> Rex IF No: 246629
	Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7156. <i>Physarum vemum</i> Sommerf. IF No: 146303		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Physarida, Physaridae 7157. <i>Physarum viride</i> (Bull.) Pers. IF No: 239928		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Columellinia, Stemonitida, Amaurochaetidae 7158. <i>Comatricha elegans</i> (Racib.) G. Lister IF No: 120382

## CHECKLIST OF FUNGI OF COLOMBIA



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Columellinia, Stemonitida,  
Amaurochaetidae  
7159. *Comatricha laxa* Rostaf.  
IF No: 185323



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Columellinia, Stemonitida,  
Amaurochaetidae  
7160. *Comatricha lurida* G. Lister  
IF No: 191246



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Columellinia, Stemonitida,  
Amaurochaetidae  
7161. *Comatricha pulchella* (C. Bab.)  
Rostaf. IF No: 205427



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Columellinia, Stemonitida,  
Amaurochaetidae  
7162. *Comatricha tenerrima* (M.A. Curtis)  
G. Lister  
IF No: 279965



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Columellinia, Stemonitida,  
Amaurochaetidae  
7163. *Comatricha typhoides* (Bull.) Rostaf.  
IF No: 119605



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Columellinia, Stemonitida,  
Lamprodermatidae  
7164. *Collaria elegans* (Racib.) Dhillon &  
Nann.-Bremek. ex Ing  
IF No: 474908



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Columellinia, Stemonitida,  
Lamprodermatidae  
7165. *Collaria lurida* (G. Lister) Nann.-  
Bremek. IF No: 311477



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Columellinia, Stemonitida,  
Lamprodermatidae  
7166. *Lamproderma muscorum* (Lév.)  
Hagelst. IF No: 316328



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Columellinia, Stemonitida,  
Lamprodermatidae  
7167. *Lamproderma scintillans* (Berk. &  
Broome) Morgan IF No: 121369



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Columellinia, Stemonitida,  
Lamprodermatidae  
7168. *Lamproderma tuberculosporum*  
M.L. Farr  
IF No: 332956



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Columellinia, Stemonitida,  
Stemonitidae  
7169. *Stemonitis axifera* (Bull.) T. Macbr.  
IF No: 119956



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Columellinia, Stemonitida,  
Stemonitidae  
7170. *Stemonitis axifera* var. *smithii* (T.  
Macbr.) Hagelst.  
IF No: 353191



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Columellinia, Stemonitida,  
Stemonitidae  
7171. *Stemonitis fusca* Roth  
IF No: 240909



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Columellinia, Stemonitida,  
Stemonitidae  
7172. *Stemonitis herbaticea* Peck  
IF No: 234635



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Columellinia, Stemonitida,  
Stemonitidae  
7173. *Stemonitis splendens* Rostaf.  
IF No: 230930



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Columellinia, Incertae sedis,  
Incertae sedis  
7174. *Diachea bulbilosa* (Berk. & Broome)  
Lister IF No: 118786



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Columellinia, Incertae sedis,  
Incertae sedis  
7175. *Diachea leucopodia* (Bull.) Rostaf.  
IF No: 582745



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Luclisporinia, Cribarilida,  
Cribarilidae  
7176. *Cribarila cancellata* (Batsch) Nann.-  
Bremek.  
IF No: 312279



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Luclisporinia, Cribarilida,  
Cribarilidae  
7177. *Cribarila intricata* Schrad.  
IF No: 148753



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Luclisporinia, Cribarilida,  
Cribarilidae  
7178. *Cribarila macrocarpa* Schrad.  
IF No: 148143



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Luclisporinia, Cribarilida,  
Cribarilidae  
7179. *Cribarila microcarpa* (Schrad.) Pers.  
IF No: 148498



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Luclisporinia, Cribarilida,  
Cribarilidae  
7180. *Cribarila tenella* Schrad.  
IF No: 242959



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Luclisporinia, Trichilida,  
Dianematidae  
7181. *Dicyclaethallium plumbeum*  
(Schumach.) Rostaf. ex Lister  
IF No: 119378



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Luclisporinia, Trichilida,  
Dianematidae  
7182. *Prototrichia metallica* (Berk.)  
Massee IF No: 164583



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Luclisporinia, Trichilida,  
Trichilidae  
7183. *Arcyria cinerea* (Bull.) Pers.  
IF No: 174952



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Luclisporinia, Trichilida,  
Trichilidae  
7184. *Arcyria denudata* (L.) Wettst.  
IF No: 120316



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Luclisporinia, Trichilida,  
Trichilidae  
7185. *Arcyria globosa* Schwein.  
IF No: 162259



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Luclisporinia, Trichilida,  
Trichilidae  
7186. *Arcyria incarnata* (Pers.) Pers.  
IF No: 162394



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Luclisporinia, Trichilida,  
Trichilidae  
7187. *Arcyria insignis* Kalchbr. & Cooke  
IF No: 162948



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Luclisporinia, Trichilida,  
Trichilidae  
7188. *Arcyria lelocarpa* Massee  
IF No: 531555



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Luclisporinia, Trichilida,  
Trichilidae  
7189. *Arcyria obvelata* (Oeder) Onsberg  
IF No: 308918



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Luclisporinia, Trichilida,  
Trichilidae  
7190. *Arcyria pomiformis* (Leers) Rostaf.  
IF No: 145668



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Luclisporinia, Trichilida,  
Trichilidae  
7191. *Arcyria stipitata* (Schwein.) Lister  
IF No: 184737



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Luclisporinia, Trichilida,  
Trichilidae  
7192. *Hemitrichia calyculata* (Speg.) M.L.  
Farr IF No: 315117



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Luclisporinia, Trichilida,  
Trichilidae  
7193. *Hemitrichia clavata* (Pers.) Rostaf.  
IF No: 122205



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Luclisporinia, Trichilida,  
Trichilidae  
7194. *Hemitrichia pardina* (Minakata) Ing  
IF No: 450504



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Luclisporinia, Trichilida,  
Trichilidae  
7195. *Hemitrichia serpulata* (Scop.) Rostaf.  
IF No: 179218



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Luclisporinia, Trichilida,  
Trichilidae  
7196. *Hemitrichia spinifera* M.L. Farr  
IF No: 315119



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Luclisporinia, Trichilida,  
Trichilidae  
7197. *Metatrichia floriformis* (Schwein.)  
Nann.-Bremek.  
IF No: 107414



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Luclisporinia, Trichilida,  
Trichilidae  
7198. *Perichaena chrysoesperma* (Curr.)  
Lister IF No: 118849



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Luclisporinia, Trichilida,  
Trichilidae  
7199. *Perichaena depressa* Lib.  
IF No: 149011



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Luclisporinia, Trichilida,  
Trichilidae  
7200. *Trichia declivens* (Pers.) T. Macbr.  
IF No: 164198 Trophic mode/Guild:  
saprotroph/soil saprotroph



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Luclisporinia, Trichilida,  
Trichilidae  
7201. *Trichia scabra* Rostaf.  
IF No: 180329







































Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Luclisporinia, Trichilida,  
Trichilidae  
7202. *Trichia verrucosa* Berk.  
IF No: 207953



Protozoa, Amoebozoa, Mycetozoa,  
Myxogastrea, Myxogastria, Liceidae,  
Liceidae  
7203. *Licea biforis* Morgan  
IF No: 174441



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	Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Myxogastria, Licelidae, Licelidae 7204, <a href="#">Licsea mlnima</a> Fr. IF No: 156944		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Myxogastria, Licelidae, Licelidae 7205, <a href="#">Licsea pusilla</a> Schrad. IF No: 168854		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Myxogastria, Licelidae, Reticularidae 7206, <a href="#">Lycogala epidendrum</a> (J.C. Buxb. ex L.) Fr. IF No: 205910
	Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Myxogastria, Licelidae, Reticularidae 7207, <a href="#">Lycogala exiguum</a> Morgan IF No: 212013		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Myxogastria, Licelidae, Reticularidae 7208, <a href="#">Reticularia lycoperdon</a> Bull. IF No: 189393		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Myxogastria, Licelidae, Reticularidae 7209, <a href="#">Tubifera microsperma</a> (Berk. & M.A. Curtis) G.W. Martin IF No: 291645
	Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Myxogastria, Stemonitida, Didymilidae 7210, <a href="#">Diderma effusum</a> (Schwein.) Morgan IF No: 212838		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Myxogastria, Stemonitida, Didymilidae 7211, <a href="#">Diderma hemisphaericum</a> (Bull.) Hornem. IF No: 120603		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Myxogastria, Stemonitida, Didymilidae 7212, <a href="#">Diderma nveum</a> (Rostaf.) T. Macbr. IF No: 356594
	Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Myxogastria, Stemonitida, Didymilidae 7213, <a href="#">Diderma radlatum</a> (L.) Morgan IF No: 206927		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Myxogastria, Stemonitida, Didymilidae 7214, <a href="#">Didymium anellus</a> Morgan IF No: 154289		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Myxogastria, Stemonitida, Didymilidae 7215, <a href="#">Didymium bahense</a> Gottsb. IF No: 329953
	Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Myxogastria, Stemonitida, Didymilidae 7216, <a href="#">Didymium clavus</a> (Alb. & Schwein.) Rabenh. IF No: 160185		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Myxogastria, Stemonitida, Didymilidae 7217, <a href="#">Didymium difforme</a> (Pers.) Gray IF No: 176195		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Myxogastria, Stemonitida, Didymilidae 7218, <a href="#">Didymium dubium</a> Rostaf. IF No: 154052
	Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Myxogastria, Stemonitida, Didymilidae 7219, <a href="#">Didymium intermedium</a> J. Schröt. IF No: 156976		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Myxogastria, Stemonitida, Didymilidae 7220, <a href="#">Didymium iridis</a> (Ditmar) Fr. IF No: 157402		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Myxogastria, Stemonitida, Didymilidae 7221, <a href="#">Didymium leoninum</a> Berk. & Broome IF No: 157750
	Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Myxogastria, Stemonitida, Didymilidae 7222, <a href="#">Didymium minus</a> (Lister) Morgan IF No: 250167		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Myxogastria, Stemonitida, Didymilidae 7223, <a href="#">Didymium nigripes</a> (Link) Fr. IF No: 242247		Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Myxogastria, Stemonitida, Didymilidae 7224, <a href="#">Didymium squamulosum</a> (Alb. & Schwein.) Fr. IF No: 181562
	Protozoa, Amoebozoa, Mycetozoa, Myxogastrea, Myxogastria, Stemonitida, Didymilidae 7225, <a href="#">Didymium verrucosporum</a> A.L. Welden IF No: 544182		Protozoa, Amoebozoa, Mycetozoa, Protostelea, Ceratiomyxeta, Protostelida, Ceratiomyxidae 7226, <a href="#">Ceratiomyxa fruticulosa</a> (O.F. Müll.) T. Macbr. IF No: 232106		Protozoa, Amoebozoa, Mycetozoa, Protostelea, Ceratiomyxeta, Protostelida, Ceratiomyxidae 7227, <a href="#">Ceratiomyxa sphaerosperma</a> Boedijn IF No: 232207
	Chromista, Cercozoa, Endomyxa, Phytomyxea, Incertae sedis, Plasmodiophorida, Plasmodiophoridae 7228, <a href="#">Plasmodiophora brassicae</a> Woronin IF No: 214750		Chromista, Cercozoa, Endomyxa, Phytomyxea, Incertae sedis, Plasmodiophorida, Plasmodiophoridae 7229, <a href="#">Polymyxa graminis</a> Ledingham IF No: 266382		Chromista, Cercozoa, Endomyxa, Phytomyxea, Incertae sedis, Plasmodiophorida, Plasmodiophoridae 7230, <a href="#">Polymyxa graminis f.sp. colombiana</a> Legréve, Delfosse & Maraité IF No: 484573
	Chromista, Oomycota, Incertae sedis, Peronosporae, Albuginidae, Albuginales, Albuginaceae 7231, <a href="#">Albugo candida</a> (Pers. ex J.F. Gmel.) Roussel IF No: 122113 Trophic mode/ Guild: pathotroph/plant pathogen		Chromista, Oomycota, Incertae sedis, Peronosporae, Albuginidae, Albuginales, Albuginaceae 7232, <a href="#">Albugo chardonnii</a> W. Weston IF No: 534448 Trophic mode/Guild: pathotroph /plant pathogen		Chromista, Oomycota, Incertae sedis, Peronosporae, Albuginidae, Albuginales, Albuginaceae 7233, <a href="#">Albugo ipomoeae-panduratae</a> (Schwein.) Swingle IF No: 120694 Trophic mode/ Guild: pathotroph/plant pathogen
	Chromista, Oomycota, Incertae sedis, Peronosporae, Albuginidae, Albuginales, Albuginaceae 7234, <a href="#">Pustula tragopogonis</a> (Pers.) Thines IF No: 346454		Chromista, Oomycota, Incertae sedis, Peronosporae, Albuginidae, Albuginales, Albuginaceae 7235, <a href="#">Wilsoniana bitli</a> (Biv.) Thines IF No: 345130		Chromista, Oomycota, Incertae sedis, Peronosporae, Albuginidae, Albuginales, Albuginaceae 7236, <a href="#">Wilsoniana platensis</a> (Speg.) Thines IF No: 345146
	Chromista, Oomycota, Incertae sedis, Peronosporae, Albuginidae, Albuginales, Albuginaceae 7237, <a href="#">Wilsoniana portulacae</a> (DC.) Thines IF No: 345084		Chromista, Oomycota, Incertae sedis, Peronosporae, Peronosporidae, Peronosporales, Peronosporaceae 7238, <a href="#">Halophytophthora vesicula</a> (Anastasiou & Churchl.) H.H. Ho & S.C. Jong IF No: 126021		Chromista, Oomycota, Incertae sedis, Peronosporae, Peronosporidae, Peronosporales, Peronosporaceae 7239, <a href="#">Peronosclerospora sorghi</a> (W. Weston & Uppal) C.G. Shaw IF No: 319377
	Chromista, Oomycota, Incertae sedis, Peronosporae, Peronosporidae, Peronosporales, Peronosporaceae 7240, <a href="#">Peronospora dianthicola</a> R. Heim IF No: 508269		Chromista, Oomycota, Incertae sedis, Peronosporae, Peronosporidae, Peronosporales, Peronosporaceae 7241, <a href="#">Peronospora farnosa</a> (Fr.) Fr. IF No: 232886		Chromista, Oomycota, Incertae sedis, Peronosporae, Peronosporidae, Peronosporales, Peronosporaceae 7242, <a href="#">Peronospora sparsa</a> Berk. IF No: 143418
	Chromista, Oomycota, Incertae sedis, Peronosporae, Peronosporidae, Peronosporales, Peronosporaceae 7243, <a href="#">Phytophthora betaceae</a> M.F. Mideros, L.E. Lagos & S. Restrepo IF No: 815748		Chromista, Oomycota, Incertae sedis, Peronosporae, Peronosporidae, Peronosporales, Peronosporaceae 7244, <a href="#">Phytophthora cactorum</a> (Lebert & Cohn) J. Schröt. IF No: 199322		Chromista, Oomycota, Incertae sedis, Peronosporae, Peronosporidae, Peronosporales, Peronosporaceae 7245, <a href="#">Phytophthora cinnamomi</a> Rands IF No: 260884
	Chromista, Oomycota, Incertae sedis, Peronosporae, Peronosporidae, Peronosporales, Peronosporaceae 7246, <a href="#">Phytophthora citricola</a> Sawada IF No: 260970		Chromista, Oomycota, Incertae sedis, Peronosporae, Peronosporidae, Peronosporales, Peronosporaceae 7247, <a href="#">Phytophthora drechsleri</a> Tucker IF No: 251892		Chromista, Oomycota, Incertae sedis, Peronosporae, Peronosporidae, Peronosporales, Peronosporaceae 7248, <a href="#">Phytophthora infestans</a> (Mont.) de Bary IF No: 232148

CHECKLIST OF FUNGI OF COLOMBIA



Chromista, Oomycota, Incertae sedis,  
Peronosporales, Peronosporaceae  
7249. *Phytophthora nicotianae* Breda de  
Haan IF No: 194443



Chromista, Oomycota, Incertae sedis,  
Peronosporales, Peronosporaceae  
7252. *Plasmopara boreriae* (Lagerh.)  
Constant. IF No: 354627



Chromista, Oomycota, Incertae sedis,  
Peronosporales, Pythiaceae  
7255. *Globisporangium sylvaticum* (W.A.  
Campb. & F.F. Hendrix) Uzuhashi, Tojo &  
Kakish. IF No: 517636



Chromista, Oomycota, Incertae sedis,  
Peronosporales, Pythiaceae  
7258. *Pythium graminicola* Subraman. IF  
No: 119045 Trophic mode/Guild:  
pathotrophy/plant pathogen



Chromista, Oomycota, Incertae sedis,  
Peronosporales, Salspinaceae  
7261. *Salspina spinosa* (Fell & Master)  
Marano, A.L. Jesus & Pires-Zottar.  
IF No: 551604



Chromista, Oomycota, Incertae sedis,  
Peronosporales, Peronosporaceae  
7250. *Phytophthora palmivora* (E.J. Butler)  
E.J. Butler IF No: 194605



Chromista, Oomycota, Incertae sedis,  
Peronosporales, Peronosporaceae  
7253. *Plasmopara viticola* (Berk. & M.A.  
Curtis) Berl. & De Toni IF No: 208592



Chromista, Oomycota, Incertae sedis,  
Peronosporales, Pythiaceae  
7256. *Lagenidium giganteum* Couch ex  
Redhead  
IF No: 551798



Chromista, Oomycota, Incertae sedis,  
Peronosporales, Pythiaceae  
7259. *Pythium insidiosum* De Cock, L.  
Mend., A.A. Padhye, Ajello & Kaufman IF  
No: 130421 Trophic mode/Guild:  
pathotrophy/plant pathogen



Chromista, Oomycota, Incertae sedis,  
Peronosporales, Peronosporaceae  
7251. *Phytophthora solae* Kaufm. & Gerd.  
IF No: 303624



Chromista, Oomycota, Incertae sedis,  
Peronosporales, Pythiaceae  
7254. *Globisporangium splendens* (Hans  
Braun) Uzuhashi, Tojo & Kakish.  
IF No: 517635



Chromista, Oomycota, Incertae sedis,  
Peronosporales, Pythiaceae  
7257. *Pythium arthenomanes* Drechsler IF  
No: 162965 Trophic mode/Guild:  
pathotrophy/plant pathogen



Chromista, Oomycota, Incertae sedis,  
Peronosporales, Pythiaceae  
7260. *Pythium myrtilinum* Drechsler IF No:  
271965 Trophic mode/Guild: pathotrophy/  
plant pathogen





*Trametes polyzona*  
[Ana Cristina Bolaños]





*Cortinarius violaceus*  
[Natalia Vargas-Estupiñan]



# Laminae

## Selected species of Colombian fungi



*Agonimia foliacea* Robert Lücking



*Akanthomyces tuberculatus* Tatiana Sanjuan



*Allographa angustata* Robert Lücking



*Allophoron farinosum* Robert Lücking



*Alternaria alternata* Álvaro Rúa



*Annulohyphoxylon thouarsianum* Nataly Gómez-Montoya



*Anzia parasitica* Robert Lücking



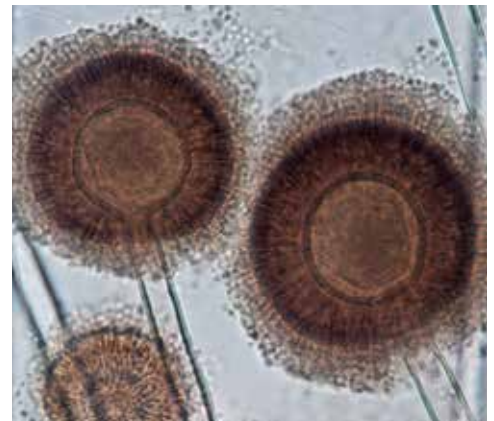
*Aspergillus section Fumigati* Álvaro Rúa



*Aspergillus section Fumigati* Álvaro Rúa



*Ascopolyporus polychrous* Aida Marcela Vasco-Palacios



*Aspergillus section Nigri* Álvaro Rúa

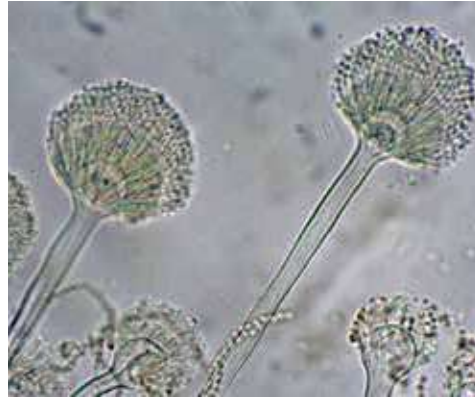


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*Aspergillus section Nigri*

Álvaro Rúa



*Aspergillus section Terrei*

Álvaro Rúa



*Aspergillus section Terrei*

Álvaro Rúa



*Auricularia byssomorpha*

Robert Lücking



*Baeomyces rufus*

Robert Lücking



*Bathelium madreporiforme*

Robert Lücking



*Beauveria locustiphila*

Tatiana Sanjuan



*Blackwellomyces sp.*

Tatiana Sanjuan



*Brigantiaea leucoxantha*

Robert Lücking



*Bunodophoron melanocarpum*

Robert Lücking



*Byssoloma subdiscordans*

Robert Lücking



*Caloplaca brebissonii*

Robert Lücking



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*Chlorociboria aeruginosa*

Robert Lücking



*Cladia aggregata*

Robert Lücking



*Cladonia confusa*

Robert Lücking



*Cladonia grayi*

Robert Lücking



*Cladonia secundana*

Robert Lücking



*Coccocarpia pellita*

Robert Lücking



*Cookeina sulcipes*

Aida Marcela Vasco-Palacios



*Cookeina tricholoma*

Viviana Motato-Vásquez



*Cordyceps nidus*

Robert Lücking



*Crocodia aurata*

Robert Lücking

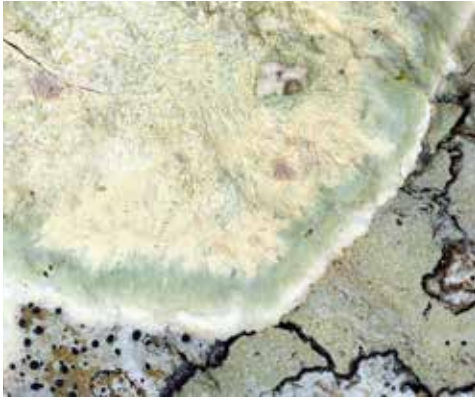


*Cresponea melanocheiloides*

Robert Lücking



ASCOMYCOTA



*Cryptothecia striata*

Robert Lücking



*Curvularia* sp.

Álvaro Rúa



*Dibaeis columbiana*

Robert Lücking



*Diorygma poitaei*

Robert Lücking



*Dyplolabia afzelii*

Robert Lücking



*Enchylum conglomeratum*

Robert Lücking



*Entonaema cinnabarinum*

Nataly Gómez-Montoya



*Erioderma divisum*

Robert Lücking



*Exophiala jeanselmei*

Álvaro Rúa



*Fusarium oxysporum*

Álvaro Rúa



*Fusarium oxysporum*

Álvaro Rúa



*Glyphis scyphulifera*

Robert Lücking



ASCOMYCOTA



*Graphis dolichographa*

Robert Lücking



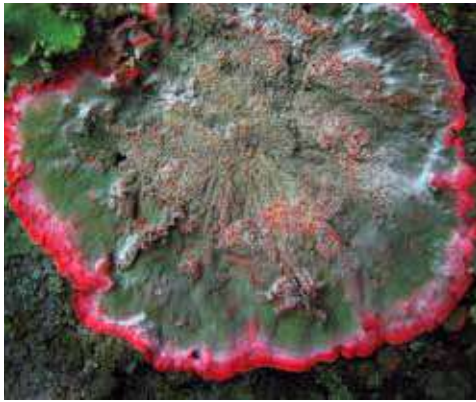
*Gyalidea hyalinescens*

Robert Lücking



*Helminthocarpon leprevostii*

Robert Lücking



*Herpothallon rubrocinctum*

Robert Lücking



*Heterodermia comosa*

Robert Lücking



*Hypoxylon rubiginosum*

Nataly Gómez-Montoya



*Hortaea werneckii*

Álvaro Rúa



*Icmadophila aversa*

Robert Lücking



*Leotia lubrica*

Aida Marcela Vasco-Palacios



*Hortaea werneckii*

Álvaro Rúa



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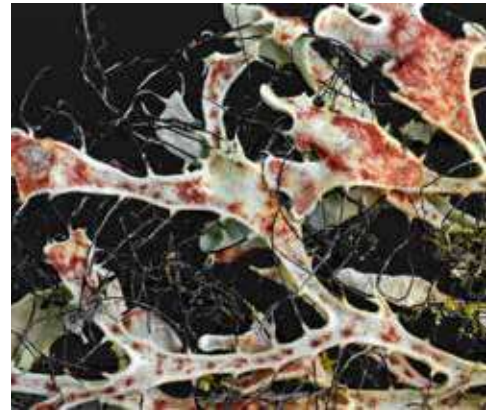
*Leptogidium dendriscum*

Robert Lücking



*Leptogium phyllocarpum*

Robert Lücking



*Leucodermia vulgaris*

Robert Lücking



*Lobariella sipmanii*

Robert Lücking



*Lopezaria versicolor*

Robert Lücking



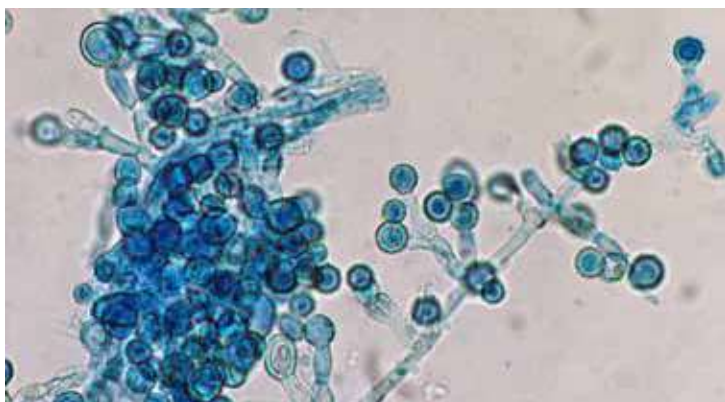
*Malmographina plicosa*

Robert Lücking



*Marcelaria purpurina*

Robert Lücking



*Microascus brevicaulis*

Álvaro Rúa

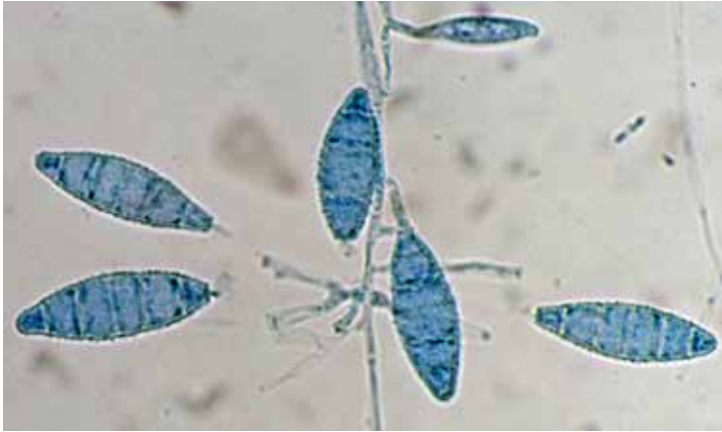


*Microascus brevicaulis*

Álvaro Rúa



ASCOMYCOTA



*Microsporium gypseum*

Álvaro Rúa



*Microsporium gypseum*

Álvaro Rúa



*Morchella* sp.

Tatiana Sanjuan



*Neoscytalidium dimidiatum*

Álvaro Rúa



*Neoscytalidium dimidiatum*

Álvaro Rúa



*Ophiocordyceps australis*

Tatiana Sanjuan



*Nigrovothelium tropicum*

Robert Lücking



*Normandina pulchella*

Robert Lücking



*Ophiocordyceps fulgoromorphila*

Kent Brothers



*Oropogon loxensis*

Robert Lücking



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*Paecilomyces variotti*



*Paecilomyces variotti*

Álvaro Rúa



*Pannaria andina*

Robert Lücking



*Pannaria rubiginosa*

Robert Lücking



*Parainoa subconcolor*

Robert Lücking



*Parmotrema cetratum*

Robert Lücking



*Peltigera dolichorrhiza*

Robert Lücking



*Peltigera vainioi*

Robert Lücking



*Penicillium* sp.

Álvaro Rúa

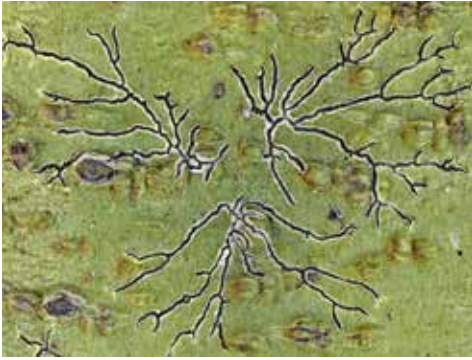


*Penicillium* sp.

Álvaro Rúa



ASCOMYCOTA



*Phaeographis galeanoae*

Robert Lücking



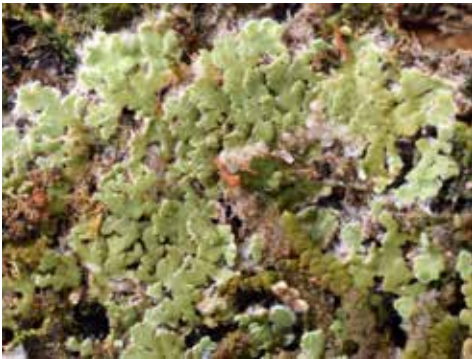
*Phillipsia domingensis*

Ana Esperanza Franco-Molano



*Phyllobaeis imbricata*

Robert Lücking



*Phyllopsora breviscula*

Robert Lücking



*Phyllopsora pyxinoidea*

Robert Lücking



*Placopsis rhodocarpa*

Álvaro Rúa



*Placopsis roivainenii*

Álvaro Rúa



*Polycauliona candelaria*

Robert Lücking



*Porpidia macrocarpa*

Álvaro Rúa



*Pseudochapsa subdactylifera*

Álvaro Rúa



*Pseudocyphellaria sandwicensis*

Robert Lücking



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*Psoroma hypnorum*

Robert Lüicking



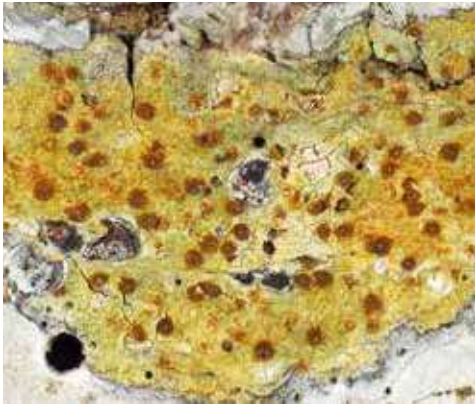
*Punctelia stictica*

Robert Lüicking



*Pyrenula astroidea*

Robert Lüicking



*Pyrenula ochraceoflava*

Robert Lüicking



*Pyxine coccifera*

Robert Lüicking



*Ramalina celastri*

Robert Lüicking



*Ramboldia russula*

Robert Lüicking



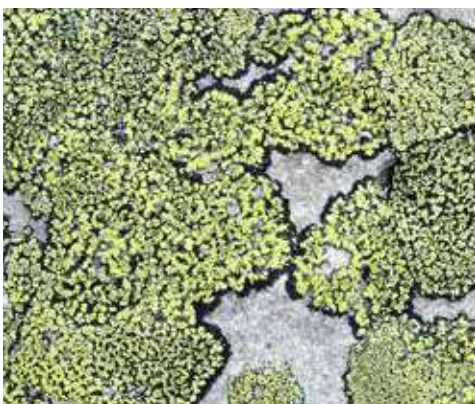
*Rhabdodiscus anamorphoides*

Robert Lüicking



*Rhizina undulata*

Nataly Gómez-Montoya



*Rhizocarpon geographicum*

Robert Lüicking



*Rusavskia elegans*

Robert Lüicking



*Sarcographa cinchonarum*

Robert Lüicking



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*Scutellinia scutellata*

Nataly Gómez-Montoya



*Siphula decumbens*

Robert Lüicking



*Stereocaulon novogranatense*

Robert Lüicking



*Stereocaulon ramulosum*

Robert Lüicking



*Sticta dilatata*

Robert Lüicking



*Sticta macrofuliginosa*

Robert Lüicking



*Sticta peltigerella*

Robert Lüicking



*Stigmatochroma metaleptoides*

Robert Lüicking



*Strigula smaragdula*

Robert Lüicking



*Tephromela atra*

Robert Lüicking





*Thamnolia vermicularis*

Bibiana Moncada



*Trypethelium eluteriae*

Robert Lücking



*Tylophoron moderatum*

Robert Lücking



*Tolypocladium capitatum*

Robert Lücking



*Umbilicaria polyphylla*

Robert Lücking



*Usnea amabilis*

Robert Lücking



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*Usnea baileyi*

Robert Lücking



*Xanthoparmelia taractica*

Robert Lücking



*Xanthoparmelia taractica*

Nataly Gómez-Montoya



*Xylaria curta*

Nataly Gómez-Montoya



*Xylaria multiplex*

Robert Lücking



*Xylaria polymorpha*

Nataly Gómez-Montoya



*Yoshimuriella subdissecta*

Robert Lücking



*Yoshimuriella subdissecta*

Robert Lücking



BASIDIOMYCOTA



*Amanita citrina*

Natalia Vargas Estupiñan



*Amanita colombiana*

Natalia Vargas Estupiñan



*Amanita colombiana*

Natalia Vargas Estupiñan



*Amanita fulgineodisca*

Nataly Gómez-Montoya



*Amanita flavoconia*

Nataly Gómez-Montoya



*Amanita flavoconia*

Natalia Vargas Estupiñan



*Amanita rubescens*

Aida Marcela Vasco-Palacios



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*Amanita virosa*

Natalia Vargas Estupiñan



*Amanita xerocybe*

Aida Marcela Vasco-Palacios



*Amanita xylinivola*

Natalia Vargas Estupiñan



*Aquascypha hydrophora*

Aida Marcela Vasco-Palacios



*Aseroe rubra*

Nataly Gómez-Montoya



*Auricularia auricula-judae*

Martha L. Ortiz-Moreno



*Auricularia delicata*

Robert Lücking



*Auricularia fuscosuccinea*

Ana Esperanza Franco-Molano



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*Auricularia mesenterica*

Ana Cristina Bolaños



*Auricularia mesenterica*

Aida Marcela Vasco-Palacios



*Auricularia polytricha*

Ana Cristina Bolaños



*Austropuccinia psidii*

Mauricio Salazar



*Blumenavia angolensis*

Nataly Gómez-Montoya



*Boletinellus exiguus*

Nataly Gómez-Montoya



*Calvatia cyathiformis*

Nataly Gómez-Montoya



*Calostoma cinnabarinum*

Natalia Vargas Estupiñan



*Calostoma cinnabarinum*

Bibiana Moncada



*Cantharellus coccolobae*

Aida Marcela Vasco-Palacios



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*Campanella caesia*

Robert Lücking



*Cerioporus flavus*

Nataly Gómez-Montoya



*Cerioporus scutellatus*

Robert Lücking



*Chlorophyllum molybdites*

Ana Esperanza Franco-Molano



*Clathrus archeri*

Ana Esperanza Franco-Molano



*Clavariachaete rubiginosa*

Nataly Gómez-Montoya



*Clavulina kunmudlutsa*

Aida Marcela Vasco-Palacios



*Clavulinopsis fusiformis*

Nataly Gómez-Montoya



*Collybia plectophylla*

Ana Cristina Bolaños



*Collybia plectophylla*

Aida Marcela Vasco-Palacios



*Coltricia perennis*

Gineth Adriana Calderón



*Copinellus disseminatus*

Robert Lücking



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*Coprinellus micaceus* Gineth Adriana Calderón



*Cora accipiter* Robert Lücking



*Cora elephas* Robert Lücking



*Cora davidiana* Robert Lücking



*Cora viliewoa* Robert Lücking



*Corella zahlbruckneri* Robert Lücking



*Cortinarius aurantiobrunneus* Natalia Vargas Estupiñan



*Cortinarius iodes* Aida Marcela Vasco-Palacios



*Cortinarius violaceus* Natalia Vargas Estupiñan



*Cortinarius violaceus* Aida Marcela Vasco-Palacios



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*Cotylidia aurantica*

Aida Marcela Vasco-Palacios



*Craterellus boyacensis*

Tatiana Sanjuan



*Craterellus fallax*

Natalia Vargas Estupiñan



*Crepidotus appalachianensis*

Nataly Gómez-Montoya



*Crossospora byrsonimae*

Meike Piepenbring



*Craterellus fallax*

Aida Marcela Vasco-Palacios



*Cyanoboletus pulverulentus*

Nataly Gómez-Montoya



*Cyathus striatus*

Aida Marcela Vasco-Palacios



*Cymatoderma caperatum*

Nataly Gómez-Montoya



*Cyptotrama asprata*

Nataly Gómez-Montoya



*Cystiodontia laminifera*

Viviana Motato-Vásquez



*Dacrymyces lacrymalis*

Nataly Gómez-Montoya



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*Dacryopinax spathularia*

Kent Brothers



*Dictyonema sericeum*

Robert Lücking



*Earliella scabrosa*

Nataly Gómez-Montoya



*Entoloma incanum*

Nataly Gómez-Montoya



*Favulus brasiliensis*

Aida Marcela Vasco-Palacios



*Filobletus gracilis*

Nataly Gómez-Montoya



*Flavodon flavus*

Aida Marcela Vasco-Palacios



*Fistulinella campinaranae*  
var. *scrobiculata*

Aida Marcela Vasco-Palacios



*Flaviporus liebmannii*

Viviana Motato-Vásquez



*Flavodon flavus*

Aida Marcela Vasco-Palacios



*Fulvifomes inermis*

Nataly Gómez-Montoya



BASIDIOMYCOTA



*Fuscocerrena portoricensis* Viviana Motato-Vásquez



*Fuscoporia senex* Nataly Gómez-Montoya



*Fuscoporia wahlbergii* Nataly Gómez-Montoya



*Ganoderma australe* Ana Cristina Bolaños



*Ganoderma australe* Robert Lücking



*Fuscoporia wahlbergii* Nataly Gómez-Montoya



*Ganoderma multiplicatum* Ana Cristina Bolaños



*Geastrum fimbriatum* Nataly Gómez-Montoya



*Geastrum pectinatum* Aida Marcela Vasco-Palacios



*Geastrum saccatum* Nataly Gómez-Montoya



*Geastrum triplex* Nataly Gómez-Montoya



*Gloeocantharellus uitotanus* Aida Marcela Vasco-Palacios



BASIDIOMYCOTA



*Gliocephala quercetorum* Natalia Vargas Estupiñan



*Gymnopus* sp. Natalia Vargas Estupiñan



*Hericium erinaceus* Ana Esperanza Franco-Molano



*Hemileia vastatrix* Mauricio Salazar



*Hexagonia tenuis* Ana Cristina Bolaños



*Hohenbuehelia nigra* Nataly Gómez-Montoya



*Hydnodon thelephorus* Aida Marcela Vasco-Palacios



*Hydnopolyporus fimbriatus* Aida Marcela Vasco-Palacios



*Hydnopolyporus fimbriatus* Robert Lücking



BASIDIOMYCOTA



*Hydnum repandum*

Aida Marcela Vasco-Palacios



*Hydnum repandum*

Nataly Gómez-Montoya



*Hygrocybe conica* Ana Esperanza Franco-Molano



*Laccaria gomezii*

Nataly Gómez-Montoya



*Laccaria laccata*

Nataly Gómez-Montoya



*Lactarius gerardii*

Robert Lücking



*Lactarius gerardii*

Aida Marcela Vasco-Palacios



*Lactarius chrysorrheus*

Natalia Vargas Estupiñan



*Lactarius indigo*

Aida Marcela Vasco-Palacios



*Lactarius indigo*

Aida Marcela Vasco-Palacios



BASIDIOMYCOTA



*Lactifluus hallingii*

Robert Lücking



*Lactifluus hallingii*

Natalia Vargas Estupiñan



*Laetiporus sulphureus*

Ana Esperanza Franco-Molano



*Leccinum andinum*

Aida Marcela Vasco-Palacios



*Lentinula raphanica*

Aida Marcela Vasco-Palacios



*Lentinus tricholoma*

Nataly Gómez-Montoya



*Lentinus crinitus*

Nataly Gómez-Montoya



*Lepidostroma calocerum*

Robert Lücking



*Lepista nuda*

Aida Marcela Vasco-Palacios



*Leucoagaricus rubrotinctus*

Natalia Vargas Estupiñan



BASIDIOMYCOTA



*Leucocoprinus fragilissimus* Natalia Vargas Estupiñan



*Leucopaxillus gracillimus* Aida Marcela Vasco-Palacios



*Leucopholiota* sp. Natalia Vargas Estupiñan



*Lycoperdon* sp. Aida Marcela Vasco-Palacios



*Lycoperdon* sp. Natalia Vargas Estupiñan



*Macrocybe titans* Kent Brothers



*Macrolepiota colombiana* Ana Esperanza Franco-Molano



*Maramius cladophyllus* Nataly Gómez-Montoya



*Maramius rhabarbinus* Nataly Gómez-Montoya



*Mutinus caninus* Ana Cristina Bolaños



*Mycena alcalina* Natalia Vargas Estupiñan



*Mycena holoporphyra* Ana Esperanza Franco-Molano



BASIDIOMYCOTA



*Mycena pura* Natalia Vargas Estupiñan



*Mycena pura* Natalia Vargas Estupiñan



*Oudemansiella canarii*

Aida Marcela  
Vasco-Palacios



*Oudemansiella canarii*

Ana Cristina Bolaños



*Panaeolus semiovatus*

Ana Esperanza  
Franco-Molano



*Panaeolus sphinctrinus*

Ana Esperanza  
Franco-Molano



*Phaeoclavulina zippelii*

Aida Marcela  
Vasco-Palacios



*Phaeomarasmius* SP.

Natalia Vargas  
Estupiñan



*Phallus indusiatus*

Aida Marcela  
Vasco-Palacios



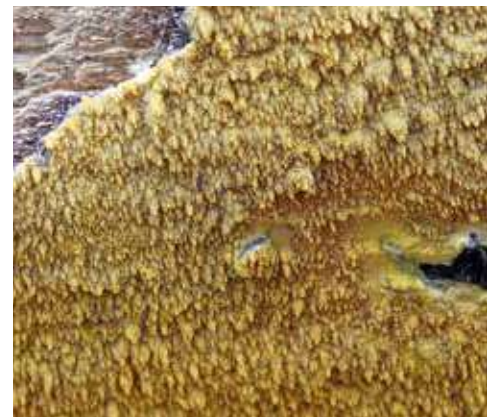
*Phanerochaete australis*

Viviana Motato-Vásquez



*Phellinus setulosus*

Nataly Gómez-Montoya



*Phlebia chrysocreas*

Viviana Motato-Vásquez



BASIDIOMYCOTA



*Phlebia radiata*

Viviana Motato-Vásquez



*Phlebiopsis crassa*

Aida Marcela Vasco-Palacios



*Phylloporus fibulatus*

Nataly Gómez-Montoya



*Pisolithus arhizus*

Nataly Gómez-Montoya



*Pleurotus djamor*

Ana Cristina Bolaños



*Pleurotus djamor*

Nataly Gómez-Montoya



*Pleurotus ostreatoroseus*

Ana Cristina Bolaños



*Pluteus nanus*

Nataly Gómez-Montoya



*Podaxis pistillaris*

Aida Marcela Vasco-Palacios



*Polyporus leprieurii*

Nataly Gómez-Montoya



BASIDIOMYCOTA



*Polyporus udus*

Kent Brothers



*Pseudohydnum gelatinosum*

Aida Marcela Vasco-Palacios



*Psilocybe cubensis*

Natalia Vargas Estupiñan



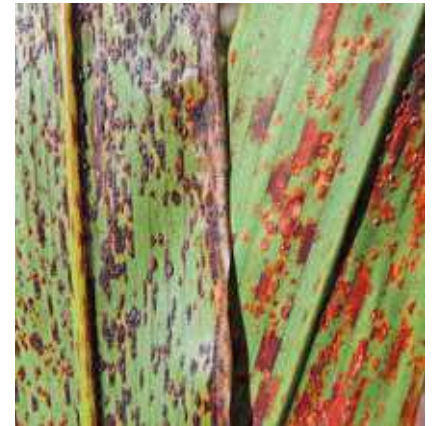
*Psilocybe cubensis*

Natalia Vargas Estupiñan



*Pycnoporus sanguineus*

Ana Cristina Bolaños



*Puccinia sorghi*

Meike Piepenbring



*Pycnoporus sanguineus*

Natalia Vargas Estupiñan



*Ramaria gracilis*

Nataly Gómez-Montoya



*Rhizochaete radicata*

Viviana Motato-Vásquez



*Rhodophana nitellina*

Nataly Gómez-Montoya



*Ramaria stricta*

Bibiana Moncada



BASIDIOMYCOTA



*Rigidoporus microporus*

Viviana Motato-Vásquez



*Russula emetica*

Nataly Gómez-Montoya



*Russula emetica*

Nataly Gómez-Montoya



*Sarcodon rufobrunneus*

Aida Marcela Vasco-Palacios



*Schizophyllum commune*

Natalia Vargas Estupiñan



*Schizophyllum commune*

Nataly Gómez-Montoya



*Scleroderma areolatum*

Nataly Gómez-Montoya



*Schizophyllum commune*

Robert Lücking



*Scleroderma flavidum*



Robert Lücking

*Stalgitomyces* sp.

Tatiana Sanjuan



*Stereopsis radicans*

Nataly Gómez-Montoya



BASIDIOMYCOTA



*Stereum complicatum*

Viviana Motato-Vásquez



*Stereum ostrea*

Robert Lücking



*Strobilomyces confusus*

Natalia Vargas Estupiñan



*Tetrapyrgos alba*

Nataly Gómez-Montoya



*Thelephora cf. palmata*

Aida Marcela Vasco-Palacios



*Trametes elegans*

Natalia Vargas Estupiñan



*Trametes pavonia*

Aida Marcela Vasco-Palacios



*Trametes polyzona*

Ana Cristina Bolaños



*Trametes versicolor*

Robert Lücking



*Trametes villosa*

Natalia Vargas Estupiñan



*Trametes villosa*

Nataly Gómez-Montoya



BASIDIOMYCOTA



*Tremella fuciformis*

Ana Cristina Bolaños



*Tremella mesenterica*

Aida Marcela Vasco-Palacios



*Tricholoma* sp.

Natalia Vargas Estupiñan



*Trogia papyracea*

Aida Marcela Vasco-Palacios



*Trogia papyracea*

Natalia Vargas Estupiñan



*Truncospora ochroleuca*

Nataly Gómez-Montoya



*Tylopilus obscurus*

Aida Marcela Vasco-Palacios



*Ustilago maydis*

Meike Piepenbring



*Volvariella bombycina*

Tatiana Sanjuan



*Xerocomellus chrysenteron*

Natalia Vargas Estupiñan



*Xylodon radula*

Viviana Motato-Vásquez





*Aseroe rubra*

[Nataly Gómez-Montoya]



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*Lepista nuda*  
[Aida Marcela Vasco-Palacios]



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*Leptogidium dendriscum*  
[Robert Lücking]



# Alphabetical List of Synonyms

Synonym	Accepted Name
<i>Abortiporus fractipes</i> (Berk. & M.A. Curtis) Bondartsev	<i>Loweomyces fractipes</i> (Berk. & M.A. Curtis) Jülich
<i>Abundisporus roseoalbus</i> (Jungh.) Ryvarden	<i>Truncospora roseoalba</i> (Jungh.) Zmitr.
<i>Acaromyces ingoldii</i> Boekhout, Scorzetti, Gerson & Szejnb.	<i>Acaromyces ingoldii</i> Boekhout, Scorzetti, Gerson & Szejnb. ex Denchev & T. Denchev
<i>Acarospora nigromarginata</i> B. de Lesd.	<i>Acarospora strigata</i> (Nyl.) Jatta
<i>Acarospora xanthophana</i> (Nyl.) Jatta	<i>Acarospora congregata</i> K. Knudsen & Flakus
<i>Acaulospora appendicula</i> Spain, Sieverd. & N.C. Schenck	<i>Ambispora appendicula</i> (Spain, Sieverd. & N.C. Schenck) C. Walker
<i>Acaulospora myriocarpa</i> Spain, Sieverd. & N.C. Schenck	<i>Archaeospora myriocarpa</i> (Spain, Sieverd. & N.C. Schenck) Oehl, G.A. Silva, B.T. Goto & Sieverd.
<i>Aecidium capsici</i> F. Kern & Whetzel	<i>Puccinia capsicola</i> F. Kern & Thurst.
<i>Aecidium cordicola</i> Pardo-Card.	<i>Puccinia cordicola</i> Pardo-Card.
<i>Aecidium emmeorhizae</i> Pardo-Card.	<i>Uromyces emmeorhizae</i> Syd.
<i>Aecidium jericosensis</i> Pardo-Card.	<i>Puccinia jericosensis</i> Pardo-Card.
<i>Aeciure ancizari</i> Salazar-Yepes & Buriticá	<i>Puccinia ancizari</i> Mayor
<i>Agaricus focalis</i> Fr.	<i>Tricholoma focale</i> (Fr.) Ricken
<i>Agaricus umbilicatus</i> Hook.	<i>Lentinus crinitus</i> (L.) Fr.
<i>Agonimia papillata</i> (O.E. Erikss.) Diederich & Aptroot	<i>Flakea papillata</i> O.E. Erikss.
<i>Alectoria loxensis</i> var. <i>atroalbicans</i> Nyl.	<i>Oropogon loxensis</i> (Fée) Zukai
<i>Allographa pachygrapha</i> (Nyl.) Lücking & Kalb	<i>Diorygma pachygraphum</i> (Nyl.) Kalb, Staiger & Elix
<i>Amandinea insperata</i> (Nyl.) H. Mayrhofer & Ropin	<i>Orcularia insperata</i> (Nyl.) Kalb & Giralt
<i>Amanita flavoconia</i> var. <i>inquinata</i> Tulloss, Ovrebo & Halling	<i>Amanita flavoconia</i> G.F. Atk.
<i>Amanita flavoconia</i> var. <i>sinapicolor</i> Tulloss, Ovrebo & Halling	<i>Amanita flavoconia</i> G.F. Atk.
<i>Amanita rubescens</i> Pers. var. <i>rubescens</i>	<i>Amanita rubescens</i> Pers.
<i>Amanita savannae</i> Tulloss & Franco-Mol.	<i>Saproamanita savannae</i> (Tulloss & Franco-Mol.) Redhead, Vizzini, Drehmel & Contu
<i>Amauroderma rude</i> (Berk.) Torrend	<i>Sanguinoderma rude</i> (Berk.) Y.F. Sun, D.H. Costa & B.K. Cui
<i>Amauroderma schomburgkii</i> (Mont. & Berk.) Torrend f. <i>schomburgkii</i>	<i>Amauroderma schomburgkii</i> (Mont. & Berk.) Torrend
<i>Amauroderma sprucei</i> (Pat.) Torrend	<i>Foraminispora rugosa</i> (Berk.) Costa-Rezende, Drechsler-Santos & Robledo

Synonym	Accepted Name
<i>Amparoina spinosissima</i> (Singer) Singer	<i>Mycena spinosissima</i> (Singer) Desjardin
<i>Amphiloma gossypinum</i> (Mont.) Nyl.	<i>Phyllopsora gossypina</i> (Sw.) Kistenich, Timdal, Bendiksby & S. Ekman
<i>Ampliotrema auratum</i> (Tuck.) Kalb	<i>Ampliotrema auratum</i> (Tuck.) Kalb
<i>Anaptychia barbifera</i> (Nyl.) Trevis.	<i>Heterodermia barbifera</i> (Nyl.) Kr.P. Singh
<i>Anaptychia casarettiana</i> A. Massal.	<i>Polyblastidium casarettianum</i> (A. Massal.) Kalb
<i>Anaptychia comosa</i> (Eschw.) A. Massal.	<i>Heterodermia comosa</i> (Eschw.) Follmann & Redón
<i>Anaptychia corallophora</i> (Taylor) Vain.	<i>Polyblastidium corallophorum</i> (Taylor) Kalb
<i>Anaptychia flabellata</i> var. <i>flabellata</i> (Fée) A. Massal.	<i>Heterodermia flabellata</i> (Fée) D.D. Awasthi
<i>Anaptychia fulvescens</i> var. <i>fulvescens</i> (Vain.) Kurok.	<i>Heterodermia flabellata</i> (Fée) D.D. Awasthi
<i>Anaptychia leucomela</i> f. <i>albociliata</i> Hue	<i>Leucodermia leucomelos</i> (L.) Kalb
<i>Anaptychia leucomelaena</i> (L.) Vain.	<i>Leucodermia leucomelos</i> (L.) Kalb
<i>Anaptychia leucomelaena</i> f. <i>hypoxantha</i> (Tuck.) Hillmann	<i>Leucodermia lutescens</i> (Kurok.) Kalb
<i>Anaptychia leucomelaena</i> var. <i>angustifolia</i> (Meyen & Flot.) Müll. Arg.	<i>Leucodermia leucomelos</i> (L.) Kalb
<i>Anaptychia lutescens</i> Kurok.	<i>Leucodermia lutescens</i> (Kurok.) Kalb
<i>Anaptychia neoleucomelaena</i> Kurok.	<i>Leucodermia leucomelos</i> (L.) Kalb
<i>Anaptychia obscurata</i> (Nyl.) Vain.	<i>Heterodermia obscurata</i> (Nyl.) Trevis.
<i>Anaptychia obscurata</i> var. <i>sorediata</i> (Nyl.)	<i>Heterodermia obscurata</i> (Nyl.) Trevis.
<i>Anaptychia ophioglossa</i> f. <i>albociliata</i> (Nyl.) Kurok.	<i>Leucodermia leucomelos</i> (L.) Kalb
<i>Anaptychia podocarpa</i> (Bél.) A. Massal.	<i>Heterodermia podocarpa</i> (Bél.) D.D. Awasthi
<i>Anaptychia speciosa</i> (Wulfen) A. Massal.	<i>Heterodermia speciosa</i> (Wulfen) Trevis.
<i>Anaptychia subcomosa</i> (Nyl.) Trevis.	<i>Heterodermia subcomosa</i> (Nyl.) Elix
<i>Anguillospora longissima</i> (Sacc. & P. Syd.) Ingold	<i>Amniculicola longissima</i> (Sacc. & P. Syd.) Nadeeshan & K.D. Hyde
<i>Annulohypoxyton stygium</i> (Lév.) Y.M. Ju, J.D. Rogers & H.M. Hsieh var. <i>stygium</i>	<i>Annulohypoxyton stygium</i> (Lév.) Y.M. Ju, J.D. Rogers & H.M. Hsieh
<i>Annulohypoxyton thouarsianum</i> (Lév.) Y.M. Ju, J.D. Rogers & H.M. Hsieh var. <i>thouarsianum</i>	<i>Annulohypoxyton thouarsianum</i> (Lév.) Y.M. Ju, J.D. Rogers & H.M. Hsieh

ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name
<i>Anthracothecium duplicans</i> (Nyl.) Müll. Arg.	<i>Pyrenula duplicans</i> (Nyl.) Aptroot
<i>Anthracothecium ochraceoflavum</i> (Nyl.) Müll. Arg.	<i>Pyrenula ochraceoflava</i> (Nyl.) R.C. Harris
<i>Anthracothecium opertum</i> (Nyl.) Müll. Arg.	<i>Pyrenula globifera</i> (Eschw.) Aptroot
<i>Anthracothecium pyrenuloides</i> (Mont.) Müll. Arg.	<i>Pyrenula pyrenuloides</i> (Mont.) R.C. Harris
<i>Anzia phalacrocheila</i> Vain.	<i>Anzia parasitica</i> (Fée) Zahlbr.
<i>Anzia taeniata</i> (Nyl.) Stizenb.	<i>Anzia parasitica</i> (Fée) Zahlbr.
<i>Areolospora terrophila</i> S.C. Jong & E.E. Davis	<i>Phaeosporis melasperma</i> (Nyl.) Clem.
<i>Arthonia aleurocarpa</i> Nyl.	<i>Cryptothecia aleurocarpa</i> (Nyl.) Makhija & Patw.
<i>Arthonia astroidea</i> Ach.	<i>Arthonia radiata</i> (Pers.) Ach.
<i>Arthonia calamicola</i> (Syd.) R. Sant.	<i>Eremothecella calamicola</i> Syd. & P. Syd.
<i>Arthonia cinnabarina</i> (DC.) Wallr.	<i>Coniocarpon cinnabarinum</i> DC.
<i>Arthonia cinnabarina</i> var. <i>adpersa</i> (Mont.) Nyl.	<i>Arthonia adpersa</i> (Mont.) Kremp.
<i>Arthonia lobariellae</i> Etayo	<i>Bryostigma lobariellae</i> (Etayo) S.Y. Kondr. & Hur
<i>Arthonia polygramma</i> f. <i>denudata</i> Nyl.	<i>Arthonia polygramma</i> Nyl.
<i>Arthonia radiata</i> f. <i>astroidea</i> (Ach.) Ach.	<i>Arthonia radiata</i> (Pers.) Ach.
<i>Arthonia rubella</i> var. <i>confluens</i> Nyl.	<i>Arthonia rubella</i> (Fée) Nyl.
<i>Arthonia scriblitella</i> Nyl.	<i>Cryptothecia scriblitella</i> (Nyl.) Makhija & Patw.
<i>Arthonia varia</i> var. <i>antillarum</i> (Fée) Nyl.	<i>Arthonia antillarum</i> (Fée) Nyl.
<i>Arthopyrenia catapasta</i> (Nyl.) Müll. Arg.	<i>Polymeridium catapastum</i> (Nyl.) R.C. Harris
<i>Arthopyrenia contendens</i> (Nyl.) Müll. Arg.	<i>Polymeridium contendens</i> (Nyl.) R.C. Harris
<i>Arthopyrenia subprostans</i> (Nyl.) Müll. Arg.	<i>Anisomeridium subprostans</i> (Nyl.) R.C. Harris
<i>Arthothelium aleurocarpum</i> (Nyl.) Zahlbr.	<i>Cryptothecia aleurocarpa</i> (Nyl.) Makhija & Patw.
<i>Arthothelium ambiguellum</i> (Nyl.) Müll. Arg.	<i>Arthonia ambiguella</i> Nyl.
<i>Arthothelium cyrtodes</i> (Nyl.) Zahlbr.	<i>Arthonia cyrtodes</i> Nyl.
<i>Arthothelium macrothecum</i> (Fée) A. Massal.	<i>Arthonia macrotheca</i> Fée
<i>Arthothelium macrothecum</i> (Fée) Müll. Arg.	<i>Arthonia macrotheca</i> Fée
<i>Arthothelium nephelinum</i> (Nyl.) Zahlbr.	<i>Arthonia nephelina</i> Nyl.
<i>Arthothelium scriblitellum</i> (Nyl.) Zahlbr.	<i>Cryptothecia scriblitella</i> (Nyl.) Makhija & Patw.
<i>Arthothelium taediosum</i> (Nyl.) Müll. Arg.	<i>Arthonia taediosa</i> Nyl.
<i>Arthothelium xanthocarpum</i> (Nyl.) Müll. Arg.	<i>Arthonia xanthocarpa</i> Nyl.
<i>Arthothelium xanthocarpum</i> (Nyl.) Zahlbr.	<i>Arthonia xanthocarpa</i> Nyl.

Synonym	Accepted Name
<i>Arthrorhaphis citrinella</i> var. <i>alpina</i> (Schaer.) Poelt	<i>Arthrorhaphis alpina</i> (Schaer.) R. Sant.
<i>Ascidium cinchonarum</i> f. <i>intermedium</i> Nyl.	<i>Ocellularia cavata</i> (Ach.) Müll. Arg.
<i>Ascidium cinchonarum</i> Fée	<i>Ocellularia cavata</i> (Ach.) Müll. Arg.
<i>Ascidium discolor</i> (Ach.) Nyl.	<i>Ampliotrema discolor</i> (Ach.) Kalb
<i>Ascidium discolor</i> var. <i>dodecamerum</i> Nyl.	<i>Ampliotrema discolor</i> (Ach.) Kalb
<i>Ascidium domingense</i> (Fée) Nyl.	<i>Ocellularia domingensis</i> (Fée ex Nyl.) Müll. Arg.
<i>Ascidium postpositum</i> Nyl.	<i>Ocellularia postposita</i> (Nyl.) Frisch
<i>Ascidium rhabdosporum</i> Nyl.	<i>Ocellularia rhabdospora</i> (Nyl.) Redinger
<i>Ascidium xanthostroma</i> Hue	<i>Ocellularia xanthostroma</i> (Nyl.) Zahlbr.
<i>Asterinella antioquensis</i> Toro	<i>Asterina antioquensis</i> (Toro) Garcés
<i>Astrothelium confusum</i> Müll. Arg.	<i>Astrothelium crassum</i> (Fée) Aptroot
<i>Astrothelium galbineum</i> Kremp.	<i>Astrothelium macrocarpum</i> (Fée) Aptroot & Lücking
<i>Astrothelium pyrenastrosulphureum</i> Aptroot & Lücking	<i>Astrothelium sulphureum</i> (Eschw.) Nyl.
<i>Astrothelium septicollare</i> (Eschw.) Leight.	<i>Pyrenula septicollaris</i> (Eschw.) R.C. Harris
<i>Atelosaccharomyces hudeloi</i> Beurm. & Gougerot	<i>Debaryomyces hansenii</i> (Zopf) Lodder & Kreger-van Rij
<i>Aurantipileus mayaensis</i> Ginns, D.L. Lindner & T.J. Baroni	<i>Aurantiporus mayaensis</i> (Ginns, D.L. Lindner & T.J. Baroni) Zmitr.
<i>Auricularia polytricha</i> (Mont.) Sacc.	<i>Auricularia nigricans</i> (Sw.) Birkebak, Looney & Sánchez-García
<i>Bacidia apiahica</i> (Müll. Arg.) Zahlbr.	<i>Bacidina apiahica</i> (Müll. Arg.) Vězda
<i>Bacidia auerswaldii</i> (Hepp ex Stizenb.) Mig.	<i>Scutula effusa</i> (Auersw. ex Rabenh.) Kistenich, Timdal, Bendiksby & S. Ekman
<i>Bacidia brasiliensis</i> (Müll. Arg.) Zahlbr.	<i>Brasilicia brasiliensis</i> (Müll. Arg.) Lücking, Kalb & Sérus.
<i>Bacidia dominicana</i> (Vain.) Zahlbr.	<i>Fellhanera fuscata</i> (Müll. Arg.) Vězda
<i>Bacidia endoleuca</i> (Nyl.) J. Kickx f.	<i>Bacidia laurocerasi</i> (Delise ex Duby) Zahlbr.
<i>Bacidia fragilis</i> Vězda	<i>Fellhanera fragilis</i> (Vězda) Lücking & Kalb
<i>Bacidia fuscata</i> (Müll. Arg.) Zahlbr.	<i>Fellhanera fuscata</i> (Müll. Arg.) Vězda
<i>Bacidia incompta</i> (Hook.) Anzi	<i>Bellicidia incompta</i> (Borrer) Kistenich, Timdal, Bendiksby & S. Ekman
<i>Bacidia medialis</i> (Tuck.) Zahlbr.	<i>Bacidina medialis</i> (Tuck.) Kistenich, Timdal, Bendiksby & S. Ekman
<i>Bacidia millegrana</i> var. <i>fusconigrescens</i> (Nyl.) Zahlbr.	<i>Bacidia neofusconigrescens</i> Lücking
<i>Bacidia millegrana</i> var. <i>suffusa</i> (Müll. Arg.) Zahlbr.	<i>Bacidia suffusa</i> (Fr.) A. Schneid.
<i>Bacidia pallidocarnea</i> (Müll. Arg.) Zahlbr.	<i>Bacidina pallidocarnea</i> (Müll. Arg.) Vězda
<i>Bacidia palmularis</i> (Müll. Arg.) Zahlbr.	<i>Bapalmuia palmularis</i> (Müll. Arg.) Sérus.



ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name
<i>Bacidia pauciseptata</i> R. Sant.	<i>Fellhanera pauciseptata</i> (R. Sant.) Lücking
<i>Bacidia psychotriae</i> (Müll. Arg.) Zahlbr.	<i>Eugeniella psychotriae</i> (Müll. Arg.) Lücking, Sérus. & Kalb
<i>Bacidia rhapsidophylli</i> (Rehm) Zahlbr.	<i>Fellhanera rhapsidophylli</i> (Rehm) Vězda
<i>Bacidia stanhopeae</i> (Müll. Arg.) Zahlbr.	<i>Fellhanera stanhopeae</i> (Müll. Arg.) Lücking, Lumbsch & Elix
<i>Bacidia trachona</i> (Flot.) Lettau	<i>Aquacidia trachona</i> (Ach.) Aptroot
<i>Bacidiopsis squamulosula</i> (Nyl.) Kalb	<i>Bacidia squamulosula</i> (Nyl.) Zahlbr.
<i>Badimia newtoniana</i> (Henriq.) Vězda	<i>Eugeniella newtoniana</i> (Henriq.) Lücking, Sérus. & Kalb
<i>Baeomyces absolutus</i> Tuck.	<i>Dibaeis absoluta</i> (Tuck.) Kalb & Gierl
<i>Baeomyces columbiana</i> Vain.	<i>Dibaeis columbiana</i> (Vain.) Kalb & Gierl
<i>Baeomyces fungoides</i> (Sw.) Ach.	<i>Dibaeis fungoides</i> (Sw.) Kalb & Gierl
<i>Baeomyces imbricatus</i> Hook.	<i>Phyllobaeis imbricata</i> (Hook.) Kalb & Gierl
<i>Baeomyces imbricatus</i> var. <i>erythrellus</i> (Mont.) Vries	<i>Phyllobaeis erythrella</i> (Mont.) Kalb
<i>Baeomyces imbricatus</i> var. <i>glaucescens</i> Nyl.	<i>Phyllobaeis imbricata</i> (Hook.) Kalb & Gierl
<i>Baeomyces imbricatus</i> var. <i>imbricatus</i> Vries & Sipman	<i>Phyllobaeis imbricata</i> (Hook.) Kalb & Gierl
<i>Baeomyces imbricatus</i> var. <i>linearis</i> De Vries	<i>Phyllobaeis linearis</i> (B.G. de Vries) V. Marcano & Sipman
<i>Bagnisiopsis miconiicola</i> Garcés	<i>Coccodiella miconiicola</i> (Garcés) I. Hino & Katum.
<i>Bathelium degenerans</i> (Vain.) R.C. Harris	<i>Astrothelium degenerans</i> (Vain.) Aptroot & Lücking
<i>Bathelium feei</i> (Meissn.) Aptroot	<i>Astrothelium feei</i> (C.F.W. Meissn.) Aptroot & Lücking
<i>Biatora cuyabensis</i> (Malme) S.Y. Kondr.	<i>Phyllopsora cuyabensis</i> (Malme) Zahlbr.
<i>Biatora pyrromelaena</i> Tuck.	<i>Phyllopsora pyrromelaena</i> (Tuck.) Swinscow & Krog
<i>Biatorella conspersa</i> (Fée) Vain.	<i>Piccolia conspersa</i> (Fée) Hafellner
<i>Bilimbia sublecanorina</i> (Nyl.) Szatala	<i>Fellhanera sublecanorina</i> (Nyl.) Vězda
<i>Bilimbia tricholoma</i> (Mont.) Fink	<i>Byssoloma tricholomum</i> (Mont.) Zahlbr.
<i>Bipolaris cactivora</i> (Petr.) Alcorn	<i>Curvularia cactivora</i> (Petr.) Y. Marín & Crous
<i>Biscogniauxia mediterranea</i> (De Not.) Kuntze var. <i>mediterranea</i>	<i>Biscogniauxia mediterranea</i> (De Not.) Kuntze
<i>Bisporella citrina</i> (Batsch) Korf & S.E. Carp.	<i>Calycina citrina</i> (Hedw.) Gray
<i>Bisporella discedens</i> (P. Karst.) S.E. Cam.	<i>Calycina claroflava</i> (Grev.) Kuntze
<i>Bisporella discedens</i> (P. Karst.) S.E. Carp.	<i>Calycina claroflava</i> (Grev.) Kuntze
<i>Bisporella sulfurina</i> (Qué.) S.E. Carp.	<i>Calycina sulfurina</i> (Qué.) Kuntze

Synonym	Accepted Name
<i>Bogoriella miculiformis</i> (Nyl. ex Müll. Arg.) Aptroot & Lücking	<i>Pseudobogoriella miculiformis</i> (Müll. Arg.) Lücking, R. Miranda & Aptroot
<i>Bolbitius vitellinus</i> (Pers.) Fr.	<i>Bolbitius titubans</i> (Bull.) Fr.
<i>Boletellus ananas</i> var. <i>minor</i> Singer	<i>Boletellus coccineus</i> (Sacc.) Singer
<i>Boletellus russellii</i> (Frost) E.-J. Gilbert	<i>Aureoboletus russellii</i> (Frost) G. Wu & Zhu L. Yang
<i>Boletus atkinsonianus</i> (Murrill) Sacc. & Trotter	<i>Pulveroboletus atkinsonianus</i> (Murrill) L.D. Gómez
<i>Boletus auriporus</i> Peck	<i>Aureoboletus auriporus</i> (Peck) Pouzar
<i>Boletus fibrosus</i> Hook.	<i>Cerrena hydnoides</i> (Sw.) Zmitr.
<i>Boletus orquidianus</i> Halling	<i>Xerocomus orquidianus</i> (Halling) L.D. Gómez
<i>Boletus pavonius</i> Hook.	<i>Trametes pavonia</i> (Hook.) Ryvarden
<i>Boletus pseudorubinellus</i> A.H. Sm. & Thiers	<i>Chalciporus pseudorubinellus</i> (A.H. Sm. & Thiers) L.D. Gómez
<i>Boletus pulverulentus</i> Opat.	<i>Cyanoboletus pulverulentus</i> (Opat.) Gelardi, Vizzini & Simonini
<i>Boletus reticulatus</i> Hook.	<i>Pseudofavolus tenuis</i> (Fr.) G. Cunn.
<i>Boletus subtomentosus</i> J.A. Palmer	<i>Xerocomus subtomentosus</i> (L.) Qué.
<i>Boletus subtomentosus</i> L.	<i>Xerocomus subtomentosus</i> (L.) Qué.
<i>Boletus tenuis</i> Hook.	<i>Pseudofavolus tenuis</i> (Fr.) G. Cunn.
<i>Boletus truncatus</i> (Singer, Snell & E.A. Dick) Pouzar	<i>Xerocomellus truncatus</i> (Singer, Snell & E.A. Dick) Klofac
<i>Borrera flavicans</i> Ach.	<i>Teloschistes flavicans</i> (Sw.) Norman
<i>Botrydina aurantiaca</i> Redhead & Kuyper	<i>Lichenomphalia aurantiaca</i> (Redhead & Kuyper) Redhead, Lutzoni, Moncalvo & Vilgalys
<i>Botrydina lobata</i> Redhead & Kuyper	<i>Lichenomphalia lobata</i> (Redhead & Kuyper) Redhead, Lutzoni, Moncalvo & Vilgalys
<i>Botryobasidium botryoideum</i> (Overh.) Parmasto	<i>Botryobasidium pruinautum</i> (Bres.) J. Erikss.
<i>Botryohypochnus isabellinus</i> (Fr.) J. Erikss.	<i>Botryobasidium isabellinum</i> (Fr.) D.P. Rogers
<i>Botryohypochnus scaberulus</i> Hjortstam & Ryvarden	<i>Tofispora scaberula</i> (Hjortstam & Ryvarden) Hjortstam & Ryvarden
<i>Botryohypochnus scaberulus</i> Hjortstam & Ryvarden	<i>Tofispora scaberula</i> (Hjortstam & Ryvarden) Hjortstam & Ryvarden
<i>Botryohypochnus verrucisporus</i> Burds. & Gilb.	<i>Botryobasidium verrucisporum</i> (Burds. & Gilb.) G. Langer
<i>Bottaria ochraceoflava</i> (Nyl.) Vain.	<i>Pyrenula ochraceoflava</i> (Nyl.) R.C. Harris
<i>Bottaria ochraceoflavens</i> (Nyl.) Vain.	<i>Pyrenula ochraceoflava</i> (Nyl.) R.C. Harris
<i>Bovista abyssinica</i> Mont.	<i>Lycoperdon abyssinicum</i> (Mont.) Dring
<i>Bovista dermoxantha</i> (Vittad.) De Toni	<i>Lycoperdon dermoxanthum</i> Vittad.
<i>Brevicellicium allantosporum</i> Hjortstam & Ryvarden	<i>Brevicelopsis allantospora</i> (Hjortstam & Ryvarden) Hjortstam & Ryvarden
<i>Buellia aethalea</i> var. <i>aethaleoides</i> (Nyl.) Grumann	<i>Buellia aethalea</i> (Ach.) Th. Fr.

ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name
<i>Buellia coccinea</i> (Fée) Aptroot	<i>Gassicurtia coccinea</i> Fée
<i>Buellia gerontoides</i> (Stirt.) Imshaug	<i>Stigmatochroma gerontoides</i> (Stirt.) Marbach
<i>Buellia glaziouana</i> var. <i>sensitiva</i> (Zahlbr.) Imshaug	<i>Buellia mamillana</i> (Tuck.) W.A. Weber
<i>Buellia lauricassiae</i> (Fée) Müll. Arg.	<i>Cratiria lauri-cassiae</i> (Fée) Marbach
<i>Buellia modesta</i> (Kremp.) Müll. Arg.	<i>Cratiria americana</i> (Fée) Kalb & Marbach
<i>Buellia posthabita</i> (Nyl.) Zahlbr.	<i>Rinodina posthabita</i> (Nyl.) Aptroot
<i>Buellia sensitiva</i> Zahlbr.	<i>Buellia glaziouana</i> (Kremp.) Müll. Arg.
<i>Bulbothrix subinflata</i> (Hale) Hale	<i>Parmelinopsis subinflata</i> (Hale) Benatti & Marcelli
<i>Byssocaulon molle</i> (Sw.) Nyl.	<i>Phyllopsora gossypina</i> (Sw.) Kistenich, Timdal, Bendiksby & S. Ekman
<i>Byssoloma aeruginascens</i> Vězda	<i>Byssoloma guttiferae</i> (Bat. & Peres) Lücking & Sérus.
<i>Byssoloma wettsteinii</i> (Zahlbr.) Zahlbr.	<i>Eugeniella leucocheila</i> (Tuck.) Lücking, Sérus. & Kalb
<i>Byssophoropsis undulata</i> (Fée) Tehler	<i>Sagenidiopsis undulata</i> (Fée) Egea, Tehler, Torrente & Sipman
<i>Caeoma ancizari</i> Salazar-Yepes & Buriticá	<i>Puccinia ancizari</i> Mayor
<i>Caeoma fusagasugense</i> Salazar-Yepes & Buriticá	<i>Puccinia fusagasugensis</i> Salazar-Yepes & Buriticá
<i>Calenia conspersa</i> (Stirt.) R. Sant.	<i>Rolueckia conspersa</i> (Stirt.) Papong, Thammath. & Boonpr.
<i>Calenia laevigata</i> Müll. Arg.	<i>Caleniopsis laevigata</i> (Müll. Arg.) Vězda & Poelt
<i>Calenia submaculans</i> R. Sant.	<i>Calenia triseptata</i> Zahlbr.
<i>Caleniopsis conspersa</i> (Stirt.) Lücking et al.	<i>Rolueckia conspersa</i> (Stirt.) Papong, Thammath. & Boonpr.
<i>Calicium curtum</i> Turn. & Borr.	<i>Calicium abietinum</i> Pers.
<i>Calicium subquercinum</i> auct. non Asahina	<i>Calicium lenticulare</i> Ach.
<i>Calloposma conjugens</i> (Nyl.) Müll. Arg.	<i>Caloplaca conjugens</i> (Nyl.) Zahlbr.
<i>Calopeltis tetraspora</i> Toro	<i>Caribaeomyces tetrasporus</i> (Toro) Cif.
<i>Caloplaca cinnabarina</i> (Ach.) Zahlbr.	<i>Brownliella cinnabarina</i> (Ach.) S.Y. Kondr., Kärnefelt, A. Thell, Elix, Jung Kim, A.S. Kondr. & Hur
<i>Caloplaca citrina</i> (Hoffm.) Th. Fr.	<i>Flavoplaca citrina</i> (Hoffm.) Arup, Frödén & Søchting
<i>Caloplaca conjugens</i> (Nyl.) Zahlbr.	<i>Caloplaca erythrantha</i> (Tuck.) Zahlbr.
<i>Caloplaca conjugens</i> (Nyl.) Zahlbr.	<i>Caloplaca erythrantha</i> (Tuck.) Zahlbr.
<i>Caloplaca diducta</i> f. <i>albicans</i> (Nyl.) Zahlbr.	<i>Caloplaca diducta</i> (Nyl.) Zahlbr.
<i>Caloplaca flavovirescens</i> (Wulf.) D.T. & Sarnth.	<i>Gyalolechia flavovirescens</i> (Wulfen) Søchting, Frödén & Arup
<i>Caloplaca pollinii</i> (A. Massal.) Jatta	<i>Huneckia pollinii</i> (A. Massal.) S.Y. Kondr., Kärnefelt, Elix, A. Thell, Jung Kim, A.S. Kondr. & Hur

Synonym	Accepted Name
<i>Caloplaca pyracea</i> (Ach.) Th. Fr.	<i>Athallia pyracea</i> (Ach.) Arup, Frödén & Søchting
<i>Caloplaca saxicola</i> (Hoffm.) Nordin	<i>Calogaya saxicola</i> (Hoffm.) Vondrák
<i>Caloplaca stellata</i> Wetmore & Kärnefelt	<i>Polycauliona stellata</i> (Wetmore & Kärnefelt) Arup, Frödén & Søchting
<i>Caloplaca xanthostigmoidea</i> (Räsänen) Zahlbr.	<i>Gyalolechia xanthostigmoidea</i> (Räsänen) Søchting, Frödén & Arup
<i>Camarophyllus buccinulus</i> (Speg.) Pegler	<i>Hygrophorus buccinulus</i> (Speg.) Dennis
<i>Candelaria concolor</i> f. <i>substellata</i> Nyl.	<i>Candelaria concolor</i> (Dicks.) Arnold
<i>Candida azyma</i> Van der Walt, Johannsen & Yarrow	<i>Wickerhamiella azyma</i> (Van der Walt, Johannsen & Yarrow) C. Vega & Lachance
<i>Candida chiropterorum</i> Grose & Marink.	<i>Blastobotrys chiropterorum</i> (Grose & Marink.) Kurtzman & Robnett
<i>Candida kunwiensis</i> S.G. Hong, Bae, M. Herzberg, Titze & Lachance	<i>Metschnikowia kunwiensis</i> (S.G. Hong, Bae, M. Herzberg, Titze & Lachance) Brysch-Herzb.
<i>Candida natalensis</i> Van der Walt & Tscheuschner	<i>Kurtzmaniella natalensis</i> (Van der Walt & Tscheuschner) C.A. Rosa, Casareg. & Lachance
<i>Candida norvegensis</i> Dietrichson ex Uden & Farinha	<i>Pichia norvegensis</i> Leask & Yarrow
<i>Candida pararugosa</i> Nakase, Komag. & Fukaz.	<i>Wickerhamiella pararugosa</i> (Nakase, Komag. & Fukaz.) de Vega & Lachance
<i>Candida parazyama</i> Lachance	<i>Wickerhamiella parazyama</i> (Lachance) C. Vega & Lachance
<i>Candida rugosa</i> (H.W. Anderson) Diddens & Lodder	<i>Ditina rugosa</i> (H.W. Anderson) Khunnamw., Jindam., Limtong & Lachance
<i>Candida sergipensis</i> R.C. Trindade, M.A. Resende, Lachance & C.A. Rosa	<i>Wickerhamiella sergipensis</i> (R.C. Trindade, M.A. Resende, Lachance & C.A. Rosa) C. Vega & Lachance
<i>Canomaculina muelleri</i> (Vain.) Elix & Hale	<i>Parmotrema muelleri</i> (Vain.) O. Blanco, A. Crespo, Divakar, Elix & Lumbsch
<i>Canomaculina subtinctoria</i> (Zahlbr.) Elix	<i>Parmotrema subtinctorium</i> (Zahlbr.) Hale
<i>Canoparmelia carneopruinata</i> (Zahlbr.) Elix & Hale	<i>Crespoa carneopruinata</i> (Zahlbr.) Lendemer & B.P. Hodk.
<i>Canoparmelia salacinifera</i> (Hale) Elix & Hale	<i>Parmelinella salacinifera</i> (Hale) Marcelli & Benatti
<i>Cantharellus lateritius</i> var. <i>colombianus</i> R.H. Petersen	<i>Cantharellus lateritius</i> (Berk.) Singer
<i>Catacauma macroloculatum</i> Chardón	<i>Phyllachora macroloculata</i> Chardón
<i>Catillaria endochroma</i> (Fée) Zahlbr.	<i>Catillochroma endochromum</i> (Fée) Kalb
<i>Catinaria versicolor</i> (Fée) Sipman	<i>Lopezaria versicolor</i> (Flot.) Kalb & Hafellner
<i>Cercospora acioidis</i> Chupp	<i>Pseudocercospora acioidis</i> (Chupp) U. Braun & Crous
<i>Cercospora ambrosiae</i> Chupp	<i>Passalora ambrosiae</i> (Chupp) Crous & U. Braun
<i>Cercospora coriariae</i> Chupp	<i>Pseudocercospora coriariae</i> (Chupp) X.J. Liu & Y.L. Guo



## ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name	Synonym	Accepted Name
<i>Cercospora cornifoliae</i> Chupp	<i>Passalora cornifoliae</i> (Chupp) U. Braun & Crous	<i>Chapsa platycarpella</i> (Vain.) A. Frisch	<i>Astrochapsa platycarpella</i> (Vain.) Parmen, Lücking & Lumbsch
<i>Cercospora hemidiodiae</i> Toro	<i>Pseudocercospora hemidiodiae</i> (Toro) Deighton	<i>Chapsa platycarpoides</i> (Tuck.) Breuss & Lücking	<i>Asteristion platycarpoides</i> (Tuck.) I. Medeiros, Lücking & Lumbsch
<i>Cercospora lantanicola</i> Chupp	<i>Pseudocercosporella lantanicola</i> (Chupp) U. Braun & Crous	<i>Chapsa pseudoschizostoma</i> (Hale) Sipman	<i>Pseudochapsa pseudoschizostoma</i> (Hale) Parmen, Lücking & Lumbsch
<i>Cercospora liabi</i> Syd. & P. Syd.	<i>Passalora liabi</i> (Syd. & P. Syd.) U. Braun & Crous	<i>Chapsa referta</i> (Hale) Lücking	<i>Ocellularia referta</i> Hale
<i>Cercospora miconiicola</i> Chupp	<i>Pseudocercospora miconiicola</i> (Chupp) U. Braun & Crous	<i>Chiodecton decussans</i> Nyl.	<i>Syncesia decussans</i> (Nyl.) Tehler
<i>Cercospora polymniae</i> Chupp	<i>Pseudocercospora polymniae</i> (Chupp) U. Braun & Crous	<i>Chiodecton depressum</i> Fée	<i>Syncesia depressa</i> (Fée) Tehler
<i>Cercospora ulmifoliae</i> Obreg.-Bot.	<i>Pseudocercospora ulmifoliae</i> (Obreg.-Bot.) U. Braun & Crous	<i>Chiodecton dilatatum</i> (Nyl.) Vain.	<i>Sagenidiopsis undulata</i> (Fée) Egea, Tehler, Torrente & Sipman
<i>Cerrena caperata</i> (Berk.) Zmitr.	<i>Funalia caperata</i> (Berk.) Zmitr. & Malysheva	<i>Chiodecton effusum</i> Fée	<i>Syncesia effusa</i> (Fée) Tehler
<i>Cetraria islandica</i> subsp. <i>crispiformis</i> (Räsänen) Kärnefelt	<i>Cetraria islandica</i> (L.) Ach.	<i>Chiodecton extenuatum</i> (Nyl.) Zahlbr.	<i>Sclerophyton extenuatum</i> (Nyl.) Sparrius
<i>Cetraria islandica</i> subsp. <i>islandica</i> (L.) Ach.	<i>Cetraria islandica</i> (L.) Ach.	<i>Chiodecton farinaceum</i> var. <i>subfibrillosum</i> Nyl.	<i>Syncesia effusa</i> (Fée) Tehler
<i>Cetraria laureri</i> Kremp.	<i>Nephromopsis laureri</i> (Kremp.) Kurok.	<i>Chiodecton leptostictum</i> (Nyl.) Zahlbr.	<i>Mazosia leptosticta</i> (Nyl.) Sparrius
<i>Cetraria tenuifolia</i> var. <i>columbiana</i> Räsänen	<i>Cetraria arenaria</i> Kärnefelt	<i>Chiodecton meratii</i> Fée	<i>Syncesia effusa</i> (Fée) Tehler
<i>Cetraria tenuissima</i> L.	<i>Cetraria aculeata</i> (Schreb.) Fr.	<i>Chiodecton perplexum</i> Nyl.	<i>Syncesia graphica</i> (Fr.) Tehler
<i>Cetrariastrum cirrhatum</i> (Fr.) W.L. Culb. & C.F. Culb.	<i>Hypotrachyna cirrhata</i> (Fr.) Divakar, A. Crespo, Sipman, Elix & Lumbsch	<i>Chiodecton perplexum</i> var. <i>caesium</i> Nyl.	<i>Syncesia effusa</i> (Fée) Tehler
<i>Cetrariastrum columbiense</i> (Zahlbr.) W.L. Culb. & C.F. Culb.	<i>Hypotrachyna columbiensis</i> (Zahlbr.) Divakar, A. Crespo, Sipman, Elix & Lumbsch	<i>Chiodecton perplexum</i> var. <i>pelinum</i> Nyl.	<i>Syncesia graphica</i> (Fr.) Tehler
<i>Cetrariastrum dubitans</i> Sipman	<i>Hypotrachyna dubitans</i> (Sipman) Divakar, A. Crespo, Sipman, Elix & Lumbsch	<i>Chiodecton perplexum</i> var. <i>subfibrosum</i> auct. non Nyl.	<i>Syncesia effusa</i> (Fée) Tehler
<i>Cetrariastrum equadoriense</i> (R. Sant.) Sipman	<i>Hypotrachyna ecuadorensis</i> (R. Sant.) Divakar, A. Crespo, Sipman, Elix & Lumbsch	<i>Chiodecton pterophorum</i> Nyl.	<i>Syncesia decussans</i> (Nyl.) Tehler
<i>Cetrariastrum sorocheilum</i> (Vain.) W.L. Culb. & C.F. Culb.	<i>Hypotrachyna sorocheila</i> (Vain.) Divakar, A. Crespo, Sipman, Elix & Lumbsch	<i>Chiodecton rubrocinctum</i> (Ehrenb.) Nyl.	<i>Herporthallon rubrocinctum</i> (Ehrenb.) Aptroot, Lücking & G. Thor
<i>Cetrariastrum vexans</i> Zahlbr. ex W.L. Culb. & C.F. Culb.	<i>Hypotrachyna vexans</i> (Zahlbr. ex W.L. Culb. & C.F. Culb.) Divakar, A. Crespo, Sipman, Elix & Lumbsch	<i>Chiodecton sanguineum</i> (Sw.) Vain.	<i>Herporthallon rubrocinctum</i> (Ehrenb.) Aptroot, Lücking & G. Thor
<i>Chaenocarpus melanurus</i> Lév.	<i>Xylaria melanura</i> (Lév.) Sacc.	<i>Chiodecton separatum</i> Nyl.	<i>Sclerophyton syncesioides</i> Sparrius
<i>Chaenotheca carthusiae</i> (Harm.) Lettau	<i>Chaenotheca chlorella</i> (Ach.) Müll. Arg.	<i>Chiodecton seriale</i> Ach.	<i>Sclerophyton seriale</i> (Ach.) Sparrius
<i>Chaetomium murorum</i> Corda	<i>Botryotrichum murorum</i> (Corda) X. Wei Wang & Samson	<i>Chrysoporthella hodgesiana</i> Gryzenh. & M.J. Wingf.	<i>Chrysoporthella hodgesiana</i> Gryzenh. & M.J. Wingf. ex Chungu, Gryzenh. & M.J. Wingf.
<i>Chaetostigmella meliolinae</i> Toro	<i>Phaeodimeriella meliolinae</i> (Toro) Toro	<i>Chytridium schenkii</i> var. <i>dumontii</i> Dogma	<i>Chytridium schenkii</i> (P.A. Dang.) Scherff.
<i>Chapsa albomaculata</i> (Sipman) Sipman & Lücking	<i>Pseudochapsa albomaculata</i> (Sipman) Parmen, Lücking & Lumbsch	<i>Cintractia occulta</i> Mol.-Val.	<i>Kuntzeomyces ustilaginoideus</i> (Henn.) Sacc. & P. Syd.
<i>Chapsa dilatata</i> (Müll. Arg.) Kalb	<i>Pseudochapsa dilatata</i> (Müll. Arg.) Parmen, Lücking & Lumbsch	<i>Cintractia pannucea</i> Liro	<i>Anthracoidea pannucea</i> (Liro) Vánky
<i>Chapsa phlyctidioides</i> (Müll. Arg.) Mangold	<i>Pseudochapsa phlyctidioides</i> (Müll. Arg.) Parmen, Lücking & Lumbsch	<i>Cintractia vesiculata</i> Mol.-Val.	<i>Ustanciosporium standleyanum</i> (Zundel) M. Piepenbr.
		<i>Cladia fuliginosa</i> Filson	<i>Rexiella fuliginosa</i> (Filson) S. Stenroos, Pino-Bodas and Ahti
		<i>Cladina arbuscula</i> subsp. <i>boliviana</i> (Ahti) Ahti	<i>Cladonia boliviana</i> Ahti
		<i>Cladina arcuata</i> (Ahti) Ahti & Follmann	<i>Cladonia arcuata</i> Ahti
		<i>Cladina boliviana</i> (Ahti) Ahti	<i>Cladonia boliviana</i> Ahti
		<i>Cladina confusa</i> (R. Sant.) Follmann & Ahti	<i>Cladonia confusa</i> R. Sant.
		<i>Cladina halei</i> Ahti	<i>Cladonia halei</i> (Ahti) Ahti & DePriest
		<i>Cladina peltastica</i> Nyl.	<i>Cladonia peltastica</i> (Nyl.) Müll. Arg.

## ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name
<i>Cladina rangiferina</i> (L.) Nyl.	<i>Cladonia rangiferina</i> (L.) F.H. Wigg.
<i>Cladina rotundata</i> (Ahti) Ahti	<i>Cladonia rotundata</i> Ahti
<i>Cladina sprucei</i> (Ahti) Ahti	<i>Cladonia sprucei</i> Ahti
<i>Cladina sylvatica</i> var. <i>silvestris</i> (Oed.)	<i>Cladonia arbuscula</i> (Wallr.) Flot.
<i>Cladonia aggregata</i> (Sw.) Eschw.	<i>Cladia aggregata</i> (Sw.) Nyl.
<i>Cladonia alpicola</i> (Flot.) Vain.	<i>Cladonia dactylota</i> Tuck.
<i>Cladonia bacillaris</i> var. <i>squamigera</i> Vain.	<i>Cladonia macilenta</i> Hoffm.
<i>Cladonia coccifera</i> f. <i>stematina</i> Ach.	<i>Cladonia coccifera</i> (L.) Willd.
<i>Cladonia corallifera</i> var. <i>kunzeana</i> Vain.	<i>Cladonia corallifera</i> (Kunze) Nyl.
<i>Cladonia cornucopioides</i> f. <i>pleurota</i> auct. non Flörke	<i>Cladonia pleurota</i> (Flörke) Schaer.
<i>Cladonia degenerans</i> var. <i>muricella</i> (Delise) Vain.	<i>Cladonia squamosa</i> (Scop.) Hoffm.
<i>Cladonia degenerans</i> var. <i>squamosa</i> f. <i>multibrachiata</i> Flörke	<i>Cladonia squamosa</i> (Scop.) Hoffm.
<i>Cladonia didyma</i> var. <i>muscigena</i> (Eschw.) Vain.	<i>Cladonia didyma</i> (Fée) Vain.
<i>Cladonia didyma</i> var. <i>vulcanica</i> (Zoll. & Moritzi) Vain.	<i>Cladonia didyma</i> (Fée) Vain.
<i>Cladonia dilleniana</i> var. <i>stenophylla</i> auct. non (Nyl.) Vain.	<i>Cladonia corymbites</i> Nyl.
<i>Cladonia fimbriata</i> f. <i>subulata</i> (L.) Schaer.	<i>Cladonia aleuropoda</i> Vain.
<i>Cladonia fimbriata</i> var. <i>ochrochlora</i> (Flörke) Vain.	<i>Cladonia ochrochlora</i> Flörke
<i>Cladonia furcata</i> var. <i>hapalea</i> f. <i>implexa</i> Flörke	<i>Cladonia furcata</i> (Huds.) Schrad.
<i>Cladonia furcata</i> var. <i>pinnata</i> (Flörke) Vain.	<i>Cladonia furcata</i> (Huds.) Schrad.
<i>Cladonia hypoxanthoides</i> auct. non Vain.	<i>Cladonia meridensis</i> Ahti & S. Stenroos
<i>Cladonia macrophylla</i> (Schaer.) Stenh.	<i>Cladonia dactylota</i> Tuck.
<i>Cladonia medusina</i> (Bory) Nyl.	<i>Cladonia peltastica</i> (Nyl.) Müll. Arg.
<i>Cladonia merochlorophaea</i> var. <i>novochlorophaea</i> Sipman	<i>Cladonia novochlorophaea</i> (Sipman) Brodo & Ahti
<i>Cladonia miniata</i> var. <i>miniata</i> G. Mey.	<i>Cladonia miniata</i> G. Mey.
<i>Cladonia miniata</i> var. <i>secundana</i> (Nyl.) Vain.	<i>Cladonia secundana</i> Nyl.
<i>Cladonia mitrula</i> subsp. <i>stenophylloides</i> Vain.	<i>Cladonia corymbites</i> Nyl.
<i>Cladonia pityrea</i> (Flörke) Fr.	<i>Cladonia ramulosa</i> (With.) J.R. Laundon
<i>Cladonia polia</i> R. Sant.	<i>Cladonia confusa</i> R. Sant.
<i>Cladonia pycnoclada</i> var. <i>exalbescens</i> Vain.	<i>Cladonia confusa</i> R. Sant.
<i>Cladonia pyxidata</i> var. <i>neglecta</i> auct. non (Flörke) A. Massal.	<i>Cladonia pyxidata</i> (L.) Hoffm.
<i>Cladonia rangiferina</i> f. <i>bicolor</i> Müll. Arg.	<i>Cladonia confusa</i> f. <i>bicolor</i> (Müll. Arg.) Ahti & DePriest

Synonym	Accepted Name
<i>Cladonia rangiferina</i> var. <i>abbayesii</i> Ahti	<i>Cladonia rangiferina</i> (L.) F.H. Wigg.
<i>Cladonia rangiferina</i> var. <i>filiformis</i> Eschw.	<i>Cladonia sprucei</i> Ahti
<i>Cladonia squamosa</i> var. <i>denticollis</i> (Hoffm.) Flörke	<i>Cladonia squamosa</i> (Scop.) Hoffm.
<i>Cladonia stenophylloides</i> (Vain.) Sandst.	<i>Cladonia corymbites</i> Nyl.
<i>Cladonia subsquamosa</i> f. <i>attenuata</i> Vain.	<i>Cladonia granulosa</i> (Vain.) Ahti
<i>Cladonia subsquamosa</i> var. <i>granulosa</i> Vain.	<i>Cladonia granulosa</i> (Vain.) Ahti
<i>Cladonia sylvatica</i> f. <i>laxiuscula</i> Delise	<i>Cladonia arbuscula</i> (Wallr.) Flot.
<i>Cladonia sylvatica</i> var. <i>silvestris</i> Oed.	<i>Cladonia arbuscula</i> (Wallr.) Flot.
<i>Cladonia verticillata</i> var. <i>filaris</i> Müll. Arg.	<i>Cladonia isabellina</i> Vain.
<i>Cladonia vicaria</i> f. <i>divaricata</i> Abbayes	<i>Cladonia rangiferina</i> (L.) F.H. Wigg.
<i>Cladonia vicaria</i> f. <i>gigantea</i> auct. non	<i>Cladonia rangiferina</i> (L.) F.H. Wigg.
<i>Cladonia vulcanica</i> f. <i>isidioclada</i> (Mont. & Bosch) Abbayes	<i>Cladonia didyma</i> (Fée) Vain.
<i>Cladonia vulcanica</i> Zoll.	<i>Cladonia didyma</i> (Fée) Vain.
<i>Clathrina aggregata</i> var. <i>straminea</i> Müll. Arg.	<i>Cladia aggregata</i> (Sw.) Nyl.
<i>Clathroporina endochrysea</i> (C. Bab.) Müll. Arg.	<i>Porina endochrysea</i> C. Bab.
<i>Clathroporina exocha</i> (Nyl.) Müll. Arg.	<i>Porina exocha</i> (Nyl.) P.M. McCarthy
<i>Clathroporina mastoidea</i> (Ach.) R.C. Harris	<i>Porina mastoidea</i> (Ach.) Müll. Arg.
<i>Clavaria calocera</i> G.W. Martin	<i>Lepidostroma calocerum</i> (G.W. Martin) Oberw.
<i>Clavaria calocera</i> G.W. Martin	<i>Lepidostroma calocerum</i> (G.W. Martin) Oberw.
<i>Clavaria coronilla</i> G.W. Martin	<i>Multiclavula coronilla</i> (G.W. Martin) R.H. Petersen
<i>Clavaria mucida</i> Fr.	<i>Multiclavula mucida</i> (Pers.) R.H. Petersen
<i>Clavulinopsis coronilla</i> (G.W. Martin) Corner	<i>Multiclavula coronilla</i> (G.W. Martin) R.H. Petersen
<i>Clypeotrabutia medellinensis</i> Chardón	<i>Phyllachora medellinensis</i> (Chardón) Petr.
<i>Clypeotrabutia montserratensis</i> Chardón	<i>Phyllachora montserratensis</i> (Chardón) Petr.
<i>Coccocarpia aurantiaca</i> (Hook. f. & Taylor) Mont. & Bosch	<i>Coccocarpia erythroxyli</i> (Spreng.) Swinscow & Krog
<i>Coccocarpia ciliolata</i> Mont.	<i>Coccocarpia erythroxyli</i> (Spreng.) Swinscow & Krog
<i>Coccocarpia cronia</i> var. <i>granulosa</i> (Müll. Arg.) Vain.	<i>Coccocarpia erythroxyli</i> (Spreng.) Swinscow & Krog
<i>Coccocarpia cronia</i> var. <i>isidiophylla</i> (Müll. Arg.) Vain.	<i>Coccocarpia palmicola</i> (Spreng.) Arv. & D.J. Galloway
<i>Coccocarpia incisa</i> f. <i>pellita</i> (Sw.)	<i>Coccocarpia pellita</i> (Ach.) Müll. Arg.



ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name
<i>Coccocarpia incisa</i> Pers.	<i>Coccocarpia erythroxyli</i> (Spreng.) Swinscow & Krog
<i>Coccocarpia incisa</i> var. <i>pellita</i> (Ach.) Nyl.	<i>Coccocarpia pellita</i> (Ach.) Müll. Arg.
<i>Coccocarpia microphyllina</i> Lücking & Aptroot	<i>Coccocarpia microphyllina</i> Lücking & Aptroot
<i>Coccocarpia molybdea</i> f. <i>pellita</i> (Ach.) Nyl.	<i>Coccocarpia pellita</i> (Ach.) Müll. Arg.
<i>Coccocarpia molybdea</i> Pers.	<i>Coccocarpia erythroxyli</i> (Spreng.) Swinscow & Krog
<i>Coccocarpia molybdea</i> var. <i>aurantiaca</i> (Hook.f. & Taylor) Nyl.	<i>Coccocarpia erythroxyli</i> (Spreng.) Swinscow & Krog
<i>Coccocarpia molybdea</i> var. <i>incisa</i> (Pers.) Nyl.	<i>Coccocarpia erythroxyli</i> (Spreng.) Swinscow & Krog
<i>Coccocarpia molybdea</i> var. <i>incisa</i> f. <i>pellita</i> (Ach.) Nyl.	<i>Coccocarpia pellita</i> (Ach.) Müll. Arg.
<i>Coccocarpia parmelioides</i> (Hook.) Tuck.	<i>Coccocarpia erythroxyli</i> (Spreng.) Swinscow & Krog
<i>Coccocarpia parmelioides</i> var. <i>aurantiaca</i> (Hook.f. & Taylor) Nyl.	<i>Coccocarpia erythroxyli</i> (Spreng.) Swinscow & Krog
<i>Coccocarpia pellita</i> var. <i>granulosa</i> Müll. Arg.	<i>Coccocarpia erythroxyli</i> (Spreng.) Swinscow & Krog
<i>Coccocarpia pellita</i> var. <i>parmelioides</i> (Hook.) Müll. Arg.	<i>Coccocarpia erythroxyli</i> (Spreng.) Swinscow & Krog
<i>Coccocarpia pellita</i> var. <i>strigosa</i> Müll. Arg.	<i>Coccocarpia erythroxyli</i> (Spreng.) Swinscow & Krog
<i>Coelomomyces reticulatus</i> var. <i>parvus</i> Couch, R.C. Farr & W.K. Mora	<i>Coelomomyces reticulatus</i> Couch & A.J. Walker
<i>Coenogonium andinum</i> Karst.	<i>Coenogonium confervoides</i> Nyl.
<i>Coenogonium confervoides</i> var. <i>arborum</i> Nyl.	<i>Coenogonium confervoides</i> Nyl.
<i>Coenogonium flavicans</i> (Vězda & Farkas) Kalb & Lücking	<i>Coenogonium geralense</i> (Henn.) Lücking
<i>Collema burgessii</i> (L.) Ach.	<i>Leptogium burgessii</i> (L.) Mont.
<i>Collema callibotrys</i> Tuck.	<i>Rostania callibotrys</i> (Tuck.) Otálora, P.M. Jørg. & Wedin
<i>Collema callibotrys</i> var. <i>coccophyllizum</i> (Zahlbr.) Degel.	<i>Rostania callibotrys</i> (Tuck.) Otálora, P.M. Jørg. & Wedin
<i>Collema coccophyllizum</i> Zahlbr.	<i>Rostania callibotrys</i> (Tuck.) Otálora, P.M. Jørg. & Wedin
<i>Collema coccophylloides</i> Nyl.	<i>Rostania callibotrys</i> (Tuck.) Otálora, P.M. Jørg. & Wedin
<i>Collema conglomeratum</i> Hoffm.	<i>Enchylium conglomeratum</i> (Hoffm.) Otálora, P.M. Jørg. & Wedin
<i>Collema conglomeratum</i> var. <i>corynesporum</i> (Malme) Degel.	<i>Enchylium conglomeratum</i> (Hoffm.) Otálora, P.M. Jørg. & Wedin
<i>Collema glaucophthalmum</i> Nyl. var. <i>glaucophthalmum</i>	<i>Collema glaucophthalmum</i> Nyl.
<i>Collema glaucophthalmum</i> var. <i>granatense</i> Hue	<i>Collema glaucophthalmum</i> Nyl.
<i>Collema glaucophthalmum</i> var. <i>implicatum</i> (Nyl.) Degel.	<i>Collema implicatum</i> Nyl.
<i>Collema implicatum</i> Nyl.	<i>Collema glaucophthalmum</i> Nyl.
<i>Collema leptalaeum</i> var. <i>leptalaeum</i>	<i>Collema leptaleum</i> Tuck.
<i>Collema marginellum</i> (Sw.) Räsusch.	<i>Leptogium marginellum</i> (Sw.) Gray

Synonym	Accepted Name
<i>Collema olivaceum</i> Hook.	<i>Leptogium pseudolivaceum</i> Lücking
<i>Collema pycnocarpum</i> auct. non Nyl.	<i>Enchylium conglomeratum</i> (Hoffm.) Otálora, P.M. Jørg. & Wedin
<i>Collema pycnocarpum</i> Nyl.	<i>Enchylium conglomeratum</i> (Hoffm.) Otálora, P.M. Jørg. & Wedin
<i>Collema pycnocarpum</i> var. <i>crassiusculum</i> auct. non (Malme) C.W. Dodge	<i>Enchylium conglomeratum</i> (Hoffm.) Otálora, P.M. Jørg. & Wedin
<i>Collybia aurea</i> (Beeli) Pegler	<i>Tricholomopsis aurea</i> (Beeli) Desjardin & B.A. Perry
<i>Collybia dealbata</i> (Berk. & M.A. Curtis) Dennis	<i>Marasmiellus dealbatus</i> (Berk. & M.A. Curtis) Singer
<i>Collybia omphalodes</i> (Berk.) Dennis	<i>Gymnopus omphalodes</i> (Berk.) Halling & J.L. Mata
<i>Collybia plectophylla</i> (Mont.) Singer	<i>Mycena plectophylla</i> (Mont.) Dennis
<i>Collybia popayanica</i> Halling	<i>Rhodocollybia popayanica</i> (Halling) Halling
<i>Collybia turpis</i> Halling	<i>Rhodocollybia turpis</i> (Halling) Halling
<i>Colonnaria columnata</i> (Bosc) E. Fisch.	<i>Clathrus columnatus</i> Bosc
<i>Conidiobolus thromboides</i> Drechsler	<i>Neoconidiobolus thromboides</i> (Drechsler) B. Huang & Y. Nie
<i>Coprinus mexicanus</i> Murrill	<i>Coprinopsis mexicana</i> (Murrill) Redhead, Vilgalys & Moncalvo
<i>Coprinus micaceus</i> (Bull.) Fr.	<i>Coprinellus micaceus</i> (Bull.) Vilgalys, Hopple & Jacq. Johnson
<i>Cordyceps acridophila</i> Sanjuan & Franco-Mol.	<i>Beauveria acridophila</i> (Sanjuan & Franco-Mol.) Sanjuan, B. Shrestha, Kepler & Spatafora
<i>Cordyceps amazonica</i> Henn.	<i>Paraisaria amazonica</i> (Henn.) Luangsa-ard, Mongkols. & Samson
<i>Cordyceps calocerooides</i> Berk. & M.A. Curtis	<i>Ophiocordyceps calocerooides</i> (Berk. & M.A. Curtis) Petch
<i>Cordyceps gracillima</i> Kobayasi	<i>Ophiocordyceps gracillima</i> (Kobayasi) Sanjuan & Spatafora
<i>Cordyceps submilitaris</i> Henn.	<i>Nigelia martiale</i> (Speg.) Luangsa-ard & Thanakitp.
<i>Corethromyces latonae</i> Thaxt.	<i>Mimeomyces latonae</i> (Thaxt.) Thaxt.
<i>Corioloopsis aspera</i> (Jungh.) Teng	<i>Funalia aspera</i> (Jungh.) Zmitr. & Malysheva
<i>Corioloopsis caperata</i> (Berk.) Murrill	<i>Funalia caperata</i> (Berk.) Zmitr. & Malysheva
<i>Corioloopsis cirrhifer</i> (Berk. & M.A. Curtis) Murrill	<i>Trametes cirrhifer</i> (Berk. & M.A. Curtis) Lloyd
<i>Corioloopsis floccosa</i> (Jungh.) Ryvarden	<i>Funalia floccosa</i> (Jungh.) Zmitr. & Malysheva
<i>Coriolus pavonius</i> (Hook.) Murrill	<i>Trametes pavonia</i> (Hook.) Ryvarden
<i>Cortinarius focalis</i> (Fr.) M.M. Moser	<i>Tricholoma focale</i> (Fr.) Ricken
<i>Coscinopeltella montalvoae</i> Chardón	<i>Vestergrenia multipunctata</i> (G. Winter) Arx & E. Müll.
<i>Cosmospora vilior</i> (Starbäck) Rossman & Samuels	<i>Pseudocosmospora vilior</i> (Starbäck) C.S. Herrera & P. Chaverri
<i>Cotylidia aurantiaca</i> (Pers.) A.L. Welden var. <i>aurantiaca</i>	<i>Cotylidia aurantiaca</i> (Pat.) A.L. Welden

ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name
<i>Cotylidia pusiola</i> (Berk. & M.A. Curtis) A.L. Welden	<i>Cyphellostereum pusiolum</i> (Berk. & M.A. Curtis) D.A. Reid
<i>Craterellus fallax</i> A.H. Sm.	<i>Craterellus cornucopioides</i> (L.) Pers.
<i>Creographa brasiliensis</i> A. Massal.	<i>Phaeographis brasiliensis</i> (A. Massal.) Kalb & Matthes-Leicht
<i>Crocicreas gemmisorum</i> S.E. Carp.	<i>Helicogonium gemmisorum</i> (S.E. Carp.) Baral
<i>Crocynia gossypina</i> (Sw.) A. Massal.	<i>Phyllopsora gossypina</i> (Sw.) Kistenich, Timdal, Bendiksby & S. Ekman
<i>Crocynia gossypina</i> var. <i>mollis</i> (Sw.) Hue.	<i>Phyllopsora pyxinoides</i> (Nyl.) Kistenich, Timdal, Bendiksby & S. Ekman
<i>Crocynia pyxinoides</i> Nyl.	<i>Phyllopsora pyxinoides</i> (Nyl.) Kistenich, Timdal, Bendiksby & S. Ekman
<i>Cryptothecia farkasiae</i> Lücking	<i>Amazonomyces farkasiae</i> (Lücking) Lücking, Sérus. & G. Thor
<i>Cryptothecia filicina</i> (Ellis & Everh.) Lücking & G. Thor	<i>Myriostigma filicinum</i> (Ellis & Everh.) Frisch & G. Thor
<i>Cryptothecia rubrocincta</i> (Ehrenb.) G. Thor	<i>Herpothallon rubrocinctum</i> (Ehrenb.) Aptroot, Lücking & G. Thor
<i>Cryptothecia rubrocincta</i> (Ehrenb.) Thor	<i>Herpothallon rubrocinctum</i> (Ehrenb.) Aptroot, Lücking & G. Thor
<i>Cryptothelium diplocarpum</i> (Nyl.) Zahlbr.	<i>Astrothelium diplocarpum</i> Nyl.
<i>Curvularia geniculata</i> (Tracy & Earle) Boedijn	<i>Cochliobolus geniculatus</i> R.R. Nelson
<i>Cyclomyces tabacinus</i> (Mont.) Pat.	<i>Inonotus tabacinus</i> (Mont.) G. Cunn.
<i>Cylindrocarpon fusisporum</i> Samuels & Brayford	<i>Nectria fusispora</i> Rossmann
<i>Cylindrocladium colombiense</i> Crous	<i>Calonectria colombiensis</i> Crous
<i>Cylindrocladium graciloideum</i> Crous & Mchau	<i>Calonectria gracilipes</i> Crous & Mchau
<i>Cymatella longipes</i> G.W. Martin	<i>Marasmius martinii</i> Singer
<i>Cyphelium leptoconium</i> (Nyl.) Zahlbr.	<i>Pyrgidium montellium</i> (Beltr.) Tibell
<i>Cystocoleus niger</i> (Huds.) Har.	<i>Cystocoleus ebeneus</i> (Dillwyn) Thwaites
<i>Cytidia habgallae</i> (Berk. & Broome) G.W. Martin	<i>Aleurocystis hakgallae</i> (Berk. & Broome) G. Cunn.
<i>Cytospora eucalyptina</i> Speg.	<i>Valsa fabianae</i> G.C. Adams, M.J. Wingf. & Jol. Roux
<i>Dacrymyces involutus</i> Schwein.	<i>Arrhytidia involuta</i> (Schwein.) Coker
<i>Daedalea levis</i> Hook.	<i>Trametes elegans</i> (Spreng.) Fr.
<i>Dasyscyphus bambusinus</i> (Bres.) Dennis	<i>Erioscyphella bambusina</i> (Bres.) Kirschst.
<i>Dasyscyphus brasiliensis</i> (Mont.) Le Gal	<i>Erioscyphella brasiliensis</i> (Mont.) Baral, Šandová & B. Perić
<i>Dasyscyphus fimbriifer</i> (Berk. & M.A. Curtis) Sacc.	<i>Lachnum fimbriiferum</i> (Berk. & M.A. Curtis) J.H. Haines
<i>Dasyscyphus nudipes</i> (Fuckel) Sacc. var. <i>nudipes</i>	<i>Lachnum nudipes</i> (Fuckel) Nannf.
<i>Dasyscyphus varians</i> Rehm	<i>Lachnum varians</i> (Rehm) M.P. Sharma

Synonym	Accepted Name
<i>Datronia mollis</i> (Sommerf.) Donk	<i>Ceriporus mollis</i> (Sommerf.) Zmitr. & Kovalenko
<i>Datronia scutellata</i> (Schwein.) Gilb. & Ryvarden	<i>Ceriporus scutellatus</i> (Schwein.) Zmitr.
<i>Deflexula sprucei</i> (Mont.) Maas Geest.	<i>Pterulicium sprucei</i> (Mont.) Leal-Dutra, Dentinger & G.W. Griff.
<i>Dendrophora albobadia</i> (Schwein.) Chamuris	<i>Peniophora albobadia</i> (Schwein.) Boidin
<i>Dendrothele cyathea</i> (S. Ito & S. Imai) N. Maek.	<i>Leptocorticium cyathea</i> (S. Ito & S. Imai) Hjortstam & Ryvarden
<i>Dendrothele cyathea</i> (S. Ito & S. Imai) N. Maek.	<i>Leptocorticium cyathea</i> (S. Ito & S. Imai) Hjortstam & Ryvarden
<i>Dermocybe flavotomentosa</i> M.M. Moser	<i>Cortinarius flavotomentosus</i> (M.M. Moser) G. Garnier
<i>Diaporthe manihotis</i> Punith.	<i>Phomopsis manihot</i> (Speg.) Chevaug.
<i>Dichonema sericeum</i> (Sw.) Mont.	<i>Dictyonema sericeum</i> (Sw.) Berk.
<i>Dichostereum granulorum</i> (Pers.) Boidin & Lanq.	<i>Hyphodontia granulosa</i> (Pers.) Bernicchia
<i>Dictyonema glabratum</i> (Spreng.) D. Hawksw.	<i>Cora glabrata</i> (Spreng.) Fr.
<i>Dictyonema hirsutum</i> Moncada & Lücking	<i>Cora hirsuta</i> (Moncada & Lücking) Moncada & Lücking
<i>Dictyonema melvinii</i> Chaves et al.	<i>Corella melvinii</i> (Chaves, Lücking & L. Umaña) Lücking, Dal-Forno & Lawrey
<i>Dictyonema minus</i> Lücking et al.	<i>Cora minor</i> (Lücking, E. Navarro & Sipman) Lücking
<i>Dictyonema pavonium</i> (Sw.) Parm.	<i>Cora glabrata</i> (Spreng.) Fr.
<i>Dictyonema zahlbruckneri</i> (Schiffn.) V. Marciano	<i>Corella zahlbruckneri</i> Schiffn.
<i>Didymium cancellatum</i> (Batsch) Macbride	<i>Cribraria cancellata</i> (Batsch) Nann.-Bremek.
<i>Didymosphaeria arxii</i> Aa	<i>Aaosphaeria arxii</i> (Aa) Aptroot
<i>Dimelaena diffractella</i> (Müll. Arg.) Sheard	<i>Dimelaena tenuis</i> (Müll. Arg.) H. Mayrhofer & Wippel
<i>Dimerella dilucida</i> (Kremp.) R. Sant.	<i>Coenogonium dilucidum</i> (Kremp.) Kalb & Lücking
<i>Dimerella epiphylla</i> (Müll. Arg.) Malme	<i>Coenogonium subluteum</i> (Rehm) Kalb & Lücking
<i>Dimerella fallaciosa</i> (Müll. Arg.) Vězda	<i>Coenogonium fallaciosum</i> (Müll. Arg.) Kalb & Lücking
<i>Dimerella flavicans</i> Vězda & Farkas	<i>Coenogonium flavicans</i> (Vězda & Farkas) Kalb & Lücking
<i>Dimerella hypophylla</i> Vězda	<i>Coenogonium hypophyllum</i> (Vězda) Kalb & Lücking
<i>Dimerella lutea</i> (Dicks.) Trevis.	<i>Coenogonium luteum</i> (Dicks.) Kalb & Lücking
<i>Dimerella pyrophthalma</i> (Mont.) Vězda	<i>Coenogonium pyrophthalmum</i> (Mont.) Lücking, Aptroot & Sipman
<i>Dimerella zonata</i> (Müll. Arg.) R. Sant.	<i>Coenogonium zonatum</i> (Müll. Arg.) Kalb & Lücking
<i>Diploschistes muscorum</i> subsp. <i>bartlettii</i> Lumbsch	<i>Diploschistes bartlettii</i> (Lumbsch) Lücking
<i>Dirinaria confusa</i> var. <i>saxicola</i> (Räsänen) D.D. Awasthi	<i>Dirinaria confusa</i> D.D. Awasthi



ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name
<i>Dothidea circumscripta</i> Berk.	<i>Sphaerodothis circumscripta</i> (Berk.) Theiss. & Syd.
<i>Dothidella stuebelii</i> Henn.	<i>Microcyclus stuebelii</i> (Henn.) E. Müll. & Sanwal
<i>Dothidina sphaerospora</i> Chardón	<i>Coccodiella miconiae</i> (Duby) I. Hino & Katum.
<i>Dufourea flabellata</i> Hue	<i>Bunodophoron flabellatum</i> (Hue) Soto, M. Prieto & Wedin
<i>Dufourea tortuosa</i> Nees	<i>Peltula tortuosa</i> (Ach.) Wetmore
<i>Echinoplaca affinis</i> Kalb & Vězda	<i>Aderkomyces heterellus</i> (Stirt.) Lücking, Sérus. & Vězda
<i>Echinoplaca strigulacea</i> (Müll. Arg.) R. Sant.	<i>Actinoplaca strigulacea</i> Müll. Arg.
<i>Echinopodospora terrestris</i> S.C. Jong & E.E. Davis	<i>Apiosordaria terrestris</i> (S.C. Jong & E.E. Davis) J.C. Krug, Udagawa & Jeng
<i>Enteridium lycoperdon</i> (Bull.) M.L. Farr	<i>Reticularia lycoperdon</i> Bull.
<i>Entoloma cystidiophorum</i> Dennis	<i>Inocephalus cystidiophorus</i> (Dennis) Karstedt & Capelari
<i>Entoloma sericeum</i> (Bull.) Quél. var. <i>sericeum</i>	<i>Entoloma sericeum</i> Quél.
<i>Entoloma spadiceum</i> E. Horak & Singer	<i>Entoloma singeri</i> Mešić & Tkalčec
<i>Entrophospora colombiana</i> Spain & N.C. Schenck	<i>Acaulospora colombiana</i> (Spain & N.C. Schenck) Kaonongbua, J.B. Morton & Bever
<i>Entrophospora schenckii</i> Sieverd. & S. Toro	<i>Archaeospora schenckii</i> (Sieverd. & S. Toro) C. Walker & A. Schübler
<i>Erynia radicans</i> (Bref.) Humber	<i>Zoophthora radicans</i> (Bref.) A. Batko
<i>Everniastrum catawbiense</i> (Degel.) Sipman	<i>Hypotrachyna catawbiensis</i> (Degel.) Divakar, A. Crespo, Sipman, Elix & Lumbsch
<i>Everniastrum cirrhatum</i> (Fr.) Sipman	<i>Hypotrachyna cirrhata</i> (Fr.) Divakar, A. Crespo, Sipman, Elix & Lumbsch
<i>Everniastrum columbiense</i> (Zahlbr.) Sipman	<i>Hypotrachyna columbiensis</i> (Zahlbr.) Divakar, A. Crespo, Sipman, Elix & Lumbsch
<i>Everniastrum fragile</i> Sipman	<i>Hypotrachyna fragilis</i> (Sipman) Divakar, A. Crespo, Sipman, Elix & Lumbsch
<i>Everniastrum limaeforme</i> (Taylor) Hale ex Sipman	<i>Hypotrachyna limiformis</i> (Taylor) Divakar, A. Crespo, Sipman, Elix & Lumbsch
<i>Everniastrum lipidiferum</i> (Hale & Wirth) Sipman	<i>Hypotrachyna lipidifera</i> (Hale & M. Wirth) Divakar, A. Crespo, Sipman, Elix & Lumbsch
<i>Everniastrum planum</i> Sipman	<i>Hypotrachyna plana</i> (Sipman) Divakar, A. Crespo, Elix & Lumbsch
<i>Everniastrum sorocheilum</i> (Vain.) Sipman	<i>Hypotrachyna sorocheila</i> (Vain.) Divakar, A. Crespo, Sipman, Elix & Lumbsch
<i>Everniastrum subvexans</i> Sipman	<i>Hypotrachyna subvexans</i> (Sipman) Divakar, A. Crespo, Sipman, Elix & Lumbsch
<i>Everniastrum vexans</i> (W.L. Culb. & C.F. Culb.) Sipman	<i>Hypotrachyna vexans</i> (Zahlbr. ex W.L. Culb. & C.F. Culb.) Divakar, A. Crespo, Sipman, Elix & Lumbsch

Synonym	Accepted Name
<i>Exidia nucleata</i> (Schwein.) Burt	<i>Myxarium nucleatum</i> Wallr.
<i>Exidiopsis candida</i> (L.S. Olive) K. Wells	<i>Sebacina candida</i> L.S. Olive
<i>Exidiopsis fuliginea</i> Rick	<i>Sebacina fuliginea</i> (Rick) L.S. Olive
<i>Exidiopsis laccata</i> (Bourdot & Galzin) Luck-Allen	<i>Exidiopsis effusa</i> (Bref. ex Sacc.) Möller
<i>Favolus grammocephalus</i> (Berk.) Imazeki	<i>Favolus elongoporus</i> (Drechsler-Santos & Ryvarden) Zmitr. & Kovalenko
<i>Fellhanera dominicana</i> (Vain.) Vězda	<i>Fellhanera fuscata</i> (Müll. Arg.) Vězda
<i>Fissurina deficiens</i>	<i>Fissurina nigririmis</i> var. <i>deficiens</i> (A.W. Archer) A.W. Archer
<i>Fissurina flavicans</i> (Kashiw.) M. Nakan. & Kashiw.	<i>Phaeographis flavicans</i> Kashiw.
<i>Fistulina radicata</i> (Schwein.) Schwein.	<i>Pseudofistulina radicata</i> (Schwein.) Burds.
<i>Fistulinella campinaranae</i> var. <i>scrobiculata</i> Singer	<i>Fistulinella campinaranae</i> Singer
<i>Flegographa leprieurii</i> (Mont.) A. Massal.	<i>Phaeographis leprieurii</i> (Mont.) Staiger
<i>Fomitopsis feei</i> (Fr.) Kreisel	<i>Rhodofomitopsis feei</i> (Fr.) B.K. Cui, M.L. Han & Y.C. Dai
<i>Fomitopsis supina</i> (Sw.) Murrill	<i>Fomitella supina</i> (Sw.) Murrill
<i>Fulvifomes umbrinellus</i> (Bres.) Y.C. Dai	<i>Fomitoporella coruscans</i> (Murrill) Salvador-Montoya & Popoff
<i>Funalia caperata</i> (Berk.) Zmitr. & Malysheva	<i>Funalia caperata</i> (Berk.) Zmitr. & Malysheva
<i>Fusarium lolii</i> (Wm.G. Sm.) Sacc.	<i>Fusarium heterosporum</i> Nees & T. Nees
<i>Fusarium roseum</i> f. <i>phaseoli</i> N. Barros	<i>Fusarium roseum</i> Link
<i>Galactomyces geotrichum</i> (E.E. Butler & L.J. Petersen) Redhead & Malloch	<i>Dipodascus geotrichum</i> (E.E. Butler & L.J. Petersen) Arx
<i>Galerina cerina</i> var. <i>nebularum</i> A. H. Sm. & Singer	<i>Galerina cerina</i> A.H. Sm. & Singer
<i>Galerina cerina</i> var. <i>nebularum</i> A.H. Sm. & Singer	<i>Galerina cerina</i> A.H. Sm. & Singer
<i>Galerina emmetensis</i> var. <i>intermedia</i> A.H. Sm. & Singer	<i>Galerina emmetensis</i> A.H. Sm. & Singer
<i>Ganoderma fornicatum</i> (Fr.) Pat.	<i>Ganoderma orbiforme</i> (Fr.) Ryvarden
<i>Ganoderma hollidayi</i> Steyaert	<i>Ganoderma chalceum</i> (Cooke) Steyaert
<i>Geastrum trichifer</i> Rick	<i>Geastrum mirabile</i> Mont.
<i>Gerronema cheilocystidiatum</i> Singer	<i>Omphalina cheilocystidiata</i> (Singer) Raithelh.
<i>Gloeocystidium ochroleucum</i> Bres. & Torrend	<i>Scytinostroma lusitanicum</i> (Trotter) P.M. Kirk
<i>Gloeosporium vanillae</i> Cooke	<i>Colletotrichum coccodes</i> (Wallr.) S. Hughes
<i>Glomus manihotis</i> R.H. Howeler, Sieverd. & N.C. Schenck	<i>Rhizophagus manihotis</i> (R.H. Howeler, Sieverd. & N.C. Schenck) C. Walker & A. Schübler
<i>Glossodium aversum</i> Nyl.	<i>Icmadophila aversa</i> (Nyl.) Rambold & Hertel

ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name
<i>Glyphis actinobola</i> Nyl.	<i>Sarcographa cinchonarum</i> Fée
<i>Glyphis cicatricosa</i> var. <i>favulosa</i> (Ach.) Nyl.	<i>Glyphis cicatricosa</i> Ach.
<i>Glyphis confluens</i> f. <i>analoga</i> Nyl.	<i>Glyphis cicatricosa</i> Ach.
<i>Glyphis favulosa</i> Ach.	<i>Glyphis cicatricosa</i> Ach.
<i>Glyphis favulosa</i> var. <i>intermedia</i> Müll. Arg.	<i>Glyphis cicatricosa</i> Ach.
<i>Glyphis labyrinthica</i> Ach.	<i>Sarcographa labyrinthica</i> (Ach.) Müll. Arg.
<i>Glyphis medusulina</i> Nyl.	<i>Sarcographa medusulina</i> (Nyl.) Müll. Arg.
<i>Gnomonia ospinae</i> Chardón	<i>Apiosphaeria guaranitica</i> (Speg.) Höhn.
<i>Gomphillus ophiosporus</i> Kalb & Vězda	<i>Gomphillus hyalinus</i> (Pat.) Lücking, Kalb & Vězda
<i>Grammothele setulosa</i> (Henn.) Ryv.	<i>Megasporoporia setulosa</i> (Henn.) Rajchenb.
<i>Graphina acharii</i> (Fée) Müll. Arg.	<i>Allographa acharii</i> (Fée) Lücking & Kalb
<i>Graphina acharii</i> f. <i>enteroleuca</i> (Ach.) Zahlbr.	<i>Allographa acharii</i> (Fée) Lücking & Kalb
<i>Graphina acharii</i> f. <i>subducens</i> (Nyl.) Zahlbr.	<i>Allographa acharii</i> (Fée) Lücking & Kalb
<i>Graphina acharii</i> var. <i>albicans</i> (Nyl.) Müll. Arg.	<i>Allographa acharii</i> (Fée) Lücking & Kalb
<i>Graphina acharii</i> var. <i>monospora</i> (Nyl.) Müll. Arg.	<i>Allographa acharii</i> (Fée) Lücking & Kalb
<i>Graphina aggregans</i> (Nyl.) Zahlbr.	<i>Anomomorpha aggregans</i> (Nyl.) Staiger
<i>Graphina agminalis</i> (Nyl.) Zahlbr.	<i>Jocatoa agminalis</i> (Nyl.) Lücking, Herrera-Camp. & R. Miranda
<i>Graphina analoga</i> var. <i>subradiata</i> (Nyl.) Zahlbr.	<i>Allographa subradiata</i> (Nyl.) Lücking & Kalb
<i>Graphina anguina</i> (Mont.) Müll. Arg.	<i>Thaloloma anguinum</i> (Mont.) Trevis.
<i>Graphina chlorocarpa</i> (Fée) Müll. Arg.	<i>Allographa chlorocarpa</i> (Fée) Lücking & Kalb
<i>Graphina chrysocarpa</i> (Raddi) Müll. Arg.	<i>Allographa chrysocarpa</i> (Raddi) Lücking & Kalb
<i>Graphina cleistomma</i> (Nyl.) Müll. Arg.	<i>Allographa cleistomma</i> (Nyl.) Lücking & Kalb
<i>Graphina collospora</i> (Vain.) Zahlbr.	<i>Diorygma hieroglyphicum</i> (Pers.) Staiger & Kalb
<i>Graphina columbiana</i> (Nyl.) Müll. Arg.	<i>Diorygma hieroglyphicum</i> (Pers.) Staiger & Kalb
<i>Graphina dimidiata</i> (Vain.) Zahlbr.	<i>Graphis dimidiata</i> Vain.
<i>Graphina haemographa</i> (Nyl.) Müll. Arg.	<i>Thaloloma haemographum</i> (Nyl.) Staiger
<i>Graphina hololeuroides</i> (Nyl.) Müll. Arg.	<i>Acanthotheccis hololeuroides</i> (Nyl.) Staiger & Kalb
<i>Graphina incrustans</i> (Fée) Müll. Arg.	<i>Fissurina incrustans</i> Fée
<i>Graphina insculpta</i> (Eschw.) Müll. Arg.	<i>Fissurina insculpta</i> Mont.
<i>Graphina malmei</i> Redinger	<i>Malmographina plicosa</i> (C.F.W. Meissn.) M. Cáceres, Rivas Plata & Lücking
<i>Graphina marcescens</i> (Fée) Müll. Arg.	<i>Carbacanthographis marcescens</i> (Fée) Staiger & Kalb

Synonym	Accepted Name
<i>Graphina pachygrapha</i> (Nyl.) Zahlbr.	<i>Diorygma pachygraphum</i> (Nyl.) Kalb, Staiger & Elix
<i>Graphina platycarpa</i> (Eschw.) Zahlbr.	<i>Graphis platycarpa</i> Eschw.
<i>Graphina plurispora</i> (Redinger) Wirth & Hale	<i>Allographa plurispora</i> (Redinger) Lücking & Kalb
<i>Graphina pseudoanaloga</i> (Vain.) Zahlbr.	<i>Graphis pseudoanaloga</i> Vain.
<i>Graphina reniformis</i> (Fée) Müll. Arg.	<i>Diorygma reniforme</i> (Fée) Kalb, Staiger & Elix
<i>Graphina scribillans</i> (Nyl.) Zahlbr.	<i>Thaloloma scribillans</i> (Nyl.) Lücking
<i>Graphina sophistica</i> (Nyl.) Müll. Arg.	<i>Graphis platycarpa</i> Eschw.
<i>Graphina streblocarpa</i> (Bél.) Müll. Arg.	<i>Graphis streblocarpa</i> (Bél.) Nyl.
<i>Graphina subserpentina</i> (Nyl.) Müll. Arg.	<i>Graphis subserpentina</i> Nyl.
<i>Graphina tetrachora</i> (Nyl.) Zahlbr.	<i>Acanthotheccis tetrachora</i> (Nyl.) Staiger & Kalb
<i>Graphina triphora</i> (Nyl.) Müll. Arg.	<i>Allographa triphora</i> (Nyl.) Lücking & Kalb
<i>Graphina virginea</i> (Eschw.) Müll. Arg.	<i>Diorygma poitaei</i> (Fée) Kalb, Staiger & Elix
<i>Graphiopsis chlorocephala</i> (Fresen.) Trail	<i>Dichocladosporium chlorocephalum</i> (Fresen.) K. Schub., U. Braun & Crous
<i>Graphis abapha</i> Nyl.	<i>Diorygma hieroglyphicum</i> (Pers.) Staiger & Kalb
<i>Graphis acharii</i> Fée	<i>Allographa acharii</i> (Fée) Lücking & Kalb
<i>Graphis adpressa</i> Vain.	<i>Allographa adpressa</i> (Vain.) Lücking & Kalb
<i>Graphis afzelii</i> Ach.	<i>Dyplolabia afzelii</i> (Ach.) A. Massal.
<i>Graphis aggregans</i> Nyl.	<i>Anomomorpha aggregans</i> (Nyl.) Staiger
<i>Graphis agminalis</i> Nyl.	<i>Jocatoa agminalis</i> (Nyl.) Lücking, Herrera-Camp. & R. Miranda
<i>Graphis alborosella</i> Nyl.	<i>Chapsa alborosella</i> (Nyl.) Frisch
<i>Graphis analoga</i> var. <i>monophora</i> Tuck.	<i>Graphis analoga</i> Nyl.
<i>Graphis analoga</i> var. <i>subradiata</i> Nyl.	<i>Allographa subradiata</i> (Nyl.) Lücking & Kalb
<i>Graphis analoga</i> var. <i>subtecta</i> (Nyl.) Zahlbr.	<i>Graphis subtecta</i> (Nyl.) Lücking
<i>Graphis analoga</i> var. <i>subtecta</i> Nyl.	<i>Graphis subtecta</i> (Nyl.) Lücking
<i>Graphis anguilliformis</i> Taylor	<i>Allographa rhizicola</i> (Fée) Lücking & Kalb
<i>Graphis angustata</i> Eschw.	<i>Allographa angustata</i> (Eschw.) Lücking & Kalb
<i>Graphis bettinae</i> Lücking, L. Umaña, Chaves & Sipman	<i>Allographa bettinae</i> (Lücking, Umaña, Chaves & Sipman) Lücking & Kalb
<i>Graphis cabbalistica</i> Nyl.	<i>Kalbographa cabbalistica</i> (Nyl.) Lücking
<i>Graphis chlorocarpa</i> Fée	<i>Allographa chlorocarpa</i> (Fée) Lücking & Kalb
<i>Graphis chrysenderon</i> Mont.	<i>Pallidogramme chrysenderon</i> (Mont.) Staiger, Kalb & Lücking



## ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name
<i>Graphis chrysocarpa</i> (Raddi) Spreng.	<i>Allographa chrysocarpa</i> (Raddi) Lücking & Kalb
<i>Graphis cinerea</i> Fée	<i>Allographa cinerea</i> (Fée) Lücking & Kalb
<i>Graphis cinnabarina</i> Fée	<i>Thalloloma cinnabarinum</i> (Fée) Staiger
<i>Graphis cleistomma</i> Nyl.	<i>Allographa cleistomma</i> (Nyl.) Lücking & Kalb
<i>Graphis colubrosa</i> Nyl.	<i>Platygramme colubrosa</i> (Nyl.) Staiger
<i>Graphis cometia</i> Fée	<i>Diorygma poitaei</i> (Fée) Kalb, Staiger & Elix
<i>Graphis comma</i> (Ach.) Spreng.	<i>Allographa comma</i> (Ach.) Lücking & Kalb
<i>Graphis confluens</i> (Fée) Müll. Arg.	<i>Diorygma confluens</i> (Fée) Kalb, Staiger & Elix
<i>Graphis connata</i> (Eschw.) Nyl.	<i>Graphis anfractuosa</i> (Eschw.) Eschw.
<i>Graphis daintreensis</i> (A.W. Archer) A.W. Archer	<i>Allographa daintreensis</i> (A.W. Archer) Lücking & Kalb
<i>Graphis dealbata</i> Nyl.	<i>Allographa dealbata</i> (Nyl.) Lücking & Kalb
<i>Graphis decolorascens</i> Nyl.	<i>Phaeographis decolorascens</i> (Nyl.) Lücking
<i>Graphis dendritica</i> Ach.	<i>Phaeographis dendritica</i> (Ach.) Müll. Arg.
<i>Graphis dimorpha</i> Nyl.	<i>Platythecium leiogramma</i> (Nyl.) Staiger
<i>Graphis dividens</i> Nyl.	<i>Phaeographis dividens</i> (Nyl.) Kr.P. Singh & Swarnal.
<i>Graphis dolichographa</i> Nyl.	<i>Allographa dolichographa</i> (Nyl.) Lücking & Kalb
<i>Graphis dumastii</i> (Fée) Spreng.	<i>Fissurina dumastii</i> Fée
<i>Graphis farinulenta</i> Müll. Arg.	<i>Allographa farinulenta</i> (Müll. Arg.) Lücking & Kalb
<i>Graphis flexibilis</i> Kremp.	<i>Allographa angustata</i> (Eschw.) Lücking & Kalb
<i>Graphis fulgurans</i> Nyl.	<i>Phaeographis fulgurans</i> (Nyl.) Zahlbr.
<i>Graphis furfuracea</i> Leight.	<i>Fissurina furfuracea</i> (Leight.) A.W. Archer
<i>Graphis glaucoleucodes</i> Nyl.	<i>Diorygma junghuhnii</i> (Mont. & Bosch) Kalb, Staiger & Elix
<i>Graphis glauconigra</i> Vain.	<i>Allographa glauconigra</i> (Vain.) Lücking & Kalb
<i>Graphis grammitis</i> Fée	<i>Platythecium grammitis</i> (Fée) Staiger
<i>Graphis haematites</i> Fée	<i>Phaeographis haematites</i> (Fée) Müll. Arg.
<i>Graphis haemographa</i> Nyl.	<i>Thalloloma haemographum</i> (Nyl.) Staiger
<i>Graphis hypolepta</i> Nyl.	<i>Thalloloma hypoleptum</i> (Nyl.) Staiger
<i>Graphis illinata</i> Eschw.	<i>Allographa illinata</i> (Eschw.) Lücking & Kalb
<i>Graphis intricans</i> Nyl.	<i>Phaeographis intricans</i> (Nyl.) Staiger

Synonym	Accepted Name
<i>Graphis inusta</i> Ach.	<i>Phaeographis inusta</i> (Ach.) Müll. Arg.
<i>Graphis inusta</i> f. <i>medusuliformis</i> Nyl.	<i>Phaeographis inusta</i> (Ach.) Müll. Arg.
<i>Graphis koreaiensis</i> Sipman	<i>Gymnographopsis koreaiensis</i> (Sipman) Lücking & Sipman
<i>Graphis leiogramma</i> Nyl.	<i>Platythecium leiogramma</i> (Nyl.) Staiger
<i>Graphis leprieurii</i> (Mont.) Nyl.	<i>Phaeographis leprieurii</i> (Mont.) Staiger
<i>Graphis leprographa</i> Nyl.	<i>Allographa leprographa</i> (Nyl.) Lücking & Kalb
<i>Graphis leucocheila</i> (Fée) Nyl.	<i>Phaeographis leucocheila</i> (Fée) Müll. Arg.
<i>Graphis leucocheila</i> f. <i>irradiata</i> Nyl.	<i>Phaeographis leucocheila</i> (Fée) Müll. Arg.
<i>Graphis lumbricina</i> Vain.	<i>Allographa lumbricina</i> (Vain.) Lücking & Kalb
<i>Graphis macella</i> Kremp.	<i>Allographa macella</i> (Kremp.) R. Lücking & K. Kalb
<i>Graphis malacodes</i> Nyl.	<i>Allographa malacodes</i> (Nyl.) Lücking & Kalb
<i>Graphis marginifera</i> Vain.	<i>Allographa rustica</i> (Kremp.) Lücking & Kalb
<i>Graphis mesographa</i> Nyl.	<i>Phaeographis mesographa</i> (Nyl.) Müll. Arg.
<i>Graphis mexicana</i> (Hale) Lücking et al.	<i>Allographa mexicana</i> (Hale) Lücking & Kalb
<i>Graphis miniata</i> Redinger	<i>Allographa miniata</i> (Redinger) Lücking & Kalb
<i>Graphis monophora</i> Nyl.	<i>Diorygma monophorum</i> (Nyl.) Kalb, Staiger & Elix
<i>Graphis muscicola</i> (Kalb) Staiger	<i>Allographa mexicana</i> (Hale) Lücking & Kalb
<i>Graphis myriocarpa</i> (Fée) Trevis.	<i>Melaspilea myriocarpa</i> Fée
<i>Graphis nuda</i> (H. Magn.) Staiger & Lücking	<i>Allographa nuda</i> (H. Magn.) Lücking & Kalb
<i>Graphis obtecta</i> f. <i>columbiana</i> Nyl.	<i>Diorygma hieroglyphicum</i> (Pers.) Staiger & Kalb
<i>Graphis obtecta</i> Nyl.	<i>Diorygma hieroglyphicum</i> (Pers.) Staiger & Kalb
<i>Graphis obtecta</i> var. <i>columbiana</i> (Nyl.) Hue	<i>Diorygma hieroglyphicum</i> (Pers.) Staiger & Kalb
<i>Graphis pachygrapha</i> Nyl.	<i>Diorygma pachygraphum</i> (Nyl.) Kalb, Staiger & Elix
<i>Graphis patellula</i> (Fée) Nyl.	<i>Leiorreuma patellulum</i> (Fée) Staiger
<i>Graphis pilarensis</i> M. Cáceres & Lücking	<i>Allographa pilarensis</i> (Cáceres & Lücking) Lücking & Kalb
<i>Graphis pittierii</i> Lücking, L. Umaña, Sipman & Chaves	<i>Allographa pittieri</i> (Lücking, Umaña, Sipman & Chaves) Lücking & Kalb
<i>Graphis planetocarpa</i> Leight.	<i>Melaspilea myriocarpa</i> Fée
<i>Graphis plurispora</i> (Redinger) Lücking & Chaves	<i>Allographa plurispora</i> (Redinger) Lücking & Kalb
<i>Graphis radiata</i> (Mont.) Nyl.	<i>Fissurina radiata</i> Mont.
<i>Graphis reniformis</i> Fée	<i>Diorygma reniforme</i> (Fée) Kalb, Staiger & Elix

## ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name
<i>Graphis rhizocola</i> (Fée) Lücking & Chaves	<i>Allographa rhizicola</i> (Fée) Lücking & Kalb
<i>Graphis rigida</i> (Fée) Spreng.	<i>Allographa acharii</i> (Fée) Lücking & Kalb
<i>Graphis rigida</i> f. <i>enteroleuca</i> (Ach.) Nyl.	<i>Allographa acharii</i> (Fée) Lücking & Kalb
<i>Graphis rigida</i> f. <i>subducens</i> Nyl.	<i>Allographa acharii</i> (Fée) Lücking & Kalb
<i>Graphis rigida</i> var. <i>subducens</i> (Nyl.) Nyl.	<i>Allographa acharii</i> (Fée) Lücking & Kalb
<i>Graphis rimulosa</i> (Mont.) Trevis.	<i>Allographa rimulosa</i> (Mont.) Lücking & Kalb
<i>Graphis ruiziana</i> (Fée) A. Massal.	<i>Allographa ruiziana</i> (Fée) Lücking & Kalb
<i>Graphis rustica</i> Kremp.	<i>Allographa rustica</i> (Kremp.) Lücking & Kalb
<i>Graphis scalpturata</i> Ach.	<i>Phaeographis scalpturata</i> (Ach.) Staiger
<i>Graphis scalpturata</i> f. <i>plurifera</i> Nyl.	<i>Platygramme caesiopruinosa</i> (Fée) Fée
<i>Graphis scalpturata</i> var. <i>dissimilis</i> (Nyl.)	<i>Phaeographis scalpturata</i> (Ach.) Staiger
<i>Graphis scalpturata</i> var. <i>plurifera</i> Nyl.	<i>Platygramme caesiopruinosa</i> (Fée) Fée
<i>Graphis scaphella</i> Ach.	<i>Allographa scaphella</i> (Ach.) Lücking & Kalb
<i>Graphis scribillans</i> Nyl.	<i>Thaloloma scribillans</i> (Nyl.) Lücking
<i>Graphis scripta</i> var. <i>serpentina</i> (Ach.) Meyen	<i>Graphis pulverulenta</i> (Pers.) Ach.
<i>Graphis seminuda</i> Müll. Arg.	<i>Allographa seminuda</i> (Müll. Arg.) Lücking & Kalb
<i>Graphis separanda</i> Nyl.	<i>Leiorreuma patellulum</i> (Fée) Staiger
<i>Graphis serpentina</i> (Ach.) Ach.	<i>Graphis scripta</i> (L.) Ach.
<i>Graphis serpentinella</i> Nyl.	<i>Platythecium serpentinellum</i> (Nyl.) Staiger
<i>Graphis sitiana</i> Vain.	<i>Allographa sitiana</i> (Vain.) Lücking & Kalb
<i>Graphis sophistica</i> Nyl.	<i>Graphis platycarpa</i> Eschw.
<i>Graphis sphalera</i> Nyl.	<i>Pallidogramme chryseron</i> (Mont.) Staiger, Kalb & Lücking
<i>Graphis striatula</i> (Ach.) Spreng.	<i>Allographa striatula</i> (Ach.) Lücking & Kalb
<i>Graphis striatula</i> f. <i>elongata</i> Nyl.	<i>Allographa striatula</i> (Ach.) Lücking & Kalb
<i>Graphis subchrysocharpa</i> Lücking	<i>Allographa ochracea</i> (C.W. Dodge) Lücking & Kalb
<i>Graphis subflexibilis</i> Lücking & Chaves	<i>Allographa subflexibilis</i> (Lücking & Chaves) Lücking & Kalb
<i>Graphis subradiata</i> (Nyl.) Lücking	<i>Allographa subradiata</i> (Nyl.) Lücking & Kalb
<i>Graphis substriata</i> Nyl.	<i>Glyphis substriatula</i> (Nyl.) Staiger
<i>Graphis substriatula</i> Nyl.	<i>Glyphis substriatula</i> (Nyl.) Staiger
<i>Graphis subvirginea</i> f. <i>denudata</i> Leight.	<i>Graphis dracaenae</i> Vain.
<i>Graphis tachygrapha</i> Nyl.	<i>Fissurina tachygrapha</i> (Nyl.) Staiger

Synonym	Accepted Name
<i>Graphis tetraphora</i> Nyl.	<i>Acanthothecis tetraphora</i> (Nyl.) Staiger & Kalb
<i>Graphis tricola</i> (Ach.) Nyl.	<i>Sarcographa tricola</i> (Ach.) Müll. Arg.
<i>Graphis triphora</i> Nyl.	<i>Allographa triphora</i> (Nyl.) Lücking & Kalb
<i>Graphis triticea</i> Nyl.	<i>Fissurina triticea</i> (Nyl.) Staiger
<i>Graphis tumidula</i> (Fée) Spreng.	<i>Allographa tumidula</i> (Fée) Lücking & Kalb
<i>Graphis turgidula</i> Müll. Arg.	<i>Allographa rustica</i> (Kremp.) Lücking & Kalb
<i>Graphis uruguayensis</i>	<i>Allographa uruguayensis</i> Lücking
<i>Graphis vernicosa</i> (Ach.) Nyl.	<i>Allographa acharii</i> (Fée) Lücking & Kalb
<i>Graphis vernicosa</i> f. <i>monospora</i> Nyl.	<i>Allographa acharii</i> (Fée) Lücking & Kalb
<i>Graphis vernicosa</i> f. <i>submonospora</i> Nyl.	<i>Allographa acharii</i> (Fée) Lücking & Kalb
<i>Graphis vernicosa</i> var. <i>albicans</i> Nyl.	<i>Allographa acharii</i> (Fée) Lücking & Kalb
<i>Graphis vernicosa</i> var. <i>chrysocharpa</i>	<i>Allographa chrysocharpa</i> (Raddi) Lücking & Kalb
<i>Graphis vernicosa</i> var. <i>hyperbolizans</i> Nyl.	<i>Allographa acharii</i> (Fée) Lücking & Kalb
<i>Graphis vernicosa</i> var. <i>monospora</i> Nyl.	<i>Allographa acharii</i> (Fée) Lücking & Kalb
<i>Graphis vestitoides</i> (Fink) Staiger	<i>Allographa vestitoides</i> (Fink) Lücking & Kalb
<i>Graphis virginea</i> (Eschw.) Mont.	<i>Diorygma poitaei</i> (Fée) Kalb, Staiger & Elix
<i>Graphis xanthospora</i> Müll. Arg.	<i>Allographa xanthospora</i> (Müll. Arg.) Lücking & Kalb
<i>Graphis zonatula</i> Zahlbr.	<i>Graphis longiramea</i> Müll. Arg.
<i>Gyalidea epiphylla</i> Vězda	<i>Phyllogyalidea epiphylla</i> (Vězda) Lücking & Aptroot
<i>Gyalidea hyalinescens</i> (Nyl.) Vězda var. <i>hyalinescens</i>	<i>Gyalidea hyalinescens</i> (Nyl.) Vězda
<i>Gyalideopsis athalloides</i> (Nyl.) Vězda	<i>Diploschistella athalloides</i> (Nyl.) Lücking, Knudsen & Fryday
<i>Gyalideopsis lithophila</i> G. Thor & Vězda	<i>Diploschistella lithophila</i> (G. Thor & Vězda) Lücking, Sérus. & Vězda
<i>Gymnopus confluens</i> (Pers.) Antonín, Halling & Noordel.	<i>Marasmiellus confluens</i> (Pers.) J.S. Oliveira
<i>Gyrostomum scyphuliferum</i> (Ach.) Nyl.	<i>Glyphis scyphulifera</i> (Ach.) Staiger
<i>Haplosporangium lignicola</i> G.W. Martin	<i>Mortierella lignicola</i> (G.W. Martin) W. Gams & R. Moreau
<i>Heliscus submersus</i> H.J. Huds.	<i>Aquanectria submersa</i> (H.J. Huds.) L. Lombard & Crous
<i>Hemileia colombiana</i> Buriticá	<i>Blastospora colombiana</i> (Buriticá) M. Salazar, A.A. Carvalho & J.F. Hennen
<i>Hemithecium balbisii</i> (Fée) Trevis.	<i>Allographa balbisii</i> (Fée) Lücking & Kalb
<i>Hemithecium chlorocarpum</i> (Fée) Trevis.	<i>Allographa chlorocarpa</i> (Fée) Lücking & Kalb



ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name
<i>Hemithecium chrysenteron</i> (Mont.) Trevis.	<i>Pallidogramme chrysenteron</i> (Mont.) Staiger, Kalb & Lücking
<i>Herpothallon albidum</i> (Fée) Aptroot, Lücking & G. Thor	<i>Cryphonina albida</i> (Fée) Frisch & G. Thor
<i>Herpothallon antillarum</i> (Vain.) Aptroot, Lücking & G. Thor	<i>Diorygma antillarum</i> (Vain.) Nelsen, Lücking & Rivas Plata
<i>Herpothallon mycelioides</i> (Vain.) Aptroot, Lücking & G. Thor	<i>Cryphonina mycelioides</i> (Vain.) Frisch & G. Thor
<i>Herpothallon sanguineum</i> (Sw.) Fr.	<i>Herpothallon rubrocinctum</i> (Ehrenb.) Aptroot, Lücking & G. Thor
<i>Heterina tortuosa</i> (Nees) Nyl.	<i>Peltula tortuosa</i> (Ach.) Wetmore
<i>Heterochaete lividofusca</i> Pat.	<i>Heteroradulum lividofuscum</i> (Pat.) Spirin & Malysheva
<i>Heterochaete shearii</i> (Burt) Burt	<i>Eichleriella shearii</i> (Burt) Spirin & Malysheva
<i>Heterodermia casarettiana</i> (A. Massal.) Trevis.	<i>Polyblastidium casarettianum</i> (A. Massal.) Kalb
<i>Heterodermia circinalis</i> (Zahlbr.) W.A. Weber	<i>Leucodermia circinalis</i> (Zahlbr.) Kalb
<i>Heterodermia corallophora</i> (Taylor) Skorepa	<i>Polyblastidium corallophorum</i> (Taylor) Kalb
<i>Heterodermia flabellata</i> (Fée) D.D. Awasthi var. <i>flabellata</i>	<i>Heterodermia flabellata</i> (Fée) D.D. Awasthi
<i>Heterodermia hypoleuca</i> (Ach.) Trevis.	<i>Polyblastidium hypoleucum</i> (Ach.) Kalb
<i>Heterodermia hypoleuca</i> (Muhl.) Trevis.	<i>Polyblastidium hypoleucum</i> (Ach.) Kalb
<i>Heterodermia japonica</i> (Sato) Swinscow & Krog	<i>Polyblastidium japonicum</i> (M. Satō) Kalb
<i>Heterodermia leucomela</i>	<i>Leucodermia leucomelos</i> (L.) Kalb
<i>Heterodermia leucomelos</i> (L.) Poelt	<i>Leucodermia leucomelos</i> (L.) Kalb
<i>Heterodermia leucomelos</i> subsp. <i>boryi</i> (Fée) Swinscow & Krog	<i>Leucodermia boryi</i> (Fée) Kalb
<i>Heterodermia lutescens</i> (Kurok.) Follmann & Redón	<i>Leucodermia lutescens</i> (Kurok.) Kalb
<i>Heterodermia magellanica</i> (Zahlbr.) Swinscow & Krog	<i>Polyblastidium magellanicum</i> (Zahlbr.) Kalb
<i>Heterodermia microphylla</i> (Kurok.) Skorepa	<i>Polyblastidium microphyllum</i> (Kurok.) Kalb
<i>Heterodermia propagulifera</i> (Vain.) Dey	<i>Polyblastidium propaguliferum</i> (Vain.) Kalb
<i>Heterodermia squamulosa</i> (Degel.) W.L. Culb.	<i>Polyblastidium squamulosum</i> (Degel.) Kalb
<i>Heterodermia vulgaris</i> (Vain.) Follmann & Redón	<i>Leucodermia vulgaris</i> (Vain.) Kalb
<i>Heterosporium paradoxum</i> Syd. & P. Syd.	<i>Laocoon paradoxus</i> (Syd. & P. Syd.) J.C. David
<i>Heufleria diplocarpa</i> (Nyl.) Müll. Arg.	<i>Astrothelium diplocarpum</i> Nyl.
<i>Hexagonia hydnoides</i> (Sw.) M. Fidalgo	<i>Cerrena hydnoides</i> (Sw.) Zmitr.
<i>Hexagonia tenuis</i> J.M. Hook	<i>Pseudofavolus tenuis</i> (Fr.) G. Cunn.
<i>Hjortstamia novae-granata</i> (A.L. Welden) Hjortstam & Ryvarden	<i>Hjortstamia novae-granatae</i> (A.L. Welden) Hjortstam & Ryvarden
<i>Hohenbuehelia culmicola</i> Singer	<i>Hohenbuehelia singeriana</i> Contu & Padovan

Synonym	Accepted Name
<i>Hyalothyridium maydis</i> Latterell & A.E. Rossi	<i>Orphanocoela maydis</i> (Latterell & A.E. Rossi) Nag Raj
<i>Hydnodon thelephorus</i> (Lév.) Banker	<i>Trechispora thelephora</i> (Lév.) Ryvarden
<i>Hydnum palmatum</i> Berk.	<i>Hydnopolyporus palmatus</i> (Hook.) O. Fidalgo
<i>Hydropus cavipes</i> (Pat. & Gaillard) Dennis var. <i>cavipes</i>	<i>Hydropus cavipes</i> (Pat. & Gaillard) Dennis
<i>Hydropus cavipes</i> var. <i>murinialbus</i> Singer	<i>Hydropus cavipes</i> (Pat. & Gaillard) Dennis
<i>Hydropus marasmioides</i> Singer	<i>Marasmius marasmioides</i> (Singer) Singer
<i>Hygrocybe conica</i> (Scop.) P. Kumm. var. <i>conica</i>	<i>Hygrocybe conica</i> (Schaeff.) P. Kumm.
<i>Hygrocybe conica</i> var. <i>brevispora</i> (Dennis) S.A. Cantrell & Lodge	<i>Hygrocybe conica</i> (Schaeff.) P. Kumm.
<i>Hygrocybe earlei</i> Murrill	<i>Agrocybe earlei</i> (Murrill) Dennis ex Singer
<i>Hygrocybe laeta</i> (Pers.) P. Kumm. var. <i>laeta</i>	<i>Gliophorus laetus</i> (Pers.) Herink
<i>Hygrocybe occidentalis</i> (Dennis) Pegler var. <i>occidentalis</i>	<i>Hygrocybe occidentalis</i> (Dennis) Pegler
<i>Hygrocybe virginea</i> (Wulfen) P.D. Orton & Watling var. <i>virginea</i>	<i>Cuphophyllum virgineus</i> (Wulfen) Kovalenko
<i>Hygrophorus hondurensis</i> (Murrill) Murrill	<i>Hygrocybe hondurensis</i> Murrill
<i>Hygrophorus hypohaemactus</i> Corner	<i>Hygrocybe hypohaemacta</i> (Corner) Pegler
<i>Hygrophorus nodulisporus</i> Dennis	<i>Hygroaster nodulisporus</i> (Dennis) Ralaiv., Niskanen & Liimat.
<i>Hymenochaete rhabarbarina</i> (Berk.) Cooke	<i>Fuscoporia rhabarbarina</i> (Berk.) Groposo, Log.-Leite & Góes-Neto
<i>Hymenoscyphus herbarum</i> (Pers.) Dennis	<i>Calycina herbarum</i> (Pers.) Gray
<i>Hyphoderma argillaceum</i> (Bres.) Donk	<i>Kurtia argillacea</i> (Bres.) Karasiński
<i>Hyphoderma brunneocontextum</i> (C.E. Gómez) M. Galán	<i>Hyphoderma romeroae</i> C.E. Gómez, Baltazar & Rajchenb.
<i>Hyphoderma pallidum</i> (Bres.) Donk	<i>Peniophorella pallida</i> (Bres.) K.H. Larss.
<i>Hyphoderma praetermissum</i> (P. Karst.) J. Erikss. & A. Strid	<i>Peniophorella praetermissa</i> (P. Karst.) K.H. Larss.
<i>Hyphoderma puberum</i> (Fr.) Wallr.	<i>Peniophorella pubera</i> (Fr.) P. Karst.
<i>Hyphoderma rude</i> (Bres.) Hjortstam & Ryvarden	<i>Peniophorella rude</i> (Bres.) K.H. Larss.
<i>Hyphodontia alutacea</i> (Fr.) J. Erikss.	<i>Alutaceodontia alutacea</i> (Fr.) Hjortstam & Ryvarden
<i>Hyphodontia apacheriensis</i> (Gilb. & Canf.) Hjortstam & Ryvarden	<i>Xylodon apacheriensis</i> (Gilb. & Canf.) Hjortstam & Ryvarden
<i>Hyphodontia aspera</i> (Fr.) J. Erikss.	<i>Xylodon asper</i> (Fr.) Hjortstam & Ryvarden
<i>Hyphodontia brevidens</i> (Pat.) Ryvarden	<i>Fibrodontia brevidens</i> (Pat.) Hjortstam & Ryvarden
<i>Hyphodontia breviseta</i> (P. Karst.) J. Erikss.	<i>Xylodon brevisetus</i> (P. Karst.) Hjortstam & Ryvarden

ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name
<i>Hyphodontia candidissima</i> (Berk. & M.A. Curtis) Langer	<i>Xylodon candidissimus</i> (Berk. & M.A. Curtis) Hjortstam & Ryvarde
<i>Hyphodontia crustosa</i> (Pers.) J. Erikss.	<i>Lyomyces crustosus</i> (Pers.) P. Karst.
<i>Hyphodontia detritica</i> (Bourdot & Galzin) J. Erikss.	<i>Xylodon detriticus</i> (Bourdot) K.H. Larss., Viner & Spirin
<i>Hyphodontia detritica</i> (Bourdot) J. Erikss.	<i>Xylodon detriticus</i> (Bourdot) K.H. Larss., Viner & Spirin
<i>Hyphodontia gamundiae</i> Gresl. & Rajchenb.	<i>Xylodon gamundiae</i> (Gresl. & Rajchenb.) Riebesehl & Langer
<i>Hyphodontia juniperi</i> (Bourdot & Galzin) J. Erikss. & Hjortstam	<i>Lyomyces juniperi</i> (Bourdot & Galzin) Riebesehl & Langer
<i>Hyphodontia lanata</i> Burds. & Nakasone	<i>Kneiffiella lanata</i> (Burds. & Nakasone) Riebesehl & Langer
<i>Hyphodontia nespori</i> (Bres.) J. Erikss. & Hjortstam	<i>Xylodon nesporii</i> (Bres.) Hjortstam & Ryvarde
<i>Hyphodontia niemelaei</i> Sheng H. Wu	<i>Xylodon niemelaei</i> (Sheng H. Wu) Hjortstam & Ryvarde
<i>Hyphodontia radula</i> (Pers.) Langer & Vesterh.	<i>Xylodon raduloideus</i> Riebesehl & Langer
<i>Hyphodontia rudis</i> Hjortstam & Ryvarde	<i>Xylodon rudis</i> (Hjortstam & Ryvarde) Hjortstam & Ryvarde
<i>Hyphodontia stratosus</i> Hjortstam & Ryvarde	<i>Xylodon stratosus</i> (Hjortstam & Ryvarde) Hjortstam & Ryvarde
<i>Hyphodontia verecunda</i> (G. Cunn.) Hjortstam & Ryvarde	<i>Xylodon verecundus</i> (G. Cunn.) Yurchenko & Riebesehl
<i>Hyphodontia wrightii</i> Hjortstam & Ryvarde	<i>Palifer wrightii</i> (Hjortstam & Ryvarde) Hjortstam & Ryvarde
<i>Hypholoma sublateritium</i> (Fr.) Quél.	<i>Hypholoma lateritium</i> (Schaeff.) P. Kumm.
<i>Hypholoma subviride</i> (Berk. & M.A. Curtis) Dennis	<i>Hypholoma fasciculare</i> (Huds.) P. Kumm.
<i>Hypochnicium luteolum</i> Hjortstam & Ryvarde	<i>Amylocorticium luteolum</i> (Hjortstam & Ryvarde) Gorjón, Gresl. & Rajchenb.
<i>Hypocrea muroiana</i> f. <i>dimorphospora</i> Yoshim. Doi	<i>Hypocrea muroiana</i> I. Hino & Katum.
<i>Hypocrea muroiana</i> f. <i>minor</i> Yoshim. Doi	<i>Hypocrea muroiana</i> I. Hino & Katum.
<i>Hypocrea patella</i> f. <i>tropica</i> Yoshim. Doi	<i>Trichoderma patellotropicum</i> Samuels
<i>Hypocrea subtrachycarpa</i> Yoshim. Doi	<i>Trichoderma subtrachycarpum</i> (Yoshim. Doi) Jaklitsch & Voglmayr
<i>Hypotrachyna aguirrei</i> Sipman, Elix & T.H. Nash	<i>Remototrachyna aguirrei</i> (Sipman, Elix & T.H. Nash) Flakus, Kukwa & Sipman
<i>Hypotrachyna costaricensis</i> (Nyl.) Hale	<i>Remototrachyna costaricensis</i> (Nyl.) Divakar, Lumbsch, Ferencová, Prado & A. Crespo
<i>Hypotrachyna formosana</i> (Zahlbr.) Hale	<i>Hypotrachyna osseoalba</i> (Vain.) Y.S. Park & Hale
<i>Hypotrachyna gigas</i> (Kurok.) Hale	<i>Hypotrachyna longiloba</i> (H. Magn.) C.W. Sm.
<i>Hypotrachyna rachista</i> (Hale) Hale	<i>Hypotrachyna prolongata</i> (Kurok.) Hale
<i>Hypotrachyna rhabdiformis</i> (Kurok.) Hale	<i>Remototrachyna rhabdiformis</i> (Kurok.) Divakar & A. Crespo

Synonym	Accepted Name
<i>Hypotrachyna singularis</i> (Hale) Hale	<i>Remototrachyna singularis</i> (Hale) Flakus, Kukwa & Sipman
<i>Hypoxylon bakeri</i> Earle	<i>Hypomontagnella monticulosa</i> (Mont.) Sir, L. Wendt & C. Lambert
<i>Hypoxylon hainesii</i> J.D. Rogers & Dumont	<i>Camillea hainesii</i> (J.D. Rogers & Dumont) Læssøe, J.D. Rogers & Whalley
<i>Hypoxylon hypomiltum</i> Mont. var. <i>hypomiltum</i>	<i>Hypoxylon hypomiltum</i> Mont.
<i>Hypoxylon rubigineoareolatum</i> Rehm	<i>Hypomontagnella rubigineoareolata</i> (Rehm) Sir, L. Wendt & C. Lambert
<i>Hypoxylon sclerophaeum</i> Berk. & M.A. Curtis	<i>Hymenoscyphus sclerogenus</i> (Berk. & M.A. Curtis) Dennis
<i>Hypoxylon scriblita</i> Mont.	<i>Camillea scriblita</i> (Mont.) Læssøe, J.D. Rogers & Whalley
<i>Hypoxylon serpens</i> (Pers.) Fr.	<i>Nemania serpens</i> (Pers.) Gray
<i>Inocybe calamistrata</i> (Fr.) Gillet	<i>Inosperma calamistratum</i> (Fr.) Matheny & Esteve-Rav.
<i>Inocybe rimosa</i> (Bull.) P. Kumm.	<i>Pseudosperma rimosum</i> (Bull.) Matheny & Esteve-Rav.
<i>Inopilus avilanus</i> (Dennis) Pegler	<i>Entoloma avilanum</i> (Dennis) E. Horak
<i>Inopilus cystidiophorus</i> (Dennis) Pegler	<i>Inocephalus cystidiophorus</i> (Dennis) Karstedt & Capelari
<i>Inopilus siparianus</i> (Dennis) Pegler	<i>Entoloma siparianum</i> Dennis
<i>Irenina fidelis</i> Toro	<i>Asteridiella fidelis</i> (Toro) Hansf.
<i>Kabatiella microsticta</i> Bubák	<i>Aureobasidium microstictum</i> (Bubák) W.B. Cooke
<i>Karlingia lobata</i> var. <i>microspora</i> Karling	<i>Karlingia lobata</i> Karling
<i>Kluyveromyces lactis</i> (Krassiln.) Van der Walt	<i>Kluyveromyces lactis</i> (Stell.-Dekk.) Van der Walt
<i>Lachnum abnorme</i> (Mont.) J.H. Haines & Dumont	<i>Erioscyphella abnormis</i> (Mont.) Baral, Šandová & B. Perić
<i>Lachnum brasiliense</i> (Mont.) J.H. Haines & Dumont	<i>Erioscyphella brasiliensis</i> (Mont.) Baral, Šandová & B. Perić
<i>Lachnum cerinum</i> (Pers.) Nannf.	<i>Neodasyscypha cerina</i> (Pers.) Spooner
<i>Lachnum fuscescens</i> (Pers.) P. Karst. var. <i>fuscescens</i>	<i>Lachnum fuscescens</i> (Pers.) P. Karst.
<i>Lachnum nudipes</i> var. <i>minor</i> Dennis	<i>Lachnum nudipes</i> (Fuckel) Nannf.
<i>Lachnum sclerotii</i> (A.L. Sm.) J.H. Haines & Dumont	<i>Erioscyphella sclerotii</i> (A.L. Sm.) Baral, Šandová & B. Perić
<i>Lactarius annulifer</i> Singer	<i>Lactifluus annulifer</i> (Singer) Nuytinck
<i>Lactarius brasiliensis</i> Singer	<i>Lactifluus brasiliensis</i> (Singer) Silva-Filho & Wartchow
<i>Lactarius deceptivus</i> Peck	<i>Lactifluus deceptivus</i> (Peck) Kuntze
<i>Lactarius fragilis</i> (Burl.) Hesler & A.H. Sm.	<i>Lactarius camphoratus</i> (Bull.) Fr.
<i>Laeticorticium roseum</i> (Pers.) Donk	<i>Corticium roseum</i> Pers.
<i>Lagarobasidium detriticum</i> (Bourdot & Galzin) Jülich	<i>Xylodon detriticus</i> (Bourdot) K.H. Larss., Viner & Spirin
<i>Laurera effusa</i> Aptroot & Sipman	<i>Astrothelium effusum</i> (Aptroot & Sipman) Aptroot & Lücking



## ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name
<i>Laurera madreporiformis</i> (Eschw.) Riddle	<i>Bathelium madreporiforme</i> (Eschw.) Trevis.
<i>Laurera megasperma</i> (Mont.) Zahlbr.	<i>Astrothelium megaspermum</i> (Mont.) Aptroot & Lücking
<i>Laurera phaeomelodes</i> (Müll. Arg.) Zahlbr.	<i>Astrothelium subdiscretum</i> (Nyl.) Aptroot & Lücking
<i>Laurera sphaerioides</i> (Mont.) Zahlbr.	<i>Astrothelium sphaerioides</i> (Mont.) Aptroot & Lücking
<i>Laurera variata</i> (Nyl.) Zahlbr.	<i>Astrothelium variatum</i> (Nyl.) Aptroot & Lücking
<i>Lazulinospora wakefieldia</i> Burds. & M.J. Larsen	<i>Amaurodon wakefieldiae</i> (Burds. & M.J. Larsen) Kõljalg & K.H. Larss.
<i>Lecanactis elaeocarpa</i> (Nyl.) Tehler	<i>Gyronactis elaeocarpa</i> (Nyl.) Ertz & Tehler
<i>Lecanactis homoeoides</i> (Nyl.) Zahlbr.	<i>Lecanactis epileuca</i> (Nyl.) Tehler
<i>Lecanactis insignior</i> (Nyl.) Vain.	<i>Cresponea leprieurii</i> (Mont.) Egea & Torrente
<i>Lecanactis leprieurii</i> (Mont.) Tuck.	<i>Cresponea leprieurii</i> (Mont.) Egea & Torrente
<i>Lecanactis proximans</i> (Nyl.) Zahlbr.	<i>Cresponea proximata</i> (Nyl.) Egea & Torrente
<i>Lecania heterochroa</i> Müll. Arg.	<i>Badimia dimidiata</i> (Bab. ex Leight.) Vězda
<i>Lecania sulphureofusca</i> (Fée) Müll. Arg.	<i>Sipmaniella sulfureofusca</i> (Fée) Kalb
<i>Lecanicillium sabanense</i> J.S. Chirivi-Salomon, Restrepo & T.I. Sanjuan	<i>Akanthomyces sabanensis</i> (Chir.-Salom., Restrepo & Sanjuan) Chir.-Salom., Sanjuan & Restrepo
<i>Lecanora albella</i> var. <i>chlarona</i> (Ach.) Nyl.	<i>Lecanora chlarotera</i> Nyl.
<i>Lecanora albella</i> var. <i>praeferenda</i> Nyl.	<i>Lecanora praeferenda</i> (Nyl.) Nyl.
<i>Lecanora alboatrata</i> Nyl.	<i>Lopezaria versicolor</i> (Flot.) Kalb & Hafellner
<i>Lecanora angulosa</i> f. <i>chlarona</i> (Ach.) Hue	<i>Lecanora chlarotera</i> Nyl.
<i>Lecanora atra</i> (Huds.) Ach.	<i>Tephromela atra</i> (Huds.) Hafellner
<i>Lecanora aurantiaca</i> f. <i>erythrella</i> (Ach.) Nyl.	<i>Gyalolechia flavovirescens</i> (Wulfen) Søchting, Frödén & Arup
<i>Lecanora aurantiaca</i> var. <i>erythrella</i> (Ach.) Nyl.	<i>Gyalolechia flavovirescens</i> (Wulfen) Søchting, Frödén & Arup
<i>Lecanora brebissonii</i> (Fée) Nyl.	<i>Caloplaca brebissonii</i> (Fée) J. Sant. ex Hafellner & Poelt
<i>Lecanora chlarona</i> (Ach.) Nyl.	<i>Lecanora chlarotera</i> Nyl.
<i>Lecanora coarctata</i> (Sm.) Ach.	<i>Trapelia coarctata</i> (Turner) M. Choisy
<i>Lecanora colobinoides</i> Nyl.	<i>Rinodina colobinoides</i> (Nyl.) Müll. Arg.
<i>Lecanora conjugens</i> Nyl.	<i>Caloplaca conjugens</i> (Nyl.) Zahlbr.
<i>Lecanora conjugens</i> Nyl.	<i>Caloplaca conjugens</i> (Nyl.) Zahlbr.
<i>Lecanora crocantha</i> Nyl.	<i>Caloplaca crocantha</i> (Nyl.) Zahlbr.
<i>Lecanora diducta</i> f. <i>albicans</i> Nyl.	<i>Caloplaca diducta</i> (Nyl.) Zahlbr.
<i>Lecanora diducta</i> Nyl.	<i>Caloplaca diducta</i> (Nyl.) Zahlbr.
<i>Lecanora dimidiata</i> Bab.	<i>Badimia dimidiata</i> (Bab. ex Leight.) Vězda

Synonym	Accepted Name
<i>Lecanora diplinthia</i> f. <i>terrestris</i> Hue	<i>Rinodina diplinthia</i> (Nyl.) Zahlbr.
<i>Lecanora diplinthia</i> Nyl.	<i>Rinodina diplinthia</i> (Nyl.) Zahlbr.
<i>Lecanora domingensis</i> f. <i>inexplicata</i> (Nyl.) Hue	<i>Letrouitia flavidula</i> (Tuck.) Hafellner
<i>Lecanora erysiphaea</i> Nyl.	<i>Rinodina colobinoides</i> (Nyl.) Müll. Arg.
<i>Lecanora erythrantha</i> Tuck.	<i>Caloplaca erythrantha</i> (Tuck.) Zahlbr.
<i>Lecanora erythrella</i> (Ach.) Ach.	<i>Gyalolechia flavovirescens</i> (Wulfen) Søchting, Frödén & Arup
<i>Lecanora erythroleuca</i> Nyl.	<i>Caloplaca erythroleuca</i> (Nyl.) Zahlbr.
<i>Lecanora erythroleucoides</i> Nyl.	<i>Caloplaca erythroleucodes</i> (Nyl.) Zahlbr.
<i>Lecanora granifera</i> var. <i>subaeruginosa</i> Nyl.	<i>Vainionora flavovirens</i> (Fée) Kalb
<i>Lecanora hagenii</i> (Ach.) Ach.	<i>Myriolecis hagenii</i> (Ach.) Śliwa, Zhao Xin & Lumbsch
<i>Lecanora homobola</i> Nyl.	<i>Rinodina homobola</i> (Nyl.) Malme
<i>Lecanora inaequata</i> Nyl.	<i>Ochrolechia inaequata</i> (Nyl.) Zahlbr.
<i>Lecanora insperata</i> Nyl.	<i>Orcularia insperata</i> (Nyl.) Kalb & Giralte
<i>Lecanora laciniosa</i> var. <i>substellata</i> (Ach.) Nyl.	<i>Candelaria concolor</i> (Dicks.) Arnold
<i>Lecanora multifera</i> (Nyl.) Vain.	<i>Neoprotoparmelia multifera</i> (Nyl.) Garima Singh, Lumbsch & I. Schmitt
<i>Lecanora multifera</i> Nyl.	<i>Neoprotoparmelia multifera</i> (Nyl.) Garima Singh, Lumbsch & I. Schmitt
<i>Lecanora murorum</i> var. <i>obliterarum</i> (Pers.) Nyl.	<i>Calogaya saxicola</i> (Hoffm.) Vondrák
<i>Lecanora pyracea</i> (Ach.) Nyl.	<i>Athallia pyracea</i> (Ach.) Arup, Frödén & Søchting
<i>Lecanora quadrilocularis</i> Nyl.	<i>Caloplaca quadrilocularis</i> (Nyl.) Zahlbr.
<i>Lecanora russeola</i> Nyl.	<i>Caloplaca russeola</i> (Nyl.) Zahlbr.
<i>Lecanora subaeruginosa</i> (Nyl.) Nyl.	<i>Vainionora flavovirens</i> (Fée) Kalb
<i>Lecanora subferruginea</i> Nyl.	<i>Blastenia subferruginea</i> (Nyl.) Müll. Arg.
<i>Lecanora subfusca</i> f. <i>chlarona</i> (Ach.) Körb.	<i>Lecanora chlarotera</i> Nyl.
<i>Lecanora subfusca</i> var. <i>argentata</i> (Ach.) Boistel	<i>Lecanora argentata</i> (Ach.) Röhl.
<i>Lecanora subfusca</i> var. <i>atrynea</i> Ach.	<i>Lecanora chlarotera</i> Nyl.
<i>Lecanora subfusca</i> var. <i>chlarona</i> (Ach.) Ach.	<i>Lecanora chlarotera</i> Nyl.
<i>Lecanora subfusca</i> var. <i>conferta</i> (Duby) Schaer.	<i>Myriolecis hagenii</i> (Ach.) Śliwa, Zhao Xin & Lumbsch
<i>Lecanora subfusca</i> var. <i>subcrenulata</i> Nyl.	<i>Lecanora tropica</i> Zahlbr.
<i>Lecanora subfusca</i> var. <i>subgranulata</i> Nyl.	<i>Lecanora subgranulata</i> (Nyl.) Nyl.
<i>Lecanora subimmersa</i> (Fée) Vain. subsp. <i>subimmersa</i>	<i>Lecanora subimmersa</i> (Fée) Vain.

## ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name
<i>Lecanora subimmersa</i> subsp. <i>subimmersa</i>	<i>Lecanora subimmersa</i> (Fée) Vain.
<i>Lecanora sulphureofusca</i> Fée	<i>Sipmaniella sulfureofusca</i> (Fée) Kalb
<i>Lecanora umbrina</i> (Ach.) A. Massal.	<i>Myriolecis hagenii</i> (Ach.) Śliwa, Zhao Xin & Lumbsch
<i>Lecanora wilsonii</i> Müll. Arg. subsp. <i>wilsonii</i>	<i>Lecanora wilsonii</i> Müll. Arg.
<i>Lecanora xanthopa</i> Hue	<i>Caloplaca xanthopa</i> (Hue) Zahlbr.
<i>Lecanora xanthophana</i> Nyl.	<i>Acarospora xanthophana</i> (Nyl.) Jatta
<i>Leccinum andinum</i> Halling	<i>Rugiboletus andinus</i> (Halling) Halling & B. Ortiz
<i>Leccinum rugosiceps</i> (Peck) Singer	<i>Leccinellum rugosiceps</i> (Peck) C. Hahn
<i>Lecidea admixta</i> Nyl.	<i>Megalospora admixta</i> (Nyl.) Sipman
<i>Lecidea admixta</i> Th. Fr.	<i>Megalospora admixta</i> (Nyl.) Sipman
<i>Lecidea alboatrata</i> (Nyl.) Vain.	<i>Lopezaria versicolor</i> (Flot.) Kalb & Hafellner
<i>Lecidea albomaculans</i> Nyl.	<i>Bacidia albomaculans</i> (Nyl.) Zahlbr.
<i>Lecidea amplificans</i> Nyl.	<i>Megalospora coccodes</i> (Bél.) Sipman
<i>Lecidea andesita</i> Nyl.	<i>Bacidia andita</i> (Nyl.) Zahlbr.
<i>Lecidea andita</i> Nyl.	<i>Bacidia andita</i> (Nyl.) Zahlbr.
<i>Lecidea brebissonii</i> Fée	<i>Caloplaca brebissonii</i> (Fée) J. Sant. ex Hafellner & Poelt
<i>Lecidea breviuscula</i> Nyl.	<i>Phyllopsora breviuscula</i> (Nyl.) Müll. Arg.
<i>Lecidea byssomorpha</i> Nyl.	<i>Auriculora byssomorpha</i> (Nyl.) Kalb
<i>Lecidea cittarina</i> Nyl.	<i>Calopadia lecanorella</i> (Nyl.) Kalb & Vězda
<i>Lecidea coarctata</i> (Sm.) Nyl.	<i>Trapelia coarctata</i> (Turner) M. Choisy
<i>Lecidea conjugens</i> (Nyl.) Hue	<i>Caloplaca conjugens</i> (Nyl.) Zahlbr.
<i>Lecidea conspersa</i> Fée	<i>Piccolia conspersa</i> (Fée) Hafellner
<i>Lecidea conspirans</i> Nyl.	<i>Buellia conspirans</i> (Nyl.) Vain.
<i>Lecidea contigua</i> f. <i>platycarpa</i> (Lam.) Nyl.	<i>Porpidia macrocarpa</i> (DC.) Hertel & A.J. Schwab
<i>Lecidea contigua</i> var. <i>platycarpa</i> (Lam.) Fr.	<i>Porpidia macrocarpa</i> (DC.) Hertel & A.J. Schwab
<i>Lecidea crocantha</i> (Nyl.) Hue	<i>Caloplaca crocantha</i> (Nyl.) Zahlbr.
<i>Lecidea cupreorosella</i> var. <i>chloroticoides</i> Nyl.	<i>Aquacidia trachona</i> (Ach.) Aptroot
<i>Lecidea demutans</i> Nyl.	<i>Malmidea demutans</i> (Nyl.) Lücking
<i>Lecidea domingensis</i> f. <i>inexplicata</i> (Nyl.) Hue	<i>Letrouitia flavidula</i> (Tuck.) Hafellner
<i>Lecidea domingensis</i> var. <i>inexplicata</i> Nyl.	<i>Letrouitia flavidula</i> (Tuck.) Hafellner
<i>Lecidea endochroma</i> (Fée) Nyl.	<i>Catillochroma endochromum</i> (Fée) Kalb
<i>Lecidea endoleuca</i> (Nyl.) Nyl.	<i>Bacidia laurocerasi</i> (Delise ex Duby) Zahlbr.
<i>Lecidea erythrantha</i> (Tuck.) Hue	<i>Caloplaca erythrantha</i> (Tuck.) Zahlbr.

Synonym	Accepted Name
<i>Lecidea erythroleuroides</i> (Nyl.) Hue	<i>Caloplaca erythroleuroides</i> (Nyl.) Zahlbr.
<i>Lecidea flavovirescens</i> (Wulfen) Fr.	<i>Gyalolechia flavovirescens</i> (Wulfen) Söchting, Frödén & Arup
<i>Lecidea fulgidula</i> Nyl.	<i>Bacidia fulgidula</i> (Nyl.) Zahlbr.
<i>Lecidea furfuracea</i> Pers.	<i>Phyllopsora furfuracea</i> (Pers.) Zahlbr.
<i>Lecidea fuscuscula</i> Nyl.	<i>Spruceidea fuscula</i> (Nyl.) Lücking
<i>Lecidea fuscula</i> Nyl.	<i>Spruceidea fuscula</i> (Nyl.) Lücking
<i>Lecidea geographica</i> var. <i>viridiatra</i> (Wulfen) Nyl.	<i>Rhizocarpon viridiatrum</i> (Wulfen) Körb.
<i>Lecidea hostheleoides</i> Nyl.	<i>Bacidia hostheleoides</i> (Nyl.) Zahlbr.
<i>Lecidea insignior</i> Nyl.	<i>Cresponea lepreurii</i> (Mont.) Egea & Torrente
<i>Lecidea insperata</i> (Nyl.) Nyl.	<i>Orcularia insperata</i> (Nyl.) Kalb & Giralt
<i>Lecidea iodea</i> Nyl.	<i>Bacidia iodea</i> (Nyl.) Zahlbr.
<i>Lecidea ischnospora</i> Nyl.	<i>Bacidia ischnospora</i> (Nyl.) Zahlbr.
<i>Lecidea lecanorella</i> auct. non Nyl.	<i>Calopadia lecanorella</i> (Nyl.) Kalb & Vězda
<i>Lecidea lecanorella</i> Nyl.	<i>Calopadia lecanorella</i> (Nyl.) Kalb & Vězda
<i>Lecidea lepreurii</i> Mont.	<i>Cresponea lepreurii</i> (Mont.) Egea & Torrente
<i>Lecidea leucoxantha</i> Spreng.	<i>Brigantiaea leucoxantha</i> (Spreng.) R. Sant. & Hafellner
<i>Lecidea lutea</i> (Dicks.) Taylor	<i>Coenogonium luteum</i> (Dicks.) Kalb & Lücking
<i>Lecidea lutea</i> var. <i>eximia</i> Nyl.	<i>Coenogonium eximium</i> (Nyl.) Kalb & Lücking
<i>Lecidea luteola</i> Ach.	<i>Bacidia rubella</i> (Hoffm.) A. Massal.
<i>Lecidea melacheila</i> Nyl.	<i>Bacidia melacheila</i> (Nyl.) Zahlbr.
<i>Lecidea melaenella</i> Nyl.	<i>Catillaria melaenella</i> (Nyl.) Zahlbr.
<i>Lecidea millegrana</i> (Taylor) Nyl.	<i>Bacidia millegrana</i> (Taylor) Zahlbr.
<i>Lecidea millegrana</i> f. <i>fusconigrescens</i> Nyl.	<i>Bacidia millegrana</i> (Taylor) Zahlbr.
<i>Lecidea parasema</i> Ach.	<i>Lecidella elaeochroma</i> (Ach.) M. Choisy
<i>Lecidea parasema</i> var. <i>elaeochroma</i> Ach.	<i>Lecidella elaeochroma</i> (Ach.) M. Choisy
<i>Lecidea parasema</i> var. <i>entereoleuca</i> Nyl.	<i>Lecidella elaeochroma</i> (Ach.) M. Choisy
<i>Lecidea parmelioides</i> Hook.	<i>Coccocarpia erythroxyli</i> (Spreng.) Swinscow & Krog
<i>Lecidea parvifolia</i> Pers.	<i>Phyllopsora parvifolia</i> (Pers.) Müll. Arg.
<i>Lecidea parvifolia</i> var. <i>breviuscula</i> (Nyl.) Nyl.	<i>Phyllopsora breviuscula</i> (Nyl.) Müll. Arg.
<i>Lecidea parvifolia</i> var. <i>corallina</i> Tuck.	<i>Phyllopsora parvifolia</i> (Pers.) Müll. Arg.
<i>Lecidea parvifolia</i> var. <i>subgranulosa</i> Tuck.	<i>Phyllopsora parvifolia</i> (Pers.) Müll. Arg.
<i>Lecidea perminima</i> Nyl.	<i>Catillaria perminima</i> (Nyl.) Zahlbr.
<i>Lecidea petraea</i> Ach.	<i>Rhizocarpon concentricum</i> (Davies) Beltr.



## ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name
<i>Lecidea piperis</i> f. <i>circumtincta</i> (Nyl.)	<i>Malmidea piperis</i> (Spreng.) Kalb, Rivas Plata & Lumbsch
<i>Lecidea piperis</i> Spreng.	<i>Malmidea piperis</i> (Spreng.) Kalb, Rivas Plata & Lumbsch
<i>Lecidea piperis</i> var. <i>circumtincta</i> Nyl.	<i>Malmidea piperis</i> (Spreng.) Kalb, Rivas Plata & Lumbsch
<i>Lecidea posthabita</i> Nyl.	<i>Rinodina posthabita</i> (Nyl.) Aptroot
<i>Lecidea promixans</i> Nyl.	<i>Lecanactis proximans</i> (Nyl.) Zahlbr.
<i>Lecidea proposita</i> Nyl.	<i>Bacidia proposita</i> (Nyl.) Zahlbr.
<i>Lecidea punctuliformis</i> Nyl.	<i>Lecidella punctuliformis</i> (Nyl.) Kalb
<i>Lecidea russula</i> Ach.	<i>Ramboldia russula</i> (Ach.) Kalb, Lumbsch & Elix
<i>Lecidea russula</i> var. <i>obscura</i> Nyl.	<i>Ramboldia russula</i> (Ach.) Kalb, Lumbsch & Elix
<i>Lecidea sanguinariella</i> Nyl.	<i>Gassicurtia coccinea</i> Fée
<i>Lecidea smaragdascens</i> Nyl.	<i>Bacidia smaragdascens</i> (Nyl.) Zahlbr.
<i>Lecidea sororiella</i> Nyl.	<i>Bacidia sororiella</i> (Nyl.) Zahlbr.
<i>Lecidea squamulosula</i> Nyl.	<i>Bacidia squamulosula</i> (Nyl.) Zahlbr.
<i>Lecidea stellulata</i> Taylor	<i>Buellia stellulata</i> (Taylor) Mudd
<i>Lecidea subferruginea</i> (Nyl.) Hue	<i>Blastenia subferruginea</i> (Nyl.) Müll. Arg.
<i>Lecidea subjuncta</i> Nyl.	<i>Buellia subjuncta</i> (Nyl.) Müll. Arg.
<i>Lecidea subvirescens</i> Nyl.	<i>Phyllopsora corallina</i> (Eschw.) Müll. Arg.
<i>Lecidea tenebrosa</i> Flot.	<i>Schaereria fuscocinerea</i> (Nyl.) Clauzade & Cl. Roux
<i>Lecidea trachona</i> (Ach.) Flot.	<i>Bacidia segregata</i> (Müll. Arg.) Zahlbr.
<i>Lecidea trachona</i> var. <i>chloroticoides</i> Nyl.	<i>Aquacidia trachona</i> (Ach.) Aptroot
<i>Lecidea trailiana</i> Müll. Arg.	<i>Malmidea trailiana</i> (Müll. Arg.) Kalb, Rivas Plata & Lumbsch
<i>Lecidea trichospora</i> Nyl.	<i>Bacidia trichospora</i> (Nyl.) Zahlbr.
<i>Lecidea tuberculosa</i> Fée	<i>Megalospora tuberculosa</i> (Fée) Sipman
<i>Lecidea umbricolor</i> Nyl.	<i>Fuscidea umbricolor</i> (Nyl.) Hertel
<i>Lecidea versicolor</i> (Fée) Fée	<i>Lopezaria versicolor</i> (Flot.) Kalb & Hafellner
<i>Lecidea versicolor</i> var. <i>vigilans</i> (Taylor) Nyl.	<i>Lopezaria versicolor</i> (Flot.) Kalb & Hafellner
<i>Lecidea vigilans</i> (Taylor) Nyl.	<i>Lopezaria versicolor</i> (Flot.) Kalb & Hafellner
<i>Lecidea vigilans</i> auct. non (Taylor) Nyl.	<i>Lopezaria versicolor</i> (Flot.) Kalb & Hafellner
<i>Lecidea viridiatra</i> (Wulf.) Flot.	<i>Rhizocarpon viridiatrum</i> (Wulfen) Körb.
<i>Lecidea vulpina</i> Tuck.	<i>Letrouitia vulpina</i> (Tuck.) Hafellner & Bellem.
<i>Leifia flabelliradiata</i> (J. Erikss. & Hjortstam) Ginns	<i>Odontium flabelliradiatum</i> (J. Erikss. & Hjortstam) Zmitr.
<i>Leiотrametes menziesii</i> (Berk.) Welti & Courtec.	<i>Cubamyces menziesii</i> (Berk.) Lücking
<i>Lentinus cubensis</i> Berk. & M.A. Curtis	<i>Lentinula boryana</i> (Berk. & Mont.) Pegler

Synonym	Accepted Name
<i>Lentinus similis</i> Berk. & Broome	<i>Panus similis</i> (Berk. & Broome) T.W. May & A.E. Wood
<i>Lentinus strigellus</i> Berk.	<i>Panus strigellus</i> (Berk.) Overh.
<i>Lenzites repanda</i> (Mont.) Fr.	<i>Cubamyces cubensis</i> (Mont.) Murrill
<i>Lepidostroma terricolens</i> Mägd. & S. Winkl.	<i>Lepidostroma calocerum</i> (G.W. Martin) Oberw.
<i>Lepiota hemisclera</i> (Berk. & M.A. Curtis) Sacc.	<i>Cystolepiota hemisclera</i> (Berk. & M.A. Curtis) Pegler
<i>Lepiota rubella</i> Bres.	<i>Echinoderma rubellum</i> (Bres.) Migl.
<i>Lepraria chlorina</i> (Ach.) Ach.	<i>Chrysothrix chlorina</i> (Ach.) J.R. Laundon
<i>Lepraria usnica</i> Sipman	<i>Septotropelia usnica</i> (Sipman) Kalb & Bungartz
<i>Leprocaulon albicans</i> (Th. Fr.) Hue	<i>Lepraria albicans</i> (Th. Fr.) Lendemer & B.P. Hodk.
<i>Leprocaulon arbuscula</i> (Nyl.) Nyl.	<i>Lepraria arbuscula</i> (Nyl.) Lendemer & B.P. Hodk.
<i>Leprocaulon congestum</i> (Nyl.) I.M. Lamb & A. Ward	<i>Lepraria congesta</i> (Nyl.) Lendemer & B.P. Hodk.
<i>Leprocaulon microscopicum</i> (Vill.) Gams	<i>Leprocaulon microscopicum</i> (Vill.) Gams ex D. Hawksw.
<i>Leprocaulon subalbicans</i> (I.M. Lamb) I.M. Lamb & A. Ward	<i>Lepraria subalbicans</i> (I.M. Lamb) Lendemer & B.P. Hodk.
<i>Leptoloma sipmanianum</i> Kümmerl. & Leuckert	<i>Lepraria sipmaniana</i> (Kümmerl. & Leuckert) Kukwa
<i>Leptoloma vouauxii</i> (Hue) J.R. Laundon	<i>Lepraria vouauxii</i> (Hue) R.C. Harris
<i>Leptogium bullatum</i> var. <i>dactylinoideum</i> Nyl.	<i>Leptogium vesiculosum</i> (Sw.) Malme
<i>Leptogium corrugatum</i> Nyl.	<i>Leptogium marginellum</i> (Sw.) Gray
<i>Leptogium inflexum</i> var. <i>isidiosulum</i> Nyl.	<i>Leptogium laceroides</i> B. de Lesd.
<i>Leptogium olivaceum</i> (Hook.) Zahlbr.	<i>Leptogium pseudolivaceum</i> Lücking
<i>Leptogium punctulatum</i> Nyl.	<i>Leptogium diaphanum</i> (Sw.) Mont.
<i>Leptogium tremelloides</i> var. <i>azureum</i> (Sw.) Nyl.	<i>Leptogium azureum</i> (Sw.) Mont.
<i>Leptonia howellii</i> (Peck) Dennis	<i>Entoloma howellii</i> (Peck) Dennis
<i>Leptotrema bahianum</i> (Ach.) Müll. Arg.	<i>Ocellularia bahiana</i> (Ach.) Frisch
<i>Leptotrema lepadodes</i> (Tuck.) Zahlbr.	<i>Thelotrema lepadodes</i> Tuck.
<i>Leptotrema metaphoricum</i> (Nyl.) Zahlbr.	<i>Rhabdodiscus metaphoricus</i> (Nyl.) Vain.
<i>Leptotrema monosporum</i> (Nyl.) Müll. Arg.	<i>Thelotrema monosporum</i> Nyl.
<i>Leptotrema wightii</i> (Taylor) Müll. Arg.	<i>Sanguinotrema wightii</i> (Taylor) Lücking
<i>Leucocoprinus sulphurellus</i> Pegler	<i>Leucoagaricus sulphurellus</i> (Pegler) B.P. Akers
<i>Leucodecton expallescens</i> (Nyl.) Rivas Plata & Lücking	<i>Nadvornikia expallescens</i> (Nyl.) I. Medeiros, Lücking & Lumbsch
<i>Leucogramma chrysenteron</i> (Mont.) Staiger et al.	<i>Pallidogramme chrysenteron</i> (Mont.) Staiger, Kalb & Lücking
<i>Lichen parmelioides</i> Hook.	<i>Coccocarpia erythroxyli</i> (Spreng.) Swinscow & Krog

## ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name
<i>Lobaria carassensis</i> Vain.	<i>Yoshimuriella carassensis</i> (Vain.) Moncada & Lücking
<i>Lobaria corrosa</i> (Ach.) Vain.	<i>Yoshimuriella corrosa</i> (Ach.) Moncada & Lücking
<i>Lobaria crenulata</i> (Hook.) Trevis.	<i>Lobariella crenulata</i> (Hook.) Yoshim.
<i>Lobaria denudata</i> (Taylor) C.W. Dodge	<i>Yoshimuriella denudata</i> (Taylor) Moncada & Lücking
<i>Lobaria denudata</i> (Taylor) Yoshim.	<i>Yoshimuriella denudata</i> (Taylor) Moncada & Lücking
<i>Lobaria deplanata</i> (Nyl.) Yoshim.	<i>Yoshimuriella deplanata</i> (Nyl.) Moncada & Lücking
<i>Lobaria dissecta</i> (Sw.) Raeusch.	<i>Yoshimuriella dissecta</i> (Sw.) Moncada & Lücking
<i>Lobaria dissecta</i> (Sw.) Räusch.	<i>Yoshimuriella dissecta</i> (Sw.) Moncada & Lücking
<i>Lobaria excisa</i> (Müll. Arg.) Zahlbr.	<i>Emmanuelia excisa</i> (Müll. Arg.) Lücking, Moncada & Ant. Simon
<i>Lobaria exornata</i> var. <i>corallophora</i> Yoshim.	<i>Lobariella exornata</i> (Zahlbr.) Yoshim.
<i>Lobaria fendleri</i> (Tuck. & Mont.) Lindau	<i>Yoshimuriella fendleri</i> (Tuck. & Mont.) Moncada & Lücking
<i>Lobaria pallida</i> (Hook.) Trevis.	<i>Lobariella pallida</i> (Hook.) Moncada & Lücking
<i>Lobaria patinifera</i> (Taylor) Hue	<i>Emmanuelia patinifera</i> (Taylor) Lücking, M. Cáceres & Ant. Simon
<i>Lobaria patinifera</i> (Taylor) Müll. Arg.	<i>Emmanuelia patinifera</i> (Taylor) Lücking, M. Cáceres & Ant. Simon
<i>Lobaria peltigera</i> (Delise) Vain.	<i>Yoshimuriella peltigera</i> (Vain.) Lücking & Moncada
<i>Lobaria subdissecta</i> (Nyl.) Vain.	<i>Yoshimuriella subdissecta</i> (Nyl.) Moncada & Lücking
<i>Lobaria subexornata</i> Yoshim.	<i>Lobariella subexornata</i> (Yoshim.) Yoshim.
<i>Lobaria tenuis</i> Vain.	<i>Emmanuelia tenuis</i> (Vain.) Lücking, Moncada & Gumboski
<i>Loflammea flammea</i> (Müll. Arg.) Vězda	<i>Loflammia epiphylla</i> (Fée) Lücking & Vězda
<i>Lopadium cytharinum</i> (Nyl.) Zahlbr	<i>Calopadia lecanorella</i> (Nyl.) Kalb & Vězda
<i>Lopadium cyttarinum</i> (Nyl.) Zahlbr.	<i>Calopadia lecanorella</i> (Nyl.) Kalb & Vězda
<i>Lopadium newtonianum</i> (Henriq.) R. Sant.	<i>Eugeniella newtoniana</i> (Henriq.) Lücking, Sérus. & Kalb
<i>Lopharia crassa</i> (Lév.) Boidin	<i>Phlebiopsis crassa</i> (Lév.) Floudas & Hibbett
<i>Lopharia novae-granatae</i> A.L. Welden	<i>Hjortstamia novae-granatae</i> (A.L. Welden) Hjortstam & Ryvarden
<i>Lopharia papyracea</i> (Jungh.) D.A. Reid	<i>Phlebiopsis friesii</i> (Lév.) Spirin & Miettinen
<i>Lopharia papyrina</i> (Mont.) Boidin	<i>Phlebiopsis papyrina</i> (Mont.) Miettinen & Spirin
<i>Lycoperdon pusillum</i> Batsch	<i>Bovista pusilla</i> (Batsch) Pers.
<i>Lycoperdon umbrinum</i> Pers. var. <i>umbrinum</i>	<i>Lycoperdon umbrinum</i> Pers.
<i>Macabuna petreae</i> Pardo-Card.	<i>Catenulopsora petreae</i> Pardo-Card.

Synonym	Accepted Name
<i>Macrolepiota procera</i> (Scop.) Singer var. <i>procera</i>	<i>Macrolepiota procera</i> (Scop.) Singer
<i>Macrophoma symbolanthi</i> Syd. & P. Syd.	<i>Botryodiplodia symbolanthi</i> (Syd. & P. Syd.) Syd.
<i>Malcolmiella furfurosa</i> (Tuck.) Cáceres & Lücking	<i>Malmidea furfurosa</i> (Tuck. ex Nyl.) Kalb & Lücking
<i>Malcolmiella granifera</i> (Ach.) Kalb & Lücking	<i>Malmidea granifera</i> (Ach.) Kalb, Rivas Plata & Lumbsch
<i>Malcolmiella piperis</i> (Spreng.) Kalb & Lücking	<i>Malmidea piperis</i> (Spreng.) Kalb, Rivas Plata & Lumbsch
<i>Malcolmiella trailiana</i> (Müll. Arg.) Vězda	<i>Malmidea trailiana</i> (Müll. Arg.) Kalb, Rivas Plata & Lumbsch
<i>Malcolmiella vinosa</i> (Eschw.) Kalb & Lücking	<i>Malmidea vinosa</i> (Eschw.) Kalb, Rivas Plata & Lumbsch
<i>Marasmiellus brasiliensis</i> (Berk. & Mont.) Singer	<i>Collybia brasiliensis</i> (Berk. & Mont.) Dennis
<i>Marasmiellus defibulatus</i> var. <i>insignis</i> Singer	<i>Marasmiellus defibulatus</i> Singer
<i>Marasmiellus defibulatus</i> var. <i>strictior</i> Singer	<i>Marasmiellus defibulatus</i> Singer
<i>Marasmiellus ramealis</i> var. <i>tucumanensis</i> Singer	<i>Marasmiellus ramealis</i> (Bull.) Singer
<i>Marasmiellus subcoracinus</i> (Berk. & M.A. Curtis) Singer subsp. <i>subcoracinus</i>	<i>Marasmiellus subcoracinus</i> (Berk. & M.A. Curtis) Singer
<i>Marasmius androsaceus</i> (Bolton) Fr.	<i>Gymnopus androsaceus</i> (L.) Della Magg. & Trassin.
<i>Marasmius copelandii</i> Peck	<i>Mycetinis copelandii</i> (Peck) A.W. Wilson & Desjardin
<i>Marasmius corrugatus</i> var. <i>aurantiacus</i> (Murrill) Singer	<i>Gymnopus aurantiacus</i> Murrill
<i>Marasmius floriceps</i> Berk. & M.A. Curtis	<i>Marasmius leoninus</i> Berk.
<i>Marasmius gilvus</i> Pat.	<i>Marasmiellus gilvus</i> (Pat.) Singer
<i>Marasmius haematocephalus</i> (Mont.) Fr. var. <i>haematocephalus</i>	<i>Marasmius haematocephalus</i> (Mont.) Fr.
<i>Marasmius haematocephalus</i> var. <i>leucophyllus</i> Singer	<i>Marasmius haematocephalus</i> (Mont.) Fr.
<i>Marasmius haematocephalus</i> var. <i>pseudotageticolor</i> Singer	<i>Marasmius haematocephalus</i> (Mont.) Fr.
<i>Marasmius pallidocinctus</i> var. <i>latisporus</i> Singer	<i>Marasmius pallidocinctus</i> Singer
<i>Marasmius pseudoniveus</i> Singer var. <i>pseudoniveus</i>	<i>Marasmius pseudoniveus</i> Singer
<i>Marasmius pseudoniveus</i> var. <i>amylocystis</i> Singer	<i>Marasmius pseudoniveus</i> Singer
<i>Marasmius variabiliceps</i> var. <i>separatus</i> Singer	<i>Marasmius variabiliceps</i> Singer
<i>Maronea multifera</i> (Nyl.) Vain.	<i>Neoprotoparmelia multifera</i> (Nyl.) Garima Singh, Lumbsch & I. Schmitt
<i>Maronina multifera</i> (Nyl.) Hafellner & R.W. Rogers	<i>Neoprotoparmelia multifera</i> (Nyl.) Garima Singh, Lumbsch & I. Schmitt
<i>Marssonina agaves</i> Earle	<i>Marssonina agaves</i> (Earle) Magnus
<i>Mazosia rotula</i> var. <i>granularis</i> (Müll. Arg.) Müll. Arg.	<i>Mazosia melanophthalma</i> (Müll. Arg.) R. Sant.



ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name
<i>Mazosia striguloides</i> (Nyl.) Müll. Arg.	<i>Mazosia phyllosema</i> (Nyl.) Zahlbr.
<i>Megalaria endochroma</i> (Fée) Fryday & Lendemer	<i>Catillochroma endochromum</i> (Fée) Kalb
<i>Megalospora coccodes</i> (Bél.) Sipman subsp. <i>coccodes</i>	<i>Megalospora coccodes</i> (Bél.) Sipman
<i>Megalospora sulphurata</i> var. <i>nigricans</i> (Müll. Arg.) Riddle	<i>Megalospora sulphurata</i> Meyen
<i>Megalospora versicolor</i> (Fée) Zahlbr.	<i>Lopezaria versicolor</i> (Flot.) Kalb & Hafellner
<i>Megalospora versicolor</i> var. <i>dichroma</i> (Fée) Riddle	<i>Lopezaria versicolor</i> (Flot.) Kalb & Hafellner
<i>Megasporoporiella cavernulosa</i> (Berk.) B.K. Cui, Y.C. Dai & Hai J. Li	<i>Cerioporus cavernulosus</i> (Berk.) Zmitr.
<i>Melanographa chionographa</i> (Nyl.) Müll. Arg.	<i>Melaspilea chionographa</i> (Nyl.) Zahlbr.
<i>Melanographa diplasiospora</i> (Nyl.) Müll. Arg.	<i>Melaspilea diplasiospora</i> (Nyl.) Müll. Arg.
<i>Melanographa interalbicans</i> (Nyl.) Müll. Arg.	<i>Melaspilea interalbicans</i> (Nyl.) Müll. Arg.
<i>Melanotheca achariana</i> Fée	<i>Pyrenula anomala</i> (Ach.) Vain.
<i>Melanotheca aciculifera</i> Nyl.	<i>Celothelium aciculiferum</i> (Nyl.) Vain.
<i>Melanotheca arthonioides</i> (Eschw.) Müll. Arg.	<i>Pyrenula arthoniotheca</i> Upreti
<i>Meliolina chardonii</i> Toro	<i>Asteridiella chardonii</i> (Toro) S. Hughes
<i>Meruliopsis corium</i> (Pers.) Ginns	<i>Byssomerulius corium</i> (Pers.) Parmasto
<i>Merulius tremellosus</i> Schrad.	<i>Phlebia tremellosa</i> (Schrad.) Nakasone & Burds.
<i>Micromphale brevipes</i> (Berk. & Ravenel) Singer	<i>Gymnopus neobrevipes</i> R.H. Petersen
<i>Mollisia caesia</i> var. <i>andina</i> Dennis	<i>Mollisia caesia</i> (Fuckel) Sacc.
<i>Morganella fulginea</i>	<i>Lycoperdon fulgineum</i> Berk. & M.A. Curtis
<i>Morispota tayronensis</i> Salazar-Yepes, Pardo-Card. & Buriticá	<i>Gerwasia tayronensis</i> Salazar-Yepes, Pardo-Card. & Buriticá
<i>Mortierella ornata</i> W. Gams	<i>Dissophora ornata</i> (W. Gams) W. Gams
<i>Multiclavula calocera</i> (G.W. Martin) R.H. Petersen	<i>Lepidostroma calocerum</i> (G.W. Martin) Oberw.
<i>Muscodor suturae</i> Kudalkar, Strobel & Riy.-Ul-Hass.	<i>Induratia suturae</i> (Kudalkar, Strobel & Riy.-Ul-Hass.) Samarak., Thongbai, K.D. Hyde & M. Stadler
<i>Mutatoderma brunneocontextum</i> C.E. Gómez	<i>Hyphoderma romeroae</i> C.E. Gómez, Baltazar & Rajchenb.
<i>Mycena margarita</i> Murrill	<i>Collybia margarita</i> (Murrill) Singer
<i>Mycomicrothelia apposita</i> (Nyl.) D. Hawksw.	<i>Bogoriella apposita</i> (Nyl.) Aptroot & Lücking
<i>Mycomicrothelia captiosa</i> (Kremp.) D.Hawksw.	<i>Bogoriella captiosa</i> (Kremp.) Aptroot & Lücking
<i>Mycomicrothelia exigua</i> (Müll. Arg.) D.Hawksw.	<i>Bogoriella exigua</i> (Müll. Arg.) Aptroot & Lücking
<i>Mycomicrothelia hemispherica</i> (Müll. Arg.) D. Hawksw.	<i>Bogoriella hemisphaerica</i> (Müll. Arg.) Aptroot & Lücking
<i>Mycomicrothelia thelena</i> (Ach.) D. Hawksw.	<i>Bogoriella thelena</i> (Ach.) Aptroot & Lücking

Synonym	Accepted Name
<i>Mycomicrothelia xanthonica</i> Komposch & Aptroot	<i>Bogoriella xanthonica</i> (Komposch, Aptroot & Hafellner) Aptroot & Lücking
<i>Mycoporellum sparsellum</i> (Nyl.) Müll. Arg.	<i>Mycoporum sparsellum</i> Nyl.
<i>Mycoporum pycnocarpum</i> Nyl.	<i>Mycoporum compositum</i> (A. Massal.) R.C. Harris
<i>Mycosphaerella flexuosa</i> Crous & M.J. Wingf.	<i>Pseudoteratosphaeria flexuosa</i> (Crous & M.J. Wingf.) Quaedvl. & Crous
<i>Mycosphaerella perpendicularis</i> Crous & M.J. Wingf.	<i>Pseudoteratosphaeria perpendicularis</i> (Crous & M.J. Wingf.) Quaedvl. & Crous
<i>Mycosphaerella scytalidii</i> Crous & M.J. Wingf.	<i>Phaeophleospora scytalidii</i> (Crous & M.J. Wingf.) Quaedvl. & Crous
<i>Myriotrema bahianum</i> (Ach.) Hale	<i>Ocellularia bahiana</i> (Ach.) Frisch
<i>Myriotrema calvescens</i> (Fée) Hale	<i>Ocellularia calvescens</i> (Fée) Müll. Arg.
<i>Myriotrema compunctum</i> (Ach.) Hale	<i>Leucodecton occultum</i> (Eschw.) Frisch
<i>Myriotrema dactyliferum</i> (Hale) Gyeln.	<i>Leucodecton dactyliferum</i> (Hale) Lücking
<i>Myriotrema glaucophaenum</i> (Kremp.) Zahlbr.	<i>Glaucotrema glaucophaenum</i> (Kremp.) Rivas Plata & Lumbsch
<i>Myriotrema myriocarpum</i> (Fée) Hale	<i>Austrotrema myriocarpum</i> (Fée) I. Medeiros, Lücking & Lumbsch
<i>Myriotrema pachystomum</i> (Nyl.) Hale	<i>Fibrillithecis pachystoma</i> (Nyl.) Sipman
<i>Myriotrema pycnoporellum</i> (Nyl.) Hale	<i>Pycnotrema pycnoporellum</i> (Nyl.) Rivas Plata & Lücking
<i>Myriotrema subcompunctum</i> (Nyl.) Hale	<i>Leucodecton subcompunctum</i> (Nyl.) Frisch
<i>Myriotrema subwrightii</i> (Hale) Hale	<i>Stegobolus anamorphus</i> (Nyl.) Frisch & Kalb
<i>Myriotrema terebratulum</i> (Nyl.) Hale	<i>Myriotrema clandestinum</i> (Fée) Hale
<i>Myriotrema wightii</i> (Taylor) Hale	<i>Sanguinotrema wightii</i> (Taylor) Lücking
<i>Myxomycidium flavum</i> G.W. Martin	<i>Gloeomucro flavus</i> (G.W. Martin) R.H. Petersen
<i>Naematoloma subviride</i> (Berk. & M.A. Curtis) A.H. Sm.	<i>Hypholoma fasciculare</i> (Huds.) P. Kumm.
<i>Naematoloma udum</i> (Pers.) P. Karst.	<i>Bogbodia uda</i> (Pers.) Redhead
<i>Nectria consors</i> (Ellis & Everh.) Seaver	<i>Volutellonectria consors</i> (Ellis & Everh.) J. Luo, X.M. Zhang & W.Y. Zhuang
<i>Nectria pachyderma</i> Rossman	<i>Hydropisphaera pachyderma</i> (Rossman) Rossman & Samuels
<i>Nectria parviphialis</i> Samuels	<i>Bionectria parviphialis</i> (Samuels) Schroers
<i>Nemania serpens</i> (Pers.) Gray var. <i>serpens</i>	<i>Nemania serpens</i> (Pers.) Gray
<i>Neobarya usneae</i> Etayo	<i>Lichenobarya usneae</i> (Etayo) Etayo, Diederich & Lawrey
<i>Neuropogon sphacelatus</i> (R. Br.) D.J. Galloway	<i>Usnea sphacelata</i> R. Br.

ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name
<i>Neuropogon sulphureus</i> (Kön.) Hellb.	<i>Usnea sphacelata</i> R. Br.
<i>Nigromacula hypotrachynae</i> Etayo	<i>Nigromacula uniseptata</i> (D. Hawksw.) D. Hawksw.
<i>Nigrospora sphaerica</i> (Sacc.) E.W. Mason	<i>Nigrospora oryzae</i> (Berk. & Broome) Petch
<i>Nothopanus hygrophanus</i> (Mont.) Singer	<i>Neonothopanus hygrophanus</i> (Mont.) De Kesel & Degreef
<i>Ocellularia alborosella</i> (Nyl.) R. Sant.	<i>Chapsa alborosella</i> (Nyl.) Frisch
<i>Ocellularia amplior</i> (Nyl.) Redinger	<i>Ampliotrema amplius</i> (Nyl.) Kalb
<i>Ocellularia auberiana</i> (Mont.) Hale	<i>Rhabdodiscus auberianus</i> (Mont.) Vain.
<i>Ocellularia cavata</i> var. <i>submutata</i> (Nyl.) Zahlbr.	<i>Ocellularia violacea</i> Räsänen
<i>Ocellularia cinchonarum</i> f. <i>intermedia</i> (Nyl.) Zahlbr.	<i>Ocellularia cavata</i> (Ach.) Müll. Arg.
<i>Ocellularia clandestina</i> (Ach.) Müll. Arg.	<i>Clandestinotrema clandestinum</i> (Ach.) Rivas Plata, Lücking & Lumbsch
<i>Ocellularia comparabilis</i> (Kremp.) Müll. Arg.	<i>Ocellularia terebrata</i> (Ach.) Müll. Arg.
<i>Ocellularia dehiscens</i> (Leight.) Zahlbr.	<i>Fibrillithecis dehiscens</i> (Leight.) Mangold, Lücking & Lumbsch
<i>Ocellularia discolor</i> (Ach.) Spreng.	<i>Ampliotrema discolor</i> (Ach.) Kalb
<i>Ocellularia epitrypa</i> (Nyl.) A.L.Sm.	<i>Rhabdodiscus fissus</i> (Müll. Arg.) Vain.
<i>Ocellularia erumpens</i> (H. Magn.) Hale	<i>Clandestinotrema erumpens</i> (H. Magn.) Rivas Plata, Lücking & Lumbsch
<i>Ocellularia fragilis</i> Hale	<i>Myriotrema fragile</i> (Hale) Hale
<i>Ocellularia glyphica</i> (Nyl.) Hale	<i>Redingeria glyphica</i> (Nyl.) Frisch
<i>Ocellularia lepadinoides</i> (Leight.) Zahlbr.	<i>Ampliotrema lepadinoides</i> (Leight.) Kalb
<i>Ocellularia leucomelaena</i> (Nyl.) Hale	<i>Clandestinotrema leucomelanum</i> (Nyl.) Rivas Plata, Lücking & Lumbsch
<i>Ocellularia lindigiana</i> Müll. Arg.	<i>Ocellularia cavata</i> (Ach.) Müll. Arg.
<i>Ocellularia metaphorica</i> (Nyl.) Zahlbr.	<i>Rhabdodiscus metaphoricus</i> (Nyl.) Vain.
<i>Ocellularia microsporum</i> (Zahlbr.) Hale	<i>Redingeria microspora</i> (Zahlbr.) M. Cáceres & Lücking
<i>Ocellularia myriotremoides</i> (Nyl.) Zahlbr.	<i>Myriotrema myriotremoides</i> (Nyl.) Hale
<i>Ocellularia recondita</i> (Stirt.) Zahlbr.	<i>Rhabdodiscus reconditus</i> (Stirt.) Rivas Plata, Lücking & Lumbsch
<i>Ocellularia remanens</i> (Nyl.) Müll. Arg.	<i>Myriotrema clandestinum</i> (Fée) Hale
<i>Ocellularia sinuosa</i> Sipman	<i>Gyrotrema sinuosum</i> (Sipman) Frisch
<i>Ocellularia subemersa</i> Müll. Arg.	<i>Rhabdodiscus subemersus</i> (Müll. Arg.) Rivas Plata, Lücking & Lumbsch
<i>Ocellularia terebratula</i> (Nyl.) Müll. Arg.	<i>Myriotrema clandestinum</i> (Fée) Hale
<i>Omphalina foliacea</i> P.M. Jørg.	<i>Agonimia foliacea</i> (P.M. Jørg.) Lücking & Moncada

Synonym	Accepted Name
<i>Omphalina luteovitellina</i> (Pilát & Nannf.) M. Lange	<i>Lichenomphalia luteovitellina</i> (Pilát & Nannf.) Redhead, Lutzoni, Moncalvo & Vilgalys
<i>Omphalodina pseudistera</i> (Nyl.) S.Y. Kondr., L. Lóköcs & Farkas	<i>Lecanora pseudistera</i> Nyl.
<i>Opegrapha abbreviata</i> Fée	<i>Zwackhia bonplandii</i> (Fée) Ertz
<i>Opegrapha apomelaena</i> A. Massal.	<i>Alyxoria apomelaena</i> (A. Massal.) Ertz
<i>Opegrapha atra</i> Pers.	<i>Arthonia atra</i> (Pers.) A. Schneid.
<i>Opegrapha bonplandii</i> Fée	<i>Zwackhia bonplandii</i> (Fée) Ertz
<i>Opegrapha bonplandii</i> var. <i>abbreviata</i> (Fée) Müll. Arg.	<i>Zwackhia bonplandii</i> (Fée) Ertz
<i>Opegrapha chionographa</i> Nyl.	<i>Melaspilea chionographa</i> (Nyl.) Zahlbr.
<i>Opegrapha diplasiospora</i> Nyl.	<i>Melaspilea diplasiospora</i> (Nyl.) Müll. Arg.
<i>Opegrapha filicina</i> Mont.	<i>Fouragea filicina</i> (Mont.) Trevis.
<i>Opegrapha gracilior</i> Nyl.	<i>Ancistrosporella gracilior</i> (Nyl.) Lücking
<i>Opegrapha herbarum</i> Mont.	<i>Alyxoria culmigena</i> (Lib.) Ertz
<i>Opegrapha insignior</i> (Nyl.) Müll. Arg.	<i>Cresponea lepreurii</i> (Mont.) Egea & Torrente
<i>Opegrapha interalbicans</i> Nyl.	<i>Melaspilea interalbicans</i> (Nyl.) Müll. Arg.
<i>Opegrapha leucophila</i> Nyl.	<i>Ancistrosporella leucophila</i> (Nyl.) Ertz
<i>Opegrapha longissima</i> Müll. Arg.	<i>Dimidiographa longissima</i> (Müll. Arg.) Ertz & Tehler
<i>Opegrapha onchospora</i> Nyl.	<i>Ancistrosporella onchospora</i> (Nyl.) Ertz
<i>Opegrapha prosodea</i> Ach.	<i>Zwackhia prosodea</i> (Afzel.) Ertz
<i>Opegrapha proximans</i> (Nyl.) Müll. Arg.	<i>Lecanactis proximans</i> (Nyl.) Zahlbr.
<i>Opegrapha puiggarii</i> Müll. Arg.	<i>Fouragea puiggarii</i> (Müll. Arg.) Zahlbr.
<i>Opegrapha robusta</i> Vain.	<i>Zwackhia robusta</i> (Vain.) Ertz
<i>Opegrapha rotula</i> var. <i>sublaevis</i> Müll. Arg.	<i>Mazosia paupercula</i> (Müll. Arg.) R. Sant.
<i>Opegrapha varia</i> Pers.	<i>Alyxoria varia</i> (Pers.) Ertz & Tehler
<i>Opegrapha viridipruinosa</i> Coppins & Yahr	<i>Alyxoria viridipruinosa</i> (Coppins & Yahr) Ertz
<i>Opegrapha viridis</i> (Ach.) Ach.	<i>Zwackhia viridis</i> (Ach.) Poetsch & Schied.
<i>Opegrapha viridis</i> (Ach.) Behlen & Desberger	<i>Zwackhia viridis</i> (Ach.) Poetsch & Schied.
<i>Ophiocordyceps amazonica</i> (Henn.) G.H. Sung, J.M. Sung, Hywel-Jones & Spatafora	<i>Parasaria amazonica</i> (Henn.) Luangsa-ard, Mongkols. & Samson
<i>Ophiocordyceps blattarioides</i> Sanjuan & Spatafora	<i>Parasaria blattarioides</i> (Sanjuan & Spatafora) Luangsa-ard, Mongkols. & Samson
<i>Oropogon loxensis</i> var. <i>atroalbicans</i> (Nyl.) Hue	<i>Oropogon loxensis</i> (Fée) Zúkal
<i>Oudemansiella glutinosa</i> Singer	<i>Dactylosporina glutinosa</i> (Singer) R.H. Petersen



## ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name
<i>Pachyospora verrucosa</i> (Ach.) A. Massal.	<i>Megaspora verrucosa</i> (Ach.) Arcadia & A. Nordin
<i>Palifer gamundiae</i> (Gresl. & Rajchenb.) Hjortstam & Ryvarde	<i>Xylodon gamundiae</i> (Gresl. & Rajchenb.) Riebesehl & Langer
<i>Palifer verecundus</i> (G. Cunn.) Stalpers & P.K. Buchanan	<i>Xylodon verecundus</i> (G. Cunn.) Yurchenko & Riebesehl
<i>Panaeolus campanulatus</i> (L.) Quél.	<i>Panaeolus papilionaceus</i> (Bull.) Quél.
<i>Panaeolus semiovatus</i> (Sowerby) S. Lundell & Nannf. var. <i>semiovatus</i>	<i>Panaeolus semiovatus</i> (Sowerby) S. Lundell & Nannf.
<i>Panaeolus sphinctrinus</i> (Fr.) Quél.	<i>Panaeolus papilionaceus</i> (Bull.) Quél.
<i>Pannaria aurantiaca</i> (Hook. f. & Taylor) Schwend.	<i>Coccocarpia erythroxyli</i> (Spreng.) Swinscow & Krog
<i>Pannaria mariana</i> var. <i>pannosa</i> (Sw.) Hue	<i>Parmeliella pannosa</i> (Sw.) Müll. Arg.
<i>Pannaria nigrocincta</i> (Mont.) Nyl.	<i>Parmeliella nigrocincta</i> (Mont.) Müll. Arg.
<i>Pannaria pannosa</i> (Sw.) Delise	<i>Parmeliella pannosa</i> (Sw.) Müll. Arg.
<i>Pannaria parmelioides</i> (Hook.) Colmeiro	<i>Coccocarpia erythroxyli</i> (Spreng.) Swinscow & Krog
<i>Pannaria parmelioides</i> f. <i>granulosa</i> (Müll. Arg.) Hue	<i>Coccocarpia erythroxyli</i> (Spreng.) Swinscow & Krog
<i>Pannaria parmelioides</i> var. <i>incisa</i> (Ach.) Hue	<i>Coccocarpia erythroxyli</i> (Spreng.) Swinscow & Krog
<i>Pannoparmelia hypotrachyna</i> (Nyl.) R. Sant.	<i>Remototrachyna costaricensis</i> (Nyl.) Divakar, Lumbsch, Ferencová, Prado & A. Crespo
<i>Pannularia nigrocincta</i> (Mont.) Nyl.	<i>Parmeliella nigrocincta</i> (Mont.) Müll. Arg.
<i>Paraphelaria colombiana</i> A.L. Welden	<i>Aphelariopsis colombiana</i> (A.L. Welden) Jülich
<i>Parathelium indutum</i> Nyl.	<i>Pyrenula adacta</i> Fée
<i>Parathelium polysemum</i> Nyl.	<i>Lithothelium polysemum</i> (Nyl.) Aptroot
<i>Parmelia abstrusa</i> Vain.	<i>Relicina abstrusa</i> (Vain.) Hale
<i>Parmelia acanthifolia</i> Pers.	<i>Parmotrema cetratum</i> (Ach.) Hale
<i>Parmelia andina</i> Müll. Arg.	<i>Parmotrema andinum</i> (Müll. Arg.) Hale
<i>Parmelia andreana</i> Müll. Arg.	<i>Flavopunctelia flaventior</i> (Stirt.) Hale
<i>Parmelia angustior</i> Nyl.	<i>Imshaugia angustior</i> (Nyl.) Sipman
<i>Parmelia atrichella</i> Nyl.	<i>Bulbothrix atrichella</i> (Nyl.) Hale
<i>Parmelia aurata</i> (Ach.) Eschw.	<i>Crocodia aurata</i> (Ach.) Link
<i>Parmelia austrosinensis</i> Zahlbr.	<i>Parmotrema austrosinense</i> (Zahlbr.) Hale
<i>Parmelia bangii</i> Vain.	<i>Parmotrema bangii</i> (Vain.) Hale
<i>Parmelia blanchetii</i> Hue	<i>Parmotrema blanchetianum</i> (Müll. Arg.) Kalb
<i>Parmelia bogotensis</i> Vain.	<i>Hypotrachyna bogotensis</i> (Vain.) Hale
<i>Parmelia borrieri</i> (Sm.) Turner	<i>Punctelia borrieri</i> (Turner) Krog
<i>Parmelia borrieri</i> f. <i>rudecta</i> (Ach.) Nyl.	<i>Punctelia rudecta</i> (Ach.) Krog
<i>Parmelia caperata</i> (L.) Ach.	<i>Flavoparmelia caperata</i> (L.) Hale
<i>Parmelia caperata</i> f. <i>ramealis</i> Nyl.	<i>Flavoparmelia caperata</i> (L.) Hale

Synonym	Accepted Name
<i>Parmelia caraccensis</i> Taylor	<i>Hypotrachyna caraccensis</i> (Taylor) Hale
<i>Parmelia cervicornis</i> Tuck.	<i>Hypotrachyna caraccensis</i> (Taylor) Hale
<i>Parmelia cetrata</i> Ach.	<i>Parmotrema cetratum</i> (Ach.) Hale
<i>Parmelia cetrata</i> f. <i>ciliosa</i> Viaud-Gr.-Mar.	<i>Parmotrema cetratum</i> (Ach.) Hale
<i>Parmelia cetrata</i> f. <i>sorediifera</i> Vain.	<i>Parmotrema reticulatum</i> (Taylor) M. Choisy
<i>Parmelia ciliata</i> (Duby) Nyl.	<i>Parmotrema reticulatum</i> (Taylor) M. Choisy
<i>Parmelia citrella</i> Kurok.	<i>Hypotrachyna citrella</i> (Kurok.) Hale
<i>Parmelia commensurata</i> Hale	<i>Parmotrema commensuratum</i> (Hale) Hale
<i>Parmelia conspersa</i> (Ach.) Ach.	<i>Xanthoparmelia conspersa</i> (Ehrh. ex Ach.) Hale
<i>Parmelia conspersa</i> var. <i>stenophylla</i> Ach.	<i>Xanthoparmelia stenophylla</i> (Ach.) Ahti & D. Hawksw.
<i>Parmelia crenulata</i> Hook.	<i>Lobariella crenulata</i> (Hook.) Yoshim.
<i>Parmelia crinita</i> Ach.	<i>Parmotrema crinitum</i> (Ach.) M. Choisy
<i>Parmelia cristifera</i> Taylor	<i>Parmotrema cristiferum</i> (Taylor) Hale
<i>Parmelia densirhizinata</i> Kurok.	<i>Hypotrachyna densirhizinata</i> (Kurok.) Hale
<i>Parmelia dilatata</i> Vain.	<i>Parmotrema dilatatum</i> (Vain.) Hale
<i>Parmelia dominicana</i> Vain.	<i>Parmotrema dominicanum</i> (Vain.) Hale
<i>Parmelia eborina</i> Hale	<i>Parmotrema eborinum</i> (Hale) Hale
<i>Parmelia endorubra</i> f. <i>imbricatiformis</i> Gyeln.	<i>Hypotrachyna microblasta</i> (Vain.) Hale
<i>Parmelia endosulphurea</i> (Hillmann) Hale	<i>Parmotrema endosulphureum</i> (Hillmann) Hale
<i>Parmelia fasciculata</i> Vain.	<i>Parmotrema fasciculatum</i> (Vain.) Hale
<i>Parmelia flaventior</i> Stirt.	<i>Flavopunctelia flaventior</i> (Stirt.) Hale
<i>Parmelia flavescens</i> (Kremp.) Nyl.	<i>Parmotrema flavescens</i> (Kremp.) Hale
<i>Parmelia flavotincta</i> Hale	<i>Parmotrema flavotinctum</i> (Hale) Hale
<i>Parmelia fracta</i> Hale	<i>Parmotrema fractum</i> (Hale) Hale
<i>Parmelia gigas</i> Kurok.	<i>Hypotrachyna longiloba</i> (H. Magn.) C.W. Sm.
<i>Parmelia granatensis</i> Nyl.	<i>Bulbothrix goebelii</i> (Zenker) Hale
<i>Parmelia granulosa</i> Vain.	<i>Hypotrachyna columbiensis</i> (Zahlbr.) Divakar, A. Crespo, Sipman, Elix & Lumbsch
<i>Parmelia hypotrachyna</i> Nyl.	<i>Remototrachyna costaricensis</i> (Nyl.) Divakar, Lumbsch, Ferencová, Prado & A. Crespo
<i>Parmelia kamtschadalis</i> var. <i>americana</i> f. <i>tenuis</i> Müll. Arg.	<i>Hypotrachyna vexans</i> (Zahlbr. ex W.L. Culb. & C.F. Culb.) Divakar, A. Crespo, Sipman, Elix & Lumbsch
<i>Parmelia laevigata</i> (Sm.) Ach.	<i>Hypotrachyna laevigata</i> (Sm.) Hale

ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name
<i>Parmelia laevigata</i> var. <i>gracilis</i> Müll. Arg.	<i>Hypotrachyna physcioides</i> (Nyl.) Hale
<i>Parmelia laevigata</i> var. <i>sinuosa</i> (Sm.) Nyl.	<i>Hypotrachyna sinuosa</i> (Sm.) Hale
<i>Parmelia latissima</i> Fée	<i>Parmotrema latissimum</i> (Fée) Hale
<i>Parmelia leucobates</i> Nyl.	<i>Anzia leucobates</i> (Nyl.) Müll. Arg.
<i>Parmelia mellissii</i> C.W. Dodge	<i>Parmotrema mellissii</i> (C.W. Dodge) Hale
<i>Parmelia mesogenes</i> Nyl.	<i>Parmotrema mesogenes</i> (Nyl.) Hale
<i>Parmelia microblasta</i> Vain.	<i>Hypotrachyna microblasta</i> (Vain.) Hale
<i>Parmelia microspora</i> Müll. Arg.	<i>Xanthoparmelia microspora</i> (Müll. Arg.) Hale
<i>Parmelia mougeotii</i> Schaer.	<i>Xanthoparmelia mougeotii</i> (Schaer. ex D. Dietr.) Hale
<i>Parmelia negata</i> Nyl.	<i>Punctelia negata</i> (Nyl.) Krog
<i>Parmelia osteoleuca</i> Nyl.	<i>Hypotrachyna osteoleuca</i> (Nyl.) Hale
<i>Parmelia perforata</i> (Jacq.) Ach.	<i>Parmotrema perforatum</i> (Jacq.) A. Massal.
<i>Parmelia perlata</i> (Huds.) Ach.	<i>Parmotrema perlatum</i> (Huds.) M. Choisy
<i>Parmelia perlata</i> f. <i>sorediifera</i> Müll. Arg.	<i>Parmotrema reticulatum</i> (Taylor) M. Choisy
<i>Parmelia perlata</i> var. <i>ciliata</i> Duby	<i>Parmotrema reticulatum</i> (Taylor) M. Choisy
<i>Parmelia physodalica</i> Hale	<i>Hypotrachyna physodalica</i> (Hale) Hale
<i>Parmelia prolongata</i> Kurok.	<i>Hypotrachyna prolongata</i> (Kurok.) Hale
<i>Parmelia propagulifera</i> Vain.	<i>Hypotrachyna microblasta</i> (Vain.) Hale
<i>Parmelia rachista</i> Hale	<i>Hypotrachyna prolongata</i> (Kurok.) Hale
<i>Parmelia rampoddensis</i> Nyl.	<i>Parmotrema rampoddense</i> (Nyl.) Hale
<i>Parmelia reducens</i> Nyl.	<i>Hypotrachyna reducens</i> (Nyl.) Hale
<i>Parmelia relicina</i> var. <i>coronata</i> (Fée) Nyl.	<i>Bulbothrix coronata</i> (Fée) Hale
<i>Parmelia reticulata</i> Taylor	<i>Parmotrema reticulatum</i> (Taylor) M. Choisy
<i>Parmelia revoluta</i> Flörke	<i>Hypotrachyna revoluta</i> (Flörke) Hale
<i>Parmelia rudecta</i> Ach.	<i>Punctelia rudecta</i> (Ach.) Krog
<i>Parmelia sancti-angeli</i> Lyngae	<i>Parmotrema sancti-angelii</i> (Lyngae) Hale
<i>Parmelia sinuosa</i> (Sm.) Ach.	<i>Hypotrachyna sinuosa</i> (Sm.) Hale
<i>Parmelia sorocheila</i> Vain.	<i>Hypotrachyna sorocheila</i> (Vain.) Divakar, A. Crespo, Sipman, Elix & Lumbsch
<i>Parmelia subcrinita</i> auct. non Nyl.	<i>Parmotrema ultralucens</i> (Krog) Hale
<i>Parmelia sublaevigata</i> (Nyl.) Nyl.	<i>Hypotrachyna sublaevigata</i> (Nyl. ex Tuck.) Hale
<i>Parmelia sublaevigata</i> var. <i>texana</i> (Tuck.) Nyl.	<i>Canoparmelia texana</i> (Tuck.) Elix & Hale
<i>Parmelia subsinuosa</i> Nyl.	<i>Hypotrachyna pulvinata</i> (Fée) Hale
<i>Parmelia taeniata</i> Nyl.	<i>Anzia parasitica</i> (Fée) Zahlbr.

Synonym	Accepted Name
<i>Parmelia teresiana</i> Gyeln.	<i>Xanthoparmelia ulcerosa</i> (Zahlbr.) Hale
<i>Parmelia tiliacea</i> var. <i>sublaevigata</i> Nyl.	<i>Hypotrachyna sublaevigata</i> (Nyl. ex Tuck.) Hale
<i>Parmelia tinctorum</i> Nyl.	<i>Parmotrema tinctorum</i> (Despr. ex Nyl.) Hale
<i>Parmelia ulcerata</i> Vain.	<i>Flavopunctelia flaventior</i> (Stirt.) Hale
<i>Parmelia vermicularis</i> Vain.	<i>Hypotrachyna cirrhata</i> (Fr.) Divakar, A. Crespo, Sipman, Elix & Lumbsch
<i>Parmelia zollingeri</i> Hepp	<i>Parmotrema zollingeri</i> (Hepp) Hale
<i>Parmeliella incrassata</i> P.M. Jørg.	<i>Nebularia incrassata</i> (P.M. Jørg.) P.M. Jørg.
<i>Parmeliella mariana</i> (Fr.) P.M. Jørg. & D.J. Galloway	<i>Lepidocollema marianum</i> (Fr.) P.M. Jørg.
<i>Parmelina cleefi</i> Sipman	<i>Hypotrachyna cleefii</i> (Sipman) Divakar, A. Crespo, Sipman, Elix & Lumbsch
<i>Parmelina lindmanii</i> (Lyngae) Hale	<i>Myelochroa lindmanii</i> (Lyngae) Elix & Hale
<i>Parmelina melanochaeta</i> (Kurok.) Hale	<i>Parmotrema melanochaetum</i> (Kurok.) O. Blanco, A. Crespo, Divakar, Elix & Lumbsch
<i>Parmelina minarum</i> (Vain.) Hale	<i>Hypotrachyna minarum</i> (Vain.) Krog & Swinscow
<i>Parmelina muelleri</i> (Vain.) Hale	<i>Parmotrema muelleri</i> (Vain.) O. Blanco, A. Crespo, Divakar, Elix & Lumbsch
<i>Parmelina spumosa</i> (Asahina) Hale	<i>Hypotrachyna spumosa</i> (Asahina) Krog & Swinscow
<i>Parmelina swinscowii</i> (Hale) Hale	<i>Hypotrachyna swinscowii</i> (Hale) Krog & Swinscow
<i>Parmelinopsis cleefii</i> (Sipman) V. Marcano & Sipman	<i>Hypotrachyna cleefii</i> (Sipman) Divakar, A. Crespo, Sipman, Elix & Lumbsch
<i>Parmelinopsis horrescens</i> (Taylor) Elix & Hale	<i>Hypotrachyna horrescens</i> (Taylor) Krog & Swinscow
<i>Parmelinopsis melanochaeta</i> (Kurok.) Elix & Hale	<i>Parmotrema melanochaetum</i> (Kurok.) O. Blanco, A. Crespo, Divakar, Elix & Lumbsch
<i>Parmelinopsis minarum</i> (Vain.) Elix & Hale	<i>Hypotrachyna minarum</i> (Vain.) Krog & Swinscow
<i>Parmelinopsis spumosa</i> (Asah.) Elix & Hale	<i>Hypotrachyna spumosa</i> (Asahina) Krog & Swinscow
<i>Parmelinopsis spumosa</i> (Asahina) Elix & Hale	<i>Hypotrachyna spumosa</i> (Asahina) Krog & Swinscow
<i>Parmelinopsis swinscowii</i> (Hale) Elix & Hale	<i>Hypotrachyna swinscowii</i> (Hale) Krog & Swinscow
<i>Parmentaria astroidea</i> Fée	<i>Pyrenula astroidea</i> (Fée) R.C. Harris
<i>Parmentaria chilensis</i> Fée	<i>Pyrenula chilensis</i> (Fée) R.C. Harris
<i>Parmotrema blanchetii</i> (Hue) Hale	<i>Parmotrema blanchetianum</i> (Müll. Arg.) Kalb
<i>Parmotrema chinense</i> (Osbeck) Hale & Ahti	<i>Parmotrema perlatum</i> (Huds.) M. Choisy
<i>Parmotrema leucosemothetum</i> (Hue) Hale	<i>Parmotrema reticulatum</i> (Taylor) M. Choisy
<i>Parmotrema subarnoldii</i> (Abbayes) Hale	<i>Parmotrema arnoldii</i> (Du Rietz) Hale



ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name	Synonym	Accepted Name
<i>Patellaria albomaculans</i> (Nyl.) Müll. Arg.	<i>Bacidia albomaculans</i> (Nyl.) Zahlbr.	<i>Pertusaria melaleuca</i> (Sw. & Sow.) Duby	<i>Pertusaria pustulata</i> (Ach.) Duby
<i>Patellaria millegrana</i> var. <i>suffusa</i> Müll. Arg.	<i>Bacidia millegrana</i> (Taylor) Zahlbr.	<i>Pertusaria multipuncta</i> (Turn.) Nyl.	<i>Lepra multipuncta</i> (Turner) Hafellner
<i>Patellaria segregata</i> Müll. Arg.	<i>Bacidia segregata</i> (Müll. Arg.) Zahlbr.	<i>Pertusaria multipuncta</i> f. <i>subvaginata</i> Nyl.	<i>Pertusaria subvaginata</i> Nyl.
<i>Patellaria subpulchra</i> Müll. Arg.	<i>Badimia dimidiata</i> (Bab. ex Leight.) Vězda	<i>Pertusaria subventosa</i> Malme	<i>Lepra subventosa</i> (Malme) I. Schmitt & Lumbsch
<i>Patellaria versicolor</i> (Fée) Müll. Arg.	<i>Lopezaria versicolor</i> (Flot.) Kalb & Hafellner	<i>Pertusaria tetrathalamia</i> var. <i>rhodiza</i> (Nyl.) Müll. Arg.	<i>Pertusaria rhodiza</i> Nyl.
<i>Peltidea pulverulenta</i> Taylor	<i>Peltigera pulverulenta</i> (Taylor) Nyl.	<i>Pertusaria tetrathalamia</i> var. <i>rhodiza</i> Müll. Arg.	<i>Pertusaria rhodiza</i> Nyl.
<i>Peltigera boliviensis</i> var. <i>irregularis</i> Gyeln.	<i>Peltigera laciniata</i> (G. Merr.) Gyeln.	<i>Pertusaria vaginata</i> Nyl.	<i>Varicellaria velata</i> (Turner) I. Schmitt & Lumbsch
<i>Peltigera laciniata</i> var. <i>irregularis</i> (Gyeln.) Gyeln.	<i>Peltigera laciniata</i> (G. Merr.) Gyeln.	<i>Pertusaria velata</i> (Turn.) Nyl.	<i>Varicellaria velata</i> (Turner) I. Schmitt & Lumbsch
<i>Peltigera membranacea</i> f. <i>fibrilloides</i> Gyeln.	<i>Peltigera fibrilloides</i> (Gyeln.) Vitik.	<i>Peziza michelii</i> (Boud.) Dennis	<i>Paragalactinia michelii</i> (Boud.) Van Vooren
<i>Peltigera polydactyla</i> f. <i>dolichorhiza</i> Nyl.	<i>Peltigera dolichorhiza</i> (Nyl.) Nyl.	<i>Peziza patena</i> Lév.	<i>Lachnum patena</i> (Lév.) J.H. Haines & Dumont
<i>Peltigera polydactyla</i> var. <i>dolichorhiza</i> Nyl.	<i>Peltigera dolichorhiza</i> (Nyl.) Nyl.	<i>Phaeochorella sphaerospora</i> Chardón	<i>Phyllachora conica</i> (Chardón) Petr.
<i>Peltigera polydactyla</i> var. <i>hymenina</i> (Ach.) Flotow	<i>Peltigera hymenina</i> (Ach.) Delise	<i>Phaeographina cabbalistica</i> (Nyl.) Müll. Arg.	<i>Kalbographa cabbalistica</i> (Nyl.) Lücking
<i>Peltigera scutata</i> (Dicks.) Duby	<i>Peltigera collina</i> (Ach.) Schrad.	<i>Phaeographina caesiopruinosa</i> (Fée) Müll. Arg.	<i>Platygramme caesiopruinosa</i> (Fée) Fée
<i>Peltigera spuria</i> (Ach.) DC.	<i>Peltigera didactyla</i> (With.) J.R. Laundon	<i>Phaeographina chrysenderon</i> (Mont.) Müll. Arg.	<i>Pallidogramme chrysenderon</i> (Mont.) Staiger, Kalb & Lücking
<i>Peltigera tomentosa</i> Vain.	<i>Peltigera laciniata</i> (G. Merr.) Gyeln.	<i>Phaeographina chrysocarpa</i> (Raddi) Redinger	<i>Allographa chrysocarpa</i> (Raddi) Lücking & Kalb
<i>Penicillium funiculosum</i> Thom	<i>Talaromyces funiculosus</i> (Thom) Samson, N. Yilmaz, Frisvad & Seifert	<i>Phaeographina colubrosa</i> (Nyl.) Müll. Arg.	<i>Platygramme colubrosa</i> (Nyl.) Staiger
<i>Penicillium purpurogenum</i>	<i>Talaromyces purpureogenus</i> Samson, N. Yilmaz, Houbraken, Spierenb., Seifert, Peterson, Varga & Frisvad	<i>Phaeographina dividens</i> (Nyl.) K.P. Singh & D.D. Awasthi	<i>Phaeographis dividens</i> (Nyl.) Kr.P. Singh & Swarnal.
<i>Peniophora gemmea</i> D.P. Rogers	<i>Hyphoderma gemmeum</i> (D.P. Rogers) Donk	<i>Phaeographina dolichographa</i> (Nyl.) Zahlbr.	<i>Allographa dolichographa</i> (Nyl.) Lücking & Kalb
<i>Pertusaria acroschyphoides</i> Sipman	<i>Lepra acroschyphoides</i> (Sipman) I. Schmitt, B.P. Hodk. & Lumbsch	<i>Phaeographina internigricans</i> (Leight.) Zahlbr.	<i>Graphis internigricans</i> Nyl.
<i>Pertusaria albescens</i> (Huds.) M. Choisy & Werner	<i>Lepra albescens</i> (Huds.) Hafellner	<i>Phaeographina mesographa</i> (Nyl.) Müll. Arg.	<i>Phaeographis mesographa</i> (Nyl.) Müll. Arg.
<i>Pertusaria alpina</i> Hepp ex Ahles	<i>Pertusaria leioplaca</i> (Ach.) DC.	<i>Phaeographina scalpturata</i> (Ach.) Müll. Arg.	<i>Phaeographis scalpturata</i> (Ach.) Staiger
<i>Pertusaria amara</i> (Ach.) Nyl.	<i>Lepra amara</i> (Ach.) Hafellner	<i>Phaeographis cinnabarina</i> (Fée) Müll. Arg.	<i>Thallolooma cinnabarinum</i> (Fée) Staiger
<i>Pertusaria culbersonii</i> Vězda	<i>Varicellaria culbersonii</i> (Vězda) I. Schmitt & Lumbsch	<i>Phaeographis dimorpha</i> (Nyl.) Zahlbr.	<i>Platythecium leiogramma</i> (Nyl.) Staiger
<i>Pertusaria leioplaca</i> var. <i>octospora</i> Nyl.	<i>Pertusaria leioplaca</i> (Ach.) DC.	<i>Phaeographis glaucoleucooides</i> (Nyl.) Zahlbr.	<i>Diorygma junghuhnii</i> (Mont. & Bosch) Kalb, Staiger & Elix
<i>Pertusaria leioplaca</i> var. <i>pyncocarpa</i> Nyl.	<i>Pertusaria leioplaca</i> (Ach.) DC.	<i>Phaeographis inusta</i> var. <i>medusuliformis</i> (Nyl.) Müll. Arg.	<i>Phaeographis medusiformis</i> (Kremp.) Müll. Arg.
<i>Pertusaria leioplaca</i> var. <i>trypetheliiformis</i> (Nyl.) Nyl.	<i>Pertusaria trypetheliiformis</i> Nyl.	<i>Phaeographis leiogramma</i> (Nyl.) Zahlbr.	<i>Platythecium leiogramma</i> (Nyl.) Staiger
<i>Pertusaria leioplaca</i> var. <i>turgida</i> Müll. Arg.	<i>Pertusaria leioplaca</i> (Ach.) DC.	<i>Phaeographis patellula</i> (Nyl.) Müll. Arg.	<i>Leiorreuma patellulum</i> (Fée) Staiger
<i>Pertusaria leioplacoides</i> var. <i>rhodiza</i> (Nyl.) Müll. Arg.	<i>Pertusaria tetrathalamia</i> (Fée) Nyl.	<i>Phaeographis serpentinella</i> (Nyl.) Zahlbr.	<i>Platythecium serpentinellum</i> (Nyl.) Staiger
<i>Pertusaria leioplacoides</i> var. <i>tetraspora</i> Müll. Arg.	<i>Pertusaria tetrathalamia</i> (Fée) Nyl.		

ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name
<i>Phaeoschizophyllum lepreurii</i> (Linder) W.B. Cooke	<i>Schizophyllum lepreurii</i> Linder
<i>Phaeotrema glyphicum</i> (Nyl.) Zahlbr.	<i>Redingeria glyphica</i> (Nyl.) Frisch
<i>Phaeotrema pachysporum</i> (Nyl.) Zahlbr.	<i>Thelotrema pachysporum</i> Nyl.
<i>Phaeotrema pachystomum</i> (Nyl.) Zahlbr.	<i>Fibrillithecis pachystoma</i> (Nyl.) Sipman
<i>Phakopsora columbiana</i> F. Kern & Whetzel	<i>Arthuria columbiana</i> (F. Kern & Whetzel) Cummins
<i>Phanerochaete filamentosa</i> (Berk. & M.A. Curtis)	<i>Rhizochaete filamentosa</i> (Berk. & M.A. Curtis) Gresl., Nakasone & Rajchenb.
<i>Phanerochaete sanguinea</i> (Fr.) Pouzar	<i>Atheliachaete sanguinea</i> (Fr.) Spirin & Zmitr.
<i>Phanerochaete subquercina</i> (Henn.) Hjortstam	<i>Phaneroites subquercinus</i> (Henn.) Hjortstam & Ryvarden
<i>Phellinus calcitratus</i> (Berk. & M.A. Curtis) Ryvarden	<i>Inonotus calcitratus</i> (Berk. & M.A. Curtis) Gomes-Silva & Gibertoni
<i>Phellinus callimorhus</i> Lév.	<i>Fuscoporia callimorpha</i> (Lév.) Groposo, Log.-Leite & Góes-Neto
<i>Phellinus callimorphus</i> (Lév.) Ryvarden	<i>Fuscoporia callimorpha</i> (Lév.) Groposo, Log.-Leite & Góes-Neto
<i>Phellinus conchatus</i> (Pers.) Quéf.	<i>Phellinopsis conchata</i> (Pers.) Y.C. Dai
<i>Phellinus contiguus</i> (Pers.) Pat.	<i>Fuscoporia contigua</i> (Pers.) G. Cunn.
<i>Phellinus ferreus</i> (Pers.) Bourdot & Galzin	<i>Fuscoporia ferrea</i> (Pers.) G. Cunn.
<i>Phellinus ferruginosus</i> (Schrad.) Pat.	<i>Fuscoporia ferruginosa</i> (Schrad.) Murrill
<i>Phellinus linteus</i> (Berk. & M.A. Curtis) Teng	<i>Tropicoporus linteus</i> (Berk. & M.A. Curtis) L.W. Zhou & Y.C. Dai
<i>Phellinus pachyphloeus</i> (Pat.) Pat.	<i>Inonotus pachyphloeus</i> (Pat.) T. Wagner & M. Fisch.
<i>Phellinus punctatus</i> (Fr.) Pilát	<i>Fomitiporia punctata</i> (P. Karst.) Murrill
<i>Phellinus punctatus</i> (P. Karst.) Pilát	<i>Fomitiporia punctata</i> (P. Karst.) Murrill
<i>Phellinus rufitinctus</i> (Berk. & M.A. Curtis ex Cooke) Pat.	<i>Phellinidium rufitinctum</i> (Berk. & M.A. Curtis ex A.L. Sm.) Bondartseva & S. Herrera
<i>Phellinus tropicalis</i> M.J. Larsen & Lombard	<i>Tropicoporus tropicalis</i> (M.J. Larsen & Lombard) L.W. Zhou & Y.C. Dai
<i>Phlebia livida</i> (Pers.) Bres.	<i>Mycoacia livida</i> (Pers.) Zmitr.
<i>Phlebia lividina</i> Hjortstam	<i>Phlebia fascicularia</i> (Rick) Nakasone & Burds.
<i>Phlebia subcretacea</i> (Litsch.) M.P. Christ.	<i>Cabalodontia subcretacea</i> (Litsch.) Piątek
<i>Phlebiella tulasnelloidea</i> (Höhn. & Litsch.) Oberw.	<i>Xenasma tulasnelloideum</i> (Höhn. & Litsch.) Donk
<i>Phlebiella vaga</i> (Fr.) P. Karst.	<i>Xenasmatella vaga</i> (Fr.) Stalpers
<i>Phlebiopsis ravenelii</i> (Cooke) Hjortstam	<i>Phaeophlebiopsis ravenelii</i> (Cooke) Zmitr.
<i>Phlebopus brunneoruber</i> (Beeli) Heinem. & Rammeloo	<i>Phlebopus braunii</i> (Bres.) Heinem.
<i>Phloeospora mimosae-pigrae</i> Evans & G. Carrión	<i>Sphaerulina mimosae-pigrae</i> H.C. Evans & G. Carrión

Synonym	Accepted Name
<i>Phlyctella andensis</i> (Nyl.) Nyl.	<i>Phlyctis andensis</i> Nyl.
<i>Phlyctella endecamera</i> (Nyl.) Nyl.	<i>Phlyctis endecamera</i> (Nyl.) Lücking & Sipman
<i>Phlyctidia boliviensis</i> (Nyl.) Müll. Arg.	<i>Phlyctis boliviensis</i> Nyl.
<i>Phlyctis endecamera</i> (Nyl.) Nyl.	<i>Phlyctis endecamera</i> (Nyl.) Lücking & Sipman
<i>Pholiota apiahyna</i> Speg.	<i>Stropharia apiahyna</i> (Speg.) Cortez & R.M. Silveira
<i>Phoma andina</i> var. <i>crystalliniformis</i> Loer., R. Navarro, M. Lôbo & Turkenst.	<i>Stagonosporopsis crystalliniformis</i> (Loer., R. Navarro, M. Lôbo & Turkenst.) Aveskamp, Gruyter & Verkley
<i>Phyllachora ambrosiae</i> (Berk. & M.A. Curtis) Sacc.	<i>Cryptophyllachora ambrosiae</i> (Sacc.) L. Kiss, Kovács, P.F. Cannon & R.G. Shivas
<i>Phyllachora antioquensis</i> Chardón	<i>Phyllachora oxyspora</i> Starbäck
<i>Phyllachora cornispora-necrotica</i> Chardón	<i>Phyllachora acutispora</i> Speg.
<i>Phyllachora molinae</i> Chardón	<i>Phyllachora urvilleana</i> Speg.
<i>Phyllachora murilloi</i> Garcés	<i>Phyllachora acutispora</i> Speg.
<i>Phyllachora ruelliae</i> Chardón	<i>Telimena ruelliae</i> (Chardón) Mardones, Trampe & M. Piepenbr.
<i>Phyllobatelium epiphyllum</i> (Müll. Arg.) Müll. Arg.	<i>Phyllobatelium firmum</i> (Stirt.) Vězda
<i>Phyllophiale alba</i> R. Sant.	<i>Porina alba</i> (R. Sant.) Lücking
<i>Phyllophtharmaria coccinea</i> (Leight.) Zahlbr.	<i>Chroodiscus coccineus</i> (Leight.) Müll. Arg.
<i>Phylloporina platypoda</i> (Müll. Arg.) Müll. Arg.	<i>Phylloporis platypoda</i> (Müll. Arg.) Vězda
<i>Phylloporina rubentior</i> (Stirt.) Müll. Arg.	<i>Porina rubentior</i> (Stirt.) Müll. Arg.
<i>Phylloporina rufula</i> var. <i>obscurata</i> (Müll. Arg.) Müll. Arg.	<i>Porina limbulata</i> (Kremp.) Vain.
<i>Phylloporina spruceana</i> Müll. Arg.	<i>Porina limbulata</i> (Kremp.) Vain.
<i>Phyllopsora buettneri</i> var. <i>glauca</i> (B. de Lesd.) Brako	<i>Phyllopsora buettneri</i> (Müll. Arg.) Zahlbr.
<i>Phyllopsora corallina</i> var. <i>ochroxantha</i> (Nyl.) Brako	<i>Phyllopsora ochroxantha</i> (Nyl.) Zahlbr.
<i>Phyllopsora corallina</i> var. <i>santensis</i> (Eschw.) Brako	<i>Phyllopsora santensis</i> (Tuck.) Swinscow & Krog
<i>Phyllopsora labriformis</i> Timdal	<i>Parallopsora labriformis</i> (Timdal) Kistenich, Timdal & Bendiksby
<i>Phyllopsora leucophyllina</i> (Nyl.) Timdal	<i>Parallopsora leucophyllina</i> (Nyl.) Kistenich, Timdal & Bendiksby
<i>Phyllopsora parvifolia</i> var. <i>subgranulosa</i> (Tuck.) Müll. Arg.	<i>Phyllopsora canoumbrina</i> (Vain.) Brako
<i>Phyllosticta noackiana</i> Allesch.	<i>Boeremia noackiana</i> (Allesch.) Aveskamp, Gruyter & Verkley
<i>Physcia acromela</i> (Pers.) Nyl.	<i>Teloschistes flavicans</i> (Sw.) Norman
<i>Physcia adglutinata</i> f. <i>minor</i> (Fée) Nyl.	<i>Hyperphyscia minor</i> (Fée) Kalb
<i>Physcia aegialita</i> (Ach.) Nyl.	<i>Dirinaria aegialita</i> (Afzel. ex Ach.) B.J. Moore
<i>Physcia albicans</i> (Pers.) J.W. Thomson	<i>Heterodermia albicans</i> (Pers.) Swinscow & Krog



ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name
<i>Physcia angustifolia</i> (Meyen & Flot.) Nyl.	<i>Leucodermia leucomelos</i> (L.) Kalb
<i>Physcia barbifera</i> var. <i>subcomosa</i> (Nyl.) Müll. Arg.	<i>Heterodermia subcomosa</i> (Nyl.) Elix
<i>Physcia candelaria</i> f. <i>orbicularis</i> Nyl.	<i>Candelaria concolor</i> (Dicks.) Arnold
<i>Physcia candelaria</i> f. <i>stellata</i> (Ach.) Nyl.	<i>Candelaria concolor</i> (Dicks.) Arnold
<i>Physcia ciliata</i> f. <i>erythrocardia</i> (Tuck.) J.W. Thomson	<i>Phaeophyscia endococcinodes</i> (Poelt) Essl.
<i>Physcia crispa</i> var. <i>mollescens</i> (Nyl.) Vain.	<i>Heterodermia albicans</i> (Pers.) Swinscow & Krog
<i>Physcia flavicans</i> (Sw.) DC.	<i>Teloschistes flavicans</i> (Sw.) Norman
<i>Physcia fragileszens</i> Zahlbr.	<i>Physcia soresdiosa</i> (Vain.) Lyngé
<i>Physcia hypoglauca</i> Nyl.	<i>Niorma hypoglauca</i> (Nyl.) S.Y. Kondr., Kärnefelt, Elix, A. Thell, M.H. Jeong & Hur
<i>Physcia hypoleuca</i> (Ach.) Nyl.	<i>Polyblastidium hypoleucum</i> (Ach.) Kalb
<i>Physcia leucomela</i> (L.) Mich.	<i>Leucodermia leucomelos</i> (L.) Kalb
<i>Physcia leucomela</i> f. <i>albiciliata</i> Nyl.	<i>Leucodermia leucomelos</i> (L.) Kalb
<i>Physcia leucomela</i> var. <i>angustifolia</i> (Meyen & Flot.) Nyl.	<i>Leucodermia leucomelos</i> (L.) Kalb
<i>Physcia leucomela</i> var. <i>podocarpa</i> (Bél.) Nyl.	<i>Heterodermia podocarpa</i> (Bél.) D.D. Awasthi
<i>Physcia obscura</i> f. <i>endochrysea</i> Nyl.	<i>Phaeophyscia endococcinodes</i> (Poelt) Essl.
<i>Physcia obscura</i> var. <i>ulotrichoides</i> Nyl.	<i>Phaeophyscia endococcinodes</i> (Poelt) Essl.
<i>Physcia obscurata</i> Nyl.	<i>Heterodermia obscurata</i> (Nyl.) Trevis.
<i>Physcia obsessa</i> (Mont.) Nyl.	<i>Physcia integrata</i> Nyl.
<i>Physcia obsessa</i> Nyl.	<i>Physcia integrata</i> Nyl.
<i>Physcia picta</i> (Sw.) Nyl.	<i>Dirinaria picta</i> (Sw.) Clem. & Shear
<i>Physcia podocarpa</i> (Bél.) Nyl.	<i>Heterodermia podocarpa</i> (Bél.) D.D. Awasthi
<i>Physcia setosa</i> (Ach.) Nyl.	<i>Phaeophyscia hispidula</i> (Ach.) Essl.
<i>Physcia speciosa</i> (Wulfen) Nyl.	<i>Heterodermia speciosa</i> (Wulfen) Trevis.
<i>Physcia speciosa</i> var. <i>hypoleuca</i> (Ach.) Nyl.	<i>Polyblastidium hypoleucum</i> (Ach.) Kalb
<i>Physcia syncolla</i> Nyl.	<i>Hyperphyscia syncolla</i> (Tuck. ex Nyl.) Kalb
<i>Phytoconis aurantiaca</i> (Redhead & Kuyper) Redhead & Kuyper	<i>Lichenomphalia aurantiaca</i> (Redhead & Kuyper) Redhead, Lutzoni, Moncalvo & Vilgalys
<i>Phytoconis lobata</i> (Redhead & Kuyper) Redhead & Kuyper	<i>Lichenomphalia lobata</i> (Redhead & Kuyper) Redhead, Lutzoni, Moncalvo & Vilgalys
<i>Placodium murorum</i> var. <i>obliteratum</i> (Pers.) Duby	<i>Calogaya saxicola</i> (Hoffm.) Vondrák
<i>Platygløea blastomyces</i> Möller	<i>Achroomyces blastomyces</i> (Möller) Wojewoda
<i>Platygløea effusa</i> J. Schröt.	<i>Achroomyces effusus</i> (J. Schröt.) Mig.
<i>Platygrapha dilatata</i> Nyl.	<i>Sagenidiopsis undulata</i> (Fée) Egea, Tehler, Torrente & Sipman

Synonym	Accepted Name
<i>Platygrapha elaeocarpa</i> Nyl.	<i>Gyronactis elaeocarpa</i> (Nyl.) Ertz & Tehler
<i>Platygrapha endecamera</i> Nyl.	<i>Phlyctis endecamera</i> (Nyl.) Lücking & Sipman
<i>Platygrapha extenuata</i> Nyl.	<i>Sclerophyton extenuatum</i> (Nyl.) Sparrius
<i>Platygrapha flavescens</i> Nyl.	<i>Syncesia flavescens</i> (Nyl.) Tehler
<i>Platygrapha flaviseda</i> Nyl.	<i>Lecanactis flaviseda</i> (Nyl.) Tehler
<i>Platygrapha homoeoides</i> Nyl.	<i>Lecanactis epileuca</i> (Nyl.) Tehler
<i>Platygrapha homoeoides</i> var. <i>plicata</i> Nyl.	<i>Lecanactis epileuca</i> (Nyl.) Tehler
<i>Platygrapha interrupta</i> (Fée) Nyl.	<i>Platygraphopsis interrupta</i> (Fée) Müll. Arg.
<i>Platygrapha leptographa</i> Nyl.	<i>Platygraphopsis interrupta</i> (Fée) Müll. Arg.
<i>Platygrapha leucopsara</i> Nyl.	<i>Schismatomma leucopsarum</i> (Nyl.) Zahlbr.
<i>Platygrapha lineolata</i> Nyl.	<i>Platygraphopsis interrupta</i> (Fée) Müll. Arg.
<i>Platygrapha ocellata</i> Nyl.	<i>Mazosia ocellata</i> (Nyl.) R.C. Harris
<i>Platygrapha permutans</i> Nyl.	<i>Byssoloma permutans</i> (Nyl.) Lücking
<i>Platygrapha phlyctella</i> Nyl.	<i>Phlyctis andensis</i> Nyl.
<i>Platygrapha psaroleuca</i> Nyl.	<i>Syncesia psaroleuca</i> (Nyl.) Tehler
<i>Platygrapha rotula</i> (Mont.) Nyl.	<i>Mazosia rotula</i> (Mont.) A. Massal.
<i>Platygrapha rotula</i> f. <i>centrifuga</i> Nyl.	<i>Mazosia rotula</i> (Mont.) A. Massal.
<i>Platygraphopsis interrupta</i> (Fée) Müll. Arg.	<i>Sclerophyton extenuatum</i> (Nyl.) Sparrius
<i>Platythecium hypoleptum</i> (Nyl.) M. Nakan. & Kashiw.	<i>Thallolooma hypoleptum</i> (Nyl.) Staiger
<i>Pleoscutula hypotrachynae</i> Etayo	<i>Spirographa hypotrachynae</i> (Etayo) Flakus, Etayo & Miądl.
<i>Pleuromyconula circularis</i> Singer	<i>Helotium circulare</i> (Singer) Redhead
<i>Pleuromyconula flava</i> Singer	<i>Flabellimycena flava</i> (Singer) Redhead
<i>Pleurotremata polysemum</i> (Nyl.) Müll. Arg.	<i>Lithothelium polysemum</i> (Nyl.) Aptroot
<i>Polychidium dendriscum</i> (Nyl.) Henssen	<i>Leptogidium dendriscum</i> (Nyl.) Nyl.
<i>Polycoccum arnoldii</i> (Hepp ex Körb.) D. Hawksw.	<i>Sphaerellothecium arnoldii</i> (A. Massal.) Hafellner
<i>Polyozosia dispersa</i> (Pers.) S.Y. Kondr., L. Lőkös & Farkas	<i>Myriolecis dispersa</i> (Pers.) Śliwa, Zhao Xin & Lumbsch
<i>Polyozosia hagenii</i> (Ach.) S.Y. Kondr., L. Lőkös & Farkas	<i>Myriolecis hagenii</i> (Ach.) Śliwa, Zhao Xin & Lumbsch
<i>Polyporus arcularius</i> (Batsch) Fr.	<i>Lentinus arcularius</i> (Batsch) Zmitr.
<i>Polyporus blanchetianus</i> Berk. & Mont.	<i>Cerioporus varius</i> (Pers.) Zmitr. & Kovalenko
<i>Polyporus brenningii</i> Henn.	<i>Fomitopsis nivosa</i> (Berk.) Gilb. & Ryvarden
<i>Polyporus gilvus</i> Peck	<i>Phellinus gilvus</i> (Schwein.) Pat.
<i>Polyporus hymeninus</i> Lév.	<i>Corioloopsis brunneoleuca</i> (Berk.) Ryvarden
<i>Polyporus maximus</i> (Mont.) Overh.	<i>Trametes maxima</i> (Mont.) A. David & Rajchenb.

ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name
<i>Polyporus modestus</i> Kunze:Fr.	<i>Ranadivia modesta</i> (Kunze ex Fr.) Zmitr.
<i>Polyporus omphalodes</i> Berk.	<i>Amauroderma omphalodes</i> (Berk.) Torrend
<i>Polyporus pavonius</i> (Hook.) Fr.	<i>Trametes pavonia</i> (Hook.) Ryvarden
<i>Polyporus philippinensis</i> Berk.	<i>Favolus philippinensis</i> (Berk.) Sacc.
<i>Polyporus purpurascens</i> Berk. & M.A. Curtis	<i>Byssomerulius corium</i> (Pers.) Parmasto
<i>Polyporus tricholoma</i> Mont.	<i>Lentinus tricholoma</i> (Mont.) Zmitr.
<i>Polyporus trichomallus</i> Berk. & Mont.	<i>Trichaptum trichomallum</i> (Berk. & Mont.) Murrill
<i>Polyporus udus</i> Jungh.	<i>Bresadolia uda</i> (Jungh.) Audet
<i>Polyporus virgatus</i> Berk. & M.A. Curtis	<i>Picipes virgatus</i> (Berk. & M.A. Curtis) J.L. Zhou & B.K. Cui
<i>Polystictus floridanus</i> Berk.	<i>Trichaptum sector</i> (Ehrenb.) Kreisel
<i>Porina mirabilis</i> Lücking & Vězda	<i>Porina alba</i> (R. Sant.) Lücking
<i>Porina phyllogena</i> Müll. Arg.	<i>Phylloporis phyllogena</i> (Müll. Arg.) Clem.
<i>Porina platypoda</i> Müll. Arg.	<i>Phylloporis platypoda</i> (Müll. Arg.) Vězda
<i>Porina pseudofulvella</i> Sérus.	<i>Porina rufula</i> (Kremp.) Vain.
<i>Porina rubicolor</i> auct. non (Stirt.) Müll. Arg.	<i>Porina limbulata</i> (Kremp.) Vain.
<i>Porina rugosa</i> Kalb & Vězda	<i>Porina radiata</i> Kalb, Lücking & Vězda
<i>Porina rugosa</i> Vězda	<i>Porina radiata</i> Kalb, Lücking & Vězda
<i>Porostereum crassum</i> (Lév.) Hjortstam & Ryvarden	<i>Phlebiopsis crassa</i> (Lév.) Floudas & Hibbett
<i>Porpidia flavocoerulescens</i> (Hornem.) Hertel & A.J. Schwab	<i>Porpidia flavicunda</i> (Ach.) Gowan
<i>Postia stiptica</i> (Pers.) Jülich	<i>Amaropostia stiptica</i> (Pers.) B.K. Cui, L.L. Shen & Y.C. Dai
<i>Pronectria leptaleoides</i> Etayo	<i>Xenonectriella leptaleoides</i> (Etayo) Etayo
<i>Prospodium appendiculatum</i> var. <i>colombianum</i> López-Alzate & Salazar-Yepes	<i>Prospodium appendiculatum</i> (Kuntze) Arthur
<i>Prospodium garcesii</i> F. Kern & Thurst.	<i>Canasta garcesii</i> (F. Kern & Thurst.) A.A. Carvalho & J.F. Hennen
<i>Protoparmelia picea</i> (Dicks.) Hafellner	<i>Protoparmelia badia</i> (Hoffm.) Hafellner
<i>Pseudocercospora colombiensis</i> Crous & M.J. Wingf.	<i>Parapallidocercospora colombiensis</i> (Crous & M.J. Wingf.) Videira & Crous
<i>Pseudocyphellaria arvidssonii</i> D.J. Galloway	<i>Crocodia arvidssonii</i> (D.J. Galloway) D.J. Galloway & Elix
<i>Pseudocyphellaria aurata</i> (Ach.) Vain.	<i>Crocodia aurata</i> (Ach.) Link
<i>Pseudocyphellaria clathrata</i> (De Not.) Malme	<i>Crocodia clathrata</i> (De Not.) Trevis.
<i>Pseudocyphellaria encoensis</i> R. Sant.	<i>Podostictina encoensis</i> (R. Sant.) D.J. Galloway & de Lange
<i>Pseudocyphellaria perpetua</i> McCune & Miądl.	<i>Pseudocyphellaria hawaiiensis</i> H. Magn.

Synonym	Accepted Name
<i>Pseudofavolus cucullatus</i> (Mont.) Pat.	<i>Hexagonia cucullata</i> (Mont.) Murrill
<i>Pseudohiatula irrorata</i> (Pat.) Singer	<i>Hydropus irroratus</i> (Pat.) Singer
<i>Pseudoparmelia amazonica</i> (Nyl.) Hale	<i>Canoparmelia amazonica</i> (Nyl.) Elix & Hale
<i>Pseudoparmelia carneopruinata</i> (Zahlbr.) Hale	<i>Crespoa carneopruinata</i> (Zahlbr.) Lendemer & B.P. Hodk.
<i>Pseudoparmelia salacinifera</i> (Hale) Hale	<i>Parmelinella salacinifera</i> (Hale) Marcelli & Benatti
<i>Pseudophyscia obscurata</i> (Nyl.) Hue	<i>Heterodermia obscurata</i> (Nyl.) Trevis.
<i>Pseudophyscia speciosa</i> (Wulfen) Müll. Arg.	<i>Heterodermia speciosa</i> (Wulfen) Trevis.
<i>Pseudopyrenula diluta</i> (Fée) Müll. Arg. var. <i>diluta</i>	<i>Pseudopyrenula diluta</i> (Fée) Müll. Arg.
<i>Pseudopyrenula diluta</i> var. <i>degenerans</i> Vain.	<i>Pseudopyrenula subnudata</i> Müll. Arg.
<i>Pseudopyrenula dirempta</i> (Nyl.) Müll. Arg.	<i>Pseudopyrenula diluta</i> (Fée) Müll. Arg.
<i>Pseudopyrenula myriomma</i> (Nyl.) Müll. Arg.	<i>Astrothelium annulare</i> (Fée) Aptroot & Lücking
<i>Pseudopyrenula obvoluta</i> (Nyl.) Zahlbr.	<i>Pyrenula dermatodes</i> (Borrer) Schaer.
<i>Pseudopyrenula papulosa</i> (Nyl.) Müll. Arg.	<i>Astrothelium papulosum</i> (Nyl.) Aptroot & Lücking
<i>Pseudopyrenula pupula</i> (Ach.) Müll. Arg.	<i>Astrothelium pupula</i> (Ach.) Aptroot & Lücking
<i>Pseudopyrenula thelotremoides</i> (Nyl.) Müll. Arg.	<i>Astrothelium thelotremoides</i> (Nyl.) Aptroot & Lücking
<i>Pseudosagedia atrocoerulea</i> (Müll. Arg.) Hafellner & Kalb	<i>Porina atrocoerulea</i> Müll. Arg.
<i>Pseudosagedia cerasi</i> (Schrad.) M. Choisy	<i>Arthopyrenia cerasi</i> (Schrad.) A. Massal.
<i>Pseudosagedia guentheri</i> (Flot.) Hafellner & Kalb	<i>Porina guentheri</i> (Flot.) Zahlbr.
<i>Pseudosagedia nitidula</i> (Müll. Arg.) Hafellner & Kalb	<i>Porina nitidula</i> Müll. Arg.
<i>Pseudosagedia papillifera</i> (Stirt.) Hafellner & Kalb	<i>Porina papillifera</i> F. Schill.
<i>Pseudosagedia umbilicata</i> (Müll. Arg.) Hafellner & Kalb	<i>Porina umbilicata</i> (Müll. Arg.) F. Schill.
<i>Psilocybe angustipleurocystidiata</i> Guzmán	<i>Psilocybe muliercula</i> Singer & A.H. Sm.
<i>Psilocybe caerulescens</i> var. <i>ombrophila</i> R. Heim	<i>Psilocybe caerulescens</i> Murrill
<i>Psilocybe castanella</i> var. <i>subhyperella</i> (Singer) Guzmán	<i>Psilocybe subhyperella</i> Singer
<i>Psilocybe coprophila</i> (Bull.) P. Kumm.	<i>Deconica coprophila</i> (Bull.) P. Karst.
<i>Psilocybe montana</i> (Pers.) P. Kumm.	<i>Deconica montana</i> (Pers.) P.D. Orton
<i>Psilocybe phyllogena</i> (Peck) Peck	<i>Deconica phyllogena</i> (Sacc.) Noordel.
<i>Psilocybe subacutipilea</i> Guzmán, Saldarr., Pineda, G. García & L.-F. Velázquez	<i>Psilocybe mexicana</i> R. Heim



## ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name
<i>Psorotheciopsis philippinensis</i> (Rehm) Lücking	<i>Linhartia philippinensis</i> Rehm
<i>Puccinia bocconiae</i> Mayor	<i>Coleosporium bocconiae</i> (Mayor) P. Syd. & Syd.
<i>Puccinia sidae-rhombifoliae</i> Mayor	<i>Puccinia malvacearum</i> Bertero ex Mont.
<i>Puccinia solani-micranthumi</i> Pardo-Card.	<i>Puccinia solani-micranthi</i> Pardo-Card.
<i>Puccinia spegazzinii</i> De Toni	<i>Micropuccinia spegazzinii</i> (De Toni) Arthur & H.S. Jacks.
<i>Pyrenastrum astroideum</i> (Fée)	<i>Pyrenula astroidea</i> (Fée) R.C. Harris
<i>Pyrenastrum pyrenuloides</i> (Mont.) Nyl.	<i>Pyrenula pyrenuloides</i> (Mont.) R.C. Harris
<i>Pyrenula concatervans</i> (Nyl.) R.C. Harris	<i>Pyrenula sexocularis</i> (Nyl.) Müll. Arg.
<i>Pyrenula convexa</i> (Nyl.) Müll. Arg.	<i>Pyrenula subducta</i> (Nyl.) Müll. Arg.
<i>Pyrenula costaricensis</i> Müll. Arg.	<i>Pyrenula aggregata</i> (Fée) Fée
<i>Pyrenula discolor</i> Ach.	<i>Ampliotrema discolor</i> (Ach.) Kalb
<i>Pyrenula laii</i> Aptroot	<i>Pyrenula immissa</i> (Stirt.) Zahlbr.
<i>Pyrenula macrocarpa</i> A. Massal.	<i>Pyrenula complanata</i> (Mont.) Trevis.
<i>Pyrenula marginata</i> Hook.	<i>Pyrenula mamillana</i> (Ach.) Trevis.
<i>Pyrenula marginatula</i> Müll. Arg.	<i>Pyrenula adacta</i> Fée
<i>Pyrenula mastophoroides</i> var. <i>flavicans</i> (Nyl.) Zahlbr.	<i>Pyrenula mastophoroides</i> (Nyl.) Zahlbr.
<i>Pyrenula mucosa</i> (Vain.) R.C. Harris	<i>Pyrenula papillifera</i> (Nyl.) Aptroot
<i>Pyrenula nova-granadensis</i> Upreti & Ajay Singh	<i>Pyrenula ravenelii</i> (Tuck.) R.C. Harris
<i>Pyrenula obvoluta</i> (Nyl.) Aptroot	<i>Pyrenula dermatodes</i> (Borrer) Schaer.
<i>Pyrenula obvoluta</i> (Nyl.) R.C. Harris & Aptroot	<i>Pyrenula dermatodes</i> (Borrer) Schaer.
<i>Pyrenula pinguis</i> Fée	<i>Pyrenula quassiiicola</i> Fée
<i>Pyrenula santensis</i> (Nyl.) Müll. Arg.	<i>Pyrenula balia</i> (Kremp.) R.C. Harris
<i>Pyrenula subaggregata</i> Müll. Arg.	<i>Pyrenula aspistea</i> (Afzel. ex Ach.) Ach.
<i>Pyrenula subducta</i> var. <i>retracta</i> (Nyl.) Zahlbr.	<i>Pyrenula subducta</i> (Nyl.) Müll. Arg.
<i>Pyrenula verruculosa</i> Upreti & Ajay Singh	<i>Pyrenula schiffneri</i> (Zahlbr.) Aptroot
<i>Pyrrhospora russula</i> (Ach.) Hafellner	<i>Ramboldia russula</i> (Ach.) Kalb, Lumbsch & Elix
<i>Pyxine caesiopruinosa</i> (Tuck.) Imshaug	<i>Pyxine albovirens</i> (G. Mey.) Aptroot
<i>Pyxine cocoes</i> f. <i>isidiophora</i> Müll. Arg.	<i>Pyxine isidiophora</i> (Müll. Arg.) Imshaug
<i>Pyxine cocoes</i> var. <i>sorediata</i> (Ach.) Tuck.	<i>Pyxine sorediata</i> (Ach.) Mont.
<i>Pyxine isidiophora</i> (Müll. Arg.) Imshaug	<i>Pyxine coralligera</i> Malme
<i>Pyxine meissneri</i> Nyl.	<i>Pyxine berteriana</i> (Fée) Imshaug
<i>Pyxine microspora</i> Vain.	<i>Pyxine pyxinoides</i> (Müll. Arg.) Kalb
<i>Pyxine sorediata</i> f. <i>caesiopruinosa</i> (Tuck.) Hue	<i>Pyxine albovirens</i> (G. Mey.) Aptroot
<i>Racodium rupestre</i> Pers.	<i>Cystocoleus ebeneus</i> (Dillwyn) Thwaites

Synonym	Accepted Name
<i>Radulodon venustus</i> Hjortstam & Ryvarden	<i>Pseudolagarobasidium venustum</i> (Hjortstam & Ryvarden) Nakasone & D.L. Lindner
<i>Ramalina calicaris</i> f. <i>ecklonii</i> (Spreng.) Nyl.	<i>Ramalina celastri</i> (Spreng.) Krog & Swinscow
<i>Ramalina calicaris</i> f. <i>protensa</i> Nyl.	<i>Ramalina protensa</i> (Nyl.) Zahlbr.
<i>Ramalina calicaris</i> f. <i>rigida</i> (Pers.) Nyl.	<i>Ramalina rigida</i> Ach.
<i>Ramalina calicaris</i> var. <i>denticulata</i> (Eschw.) Nyl.	<i>Ramalina denticulata</i> (Eschw.) Nyl.
<i>Ramalina complanata</i> f. <i>protensa</i> Nyl.	<i>Ramalina protensa</i> (Nyl.) Zahlbr.
<i>Ramalina geniculata</i> Hook. f. & Taylor	<i>Ramalina inflata</i> (Hook. f. & Taylor) Hook. f. & Taylor
<i>Ramalina yemensis</i> (Ach.) Nyl.	<i>Ramalina celastri</i> (Spreng.) Krog & Swinscow
<i>Ramalina yemensis</i> var. <i>ecklonii</i> f. <i>sublinearis</i> Nyl.	<i>Ramalina celastri</i> (Spreng.) Krog & Swinscow
<i>Ramaria botrytis</i> (Pers.) Bourdot var. <i>botrytis</i>	<i>Ramaria botrytis</i> (Pers.) Bourdot
<i>Ramaria botrytis</i> (Pers.) Ricken var. <i>botrytis</i>	<i>Ramaria botrytis</i> (Pers.) Bourdot
<i>Ramaria botrytis</i> var. <i>aurantiiramosa</i> Marr & D.E. Stuntz	<i>Ramaria aurantiiramosa</i> (Marr & D.E. Stuntz) Franchi & M. Marchetti
<i>Ramaria zippelii</i> (Lév.) Corner	<i>Phaeoclavulina zippelii</i> (Lév.) Overeem
<i>Ramularia endophylla</i> Verkley & U. Braun	<i>Mycosphaerella punctiformis</i> (Pers.) Starbäck
<i>Resinicium friabile</i> Hjortstam & Melo	<i>Resinicium luteosulphureum</i> (Rick) Baltazar & Rajchenb.
<i>Rexia fuliginosa</i> (Filson) S. Stenroos, Pino-Bodas & Ahti	<i>Rexiella fuliginosa</i> (Filson) S. Stenroos, Pino-Bodas and Ahti
<i>Rhodocybe nitellina</i> (Fr.) Singer	<i>Rhodophana nitellina</i> (Fr.) Papetti
<i>Rhodocybe testacea</i> Dennis	<i>Clitopilus testaceus</i> (Dennis) Noordel. & Co-David
<i>Rhodophyllus ferrugineogranulatus</i> Singer	<i>Entoloma ferrugineogranulatum</i> (Singer) E. Horak
<i>Rhodophyllus lyophylliformis</i> Singer	<i>Entoloma lyophylliforme</i> (Singer) E. Horak
<i>Rhodotorula colostri</i> (T. Castelli) Lodder	<i>Rhodospordiobolus colostri</i> (T. Castelli) Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout
<i>Rhodotorula rubra</i> (Schimon) F.C. Harrison	<i>Rhodotorula mucilaginoso</i> (A. Jörg.) F.C. Harrison
<i>Rhodotorula taiwanensis</i> F.L. Lee & C.H. Huang	<i>Rhodotorula taiwanensis</i> F.L. Lee & C.H. Huang ex Denchev & T. Denchev
<i>Ricasolia corrosa</i> (Ach.) Nyl.	<i>Yoshimuriella corrosa</i> (Ach.) Moncada & Lücking
<i>Ricasolia crenulata</i> (Hook.) Nyl.	<i>Lobariella crenulata</i> (Hook.) Yoshim.
<i>Ricasolia excisa</i> (Müll. Arg.) Stizenb.	<i>Emmanuelia excisa</i> (Müll. Arg.) Lücking, Moncada & Ant. Simon
<i>Ricasolia fendleri</i> (Mont. & Tuck.) Nyl.	<i>Yoshimuriella fendleri</i> (Tuck. & Mont.) Moncada & Lücking
<i>Ricasolia pallida</i> (Hook.) Nyl.	<i>Lobariella pallida</i> (Hook.) Moncada & Lücking

ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name
<i>Ricasolia peltigera</i> (Delise)	<i>Yoshimuriella peltigera</i> (Vain.) Lücking & Moncada
<i>Ricasolia subdissecta</i> f. <i>deplanata</i> Nyl.	<i>Yoshimuriella deplanata</i> (Nyl.) Moncada & Lücking
<i>Ricasolia subdissecta</i> f. <i>scrobiculata</i> Nyl.	<i>Yoshimuriella subdissecta</i> (Nyl.) Moncada & Lücking
<i>Ricasolia subdissecta</i> Nyl.	<i>Yoshimuriella subdissecta</i> (Nyl.) Moncada & Lücking
<i>Ricasolia tenuis</i> (Vain.) Stizenb.	<i>Emmanuelia tenuis</i> (Vain.) Lücking, Moncada & Gumboski
<i>Rimelia bonplandii</i> Nata	<i>Parmotrema bonplandii</i> (Mata) O. Blanco, A. Crespo, Divakar, Elix & Lumbsch
<i>Rimelia cetrata</i> (Ach.) Hale & A. Fletcher	<i>Parmotrema cetratum</i> (Ach.) Hale
<i>Rimelia commensurata</i> (Hale) Hale & A. Fletcher	<i>Parmotrema commensuratum</i> (Hale) Hale
<i>Rimelia reticulata</i> (Taylor) Hale & A. Fletcher	<i>Parmotrema reticulatum</i> (Taylor) M. Choisy
<i>Rimelia simulans</i> (Hale) Hale & A. Fletcher	<i>Parmotrema simulans</i> (Hale) Hale
<i>Rimelia subsidiosa</i> (Müll. Arg.) Hale & A. Fletcher	<i>Parmotrema subsidiosum</i> (Müll. Arg.) Hale
<i>Rinodina insperata</i> (Nyl.) Malme	<i>Orcularia insperata</i> (Nyl.) Kalb & Giralt
<i>Roccella decipiens</i> Darb.	<i>Roccella verruculosa</i> Follmann
<i>Rogersella asperula</i> Liberta & A.J. Navas	<i>Lyomyces griseliniae</i> (G. Cunn.) Riebesehl & Langer
<i>Rogersella griseliniae</i> (G. Cunn.) Stalpers	<i>Lyomyces griseliniae</i> (G. Cunn.) Riebesehl & Langer
<i>Rosellinia bunodes</i> (Berk. & Broome) Sacc.	<i>Dematophora bunodes</i> (Berk. & Broome) C. Lambert, Wittstein & M. Stadler
<i>Rosellinia obregonii</i> L.E. Petrini	<i>Dematophora obregonii</i> (L.E. Petrini) C. Lambert, Wittstein & M. Stadler
<i>Rozites colombiana</i> Halling & Ovrebo	<i>Cortinarius colombianus</i> (Halling & Ovrebo) Peintner, E. Horak, M.M. Moser & Vilgalys
<i>Rozites colombianus</i> Halling & Ovrebo	<i>Cortinarius colombianus</i> (Halling & Ovrebo) Peintner, E. Horak, M.M. Moser & Vilgalys
<i>Russula emetica</i> subsp. <i>lacustris</i> Singer	<i>Russula emetica</i> (Schaeff.) Pers.
<i>Saccomorpha icmalea</i> (Ach.) Clauzade & Cl. Roux	<i>Placynthiella icmalea</i> (Ach.) Coppins & P. James
<i>Sarcographa actinobola</i> (Nyl.) Müll. Arg.	<i>Sarcographa cinchonarum</i> Fée
<i>Sarcographa decolorascens</i> (Nyl.) Zahlbr.	<i>Phaeographis decolorascens</i> (Nyl.) Lücking
<i>Sarcographa intricans</i> (Nyl.) Müll. Arg.	<i>Phaeographis intricans</i> (Nyl.) Staiger
<i>Sarcographa leprieurii</i> (Mont.) Müll. Arg.	<i>Phaeographis leprieurii</i> (Mont.) Staiger
<i>Schaereria tenebrosa</i> (Flot.) Hertel & Poelt	<i>Schaereria fuscocinerea</i> (Nyl.) Clauzade & Cl. Roux
<i>Schismatomma flavescens</i> (Nyl.) Zahlbr.	<i>Syncesia flavescens</i> (Nyl.) Tehler

Synonym	Accepted Name
<i>Schismatomma lineolata</i> (Nyl.) Zahlbr.	<i>Platygraphopsis interrupta</i> (Fée) Müll. Arg.
<i>Schismatomma ocellatum</i> (Nyl.) Zahlbr.	<i>Mazosia ocellata</i> (Nyl.) R.C. Harris
<i>Schismatomma permutans</i> (Nyl.) Zahlbr.	<i>Byssoloma permutans</i> (Nyl.) Lücking
<i>Schizopora flavipora</i> (Berk. & M.A. Curtis ex Cooke) Ryvarden	<i>Xylodon flaviporus</i> (Berk. & M.A. Curtis ex Cooke) Riebesehl & Langer
<i>Schizopora trichilliae</i> (Van der Byl) Ryvarden	<i>Xylodon flaviporus</i> (Berk. & M.A. Curtis ex Cooke) Riebesehl & Langer
<i>Scutellospora heterogama</i> (T.H. Nicolson & Gerd.) C. Walker & F.E. Sanders	<i>Dentiscutata heterogama</i> (T.H. Nicolson & Gerd.) Sieverd., F.A. Souza & Oehl
<i>Scytinostroma galactinum</i> (Fr.) Donk	<i>Baltazaria galactina</i> (Fr.) Leal-Dutra, Dentinger & G.W. Griff.
<i>Scytinostroma ochroleucum</i> (Bres. & Torrend) Donk	<i>Scytinostroma lusitanicum</i> (Trotter) P.M. Kirk
<i>Segestria octomera</i> (Müll. Arg.) R.C. Harris	<i>Porina octomera</i> (Müll. Arg.) F. Schill.
<i>Segestria rubentior</i> (Stirt.) R.C. Harris	<i>Porina rubentior</i> (Stirt.) Müll. Arg.
<i>Sesquicillium pseudosetosum</i> Samuels	<i>Clonostachys pseudosetosa</i> (Samuels) Schroers
<i>Sphaeria depressa</i> Hook.	<i>Phacidium depressum</i> Hook. ex Berk.
<i>Sphaeria depressa</i> J.M. Hook	<i>Phacidium depressum</i> Hook. ex Berk.
<i>Sphaeria melanococca</i> Lévl.	<i>Dothidotthia melanococca</i> (Lévl.) Aptroot
<i>Sphaerodothis columbiensis</i> Chardón	<i>Phyllachora columbiensis</i> (Chardón) P.F. Cannon
<i>Sphaerophoron compressum</i> Ach.	<i>Bunodophoron melanocarpum</i> (Sw.) Wedin
<i>Sphaerophorus compressus</i> Ach.	<i>Bunodophoron melanocarpum</i> (Sw.) Wedin
<i>Sphaerophorus formosanus</i> (Zahlbr.) Asahina	<i>Bunodophoron melanocarpum</i> (Sw.) Wedin
<i>Sphaerophorus melanocarpus</i> (Sw.) DC.	<i>Bunodophoron melanocarpum</i> (Sw.) Wedin
<i>Sphaerostilbe gracilipes</i> Tul. & C. Tul.	<i>Nectria gracilipes</i> (Tul. & C. Tul.) Wollenw.
<i>Spirechina columbiensis</i> F. Kern & Whetzel	<i>Gerwasia columbiensis</i> (F. Kern & Whetzel) Buritica
<i>Squamacidia janeirensis</i> (Müll. Arg.) Brako	<i>Phyllopsora cinchonarum</i> (Fée) Timdal
<i>Steccherinum subochraceum</i> Bononi & Hjortstam	<i>Steccherinum hydneum</i> Rick ex Maas Geest.
<i>Stegobolus anamorphoides</i> (Nyl.) Lücking	<i>Rhabdodiscus anamorphoides</i> (Nyl.) Vain.
<i>Stegobolus anamorphus</i> (Nyl.) Frisch & Kalb	<i>Rhabdodiscus anamorphoides</i> (Nyl.) Vain.
<i>Stegobolus auberianus</i> (Mont.) A.Frisch & Kalb	<i>Rhabdodiscus auberianus</i> (Mont.) Vain.
<i>Stegobolus auberianus</i> (Mont.) Frisch & Kalb	<i>Rhabdodiscus auberianus</i> (Mont.) Vain.



## ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name	Synonym	Accepted Name
<i>Stegobolus fissus</i> (Nyl.) A.Frisch	<i>Rhabdodiscus fissus</i> (Müll. Arg.) Vain.	<i>Sticta damicornis</i> var. <i>sinuosa</i> (Pers.) Nyl.	<i>Sticta sinuosa</i> Pers.
<i>Stegobolus fissus</i> (Nyl.) Frisch	<i>Rhabdodiscus fissus</i> (Müll. Arg.) Vain.	<i>Sticta damicornis</i> var. <i>subscrobiculata</i> Nyl.	<i>Sticta subscrobiculata</i> (Nyl.) Gyeln.
<i>Stegobolus metaphoricus</i> (Nyl.) A.Frisch	<i>Rhabdodiscus metaphoricus</i> (Nyl.) Vain.	<i>Sticta denudata</i> Taylor	<i>Yoshimuriella peltigera</i> (Vain.) Lücking & Moncada
<i>Stegobolus metaphoricus</i> (Nyl.) Frisch	<i>Rhabdodiscus metaphoricus</i> (Nyl.) Vain.	<i>Sticta excisa</i> Müll. Arg.	<i>Emmanuelia excisa</i> (Müll. Arg.) Lücking, Moncada & Ant. Simon
<i>Stegobolus percolumellatus</i> (Sipman) A.Frisch	<i>Ocellularia percolumellata</i> Sipman	<i>Sticta kunthii</i> var. <i>pilosella</i> (Nyl.) Zahlbr.	<i>Sticta gyalocarpa</i> (Nyl.) Trevis.
<i>Stegobolus percolumellatus</i> (Sipman) Frisch	<i>Ocellularia percolumellata</i> Sipman	<i>Sticta laciniata</i> var. <i>denudata</i> Nyl.	<i>Sticta subdenudata</i> Moncada & Lücking
<i>Stegobolus reconditus</i> (Stirt.) A.Frisch	<i>Rhabdodiscus reconditus</i> (Stirt.) Rivas Plata, Lücking & Lumbsch	<i>Sticta laciniata</i> var. <i>dilatata</i> (Nyl.) Müll. Arg.	<i>Sticta boliviana</i> Nyl.
<i>Stegobolus submersus</i> (Müll. Arg.) A.Frisch	<i>Rhabdodiscus submersus</i> (Müll. Arg.) Rivas Plata, Lücking & Lumbsch	<i>Sticta laciniata</i> var. <i>laeviuscula</i> Nyl.	<i>Sticta orizabana</i> Nyl.
<i>Stenella pseudoparkii</i> Crous & M.J. Wingf.	<i>Zasmidium pseudoparkii</i> (Crous & M.J. Wingf.) Crous & U. Braun	<i>Sticta lenormandii</i> f. <i>brevior</i> (Nyl.)	<i>Sticta brevior</i> Moncada & Lücking
<i>Stephanophorus digitatus</i> A. Massal.	<i>Leptogium digitatum</i> (A. Massal.) Zahlbr.	<i>Sticta lenormandii</i> f. <i>brevior</i> Nyl.	<i>Sticta brevior</i> Moncada & Lücking
<i>Stereocaulon albicans</i> Th. Fr.	<i>Lepraria albicans</i> (Th. Fr.) Lendemer & B.P. Hodk.	<i>Sticta microisidiata</i> Magain et al.	<i>Sticta ciliata</i> Taylor
<i>Stereocaulon alpestre</i> (Flot.) Th. Fr.	<i>Stereocaulon tomentosum</i> var. <i>alpestre</i> Flot.	<i>Sticta neopulmonacea</i> Gyeln.	<i>Sticta neopulmonaria</i> Gyeln.
<i>Stereocaulon denudatum</i> Flörke	<i>Stereocaulon vesuvianum</i> Pers.	<i>Sticta paramuna</i> Moncada & Lücking	<i>Sticta andina</i> Moncada, Lücking & Sérus.
<i>Stereocaulon denudatum</i> var. <i>vesuvianum</i> (Pers.) Laur.	<i>Stereocaulon vesuvianum</i> Pers.	<i>Sticta patinifera</i> (Taylor) Müll. Arg.	<i>Emmanuelia patinifera</i> (Taylor) Lücking, M. Cáceres & Ant. Simon
<i>Stereocaulon lecanoreum</i> Nyl.	<i>Stereocaulon strictum</i> Th. Fr.	<i>Sticta peltigera</i> Delise	<i>Yoshimuriella peltigera</i> (Vain.) Lücking & Moncada
<i>Stereocaulon mixtum</i> Nyl.	<i>Stereocaulon ramulosum</i> Raeusch.	<i>Sticta peruviana</i> (Delise) Nyl.	<i>Sticta weigelii</i> (Ach.) Vain.
<i>Stereocaulon proximum</i> Nyl.	<i>Stereocaulon ramulosum</i> Raeusch.	<i>Sticta tomentosa</i> f. <i>latior</i> Nyl.	<i>Sticta cometia</i> Ach.
<i>Stereocaulon proximum</i> var. <i>compressum</i> (Nyl.) Nyl.	<i>Stereocaulon strictum</i> Th. Fr.	<i>Sticta tomentosa</i> f. <i>leucoblepharis</i> (Mont.) Nyl.	<i>Sticta leucoblepharis</i> Tuck. & Mont.
<i>Stereocaulon proximum</i> var. <i>gracilius</i> Müll. Arg.	<i>Stereocaulon ramulosum</i> Raeusch.	<i>Sticta tomentosa</i> f. <i>leucoblepharis</i> (Mont.) Zahlbr.	<i>Sticta leucoblepharis</i> Tuck. & Mont.
<i>Stereocaulon ramulosum</i> f. <i>compressum</i> Nyl.	<i>Stereocaulon strictum</i> Th. Fr.	<i>Sticta tomentosa</i> f. <i>leucoblepharis</i> (Tuck. & Mont.) Zahlbr.	<i>Sticta leucoblepharis</i> Tuck. & Mont.
<i>Stereocaulon ramulosum</i> f. <i>farinosum</i> Th. Fr.	<i>Stereocaulon meyeri</i> Stein	<i>Sticta tomentosa</i> f. <i>ornata</i> (Müll. Arg.) Hue	<i>Sticta dilatata</i> (Nyl.) Vain.
<i>Stereocaulon ramulosum</i> var. <i>compressum</i> (Nyl.) Nyl.	<i>Stereocaulon strictum</i> Th. Fr.	<i>Sticta tomentosa</i> var. <i>dilatata</i> (Nyl.) Hue	<i>Sticta dilatata</i> (Nyl.) Vain.
<i>Stereocaulon ramulosum</i> var. <i>elegans</i> Th. Fr.	<i>Stereocaulon ramulosum</i> Raeusch.	<i>Sticta weigelii</i> f. <i>beauvoisii</i> (Delise) Hue	<i>Sticta beauvoisii</i> Delise
<i>Stereocaulon tomentosum</i> Fr. var. <i>tomentosum</i>	<i>Stereocaulon tomentosum</i> Th. Fr.	<i>Sticta weigelii</i> var. <i>beauvoisii</i> (Delise) Hue	<i>Sticta beauvoisii</i> Delise
<i>Stereocaulon vesuvianum</i> var. <i>denudatum</i> (Flörke) I.M. Lamb.	<i>Stereocaulon vesuvianum</i> Pers.	<i>Sticta weigelii</i> var. <i>peruviana</i> (Delise) Vain.	<i>Sticta weigelii</i> (Ach.) Vain.
<i>Stereocaulon violascens</i> Müll. Arg.	<i>Stereocaulon vesuvianum</i> Pers.	<i>Stictina andensis</i> Nyl.	<i>Sticta andensis</i> (Nyl.) Trevis.
<i>Sticta aurata</i> Ach.	<i>Crocodia aurata</i> (Ach.) Link	<i>Stictina andreana</i> Müll. Arg.	<i>Sticta andreana</i> (Müll. Arg.) Zahlbr.
<i>Sticta colombiana</i> Moncada & Lücking	<i>Sticta andina</i> Moncada, Lücking & Sérus.	<i>Stictina cometia</i> (Ach.) Nyl.	<i>Sticta cometia</i> Ach.
<i>Sticta damaecornis</i> f. <i>rudiuscula</i> Vain.	<i>Sticta rudiuscula</i> (Vain.) Moncada & Lücking	<i>Stictina filicinella</i> Nyl.	<i>Sticta filicinella</i> (Nyl.) Zahlbr.
<i>Sticta damicornis</i> f. <i>subscrobiculata</i> (Nyl.) Stizenb.	<i>Sticta subscrobiculata</i> (Nyl.) Gyeln.	<i>Stictina fuliginosa</i> (Dicks.) Nyl.	<i>Sticta fuliginosa</i> (Dicks.) Ach.
		<i>Stictina gyalocarpa</i> Nyl.	<i>Sticta gyalocarpa</i> (Nyl.) Trevis.
		<i>Stictina humboldtii</i> (Hook.) Nyl.	<i>Sticta humboldtii</i> Hook.
		<i>Stictina impressula</i> (Nyl.) Nyl.	<i>Sticta impressula</i> (Nyl.) Zahlbr.
		<i>Stictina kunthii</i> (Hook.) Nyl.	<i>Sticta kunthii</i> Hook.
		<i>Stictina kunthii</i> var. <i>pilosella</i> Nyl.	<i>Sticta kunthii</i> Hook.

ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name
<i>Stictina lenormandii</i> (Nyl.) Nyl.	<i>Sticta lenormandii</i> (Nyl.) Zahlbr.
<i>Stictina lenormandii</i> f. <i>brevior</i> Nyl.	<i>Sticta breviar</i> Moncada & Lücking
<i>Stictina lenormandii</i> f. <i>laevis</i> Nyl.	<i>Sticta laevis</i> (Nyl.) Vain.
<i>Stictina limbata</i> f. <i>andensis</i> (Nyl.)	<i>Sticta andensis</i> (Nyl.) Trevis.
<i>Stictina peltigerella</i> Nyl.	<i>Sticta peltigerella</i> (Nyl.) Trevis.
<i>Stictina peruviana</i> (Delise) Nyl.	<i>Sticta weigeli</i> (Ach.) Vain.
<i>Stictina quercizans</i> var. <i>beauvoisii</i> (Delise) Müll. Arg.	<i>Sticta beauvoisii</i> Delise
<i>Stictina quercizans</i> var. <i>ornata</i> Müll. Arg.	<i>Sticta tomentosa</i> (Sw.) Ach.
<i>Stictina quercizans</i> var. <i>peruviana</i> (Delise) Nyl.	<i>Sticta weigeli</i> (Ach.) Vain.
<i>Stictina tomentosa</i> (Sw.) Nyl.	<i>Sticta tomentosa</i> (Sw.) Ach.
<i>Stictina tomentosa</i> var. <i>dilatata</i> Nyl.	<i>Sticta tomentosa</i> (Sw.) Ach.
<i>Stictina tomentosa</i> var. <i>impressula</i> Nyl.	<i>Sticta impressula</i> (Nyl.) Zahlbr.
<i>Stictina tomentosa</i> var. <i>ornata</i> (Müll. Arg.) Müll. Arg.	<i>Sticta tomentosa</i> (Sw.) Ach.
<i>Stigmatidium extenuatum</i> (Nyl.) Nyl.	<i>Sclerophyton extenuatum</i> (Nyl.) Sparrius
<i>Stigmatidium granulatum</i> auct. non (Mont.) Nyl.	<i>Erythrodocton granulatum</i> (Mont.) G. Thor
<i>Stigmatidium interruptum</i> (Fée) Nyl.	<i>Platygraphopsis interrupta</i> (Fée) Müll. Arg.
<i>Stigmatidium leptostictum</i> Nyl.	<i>Mazosia leptosticta</i> (Nyl.) Sparrius
<i>Stirtonia sprucei</i> R. Sant.	<i>Amazonomyces sprucei</i> (R. Sant.) Lücking, Sérus. & G. Thor
<i>Strigula actinoplaca</i> Nyl.	<i>Actinoplaca strigulacea</i> Müll. Arg.
<i>Strigula agyronema</i> var. <i>confluens</i> Müll. Arg.	<i>Puiggariella nemathora</i> (Mont.) S.H. Jiang, Lücking & J.C. Wei
<i>Strigula complanata</i> (Fée) Mont.	<i>Phyllocharis orbicularis</i> (Fr.) S.H. Jiang, Lücking & Sérus.
<i>Strigula elegans</i> (Fée) Müll. Arg.	<i>Strigula smaragdula</i> Fr.
<i>Strigula janeirensis</i> (Müll. Arg.) Lücking	<i>Raciborskiella janeirensis</i> (Müll. Arg.) R. Sant.
<i>Strigula maculata</i> (Cooke & Masee) R. Sant.	<i>Racoplaca maculata</i> (Cooke & Masee) S.H. Jiang, Lücking & J.C. Wei
<i>Strigula melanobapha</i> (Kremp.) R. Sant.	<i>Racoplaca melanobapha</i> (Kremp.) S.H. Jiang, Lücking & J.C. Wei
<i>Strigula nemathora</i> Mont.	<i>Puiggariella nemathora</i> (Mont.) S.H. Jiang, Lücking & J.C. Wei
<i>Strigula nigrocincta</i> var. <i>soluta</i> Müll. Arg.	<i>Puiggariella nemathora</i> (Mont.) S.H. Jiang, Lücking & J.C. Wei
<i>Strigula obducta</i> (Müll. Arg.) R.C. Harris	<i>Phylloporis obducta</i> (Müll. Arg.) R. Sant. & Tibell
<i>Strigula orbicularis</i> Fr.	<i>Phyllocharis orbicularis</i> (Fr.) S.H. Jiang, Lücking & Sérus.
<i>Strigula phaea</i> (Ach.) R.C. Harris	<i>Dichoporis phaea</i> (Ach.) S.H. Jiang, Lücking & Sérus.
<i>Strigula phyllogena</i> (Müll. Arg.) R.C. Harris	<i>Phylloporis phyllogena</i> (Müll. Arg.) Clem.
<i>Strigula plana</i> Müll. Arg.	<i>Strigula smaragdula</i> Fr.
<i>Strigula platypoda</i> (Müll. Arg.) R.C. Harris	<i>Phylloporis platypoda</i> (Müll. Arg.) Vězda

Synonym	Accepted Name
<i>Strigula radiata</i> Lücking	<i>Phylloporis radiata</i> (Lücking) S.H. Jiang, Lücking & J.C. Wei
<i>Strigula subtilissima</i> (Fée) Müll. Arg.	<i>Racoplaca subtilissima</i> Fée
<i>Strigula viridiseda</i> (Nyl.) R.C. Harris	<i>Dichoporis viridiseda</i> (Nyl.) S.H. Jiang, Lücking & Sérus.
<i>Strigula vulgaris</i> (Müll. Arg.) Lücking	<i>Phylloporis vulgaris</i> (Müll. Arg.) S.H. Jiang, Lücking & J.C. Wei
<i>Stropharia semiglobata</i> (Batsch) Quéf.	<i>Protostropharia semiglobata</i> (Batsch) Redhead, Moncalvo & Vilgalys
<i>Stypella minor</i> Möller	<i>Protomerulius minor</i> (A. Møller) V. Spirin & O. Mieltinen
<i>Teloschistes chrysophthalmus</i> (L.) Th. Fr.	<i>Niorma chrysophthalma</i> (L.) S.Y. Kondr., Kärnefelt, Elix, A. Thell, M.H. Jeong & Hur
<i>Teloschistes hypoglaucus</i> (Nyl.) Zahlbr.	<i>Niorma hypoglauca</i> (Nyl.) S.Y. Kondr., Kärnefelt, Elix, A. Thell, M.H. Jeong & Hur
<i>Tephromela aglaea</i> (Sommerf.) Hertel & Rambold	<i>Calvitimela aglaea</i> (Sommerf.) Hafellner
<i>Thanatephorus cucumeris</i> (A.B. Frank) Donk	<i>Rhizoctonia solani</i> J.G. Kühn
<i>Thecaria montagnei</i> (Bosch) Staiger	<i>Pliariona montagnei</i> (Bosch) A. Massal.
<i>Thelenella cinerascens</i> (Vain.) R.C. Harris	<i>Aspidothelium cinerascens</i> Vain.
<i>Thelenella fugiens</i> (Müll. Arg.) R.C. Harris	<i>Aspidothelium fugiens</i> (Müll. Arg.) R. Sant.
<i>Teloschistes flavicans</i> var. <i>acromela</i> (Pers.) Müll. Arg.	<i>Teloschistes flavicans</i> (Sw.) Norman
<i>Teloschistes flavicans</i> var. <i>exilis</i> (Michx.) Müll. Arg.	<i>Teloschistes exilis</i> (Michx.) Vain.
<i>Thelotrema albidum</i> Nyl.	<i>Chapsa albida</i> (Nyl.) Lücking & Sipman
<i>Thelotrema albomaculatum</i> Sipman	<i>Pseudochapsa albomaculata</i> (Sipman) Parmen, Lücking & Lumbsch
<i>Thelotrema auberianoides</i> Nyl.	<i>Ocellularia auberianoides</i> (Nyl.) Müll. Arg.
<i>Thelotrema bahianum</i> (Ach.) Ach.	<i>Ocellularia bahiana</i> (Ach.) Frisch
<i>Thelotrema bahianum</i> var. <i>obturascens</i> Nyl.	<i>Ocellularia obturascens</i> (Nyl.) Hale
<i>Thelotrema bahianum</i> var. <i>ruptum</i> Nyl.	<i>Ocellularia bahiana</i> (Ach.) Frisch
<i>Thelotrema berkeleyanum</i> (Mont.) Brusse	<i>Stegobolus berkeleyanus</i> Mont.
<i>Thelotrema brasilianum</i> Hale	<i>Acanthotrema brasilianum</i> (Hale) Frisch
<i>Thelotrema calvescens</i> Fée	<i>Ocellularia calvescens</i> (Fée) Müll. Arg.
<i>Thelotrema cavatum</i> Ach.	<i>Ocellularia cavata</i> (Ach.) Müll. Arg.
<i>Thelotrema cavatum</i> f. <i>amplius</i> Nyl.	<i>Ampliotrema amplius</i> (Nyl.) Kalb
<i>Thelotrema cavatum</i> f. <i>obturatum</i> (Ach.) Nyl.	<i>Ocellularia cavata</i> (Ach.) Müll. Arg.
<i>Thelotrema cavatum</i> var. <i>amplius</i> Nyl.	<i>Ampliotrema amplius</i> (Nyl.) Kalb



## ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name
<i>Thelotrema cavatum</i> var. <i>planius</i> Nyl.	<i>Ocellularia violacea</i> Räsänen
<i>Thelotrema cavatum</i> var. <i>submutatum</i> Nyl.	<i>Ocellularia cavata</i> (Ach.) Müll. Arg.
<i>Thelotrema cinchonarum</i> (Fée) Vain.	<i>Ocellularia cavata</i> (Ach.) Müll. Arg.
<i>Thelotrema clandestinum</i> f. <i>remanens</i> Nyl.	<i>Myriotrema clandestinum</i> (Fée) Hale
<i>Thelotrema clandestinum</i> Fée	<i>Myriotrema clandestinum</i> (Fée) Hale
<i>Thelotrema colobicum</i> Nyl.	<i>Chapsa leprocarpa</i> (Nyl.) Frisch
<i>Thelotrema compunctum</i> (Sm.) Nyl.	<i>Leucodecton occultum</i> (Eschw.) Frisch
<i>Thelotrema concretum</i> Fée	<i>Myriotrema concretum</i> (Fée) Hale
<i>Thelotrema dehiscens</i> Leight.	<i>Fibrillithecis dehiscens</i> (Leight.) Mangold, Lücking & Lumbsch
<i>Thelotrema devalatum</i> Nyl.	<i>Ocellularia bahiana</i> (Ach.) Frisch
<i>Thelotrema dilatatum</i> (Müll. Arg.) Hale	<i>Pseudochapsa dilatata</i> (Müll. Arg.) Parmen, Lücking & Lumbsch
<i>Thelotrema dissutum</i> (Hale) Hale	<i>Chapsa dissuta</i> (Hale) Mangold
<i>Thelotrema dolichosporum</i> (Nyl.) Nyl.	<i>Thelotrema pachysporum</i> Nyl.
<i>Thelotrema epitrypum</i> f. <i>simplicius</i> Nyl.	<i>Rhabdodiscus fissus</i> (Müll. Arg.) Vain.
<i>Thelotrema epitrypum</i> Nyl.	<i>Rhabdodiscus fissus</i> (Müll. Arg.) Vain.
<i>Thelotrema erumpens</i> H. Magn.	<i>Clandestinotrema erumpens</i> (H. Magn.) Rivas Plata, Lücking & Lumbsch
<i>Thelotrema expallescens</i> Nyl.	<i>Nadvornikia expallescens</i> (Nyl.) I. Medeiros, Lücking & Lumbsch
<i>Thelotrema glaucopallens</i> Nyl.	<i>Wirthiotrema glaucopallens</i> (Nyl.) Rivas Plata & Kalb
<i>Thelotrema glyphicum</i> Nyl.	<i>Redingeria glyphica</i> (Nyl.) Frisch
<i>Thelotrema gymnocarpum</i> Nyl.	<i>Ocellularia gymnocarpa</i> (Nyl.) Zahlbr.
<i>Thelotrema inscalpens</i> Nyl.	<i>Ocellularia cavata</i> (Ach.) Müll. Arg.
<i>Thelotrema laevigans</i> f. <i>avertens</i> Nyl.	<i>Clandestinotrema clandestinum</i> (Ach.) Rivas Plata, Lücking & Lumbsch
<i>Thelotrema laevigans</i> Nyl.	<i>Clandestinotrema clandestinum</i> (Ach.) Rivas Plata, Lücking & Lumbsch
<i>Thelotrema leucocarpoides</i> Nyl.	<i>Ocellularia leucocarpoides</i> (Nyl.) Lücking
<i>Thelotrema leucomelanum</i> Nyl.	<i>Clandestinotrema leucomelanum</i> (Nyl.) Rivas Plata, Lücking & Lumbsch
<i>Thelotrema leucomelanum</i> var. <i>cathomalizans</i> Nyl.	<i>Clandestinotrema cathomalizans</i> (Nyl.) Rivas Plata, Lücking & Lumbsch
<i>Thelotrema metaphoricum</i> Nyl.	<i>Rhabdodiscus metaphoricus</i> (Nyl.) Vain.
<i>Thelotrema microporoides</i> Nyl.	<i>Myriotrema rugiferum</i> (Harm.) Hale
<i>Thelotrema monosporum</i> var. <i>patulum</i> Nyl.	<i>Thelotrema lepadodes</i> Tuck.
<i>Thelotrema myriocarpum</i> Fée	<i>Austrotrema myriocarpum</i> (Fée) I. Medeiros, Lücking & Lumbsch

Synonym	Accepted Name
<i>Thelotrema olivaceum</i> (Fée) Mont.	<i>Myriotrema olivaceum</i> Fée
<i>Thelotrema pachystomum</i> Nyl.	<i>Fibrillithecis pachystoma</i> (Nyl.) Sipman
<i>Thelotrema pauperius</i> Nyl.	<i>Clandestinotrema pauperius</i> (Nyl.) Rivas Plata, Lücking & Lumbsch
<i>Thelotrema platycarpoides</i> Tuck.	<i>Asteristion platycarpoides</i> (Tuck.) I. Medeiros, Lücking & Lumbsch
<i>Thelotrema refertum</i> (Hale) Hale	<i>Ocellularia referta</i> Hale
<i>Thelotrema sphinctrinellum</i> Nyl.	<i>Myriotrema sphinctrinellum</i> (Nyl.) Hale
<i>Thelotrema spondaicum</i> (Nyl.) Hale	<i>Phaeographis spondaica</i> (Nyl.) Lücking
<i>Thelotrema sublilacinum</i> (Ellis & Everh.) Vain.	<i>Chapsa sublilacina</i> (Ellis & Everh.) M. Cáceres & Lücking
<i>Thelotrema terebratulum</i> Nyl.	<i>Myriotrema clandestinum</i> (Fée) Hale
<i>Thelotrema wightii</i> (Taylor) Nyl.	<i>Sanguinotrema wightii</i> (Taylor) Lücking
<i>Thuemenella izawae</i> Yoshim. Doi	<i>Trichoderma izawae</i> (Yoshim. Doi) Jaklitsch & Voglmayr
<i>Tomentellago aeruginascens</i> Hjortstam & Ryvarden	<i>Amaurodon aeruginascens</i> (Hjortstam & Ryvarden) Køljalg & K.H. Larss.
<i>Torulaspora delbrueckii</i> (Lindner) E.K. Novák & Zsolt	<i>Debaryomyces delbrueckii</i> (Lindner) Kudryavtsev
<i>Trabutella diazii</i> Chardón	<i>Phyllachora conica</i> (Chardón) Petr.
<i>Trachylia leptoconia</i> Nyl.	<i>Pyrgidium montellium</i> (Beltr.) Tibell
<i>Trametes coccinea</i> (Fr.) Hai J. Li & S.H. He	<i>Pycnoporus coccineus</i> (Fr.) Bondartsev & Singer
<i>Trametes cubensis</i> (Mont.) Sacc.	<i>Cubamyces cubensis</i> (Mont.) Murrill
<i>Trametes fibrosa</i> Fr.	<i>Cerrena hydnoidea</i> (Sw.) Zmitr.
<i>Trapelia geochroa</i> (Körb.) Hertel	<i>Ainoa geochroa</i> (Körb.) Lumbsch & I. Schmitt
<i>Trapelia mooreana</i> (Carroll) P. James	<i>Ainoa mooreana</i> (Carroll) Lumbsch & I. Schmitt
<i>Trapeliopsis subconcolor</i> (Anzi) Hertel	<i>Parainoa subconcolor</i> (Anzi) Resl & T. Sprib.
<i>Tremella lutescens</i> Lloyd.	<i>Tremella mesenterica</i> Retz.
<i>Tremella tubercularia</i> Berk.	<i>Tremella globispora</i> D.A. Reid
<i>Tricharia albostrigosa</i> R. Sant.	<i>Aderkomyces albostrigosus</i> (R. Sant.) Lücking, Sérus. & Vězda
<i>Tricharia couepiae</i> (Bat.) Lücking	<i>Aderkomyces couepiae</i> Bat.
<i>Tricharia heterella</i> (Stirt.) Lücking	<i>Aderkomyces heterellus</i> (Stirt.) Lücking, Sérus. & Vězda
<i>Tricharia subalbostrigosa</i> Lücking	<i>Aderkomyces subalbostrigosus</i> (Lücking) Lücking, Sérus. & Vězda
<i>Tricharia vulgaris</i> (Müll. Arg.) R. Sant.	<i>Gyalideopsis vulgaris</i> (Müll. Arg.) Lücking
<i>Tricholoma cystidiosum</i> Cifuentes & Guzmán	<i>Tricholoma cifuentesii</i> Courtec.
<i>Trichosporon gamsii</i> Middelhoven, Scorzetti, Sigler & Fell	<i>Apiotrichum gamsii</i> (Middelhoven, Scorzetti, Sigler & Fell) Yurkov & Boekhout
<i>Trichothelium rubescens</i> Lücking	<i>Porina rubescens</i> (Lücking) Hafellner & Kalb
<i>Triclinum cinchonarum</i> Fée	<i>Phyllopsora cinchonarum</i> (Fée) Timdal

ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name
<i>Trypethelium aeneum</i> (Eschw.) Zahlbr.	<i>Astrothelium aeneum</i> (Eschw.) Aptroot & Lücking
<i>Trypethelium annulare</i> Mont.	<i>Astrothelium annulare</i> (Fée) Aptroot & Lücking
<i>Trypethelium columbianum</i> Nyl.	<i>Architypethelium columbianum</i> (Nyl.) Aptroot & Lücking
<i>Trypethelium infuscatulum</i> Müll. Arg.	<i>Astrothelium infuscatulum</i> (Müll. Arg.) Aptroot & Lücking
<i>Trypethelium madreporiforme</i> Eschw.	<i>Bathelium madreporiforme</i> (Eschw.) Trevis.
<i>Trypethelium nigrifulum</i> Nyl.	<i>Pyrenula arthoniotheca</i> Upreti
<i>Trypethelium nitidiusculum</i> (Nyl.) R.C. Harris	<i>Astrothelium nitidiusculum</i> (Nyl.) Aptroot & Lücking
<i>Trypethelium ochroleucum</i> (Eschw.) Nyl.	<i>Astrothelium phlyctaena</i> (Fée) Aptroot & Lücking
<i>Trypethelium ochrothelium</i> Nyl.	<i>Astrothelium ochrothelium</i> (Nyl.) Müll. Arg.
<i>Trypethelium papulosum</i> (Nyl.) Makhija & Patw.	<i>Astrothelium papulosum</i> (Nyl.) Aptroot & Lücking
<i>Trypethelium phaeothelium</i> Nyl.	<i>Astrothelium phaeothelium</i> (Nyl.) Aptroot & Lücking
<i>Trypethelium pupula</i> (Ach.) R.C. Harris	<i>Astrothelium pupula</i> (Ach.) Aptroot & Lücking
<i>Trypethelium scorioides</i> Leight.	<i>Astrothelium scoriiothelium</i> Aptroot & Lücking
<i>Trypethelium sprengelii</i> Ach.	<i>Trypethelium eluteriae</i> Spreng.
<i>Trypethelium thelotremoides</i> (Nyl.) R.C. Harris	<i>Astrothelium thelotremoides</i> (Nyl.) Aptroot & Lücking
<i>Trypethelium tropicum</i> (Ach.) Müll. Arg.	<i>Nigrothelium tropicum</i> (Ach.) Lücking, M.P. Nelsen & Aptroot
<i>Trypethelium tuberculorum</i> (Vain.) R.C. Harris	<i>Astrothelium tuberculorum</i> (Vain.) Aptroot & Lücking
<i>Trypethelium variatum</i> Nyl.	<i>Astrothelium variatum</i> (Nyl.) Aptroot & Lücking
<i>Trypethelium variolosum</i> Ach.	<i>Astrothelium variolosum</i> (Ach.) Müll. Arg.
<i>Tubeufia eriodermatis</i> Etayo	<i>Lichenotubeufia eriodermatis</i> (Etayo) Etayo
<i>Tubeufia pannariae</i> Etayo	<i>Lichenotubeufia pannariae</i> (Etayo) Etayo
<i>Tuckneraria laureri</i> (Kremp.) Randlane & A. Thell	<i>Nephromopsis laureri</i> (Kremp.) Kurok.
<i>Tylophorella polyspora</i> f. <i>compressa</i> Nádv.	<i>Tylophorella pyrenocarpoides</i> (Müll. Arg.) Egea
<i>Tylophorella polyspora</i> Vain.	<i>Tylophorella pyrenocarpoides</i> (Müll. Arg.) Egea
<i>Tylophoron rufocapillatum</i> Nádv.	<i>Tylophoron protrudens</i> Nyl.
<i>Tylophoron simile</i> Nádv.	<i>Tylophoron protrudens</i> Nyl.
<i>Tylopilus indecisis</i> (Peck) Murrill	<i>Porphyrellus indecisis</i> (Peck) E.-J. Gilbert
<i>Tylopilus umbrosus</i> (G.F. Atk.) A.H. Sm. & Thiers	<i>Porphyrellus umbrosus</i> (G.F. Atk.) Singer, J. García & L.D. Gómez
<i>Tyromyces duracinus</i> (Pat.) Murrill	<i>Trullella duracina</i> (Pat.) Zmitr.
<i>Tyromyces subcaesius</i> A. David	<i>Cyanosporus subcaesius</i> (A. David) B.K. Cui, L.L. Shen & Y.C. Dai
<i>Uleodothis andina</i> Chardón	<i>Achorella andina</i> (Chardón) Chardón

Synonym	Accepted Name
<i>Umbilicaria cristata</i> C.W. Dodge & Baker	<i>Umbilicaria africana</i> (Jatta) Krog & Swinscow
<i>Umbilicaria subcalvescens</i> Sipman	<i>Umbilicaria calvescens</i> Nyl.
<i>Umbilicaria zahlbruckneri</i> Frey	<i>Umbilicaria africana</i> (Jatta) Krog & Swinscow
<i>Unguiculariopsis lobarium</i> S.Y. Kondr. & D.J. Galloway	<i>Lawreyella lobarium</i> (S.Y. Kondr. & D.J. Galloway) Flakus, Etayo, Kukwa & Rodr. Flakus
<i>Urceolaria scruposa</i> (Schreb.) Ach.	<i>Diploschistes scruposus</i> (Schreb.) Norman
<i>Uredo bibasiporus</i> Pardo-Card.	<i>Puccinia garcesispora</i> Pardo-Card.
<i>Uredo caldasii</i> Salazar-Yepes & Buriticá	<i>Puccinia caldasii</i> Salazar-Yepes & Buriticá
<i>Uredo cameliae</i> Mayor	<i>Angiopsora cameliae</i> (Mayor) Mains
<i>Uredo caucensis</i> Mayor	<i>Physopella caucensis</i> (Mayor) Buriticá
<i>Uredo cordiarum</i> F. Kern & Whetzel	<i>Puccinia cordiarum</i> M. Salazar & J.C. Gómez
<i>Uredo crotalariae-nitens</i> Salazar-Yepes & Buriticá	<i>Uromyces crotalariae-nitens</i> Salazar-Yepes & Buriticá
<i>Uredo fusagasugensis</i> Salazar-Yepes & Buriticá	<i>Puccinia fusagasugensis</i> Salazar-Yepes & Buriticá
<i>Uredo gigantiformis</i> Salazar-Yepes & Buriticá	<i>Uromyces gigantiformis</i> Salazar-Yepes & Buriticá
<i>Uredo jericosensis</i> Pardo-Card.	<i>Puccinia jericosensis</i> Pardo-Card.
<i>Uromyces cissampeli</i> Dietel	<i>Uromyces novissimus</i> var. <i>cissampeli</i> (Dietel) Berndt
<i>Uromyces cundinamarcensis</i> Mayor	<i>Gerwasia cundinamarcensis</i> (Mayor) Buriticá
<i>Uromyces neophthirusae</i> H.S. Jacks. ex Buriticá & Pardo-Card.	<i>Uromyces phthirusae</i> Mayor
<i>Uromyces rubi-urticifolii</i> Mayor	<i>Gerwasia rubi-urticifolii</i> (Mayor) Buriticá
<i>Uromyces trifolii</i> (R. Hedw.) Lév.	<i>Puccinia trifolii</i> R. Hedw.
<i>Uromyces variabilis</i> Mayor	<i>Gerwasia variabilis</i> (Mayor) Buriticá
<i>Usnea antillarum</i> (Vain.) Zahlbr.	<i>Eumitria baileyi</i> Stirt.
<i>Usnea baileyi</i> (Stirt.) Zahlbr.	<i>Eumitria baileyi</i> Stirt.
<i>Usnea barbata</i> f. <i>ceratina</i> (Ach.) Schaer	<i>Usnea ceratina</i> Ach.
<i>Usnea barbata</i> var. <i>rubiginea</i> Meyen & Flot.	<i>Usnea rubicunda</i> Stirt.
<i>Usnea barbata</i> var. <i>scabrida</i> (Taylor) Müll. Arg.	<i>Usnea rubicunda</i> Stirt.
<i>Usnea barbata</i> var. <i>strigosa</i> (Ach.) Flot.	<i>Usnea strigosa</i> (Ach.) Pers.
<i>Usnea caespitia</i> Motyka	<i>Usnea durietzii</i> Motyka
<i>Usnea ceratina</i> var. <i>scabrosa</i> Ach.	<i>Usnea ceratina</i> Ach.
<i>Usnea chaetophora</i> Stirt.	<i>Usnea dasopoga</i> (Ach.) Nyl.
<i>Usnea finkii</i> Zahlbr.	<i>Usnea transitoria</i> Motyka
<i>Usnea florida</i> var. <i>comosa</i> Ach.	<i>Usnea subfloridana</i> Stirt.
<i>Usnea florida</i> var. <i>mollis</i> (Stirt.) Vain.	<i>Usnea mollis</i> Stirt.
<i>Usnea florida</i> var. <i>perplexans</i> (Stirt.) Vain.	<i>Usnea perplexans</i> Stirt.



## ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name
<i>Usnea laevigata</i> Vain.	<i>Usnea bogotensis</i> Vain.
<i>Usnea moreliensis</i> Motyka	<i>Usnea moreliana</i> Motyka
<i>Usnea radiata</i> Stirt.	<i>Usnea concinna</i> Stirt.
<i>Usnea rubescens</i> var. <i>areolata</i> Motyka	<i>Usnea rubicunda</i> Stirt.
<i>Usnea rubicunda</i> var. <i>primaria</i> Motyka	<i>Usnea sanguinea</i> Swinscow & Krog
<i>Usnea rubicornuta</i> Truong & P. Clerc	<i>Usnea moreliana</i> Motyka
<i>Usnea solida</i> Motyka	<i>Usnea ceratina</i> Ach.
<i>Usnea spinulifera</i> (Vain.) Motyka	<i>Usnea dasaea</i> Stirt.
<i>Usnea spinulifera</i> (Vain.) Motyka ex B. de Lesd.	<i>Usnea dasaea</i> Stirt.
<i>Usnea subcomosa</i> Vain.	<i>Usnea ceratina</i> Ach.
<i>Usnea subhirta</i> (Vain.) Motyka	<i>Usnea cornuta</i> Körb.
<i>Usnea sulcata</i> Motyka	<i>Usnea alata</i> Motyka
<i>Usnea sulcata</i> var. <i>neutra</i> (Motyka) Motyka.	<i>Usnea alata</i> Motyka
<i>Usnea superba</i> Motyka	<i>Usnea arthroclada</i> Fée
<i>Usnea trichodea</i> f. <i>gracilis</i> (Ach.) Hue	<i>Usnea gracilis</i> Ach.
<i>Ustilago concealata</i> Zundel	<i>Sporisorium concealatum</i> (Zundel) M. Piepenbr.
<i>Ustilago garcesii</i> Zundel	<i>Anthracoecystis panici-leucophaei</i> (Bref.) McTaggart & R.G. Shivas
<i>Verrucaria americana</i> Fée	<i>Porina americana</i> Fée
<i>Verrucaria apposita</i> Nyl.	<i>Bogoriella apposita</i> (Nyl.) Aptroot & Lücking
<i>Verrucaria aspistea</i> Ach.	<i>Pyrenula aspistea</i> (Afzel. ex Ach.) Ach.
<i>Verrucaria astroidea</i> (Fée) Nyl.	<i>Pyrenula astroidea</i> (Fée) R.C. Harris
<i>Verrucaria belonospora</i> Nyl.	<i>Porina belonospora</i> (Nyl.) Müll. Arg.
<i>Verrucaria cartilaginea</i> Fée	<i>Astrothelium pupula</i> (Ach.) Aptroot & Lücking
<i>Verrucaria catapasta</i> Nyl.	<i>Polymeridium catapastum</i> (Nyl.) R.C. Harris
<i>Verrucaria contendens</i> Nyl.	<i>Polymeridium contendens</i> (Nyl.) R.C. Harris
<i>Verrucaria convexa</i> (Nyl.) Nyl.	<i>Pyrenula subducta</i> (Nyl.) Müll. Arg.
<i>Verrucaria cryptostoma</i> Nyl.	<i>Pyrenula cryptostoma</i> (Nyl.) Müll. Arg.
<i>Verrucaria diffluens</i> Nyl.	<i>Astrothelium pulcherrimum</i> (Fée) Aptroot & Lücking
<i>Verrucaria diluta</i> Fée	<i>Pseudopyrenula diluta</i> (Fée) Müll. Arg.
<i>Verrucaria dirempta</i> Nyl.	<i>Pseudopyrenula diluta</i> (Fée) Müll. Arg.
<i>Verrucaria dolichophora</i> Nyl.	<i>Porina dolichophora</i> (Nyl.) Müll. Arg.
<i>Verrucaria duplicans</i> Nyl.	<i>Pyrenula duplicans</i> (Nyl.) Aptroot
<i>Verrucaria heterochroa</i> Mont.	<i>Astrothelium aeneum</i> (Eschw.) Aptroot & Lücking
<i>Verrucaria hypophyta</i> Nyl.	<i>Pyrenula dermatodes</i> (Borrer) Schaer.
<i>Verrucaria intrusa</i> Nyl.	<i>Polyblastiopsis intrusa</i> (Nyl.) Zahlbr.

Synonym	Accepted Name
<i>Verrucaria mamillana</i> Ach.	<i>Pyrenula mamillana</i> (Ach.) Trevis.
<i>Verrucaria marginata</i> (Hook.) Hepp	<i>Pyrenula mamillana</i> (Ach.) Trevis.
<i>Verrucaria marginata</i> var. <i>convexa</i> Nyl.	<i>Pyrenula subducta</i> (Nyl.) Müll. Arg.
<i>Verrucaria mastoidea</i> (Ach.) Nyl.	<i>Porina mastoidea</i> (Ach.) Müll. Arg.
<i>Verrucaria mastophora</i> Nyl.	<i>Pyrenula mastophora</i> (Nyl.) Müll. Arg.
<i>Verrucaria mastophoroides</i> Nyl.	<i>Pyrenula mastophoroides</i> (Nyl.) Zahlbr.
<i>Verrucaria mastophoroides</i> var. <i>flavicans</i> Nyl.	<i>Pyrenula mastophoroides</i> (Nyl.) Zahlbr.
<i>Verrucaria myriomma</i> Nyl.	<i>Astrothelium annulare</i> (Fée) Aptroot & Lücking
<i>Verrucaria nitida</i> var. <i>aspistea</i> (Ach.) Nyl.	<i>Pyrenula aspistea</i> (Afzel. ex Ach.) Ach.
<i>Verrucaria nucula</i> (Ach.) Nyl.	<i>Porina nucula</i> Ach.
<i>Verrucaria nucula</i> var. <i>endochrysea</i> (Mont.) Nyl.	<i>Porina endochrysea</i> C. Bab.
<i>Verrucaria obvoluta</i> Nyl.	<i>Pyrenula dermatodes</i> (Borrer) Schaer.
<i>Verrucaria ochraceoflava</i> Nyl.	<i>Pyrenula ochraceoflava</i> (Nyl.) R.C. Harris
<i>Verrucaria operta</i> Nyl.	<i>Pyrenula globifera</i> (Eschw.) Aptroot
<i>Verrucaria papilligera</i> Leight.	<i>Pyrenula papilligera</i> (Leight.) Müll. Arg.
<i>Verrucaria papulosa</i> Nyl.	<i>Astrothelium papulosum</i> (Nyl.) Aptroot & Lücking
<i>Verrucaria pleiomera</i> Nyl.	<i>Pyrenula pleiomera</i> (Nyl.) Zahlbr.
<i>Verrucaria porinoides</i> Mont.	<i>Astrothelium pupula</i> (Ach.) Aptroot & Lücking
<i>Verrucaria punctella</i> var. <i>exstans</i> Nyl.	<i>Pyrenula quassicola</i> Fée
<i>Verrucaria pupula</i> (Ach.) Nyl.	<i>Astrothelium pupula</i> (Ach.) Aptroot & Lücking
<i>Verrucaria pyrenuloides</i> (Mont.) Nyl.	<i>Pyrenula pyrenuloides</i> (Mont.) R.C. Harris
<i>Verrucaria santensis</i> Tuck.	<i>Pyrenula balia</i> (Kremp.) R.C. Harris
<i>Verrucaria subducta</i> f. <i>retracta</i> Nyl.	<i>Pyrenula subducta</i> (Nyl.) Müll. Arg.
<i>Verrucaria subducta</i> Nyl.	<i>Pyrenula subducta</i> (Nyl.) Müll. Arg.
<i>Verrucaria subducta</i> var. <i>retracta</i> Nyl.	<i>Pyrenula subducta</i> (Nyl.) Müll. Arg.
<i>Verrucaria subprostans</i> Nyl.	<i>Anisomeridium subprostans</i> (Nyl.) R.C. Harris
<i>Verrucaria thelena</i> Ach.	<i>Bogoriella thelena</i> (Ach.) Aptroot & Lücking
<i>Verrucaria thelotremoides</i> Nyl.	<i>Astrothelium thelotremoides</i> (Nyl.) Aptroot & Lücking
<i>Verrucaria tropica</i> Ach.	<i>Nigrothelium tropicum</i> (Ach.) Lücking, M.P. Nelsen & Aptroot
<i>Wardia vastatrix</i> J.F. Hennen & M.M. Hennen	<i>Hemileia vastatrix</i> Berk. & Broome
<i>Woessia pseudohyphosphorifera</i> Lücking & Sérus.	<i>Bacidina pseudohyphosphorifera</i> (Lücking & Sérus.) Lücking
<i>Xanthomendoza weberi</i> (S.Y. Kondr. & Kärnefelt) L. Lindblom	<i>Gallowayella weberi</i> (S.Y. Kondr. & Kärnefelt) S.Y. Kondr., Fedorenko, S. Stenroos, Kärnefelt, Elix, Hur & A. Thell

## ALPHABETICAL LIST OF SYNONYMS

Synonym	Accepted Name
<i>Xanthoparmelia somloensis</i> (Gyeln.) Hale	<i>Xanthoparmelia stenophylla</i> (Ach.) Ahti & D. Hawksw.
<i>Xanthoparmelia taractica</i> (Kremp.) Hale	<i>Xanthoparmelia stenophylla</i> (Ach.) Ahti & D. Hawksw.
<i>Xanthoria candelaria</i> (L.) Th. Fr.	<i>Polycauliona candelaria</i> (L.) Frödén, Arup & Søchting
<i>Xanthoria elegans</i> (Link) Th. Fr.	<i>Rusavskia elegans</i> (Link) S.Y. Kondr. & Kärnefelt
<i>Xanthoria flavicans</i> DC.	<i>Teloschistes flavicans</i> (Sw.) Norman
<i>Xanthoria weberi</i> S.Y. Kondr. & Kärnefelt	<i>Gallowayella weberi</i> (S.Y. Kondr. & Kärnefelt) S.Y. Kondr., Fedorenko, S. Stenroos, Kärnefelt, Elix, Hur & A. Thell
<i>Xylaria ianthinovelutina</i> (Mont.) Mont.	<i>Xylaria xanthinovelutina</i> (Mont.) Mont.
<i>Xylobotryum rickii</i> (Theiss.) Lloyd	<i>Xylaria rickii</i> Theiss.
<i>Xylosphaera aenea</i> (Mont.) Dennis	<i>Xylaria aenea</i> Mont.
<i>Xylosphaera comosa</i> (Mont.) Dennis	<i>Xylaria comosa</i> (Mont.) Fr.
<i>Xylosphaera guianensis</i> (Mont.) Dennis	<i>Xylaria guianensis</i> (Mont.) Fr.
<i>Xylosphaera multiplex</i> (Kunze) Dennis	<i>Xylaria multiplex</i> (Kunze) Fr.
<i>Xylosphaera papyrifera</i> (Link) Dennis	<i>Xylaria papyrifera</i> (Link) Fr.
<i>Xylosphaera platypoda</i> (Lév.) Dennis	<i>Xylaria platypoda</i> (Lév.) Fr.
<i>Xylosphaera poitei</i> (Lév.) Dennis	<i>Xylaria poitei</i> (Lév.) Fr.
<i>Xylosphaera rhizocola</i> (Mont.) Dennis	<i>Xylaria rhizocola</i> (Mont.) Mont.
<i>Xylosphaera rickii</i> (Theiss.) Dennis	<i>Xylaria rickii</i> Theiss.
<i>Xylosphaera scruposa</i> (Fr.) Dennis	<i>Xylaria scruposa</i> (Fr.) Fr.
<i>Xylosphaera telfairii</i> (Berk.) Dennis	<i>Xylaria telfairii</i> (Berk.) Sacc.
<i>Xylosphaera xanthinovelutina</i> (Mont.) Dennis	<i>Xylaria xanthinovelutina</i> (Mont.) Mont.



# Alphabetical List of Misapplied and Doubtful Names

Taxon	Correct Identification/Distribution
<i>Allographa vernicosa</i> (Fée) Lücking & Kalb	<i>Allographa subradiata</i> (Nyl.) Lücking & Kalb
<i>Allographa granulata</i> (Fée) Lücking & Kalb	not occurring in Colombia
<i>Anaptychia leucomela</i> var. <i>neoleucomelaena</i> f. <i>neoleucomelaena</i>	<i>Leucodermia leucomelos</i> (L.) Kalb
<i>Anthracoidea caricis</i> (Pers.) Bref.	<i>Anthracoidea altiphila</i> Vánky & M. Piepenbr.
<i>Anthracoidea pannucea</i> (Liro) Vánky	<i>Anthracoidea uleana</i> (Syd. & P. Syd.) Vánky
<i>Arthonia melanophthalma</i> auct. non Dufour	<i>Arthonia radiata</i> (Pers.) Ach.
<i>Arthonia oxytera</i> Nyl.	not occurring in Colombia
<i>Arthonia polymorpha</i> auct. non Ach.	<i>Arthonia meizomorpha</i> Nyl.
<i>Arthopyrenia cerasi</i> (Schrad.) A. Massal.	<i>Arthopyrenia cerasi</i> (Schrad.) A. Massal.
<i>Asterothyrium leptosporum</i> auct. non Müll. Arg.	<i>Asterothyrium leucophthalmum</i> (Müll. Arg.) R. Sant.
<i>Astrothelium hypoxylon</i> auct. non (Fée) Nyl.	<i>Astrothelium sulphureum</i> (Eschw.) Nyl.
<i>Bacidia consimilis</i> auct. non (Müll. Arg.) R. Sant.	<i>Loflammiopsis brasiliensis</i> Lücking & Kalb
<i>Badimia galbinea</i> (Kremp.) Vězda	<i>Badimia vezdana</i> Lücking, Farkas & V. Wirth
<i>Baeomyces placophyllus</i> auct. non Ach.	<i>Phyllobaeis erythrella</i> (Mont.) Kalb
<i>Bryocaulon divergens</i> (Ach.) Kärnefelt	not occurring in Colombia
<i>Bryoria bicolor</i> (Ehrh.) Brodo & D. Hawksw.	<i>Oropogon bicolor</i> Essl.
<i>Buellia disciformis</i> (Fr.) Mudd	<i>Cratiria obscurior</i> (Stirt.) Marbach & Kalb
<i>Buellia tetrapla</i> (Nyl.) Müll. Arg.	not occurring in Colombia
<i>Bunodophoron insigne</i> (Laurer) Wedin	<i>Bunodophoron melanocarpum</i> (Sw.) Wedin
<i>Byssoloma subpolychromum</i> auct. non Vězda	<i>Byssoloma minutissimum</i> Kalb & Vězda
<i>Caloplaca crocea</i> (Kremp.) Hafellner & Poelt	<i>Caloplaca erythroleuca</i> (Nyl.) Zahlbr.
<i>Caloplaca lucifera</i> Thor	<i>Caloplaca granularis</i> (Müll. Arg.) Zahlbr.
<i>Caloplaca pallidior</i> (Nyl.) Zahlbr.	not occurring in Colombia
<i>Candelaria fibrosa</i> (Fr.) Müll. Arg.	<i>Candelaria concolor</i> (Dicks.) Arnold
<i>Celothelium dominicanum</i> auct. non (Vain.) M.B. Aguirre	<i>Celothelium cinchonarum</i> (Müll. Arg.) Vain.
<i>Cetraria crispa</i> auct. non (Ach.) Nyl.	<i>Cetraria arenaria</i> Kärnefelt
<i>Cetraria islandica</i> var. <i>crispa</i> auct. non Ach.	<i>Cetraria arenaria</i> Kärnefelt
<i>Cetrelia olivetorum</i> (Nyl.) W.L. Culb. & C.F. Culb.	not occurring in Colombia

Taxon	Correct Identification/Distribution
<i>Chaenotheca degelii</i> Tibell	<i>Chaenotheca olivaceorufa</i> (Vain.) Zahlbr.
<i>Chaenotheca furfuracea</i> (L.) Tibell	not occurring in Colombia
<i>Chaenotheca laevigata</i> Nádv.	<i>Chaenotheca olivaceorufa</i> (Vain.) Zahlbr.
<i>Chaenothecopsis debilis</i> (Sm.) Tibell	not occurring in Colombia
<i>Chaenothecopsis debilis</i> (Smith & Sowerby) Tibell	not occurring in Colombia
<i>Chaenothecopsis nivea</i> (F. Wilson) Tibell	not occurring in Colombia
<i>Chaenothecopsis pusilla</i> (Ach.) A.F.W. Schmidt	not occurring in Colombia
<i>Cladina sandstedei</i> (des Abb.) Ahti	not occurring in Colombia
<i>Cladina stellaris</i> (Opiz) Brodo	not occurring in Colombia
<i>Cladina sylvatica</i> auct. non (L.) Nyl.	<i>Cladonia arbuscula</i> (Wallr.) Flot.
<i>Cladonia acuminata</i> (Ach.) Norrl.	not occurring in Colombia
<i>Cladonia aff. acuminata</i> (Ach.) Norrl.	not occurring in Colombia
<i>Cladonia bacillaris</i> Nyl.	<i>Cladonia didyma</i> (Fée) Vain.
<i>Cladonia bellidiflora</i> (Ach.) Schaer.	<i>Cladonia microscypha</i> Ahti & S. Stenroos
<i>Cladonia boryi</i> Tuck.	not occurring in Colombia
<i>Cladonia calycantha</i> auct. non Nyl.	<i>Cladonia rappii</i> var. <i>exilior</i> (Abbayes) Ahti
<i>Cladonia carassensis</i> Vain.	not occurring in Colombia
<i>Cladonia cervicornis</i> (Ach.) Flot.	<i>Cladonia rappii</i> var. <i>exilior</i> (Abbayes) Ahti
<i>Cladonia clathrata</i> Ahti & L. Xavier	not occurring in Colombia
<i>Cladonia coniocraea</i> (Flörke) Spreng.	not occurring in Colombia
<i>Cladonia cornucopioides</i> auct. non Fr.	<i>Cladonia corallifera</i> (Kunze) Nyl.
<i>Cladonia cornuta</i> (L.) Hoffm.	not occurring in Colombia
<i>Cladonia degenerans</i> f. <i>trachyna</i> auct. non (Ach.) Flörke	<i>Cladonia squamosa</i> (Scop.) Hoffm.
<i>Cladonia degenerans</i> var. <i>gracilescens</i> auct. non (Flörke) Spreng.	<i>Cladonia ramulosa</i> (With.) J.R. Laundon
<i>Cladonia degenerans</i> var. <i>trachyna</i> auct. non Nyl.	<i>Cladonia squamosa</i> (Scop.) Hoffm.
<i>Cladonia dilleniana</i> Flörke	not occurring in Colombia
<i>Cladonia dissecta</i> Ahti	not occurring in Colombia
<i>Cladonia fimbriata</i> (L.) Fr.	<i>Cladonia subsquamosa</i> Kremp.
<i>Cladonia flagellaris</i> Ahti & Marcelli	not occurring in Colombia
<i>Cladonia furfuracea</i> auct. non Vain.	<i>Cladonia furfuraceoides</i> Ahti & Sipman
<i>Cladonia hypoxantha</i> auct. non Tuck.	<i>Cladonia microscypha</i> Ahti & S. Stenroos
<i>Cladonia macilenta</i> var. <i>carcata</i> auct. non (Ach.) Nyl.	<i>Cladonia miniata</i> G. Mey.
<i>Cladonia mitis</i> Sandst.	<i>Cladonia boliviana</i> Ahti

ALPHABETICAL LIST OF MISAPPLIED AND DOUBTFUL NAMES

Taxon	Correct Identification/Distribution
<i>Cladonia mitrula</i> auct. non Tuck.	<i>Cladonia corymbosula</i> Nyl.
<i>Cladonia peltasta</i> (Ach.) Spreng.	not occurring in Colombia
<i>Cladonia peziziformis</i> auct. non (With.) J.R. Laundon	<i>Cladonia corymbosula</i> Nyl.
<i>Cladonia phyllophora</i> Hoffm.	not occurring in Colombia
<i>Cladonia polystomata</i> Ahti & Sipman	not occurring in Colombia
<i>Cladonia portentosa</i> (Dufour) Coem.	<i>Cladonia confusa</i> R. Sant.
<i>Cladonia pycnoclada</i> (Pers.) Nyl.	<i>Cladonia confusa</i> R. Sant.
<i>Cladonia rangiferina</i> var. <i>sylvatica</i> auct. non (Hoffm.) Nyl.	<i>Cladonia arbuscula</i> (Wallr.) Flot.
<i>Cladonia solida</i> Vain.	not occurring in Colombia
<i>Cladonia stenophylla</i> auct. non Nyl.	<i>Cladonia corymbites</i> Nyl.
<i>Cladonia subulata</i> Wigg.	<i>Cladonia corniculata</i> Ahti & Kashiw.
<i>Cladonia sylvatica</i> auct. non (L.) Rabenh.	<i>Cladonia arbuscula</i> (Wallr.) Flot.
<i>Cladonia verticillaris</i> (Raddi) Fr.	<i>Cladonia rappii</i> var. <i>exilior</i> (Abbayes) Ahti
<i>Cladonia vicaria</i> auct. non R. Sant.	<i>Cladonia rangiferina</i> (L.) F.H. Wigg.
<i>Coccocarpia aeruginosa</i> auct. non Müll. Arg.	<i>Coccocarpia epiphylla</i> (Fée) Kremp.
<i>Coccocarpia gallaicoi</i> Lücking, Chaves & L. Umaña	<i>Coccocarpia</i> sp.
<i>Coccocarpia molybdea</i> var. <i>cronia</i> auct. non (Tuck.) Nyl.	<i>Coccocarpia erythroxyli</i> (Spreng.) Swinscow & Krog
<i>Coccocarpia smaragdina</i> auct. non Pers.	<i>Coccocarpia erythroxyli</i> (Spreng.) Swinscow & Krog
<i>Cresponea premnea</i> (Ach.) Egea & Torrente	not occurring in Colombia
<i>Cryptothecia atropunctata</i> G. Thor	not occurring in Colombia
<i>Cryptothecia bartlettii</i> G. Thor	not occurring in Colombia
<i>Cryptothecia candida</i> (Kremp.) R. Sant.	<i>Myriostigma filicinum</i> (Ellis & Everh.) Frisch & G. Thor
<i>Cryptothecia candida</i> auct. non (Kremp.) R. Sant.	<i>Myriostigma filicinum</i> (Ellis & Everh.) Frisch & G. Thor
<i>Cryptothecia</i> cf. <i>exilis</i> G. Thor	not occurring in Colombia
<i>Cyanisticta obvoluta</i> (Sw.) C.W. Dodge	not occurring in Colombia
<i>Dibaeis sorediata</i> Kalb & Gierl	not occurring in Colombia
<i>Dichosporidium boschianum</i> (Mont.) G. Thor	not occurring in Colombia
<i>Diploschistes gypsaceus</i> auct. non (Ach.) Zahlbr.	<i>Diploschistes diacapsis</i> (Ach.) Lumbsch
<i>Dirinaria coccinea</i> (Müll. Arg.) D.D. Awasthi	not occurring in Colombia
<i>Dirinaria palmarum</i> (Vain.) C.W. Dodge	not occurring in Colombia
<i>Dirinaria subpicta</i> (Nyl.) C.W. Dodge	not occurring in Colombia
<i>Echinoplaca argentea</i> auct. non (Mont.) R. Sant.	<i>Aderkomyces couepiae</i> Bat.
<i>Echinoplaca heterella</i> auct. non (Stirt.) R. Sant.	<i>Echinoplaca handelii</i> (Zahlbr.) Lücking
<i>Entyloma amaranthi</i> Mol.-Val.	<i>Albugo bliti</i> (Biv.) Kuntze
<i>Erioderma physcioides</i> auct. non Vain.	<i>Erioderma divisum</i> P.M. Jørg. & Arv. Vain.

Taxon	Correct Identification/Distribution
<i>Evernia prunastri</i> (L.) Ach.	not occurring in Colombia
<i>Fibrillithecis pachystoma</i> (Nyl.) Sipman	<i>Fibrillithecis inspersa</i> Kalb
<i>Fuscidea arboricola</i> Coppins & Tønsberg	not occurring in Colombia
<i>Graphis assimilis</i> Nyl.	<i>Graphis intricata</i> Fée
<i>Graphis diplocheila</i> Vain.	not occurring in Colombia
<i>Graphis epimelaena</i> Müll. Arg.	not occurring in Colombia
<i>Graphis frumentaria</i> auct. non Fée	<i>Allographa triphora</i> (Nyl.) Lücking & Kalb
<i>Graphis intermedians</i> Vain.	not occurring in Colombia
<i>Graphis leptogramma</i> Nyl.	not occurring in Colombia
<i>Graphis leptographa</i> auct. non Nyl.	<i>Fissurina tachygrapha</i> (Nyl.) Staiger
<i>Graphis pezizoides</i> auct. non Ach.	<i>Phaeographis lindigiana</i> Müll. Arg.
<i>Graphis poitaei</i> sensu Nyl.	<i>Diorygma junghuhnii</i> (Mont. & Bosch) Kalb, Staiger & Elix
<i>Graphis polyclades</i> Kremp.	not occurring in Colombia
<i>Graphis streimannii</i> A.W. Archer	not occurring in Colombia
<i>Graphis subregularis</i> A.W. Archer	not occurring in Colombia
<i>Graphis sulphurella</i> (Zahlbr.) Lücking	not occurring in Colombia
<i>Graphis syzygii</i> Aptroot	<i>Carbacanthographis</i> sp.
<i>Graphis valparaiensis</i> Adaw. & Makhija	not occurring in Colombia
<i>Haematomma puniceum</i> (Ach.) A. Massal.	<i>Haematomma persoonii</i> (Fée) A. Massal.
<i>Hafellia disciformis</i> (Fr.) Marbach	<i>Amandinea megaspora</i> Marbach
<i>Heterodermia andina</i> Moberg	not occurring in Colombia
<i>Hyperphyscia adglutinata</i> auct. non (Flörke) H. Mayrhofer & Poelt	<i>Hyperphyscia confusa</i> Essl., C.A. Morse & S.D. Leav.
<i>Hypogymnia austerodes</i> auct. non (Nyl.) Räsänen	<i>Hypogymnia bitteri</i> (Lyngé) Ahti
<i>Hypotrachyna thysanota</i> (Kurok.) Hale	not occurring in Colombia
<i>Laurera chrysoglypha</i> auct. non (Vain.) Zahlbr.	<i>Astrothelium sphaerioides</i> (Mont.) Aptroot & Lücking
<i>Lecanora allophana</i> (Ach.) Nyl.	not occurring in Colombia
<i>Lecanora aurantiaca</i> auct. non (Lightf.) Nyl.	<i>Caloplaca xanthopa</i> (Hue) Zahlbr.
<i>Lecanora cancriformis</i> auct. non (Hoffm.) Vain.	<i>Lecanora caesiorubella</i> Ach.
<i>Lecanora cenisia</i> Ach.	not occurring in Colombia
<i>Lecanora miculata</i> Ach.	<i>Caloplaca brebissonii</i> (Fée) J. Sant. ex Hafellner & Poelt
<i>Lecanora pallidior</i> Nyl.	not occurring in Colombia
<i>Lecanora populicola</i> (DC.) Duby	not occurring in Colombia
<i>Lecanora pulicaris</i> (Pers.) Ach.	not occurring in Colombia
<i>Lecanora subcrenulata</i> auct. non Müll. Arg.	<i>Lecanora tropica</i> Zahlbr.
<i>Lecidea anomala</i> auct. non Ach.	<i>Biatora globulosa</i> (Flörke) Fr.
<i>Lecidea atroalbella</i> Nyl.	<i>Buellia aethalea</i> (Ach.) Th. Fr.
<i>Lecidea domingensis</i> auct. non (Pers.) Nyl.	<i>Letrouitia flavidula</i> (Tuck.) Hafellner
<i>Lecidea endoleuca</i> f. <i>laurocerasi</i> auct. non (Delise) Nyl.	<i>Bacidia proposita</i> (Nyl.) Zahlbr.



ALPHABETICAL LIST OF MISAPPLIED AND DOUBTFUL NAMES

Taxon	Correct Identification/Distribution
<i>Lecidea enteroleuca</i> auct. non Ach.	<i>Lecidella elaeochroma</i> (Ach.) M. Choisy
<i>Lecidea glabrescens</i> Nyl.	not occurring in Colombia
<i>Lecidea intermediella</i> Nyl.	<i>Phyllopsora parvifolia</i> (Pers.) Müll. Arg.
<i>Lepra albopunctata</i> (A.W. Archer & Elix) A.W. Archer & Elix	not occurring in Colombia
<i>Lepra scaberula</i> (A.W. Archer) I. Schmitt, B.P. Hodk. & Lumbsch	not occurring in Colombia
<i>Lepra ventosa</i> (Malme) Lendemer & R.C. Harris	not occurring in Colombia
<i>Lepraria neglecta</i> auct. non (Nyl.) Erichsen	<i>Lepraria caesioalba</i> (B. de Lesd.) J.R. Laundon
<i>Leptogium inflexum</i> auct. non Nyl.	<i>Leptogium burgessii</i> (L.) Mont.
<i>Leptogium menziesii</i> auct. non (Ach.) Mont.	<i>Leptogium andinum</i> P.M. Jørg.
<i>Leptogium pulchellum</i> auct. non Ach.	<i>Leptogium corticola</i> (Taylor) Tuck.
<i>Leucocintractia leucoderma</i> (Berk.) M. Piepenbr.	<i>Leucocintractia scleriae</i> (DC.) M. Piepenbr., Begerow & Oberw.
<i>Lobaria discolor</i> auct. non (Bory) Hue	<i>Yoshimuriella deplanata</i> (Nyl.) Moncada & Lücking
<i>Lobaria pulmonaria</i> (L.) Hoffm.	not occurring in Colombia
<i>Lobaria quercizans</i> Michx.	not occurring in Colombia
<i>Mazosia pseudobambusae</i> auct. non Kalb & Vězda	<i>Mazosia bambusae</i> (Vain.) R. Sant.
<i>Microbotryum bistortarum</i> (DC.) Vánky	<i>Sphacelotheca hydropiperis</i> (Schumach.) de Bary
<i>Mycoblastus glabrescens</i> (Nyl.) Zahlbr.	not occurring in Colombia
<i>Mycomicrothelia melanospora</i> (Hepp) D. Hawksw.	not occurring in Colombia
<i>Myriostigma miniatum</i> (Vain. ex Lücking) Aptroot, Ertz, Grube & M. Cáceres	not occurring in Colombia
<i>Nephroma helveticum</i> Ach.	<i>Nephroma tropicum</i> (Müll. Arg.) Zahlbr.
<i>Ocellularia interposita</i> (Nyl.) Hale	not occurring in Colombia
<i>Ochrolechia pallescens</i> (L.) A. Massal.	<i>Ochrolechia africana</i> Vain.
<i>Ochrolechia pallescens</i> (L.) A. Massal.	<i>Ochrolechia subpallescens</i> Verseghy
<i>Ochrolechia upsaliensis</i> (L.) A. Massal.	not occurring in Colombia
<i>Pannaria mariana</i> auct. non (Fr.) Müll. Arg.	<i>Pannaria mosenii</i> C.W. Dodge
<i>Parmelia americana</i> auct. non (Meyen & Flot.) Mont.	<i>Hypotrachyna vexans</i> (Zahlbr. ex W.L. Culb. & C.F. Culb.) Divakar, A. Crespo, Sipman, Elix & Lumbsch
<i>Parmelia erumpens</i> Kurok.	not occurring in Colombia
<i>Parmelia gracilis</i> auct. non (Müll. Arg.) Vain.	<i>Hypotrachyna physcioides</i> (Nyl.) Hale
<i>Parmelia kamtschadalis</i> auct. non (Ach.) Eschw.	<i>Hypotrachyna cirrhata</i> (Fr.) Divakar, A. Crespo, Sipman, Elix & Lumbsch
<i>Parmelia kamtschadalis</i> var. <i>americana</i> auct. non (Meyen & Flot.) Nyl.	<i>Hypotrachyna cirrhata</i> (Fr.) Divakar, A. Crespo, Sipman, Elix & Lumbsch

Taxon	Correct Identification/Distribution
<i>Parmelia latissima</i> auct. non Fée	<i>Parmotrema fractum</i> (Hale) Hale
<i>Parmelia limbata</i> auct. non Laurer	<i>Relicina abstrusa</i> (Vain.) Hale
<i>Parmelia saccatiloba</i> auct. non Taylor	<i>Parmotrema fractum</i> (Hale) Hale
<i>Parmelina tiliacea</i> (Hoffm.) Hale	not occurring in Colombia
<i>Parmotrema gibberosum</i> Kurok.	not occurring in Colombia
<i>Parmotrema pseudoreticulatum</i> (Tav.) Hale	not occurring in Colombia
<i>Peltigera cf. membranacea</i> (Ach.) Nyl.	not occurring in Colombia
<i>Peltigera horizontalis</i> (Huds.) Baumg.	not occurring in Colombia
<i>Peltigera membranacea</i> (Ach.) Nyl.	not occurring in Colombia
<i>Peltigera polydactyla</i> auct. non (Neck.) Hoffm.	<i>Peltigera dolichorhiza</i> (Nyl.) Nyl.
<i>Petractis hypoleuca</i> (Ach.) Vězda	not occurring in Colombia
<i>Phaeographis subtigrina</i> (Vain.) Zahlbr.	not occurring in Colombia
<i>Phaeophyscia hirsuta</i> (Mereschk.) Essl.	not occurring in Colombia
<i>Phaeophyscia pusilloides</i> (Zahlbr.) Essl.	not occurring in Colombia
<i>Physcia adglutinata</i> (Flörke) Nyl.	<i>Hyperphyscia confusa</i> Essl., C.A. Morse & S.D. Leav.
<i>Physcia adscendens</i> H. Olivier	<i>Heterodermia</i> sp.
<i>Physcia dactylifera</i> Elix	not occurring in Colombia
<i>Physcia endochrysea</i> auct. non (Nyl.) Hampe	<i>Phaeophyscia endococcinodes</i> (Poelt) Essl.
<i>Physcia endococcina</i> auct. non (Körb.) Nyl.	<i>Phaeophyscia endococcinodes</i> (Poelt) Essl.
<i>Physcia obscura</i> var. <i>endococcina</i> auct. non (Körb.) B. de Lesd.	<i>Phaeophyscia endococcinodes</i> (Poelt) Essl.
<i>Physcia stellaris</i> (L.) Fr.	not occurring in Colombia
<i>Physcia stellaris</i> (L.) Nyl.	not occurring in Colombia
<i>Physcia stellaris</i> f. <i>rosulata</i> auct. non (Ach.) Nyl.	<i>Physcia aipolia</i> (Ehrh. ex Humb.) Fűrnr.
<i>Physcia tribacioides</i> Nyl.	not occurring in Colombia
<i>Physcia verrucosa</i> Moberg	not occurring in Colombia
<i>Platygramme impudica</i> (A.W. Archer) A.W. Archer	<i>Platygramme</i> sp.
<i>Polycauliona phlogina</i> (Ach.) Arup, Frödén & Søchting	<i>Solitaria chrysophthalma</i> (Degel.) Arup, Søchting & Frödén
<i>Polymeridium simulans</i> R.C. Harris	not occurring in Colombia
<i>Polymeridium subcinereum</i> auct. non (Nyl.) R.C. Harris	<i>Polymeridium pyrenuloides</i> (Fée) Aptroot
<i>Porina elegans</i> Malme	not occurring in Colombia
<i>Porina farinosa</i> C. Knight	not occurring in Colombia
<i>Pseudevernia furfuracea</i> (L.) Zopf	<i>Everniastrum</i> sp.
<i>Pseudocyphellaria crocata</i> (L.) Vain.	<i>Pseudocyphellaria citrina</i> (Pers.) Lücking, Moncada & S. Stenroos
<i>Pseudocyphellaria crocata</i> (L.) Vain.	<i>Pseudocyphellaria sandwicensis</i> (Zahlbr.) Moncada & Lücking
<i>Pseudocyphellaria crocata</i> (L.) Vain.	<i>Pseudocyphellaria xanthosticta</i> (Pers.) Moncada & Lücking
<i>Pseudocyphellaria faveolata</i> (Delise) Malme	not occurring in Colombia

ALPHABETICAL LIST OF MISAPPLIED AND DOUBTFUL NAMES

Taxon	Correct Identification/Distribution
<i>Pseudocyphellaria mougeotiana</i> (Delise) Vain.	<i>Pseudocyphellaria xanthosticta</i> (Pers.) Moncada & Lücking
<i>Pseudoparmelia sphaerospora</i> (Nyl.) Hale	<i>Pseudoparmelia cubensis</i> (Nyl.) Elix & T.H. Nash
<i>Pseudoparmelia sphaerospora</i> (Nyl.) Hale	<i>Pseudoparmelia uleana</i> (Müll. Arg.) Elix & T.H. Nash
<i>Pyrenula macularis</i> (Zahlbr.) R.C. Harris	<i>Polymeridium</i> sp.
<i>Pyrenula minarum</i> Vain.	not occurring in Colombia
<i>Pyrenula nanospora</i> (Ajay Singh) Upreti	not occurring in Colombia
<i>Pyrenula nitida</i> (Weigel) Ach.	not occurring in Colombia
<i>Pyrenula nitidella</i> (Flörke) Müll. Arg.	not occurring in Colombia
<i>Pyrenula sublaevigata</i> (Patw. & Makhija) Upreti	not occurring in Colombia
<i>Pyxine coccinea</i> (Spreng.) Mont. & Bosch	<i>Pyxine coccifera</i> (Fée) Nyl.
<i>Pyxine nana</i> Kalb	not occurring in Colombia
<i>Ramalina aspera</i> Räsänen	not occurring in Colombia
<i>Ramalina calicaris</i> (L.) Fr.	<i>Ramalina celastri</i> (Spreng.) Krog & Swinscow
<i>Ramalina calicaris</i> (L.) Röhl.	<i>Ramalina celastri</i> (Spreng.) Krog & Swinscow
<i>Ramalina ecklonii</i> auct. non (Spreng.) Meyen & Flot.	<i>Ramalina celastri</i> (Spreng.) Krog & Swinscow
<i>Ramalina farinacea</i> (L.) Ach.	not occurring in Colombia
<i>Ramalina menziesii</i> Taylor	not occurring in Colombia
<i>Ramalina siliquosa</i> (Huds.) A.L. Sm.	not occurring in Colombia
<i>Ramalina solediantha</i> Nyl.	not occurring in Colombia
<i>Rhabdodiscus crassus</i> (Müll. Arg.) Frisch	not occurring in Colombia
<i>Ricasolia dissecta</i> auct. non Nyl.	<i>Yoshimuriella peltigera</i> (Vain.) Lücking & Moncada
<i>Ricasolia erosa</i> auct. non (Eschw.) Nyl.	<i>Yoshimuriella fendleri</i> (Tuck. & Mont.) Moncada & Lücking
<i>Rinodina sophodes</i> (Ach.) A. Massal.	<i>Catillaria</i> sp.
<i>Rinodina sophodes</i> (Ach.) A. Massal.	<i>Neoprotoparmelia multifera</i> (Nyl.) Garima Singh, Lumbsch & I. Schmitt
<i>Roccella fuciformis</i> (L.) DC.	not occurring in Colombia
<i>Roccella tinctoria</i> DC.	not occurring in Colombia
<i>Schismatomma graphidioides</i> (Leight.) Zahlbr.	not occurring in Colombia
<i>Septotrapelia triseptata</i> (Hepp) Aptroot	<i>Septotrapelia glauca</i> Aptroot & Chaves
<i>Sphaerophoron australe</i> Laurer	<i>Bunodophoron melanocarpum</i> (Sw.) Wedin
<i>Sphaerophorus australis</i> Laurer	<i>Bunodophoron melanocarpum</i> (Sw.) Wedin
<i>Sporisorium microsporum</i> (J. Schröt. & Henn.) M. Piepenbr.	<i>Sporisorium paspali-notati</i> (Henn. ex G.P. Clinton) M. Piepenbr.
<i>Stereocaulon botryosum</i> auct. non Ach.	<i>Stereocaulon vesuvianum</i> Pers.
<i>Stereocaulon coralloides</i> auct. non Fr.	<i>Stereocaulon myriocarpum</i> Th. Fr.

Taxon	Correct Identification/Distribution
<i>Stereocaulon corticatum</i> Nyl.	<i>Stereocaulon atlanticum</i> (I.M. Lamb) I.M. Lamb
<i>Stereocaulon fronduliferum</i> I.M. Lamb	not occurring in Colombia
<i>Stereocaulon myriocarpoides</i> auct. non Nyl.	<i>Stereocaulon myriocarpum</i> Th. Fr.
<i>Stereocaulon verruciferum</i> Nyl.	not occurring in Colombia
<i>Sticta crocata</i> (L.) Ach.	<i>Pseudocyphellaria xanthosticta</i> (Pers.) Moncada & Lücking
<i>Sticta dilatata</i> auct. non (Nyl.) Vain.	<i>Sticta granatensis</i> Nyl.
<i>Sticta dissecta</i> auct. non (Sw.) Ach.	<i>Yoshimuriella peltigera</i> (Vain.) Lücking & Moncada
<i>Stictina crocata</i> (L.) Nyl.	<i>Pseudocyphellaria sandwicensis</i> (Zahlbr.) Moncada & Lücking
<i>Stictina limbata</i> auct. non (Hochst.) Nyl.	<i>Sticta andensis</i> (Nyl.) Trevis.
<i>Stictina tomentella</i> auct. non Nyl.	<i>Sticta humboldtii</i> Hook.
<i>Tricharia helminthospora</i> auct. non R. Sant.	<i>Rubrotricha subhelminthospora</i> Lücking
<i>Tricharia helminthospora</i> R. Sant.	<i>Rubrotricha subhelminthospora</i> Lücking
<i>Tricharia leucothrix</i> Fée	<i>Tricharia</i> spp.
<i>Tricharia melanothrix</i> Fée	<i>Tricharia</i> spp.
<i>Tricharia triseptata</i> R. Sant.	<i>Tricharia sipmanii</i> Lücking
<i>Trypethelium regnellii</i> Malme	<i>Astrothelium</i> sp.
<i>Trypethelium virens</i> Tuck. ex E. Michener	<i>Astrothelium</i> sp.
<i>Urocystis anemones</i> (Pers.) G. Winter	<i>Urocystis ranunculi</i> (Lib.) Moesz
<i>Usnea flavorubescens</i> Truong & P. Clerc	not occurring in Colombia
<i>Usnea florida</i> (L.) Hoffm.	not occurring in Colombia
<i>Usnea longissima</i> Ach.	<i>Usnea crenulata</i> Truong & P. Clerc
<i>Usnea longissima</i> Ach.	<i>Usnea mexicana</i> Vain.
<i>Usnea mollis</i> Stirt.	<i>Usnea fragilesceus</i> var. <i>mollis</i> (Vain.) P. Clerc
<i>Usnea plicata</i> (L.) Weber ex F.H. Wigg.	not occurring in Colombia
<i>Usnea plicata</i> (L.) Wigg.	not occurring in Colombia
<i>Usnea rubescens</i> auct. non Stirt.	<i>Usnea rubicunda</i> Stirt.
<i>Verrucaria punctella</i> auct. non Nyl.	<i>Pyrenula quassiicola</i> Fée
<i>Verrucaria punctella</i> var. <i>adacta</i> auct. non Nyl.	<i>Pyrenula quassiicola</i> Fée
<i>Verrucaria pyrenuloides</i> Fée	<i>Pyrenula chilensis</i> (Fée) R.C. Harris
<i>Viridothelium virens</i> (Tuck. ex Michener) Lücking, M.P. Nelsen & Aptroot	<i>Astrothelium phlyctaena</i> (Fée) Aptroot & Lücking
<i>Viridothelium virens</i> (Tuck. ex Michener) Lücking, M.P. Nelsen & Aptroot	<i>Astrothelium pulcherrimum</i> (Fée) Aptroot & Lücking







*Phallus indusiatus*  
[Aida M. Vasco-Palacios]



The *Catalogue of Fungi of Colombia* is the first comprehensive listing of the known Colombian fungi. Compiled by a team of Colombian and international mycologists from the Royal Botanic Gardens, Kew, the Humboldt Institute and numerous partner institutions, it consolidates expert-generated information linked and accessible through an online portal (*ColFungi*). The checklist is accompanied by 15 chapters written by specialists, providing perspectives on the state of knowledge on the Colombian fungi, covering a range of topics, from the diversity of the main groups of fungi and the history of mycological studies in this country, to aspects of the biogeography, ecology, biotechnology, conservation, and uses of Colombian fungi and their presence in national and international biological collections. The Catalogue is further enriched by diverse supplementary material, allowing users to explore further open questions and opportunities, to develop new ideas on the use of fungi and their conservation, and to foster social and environmental awareness.



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