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Outline of *Fungi* and fungus-like taxa

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Abstract

This article provides an outline of the classification of the kingdom *Fungi* (including fossil fungi. i.e. dispersed spores, mycelia, sporophores, mycorrhizas). We treat 19 phyla of fungi. These are *Aphelidiomycota*, *Ascomycota*, *Basidiobolomycota*, *Basidiomycota*, *Blastocladiomycota*, *Calcarisporiellomycota*, *Caulochytriomycota*, *Chytridiomycota*, *Entomophthoromycota*, *Entorrhizomycota*, *Glomeromycota*, *Kickxellomycota*, *Monoblepharomycota*, *Mortierellomycota*, *Mucoromycota*, *Neocallimastigomycota*, *Olpidiomycota*, *Rozellomycota* and *Zoopagomycota*. The placement of all fungal genera is provided at the class-, order- and family-level. The described number of species per genus is also given. Notes are provided of taxa for which recent changes or disagreements have been presented. Fungus-like taxa that were traditionally treated as fungi are also incorporated in this outline (i.e. *Eumycetozoa*, *Dictyosteliomycetes*, *Ceratiomyxomycetes* and *Myxomycetes*). Four new taxa are introduced: *Amblyosporida* ord. nov. *Neopereziida* ord. nov. and *Ovavesiculida* ord. nov. in *Rozellomycota*, and *Protosporangiaceae* fam. nov. in *Dictyosteliomycetes*. Two different classifications (in outline section and in discussion) are provided for *Glomeromycota* and *Leotiomycetes* based on recent studies. The phylogenetic reconstruction of a four-gene dataset (18S and 28S rRNA, RPB1, RPB2) of 433 taxa is presented, including all currently described orders of fungi.

Keywords – Four new taxa – *Ascomycota* – *Amblyosporida* ord. nov. – Basal clades – *Basidiomycota* – Classification – Emendation – *Microsporidia* – *Neopereziida* ord. nov. – *Ovavesiculida* ord. nov. – *Protosporangiaceae* fam. nov. – *Redonographaceae* stat nov.

Introduction

Classification of the kingdom *Fungi* has been updated continuously, with the frequent inclusion of data from DNA sequences in recent studies. Re-collecting historic taxa and neo- or epitypifying them by using both fresh material and cultures is also an increasingly common practice among mycologists, although yet not easily accomplished in some groups. Utilization of environmental sequences for recognizing taxa that are not observed directly and naming them with only a sequence as a holotype is a controversial topic that remains to be addressed (Hongsanan et al. 2018, Lücking & Hawksworth 2018, Lücking et al. 2018, Thines et al. 2018, Zamora et al. 2018).

Tedersoo et al. (2018) proposed a novel classification for the kingdom *Fungi* that was based on phylogenies and the divergence time of particular taxa. Using these criteria, they accepted 18 phyla: *Aphelidiomycota*, *Ascomycota*, *Basidiobolomycota*, *Basidiomycota*, *Blastocladiomycota*, *Calcarisporiellomycota*, *Caulochytriomycota*, *Chytridiomycota*, *Entomophthoromycota*, *Glomeromycota*, *Kickxellomycota*, *Monoblepharomycota*, *Mortierellomycota*, *Mucoromycota*, *Neocallimastigomycota*, *Olpidiomycota*, *Rozellomycota* and *Zoopagomycota*. This study was, however, based on only 111 taxa and it remains to be seen how widely it will be accepted and stand up as more taxa are analyzed. Outlines for the *Ascomycota* (and notes for genera in the *Ascomycota*) and the basal clades of fungi (Wijayawardene et al. 2017, 2018a, b) have been published, with the participation of experts in particular groups. Jaklitsch et al. (2016a) provided a synopsis of accepted *Ascomycota* families with descriptions and lists of included genera (and their synonyms), and Begerow et al. (2018) prepared a parallel treatment for the families of *Basidiomycota* and *Entorrhizomycota*, including brief diagnoses and indications of ecology and distributions for all genera (though without listing synonyms of genera and with some genera that are still debated). A separate outline, with notes and divergence times of *Basidiomycota* was also published by He et al. (2019).

Classification of basal clades

The higher level classification of basal clades has been subjected to drastic changes as in Tedersoo et al. (2018), who took up *Rozellomycota* to include *Cryptomycota* and *Microsporidia* and also accepted *Aphelidiomycota* in a fungal clade as did Letcher & Powell (2019) in a synopsis

of that group. Moreover, classes and orders of respective phyla were also provided in Tedersoo et al. (2018). Wijayawardene et al. (2018b) provided a detailed classification system (from phyla to genera) for basal clades of *Fungi*, agreeing with Tedersoo et al. (2018). Hence, Wijayawardene et al. (2018b) accepted 16 phyla *viz. Aphelidiomycota*, *Basidiobolomycota*, *Blastocladiomycota*, *Calcarisporiellomycota*, *Caulochytriomycota*, *Chytridiomycota*, *Entomophthoromycota*, *Glomeromycota*, *Kickxellomycota*, *Monoblepharomycota*, *Mortierellomycota*, *Mucoromycota*, *Neocallimastigomycota*, *Olpidiomycota*, *Rozellomycota* and *Zoopagomycota*.

Classification of *Glomeromycota*

Classification of *Glomeromycota* (which includes arbuscular mycorrhizal fungi [AMF]) has been a subject of debate. We provide two different classifications (phyla to genera) which are commonly used by taxonomists (see outline and discussion). In the outline section, we provide the classification which is supported by Tedersoo et al. (2018) and our analyses (Fig. 1). The classification provided in Wijayawardene et al. (2018b) is included in the discussion.

Placement of the *Rozellomycota* in the tree of life

The position of *Microsporidia* in the Eukaryotic Tree of Life has been a subject of discussion. Primarily identified as yeast-like fungi in *Schizomycetes* (Nägeli 1857), they were further recognized as protists, while drastic reconsiderations of taxonomy of unicellular eukaryotes resulted in placing to *Sporozoa* (Balbiani 1882), and particularly *Cnidosporidia* (Labbé 1899); *Sarcodina* in *Protozoa* (Cavalier-Smith 1981); *Archezoa* (Cavalier-Smith 1983) and *Protista* (Puytorac et al. 1987); as well as to different classes of *Fungi* (Keeling et al. 2000, Gill & Fast 2006, James et al. 2006, 2013). The mycological community has widely accepted the affiliation of *Microsporidia* with the early diverging clades of *Fungi*. The *Microsporidia*, *Cryptomycota* and *Aphelidea*, have also been considered to represent a monophyletic lineage with shared ecological and structural features, defined as superphylum *Opisthosporidia* belonging to supergroup *Opisthokontha* and separated from *Fungi* (Karpov et al. 2014). In another system, however, it was proposed that *Cryptomycota* (also known as *Rozellida*, *Rozellomycota*, or *Rozellosporidia*) and *Microsporidia* join the phylum *Rozellomycota*, while *Aphelidea* were considered as a separate, though related phylum and all these groups were considered basal lineages of the kingdom *Fungi* (Tedersoo et al. 2018). The taking up of the name *Rozellomycota* in such a broad sense appears premature, especially as the structure and biological features of a larger part of these organisms are unclear as they are known only from environmental sequences. The borders between *Fungi* and *Protista* are therefore unstable and final delimitation of taxa is problematic due to poor coverage of molecular data for the representatives of the most basal groups. However, whatever the conclusion is on placement, it has been decided that the nomenclature of the names in *Microsporidia* will continue to follow the *International Code of Zoological Nomenclature* even if they are treated as fungi (Turland et al. 2018).

Classification of *Ascomycota*

Periodic outlines of the *Ascomycota* have been issued since 1982, with notes in the journal *Systema Ascomycetum* which was devoted to this project, and later by Lumbsch & Huhndorf (2010) who accepted three subphyla: *Pezizomycotina* with eleven classes, the *Saccharomycotina* with one class, and *Taphrinomycotina* with four classes. The taxonomy of the phylum has been rapidly updated over the last few years (Hyde et al. 2013, 2017, 2020, Jaklitsch et al. 2016a, Ekanayaka et al. 2017, Hongsanan et al. 2017, Liu et al. 2017).

Recently, two studies were published on the classification of *Leotiomycetes*. These are Ekanayaka et al. (2019) based on a five-locus phylogeny, Johnston et al. (2019) based on genomic-scale and 15-gene phylogenies. We provide two outlines; i) based on Johnston et al.

(2019), Karakehian et al (2019) and Quijada et al. (2020); and ii) based on Ekanayaka et al. (2019). These classifications are placed in the general outline and discussion, respectively.

Moreover, the concept of *One fungus-One name*, which ended the use of different names for morphs of the same fungus in July 2011, has resulted in several name changes in pleomorphic genera. Wijayawardene et al. (2018a) provided an updated outline of *Ascomycota* with three subphyla - *Pezizomycotina* (including the 13 classes *Arthoniomycetes*, *Coniocybomycetes*, *Dothideomycetes*, *Eurotiomycetes*, *Geoglossomycetes*, *Laboulbeniomycetes*, *Lecanoromycetes*, *Leotiomycetes*, *Lichinomycetes*, *Orbiliomycetes*, *Pezizomycetes*, *Sordariomycetes*, *Xylonomycetes* and *Xylobotryomycetes*), *Saccharomycotina* (with only class *Saccharomycetes*) and *Taphrinomycotina* (with five classes *Archaeorhizomycetes*, *Neolectomycetes*, *Pneumocystidomycetes*, *Schizosaccharomycetes* and *Taphrinomycetes*). These taxa along with a summary of other taxonomic ranks are summarized in Table 1.

Classification of *Basidiomycota*

Basidiomycota constitute a major phylum of the kingdom *Fungi* and is second in numbers of described species, to *Ascomycota* (Wijayawardene et al. 2017, 2018a). Since the last edition of *Ainsworth & Bisby's Dictionary of the Fungi* (Kirk et al. 2008), numerous sequenced-based studies have enabled the introduction of a vast array of new taxa, which has greatly enriched the known diversity of *Basidiomycota*. It has also become clear that several basidiome forms can be found in the same order, family, or even genus (Hibbett et al. 2007). At the same time, related new taxonomic categories have been proposed. For example, in phylogenetic studies of basidiomycetous yeasts, three new classes *Malasseziomycetes*, *Monilielliomycetes*, and *Spiculogloeomycetes*, were introduced and three new orders, 16 new families, and 47 new genera were also introduced (Nasr et al. 2014, Wang et al. 2014a, 2015a, b, Liu et al. 2015, Riess et al. 2016). On the other hand, many new changes have also occurred in the *Agaricomycotina*. Approximately 60 new genera have been recognized for agarics, 40 for boletes, and 50 for bracket fungi (Desjardin et al. 2009, Hjortstam & Ryvarden 2010, Petersen & Hughes 2010, Cui et al. 2011, Vellinga et al. 2011, Vizzini et al. 2011, Hao et al. 2014, Hofstetter et al. 2014, Smith et al. 2015, Castellano et al. 2016, Henkel et al. 2016, Wu et al. 2016, Buyck et al. 2017, Orihara & Smith 2017). Attention has already been drawn to the valuable syntheses of accepted genera, with diagnosis, provided by Begerow et al. (2018).

The phylogeny and divergence time ranges for higher level *Basidiomycota*, with the phylum originating ca. 530 Mya, the subphyla 406–490 Mya, most classes 245–393 Mya and orders 120–290 Mya were inferred by Zhao et al. (2017). The outline includes 1928 genera with 1263 synonyms within *Basidiomycota* (He et al. 2019). The latest version of *Ainsworth & Bisby's Dictionary of the Fungi* (Kirk et al. 2008), contains three subphyla, 16 classes, 52 orders, 177 families, 1589 genera and 31515 species in *Basidiomycota*. The updated outline of *Basidiomycota* has updated the numbers in Kirk et al. (2008) to four subphyla, 18 classes, 68 orders, 241 families, 1928 genera and 41270 species in *Basidiomycota* (He et al. 2019). *Agaricomycotina* embrace most of the species in *Basidiomycota* (30788 species) which includes three classes, 29 orders, 150 families and 1514 genera. *Pucciniomycotina* was estimated to comprise 8653 species including 10 classes, 22 orders, 49 families and 270 genera. *Ustilaginomycetes* with 1185 species is the largest group in *Ustilaginomycotina*. *Malasseziomycetes* and *Moniliellomycetes*, are the only two new classes recognized in the *Basidiomycota* since 2008, include 32 estimated species. *Wallemiomycotina* is a recently recognized subphylum (Zhao et al. 2017) with 12 species estimated in a single class, two orders and two families. Another early diverging group in the *Agaricomycotina* has recently identified by a phylogenomic study, the *Bartheletiomycetes*, including just a single species associated with *Gingko biloba* as a 'living fossil' (Mishra et al. 2018). Accepted taxa of *Basidiomycota* are summarized in Table 1.

Table 1 Phyla, classes, orders and families of kingdom *Fungi*. The number of accepted genera in each family is indicated in brackets after the family name.

Phylum	**Class***	**Order***	**Family***
Aphelidiomycota	*Aphelidiomycetes*	*Aphelidiales*	*Aphelidiaceae* (4)
Ascomycota	*Archaeorhizomycetes*	*Archaeorhizomycetales*	*Archaeorhizomycetaceae* (1)
	Arthoniomycetes	*Arthoniales*	*Andreiomycetaceae* (1)
			Arthoniaceae （23）
			Chrysotrichaceae (3)
			Lecanographaceae (7)
			Opegraphaceae (15)
			Roccellaceae (41)
			Roccellographaceae (3)
		Arthoniales genera *incertae sedis* (23)	
		Lichenostigmatales	*Phaeococcomycetaceae* (3)
	Candelariomycetes	*Candelariales*	*Candelariaceae* (4)
			Pycnoraceae (1)
	Coniocybomycetes	*Coniocybales*	*Coniocybaceae* (2)
	Dothideomycetes	*Abrothallales*	*Abrothallaceae* (2)
		Acrospermales	*Acrospermaceae* (3)
		Acrospermales genus *incertae sedis* (1)	
		Asterinales	*Asterinaceae* (19)
			Asterotexaceae (1)
			Hemigraphaceae (1)
			Lembosiaceae (1)
			Melaspileellaceae (1)
			Neobueliellaceae (1)
			Stictographaceae (5)
		Asterinales genera *incertae sedis* (8)	
		Botryosphaeriales	*Aplosporellaceae* (2)
			Botryosphaeriaceae (22)
			Melanopsaceae (1)
			Phyllostictaceae (2)
			Planistromellaceae (4)
			Saccharataceae (4)
		Botryosphaeriales genera *incertae sedis* (8)	
		Capnodiales	*Aeminiaceae* (1)
			Antennulariellaceae (4)
			Capnodiaceae (9)
			Cladosporiaceae (8)
			Cystocoleaceae (1)
			Dissoconiaceae (5)
			Euantennariaceae (7)
			Extremaceae (8)
			Johansoniaceae (2)
			Metacapnodiaceae (3)
			Mycosphaerellaceae (111)
			Neodevriesiaceae (2)
			Phaeothecaceae (1)
			Phaeothecoidiellaceae (8)
			Piedraiaceae (1)
			Racodiaceae (1)
			Schizothyriaceae (10)

Table 1 Continued.

Phylum	Class*	Order*	Family*
			Teratosphaeriaceae (60)
			Xenodevriesiaceae (1)
		Capnodiales genera *incertae sedis* (14)	
		Catinellales	*Catinellaceae* (1)
		Cladoriellales	*Cladoriellaceae* (1)
		Collemopsidiales	*Xanthopyreniaceae* (6)
		Dothideales	*Dothideaceae* (13)
			Neocelosporiaceae (3)
			Saccotheciaceae (7)
			Zalariaceae (1)
		Dothideales genera *incertae sedis* (6)	
		Dyfrolomycetales	*Pleurotremataceae* (3)
		Eremithallales	*Melaspileaceae* (2)
		Eremomycetales	*Eremomycetaceae* (2)
		Eremomycetales genus *incertae sedis* (1)	
		Gloniales	*Gloniaceae* (3)
		Hysteriales	*Hysteriaceae* (13)
		Hysteriales genus *incertae sedis* (1)	
		Jahnulales	*Aliquandostipitaceae* (7)
			Manglicolaceae (1)
		Kirschsteiniotheliales	*Kirschsteiniotheliaceae* (1)
		Kirschsteiniotheliales genera *incertae sedis* (2)	
		Lembosinales	*Lembosinaceae* (1)
		Lichenotheliales	*Lichenotheliaceae* (2)
		Microthyriales	*Microthyriaceae* (11)
		Microthyriales genera *incertae sedis* (6)	
		Minutisphaerales	*Acrogenosporaceae* (1)
			Minutisphaeraceae (1)
		Monoblastiales	*Monoblastiaceae* (6)
		Murramarangomycetales	*Murramarangomycetaceae* (1)
		Muyocopronales	*Muyocopronaceae* (9)
		Myriangiales	*Elsinoaceae* (2)
			Myriangiaceae (11)
		Myriangiales genus *incertae sedis* (1)	
		Mytilinidiales	*Mytilinidiaceae* (9)
		Natipusillales	*Natipusillaceae* (1)
		Parmulariales	*Parmulariaceae* (35)
		Patellariales	*Patellariaceae* (21)
		Phaeotrichales	*Phaeotrichaceae* (3)
		Pleosporales	*Acrocalymmaceae* (1)
			Aigialaceae (6)
			Amniculicolaceae (6)
			Amorosiaceae (4)
			Anteagloniaceae (2)
			Aquasubmersaceae (1)
			Arthopyreniaceae (2)

Table 1 Continued.

Phylum	Class*	Order*	Family*
			Ascocylindricaceae (1)
			Astrosphaeriellaceae (7)
			Bambusicolaceae (3)
			Biatriosporaceae (1)
			Camarosporiaceae (2)
			Camarosporidiellaceae (1)
			Caryosporaceae (1)
			Coniothyriaceae (5)
			Corynesporascaceae (2)
			Cryptocoryneaceae (1)
			Cucurbitariaceae (13)
			Cyclothyriellaceae (2)
			Dacampiaceae (6)
			Delitschiaceae (3)
			Diademaceae (2)
			Dictyosporiaceae (15)
			Didymellaceae (33)
			Didymosphaeriaceae (32)
			Dothidotthiaceae (7)
			Fuscostagonosporaceae (1)
			Fusculinaceae (2)
			Halojulellaceae (1)
			Halotthiaceae (6)
			Hermatomycetaceae (1)
			Hypsostromataceae (1)
			Latoruaceae (4)
			Lentimurisporaceae (2)
			Lentitheciaceae (13)
			Leptosphaeriaceae (13)
			Libertasomycetaceae (2)
			Ligninsphaeriaceae (2)
			Lindgomycetaceae (7)
			Lizoniaceae (1)
			Longipedicellataceae (3)
			Longiostiolaceae (1)
			Lophiostomataceae (28)
			Lophiotremataceae (7)
			Macrodiplodiopsidaceae (2)
			Massariaceae (3)
			Massarinaceae (8)
			Melanommataceae (35)
			Morosphaeriaceae (6)
			Mycoporaceae (1)
			Neocamarosporiaceae (2)
			Neohendersoniaceae (5)
			Neomassariaceae (1)
			Neomassarinaceae (2)
			Neophaeosphaeriaceae (1)
			Neopyrenochaetaceae (1)
			Nigrogranaceae (1)
			Occultibambusaceae (5)
			Ohleriaceae (1)
			Parabambusicolaceae (9)
			Paradictyoarthriniaceae (2)

Table 1 Continued.

Phylum	Class*	Order*	Family*
			Paralophiostomataceae (1)
			Parapyrenochaetaceae (2)
			Periconiaceae (4)
			Phaeoseptaceae (2)
			Phaeosphaeriaceae (82)
			Pleomassariaceae (7)
			Pleomonodictydaceae (2)
			Pleosporaceae (23)
			Pseudoastrosphaeriellaceae (3)
			Pseudoberkleasmiaceae (1)
			Pseudocoleodictyosporaceae (2)
			Pseudolophiotremataceae (2)
			Pseudomassarinaceae (1)
			Pseudopyrenochaetaceae (1)
			Pyrenochaetopsidaceae (3)
			Roussoellaceae (12)
			Salsugineaceae (2)
			Shiraiaceae (3)
			Sporormiaceae (9)
			Striatiguttulaceae (2)
			Sulcatisporaceae (6)
			Teichosporaceae (13)
			Testudinaceae (9)
			Tetraplosphaeriaceae (8)
			Thyridariaceae (7)
			Torulaceae (6)
			Trematosphaeriaceae (6)
			Tzeananiaceae (1)
			Wicklowiaceae (1)
			Zopfiaceae (6)
		Pleosporales genera *incertae sedis* (48)	
		Stigmatodiscales	*Stigmatodiscaceae* (1)
		Strigulales	*Strigulaceae* (13)
			Tenuitholiascaceae (1)
		Superstratomycetales	*Superstratomycetaceae* (1)
		Trypetheliales	*Polycoccaceae* (2)
			Trypetheliaceae (19)
		Tubeufiales	*Bezerromycetaceae* (3)
			Tubeufiaceae (46)
			Wiesneriomycetaceae (6)
		Valsariales	*Valsariaceae* (3)
		Venturiales	*Sympoventuriaceae* (9)
			Venturiaceae (14)
		Venturiales genera *incertae sedis* (3)	
		Zeloasperisporiales	*Zeloasperisporiaceae* (1)
		*Incertae sedis**	*Alinaceae* (1)
			Argynnaceae (2)
			Ascoporiaceae (1)
			Aulographaceae (4)
			Balladynaceae (3)

Table 1 Continued.

Phylum	Class*	Order*	Family*
			Cleistosphaeraceae (1)
			Coccoideaceae (3)
			Cookellaceae (2)
			Dimeriaceae (1)
			Dubujianaceae (1)
			Dysrhynchisceae (1)
			Endosporiaceae (1)
			Englerulaceae (8)
			Eremomycetaceae (3)
			Eriomycetaceae (5)
			Homortomycetaceae (1)
			Hyalomeliolinaceae (1)
			Leptopeltidaceae (4)
			Macrovalsariaceae (1)
			Meliolinaceae (2)
			Mesnieraceae (3)
			Naetrocymbaceae (5)
			Nematotheciaceae (3)
			Neoparodiaceae (1)
			Palawaniaceae (1)
			Paranectriellaceae (2)
			Parodiellaceae (1)
			Perisporiopsidaceae (5)
			Phaeodimeriellaceae (1)
			Pododimeriaceae (2)
			Polyclypeolinaceae (1)
			Polystomellaceae (4)
			Protoscyphaceae (1)
			Pseudoperisporiaceae (4)
			Pseudorobillardaceae (1)
			Pyrenidiaceae (1)
			Seynesiopeltidaceae (1)
			Stomatogeneceae (1)
			Thyrinulaceae (3)
			Toroaceae (1)
			Trichopeltinaceae (7)
			Trichothyriaceae (4)
			Vizellaceae (3)
	Dothideomycetes genera *incertae sedis* (278)		
	Eurotiomycetes	*Arachnomycetales*	*Arachnomycetaceae* (2)
		Chaetothyriales	*Chaetothyriaceae* (20)
			Coccodiniaceae (3)
			Cyphellophoraceae (2)
			Epibryaceae (1)
			Herpotrichiellaceae (16)
			Lyrommataceae (1)
			Microtheliopsidaceae (1)
			Paracladophialophoraceae (1)
			Pyrenotrichaceae (2)
			Trichomeriaceae (8)

Table 1 Continued.

Phylum	Class*	Order*	Family*
		Chaetothyriales genera *incertae sedis* (10)	
		Coryneliales	*Coryneliaceae* (7)
			Eremascaceae (1)
		Eurotiales	*Aspergillaceae* (15)
			Elaphomycetaceae (2)
			Thermoascaceae (2)
			Trichocomaceae (7)
		Mycocaliciales	*Mycocaliciaceae* (7)
		Onygenales	*Ajellomycetaceae* (6)
			Arthrodermataceae (10)
			Ascosphaeraceae (3)
			Gymnoascaceae (10)
			Nannizziopsidaceae (1)
			Onygenaceae (31)
			Spiromastigaceae (4)
		Onygenales genera *incertae sedis* (3)	
		Phaeomoniellales	*Celotheliaceae* (10)
		Pyrenulales	*Pyrenulaceae* (12)
		Pyrenulales genera *incertae sedis* (2)	
		Sclerococcales	*Dactylosporaceae* (5)
		Verrucariales	*Adelococcaceae* (3)
			Sarcopyreniaceae (1)
			Verrucariaceae (52)
		Verrucariales genera *incertae sedis* (5)	
		Incertae sedis	*Rhynchostomataceae* (2)
	Eurotiomycetes genus *incertae sedis* (1)		
	Geoglossomycetes	*Geoglossales*	*Geoglossaceae* (7)
	Geoglossomycetes genera *incertae sedis* (2)		
	Laboulbeniomycetes	*Herpomycetales*	*Herpomycetaceae* (1)
		Laboulbeniales	*Ceratomycetaceae* (12)
			Euceratomycetaceae (5)
			Laboulbeniaceae (125)
			Teratomyceteae (1)
		Laboulbeniales genera *incertae sedis* (3)	
		Pyxidiophorales	*Pyxidiophoraceae* (3)
	Laboulbeniomycetes genus *incertae sedis* (1)		
	Lecanoromycetes	*Acarosporales*	*Acarosporaceae* (11)
			Eigleraceae (1)
		Baeomycetales	*Arctomiaceae* (4)
			Arthrorhaphidaceae (1)
			Baeomycetaceae (5)
			Cameroniaceae (1)
			Hymeneliaceae (3)
			Protothelenellaceae (3)

Table 1 Continued.

Phylum	Class*	Order*	Family*
			Trapeliaceae (12)
			Xylographaceae (4)
		Caliciales	*Caliciaceae* (36)
			Physciaceae (18)
		Graphidales	*Diploschistaceae*(35)
			Fissurinaceae (6)
			Gomphillaceae (26)
			Graphidaceae (31)
			Redonographaceae (2)
			Thelotremataceae (7)
		Gyalectales	*Coenogoniaceae* (1)
			Gyalectaceae (3)
			Phlyctidaceae (2)
			Sagiolechiaceae (2)
			Trichotheliaceae (7)
		Lecanorales	*Bruceomycetaceae* (2)
			Catillariaceae (5)
			Cladoniaceae (22)
			Gypsoplacaceae (1)
			Haematommataceae (1)
			Lecanoraceae (28)
			Malmideaceae (7)
			Megalariaceae (2)
			Parmeliaceae (71)
			Pilocarpaceae (32)
			Psilolechiaceae (1)
			Psoraceae (6)
			Ramalinaceae (37)
			Ramboldiaceae (1)
			Scoliciosporaceae (1)
			Sphaerophoraceae (6)
			Tephromelataceae (4)
		Lecanorales genera *incertae sedis* (14)	
		Lecideales	*Lecideaceae* (29)
			Lopadiaceae (1)
		Leprocaulales	*Leprocaulaceae* (3)
		Micropeltidales	*Micropeltidaceae* (12)
		Ostropales	*Odontotremataceae* (10)
			Phaneromycetaceae (1)
			Spirographaceae (1)
			Stictidaceae (28)
		Ostropales genera *incertae sedis* (6)	
		Peltigerales	*Coccocarpiaceae* (3)
			Collemataceae (8)
			Koerberiaceae (3)
			Massalongiaceae (3)
			Pannariaceae (27)
			Peltigeraceae (15)
			Placynthiaceae (3)
			Vahliellaceae (1)
		Pertusariales	*Agyriaceae* (2)
			Coccotremataceae (3)

Table 1 Continued.

Phylum	Class*	Order*	Family*
			Icmadophilaceae (7)
			Megasporaceae (6)
			Microcaliciaceae (1)
			Ochrolechiaceae (1)
			Pertusariaceae (3)
			Varicellariaceae (1)
			Variolariaceae (1)
		Rhizocarpales	*Rhizocarpaceae* (4)
		Sarrameanales	*Sarrameanaceae* (2)
		Schaereriales	*Schaereriaceae* (1)
		Sporastatiales	*Sporastatiaceae* (2)
		Teloschistales	*Brigantiaeaceae* (2)
			Megalosporaceae (3)
			Teloschistaceae (63)
		Teloschistales genus *incertae sedis* (1)	
		Thelenellales	*Thelenellaceae* (3)
		Turquoiseomycetales	*Turquoiseomycetaceae* (1)
		Umbilicariales	*Elixiaceae* (2)
			Fuscideaceae (4)
			Ophioparmaceae (3)
			Ropalosporaceae (1)
			Umbilicariaceae (3)
		Incertae sedis	*Epigloeaceae* (1)
	Lecanoromycetes genera *incertae sedis* (15)		
	Leotiomycetes	*Chaetomellales*	*Chaetomellaceae* (4)
		Cyttariales	*Cyttariaceae* (1)
		Helotiales	*Amicodiscaceae* (1)
			Arachnopezizaceae (5)
			Ascocorticiaceae (1)
			Ascodichaenaceae (2)
			Bloxamiaceae (1)
			Bryoglossaceae (3)
			Calloriaceae (14)
			Cenangiaceae (11)
			Chlorociboriaceae (1)
			Chlorospleniaceae (1)
			Chrysodiscaceae (1)
			Cordieritidaceae (18)
			Dermateaceae (14)
			Discinellaceae (12)
			Drepanopezizaceae (8)
			Erysiphaceae (20)
			Gelatinodiscaceae (9)
			Godroniaceae (5)
			Helotiaceae (33)
			Heterosphaeriaceae (1)
			Hyaloscyphaceae (37)
			Lachnaceae (18)
			Leptodontidiaceae (1)
			Loramycetaceae (2)
			Mitrulaceae (1)

Table 1 Continued.

Phylum	Class*	Order*	Family*
			Mollisiaceae (18)
			Myxotrichaceae (3)
			Neolauriomycetaceae (3)
			Pezizellaceae (23)
			Ploettnerulaceae (12)
			Rutstroemiaceae (7)
			Sclerotiniaceae (31)
			Vibrisseaceae (5)
		Helotiales genera *incertae sedis* (144)	
		Lahmiales	*Lahmiaceae* (1)
		Lauriomycetales	*Lauriomycetaceae* (1)
		Leotiales	*Cochlearomycetaceae* (2)
			Leotiaceae (4)
			Mniaeciaceae (2)
			Tympanidaceae (7)
		Leotiales genera *incertae sedis* (3)	
		Lichinodiales	*Lichinodiaceae* (1)
		Marthamycetales	*Marthamycetaceae* (9)
		Medeolariales	*Medeolariaceae* (1)
		Micraspidales	*Micraspidaceae* (1)
		Phacidiales	*Helicogoniaceae* (7)
			Phacidiaceae (9)
		Phacidiales genus *incertae sedis* (1)	
		Rhytismatales	*Cudoniaceae* (2)
			Rhytismataceae (52)
			Triblidiaceae (2)
		Rhytismatales genera *incertae sedis* (9)	
		Thelebolales	*Pseudeurotiaceae* (8)
			Thelebolaceae (10)
		Thelebolales genera *incertae sedis* (3)	
	Leotiomycetes genera *incertae sedis* (20)		
	Lichinomycetes	*Lichinales*	*Gloeoheppiaceae* (3)
			Lichinaceae (43)
			Peltulaceae (1)
	Neolectomycetes	*Neolectales*	*Neolectaceae* (1)
	Orbiliomycetes	*Orbiliales*	*Orbiliaceae* (12)
		Orbiliales genus *incertae sedis* (1)	
	Orbiliomycetes genus *incertae sedis* (1)		
	Pezizomycetes	*Pezizales*	*Ascobolaceae* (5)
			Ascodesmidaceae (10)
			Caloscyphaceae (1)
			Chorioactidaceae (6)
			Discinaceae (5)
			Glaziellaceae (1)

Table 1 Continued.

Phylum	Class*	Order*	Family*
			Helvellaceae (5)
			Kallistoskyphaceae (1)
			Karstenellaceae (1)
			Morchellaceae (7)
			Pezizaceae (38)
			Pseudombrophilaceae (4)
			Pulvinulaceae (3)
			Pyronemataceae (61)
			Rhizinaceae (3)
			Sarcoscyphaceae (12)
			Sarcosomataceae (9)
			Strobiloscyphaceae (1)
			Tarzettaceae (6)
			Tuberaceae (7)
		Pezizales genera *incertae sedis* (18)	
	Pneumocystomycetes	*Pneumocystidales*	*Pneumocystidaceae* (1)
	Saccharomycetes	*Saccharomycetales*	*Alloascoideaceae* (1)
			Ascoideaceae (1)
			Cephaloascaceae (1)
			Debaryomycetaceae (13)
			Dipodascaceae (5)
			Lipomycetaceae (5)
			Metschnikowiaceae (3)
			Phaffomycetaceae (5)
			Pichiaceae (10)
			Saccharomycetaceae (16)
			Saccharomycodaceae (2)
			Saccharomycopsidaceae (2)
			Trichomonascaceae (9)
			Trigonopsidaceae (3)
		Saccharomycetales genera *incertae sedis* (21)	
	Schizosaccharomycetes	*Schizosaccharomycetales*	*Schizosaccharomycetaceae* (1)
	Sordariomycetes	*Amphisphaeriales*	*Amphisphaeriaceae* (3)
			Apiosporaceae (5)
			Beltraniaceae (9)
			Clypeophysalosporaceae (4)
			Cylindriaceae (1)
			Hansfordiaceae (1)
			Hyponectriaceae (17)
			Iodosphaeriaceae (1)
			Melogrammataceae (1)
			Phlogicylindriaceae (3)
			Pseudomassariaceae (4)
			Pseudotruncatellaceae (1)
			Sporocadaceae (33)
			Vialaeaceae (1)
		Amphisphaeriales genus *incertae sedis* (1)	
		Amplistromatales	*Amplistromataceae* (3)

Table 1 Continued.

Phylum	Class*	Order*	Family*
			Catabotryaceae (1)
		Annulatascales	*Annulatascaceae* (10)
		Annulatascales genus *incertae sedis* (1)	
		Atractosporales	*Atractosporaceae* (2)
			Conlariaceae (2)
			Pseudoproboscisporaceae (2)
		Boliniales	*Boliniaceae* (9)
		Calosphaeriales	*Calosphaeriaceae* (4)
			Jobellisiaceae (1)
			Pleurostomataceae (1)
		Calosphaeriales genera *incertae sedis* (4)	
		Cephalothecales	*Cephalothecaceae* (5)
		Chaetosphaeriales	*Chaetosphaeriaceae* (44)
			Helminthosphaeriaceae (7)
			Leptosporellaceae (1)
			Leptosporellaceae (1)
			Linocarpaceae (2)
		Chaetosphaeriales genera *incertae sedis* (7)	
		Coniochaetales	*Coniochaetaceae* (2)
			Cordanaceae (1)
		Coniochaetales genera *incertae sedis* (2)	
		Conioscyphales	*Conioscyphaceae* (1)
		Coronophorales	*Bertiaceae* (2)
			Ceratostomataceae (14)
			Chaetosphaerellaceae (3)
			Coronophoraceae (1)
			Nitschkiaceae (14)
			Scortechiniaceae (10)
		Coronophorales genera *incertae sedis* (2)	
		Delonicicolales	*Delonicicolaceae* (2)
		Diaporthales	*Apiosporopsidaceae* (1)
			Apoharknessiaceae (2)
			Asterosporiaceae (1)
			Auratiopycnidiellaceae (1)
			Coryneaceae (1)
			Cryphonectriaceae (28)
			Cytosporaceae (6)
			Diaporthaceae (15)
			Diaporthosporellaceae (1)
			Diaporthostomataceae (1)
			Dwiroopaceae (1)
			Erythrogloeaceae (4)
			Gnomoniaceae (36)
			Harknessiaceae (2)
			Juglanconidaceae (1)
			Lamproconiaceae (2)

Table 1 Continued.

Phylum	Class*	Order*	Family*
			Macrohilaceae (1)
			Melanconidaceae (1)
			Melanconiellaceae (7)
			Neomelanconiellaceae (1)
			Phaeoappendicosporaceae (2)
			Prosopidicolaceae (1)
			Pseudomelanconidaceae (2)
			Pseudoplagiostomataceae (1)
			Schizoparmaceae (1)
			Stilbosporaceae (4)
			Sydowiellaceae (16)
			Synnemasporellaceae (1)
			Tubakiaceae (8)
		Diaporthales genera *incertae sedis* (36)	
		Distoseptisporales	*Distoseptisporaceae* (1)
		Falcocladiales	*Falcocladiaceae* (1)
		Fuscosporellales	*Fuscosporellaceae* (6)
		Glomerellales	*Australiascaceae* (1)
			Glomerellaceae (1)
			Malaysiascaceae (1)
			Plectosphaerellaceae (24)
			Reticulascaceae (4)
		Glomerellales genus *incertae sedis* (1)	
		Hypocreales	*Bionectriaceae* (47)
			Calcarisporiaceae (1)
			Clavicipitaceae (42)
			Cocoonihabitaceae (1)
			Cordycipitaceae (17)
			Flammocladiellaceae (1)
			Hypocreaceae (17)
			Myrotheciomycetaceae (4)
			Nectriaceae (69)
			Niessliaceae (21)
			Ophiocordycipitaceae (10)
			Sarocladiaceae (2)
			Stachybotryaceae (39)
			Tilachlidiaceae (3)
		Hypocreales genera *incertae sedis* (29)	
		Jobellisiales	*Jobellisiaceae* (1)
		Koralionastetales	*Koralionastetaceae* (2)
		Lulworthiales	*Lulworthiaceae* (15)
		Magnaporthales	*Ceratosphaeriaceae* (1)
			Magnaporthaceae (22)
			Ophioceraceae (1)
			Pseudohalonectriaceae (1)
			Pyriculariaceae (11)
		Meliolales	*Armatellaceae* (1)
			Meliolaceae (8)
		Microascales	*Ceratocystidaceae* (11)

Table 1 Continued.

Phylum	Class*	Order*	Family*
			Chadefaudiellaceae (2)
			Gondwanamycetaceae (2)
			Graphiaceae (1)
			Halosphaeriaceae (66)
			Microascaceae (23)
			Triadelphiaceae (2)
		Microascales genera *incertae sedis* (6)	
		Myrmecridiales	*Myrmecridiaceae* (2)
			Xenodactylariaceae (1)
		Ophiostomatales	*Kathistaceae* (2)
			Ophiostomataceae (13)
		Pararamichloridiales	*Pararamichloridiaceae* (1)
		Parasympodiellales	*Parasympodiellaceae* (1)
		Phomatosporales	*Phomatosporaceae* (3)
		Phyllachorales	*Phaeochoraceae* (4)
			Phaeochorellaceae (1)
			Phyllachoraceae (54)
			Telimenaceae (1)
		Phyllachorales genus *incertae sedis* (1)	
		Pisorisporiales	*Pisorisporiaceae* (2)
		Pleurotheciales	*Pleurotheciaceae* (11)
		Pseudodactylariales	*Pseudodactylariaceae* (1)
		Savoryellales	*Savoryellaceae* (4)
		Sordariales	*Chaetomiaceae* (37)
			Lasiosphaeriaceae (32)
			Podosporaceae (3)
			Sordariaceae (7)
		Sordariales genera *incertae sedis* (22)	
		Spathulosporales	*Hispidicarpomycetaceae* (1)
			Spathulosporaceae (2)
		Sporidesmiales	*Sporidesmiaceae* (1)
		Tirisporellales	*Tirisporellaceae* (3)
		Togniniales	*Togniniaceae* (2)
		Torpedosporales	*Etheirophoraceae* (2)
			Juncigenaceae (5)
			Torpedosporaceae (1)
		Tracyllalales	*Tracyllaceae* (1)
		Vermiculariopsiellales	*Vermiculariopsiellaceae* (1)
		Xenospadicoidales	*Xenospadicoidaceae* (5)
		Xylariales	*Anungitiomycetaceae* (1)
			Barrmaeliaceae (2)
			Castanediellaceae (1)
			Clypeosphaeriaceae (6)
			Coniocessiaceae (2)
			Diatrypaceae (20)
			Fasciatisporaceae (1)
			Graphostromataceae (5)
			Hypoxylaceae (19)
			Induratiaceae (2)
			Leptosilliaceae (1)
			Lopadostomataceae (4)

Table 1 Continued.

Phylum	Class*	Order*	Family*
			Microdochiaceae (3)
			Myelospermataceae (1)
			Nothodactylariaceae (1)
			Oxydothidaceae (1)
			Polystigmataceae (1)
			Pseudosporidesmiaceae (1)
			Requienellaceae (4)
			Xyladictyochaetaceae (1)
			Xylariaceae (32)
			Zygosporiaceae (1)
		Xylariales genera *incertae sedis* (56)	
		Incertae sedis	*Acrodictyaceae* (1)
			Barbatosphaeriaceae (3)
			Batistiaceae (1)
			Cainiaceae (6)
			Junewangiaceae (2)
			Lautosporaceae (1)
			Obryzaceae (1)
			Papulosaceae (4)
			Rhamphoriaceae (4)
			Thyridiaceae (2)
			Trichosphaeriaceae (10)
			Woswasiaceae (3)
	Sordariomycetes genera *incertae sedis* (131)		
	Taphrinomycetes	*Taphrinales*	*Protomycetaceae* (6)
			Taphrinaceae (1)
	Xylobotryomycetes	*Xylobotryales*	*Cirrosporiaceae* (1)
			Xylobotryaceae (1)
	Xylonomycetes	*Symbiotaphrinales*	*Symbiotaphrinaceae* (1)
		Xylonales	*Xylonaceae* (2)
	Incertae sedis	*Thelocarpales*	*Thelocarpaceae* (2)
		Vezdaeales	*Vezdaeaceae* (1)
	Incertae sedis	*Incertae sedis*	*Aphanopsidaceae* (2)
			Diporothecaceae (1)
			Eoterfeziaceae (2)
			Harpidiaceae (2)
			Mucomassariaceae (1)
			Saccardiaceae (7)
			Seuratiaceae (2)
			Strangosporaceae (1)
Ascomycota genera *incertae sedis* (1485)			
Basidiobolomycota	*Basidiobolomycetes*	*Basidiobolales*	*Basidiobolaceae* (2)
Basidiomycota	*Agaricomycetes*	*Agaricales*	*Agaricaceae* (59)
			Amanitaceae (5)
			Biannulariaceae (7)
			Bolbitiaceae (15)
			Broomeiaceae (1)
			Chromocyphellaceae (1)
			Clavariaceae (10)

Table 1 Continued.

Phylum	Class*	Order*	Family*
			Cortinariaceae (5)
			Crassisporiaceae (2)
			Crepidotaceae (6)
			Cyphellaceae (16)
			Cystostereaceae (7)
			Entolomataceae (7)
			Hemigasteraceae (1)
			Hydnangiaceae (4)
			Hygrophoraceae (26)
			Hymenogastraceae (10)
			Inocybaceae (3)
			Limnoperdaceae (1)
			Lycoperdaceae (7)
			Lyophyllaceae (18)
			Macrocystidiaceae (1)
			Marasmiaceae (10)
			Mycenaceae (16)
			Mythicomycetaceae (2)
			Niaceae (9)
			Omphalotaceae (14)
			Physalacriaceae (28)
			Pleurotaceae (5)
			Pluteaceae (3)
			Porotheleaceae (2)
			Psathyrellaceae (13)
			Pseudoclitocybaceae (7)
			Pterulaceae (13)
			Schizophyllaceae (3)
			Stephanosporaceae (5)
			Strophariaceae (11)
			Tricholomataceae (10)
			Tubariaceae (7)
			Typhulaceae (4)
		Agaricales genera *incertae sedis* (134)	
		Amylocorticiales	*Amylocorticiaceae* (11)
		Atheliales	*Atheliaceae* (20)
		Auriculariales	*Auriculariaceae* (12)
			Hyaloriaceae (3)
		Auriculariales genera *incertae sedis* (31)	
		Boletales	*Boletaceae* (92)
			Boletinellaceae (2)
			Calostomataceae (1)
			Coniophoraceae (5)
			Diplocystidiaceae (4)
			Gasterellaceae (1)
			Gomphidiaceae (4)
			Gyroporaceae (1)
			Hygrophoropsidaceae (2)
			Paxillaceae (10)
			Protogastraceae (1)
			Rhizopogonaceae (3)
			Sclerodermataceae (5)

Table 1 Continued.

Phylum	Class*	Order*	Family*
			Serpulaceae (3)
			Suillaceae (2)
			Tapinellaceae (3)
		Boletales genera *incertae sedis* (4)	
		Cantharellales	*Aphelariaceae* (3)
			Botryobasidiaceae (5)
			Ceratobasidiaceae (6)
			Hydnaceae (21)
			Oliveoniaceae (1)
			Tulasnellaceae (2)
	Bartheletiomycetes	*Bartheletiales*	*Bartheletiaceae* (1)
		Cantharellales genera *incertae sedis* (8)	
		Corticiales	*Corticiaceae* (12)
			Dendrominiaceae (1)
			Punctulariaceae (3)
			Vuilleminiaceae (3)
		Corticiales genera *incertae sedis* (7)	
		Geastrales	*Geastraceae* (7)
			Sclerogastraceae (1)
		Geastrales genus *incertae sedis* (1)	
		Gloeophyllales	*Gloeophyllaceae* (12)
		Gloeophyllales genus *incertae sedis* (1)	
		Gomphales	*Clavariadelphaceae* (2)
			Gomphaceae (14)
			Lentariaceae (3)
		Hymenochaetales	*Hymenochaetaceae* (40)
			Neoantrodiellaceae (1)
			Nigrofomitaceae (1)
			Oxyporaceae (1)
			Rickenellaceae (8)
			Schizoporaceae (13)
		Hymenochaetales genera *incertae sedis* (15)	
		Hysterangiales	*Gallaceaceae* (3)
			Hysterangiaceae (4)
			Mesophelliaceae (8)
			Phallogastraceae (2)
			Trappeaceae (3)
		Jaapiales	*Jaapiaceae* (1)
		Lepidostromatales	*Lepidostromataceae* (3)
		Phallales	*Claustulaceae* (5)
			Gastrosporiaceae (1)
			Phallaceae (26)
		Phallales genera *incertae sedis* (2)	
		Polyporales	*Cerrenaceae* (4)
			Dacryobolaceae (7)
			Fomitopsidaceae (25)

Table 1 Continued.

Phylum	Class*	Order*	Family*
			Fragiliporiaceae (1)
			Gelatoporiaceae (4)
			Grifolaceae (2)
			Hyphodermataceae (1)
			Incrustoporiaceae (5)
			Irpicaceae (14)
			Ischnodermataceae (1)
			Laetiporaceae (3)
			Meripilaceae (3)
			Meruliaceae (22)
			Panaceae (2)
			Phanerochaetaceae (18)
			Podoscyphaceae (3)
			Polyporaceae (85)
			Sparassidaceae (3)
			Steccherinaceae (22)
		Polyporales genera *incertae sedis* (67)	
		Russulales	*Albatrellaceae* (8)
			Auriscalpiaceae (6)
			Bondarzewiaceae (9)
			Echinodontiaceae (3)
			Hericiaceae (6)
			Hybogasteraceae (1)
			Peniophoraceae (16)
			Russulaceae (7)
			Stereaceae (22)
			Xenasmataceae (3)
		Russulales genera *incertae sedis* (15)	
		Sebacinales	*Sebacinaceae* (8)
			Serendipitaceae (1)
		Stereopsidales	*Stereopsidaceae* (1)
		Thelephorales	*Bankeraceae* (5)
			Thelephoraceae (9)
		Thelephorales genus *incertae sedis* (1)	
		Trechisporales	*Hydnodontaceae* (13)
		Tremellodendropsidales	*Tremellodendropsidaceae* (1)
	Agaricomycetes genera *incertae sedis* (40)		
	Agaricostilbomycetes	*Agaricostilbales*	*Agaricostilbaceae* (3)
			Chionosphaeraceae (5)
			Kondoaceae (2)
			Ruineniaceae (1)
		Agaricostilbales genera *incertae sedis* (2)	
	Atractiellomycetes	*Atractiellales*	*Atractogloeaceae* (1)
			Hoehnelomycetaceae (2)
			Phleogenaceae (7)
	Classiculomycetes	*Classiculales*	*Classiculaceae* (2)

Table 1 Continued.

Phylum	Class*	Order*	Family*
	Cryptomycocolacomycetes	*Cryptomycocolacales*	*Cryptomycocolacaceae* (2)
	Cystobasidiomycetes	*Buckleyzymales*	*Buckleyzymaceae* (1)
		Cystobasidiales	*Cystobasidiaceae* (3)
		Erythrobasidiales	*Erythrobasidiaceae* (2)
		Erythrobasidiales genera *incertae sedis* (3)	
		Naohideales	*Naohideaceae* (1)
		Sakaguchiales	*Sakaguchiaceae* (1)
		Incertae sedis	*Microsporomycetaceae* (1)
		Incertae sedid	*Symmetrosporaceae*(1)
	Cystobasidiomycetes genus *incertae sedis* (1)		
	Dacrymycetes	*Dacrymycetales*	*Cerinomycetaceae* (1)
			Dacrymycetaceae (10)
		Unilacrymales	*Unilacrymaceae* (1)
	Exobasidiomycetes	*Ceraceosorales*	*Ceraceosoraceae* (1)
		Doassansiales	*Doassansiaceae* (11)
			Melaniellaceae (1)
			Rhamphosporaceae (1)
		Entylomatales	*Entylomataceae* (2)
		Exobasidiales	*Brachybasidiaceae* (5)
			Cryptobasidiaceae (6)
			Exobasidiaceae (4)
			Graphiolaceae (2)
			Laurobasidiaceae (1)
		Georgefischeriales	*Eballistraceae* (1)
			Georgefischeriaceae (2)
			Gjaerumiaceae (1)
			Tilletiariaceae (3)
		Golubeviales	*Golubeviaceae* (1)
		Microstromatales	*Microstromataceae* (1)
			Quambalariaceae (1)
			Volvocisporiaceae (1)
		Microstromatales genera *incertae sedis* (4)	
		Robbauerales	*Robbaueraceae* (1)
		Tilletiales	*Erratomycetaceae* (1)
			Tilletiaceae (6)
	Malasseziomycetes	*Malasseziales*	*Malasseziaceae* (1)
	Microbotryomycetes	*Heterogastridiales*	*Heterogastridiaceae* (3)
		Kriegeriales	*Camptobasidiaceae* (2)
			Kriegeriaceae (4)
		Leucosporidiales	*Leucosporidiaceae* (1)
		Microbotryales	*Microbotryaceae* (4)
			Ustilentylomataceae (4)
		Sporidiobolales	*Sporidiobolaceae* (3)
		Incertae sedis	*Chrysozymaceae* (4)
			Colacogloeaceae (1)
	Microbotryomycetes genera *incertae sedis* (15)		
	Mixiomycetes	*Mixiales*	*Mixiaceae* (1)
	Moniliellomycetes	*Moniliellales*	*Moniliellaceae* (1)

Table 1 Continued.

Phylum	Class*	Order*	Family*
	Pucciniomycetes	*Helicobasidiales*	*Helicobasidiaceae* (2)
		Pachnocybales	*Pachnocybaceae* (1)
		Platygloeales	*Eocronartiaceae* (5)
			Platygloeaceae (4)
		Pucciniales	*Chaconiaceae* (9)
			Coleosporiaceae (5)
			Cronartiaceae (3)
			Melampsoraceae (1)
			Mikronegeriaceae (3)
			Phakopsoraceae (15)
			Phragmidiaceae (13)
			Pileolariaceae (4)
			Pucciniaceae (21)
			Pucciniastraceae (10)
			Pucciniosiraceae (10)
			Raveneliaceae (24)
			Sphaerophragmiaceae (2)
			Uncolaceae (2)
			Uropyxidaceae (16)
		Pucciniales genera *incertae sedis* (24)	
		Septobasidiales	*Septobasidiaceae* (6)
	Spiculogloeomycetes	*Spiculogloeales*	*Spiculogloeaceae* (2)
	Tremellomycetes	*Cystofilobasidiales*	*Cystofilobasidiaceae* (1)
			Mrakiaceae (7)
		Filobasidiales	*Filobasidiaceae* (5)
			Piskurozymaceae (2)
		Holtermanniales	*Holtermanniaceae* (2)
		Tremellales	*Bulleraceae* (4)
			Bulleribasidiaceae (6)
			Carcinomycetaceae (1)
			Cryptococcaceae (2)
			Cuniculitremaceae (3)
			Naemateliaceae (2)
			Phaeotremellaceae (2)
			Phragmoxenidiaceae (1)
			Rhynchogastremaceae (3)
			Sirobasidiaceae (1)
			Tremellaceae (3)
			Trimorphomycetaceae (4)
		Tremellales genera *incertae sedis* (8)	
		Trichosporonales	*Tetragoniomycetaceae* (3)
			Trichosporonaceae (8)
	Tremellomycetes genera *incertae sedis* (3)		
	Tritirachiomycetes	*Tritirachiales*	*Tritirachiaceae* (2)
	Ustilaginomycetes	*Uleiellales*	*Uleiellaceae* (1)

Table 1 Continued.

Phylum	Class*	Order*	Family*
		Urocystidales	*Doassansiopsidaceae* (1)
			Fereydouniaceae (1)
			Floromycetaceae (2)
			Glomosporiaceae (1)
			Mycosyringaceae (1)
			Urocystidaceae (7)
		Ustilaginales	*Anthracoideaceae* (19)
			Cintractiellaceae (1)
			Clintamraceae (1)
			Geminaginaceae (1)
			Melanotaeniaceae (3)
			Pericladiaceae (1)
			Ustilaginaceae (6)
			Websdaneaceae (2)
		Ustilaginales genera *incertae sedis* (20)	
		Violaceomycetales	*Violaceomycetaceae* (1)
	Ustilaginomycetes genus *incertae sedis* (1)		
	Wallemiomycetes	*Geminibasidiales*	*Geminibasidiaceae* (2)
		Wallemiales	*Wallemiaceae* (1)
	Wallemiomycetes genus *incertae sedis* (1)		
Basidiomycota genera *incertae sedis* (11)			
Blastocladiomycota	*Blastocladiomycetes*	*Blastocladiales*	*Blastocladiaceae* (3)
			Catenariaceae (2)
			Paraphysodermataceae (1)
			Sorochytriaceae (1)
		Blastocladiales genus *incertae sedis* (1)	
		Callimastigales	*Callimastigaceae* (1)
			Coelomomycetaceae (2)
		Catenomycetales	*Catenomycetaceae* (1)
	Blastocladiomycetes genus *incertae sedis* (1)		
	Physodermatomycetes	*Physodermatales*	*Physodermataceae* (1)
Calcarisporiellomycota	*Calcarisporiellomycetes*	*Calcarisporiellales*	*Calcarisporiellaceae* (2)
Caulochytriomycota	*Caulochytriomycetes*	*Caulochytriales*	*Caulochytriaceae* (1)
Chytridiomycota	*Chytridiomycetes*	*Chytridiales*	*Asterophlyctaceae* (2)
			Chytridiaceae (6)
			Chytriomycetaceae (11)
			Phlyctochytriaceae (1)
			Phlyctorhizaceae (1)
			Pseudorhizidiaceae (1)
			Scherffeliomycetaceae (1)
			Zygorhizidiaceae (1)

Table 1 Continued.

Phylum	Class*	Order*	Family*
		Chytridiales genus *incertae sedis* (1)	
		Nephridiophagales	*Nephridiophagaceae* (4)
		Polyphagales	*Polyphagaceae* (1)
		Saccopodiales	*Saccopodiaceae* (1)
		Incertae sedis	*Amoebochytriaceae* (1)
			Sparrowiaceae (1)
			Sphaeromonadaceae (1)
			Tetrachytriaceae (1)
			Thalassochytriaceae (1)
	Chytridiomycetes genera *incertae sedis* (39)		
	Cladochytriomycetes	*Cladochytriales*	*Catenochytridiaceae* (1)
			Cladochytriaceae (1)
			Endochytriaceae (2)
			Nowakowskiellaceae (1)
			Septochytriaceae (1)
		Cladochytriales genera *incertae sedis* (3)	
	Lobulomycetes	*Lobulomycetales*	*Alogomycetaceae* (1)
			Lobulomycetaceae (4)
		Lobulomycetales genus *incertae sedis* (1)	
	Mesochytriomycetes	*Gromochytriales*	*Gromochytriaceae* (1)
		Mesochytriales	*Mesochytriaceae* (1)
	Polychytriomycetes	*Polychytriales*	*Arkayaceae* (1)
			Polychytriaceae (4)
	Rhizophydiomycetes	*Rhizophydiales*	*Alphamycetaceae* (3)
			Angulomycetaceae (1)
			Aquamycetaceae (1)
			Batrachochytriaceae (1)
			Collimycetaceae (1)
			Coralloidiomycetaceae (1)
			Dinomycetaceae (1)
			Globomycetaceae (2)
			Gorgonomycetaceae (1)
			Halomycetaceae (4)
			Kappamycetaceae (1)
			Operculomycetaceae (1)
			Pateramycetaceae (1)
			Protrudomycetaceae (1)
			Rhizophydiaceae (1)
			Staurastromycetaceae (1)
			Terramycetaceae (2)
			Uebelmesseromycetaceae (1)
		Rhizophydiales genus *incertae sedis* (1)	
	Rhizophlyctidomycetes	*Rhizophlyctidales*	*Arizonaphlyctidaceae* (1)
			Borealophlyctidaceae (1)

Table 1 Continued.

Phylum	**Class***	**Order***	**Family***
			Rhizophlyctidaceae (1)
			Sonoraphlyctidaceae (1)
	Spizellomycetes	*Spizellomycetales*	*Powellomycetaceae* (4)
			Spizellomycetaceae (8)
	Synchytriomycetes	*Synchytriales*	*Synchytriaceae* (4)
		Synchytriales genus *incertae sedis* (1)	
Chytridiomycota genera *incertae sedis* (3)			
Entomophthoromycota	*Entomophthoromycetes*	*Entomophthorales*	*Ancylistaceae* (3)
			Completoriaceae (1)
			Entomophthoraceae (11)
			Meristacraceae (1)
	Neozygitomycetes	*Neozygitales*	*Neozygitaceae* (4)
Entorrhizomycota	*Entorrhizomycetes*	*Entorrhizales*	*Entorrhizaceae* (1)
		Talbotiomycetales	*Talbotiomycetaceae* (1)
Glomeromycota	*Archaeosporomycetes*	*Archaeosporales*	*Ambisporaceae* (1)
			Archaeosporaceae (3)
			Geosiphonaceae (1)
	Glomeromycetes	*Diversisporales*	*Acaulosporaceae* (1)
			Diversisporaceae (7)
			Pacisporaceae (1)
			Sacculosporaceae (1)
		Gigasporales	*Dentiscutataceae* (3)
			Gigasporaceae (1)
			Intraornatosporaceae (2)
			Racocetraceae (2)
			Scutellosporaceae (3)
		Glomerales	*Entrophosporaceae* (3)
			Glomeraceae (17)
	Paraglomeromycetes	*Paraglomerales*	*Paraglomeraceae* (2)
			Pervetustaceae (1)
Kickxellomycota	*Asellariomycetes*	*Asellarialles*	*Asellariaceae* (1)
		Asellariales genus *incertae sedis* (1)	
	Barbatosporomycetes	*Barbatosporales*	*Barbatosporaceae* (1)
	Dimargaritomycetes	*Dimargaritales*	*Dimargaritaceae* (3)
		Dimargaritales genus *incertae sedis* (1)	
	Harpellomycetes	*Harpellales*	*Harpellaceae* (6)
			Legeriomycetaceae (38)
		Harpellales genus *incertae sedis* (1)	
	Kickxellomycetes	*Kickxellales*	*Kickxellaceae* (11)
	Ramicandelaberomycetes	*Ramicandelaberales*	*Ramicandelaberaceae* (1)
Monoblepharomycota	*Hyaloraphidiomycetes*	*Hyaloraphidiales*	*Hyaloraphidiaceae* (1)
	Monoblepharidomycetes	*Monoblepharidales*	*Gonapodyaceae* (2)
			Harpochytriaceae (1)
			Monoblepharidaceae (1)

Table 1 Continued.

Phylum	Class*	Order*	Family*
			Oedogoniomycetaceae (1)
			Telasphaerulaceae (1)
	Sanchytriomycetes	*Sanchytriales*	*Sanchytriaceae* (2)
Mortierellomycota	*Mortierellomycetes*	*Mortierellales*	*Mortierellaceae* (6)
Mucoromycota	*Endogonomycetes*	*Endogonales*	*Densosporaceae* (1)
			Endogonaceae (5)
	Mucoromycetes	*Mucorales*	*Backusellaceae* (1)
			Choanephoraceae (4)
			Cunninghamellaceae (6)
			Lentamycetaceae (1)
			Lichtheimiaceae (9)
			Mucoraceae (20)
			Mycocladaceae (1)
			Mycotyphaceae (1)
			Phycomycetaceae (2)
			Pilobolaceae (2)
			Radiomycetaceae (1)
			Rhizopodaceae (3)
			Saksenaeaceae (2)
			Syncephalastraceae (2)
	Umbelopsidomycetes	*Umbelopsidales*	*Umbelopsidaceae* (1)
Mucoromycota genus *incertae sedis* (1)			
Neocallimastigomycota	*Neocallimastigomycetes*	*Neocallimastigales*	*Neocallimastigaceae* (11)
Olpidiomycota	*Olpidiomycetes*	*Olpidiales*	*Olpidiaceae* (4)
Rozellomycota	*Rudimicrosporea*	*Metchnikovellida*	*Amphiacanthidae* (1)
			Metchnikovellidae (4)
	Microsporidea	*Amblyosporida*	*Amblyosporidae* (17)
			Caudosporidae (10)
			Gurleyidae (13)
		Amblyosporida genera *incertae sedis* (5)	
		Neopereziida	*Berwaldiidae* (2)
			Neopereziidae (6)
			Tubulinosematidae (3)
		Neopereziida genera *incertae sedis* (2)	
		Ovavesiculida	*Ovavesiculidae* (3)
		Ovavesiculida genus *incertae sedis* (1)	
		Glugeida	*Facilisporidae* (1)
			Glugeidae (8)
			Myosporidae (1)
			Pereziidae (4)
			Pleistophoridae (7)
			Spragueidae (7)
			Thelohaniidae (15)
			Unikaryonidae (4)

Table 1 Continued.

Phylum	Class*	Order*	Family*
		Glugeida genus *incertae sedis* (1)	
		Nosematida	*Encephalitozoonidae* (2)
			Enterocytozoonidae (6)
			Heterovesiculidae (1)
			Mrazekiidae (8)
			Nosematidae (2)
			Ordosporidae (1)
		Nosematida genera *incertae sedis* (15)	
		Incertae sedis	*Abelsporidae* (1)
			Areosporiidae (1)
			Burenellidae (3)
			Cougourdellidae (1)
			Cylindrosporidae (1)
			Duboscqiidae (5)
			Golbergiidae (3)
			Microfilidae (1)
			Neonosemoidiidae (1)
			Pleistosporidiidae (1)
			Pseudopleistophoridae (2)
			Striatosporidae (1)
			Telomyxidae (1)
			Toxoglugeidae (2)
			Tuzetiidae (4)
	Incertae sedis	*Chytridiopsidea*	*Buxtehudidae* (2)
			Chytridiopsidae (5)
			Hesseidae (1)
Rozellomycota genera *incertae sedis* (5)			
Zoopagomycota	*Zoopagomycetes*	*Zoopagales*	*Cochlonemataceae* (7)
			Helicocephalidaceae (4)
			Piptocephalidaceae (3)
			Sigmoideomycetaceae (4)
			Zoopagaceae (7)
		Zoopagales genus *incertae sedis* (1)	

*Orders/families could be listed under different subclasses in this outline. In this table, we do not indicate auxiliary (intermediate) taxonomic ranks.

Fossil Fungi

Fossil fungi are reported in the form of dispersed spores, mycelia, sporophores, mycorrhizae, and are commonly observed in macerated residues prepared for palynological studies. Although fungal remains are encountered in the sediments of all ages, their frequency increases remarkably in the Tertiary Period. This clearly suggests that their proliferation is linked with diversification of angiosperms. Being fragmentary in nature, fossil fungi lack characteristic features that are diagnostic of extant taxa, hampering their classification with extant fungi. These are, therefore, described on the basis of morphological characters only. For example, spore taxa are based on their shape, size, symmetry, number and nature of apertures, septa and spore wall characters. On the other hand, fossil fungi (other than spores) can be assigned to their extant counterpart (up to order/family level).

Artificial classification systems for fungal spores have been proposed by Van der Hammen (1954), Clarke (1965) and Elsik (1968). Pirozynski & Weresub (1979) suggested the use of the 'Saccardoan System' for classifying fungal spore types. Kendrick & Nag Raj (1979) modified the Saccardoan System to eliminate some of its inconsistencies. This scheme is based on shape and number of cells and accordingly fungal spores are recognized under *Amerosporae*, *Didymosporae*, *Phragmosporae*, *Dictyosporae*, *Helicosporae*, *Staurosporae* and *Scolecosporae*. This system is followed here.

Fungal sporophores of various kinds commonly occur on the surface of leaves, stems and flowers of vascular plants and have been extensively recorded over the world (Cookson 1947, Dilcher 1965, Elsik 1968, Kalgutkar & Jansonius 2000, van Geel & Aptroot 2006). Some are catathecia provided with radiating rows of mycelial cells giving an appearance of tissues arranged in a radial fashion. Ascomata contain asci that are surrounded by or enclosed within protective tissues and may be globose, flask-shaped or saucer-shaped open bodies. These may or may not possess an ostiolar opening. Fossil sporophores are also placed under artificial genera. Several workers have attempted to classify and formally describe the fossil structures (Edwards 1922, Rosendahl 1943, Cookson 1947, Rao 1959, Dilcher 1965, Venkatachala & Kar 1969, Jain & Gupta 1970, Elsik 1978, Pirozynski 1978). Fossil sporophores are classified on the basis of dehiscence mode (through irregular or regular cracking pattern or by a central pore or ostiole). Other characteristic features considered for their classification are shape and margin of the sporophores, presence or absence of pores in individual cells and nature of the central part of the sporophores.

Slime molds

The terms 'slime molds' or 'mycetozoans' have traditionally been used to describe motile, unicellular terrestrial predatory phagotrophs, which are capable of forming minute to relatively large spore-producing structures, referred to as fruiting bodies. The slime molds in which unicellular units aggregate to form first a *pseudoplasmodium* and then a *sporocarp* are referred to as cellular slime molds. Those organisms in which the cells remain solitary but undergo a dramatic increase in size and the number of nuclei to form a *plasmodium* and then a *sporocarp* are referred to as plasmodial slime molds (Martin & Alexopoulos 1969). Both groups are polyphyletic. They represent two peculiar life strategies, which have appeared several times in different groups of Eukaryotes (Shadwick et al. 2009, Brown & Silberman 2013). A strategy similar to what is found in cellular slime molds also occurs in the prokaryotic myxobacteria, which are sometimes predatory but never phagotrophic (Keane & Berlemann 2016). The major groups of slime molds are listed in Table 2.

The slime molds were once considered as fungi, due to the presence of spore-producing structures in their life cycle. However, as it was pointed out long ago by de Bary (1887), these similarities relate only the dispersal biology of these groups. Slime molds do not have a fungal form of life, being predominately phagotrophic, demonstrating active motility and lacking a cell wall during their trophic stages. Consequently, the slime molds cannot be assigned to the kingdom *Fungi* in a taxonomic sense, but their nomenclature remains governed by the *International Code of Nomenclature for algae, fungi, and plants*. However, an exception is *Fonticula alba* (Brown et al. 2009) which belongs to the true *Fungi* (*Nucletmycea sensu* Adl et al. 2019), being a solitary slime mold that can be considered as a fungus in the taxonomic sense.

Eumycetozoa

Among the groups of slime molds, the *Eumycetozoa* (the "true" slime molds) are the most diverse and most complex in terms of morphology. All available phylogenies support the placement of these organisms in the supergroup *Amoebozoa* (Shadwick et al. 2009, Tice et al. 2016, Kang et al. 2017) (Table 2).

The name *Eumycetozoa* was initially proposed for three groups of slime molds – the myxomycetes, dictyostelids and protostelids (Olive & Stoianovitch 1975). However, the latter

taxon appears to be polyphyletic and includes spore-forming members of several different branches of the Amoebozoa, including the *Protosporangiida*, *Protostelida sensu stricto*, *Fractovitellida*, *Cavosteliida*, *Centramoebia* and *Flabellinea* (see Table 2). This has led to the conclusion that if all the protostelids with all their non-fruiting relatives are included in the *Eumycetozoa*, the latter becomes nearly synonymous with the *Amoebozoa* (Shadwick et al. 2009). To preserve this widely used name, Kang et al. (2017) proposed including in the *Eumycetozoa* only one group of protostelids, the *Protosporangiida*, which forms a monophyletic unit with myxomycetes and dictyostelids.

In terms of botanical nomenclature, the *Protosporangiida* may be considered as the class *Ceratiomyxomycota* (Leontyev et al. 2019). Therefore, in the classification given below, we recognize three classes within the *Eumycetozoa*. These are the *Dictyosteliomycetes*, *Ceratiomyxomycetes* and *Myxomycetes*, as outlined by Leontyev et al. (2019).

Table 2 Position of the cellular (C) and plasmodial (P) slime mold taxa in the classification of Eukaryotes, according to Adl et al. (2019)

Supergroups of Eukarya			**Group of slime molds**
Amoebozoa	*Evosea*	*Eumycetozoa*	*Dictyosteliomycetes* (C)
			Ceratiomyxomycetes (P)
			= *Protosporangiida*
			Myxomycetes (P)
		Protosteliida	*Protostelium* (P)
		Fractovitellida	*Ceratiomyxella* (P)
			Nematostelium (P)
			Schizoplasmodium (P)
			Soliformovum (P)
		Cavosteliida	*Cavostelium* (P)
			Schizoplasmodiopsis (P)
			Tychosporium (P)
	Tubulinea	*Euamoebida*	*Copromyxa* (C)
	Discosea	*Centramoebia*	*Endostelium* (P)
			Luapelamoeba (P)
			Protosteliopsis (P)
		Flabellinea	*Vannella* (P)
Discoba	*Heterolobosea*	*Tetramitia*	*Acrasidae* (C)
Obazoa	*Opisthokonta*	*Nucletmycea*	*Fonticulida* (C)
Sar	*Alveolata*	*Ciliata*	*Sorogena* (C)
	Rhizaria	*Guttulinopsida*	*Guttulinopsis* (C)
	Stramenopiles	*Sagenista*	*Sorodiplophrys* (C)

Dictyosteliomycetes

The dictyostelid cellular slime molds (also called dictyostelids) are common to sometimes abundant inhabitants of forest soil and leaf litter (Romeralo et al. 2013), grassland soil (Rollins et al. 2010), canopy soil (Stephenson & Landolt 1998, 2011), the soil of agricultural fields (Stephenson & Rajguru 2010) and animal dung (Stephenson & Landolt 1992), where they feed primarily on bacteria (Singh 1947, Cavender & Raper 1965a, b). Raper & Smith (1939) and Sanders et al. (2017) reported that dictyostelids can feed on pathogenic bacteria, including biofilm enmeshed bacteria produced by human and plant pathogens. Interestingly, migratory birds have been demonstrated to serve as vectors for dictyostelids (Suthers 1985), which greatly increases their potential for long-distance dispersal.

The first species of dictyostelid, *Dictyostelium mucoroides*, was isolated from horse dung and rabbit dung by Brefeld (1869). Later, a number of additional species and three additional genera (*Acytostelium*, *Coenonia* and *Polysphondylium*) were described, although one of these (*Coenonia*) has not been isolated since it was first described by van Tieghem in 1884. It is possible that this organism is not a dictyostelid. Traditionally, these four genera (if *Coenonia* is

retained), two families, and one order were classified on the basis of the morphology of the sorophore and the pattern of branching (Raper 1984, Hagiwara 1989). This type of traditional morphology-based classification was used by everyone working with dictyostelids until a phylogenetic analysis based on 18S rRNA and α-tubulin gene markers indicated that the group needed a complete revision (Schaap et al. 2006, Romeralo et al. 2011, 2012), and the traditional genera did not hold together. More recently, a new classification of the class was proposed by Sheikh et al. (2018), using a single 18S rRNA gene marker. This new classification provided additional insight into the phylogeny of dictyostelids, with 12 genera, four families, and two orders currently being recognized (Table 3).

Ceratiomyxomycetes

This class unites protosteloid eumycetozoans, in which individual sporocarps may arise separately on a substrate (*Protosporangium* and *Clastostelium*), or form on a common layer of extracellular slime, which may be smooth, poroid or dissected into variously branched pillars (*Ceratiomyxa*) (Shadwick et al. 2009). This group was initially described under the zoological name *Protosporangiida* (Kang et al. 2017). The botanical name *Ceratiomyxomycetes* was proposed by Hawksworth et al. (1983) as *nom. inval.* (ICN, Art. 39.1), and later validated by Leontyev et al. (2019).

Myxomycetes

The myxomycetes (or myxogastrids, *Myxogastrea*) differ from the rest of the slime molds by their capability to form large fruiting bodies with a complicated structure, which may contain millions of spores. The traditional classification, first proposed by Massee (1892) and later developed by Martin & Alexopoulos (1969), recognized within the myxomycetes four or five orders (*Echinosteliales*, *Liceales*, *Physarales*, *Stemonitales*, and *Trichiales*) based on a number of criteria, including the presence or absence of a capillitium and lime deposits in the fruiting bodies. This classification received worldwide recognition and was applied even in the most recent monographs (e.g., Poulain et al. 2011). However, the results obtained from studies of the molecular phylogeny of myxomycetes have shown that this classification does not properly reflect evolutionary relationships within the group (Fiore-Donno et al. 2012, 2013). Based on a comprehensive review of all published phylogenies of myxomycete subgroups and the full-length 18S rDNA phylogeny of the entire group, a new classification of the class was recently proposed (Leontyev et al. 2019). In this classification, myxomycetes are divided into 13 families, nine orders, four superorders and two subclasses, the *Lucisporomycetidae* and the *Columellomycetidae* (Table 3). An additional order for the group is proposed below.

For a very long time, scientists studying myxomycetes have had a consensus about the use of botanical nomenclature (in its mycological version) for the myxomycetes. This nomenclature has been used in practically all published monographs of the group, from the late 19th century (Lister 1894) to the most recent efforts (Poulain et al. 2011). This agrees with the statement in Preamble 8 of the *International Code of Nomenclature for algae, fungi, and plants*, that the 'slime molds' are among the organisms for which the Code is applied (Turland et al. 2018). In contrast, the *International Code of Zoological Nomenclature* does not mention slime molds, eumycetozoans or myxomycetes (Ride et al. 1999). As indicated by Ronikier & Halamski (2018), a transfer of myxomycetes to zoological nomenclature would cause nomenclatural chaos due to the existence of numerous homonyms and the difference between nomenclatural starting points of the two Codes. Such a transfer is as well not required by theoretical reasons, since myxomycetes are neither plants or fungi, nor animals, thus none of the two existing codes can reflect their proper position in the contemporary classification of living organisms. In order to preserve nomenclatural stability we use herein botanical names for members of the *Eumycetozoa*, corresponding to the rules of ICN. The botanical name for the family *Protosporangiaceae*, which had not yet been proposed, is published below according to the requirements of ICN.

Oomycota

The *Oomycota* are a phylum of the kingdom *Straminipila* which evolved fungal characterstics – such as an osmotrophic mode of nutrition and hyphal growth – convergently to the fungal groups of the Mycota (Beakes & Thines 2017). Thus, they are traditionally studied by mycologists and also covered by ICN. Since the last comprehensive monographic treatment by Dick (2001) their classification underwent significant revision, with the latest classification before the current article being that of Beakes & Thines (2017). Based on more recent discoveries, especially regarding the early diverging oomycete lineages, this classification is updated here.

Aims of the study

The main aim of this study is to compile all outlines of fungi and fungus-like groups, updated with recent findings and published data. We believe that this type of compilation will be important for scientists to have a better understanding of the limitations and the definitions of the fungal clades. For example, the classification of basal clades of fungi is debatable without a broad agreement (e.g. Humber 2016 vs. Spatafora et al. 2016 on *Entomophthoromycota* and *Glomeromycota*; Karpov et al. 2014, 2017 vs Bass et al. 2018 vs Tedersoo et al. 2018 vs Adl et al. 2019 on aphelids, rozellids and microsporidia). Moreover, recent proposals of classification in Tedersoo et al. (2018) (such as elevating lower ranks to higher ranks and demoting higher ranks to lower ranks) might also cause disagreement and thus, need to be discussed.

Fossil fungi, which is another important area of fungal taxonomy is also included in this study. We also include fungus-like organisms to emphasize the reasons why they are excluded from the fungal clade. We will launch a new web page, outlineoffungi.org, which will provide an outline down to the level of genus for true *Fungi*, fossil fungi, and fungus-like organisms. This data will be important for many scientific disciplines such as genomics, medicine, plant pathology, novel compound discovery and biotechnology (Hyde et al. 2019).

It must always be borne in mind that the classifications being proposed now are based on only perhaps 3-8 % of the fungal species present on Earth today (Hawksworth & Lücking 2017). Any system proposed is therefore likely to be unstable and subject to change in the light of newly discovered *Fungi* or fungus-like organisms. For example, sequencing of the type species of a genus of *Gyalectaceae* for the first time supported the treatment of four genera as synonyms of *Gyalecta* (Lücking et al. 2019), while a recent re-analysis of *Dothideomycetes* following the discovery of the new genus *Tenuitholiascus* (which forms foliicolous lichens in China) found that five currently accepted orders formed a single well-supported clade (Jiang et al. 2020). The discovery of novel fungi and the sequencing of hitherto unsequenced genera can be expected to continually yield unexpected results which prompt a re-evaluation of which taxa merit recognition at particular ranks.

This outline is therefore not to be treated as a definitive, but a statement of the current situation as a basis for further discussion and in some cases future consensus. In particular, now the IBC permits lists of names to be proposed for protected status, we hope that it will be of value in working towards a protected list of generic names for fungi, updated from that of Kirk et al. (2013), which can be reviewed and in due course approved through the provisions of the Code.

Materials & methods

True Fungi

To list genera and other higher taxonomic ranks into a single outline, we used Kirk et al. (2008, 2013) Lumbsch & Huhndorf (2010), Humber (2012, 2016), Wijayawardene et al. (2012, 2017a, b, 2018a, b), Hyde et al. (2013, 2020), Benny et al. (2016), Jaklitsch et al. (2016a), Spatafora et al. (2016), Desirò et al. (2017), Lücking et al. (2017), Begerow et al. (2018), Kraichak et al. (2018a), Tedersoo et al. (2018), Haelewaters et al. (2019b), Species Fungorum (2019), Mapook et al. (2020) and Catalogue of Life (http://www.catalogueoflife.org/). Index Fungorum (2019), LIAS names (http://liasnames.lias.net/) and MycoBank

(http://www.mycobank.org/) were consulted concerning supplementary information on synonyms. We generally followed He et al. (2019) for *Basidiomycota* classification.

Table 3 Classes, subclasses, orders and families of the Eumycetozoa with number of genera (in brackets)

Class	Subclass	Order	Family
Dictyosteliomycetes		*Acytosteliales*	*Acytosteliaceae* (3)
			Cavenderiaceae (1)
		Dictyosteliales	*Dictyosteliaceae* (2)
			Raperosteliaceae (4)
			Incertae sedis (1)
		Incertae sedis (1)	
Ceratiomyxomycetes		*Ceratiomyxales*	*Ceratiomyxaceae* (1)
			Protosporangiidae (2)
Myxomycetes	*Lucisporomycetidae*	*Cribrariales*	*Cribrariaceae* (3)
		Reticulariales	*Reticulariaceae* (6)
		Liceales	*Liceaceae* (2)
		Trichiales	*Dianemataceae* (4)
			Trichiaceae (8)
		Incertae sedis (4)	
	Columellomycetidae	*Echinosteliopsidales*	*Echinosteliopsidaceae* (1)
		Echinosteliales	*Echinosteliaceae* (3)
		Clastodermatales	*Clastodermataceae* (1)
		Meridermatales	*Meridermataceae* (1)
		Stemonitidales	*Amaurochaetaceae* (7)
			Stemonitidaceae (3)
		Physarales	*Lamprodermataceae* (5)
			Didymiaceae (4)
			Physaraceae (9)
		Incertae sedis (5)	

The subdivision of *Rozellomycota* at the order and family levels is redefined according to the phylogenetic relationships of the respective type genera representatives. The list of genera is updated in accordance with the acknowledged checklists (Becnel et al. 2014, Cali et al. 2017, Sokolova et al. 2018) and recent studies. In particular, genus *Kabatana* is suppressed as it was shown to be the synonym of *Inodosporus* (Stentiford et al. 2018). Genera allocation to families and higher rank taxa is modified after Wijayawardene et al. (2018a, b) using molecular phylogenetic data when available. Polyphyletic higher rank taxa are suppressed. The major clades of *Microsporidia* tree of life established by Vossbrinck and co-authors (2014) are redefined as the order-rank taxa using previously published or novel names depending upon availability of information on the type taxa.

For the classification of *Leotiomycetes*, Johnston et al. (2019) and Quijada et al. (2020) are followed in the outline because the phylogenies in these papers are based on 15 loci. Ekanayaka et al. (2019) provided an alternative classification based on less genes, but more taxa and is included in the discussion to encourage positive dialogue.

Fossil fungi

For the sake of clarity and convenience, the fossil fungal genera are split here into three parts, e.g. 1. Fossil fungal spores (according to Saccardoan System); 2. Fossil fungal sporophores, mycelia and other fungal remains; and 3. Modern fungal genera to which fossil species have been assigned. The genera are listed in three separate tables after the outline of fungi.

The data presented here have been obtained from the literature on fossil fungi published during last seven decades or so, briefly mentioned below. In order to include all records of fossil fungal remains from the Indian Tertiary sediments, published till 2005, three catalogues were

published (Lakhanpal et al. 1976, Saxena 1991, 2006). Besides, a monographic study was carried out by Saxena & Tripathi (2011) with the objective to synthesize the available information on Indian fossil fungi. This incorporates description of 152 genera and 388 species, including 15 new species and 12 new combinations, with comments wherever required. Kalgutkar & Jansonius (2000) published a synopsis of fossil fungi and tried to streamline taxonomic status of many fossil fungal genera and species. They described about 950 validly published species, attributed to approximately 300 genera. They proposed twelve new genera and about 350 new combinations. Transfers of species to more appropriate genera resulted in 31 junior homonyms, for which they provided new names. They also validated one genus and several species. In addition to the above monographic studies, data have been gathered from scores of publications, containing information on fossil fungi from all parts of the globe, published in various journals and conference proceedings.

Fungus-like organisms

The classification systems used for the *Dictyosteliomycetes* and *Myxomycetes* as presented herein are based on the critical revisions of Sheikh et al. (2018) and Leontyev et al. (2019), respectively. In each paper, the taxonomy of the particular group was strongly revised on the basis of original 18S rDNA phylogenies and analyses of morphological synapomorphies.

The classification of the *Oomycota* follows the outline presented by Beakes & Thines (2017), with some modifications in accordance to recent studies (Bennett et al. 2019, Buaya et al. 2017, 2019, Buaya & Thines 2020).

In this classification, we have included all genera of the *Eumycetozoa* accepted as valid in the nomenclatural database of Lado (2005–2019), although some of the smaller myxomycete genera will probably be incorporated into larger ones on the basis of phylogenetic data (Leontyev et al. 2019). This is likely to be the case for such genera as *Arcyodes*, *Badhamia*, *Collaria*, *Colloderma*, *Cornuvia*, *Elaeomyxa*, *Metatrichia*, *Diacheopsis*, *Listerella*, *Oligonema* and *Semimorula*.

A resurrection of the forgotten order *Echinosteliopsidales* is proposed herein, based on the 18S rDNA phylogeny of *Columellomycetidae*, which includes *Echinosteliopsis oligospora* together with a number of environmental sequences, obtained in three different studies (Shchepin et al. 2019).

All authors listed contributed information and comments to this work, but the inclusion of their names does not imply that all necessarily support all details of the outline presented. Notes are provided for recently introduced genera as well as changes in classification (marked with an asterisk in the outline). The authors of each note are indicated in brackets, after the notes.

Phylogenetic analyses

To build a reference phylogeny, we utilized information from four genes, 18S rRNA, 28S rRNA, RPB1 and RPB2. We used the initial set of 18S and 28S reference sequences from 1) James et al. (2006) and supplemented by Tedersoo et al. (2017); 2) and at least one representative sequence of each recognized order or order-level taxon, or orphan taxon as based on Tedersoo et al. (2018) and classification of this study. Order and family representatives were selected based on their type status, presence of all four genes, and length of the genes. The nucleotide sequences of all genes were aligned separately using MAFFT 7 (Katoh & Standley 2013), followed by manual checking and editing where necessary. We took advantage of the protein alignment to remove codon-switching indels and make decision about the gaps and removal of introns. We checked for severe conflicts in the phylogenies of all genes and replaced or removed 10 sequences that were obviously obtained from contaminant or misidentified taxa. The initial alignment included 441 terminal taxa, which we reduced to 433 taxa to exclude putative contaminants and taxa with ultra-long branches such as *Oedogonomyces* spp.

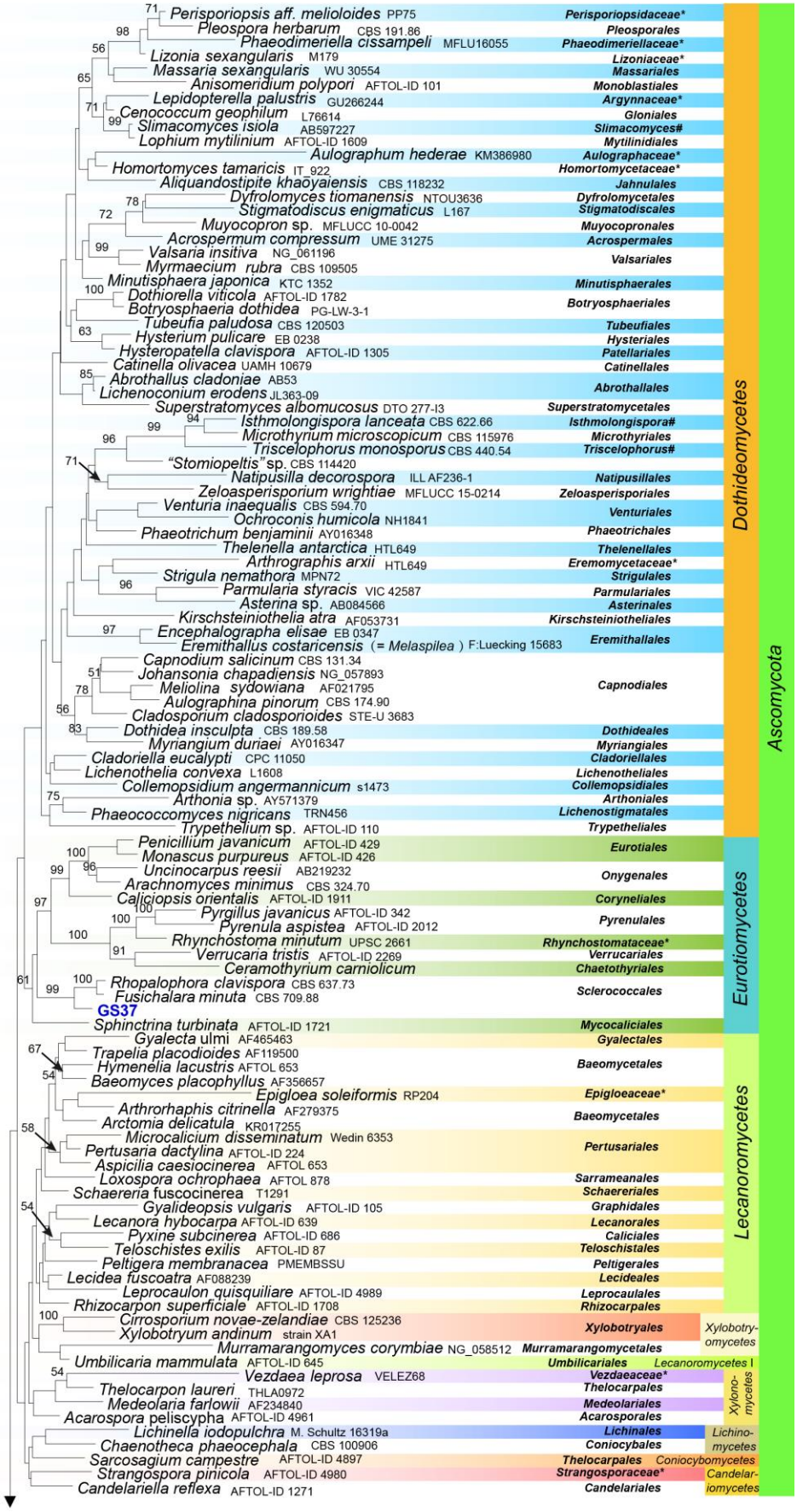

Figure 1 – Maximum likelihood phylogeny of the kingdom *Fungi* based on LSU, SSU, RPB1 and RPB2 combined sequence data. Numbers above branches indicate bootstrap support. Accession numbers of terminal taxa are indicated in appendant table.

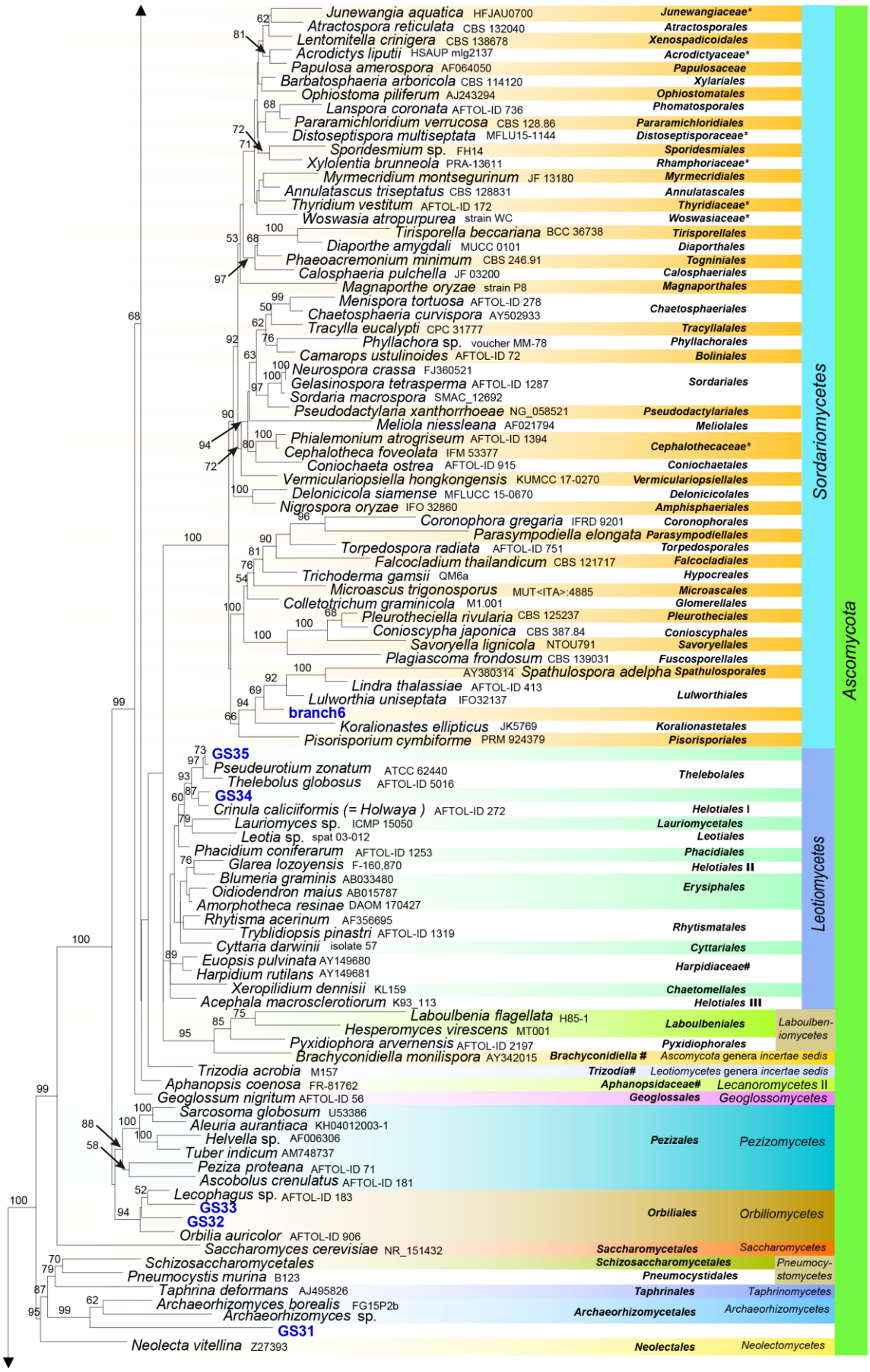

Figure 1 – Continued.

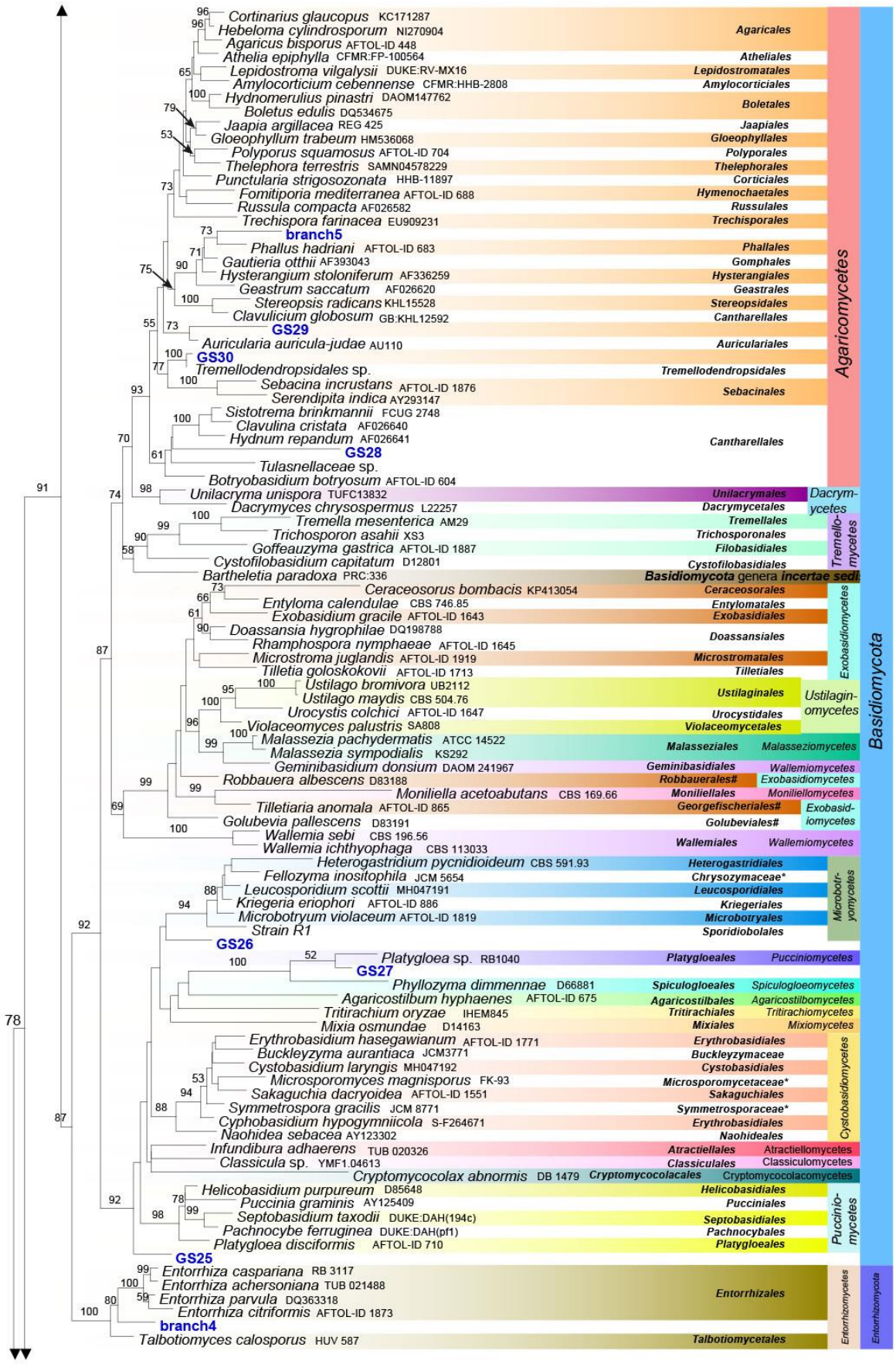

Figure 1 – Continued.

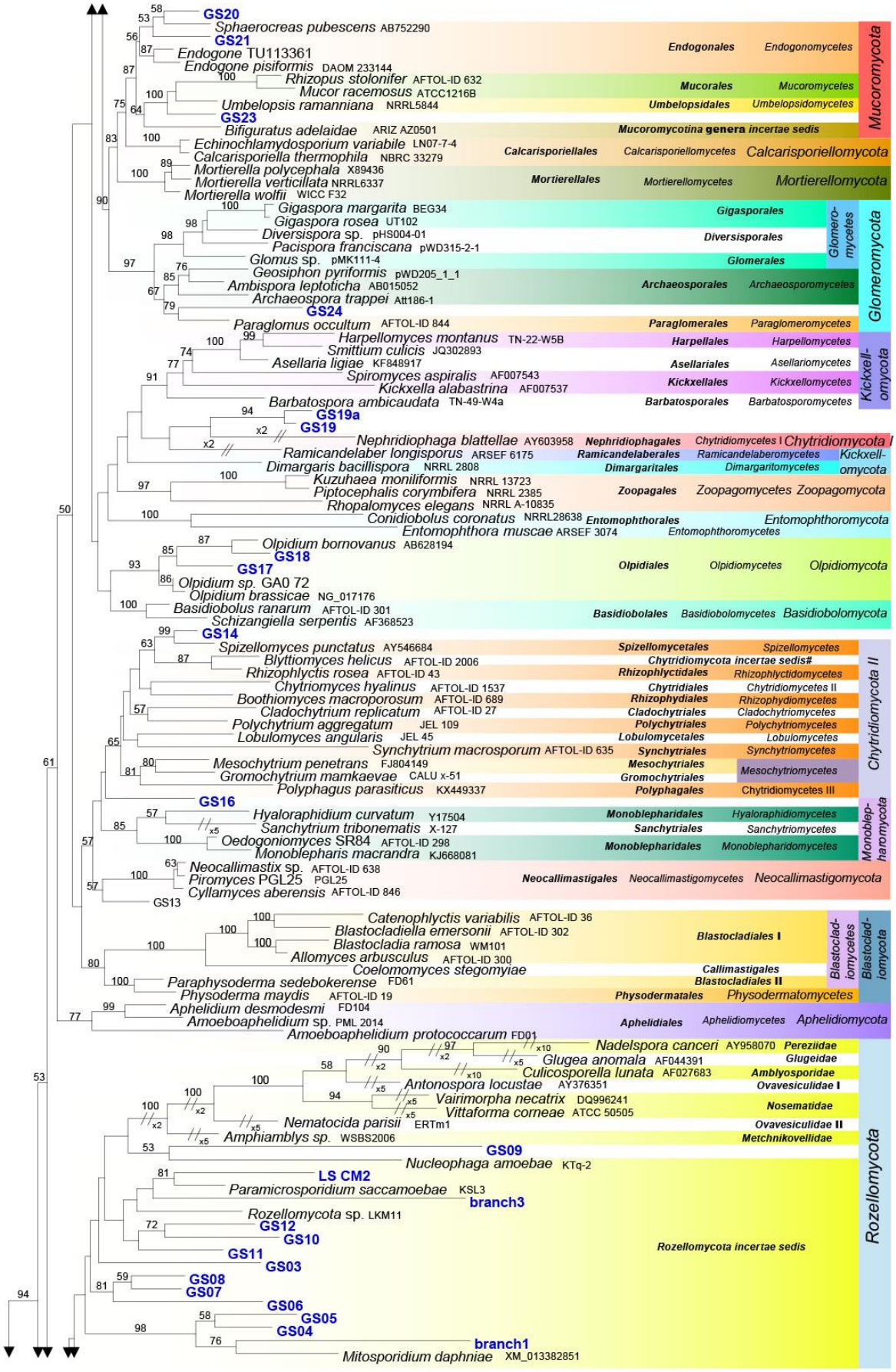

Figure 1 – Continued.

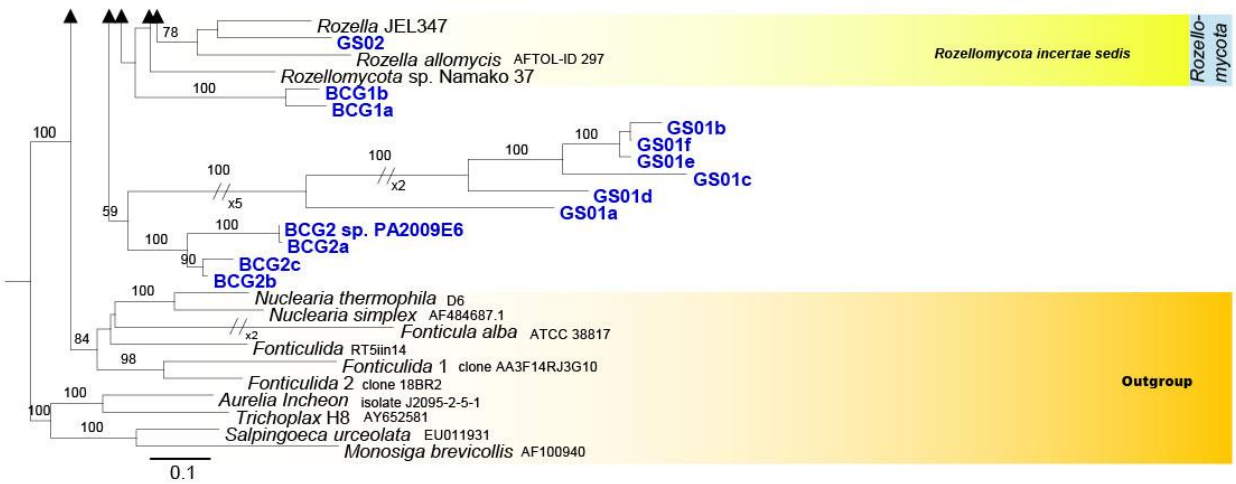

Figure 1 – Continued.

Results

Taxonomy

Helicobolomyces cinnabarinula (Müll. Arg.) Wijayaw. & Ertz, comb. nov.
Bas. *Arthonia cinnabarinula* Müll. Arg., Flora, Regensburg 64: 234 (1881).
Syn. nov. *Helicobolomyces lichenicola* Matzer, in Grube, Matzer & Hafellner, Lichenologist 27: 28 (1995).
IF Registration Identifier: 555393

Description: Grube et al. (1995).

Redonographaceae (Lücking, Tehler & Lumbsch) Lumbsch, stat nov.
Bas.: *Redonographoideae* Lücking, Tehler & Lumbsch, Am. J. Bot. 100: 846 (2013)
IF Registration Identifier: 555399

Description: Lücking et al. (2013)

Amblyosporida Tokarev & Issi, ord. nov.
IF Registration Identifier: 555592
Monophyletic group represented by *Amblyosporidae* (type genus *Amblyospora*) and related taxa, based on SSU rRNA gene phylogeny, corresponding to Clade 1 (Vossbrinck et al. 2014). Life cycles are diverse, either monomorphic (one type of sporogony) or dimorphic (two types of sporogony within the same or different hosts). Additional sporogonial sequences may also be present. Parasites of aquatic insects and crustaceans with rare exceptions of terrestrial insects (*Multilamina* in termites).

Order type: *Amblyosporidae* Weiser emend. Tokarev & Issi

Neopereziida Tokarev & Issi, ord. nov.
IF Registration Identifier: 555594
Monophyletic group represented by *Neopereziidae* (type genus *Neoperezia*) and related taxa, based on SSU rRNA gene phylogeny, corresponding to Clade 3 (Vossbrinck et al. 2014). Life cycles are diverse, either monomorphic (one type of sporogony) or dimorphic (two types of sporogony within the same or different hosts). Additional sporogonial sequences may also be present. Parasites of bryozoans, insects, crustaceans and human (*Anncaliia*, *Tubulinosema*).
Order type: *Neopereziidae* Voronin emend. Issi, Tokarev, Seliverstova & Voronin

Ovavesiculida Tokarev & Issi, ord. nov.
IF Registration Identifier: 555610
Monophyletic group represented by *Ovavesiculidae* (type genus *Ovavesicula*) and related taxa, based on SSU rRNA gene phylogeny, corresponding to Clade 2 (Vossbrinck et al. 2014). Life cycles are diverse, either monomorphic (one type of sporogony) or dimorphic (two types of sporogony within the same or different hosts). Parasites of aquatic and terrestrial insects.

Order type: *Ovavesiculidae* Tokarev & Issi

Protosporangiaceae Leontyev, Stephenson, Schnittler, Shchepin, Novozhilov, fam. nov.
MycoBank number: MB 833618
Typus: *Protosporangium* L.S. Olive & Stoian., J. Protozool. 19(4): 563 (1972)
Sporocarps stalked, arise separately on a substrate with no common structures, formed by extracellular slime. *Stalk* long, delicate, strait, flexuous or bent at one or several articulations. Apical portion of the stalk thin (*Protosporangium*) or inflated, banana-shaped (*Clastostelium*). *Spores* in clusters from two, four or eight units, spherical, hemispherical or compressed to each other to form quarter-spheres. *Plasmodium* colorless.

Outline of fungi

Aphelidiomycota Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov
Aphelidiomycetes Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov
Aphelidiales Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov
Aphelidiaceae Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov
Amoeboaphelidium Scherff. (5)
Aphelidium Zopf (7)
Paraphelidium Karpov, Moreira, López-García (2)
Pseudaphelidium Schweikert & Schnepf (1)

Ascomycota Caval.-Sm.
Pezizomycotina O.E. Erikss. & Winka
Arthoniomycetes O.E. Erikss. & Winka
Arthoniales Henssen ex D. Hawksw. & O.E. Erikss.
Andreiomycetaceae B.P. Hodk. & Lendemer
Andreiomyces B.P. Hodk. & Lendemer (2)

Arthoniaceae Reichenb. ex Reichenb.
Amazonomyces Bat. (2)
Arthonia Ach. (ca. 50 + c. 300 orphaned)
Arthothelium A. Massal. (10 + ca. 100 orphaned)
Briancoppinsia Diederich, Ertz, Lawrey & van den Boom (1)
Coniangium Fr. (4)
Coniarthonia Grube (12)
Coniocarpon DC. (6)
Crypthonia Frisch & G. Thor (16)
Cryptophaea Van den Broeck & Ertz (1)
Cryptothecia Stirt. (ca. 65)
Eremothecella Syd. & P. Syd. (8)

Glomerulophoron Frisch, Ertz & G. Thor (2)
Herpothallon Tobler (ca. 50)
Inoderma (Ach.) Gray (4)
Leprantha Dufour ex Körb. (1)
Myriostigma Kremp. (7)
Pachnolepia A. Massal. (1)
Reichlingia Diederich & Scheid. (4)
Snippocia Ertz, Kukwa & Sanderson (1)*
Sporodophoron Frisch (4)
Staurospora Grube (1)
Stirtonia A.L. Sm. (ca. 25)
Tylophoron Nyl. ex Stizenb. (8 + 3 orphaned in *Sporodochiolichen* Aptroot & Sipman)

Chrysotrichaceae Zahlbr.
Chrysothrix Mont. (ca. 18)
Galbinothrix Frisch, G. Thor, K.H. Moon & Y. Ohmura (1)*
Melarthonis Frisch & G. Thor (1)

Lecanographaceae Ertz, Tehler, G. Thor & Frisch
Alyxoria Ach. (12)
Heterocyphelium Vain. (2)
Lecanographa Egea & Torrente (ca. 40)
Mixtoconidium Etayo (2)
Phacographa Hafellner (3)
Plectocarpon Fée (ca. 40)
Zwackhia Körb. (6)

Opegraphaceae Körb. ex Stizenb.
Combea De Not. (2)
Dictyographa Müll. Arg. (2)
Dolichocarpus R. Sant. (2)
Fouragea Trevis. (4)
Ingaderia Darb. (3)
Llimonaea Egea & Torrente (4)
Nyungwea Sérus., Eb. Fisch. & Killmann (3)
Opegrapha Ach. (= *Kalaallia* Alstrup & D. Hawksw.) (ca. 100 + ca. 200 orphaned)
Paraingaderia Ertz & Tehler (1)
Paralecanographa Ertz & & Tehler (1)
Paraschismatomma Ertz & Tehler (1)
Pentagenella Darb. (5)
Schizopelte Th. Fr. (4)
Sclerophyton Eschw. (ca. 15)
Sparria Ertz & Tehler (2)

Roccellaceae Chevall.
Ancistrosporella G. Thor (3)
Austrographa Sparrius, Elix & A.W. Archer (3)
Austroroccella Tehler & Ertz (1)
Chiodecton Ach. (ca. 22)
Cresponea Egea & Torrente (21)
Crocellina Tehler & Ertz (1)
Dendrographa Darb. (7)

Dichosporidium Pat. (8)
Dirina Fr. (13)
Diromma Ertz & Tehler (1)
Enterodictyon Müll. Arg. (2)*
Enterographa Fée (ca. 30 and 25 orphaned)
Erythrodecton G. Thor (3)
Follmanniella Peine & Werner (1)
Gorgadesia Tav. (1)
Graphidastra (Redinger) G. Thor (4)
Gyrographa Ertz & Tehler (3)
Gyronactis Ertz & Tehler (2)
Halographis Kohlm. & Volkm.-Kohlm. (1)
Haplodina Zahlbr. (3)
Isalonactis Ertz, Tehler, Eb. Fisch., Killmann, Razafindr. & Sérus. (1)
Lecanactis Körb. (ca. 30)
Mazosia A. Massal. (27)
Neosergipea M. Cáceres, Ertz & Aptroot (3)
Ocellomma Ertz & Tehler (1)
Protoroccella Follmann ex Follmann (2)
Pseudolecanactis Zahlbr. (1)
Pseudoschismatomma Ertz & Tehler (1)
Psoronactis Ertz & Tehler (1)
Pulvinodecton Henssen & G. Thor (2)
Roccella DC. (32)
Roccellina Darb. (29 + 5 orphaned in *Sigridea*)
Sagenidiopsis R.W. Rogers & Hafellner (4)
Schismatomma Flot. & Körb. ex A. Massal. (10)
Sigridea Tehler (6)
Simonyella J. Steiner (1)
Sipmania Egea & Torrente (1)
Streimannia G. Thor (1)
Syncesia Taylor (ca. 25)
Tania Egea, Torrente & Sipman (2)
Vigneronia Ertz (3)

Roccellographaceae Ertz & Tehler
Dimidiographa Ertz & Tehler (3)
Fulvophyton Ertz & Tehler (6)
Roccellographa J. Steiner (4)

Arthoniales genera *incertae sedis*
Angiactis Aptroot & Sparrius (3)
Arthophacopsis Hafellner (1)
Bactrospora A. Massal. (35)
Bryostigma Poelt & Döbbeler (3)
Catarraphia A. Massal. (1)
Felipes Frisch & G. Thor (1)
Glyphopsis Aptroot (1)
Gossypiothallon Aptroot (1)
Helminthocarpon Fee (3)
Hormosphaeria Lév. (1)
Minksia Müll. Arg. (2)

Nipholepis Syd. (1)
Paradoxomyces Matzer (1)
Perigrapha Hafellner (5)
Phacothecium Trevis. (1)
Phoebus R.C. Harris & Ladd (1)
Sporostigma Grube (1)
Synarthonia Müll. Arg. (5)
Synarthothelium Sparrius (2)
Tarbertia Dennis (1)
Trichophyma Rehm (2)
Tylophorella Vain. (1)
Wegea Aptroot & Tibell (1)

Lichenostigmatales Ertz, Diederich & Lawrey
Phaeococcomycetaceae McGinnis & Schell
Etayoa Diederich & Ertz (1)
Lichenostigma Hafellner (= *Phaeosporobolus* D. Hawksw. & Hafellner) (5 and 26 orphaned species)
Phaeococcomyces de Hoog (5)

Candelariomycetes Voglmayr & Jaklitsch
Candelariomycetidae Timdal & M. Westb.
Candelariales Miądl., Lutzoni & Lumbsch
Candelariaceae Hakul.
Candelaria A. Massal. (7)
Candelariella Müll. Arg. (ca. 50)
Candelina Poelt (3)
Placomaronea Räsänen (6)

Pycnoraceae Bendiksby & Timdal
Pycnora Hafellner (3)

Coniocybomycetes M. Prieto & Wedin
Coniocybales M. Prieto & Wedin
Coniocybaceae Rchb.
Chaenotheca (Th. Fr.) Th. Fr. (ca. 25)
Sclerophora Chevall. (6)

Dothideomycetes *sensu* O.E. Erikss & Winka
Dothideomycetidae P.M. Kirk, P.F. Cannon, J.C. David & Stalpers ex C.L. Schoch, Spatafora, Crous & Shoemaker
Capnodiales Woron.
Aeminiaceae J. Trovão, I. Tiago & A. Portugal
Aeminium J. Trovão, I. Tiago & A. Portugal (1)

Antennulariellaceae Woron.
Achaetobotrys Bat. & Cif. (1)
Antennulariella Woron. (1)
Eumela Syd. (4)

Capnodiaceae (Sacc.) Höhn. ex Theiss.
Capnodium Mont. (83)

Chaetocapnodium Hongsanan & K.D. Hyde (1)
Conidiocarpus Woron. (= *Phragmocapnias* Theiss. & Syd.) (ca. 10)
Fumiglobus D.R. Reynolds & G.S. Gilbert (10)
Leptoxyphium Speg. (19)
Limaciniaseta D.R. Reynolds (1)
Readerielliopsis Crous & Decock (2)
Scoriadopsis Mend. (1)
Scorias Fr. (11)

Cladosporiaceae Chalm. & R.G. Archibald
Acroconidiella J.C. Lindq. & Alippi (5)
Cladosporium Link (237 accepted species, 631 legitimate names at species level)
Davidiellomyces Crous (2)
Graphiopsis Trail (11)
Neocladosporium J.D.P. Bezerra, Sandoval-Denis, C.M. Souza-Motta & Crous (1)
Rachicladosporium Crous, U. Braun & C.F. Hill (14)
Toxicocladosporium Crous & U. Braun (14)
Verrucocladosporium K. Schub., Aptroot & Crous (2)

Cystocoleaceae Locq. ex Lücking, B.P. Hodk. & S.D. Leav.
Cystocoleus A. Massal. (1)

Dissoconiaceae Crous & de Hoog
Dissoconium de Hoog, Oorschot & Hijwegen (5)
Globoramichloridium Y. Marín & Crous (1)
Pseudoveronaea Crous & Batzer (2)
Ramichloridium Stahel ex de Hoog (35)
Uwebraunia Crous & M.J. Wingf. (7)

Euantennariaceae Hughes & Corlett
Capnokyma S. Hughes (2)
Euantennaria Speg. (9)
Hormisciomyces Bat. & Nascim. (3)
Plokamidomyces Bat., C.A.A. Costa & Cif. (1)
Rasutoria M.E. Barr (2)
Strigopodia Bat. (2)
Trichothallus F. Stevens (2)

Extremaceae Quaedvl. & Crous (= *Paradevriesiaceae* Crous)*
Castanedospora G. Delgado & A.N. Mill. (1)*
Extremus Quaedvl. & Crous (2)
Paradevriesia Crous (3)
Petrophila de Hoog & Quaedvl. (1)*
Pseudoramichloridium Cheew. & Crous (3)
Saxophila Selbmann & de Hoog (1)*
Staninwardia B. Sutton (2)
Vermiconidia Egidi & Onofri (= *Vermiconia* Egidi & Onofri) (4)*

Johansoniaceae Doilom, Phook. & K.D. Hyde
Johansonia Sacc. (13)
Orthobellus Silva & Cavalc. (3)

Metacapnodiaceae Hughes & Corlett

Capnobotrys S. Hughes (10)
Hyphosoma Syd. (6)
Metacapnodium Speg. (14)

Mycosphaerellaceae Lindau

Acervuloseptoria Crous & Jol. Roux (2)
Amycosphaerella Quaedvl. & Crous (2)
Annellosympodiella Crous & Assefa (1)
Apseudocercosporella Videira & Crous (1)
Asperisporium Maubl. (24)
Australosphaerella Videira & Crous (1)
Brunneosphaerella Crous (3)
Brunswickiella Videira & Crous (1)
Camptomeriphila Crous & M.J. Wingf. (1)
Caryophylloseptoria Verkley, Quaedvl. & Crous (4)
Catenulocercospora C. Nakash., Videira & Crous (1)
Cercoramularia Videira, H.D. Shin, C. Nakash. & Crous (1)
Cercospora Fresen. (ca. 1125)
Cercosporella Sacc. (ca. 100)
Cercosporidium Earle (ca. 10)
Chuppomyces Videira & Crous (1)
Clarohilum Videira & Crous (1)
Clypeosphaerella Guatim., R.W. Barreto & Crous (3)
Collapsimycopappus A. Hashim., Y. Harada & Kaz. Tanaka (1)
Collarispora Videira & Crous (1)
Coremiopassalora U. Braun, C. Nakash., Videira & Crous (2)
Cytostagonospora Bubák (5)
Deightonomyces Videira & Crous (1)
Devonomyces Videira & Crous (1)
Dictyosporina L.M. Abreu, R.F. Castañeda & O.L. Pereira (1)
Distocercospora N. Pons & B. Sutton (4)
Distocercosporaster Videira, H.D. Shin, C. Nakash. & Crous (1)
Distomycovellosiella U. Braun, C. Nakash., Videira & Crous (1)
Dothistroma Hulbary (5)
Epicoleosporium Videira & Crous (1)
Exopassalora Videira & Crous (1)
Exosporium Link (123)
Exutisphaerella Videira & Crous (1)
Filiella Videira & Crous (1)
Fulvia Cif. (2)*
Fusoidiella Videira & Crous (2)
Graminopassalora U. Braun, C. Nakash., Videira & Crous (1)
Hyalocercosporidium Videira & Crous (1)
Hyalozasmidium U. Braun, C. Nakash., Videira & Crous (2)
Janetia M.B. Ellis (22)
Lecanosticta Syd. (8)
Madagascaromyces U. Braun, C. Nakash., Videira & Crous (1)
Microcyclosporella J. Frank, Schroers & Crous (1)
Micronematomyces U. Braun, C. Nakash., Videira & Crous (2)
Miuraea Hara (1)
Mycodiella Crous (3)

Mycosphaerelloides Videira & Crous (1)
Mycovellosiella Rangel (ca. 34)
Neoceratosperma Crous & Cheew. (6)
Neocercospora Bakhshi, Arzanlou, Babai-ahari & Crous (1)
Neocercosporidium Videira & Crous (1)
Neodeightoniella Crous & W.J. Swart (1)
Neomycosphaerella Crous (1)
Neopenidiella Quaedvl. & Crous (1)
Neophloeospora U. Braun, C. Nakash., Videira & Crous (1)
Neopseudocercospora Crous (2)
Neopseudocercosporella Videira & Crous (2)
Neoramichloridium Phook., Thambug. & K.D. Hyde (1)
Neoseptoria Quaedvl., Verkley & Crous (1)
Nothopassalora U. Braun, C. Nakash., Videira & Crous (1)
Nothopericoniella Videira & Crous (1)
Nothophaeocryptopus Videira, C. Nakash. & Crous (1)
Pachyramichloridium Videira & Crous (1)
Pallidocercospora Crous (9)
Pantospora Cif. (1)
Paracercospora Deighton (5)
Paracercosporidium Videira & Crous (2)
Paramycosphaerella Crous & Jol. Roux (17)
Paramycovellosiella Videira, H.D. Shin & Crous (1)
Parapallidocercospora Videira, Crous, U. Braun & C. Nakash. (2)
Passalora Fr. (ca. 250)
Phaeocercospora Crous (2)
Phaeophleospora Rangel (31)
Phaeoramularia Munt.-Cvetk. (ca. 10)
Phloeospora Wallr. (141)
Piricauda Bubák (31)*
Pleopassalora Videira & Crous (2)
Pleuropassalora U. Braun, C. Nakash., Videira & Crous (1)
Pluripassalora Videira & Crous (1)
Plurivorosphaerella O. Hassan & T.H. Chang (1)
Polyphialoseptoria Quaedvl., R.W. Barreto, Verkley & Crous (2)
Polythrincium Kunze (5)
Protostegia Cooke (2)
Pseudocercospora Speg. (ca. 1000)
Pseudocercosporella Deighton (127)
Pseudopericoniella Videira & Crous (1)
Pseudophaeophleospora C. Nakash., Videira & Crous (2)
Pseudozasmidium Videira & Crous (4)
Ragnhildiana Solheim (18)
Ramularia Unger (100<)
Ramulariopsis Speg. (4)
Ramulispora Miura (18)
Rhachisphaerella U. Braun, C. Nakash., Videira & Crous (1)
Rosisphaerella Videira & Crous (1)
Ruptoseptoria Quaedvl., Verkley & Crous (1)
Scolecostigmina U. Braun (23)
Septoria Sacc. (= *Septocyta* Petr. *fide* Quaedvlieg et al. 2013) (200<)
Sonderhenia H.J. Swart & J. Walker (2)

Sphaerulina Sacc. (65)
Stromatoseptoria Quaedvl., Verkley & Crous (1)
Sultanimyces Videira & Crous (1)
Trochophora R.T. Moore (2)
Uwemyces Hern.-Restr., Sarria & Crous (1)
Virosphaerella Videira & Crous (3)
Xenomycosphaerella Quaedvl. & Crous (3)
Xenopassalora Crous (1)
Xenoramularia Videira, H.D. Shin & Crous (3)
Xenosonderhenia Crous (2)
Xenosonderhenioides Videira & Crous (1)
Zasmidium Fr. (=*Periconiella* Sacc. *fide* Quaedvlieg et al. 2013) (ca. 150)
Zymoseptoria Quaedvl. & Crous (8)

Neodevriesiaceae Quaedvl. & Crous
Neodevriesia Quaedvl. & Crous (21)
Tripospermum Speg. (27)

Phaeothecaceae Darveaux
Phaeotheca Sigler, Tsuneda & J.W. Carmich. (4)

Phaeothecoidiellaceae K.D. Hyde & Hongsanan (= *Nowamycetaceae* Crous)
Chaetothyrina Theiss. (6)
Exopassalora Videira & Crous (1)
Houjia G.Y. Sun & Crous (2)
Nowamyces Crous (2)
Phaeothecoidiella Batzer & Crous (2)
Rivilata Kohlm., Volkm.-Kohlm. & O.E. Erikss. (1)
Sporidesmajora Batzer & Crous (1)
Translucidithyrium X.Y. Zeng & K.D. Hyde (1)

Piedraiaceae Viégas ex Cif., Bat. & S. Camposa
Piedraia Fons. & Leao (2)

Racodiaceae Link
Racodium Fr. (5)

Schizothyriaceae Höhn. ex Trotter, Sacc., D. Sacc. & Traverso
Amazonotheca Bat. & H. Maia (2)*
Hexagonella F. Stevens & Guba ex F. Stevens (1)
Kerniomyces Toro (1)
Lecideopsella Höhn. (10)
Metathyriella Syd. (3)
Mycerema Bat., J.L. Bezerra & Cavalc. (1)
Myriangiella Zimm. (5)
Plochmopeltis Theiss. (5)
Schizothyrium Desm. (40)
Vonarxella Bat., J.L. Bezerra & Peres (1)

Teratosphaeriaceae Crous & U. Braun
Acidiella Hujslová & M. Kolařík (3)

Acidomyces B.J. Baker, M.A. Lutz, S.C. Dawson, P.L. Bond & Banfield ex Selbmann, de Hoog & De Leo (2)
Acrodontium de Hoog (17)
Apenidiella Quaedvl. & Crous (1)
Araucasphaeria Crous & M.J. Wingf. (1)
Aulographina Arx & E. Müll. (2)
Austroafricana Quaedvl. & Crous (3)
Austrostigmidium Pérez-Ort. & Garrido-Benavent (1)
Batcheloromyces Marasas, P.S. van Wyk & Knox-Dav. (5)
Baudoinia J.A. Scott & Unter. (5)
Bryochiton Döbbeler & Poelt (5)
Camarosporula Petr. (1)
Capnobotryella Sugiy. (6)
Catenulostroma Crous & U. Braun (7)
Constantinomyces Egidi & Onofri (4)
Davisoniella H.J. Swart (1)
Devriesia Seifert & N.L. Nick. (11)
Elasticomyces Zucconi & Selbmann (1)
Eupenidiella Quaedvl. & Crous (1)
Euteratosphaeria Quaedvl. & Crous (1)
Friedmanniomyces Onofri (2)
Hispidoconidioma Tsuneda & Davey (2)
Hortaea Nishim. & Miyaji (2)*
Hyweljonesia R.G. Shivas, Y.P. Tan, Marney & Abell (2)
Incertomyces Egidi & Zucconi (2)
Lapidomyces de Hoog & Stielow (1)
Leptomelanconium Petr. (7)
Meristemomyces Isola & Onofri (2)
Microcyclospora J. Frank, Schroers & Crous (5)
Monticola Selbmann & Egidi (1)
Myrtapenidiella Quaedvl. & Crous (8)
Neocatenulostroma Quaedvl. & Crous (3)
Neophaeothecoidea Quaedvl. & Crous (1)
Neotrimmatostroma Quaedvl. & Crous (3)
Oleoguttula Selbmann & de Hoog (1)
Pachysacca Syd. (3)
Parapenidiella Crous & Summerell (2)
Parateratosphaeria Quaedvl. & Crous (6)
Penidiella Crous & U. Braun (4)
Penidiellomyces Crous, Attili-Angelis, A.P.M. Duarte, Pagnocca & J.Z. Groenew. (2)
Penidiellopsis Sand.-Den., Gené, Deanna A. Sutton & Guarro (2)
Phaeothecoidea Crous (5)
Placocrea Syd. (1)*
Pseudotaeniolina J.L. Crane & Schokn. (2)
Pseudoteratosphaeria Quaedvl. & Crous (6)
Queenslandipenidiella Quaedvl. & Crous (1)
Readeriella Syd. & P. Syd. (ca. 23)
Recurvomyces Selbmann & de Hoog (1)
Simplicidiella Crous, Attili-Angelis, A.P.M. Duarte, Pagnocca & J.Z. Groenew. (1)
Stenella Syd. (ca. 45)
Suberoteratosphaeria Quaedvl. & Crous (3)
Teratoramularia Videira, H.D. Shin & Crous (4)

Teratosphaeria Syd. & P. Syd. (58)
Teratosphaericola Quaedvl. & Crous (1)
Teratosphaeriopsis Quaedvl. & Crous (1)
Xanthoriicola D. Hawksw. (1)
Xenoconiothyrium Crous & Marinc. (1)
Xenopenidiella Quaedvl. & Crous (7)
Xenophacidiella Crous (1)
Xenoteratosphaeria Quaedvl. & Crous (1)

Xenodevriesiaceae Crous
Xenodevriesia Crous (1)

Capnodiales genera *incertae sedis*
Arthrocatena Egidi & Selbmann (1)
Catenulomyces Egidi & de Hoog (1)
Eriosporella Höhn. (2)
Hyphoconis Egidi & Quaedvl. (1)
Mucomycosphaerella Quaedvl. & Crous (1)
Mycophycias Kohlm. & Volkm.-Kohlm
Neohortaea Quaedvl. & Crous (1)
Perusta Egidi & Stielow (1)
Plurispermiopsis Pereira-Carv., Inácio & Dianese (1)
Pseudoepicoccum M.B. Ellis (4)
Racoleus R. Sant. & D. Hawksw. (1)
Ramimonilia Stielow & Quaedvl. (1)
Ramopenidiella Crous & R.G. Shivas (1)
Rosaria N. Carter (2)

Dothideales Lindau (= *Neocelosporiales* Crous)
Dothideaceae Chevall.
Delphinella (Sacc.) Kuntze (7)
Dictyodothis Theiss. & Syd. (8)
Dothidea Fr. (ca. 20)
Dothiora Fr. (50<)
Endoconidioma Tsuneda (2)
Endodothiora Petr. (1)
Kabatina R. Schneid. & Arx (5)
Neocylindroseptoria Thambug. & K.D. Hyde (1)
Phaeocryptopus Naumov (6)
Plowrightia Sacc. (50)
Stylodothis Arx & E. Müll. (2)
Sydowia Bres. (11)
Uleodothis Theiss. & Syd. (4)

Neocelosporiaceae Crous
Celosporium Tsuneda & M.L. Davey (1)
Muellerites L. Holm (1)
Neocelosporium Crous (1)*

Saccotheciaceae Bonord.
Aureobasidium Viala & G. Boyer (23)
Columnosphaeria Munk (4)

Kabatiella Bubák (19)
Pseudoseptoria Speg. (8)
Pseudosydowia Thambug. & K.D. Hyde (1)
Saccothecium Fr. (9)
Selenophoma Maire (ca. 13)

Zalariaceae Visagie, Z. Humphries & Seifert
Zalaria Visagie, Z. Humphries & Seifert (2)

Dothideales genera *incertae sedis*
Asteromellopsis H.E. Hess & E. Müll. (1)
Botryochora Torrend (1)
Coniozyma Crous (1)
Hormonema Lagerb. & Melin (7)
Pringsheimia Schulzer (17)
Rhizosphaera L. Mangin & Har. (8)

Myriangiales Starbäck
Elsinoaceae Höhn. ex Sacc. & Trotter
Elsinoë Racib. (ca. 40)
Molleriella G. Winter (4)

Myriangiaceae Nyl.
Anhellia Racib. (9)
Ascostratum Syd. & P. Syd. (2)
Butleria Sacc. (1)
Dictyocyclus Sivan., W.H. Hsieh & Chi Y. Chen (1)
Eurytheca De Seynes (3)
Hemimyriangium J. Reid & Piroz (1)
Mendogia Racib. (7)
Micularia Boedijn (2)
Myriangium Mont. & Berk. (ca. 10)
Uleomyces P. Henn. (12)
Zukaliopsis Henn. (2)

Myriangiales genus *incertae sedis*
Dictyonella Höhn. (7)

Pleosporomycetidae C.L. Schoch, Spatafora, Crous & Shoemaker
Gloniales Jayasiri & K.D. Hyde*
Gloniaceae (Corda) E. Boehm, C.L. Schoch & Spatafora
Cenococcum Moug. & Fr. (5)
Glonium Mühl. (ca. 13)
Purpurepithecium Jayasiri & K.D. Hyde (2)

Hysteriales Lindau
Hysteriaceae Chevall.
Actidiographium Lar. N. Vassiljeva (1)
Gloniella Sacc. (12)
Gloniopsis De Not. (ca. 17)
Hysterium Pers. (14)
Hysterobrevium E. Boehm & C.L. Schoch (6)

Hysterocarina Zogg (1)
Hysterodifractum D.A.C. Almeida, Gusmão & A.N. Mill. (1)
Hysteroglonium Rehm ex Lindau (2)
Oedohysterium E. Boehm & C.L. Schoch (3)
Ostreichnion Duby (4)
Pseudoscypha J. Reid & Piroz. (1)
Psiloglonium Höhn. (ca. 15)
Rhytidhysteron Speg. (21)

Hysteriales genus *incertae sedis*
Graphyllium Clem. (11)

Mytilinidiales E. Boehm, C.L. Schoch & Spatafora
Mytilinidiaceae Kirschst.
Actidium Fr. (ca. 6)
Lophium Fr. (ca. 6)
Mytilinidion Duby (12)
Ostreola Darker (8)
Peyronelia Cif. & Gonz. Frag. (6 or 7)
Pseudocamaropycnis Crous (1)
Quasiconcha M.E. Barr & M. Blackw. (1)
Septonema Corda (ca. 15)
Zoggium Lar.N. Vassiljeva (1)

Pleosporales Luttrell ex M.E. Barr
Acrocalymmaceae Crous & Trakun.
Acrocalymma Alcorn & J.A.G. Irwin (6)

Aigialaceae Suetrong, Sakay., E.B.G. Jones, Kohlm., Volkm.-Kohlm. & C.L. Schoch
Aigialus S. Schatz & Kohlm. (5)
Ascocratera Kohlm. (1)
Fissuroma Jian K. Liu, Phook., E.B.G. Jones & K.D. Hyde (11)
Neoastrosphaeriella Jian K. Liu, E.B.G. Jones & K.D. Hyde (3)
Posidoniomyces Vohník & Réblová (1)
Rimora Kohlm., Volkm.-Kohlm., Suetrong, Sakay. & E.B.G. Jones (1)

Amniculicolaceae Y. Zhang ter, C.L. Schoch, J. Fourn., Crous & K.D. Hyde
Amniculicola Y. Zhang ter & K.D. Hyde (4)
Fusiformispora Phukhams. & K.D. Hyde (1)
Murispora Y. Zhang ter, J. Fourn. & K.D. Hyde (7)
Neomassariosphaeria Y. Zhang ter, J. Fourn. & K.D. Hyde (1)
Pseudomassariosphaeria Phukhams., Ariyaw., Camporesi & K.D. Hyde (2)
Vargamyces Tóth (1)

Amorosiaceae Thambug. & K.D. Hyde
Alfoldia D.G. Knapp, Imrefi & Kovács (1)
Amorosia Mantle & D. Hawksw. (1)
Amorocoelophoma Jayasiri, E.B.G. Jones & K.D. Hyde (1)
Angustimassarina Thambug., Kaz. Tanaka & K.D. Hyde (11)

Anteagloniaceae K.D. Hyde, Jian K. Liu & A. Mapook
Anteaglonium Mugambi & Huhndorf (7)

Flammeascoma Phook. & K.D. Hyde (2)
Purplema W. Dong, H. Zhang & K.D. Hyde (1)

Aquasubmersaceae A. Hashim. & Kaz. Tanaka
Aquasubmersa K.D. Hyde & Huang Zhang (2)

Arthopyreniaceae W. Watson
Arthopyrenia A. Massal. (= *Arthopyreniomyces* Cif. & Tomas.) (5 + ca. 100 orphaned)
Mycomicrothelia Keissl. (ca. 10)*

Ascocylindricaceae Abdel-Wahab, Bahkali, E.B.G. Jones, Ariyaw. & K.D. Hyde
Ascocylindrica Abdel-Wahab, Bahkali & E.B.G. Jones (1)

Astrosphaeriellaceae Phook. & K.D. Hyde
Astrosphaeriella Syd. & P. Syd. (ca. 10)
Astrosphaeriellopsis Phook., Jian K. Liu & K.D. Hyde (2)
Javaria Boise (2)
Mycopepon Boise (5)
Pithomyces Berk. & Broome (ca. 40)
Pteridiospora Penz. & Sacc. (8)
Quercicola Jayasiri, E.B.G. Jones & K.D. Hyde (2)
Xenoastrosphaeriella Jayasiri, E.B.G. Jones & K.D. Hyde (1)

Bambusicolaceae D.Q. Dai & K.D. Hyde
Bambusicola D.Q. Dai & K.D. Hyde (10)
Leucaenicola Jayasiri, E.B.G. Jones & K.D. Hyde (2)
Palmiascoma Phook. & K.D. Hyde (1)

Biatriosporaceae K.D. Hyde
Biatriospora K.D. Hyde & Borse (6)

Camarosporiaceae Wanas., Wijayaw., K.D. Hyde & Crous
Camarosporium Schulzer (100+)
Camarosporomyces Crous (1)

Camarosporidiellaceae Wanas., Wijayaw., Crous & K.D. Hyde
Camarosporidiella Wanas., Wijayaw., K.D. Hyde (22)

Caryosporaceae Huang Zhang, K.D. Hyde & Ariyaw.
Caryospora De Not. (19)

Coniothyriaceae W.B. Cooke
Coniothyrium Corda (ca. 50)
Foliophoma Crous (2)
Neoconiothyrium Crous (3)
Ochrocladosporium Crous & U. Braun (3)
Staurosphaeria Rabenh. (= *Hazslinszkyomyces* Crous & R.K. Schumach.) (12)

Corynesporascaceae Sivan.
Corynespora Güssow (ca. 130)
Corynesporasca Sivan. (1)

Cryptocoryneaceae A. Hashim. & Kaz. Tanaka
Cryptocoryneum Fuckel (ca. 20)

Cucurbitariaceae G. Winter (= *Fenestellaceae* M.E. Barr)
Allocucurbitaria Valenz.-Lopez, Stchigel, Guarro & Cano (1)
Astragalicola Jaklitsch & Voglmayr (2)*
Cucitella Jaklitsch & Voglmayr (1)*
Cucurbitaria Gray (= *Pleurostromella* Petr.) (ca. 40)
Fenestella Tul. & C. Tul. (ca. 4)
Neocucurbitaria Wanas., E.B.G. Jones & K.D. Hyde (21)
Paracucurbitaria Valenz.-Lopez, Stchigel, Guarro & Cano (2)
Parafenestella Jaklitsch & Voglmayr (3)*
Protofenestella Jaklitsch & Voglmayr (1)*
Rhytidiella Zalasky (4)
Seltsamia Jaklitsch & Voglmayr (1)*
Syncarpella Theiss. & Syd. (ca. 6)
Synfenestella Jaklitsch & Voglmayr (2)

Cyclothyriellaceae Jaklitsch & Voglmayr
Cyclothyriella Jaklitsch & Voglmayr (1)
Massariosphaeria (E. Müll.) Crivelli (25)*

Dacampiaceae Körb.
Aaosphaeria Aptroot (1)
Dacampia A. Massal. (15)
Eopyrenula R.C. Harris (6)
Leptocucurthis Aptroot (1)
Pseudonitschkia Coppins & S.Y. Kondr. (1)
Weddellomyces D. Hawksw. (12)

Delitschiaceae M.E. Barr
Delitschia Auersw. (ca. 50)
Ohleriella Earle (1)
Semidelitschia Cain & Luck-Allen (3)

Diademaceae Shoemaker & C.E. Babc.
Diadema Shoemaker & C.E. Babc. (8)

Dictyosporiaceae Boonmee & K.D. Hyde
Aquadictyospora Z.L. Luo, K.D. Hyde & H.Y. Su (1)
Aquaticheirospora Kodsueb & W.H. Ho (1)
Cheirosporium L. Cai & K.D. Hyde (2)
Dendryphiella Bubák & Ranoj. (12)
Dictyocheirospora M.J. D'souza, Boonmee & K.D. Hyde (16)
Dictyopalmispora Pinruan, Boonmee & K.D. Hyde (1)
Dictyosporium Corda (59)
Digitodesmium P.M. Kirk (6)
Gregarithecium Kaz. Tanaka & K. Hiray. (1)
Jalapriya M.J. D'souza, Hong Y. Su, Z.L. Luo & K.D. Hyde (3)
Neodendryphiella Iturrieta-González, Dania García & Gené (3)*
Pseudocoleophoma Kaz. Tanaka & K. Hiray. (3)
Pseudoconiothyrium Crous & R.K. Schumach. (1)

Pseudodictyosporium Matsush. (4)
Vikalpa M.J. D'souza, Boonmee, Bhat & K.D. Hyde (4)

Didymellaceae Gruyter, Aveskamp & Verkley (=*Microsphaeropsidaceae* Qian Chen, L. Cai & Crous *fide* Hongsanan et al. 2020)
Allophoma Q. Chen & L. Cai (9)
Anthodidymella Phukhams., Camporesi & K.D. Hyde (3)
Ascochyta Lib. (= *Heracleicola* Tibpromma, Camporesi & K.D. Hyde) (ca. 400)
Boeremia Aveskamp, Gruyter & Verkley (22)
Briansuttonomyces Crous (1)
Calophoma Q. Chen & L. Cai (8)
Chaetasbolisia Speg. (7)
Cumuliphoma Valenz.-Lopez, Stchigel, Crous, Guarro & Cano (3)
Didymella Sacc. ex D. Sacc. (ca. 100)
Didysimulans Tibpromma, Camporesi & K.D. Hyde (2)
Ectophoma Valenz.-Lopez, Cano, Crous, Guarro & Stchigel (2)
Epicoccum Link (16)
Heterophoma Q. Chen & L. Cai (6)
Juxtiphoma Valenzuela-Lopez, Cano, Crous, Guarro & Stchigel (1)
Leptosphaerulina McAlpine (30)
Macroventuria Aa (2)
Microsphaeropsis Höhn. (37)
Mixtura O.E. Erikss. & J.Z. Yue (1)
Monascostroma Höhn. (ca. 5)
Neoascochyta Q. Chen & L. Cai (12)
Neodidymella Phook., R.H. Perera & K.D. Hyde (1)
Neodidymelliopsis Q. Chen & L. Cai (10)
Neomicrosphaeropsis Thambug., Camporesi & K.D. Hyde (10)
Nothophoma Q. Chen & L. Cai (9)
Paraboeremia Q. Chen & L. Cai (6)
Phoma Sacc. (= *Endophoma* Tsuneda & M.L. Davey) (100)
Phomatodes Q. Chen & L. Cai (2)
Platychora Petr. (1)
Remotididymella Valenz.-Lopez (2)
Similiphoma Valenz.-Lopez, Crous, Cano, Guarro & Stchigel (1)
Stagonosporopsis Died. (22)
Vacuiphoma Valenz.-Lopez, Cano, Crous, Guarro & Stchigel (2)
Xenodidymella Q. Chen & L. Cai (6)

Didymosphaeriaceae Munk
Alloconiothyrium Verkley & Stielow (1)
Austropleospora R.G. Shivas & L. Morin (1)
Barria Z.Q. Yuan (1)
Bimuria D. Hawksw., Chea & Sheridan (1)
Chromolaenicola Mapook & K.D. Hyde (5)
Curreya Sacc. (2)
Cylindroaseptospora Jayasiri, E.B.G. Jones & K.D. Hyde (2)
Deniquelata Ariyaw. & K.D. Hyde (2)
Didymocrea Kowalski (1)
Didymosphaeria Fuckel (ca. 25)
Julella Fabre (ca. 20)
Kalmusia Niessl (16)

Kalmusibambusa Phook., Tennakoon, Thambug. & K.D. Hyde (1)*
Karstenula Speg. (16)
Laburnicola Wanas., Camporesi, E.B.G. Jones & K.D. Hyde (4)
Letendraea Sacc. (ca. 3)
Lineostroma H.J. Swart (1)
Montagnula Berl. (ca. 30)*
Neokalmusia Ariyaw. & K.D. Hyde (6)
Neptunomyces M. Gonçalves, T. Vicente & A. Alves (1)*
Paracamarosporium Wijayaw. & K.D. Hyde (7)
Paraconiothyrium Verkley (19)
Paramassariosphaeria Wanas., E.B.G. Jones & K.D. Hyde (2)
Paraphaeosphaeria O.E. Erikss. (33)
Phaeodothis Syd. & P. Syd. (5)
Pseudocamarosporium Wijayaw. & K.D. Hyde (14)
Pseudopithomyces Ariyaw. & K.D. Hyde (10)
Spegazzinia Sacc. (11)*
*Trematei*a Kohlm., Volkm.-Kohlm. & O.E. Erikss. (5)
Verrucoconiothyrium Crous (4)
Vicosamyces Firmino, Machado & Pereira (1)
Xenocamarosporium Crous & M.J. Wingf. (1)

Dothidotthiaceae Crous & A.J.L. Phillips
Belizeana Kohlm. & Volkm. (1)
Dothidotthia Höhn. (= *Neodothidotthia* Crous) (ca. 10)
Mycocentrospora Deighton (4)
Phaeomycocentrospora Crous, H.D. Shin & U. Braun (1)
Pleiochaeta (Sacc.) S. Hughes (4)
Thyrostroma Höhn. (ca. 45)
Wilsonomyces Adask., J.M. Ogawa & E.E. Butler (1)

Fuscostagonosporaceae Jayasiri, Camporesi & K.D. Hyde
Fuscostagonospora Kaz. Tanaka & K. Hiray. (3)

Fusculinaceae Crous
Fusculina Crous & Summerell (3)
Gordonomyces Crous & Marinc. (1)

Halojulellaceae Suetrong, K.D. Hyde & E.B.G. Jones
Halojulella Suetrong, K.D. Hyde & E.B.G. Jones (1)

Halotthiaceae Ying Zhang, J. Fourn. & K.D. Hyde
Brunneoclavispora Phook. & K.D. Hyde (1)
Halotthia Kohlm. (1)
Mauritiana Poonyth, K.D. Hyde, Aptroot & Peerally (1)
Neolophiostoma S. Boonmee & K.D. Hyde (1)*
Pontoporeia Kohlm. (1)
Sulcosporium Phook. & K.D. Hyde (1)

Hermatomycetaceae Locq.
Hermatomyces Speg. (ca. 20)

Hypsostromataceae Huhndorf
Hypsostroma Huhndorf (2)
Latoruaceae Crous
Latorua Crous (1)
Matsushimamyces Rahul Sharma & Rohit Sharma (2)
Polyschema H.P. Upadhyay (22)
Pseudoasteromassaria M. Matsum. & Kaz. Tanaka (2)

Lentimurisporaceae N.G. Liu, J.K Liu & K.D. Hyde
Bahusandhika Subram. (9)*
Lentimurispora N.G. Liu, Bhat & K.D. Hyde (1)*

Lentitheciaceae Y. Zhang ter, C.L. Schoch, J. Fourn., Crous & K.D. Hyde
Darksidea D.G. Knapp, Kovács, J.Z. Groenew. & Crous (6)
Halobyssothecium Dayar., E.B.G. Jones & K.D. Hyde (1)
Katumotoa Kaz. Tanaka & Y. Harada (1)
Keissleriella Höhn. (ca. 36)
Lentithecium K.D. Hyde, J. Fourn. & Ying Zhang (9)*
Murilentithecium Wanas., Camporesi, E.B.G. Jones & K.D. Hyde (3)
Neoophiosphaerella Kaz. Tanaka & K. Hiray. (1)
Phragmocamarosporium Wijayaw., Yong Wang bis & K.D. Hyde (2)
Pleurophoma Höhn. (ca. 9)
Poaceascoma Phook. & K.D. Hyde (4)
Pseudomurilentithecium Mapook & K.D. Hyde (1)
Setoseptoria Quaedvl., Verkley & Crous (7)
Tingoldiago K. Hiray. & Kaz. Tanaka (1)
Towyspora Wanas., E.B.G. Jones & K.D. Hyde (1)

Leptosphaeriaceae M.E. Barr
Alloleptosphaeria Ariyaw., Wanas. & K.D. Hyde (1)
Alternariaster E.G. Simmons (4)
Chaetoplea (Sacc.) Clem. (ca. 20)
Heterosporicola Crous (2)
Leptosphaeria Ces. & De Not. (151)
Neoleptosphaeria Ariyaw. & K.D. Hyde (2)
Paraleptosphaeria Gruyter, Aveskamp & Verkley (7)
Plenodomus Preuss (19)
Pseudoleptosphaeria Ariyaw. & K.D. Hyde (1)
Querciphoma Crous (2)
Sclerenchymomyces Phukhams. & K.D. Hyde (2)
Sphaerellopsis Cooke (6)
Subplenodomus Gruyter, Aveskamp & Verkley (6)

Libertasomycetaceae Crous
Libertasomyces Crous & Roets (3)
Neoplatysporoides Crous & M.J. Wingf. (1)

Ligninsphaeriaceae K.D. Hyde & Ariyaw. (Nom. inval., Art. 38.1(a) (Melbourne) *fide* Index Fungorum 2020)
Ligninsphaeria Jin F. Zhang, Jian K. Liu, K.D. Hyde & Zi Y. Liu (1)
Ligninsphaeriopsis Phukh., Feng & K.D. Hyde (1)

Lindgomycetaceae K. Hiray., Kaz. Tanaka & Shearer

Arundellina Wanas., E.B.G. Jones & K.D. Hyde (1)
Clohesyomyces K.D. Hyde (1)
Hongkongmyces C.C.C. Tsang, J.F.W. Chan, Trend.-Sm., A.H.Y. Ngan, I.W.H. Ling, S.K.P. Lau & P.C.Y. Woo (3)
Lindgomassariosphaeria W. Dong, H. Zhang & K.D. Hyde (1)
Lindgomyces K. Hiray., Kaz. Tanaka & Shearer (13)
Lolia Abdel-Aziz & Abdel-Wahab (1)
Neolindgomyces Jayasiri, E.B.G. Jones & K.D. Hyde (4)

Lizoniaceae Boonmee & K.D. Hyde

Lizonia (Ces. & De Not.) De Not. (22)

Longipedicellataceae Phukhams., Bhat & K.D. Hyde

Longipedicellata H. Zhang, K.D. Hyde & Jian K. Liu (1)
Pseudoxylomyces Kaz. Tanaka & K. Hiray. (1)
Submerspora W. Dong, H. Zhang & K.D. Hyde (1)

Longiostiolaceae Phukhams., Doilom & K.D. Hyde

Longiostiolum Doilom, Ariyaw. & K.D. Hyde (1)

Lophiostomataceae Sacc.

Alpestrisphaeria Thambug. & K.D. Hyde (2)
Biappendiculispora Thambug., Kaz. Tanaka & K.D. Hyde (1)
Capulatispora Thambug. & K.D. Hyde (1)
Coelodictyosporium Thambug. & K.D. Hyde (3)
Crassiclypeus A. Hashim., K. Hiray. & Kaz. Tanaka (1)*
Decaisnella Fabre (13)
Dimorphiopsis Crous (1)
Flabellascoma A. Hashim., K. Hiray. & Kaz. Tanaka (2)*
Guttulispora Thambug., Qing Tian & K.D. Hyde (1)
Kiskunsagia D.G. Knapp, Imrefi & Kovács (1)
Lentistoma A. Hashim., K. Hiray. & Kaz. Tanaka (1)
Leptoparies A. Hashim., K. Hiray. & Kaz. Tanaka (1)*
Lophiohelichrysum Dayar., Camporesi & K.D. Hyde (1)
Lophiopoacea Ariyaw., Thambug. & K.D. Hyde (2)
Lophiostoma Ces. & De Not. (ca. 100)
Neopaucispora Wanas., Gafforov & K.D. Hyde (1)
Neotrematosphaeria Thambug., Kaz. Tanaka & K.D. Hyde (1)
Neovaginatispora A. Hashim., K. Hiray. & Kaz. Tanaka (1)
Parapaucispora A. Hashim., K. Hiray. & Kaz. Tanaka (1)
Paucispora Thambug., Kaz. Tanaka & K.D. Hyde (3)
Platystomum Trevis. (ca. 20)
Pseudocapulatispora Mapook & K.D. Hyde (inpress)
Pseudolophiostoma Thambug., Kaz. Tanaka & K.D. Hyde (5)
Pseudopaucispora A. Hashim., K. Hiray. & Kaz. Tanaka (1)*
Pseudoplatystomum Thambug. & K.D. Hyde (1)
Quintaria Kohlm. & Volkm.-Kohlm (3)
Sigarispora Thambug. & K.D. Hyde (14)
Vaginatispora K.D. Hyde (8)

Lophiotremataceae K. Hiray. & Kaz.
Atrocalyx A. Hashim. & Kaz. Tanaka (6)
Crassimassarina A. Hashim. & Kaz. Tanaka (1)
Cryptoclypeus A. Hashim. & Kaz. Tanaka (2)
Galeaticarpa A. Hashim. & Kaz. Tanaka (1)
Koordersiella Höhn. (6)
Lophiotrema Sacc. (17)
Pseudocryptoclypeus A. Hashim. & Kaz. Tanaka (1)

Macrodiplodiopsidaceae Voglmayr, Jaklitsch & Crous
Macrodiplodiopsis Petr. (2)
Pseudochaetosphaeronema Punith. (4)

Massariaceae Nitschke
Massaria De Not. (31)
Massarioramusculicola Huanral., Thambug. & K.D. Hyde (1)
Paramassaria Samarak. & K.D. Hyde (1)

Massarinaceae Munk
Byssothecium Fuckel (8)
Helminthosporium Link (= *Helminthosporiella* Hern.-Restr., G.A. Sarria & Crous) (ca. 416)
Massarina Sacc. (ca. 100)
Pseudodidymosphaeria Thambug. & K.D. Hyde (2)
Pseudosplanchnonema Chethana & K.D. Hyde (1)
Semifissispora H.J. Swart (5)
Stagonospora (Sacc.) Sacc. (220)
Suttonomyces Wijayaw., Camporesi & K.D. Hyde (2)

Melanommataceae G. Winter (= *Pseudodidymellaceae* A. Hashim. & Kaz. Tanaka)
Alpinaria Jaklitsch & Voglmayr (1)
Aposphaeria Sacc. (189)
Asymmetricospora J. Fröhl. & K.D. Hyde (1)
Bertiella (Sacc.) Sacc. & P. Syd. (2)
Bicrouania Kohlm. & Volkm.-Kohlm. (1)
Byssosphaeria Cooke (27)
Calyptronectria Speg. (3)
Camposporium Harkn. (21)*
Exosporiella P. Karst. (1)
Fusiconidium Jun F. Li, Phook. & K.D. Hyde (2)
Herpotrichia Fuckel (101)
Mamillisphaeria K.D. Hyde, S.W. Wong & E.B.G. Jones (1)
Marjia Wanas., Gafforov & K.D. Hyde (1)
Melanocamarosporioides D. Pem, R. Jeewon, Gafforov & K.D. Hyde (1)
Melanocamarosporium Wijayaw., Camporesi, Bhat & K.D. Hyde (2)
Melanocucurbitaria Wanas., Gafforov & K.D. Hyde (1)
Melanodiplodia Wanas., Gafforov & K.D. Hyde (1)
Melanomma Nitschke ex Fuckel (ca. 30)
Monoseptella Wanas., Gafforov & K.D. Hyde (1)
Muriformistrickeria Q. Tian, Wanas., Camporesi & K.D. Hyde (2)
Navicella Fabre (5)
Neobyssosphaeria Wanas., Jones & K.D. Hyde (1)
Petrakia Syd. & P. Syd. (6)

Phragmocephala E.W. Mason & S. Hughes (10)
Phragmotrichum Kunze (4)
Pleotrichocladium Hern.-Restr., R.F. Castañeda & Gené (1)
Praetumpfia Jaklitsch & Voglmayr (1)
Pseudobyssosphaeria H.B. Jiang & K.D. Hyde (1)
Pseudodidymella C.Z. Wei, Y. Harada & Katum. (2)
Pseudostrickeria Q. Tian, Wanas., Camporesi & K.D. Hyde (3)
Sarimanas M. Matsum., K. Hiray. & Kaz. Tanaka (2)
Seifertia Partr. & Morgan-Jones (2)
Tumularia Descals & Marvanová (2)
Uzbekistanica Wanas., Gafforov & K.D. Hyde (3)
Xenostigmina Crous (2)

Morosphaeriaceae Suetrong, Sakay., E.B.G. Jones & C.L. Schoch
Aquihelicascus W. Dong, H. Zhang & Doilom (3)
Aquilomyces D.G. Knapp, Kovács, J.Z. Groenew. & Crous (2)
Clypeoloculus Kaz. Tanaka & K. Hiray. (4)
Helicascus Kohlm. (12)
Morosphaeria Suetrong, Sakay., E.B.G. Jones & C.L. Schoch (4)
Neohelicascus W. Dong, H. Zhang & Doilom (8)

Mycoporaceae Zahlbr.
Mycoporum Flot. ex Nyl. (ca. 5 + c. 35 orphaned, partly in *Mycoporellum* Müll. Arg.)

Neocamarosporiaceae Wanas., Wijayaw., Crous & K.D. Hyde
Dimorphosporicola Crous (1)
Neocamarosporium Crous & M.J. Wingf. (15)

Neohendersoniaceae Giraldo & Crous
Brevicollum Kaz. Tanaka (2)
Crassiparies M. Matsum., K. Hiray. & Kaz. Tanaka (1)
Medicopsis Gruyter, Verkley & Crous (2)
Neohendersonia Petr. (4)
Neomedicopsis Crous & Akulov (1)

Neomassariaceae H.A. Ariyaw., Jaklitsch & Voglmayr
Neomassaria Mapook, Camporesi & K.D. Hyde (2)

Neomassarinaceae Mapook & K.D. Hyde
Neomassarina Phook., Jayasiri & K.D. Hyde (2)
Pseudohelminthosporium Phukhams. & K.D. Hyde (1)

Neophaeosphaeriaceae Ariyaw. & K.D. Hyde
Neophaeosphaeria M.P.S. Câmara, M.E. Palm & A.W. Ramaley (6)

Neopyrenochaetaceae Valenz.-Lopez, Crous, Cano, Guarro & Stchigel
Neopyrenochaeta Valenz.-Lopez, Crous, Stchigel, Guarro & Cano (5)

Nigrogranaceae Jaklitsch & Voglmayr
Nigrograna Gruyter, Verkley & Crous (12)

Occultibambusaceae D.Q. Dai & K.D. Hyde
Brunneofusispora S.K. Huang & K.D. Hyde (1)*
Neooccultibambusa Doilom & K.D. Hyde (4)
Occultibambusa D.Q. Dai & K.D. Hyde (7)
Seriascoma Phook., D.Q. Dai & K.D. Hyde (2)
Versicolorisporium Sat. Hatak., Kaz. Tanaka & Y. Harada (1)

Ohleriaceae Jaklitsch & Voglmayr
Ohleria Fuckel (13)

Parabambusicolaceae Kaz. Tanaka & K. Hiray.
Aquastroma Kaz. Tanaka & K. Hiray. (1)
Lonicericola Phook., Jayasiri & K.D. Hyde (1)*
Multilocularia Phook. (1)
Multiseptospora Phook. & K.D. Hyde (2)
Neoaquastroma Wanas., E.B.G. Jones & K.D. Hyde (3)
Parabambusicola Kaz. Tanaka & K. Hiray. (2)
Paramonodictys N.G. Liu, K.D. Hyde & J.K. Liu (1)
Paratrimmatostroma Jayasiri, Phook., D.J. Bhat & K.D. Hyde (1)*
Pseudomonodictys Doilom, Ariyaw., Bhat & K.D. Hyde (1)

Paradictyoarthriniaceae Doilom, Ariyaw., Bhat & K.D. Hyde
Paradictyoarthrinium Matsush. (4)
Xenomassariosphaeria Jayasiri, Wanas. & K.D. Hyde (1)

Paralophiostomataceae V.V. Sarma & M. Niranjan.
Paralophiostoma V.V. Sarma & M. Niranjan. (1)

Parapyrenochaetaceae Valenz.-Lopez, Crous, Stchigel, Guarro & Cano
Parapyrenochaeta Valenz.-Lopez, Crous, Stchigel, Guarro & Cano (2)
Quixadomyces Cantillo & Gusmão (1)

Periconiaceae Nann.
Bambusistroma D.Q. Dai & K.D. Hyde (1)
Flavomyces D.G. Knapp, Kovács, J.Z. Groenew. & Crous (1)
Noosia Crous, R.G. Shivas & McTaggart, Persoonia (1)*
Periconia Tode (46)

Phaeoseptaceae S. Boonmee, Thambug. & K.D. Hyde
Phaeoseptum Ying Zhang, J. Fourn. & K.D. Hyde (2)
Pleopunctum N.G. Liu, K.D. Hyde & J.K. Liu (2)

Phaeosphaeriaceae M.E. Barr
Acericola Wanas., Camporesi, E.B.G. Jones & K.D. Hyde (1)
Allophaeosphaeria Ariyaw., Camporesi & K.D. Hyde (3)
Amarenographium O.E. Erikss. (4)
Amarenomyces O.E. Erikss. (2)*
Ampelomyces Ces. ex Schltdl. (ca. 5)
Aphanostigme Syd. (21)
Arezzomyces Y. Marín & Crous (1)
Banksiophoma Crous (1)
Bhagirathimyces S.M. Singh & S.K. Singh (1)

Bhatiellae Wanas., Camporesi & K.D. Hyde (1)
Bricookea M.E. Barr (1)
Brunneomurispora Phook., Wanas. & K.D. Hyde (1)*
Camarosporioides W.J. Li & K.D. Hyde (1)
Chaetosphaeronema Moesz (12)
Dactylidina Wanas., Camporesi & K.D. Hyde (2)
Dematiopleospora Wanas., Camporesi, E.B.G. Jones & K.D. Hyde (8)
Didymocyrtis Vain. (21)
Dlhawksworthia Wanas., Camporesi & K.D. Hyde (3)
Edenia M.C. González, A.L. Anaya, Glenn, Saucedo & Hanlin (2)
Embarria Wanas., Camporesi & K.D. Hyde (1)
Equiseticola Abdelsalam, Tibpromma, Wanas. & K.D. Hyde (1)
Eudarluca Speg. (8)*
Galiicola Tibpromma, Camporesi & K.D. Hyde (3)
Hydeomyces Maharachch., H.A. Ariyaw., Wanas. & Al-Sadi (2)
Hydeopsis J.F. Zhang, J.K. Liu & Z.Y. Liu (1)
Italica Wanas., Camporesi & K.D. Hyde (2)
Jeremyomyces Crous & R.K. Schumach. (1)
Juncaceicola Tennakoon, Camporesi, Phook. & K.D. Hyde (8)
Kwanghwana A. Karunarathna, C. H. Kuo & K. D. Hyde (1)
Leptospora Rabenh. (15)
Longispora Phukhams. & K.D. Hyde (1)
Loratospora Kohlm. & Volkm.-Kohlm. (2)
Mauginiella Cavara (1)
Melnikia Wijayaw., Goonas., Bhat & K.D. Hyde (1)
Murichromolaenicola Mapook & K.D. Hyde (2)
Muriphaeosphaeria Phukhams., Bulgakov & K.D. Hyde (3)
Neoophiobolus Mapook & K.D. Hyde (1)
Neosetophoma Gruyter, Aveskamp & Verkley (15)
Neosphaerellopsis Crous & Trakun. (10)
Neostagonospora Quaedvl., Verkley & Crous (6)
Neostagonosporella C.L. Yang, X.L. Xu & K.D. Hyde (1)*
Neosulcatispora Crous & M.J. Wingf. (2)
Nodulosphaeria Rabenh. (ca. 52)
Ophiobolopsis Phook., Wanas. & K.D. Hyde (1)*
Ophiobolus Riess (350)
Ophiosimulans Tibpromma, Camporesi & K.D. Hyde (1)
Ophiosphaerella Speg. (10)
Paraleptospora Mapook & K.D. Hyde (2)
Paraloratospora Bundhun, Tennakoon, Phookamsak & K.D. Hyde (2)
Paraophiobolus Phook., Wanas. & K.D. Hyde (2)*
Paraphoma Morgan-Jones & J.F. White (8)
Parastagonospora Quaedvl., Verkley & Crous (ca. 19)
Parastagonosporella M. Bakhshi, Arzanlou & Crous (1)
Phaeopoacea Thambug., Dissan. & K.D. Hyde (3)*
Phaeoseptoriella Crous (1)
Phaeosphaeria I. Miyake (ca. 95)
Phaeosphaeriopsis M.P.S. Câmara, M.E. Palm & A.W. Ramaley (12)
Phaeostagonospora A.W. Ramaley (1)
Piniphoma Crous & R.K. Schumach. (1)
Poaceicola W.J. Li, Camporesi, Bhat & K.D. Hyde (10)
Populocrescentia Wanas., E.B.G. Jones & K.D. Hyde (3)

Pseudoophiobolus Phook., Wanas. & K.D. Hyde (8)*
Pseudoophiosphaerella J.F. Zhang, J.K. Liu & Z.Y. Liu (1)
Pseudophaeosphaeria Jayasiri, Camporesi & K.D. Hyde (1)
Pseudostaurosphaeria Mapook & K.D. Hyde (2)
Sclerostagonospora Höhn. (ca. 15)
Scolicosporium Lib. ex Roum. (13)
Septoriella Oudem. (=*Wojnowicia* Sacc.) (22)*
Setomelanomma M. Morelet (1)
Setophoma Gruyter, Aveskamp & Verkley (6)
Sulcispora Shoemaker & C.E. Babc. (2)
Tiarospora Sacc. & Marchal (3)
Tintelnotia S.A. Ahmed, Hofmüller, M. Seibold & de Hoog (2)
Vagicola K.W.T. Chethana & K.D. Hyde (1)
Vittaliana Devadatha, Nikita, A. Baghela & V.V. Sarma (1)*
Vrystaatia Quaedvl., W.J. Swart, Verkley & Crous (1)
Wingfieldomyces Y. Marín & Crous (1)
Wojnowiciella Crous, Hern.-Restr. & M.J. Wingf. (9)
Xenophaeosphaeria Crous & M.J. Wingf. (1)
Xenophoma Crous & Trakunyingcharoen (1)
Xenoseptoria Quaedvl., H.D. Shin, Verkley & Crous (1)
Yunnanensis Karun., Phook. & K.D. Hyde (1)*

Pleomassariaceae M.E. Barr
Beverwykella Tubaki (3)
Lichenopyrenis Calat., Sanz & Aptroot (1)
Myxocyclus Riess (1)
Peridiothelia D. Hawksw. (3)
Prosthemium Kunze (ca. 8)
Pseudotrichia Kirschst. (ca. 8)
Splanchnonema Corda (37)

Pleomonodictydaceae Hern.-Restr., J. Mena & Gené
Pleomonodictys Hern.-Restr., J. Mena & Gené (2)
Pleohelicoon Jayasiri, E.B.G. Jones & K.D. Hyde (2)

Pleosporaceae Nitschke
Allonecte Syd. (3)
Alternaria Nees (ca. 360)*
Bipolaris Shoemaker (69)
Clathrospora Rabenh. (20)
Comoclathris Clem. (30)
Curvularia Boedijn (119)
Decorospora Inderb., Kohlm. & Volkm.-Kohlm. (1)
Diademosa Shoemaker & C.E. Babc. (4)*
Dichotomophthora Mehrl. & Fitzp. ex P.N. Rao (6)
Exserohilum K.J. Leonard & Suggs (ca. 30)
Extrawettsteinina M.E. Barr (4)
Gibbago E.G. Simmons (1)
Johnalcornia Y.P. Tan & R.G. Shivas (1)
Paradendryphiella Woudenberg & Crous (2)
Platysporoides (Wehm.) Shoemaker & C.E. Babc. (11)
Pleoseptum A.W. Ramaley & M.E. Barr (1)

Porocercospora Amaradasa, Amundsen, Madrid & Crous (1)*
Prathoda Subram. (2)*
Pseudoyuconia Lar.N. Vassiljeva (1)
Pyrenophora Fr. (= *Marielliottia* Shoemaker) (ca. 95)
Stemphylium Wallr. (ca. 96)*
Tamaricicola Thambug., Camporesi & K.D. Hyde (1)
Typhicola Crous (1)

Pseudoastrosphaeriellaceae Phook. & K.D. Hyde
Carinispora K.D. Hyde (2)
Pseudoastrosphaeriella Phook., Z.L. Luo & K.D. Hyde (6)
Pseudoastrosphaeriellopsis Devadatha, Wanas., Jeewon & V.V. Sarma (1)*

Pseudoberkleasmiaceae Phukhams. & K.D. Hyde
Pseudoberkleasmium Tibpromma & K.D. Hyde (3)

Pseudocoleodictyosporaceae Doilom & K.D. Hyde
Pseudocoleodictyospora Doilom & K.D. Hyde (3)
Subglobosporium Doilom & K.D. Hyde (1)

Pseudolophiotremataceae K.D. Hyde & Hongsanan
Clematidis Tibpromma, Camporesi & K.D. Hyde (1)
Pseudolophiotrema A. Hashim. & Kaz. Tanaka (1)

Pseudomassarinaceae Phukhams & K.D. Hyde
Pseudomassarina Phukhams. & K.D. Hyde (1)

Pseudopyrenochaetaceae Valenz.-López, Crous, Stchigel, Guarro & J.F. Cano
Pseudopyrenochaeta Valenzuela-López, Crous, Stchigel, Guarro & Cano (2)

Pyrenochaetopsidaceae Valenz.-López, Crous, Cano, Guarro & Stchigel
Pyrenochaetopsis Gruyter, Aveskamp & Verkley (7)
Neopyrenochaetopsis Valenz-López, Cano, Guarro & Stchigel (1)
Xenopyrenochaetopsis Valenz.-Lopez, Crous, Stchigel, Guarro & Cano (1)

Roussoellaceae Jian K. Liu, Phook., D.Q. Dai & K.D. Hyde
Appendispora K.D. Hyde (2)
Cytoplea Bizz. & Sacc. (5)
Elongatopedicellata Jin F. Zhang, Jian K. Liu, K.D. Hyde & Zi Y. Liu (1)
Immotthia M.E. Barr (2)*
Neoroussoella Jian K. Liu, Phook. & K.D. Hyde (7)
Pararoussoella Wanas., E.B.G. Jones & K.D. Hyde (3)*
Pseudoneoconiothyrium Wanas., Phukhams., Camporesi & K.D. Hyde (1)
Pseudoroussoella Mapook & K.D. Hyde (2)
Roussoella Sacc. (38)
Roussoellopsis I. Hino & Katum. (3)
Setoarthopyrenia Mapook & K.D. Hyde (1)
Xenoroussoella Mapook & K.D. Hyde (1)

Salsugineaceae K.D. Hyde & Tibpromma
Acrocordiopsis Borse & K.D. Hyde (2)
Salsuginea K.D. Hyde (1)

Shiraiaceae Y.X. Liu, Zi Y. Liu & K.D. Hyde
Grandigallia M.E. Barr, Hanlin, Cedeño, Parra & R. Hern. (1)
Rubroshiraia D.Q. Dai & K.D. Hyde (1)
Shiraia Henn. (1)

Sporormiaceae Munk
Chaetopreussia Locq.-Lin. (1)
Forliomyces Phukhams., Camporesi & K.D. Hyde (1)
Pleophragmia Fuckel (1)
Preussia Fuckel (51)
Sparticola Phukhams., Ariyaw., Camporesi & K.D. Hyde (4)
Sporormia De Not. (29)
Sporormiella Ellis & Everh. (60)*
Sporormurispora Wanas., Bulgakov, Gafforov & K.D. Hyde (2)
Westerdykella Stolk (50)

Striatiguttulaceae S.N. Zhang, K.D. Hyde & J.K. Liu
Longicorpus S.N. Zhang, K.D. Hyde & J.K. Liu (1)
Striatiguttula S.N. Zhang, K.D. Hyde & J.K. Liu (2)

Sulcatisporaceae Kaz. Tanaka & K. Hiray.
Anthosulcatispora Phukhams. & K.D. Hyde (2)
Magnicamarosporium Kaz. Tanaka & K. Hiray. (2)
Neobambusicola Crous & M.J. Wingf. (2)
Parasulcatispora Phukhams. & K.D. Hyde (1)
Pseudobambusicola Hern.-Restr. & Crous (1)*
Sulcatispora Kaz. Tanaka & K. Hiray. (2)

Teichosporaceae M.E. Barr
Asymmetrispora Thambug. & K.D. Hyde (2)
Aurantiascoma Thambug. & K.D. Hyde (1)
Chaetomastia (Sacc.) Berl. (10)
Floricola Kohlm. & Volkm.-Kohlm. (2)
Loculohypoxylon M.E. Barr (1)
Magnibotryascoma Thambug. & K.D. Hyde (2)
Misturatosphaeria Mugambi & Huhndorf (2)
Paulkirkia Wijayaw., Wanas., Tangthir., Camporesi & K.D. Hyde (1)
Pseudoaurantiascoma Thambug. & K.D. Hyde (1)
Pseudomisturatosphaeria Thambug. & K.D. Hyde (1)
Ramusculicola Thambug. & K.D. Hyde (1)
Sinodidymella J.Z. Yue & O.E. Erikss. (5)
Teichospora Fuckel (35)

Testudinaceae Arx
Angustospora Abdel-Aziz (1)
Halotestudina Dayar. & K.D. Hyde (1)
Lepidosphaeria Parg.-Leduc (1)
Lojkania Rehm (10)
Muritestudina Wanas., E.B.G. Jones & K.D. Hyde (1)
Neotestudina Segretain & Destombes (3)
Testudina Bizz. (1)
Ulospora D. Hawksw., Malloch & Sivan. (1)

Verruculina Kohlm. & Volkm.-Kohlm. (1)

Tetraplosphaeriaceae Kaz. Tanaka & K. Hiray
Byssolophis Clem. (3)
Ernakulamia Subram. (2)
Polyplosphaeria Kaz. Tanaka & K. Hiray. (5)
Pseudotetraploa Kaz. Tanaka & K. Hiray. (4)
Quadricrura Kaz. Tanaka, K. Hiray. & Sat. Hatak. (3)
Shrungabeeja V.G. Rao & K.A. Reddy (5)
Tetraploa Berk. & Broome (19)
Triplosphaeria Kaz. Tanaka & K. Hiray (4)

Thyridariaceae Q. Tian & K.D. Hyde
Chromolaenomyces Mapook & K.D. Hyde (1)
Cycasicola Wanas., E.B.G. Jones & K.D. Hyde (2)
Liua Phook. & K.D. Hyde (1)*
Parathyridaria Jaklitsch & Voglmayr (5)
Pseudothyridariella Mapook & K.D. Hyde (2)
Thyridaria Sacc. (52)
Thyridariella Devadatha, V.V. Sarma, K.D. Hyde, Wanas. & E.B.G Jones (2)

Torulaceae Corda
Dendryphion Wallr. (68)
Neotorula Ariyaw., Z.L. Luo & K.D. Hyde (2)
Rostriconidium Z.L. Luo, K.D. Hyde & H.Y. Su (2)
Rutola J.L. Crane & Schokn. (1)
Sporidesmioides Jun F. Li, Phook. & K.D. Hyde (1)
Torula Pers. (12)

Trematosphaeriaceae K.D. Hyde, Y. Zhang ter, Suetrong & E.B.G. Jones
Bryosphaeria Döbbeler (9)
Falciformispora K.D. Hyde (4)
Hadrospora Boise (2)
Halomassarina Suetrong, Sakay., E.B.G. Jones, Kohlm., Volkm.-Kohlm. & C.L. Schoc (1)
Raghukumaria Devadatha, V.V Sarma & E.B.G Jones (1)
Trematosphaeria Fuckel (20)

Tzeananiaceae H.A. Ariyaw., A.J.L. Phillips & Chuang
Tzeanania H.A. Ariyaw., A.J.L. Phillips & Chuang (1)

Wicklowiaceae Ariyaw. & K.D. Hyde
Wicklowia Raja, A. Ferrer & Shearer (2)

Zopfiaceae G. Arnaud ex D. Hawksw.
Celtidia J.M. Janse (1)
Coronopapilla Kohlm. & Volkm.-Kohlm. (2)
Rechingeriella Petr. (2)
Richonia Boud. (1)
Zopfia Rabenh. (5)
Zopfiofoveola D. Hawksw. (1)

Pleosporales genera *incertae sedis*

Acuminatispora S.N. Zhang, K.D. Hyde & J.K. Liu (1)
Aegeanispora E.B.G. Jones & Abdel-Wahab (1)
Antealophiotrema A. Hashim. & Kaz. Tanaka (1)
Ascorhombispora L. Cai & K.D. Hyde (1)
Atradidymella Davey & Currah (1)
Briansuttonia R.F. Castañeda, Minter & Saikawa (1)
Camarographium Bubák (7)
Chaetodiplodia P. Karst. (9)
Chaetophoma Cooke (ca. 30)
Cheiromoniliophora Tzean & J.L. Chen (4)
Crassiperidium M. Matsum. & Kaz. Tanaka (2)
Cyclothyrium Petr. (2)
Dangeardiella Sacc. & P. Syd. (2)
Daruvedia Dennis (1)
Dokmaia I. Promputtha (1)
Farasanispora Abdel-Wahab, Bahkali & E.B.G. Jones (1)
Glaxoa P.F. Cannon (1)
Homostegia Fuckel (2)
Hobus Jaklitsch & Voglmayr (1)
Inflatispora Y. Zhang ter, J. Fourn. & K.D. Hyde (2)
Isthmosporella Shearer & J.L. Crane (1)
Megacapitula J.L. Chen & Tzean (1)
Megatomentella D.A.C. Almeida, Gusmão & A.N. Mill. (1)
Neocurreya Thambug. & K.D. Hyde (5)
Ostropella (Sacc.) Höhn. (5)
Paraepicoccum Matsush. (1)
Paraliomyces Kohlm. (1)
Parameliola Hongsanan, Peršoh & K.D. Hyde (2)
Perthomyces Crous (1)
Phialophorophoma Linder (1)
Pleosphaerellula Naumov & Czerepan. (2)
Pseudohendersonia Crous & M.E. Palm (2)
Pseudopassalora Crous (1)
Pyrenochaeta De Not. (5)
Rebentischia P. Karst. (16)
Repetophragma Subram. (38)
Scleroramularia Batzer & Crous (6)
Scolecobasidium E.V. Abbott (64)
Setophaeosphaeria Crous & Y. Zhang ter (6)
Sirodesmium De Not. (ca. 25)
Spiroplana Voglmayr, M.J. Park & H.D. Shin (1)
Stuartella Fabre (6)
Xenolophium Syd. (ca. 5)

Pleosporomycetidae genus *incertae sedis*

Hysterographium Corda (3)

Dothideomycetes orders *incertae sedis*
Abrothallales Pérez-Ort. & Suija [= *Lichenoconiales* Diederich, Lawrey & K.D. Hyde]
Lichenoconiaceae Diederich & Lawrey [= *Abrothallaceae* Pérez-Ort. & Suija]*

Abrothallus De Not (=*Epinephroma* Zhurb.; *Vouauxiomyces* Dyko & D. Hawks.) (42)*

Lichenoconium Petr. & Syd. (15)

Acrospermales Minter, Peredo & A.T. Watson
Acrospermaceae Fuckel
Acrospermum Tode (12)
Gonatophragmium Deighton (17)
Oomyces Berk. & Broome (7)

Acrospermales genus *incertae sedis*
Pseudovirgaria H.D. Shin, U. Braun, Arzanlou & Crous (2)

Asterinales M.E. Barr ex D. Hawksw. & O.E. Erikss. (= *Asterotexales* Firmino et al.)
Asterinaceae Hansf.
Asterina Lév. (ca. 1085)
Asterinella Theiss. (ca. 39)
Asterolibertia G. Arnaud (ca. 30)
Asterostomella Speg.
Batistinula Arx (1)
Cirsosia G. Arnaud (18)
Dothidasteromella Höhn. (11)
Echidnodella Theiss. & Syd. (35)
Halbania Racib. (3)
Meliolaster Höhn. (3)
Parasterinopsis Bat. (3)
Platypeltella Petr. (3)
Prillieuxina G. Arnaud (66)
Pycnocarpon Theiss.
Schenckiella Henn. (1)
Trichasterina G. Arnaud (11)
Trichopeltospora Bat. & Cif. (2)
Uleothyrium Petr. (3)
Vizellopsis Bat., J.L. Bezerra & T.T. Barros (1)

Asterotexaceae Firmino, O.L. Pereira & Crous
Asterotexis Arx (2)

Hemigraphaceae D.Q. Dai & K.D. Hyde*
Hemigrapha (Müll. Arg.) D. Hawksw. (8)

Lembosiaceae Hosag.
Lembosia Lév. (ca. 200)

Melaspileellaceae D.Q. Dai & K.D. Hyde*
Melaspileella (P. Karst.) Vain. (1)

Morenoinaceae Hongsanan & K.D. Hyde
Morenoina Theiss. (ca. 25)

Neobueliellaceae Hongsanan & K.D. Hyde
Neobueliella Hongsanan & K.D. Hyde

Stictographaceae D.Q. Dai & K.D. Hyde*
Buelliella Fink (12)
Karschia Körb. (4)
Labrocarpon Etayo & Pérez-Ort. (1)
Melaspileopsis (Müll. Arg.) Ertz & Diederich (1)
Stictographa Mudd (2)

Asterinales genera *incertae sedis*
Andamanomyces Hosag. (1)
Caribaeomyces Cif. (1)
Discopycnothyrium Hongsanan & K.D. Hyde (1)
Hazslinszkya Körb. (4)
Inocyclus Theiss. & Syd. (6)
Melanographa Müll. Arg. (1)
Pirozynskiella S. Hughes (3)
Vishnumyces Hosag. (1)

Botryosphaeriales C.L. Schoch, Crous & Shoemaker
Aplosporellaceae Slippers, Boissin & Crous
Alanomyces Roh. Sharma (1)*
Aplosporella Speg. (= *Bagnisiella* Speg.) (10)*

Botryosphaeriaceae Theiss. & Syd. (= *Endomelanconiopsidaceae* Tao Yang & Crous)*
Alanphillipsia Crous & M.J. Wingf. (5)
Barriopsis A.J.L. Phillips, A. Alves & Crous (5)
Botryobambusa Phook., J.K. Liu & K.D. Hyde (2)
Botryosphaeria Ces. & De Not. (13)
Cophinforma Doilom, J.K. Liu & K.D. Hyde (2)
Diplodia Fr. (more than 1000 names in MycoBank, 30 known from culture)
Dothiorella Sacc. (389 names in MycoBank, 38 known from culture) (= *Spencermartinsia* A.J.L. Phillips, A. Alves & Crous)*
Endomelanconiopsis Rojas & Samuels (2)*
Eutiarosporella Crous (7)*
Lasiodiplodia Ellis & Everh. (35)
Macrophomina Petr. (2)
Marasasiomyces Crous (1)*
Mucoharknessia Crous, R.M. Sánchez & Bianchin. (2)*
Neodeightonia Booth (6)
Neofusicoccum Crous, Slippers & A.J.L. Phillips (4)
Neoscytalidium Crous & Slippers (3)*
Oblongocollomyces Tao Yang & Crous (1)*
Phaeobotryon Theiss. & Syd. (4)
Sakireeta Subram. & K. Ramakr. (1)*
Sardiniella Linaldeddu, A. Alves & A.J.L. Phillips (1)*
Sphaeropsis Sacc. (more than 600 names in MycoBank, 4 known from culture)
Tiarosporella Höhn. (2)

Melanopsaceae Phillips A.J.L., Slippers, Boissin & Crous
Melanops Nitschke ex Fuckel (105 names in MycoBank, 4 known from culture)

Phyllostictaceae Fr. (= *Pseudofusicoccumaceae* Tao Yang & Crous)
Phyllosticta Pers. (ca. 53)

Pseudofusicoccum Mohali, Slippers & M.J. Wingf. (7)*

Planistromellaceae M.E. Barr
Kellermania Ellis & Everh. (ca. 16)*
Mycosphaerellopsis Höhn. (1)
Planistroma A.W. Ramaley (6)
Umthunziomyces Crous & M.J. Wingf. (1)*

Saccharataceae Slippers, Boissin & Crous (= *Septorioideaceae* Wyka & Broders)
Neoseptorioides Crous, Jacq. Edwards & Pascoe (1)*
Pileospora Tanney & Seifert (1)
Saccharata Denman & Crous (20)
Septorioides Quaedvl., Verkley & Crous (2)*

Botryosphaeriales genera *incertae sedis*
Auerswaldiella Theiss. & Syd. (7)
Coccostromella Petr. (1)
Leptoguignardia E. Müll. (1)
Metameris Theiss. & Syd. (5)
Phyllachorella Syd. (8)
Pilgeriella Henn. (2)
Sivanesania W.H. Hsieh & Chi Y. Chen (1)
Vestergrenia Rehm (3)

Catinellales Ekanayaka, K.D. Hyde & Ariyaw.
Catinellaceae Ekanayaka, K.D. Hyde & Ariyaw.
Catinella Boud. (1 or 2)

Cladoriellales Crous
Cladoriellaceae Crous
Cladoriella Crous (5)

Collemopsidiales Pérez-Ort., Garrido-Ben. & Grube
Xanthopyreniaceae Zahlbr.
Collemopsidium Nyl. (27)
Didymellopsis (Sacc.) Clem. & Shear (6)
Frigidopyrenia Grube (1)
Xanthopyrenia Bachm. (2)
Zwackhiomacromyces Etayo & van den Boom (2)
Zwackhiomyces Grube & Hafellner (35)

Dyfrolomycetales K.L. Pang, K.D. Hyde & E.B.G. Jones
Pleurotremataceae Walt. Watson
Dyfrolomyces K.D. Hyde, K.L. Pang, Alias, Suetrong & E.B.G. Jones (8)
Melomastia Nitschke ex Sacc. (4)
Pleurotrema Müll. Arg. (1)

Eremithallales Lücking & Lumbsch
Melaspileaceae W. Watson (= *Eremithallaceae* Lücking & Lumbsch)
Encephalographa A. Massal. (1)
Melaspilea Nyl. (1 + c. 75 orphaned) (= *Eremithallus* Lücking et al.)

Eremomycetales Pem & Hyde
Eremomycetaceae Malloch & Cain
Eremomyces Malloch & Cain (2)
Rhexothecium Samson & Mouch. (1)

Eremomycetales genus *incertae sedis*
Arthrographis G. Cochet ex Sigler (12)

Jahnulales K.L. Pang, Abdel-Wahab, El-Shar., E.B.G. Jones & Sivichai
Aliquandostipitaceae Inderbitzin
Aliquandostipite Inderbitzin (7)
Brachiosphaera Nawawi (2)
Jahnula Kirschst. (19)
Megalohypha A. Ferrer & Shearer (1)
Neojahnula W. Dong, H. Zhang & K.D. Hyde (1)
Pseudojahnula W. Dong, H. Zhang & K.D. Hyde (1)
Xylomyces Goos, R.D. Brooks & Lamore (8)*

Manglicolaceae Suetrong & E.B.G. Jones
Manglicola Kohlm. & E. Kohlm. (1)*

Kirschsteiniotheliales Hern.-Restr., R.F. Castañeda, Gené & Crous
Kirschsteiniotheliaceae Boonmee & K.D. Hyde
Kirschsteiniothelia D. Hawksw. (29)

Kirschsteiniotheliales genera *incertae sedis*
Brachysporiella Bat. (*Brachysporiella s. lato*.) (15)
Taeniolella S. Hughes *sensu lato**

Lembosinales Crous
Lembosinaceae Crous
Lembosina Theiss. (21)

Lichenotheliales K. Knudsen, Muggia & K.D. Hyde
Lichenotheliaceae Henssen
Lichenothelia D. Hawksw. (27)
Endococcus Nyl. (44)

Microthyriales G. Arnaud
Microthyriaceae Sacc.
Arnaudiella Petr. (12)
Calothyriopsis Höhn. (4)
Chaetothyriothecium Hongsanan & K.D. Hyde (1)
Hamatispora L.T.H. Yen, K. Yamag. & K. Ando (1)
Microthyrium Desm. (ca. 180)
Neoanungitea Crous (1)
Paramicrothyrium H.X. Wu & K.D. Hyde (1)
Pseudomicrothyrium X.Y. Zeng, S. Hongsanan & K.D. Hyde (1)
Pseudopenidiella Crous & Koukol (1)
Seynesiella G. Arnaud (5)
Tumidispora Hongsanan & K.D. Hyde (1)

Microthyriales genera *incertae sedis*
Heliocephala V. Rao, K.A. Reddy & de Hoog (7)
Mitopeltis Speg. (2)
Neoscolecobasidium Crous (1)
Parazalerion Madrid, Gené & Cano (1)*
Thyriodictyella Cif (1)
Tothia Bat. (2)

Minutisphaerales Raja, Oberlies, Shearer & A.N. Mill.
Acrogenosporaceae Jayasiri & K.D. Hyde*
Acrogenospora M.B. Ellis (12)

Minutisphaeraceae Raja, Oberlies, Shearer & A.N. Mill.
Minutisphaera Shearer, A.N. Mill. & A. Ferrer (4)

Monoblastiales Lücking, M.P. Nelsen & K.D. Hyde
Monoblastiaceae Walt. Watson
Acrocordia A. Massal. (6)
Anisomeridium (Müll. Arg.) M. Choisy (ca. 80)
Caprettia Bat. & H. Maia (8)
Megalotremis Aptroot (12)
Monoblastia Riddle (11)
Trypetheliopsis Asahina (6)

Murramarangomycetales Crous
Murramarangomycetaceae Crous
Murramarangomyces Crous (1)

Muyocopronales Mapook, Boonmee & K.D. Hyde
Muyocopronaceae K.D. Hyde
Arxiella Papendorf (3)
Leptodiscella Papendorf (5)
Muyocopron Speg. (51)
Mycoleptodiscus Ostaz. (18)
Neocochlearomyces Pinruan, Sommai, Suetrong, J.Z. Groenew. & Crous (1)
Neomycoleptodiscus Hern.-Restr., J.D.P. Bezerra & Crous (1)
Paramycoleptodiscus Crous & M.J. Wingf. (1)
Pseudopalawania Mapook & K.D. Hyde (1)
Setoapiospora Mapook & K.D. Hyde (1)

Natipusillales Raja, Shearer, A.N. Mill. & K.D. Hyde
Natipusillaceae Raja, Shearer & A.N. Mill.
Natipusilla A. Ferrer, A.N. Mill. & Shearer (4)

Parmulariales D.Q. Dai & K.D. Hyde*
Parmulariaceae E. Müll. & Arx ex M.E. Barr
Aldona Racib. (3)
Aldonata Sivan. & A.R.P. Sinha (1)
Antoniomyces Inácio (1)
Aulacostroma Syd. & P. Syd. (5)
Campoa Speg. (4)
Cirsosiopsis Butin & Speer (1)

Cocconia Sacc. (13)
Cycloschizon P. Henn. (13)
Cyclostomella Pat. (4)
Dothidasteroma Höhn. (4)
Ferrarisia Sacc. (ca. 8)
Hysterostomella Speg. (23)
Kiehlia Viégas (2)
Mintera Inácio & P.F. Cannon (1)
Pachypatella Theiss. & Syd. (1)
Palawaniella Doidge (7)
Parmularia Lév. (6)
Parmulariopsella Sivan. (1)
Parmulariopsis Petr. (1)
Parmulina Theiss. & Syd. (6)
Placoasterella Sacc. ex Theiss. & Syd. (4)
Placosoma Syd. (2)
Placostromella Petr. (3)
Pleiostomellina Bat., J.L. Bezerra & H. Maia (1)
Polycyclina Theiss. & Syd. (1)
Polycyclus Höhn. (2)
Protothyrium G. Arnaud (4)
Pseudolembosia Theiss. (4)
Rhagadolobiopsis Guatim. & R.W. Barreto (1)
Rhagadolobium P. Henn. & Lindau (10)
Rhipidocarpon (Theiss.) Theiss. & Syd. (1)
Symphaeophyma Speg. (1)
Syrropeltis Bat., J.L. Bezerra & Matta (1)
Thallomyces H.J. Swart (1)
Viegasella Inácio & P.F. Cannon (1)

Patellariales D. Hawksw. & O.E. Erikss.
Patellariaceae Corda
Baggea Auersw. (1)
Banhegyia L. Zeller & Tóth (2)
Colensoniella Hafellner (1)
Endotryblidium Petr. (1)
Glyphium Nitschke ex F. Lehm. (ca. 4)
Haematomyxa Sacc (2)
Holmiella Petrini, Samuels & E. Müll. (4)
Hysteropatella Rehm (3)
Hysteropeltella Petr. (1)
Lahmiomyces Cif. & Tomas. (1)
Lecanidiella Sherwood (1)
Lirellodisca Aptroot (1)
Murangium Seaver (1)
Patellaria Fr. (12)
Poetschia Körb. (4)
Pseudoparodia Theiss. & Syd. (1)
Rhizodiscina Hafellner (1)
Rimula Velen. (1)
Schrakia Hafellner (1)
Stratisporella Hafellner (1)

Tryblidaria (Sacc.) Rehm (9)

Phaeotrichales Ariyaw., Jian K. Liu & K.D. Hyde
Phaeotrichaceae Cain
Echinoascotheca Matsush. (1)
Phaeotrichum Cain & M.E. Barr (2)
Trichodelitschia Munk (4)

Stigmatodiscales Voglmayr & Jaklitsch
Stigmatodiscaceae Voglmayr & Jaklitsch
Stigmatodiscus Voglmayr & Jaklitsch (= *Asterodiscus* Voglmayr et al.) (6)*

Strigulales Lücking, M.P. Nelsen & K.D. Hyde
Strigulaceae Zahlbr. (= *Phyllobatheliaceae* Bitter & F. Schill.)
Dichoporis Clem. (18)
Flagellostrigula Lücking & S.H. Jiang (1)
Flavobathelium Lücking, Aptroot & G. Thor (1)
Phyllobathelium (Müll. Arg.) Müll. Arg (8)
Phyllocharis Fée (1)
Phyllocraterina Sérus. & Aptroot (= *Phyllocratera* Sérus. & Aptroot) (2)
Phylloporis Clem. (ca. 10)
Puiggariella Speg. (3)
Raciborskiella Höhnel (2)
Racoplaca Fée (5)
Serusiauxiella S.H. Jiang, Lücking & J.C.Wei (3)
Strigula Fr. (ca. 30)
Swinscowia S.H. Jiang & Lücking (33)

Tenuitholiascaceae S.H. Jiang, Lücking & J.C. Wei*
Tenuitholiascus S.H. Jiang, Lücking & J.C. Wei. (1)

Superstratomycetales van Nieuwenh., Miądl., Houbraken, Adan, Lutzoni & Samson
Superstratomycetaceae van Nieuwenh., Miądl., Houbraken, Adan, Lutzoni & Samson
Superstratomyces van Nieuwenh., Miądl. & Samson (4)

Trypetheliales Lücking, Aptroot & Sipman
Polycoccaceae Ertz, Hafellner & Diederich
Clypeococcum D. Hawksw. (ca. 10)
Polycoccum Saut. ex Körb. (ca. 60)

Trypetheliaceae Zenker
Alloarthopyrenia Phukhams., Lücking & K.D. Hyde (1)
Aptrootia Lücking & Sipman (3)
Architrypethelium Aptroot (8)
Astrothelium Eschw. (= *Campylothelium* Müll.) (ca. 275)
Bathelium Ach. (16)
Bogoriella Zahlbr. (=*Distothelia* Aptroot) (29)
Constrictolumina Lücking, M.P. Nelsen & Aptroot (9)
Dictyomeridium Aptroot, M.P. Nelsen & Lücking (7)
Macroconstrictolumina Lücking, R. Miranda & Aptroot (5)
Marcelaria Aptroot (= *Buscalionia* Sambo) (3)
Nigrovothelium Lücking, M.P. Nelsen & Aptroot (3)

Novomicrothelia Aptroot, M.P. Nelsen & Lücking (1)
Polymeridium (Müll. Arg.) R.C. Harris (51)
Polypyrenula D. Hawksw. (1)
Pseudobogoriella Lücking, R. Miranda & Aptroot (15)
Pseudopyrenula Müll. Arg. (21)
Schummia Lücking, R. Miranda & Aptroot (1)
Trypethelium Sprengel (16)
Viridothelium Lücking, M.P. Nelsen & Aptroot (= ?*Exiliseptum* R.C. Harris *fide* Hongsanan et al. 2020) (11)

Tubeufiales Boonmee & K.D. Hyde (= *Bezerromycetales* J.D.P. Bezerra et al.; = *Wiesneriomycetales* J.D.P. Bezerra et al.)
Bezerromycetaceae J.D.P. Bezerra, Souza-Motta & Crous
Bezerromyces J.D.P. Bezerra, Souza-Motta & Crous (2)
Neorhamphoria Boonmee, E. Hüseyin & F. Selçuk (1)
Xiliomyces J.D.P. Bezerra, Souza-Motta & Crous (1)

Tubeufiaceae M.E. Barr
Acanthohelicospora Boonmee & K.D. Hyde (4)
Acanthophiobolus Berl. (6)
Acanthostigma De Not. (64)
Acanthostigmina Höhn. (7)
Acanthotubeufia Y.Z. Lu & K.D. Hyde (1)
Aquaphila Goh, K.D. Hyde & W.H. Ho (2)
Artocarpomyces Subram. (1)
Berkleasmium Zobel (ca. 40)
Bifrontia Norman (2)
Boerlagiomyces Butzin (9)
Camporesiomyces D.P. Wei & K.D. Hyde (1)
Chaetosphaerulina I. Hino (6)
Chlamydotubeufia Boonmee & K.D. Hyde (8)
Dematiohelicoma Y.Z. Lu, J.C. Kang & K.D. Hyde (2)
Dematiohelicomyces Y.Z. Lu, Boonmee & K.D. Hyde (1)
Dematiohelicosporum Y.Z. Lu, J.K. Liu & K.D. Hyde (1)
Dematiotubeufia Y.Z. Lu, Boonmee & K.D. Hyde (1)
Dictyospora Brahaman., Y.Z. Lu, Boonmee & K.D. Hyde (1)
Discotubeufia Jayasiri, E.B.G. Jones & K.D. Hyde (1)
Helicangiospora Boonmee, Bhat & K.D. Hyde (1)
Helicoarctatus Y.Z. Lu, J.C. Kang & K.D. Hyde (1)
Helicodochium J.S. Monteiro, R.F. Castañeda, A.C. Cruz & Gusmão (2)
Helicohyalinum Y.Z. Lu, J.K. Liu & K.D. Hyde (2)
Helicoma Corda (ca. 40)
Helicomyces Link (14)
Helicosporium Nees (ca. 15)
Helicotruncatum Y.Z. Lu, J.C. Kang & K.D. Hyde (1)
Helicotubeufia Y.Z. Lu & J.K. Liu (3)
Kamalomyces R.K. Verma, N. Sharma & Soni (5)
Kevinhydea N.G. Liu, Y.Z. Lu & J.K. Liu (1)
Manoharachariella Bagyan., N.K. Rao & Kunwar (4)
Muripulchra Z.L. Luo, Hong Y. Su & K.D. Hyde (1)
Neoacanthostigma Boonmee, Bhat & K.D. Hyde (8)
Neochlamydotubeufia Y.Z. Lu, Boonmee & K.D. Hyde (2)

Neohelicoma Y.Z. Lu, Boonmee & K.D. Hyde (1)
Neohelicomyces Z.L. Luo, Bhat & K.D. Hyde (3)
Neohelicosporium Y.Z. Lu, J.C. Kang & K.D. Hyde (7)
Neotubeufia Chaiwan, Boonmee, Y.Z. Lu & K.D. Hyde (1)
Pleurohelicosporium Y.Z. Lu, J.C. Kang & K.D. Hyde (1)
Podonectria Petch (11)
Pseudohelicomyces Y.Z. Lu, J.K. Liu & K.D. Hyde (5)
Pseudohelicoon Y.Z. Lu & K.D. Hyde (2)
Tamhinispora Rajeshkumar & Rahul Sharma (2)
Thaxteriella Petr. (15)
Thaxteriellopsis Sivan., Panwar & S.J. Kaur (3)
Tubeufia Penz. & Sacc. (ca. 60)

Wiesneriomycetaceae Suetrong, Rungjind., Somrith. & E.B.G. Jones
Parawiesneriomyces Crous & M.J. Wingf. (1)
Phalangispora Nawawi & J. Webster (3)
Pseudogliophragma Phadke & V.G. Rao (1)
Setosynnema D.E. Shaw & B. Sutton (3)
Speiropsis Tubaki (8)
Wiesneriomyces Koord. (4)

Valsariales Jaklitsch, K.D. Hyde & Voglmayr
Valsariaceae Jaklitsch, K.D. Hyde & Voglmayr
Bambusaria Jaklitsch, D.Q. Dai, K.D. Hyde & Voglmayr (1)
Myrmaecium Nitschke ex Fuckel (ca. 3)
Valsaria Ces. & De Not. (140 epithets)

Venturiales Y. Zhang ter, C.L. Schoch & K.D. Hyde
Sympoventuriaceae Y. Zhang ter, C.L. Schoch & K.D. Hyde
Acroconidiellina M.B. Ellis (4)
Clavatispora Boonmee & K.D. Hyde (1)
Fusicladium Bonord. (75)
Matsushimaea Subram. (4)
Mycosisymbrium Carris (1)
Ochroconis de Hoog & Arx (28)
Sympoventuria Crous & Seifert (3)
Veronaeopsis Arzanlou & Crous (1)
Verruconis Samerp., H.J. Choi, van den Ende, Horré & de Hoog (5)
Yunnanomyces Tibpromma & K.D. Hyde (2)

Venturiaceae E. Müll. & Arx ex M.E. Barr
Apiosporina Höhn. (6)
Atopospora Petr. (4)
Caproventuria U. Braun (2)
Coleroa (Fr.) Rabenh. (56)
Dimeriella Speg. (51)
Dimerosporiopsis Henn. (1)
Magnohelicospora R.F. Castañeda, Hern.-Restr., Gené & Guarro (2)
Metacoleroa Petr. (1)
Neocoleroa Petr. (6)
Protoventuria Berl. & Sacc. (45)
Pseudoanungitea Crous (3)*

Pseudoparodiella F. Stevens (1)
Tyrannosorus Unter. & Malloch (1)
Venturia Sacc. (ca. 60)

Venturiales genera *incertae sedis*
Cylindrosympodioides Crous & M.J. Wingf. (1)
Cylindrosympodium W.B. Kendr. & R.F. Castañeda (12)
Lasiobotrys Kunze (9)

Zeloasperisporiales Hongsanan & K.D. Hyde
Zeloasperisporiaceae Crous
Zeloasperisporium R.F. Castañeda (8)

Dothideomycetes families *incertae sedis*
Alinaceae Boonmee & K.D. Hyde
Alina Racib. (1)

Argynnaceae Shearer & J.L. Crane
Argynna Morgan (1)
Lepidopterella Shearer & J.L. Crane (2)

Ascoporiaceae Kutorga & D. Hawksw.
Ascoporia Samuels & A.I. Romero (1)

Aulographaceae Luttr. ex P.M. Kirk, P.F. Cannon & J.C. David
Aulographum Lib. (ca. 30)
Echidnodes Theiss. & Syd. (31)
Lembosiella Sacc. (1)
Thyriopsis Theiss. & Syd. (3)

Balladynaceae Boonmee & K.D. Hyde
Balladyna Racib. (41)
Balladynocallia Bat. (3)
Balladynopsis Theiss. & Syd. (10)

Cleistosphaeraceae Boonmee & K.D. Hyde
Cleistosphaera Syd. & P. Syd. (1)

Coccoideaceae P. Henn. ex Sacc. & D. Sacc.
Coccoidea P. Henn. (4)
Coccoidella Höhn. (9)
Englerodothis Theiss. & Syd. (3)

Cookellaceae Höhn. ex Saccardo & Trotter
Cookella Sacc. (4)
Pycnoderma Syd. & P. Syd. (2)

Dimeriaceae E. Müll. & Arx ex Arx & E. Müll.
Dimerium (Sacc. & P. Syd.) McAlpine (79)

Dubujianaceae D. Pem, Doilom & K.D. Hyde
Dubujiana D.R. Reynolds & G.S. Gilbert (1)

Dysrhynchisceae Boonmee & K.D. Hyde
Dysrhynchis Clem. (4)

Endosporiaceae D. Pem
Endosporium Tsuneda (2)

Englerulaceae P. Henn.
Allosoma Syd. (5)
Digitosarcinella S. Hughes (1)
Englerula P. Henn. (13)
Goosia B. Song (1)
Parenglerula Höhn. (7)
Rhytidenglerula Höhn. (11)
Sarcinella Sacc. (ca. 70)
Thrauste Theiss. (3)

Eriomycetaceae Huanraluek & K.D. Hyde
Eriomyces Huanraluek, Thambugala & K.D. Hyde (1)
Funbolia Crous & Seifert (1)
Heleiosa Kohlm., Volkm.-Kohlm. & O.E. Erikss. (1)
Phellinocrescentia Crous & Decock (1)
Pseudopassalora Pseudopassalora Crous (1)

Homortomycetaceae Thambug., A.J.L. Phillips & K.D. Hyde
Homortomyces Crous & M.J. Wingf. (2)

Hyalomeliolinaceae Boonmee & K.D. Hyde
Hyalomeliolina F. Stevens (2)

Leptopeltidaceae Höhn. ex Trotter
Dothiopeltis E. Müll. (2)
Leptopeltis Höhn. (11)
Ronnigeria Petr. (1)
Staibia Bat. & Peres (1)

Macrovalsariaceae D. Pem, Doilom & K.D Hyde
Macrovalsaria Petr. (1)

Meliolinaceae S. Hughes
Briania D.R. Reynolds (1)
Meliolina Syd. & P. Syd. (ca. 40)

Mesnieraceae Arx & E. Müll.
Bondiella Piroz. (1)
Mesniera Sacc. & P. Syd. (1)
Stegasphaeria Syd. & P. Syd. (3)

Naetrocymbaceae Höhn. ex R.C. Harris
Bonaria Bat. (4)
Jarxia D. Hawksw. (2)
Leptorhaphis Körb. (14)
Naetrocymbe Körb. (1)

Tomasellia A. Massal. (ca. 5)

Nematotheciaceae Boonmee & K.D. Hyde
Nematothecium Syd. & P. Syd. (5)
Nematostigma Syd. & P. Syd. (5)
Ophioparodia Petr. & Cif. (1)

Neoparodiaceae Boonmee & K.D. Hyde
Neoparodia Petr. & Cif. (1)

Palawaniaceae Mapook & K.D. Hyde
Palawania Syd. & P. Syd. (2)

Paranectriellaceae S. Boonmee & K.D. Hyde
Paranectriella (Henn. ex Sacc. & D. Sacc.) Magnus. (= *Araneomyces* Höhn.) (9)
Puttemansia Henn. (18)

Parodiellaceae Theiss. & H. Syd. ex M.E. Barr
Parodiella Speg. (4)

Perisporiopsidaceae E. Müll. & Arx ex R. Kirschner & T.A. Hofm. (= *Parodiopsidaceae* Toro)
Asteronia (Sacc.) Henn. (2)
Byssocallis Syd. (3)
Chevalieropsis G. Arnaud (1)
Parodiellina Henn. ex G. Arnaud (1)
Perisporiopsis Henn. (22)

Phaeodimeriellaceae Boonmee, Mapook & K.D. Hyde
Phaeodimeriella Speg. (30)

Pododimeriaceae Boonmee & K.D. Hyde
Chaetoscutula E. Müll. (1)
Pododimeria E. Müll. (4)

Polyclypeolinaceae Boonmee & K.D. Hyde
Polyclypeolina Bat. & I.H. Lima (1)

Polystomellaceae Theiss. & H. Syd.
Dermatodothella Viégas (1)
Dothidella Speg. (2)
Munkiella Speg. (3)
Parastigmatea Doidge (3)

Protoscyphaceae Kutorga & D. Hawksw.
Protoscypha Syd. (2)

Pseudoperisporiaceae Toro
Bryomyces Döbbeler (12)
Eudimeriolum Speg. (8)
Lasiostemma Theiss. (5)
Nematostoma Syd. & P. Syd. (13)

Pseudorobillardaceae Crous
Pseudorobillarda M. Morelet (12)

Pyrenidiaceae Zahlbr.
Pyrenidium Nyl. (11)

Seynesiopeltidaceae K.D. Hyde
Seynesiopeltis F. Stevens & R.W. Ryan (1)

Stomatogeneceae Boonmee & K.D. Hyde
Stomatogene Theiss. (3)

Thyrinulaceae X.Y. Zeng, S. Hongsanan & K.D. Hyde
Blastacervulus H.J. Swart (2)
Paraopeba V.P. Abreu, A.A.M. Gomes, Firmino & O.L. Pereira (1)
Thyrinula Petr. & Syd. (= *Alysidiella* Crous) (1)

Toroaceae Boonmee & K.D. Hyde
Toroa Syd. (2)

Trichopeltinaceae Bat., C.A.A. Costa & Cif.
Acrogenotheca Cif. & Bat. (3)
Brefeldiella Speg. (4)
Saccardinula Speg. (11)
Trichopeltella Höhn. (1)
Trichopeltheca Bat. (2)
Trichopeltina Theiss. (2)
Trichothyrinula Petr. (2)

Trichothyriaceae Theiss.
Lichenopeltella Höhn. (48)
Macrographa Etayo (1)
Pachythyrium G. Arnaud ex Spooner & P.M. Kirk (1)
Trichothyrium Speg. (12)

Vizellaceae H.J. Swart
Acarella Syd. (1)
Blasdalea Sacc. & P. Syd. (1)
Vizella Sacc. (11)

Dothideomycetes genera *incertae sedis*
Acanthorus Bat. & Cavalc. (1)
Acanthostigmella Höhn. (6)
Achorella Theiss. & Syd. (10)
Actinomyxa Syd. & P. Syd. (1)
Alascospora Raja, Violi & Shearer (1)
Ampullifera Deighton (6)
Anguillosporella U. Braun (2)
Anopeltis Bat. & Peres (1)
Arkoola J. Walker & Stovold (1)
Armata W. Yamam. (1)
Ascominuta Ranghoo & K.D. Hyde (2)

Asterinema Bat. & Gayão (3)
Asterodothis Theiss. (1)
Asteromassaria Höhn. (12)
Asteromella Pass. & Thüm. (ca. 265)
Asteroporum Müll. Arg. (7)
Auerswaldia Sacc. (ca. 20)
Bactrodesmium Cooke (ca. 50)
Bahusakala Subram. (4)
Brachyconidiella R.F. Castañeda & W.B. Kendr. (1)
Brooksia Hansf. (1)
Bryorella Döbbeler (10)
Bryostroma Döbbeler (8)
Bryothele Döbbeler (2)
Byssogene Syd. (2)
Callebaea Bat. (1)
Calyptra Theiss. & Syd. (5)
Capillataspora K.D. Hyde (1)
Caryosporella Kohlm. (1)
Catulus Malloch & Rogerson (1)
Ceramoclasteropsis Bat. & Cavalc. (2)
Ceratophoma Höhn. (2)
Cercidospora Körb. (101)
Cerodothis Muthappa (1)
Chaetocrea Syd. (1)
Chaetosticta Petr. & Syd. (3)
Chionomyces Deighton & Piroz. (7)
Chuppia Deighton (2)
Cilioplea Munk (ca. 10)
Cirsosina Bat. & J.L. Bezerra (2)
Clavariopsis De Wild. (ca. 5)
Clypeostroma Theiss. & Syd. (ca. 3)
Cocciscia Norman (2)
Coccochora Höhn. (4)
Coccochorina Hara (2)
Coccodothis Theiss. & Syd. (2)
Comesella Speg. (1)
Comminutispora A.W. Ramaley (1)
Coniosporium Link (ca. 20)
Crauatamyces Viégas (1)
Crotone Theiss. & Syd. (1)
Cryomyces Selbmann, de Hoog, Mazzaglia, Friedmann & Onofri (4)
Cyclotheca Theiss. (9)
Dactuliophora C.L. Leakey (5)
Dawsomyces Döbbeler (2)
Dawsophila Döbbeler (3)
Dermatodothis Racib. ex Theiss. & Syd. (6)
Dianesea Inácio & P.F. Cannon (1)
Dictyoasterina Hansf. (1)
Dictyodochium Sivan. (1)
Dictyopeltis Theiss. (6)
Dictyostomiopelta Viégas (1)
Dictyothyriella Speg. (1)

Dictyothyrina Theiss. (1)
Dictyothyrium Theiss. (2)
Didymocyrtidium Vain. (2)
Didymolepta Munk (2)
Didymopleella Munk (3)
Diplochorina Gutner (1)
Dothichiza Lib. ex Roum. (15)
Dothideopsella Höhn. (1, but more epithets exist)
Dothivalsaria Petr. (1)
Dubitatio Speg. (1)
Echinothecium Zopf (2)
Elmerinula Syd. (1)
Epibelonium E. Müll. (1)
Eriomycopsis Speg. (13)
Eriothyrium Speg. (1, but more epithets exist)
Eupelte Syd. (5)
Excipulariopsis P.M. Kirk & Spooner (1)
Extrusothecium Matsush. (2)
Fusicladiella Höhn. (5)
Gibbera Fr. (ca. 28)
Gilletiella Sacc. & P. Syd. (3)
Globoa Bat. & H. Maia (2)
Globulina Speg. (1 *fide* Kirk et al. 2008)
Gloeodiscus Dennis (1)
Govindua Bat. & H. Maia (1)
Griggsia F. Stevens & Dalbey (1)
Halokirschsteiniothelia Boonmee & K.D. Hyde (1)
Hansfordiella S. Hughes (8)
Hansfordiellopsis Deighton (5)
Hansfordiopsis Bat. (1)
Harknessiella Sacc. (1)
Helminthopeltis Sousa da Câmara (1)
Heptameria Rehm & Thuem. (2)
Heptaster Cif., Bat. & Nascim. (3)
Heteroconium Petr. (21)
Heterosphaeriopsis Hafellner (1)
Hidakaea I. Hino & Katum. (2)
Hyalocrea Syd. & P. Syd. (4)
Hyaloscolecostroma Bat. & J. Oliveira (1)
Hyalosphaera F. Stevens (4)
Hyalotheles Speg. (1)
Hypobryon Döbbeler (7)
Hysteropsis Rehm (4)
Isomunkia Theiss. & Syd. (1)
Isthmospora F. Stevens (3)
Jaffuela Speg. (1)
Kabatia Bubák (ca. 10)
Keratosphaera H.P. Upadhyay (6)
Kriegeriella Höhn. (4)
Krishnamyces Hosag. (1)
Kullhemia P. Karst. (2)
Kusanobotrys P. Henn. (2)

Lanatosphaera Matzer (2)
Lautitia S. Schatz (1)
Lazarenkoa Zerova (1)
Lembosiopeltis Bat. & J.L. Bezerra (2)
Leptomeliola Höhn. (13)
Letendraeopsis K.F. Rodriguez & Samuels (1)
Leveillella Theiss. & Syd. (1)
Leveillina Theiss. & Syd. (2)
Lichenotubeufia Etayo (5)
Licopolia Sacc., Syd. & P. Syd. (2)
Lignosphaeria Boonmee, Thambug. & K.D. Hyde (2)
Limaciniopsis Mend. (1)
Lineolata Kohlm. & Volkm.-Kohlm. (1)
Linopeltis I. Hino & Katum. (2)
Lophionema Sacc. (9)
Lucidascocarpa A. Ferrer, Raja & Shearer (1)
Macowaniella Doidgeb (2)
Maheshwaramyces Hosag. (2)
Maireella Syd. & Maire (ca. 5)
Malacaria Syd. (2)
Manginula G. Arnaud (ca. 5)
Marquesius L.B. Conç., R.F. Castañeda & Gusmão (1)
Massariola Füisting (2)
Maublancia G. Arnaud (1)
Melioliphila Speg. (7)
Mendoziopeltis Bat. (4)
Microcyclella Theiss. (1)
Microdothella Syd. & P. Syd. (2)
Monoblastiopsis R.C. Harris & C.A. Morse (2)
Monodictys S. Hughes (ca. 50)
Monorhizina Theiss. & Syd. (1)
Montagnella Speg. (9)
Moriolomyces Cif. & Tomas. (1)
Muricopeltis Viégas (1)
Muroia I. Hino & Katum. (1)
Mycocryptospora J. Reid & C. Booth (1)
Mycodidymella C.Z. Wei, Y. Harada & Katum. (1)
Mycoglaena Höhn. (16)
Mycoporellum Müll. Arg. (7)
Mycoporopsis Müll. Arg. (ca. 10)
Mycothyridium Petr. (30)
Myriangiopsis P. Henn. (2)
Myriostigmella G. Arnaud (1)
Mytilostoma P. Karst. (2)
Myxophora Döbbeler & Poelt (7)
Nannfeldtia Petr. (2)
Neodactylaria Guevara-Suarez, Deanna A. Sutton, Wiederh. & Gené (1)
Neopeckia Sacc. (1 *fide* Kirk et al. 2008)
Neosporidesmium Mercado & J. Mena (15)
Neottiosporina Subram. (11)
Neoventuria Syd. & P. Syd. (1)
Ocala Raja & Shearer (1)

Oletheriostrigula Huhndorf & R.C. Harris (1)
Omphalospora Theiss. & Syd. (2)
Oncopodiella G. Arnaud ex Rifai (13)
Ophioirenina Sawada & W. Yamam. (1)
Ophiotrichum Kunze (3)
Otthia Nitschke ex Fuckel (11)
Parmulariella P. Henn. (1)
Paropodia Cif. & Bat. (1)
Passeriniella Berl. (7)
Passerinula Sacc. (1)
Pauahia F. Stevens (1)
Peltaster Syd. & P. Syd. (8)
Peltasterella Bat. & H. Maia (1)
Pendulispora M.B. Ellis (1)
Perischizon P. Syd. (3)
Peroschaeta Bat. & A.F. Vital (1)
Petrakina Cif. (3)
Petrakiopeltis Bat., A.F. Vital & Cif. (1)
Phacidina Höhn. (1)
Phaeocyrtidula Vain. (2)
Phaeopeltosphaeria Berl. & Peglion (2)
Phaeosclera Sigler, Tsuneda & J.W. Carmich. (1)
Phaeosperma Nitschke ex Fuckel (1)
Phaeostigme Syd. & P. Syd. (6)
Phaeotomasellia Katum. (1)
Phanerococculus Cif. (1)
Philobryon Döbbeler (1)
Philonectria Hara (3)
Phragmaspidium Bat. (3)
Phragmogibbera Samuels & Rogerson (3)
Phragmoscutella Woron. & Abramov ex Woron. (1)
Phragmosperma Theiss. & Syd. (1)
Phycorella Döbbeler (1)
Physalosporopsis Bat. & H. Maia (1)
Pirozynskia Subram. (1)
Placoasterina Toro (1)
Placodothis Syd. (1)
Placomelan Cif. (1)
Placosphaeria (De Not.) Sacc. (1, but several other epithets exist)
Plagiostromella Höhn. (1)
Plejobolus (E. Bommer et al.) O.E. Erikss. (1 or 2 species)
Plenotrichaius Bat. & Valle (1)
Pleomerium Speg. (1)
Pleotrichiella Sivan. (1)
Polycyclinopsis Bat., A.F. Vital & I.H. Lima (1)
Polyrhizon Theiss., Syd. & P. Syd. (2)
Polysporidiella Petr. (1)
Polystomellopsis F. Stevens (1)
Proliferosphaera T.P. Devi (1)
Pseudoarthrographis Crous & Thangavel (1)
Pseudomorfea Punith. (1)
Pseudopleospora Petr. (1)

Punctillum Petr. & Syd. (1)
Pyrenobotrys Theiss. & Syd. (1)
Pyrenochium Link (1)
Pyrenocyclus Petr. (1)
Pyrenostigme Syd. (1)
Radulidium Arzanlou, W. Gams & Crous (3)
Rhizotexis Theiss. & Syd. (1)
Rhopographus Nitschke ex Fuckel (6)
Rosellinula R. Sant. (4)
Rosenscheldia Speg. (1)
Roumegueria (Sacc.) P. Henn. (1)
Rupestriomyces Lei Su, Li Y. Guo & Xing Z. Liu (3)
Sapucchaka K. Ramakr. (2)
Saxomyces L. Selbmann & D. Isola (2)
Scleroconidioma Tsuneda, Currah & Thormann (1)
Scolecobonaria Bat. (2)
Scolecoxyphium Cif. & Bat. (5)
Scolionema Theiss. & Syd. (1)
Semisphaeria K. Holm & L. Holm (1)
Septoidium G. Arnaud (ca. 7)
Shearia Petr. (2)
Shivamyces Hosag. (2)
Sivanesaniella Gawande & D.K. Agarwal (1)
Solicorynespora R.F. Castañeda & W.B. Kendr. (29)*
Soloacrosporiella Crous & M.J. Wingf. (1)
Spilodochium Syd. (4)
Spissiomyces Lei Su, Li Y. Guo & Xing Z. Liu (2)
Stegothyrium Höhn. (2)
Stephanotheca Syd. & P. Syd. (4)
Stigmatodothis Syd. & P. Syd. (1)
Stigmatophragmia Tehon & G.L. Stout (1)
Symphaster Theiss. & Syd. (1)
Taphrophila Scheuer (4)
Teichosporella (Sacc.) Sacc. (26)
Teratoschaeta Bat. & Fons.) (1)
Tetracrium Henn. (7)
Thalassoascus Ollivier (3)
Thelenidia Nyl. (1)
Thryptospora Petr. (1)
Tilakiella Srinivas. (1)
Tomeoa I. Hino (1)
Torulopsiella Bender (2)
Trematosphaeriopsis Elenkin (1)
Tretospora M.B. Ellis (8)
Trichodothella Petr. (1)
Trichodothis Theiss. & Syd. (3)
Trichometasphaeria Munk (8)
Trichothyriella Theiss. (1)
Troposporella P. Karst. (4)
Uredinophila Rossman (2)
Wentiomyces Koord. (ca. 50)
Westea H.J. Swart (1)

Wettsteinina Höhn. (30)
Xenomeris Syd. (11)
Xenosporium Penz. & Sacc. (18)
Xenostomella Syd. (2)
Xylopezia Höhn. (ca. 3)
Yoshinagaia Henn. (1)
Yoshinagella Höhn. (4)

Eurotiomycetes Tehler ex O.E. Eriksson & K. Winka
Chaetothyriomycetidae Doweld
Chaetothyriales M.E. Barr
Chaetothyriaceae Hansf. ex M.E. Barr
Actinocymbe Höhn. (3)
Aithaloderma Syd. & P. Syd. (13)
Aphanophora Réblová & Unter. (1)
Arthrophiala (D.J. Soares, R.W. Barreto & U. Braun) W.S. Lisboa, Meir. Silva & R.W. Barreto (1)*
Beelia F. Stevens & R.W. Ryan (3)
Camptophora Réblová & Unter. (2)*
Ceramothyrium Bat. & H. Maia (35)
Ceratocarpia Rolland (2)
Chaetothyriomyces Pereira-Carv., Inácio & Dianese (1)
Chaetothyrium Speg. (51)
Cyphellophoriella Crous & A.J. Sm. (1)
Euceramia Bat. & Cif. (3)
Longihyalospora D.S.Tennakoon, C.H Kuo & K.D. Hyde (2)
Microcallis Syd. (10)
Nullicamyces Crous (1)
Phaeosaccardinula P. Henn. (27)
Stanhughesia Constant. (1)
Treubiomyces Höhn. (7)
Vonarxia Bat. (2)
Yatesula Syd. & P. Syd. (2)

Coccodiniaceae Höhn. ex O.E. Erikss.
Coccodinium A. Massal. (4)
Dennisiella Bat. & Cif. (= *Microxiphium* (Harv. ex Berk. & Desm.) Thüm.) (9)
Limacinula Höhn. (17)

Cyphellophoraceae Réblová & Unter.
Anthopsis Fil. March., A. Fontana & Luppi Mosca (2)*
Cyphellophora G.A. de Vries (25)*

Epibryaceae S. Stenroos & Gueidan
Epibryon Döbbeler (ca. 40)

Herpotrichiellaceae Munk
Aculeata W. Dong, H. Zhang & K.D. Hyde (1)*
Brycekendrickomyces Crous & M.J. Wingf. (1)
Capronia Sacc. (ca. 81)
Cladophialophora Borelli (35)*
Exophiala J.W. Carmich. (51)*

Fonsecaea Negroni (8)*
Marinophialophora J.F. Li, Phook. & K.D. Hyde (1)
Melanoctona Qing Tian, Doilom & K.D. Hyde (1)
Metulocladosporiella Crous, Schroers, J.Z. Groenew., U. Braun & K. Schub. (6)
Minimelanolocus R.F. Castañeda & Heredia (33)*
Phialophora Medlar (7)*
Pleomelogramma Speg. (2)
Rhinocladiella Nannf. (17)
Sorocybe Fr. (3)
Thysanorea Arzanlou, W. Gams & Crous (2)*
Veronaea Cif. & Montemart. (20)

Lyrommataceae Lücking
Lyromma Bat. (7)

Microtheliopsidaceae O.E. Erikss.
Microtheliopsis Müll. Arg. (4)

Paracladophialophoraceae Crous
Paracladophialophora Crous (2)*

Pyrenotrichaceae Zahlbr
Pyrenothrix Riddle (2)
Neophaeococcomyces Crous & M.J. Wingf. (2)

Trichomeriaceae Chomnunti & K.D. Hyde (= *Strelitzianaceae* Crous & M.J. Wingf.)
Arthrocladium Papendorf (4)*
Bradymyces Hubka, Réblová, Selbmann & M. Kolařík (3)*
Knufia L.J. Hutchison & Unter. (13)*
Lithohypha Selbmann & Isola (1)
Lithophila Selbmann & Isola (1)*
Neostrelitziana Crous & M.J. Wingf. (1)
Strelitziana Arzanlou & Crous (8)
Trichomerium Speg. (28)

Chaetothyriales genera *incertae sedis*
Atrokylindriopsis Y.R. Ma & X.G. Zhang (1)
Bacillicladium Hubka, Réblová & Thureborn (1)*
Lichenodiplis Dyko & D. Hawksw. (= *Laeviomyces* D. Hawksw.) (13)
Lichenodiplisiella S.Y. Kondr. & Kudratov (1)
Melnikomyces Crous & U. Braun (1)
Minutoexcipula V. Atienza & D. Hawksw. (7)
Muellerella Hepp (14)*
Pleostigma Kirschst. (9)
Sarcinomyces Lindner (5)
Uncispora R.C. Sinclair & Morgan-Jones (3)

Phaeomoniellales K.H. Chen, A.E. Arnold, Gueidan & Lutzoni
Celotheliaceae Lücking, Aptroot & Sipman (= *Phaeomoniellaceae* P.M. Kirk)
Aequabiliella Crous (1)
Celerioriella Crous (3)
Celothelium A. Massal. (8)

Minutiella Crous (1)
Moristroma A.I. Romero & Samuels (4)
Neophaeomoniella Rooney-Latham & Crous (3)
Paraphaeomoniella Crous (1)
Phaeomoniella Crous & W. Gams (2)
Pseudophaeomoniella Nigro, Antelmi & Crous (2)
Xenocylindrosporium Crous & Verkley (1)

Pyrenulales Fink ex D. Hawksw. & O.E. Erikss.
Pyrenulaceae Rabenh.
Anthracothecium Hampe ex A. Massal. (5)
Blastodesmia A. Massal. (1)
Clypeopyrenis Aptroot (2)
Distopyrenis Aptroot (8)
Granulopyrenis Aptroot (6)
Lithothelium Müll. Arg. (28)
Mazaediothecium Aptroot (4)
Pyrenographa Aptroot (1)
Pyrenowilmsia R.C. Harris & Aptroot (1)
Pyrenula Ach. (= *Heufleridium* Müll. Arg.; = *Stromatothelium* Trevis.) (ca. 225)
Pyrgillus Nyl. (8)
Sulcopyrenula H. Harada (5)

Pyrenulales genera *incertae sedis*
Rhaphidicyrtis Vain. (1)
Xenus Kohlm. & Volkm.-Kohlm. (1)

Verrucariales Mattick ex D. Hawksw. & O.E. Erikss.
Adelococcaceae Triebel
Adelococcus Theiss. & Syd. (4)
Pseudopyrenidium Nav.-Ros., Zhurb. & Cl. Roux (1)
Sagediopsis Sacc. ex Vain. (10)

Sarcopyreniaceae Nav.-Ros. & Cl. Roux
Sarcopyrenia Nyl. (11)

Verrucariaceae Zenker
Agonimia Zahlbr. (ca. 20)
Anthracocarpon Breuss (1)
Atla S. Savić & Tibell (10)
Awasthiella Kr.P. Singh (1)
Bagliettoa A. Massal. (17)
Bellemerella Nav.-Ros. & Cl. Roux (4)
Catapyrenium Flot. (6)
Clauzadella Nav.-Ros. & Cl. Roux (1)
Clavascidium Breuss (9)
Dermatocarpon Eschw. (20)
Endocarpon Hedw. (ca. 75)
Flakea O.E. Erikss. (1)
Glomerilla Norman (1)
Haleomyces D. Hawksw. & Essl. (1)
Halospora (Zschacke) Tomas. & Cif. (4)

Henrica de Lesd. (4)
Heterocarpon Müll. Arg. (1)
Heteroplacidium Breuss (12)
Hydropunctaria C. Keller, Gueidan & Thüs (8)
Involucropyrenium Breuss (9)
Mastodia Hook.f. & Harv. (= *Turgidosculum* Kohlm. & E. Kohlm.) (5)
Moriola Norman (ca. 15)
Neocatapyrenium H. Harada (5)
Normandina Nyl. (= *Lauderlindsaya* J.C. David & D. Hawksw.) (3)
Norrlinia Theiss. & Syd. (2)
Parabagliettoa Gueidan & Cl. Roux (3)
Phaeospora Hepp ex Stein (14)
Phylloblastia Vain. (12)
Placidiopsis Beltr. (20)
Placidium A. Massal. (28)
Placocarpus Trevis. (5)
Placopyrenium Breuss (22)
Placothelium Müll. Arg. (1)
Plurisperma Sivan. (1)
Polyblastia A. Massal. (ca. 40 + ca. 50 orphaned)
Psoroglaena Müll. Arg. (17)
Rhabdopsora Müll. Arg. (2)
Scleropyrenium H. Harada (2)
Servitia M.S. Christ. & Alstrup (1)
Spheconisca (Norman) Norman (ca. 20)
Sporodictyon A. Massal. (5)
Staurothele Norman (ca. 40)
Telogalla Nik. Hoffm. & Hafellner (2)
Thelidiopsis Vain. (4)
Thelidium A. Massal. (ca. 50 + ca. 50 orphaned)
Trimmatothele Norman ex Zahlbr. (3)
Verrucaria Schrad. (ca. 300)
Verrucula J. Steiner (22)
Verruculopsis Gueidan, Nav.-Ros. & Cl. Roux (ca. 10)
Wahlenbergiella Gueidan & Thüs (3)
Willeya Müll. Arg. (12)

Verrucariales genera *incertae sedis*
Botryolepraria Canals, Hern.-Mar., Gómez-Bolea & Llimona (2)
Gemmaspora D. Hawksw. & Halici (1)
Kalbiana Henssen (1)
Merismatium Zopf (10)

Chaetothyriomycetidae family *incertae sedis*
Rhynchostomataceae Winka & O.E. Erikss.
Rhynchomeliola Speg. (3)
Rhynchostoma P. Karst. (23)

Coryneliomycetidae A.R. Wood, Damm, J.Z. Groenew., Cheew. & Crous
Coryneliales Seaver & Chardon
Coryneliaceae Sacc. ex Berl. & Voglino
Caliciopsis Peck (36)

Corynelia Ach. (16)
Coryneliopsis Butin (2)
Coryneliospora Fitzp. (2)
Fitzpatrickella Benny, Samuelson & Kimbr. (1)
Lagenulopsis Fitzp. (1)
Tripospora Sacc. ex Berl. & Vogl. (5)

Eremascaceae Engl. & E. Gilg
Eremascus Eidam (2)

Eurotiomycetidae Geiser & Lutzoni
Arachnomycetales Gibas, Sigler & Currah
Arachnomycetaceae Gibas, Sigler & Currah
Arachnomyces Massee & E.S. Salmon (10)
Onychocola Sigler (4)

Eurotiales G.W. Martin ex Benny & Kimbr.
Aspergillaceae Link (= *Monascaceae* J. Schröt.)
Aspergillago Samson, Houbraken & Frisvad (1)
Aspergillus P. Micheli ex Haller (428)
Dichlaena Durieu & Mont. (4)
Hamigera Stolk & Samson (9)
Leiothecium Samson & Mouch. (2)
Monascus Tiegh. (38)
Penicillago Guevara-Suarez, Gené & Dania García (1)
Penicilliopsis Solms (15)
Penicillium Link (467)
Phialomyces P.C. Misra & P.H.B. Talbot (5)
Pseudopenicillium Guevara-Suarez, Cano & Guarro (2)
Sclerocleista Subram. (2)
Sclerocleista Subram. (2)
Xerochrysium Pitt (2)
Xeromyces Fraser (1)

Elaphomycetaceae Tul. ex Paol.
Elaphomyces Nees (101)
Pseudotulostoma O.K. Miller & T. Henkel (2)

Thermoascaceae Apinis
Paecilomyces Bainier (10)
Thermoascus Miehe (5)

Trichocomaceae E. Fisch.
Chaetotheca Zukal (2)
Dendrosphaera Pat. (1)
Rasamsonia Houbraken & Frisvad (11)
Sagenomella W. Gams (8)
Talaromyces C.R. Benj. (149)
Thermomyces Tsikl. (6)
Trichocoma Jungh. (2)

Onygenales Cif. ex Benny & Kimbr.

Ajellomycetaceae Unter., J.A. Scott & Sigler

Blastomyces Gilchrist & W.R. Stokes (=*Ajellomyces* McDonough & A.L Lewis; *Emmonsia* Cif. & Montemart.) (9)
Emmonsiellopsis Y. Marín, Stchigel, Guarro & Cano (2)
Emergomyces Dukik, Sigler & de Hoog (5)*
Histoplasma Darling (4 epithets in Index Fungorum 2020)
Lacazia Taborda, V.A. Taborda & McGinnis (1)
Paracoccidioides F.P. Almeida (6)

Arthrodermataceae Currah

Arthroderma Curr. & Berk. (32)
Ctenomyces Eidam (7)
Epidermophyton Sabour. (1)
Guarromyces Y Gräser & de Hoog (1)
Lophophyton Matr. & Dassonv. (1)
Microsporum Gruby (3)
Nannizzia Stockdale (9)
Paraphyton Y Gräser, Dukik & de Hoog (3)
Shanorella R.K. Benj. (1)
Trichophyton Malmsten (16)

Ascosphaeraceae L.S. Olive & Spiltoir

Arrhenosphaera Stejskal (1)
Ascosphaera L.S. Olive & Spiltoir (27)
Bettsia Skou (2)

Gymnoascaceae Baran.

Aciascus Doweld (1)
Amaurascopsis Guarro, Gené & De Vroey (1)
Arachniotus J. Schröt. (21)
Gymnascella Peck (9)
Gymnoascoideus G.F. Orr, K. Roy & G.R. Ghosh (1)
Gymnoascus Baran. (=*Narasimhella* Thirum. & P.N. Mathur) (26)
Kraurogymnocarpa Udagawa & Uchiyama (1)
Mallochia Arx & Samson (4)
Oncocladium Wallr. (1)
Orromyces Sur & G.R. Ghosh (1)

Nannizziopsidaceae Guarro, Stchigel, Deanna A. Sutton & Cano

Nannizziopsis Currah (16)

Onygenaceae Berk.

Amauroascus J. Schröt. (ca. 15)
Aphanoascus Zukal (18)
Apinisia La Touche (3)
Arachnotheca Arx (1)
Ascocalvatia Malloch & Cain (1)
Auxarthron G.F. Orr & Kuehn (13)
Auxarthronopsis Rah. Sharma, Y. Gräser & S.K. Singh (2)
Bifidocarpus Cano, Guarro & R.F. Castañeda (2)
Byssoonygena Guarro, Punsola & Cano (1)
Castanedomyces Cano, L.B. Pitarch & Guarro (1)

Chlamydosauromyces Sigler, Hambl. & Paré (1)
Chrysosporium Corda (66)
Coccidioides G.W. Stiles (6)
Kuehniella G.F. Orr (2)
Leucothecium Arx & Samson (3)
Malbranchea Sacc. (23)
Myotisia Kubátová, M. Kolařík & Hubka (1)
Myriodontium Samson & Polon. (1)
Neoarachnotheca Ulfig, Cano & Guarro (1)
Neogymnomyces G.F. Orr (2)
Onygena Pers. (10)
Ophidiomyces Sigler, Hambl. & Paré (1)
Paranannizziopsis Sigler (4)
Pectinotrichum Varsavsky & G.F. Orr (2)
Polytolypa J.A. Scott & Malloch (1)
Pseudoamauroascus Cano, M. Solé & Guarro (1)
Renispora Sigler & J.W. Carmich. (2)
Sporendonema Desm. (2)
Testudomyces Cano, M. Solé & Guarro (1)
Uncinocarpus Sigler & G.F. Orr (2)
Xanthothecium Arx & Samson (1)

Spiromastigaceae Guarro, Cano & Stchigel
Pseudospiromastix Guarro, Stchigel & Cano (1)
Sigleria Hirooka, Tanney & Seifert (2)
Spiromastigoides Doweld (8)
Spiromastix Kuehn & G.F. Orr (5)

Onygenales genera *incertae sedis*
Arthropsis Sigler, M.T. Dunn & J.W. Carmich. (4)
Ovadendron Sigler & J.W. Carmich. (1)*
Sphaerosporium Schwein. *sensu lato* (2)*

Eurotiomycetidae genera *incertae sedis*
Azureothecium Matsush. (1)
Calyptrozyma Boekhout & Spaay (1)
Pisomyxa Corda (1)
Samarospora Rostr. (1)
Veronaia Benedek (2)

Mycocaliciomycetidae Tibell
Mycocaliciales Tibell & Wedin
Mycocaliciaceae A.F.W. Schmidt (= *Sphinctrinaceae* M. Choisy)
Brunneocarpos Giraldo & Crous (1)
Chaenothecopsis Vain. (ca. 40)
Mycocalicium Vain. ex Reinke (12)
Phaeocalicium A.F.W. Schmidt (11)
Pyrgidium Nyl. (3)
Sphinctrina Fr. (ca. 9)
Stenocybe (Nyl.) Körb. (14)

Sclerococcomycetidae Réblová, Unter. & W. Gams

Sclerococcales Réblová, Unter. & W. Gams
Dactylosporaceae Bellem. & Hafellner (= *Sclerococcaceae* Réblová, Unter. & W. Gams)
Cylindroconidiis H. Zhang & X.D. Yu (1)
Fusichalara S. Hughes & Nag Raj (5)*
Longimultiseptata H. Zhang & W. Dong (2)
Rhopalophora Réblová, Unter. & W. Gams (1)
Sclerococcum Fr. (= *Dactylospora* Körb.) (ca. 80)*

Eurotiomycetes genus *incertae sedis*
Neocladophialophora Crous & R.K. Schumach. (1)

Geoglossomycetes Zheng Wang, C.L. Schoch & Spatafora
Geoglossales Zheng Wang, C.L. Schoch & Spatafora
Geoglossaceae Corda
Geoglossum Pers. (40)
Glutinoglossum Hustad, A.N. Mill., Dentinger & P.F. Cannon (13)
Hemileucoglossum Arauzo (5)
Leucoglossum S. Imai (2)
Maasoglossum K.S. Thind & R. Sharma (2)
Sabuloglossum Hustad, A.N. Mill., Dentinger & P.F. Cannon (1)
Trichoglossum Boud. (19)

Geoglossomycetes genera *incertae sedis*
Nothomitra Maas Geest. (3)*
Sarcoleotia S. Ito & S. Imai (3)*

Laboulbeniomycetes Engler
Herpomycetales Haelew. & Pfister*
Herpomycetaceae I.I. Tav.
Herpomyces Thaxt. (26)

Laboulbeniales Lindau
Ceratomycetaceae S. Colla
Autoicomyces Thaxt. (28)
Ceratomyces Thaxt. (32)
Drepanomyces Thaxt. (1)
Eusynaptomyces Thaxt. (5)
Helodiomyces F. Picard (1)
Phurmomyces Thaxt. (1)
Plectomyces Thaxt. (1)
Rhynchophoromyces Thaxt. (8)
Synaptomyces Thaxt. (1)
Tettigomyces Thaxt. (16)
Thaumasiomyces Thaxt. (3)
Thripomyces Speg. (2)

Euceratomycetaceae I.I. Tav.
Cochliomyces Speg. (2)
Colonomyces R.K. Benj. (2)
Euceratomyces Thaxt. (1)
Euzodiomyces Thaxt. (2)
Pseudoecteinomyces W. Rossi (1)

Laboulbeniaceae G. Winter

Acallomyces Thaxt. (3)
Acompsomyces Thaxt. (6)
Acrogynomyces Thaxt. (6)
Amorphomyces Thaxt. (15)
Amphimyces Thaxt. (1)
Apatelomyces Thaxt. (1)
Apatomyces Thaxt. (1)
Aphanandromyces W. Rossi (1)
Aporomyces Thaxt. (11)
Arthrorhynchus Kolen. (3)
Asaphomyces Thaxt. (2)
Autophagomyces Thaxt. (17)
Benjaminiomyces I.I. Tav. (4)
Blasticomyces I.I. Tav. (3)
Bordea Maire (15)
Botryandromyces I.I. Tav. & T. Majewski (2)
Camptomyces Thaxt. (8)
Cantharomyces Thaxt. (29)
Capillistichus Santam. (1)
Carpophoromyces Thaxt. (1)
Cesariella W. Rossi & Santam. (1)
Chaetarthriomyces Thaxt. (3)
Chaetomyces Thaxt. (2)
Chitonomyces Peyr. (ca. 98)
Clematomyces Thaxt. (5)
Clonophoromyces Thaxt. (2)
Columnomyces R.K. Benj. (1)
Compsomyces Thaxt. (7)
Coreomyces Thaxt. (22)
Corethromyces Thaxt. (ca. 85)
Corylophomyces R.K. Benj. (5)
Cryptandromyces Thaxt. (= *Peyerimhoffiella* Maire) (19)
Cucujomyces Speg. (20)
Cupulomyces R.K. Benj. (= *Balazucia* R.K. Benj.) (1)
Dermapteromyces Thaxt. (1)
Diandromyces Thaxt. (2)
Diaphoromyces Thaxt. (5)
Diclonomyces Thaxt. (3)
Dimeromyces Thaxt. (118)
Dimorphomyces Thaxt. (32)
Dioicomyces Thaxt. (32)
Diphymyces I.I. Tav. (25)*
Diplomyces Thaxt. (3)
Diplopodomyces W. Rossi & Balazuc (6)
Dipodomyces Thaxt. (2)
Distolomyces Thaxt. (3)
Dixomyces I.I. Tav. (14)
Ecteinomyces Thaxt. (1)
Enarthromyces Thaxt. (1)
Eucantharomyces Thaxt. (26)
Euhaplomyces Thaxt. (1)

Eumonoicomyces Thaxt. (2)
Euphoriomyces Thaxt. (15)
Filariomyces Shanor (1)
Gloeandromyces Thaxt. (4)
Haplomyces Thaxt. (3)
Hesperomyces Thaxt. (8)*
Histeridomyces Thaxt. (6)
Homaromyces R.K. Benj. (1)
Hydraeomyces Thaxt. (1)
Hydrophilomyces Thaxt. (12)
Idiomyces Thaxt. (1)
Ilyomyces F. Picard (2)
Ilytheomyces Thaxt. (15)
Kainomyces Thaxt. (3)
Kleidiomyces Thaxt. (4)
Kruphaiomyces Thaxt. (1)
Kyphomyces I.I. Tav. (14)
Laboulbenia Mont. & C.P. Robin (= *Scalenomyces* I.I. Tav.) (ca. 633)*
Limnaiomyces Thaxt. (3)
Majewskia Y.B. Lee & Sugiyama (1)
Meionomyces Thaxt. (6)
Microsomyces Thaxt. (2)
Mimeomyces Thaxt. (16)
Misgomyces Thaxt. (4)
Monandromyces R.K. Benj. (11)
Monoicomyces Thaxt. (47)
Nanomyces Thaxt. (48)
Neohaplomyces R.K. Benj. (3)
Nycteromyces Thaxt. (2)
Opilionomyces Santam., Enghoff, Gruber & Reboleira (1)*
Ormomyces I.I. Tav. (1)
Osoriomyces Terada (1)
Parvomyces Santam. (1)
Peyritschiella Thaxt. (47)
Phalacrichomyces R.K. Benj. (2)
Phaulomyces Thaxt. (14)
Picardella I.I. Tav. (2)
Polyandromyces Thaxt. (1)
Polyascomyces Thaxt. (1)
Porophoromyces Thaxt. (1)
Prolixandromyces R.K. Benj. (20)
Pselaphidomyces Speg. (1)
Rhachomyces Thaxt. (ca. 75)
Rhipidiomyces Thaxt. (1)
Rhizomyces Thaxt. (10)
Rhizopodomyces Thaxt. (7)
Rickia Cavara (144)
Rodaucea W. Rossi & Santam. (2)
Rossiomyces R.K. Benj. (1)
Sandersoniomyces R.K. Benj. (1)
Scaphidiomyces Thaxt. (5)
Scelophoromyces Thaxt. (1)

Scepastocarpus Santam. (1)
Siemaszkoa I.I. Tav. & Maj. (7)
Smeringomyces Thaxt. (4)
Sphaleromyces Thaxt. (3)
Stemmatomyces Thaxt. (2)
Stichomyces Thaxt. (7)
Stigmatomyces H. Karst. (= *Fanniomyces* T. Majewski) (150)
Sugiyamaemyces I.I. Tav. & Balazuc (1)
Symplectromyces Thaxt. (3)
Sympodomyces R.K. Benj. (1)
Synandromyces Thaxt. (9)
Tavaresiella T. Majewski (4)
Teratomyces Thaxt. (11)
Tetrandromyces Thaxt. (6)
Thaxterimyces Santam., Reboleira & Enghoff (1)
Trenomyces Chatton & F. Picard (11)
Triainomyces W. Rossi & A. Weir (1)
Triceromyces T. Majewski (5)
Trochoideomyces Thaxt. (1)
Troglomyces S. Colla (8)
Zeugandromyces Thaxt. (4)
Zodiomyces Thaxt. (4)

Laboulbeniales genera *incertae sedis*
Cainomyces Thaxt. (1)
Coreomycetopsis Thaxt. (1)
Gliocephalis Matr. (2)

Pyxidiophorales P.F. Cannon
Pyxidiophoraceae Arnold
Mycorhynchidium Malloch & Cain (1)
Pleurocatena G. Arnaud ex Aramb., Gamundí, W. Gams & G.R.W. Arnold (3)
Pyxidiophora Bref. & Tavel (17)

Laboulbeniomycetes genus *incertae sedis*
Laboulbeniopsis Thaxt. (1)

Lecanoromycetes O.E. Erikss. & Winka
Acarosporomycetidae V. Reeb, Lutzoni & Cl. Roux
Acarosporales V. Reeb, Lutzoni & Cl. Roux
Acarosporaceae Zahlbr.
Acarospora A. Massal. (200)
Caeruleum Arcadia (2)
Glypholecia Nyl. (1)
Lithoglypha Brusse (1)
Myriospora Nägeli ex Uloth (9)
Pleopsidium Körb. (4)
Polysporina Vězda (10)
Sarcogyne Flot. (28)
Thelocarpella Nav.-Ros. & Cl. Roux (1)
Timdalia Hafellner (1)
Trimmatothelopsis Zschacke (1)

Eigleraceae Hafellner
Eiglera Hafellner (2)

Lecanoromycetidae P.M. Kirk, P.F. Cannon, J.C. David & Stalpers ex Miądl., Lutzoni & Lumbsch
Caliciales Bessey
Caliciaceae Chevall.
Acolium (Ach.) Gray (5)
Acroscyphus Lév. (1)
Allocalicium M. Prieto & Wedin (1)
Amandinea M. Choisy ex Scheid. & M. Mayrhofer (35)
Australiaena Matzer, H. Mayrhofer & Elix (1)
Baculifera Marbach (14)
Buellia De Not. (= *Dirinastrum* Müll. Arg.) (300)
Caliciella Vain. (1)
Calicium Pers. (= *Cyphelium* Ach.) (ca. 30)
Chrismofulvea Marbach (4)
Ciposia Marbach (1)
Cratiria Marbach (ca. 20)
Culbersonia Essl. (1)*
Dermatiscum Nyl. (3)
Dermiscellum Hafellner, H. Mayrhofer & Poelt (1)
Dimelaena Norman (10)
Diploicia A. Massal. (ca. 12)
Diplotomma Flot. (ca. 30)
Dirinaria (Tuck.) Clem. (ca. 35)
Endohyalina Marbach (10)
Fluctua Marbach (1)
Gassicurtia Fée (30)
Hypoflavia Marbach (3)
Monerolechia Trevis. (4)
Orcularia (Malme) Kalb & Giralt (4)
Pseudothelomma M. Prieto & Wedin (2)
Pyxine Fr. (ca. 75)
Redonia C.W. Dodge (2)
Santessonia Hale & Vobis (10)
Sculptolumina Marbach (4)
Sphinctrinopsis Woron. (1)
Stigmatochroma Marbach (9)
Tetramelas Norman (16)
Texosporium Nádv. ex Tibell & Hofsten (1)
Thelomma A. Massal. (5)
Tholurna Norman (1)

Physciaceae Zahlbr.
Anaptychia Körb. (ca. 15)
Coscinocladium Kunze (2)
Heterodermia Trevis. (ca. 90)
Hyperphyscia Müll. Arg. (9)
Kashiwadia S.Y. Kondr. (1)
Leucodermia Kalb (10)
Mischoblastia A. Massal. (3)

Mobergia H. Mayrhofer & Sheard (1)
Oxnerella S.Y. Kondr., Lőkös & Hur (1)
Phaeophyscia Mob. (66)
Phaeorrhiza H. Mayrhofer & Poelt (2)
Physcia (Schreb.) Michaux (ca. 80)
Physciella Essl. (4)
Physconia Poelt (ca. 25)
Polyblastidium Kalb (18)
Rinodina (Ach.) Gray (ca. 300)
Rinodinella H. Mayrhofer & Poelt (6)
Tornabea Oesth. (1)

Lecanorales Nannf.
Bruceomycetaceae Rikkinen & A.R. Schmidt
Bruceomyces Rikkinen (4)
Resinogalea Rikkinen & A.R. Schmidt (1)*

Catillariaceae Hafellner
Austrolecia Hertel (1)
Catillaria A. Massal. (ca. 30 + several orphaned names)
Placolecis Trevis. (1)
Solenopsora A. Massal. (11)
Xanthopsorella Kalb & Hafellner (1)

Cladoniaceae Zenker (= *Squamarinaceae* Hafellner, = *Stereocaulaceae* Chevall.)*
Calathaspis I.M. Lamb & W.A. Weber (1)
Carassea S. Stenroos (1)
Cetradonia J.C. Wei & Ahti (1)
Cladia Nyl. (ca. 27)
Cladonia Hill ex P. Browne (ca. 500)
Gymnoderma Nyl. (3)
Herteliana P. James (3)
Hertelidea Printzen & Kantvilas (6)
Heteromyces Müll. Arg. (1)
Lepraria Ach. (76)
Metus D.J. Galloway & P. James (3)
Notocladonia S. Hammer (2)
Paralecia Brackel, Greiner, Peršoh & Rambold (1)
Pilophorus Th. Fr. (17)
Pulchrocladia S. Stenroos, Pino-Bodas, Lumbsch & Ahti (3)
Pycnothelia Duf. (2)
Sphaerophoropsis Vain. (2)
Squamarina Poelt (25)
Squamella S. Hammer (1)
Stereocaulon Hoffm. (ca. 140)
Thysanothecium Mont. & Berk. (3)
Xyleborus R.C. Harris & Ladd (1)

Gypsoplacaceae Timdal
Gypsoplaca Timdal (5)

Haematommataceae Hafellner

Haematomma A. Massal. (ca. 50)

Lecanoraceae Körb. (= *Carbonicolaceae* Bendiksby & Timdal)
Adelolecia Hertel & Hafellner (4)*
Ameliella Fryday & Coppins (2)
Bryodina Hafellner (2)
Bryonora Poelt (11)
Carbonicola Bendiksby & Timdal (3)
Cladidium Hafellner (2)
Claurouxia D. Hawksw. (1)
Clauzadeana Cl. Roux (1)
Edrudia W.P. Jordan (1)
Frutidella Kalb (3)*
Huea C.W. Dodge & G.E. Baker (=*Carbonea* (Hertel) Hertel) (20)
Japewia Tønsberg (3)*
Japewiella Printzen (7)
Lecanora Ach. (ca. 550)
Lecidella Körb. (80)
Maronina Hafellner & R.W. Rogers (6)
Maronora Kalb & Aptroot (1)
Miriquidica Hertel & Rambold (30)
Myriolecis Clements (43)
Palicella Rodr. Flakus & Printzen (4)
Protoparmeliopsis Choisy (= *Sedelnikovaea* S.Y. Kondr., M.H. Jeong & Hur) (ca. 20)
Psorinia Gotth. Schneid. (2)
Punctonora Aptroot (2)
Pyrrhospora Körb. (7)
Rhizoplaca Zopf (11)
Sagema Poelt & Grube (1)
Traponora Aptroot (8)
Vainionora Kalb (9)

Malmideaceae Kalb, Rivas Plata & Lumbsch
Cheiromycina B. Sutton (4)
Crustospathula Aptroot (4)*
Kalbionora Sodamuk, S.D. Leav. & Lumbsch (1)
Malmidea Kalb, Rivas Plata & Lumbsch (52)
Savoronala Ertz, Eb. Fisch., Killmann, Razafindr. & Sérus (1)
Sprucidea M.Cáceres, Aptroot & Lücking (4)
Zhurbenkoa Flakus, Etayo, Pérez-Ortega & Rodr. Flakus (3)

Megalariaceae Hafellner
Catillochroma Kalb (2)
Megalaria Hafellner (ca. 30)*

Parmeliaceae Zenker
Alectoria Ach. (= *Gowardia* Halonen, Myllys, Velmala & Hyvärinen) (9)
Allantoparmelia (Vain.) Essl. (3)
Anzia Stizenb. (34)
Arctoparmelia Hale (5)
Asahinea W.L. Culb. & C.F. Culb. (2)
Austromelanelixia Divakar, A. Crespo & Lumbsch (5)

Austroparmelina A. Crespo, Divakar & Elix (13)
Brodoa Goward (3)
Bryocaulon Kärnefelt (4)
Bryoria Brodo & D. Hawksw. (ca. 52)
Bulbothrix Hale (62)
Canoparmelia Elix & Hale (35)
Cetraria Ach. (= *Allocetraria* Kurok. & M.J. Lai, = *Cetrariella* Kärnefelt & Thell, = *Usnocetraria* M.J. Lai & J.C. Wei, = *Vulpicida* Mattson & M.J. Lai) (35)
Cetrelia W.L. Culb. & C.F. Culb. (18)
Coelopogon Brusse & Karnefelt (2)
Cornicularia (Schreb.) Ach. (1)
Dactylina Nyl. (2)
Davidgallowaya Aptroot (1)
Dolichousnea (Y. Ohmura) Articus (3)
Emodomelanelia Divakar & A. Crespo (1)
Esslingeriana Hale & M.J. Lai (1)
Eumitria Stirt. (13)
Evernia Ach. (10)
Everniopsis Nyl. (1)
Flavoparmelia Hale (32)
Flavopunctelia Hale (5)
Himantormia I.M. Lamb (2)
Hypogymnia (Nyl.) Nyl. (90)
Hypotrachyna (Vain.) Hale (262)
Imshaugia F.C. Mey. (1)
Letharia (Th. Fr.) Zahlbr. (9)
Lethariella (Motyka) Krog (11)
Masonhalea Kärnefelt (2)*
Melanelia Essl. (2)
Melanelixia O. Blanco, A. Crespo, Divakar, Essl., D. Hawksw. & Lumbsch (11)
Melanohalea O. Blanco, A. Crespo, Divakar, Essl., D. Hawksw. & Lumbsch (22)
Menegazzia A. Massal. (70)
Montanelia Divakar, A. Crespo, Wedin & Essl. (5)
Myelochroa (Asahina) Elix & Hale (30)
Neoprotoparmelia Garima Singh, Lumbsch & I. Schmitt (14)
Nephromopsis Müll. Arg. (= *Ahtiana* Goward; = *Arctocetraria* Kärnefelt & Thell; = *Cetrariopsis* Kurok.; = *Flavocetraria* Kärnefelt & Thell; = *Flavocetrariella* D.D. Awasthi; = *Kaernefeltia* Thell & Goward; = *Tuckermanella* Essl.; = *Tuckermannopsis* Gyeln.) (62)
Nesolechia A. Massal. (ca. 2)
Nipponoparmelia (Kurok.) K.H. Moon, Y. Ohmura & Kashiw. (4)
Nodobryoria Common & Brodo (3)
Notoparmelia A. Crespo, Ferencová & Divakar (16)
Omphalodium Meyen & Flot. (4)
Omphalora T.H. Nash & Hafellner (1)
Oropogon Th. Fr. (42)
Pannoparmelia (Müll. Arg.) Darb. (5)
Parmelia Ach (43)
Parmelina Hale (10)
Parmelinella Elix & Hale (8)
Parmeliopsis (Nyl.) Nyl. (3)
Parmotrema A. Massal. (= *Crespoa* (D. Hawksw.) Lendemer & B.P. Hodk.) (255)
Parmotremopsis Elix & Hale (2)

Phacopsis Tul. (10)
Platismatia W.L. Culb. & C.F. Culb. (11)
Pleurosticta Petr. (2)
Protoparmelia M. Choisy (11)
Protousnea (Motyka) Krog (8)
Pseudephebe M. Choisy (2)
Pseudevernia Zopf (4)
Pseudoparmelia Lynge (15)
Psiloparmelia Hale (13)
Punctelia Krog (48)
Relicina (Hale & Kurok.) Hale (59)
Remototrachyna Divakar & A. Crespo (19)
Raesaenenia D. Hawksw. (1)
Sulcaria Bystr. (5)
Usnea Dill. ex Adans. (355)
Xanthoparmelia (Vain.) Hale (822)

Pilocarpaceae Zahlbr.
Aquacidia Aptroot (3)*
Badimiella Malcolm & Vězda (1)
Baflavia Lücking (1)
Bapalmuia Sérus. (22)
Barubria Vězda (2)
Brasilicia Lücking, Kalb & Serus. (6)
Bryogomphus Lücking, W.R. Buck, Sérus. & L.I. Ferraro (1)
Byssolecania Vain. (7)
Byssoloma Trevis. (60)
Calopadia Vězda (27)
Calopadiopsis Lücking & R. Sant. (2)
Eugeniella Lücking, Sérus. & Kalb (11)
Fellhanera Vězda (ca. 100)
Fellhaneropsis Sérus. & Coppins (9)
Kantvilasia P.M. McCarthy, Elix & Sérus. (1)
Lasioloma R. Sant. (9)
Leimonis R.C. Harris (2)
Loflammia Vězda (5)
Loflammiopsis Lücking & Kalb (1)
Logilvia Vězda (1)
Micarea Fr. (102)
Podotara Malcolm & Vězda (1)
Pseudocalopadia Lücking (1)
Roccellinastrum Follmann (7)
Schadonia Körb. (4)*
Septotrapelia Aptroot & Chaves (4)
Sporopodiopsis Sérus. (2)
Sporopodium Mont. (24)
Szczawinskia A. Funk (5)
Tapellaria Müll. Arg. (23)
Tapellariopsis Lücking (1)

Psilolechiaceae S. Stenroos, Miądl. & Lutzoni
Psilolechia A. Massal. (4)

Psoraceae Zahlbr.

Brianaria S. Ekman & M. Svensson (4)
Glyphopeltis Brusse (1)
Protoblastenia (Zahlbr.) J. Steiner (30)
Protomicarea Hafellner (2)
Psora Hoffm. (35)
Psorula Gotth. Schneid. (1)

Ramalinaceae C. Agardh*

Auriculora Kalb (1)
Bacidia De Not. (= *Bacidiopsora* Kalb) (230)*
Bacidina Vězda (12)
Badimia Vězda (20)
Bellicidia Kistenich, Timdal, Bendiksby & Ekman (1)*
Biatora Fr. (= *Myrionora* R.C. Harris; = *Ivanpisutia* S.Y. Kondr., Lőkös & Hur) (42)*
Bibbya J.H. Willis (10)*
Bilimbia De Not. (= *Myxobilimbia* Hafellner) (6)
Cenozosia A. Massal. (1)
Cliostomum Fr. (25)
Echidnocymbium Brusse (1)
Eschatogonia Trevis. (7)
Heppsora D.D. Awasthi & K. Singh (1)
Jarmania Kantvilas (2)
Kiliasia Hafellner (9)*
Krogia Timdal (7)
Lecania A. Massal. (50)
Lueckingia Aptroot & Umana (1)
Mycobilimbia Rehm (5)*
Myelorrhiza Verdon & Elix (2)*
Niebla Rundel & Bowler (23)
Parallopsora Kistenich, Timdal & Bendiksby (3)*
Phyllopsora Müll. Arg. (= *Crocynia* (Ach.) A. Massal.) (75)*
Physcidia Tuck. (10)
Ramalina Ach. (230)
Rolfidium Moberg (3)
Scutula Tul. (=*Karsteniomyces* D. Hawksw.; = *Libertiella* Speg. & Roum.) (43)*
Sporacestra A. Massal. (1)*
Stirtoniella D.J. Galloway, Hafellner & Elix (1)
Thalloidima A. Massal. (17)*
Thamnolecania (Vain.) Gyeln. (1)
Tibellia Vězda & Hafellner (1)
Toninia A. Massal. (= *Arthrosporum* A. Massal.) (85)*
Toniniopsis Frey (7)
Tylothallia P. James & H. Kilias (3)*
Waynea Moberg (7)

Ramboldiaceae S. Stenroos, Miądl. & Lutzoni

Ramboldia Kantvilas & Elix (34)

Scoliciosporaceae Hafellner

Scoliciosporum A. Massal. (15)

Sphaerophoraceae Fr.

Austropeltum Henssen, H. Döring & Kantvilas (1)
Bunodophoron A. Massal. (25)
Calycidium Stirt. (2)
Leifidium Wedin (1)
Neophyllis F. Wilson (2)
Sphaerophorus Pers. (8)

Tephromelataceae Hafellner

Calvitimela Hafellner (11)
Mycoblastus Norman (10)
Tephromela M. Choisy (ca. 30)
Violella T. Sprib. (2)

Lecanorales genera *incertae sedis*

Catinaria Vain. (2)*
Compsocladium I.M. Lamb (2)*
Coronoplectrum Brusse (1)
Corticiruptor Wedin & Hafellner (2)
Lichenosticta Zopf (5)
Myochroidea Printzen, T. Sprib. & Tønsberg (4)*
Neopsoromopsis Gyeln. (1)
Nimisiostella Calat., Barreno & O.E. Erikss. (1)
Psoromella Gyeln. (1)
Puttea S. Stenroos & Huhtinen (4)
Ramalea Nyl. (4)
Tasmidella Kantvilas, Hafellner & Elix (1)*
Umbilithecium Etayo (1)
Umushamyces Etayo (1)

Lecideales Vain.
Lecideaceae Chevall.

Amygdalaria Norman (11)
Bahianora Kalb (1)
Bellemerea Hafellner & Cl. Roux (10)
Bryobilimbia Fryday (6)*
Catarrhospora Brusse (2)
Cecidonia Triebel & Rambold (2)
Clauzadea Hafellner & Bellem. (7)
Cryptodictyon A. Massal. (2)
Eremastrella Vogel (2)
Farnoldia Hertel (6)
Immersaria Rambold & Pietschm. (8)
Koerberiella Stein (2)
Labyrintha Malcolm, Elix & Owe-Larss. (1)
Lecidea Ach. (ca. 100)
Lecidoma Gotth. Schneid. & Hertel (1)
Melanolecia Hertel (7)
Pachyphysis R.C. Harris & Ladd (1)
Paraporpidia Rambold & Pietschm. (3)
Poeltiaria Hertel (8)
Poeltidea Hertel & Hafellner (3)

Porpidia Körb. (51)
Porpidinia Timdal (1)
Pseudopannaria (B. de Lesd.) Zahlbr. (1)
Rhizolecia Hertel (1)
Romjularia Timdal (1)
Schizodiscus Brusse (1)
Stenhammarella Hertel (1)
Stephanocyclos Hertel (1)
Xenolecia Hertel (2)

Lopadiaceae Hafellner
Lopadium Körb. (10)

Leprocaulales Lendemer & B.P. Hodk.
Leprocaulaceae Lendemer & B.P. Hodk.
Halecania M. Mayrhofer (22)
Leprocaulon Nyl. (ca. 10)
Speerschneidera Trevis. (1)

Peltigerales W. Watson
Coccocarpiaceae Henssen ex Henssen
Coccocarpia Pers. (ca. 50)
Peltularia R. Sant. (4)
Spilonema Bornet (4)

Collemataceae Zenker
Blennothallia Trevis. (4)
Callome Otálora & Wedin (1)
Collema F.H. Wigg. (ca. 35)
Enchylium (Ach.) Gray (11)
Lathagrium (Ach.) Gray (10)
Leptogium (Ach.) Gray (ca. 110)
Pseudoleptogium Müll. Arg. (1)
Rostania Trevis. (3 + 4 orphaned species)*
Scytinium (Ach.) Gray (49)

Koerberiaceae T. Sprib. & Muggia
Henssenia Ertz, R.S. Poulsen & Søchting (4)*
Koerberia A. Massal. (2)
Vestergrenopsis Gyeln. (2)

Massalongiaceae Wedin, P.M. Jørg. & E. Wiklund.
Leptochidium M. Choisy (2)
Massalongia Körb. (2 + 6 orphaned species)
Polychidium (Ach.) Gray (1)

Pannariaceae Tuck.
Austrella P.M. Jørg. (3)
Degelia Arv. & D.J. Galloway (16)
Erioderma Feé (32)
Fuscoderma (D.J. Galloway & P.M. Jørg.) P.M. Jørg. & D.J. Galloway (5)
Fuscopannaria P.M. Jørg. (= *Kroswia* P.M. Jørg.) (58)

Gibbosporina Elvebakk, S.G. Hong & P.M. Jørg. (13)
Homothecium A. Massal. (4)
Joergensenia Passo, S. Stenroos & Calvelo (1)
Leciophysma Th. Fr. (2)
Leightoniella Henssen (1)
Leioderma Nyl. (7)
Lepidocollema Vain. (22)
Leptogidium Nyl. (3)
Nebularia P.M. Jørg. (2)
Nevesia P.M.Jørg, L. Lindblom, Wedin & S. Ekman (1)
Pannaria Del. ex Bory (ca. 40)
Parmeliella Müll. Arg. (ca. 40)
Pectenia P.M. Jørg. (4)
Physma A. Massal. (12)
Protopannaria (Gyeln.) P.M. Jørg. & S. Ekman (7)
Psoroma Michaux (ca. 70)
Psoromaria Nyl. ex Nyl. (= *Degeliella* P.M. Jørg.) (2)
Psoromidium Stirt. (2)
Ramalodium Nyl. (6)
Siphulastrum Müll. Arg. (4)
Staurolemma Körb. (3)
Steineropsis T. Sprib. & Muggia (1)

Peltigeraceae Dumort. (= *Lobariaceae* Chevall.; = *Nephromataceae* Wetm. ex J.C. David & D. Hawksw.)*
Crocodia Link (5)
Dendriscosticta Moncada & Lücking (5)
Lobaria (Schreb.) Hoffm. (ca. 60)
Lobariella Yoshim. (35)
Lobarina Nyl. ex Cromb. (15)
Nephroma Ach. (ca. 36)
Parmostictina Nyl. (15)
Peltigera Willd. (ca. 100)
Podostictina Clem. (5)
Pseudocyphellaria Vain. (ca. 100)
Ricasolia De Not. (15)
Solorina Ach. (ca. 10)
Sticta (Schreb.) Ach. (ca. 200)
Yarrumia D.J. Galloway (2)
Yoshimuriella Moncada & Lücking (8)

Placynthiaceae Å.E. Dahl
Hertella Henssen (3)
Placynthiopsis Zahlbr. (1)
Placynthium (Ach.) Gray (ca. 20)

Vahliellaceae Wedin
Vahliella P.M. Jørg. (10)

Peltigerineae genus *incertae sedis*
Erinacellus T. Sprib., Muggia & Tønsberg (2)

Rhizocarpales Miądl. & Lutzoni ex Miądl. & Lutzoni ex Miadl. & Lutzoni
Rhizocarpaceae M. Choisy & Hafellner
Catolechia Flot. (1)
Epilichen Clem. (2)
Poeltinula Hafellner (2)
Rhizocarpon Ramond ex DC. (225)

Sporastatiales Lumbsch & Leavitt*
Sporastatiaceae Bendiksby & Timdal
Sporastatia A. Massal. (4)
Toensbergia Bendiksby & Timdal (1)

Teloschistales D. Hawksw. & O.E. Erikss.
Brigantiaeaceae Hafellner & Bellem. (= *Letrouitiaceae* Bellem. & Hafellner)*
Brigantiaea Trevis. (26)
Letrouitia Hafellner & Bellem. (18)

Megalosporaceae Vězda ex Hafellner & Bellem.
Megaloblastenia Sipman (2)
Megalospora Meyen (36)
Sipmaniella Kalb (1)

Teloschistaceae Zahlbr.
Amundsenia Søchting, Garrido-Ben., Arup & Frödén (2)
Apatoplaca Poelt & Hafellner (1)
Athallia Arup, Frödén & Søchting (= ?*Coppinsiella* S. Y. Kondr. et al.; = ?*Fominiella* S. Y. Kondr., Upreti & Hur) (17)
Austroplaca Søchting, Frödén & Arup (10)
Blastenia A. Massal. (11)
Brownliella S.Y. Kondr., Kärnefelt, Elix, A. Thell & Hur (4)
Bryoplaca Søchting, Frödén & Arup (3)
Calogaya Arup, Frödén & Søchting (= *Lazarenkoella* S.Y. Kondr. et al.; = *Seawardiella* S.Y. Kondr. et al.) (19)
Caloplaca Th. Fr. (351)
Catenarina Søchting, Søgaard, Arup, Elvebakk & Elix (3)
Cephalophysis (Hertel) H. Kilias (1)
Cerothallia Arup, Frödén & Søchting (4)
Charcotiana Søchting, Garrido-Ben. & Arup (1)
Dijigiella S.Y. Kondr. & L. Lőkös (2)
Dufourea Ach. (= *Xanthodactylon* P.A. Duvign.) (25)
Eilifdahlia S.Y. Kondr., Kärnefelt, Elix, A. Thell & Hur (2)
Fauriea S.Y. Kondr., Lőkös & Hur (2)
Filsoniana S.Y. Kondr., Kärnefelt, Elix, A. Thell & Hur (= *Harusavskia* S.Y. Kondr.; = *Nevilleiella* S.Y.Kondr. & Hur; = *Thelliana* S.Y. Kondr. et al.) (9)
Flavoplaca Arup, Søchting & Frödén (28)
Follmannia C.W. Dodge (2)
Franwilsia S.Y. Kondr., Kärnefelt, Elix, A. Thell & Hur (3)
Gondwania Søchting, Frödén & Arup (4)
Gyalolechia A. Massal. (= *Hanstrassia* S.Y. Kondr.; = *Laundonia* S. Y. Kondr., L. Lőkös & Hur; = *Lazarenkoiopsis* S.Y. Kondr., L. Lőkös & Hur; = *Opeltia* S.Y. Kondr. & L. Lőkös; = *Oxneriopsis* S.Y. Kondr., D. Upreti & Hur) (40)
Haloplaca Arup, Søchting & Frödén (31)

Hosseusiella S.Y. Kondr., L. Lőkös, Kärnefelt & A. Thell (3)
Huneckia S.Y. Kondr., Elix, Kärnefelt, A. Thell & Hur (2)
Ioplaca Poelt (2)
Jasonhuria S.Y. Kondr., Lőkös & S.O. Oh (1)
Josefpoeltia S.Y. Kondr. & Kärnefelt (3)
Kaernefia S.Y. Kondr., Elix, A. Thell & Hur (3)
Leproplaca (Nyl.) Nyl. (7)
Loekoesia S.Y. Kondr., S.O. Oh & Hur (1)
Marchantiana S.Y. Kondr., Kärnefelt, Elix, A. Thell & Hur (= *Streimanniella* S.Y. Kondr. et al.) (5)
Olegblumia S.Y. Kondr., Lőkös & Hur (1)
Orientophila Arup, Søchting & Frödén (4)
Pachypeltis Søchting, Arup & Frödén (4)
Parvoplaca Arup, Søchting & Frödén (6)
Polycauliona Hue (= ? *Tomnashia* S.Y. Kondr. & Hur) (18)
Pyrenodesmia A. Massal. (6)
Rehmaniella S.Y. Kondr. et al. (1)
Rufoplaca Arup, Søchting & Frödén (6)
Rusavskia S.Y. Kondr. & Kärnefelt (= ? *Zeroviella* S.Y. Kondr. & J.-S. Hur) (19)
Scutaria Søchting, Arup & Frödén (1)
Seirophora Poelt (ca. 8)
Shackletonia Søchting, Frödén & Arup (5)
Sirenophila Søchting, Arup & Frödén (= *Elixjohnia* S.Y. Kondr. & Hur; = *Tarasginia* S.Y. Kondr. et al.) (14)
Solitaria Arup, Søchting & Frödén (1)
Squamulea Arup, Søchting & Frödén (= *Huriella* S.Y. Kondr. & D. Upreti) (8)
Stellarangia Frödén, Arup & Søchting (3)
Tassiloa S.Y. Kondr., Kärnefelt, A. Thell, Elix & Hur (2)
Teloschistes Norman (ca. 24)
Teloschistopsis Frödén, Søchting & Arup (3)
Teuvoahtiana S.Y. Kondr. & Hur (3)
Upretia S.Y. Kondr., A. Thell & Hur
Usnochroma Søchting, Arup & Frödén (2)
Variospora Arup, Søchting & Frödén (16)
Villophora Søchting, Arup & Frödén (= *Tayloriella* S.Y. Kondr. et al.; = *Tayloriellina* S.Y. Kondr. et al.) (4)
Wetmoreana Arup, Søchting & Frödén (3)
Xanthocarpia A. Massal. & De Not. (12)
Xanthomendoza S.Y. Kondr. & Kärnefelt (20)
Xanthopeltis R. Sant. (1)
Xanthoria (Fr.) Th. Fr. (10)
Yoshimuria S.Y. Kondr., Kärnefelt, Elix, A. Thell & Hur (= *Ikaeria* S.Y. Kondr., D. Upreti & Hur) (4)

Teloschistales genus *incertae sedis*
Malcolmiella Vězda (1)

Lecanoromycetidae familis *incertae sedis*
Biatorellaceae M. Choisy ex Hafellner & Casares-Porcel
Biatorella De Not. (ca. 30)

Helocarpaceae Hafellner

Helocarpon Fr. (3)

Pachyascaceae Poelt ex P.M. Kirk, P.F. Cannon & J.C. David
Pachyascus Poelt & Hertel (1)

Ostropomycetidae V. Reeb, Lutzoni & Cl. Roux
Baeomycetales Lumbsch, Huhndorf & Lutzoni. (= *Arctomiales* S. Stenroos, Miądl. & Lutzoni; = *Hymeneliales* S. Stenroos, Miądl. & Lutzoni; = *Trapeliales* B.P. Hodk. & Lendemer)*
Arctomiaceae Th. Fr.
Arctomia Th. Fr. (14)
Gregorella Lumbsch (1)
Steinera Zahlbr. (14)*
Wawea Henssen & Kantvilas (1)

Arthrorhaphidaceae Poelt & Hafellner
Arthrorhaphis Th. Fr. (13)

Baeomycetaceae Dumort.
Ainoa Lumbsch & I. Schmitt (2)
Anamylopsora Timdal (1)
Baeomyces Pers. (10)
Parainoa Resl & T. Sprib. (1)
Phyllobaeis Gierl & Kalb (6)

Cameroniaceae Kantvilas & Lumbsch
Cameronia Kantvilas (2)

Hymeneliaceae Körb.
Hymenelia Kremp. (26)
Ionaspis Th. Fr. (7)
Tremolecia M. Choisy (6)

Protothelenellaceae Vězda, H. Mayrhofer & Poelt (= *Thrombiaceae* Poelt & Vězda ex J.C. David & D. Hawksw.)*
Mycowinteria Sherwood (3)
Protothelenella Räsenen (11)
Thrombium Wallr. (5)

Trapeliaceae M. Choisy ex Hertel
Amylora Rambold (1)
Aspiciliopsis (Müll. Arg.) M. Choisy (1)
Coppinsia Lumbsch & Heibel (1)
Ducatina Ertz & Søchting (1)*
Lignoscripta B.D. Ryan (1)
Orceolina Hertel (2)
Placopsis (Nyl.) Linds. (ca. 60)
Placynthiella Elenkin (7)
Rimularia Nyl. (4)*
Sarea Fr. (2)
Trapelia M. Choisy (24)
Trapeliopsis Hertel & Gotth. Schneid. (20)

Xylographaceae Tuck.
Lambiella Hertel (12)
Lithographa Nyl. (10)
Ptychographa Nyl. (1)
Xylographa (Fr.) Fr. (2)

Graphidales Bessey
Diploschistaceae Zahlbr.
Acanthothecis Clem. (ca. 60)
Acanthotrema Frisch (5)
Aggregatorygma M. Cáceres, Aptroot & Lücking (1)
Ampliotrema Kalb ex Kalb (12)
Asteristion Leight. (9)
Austrotrema I. Medeiros, Lücking & Lumbsch (3)
Borinquenotrema Merc.-Díaz, Lücking & Parnmen (1)
Byssotrema M. Cáceres (1)
Carbacanthographis Staiger & Kalb (28)
Compositrema Rivas Plata, Lücking & Lumbsch (4)
Corticorygma M. Cáceres, S.C. Feuerst., Aptroot & Lücking (1)
Diploschistes Norman (33)
Fibrillithecis A. Frisch (15)
Gintarasia Kraichak, Lücking & Lumbsch (5)
Glaucotrema Rivas Plata & Lumbsch (5)
Gyrotrema A. Frisch (6)
Heiomasia Nelsen, Lücking & Rivas Plata (3)
Melanotopelia Lumbsch & Mangold (4)
Melanotrema A. Frisch (12)
Myriochapsa M. Cáceres, Lücking & Lumbsch (3)
Myriotrema Fée (55)
Nadvornikia Tibell (5)
Nitidochapsa Parnmen, Lücking & Lumbsch (5)
Ocellularia G. Mey. (ca. 400)
Phaeographopsis Sipman (3)
Pseudoramonia Kantvilas & Vězda (4)
Redingeria A. Frisch (8)
Reimnitzia Kalb (1)
Rhabdodiscus Vain. (35)
Sanguinotrema Lücking (1)
Schizotrema Mangold & Lumbsch (6)
Stegobolus Mont. (16)
Topeliopsis Kantvilas & Vězda (20)
Wirthiotrema Rivas Plata, Kalb, Frisch & Lumbsch (5)
Xalocoa Kraichak, Lücking & Lumbsch (1)

Fissurinaceae (Rivas Plata, Lücking & Lumbsch) B.P. Hodk.
Clandestinotrema Rivas Plata, Lücking & Lumbsch (17)
Cruentotrema Rivas Plata, Papong, Lumbsch & Lücking (6)
Dyplolabia A. Massal. (5)
Enigmotrema Lücking (1)
Fissurina Fée (ca. 155)
Pycnotrema Rivas Plata & Lücking (2)

Gomphillaceae Walt. Watson

Actinoplaca Müll. Arg. (2)
Aderkomyces Bat. (30)
Aplanocalenia Lücking, Sérus. & Vězda (1)
Arthotheliopsis Vain. (5)
Asterothyrium Müll. Arg. (32)
Aulaxina Fée (14)
Calenia Müll. Arg. (30)
Caleniopsis Vězda & Poelt (2)
Corticifraga D. Hawksw. & R. Sant. (7)*
Diploschistella Vain. (4)
Echinoplaca Fée (40)
Ferraroa Lücking, Sérus. & Vězda (1)
Gomphillus Nyl. (6)
Gyalectidium Müll. Arg. (52)
Gyalidea Lettau (50)
Gyalideopsis Vězda (91)
Hippocrepidea Sérus. (1)
Jamesiella Lücking, Sérus. & Vězda (4)
Lithogyalideopsis Lücking, Sérus. & Vězda (4)
Paratricharia Lücking (1)
Paragyalideopsis Etayo (4)
Phyllogyalidea Lücking & Aptroot (2)
Psorotheciopsis Rehm (7)
Rolueckia Papong, Thammath. & Boonpr. (2)
Taitaia Suija, Kaasalainen, Kirika & Rikkinen (1)*
Tricharia Fée (ca. 30)

Graphidaceae Dumort.

Allographa Chevall. (183)*
Amazonotrema Kalb & Lücking (1)
Anomalographis Kalb (2)
Anomomorpha Nyl. ex Hue (8)
Creographa A. Massal. (1)
Cryptoschizotrema Aptroot, Lücking & M. Cáceres (1)
Diaphorographis A.W. Archer & Kalb (2)
Diorygma Eschw. (74)
Flegographa A. Massal. (1)
Glyphis Ach. (7)
Graphis Adans. (ca. 275)
Halegrapha Rivas Plata & Lücking (9)
Hemithecium Trevis. (ca. 50)
Kalbographa Lücking (5)
Leiorreuma Eschw. (18)
Malmographina M. Cáceres, Rivas Plata & Lücking (1)
Mangoldia Lücking, Parnmen & Lumbsch (2)
Pallidogramme Staiger, Kalb & Lücking (13)
Phaeographis Müll. Arg. (ca. 180)
Platygramme Fée (30)
Platythecium Staiger (27)
Pliariona A. Massal. (= *Phaeographina* Müll. Arg.) (1)
Polistroma Clemente (1)

Pseudochapsa Parnmen, Lücking & Lumbsch (18)
Pseudotopeliopsis Parnmen, Lücking & Lumbsch (4)
Sarcographa Fée (37)
Sarcographina Müll. Arg. (6)
Schistophoron Stirt. (5)
Thalloloma Trevis. (20)
Thecaria Fée (4)
Thecographa A. Massal. (3)

Redonographaceae (Lücking, Tehler & Lumbsch) Lumbsch (Bas.: *Redonographoideae* Lücking, Tehler & Lumbsch, Am. J. Bot. 100: 846 2013)
Gymnographopsis C.W. Dodge (2)
Redonographa Lücking, Tehler & Lumbsch (4)

Thelotremataceae Stizenb.
Astrochapsa Parnmen, Lücking & Lumbsch (28)
Chapsa A. Massal. (ca. 60)
Chroodiscus (Müll. Arg.) Müll. Arg. (17)
Crutarndina Parnmen, Lücking & Lumbsch (1)
Leucodecton A. Massal. (31)
Paratopeliopsis Merc.-Díaz, Lücking & Parnmen (1)
Thelotrema Ach. (= *Tremotylium* Nyl.) (106)

Gyalectales Henssen ex D. Hawksw. & O.E. Erikss.
Coenogoniaceae (Fr.) Stizenb.
Coenogonium Ehrenb. ex Nees (ca. 91)

Gyalectaceae (A. Massal.) Stizenb.
Gyalecta Ach. (= *Cryptolechia* A. Massal.) (50)
Ramonia Stizenb. (24)
Semigyalecta Vain. (1)

Phlyctidaceae Poelt & Vězda ex J.C. David & D. Hawksw.
Phlyctis (Wallr.) Flot. (20)
Psathyrophlyctis Brusse (1)

Sagiolechiaceae Baloch, Lücking, Lumbsch & Wedin
Rhexophiale Th. Fr. (1)
Sagiolechia A. Massal. (3)

Trichotheliaceae Bitter & F. Schill. (= *Porinaceae* Walt. Watson; = *Porinaceae* Rchb.)
Clathroporina Müll. Arg. (ca. 25)
Flabelloporina Sobreira, M. Cáceres & Lücking (1)
Myeloconis P.M. McCarthy & Elix (4)
Porina Müll. Arg. (ca. 145)
Pseudosagedia (Müll. Arg.) Choisy (80)
Segestria Fr. (70)
Trichothelium Müll. Arg. (40)

Ostropales Nannf.
Odontotremataceae D. Hawksw. & Sherwood
Claviradulomyces P.R. Johnst., D.C. Park, H.C. Evans, R.W. Barreto & D.J. Soares (1)

Coccomycetella Höhn. (2)
Odontotrema Nyl. (7)
Odontura Clem. (1)
Paschelkiella Sherwood (1)
Potriphila Döbbeler (3)
Rogellia Döbbeler (2)
Stromatothecia D.E. Shaw & D. Hawksw. (1)
Tryblis Clem. (2)
Xerotrema Sherwood & Coppins (2)

Phaneromycetaceae Gamundí & Spinedi
Phaneromyces Speg. & Har. ex Speg. (2)

Spirographaceae Flakus, Etayo & Miadlikowska
Spirographa Zahlbr. (5)

Stictidaceae Fr.
Absconditella Vězda (12)
Acarosporina Sherwood (5)
Biostictis Petr. (5)
Carestiella Bres. (1)
Conotremopsis Vězda (1)
Cryptodiscus Corda (= *Lettauia* D. Hawksw. & R. Sant.) (9)*
Cyanodermella O.E. Erikss. (2)
Delpontia Penz. & Sacc. (1)
Dendroseptoria Alcalde (3)
Fitzroyomyces Crous (1)
Geisleria Nitschke (1)
Glomerobolus Kohlm. & Volkm.-Kohlm. (1)
Ingvariella Guderley & Lumbsch (1)
Karstenia Fr. (10)
Lillicoa Sherwood (4)
Nanostictis M.S Christ. (ca. 8)
Neofitzroyomyces Crous (1)
Ostropa Fr. (1)
Propoliopsis Rehm (1)
Robergea Desm. (8)
Schizoxylon Pers. (ca. 35)
Sphaeropezia Sacc. (= *Lethariicola* Grummann) (19)
Stictis Pers. (4)
Stictophacidium Rehm (3)
Thelopsis Nyl. (9)
Topelia P.M. Jørg. & Vězda (6)
Trinathotrema Lücking, Rivas Plata & Mangold (3)
Xyloschistes Vain. ex Zahlbr. (1)

Ostropales genera *incertae sedis*
Aabaarnia Diederich (1)
Biazrovia Zhurb. & Etayo (1)
Elongaticonidia W.J. Li, E. Camporesi & K.D. Hyde (1)
Epicladonia D. Hawksw. *sensu lato* (2)*
Normanogalla Diederich (1)

Paralethariicola Calat., Etayo & Diederich (1)

Pertusariales M. Choisy ex D. Hawksw. & O.E. Erikss.
Agyriaceae Corda (= *Miltideaceae* Hafellner)*
Agyrium Fr. (3)
Miltidea Stirt. (1)

Coccotremataceae Henssen ex J.C. David & D. Hawksw.
Coccotrema Müll. Arg. (16)
Gyalectaria I. Schmitt, Kalb & Lumbsch (3)
Parasiphula Kantvilas & Grube (7)

Icmadophilaceae Triebel
Dibaeis Clem. (ca. 14)
Endocena Cromb. (=*Chirleja* Lendemer & B.P. Hodk.) (2)
Icmadophila Trevis. (4)
Pseudobaeomyces M. Satì (1)
Siphula Fr. (26)
Siphulella Kantvilas, Elix & P. James (1)
Thamnolia Ach. ex Schaerer (4)

Megasporaceae Lumbsch
Aspicilia A. Massal. (ca. 200)
Circinaria Link (ca. 40)
Lobothallia (Clauzade & Cl. Roux) Hafellner (12)
Megaspora (Clauzade & Cl. Roux) Hafellner & V. Wirth (4)
Sagedia Ach. (ca. 30)
Teuvoa Sohrabi & S. Leavitt (5)

Microcaliciaceae Tibell*
Microcalicium Vain. (4)

Ochrolechiaceae R.C. Harris ex Lumbsch & I. Schmitt
Ochrolechia A. Massal. (60)

Pertusariaceae Körb. ex Körb.
Loxosporopsis Henssen (1)
Pertusaria DC. (ca. 400)*
Thamnochrolechia Aptroot & Sipman (1)

Varicellariaceae B.P. Hodk., R.C. Harris & Lendemer ex Lumbsch & Leavitt
Varicellaria Nyl. (8)*

Variolariaceae Fée ex Zenker
Lepra Scop. (= *Marfloraea* S.Y. Kondr., Lőkös & Hur) (94)

Sarrameanales B.P. Hodk. & Lendemer
Sarrameanaceae Hafellner
Loxospora A. Massal. (13)
Sarrameana Vězda & P. James (1)

Schaereriales Lumbsch & Leavitt

Schaereriaceae M. Choisy ex Hafellner
Schaereria Körb. (= *Hafellnera* Houmeau & Cl. Roux) (16)

Thelenellales Lumbsch & Leavitt
Thelenellaceae O.E. Erikss. ex H. Mayrhofer
Aspidothelium Vain. (17)
Chromatochlamys Trevis. (3)
Thelenella Nyl. (30)

Ostropomycetidae family *incertae sedis*
Epigloeaceae Zahlbr.
Epigloea Zukal (12)

Ostropomycetidae genera *incertae sedis*
Amphorothecium P.M. McCarthy, Kantvilas & Elix (1)
Anzina Scheid. (1)
Aspilidea Hafellner (1)
Bachmanniomyces D. Hawksw. (8)
Dictyocatenulata Finley & E.F. Morris (1)
Malvinia Döbbeler (1)
Pleiopatella Rehm (1)

Umbilicariomycetidae Bendiksby, Hestmark & Timdal
Umbilicariales J.C. Wei & Q.M. Zhou
Elixiaceae Lumbsch
Elixia Lumbsch (2)
Meridianelia Kantvilas & Lumbsch (1)

Fuscideaceae Hafellner
Fuscidea V. Wirth & Vězda (ca. 40)
Hueidea Kantvilas & P.M. McCarthy (1)
Maronea A. Massal. (13)
Orphniospora Körb. (4)

Ophioparmaceae R.W. Rogers & Hafellner
Boreoplaca Timdal (1)
Hypocenomyce M. Choisy (3)
Ophioparma Norman (9)

Ropalosporaceae Hafellner
Ropalospora A. Massal. (9)

Umbilicariaceae Chevall.
Fulgidea Bendiksby & Timdal (2)
Umbilicaria Hoffm. (= *Lasallia* Mérat) (ca. 90) *
Xylopsora Bendiksby & Timdal (2)

Lecanoromycetes order *incertae sedis*
Micropeltidales X.Y. Zeng, H.X. Wu & K.D. Hyde
Micropeltidaceae Clem. & Shear*
Anariste Syd. (1)
Caudella Syd. & P. Syd. (2)

Cyclopeltella Petr. (1)
Dictyopeltella Bat. & I.H. Lima (2)
Haplopeltheca Bat., J.L. Bezerra & Cavalc. (1)
Micropeltis Mont. (ca. 110)
Neopeltella Petr. (1)
Scolecopeltidium F. Stevens & Manter (ca. 80)
Stomiopeltis Theiss. (25)
Stomiopeltopsis Bat. & Cavalc. (2)
Stomiotheca Bat. (2)

Turquoiseomycetales Crous
Turquoiseomycetaceae Crous
Turquoiseomyces Crous (1)

Lecanoromycetes genera *incertae sedis*
Argopsis Th. Fr. (1)
Ascographa Velen. (1)
Bartlettiella D.J. Galloway & P.M. Jørg. (1)
Bouvetiella Øvstedal (1)
Buelliastrum Zahlbr. (1)
Haploloma Trevis. (1)
Hosseusia Gyeln. (3)
Korfiomyces Iturr. & D. Hawksw. (1)
Maronella M. Steiger (1)
Notolecidea Hertel (1)
Petractis Fr. (3)
Piccolia A. Massal. (ca. 7)
Ravenelula Speg. (1)
Robincola Velen. (1)
Roburnia Velen. (1)

Leotiomycetes O.E. Erikss. & Winka
Chaetomellales Crous & Denman
Chaetomellaceae Baral, P.R. Johnst. & Rossman
Chaetomella Fuckel (26)
Pilidium Kunze (23)
Sphaerographium Sacc. (23)
Synchaetomella Decock & Seifert (3)

Cyttariales Luttr. ex Gamundí
Cyttariaceae Speg.
Cyttaria Berk. (13)

Helotiales Nannf. ex Korf & Lizoň
Amorphothecaceae Parbery*
Amorphotheca Parbery (21 *fide* Baral 2016)

Arachnopezizaceae Hosoya, J.G. Han & Baral
Arachnopeziza Fuckel (35)
Arachnoscypha Boud. (1)
Austropezia Spooner (1)
Eriopezia (Sacc.) Rehm (21)

Parachnopeziza Korf (8)

Ascocorticiaceae J. Schrot
Ascocorticiellum Julich & B. de Vries (1)
Ascocorticium Bref. (2)
Ascosorus P. Henn. & Ruhland (1)

Ascodichaenaceae D. Hawksw. & Sherwood
Ascodichaena Butin (2)
Delpinoina Kuntze (1)

Bloxamiaceae Locq.
Bloxamia Berk. & Broome (10)

Bryoglossaceae Ekanayaka & Hyde
Bryoclaviculus L. Ludw., P.R. Johnst. & Steel (1)
Bryoglossum Redhead (2)
"Crocicreas" multicuspidatum (1)
Neocudoniella S. Imai (3)
"Roseodiscus" formosus (1)

Calloriaceae Marchand
Aivenia Svrcek (4)
Calloria Fr. (28)
Chaetonaevia Arx (3)
Diplonaevia Sacc. (33)
Duebenia Fr. (6)
Eupropolella Hohn. (8)
Hyalacrotes (Korf & L.M. Kohn) Raitv. (5)
Iridinea Velen. (2)
Laetinaevia Nannf. (19)
Loricella Velen. (6)
Micropodia Boud. (15)
Naeviella (Rehm) Clem. (3)
Naeviopsis B. Hein (14)
Ploettnera Henn. (6)

Cenangiaceae Rehm (= *Hemiphacidiaceae* Korf)*
Cenangiopsis Rehm (9)
Cenangium Fr. (47)
Chlorencoelia J.R. Dixon (4)
Crumenulopsis J.W. Groves (3)
Encoelia (Fr.) P. Karst. (38)
Fabrella Kirschst. (1)
Heyderia Link (4)
Rhabdocline Syd. (7)
Sarcotrochila Hohn. (7)
Trochila Fr. (33)
Velutarina Korf (3)

Chlorociboriaceae Baral & P.R. Johnst.*
Chlorociboria Seaver ex C.S. Ramamurthi, Korf & L.R. Batra (23)

Chlorospleniaceae Ekanayaka & Hyde
Chlorosplenium Fr. (17)

Chrysodiscaceae Baral & Haelew.*
Chrysodisca Baral, Polhorský & G. Marson (1)

Cordieritidaceae Sacc.
Ameghiniella Speg. (2)
Annabella Fryar, Haelew. & D.E.A. Catches. (1)
Austrocenangium Gamundí (2)
Cordierites Mont. (5)
Diplocarpa Massee (1)
Diplolaeviopsis Giralt & D. Hawksw. (3)
"Encoelia" fimbriata Spooner & Trigaux (1)
"Encoelia" heteromera (Mont.) Nannf. (1)
Ionomidotis E.J. Durand ex Thaxt. (4)
Llimoniella Hafellner & Nav.-Ros. (21)
Macroskyttea Etayo, Flakus, Suija & Kukwa (1)
Midotiopsis Henn. (2)
Rhymbocarpus Zopf (10)
Sabahriopsis Crous & M.J. Wingf. (1)
Skyttea Sherwood, D. Hawksw. & Coppins (30)
Skyttella D. Hawksw. & R. Sant. (2)
Thamnogalla D. Hawksw. (1)
Unguiculariopsis Rehm (29)

Dermateaceae Fr.
Coleophoma Hohn. (= *Parafabraea* Chen Chen et al.) (30)*
Cornicularielle P. Karst. (3)
Dermea Fr. (24)
Gelatinoamylaria Prasher & R. Sharma (1)*
Neodermea W.J. Li, D.J. Bhat & K.D. Hyde (1)
Neofabraea H.S. Jacks. (9)
Neogloeosporidina W.J. Li, Camporesi & K.D. Hyde (1)
Pezicula Tul. & C. Tul. (92)
Phlyctema Desm. (60)
Pseudofabraea Chen Chen, Verkley & Crous (1)
Rhizodermea Verkley & Zijlstra (1)
Schizothyrioma Hohn (4)
Verkleyomyces Y. Marın & Crous (1)
Xenochalara M.J. Wingf. & Crous (1)

Discinellaceae Ekanayaka & K.D. Hyde*
Articulospora Ingold (6)
Cladochasiella Marvanova (1)
Discinella Boud. (13)
Fontanospora Dyko (4)
Gyoerffyella Kol (10)
Lemonniera De Wild. (8)
Margaritispora Ingold (2)
Naevala B. Hein (5)
Pezoloma Clem. (14)

Pseudopezicula Korf (2)
Tetrachaetum Ingold (1)
Varicosporium W. Kegel (9)

Drepanopezizaceae Baral*
Blumeriella Arx (7)
Diplocarpon F.A. Wolf (7)
Drepanopeziza (Kleb.) Hohn. (5)
Felisbertia Viegas (7)
Leptotrochila P. Karst. (15)
Pseudopeziza Fuckel (2)
Spilopodia Boud. (4)
Spilopodiella E. Mull. (1)

Erysiphaceae Tul. & C. Tul.
Arthrocladiella Vassilkov (1)
Blumeria Golovin ex Speer (1)
Brasiliomyces Viegas (6)
Bulbomicroidium Marm., S. Takam. &U. Braun (1)*
Caespitotheca S. Takam. & U. Braun (1)
Cystotheca Berk. & Curtis (9)
Erysiphe DC. (478)
Golovinomyces (U. Braun) Heluta (66)
Leveillula G. Arnaud (49)
Microidium (To-anun & S. Takam.) To-anun & S. Takam. (3)
Neoerysiphe U. Braun (15)
Parauncinula S. Takam. & U. Braun (4)
Phyllactinia Lev. (117)
Pleochaeta Sacc. & Speg. (5)
Podosphaera Kunze (124)
Pseudoidium Y.S. Paul & J.N. Kapoor (80)
Queirozia Viegas & Cardoso (1)
Sawadaea Miyabe (10)
Takamatsuella U. Braun & A. Shi (1)
Typhulochaeta Ito & Hara (4)

Gelatinodiscaceae S.E. Carp
Ascocoryne J.W. Groves & D.E. Wilson (8)
Ascotremella Seaver (2)
Chloroscypha Seaver (14)
Didymocoryne Sacc. & Trotter (1)
Neobulgaria Petr. (11)
Ombrophila Fr. (11)
Phaeangellina Dennis (1)
Skyathea Spooner & Dennis (1)
Xerombrophila Baral (1)

Godroniaceae Baral
Ascocalyx Naumov (4)
Atropellis Zeller & Goodd. (4)
Godronia Moug. & Lev. (30)
Gremmeniella M. Morelet (3)

Grovesiella M. Morelet (2)*

Helotiaceae Rehm
Ascoconidium Seaver (3)
Bisporella Sacc. (19)
Bryoscyphus Spooner (19)
Calycella (Sacc.) Sacc. (1)
Cudoniella Sacc. (31)
Cyathicula De Not. (30)
Dicephalospora Spooner (4)
Dimorphospora Tubaki (1)
Discorehmia Kirschst. (5)
Eubelonis Hohn. (2)
Filosporella Nawawi (6)
Geniculospora Sv. Nilsson ex Marvanová & Sv. Nilsson (2)
Glarea Bills & Palaez (2)
Gloeotinia M. Wilson, Noble & E.G. Gray (2)
Graddonia Dennis (7)
Gremmenia Korf (4)
Helicodendron Peyronel (3)
Hymenoscyphus Gray (170)
Hymenotorrendiella P.R. Johnst., Baral & R. Galán (9)
Muscicola Velen. (1)
Mycofalcella Marvanová, Om-Kalth. & J. Webster (2)
Mytilodiscus Kropp & S.E. Carp. (1)
Neocrinula Crous (2)
Phaeohelotium Kanouse (41)
Pithyella Boud. (8)
Pseudohelotium Fuckel (50)
Pseudoniptera Velen. (25)
Roesleria Thüm. & Pass. (4)*
Scytalidium Pesante (30)
Symphyosirinia E.A. Ellis (6)
Tatraea Svrcek (2)
Tricladium Ingold (25)
Xylogramma Wallr. (18)

Heterosphaeriaceae Rehm
Heterosphaeria Grev. (7)

Hyaloscyphaceae Nannf.*
Aeruginoscyphus Dougoud (7)*
Ambrodiscus S.E. Carp. (1)
Amicodisca Svrcek (6)
Arbusculina Marvanova & Descals (3)
Asperopilum Spooner (1)
"Chalara" longipes (Preuss) Cooke (1)
Clathrosphaerina Beverw. (2)
Crucellisporiopsis Nag Raj (3)
Dematioscypha Svrcek (4)
Dimorphotricha Spooner (1)
Echinula Graddon (1)

Endoscypha Syd. (1)
Fuscolachnum J.H. Haines (7)
Gamarada D.J. Midgley & Tran-Dinh (1)
Graddonidiscus Raitv. & R. Galan (3)
Grahamiella Spooner (3)
Haplographium Berk. & Broome (15)
Hegermila Raitv. (4)
Hyalopeziza Fuckel (15)
Hyaloscypha Boud. (45)
Hyphodiscus Kirschst. (16)
Hyphopeziza J.G. Han, Hosoya & H.D. Shin (1)
Incrupila Raitv. (10)
Meliniomyces Hambl. & Sigler (3)
Mycoarthris Marvanova & P.J. Fisher (1)
Olla Velen. (2)
Polaroscyphus Huhtinen (1)
Proprioscypha Spooner (1)
Protounguicularia Raitv. & Galan (10)
Pseudaegerita J.L. Crane & Schokn. (7)*
Psilocistella Svrcek (10)
Rhizoscyphus W.Y. Zhuang & Korf (1)
Scolecolachnum Guatim., R.W. Barreto & Crous (2)*
Thindiomyces Arendh. & R. Sharma (1)
Unguiculariella K.S. Thind & R. Sharma (1)
Unguiculella Hohn (17)
Venturiocistella Raitv (7)

Lachnaceae (Nannf.) Raitv.
Albotricha Raitv. (19)
Belonidium Mont. & Dur. (1)
Brunnipila Baral (10)
Capitotricha (Raitv.) Baral (10)
Dasyscyphella Tranzschel (1)
Erioscyphella Kirschst. (10)
Incrucipulum Baral (6)
Lachnellula P. Karst. (40)
Lachnopsis Guatim., R.W. Barreto & Crous (2)*
Lachnum Retz. (50)
Lasiobelonium Ellis & Everh. (20)
Neodasyscypha Sukova & Spooner (2)
Perrotia Boud. (19)
Proliferodiscus J.H. Haines & Dumont (8)
Solenopezia Sacc. (7)
Trichopeziza Fuckel (30)
Tubolachnum Velen (2)
Velebitea I. Kušan, Matočec & Jadan (1)

Leptodontidiaceae Hern.-Restr., Crous & Gené
Leptodontidium de Hoog. (11)

Loramycetaceae Dennis ex Digby & Goos
Loramyces W. Weston (2)

Obtectodiscus E. Müll., Petrini & Samuels (2)

Mitrulaceae Rchb.
Mitrula Fr. (16)

Mollisiaceae Rehm
Barrenia E. Walsh & N. Zhang (2)*
Bulbomollisia Graddon (1)
Cheirospora Moug. & Fr. (2)*
Cystodendron Bubak (2)
Discocurtisia Nannf. (12)
Fuscosclera Hern.-Restr., J. Mena & Gené (1)*
Mollisia (Fr.) P. Karst. (130)
Neotapesia E. Mull. & Hutter (3)
Niptera Fr. (10)
Nipterella Starback ex Dennis (2)
Phialocephala W.B. Kendr. (37)*
Pseudonaevia Dennis & Spooner (2)
Sarconiptera Raitv. (1)
Scutobelonium Graddon (1)
Scutomollisia Nannf. (14)
Tapesia (Pers.) Fuckel (110)*
Trimmatostroma Corda (30)
Variocladium Descals & Marvanova (1)

Myxotrichaceae Currah*
Byssoascus Arx (1)
"Malbranchea" flavorosea Sigler & J.W. Carmich. (1)
Myxotrichum Kunze (17)
Oidiodendron Robak (26)

Neolauriomycetaceae Crous*
Exochalara W. Gams & Hol.-Jech. (3)
Lareunionomyces Crous & M.J. Wingf. (4)
Neolauriomyces Crous (1)

Pezizellaceae Velen.
Allophylaria (P. Karst.) P. Karst. (6)
Antinoa Velen. (8)
Calycellina Hohn (45)
Calycina Nees ex Gray (30)
Chalara (Corda) Rabenh. (99)
Ciliolarina Svrcek (1)
Curviclavula G. Delgado, F.A. Fernández & A.N. Mill. (1)
Hamatocanthoscypha Svrcek (3)
Hyalodendriella Crous (1)
Micropeziza Fuckel (12)
Microscypha Syd. & P. Syd. (6)
Mollisina Hohn. ex Weese (11)
Mollisinopsis Arendh. & R. Sharma (3)
Moserella Poder & Scheuer (1)
Phaeoscypha Spooner (1)

Phialina Höhn. (6)*
Poculinia Spooner (1)
Psilachnum Hohn. (28)
Rodwayella Spooner (3)
Scleropezicula Verkley (6)
Velutaria Fuckel (1)
Xenopolyscytalum Crous (1)
Zymochalara Guatim., R.W. Barreto & Crous (2)*

Ploettnerulaceae Kirschst.
Cadophora Lagerb. & Melin (15)
Collembolispora Marvanova & Pascoal (2)
Cylindrosporium Grev. (168)*
Dennisiodiscus Svrcek (10)
Lasiomollisia Raitv. & Vesterh. (1)
Mastigosporium Riess (4)
Mycochaetophora Hara & Ogawa (2)
Nothophacidium J. Reid & Cain (1)
Oculimacula Crous & W. Gams (6)
Pirottaea Sacc. (28)
Pyrenopeziza Fuckel (3)
Rhynchosporium Heinsen ex A.B. Frank (5)

Rutstroemiaceae Holst-Jensen, L.M. Kohn & T. Schumach.*
Bicornispora Checa, Barrasa, M.N. Blanco & A.T. Martínez (2)
Dencoeliopsis Korf (2)
Lambertella Hohn. (6)
Lanzia Sacc. (1)
Pseudolanzia Baral & G. Marson (1)*
Rutstroemia P. Karst. (100)
Torrendiella Boud. & Torrend (3)

Sclerotiniaceae Whetzel ex Whetzel
Amphobotrys Hennebert (1)
Botrytis P. Micheli ex Pers. (3)
Ciboria Fuckel (21)
Ciborinia Whetzel (16)
Cristulariella Hohn. (5)
Cudoniopsis Speg. (1)
Dumontinia L.M. Kohn (5)
Elliottinia L.M. Kohn (1)
Grovesinia M.N. Cline, J.L. Crane & S.D. Cline (2)
Haradamyces Masuya, Kusunoki, Kosaka & Aikawa (1)
Kohninia Holst-Jensen, Vrålstad & T. Schumach. (1)
Martininia Dumont & Korf (1)
Monilinia Honey (30)
Mycopappus Redhead & G.P. White (3)*
Myrioconium Syd. & P. Syd. (10)
Myriosclerotinia N.F. Buchw. (10)
Ovulinia Weiss (9)
Phaeosclerotinia Hori (1)
Piceomphale Svrcek (1)

Pseudociboria Kanouse (1)
Pycnopeziza W.L. White & Whetzel (5)
Redheadia Y. Suto & Suyama (1)
Sclerencoelia Pärtel & Baral (3)*
Scleromitrula S. Imai (6)
Sclerotinia Fuckel (15)
Sclerotium Tode (100)
Seaverinia Whetzel (2)
Septotinia Whetzel ex J.W. Groves & M.E. Elliott (2)
Streptotinia Whetzel (3)
Stromatinia (Boud.) Boud. (15)
Valdensia Peyronel (3)

Vibrisseaceae Korf
Acephala Grunig & T.N. Sieber (2)
Chlorovibrissea L.M. Kohn (4)
Leucovibrissea (A. Sanchez) Korf (1)
Pocillum De Not. (1)
Vibrissea Fr (34)

Helotiales genera *incertae sedis*
Acidea Hujslova & M. Kolarık (1)
Acidomelania E. Walsh & N. Zhang (1)
Algincola Velen. (1)
Amylocarpus Curr. (1)
Angelina Fr. (1)
Apiculospora Wijayaw., Camporesi, A.J.L. Phillips & K.D. Hyde (1)
Aquadiscula Shearer & J.L. Crane (2)
Aquapoterium Raja & Shearer (1)
Ascluella DiCosmo, Nag Raj & W.B. Kendr. (1)
Ascoclavulina Otani (8)
Banksiamyces G. Beaton (4)
Belonioscyphella Hohn. (4)
Benguetia Syd. & P. Syd. (1)
Bioscypha Syd. (2)
Brachyalara Reblova & W. Gams (1)
Brefeldochium Verkley (1)
Bulgariella P. Karst. (4)
Bulgariopsis Henn. (2)
Calycellinopsis W.Y. Zhuang (1)
Capillipes R. Sant. (1)
Capricola Velen. (1)
Cashiella Petr. (3)
Cejpia Velen. (3)
Cenangiumella J. Frohl. & K.D. Hyde (1)
Chloroepilichen Etayo (1)
Chlorospleniella P. Karst. (1)
Chondroderris Maire (1)
Ciliella Sacc. & P. Syd. (1)
Cistella Quel. (50)
Clathrosporium Nawawi & Kuthub. (1)
Coleosperma Ingold (1)

Colipila Baral & Guy Garcıa (2)
Comesia Sacc. (3)
Cornuntum Velen. (1)
Coronellaria P. Karst. (4)
Criserosphaeria Speg. (1)
Crocicreas Fr. (4)
Crucellisporium M.L. Farr (3)
Crumenella P. Karst. (1)
Cryptohymenium Samuels & L.M. Kohn (1)
Cryptopezia Hohn. (1)
Dactylaria Sacc. (100)
Dawsicola Dobbeler (1)
Dermateopsis Nannf. (2)
Didonia Velen. (5)
Didymascella Maire & Sacc. (5)
Discomycella Hohn. (1)
Durella Tul. & C. Tul. (22)*
Echinodiscus Etayo & Diederich (2)
Encoeliopsis Nannf. (4)
Episclerotium L.M. Kohn (2)
Erikssonopsis M. Morelet (1)
Fulvoflamma Crous (1)
Gloeopeziza Zukal (8)
Godroniopsis Diehl & E.K. Cash (3)
Gorgoniceps (P. Karst.) P. Karst. (3)
Grimmicola Dobbeler & Hertel (1)
Grovesia Dennis (1)
Hemiglossum Pat. (2)
Humicolopsis Cabral & S. Marchand (2)
Hydrocina Scheuer (1)
Hymenobolus Durieu & Mont. (3)
Hyphoscypha Velen. (1)
Hysteronaevia Nannf. (12)
Hysteropezizella Hohn. (26)
Hysterostegiella Hohn. (10)
Infundichalara Reblova & W. Gams (2)
Involucroscypha Raitv. (10)
Jacobsonia Boedijn (1)
Korfia J. Reid & Cain (1)
Lareunionomyces Crous & M.J. Wingf. (2)
Larissia Raitv. (1)
Lasseria Dennis (1)
Lemalis Fr. (3)
Libartania Nag Raj (2)
Livia Velen. (1)
Masseea Sacc. (4)
Melanopeziza Velen. (1)
Merodontis Clem. (1)
Microdiscus Sacc. (1)
Mitrulinia Spooner (1)
Monochaetiellopsis B. Sutton & DiCosmo (2)
Mycosphaerangium Verkley (3)

Obconicum Velen. (2)
Obscurodiscus Raitv. (1)
Orbiliopsis (Sacc. & D. Sacc.) Syd. & P. Syd. (2)
Otwaya G. Beaton (12)
Pachydisca Boud. (32)*
Parencoelia Petr. (4)
Patellariopsis Dennis (5)
Patinellaria H. Karst. (1)
Peltigeromyces Möller (3)
Pestalopezia Seaver (3)
Pezolepis Syd. (2)
Pezomela Syd. (1)
Phacidiella P. Karst. (1)
Phaeofabraea Rehm (1)
Phaeopyxis Rambold & Triebel (1)
Phragmonaevia Rehm (16)*
Piceomphale Svrček (1)
Pleoscutula Vou. (3)
Podophacidium Niessl (2)
Polydesmia Boud. (7)
Polyphilus D.G. Knapp, Ashrafi, W. Maier & Kovács (2)
Potridiscus Dobbeler & Triebel (1)
Pseudohelotium Fuckel (50)
Pseudolachnum Velen. (1)
Pseudomitrula Gamundı (1)
Pseudopeltis L. Holm & K. Holm (1)
Pseudotryblidium Rehm (1)
Psilophana Syd. (1)
Pteromyces E. Bommer, M. Rousseau & Sacc. (1)
Pubigera Baral, Gminder & Svrček (1)
Radotinea E. Bommer, M. Rousseau & Sacc. (1)
Rhexocercosporidium U. Braun (2)
Rhizocladosporium Crous & U. Braun (1)
Rhizothyrium Naumov (1)
Rommelaarsia Baral & Haelew. (1)
Roseodiscus Baral (4)
Sageria A. Funk (1)
Sambucina Velen. (1)
Sarcomyces Massee (1)
Sclerocrana Samuels & L.M. Kohn (4)
Scutulopsis Velen. (1)
Soosiella Hujslova & M. Kolarık (1)
Sorokina Sacc. (1)
Sorokinella J. Frohl. & K.D. Hyde (2)
Spirosphaera Beverw. (8)
Stamnaria Fuckel (7)
Stilbopeziza Speg. (1)
Strossmayeria Schulzer (20)
Tetracladium De Wild. (10)
Thedgonia B. Sutton (6)
Themisia Velen. (8)
Tovariella Syd. (1)

Trichohelotium Killerm. (2)
Triposporium Corda (14)
Unguicularia Hohn. (7)*
Urceolella Boud. (44)
Vandijckella Sand.-Den. (1)
Waltonia Saho (1)
Woodiella Sacc. & P. Syd. (3)
Xeromedulla Korf & W.Y. Zhuang (3)
Zugazaea Korf, Iturr. & Lizoň (1)

Lahmiales O.E. Erikss.
Lahmiaceae O.E. Erikss.
Lahmia Korb. (2)

Lauriomycetales Hern.-Restr., R.F. Castañeda & Guarro
Lauriomycetaceae Hern.-Restr., R.F. Castañeda & Guarro
Lauriomyces R.F. Castaneda (11)

Leotiales Korf & Lizoň
Cochlearomycetaceae Crous
Cochlearomyces Crous (1)*
Satchmopsis B. Sutton & Hodges (4)

Leotiaceae Corda
Halenospora E.B.G. Jones (1)
Leotia Pers. (23)
Microglossum Gillet (26)
Miniancora Marvanova & Barl. (1)

Mniaeciaceae Baral*
Epithamnolia Zhurb. (7)*
Mniaecia Boud. (3)

Tympanidaceae Baral & Quijada
Claussenomyces Kirschst. (15)*
Collophorina Damm & Crous (7)
Durandiella Seaver (15)
Gelatinosporium Peck (12)*
Myriodiscus Boedijn (2)
Pragmopora A. Massal. (8)
Tympanis Fr. (64)

Leotiales genera *incertae sedis*
Aotearoamyces P.R. Johnst., J.A. Cooper & Quijada (1)*
Alatospora Ingold (4)
Flagellospora Ingold (6)*

Lichinodiales M. Prieto, M. Schultz, Olariaga & Wedin
Lichinodiaceae M. Prieto, M. Schultz, Olariaga & Wedin
Lichinodium Nyl. (4)*

Marthamycetales. R. Johnst. & Baral*
Marthamycetaceae Baral, Lantz, Hustad & Minter
Cyclaneusma DiCosmo, Peredo & Minter (2)
Marthamyces Minter (18)
Mellitiosporiella Hohn. (3)
Mellitiosporium Corda (10)
Naemacyclus Fuckel (13)
Phragmiticola Sherwood (1)
Propolina Sacc. (1)
Propolis (Fr.) Corda (8)
Ramomarthamyces P.R. Johnst. (4)*

Medeolariales Korf
Medeolariaceae Korf
Medeolaria Thaxt (1)

Micraspidales Quijada & Tanney*
Micraspidaceae Quijada & Tanney
Micraspis Darker (3)

Phacidiales C.E. Bessey*
Helicogoniaceae Baral
Calloriopsis Syd. & P. Syd. (1)
Eleutheromycella Hohn. (1)
Eleutheromyces Fuckel (2)
Gelatinipulvinella Hosoya & Y. Otani (1)
Gelatinopsis Rambold & Triebe (8)
Geltingia Alstrup & D. Hawksw. (1)
Helicogonium W.L. White (19)

Phacidiaceae Fr.
Allantophomopsiella Crous (1)
Allantophomopsis Petr. (4)
Bulgaria Fr. (12)
Darkera H.S. Whitney, J. Reid & Piroz. (5)
Lophophacidium Lagerb. (2)
Phacidiopycnis Potebnia (6)
Phacidium Fr. (40)
Pseudophacidium P. Karst. (11)
Starbaeckia Rehm ex Starback (1)

Phacidiales genus *incertae sedis*
Coma Nag Raj & W.B. Kendr. (1)

Rhytismatales M.E. Barr ex Minter
Cudoniaceae P.F. Cannon
Cudonia Fr. (20)
Spathularia Pers. (10)

Rhytismataceae Chevall.
Bifusella Hohn. (9)
Bifusepta Darker (1)

Bivallum P.R. Johnst. (7)
Canavirgella W. Merr, Wenner & Dreisbach (1)
Cavaraella Speg. (1)
Ceratophacidium J. Reid & Piroz. (1)
Cerion Massee (2)
Coccomyces De Not. (119)
Colpoma Wallr. (14)
Criella (Sacc.) Sacc. & P. Syd. (2)
Cryptomyces Grev. (3)
Davisomycella Darker (11)
Discocainia J. Reid & A. Funk (4)
Duplicaria Fuckel (1)
Duplicariella B. Erikss. (1)
Elytroderma Darker (3)
Gelineostroma H.J. Swart (2)
Heufleria Auersw. (2)*
Hypoderma De Not. (56)
Hypodermella Tubeuf (3)
Hypodermellina Höhn. (1)
Hypohelion P.R. Johnst. (4)
Lasiostictella Sherwood (1)
Lirula Darker (12)
Lophodermella Hohn. (9)
Lophodermium Chevall. (185)
Macroderma Hohn. (2)
Meloderma Darker (5)
Moutoniella Penz. & Sacc. (1)
Mycomelanea Velen. (1)
Myriophacidium Sherwood (6)
Nematococcomyces C.L. Hou, M. Piepenbr. & Oberw. (2)
Neococcomyces Y.R. Lin, C.T. Xiang & Z.Z. Li (3)
Neophacidium Petr. (2)
Nothorhytisma Minter, P.F. Cannon, A.I. Romero & Peredo (1)
Parvacoccum R.S. Hunt & A. Funk (1)
Phaeophacidium P. Henn. & Lindau (3)
Ploioderma Darker. (8)
Propolidium Sacc. (15)
Pseudographis Nyl. (10)*
Pseudorhytisma Juel (1)
Pureke P.R. Johnst. (1)
Rhytisma Fr. (30)
Soleella Darker (7)
Sporomega Corda (1)
Terriera B. Erikss. (34)
Therrya Sacc. (7)
Tryblidiopsis P. Karst. (5)
Virgella Darker (1)
Vladracula P.F. Cannon, Minter & Kamal (2)
Xyloschizon Syd. (2)
Zeus Minter & Diamandis (1)

Triblidiaceae Rehm*

Huangshania O.E. Erikss. (2)
Triblidium Rebent. (13)

Rhytismatales genera *incertae sedis*
Apiodiscus Petr. (1)
Bonanseja Sacc. (1)
Didymascus Sacc. (2)
Haplophyse Theiss. (1)
Irydyonia Racib. (1)
Laquearia Fr. (2)
Mycosymbioces J.L. Frank (1)
Nymanomyces P. Henn. (2)
Pseudotrochila Hohn. (1)

Thelebolales P.F. Cannon
Pseudeurotiaceae Malloch & Cain
Connersia Malloch (1)
Geomyces Traaen (9)
Gymnostellatospora Udagawa, Uchiy. & Kamiya (6)*
Leuconeurospora Malloch & Cain (2)
Neelakesa Udaiyan & Hosag. (3)
Pleuroascus Massee & E.S. Salmon (3)
Pseudeurotium J.F.H. Beyma (8)
Pseudogymnoascus Raillo (12)*

Thelebolaceae (Brumm.) Eckblad
Antarctomyces Stchigel & Guarro (2)
Ascophanus Boud. (56)
Ascozonus (Renny) E.C. Hansen (9)
Caccobius Kimbr. (1)
Cleistothelebolus Malloch & Cain (1)
Coprobolus Cain & Kimbr. (1)
Leptokalpion Brumm. (1)
Pseudascozonus Brumm. (1)
Ramgea Brumm. (2)
Thelebolus Tode (16)

Leotiomycetes genera *incertae sedis*
Adelodiscus Syd. (1)
Bagnisimitrula S. Imai (1)
Callerascus Whitton, K.D. Hyde & McKenzie (1)
Deltopyxis Baral & G. Marson (1)
Epicladonia D. Hawksw. (5)
Gorgomyces M. Gonczol & Revay (2)
Helicocentralis Sri-indr., Chuaseehar., Boonyuen, K. Yamag., Suetrong & C.K.M. Tsui (1)
Helotiella Sacc. (17)
Holwaya Sacc. (2)
Leohumicola N.L. Nick. (7)
Melanormia Korb. (1)
Metapezizella Petr. (1)
Ocotomyces H.C. Evans & Minter (1)
Patinella Sacc. (25)*

Phyllopezis Petr. (1)
Physmatomyces Rehm (1)
Polydiscina Syd. (1)
Psilothecium Clem. (1)
Schnablia Sacc. & P. Syd. (1)
Trullula Ces. (5)

Lichinomycetes V. Reeb, Lutzoni & Cl. Roux
Lichinales Henssen & Büdel
Gloeoheppiaceae Henssen
Gloeoheppia Gyeln. (5)
Gudelia Henssen (1)
Pseudopeltula Henssen (1)

Lichinaceae Nyl.
Anema Nyl. ex Forssell (21)
Calotrichopsis Vain. (4)
Corynecystis Brusse (1)
Cryptothele Th. Fr. (7)
Digitothyrea P. Moreno & Egea (3)
Edwardiella Henssen (1)
Ephebe Fr. (13)
Finkia Vain. (1)
Gyrocollema Vain. (2)
Heppia Nägeli (4)
Jenmania W. Wächt. (2)
Lecidopyrenopsis Vain. (1)
Lemmopsis (Vain.) Zahlbr. (3)
Lempholemma Körb. (35)
Leprocollema Vain. (3)
Lichina C. Agardh (9)
Lichinella Nyl. (30)
Mawsonia C.W. Dodge (1)
Metamelanea Henssen (3)
Paulia Feé (10)
Peccania A. Massal. ex Arnold (3)
Phloeopeccania J. Steiner (4)
Phylliscidiopsis Sambo (1)
Phylliscidium Forssell (1)
Phyllisciella Henssen & Büdel (3)
Phylliscum Nyl. (8)
Porocyphus Körb. (8)
Pseudarctomia Gyeln. (1)
Pseudoheppia Zahlbr. (1)
Pseudopaulia M. Schultz (1)
Psorotichia A. Massal. (50)
Pterygiopsis Vain. (17)
Pyrenocarpon Trevis. (1)
Pyrenopsis Nyl. (40)
Solorinaria (Vain.) Gyeln. (1)
Stromatella Henssen (1)
Synalissa Fr. (30)

Thallinocarpon A.E. Dahl (2)
Thelignya A. Massal. (2)
Thermutis Fr. (2)
Thermutopsis Henssen (1)
Thyrea A. Massal. (13)
Zahlbrucknerella Herre (10)

Peltulaceae Büdel
Peltula Nyl. (32)

Orbiliomycetes O.E. Erikss. & Baral
Orbiliales Baral, O.E. Erikss., G. Marson & E. Weber
Orbiliaceae Nannf.
Arthrobotrys Corda (ca. 100+)
Dactylella Grove (31)
Dactylellina M. Morelet (= *Gamsylella* M. Scholler et al.) (26)
Drechslerella Subram. (ca. 7)
Dwayaangam Subram. (8)
Helicoon Morgan (ca. 15)
Hyalorbilia Baral & G. Marson (40)
Orbilia Fr. (ca. 400)
Pseudotripoconidium Z.F. Yu & K.Q. Zhang (1)
Pseudorbilia Y. Zhang, Z.F. Yu, Baral & K-Q Zhang (1)
Retiarius D.L. Olivier (4)
Vermispora Deighton & Piroz. (7)

Orbiliales genus *incertae sedis*
Microdochiella Hern.-Restr. & Crous (1)

Orbiliomycetes genus *incertae sedis*
Mycoceros D. Magyar & Z. Merényi (1)*

Pezizomycetes O.E. Erikss. & Winka
Pezizales J. Schröt.
Ascobolaceae Boud. ex Sacc.
Ascobolus Pers. (ca. 70)
Cleistoiodophanus J.L. Bezerra & Kimbr. (1)
Cubonia Sacc. (ca. 7)
Saccobolus Boud. (33)
Thecotheus Boud. (23)*

Ascodesmidaceae J. Schröt.
Ascodesmis Tiegh. (~10)
Cephaliophora Thaxt. (2)*
Chalazion Dissing & Sivertsen (3)
Coprotiella Jeng & J.C. Krug (1)
Dictyocoprotus J.C. Krug & R.S. Khan (1)
Eleutherascus Arx (4)
Lasiobolus Sacc. (11)
Luciotrichus R. Galán & Raitv. (1)
Ochotrichobolus Kimbr. & Korf (1)
Trichobolus (Sacc.) Kimbr. & Cain (6)

Caloscyphaceae Harmaja
Caloscypha Boud. (2)

Chorioactidaceae Pfister
Chorioactis Kupfer ex Eckblad (1)
Desmazierella Lib. (2)
Neournula Paden & Tylutki (2)
Pseudosarcosoma M. Carbone, Agnello & P. Alvarado (1)
Trichaleurina Rehm (3)
Wolfina Seaver ex Eckblad (2)

Discinaceae Benedix
Discina (Fr.) Fr. (20)
Gymnohydnotrya B.C. Zhang & Minter (3)
Gyromitra Fr. (25)
Hydnotrya Berk. & Broome (11)
Pseudorhizina Jacz. (3)

Glaziellaceae J.L. Gibson
Glaziella Berk. (1)

Helvellaceae Fr.
Balsamia Vittad. (21)
Barssia Gilkey (8)
Helvella L. (ca. 80)
Underwoodia Peck (2)
Wynnella Boud. (3)

Kallistoskyphaceae Ekanayaka, K.D. Hyde, Q. Zhao & E.B.G. Jones
Kallistoskypha Pfister, Agnello, Lantieri & LoBuglio (1)

Karstenellaceae Harmaja
Karstenella Harmaja (1)

Morchellaceae H.G.L. Reichenbach
Disciotis Boud. (3)
Fischerula Mattir. (2)
Imaia Trappe & Kovács (1)
Kalapuya M.J. Trappe, Trappe & Bonito (1)
Leucangium Quél. (1)
Morchella Dill. ex Pers. (~60)
Verpa Sw. (4)

Pezizaceae Dumort. (= *Carbomycetaceae* Trappe)
Adelphella Pfister, Matočec & I. Kušan (1)
Amylascus Trappe (1)
Antrelloides P.S. Catches. & D.E.A. Catches. (1)
Aquapeziza D.M. Hu, L. Cai & K.D. Hyde (1)
Boudiera Cooke (10)
Calongea Healy, Bonito & Trappe (1)*
Carbomyces Gilkey (3)
Cazia Trappe (2)

Delastria Tul. & C. Tul. (6)
Elderia McLennan (1)
Eremiomyces Trappe & Kagan-Zur (3)
Galactinia (Cooke) Boud. (ca. 5)
Hapsidomyces J.C. Krug & Jeng (1)
Hydnobolites Tul. & C. Tul. (ca. 6)
Hydnotryopsis Gilkey (4)
Iodophanus Korf (15)
Iodowynnea Medel, Guzmán & S. Chacón (1)
Kalaharituber Trappe & Kagan-Zur (1)
Lepidotia Boud. (1)
Luteoamylascus Cabero, P. Alvarado & G. Moreno (1)
Marcelleina Brumm., Korf & Rifai (11)
Mattirolomyces E. Fisch. (5)
Mycoclelandia Trappe & G.W. Beaton (2)
Pachyella Boud. (12)
Pachyphlodes Zobel (ca. 10)*
Peziza Dill. ex Fr. (ca. 120)
Plicaria Fuckel (10)
Plicariella (Sacc.) Rehm (2)*
Rhodopeziza Hohmeyer & Moravec (1)
Ruhlandiella P. Henn. (7)
Sarcopeziza Loizides, Agnello & P. Alvarado (1)*
Sarcosphaera Auersw. (4)
Sphaerozone Zobel (1)
Stouffera Kovács & Trappe (1)
Temperantia K. Hansen, Healy & Kovács (1)
Terfezia (Tul. & C. Tul.) Tul. & C. Tul. (19)
Tirmania Chatin (3)
Ulurua Trappe, Claridge & Kovács (1)

Pseudombrophilaceae Ekanayaka, K.D. Hyde, Q. Zhao & E.B.G. Jones
Heydenia Fresen. (3)
Lasiobolidium Malloch & Cain (7)
Orbicula Cooke (1)
Pseudombrophila Boud. (37)

Pulvinulaceae Ekanayaka, K.D. Hyde, Q. Zhao & E.B.G. Jones
Lazuardia Rifai (1)
Pseudoboubovia U. Lindem., M. Vega, B. Perić & R. Tena (1)
Pulvinula Boud. (~30)

Pyronemataceae Corda (= *Otideaceae* Eckblad)
Acervus Kanouse (9)
Aleuria Fuckel (ca. 10)
Aleurina Massee (ca. 10)
Anthracobia Boud. (ca. 10)
Arpinia Berthet (4)
Ascosparassis Kobayasi (1)
Byssonectria P. Karst. (7)*
Chaetothiersia B.A. Perry & Pfister (1)
Cheilymenia Boud. (67)

Cupulina Dougoud, Van Vooren & M. Vega (2)
Diehliomyces Gilkey (1)
Eoaleurina Korf & W.Y. Zhuang (1)
Galeoscypha Svrček & J. Moravec (1)
Genabea Tul. & C. Tul. (4)
Genea Vittad. (ca. 40)
Geneosperma Rifai (2)
Geopora Harkn. (ca. 20)
Gilkeya M.E. Sm., Trappe & Rizzo (1)
Hoffmannoscypha Stielow, Göker & Klenk (1)*
Humaria Fuckel (ca. 10)
Jafnea Korf (2)
Lamprospora De Not. (ca. 50)
Lasiocupulina Van Vooren & M. Vega (1)
Lathraeodiscus Dissing & Sivertsen (1)
Lotinia Pérez-Butrón Fern.-Vic. & P. Alvarado (1)*
Melastiza Boud. (ca. 10)
Micronematobotrys Xiang Sun & L.D. Guo (1)
Miladina Svrček (1)
Monascella Guarro & Arx (1)
Myrmecocystis Harkn. (7)*
Neottiella (Cooke) Sacc. (ca. 5)
Octospora Hedw. (ca. 50)
Octosporopsis U. Lindem. & M. Vega (2)
Otidea (Pers.) Bonord. (ca. 52)
Oviascoma Y.J. Yao & Spooner (1)
Parascutellinia Svrček (6)
Paratricharina Van Vooren, U. Lindemann, M. Vega, Ribes, Illescas & Matočec (1)
Paratrichophaea Trigaux (5)
Petchiomyces E. Fisch. & Mattir. (1)
Picoa Vittad. (2)*
Planamyces Crous & Decock (1)
Pseudaleuria Lusk (2)
Pseudotricharina Van Vooren, Tello & M. Vega (3)
Pyronema Carus (3)
Pyropyxis Egger (1)
Ramsbottomia W.D. Buckley (3)
Rhizoblepharia Rifai (2)
Scutellinia (Cooke) Lambotte (70)
Selenaspora R. Heim & Le Gal (1)
Sepultariella Van Vooren, U. Lindemmann & Healy (2)*
Smardaea Svrček (9)
Smarodsia Raitv. & Vimba (1)
Sowerbyella Nannf. (17)
Sphaerosporella (Svrček) Svrček & Kubička (3)
Sphaerosporium Schwein. *sensu stricto* (1)*
Spooneromyces T. Schumach. & J. Moravec (5)
Tricharina Eckblad (=*Ascorhizoctonia* Chin S. Yang & Korf) (12)
Trichophaea Boud. (26)
Trichophaeopsis Korf & Erb (4)
Warcupia Paden & J.V. Cameron (1)
Wenyingia Zheng Wang & Pfister (1)

Wilcoxina Chin S. Yang & Korf (5)

Rhizinaceae Bonord.
Phymatotrichopsis Hennebert (1)
Psilopezia Berk. (7)
Rhizina Fr. (1)

Sarcoscyphaceae LeGal ex Eckblad
Aurophora Rifai (1)
Cookeina Kuntze (11)
Geodina Denison (1)
Kompsoscypha Pfister (4)
Microstoma Bernstein (7)
Nanoscypha Denison (8)
Phillipsia Berk. (~20)
Pithya Fuckel (2)
Pseudopithyella Seaver (2)
Sarcoscypha (Fr.) Boud. (18)
Thindia Korf & Waraitch (1)
Wynnea Berk. & M.A. Curtis (7)

Sarcosomataceae Kobayasi
Conoplea Pers. (11)
Donadinia Bellem. & Mel.-Howell (5)
Galiella Nannf. & Korf (9)
Korfiella D.C. Pant & V.P. Tewari (1)
Plectania Fuckel (ca. 20)
Pseudoplectania Fuckel (4)
Sarcosoma Casp. (5)
Strumella Fr. (8)
Urnula Fr. (9)

Strobiloscyphaceae Ekanayaka, K.D. Hyde, Q. Zhao & E.B.G. Jones
Strobiloscypha N.S. Weber & Denison (2)

Tarzettaceae Ekanayaka, K.D. Hyde, Q. Zhao & E.B.G. Jones
Densocarpa Gilkey (2)*
Geopyxis (Pers.) Sacc. (7)
Hydnocystis Tul. (= *Stephensia* Tul. & C. Tul.) (5)*
Hypotarzetta Donadini (1)
Paurocotylis Berk. (4)
Tarzetta (Cooke) Lambotte (ca. 10)

Tuberaceae Dumort.
Choiromyces Vittad. (5)
Dingleya Trappe (6)
Labyrinthomyces Boedijn (1)
Nothojafnea Rifai (2)
Paradoxa Mattir. (2)
Reddellomyces Trappe, Castellano & Malajczuk (4)
Tuber P. Micheli ex F.H. Wigg. (ca. 120)

Pezizales genera *incertae sedis*
Aparaphysaria Speg. (1)
Ascocalathium Eidam ex J. Schröt. (1)
Boubovia Svrček (5)*
Boudierella Sacc. (1)
Cidaris Fr. (1)
Coprotus Korf ex Korf & Kimbr. (33)*
Dennisiopsis Subram. & Chandras. (2)
Filicupula Y.J. Yao & Spooner (1)
Heydenia Fresen.
Hiemsia Svrček (2)
Leucoscypha Boud (4)
Microeurotium Ghatak (1)
Moravecia Benkert, Caillet & Moyne (2)
Mycoarctium K.P. Jain & Cain (2)
Mycogalopsis Gjurašin (1)
Octosporella Döbbeler (9)
Orcadia G.K. Sutherl. (1)
Sphaerosoma Klotzsch (3)

Sordariomycetes O.E. Erikss. & Winka
Diaporthomycetidae Senan., Maharachch. & K.D. Hyde
Annulatascales M.J. D'souza, Maharachch. & K.D. Hyde
Annulatascaceae S.W. Wong, K.D. Hyde & E.B.G. Jones
Annulatascus K.D. Hyde (18)
Annulusmagnus J. Campb. & Shearer (1)
Aqualignicola Ranghoo, C.K.M. Tsui & K.D. Hyde (2)
Ascitendus J. Campb. & Shearer (2)
Ayria Fryar & K.D. Hyde (2)
Cataractispora K.D. Hyde, S.W. Wong & E.B.G. Jones (5)
Chaetorostrum Zelski, Raja, A.N. Mill. & Shearer (1)
Longicollum Zelski, F.R. Barbosa, Raja, A.N. Mill. & Shearer (1)
Submersisphaeria K.D. Hyde (5)
Vertexicola K.D. Hyde, Ranghoo & S.W. Wong (3)

Annulatascales genus *incertae sedis*
Clohiesia K.D. Hyde (3)

Atractosporales H. Zhang, K.D. Hyde & Maharachch.
Atractosporaceae H. Zhang, K.D. Hyde & Maharachch.
Atractospora Réblová & J. Fourn. (5)
Rubellisphaeria Réblová & J. Fourn. (1)

Conlariaceae H. Zhang, K.D. Hyde & Maharachch.
Conlarium F. Liu & L. Cai (3)
Riomyces A. Ferrer, A.N. Mill., Sarmiento & Shearer (1)

Pseudoproboscisporaceae H. Zhang, K.D. Hyde & Maharachch.
Diluviicola K.D. Hyde, S.W. Wong & E.B.G. Jones (2)
Pseudoproboscispora Punith. (3)

Calosphaeriales M.E. Barr

Calosphaeriaceae Munk
Calosphaeria Tul. & C Tul. (114)
Flabellascus Réblová (1)
Jattaea Berl (27)
Togniniella Réblová, L. Mostert, W. Gams & Crous (1)

Pleurostomataceae Réblová, L. Mostert, W. Gams & Crous
Pleurostoma Tul. & C. Tul. (7)

Calosphaeriales genera *incertae sedis*
Calosphaeriopsis Petr. (1)
Enchnoa Fr. (21)
Kacosphaeria Speg. (1)
Sulcatistroma A.W. Ramaley (1)

Diaporthales Nannf.
Apiosporopsidaceae Senan., Maharachch. & K.D. Hyde
Apiosporopsis (Traverso) Mariani. (3)

Apoharknessiaceae Senan., Maharachch. & K.D. Hyde
Apoharknessia Crous & S.J. Lee (3)
Lasmenia Speg. (5)

Asterosporiaceae Senan., Maharachch. & K.D. Hyde
Asterosporium Kunze (5)

Auratiopycnidiellaceae Senan., Maharachch. & K.D. Hyde
Auratiopycnidiella Crous & Summerell (1)

Coryneaceae Corda (=*Pseudovalsaceae* M.E. Barr)
Coryneum Nees (30)

Cryphonectriaceae Gryzenh. & M.J. Wingf.
Amphilogia Gryzenh., H.F. Glen & M.J. Wingf. (2)
Aurantioporthe G. Beier & R.A. Blanchette (1)
Aurantiosacculus Dyko & B. Sutton (3)
Aurapex Gryzenh. & M.J. Wingf. (1)
Aurifilum Begoude, Gryzenh. & Jol. Roux (1)
Capillaureum M.E.S. Oliveira (1)
Celoporthe Nakab., Gryzenh., Jol. Roux & M.J. Wingf. (2)
Chromendothia Lar.N. Vassiljeva (2)
Chrysofolia Crous & M.J. Wingf. (1)
Chrysomorbus S.F. Chen (1)
Chrysoporthe Gryzenh. & M.J. Wingf. (9)
Corticimorbus S.F. Chen & M.J. Wingf. (1)
Cryphonectria (Sacc.) Sacc. & D. Sacc. (1)
Cryptometrion Gryzenh. & M.J. Wingf. (1)
Diversimorbus S.F. Chen & J. Roux (1)
Endothia Fr. (2)
Eriocamporesia R.H. Perera, Samarak. & K.D. Hyde (1)
Foliocryphia Cheew. & Crous (2)
Holocryphia Gryzenh. & M.J. Wingf. (1)

Immersiporthe S.F. Chen, M.J. Wingf. & Jol. Roux (1)
Latruncellus M. Verm., Gryzenh. & Jol. Roux (1)
Luteocirrhus C.F. Crane & T.I. Burgess (1)
Mastigosporella Höhn. (=*Wuestneiopsis* J. Reid & Dowsett) (5)
Microthia Gryzenh. & M.J. Wingf. (2)
Myrtonectria Marinc., D.B. Ali & J. Roux (1)
Rostraureum Gryzenh. & M.J. Wingf. (2)
Ursicollum Gryzenh. & M.J. Wingf. (1)
Wuestneia Auersw. ex Fuckel (13)

Cytosporaceae Fr. (= *Valsaceae* Tul. & C. Tul.)
Cryptascoma Ananthap. (2)
Cytospora Ehrenb. (123)
Pachytrype Berl. ex M.E. Barr, J.D. Rogers & Y.M. Ju (1)
Paravalsa Ananthap. (1)
Waydora B. Sutton (1)
Xenotypa Petr. (1)

Diaporthaceae Höhn. ex Wehm.
Apioporthella Petr. (1)
Apiosphaeria Höhn. (5)
Chaetoconis Clem. (1)
Chiangraiomyces Senan. & K.D. Hyde (1)
Diaporthe Nitschke (= *Allantoporthe* Petr.; = *Clypeoporthella* Petr.) (173)
Hyaliappendispora Senan., Camporesi & K.D. Hyde (1)
Leucodiaporthe M.E. Barr & Lar.N. Vassiljeva (1)
Massariothea Syd. (10)
Mazzantia Mont. (4)
Ophiodiaporthe Y.M. Ju, H.M. Hsieh, C.H. Fu, Chi Y. Chen & T.T. Chang (1)
Paradiaporthe Senan., Camporesi & K.D. Hyde (1)
Phaeocytostroma Petr. (4)
Phaeodiaporthe Petr. (2)
Pustulomyces D.Q. Dai, Bhat & K.D. Hyde (1)
Stenocarpella Syd. & P. Syd. (2)

Diaporthosporellaceae C.M. Tian & Q. Yang*
Diaporthosporella C.M. Tian & Q. Yang (1)

Diaporthostomataceae X.L. Fan & C.M. Tian*
Diaporthostoma X.L. Fan & C.M. Tian (1)*

Dwiroopaceae K.V. Xavier, A.N. KC, J.Z. Groenew., Vallad & Crous
Dwiroopa Subram. & Muthumary (2)

Erythrogloeaceae Senan., Maharachch. & K.D. Hyde
Chrysocrypta Crous & Summerell (1)
Dendrostoma X.L. Fan & C.M. Tian (4)*
Disculoides Crous, Pascoe, I.J. Porter & Jacq. Edwards (2)
Erythrogloeum Petr. (2)

Gnomoniaceae G. Winter
Alnecium Voglmayr & Jaklitsch (2)

Ambarignomonia Sogonov (1)
Amphiporthe Petr. (=*Amphicytostroma* Petr.) (2)
Anisomyces Theiss. & Syd. (5)
Apiognomonia Höhn. (=*Discula* Sacc.) (28)
Apioplagiostoma M.E. Barr (3)
Asteroma DC. (54)
Bagcheea E. Müll. & R. Menon (2)
Chadefaudiomyces Kamat (1)
Clypeoporthe Höhn. (5)
Cryptosporella Sacc. (ca. 26)
Dictyoporthe Petr. (4)
Diplacella Syd. (2)
Ditopella De Not. (16)
Ditopellopsis J. Reid & C. Booth (4)
Flavignomonia C.M. Tian, Qin Yang & N. Jiang (1)*
Gloeosporidina Petr. (6)
Gnomonia Ces. & De Not. (ca. 70)
Gnomoniella Sacc. (=*Cylindrosporella* Höhn.) (ca. 70)
Gnomoniopsis Berl. (25)
Maculatipalma J. Fröhlich & K.D. Hyde (1)
Mamianiella Höhn. (=*Anisogramma* Theiss. & Syd.; = *Mamiania* Ces & De Not.) (2)
Marsupiomyces Senan. & K.D. Hyde (2)
Millerburtonia Cif. (1)
Occultocarpon L.C. Mejía & Zhu L. Yang (1)
Ophiognomonia (Sacc.) Sacc. (49)
Phragmoporthe Petr. (1)
Phylloporthe Syd. (2)
Plagiostoma Fuckel (52)
Pleuroceras Riess. (12)
Sirococcus Preuss (5)
Spataporthe Bronson, Klymiuk, Stockey & Tomescu (1)
Tenuignomonia Minosh., D.M. Walker & Hirooka (1)
Uleoporthe Petr. (1)
Valsalnicola D.M. Walker & Rossman (1)
Vismaya V.V. Sarma & K.D. Hyde (1)

Harknessiaceae Crous
Harknessia Cooke (ca. 50)
Mebarria J. Reid & C. Booth (1)

Juglanconidaceae Voglmayr & Jaklitsch (=*Melanosporellaceae* C.M. Tian & Z. Du)
Juglanconis Voglmayr & Jaklitsch (4)

Lamproconiaceae Norph., T.C. Wen & K.D. Hyde
Hercospora Fr. (= *Rabenhorstia* Fr.) (1)
Lamproconium (Grove) Grove (1)

Macrohilaceae Crous
Macrohilum H.J. Swart (1)

Melanconidaceae G. Winter
Melanconis Tul. & C. Tul. (1)

Melanconiellaceae Senan., Maharachch. & K.D. Hyde
Dicarpella Syd. & P. Syd. (7)
Greeneria Scribn. & Viala (3)
Massariovalsa Sacc. (=*Melanconiopsis* Ellis & Everh.) (4)
Melanconiella Sacc. (2)
Microascospora Senan. & K.D. Hyde (2)
Septomelanconiella Samarak. & K.D. Hyde (1)*
Sheathospora X.L. Fan (1)*
Sphaeronaemella P. Karst. *sensu lato* (10)

Neomelanconiellaceae Crous
Neomelanconiella Crous (1)*

Phaeoappendicosporaceae Crous & M.J. Wingf.
Phaeoappendicospora Senan., Q.R. Li & K.D. Hyde (1)
Neophaeoappendicospora Crous & M.J. Wingf. (1)

Prosopidicolaceae Senan. & K.D. Hyde
Prosopidicola Crous & C.L. Lennox (2)

Pseudomelanconidaceae C.M. Tian & X.L. Fan*
Pseudomelanconis C.M. Tian & X.L. Fan (1)*
Neopseudomelanconis C.M. Tian & N. Jiang (1)

Pseudoplagiostomataceae Cheew., M.J. Wingf. & Crous
Pseudoplagiostoma Cheew., M.J. Wingf. & Crous (7)

Schizoparmaceae Rossman
Coniella Höhn. (34)

Stilbosporaceae Link
Crinitospora B. Sutton & Alcorn (1)
Natarajania Pratibha & Bhat (1)
Stegonsporium Corda (8)
Stilbospora Pers. (20)

Sydowiellaceae Lar.N. Vassiljeva
Alborbis Senan. & K.D. Hyde (1)
Breviappendix Senan. & K.D. Hyde (3)
Cainiella E. Müll. (2)
Calosporella J. Schröt (1)
Caudospora Starbäck (2)
Chapeckia M.E. Barr (2)
Hapalocystis Auersw. ex Fuckel (9)
Italiomyces Senan., Camporesi & K.D. Hyde (1)
Lambro Racib. (3)
Paragnomonia Senan. & K.D. Hyde (1)
Ranulospora Senan., Camporesi & K.D. Hyde (1)
Rossmania Lar.N. Vassiljeva (2)
Sillia P. Karst. (9)
Sydowiella Petr. (11)
Tenuiappendicula Senan., Camporesi & K.D. Hyde (1)

Tortilispora Senan. & K.D. Hyde (3)

Synnemasporellaceae X.L. Fan & J.D.P. Bezerra*
Synnemasporella X.L. Fan & J.D.P. Bezerra (2)*

Tubakiaceae U. Braun, J.Z. Groenew. & Crous*
Apiognomonioides U. Braun, J.Z. Groenew. & Crous (1)
Involutscutellula U. Braun & C. Nakash. (1)
Oblongisporothyrium U. Braun & C. Nakash. (1)
Paratubakia U. Braun & C. Nakash. (2)
Racheliella Crous & U. Braun (2)
Saprothyrium U. Braun, Crous & J.Z. Groenew. (1)
Sphaerosporithyrium U. Braun, Crous, O. Moreno-Rico & Marm. (1)
Tubakia B. Sutton (25)

Diaporthales genera *incertae sedis*
Ceratoporthe Petr. (1)
Cryptoleptosphaeria Petr. (1)
Cryptonectriella (Höhn.) Weese (2)
Cryptonectriopsis (Höhn.) Weese (1)
Cytomelanconis Naumov (1)
Diaporthella Petr. (5)
Diatrypoidiella Manohar., Kunwar & D.K. Agarwa (1)
Ditopellina J. Reid & C. Booth (1)
Durispora K.D. Hyde (2)
Exormatostoma Gray (10 epithets in Index Fungorum 2020)
Fremineavia Nieuwl. (1)
Gibellia Sacc. (1)
Gyrostroma Naumov (3)
Hyalorostratum Raja & Shearer (1)
Hypophloeda K.D. Hyde & E.B.G. Jones (1)
Hypospilina (Sacc) Traverso (4)
Kapooria J. Reid & C. Booth (1)
Keinstirschia J. Reid & C. Booth (1)
Kensinjia J. Reid & C. Booth (1)
Lollipopaia Inderb. (1)
Macrodiaporthe Petr. (1)
Melanamphora Lafl. (1)
Phragmodiaporthe Wehm. (3)
Phruensis Pinruan (1)
Plagiophiale Petr. (2)
Plagiostigme Syd. (1)
Prostratus Sivan., W.H. Hsieh & Chi Y. Chen (1)
Pseudocryptosporella J. Reid & C. Booth (1)
Pseudothis Theiss. & Syd. (12)
Pseudovalsella Höhn. (2)
Savulescua Petr. (1)
Skottsbergiella Petr. (1)
Sphaerognomoniella Naumov & Kusnezowa (1)
Stioclettia Dennis (1)
Trematovalsa Jacobesco (1)
Wehmeyera J. Reid & C. Booth (1)

Distoseptisporales Z.L. Luo, K.D. Hyde & H.Y. Su
Distoseptisporaceae K.D. Hyde & McKenzie
Distoseptispora K.D. Hyde, McKenzie & Maharachch. (18)

Magnaporthales Thongk., Vijaykr. & K.D. Hyde
Ceratosphaeriaceae Z.L. Luo, H.Y. Su & K.D. Hyde
Ceratosphaeria Niessl. (24)

Magnaporthaceae P.F. Cannon
Bifusisporella R.M.F. Silva, R.J.V. Oliveira, J.D.P. Bezerra, Souza-Motta & G.A. Silva (1)*
Budhanggurabania P. Wong, Khemmuk & R.G. Shivas (1)
Buergenerula Syd. (1)
Bussabanomyces Klaubauf, M.-H. Lebrun & Crous (1)
Ceratosphaerella Huhndorf, Greif, Mugambi & A.N. Mill. (2)
Clasterosphaeria Sivan. (2)
Clasterosporium Schwein (41)
Clavatisporella K.D. Hyde (1)
Falciphora J. Luo & N. Zhang (1)
Falciphoriella M. Hern.-Restr. & Crous (1)
Gaeumannomycella M. Hern.-Restr. & Crous (2)
Gaeumannomyces Arx & D.L. Olivier (20)
Herbampulla Scheuer & Nograsek (1)
Kohlmeyeriopsis Klaubauf, M.-H. Lebrun & Crous (1)
Magnaporthiopsis J. Luo & N. Zhang (7)
Muraeriata Huhndorf, Greif, Mugambi & A.N. Mill. (2)
Nakataea Hara (8)
Neogaeumannomyces D.Q. Dai & K.D. Hyde (1)
Omnidemptus P.F. Cannon & Alcorn (3)
Plagiosphaera Petr. (1)*
Pseudophialophora J. Luo & N. Zhang (9)
Pyriculariopsis M.B. Ellis (9)
Slopeiomyces Klaubauf, M.-H. Lebrun & Crous (1)

Ophioceraceae Klaubauf, E.G. LeBrun & Crous
Ophioceras Sacc. (50)

Pseudohalonectriaceae Hongsanan & K.D. Hyde
Pseudohalonectria Minoura & T. Muroi (16)

Pyriculariaceae Klaubauf, E.G. LeBrun & Crous
Bambusicularia Klaubauf, M.-H. Lebrun & Crous (1)
Barretomyces Klaubauf, M.-H. Lebrun & Crous (1)
Deightoniella S. Hughes (20)
Macgarvieomyces Klaubauf, M.-H. Lebrun & Crous (3)
Neocordana Hern.-Rest. & Crous (6)
Neopyricularia Klaubauf, M.-H. Lebrun & Crous (1)
Proxipyricularia Klaubauf, M.-H. Lebrun & Crous (2)
Pseudopyricularia Klaubauf, M.-H. Lebrun & Crous (7)
Pyricularia Sacc. (84)
Pyriculariomyces Y. Marín, M.J. Wingf. & Crous (1)
Xenopyricularia Klaubauf, M.-H. Lebrun & Crous (1)

Myrmecridiales Crous
Myrmecridiaceae Crous
Myrmecridium Arzanlou, W. Gams & Crous (14)
Neomyrmecridium Crous (2)

Xenodactylariaceae Crous
Xenodactylaria Crous (1)*

Ophiostomatales Benny & Kimbr.
Kathistaceae Malloch & M. Blackw.
Kathistes Malloch & M. Blackw. (3)
Mattirolella S. Colla (2)
Termitariopsis M. Blackw., Samson & Kimbr. (1)

Ophiostomataceae Nannf.
Afroraffaele C.C. Bateman, Y.T. Huang & D.R. Simmons (1)
Aureovirg J.A. van der Linde, Z.W. de Beer & Jol. Roux (1)
Ceratocystiopsis H.P. Upadhyay & W.B. Kendr. (5)
Fragosphaeria Shear (2)
Graphilbum H.P. Upadhyay & W.B. Kendr. (13)
Hawksworthiomyces Z.W. de Beer, Marinc. & M.J. Wingf. (4)
Klasterskya Petr. (3)
Leptographium Lagerb. & Melin (= *Grosmannia* Gold.) (74)
Ophiostoma Syd. & P. Syd. (= *Hyalorhinocladiella* H.P. Upadhyay & W.B. Kendr.; = *Pesotum* J.L. Crane & Schokn.) (134)
Raffaelea Arx & Hennebert (33)
Sporothrix Hektoen & C.F. Perkins (79)
Spumatoria Massee & E.S. Salmon (1)
Subbaromyces Hesselt. (2)

Phomatosporales Senan., Maharachch. & K.D. Hyde
Phomatosporaceae Senan. & K.D. Hyde
Lanspora K.D. Hyde & E.B.G. Jones (2)
Phomatospora Sacc. (ca. 100)
Tenuimurus Senan., Camporesi & K.D. Hyde (1)

Sporidesmiales Crous
Sporidesmiaceae Fr.
Sporidesmium Link (ca. 330)

Tirisporellales Suetrong, E.B.G. Jones & K.L. Pang
Tirisporellaceae Suetrong, E.B.G. Jones & K.L. Pang
Bacusphaeria Norlail., Alias & Suetrong (1)
Thailandiomyces Pinruan, Sakay., K.D. Hyde & E.B.G. Jones (1)
Tirisporella E.B.G. Jones, K.D. Hyde & Alias (1)

Togniniales Senan., Maharachch. & K.D. Hyde
Togniniaceae Réblová, L. Mostert, W. Gams & Crous
Conidiotheca Réblová & L Mostert (1)
Phaeoacremonium W. Gams, Crous & M.J. Wingf. (65)

Xenospadicoidales Hern.-Restr., J. Mena & Gené

Xenospadicoidaceae Hern.-Restr., J. Mena & Gené (= *Lentomitellaceae* H. Zhang, K.D. Hyde & Maharachch)*

Calyptosphaeria Réblová & A.N. Mill. (4)
Lentomitella Höhn. (13)
Neospadicoides Z.L. Luo (3)
Spadicoides S. Hughes (=*Xenospadicoides* Hern.-Restr., J. Mena & Gené; *Pseudodiplococcium* Hern.-Restr., J. Mena & Gené) (45)*
Torrentispora K.D. Hyde, W.H. Ho, E.B.G. Jones (= *Fusoidispora* Vijaykr., Jeewon & K.D. Hyde; = *Pseudoannulatascus* Z.L. Luo, Maharachch. & K.D. Hyde) (9)*

Diaporthomycetidae families *incertae sedis*
Barbatosphaeriaceae H. Zhang, K.D. Hyde & Maharachch.*

Barbatosphaeria Réblová (9)
Ceratostomella Sacc. (18)
Xylomelasma Réblová (4)

Papulosaceae Winka & O.E. Erikss.

Brunneosporella V.M. Ranghoo & K.D. Hyde (1)
Fluminicola S.W. Wong, K.D. Hyde & E.B.G. Jones (4)
Papulosa Kohlm & Volkm-Kohlm (1)
Wongia Khemmuk, Geering & R.G. Shivas (3)

Rhamphoriaceae Réblová*

Rhamphoria Niessl (15)*
Rhamphoriopsis Réblová & Gardiennet (1)*
Rhodoveronaea Arzanlou, W. Gams & Crous (1)*
Xylolentia Réblová (1)*

Thyridiaceae O.E. Erikss & J.Z. Yue

Pleurocytospora Petr. (3)
Thyridium Nitschke (34)

Trichosphaeriaceae G. Winter

Brachysporium Sacc. (25)
Collematospora Jeng & Cain (1)
Coniobrevicolla Réblová (1)
Eriosphaeria Sacc. (24)
Koorchaloma Subram. (= *Kananascus* Nag Raj) (11)
Rizalia Syd. & P. Syd. (6)
Schweinitziella Speg. (4)
Setocampanula Sivan. & W.H. Hsieh (1)
Trichosphaeria Fuckel (20)
Unisetosphaeria Pinnoi, E.B.G. Jones, McKenzie & K.D. Hyde (1)

Woswasiaceae H. Zhang, K.D. Hyde & Maharachch.

Cyanoannulus Raja, J. Campb. & Shearer (1)
Woswasia Jaklitsch, Réblová & Voglmayr (1)
Xylochrysis Réblová (1)

Diaporthomycetidae genera *incertae sedis*

Aquapteridospora Jiao Yang, K.D. Hyde & Maharachch. (1)
Aquaticola W.H. Ho, C.K.M. Tsui, Hodgkiss & K.D. Hyde (5)

Aquimonospora J. Yang & K.D. Hyde (1)*
Fusoidispora D. Vijaykr., Jeewon & K.D. Hyde (1)
Platytrachelon Réblová (1)
Proliferophorum G.N. Wang, H. Zhang & Senan. (1)*
Pseudoconlarium N.G. Liu, K.D. Hyde & J.K. Liu (1)
Pseudostanjehughesia J. Yang & K.D. Hyde (1)

Hypocreomycetidae O.E. Erikss. & Winka
Coronophorales Nannf. (= *Melanosporales* N. Zhang & M. Blackw.)
Bertiaceae Smyk
Bertia De Not. (48)
Gaillardiella Pat. (6)

Ceratostomataceae G. Winter
Arxiomyces P.F. Cannon & D. Hawksw. (3)
Dactylidispora Y. Marín, Stchigel, Guarro & Cano (3)
Echinusitheca Y. Marín, Stchigel, Dania García, Guarro, A.N. Mill. & Cano (1)
Erythrocarpon Zukal (1)
Harzia Costantin (10)
Melanospora Corda (=*Gonatobotrys* Corda) (69)
Microthecium Corda (=*Pteridiosperma* J.C. Krug & Jeng) (ca. 20)
Pseudomicrothecium Y. Marín, Stchigel, Guarro & Cano (1)
Pustulipora P.F. Cannon (1)
Rhytidospora Jeng & Cain (5)
Scopinella Lév. (9)
Setiferotheca Matsush. (1)
Syspastospora P.F. Cannon & D. Hawksw. (4)
Vittatispora P. Chaudhary, J. Campb., D. Hawksw. & K.N. Sastry (1)

Chaetosphaerellaceae Huhndorf, A.N. Mill. & F.A. Fernández
Chaetosphaerella E. Müll. & C. Booth (4)
Crassochaeta Réblová (2)
Spinulosphaeria Sivan. (2)

Coronophoraceae Höhn.
Coronophora Fuckel (2)

Nitschkiaceae (Fitzp.) Nannf.
Acanthonitschkea Speg. (10)
Biciliosporina Subram. & Sekar (1)
Botryola Bat. & J.L. Bezerra (1)
Fracchiaea Sacc. (35)
Groenhiella Jørg. Koch, E.B.G. Jones & S.T. Moss (1)
Janannfeldtia Subram. & Sekar (1)
Lasiosphaeriopsis D. Hawksw. & Sivan. (7)
Loranitschkia Lar.N. Vassiljeva (1)
Neochaetosphaerella Lar.N. Vassiljeva, S.L. Stephenson & Chernyshev (4)
Neotrotteria Sacc. (1)
Nitschkia G.H. Otth ex P. Karst. (66)
Rhagadostoma Körb. (7)
Rhagadostomella Etayo (1)
Tortulomyces Lar.N. Vassiljeva, S.L. Stephenson, Chernyshev & K.D. Hyde (1)

Scortechiniaceae Huhndorf, A.N. Mill. & F.A. Fernández
Biciliospora Petr. (1)
Coronophorella Höhn. (1)
Cryptosphaerella Sacc. (20)
Euacanthe Theiss. (2)
Neofracchiaea Teng (1)
Pseudocatenomycopsis Crous & L.A. Shuttlew. (1)
Scortechinia Sacc. (9)
Scortechiniella Arx & E. Müll. (1)
Scortechiniellopsis Sivan. (1)
Tympanopsis Starbäck (1)

Coronophorales genera *incertae sedis*
Papulaspora Preuss (33)
Sphaerodes Clem. (9)

Falcocladiales R.H. Perera, Maharachch., Somrith., Suetrong & K.D. Hyde
Falcocladiaceae Somrith., E.B.G. Jones & K.L. Pang
Falcocladium S.F. Silveira, Alfenas, Crous & M.J. Wingf. (5)

Glomerellales Chadef. ex Réblová, W. Gams & Seifert
Australiascaceae Réblová & W. Gams
Monilochaetes Halst. ex Harter (8)

Glomerellaceae Locq. ex Seifert & W. Gams
Colletotrichum Corda (ca. 895)

Malaysiascaceae Tibpromma & K.D. Hyde
Malaysiasca Crous & M.J. Wingf. (1)

Plectosphaerellaceae W. Gams, Summerb. & Zare
Acremoniisimulans Tibpromma & K.D. Hyde (1)
Acrostalagmus Corda (13)
Brunneochlamydosporium Giraldo López & Crous (4)
Brunneomyces A. Giraldo, Gené & Guarro (3)
Chlamydosporiella Giraldo López & Crous (1)
Chordomyces Bilanenko, Georgieva & Grum-Grzhim. (2)
Furcasterigmium Giraldo López & Crous (1)
Fuscohypha Giraldo López & Crous (1)
Gibellulopsis Bat. & H. Maia (3)
Lectera P.F. Cannon (6)
Longitudinalis Tibpromma & K.D. Hyde (1)
Musicillium Zare & W Gams (2)
Musidium Giraldo López & Crous (1)
Nigrocephalum Giraldo López & Crous (1)
Paragibellulopsis Giraldo López & Crous (1)
Paramusicillium Giraldo López & Crous (1)
Phialoparvum Giraldo López & Crous (1)
Plectosphaerella Kleb. (17)
Sayamraella Giraldo López & Crous (1)
Sodiomyces A.A. Grum-Grzhim., Debets & Bilanenko (5)
Stachylidium Link (7)

Summerbellia Giraldo López & Crous (1)
Theobromium Giraldo López & Crous (1)
Verticillium Nees (81)

Reticulascaceae Réblová & W. Gams
Blastophorum Matsush. (5)
Cylindrotrichum Bonord. (23)
Kylindria DiCosmo, S.M. Berch & W.B. Kendr. (11)
Sporoschismopsis Hol-Jech. & Hennebert (8)

Glomerellales genus *incertae sedis*
Ascocodinaea Samuels, Cand. & Magni (2)

Hypocreales Lindau
Bionectriaceae Samuels & Rossman
Acremonium Link (ca. 150)
Anthonectria Döbbeler (1)
Aphanotria Döbbeler (1)
Battarrina (Sacc.) Clem. & Shear (1)
Bryocentria Döbbeler (15)
Bryotria Döbbeler & P.G. Davison (2)
Bullanockia Crous (1)
Chrysonectria Lechat & J. Fourn. (1)*
Clibanites (P. Karst.) P. Karst. (1)
Clonostachys Corda (78)
Dimerosporiella Speg. (8)
Fusariella Sacc. (17)
Geonectria Lechat & J. Fourn. (1)*
Geosmithia J. Pitt (24)
Gliomastix Guég. (24)
Globonectria Etayo (1)
Gracilistilbella Seifert (4)
Halonectria E.B.G. Jones (1)
Heleococcum P.M. Jørg. (5)
Hydropisphaera Dumort (29)
Ijuhya Starbäck (22)
Kallichroma Kohlm. & Volkm.-Kohlm. (4)
Laniatria Döbbeler & P.G. Davison (1)
Lasionectria (Sacc.) Cooke (23)
Lasionectriella Lechat & J. Fourn. (2)*
Mycoarachis Malloch & Cain (2)
Mycocitrus Möller (3)
Nectriella Nitschke ex Fuckel (84)
Nectriopsis Maire (70)
Nigrosabulum Malloch & Cain (1)
Ochronectria Rossman & Samuels (3)
Ovicuculispora Etayo (2)
Paracylindrocarpon Crous, Roets & L. Lombard (4)
Paranectria Sacc. (4)
Periantria Döbbeler & P.G. Davison (2)
Peristomialis (W. Phillips) Boud. (6)
Pronectria Clem. (44)

Protocreopsis Yoshim Doi (12)
Roumegueriella Speg. (4)
Selinia P. Karst. (6)
Stephanonectria Schroers & Samuels (1)
Stilbocrea Pat. (7)
Stromatonectria Jaklitsch & H. Voglmayr (1)
Synnemellisia N.K. Rao, Manohar. & Goos (2)
Trichonectria Kirschst. (19)
Verrucostoma Hirooka, Tak. Kobay. & P. Chaverri (2)
Xanthonectria Lechat, J. Fourn. & P.-A. Moreau (1)*

Calcarisporiaceae Jing Z. Sun, X.Z. Liu & K.D. Hyde
Calcarisporium Preuss (8)

Clavicipitaceae (Lindau) Earle ex Rogerson
Aciculosporium I. Miyake (=*Neoclaviceps* J.F. White, Bills, S.C. Alderman & Spatafora) (4)
Aschersonia Mont. (=*Hypocrella* Sacc. *fide* Hyde et al. 2020) (170+)
Atkinsonella Diehl (2)
Balansia Speg. (49)
Cavimalum Yoshim. Doi, Dargan & K.S. Thind (2)
Claviceps Tul. (111)
Collarina A. Giraldo, Gené & Guarro (1)
Conoideocrella D. Johnson, G.H. Sung, Hywel-Jones & Spatafora (3)
Corallocytostroma Y.N. Yu & Z.Y. Zhang (2)
Dussiella Pat. (3)
Ephelis Fr. (4)
Epichloë (Fr.) Tul. & C. Tul. (75)
Epicrea Petr. (1)
Helicocollum Luangsa-ard (3)
Helminthascus Tranzschel (1)
Heteroepichloë E. Tanaka, C. Tanaka, Gafur & Tsuda (2)
Konradia Racib. (2)
Loculistroma F. Patt & Charles (1)
Metapochonia Kepler, S.A. Rehner & Humber (6)
Metarhiziopsis D.W. Li, R.S. Cowles & C.R. Vossbrinck (1)
Metarhizium Sorokīn (= *Chamaeleomyces* Sigler; = *Metacordyceps* G.H. Sung, J.M. Sung, Hywel-Jones & Spatafora; = *Nomuraea* Maubl.; = *Stereocrea* Syd. & P. Syd.) (78)
Moelleriella Bres. (57)
Mycomalus A. Möller (1)
Mycophilomyces Crous & M.J. Wingf. (1)
Myriogenospora G.F. Atk. (4)
Neobarya Lowen (12)
Neocordyceps Kobayasi (1)
Nigelia Luangsa-ard (2)
Nigrocornus Ryley & Langdon (1)
Orbiocrella D. Johnson, G.H. Sung, Hywel-Jones & Spatafora (1)
Parepichloë J.F. White & P.V. Reddy (4)
Periglandula U. Steiner, E. Leistner & Leuchtm. (2)
Pochonia Bat. & O.M. Fonseca (4)
Pseudomeria G.L. Barron (1)
Regiocrella Chaverri & K.T. Hodge (2)
Romanoa Thirum. (1)

Rotiferophthora G.L. Barron (27)
Samuelsia Chaverri & K.T. Hodge (6)
Shimizuomyces Kobayasi (2)
Sphaerocordyceps Kobayasi (2)
Tyrannicordyceps Kepler & Spatafora (5)
Ustilaginoidea Bref. (19)

Cocoonihabitaceae W.Y. Zhuang & Z.Q. Zeng
Cocoonihabitus W.Y. Zhuang & Z.Q. Zeng (1)

Cordycipitaceae Kreisel ex G.H. Sung, J.M. Sung, Hywel-Jones & Spatafora
Akanthomyces Lebert (= *Torrubiella* Boud., = *Lecanicillium* W. Gams & Zare) (21)*
Amphichorda Fr. (1)
Ascopolyporus Möller (7)
Beauveria Vuill. (54)
Beejasamuha Subram. & Chandrash. (1)
Blackwellomyces Spatafora & Luangsa-ard (2)
Cordyceps (Fr.) Link (= *Isaria* Pers.; = *Microhilum* H.Y. Yip & A.C. Rath) (498)
Coremiopsis Sizova & Suprun (2)
Engyodontium de Hoog (5)
Gibellula Cavara (=*Granulomanus* de Hoog & Samson) (29)
Hevansia Luangsa-ard, Hywel-Jones & Spatafora (8)
Hyperdermium J.F. White, R.F. Sullivan, Bills & Hywel-Jones (3)
Leptobacillium Zare & W. Gams (1)
Parengyodontium C.C. Tsang, J.F.W. Chan, W.M. Pong, J.H.K. Chen, A.H.Y. Ngan, M. Cheung, C.K.C. Lai, D.N.C. Tsang, S.K.P. Lau & P.C.Y. Woo (1)
Pseudogibellula Samson & H.C. Evans (1)
Samsoniella Mongkols., Noisrip., Thanakitp., Spatafora & Luangsa-ard (3)
Simplicillium W. Gams & Zare (12)

Flammocladiellaceae Crous, L. Lombard & R.K. Schumach.
Flammocladiella Crous, L. Lombard & R.K. Schumach. (2)

Hypocreaceae De Not.
Arachnocrea Z. Moravec. (3)
Dialhypocrea Speg. (1)
Escovopsioides H.C. Evans & J.O. Augustin (1)
Escovopsis J.J. Muchovej & Della Lucia (14)
Hypocreopsis P. Karst. (14)
Hypomyces (Fr.) Tul. & C. Tul. (ca. 150)
Kiflimonium Summerb., J.A. Scott, Guarro & Crous (1)
Lichenobarya Etayo, Diederich & Lawrey (1)
Mycogone Link (28)
Protocrea Petch (6)
Rogersonia Samuels & Lodge (1)
Sepedonium Link (13)
Sphaerostilbella (Henn.) Sacc. & D. Sacc (13)
Sporophagomyces K. Põldmaa & Samuels (3)
Stephanoma Wallr. (?6)
Trichoderma Pers. (400+)
Verticimonosporium Matsush. (3)

Myrotheciomycetaceae Crous

Emericellopsis J.F.H. Beyma (23)
Leucosphaerina Arx (2)
Myrotheciomyces Crous (1)
Trichothecium Link (9)

Nectriaceae Tul. & C. Tul.

Albonectria Rossman & Samuels (1)
Allantonectria Earle (1)
Allonectella Petr. (2)
Aphanocladium W. Gams (4)
Aquanectria L. Lombard & Crous (3)
Atractium Link (3)*
Baipadisphaeria Pinruan (1)
Bisifusarium L. Lombard, Crous & W. Gams (7)
Calonectria De Not. (400)
Calostilbe Sacc. & Syd. (4)
Campylocarpon Halleen, Schroers & Crous (3)
Chaetonectrioides Matsush. (1)
Chaetopsina Rambelli (19)
Coccinonectria Lombard & Crous (2)
Corallomycetella Henn. (4)
Corallonectria C. Herrera & P. Chaverri (1)
Corinectria C. González & P. Chaverri (3)
Cosmospora Rabenh. (50)
Cosmosporella S.K. Huang, R. Jeewon & K.D. Hyde (1)
Curvicladiella Decock & Crous (1)
Cyanochyta Höhn. (1)
Cyanonectria Samuels & Chaverri (2)
Cyanophomella Höhn. (1)
Cylindrocladiella Boesew. (45)
Cylindrodendrum Bonord. (4)
Dacryoma Samuels (2)
Dactylonectria L. Lombard & Crous (14)
Dematiocladium Allegr., Aramb., Cazau & Crous (2)
Fusarium Link (ca. 120)
Fusicolla Bonord (18)
Geejayessia Schroers, Gräfenhan & Seifert (7)
Gliocephalotrichum J.J. Ellis & Hesselt. (13)
Gliocladiopsis S.B. Saksena (15)
Ilyonectria P. Chaverri & C. Salgado (23)
Macroconia (Wollenw.) Gräfenhan, Seifert & Schroers (5)
Mariannaea G. Arnaud ex Samson (22)
Microcera Desm. (4)
Murinectria M. Niranjan & V.V. Sarma (4)
Nalanthamala Subram. (6)
Nectria (Fr.) Fr. (29)
Neocosmospora E.F. Sm. (84)
Neonectria Wollenw. (30)
Neothyronectria Crous & Thangavel (2)
Ophionectria Sacc. (39)
Pandanaceomyces Tibpromma & K.D. Hyde (1)

Paracremonium L. Lombard & Crous (5)
Payosphaeria W.F. Leong (1)
Penicillifer Emden (7)
Persiciospora P.F. Cannon & D. Hawksw. (4)
Pleiocarpon L. Lombard & D. Aiello (3)
Pleogibberella Sacc. (3)
Pleurocolla Petr. (1)
Pseudoachroiostachys Tibpromma & K.D. Hyde (1)
Pseudocosmospora C. Herrera & P. Chaverri (13)
Pseudonectria Seaver (17)
Rectifusarium L. Lombard, Crous & W. Gams (2)
Rugonectria P. Chaverri & Samuels (5)
Sarcopodium Ehrenb. (22)
Stylonectria Höhn. (5)
Thelonectria P. Chaverri & C.G. Salgado (46)
Thyronectria Sacc. (41)
Varicosporella Lechat & J. Fourn. (1)
Varicosporellopsis Lechat & J. Fourn. (1)*
Volutella Fr. (127)
Xenoacremonium Lombard & Crous (2)
Xenocylindrocladium Decock, Hennebert & Crous (3)
Xenogliocladiopsis Crous & W.B. Kendr. (2)
Xenoleptographium Marinc., T.A. Duong, Z.W. de Beer & M.J. Wingf. (1)
Xenonectriella Weese (18)

Niessliaceae Kirschst.
Atronectria Etayo (1)
Circinoniesslia Samuels & M.E. Barr (1)
Cryptoniesslia Scheuer (1)
Eucasphaeria Crous (2)
Hyaloseta A.W. Ramaley (1)
Malmeomyces Starb. (1)
Melchioria Penz. & Sacc. (6)
Miyakeomyces Hara (1)
Myrmaeciella Lindau (2)
Myrtacremonium Crous (1)
Neoeucasphaeria Crous (1)
Niesslia Auersw. (43)
Paraniesslia K.M. Tsui, K.D. Hyde & Hodgkiss (2)
Pseudohyaloseta Tibpromma & K.D. Hyde (1)
Pseudonectriella Petr. (1)
Pseudorhynchia Höhn. (2)
Rosasphaeria Jaklitsch & Voglmayr (1)
Taiwanascus Sivan & H.S. Chang (2)
Trichosphaerella E. Bommer, M. Rousseau & Sacc. (=*Neorehmia* Höhn.; = *Oplothecium* Syd.) (4)
Valetoniella Höhn. (3)
Valetoniellopsis Samuels & M.E. Barr (1)

Ophiocordycipitaceae G.H. Sung, J.M. Sung, Hywel-Jones & Spatafora
Drechmeria W. Gams & H.B. Jansson (12)
Harposporium Lohde (37)

Hirsutella Pat. (50+)
Hymenostilbe Petch (12)
Ophiocordyceps Petch (263)
Paraisaria Samson & B.L. Brady (11)
Perennicordyceps Matočec & I. Kušan (4)*
Polycephalomyces Kobayasi (18)*
Purpureocillium Luangsa-ard, Hywel-Jones, Houbraken & Samson (5)
Tolypocladium W. Gams (47)

Sarocladiaceae L. Lombard
Parasarocladium Summerb., J.A. Scott, Guarro & Crous (4)
Sarocladium W. Gams & D. Hawksw. (22)

Stachybotryaceae L. Lombard & Crous
Achroiostachys L. Lombard & Crous (6)
Albifimbria L. Lombard & Crous (5)
Albosynnema E.F. Morris (2)
Alfaria Crous, Montaño-Mata & García-Jim. (13)
Alfariacladiella Crous & R.K. Schumach. (1)
Brevistachys L. Lombard & Crous (5)
Capitofimbria L. Lombard & Crous (1)
Cymostachys L. Lombard & Crous (3)
Didymostilbe Henn. (14)
Digitiseta Gordillo & Decock (4)*
Dimorphiseta L. Lombard & Crous (1)
Globobotrys L. Lombard & Crous (1)
Grandibotrys L. Lombard & Crous (3)
Gregatothecium L. Lombard & Crous (1)
Hyalinostachys C.G. Lin & K.D. Hyde (1)
Inaequalispora L. Lombard & Crous (3)
Kastanostachys L. Lombard & Crous (1)
Koorchalomella Chona, Munjal & J.N. Kapoor (2)
Melanopsamma Niessl (ca. 5)
Memnoniella Höhn. (9)
Myrothecium Tode (2)
Myxospora L. Lombard & Crous (6)
Neomyrothecium L. Lombard & Crous (1)
Paramyrothecium L. Lombard & Crous (14)
Parasarcopodium Melnik, S.J. Lee & Crous (3)
Parvothecium L. Lombard & Crous (2)
Peethambara Subram. & Bhat (1)
Pseudoornatispora Tibpromma & K.D. Hyde (1)
Septomyrothecium Matsush. (4)
Sirastachys L. Lombard & Crous (9)
Smaragdiniseta L. Lombard & Crous (1)
Stachybotrys Corda (12 phylogenetically studied, 81 epithets remain be studied)
Striatibotrys L. Lombard & Crous (7)
Striaticonidium L. Lombard & Crous (5)
Tangerinosporium L. Lombard & Crous (1)
Virgatospora Finley (2)
Xenomyrothecium L. Lombard & Crous (1)
Xepicula Nag Raj (4)

Xepiculopsis Nag Raj (2)

Tilachlidiaceae Lombard & Crous
Psychronectria J. Pawłowska, Istel, Wrzosek, D. Hawksw. (47)
Septofusidium W. Gams (5)
Tilachlidium Preuss (1)

Hypocreales genera *incertae sedis*
Acremoniopsis A. Giraldo, Gené & Guarro (1)
Berkelella (Sacc.) Sacc. (2)
Bulbithecium Udagawa & T Muroi (1)
Cephalosporiopsis Peyronel (10)
Chondronectria Etayo, Flakus & Kukwa (1)
Cylindronectria Etayo (1)
Diploöspora Grove (ca. 7)
Gynonectria Döbbeler (1)
Hapsidospora Malloch & Cain (2)
Haptospora G.L. Barron (3)
Illosporiopsis D. Hawksw. (1)
Illosporium Mart. (17)
Leptobarya Etayo (2)
Lichenopenicillus Etayo (1)
Metadothella Henn. (1)
Munkia Speg. (4)
Neomunkia Petr. (1)
Peloronectria Möller (3)
Pseudoacremonium Crous (1)
Pseudoidriella Crous & R.G. Shivas (1)
Pseudomeliola Speg. (10)
Rodentomyces Doveri, Pecchia, Sarrocco & Vannacci (1)
Roselliniella Vain (19)
Saksenamyces A.N. Rai & P.N. Singh (1)
Sedecimiella K.L. Pang, Alias & E.B.G. Jones (1)
Stanjemonium W. Gams, O'Donnell, Schroers & M. Chr. (4)
Stilbella Lindau (61)
Ticonectria Döbbeler (3)
Tilakidium Vaidya, C.D. Naik & Rathod (1)

Jobellisiales M.J. D'souza & K.D. Hyde
Jobellisiaceae Réblová
Jobellisia M.E. Barr (8)

Microascales Luttr. ex Benny & Kimbr.
Ceratocystidaceae Locq. ex Réblová, W. Gams & Seifert
Ambrosiella Brader ex Arx & Hennebert (10)
Berkeleyomyces W.J. Nel, Z.W. de Beer, T.A. Duong & M.J. Wingf. (2)
Bretziella Z.W. de Beer, Marinc., T.A. Duong & M.J. Wingf. (1)
Ceratocystis Ellis & Halst. (105)
Chalaropsis Peyronel (3)
Davidsoniella Z.W. de Beer, T.A. Duong & M.J. Wingf. (4)
Endoconidiophora Münch (9)
Huntiella Z.W. de Beer, T.A. Duong & M.J. Wingf. (29)

Meredithiella McNew, C. Mayers & T.C. Harr. (3)
Phialophoropsis L.R. Batra emend. T.C. Harr. (2)
Thielaviopsis Went. (7)

Chadefaudiellaceae Faurel & Schotter ex Benny & Kimbr.
Chadefaudiella Faurel & Schotter (2)
Faurelina Locq-Lin. (4)

Gondwanamycetaceae Réblová, W. Gams & Seifert
Custingophora Stolk (1)
Knoxdaviesia M.J. Wingf., P.S. van Wyk & Marasas. (5)

Graphiaceae De Beer
Graphium Corda (20)

Halosphaeriaceae E. Müll & Arx ex Kohlm.
Alisea J. Dupont & E.B.G. Jones (1)
Amphitrite S. Tibell (1)
Aniptodera Shearer & M. Miller (21)
Aniptosporopsis (K.D. Hyde) K.L. Pang (1)
Anisostagma K.R.L. Petersen & Jørg. Koch (1)
Antennospora Meyers (2)
Appendichordella R.G. Johnson, E.B.G. Jones & S.T. Moss (1)
Arenariomyces Höhnk (5)
Ascosacculus J. Campbell, J.L. Anderson & Shearer (1)
Bathyascus Kohlm. (5)
Carbosphaerella I. Schmidt (2)
Ceriosporopsis Linder (9)
Chadefaudia Feldm.-Maz. (6)
Corallicola Volkm.-Kohlm. & Kohlm. (1)
Corollospora Werderm (= *Cirrenalia* Meyers & R.T. Moore; = *Sigmoidea* J.L. Crane) (25)
Cucullosporella K.D. Hyde & E.B.G. Jones (1)
Ebullia K.L. Pang (1)
Fluviatispora K.D. Hyde (3)
Gesasha Abdel-Wahab & Nagah. (3)
Haiyanga K.L. Pang & E.B.G. Jones (1)
Haligena Kohlm. (1)
Halosarpheia Kohlm. & E. Kohlm. (8)
Halosphaeria Linder (1)
Halosphaeriopsis T.W. Johnson (1)
Havispora K.L. Pang & Vrijmoed (1)
Iwilsoniella E.B.G.Jones (1)
Kitesporella Jheng & K.L. Pang (1)
Kochiella Sakay., K.L. Pang & E.B.G. Jones (1)
Lautisporopsis E.B.G. Jones, Yusoff & S.T. Moss (1)
Lignincola Höhnk (2)
Limacospora Jørg. Koch & E.B.G. Jones (1)
Luttrellia Shearer (4)
Magnisphaera J. Campb., J.L. Anderson & Shearer (2)
Marinospora A.R. Caval. (2)
Moana Kohlm. & Volkm.-Kohlm. (1)
Morakotiella Sakay. (1)

Naïs Kohlm. (3)
Natantispora J. Campb., J.L. Anderson & Shearer (3)
Nautosphaeria E.B.G. Jones (1)
Neptunella K.L. Pang & E.B.G. Jones (1)
Nereiospora E.B.G. Jones, R.G. Johnson & S.T. Moss. (2)
Nimbospora Jørg. Koch (1)
Nohea Kohlm. & Volkm.-Kohlm. (3)
Oceanitis Kohlm. (4)
Ocostaspora E.B.G. Jones, R.G. Johnson & S.T. Moss (1)
Okeanomyces K.L. Pang & E.B.G. Jones (1)
Ondiniella E.B.G. Jones, R.G. Johnson & S.T. Moss (1)
Ophiodeira Kohlm. & Volkm.-Kohlm. (1)
Paraaniptodera K.L. Pang, C.L. Lu, W.T. Ju & E.B.G. Jones (1)
Phaeonectriella R.A. Eaton & E.B.G. Jones (1)
Praelongicaulis E.B.G. Jones, Abdel-Wahab & K.L. Pang (1)
Panorbis J. Campb., J.L. Anderson & Shearer (1)
Pileomyces K.L. Pang & Jheng (1)
Pseudolignincola Chatmala & E.B.G. Jones (1)
Remispora Linder (5)
Saagaromyces K.L. Pang & E.B.G. Jones (3)
Sablicola E B.G. Jones, K.L. Pang & Vrijmoed (1)
Thalassogena Kohlm. & Volkm.-Kohlm. (1)
Thalespora Chatmala & E.B.G. Jones (1)
Tinhaudeus K.L. Pang, S.Y. Guo & E.B.G. Jones (1)
Tirispora E.B.G. Jones & Vrijmoed (1)
Toriella Sakay., K.L. Pang & E.B.G. Jones (1)
Trailia G.K. Sutherl. (1)
Trichomaris Hibbits, G.C. Hughes & Sparks (1)
Tubakiella Sakay., K.L. Pang & E.B.G. Jones (1)
Tunicatispora K.D. Hyde (1)

Microascaceae Luttr. ex Malloch
Acaulium Sopp (4)
Brachyconidiellopsis Decock, R.F. Castañeda & Adhikari (1)
Canariomyces Arx (3)
Cephalotrichum Link (37)
Doratomyces Corda (3)
Echinobotryum Corda (2)
Enterocarpus Locq.-Lin. (2)
Fairmania Sacc. (1)
Gamsia M. Morelet (5)
Kernia Nieuwl. (14)
Lomentospora Hennebert & B.G. Desai (1)
Lophotrichus R.K. Benj. (8)
Microascus Zukal (60)
Parascedosporium Gilgado, Gené, Cano & Guarro (2)
Petriella Curzi (8)
Pseudallescheria Negroni & I. Fisch. (8)
Pseudoscopulariopsis Sand.-Den., Gené & Guarro (2)
Rhinocladium Sacc. & Marchal (11)
Scedosporium Sacc. ex Castell. & Chalm. (12)
Scopulariopsis Bainier (87)

Wardomyces F.T. Brooks & Hansf. (11)
Wardomycopsis Udagawa & Furuya (5)
Yunnania H.Z. Kong (3)

Triadelphiaceae Y.Z. Lu, J.K. Liu, Z.L. Luo & K.D. Hyde
Synnematotriadelphia Chuaseehar., Somrith., Nuankaew & Boonyuen (2)
Triadelphia Shearer & J.L. Crane (18)*

Microascales genera *incertae sedis*
Bisporostilbella Brandsb. & E.F. Morris (1)
Cephalotrichiella Crous (1)
Cornuvesica C.D. Viljoen, M.J. Wingf. & K. Jacobs (4)
Gabarnaudia Samson & W. Gams (2)
Sporendocladia G. Arnaud ex Nag Raj & W.B. Kendr. (7)

Pararamichloridiales Crous
Pararamichloridiaceae Crous
Pararamichloridium Crous (2)

Torpedosporales E.B.G. Jones, Abdel-Wahab & K.L. Pang
Etheirophoraceae Rungjind., Somrith. & Suetrong
Etheirophora Kohlm. & Volkm.-Kohlm. (3)
Swampomyces Kohlm. & Volkm. (2)

Juncigenaceae E.B.G. Jones, Abdel-Wahab & K.L. Pang
Elbamycella A. Poli, E. Bovio, V. Prigione & G.C. Varese (1)
Fulvocentrum E.B.G. Jones & Abdel-Wahab (3)
Juncigena Kohlm Kohlm., Volkm.-Kohlm. & O.E. Erikss. (2)
Khaleijomyces Abdel-Wahab (1)*
Marinokulati E.B.G. Jones & K.L. Pang (1)
Moheitospora Abdel-Wahab, Abdel-Aziz & Nagah. (2)

Torpedosporaceae E.B.G. Jones & K.L. Pang
Torpedospora Meyers (3)

Hypocreomycetidae genera *incertae sedis*
Campylospora Ranzoni (5)
Dendroclathra Voglmayr & G. Delgado (2)

Lulworthiomycetidae Dayar., E.B.G. Jones & K.D. Hyde
Koralionastetales Kohlm., Volkm.-Kohlm., J. Campb. & Inderb.
Koralionastetaceae Kohlm. & Volkm.-Kohlm.
Koralionastes Kohlm. & Volkm.-Kohlm. (5)
Pontogeneia Kohlm. (8)

Lulworthiales Kohlm., Spatafora & Volkm.-Kohlm.
Lulworthiaceae Kohlm., Spatafora & Volkm.-Kohlm.
Cumulospora I. Schmidt (2)
Halazoon Abdel-Aziz, Abdel-Wahab & Nagah. (2)
Haloguignardia A. Cribb & J. Cribb (1)
Hydea K.L. Pang & E.B.G Jones (1)
Kohlmeyeriella E.B.G. Jones, R.G. Johnson & S.T. Moss (2)

Lindra I. Wilson (2)
Lulwoana Kohlm., Volkm.-Kohlm., J. Campb., Spatafora & Gräfenhan (1)
Lulwoidea Kohlm., Volkm.-Kohlm., J. Campb., Spatafora & Gräfenhan (1)
Lulworthia G.K. Sutherl (32)
Matsusporium E.B.G. Jones & K.L. Pang (1)
Moleospora Abdel-Wahab, Abdel-Aziz & Nagah (1)
Moromyces Abdel-Wahab, K.L. Pang, Nagah., Abdel-Aziz & E.B.G. Jones (1)
Orbimyces Linder (1)
Rostrupiella Jørg Koch, K.L. Pang & E.B.G. Jones. (1)
Sammeyersia S.Y. Guo, E.B.G. Jones & K.L. Pang (1)

Pisorisporiomycetidae Bundhun, Maharachch. & K.D. Hyde
Pisorisporiales Réblová & J. Fourn.
Pisorisporiaceae Réblová & J. Fourn.
Achroceratosphaeria Réblová, Fourn., K.D. Hyde & Ranghoo (2)
Pisorisporium Réblová & J. Fourn. (2)

Savoryellomycetidae Hongsanan, K.D. Hyde & Maharachch.
Conioscyphales Réblová & Seifert
Conioscyphaceae Réblová & Seifert
Conioscypha Höhn. (16)

Fuscosporellales Jing Yang, Bhat & K.D. Hyde
Fuscosporellaceae Jing Yang, Bhat & K.D. Hyde
Bactrodesmiastrum Hol.-Jech. (5)
Fuscosporella Jing Yang (2)
Mucispora Jing Yang (2)
Parafuscosporella Jing Yang & K.D. Hyde (3)
Plagiascoma Réblová & J. Fourn. (1)
Pseudoascotaiwania Jing Yang, Bhat & K.D. Hyde (1)

Pleurotheciales Réblová & Seifert
Pleurotheciaceae Réblová & Seifert
Adelosphaeria Réblová (1)
Anapleurothecium Hern.-Restr., R.F. Castañeda & Gené (1)
Helicoön Morgan (28)
Melanotrigonum Réblová (1)
Monotosporella S. Hughes (4)
Neomonodictys Y.Z. Lu, C.G. Lin & K.D. Hyde (1)
Phaeoisaria Höhn. (23)
Phragmocephala E.W. Mason & S. Hughes (15)
Pleurotheciella Réblová (11)
Pleurothecium Höhn. (11)
Sterigmatobotrys Oudem. (6)

Savoryellales Boonyuen, Suetrong, Sivichai, K.L. Pang & E.B.G. Jones
Savoryellaceae Jaklitsch & Réblová
Ascotaiwania Sivan. & H.S. Chang (= *Neoascotaiwania* Hern.-Restr., R.F. Castañeda & Guarro *fide* Dayarathne et al. 2019) (9)
Canalisporium Nawawi & Kuthub. (= *Ascothailandia* Sri-indr., Boonyuen, Sivichai & E.B.G. Jones) (15)
Rhexoacrodictys W.A. Baker & Morgan-Jones (5)*

Savoryella E.B.G. Jones & R.A. Eaton (11)

Sordariomycetidae O.E. Erikss & Winka (= *Meliolomycetidae* P.M. Kirk & K.D. Hyde)*
Boliniales P.F. Cannon
Boliniaceae Rick
Apiocamarops Samuels & J.D. Rogers (4)
Apiorhynchostoma Petr. (4)
Camaropella Lar.N. Vassiljeva (2)
Camarops P. Karst. (= *Bolinia* (Nitschke) Sacc.) (28)
Cornipulvina Huhndorf, A.N. Mill., F.A. Fernández & Lodge (1)
Endoxyla Fuckel (3)
Mollicamarops Lar.N. Vassiljeva (1)
Neohypodiscus J.D. Rogers, Y.M. Ju & Læssøe (3)
Pseudovalsaria Spooner (3)

Cephalothecales Maharachch. & K.D. Hyde
Cephalothecaceae Höhn.
Albertiniella Kirschst. (2)
Cephalotheca Fuckel (ca. 10)
Cryptendoxyla Malloch & Cain (2)
Phialemonium W. Gams & McGinnis (6)
Victoriomyces D. Davolos, B. Pietrangeli, A.M. Persiani & O. Maggi (1)

Chaetosphaeriales Huhndorf, A.N. Mill. & F.A. Fernández
Chaetosphaeriaceae Réblová, M.E. Barr & Samuels
Adautomilanezia Gusmão, S.S. Silva, Fiuza, L.A. Costa & T.A.B. Santos (1)
Anacacumisporium Y.R. Ma & X.G. Zhang (1)
Ascochalara Réblová (1)
Bahusutrabeeja Subram. & Bhat (6)
Brunneodinemasporium Crous & R.F. Castañeda (2)
Catenularia Grove (13)
Chaetosphaeria Tul. & C. Tul. (ca. 150)
Chloridium Link (= *Melanopsammella* Höhn.) (ca. 30)
Codinaea Maire (15)
Conicomyces R.C. Sinclair, Eicker & Morgan-Jones (4)
Craspedodidymum Hol.-Jech. (14)
Cryptophiale Piroz. (ca. 20)
Cryptophialoidea Kuthub. & Nawawi (5)
Dendrophoma Sacc. (ca. 100)
Dictyochaeta Speg. (84)
Dictyochaetopsis Aramb. & Cabello (14)
Dinemasporium Lév. (35)
Eucalyptostroma Crous & M.J. Wingf. (2)
Exserticlava S. Hughes (7)
Hemicorynespora M.B. Ellis (12)
Infundibulomyces Plaingam, Somrith. & E.B.G. Jones (2)
Kionochaeta P.M. Kirk & B. Sutton (13)
Lecythothecium Réblová & Winka (1)
Menispora Pers. (14)
Menisporopsis S. Hughes (ca. 10)
Miyoshiella Kawam. (3)
Morrisiella Saikia & A.K. Sarbhoy (1)

Nawawia Marvanová (7)
Neopseudolachnella A. Hashim. & Kaz. Tanaka (3)
Paliphora Sivan. & B. Sutton (7)
Phialosporostilbe Mercado & J. Mena (5)
Polynema Lév. (13)
Pseudodinemasporium A. Hashim. & Kaz. Tanaka (1)
Pseudolachnea Ranoj. (5)
Pseudolachnella Teng (18)
Pyrigemmula D. Magyar & R. Shoemaker (1)
Rattania Prabhug. & Bhat (1)
Sporoschisma Berk. & Broome (15)
Striatosphaeria Samuels & E. Müll. (1)
Tainosphaeria F.A. Fernández & Huhndorf (3)
Thozetella Kuntze (22)
Umbrinosphaeria Réblová (1)
Verhulstia Hern.-Rest. (1)
Zanclospora S. Hughes & W.B. Kendr. (10)

Helminthosphaeriaceae Samuels, Cand. & Magni.
Echinosphaeria A.N. Mill. & Huhndorf (14)
Endophragmiella B. Sutton (ca. 80)
Helminthosphaeria Fuckel (ca. 20)
Hilberina Huhndorf & A.N. Mill. (ca. 20)
Ruzenia O. Hilber (1)
Synaptospora Cain (5)
Tengiomyces Réblová (1)

Leptosporellaceae Konta & K.D. Hyde
Leptosporella Penz. & Sacc. (17)

Linocarpaceae Konta & K.D. Hyde
Linocarpon Syd. & P. Syd. (42)
Neolinocarpon K.D. Hyde (13)

Chaetosphaeriales genera *incertae sedis*
Calvolachnella Marinc., T.A. Duong & M.J. Wingf. (1)
Caudatispora J. Fröhl. & K.D. Hyde (2)
Erythromada Huhndorf, A.N. Mill., F.A. Fernández & Lodge (1)
Lasiosphaeriella Sivan. (6)
Neoleptosporella Phukhams., Perera & K.D. Hyde (2)
Neonawawia Jing Yang, K.D. Hyde & J.K. Liu (1)
Rimaconus Huhndorf, F.A. Fernández, Joanne E. Taylor & K.D. Hyde (2)

Coniochaetales Huhndorf, A.N. Mill. & F.A. Fernández (= *Cordanales* M. Hern.-Rest. & Crous)
Coniochaetaceae Malloch & Cain
Barrina A.W. Ramaley (1)
Coniochaeta (Sacc.) Cooke (82)

Cordanaceae Nann.
Cordana Preuss (19)

Coniochaetales genera *incertae sedis*

Cannonia J.E. Taylor & K.D. Hyde (1)
Pseudogliomastix W. Gams (1)

Meliolales Gäum. ex D. Hawksw. & O.E. Erikss.
Armatellaceae Hosag.
Armatella Theiss. & Syd. (19)

Meliolaceae G.W. Martin ex Hansf.
Amazonia Theiss. (60)
Appendiculella Höhn. (70)
Asteridiella McAlpine (2)
Cryptomeliola S. Hughes & Piroz. (3)
Endomeliola S. Hughes & Piroz. (1)
Irenopsis F. Stevens (150)
Meliola Fr. (1700)
Setameliola D.R. Reynolds (17)

Phyllachorales M.E. Barr
Phaeochoraceae K.D. Hyde, P.F. Cannon & M.E. Barr
Cocoicola K.D. Hyde (5)
Phaeochora Höhn. (4)
Phaeochoropsis K.D. Hyde & P.F. Cannon (4)
Serenomyces Petr. (4)

Phaeochorellaceae Guterres, Galvão-Elias & Dianese
Phaeochorella Theiss. & Syd. (6)

Phyllachoraceae Theiss. & H. Syd.
Ascovaginospora Fallah, Shearer & W.D. Chen (1)
Brobdingnagia K.D. Hyde & P.F. Cannon (4)
Camarotella Theiss. & Syd. (8)
Coccodiella Hara (27)
Cyclodomus Höhn. (5)
Deshpandiella Kamat & Ullasa (1)
Diachora Müll. Arg. (4)
Diatractium Syd. & P. Syd. (4)
Erikssonia Penz. & Sacc. (5)
Fremitomyces P.F. Cannon & H.C. Evans (2)
Geminispora Pat. (2)
Gibellina Pass. Ex Roum. (2)
Imazekia Tak. Kobay. & Y. Kawabe (1)
Isothea Fr. (4)
Lichenochora Hafellner (44)
Lindauella Rehm (1)
Linochora Höhn. (37)
Lohwagia Petr. (3)
Maculatifrondes K.D. Hyde (1)
Malthomyces K.D. Hyde & P.F. Cannon (2)
Muelleromyces Kamat & Anahosur (1)
Neoflageoletia J. Reid & C. Booth (1)
Neophyllachora Dayar. & K.D. Hyde (4)
Ophiodothis Sacc. (6)

Ophiodothella (Henn.). Höhn. (31)
Orphnodactylis Malloch & Mallik (2)
Oxodeora K.D. Hyde & P.F. Cannon (1)
Parberya C.A. Pearce & K.D. Hyde (2)
Petrakiella Syd. (1)
Phycomelaina Kohlm. (1)
Phyllachora Nitschke ex Fuckel (1513)
Phylleutypa Petr**.** (3)
Phyllocrea Höhn. (3)
Pseudothiella Petr**.** (1)
Pseudothiopsella Petr. (1)
Pterosporidium W.H. Ho & K.D. Hyde (2)
Rehmiodothis Theiss. & Syd**.** (10)
Retroa P.F. Cannon (2)
Rhodosticta Woron. (2)
Rikatlia P.F. Cannon (1)
Schizochora Syd. & P. Syd. (3)
Sphaerodothella C.A. Pearce & K.D. Hyde (1)
Sphaerodothis (Sacc. & P. Syd.) Shear (43)
Stigmatula (Sacc.) Syd. & P. Syd. (10)
Stigmochora Theiss. & Syd. (12)
Stromaster Höhn. (1)
Tamsiniella S.W. Wong, K.D. Hyde, W.H. Ho & S.J. Stanley (1)
Telimenella Petr. (3)
Telimenochora Sivan. (1)
Trabutia Sacc. & Roum. (1)
Tribulatia J.E. Taylor, Hyde & E.B.G. Jones (1)
Uropolystigma Maubl. (1)
Vitreostroma P.F. Cannon (3)
Zimmermanniella Henn. (1)

Telimenaceae Mardones, T. Trampe & M. Piepenbr
Telimena Racib. (14)

Phyllachorales genus *incertae sedis*
Marinosphaera K.D. Hyde (1)

Pseudodactylariales Crous
Pseudodactylariaceae Crous
Pseudodactylaria Crous (3)

Sordariales Chad. ex D. Hawksw. & O.E. Erikss.
Chaetomiaceae G. Winter
Achaetomium J.N. Rai, Tewari & Mukerji (16)
Acrophialophora Edward (17)
Allobotryotrichum M. Raza & L. Cai (1)
Amesia X. Wei Wang, Samson & Crous (4)
Arcopilus X. Wei Wang, Samson & Crous (5)
Arxotrichum A. Nováková & M. Kolařik (2)
Botryotrichum Sacc. & Marchal (11)
Brachychaeta X. Wei Wang & Houbraken (1)
Carteria X. Wei Wang & Houbraken (1)

Chaetomium Kunze (359)
Chrysanthotrichum X. Wei Wang & Houbraken (4)
Chrysocorona X. Wei Wang & Houbraken (1)
Collariella X. Wei Wang, Samson & Crous (9)
Condenascus X. Wei Wang & Houbraken (1)
Corynascella Arx & Hodges (1)
Crassicarpon Y. Marín, Stchigel, Guarro & Cano (3)
Dichotomopilus X. Wei Wang, Samson & Crous (12)
Floropilus X. Wei Wang & Houbraken (1)
Guanomyces M.C. Gonzáles, Hanlin & Ulloa (1)
Humicola Traaen (86)
Hyalosphaerella X. Wei Wang & Houbraken (1)
Madurella Brumpt (15)
Melanocarpus Arx (5)
Microthielavia X. Wei Wang & Houbraken (1)
Myceliophthora Costantin (4)
Ovatospora X. Wei Wang, Samson & Crous (6)
Parathielavia X. Wei Wang & Houbraken (3)
Pseudothielavia X. Wei Wang & Houbraken (4)
Remersonia Samson & Seifert (2)*
Retroconis de Hoog & Bat. Vegte (1)*
Staphylotrichum J.A. Mey. & Nicot (8)
Stolonocarpus X. Wei Wang & Houbraken (1)
Subramaniula Arx (9)
Thermothelomyces Y. Marín, Stchigel, Guarro & Cano (4)
Thermothielavioides X. Wei Wang & Houbraken (1)
Thielavia Zopf (47)
Trichocladium Harz (44)

Lasiosphaeriaceae Nannf.
Anopodium Lundq. (2)
Apiosordaria Arx & W. Gams (31)
Apodospora Cain & J.H. Mirza (6)
Apodus Malloch & Cain (2)
Arnium Nitschke ex G. Winter (34)
Bellojisia Réblová (1)
Biconiosporella Schaumann (1)
Bombardia (Fr.) P. Karst. (43)
Bombardioidea C. Moreau ex N. Lundqv. (5)
Camptosphaeria Fuckel (4)
Cercophora Fuckel (77)
Corylomyces Stchigel, M. Calduch & Guarro (1)
Diffractella Guarro, P.F. Cannon & Aa (1)
Diplogelasinospora Cain (4)
Emblemospora Jeng & J.C. Krug (2)
Eosphaeria Höhn. (2)
Episternus Górz & Boroń (1)
Fimetariella N. Lundq. (9)
Immersiella A.N. Mill. & Huhndorf (2)
Jugulospora N. Lundq. (1)
Lasiosphaeria Ces. & De Not. (229)
Mammaria Ces. ex Rabenh. (2)

Periamphispora J.C. Krug (1)
Ramophialophora M. Calduch, Stchigel, Gené & Guarro (4)*
Rinaldiella Deanna A. Sutton, Y. Marín, Guarro & E.H. Thomps (1)
Schizothecium Corda (31)
Strattonia Cif. (11)
Thaxteria Sacc. (8)
Tripterosporella Subram. & Lodha (5)
Zopfiella G. Winter (22)
Zygopleurage Boedijn (3)
Zygospermella Cain (3)

Podosporaceae X. Wei Wang & Houbraken
Cladorrhinum Sacc. & Marchal (13)*
Triangularia Boedijn (7)
Podospora Ces. (92)

Sordariaceae G. Winter
Copromyces N. Lundq. (1)
Effetia Bartoli, Maggi & Persiani (1)
Guilliermondia Boud. (1)
Neurospora Shear & B.O. Dodge (= *Gelasinospora* Dowding) (60)
Pseudoneurospora Dania García, Stchigel & Guarro (2)
Sordaria Ces. & De Not. (37)
Stellatospora T. Ito & A. Nakagiri (1)

Sordariales genera *incertae sedis*
Abyssomyces Kohlm (1)
Acanthotheciella Höhn. (3)
Ascolacicola Ranghoo & K.D. Hyde (1)
Bombardiella Höhn. (1)
Coronatomyces Dania García, Stchigel & Guarro (1)
Cuspidatispora Shearer & Bartolata (1)
Globosphaeria D. Hawksw. (1)
Isia D. Hawksw & Manohar (2)
Lasiosphaeris Clem. (3)
Lunulospora Ingold (2)
Lockerbia K.D. Hyde (2)
Nitschkiopsis Nannf. & R. Sant. (1)
Onygenopsis Henn. (1)
Phaeosporis Clem. (2)
Reconditella Matzer & Hafellner (1)
Rhexodenticula W.A. Baker & Morgan-Jones (4)
Rhexosporium Udagawa & Furuya (1)
Roselliniomyces Matzer & Hafellner (7)
Roselliniopsis Matzer & Hafellner (7)
Stromatographium Höhn. (= *Fluviostroma* Samuels & E. Müll.) (2)
Utriascus Réblová (1)
Ypsilonia Lév. (3)

Sordariomycetidae family *incertae sedis*
Batistiaceae Samuels & K.F. Rodrigues
Batistia Cif. (1)

Sordariomycetidae genera *incertae sedis*

Arecacicola Joanne E. Taylor, J. Fröhl. & K.D. Hyde (1)
Bullimyces A. Ferrer, A.N. Mill., Sarmiento & Shearer (3)
Cancellidium Tubaki (2)
Ceratolenta Réblová (1)
Chaetosphaerides Matsush. (1)
Cryptophyllachora L. Kiss, Kovács & R.G. Shivas (2)*
Hanliniomyces Raja & Shearer (1)
Hydromelitis A. Ferrer, A.N. Mill., Sarmiento & Shearer (1)
Merugia Rogerson & Samuels (1)
Mycomedusiospora G.C. Carroll & Munk (1)
Myxocephala G. Weber, Spaaij & Oberw. (1)
Nigromammilla K.D. Hyde & J. Fröhl. (1)
Phaeotrichosphaeria Sivan. (4)
Phragmodiscus Hansf. (2)
Pseudobotrytis Krzemien. & Badura (2)

Xylariomycetidae O.E. Erikss & Winka
Amphisphaeriales D. Hawksw. & O.E. Erikss.
Amphisphaeriaceae G. Winter

Amphisphaeria Ces. & De Not. (66)
Griphosphaerioma Höhn. (2)
Lepteutypa Petr. (14)

Apiosporaceae K.D. Hyde, J. Fröhl., Joanne E. Taylor & M.E. Barr

Appendicospora K.D. Hyde (2)
Arthrinium Kunze (74)
Dictyoarthrinium S. Hughes (6)
Endocalyx Berk. & Broome (8)
Nigrospora Zimm. (ca. 20)

Beltraniaceae Nann.

Beltrania Penz. (17)
Beltraniella Subram. (25)
Beltraniopsis Bat. & J.L. Bezerra (11)
Hemibeltrania Piroz. (13)
Parapleurotheciopsis P.M. Kirk (5)
Porobeltraniella Gusmão (2)
Pseudobeltrania Henn. (9)
Subramaniomyces Varghese & V.G. Rao (3)
Subsessila C.G. Lin & K.D. Hyde (1)

Clypeophysalosporaceae Giraldo & Crous

Bagadiella Cheew. & Crous (4)
Clypeophysalospora H.J. Swart (1)
Neophysalospora Crous & M.J. Wingf. (1)
Plectosphaera Theiss. (28)

Cylindriaceae Crous & L. Lombard*

Cylindrium Bonord (6)

Hansfordiaceae Crous

Hansfordia S. Hughes (7)

Hyponectriaceae Petr.
Apiothyrium Petr. (2)
Arecomyces K.D. Hyde (10)
Arwidssonia B. Erikss. (2)
Cesatiella Sacc. (3)
Chamaeascus L. Holm, K. Holm & M.E. Barr (1)
Discosphaerina Höhn. (21)
Exarmidium P. Karst. (14)
Frondicola K.D. Hyde (1)
Hyponectria Sacc. (30)
Lichenoverruculina Etayo (1)
Micronectria Speg. (4)
Papilionovela Aptroot (1)
Pellucida Dulym., Sivan., P.F. Cannon & Peerally (1)
Phragmitensis M.K.M. Wong, Poon & K.D. Hyde (2)
Physalospora Niessl (37)
Rachidicola K.D. Hyde & J. Fröhl. (1)
Xenothecium Höhn. (1)

Iodosphaeriaceae O. Hilber
Iodosphaeria Samuels (8)

Melogrammataceae G. Winter
Melogramma Fr. (20)

Phlogicylindriaceae Senan. & K.D. Hyde
Ciferriascosea Senan., Bhat, Camporesi & K.D. Hyde (2)
Idriellomyces Crous (1)
Phlogicylindrium Crous, Summerb. & Summerell (5)

Pseudomassariaceae Senan. & K.D. Hyde
Leiosphaerella Höhn. (15)
Pseudapiospora Petr. (3)
Pseudomassaria Jacz. (24)
Pseudomassariella Petr (1)

Pseudotruncatellaceae Crous
Pseudotruncatella R.H. Perera, Camporesi, Maharachch. & K.D. Hyde (2)

Sporocadaceae Corda*
Allelochaeta Petr. (50)
Annellolacinia B. Sutton (2)
Bartalinia Tassi (19)
Broomella Sacc. (2)
Ciliochorella Syd. (4)
Dilophospora Desm. (ca. 2 + few orphaned names)
Diploceras (Sacc.) Died (2)
Disaeta Bonar (1)
Discosia Lib. (ca. 17)
Distononappendiculata F. Liu, L. Cai & Crous (3)

Diversimediispora F. Liu, L. Cai & Crous (1)
Doliomyces Steyaert (3)
Heterotruncatella F. Liu, L. Cai & Crous (17)
Hyalotiella Papendorf (6)
Hymenopleella Munk (= *Dyrithiopsis* L. Cai, Jeewon & K.D. Hyde; = *Neotruncatella* Hyang B. Lee & T.T.T. Nguyen) (7)
Immersidiscosia Kaz. Tanaka, Okane & Hosoya (1)
Monochaetia (Sacc.) Allesch. (ca. 30)
Morinia Berl. & Bres. (=*Zetiasplozna* Nag Raj) (2)
Neopestalotiopsis Maharachch., K.D. Hyde & Crous (33)
Nonappendiculata F. Liu, L. Cai & Crous (1)
Parabartalinia F. Liu, L. Cai & Crous (1)
Pestalotiopsis Steyaert (ca. 100)
Pseudopestalotiopsis Maharachch., K.D. Hyde & Crous (12)
Pseudosarcostroma F. Liu, L. Cai & Crous (1)
Robillarda Sacc. (ca. 15)
Sarcostroma Cooke (28)
Seimatosporium Corda (ca. 100)
Seiridium Nees (20)
Sporocadus Corda (49)
Strickeria Körb. (10)
Synnemapestaloides T. Handa & Y. Harada (2)
Truncatella Steyaert (13)
Xenoseimatosporium F. Liu, L. Cai & Crous (1)

Vialaeaceae P.F. Cannon
Vialaea Sacc. (50)

Amphisphaeriales genus *incertae sedis*
Chitonospora E. Bommer, M. Rousseau & Sacc. (1)

Delonicicolales R.H. Perera, Maharachch. & K.D. Hyde
Delonicicolaceae R.H. Perera, Maharachch. & K.D. Hyde
Delonicicola R.H. Perera, Maharachch. & K.D. Hyde (1)
Furfurella Voglmayr & Jaklitsch (3)

Xylariales Nannf.
Anungitiomycetaceae Crous
Anungitiomyces Crous (1)

Barrmaeliaceae Voglmayr & Jaklitsch*
Barrmaelia Rappaz. (8)
Entosordaria (Sacc.) Höhn. (ca. 18)

Castanediellaceae Hern.-Restr., Guarro & Crous
Castanediella Hern.-Restr., Crous & M.J. Wingf. (12)

Clypeosphaeriaceae G. Winter
Aquasphaeria K.D. Hyde (1)
Apioclypea K.D. Hyde (7)
Brunneiapiospora K.D. Hyde, J. Fröhl. & Joanne E. Taylor (9)
Clypeosphaeria Fuckel (37)

Crassoascus Checa, Barrasa & A.T. Martínez (3)
Palmaria K.D. Hyde, J. Fröhl. & Joanne E. Taylor (1)

Coniocessiaceae Asgari & Zare
Coniocessia Dania García, Stchigel, D. Hawksw. & Guarro (5)
Paraxylaria Wanas., E.B.G. Jones, Gafforov & K.D. Hyde (1)

Diatrypaceae Nitschke
Allocryptovalsa Senwanna, Phook. & K.D. Hyde (2)
Anthostoma Nitschke (ca. 101)
Cryptosphaeria Ces & De Not. (48)
Cryptovalsa Ces. & De Not. ex Fuckel (43)
Diatrypasimilis J.J. Zhou & Kohlm. (1)
Diatrype Fr. (ca. 244)
Diatrypella (Ces. & De Not.) De Not. (ca. 115)
Echinomyces Rappaz (2)
Endoxylina Romell (16)
Eutypa Tul. & C. Tul. (ca. 131)
Eutypella (Nitschke) Sacc. (ca. 196)
Halodiatrype Dayar. & K.D. Hyde (3)
Halocryptovalsa Dayar. & K.D. Hyde (2)
Leptoperidia Rappaz (4)
Libertella Desm. (ca. 72)
Monosporascus Pollack & Uecker (4)
Neoeutypella M. Raza, Q.J. Shang, Phook. & L. Cai (1)*
Pedumispora K.D. Hyde & E.B.G. Jones (1)
Peroneutypa Berl. (30)
Quaternaria Tul. & C. Tul. (14)

Fasciatisporaceae S.N. Zhang, K.D. Hyde & J.K. Liu
Fasciatispora K.D. Hyde (11)

Graphostromataceae M.E. Barr, J.D. Rogers & Y.M. Ju
Biscogniauxia Kuntze (ca. 76)
Camillea Fr. (50)
Graphostroma Piroz. (1)
Obolarina Pouzar (2)
Vivantia J.D. Rogers, Y.M. Ju & Cand. (1)

Hypoxylaceae DC.
Annulohypoxylon Y.M. Ju, J.D. Rogers & H.M. Hsieh (ca. 60)
Anthocanalis Daranag., Camporesi & K.D. Hyde (1)
Chlorostroma A.N. Mill., Lar.N. Vassiljeva & J.D. Rogers (3)
Daldinia Ces. & De Not. (ca. 67)
Durotheca Læssøe, Srikit., Luangsa-ard & M. Stadler (4)*
Entonaema Möller (10)
Hypomontagnella Sir, L. Wendt & C. Lambert (4)*
Hypoxylon Bull. (141)
Jackrogersella L. Wendt, Kuhnert & M. Stadler (6)
Natonodosa Heredia (1)
Phylacia Lév. (12)
Pyrenomyxa Morgan (3)

Pyrenopolyporus Lloyd (5)
Rhopalostroma D. Hawksw. (11)
Rostrohypoxylon J. Fourn. & M. Stadler (1)
Ruwenzoria J. Fourn., M. Stadler, Læssøe & Decock (1)
Thamnomyces Ehrenb. (11)
Theissenia Maubl. (8)
Thuemenella Penz. & Sacc. (10)

Induratiaceae Samarak., Thongbai, K.D. Hyde & M. Stadler
Emarcea Duong, Jeewon & K.D. Hyde (3)
Induratia Samuels, E. Müll. & Petrini (26)

Leptosilliaceae Voglmayr & Jaklitsch
Leptosillia Höhn. (=*Cresporhaphis* M.B. Aguirre) (9)*

Lopadostomataceae Daranag. & K.D. Hyde
Creosphaeria Theiss. (3)
Jumillera J.D. Rogers, Y.M. Ju & F. San Martín (8)
Lopadostoma (Nitschke) Traverso (27)
Whalleya J.D. Rogers, Y.M. Ju & F. San Martín (2)

Microdochiaceae Hern.-Restr., Crous & J.Z. Groenew.
Idriella P.E. Nelson & S. Wilh. (=*Monographella* Petr.) (24)
Microdochium Syd. (38)
Selenodriella R.F. Castañeda & W.B. Kendr. (7)

Myelospermataceae K.D. Hyde & S.W. Wong
Myelosperma Syd. & P. Syd. (5)

Nothodactylariaceae Crous
Nothodactylaria Crous (1)

Oxydothidaceae Konta & K.D. Hyde
Oxydothis Penz. & Sacc. (79)

Polystigmataceae Höhn. ex Nannf.*
Polystigma DC. (23)

Pseudosporidesmiaceae Crous
Pseudosporidesmium K.D. Hyde & McKenzie (2)

Requienellaceae Boise*
Acrocordiella O.E. Erikss. (2)
Lacrymospora Aptroot (1)
Parapyrenis Aptroot (8)
Requienella Fabre (8)

Xyladictyochaetaceae Crous & Hern.-Restr*
Xyladictyochaeta Hern.-Restr., R.F. Castañeda & Gené (1)

Xylariaceae Tul. & C. Tul.
Abieticola Hyang B. Lee (1)

Amphirosellinia Y.M. Ju, J.D. Rogers, H.M. Hsieh & Lar.N. Vassiljeva (6)
Anthostomella Sacc. (ca. 100)
Anthostomelloides Tibpromma & K.D. Hyde (5)
Ascotricha Berk. (27)
Astrocystis Berk. & Broome (24)
Brunneiperidium Daranag., Camporesi & K.D. Hyde (2)
Collodiscula I. Hino & Katum. (5)
Coniolariella Dania García, Stchigel & Guarro (5)
Engleromyces Henn. (2)
Entalbostroma J.D. Rogers & P.R. Johnst. (1)
Entoleuca Syd. (3)
Euepixylon Füisting (2)
Halorosellinia Whalley, E.B.G. Jones, K.D. Hyde & Læssøe (3)
Helicogermslita Lodha & D. Hawksw. (9)
Hypocopra (Fr) J. Kickx f. (58)
Hypocreodendron Henn. (1)
Kretzschmaria Fr. (ca. 57)
Kretzschmariella Viégas (2)
Leprieuria Læssøe, J.D. Rogers & Whalley (1)
Lunatiannulus Daranag., Camporesi & K.D. Hyde (1)
Nemania Gray (57)
Podosordaria Ellis & Holw. (35)
Poronia Willd. (ca. 24)
Rosellinia De Not. (ca. 359)
Sarcoxylon Cooke (6)
Squamotubera Henn. (1)
Stilbohypoxylon Henn. (12)
Vamsapriya Gawas & Bhat (8)
Virgaria Nees (11)
Wawelia Namysl. (5)
Xylaria Hill ex Schrank (ca. 571)

Zygosporiaceae J.F. Li, Phook. & K.D. Hyde.
Zygosporium Mont. (25)

Xylariales genera *incertae sedis*
Adomia S. Schatz (1)
Alloanthostomella Daranag., Camporesi & K.D. Hyde (1)
Anungitea B. Sutton (22)
Ascotrichella Valldos. & Guarro (1)
Basifimbria Subram. & Lodha (1)
Biporispora J.D. Rogers, Y.M. Ju & Cand. (1)
Botryohypoxylon Samuels & J.D. Rogers (1)
Castellaniomyces Senan., Camporesi & K.D. Hyde (1)
Chaenocarpus Rebent. (4)
Circinotrichum Nees (15)
Cryptostroma P.H. Greg. & S. Waller (1)
Cyanopulvis J. Fröhl. & K.D. Hyde (1)
Diamantinia A.N. Mill., Læssøe & Huhndorf (1)
Gigantospora B.S. Lu & K.D. Hyde (1)
Guestia G.J.D. Sm. & K.D. Hyde (1)
Gyrothrix (Corda) Corda (22)

Hadrotrichum Fuckel (22)
Idriellopsis Hern.-Restr. & Crous (1)
Kirstenboschia Quaedvl., Verkley & Crous (1)
Lanceispora Nakagiri, Okane, Tad. Ito & Katum. (2)
Lasiobertia Sivan. (2)
Leptomassaria Petr. (4)
Melanographium Sacc. (11)
Neoanthostomella D.Q. Dai & K.D. Hyde (2)
Neoidriella Hern.-Restr. & Crous (1)
Nipicola K.D. Hyde (4)
Occultitheca J.D. Rogers & Y.M. Ju (1)
Ophiorosellinia J.D. Rogers, A. Hidalgo, F.A. Fernández & Huhndorf (1)
Palmicola K.D. Hyde (4)
Pandanicola K.D. Hyde (2)
Paraidriella Hern.-Restr. & Crous (1)
Paramphisphaeria F.A. Fernández, J.D. Rogers, Y.M. Ju, Huhndorf & L. Umaña (1)
Paraphysalospora Crous (1)
Paucithecium Lloyd (1)
Pidoplitchkoviella Kiril. (1)
Polyancora Voglmayr & Yule (1)
Polyscytalum Riess (28)
Poroleprieuria M.C. González, Hanlin, Ulloa & Elv. Aguirre (1)
Pseudoanthostomella Daranag., Camporesi & K.D. Hyde (5)
Pseudophloeospora Crous & R.G. Shivas (2)
Pseudosubramaniomyces Crous (1)
Pulmosphaeria Joanne E. Taylor, K.D. Hyde & E.B.G. Jones (1)
Pyriformiascoma Daranag., Camporesi & K.D. Hyde (1)
Roselymyces Fiuza, C.R. Silva, R.F. Castañeda & Gusmão (1)*
Sabalicola K.D. Hyde (1)
Spirodecospora B.S. Lu, K.D. Hyde & W.H. Ho (2)
Sporidesmina Subram. & Bhat (1)
Striatodecospora D.Q. Zhou, K.D. Hyde & B.S. Lu (1)
Stromatoneurospora S.C. Jong & E.E. Davis (2)
Surculiseries Okane (1)
Synnemadiella Crous & M.J. Wingf. (1)
Tristratiperidium Daranag., Camporesi & K.D. Hyde (1)
Xenoanthostomella Mapook & K.D. Hyde (1)
Xylocrea Möller (2)
Xylotumulus J.D. Rogers, Y.M. Ju & Cand. (1)
Yuea O.E. Erikss. (1)

Xylariomycetidae family *incertae sedis*
Cainiaceae J.C. Krug
Alishanica A. Karunarathna, C.H. Kuo & K. D. Hyde (1)
Amphibambusa D.Q. Dai & K.D. Hyde (1)
Arecophila K.D. Hyde (14)
Atrotorquata Kohlm. & Volkm.-Kohlm. (2)
Cainia Arx & E. Müll. (6)
Seynesia Sacc. (ca. 46)

Xylariomycetidae genus *incertae sedis*
Calceomyces Udagawa & S. Ueda (1)

Sordariomycetes orders *incertae sedis*
Amplistromatales M.J. D'souza, Maharachch. & K.D. Hyde
Amplistromataceae Huhndorf, A.N. Mill., Greif & Samuels*
Acidothrix Hujslová & M. Kolařík (1)
Amplistroma Huhndorf, A.N. Mill., Greif & Samuels (9)
Wallrothiella Sacc. (ca. 10)

Catabotryaceae Petr. ex M.E. Barr
Catabotrys Theiss. & Syd. (3)

Parasympodiellales Hern.-Restr., Gené, R.F. Castañeda & Crous
Parasympodiellaceae Hern.-Restr., Gené, Guarro & Crous
Parasympodiella Ponnappa (10)

Spathulosporales Kohlm.
Hispidicarpomycetaceae Nakagiri
Hispidicarpomyces Nakagiri (1)

Spathulosporaceae Kohlm.
Retrostium Nakagiri & Tad Ito (1)
Spathulospora A.R. Caval. & T.W. Johnson (4)

Tracyllalales Crous
Tracyllaceae Crous
Tracylla (Sacc.) Tassi (3)

Vermiculariopsiellales Hern.-Restr., J. Mena, Gené & Crous
Vermiculariopsiellaceae Hern.-Restr, J. Mena, Gené & Crous
Vermiculariopsiella Bender (22)

Sordariomycetes families *incertae sedis*
Acrodictyaceae J.W. Xia & X.G. Zhang*
Acrodictys M.B. Ellis (25)

Junewangiaceae J.W. Xia & X.G. Zhang*
Dictyosporella Abdel-Aziz (2)
Junewangia W.A. Baker & Morgan-Jones (6)

Lautosporaceae Kohlm., Volkm.-Kohlm. & O.E. Erikss
Lautospora K. D. Hyde & E.B.G. Jones (2)

Obryzaceae Körb.
Obryzum Wallr. (3)

Sordariomycetes genera *incertae sedis*
Acerbiella Sacc. (4)
Acrospermoides Miller & G.E. Thomps. (2)
Ameromassaria Hara (1)
Amphisphaerellula Gucevič (1)
Amphisphaerina Höhn. (3 epithets in Index Fungorum 2020)
Amphorulopsis Petr. (1)
Amylis Speg. (1)

Anisomycopsis I. Hino & Katum. (1)
Antennopsis R. Heim (1)*
Anthostomaria (Sacc.) Theiss. & Syd. (1)
Anthostomellina L.A. Kantsch. (2)
Apodothina Petr. (1)
Apogaeumannomyces Matsush. (1)
Aquadulciospora Fallah & Shearer (1)
Areolospora S.C. Jong & E.E. Davis (2 epithets in Index Fungorum 2020)
Aropsiclus Kohlm. & Volkm.-Kohlm. (1)
Ascorhiza Lecht.-Trinka (1)
Ascoyunnania L. Cai & K.D. Hyde (1)
Atrogeniculata J.S. Monteiro, Gusmão & R.F. Castañeda (1)
Aulospora Speg. (1)
Azbukinia Lar.N. Vassiljeva (1)
Bactrosphaeria Penz. & Sacc. (1)
Basidiobotrys Höhn. (1)
Biciliopsis Diederich (2)
Bombardiastrum Pat. (1)
Boothiella Lodhi & Mirza (1)
Botryosporium Corda (11)
Brenesiella Syd. (1)
Byrsomyces Cavalc. (1)
Byssotheciella Petr. (2)
Caleutypa Petr. (1)
Caproniella Berl. (1)
Chaetoamphisphaeria Hara (1)
Charonectria Sacc. (3)
Ciliofusospora Bat. & J.L. Bezerra (1)
Clypeoceriospora Sousa da Câmara (1)
Clypeosphaerulina Sousa da Câmara (1)
Cryptoascus Petri (2)
Cryptomycella Höhn. (2)
Cryptomycina Höhn. (2)
Cucurbitopsis Bat. & Cif. (1)
Curvatispora V.V. Sarma & K.D. Hyde (1)
Dasysphaeria Speg. (1)
Delpinoëlla Sacc. (1)
Diacrochordon Petr. (1)
Didymobotryum Sacc. (6)
Duradens Samuels & Rogerson (1)
Ellisembia Subram. (ca. 60)
Esfandiariomyces Ershad (1)
Fantasmomyces Dong Hyeon Lee, Marinc., Z.W. de Beer & M.J. Wingf. (1)
Farrowia D. Hawksw. (3)
Fassia Dennis (1)
Flammispora Pinruan, Sakay., K.D. Hyde & E.B.G. Jones (2)
Frondisphaeria K.D. Hyde (2)
Hapsidascus Kohlm. & Volkm.-Kohlm. (1)
Hassea Zahlbr. (1)
Heliastrum Petr. (1)
Hyaloderma Speg. (1)
Hyalotiopsis Punith. (1)

Hydronectria Kirschst. (1)
Immersisphaeria Jaklitsch (1)
Iraniella Petr. (1)
Konenia Hara (1)
Kravtzevia Schwartzman (1)
Kurssanovia Kravtzev (1)
Lecythiomyces Doweld (1)
Leptosacca Syd. (1)
Leptosphaerella Speg. (14 epithets in Index Fungorum 2020)
Mangrovispora K.D. Hyde & Nageire (1)
Marisolaris Jørg. Koch & E.B.G. Jones (1)
Microcyclephaeria Bat. (1)
Mirannulata Huhndorf, F.A. Fernández, A.N. Mill. & Lodge (2)
Mycothermus D.O. Natvig, J.W. Taylor, A. Tsang, M.I. Hutch. & A.J. Powell ex X. Wei Wang, Houbraken & D.O. Natvig (2)
Natantiella Réblová (1)
Naumovela Kravtzev (2)
Neocryptospora Petr. (1)
Neoeriomycopsis Crous & M.J. Wingf. (1)
Neolamya Theiss. & Syd. (3)
Neothyridaria Petr. (1)
Ophiomassaria Jacz. (1)
Ophiomeliola Starbäck (3)
Paoayensis Cabanela, Jeewon & K.D. Hyde (2)
Paradiplococcium Hern.-Restr., J. Mena & Gené (1)
Paramicrodochium Hern.-Restr. & Crous (1)
Pareutypella Y.M. Ju & J.D. Rogers (2)
Phialemoniopsis Perdomo, Dania García, Gené, Cano & Guarro (6)
Phragmeriella Hansf. (1)
Phyllocelis Syd. (2)
Pleocryptospora J. Reid & C. Booth (1)
Pleosphaeria Speg. (24)
Pleurophragmium Costantin (22)
Protocucurbitaria Naumov (1)
Pulvinaria Bon. (2)
Pumilus Viala & Marsais (1)
Rehmiomycella E. Müll. (1)
Rhamphosphaeria Kirschst. (1)
Rhizophila K.D. Hyde & E.B.G. Jones (1)
Rhopographella (Henn.) Sacc. & Trotter (2)
Rhynchosphaeria (Sacc.) Berl. (5)
Rivulicola K.D. Hyde (3)
Romellina Petr. (1)
Saccardoëlla Speg. (15)
Sartorya Vuill. (9 epithets in Index Fungorum 2020)
Scharifia Petr. (1)
Scoliocarpon Nyl. (1 epithets in Index Fungorum 2020)
Scotiosphaeria Sivan. (1)
Selenosporella G. Arnaud ex MacGarvie (12)
Servazziella J. Reid & C. Booth (1)
Sporoctomorpha J.V. Almeida & Sousa da Câmara (1)
Stanjehughesia Subram. (16)

Stearophora L. Mangin & Viala (1)
Steganopycnis Syd. & P. Syd. (1)
Stegophorella Petr. (1)
Stellosetifera Matsush. (1)
Stereosphaeria Kirschst. (1)
Stomatogenella Petr. (1)
Sungaiicola Fryar & K.D. Hyde (1)
Synsphaeria Bon. (4 epithets in Index Fungorum 2020)
Teracosphaeria Réblová & Seifert (1)
Thelidiella Fink (1)
Thyridella (Sacc.) Sacc. (3)
Thyrotheca Kirschst. (1 epithets in Index Fungorum 2020)
Trichospermella Speg. (2)
Trichosphaeropsis Bat. & Nasc. (1)
Tulipispora Révay & Gönczöl (1)
Tunstallia Agnihothr. (3 epithets in Index Fungorum 2020)
Urosporella G.F. Atk. (5)
Urupe Viégas (1)
Vleugelia J. Reid & C. Booth (1)
Xenodium Syd. (1)
Zalerion R.T. Moore & Meyers (6)

Xylonomycetes Gazis & P. Chaverri
Symbiotaphrinales Baral & E. Weber
Symbiotaphrinaceae Baral & E. Weber
Symbiotaphrina Kühlw. & Jurzitza ex W. Gams & Arx (17)*

Xylonales Gazis & P. Chaverri
Xylonaceae Gazis & P. Chaverri
Trinosporium Crous & Decock (1)
Xylona Gazis & P. Chaverri (1)

Xylobotryomycetes Voglmayr & Jaklitsch
Xylobotryales Voglmayr & Jaklitsch
Cirrosporiaceae Voglmayr & Jaklitsch
Cirrosporium S. Hughes (1)

Xylobotryaceae Voglmayr & Jaklitsch
Xylobotryum Pat. (2)

Pezizomycotina orders *incertae sedis*
Thelocarpales Lücking & Lumbsch
Thelocarpaceae Zukal
Sarcosagium A. Massal. (1)
Thelocarpon Nyl (25)

Vezdaeales Lumbsch & Lücking
Vezdaeaceae Poelt & Vězda ex J.C. David & D. Hawksw.
Vezdaea Tsch.-Woess & Poelt (12)

Pezizomycotina family *incertae sedis*
Harpidiaceae Vězda ex Hafellner

Euopsis Nyl. (2)
Harpidium Körb. (3)

Pezizomycotina genera *incertae sedis*
Angatia Syd. (5)
Biatoridium J. Lahm ex Körb. (3)
Cyanoporina Groenh. (1)
Melanophloea P. James & Vězda (1)
Milospium D. Hawksw. (4)
Oevstedalia Ertz & Diederich (1)
Psammina Sacc. & M. Rousseau ex E. Bommer & M. Rousseau (8)
Pygmaeosphaera Etayo & Diederich (3)
Pyrenocollema Reinke (1)
Solanella Vaňha (1)*
Wadeana Coppins & P. James (2)

Saccharomycotina O.E. Erikss. & Winka
Saccharomycetes O.E. Erikss. & Winka*
Saccharomycetales Kudrjanzev
Alloascoideaceae Kurtzman & Robnett
Alloascoidea Kurtzman & Robnett (2)

Ascoideaceae J. Schröter
Ascoidea Bref. (4)

Cephaloascaceae L.R. Batra
Cephaloascus Hanawa (2)

Debaryomycetaceae Kurtzman & M. Suzuki
Babjeviella Kurtzman & M. Suzuki (1)
Debaryomyces Lodder & Kreger-van Rij (15)
Hemisphaericaspora Hui, Ren, Chen, Li, Zhan & Niu (2)
Kurtzmaniella M.A. Lachance & W.T. Starmer (5)
Lodderomyces Van der Walt (2)*
Meyerozyma Kurtzman & M. Suzuki (8)
Millerozyma Kurtzman & M. Suzuki (5)
Priceomyces Kurtzman & M. Suzuki (8)
Scheffersomyces Kurtzman & M. Suzuki (18)
Schwanniomyces Klöcker emend. M. Suzuki & Kurtzman (7)
Spathaspora N.H. Nguyen, S.O. Suh & M. Blackwell (11)
Suhomyces M. Blackwell & Kurtzman (26)
Yamadazyma Billon-Grand (23)

Dipodascaceae Engl. & E. Gilg
Dipodascus Lagerh. (14)
Galactomyces Redhead & Malloch (5)
Geotrichum Link (8)
Magnusiomyces Zender (7)
Saprochaete Coker & Shanor ex D.T.S. Wagner & Dawes (10)*

Lipomycetaceae E.K. Novák & Zsolt
Dipodascopsis Batra & P. Millner emend. Kurtzman, Albertyn & Basehoar-Powers (3)

Kockiozyma Jindam., Yukphan & Y. Yamada (1)
Limtongia Jindam., Am-in, Yukphan & Y. Yamada (1)
Lipomyces Lodder & Kreger (16)
Myxozyma Van der Walt, Weijman & von Arx (12)

Metschnikowiaceae T. Kamienski*
Clavispora Rodr. Mir. (4)
Kodamaea Y. Yamada, T. Suzuki, Matsuda & Mikata emend. Rosa, Lachance, Starmer, Barker, Bowles & Schlag-Edler (8)
Metschnikowia T. Kamienski (64)

Phaffomycetaceae Y. Yamada, H. Kawas., Nagats., Mikata & Tats. Seki
Barnettozyma Kurtzman, Robnett & Basehoar-Powers (9)
Cyberlindnera Minter (27)
Phaffomyces Y. Yamada (4)
Starmera Y. Yamada, Higashi, Ando & Mikata (7)
Wickerhamomyces Kurtzman, Robnett & Basehoar-Powers (31)

Pichiaceae Zender
Brettanomyces Kufferath & van Laer (3)
Dekkera Van der Walt (2)*
Komagataella Y. Yamada, Matsuda, Maeda & Mikata (6)
Kregervanrija Kurtzman (3)
Kuraishia Y. Yamada, Maeda & Mikata (9)
Martiniozyma Kurtzman (2)
Ogataea Y. Yamada, K. Maeda & Mikata (46)
Pachysolen Boidin & Adzet (1)
Pichia E.C. Hansen (27)
Saturnispora Z.W. Liu & Kurtzman (21)

Saccharomycetaceae G. Winter
Citeromyces Santa Maria (4)
Cyniclomyces Van der Walt & D.B. Scott (1)
Eremothecium Borzi emend. Kurtzman (5)
Hagleromyces Sousa, Morais, Lachance & Rosa (1)
Kazachstania Zubcova (44)
Kluyveromyces Van der Walt (6)
Lachancea Kurtzman (10)
Nakaseomyces Kurtzman (2)
Naumovozyma Kurtzman (3)
Saccharomyces Meyen (10)
Tetrapisispora Ueda-Nishimura & K. Mikata emend. Kurtzman (9)
Torulaspora Lindner (8)
Vanderwaltozyma Kurtzman (4)
Yueomyces Q.M. Wang, L. Wang, M. Groenewald & T. Boekhout (1)
Zygosaccharomyces B.T.P. Barker (11)
Zygotorulaspora Kurtzman (4)

Saccharomycodaceae Kudrjanzev
Hanseniaspora Zikes (17)*
Saccharomycodes E.C. Hansen (2)

Saccharomycopsidaceae Arx & Van der Walt
Ambrosiozyma Van der Walt (14)
Saccharomycopsis Schiønning (19)

Trichomonascaceae Kurtzman & Robnett*
Blastobotrys Klopotek (23)
Diddensiella Péter, Dlauchy & Kurtzman (1)
Groenewaldozyma Kurtzman (3)
Spencermartinsiella Péter, Dlauchy, Tornai-Lehoczki, M. Suzuki & Kurtzman (4)
Starmerella Rosa & Lachance (44)
Sugiyamaella Kurtzman & Robnett (27)
Trichomonascus H.S. Jackson emend. Kurtzman & Robnett (6)*
Wickerhamiella Van der Walt (39)
Zygoascus M.T. Sm. (8)

Trigonopsidaceae M.A. Lachance & C.P. Kurtzman
Botryozyma Shann & M.T. Sm. emend. Lachance & Kurtzman (4)*
Tortispora Lachance & Kurtzman (8)
Trigonopsis Schachner emend. Kurtzman & Robnett (4)

Saccharomycetales genera *incertae sedis*
Aciculoconidium D.S. King & S.C. Jong (1)
Candida Berkhout (316)*
Coccidiascus Chatton (1)
Conidiascus Holterm. (1)
Danielozyma Kurtzman & Robnett (2)
Deakozyma Kurtzman & Robnett (2)
Diutina Khunnamwong, Lertwattanasakul, Jindam., Limtong & Lachance (10)
Endomyces Reess (4)
Hyphopichia von Arx & van der Walt (12)
Macrorhabdus Tomaszewski, Logan, Snowden, Kurtzman & Phalen. (1)
Metahyphopichia Sipiczki & Pfliegler (1)
Middelhovenomyces Kurtzman & Robnett (2)
Nadsonia Syd. (3)
Nakazawaea Y. Yamada, Maeda & Mikata (13)
Oscarbrefeldia Holterm. (1)*
Peterozyma Kurtzman & Robnett (2)
Phialoascus Redhead & Malloch (1)
Sporopachydermia Rodr. Mir. (3)
Teunomyces Kurtzman & M. Blackwell (12)
Wickerhamia Soneda (1)
Yarrowia Van der Walt & Arx (12)

TAPHRINOMYCOTINA O.E. Erikss. & Winka
Archaeorhizomycetes Rosling & T.Y. James
Archaeorhizomycetales Rosling & T.Y. James
Archaeorhizomycetaceae Rosling & T.Y. James
Archaeorhizomyces Rosling & T.Y. James (2)

Neolectomycetes O.E. Erikss. & Winka
Neolectales Landvik, O.E. Erikss., Gargas & P. Gust.
Neolectaceae Redhead

Neolecta Speg. (3)

Pneumocystomycetes O.E. Erikss. & Winka
Pneumocystidales O.E. Erikss.
Pneumocystidaceae O.E. Erikss.
Pneumocystis P. Delanoë & Delanoë (5)

Schizosaccharomycetes O.E. Erikss. & Winka
Schizosaccharomycetales O.E. Erikss.
Schizosaccharomycetaceae Beij. ex Klöcker
Schizosaccharomyces Lindner (4)

Taphrinomycetes O.E. Erikss. & Winka
Taphrinales Gäum. & C.W. Dodge
Protomycetaceae Gray
Buerenia M.S. Reddy & C.L. Kramer (4)
Protomyces Unger (ca. 10)
Protomycopsis Magnus (5)
Saitoella Goto, Sugiy., Hamam. & Komag. (2)
Taphridium Lagerh. & Juel ex Juel (2)
Volkartia Maire (1)

Taphrinaceae Gäum.
Taphrina Fr. (ca. 95)

Ascomycota families *incertae sedis*
Aphanopsidaceae Printzen & Rambold
Aphanopsis Nyl. ex Syd. (1)
Steinia Körb. (3)

Diporothecaceae R.K. Mibey & D. Hawksw.
Diporotheca C.C. Gordon & C.G. Shaw (4)

Eoterfeziaceae G.F. Atk.
Acanthogymnomyces Udagawa & Uchiyama (1)
Eoterfezia G.F. Atk. (2)

Mucomassariaceae Petr. & Cif.
Mucomassaria Petr. (1)

Saccardiaceae Höhn.
Ascolectus Samuels & Rogerson (1)
Cyanodiscus E. Müll. & M.L. Farr (2)
Henningsiella Rehm (2)
Phillipsiella Cooke (7)
Pseudodiscus Arx & E. Müll. (1)
Saccardia Cooke (3)
Schenckiella P. Henn. (1)

Seuratiaceae Vuill. ex M.E. Barr
Seuratia Pat. (5)
Seuratiopsis Woron. (1)

Strangosporaceae S. Stenroos, Miądl. & Lutzoni
Strangospora Körb. (ca. 11)

Ascomycota genera *incertae sedis*
Abropelta B. Sutton (1)
Acarellina Bat. & H. Maia (1)
Acaroconium Kocourk. & D. Hawksw. (1)
Acarocybe Syd. (3)
Acarocybella M.B. Ellis (1)
Acarocybellina Subram. (1)
Acarocybiopsis J. Mena, A. Hern.-Gut. & Mercado (1)
Acaropeltis Petr. (1)
Achoropeltis Syd. (1)
Acleistia Bayl. Ell. (1)
Acontium Morgan (4)
Acrodictyella W.A. Baker & Partr. (1)
Acrodictyopsis P.M. Kirk (1)
Acrodontiella U. Braun & Scheuer (1)
Acrophragmis Kiffer & Reisinger (4)
Acrospeira Berk. & Broome (1)
Acrostaurus Deighton & Piroz. (1)
Actinocladium Ehrenb. (6)
Actinotexis Arx (1)
Actinothecium Ces. (5)
Actinothyrium Kunze (10)
Acumispora Matsush. (5)
Agaricodochium X.J. Liu (1)
Agarwalomyces R.K. Verma & Kamal (1)
Agrabeeja Subram. (1)
Agyriella Sacc. (2)
Agyriellopsis Höhn. (3)
Ahmadia Syd. (1)
Ajrekarella Kamat & Kalani (1)
Alatosessilispora K. Ando & Tubaki (1)
Alciphila Harmaja (1)
Algonquinia R.F. Castañeda & W.B. Kendr. (1)
Allantophomoides S.L. Wei & T.Y. Zhang (1)
Alloneottiosporina Nag Raj (2)
Allophoron Nádv. (1)
Allothyriella Bat., Cif. & Nascim. (3)
Allothyrina Bat. & J.L. Bezerra (1)
Allothyriopsis Bat., Cif. & H. Maia (1)
Alpakesa Subram. & K. Ramakr. (4)
Alpakesiopsis Abbas, B. Sutton, Ghaffar & A. Abbas (1)
Alveariospora Meir. Silva, R.F. Castañeda, O.L. Pereira & R.W. Barreto (1)
Alveophoma Alcalde (1)
Alysidiopsis B. Sutton (5)
Amallospora Penz. (1)
Amblyosporium Fresen. (4)
Ameroconium U. Braun & Zhurb. (1)
Amerodiscosiella M.L. Farr (1)
Amerodiscosiellina Bat. & Cavalc. (1)

Amerosporiopsis Petr. (1)
Amerosympodula Matsush. (1)
Amoenodochium Peláez & R.F. Castañeda (1)
Amoenomyces R.F. Castañeda, Saikawa & Hennebert (1)
Amphichaetella Höhn. (1)
Amphophialis R.F. Castañeda, W.B. Kendr. & Guarro (1)
Amphoropycnium Bat. (1)
Ampullicephala R.F. Castañeda, Minter & M. Stadler (1)
Ampulliferina B. Sutton (2)
Amylogalla Suija, Motiej. & Kantvilas (1)
Anabahusakala Carmo, J.S. Monteiro, Gusmão & R.F. Castañeda (1)
Anacraspedodidymum C.R. Silva, R.F. Castañeda & Gusmão (2)
Anaexserticlava Santa Izabel, R.F. Castañeda & Gusmão (1)
Anaphysmene Bubák (2)
Anarhyma M.H. Pei & Z.W. Yuan (1)
Anaselenosporella Heredia, R.F. Castañeda & R.M. Arias (2)
Anaseptoidium R.F. Castañeda, Heredia & R.M. Arias (1)
Anaverticicladus P.O. Costa, Malosso & R.F. Castañeda (1)
Ancoraspora Mig. Rodr. (1)
Ancorasporella J. Mena, Mercado & Heredia (1)
Angiopomopsis Höhn. (1)
Angulimaya Subram. & Lodha (1)
Angulospora Sv. Nilsson (1)
Annellodentimyces Matsush. (1)
Annellodochium Deighton (1)
Annellophorella Subram. (5)
Annellospermosporella P.R. Johnst. (1)
Antennatula Fr. ex F. Strauss (10)
Anthracoderma Speg. (3)
Antimanoa Syd. (1)
Antromyces Fresen. (4)
Anulohypha Cif. (1)
Anungitopsis R.F. Castañeda & W.B. Kendr. (7)
Aoria Cif. (1)
Aphanofalx B. Sutton (2)
Apiocarpella Syd. & P. Syd. (8)
Apiotypa Petr. (1)
Apogloeum Petr. (1)
Apomelasmia Grove (8)
Aporellula B. Sutton (2)
Aposporella Thaxt. (1)
Apostrasseria Nag Raj (2)
Arachnophora Hennebert (11)
Arachnospora R.F. Castañeda, Minter & Camino (1)
Arborillus Munt.-Cvetk. & Gómez-Bolea (1)
Arborispora K. Ando (4)
Arcuadendron Sigler & J.W. Carmich. (2)
Ardhachandra Subram. & Sudha (3)
Argentinomyces Peña & Arambarri (1)
Argopericonia B. Sutton & Pascoe (2)
Aristastoma Tehon (1)
Arthrobotryum Ces. (5)

Arthrocristula Sigler, M.T. Dunn & J.W. Carmich. (1)
Arthromoniliphora S.S. Silva, Gusmão & R.F. Castañeda (1)
Arthrosporium Sacc. (2)
Arthrowallemia R.F. Castañeda, Dania García & Guarro (2)
Articulophora C.J.K. Wang & B. Sutton (1)
Artocarpomyces Subram. (1)
Ascochytopsis Henn. (5)
Ascochytulina Petr. (3)
Ascofascicula Matsush. (6)
Ascomauritiana V.M. Ranghoo & K.D. Hyde (1)
Ascosubramania Rajendran (1)
Ashtaangam Subram. (1)
Aspilaima Bat. & H. Maia (1)
Astelechia Cif. (2)
Asterinothyriella Bat. & Cif. (3)
Asterinothyrium Bat., Cif. & H. Maia (1)
Asteroconium Syd. & P. Syd. (2)
Asteroglobulus Brackel (2)
Asteromyces F. Moreau & V. Moreau (1)
Asterophoma D. Hawksw. (1)
Asteroscutula Petr. (1)
Asterostomopora Bat. & H. Maia (1)
Asterostomopsis Bat., Cif. & H. Maia (1)
Asterostomula Theiss. (4)
Asterostomulina Bat., J.L. Bezerra & H. Maia (1)
Astomella Thirum. (1)
Astronatelia Bat. & H. Maia (1)
Atractilina Dearn. & Barthol. (2)
Atractobolus Tode (1)
Atrosetaphiale Matsush. (1)
Atrosynnema J.W. Xia, X.G. Zhang & Z. Li (1)
Aurosphaeria Sun J. Lee, Strobel, Eisenman, Geary, P.N. Vargas & S.A. Strobel (1)
Avesicladiella W.P. Wu, B. Sutton & Gange (2)
Avettaea Petr. & Syd. (3)
Bacillopeltis Bat. (1)
Bactridium Kunze (15)
Bactrodesmiella M.B. Ellis (2)
Baculospora Zukal (1)
Badarisama Kunwar, J.B. Manandhar & J.B. Sinclair (1)
Bahuchashaka Subram. (1)
Bahugada K.A. Reddy & Vasant Rao (2)
Bahukalasa Subram. & Chandrash. (1)
Balaniopsis P.M. Kirk (4)
Balanium Wallr. (1)
Barbarosporina Ķirulis (1)
Barnettella D. Rao & P. Rag. Rao (1)
Basauxia Subram. (1)
Batistina Peres (1)
Batistospora J.L. Bezerra & M.M.P. Herrera (1)
Beauveriphora Matsush. (1)
Beccopycnidium F. Stevens (1)
Beejadwaya Subram. (1)

Belemnospora P.M. Kirk (7)
Bellulicauda B. Sutton (2)
Beltramono Rashmi Dubey, A.K. Pandey bis & Manohar. (1)
Beltraniomyces Manohar., D.K. Agarwal & Rao (1)
Beniowskia Racib. (4)
Benjpalia Subram. & Bhat (1)
Berggrenia Cooke (2)
Bhadradriella Nagaraju, Kunwar & Manohar. (1)
Bhadradriomyces Sureshk., Manohar. & Kunwar (1)
Bharatheeya D'Souza & Bhat (3)
Bhatia W.A. Baker & Morgan-Jones (2)
Bibanasiella R.F. Castañeda & W.B. Kendr. (1)
Bicoloromyces Heuchert, U. Braun & D. Hawksw. (1)
Biflagellospora Matsush. (1)
Biflagellosporella Matsush. (1)
Biflua Jørgen Koch & E.B.G. Jones (1)
Bimeris Petr. (1)
Bioconiosporium Bat. & J.L. Bezerra (2)
Biophomopsis Petr. (3)
Bisbyopeltis Bat. & A.F. Vital (1)
Bispora Corda (31)
Bisseomyces R.F. Castañeda (1)
Blastocatena Subram. & Bhat (2)
Blastodictys M.B. Ellis (1)
Blastofusarioides Matsush. (1)
Blastophorella Boedijn (1)
Blastophragma Subram. (4)
Blennoria Moug. & Fr. (4)
Blennoriopsis Petr. (1)
Bleptosporium Steyaert (4)
Blodgettia Harv. (2)
Bostrichonema Ces. (4)
Botryoderma Papendorf & H.P. Upadhyay (4)
Botryodiplodina Dias & Sousa da Câmara (1)
Botryomonilia Goos & Piroz. (1)
Botryostroma Höhn. (2)
Brachycephala J.S. Monteiro, Gusmão & R.F. Castañeda (1)
Brachydesmiella G. Arnaud ex S. Hughes (8)
Brachysporiellina Subram. & Bhat (2)
Brachysporiopsis Yanna, W.H. Ho & K.D. Hyde (1)
Braunomyces V.A. Melnik & Crous (1)
Brefeldiopycnis Petr. & Cif. (1)
Brencklea Petrak (1)
Brevicatenospora R.F. Castañeda, Minter & Saikawa (1)
Briosia Cavara (6)
Brycekendrickia Nag Raj (1)
Bryophytomyces Cif. (1)
Bulbilopycnis Matsush. (1)
Bulbocatenospora R.F. Castañeda & Iturr. (1)
Bullaserpens Bat., J.L. Bezerra & Cavalc. (1)
Cacumisporium Preuss (9)

Caeruleoconidia Zhurb. & Pino-Bodas (= *Caeruleoconidia* Zhurb. & Diederich 2015 nom. inv.) (2)
Calcarispora Marvanová & Marvan (1)
Calceispora Matsush. (2)
Callistospora Petr. (1)
Calocline Syd. (1)
Calongeomyces D. Hawksw. & Etayo (1)
Camaroglobulus Speer (1)
Camaropycnis E.K. Cash (1)
Camarosporellum Tassi (1)
Camarosporiopsis Abbas, B. Sutton & Ghaffar (1)
Camposporidium Nawawi & Kuthub. (3)
Candelabrum Beverw. (7)
Candelosynnema K.D. Hyde & Seifert (1)
Capitorostrum Bat. (1)
Capnocheirides J.L. Crane & S. Hughes (1)
Capnofrasera S. Hughes (1)
Capsicumyces Gamundí et al. (1)
Carnegieispora Etayo & F. Berger (1)
Carnia Bat. (1)
Carrismyces R.F. Castañeda & Heredia (1)
Casaresia Gonz. Frag. (1)
Castanedaea W.A. Baker & Partr. (1)
Catenocuneiphora Matsush. (1)
Catenophora Luttr. (3)
Catenophoropsis Nag Raj & W.B. Kendr. (1)
Catenosubulispora Matsush. (1)
Catenosynnema Kodsueb, K.D. Hyde & W.H. Ho (1)
Catenulaster Bat. & C.A.A. Costa (1)
Catinopeltis Bat. & C.A.A. Costa (1)
Cecidiomyces U. Braun & Zhurb. (1)
Ceeveesubramaniomyces J. Pratibha, K.D. Hyde & Bhat (1)
Ceratocladium Corda (2)
Ceratophorum Sacc. (2)
Ceratopycnis Höhn. (2)
Ceratosporella Höhn. (19)
Ceratosporium Schwein. (11)
Ceuthodiplospora Died. (1)
Ceuthosira Petr. (1)
Ceuthosporella Petr. & Syd. (1)
Chaetendophragmia Matsush. (7)
Chaetoblastophorum Morgan-Jones (1)
Chaetochalara B. Sutton & Piroz. (7)
Chaetocytostroma Petr. (1)
Chaetodiplis Clem. (1)
Chaetodiplodina Speg. (2)
Chaetopeltaster Katum. (1)
Chaetophiophoma Speg. (1)
Chaetoplaca Syd. & P. Syd. (1)
Chaetopsis Grev. (7)
Chaetopyrena Pass. (2)
Chaetoseptoria Tehon. (1)

Chalarodendron C.J.K. Wang & B. Sutton (1)
Chalarodes McKenzie (2)
Chantransiopsis Thaxt. (3)
Characonidia Bat. & Cavalc. (1)
Charomyces Seifert (2)
Chasakopama Manohar., Bagyan., N.K. Rao & Kunwar (1)
Cheilaria Lib. (1)
Cheiroidea W.A. Baker & Morgan-Jones (1)
Cheiromycella Höhn. (3)
Cheiromyceopsis Mercado & J. Mena (1)
Cheiromyces Berk. & M.A. Curtis (6)
Cheiropolyschema Matsush. (2)
Chiastospora Riess (1)
Chithramia Nag Raj (1)
Chlamydopsis Hol.-Jech. & R.F. Castañeda (1)
Choanatiara DiCosmo (2)
Choreospora Constant. & R. Sant. (1)
Chrysachne Cif. (2)
Chrysalidopsis Steyaert (1)
Chryseidea Onofri (1)
Ciferria Gonz. Frag. (1)
Ciferrina Petr. (1)
Ciferriopeltis Bat. & H. Maia (1)
Ciferrioxyphium Bat. & H. Maia (2)
Ciliochora Höhn. (2)
Ciliophora Petr. (2)
Ciliophorella Petr. (2)
Ciliosporella Petr. (2)
Circinoconiopsis A. Hern.-Gut. (1)
Circinoconis Boedijn (1)
Cissococcomyces Brain (1)
Civisubramaniania Vittal & Dorai (2)
Cladoconidium Bandoni & Tubaki (1)
Cladoniicola Diederich, van den Boom & Aptroot (2)
Cladosphaera Dumort. (1)
Cladosporiopsis S.C. Ren & X.G. Zhang (1)
Clasteropycnis Bat. & Cavalc. (1)
Clathroconium Samson & H.C. Evans (2)
Clauzadeomyces Diederich (1)
Clavariana Nawawi (1)
Cleistocystis Sousa da Câmara (1)
Cleistonium Speer (1)
Cleistophoma Petr. & Syd. (2)
Clypeochorella Petr. (1)
Clypeolum Speg. (8)
Clypeopatella Petr. (1)
Clypeophialophora Bat. & Peres (1)
Clypeopycnis Petr. (3)
Clypeoseptoria F. Stevens & P.A. Young (3)
Clypeostagonospora Punith. (1)
Coccogloeum Petr. (1)
Codonmyces Calat. & Etayo (1)

Colemaniella Agnihothr. (1)
Coleodictyospora Charles (2)
Coleoseptoria Petr. (1)
Colispora Marvanová (3)
Colletoconis de Hoog & Aa (1)
Colletosporium Link (1)
Collostroma Petr. (1)
Columnodomus Petr. (1)
Columnothyrium Bubák (1)
Comatospora Piroz. & Shoemaker (1)
Comocephalum Syd. (1)
Complexipes C. Walker (2)
Condylospora Nawawi (4)
Coniambigua Etayo & Diederich (1)
Conioscyphopsis Goh & K.D. Hyde (1)
Coniothyrina Syd. (1)
Conjunctospora Udagawa & Uchiy. (1)
Conostoma Bat. & J.L. Bezerra (2)
Conostroma Moesz (3)
Consetiella Hol.-Jech. & Mercado (1)
Coremiella Bubák & K. Krieg. (1)
Cornucopiella Höhn. (2)
Cornutispora Piroz. (9)
Cornutostilbe Seifert (1)
Coronospora M.B. Ellis (4)
Corynecercospora V.K. Pal, M. Akhtar, N. Ahmad, Kamal & D.K. Agarwal (1)
Coryneliella Har. & P. Karst. (1)
Corynesporella Munjal & H.S. Gill (11)
Corynesporina Subram. (1)
Corynesporopsis P.M. Kirk (16)
Costanetoa Bat. & J.L. Bezerra (1)
Crandallia Ellis & Sacc. (4)
Craneomyces Morgan-Jones, R.C. Sinclair & Eicker (1)
Craspedodidimella F.R. Barbosa, R.F. Castañeda & Gusmão (1)*
Creodiplodina Petr. (1)
Creonecte Petr. (1)
Creoseptoria Petr. (1)
Creothyriella Bat. & C.A.A. Costa (1)
Cribropeltis Tehon (1)
Crinigera I. Schmidt (1)
Crousobrauniella Sh. Kumar, Raghv. Singh, D.P. Singh & Kamal (1)
Crustodiplodina Punith. (1)
Cryptoceuthospora Petr. (2)
Cryptocoryneopsis B. Sutton (1)
Cryptosporium Kunze (25)
Cryptumbellata Udagawa & Uchiy. (1)
Ctenosporium R. Kirschner (1)
Cubasina R.F. Castañeda (2)
Culicidospora R.H. Petersen (2)
Culicinomyces Couch, Romney & B. Rao (3)
Curucispora Matsush. (3)
Curvulariopsis M.B. Ellis (1)

Cyanopatella Petr. (1)
Cyanopyrenia Harada (1)
Cyclomarsonina Petr. (1)
Cylindrogloeum Petr. (1)
Cylindromyces Manohar., D.K. Agarwal & N.K. Rao (1)
Cylindrothyrium Maire (1)
Cylindroxyphium Bat. & Cif. (1)
Cyrtidium Vain (1)
Cyrtidula Minks (ca. 5)
Cyrtopsis Vain. (1)
Cystodium Fée (1)
Cystotricha Berk. & Broome (1)
Cytodiscula Petr. (1)
Cytogloeum Petr. (1)
Cytonaema Höhn. (2)
Cytoplacosphaeria Petr. (2)
Cytosphaera Died. (2)
Cytosporella Sacc. (32)
Cyttariella Palm (1)
Dactylifera Alcorn (1)
Dactylosporium Harz (2)
Dasysticta Speg. (2)
Davisiella Petr. (2)
Dearnessia Bubák (1)
Deichmannia Alstrup & D. Hawksw. (1)
Delortia Pat. & Gaillard (3)
Dendrodomus Bubák (1)
Dendrographiella Agnihothr. (1)
Dendrographium Massee (8)
Dendrospora Ingold (10)
Dendrosporium Plakidas & Edgerton ex J.L. Crane (2)
Dendryphiosphaera Lunghini & Rambelli (4)
Dennisographium Rifai (2)
Denticularia Deighton (7)
Dentocircinomyces R.F. Castañeda & W.B. Kendr. (1)
Descalsia A. Roldán & Honrubia (1)
Desertella Mouch. (2)
Desmidiospora Thaxt. (3)
Dexhowardia J.J. Taylor (1)
Diaboliumbilicus I. Hino & Katum. (1)
Diademospora B.E. Söderstr. & Bååth (1)
Diarimella B. Sutton (3)
Dichelostroma Bat. & Peres (1)
Dicholobodigitus G.P. White & Illman (1)
Dichotomophthoropsis M.B. Ellis (2)
Dichotophora Whitton, K.D. Hyde & McKenzie (2)
Dictyoceratosporella Y.R. Ma & X.G. Zhang (3)*
Dictyodesmium S. Hughes (4)
Dictyophrynella Bat. & Cavalc. (1)
Dictyopolyschema M.B. Ellis (1)
Dictyorostrella U. Braun (1)
Dictyospiropes M.B. Ellis (1)

Dictyotrichocladium Fiuza, Gusmão & R.F. Castañeda (1)
Didymochaetina Bat. & J.L. Bezerra (1)
Didymochora Höhn. (1)
Didymopsis Sacc. & Marchal (5)
Didymosporina Höhn. (1)
Diedickea Syd. & P. Syd. (3)
Digicatenosporium S.M. Leão, Gusmão & R.F. Castañeda (1)
Digitodochium Tubaki & Kubono (1)
Digitopodium U. Braun et al. (1)
Digitoramispora R.F. Castañeda & W.B. Kendr. (4)
Dimastigosporium Faurel & Schotter (2)
Diplocladiella G. Arnaud ex M.B. Ellis (8)
Diplodinis Clem. (1)
Diplodinula Tassi (1)
Diploplenodomus Died. (2)
Diplosporonema Höhn. (1)
Diplozythiella Died. (1)
Dipyrgis Clem. (1)
Discogloeum Petr. (1)
Discomycetoidea Matsush. (1)
Discosiellina Subram. & K.R.C. Reddy (1)
Discosporina Höhn. (1)
Discotheciella Syd. & P. Syd (1)
Discozythia Petr. (1)
Dissitimurus E.G. Simmons, McGinnis & Rinaldi (1)
Distophragmia R.F. Castañeda, S.M. Leão & Gusmão (1)
Ditangifibula G.C. Adams (1)
Domingoella Petr. & Cif. (4)
Dothideodiplodia Murashk. (1)
Dothioropsis Riedl (1)
Drepanospora Berk. & M.A. Curtis (1)
Drudeola Kuntze (1)
Drumopama Subram. (1)
Dryosphaera Jørg. Koch & E.B.G. Jones (3)
Dualomyces Matsush. (2)
Dwayabeeja Subram. (3)
Dwayaloma Subram. (1)
Dwayalomella Brisson, Piroz. & Pauzé (1)
Dwibahubeeja N. Srivast., A.K. Srivast. & Kamal (1)
Dwibeeja Subram. (1)
Dwiroopella Subram. & Muthumary (1)
Ebollia Minter & Caine (1)
Echinocatena R. Campb. & B. Sutton (1)
Echinochondrium Samson & Aa (1)
Echinoconidiophorum Pereira-Carv. & Dianese (1)
Eiona Kohlm. (1)
Elachopeltella Bat. & Cavalc. (2)
Elattopycnis Bat. & Cavalc. (1)
Elegantimyces Goh, C.K.M. Tsui & K.D. Hyde (1)
Elletevera Deighton (2)
Ellisembiopsis T.S. Santa Izabel & Gusmão (2)
Ellismarsporium R.F. Castañeda & X.G. Zhang (7)

Elotespora R.F. Castañeda & Heredia (1)
Embryonispora G.Z. Zhao (1)
Enantioptera Descals (2)
Endobotrya Berk. & M.A. Curtis (1)
Endobotryella Höhn. (1)
Endocolium Syd. (1)
Endoconospora Gjaerum (2)
Endocoryneum Petr. (3)
Endogenospora R.F. Castañeda, O. Morillo & Minter (1)
Endomelanconium Petr. (4)
Endophragmiopsis M.B. Ellis (2)
Endoplacodium Petr. (1)
Endoramularia Petr. (1)
Endosporoideus W.H. Ho, Yanna, K.D. Hyde & Goh (1)
Endozythia Petr. (1)
Enerthidium Syd. (1)
Engelhardtiella A. Funk (1)
Enridescalsia R.F. Castañeda & Guarro (1)
Enthallopycnidium F. Stevens (1)
Entoderma Hanula, Andreadis & M. Blackw. (1)
Epaphroconidia Calat. & V. Atienza (1)
Ephelidium C.W. Dodge & E.D. Rudolph (1)
Epiclinium Fr. (2)
Epicoccospora Budathoki & S.K. Singh (2)
Episporogoniella U. Braun (1)
Epistigme Syd. (2)
Epithyrium (Sacc.) Trotter (2)
Eriocercospora Deighton (3)
Eriocercosporella Rak. Kumar, A.N. Rai & Kamal ex U. Braun (2)
Eriospora Berk. & Broome (1)
Erispora Pat. (1)
Esteya J.Y. Liou, J.Y. Shih & Tzean (1)
Evanidomus Caball. (1)
Everhartia Sacc. & Ellis (6)
Everniicola D. Hawksw. (1)
Eversia J.L. Crane & Schokn. (2)
Excipularia Sacc. (2)
Exophoma Weedon (1)
Exosporella Höhn. (1)
Exosporodiella Ganie, Azam & A.H. Wani (1)
Fairmaniella Petr. & Syd. (1)
Farriolla Norman (1)
Favostroma B. Sutton & E.M. Davison (1)
Feltgeniomyces Diederich (4)
Fenestroconidia Calat. & Etayo (1)
Fissuricella Pore, D'Amatao & Ajello (1)
Flabellocladia Nawawi (2)
Flabellospora Alas. (6)
Flosculomyces B. Sutton (2)
Frigidispora K.D. Hyde & Goh (1)
Fujimyces Minter & Caine (2)
Fuligomyces Morgan-Jones & Kamal (4)

Fumagopsis Speg. (2)
Furcaspora Bonar (2)
Fusamen (Sacc.) P. Karst. (2)
Fuscophialis B. Sutton (4)
Fusticeps J. Webster & R.A. Davey (5)
Gaeumanniella Petr. (1)
Gallaicolichen Serux. & Lücking (1)
Gampsonema Nag Raj (1)
Gangliophora Subram. (1)
Gangliostilbe Subram. & Vittal (5)
Garnaudia Borowska (3)
Gaubaea Petr. (2)
Gelatinocrinis Matsush. (1)
Gelatinopycnis Dyko & B. Sutton (1)
Geminoarcus K. Ando (3)
Gemmulina Descals & Marvanová (1)
Gilmaniella G.L. Barron (9)
Glaphyriopsis B. Sutton & Pascoe (2)
Glioannellodochium Matsush. (1)
Glioblastocladium Matsush. (1)
Globoconidiopsis G.F. Sepúlveda, Pereira-Carv. & Dianese (1)
Globoconidium G.F. Sepúlveda, Pereira-Carv. & Dianese (1)
Gloeocoryneum Weindlm. (3)
Gloeodes Colby (1)
Gloeosporiella Cavara (1)
Gloiosphaera Höhn. (2)
Glutinium Fr. (2)
Goidanichiella G.L. Barron ex W. Gams (5)
Gonatobotryum Sacc. (4)
Goniopila Marvanová & Descals (1)
Goosiella Morgan-Jones, Kamal & R.K. Verma (1)
Goosiomyces N.K. Rao & Manohar. (2)
Grallomyces F. Stevens (1)
Graphiothecium Fuckel (6)
Groveolopsis Boedijn (6)
Guarroa M. Calduch, Gené, Heredia & R.F. Castañeda (1)
Guedea Rambelli & Bartoli (3)
Guelichia Speg. (6)
Gymnoxyphium Cif., Bat. & I.J. Araújo (6)
Gyrophthorus Hafellner & Sancho (3)
Hadronema Syd. & P. Syd. (4)
Hadrosporium Syd. (2)
Halysiomyces E.G. Simmons (1)
Hansfordiopeltis Bat. & C.A.A. Costa (5)
Hansfordiopeltopsis M.L. Farr (1)
Hapalosphaeria Syd. (1)
Haplariopsis Oudem. (2)
Haplobasidion Erikss. (3)
Haplolepis Syd. (3)
Haptocara Drechsler (1)
Harmoniella V.N. Boriss. (2)*
Harpographium Sacc. (5)

Harpostroma Höhn. (1)
Hawksworthiana U. Braun (4)
Heimiodora Nicot (1)
Helensiella Minter, R.F. Castañeda & Heredia (1)
Helhonia B. Sutton (1)
Helicofilia Matsush. (2)
Helicogoosia Hol.-Jech. (1)
Helicominopsis Deighton (2)
Helicorhoidion S. Hughes (6)
Helicosingula P.S. van Wyk, Marasas, Baard & Knox-Dav. (1)
Helicothyrium I. Hino & Katum. (1)
Helicoubisia Lunghini & Rambelli (1)
Heliscella Marvanová (2)
Heliscina Marvanová (2)
Helminthosporiomyces G.F. Sepúlveda, Pereira-Carv. & Dianese (1)
Helochora Sherwood (1)
Hemicorynesporella Subram. (1)
Hemidothis Syd. & P. Syd. (1)
Hemisphaeropsis Petr. (1)
Hendersoniella Tassi (1)
Hendersonina E.J. Butler (1)
Hendersoniopsis Höhn. (1)
Hendersonula Speg. (20)
Hendersonulina Petr. (1)
Henfellra Halici, D. Hawksw., Z. Kocak. & M. Kocak (1)
Henicospora P.M. Kirk & B. Sutton (6)
Herposira Syd. (1)
Herreromyces R.F. Castañeda & W.B. Kendr. (1)
Heterocephalum Thaxt. (2)
Heterosporiopsis Petr. (1)
Heuflera Bail (1)
Hexacladium D.L. Olivier (1)
Himantia Pers. (4)
Hinoa Hara & I. Hino (2)
Hirudinaria Ces. (2)
Hobsoniopsis D. Hawksw. (1)
Hoehneliella Bres. & Sacc. (2)
Holubovaea Mercado (2)
Homalopeltis Bat. & Valle (1)
Hoornsmania Crous (1)
Hormiactis Preuss (5)
Hormiscioideus M. Blackw. & Kimbr. (1)
Hormocephalum Syd. (1)
Hormographis Guarro, Punsola & Arx (1)
Hughesinia J.C. Lindq. & Gamundí (3)
Hyalobelemnospora Matsush. (1)
Hyalocamposporium Révay & J. Gönczöl (4)
Hyalocephalotrichum Nagaraju, Kunwar, Sureshk. & Manohar. (1)
Hyalocladium Mustafa (1)
Hyalocylindrophora J.L. Crane & Dumont (3)
Hyalodermella Speg. (1)
Hyalodictyum Woron. (1)

Hyalohelicomina T. Yokoy. (1)
Hyalopleiochaeta R.F. Castañeda, Guarro & Cano (1)
Hyalopyrenia H. Harada (1)
Hyalosynnema Matsush. (1)
Hyalothyridium Tassi (1)
Hydrometrospora J. Gönczöl & Révay (1)
Hymenella Fr. (11)
Hymeniopeltis Bat. (3)
Hymenobactron (Sacc.) Höhn.
Hymenobia Nyl. (1)
Hymenopsis Sacc. (13)
Hyphodiscosia Lodha & K.R.C. Reddy (5)
Hyphodiscosioides Matsush. (1)
Hyphopolynema Nag Raj (6)
Hyphostereum Pat. (1)
Hyphothyrium B. Sutton & Pascoe (1)
Hyphozyma de Hoog & M.T. Sm. (4)
Hypnotheca Tommerup (1)
Hypocline Syd. (1)
Hypodermina Höhn. (1)
Hypogloeum Petr. (1)
Hypotrachynicola Etayo (1)
Hysteridium P. Karst. (1)
Hysterodiscula Petr. (1)
Hysteropycnis Hilitzer (1)
Ialomitzia Gruia (1)
Idiocercus B. Sutton (2)
Igneocumulus A.W. Ramaley (10)
Imicles Shoemaker & Hambl. (6)
Impudentia Vujanović (1)
Inesiosporium R.F. Castañeda & W. Gams (2)
Inifatiella R.F. Castañeda (1)
Intercalarispora J.L. Crane & Schokn. (1)
Intralichen D. Hawksw. & M.S. Cole (4)*
Ionophragmium Peres (1)
Irpicomyces Deighton (3)
Isariella Henn. (2)
Ischnostroma Syd. & P. Syd. (1)
Isthmoconidium Etayo & Fr. Berger (1)
Isthmolongispora Matsush. (11)
Isthmophragmospora Kuthub. & Nawawi (2)
Isthmotricladia Matsush. (3)
Ityorhoptrum P.M. Kirk (4)
Iyengarina Subram. (3)
Jahniella Petr. (3)
Javonarxia Subram. (2)
Jayarambhatia J. Pratibha (1)
Jerainum Nawawi & Kuthub. (1)
Jubispora B. Sutton & H.J. Swart (1)
Junctospora Minter & Hol.-Jech. (1)
Kalamarospora G. Delgado (1)
Kalchbrenneriella Diederich & M.S. Christ. (1)

Kaleidosporium Van Warmelo & B. Sutton (1)
Kamatella Anahosur (1)
Kamatia V.G. Rao & Subhedar (1)
Kameshwaromyces Kamal, R.K. Verma & Morgan-Jones (2)
Katherinomyces Khodos. (1)
Keissleriomyces D. Hawksw. (1)
Kendrickiella K. Jacobs & M.J. Wingf. (1)
Ketubakia Kamat, Varghese & V.G. Rao (1)
Kiliophora Kuthub. & Nawawi (3)
Kionocephala P.M. Kirk (1)
Kmetia Bres. & Sacc. (1)
Kmetiopsis Bat. & Peres (1)
Knemiothyrium Bat. & J.L. Bezerra (1)
Kodonospora K. Ando (1)
Kolletes Kohlm. & Volkm.-Kohlm. (1)
Kontospora A. Roldán et al. (1)
Korunomyces Hodges & F.A. Ferreira (3)
Kostermansinda Rifai (4)
Kostermansindiopsis R.F. Castañeda (1)
Kramabeeja G.V. Rao & K.A. Reddy (1)
Kramasamuha Subram. & Vittal (1)
Kreiseliella Braun (1)
Kumanasamuha P. Rag. Rao & D. Rao (5)
Kutilakesa Subram. (2)
Kyphophora B. Sutton (1)
Lacellina Sacc. (3)
Lacellinopsis Subram. (3)
Laciniocladium Petri (1)
Lagenomyces Cavalc. & A.A. Silva (1)
Lambdasporium Matsush. (3)
Lambinonia Sérus. & Diederich (1)
Laocoön J.C. David (1)
Lappodochium Matsush. (1)
Lasiodiplodiella Zambett. (3)
Lasiothyrium Syd. & P. Syd. (1)
Lasmeniella Petr. & Syd. (13)
Latericonis G.V. Rao, K.A. Reddy & de Hoog (1)
Lateriramulosa Matsush. (5)
Laterispora Uecker, W.A. Ayers & P.B. Adams (1)
Lawalreea Diederich (1)
Lecaniocola Brain (1)
Lecanostictopsis B. Sutton & Crous (4)
Leeina Petr. (1)
Leightoniomyces D. Hawksw. & B. Sutton (2)
Lembuncula Cif. (1)
Lemkea Morgan-Jones & R.C. Sinclair (1)
Lepisticola W. Gams (1)
Leprieurinella Bat. & H. Maia (1)
Leptascospora Speg. (1)
Leptochlamys Died. (1)
Leptodermella Höhn. (1)
Leptophyllosticta I.E. Brezhnev (2)

Leptostromella (Sacc.) Sacc. (2)
Leptothyrella Sacc. (10)
Leptothyrina Höhn. (1)
Leptothyrium Kunze (2)
Leucoconiella Bat., H. Maia & Peres (1)
Leucoconis Theiss. & Syd. (1)
Leucodochium Syd. & P. Syd. (1)
Leuliisinea Matsush. (2)
Lichenobactridium Diederich & Etayo (1)
Lichenohendersonia Calat. & Etayo (3)
Lichenopeziza Zukal (1)
Lichenophoma Keissl. (2)
Lichenopuccinia D. Hawksw. & Hafellner (1)
Lichenostella Calat. & Etayo (1)
Linkosia A. Hern. Gut. & B. Sutton (12)
Linochorella Syd. & P. Syd. (1)
Linodochium Höhn. (5)
Listeromyces Penz. & Sacc. (1)
Lithopythium Bornet & Flahault (3)
Lobatopedis P.M. Kirk (5)
Loliomyces Maire (1)
Lomaantha Subram. (3)
Lomachashaka Subram. (5)
Ludwigomyces Kirschst. (1)
Luxuriomyces R.F. Castañeda (1)
Luzfridiella R.F. Castañeda & W.B. Kendr. (1)
Lylea Morgan-Jones (6)
Lysotheca Cif. (6)
Mackenziella Yanna & K.D. Hyde (1)
Macroallantina Speer (1)
Macrodiplodia Sacc. (2)
Macrotrichum Grev. (2)
Magmopsis Nyl. (1)
Mahabalella B. Sutton & S.D. Patil (4)
Manginella Bat. & H. Maia (2)
Mapletonia B. Sutton (1)
Margarinomyces Laxa (1 *fide* Kirk et al. 2008)
Martinellisia V.G. Rao & Varghese (1)
Massalongina Bubák (2)
Matsushimiella R.F. Castañeda & Heredia (2)
Matsushimomyces V.G. Rao & Varghese (2)
Medusamyces G.L. Barron & Szijarto (1)
Megalodochium Deighton (4)
Megaloseptoria Naumov (1)
Melanocephala S. Hughes (5)
Melanophoma Papendorf & J.W. du Toit (1)
Melophia Sacc. (4)
Menidochium R.F. Castañeda & W.B. Kendr. (1)
Mercadomyces J. Mena (1)
Merismella Syd. (6)
Metadiplodia Syd. (40)
Metazythia Petr. (1)

Metazythiopsis M. Morelet (1)
Microblastosporon Cif. (1)
Microclava F. Stevens (5)
Microdiscula Höhn. (2)
Microdothiorella C.A.A. Costa & Sousa da Câmara (1)
Microhendersonula Dias & Sousa da Câmara (1)
Micromastia Speg. (2)
Microperella Höhn. (1)
Micropustulomyces R.W. Barreto (1)
Microtyle Speg. (1)
Microxyphiella Speg. (15)
Microxyphiopsis Bat. (2)
Mindoa Petr. (2)
Minimidochium B. Sutton (8)
Minteriella Heredia, R.F. Castañeda & R.M. Arias (1)
Minutophoma D. Hawksw. (1)
Mirandina G. Arnaud ex Matsush. (ca. 10)
Miricatena Punith. & Spooner (2)
Mirimyces Nag Raj (1)
Monochaetiella E. Castell. (3)
Monochaetinula Muthumary, Abbas & B. Sutton (6)
Monochaetopsis Pat. (1)
Monodia Breton & Faurel (2)
Monodidymaria U. Braun (5)
Monodisma Alcorn (1)
Monostichella Höhn. (15)
Moorella P. Rag. Rao & D. Rao (3)
Moralesia Urries (1)
Morrisographium M. Morelet (8)
Mucosetospora M. Morelet (1)
Muiogone Thaxt. (2)
Muirella R. Sprague (1)
Murogenella Goos & E.F. Morris (3)
Mycelephas R.F. Castañeda (2)
Mycocentrodochium K. Matsush. & Matsush. (1)
Mycoënterolobium Goos (3)
Mycohypallage B. Sutton (2)
Mycopara Bat. & J.L. Bezerra (1)
Mycospraguea U. Braun & Rogerson (1)
Mycosticta Höhn. (1)
Mycosylva M.C. Tulloch (3)
Mycotodea Kirschst. (14)
Mycousteria M.L. Farr (2)
Myiocoprula Petr. (2)
Myriellina Höhn. (2)
Myrmecomyces Jouvenaz & Kimbr. (1)
Myrotheciastrum Abbas & B. Sutton (1)
Mystrosporiella Munjal & Kulshr. (4)
Myxoparaphysella Caball. (2)
Myxosporella Sacc. (1)
Myxosporidiella Negru (1)
Myxostomellina Syd. (1)

Myxothyriopsis Bat. & A.F. Vital (1)
Myxothyrium Bubák & Kabát (1)
Naemosphaera P. Karst. (1)
Naemosphaerella Höhn. (2)
Nagrajia R.F. Castañeda & W.B. Kendr. (1)
Nagrajomyces Mel'nik (1)
Nakatopsis Whitton, McKenzie & K.D. Hyde (2)
Nanoschema B. Sutton (1)
Naothyrsium Bat. (1)
Necraphidium Cif. (1)
Nematogonum Desm. (1)
Nematographium Goid. (5)
Nemozythiella Höhn. (1)
Neoalpakesa Punith. (1)
Neoarbuscula B. Sutton (1)
Neobarclaya Sacc. (2)
Neodiplodina Petr. (1)
Neofuckelia Zeller & Goodd. (1)
Neoheteroceras Nag Raj (2)
Neojohnstonia B. Sutton (2)
Neoligniella Naumov (4)
Neomarssoniella U. Braun (1)
Neomelanconium Petr. (3)
Neoovularia U. Braun (6)
Neopeltis Syd. (3)
Neopericonia Kamal, A.N. Rai & Morgan-Jones (1)
Neophoma Petr. & Syd. (2)
Neoplaconema B. Sutton (2)
Neopodoconis Rifai (3)
Neoramularia U. Braun (9)
Neospegazzinia Petr. & Syd. (2)
Neottiospora Desm. (2)
Neozythia Petr. (1)
Neta Shearer & J.L. Crane (10)
Nidulispora Nawawi & Kuthub. (1)
Nigrolentilocus R.F. Castañeda & Heredia (6)
Nigromacula Etayo (1)
Nigropuncta D. Hawksw. (2)
Nosophloea Fr. (3)
Nothospora Peyronel (1)
Novozymia W.P. Wu (1)
Nummospora E. Müll. & Shoemaker (1)
Nusia Subram. (2)
Nyctalospora E.F. Morris (1)
Nypaella K.D. Hyde & B. Sutton (2)
Obeliospora Nawawi & Kuthub. (5)
Obstipipilus B. Sutton (1)
Octopodotus Kohlm. & Volkm.-Kohlm. (1)
Odontodictyospora Mercado (1)
Oedothea Syd. (1)
Ojibwaya B. Sutton (1)
Omega B. Sutton & Minter (1)

Oncopodium Sacc. (12)
Oncospora Kalchbr. (8)
Oncosporella P. Karst. (1)
Oncostroma Bat. & Marasas (1)
Onychophora W. Gams, P.J. Fisher & J. Webster (1)
Oothyrium Syd. (1)
Ophiosira Petr. (1)
Orphanocoela Nag Raj (3)
Ostracoderma Fr. (3)
Ostracodermidium Mukerji (1)
Oswaldina Rangel (1)
Paathramaya Subram. (5)
Pachycladina Marvanová (3)
Palawaniopsis Bat., Cif. & Nascim. (1)
Papilionospora V.G. Rao & B. Sutton (1)
Pappimyces B. Sutton & Hodges (1)
Paraaoria R.K. Verma & Kamal (1)
Paraarthrocladium Matsush. (1)
Parablastocatena Y.D. Zhang & X.G. Zhang (1)
Paraceratocladium R.F. Castañeda (6)
Parachionomyces Thaung (1)
Paracostantinella Subram. & Sudha (1)
Paracryptophiale Kuthub. & Nawawi (2)
Paracytospora Petr. (1)
Paradendryphiopsis M.B. Ellis (5)
Paradidymobotryum C.J.K. Wang & B. Sutton (1)
Paradiplodia Speg. ex Trotter (6)
Paradischloridium Bhat & B. Sutton (1)
Paradiscula Petr. (1)
Paraëpicoccum Matsush. (1)
Parafulvia Kamal, A.N. Rai & Morgan-Jones (1)
Parahaplotrichum W.A. Baker & Partr. (1)
Paraharknessia Matsush. (1)
Parahyalotiopsis Nag Raj (1)
Paramassariothea Subram. & Muthumary (1)
Paramenisporopsis Matsush. (1)
Parapericonia M.B. Ellis (2)
Parapericoniella U. Braun, Heuchert & K. Schub. (1)
Paraphaeoisaria de Hoog & Morgan-Jones (1)
Parapithomyces Thaung (1)
Parapyricularia M.B. Ellis (4)
Pararobillarda Matsush. (1)
Parasphaeropsis Petr. (1)
Parastigmatellina Bat. & C.A.A. Costa (1)
Paratetraploa M.K.M. Wong & K.D. Hyde (1)
Paratomenticola M.B. Ellis (2)
Paratrichoconis Deighton & Piroz. (4)
Paraulocladium R.F. Castañeda (2)
Paspalomyces Linder (1)
Patriciomyces D. Hawksw. (1)
Pazschkeella Syd. & P. Syd.
Peethasthabeeja P. Rag. Rao (1)

Pellionella (Sacc.) Sacc. (1)
Peltasterinostroma Punith. (1)
Peltasteropsis Bat. & H. Maia (7)
Peltistroma Henn. (1)
Peltistromella Höhn. (1)
Peltosoma Syd. (1)
Peltostromellina Bat. & A.F. Vital (1)
Peltostromopsis Bat. & A.F. Vital (1)
Penzigomyces Subram. (13)
Perelegamyces R.F. Castañeda & W.B. Kendr. (1)
Perizomella Syd. (1)
Pestalozziella Sacc. & Ellis ex Sacc. (4)
Petrakiopsis Subram. & K.R.C. Reddy (1)
Phacostroma Petr. (1)
Phacostromella Petr. (1)
Phaeoblastophora Partr. & Morgan-Jones (2)
Phaeocandelabrum R.F. Castañeda, Gusmão, Guarro & Iturr. (3)
Phaeodactylium Agnihothr. (7)
Phaeodiscula Cub. (1)
Phaeodomus Höhn. (3)
Phaeohiratsukaea Udagawa & Iwatsu (1)
Phaeoidiomyces Dorn.-Silva & Dianese (2)
Phaeolabrella Speg. (1)
Phaeomonilia R.F. Castañeda, Heredia & R.M. Arias (5)
Phaeomonostichella Keissl. ex Petr. (1)
Phaeophloeosporella Crous & B. Sutton (1)
Phaeophomopsis Höhn. (1)
Phaeoschizotrichum C.R. Silva, Gusmão & R.F. Castañeda (1)
Phaeostalagmus W. Gams (7)
Phaeostilbelloides Armando, Z.M. Chaves & Dianese (1)
Phaeothyrium Petr. (1)
Phaeotrichoconis Subram. (8)
Phaeoxyphiella Bat. & Cif. (7)
Phellostroma Syd. & P. Syd. (1)
Phialoarthrobotryum Matsush. (2)
Phialogeniculata Matsush. (4)
Phialophaeoisaria Matsush. (1)
Phialostele Deighton (1)
Phialotubus R.Y. Roy & Leelav. (1)
Phloeosporina Höhn. (1)
Phlyctaeniella Petr. (2)
Phomachora Petr. & Syd. (2)
Phomachorella Petr. (1)
Phomatosporella Tak. Kobay. & K. Sasaki (1)
Phomyces Clem. (1)
Phragmoconidium G.F. Sepúlveda, Pereira-Carv. & Dianese (1)
Phragmopeltis Henn. (5)
Phragmospathula Subram. & N.G. Nair (3)
Phragmospathulella J. Mena & Mercado (1)
Phthora d'Hérelle (1)
Phylloedium Fr. (1)
Phyllohendersonia Tassi (25)

Physalidiella Rulamort (2)
Physalidiopsis R.F. Castañeda & W.B. Kendr. (1)
Piggotia Berk. & Broome (3)
Pinatubo J.B. Manandhar & Mew (1)
Piperivora Siboe, P.M. Kirk & P.F. Cannon (1)
Piricauda Bubák (8)
Piricaudilium Hol.-Jech. (2)
Piricaudiopsis J. Mena & Mercado (1)
Pirispora Faurel & Schotter (1)
Pirostomella Sacc. (2)
Pithosira Petr. (1)
Pittostroma Kowalski & T.N. Sieber (1)
Placella Syd. (1)
Placodiplodia Bubák (2)
Placonema (Sacc.) Petr. (3)
Placonemina Petr. (1)
Placosphaerina Maire (1)
Placothea Syd. (1)
Placothyrium Bubák (1)
Plagiostigmella Petr. (1)
Plasia Sherwood (1)
Plectonaemella Höhn. (1)
Plectopeltis Syd. (1)
Plectophomopsis Petr. (1)
Plectopycnis Bat. & A.F. Vital (4)
Plectosira Petr. (1)
Plectronidiopsis Nag Raj (1)
Plectronidium Nag Raj (4)
Plenocatenulis Bat. & Cif. (1)
Plenophysa Syd. & P. Syd. (1)
Plenotrichopsis Bat. (1)
Plenotrichum Syd. (2)
Plenozythia Syd. & P. Syd. (2)
Pleocouturea G. Arnaud (2)
Plesiospora Drechsler (1)
Pleurodesmospora Samson, W. Gams & H.C. Evans (1)
Pleurodiscula Höhn. (1)
Pleurodomus Petr. (1)
Pleuropedium Marvanová & S.H. Iqbal (3)
Pleurophomopsis Petr. (7)
Pleuroplaconema Petr. (2)
Pleuroplacosphaeria Syd. (1)
Pleurostromella Petr. (15)
Pleurotheciopsis B. Sutton (6)
Pleurothyriella Petr. & Syd. (1)
Pleurovularia R. Kirschner & U. Braun (1)
Pocillopycnis Dyko & B. Sutton (1)
Podoplaconema Petr. (1)
Podosporiella Ellis & Everh. (4)
Podosporiopsis Jian Ma, X.G. Zhang & R.F. Castañeda (2)
Podosporium Schwein. (67)
Poikilosperma Bat. & J.L. Bezerra (1)

Polybulbophiale Goh & K.D. Hyde (1)
Polychaetella Speg. (3)
Polycladium Ingold (1)
Polydesmus Mont. (14)
Polyetron Bat. & Peres (1)
Polylobatispora Matsush. (3)
Polyrostrata T.P. Devi & N. Mathur (2)
Polystomellomyces Bat. (1)
Polystratorictus Matsush. (2)
Polytretophora Mercado (3)
Porocladium Descals (1)
Poropeltis Henn. (1)
Porophilomyces U. Braun (1)
Porosubramaniania Hol.-Jech. (2)
Porrectotheca Matsush. (1)
Potamomyces K.D. Hyde (1)
Proboscispora Punith. (1)
Protostegiomyces Bat. & A.F. Vital (1)
Protostroma Bat. (1)
Pseudoacrodictys W.A. Baker & Morgan-Jones (14)
Pseudoanguillospora S.H. Iqbal (3)
Pseudoaristastoma Suj. Singh (1)
Pseudoasperisporium U. Braun (3)
Pseudobasidiospora Dyko & B. Sutton (1)
Pseudocanalisporium R.F. Castañeda & W.B. Kendr. (1)
Pseudocenangium P. Karst. (1)
Pseudochuppia Kamal et al. (1)
Pseudoclathrosphaerina Voglmayr (2)
Pseudoconium Petr. (1)
Pseudocytoplacosphaeria Punith. & Spooner (1)
Pseudocytospora Petr. (1)
Pseudodichomera Höhn. (3)
Pseudodidymaria U. Braun (3)
Pseudodiplodia (P. Karst.) Sacc. (45)
Pseudodiscula Laubert (2)
Pseudofuscophialis Sivan. & H.S. Chang (1)
Pseudogaster Höhn. (1)
Pseudographiella E.F. Morris (3)
Pseudohepatica P.M. Jørg. (1)
Pseudomicrodochium B. Sutton (8)
Pseudoneottiospora Faurel & Schotter (2)
Pseudopatellina Höhn. (1)
Pseudopeltistroma Katum. (1)
Pseudoperitheca Elenkin (1)
Pseudopetrakia M.B. Ellis (2)
Pseudophloeosporella U. Braun (1)
Pseudophragmotrichum W.P. Wu, B. Sutton & Gange (1)
Pseudopolystigmina Murashk. (2)
Pseudoramularia Matsush. (2)
Pseudorhizopogon Kobayasi (1)
Pseudoschizothyra Punith. (1)
Pseudosigmoidea K. Ando & N. Nakam. (2)

Pseudostegia Bubák (1)
Pseudothyrium Höhn. (1)
Pseudotorula Subram. (3)
Pseudotracylla B. Sutton & Hodges (2)
Pseudotrichoconis W.A. Baker & Morgan-Jones (1)
Pseudozythia Höhn. (1)
Psilosphaeria Cooke (1)
Pteromycula P. Cannon (1)
Pterulopsis Wakef. & Hansf. (1)
Pterygosporopsis P.M. Kirk (2)
Pucciniospora Speg. (1)
Pulchromyces Hennebert (1)
Pullospora Faurel & Schotter (2)
Pulvinella A.W. Ramaley (1)
Punctillina Toro (1)
Pycmaeosphaera Etayo & Diederich (3)
Pycnidioarxiella Punith. & N.D. Sharma (1)
Pycnidiopeltis Bat. & C.A.A. Costa (1)
Pycnis Bref. (1)
Pycnodactylus Bat., A.A. Silva & Cavalc. (1)
Pycnodallia Kohlm. & Volkm.-Kohlm. (1)
Pycnoharknessia Matsush. (1)
Pycnomma Syd. (1)
Pycnomoreletia Rulamort (2)
Pycnoseynesia Kuntze (1)
Pycnothera N.D. Sharma & G.P. Agarwal (1)
Pycnothyriella Bat. (2)
Pycnothyrium Diederich (6)
Pyramidospora Sv. Nilsson (9)
Pyrenyllium Clem. (2)
Pyrgostroma Petr. (2)
Pyripnomyces Cavalc. (1)
Quadracaea Lunghini, Pinzari & Zucconi (3)
Quadricladium Nawawi & Kuthub. (1)
Quasidiscus B. Sutton (1)
Quasiphloeospora B. Sutton, Crous & Shamoun (1)
Queenslandia Bat. & H. Maia (5)
Quezelia Faurel & Schotter (1)
Raciborskiomyces Siemaszko (4)
Radiatispora Matsush. (1)
Raizadenia S.L. Srivast. (1)
Ramakrishnanella Kamat & Ullasa ex Ullasa (1)
Ramicapitulum Whitton, K.D. Hyde & McKenzie (1)
Ramicephala Voglmayr & G. Delgado (1)
Ramoconidiifera B. Sutton, Carmarán & A.I. Romero (2)
Redbia Deighton & Piroz. (5)
Refractohilum D. Hawksw. (5)
Repetoblastiella R.F. Castañeda, Minter & M. Stadler (1)
Rhabdoclema Syd. (2)
Rhabdogloeopsis Petr. (2)
Rhabdostromella Höhn. (1)
Rhabdostromina Died. (3)

Rhexoampullifera P.M. Kirk (3)
Rhexoprolifer Matsush. (1)
Rhinotrichella G. Arnaud ex de Hoog (4)
Rhipidocephalum Trail (2)
Rhizosphaerina B. Sutton (2)
Rhodesia Grove (2)
Rhodesiopsis B. Sutton & R. Campb. (2)
Rhodothallus Bat. & Cif. (2)
Rhombostilbella Zimm. (2)
Rhopalocladium Schroers, Samuels & W. Gams (1)
Rhynchodiplodia Briosi & Farneti (1)
Rhynchomyces Willk. (1)
Rhynchoseptoria Unamuno (1)
Rhynchosporina Arx (2)
Riclaretia Peyronel (1)
Rileya A. Funk (1)
Robakia Petr. (1)
Rogergoosiella A. Hern.-Gut. & J. Mena (1)
Roscoepoundia Kuntze (1)
Rosulomyces S. Marchand & Cabral (1)
Rota Bat., Cif. & Nascim. (1)
Ruggieria Cif. & Montemart. (1)
Saania Zhurb. (1)
Sadasivania Subram. (3)
Sanjuanomyces R.F. Castañeda & W.B. Kendr. (1)
Sarcinosporon D.S. King & S.C. Jong (1)
Sarcoexcipula Etayo (1)
Sarcophoma Höhn. (3)
Sarophorum Syd. & P. Syd. (1)
Satchmopsis B. Sutton & Hodges (1)
Sativumoides S.C. Ren, Jian Ma & X.G. Zhang (1)
Scaphidium Clem. (1)
Sceptrifera Deighton (1)
Schizothyra Bat. & C.A.A. Costa (1)
Schizothyrella Thüm. (1)
Schizothyropsis Bat. & A.F. Vital (1)
Schizotrichum McAlpine (1)
Schroeteria G. Winter (1)
Schwarzmannia Pisareva (1)
Scirrhophoma Petr. (1)
Sclerographiopsis Deighton (1)
Sclerographium Berk. (4)
Scleromeris Syd. (3)
Sclerophoma Höhn. (30)
Scleropycnis Syd. & P. Syd. (2)
Sclerozythia Petch (1)
Scolecobasidiella M.B. Ellis (2)
Scolecobeltrania Iturr., R.F. Castañeda & Rob. Fernández (1)
Scolecodochium K. Matsush. & Matsush. (1)
Scolecosporiella Petr. (6)
Scolecotheca Søchting & B. Sutton (1)
Scolecozythia Curzi (1)

Scoliotidium Bat. & Cavalc. (1)
Scopaphoma Dearn. & House (1)
Scopulariella Gjaerum (1)
Scothelius Bat., J.L. Bezerra & Cavalc. (1)
Scutisporus K. Ando & Tubaki (1)
Scutopeltis Bat. & H. Maia (2)
Scutopycnis Bat. (2)
Seimatosporiopsis B. Sutton, Ghaffer & Abbas (2)
Selenosira Petr. (1)
Selenosporopsis R.F. Castañeda & W.B. Kendr. (1)
Semipseudocercospora J.M. Yen (2)
Septocytella Syd. (1)
Septogloeum Sacc. (2)
Septomyxella (Höhn.) Höhn. (1)
Septopatella Petr. (1)
Septosporiopsis W.A. Baker & Morgan-Jones (1)
Septosporium Corda (5)
Septotrullula Höhn. (2)
Sessiliospora D. Hawksw. (1)
Setolibertella Punith. & Spooner (1)
Setophiale Matsush. (1)
Setosporella Mustafa & Abdul-Wahid (1)
Seychellomyces Matsush. (1)
Seynesiopsis Henn. (1)
Shawiella Hansf. (1)
Sheariella Petr. (1)
Sheathnema Dubey & Moonambeth (2)
Shivomyces Hosag. (2)
Siamia V. Robert, Decock & R.F. Castañeda (1)
Sigmatomyces Sacc. & P. Syd. (1)
Simmonsiella J.L. Crane & A.N. Mill. (1)
Sirexcipula Bubák (1)
Sirocyphis Clem. (1)
Sirogloea Petr. (1)
Siroligniella Naumov (1)
Sirophoma Höhn. (3)
Siroplacodium Petr. (6)
Siropleura Petr. (1)
Siroscyphellina Petr. (2)
Sirosperma Syd. & P. Syd. (2)
Sirosphaera Syd. & P. Syd. (2)
Sirosporonaemella Naumov (1)
Sirothecium P. Karst. (3)
Sirothyriella Höhn. (2)
Sirothyrium Syd. & P. Syd. (1)
Sirozythia Höhn. (2)
Sirozythiella Höhn. (1)
Sitochora H.B.P. Upadhyay (1)
Slimacomyces Minter (2)
Soloacrospora W.B. Kendr. & R.F. Castañeda (2)
Solosympodiella Matsush. (8)
Soloterminospora Matsush. (1)

Spermatoloncha Speg. (1)
Spermatoloncha Speg. (1)
Spermochaetella Cif. (1)
Spermospora R. Sprague (9)
Spermosporella Deighton (4)
Sphaeridium Fresen. (5)
Sphaeriostromella Bubák (1)
Sphaeriothyrium Bubák (2)
Sphaeromma H.B.P. Upadhyay (2)
Sphaeronaema Fr. (50)
Sphaerophoma Petr. (2)
Sphaerulomyces Marvanová (1)
Spinulospora Deighton (1)
Spiralum J.L. Mulder (2)
Spiropes Cif. (ca. 40)
Splanchospora Lar.N. Vassiljeva (1)
Spondylocladiella Linder (2)
Spondylocladiopsis M.B. Ellis (2)
Sporhaplus H.B.P. Upadhyay (1)
Sporidesmiopsis Subram. & Bhat (6)
Sporoglena Sacc. (1)
Sporophiala P. Rag. Rao (3)
Sporotretophora Whitton, McKenzie & K.D. Hyde (1)
Stachybotryella Ellis & Barthol. (3)
Stachybotryna Tubaki & T. Yokoy. (6)
Stagonopatella Petr. (1)
Stagonopsis Sacc. (4)
Stagonosporina Tassi (1)
Stagonostromella Petr. & Syd. (1)
Staheliella Emden (2)
Stalagmochaetia Cif. & Bat. (2)
Stanhughesiella R.F. Castañeda & D.W. Li (1)
Stauronema (Sacc.) Syd., P. Syd. & E.J. Butler (5)
Stauronematopsis Abbas, B. Sutton & Ghaffar (1)
Staurophoma Höhn. (1)
Stegonsporiopsis Van Warmelo & B. Sutton (1)
Stellifraga Alstrup & Olech (1)
Stellomyces Morgan-Jones, R.C. Sinclair & Eicker (2)
Stellopeltis Bat. & A.F. Vital (2)
Stellospora Alcorn & B. Sutton (2)
Stellothyriella Bat. & Cif. (2)
Stenocephalopsis Chamuris & C.J.K. Wang (1)
Stenocladiella Marvanová & Descals (1)
Stenospora Deighton (1)
Stephembruneria R.F. Castañeda (1)
Stevensonula Petr. (1)
Stictopatella Höhn. (1)
Stictosepta Petr. (1)
Stigmatellina Bat. & H. Maia (1)
Stigmea Fr. (1)
Stigmella Lév. (28)
Stigmopeltis Syd. (2)

Stilbellula Boedijn (1)
Stilbodendron Syd. & P. Syd. (1)
Stilbophoma Petr. (1)
Strasseriopsis B. Sutton & Tak. Kobay. (1)
Stratiphoromyces Goh & K.D. Hyde (2)
Striosphaeropsis Verkley & Aa (1)
Stromatocrea W.B. Cooke (1)
Stromatopogon Zahlbr. (3)
Stromatopycnis A.F. Vital (1)
Stromatostysanus Höhn. (3)
Strongylothallus Bat. & Cif. (1)
Stygiomyces Coppins & S.Y. Kondr. (1)
Stylaspergillus B. Sutton, Alcorn & P.J. Fisher (1)
Subhysteropycnis Wedin & Hafellner (1)
Subicularium M.L. Farr & Goos (1)
Subulispora Tubaki (8)
Suttoniella S. Ahmad (3)
Suttonina H.C. Evans (1)
Syamithabeeja Subram. & Natarajan (1)
Sylviacollaea Cif. (1)
Symphysos Bat. & Cavalc. (1)
Sympodiella W.B. Kendr. (5)
Sympodiocladium Descals (1)
Sympodioclathra Voglmayr (1)
Sympodioplanus R.C. Sinclair & Boshoff (3)
Sympodiosynnema J.W. Xia & X.G. Zhang (1)
Synchronoblastia Uecker & F.L. Caruso (1)
Syncladium Rabenh. (1)
Synnemacrodictys W.A. Baker & Morgan-Jones (1)
Synnemaseimatoides K. Matsush. & Matsush. (1)
Synnematomyces Kobayasi (1)
Synostomina Petr. (1)
Syphosphaera Dumort. (1)
Systremmopsis Petr. (1)
Taeniolina M.B. Ellis (6)
Talekpea Lunghini & Rambelli (1)
Talpapellis Alstrup & M.S. Cole (4)
Tandonea M.D. Mehrotra (1)
Tarsodisporus Bat. & A.A. Silva (1)
Tectacervulus A.W. Ramaley (1)
Telioclipeum Viégas (1)
Temerariomyces B. Sutton (1)
Teratosperma Syd. & P. Syd. (11)
Termitaria Thaxt. (6)
Tetrabrachium Nawawi & Kuthub. (1)
Tetrabrunneospora Dyko (1)
Tetracoccosporium Szabó (4)
Tetrameronycha Speg. ex W. Rossi & M. Blackw. (1)
Tetranacriella Kohlm. & Volkm.-Kohlm. (1)
Tetranacrium H.J. Huds. & B. Sutton (1)
Tetraposporium S. Hughes (2)
Textotheca Matsush. (1)

Thaptospora B. Sutton & Pascoe (3)
Thirumalacharia Rathaiah (1)
Tholomyces Matsush. (1)
Thoracella Oudem. (1)
Thrinacospora Petr. (1)
Thyriostromella Bat. & C.A.A. Costa (1)
Thyrostromella Höhn. (3)
Thyrsidiella Höhn. ex Höhn. (2)
Thyrsidina Höhn. (1)
Tiarosporellivora Punith. (1)
Ticogloea G. Weber et al. (2)
Ticosynnema R.F. Castañeda, Granados & Mardones (1)
Titaea Sacc. (23)
Titaeopsis B. Sutton & Deighton (1)
Titaeospora Bubák (2)
Tomenticola Deighton (1)
Tompetchia Subram. (1)
Toxosporiella B. Sutton (1)
Toxosporiopsis B. Sutton & Sellar (1)
Toxosporium Vuill. (2)
Trematophoma Petr. (2)
Tremellidium Petr. (1)
Tretendophragmia Subram. (1)
Tretocephala Subram. (1)
Tretolylea Cantillo, R.F. Castañeda & Gusmão (1)
Tretospeira Piroz. (1)
Tretovularia Deighton (1)
Tribolospora D.A. Reid (1)
Tricellula Beverw. (8)
Trichobolbus Bat. (1)
Trichobotrys Penz. & Sacc. (4)
Trichoconis Clem. (21)
Trichodiscula Vouaux (1)
Trichodochium Syd. (3)
Trichomatoclava G.F. Sepúlveda, Pereira-Carv. & Dianese (1)
Trichomatomyces Dorn.-Silva & Dianese (1)
Trichomatosphaera Pereira-Carv., G.F. Sepúlveda & Dianese (1)
Trichopeltulum Speg. (1)
Trichoseptoria Cavara (2)
Trichosporiella Kamyschko (4)
Trichosporodochium Dorn.-Silva & Dianese (1)
Trichotheca P. Karst. (1)
Tricladiella K. Ando & Tubaki (1)
Tricladiopsis Descals (2)
Tricladiospora Nawawi & Kuthub. (3)
Tricornispora Bonar (1)
Trifurcospora K. Ando & Tubaki (2)
Trigonosporium Tassi (2)
Tripoconidium Subram. (1)
Triposporina Höhn. (2)
Triramulispora Matsush. (3)
Triscelophorus Ingold (8)

Triscelosporium Nawawi & Kuthub. (1)
Trisulcosporium H.J. Huds. & B. Sutton (1)
Tromeropsis Sherwood (1)
Troposporium Harkn. (1)
Troposporopsis Whitton, McKenzie & K.D. Hyde (2)
Tryblidiopycnis Höhn. (1)
Tryssglobulus B. Sutton & Pascoe (1)
Tuberculispora Deighton & Piroz. (1)
Tunicago B. Sutton & Pollack (2)
Turturconchata J.L. Chen, T.L. Huang & Tzean (2)
Tympanosporium W. Gams (1)
Uberispora Piroz. & Hodges (4)
Ubrizsya Negru (1)
Ulocoryphus Michaelides, L. Hunter & W.B. Kendr. (1)
Umbellidion B. Sutton & Hodges (1)
Uniseta Ciccar. (1)
Urohendersonia Speg. (5)
Urohendersoniella Petr. (1)
Uvarispora Goos & Piroz. (1)
Vagnia D. Hawksw. & Miądl. (1)
Vanakripa Bhat et al. (9)
Vanbeverwijkia Agnihothr. (1)
Vanderystiella Henn. (1)
Vanterpoolia A. Funk (1)
Vasudevella Chona et al. (1)
Velloziomyces Armando, Z.M. Chaves & Dianese (1)
Velutipila D. Hawksw. (1)
Ventrographium H.P. Upadhyay, Cavalc. & A.A. Silva (1)
Venustocephala Matsush. (2)
Venustosynnema R.F. Castañeda & W.B. Kendr. (3)
Veracruzomyces Mercado, Guarro, Heredia & J. Mena (1)
Veramycella G. Delgado (1)
Veramyces Matsush. (1)
Verdipulvinus A.W. Ramaley (1)
Veronaella Subram. & K.R.C. Reddy (1)
Veronidia Negru (1)
Verrucariella S. Ahmad (1)
Verrucaster Tobler (1)
Verrucophragmia Crous, M.J. Wingf. & W.B. Kendr. (1)
Verticicladus Matsush. (3)
Vesicladiella Crous & M.J. Wingf. (1)
Vesiculohyphomyces Armando, Pereira-Carv. & Dianese (1)
Vestigium Piroz. & Shoemaker (2)
Virgariella S. Hughes (11)
Viridiannula Etayo (1)
Vittalia Gaws & Bhat (1)
Vizellopsidites M.A. Khan, M. Bera & Bera (1)
Vouauxiella Petr. & Syd. (3)
Waihonghopes Yanna & K.D. Hyde (1)
Wardinella Bat. & Peres (1)
Websteromyces W.A. Baker & Partr. (2)
Weufia Bhat & B. Sutton (1)

Wolkia Ramsb. (1)
Xenidiocercus Nag Raj (1)
Xenochora Petr. (1)
Xenodomus Petr. (1)
Xenoheteroconium Bhat, W.B. Kendr. & Nag Raj (1)
Xenokylindria DiCosmo, S.M. Berch & W.B. Kendr. (2)
Xenomyxa Syd. (1)
Xenopeltis Syd. & P. Syd. (1)
Xenoplaca Petr. (1)
Xenostroma Höhn. (1)
Xeroconium D. Hawksw. (1)
Xiphomyces Syd. & P. Syd. (2)
Xiuguozhangia K. Zhang, R.F. Castañeda, Jian Ma & L.G. Ma (5)
Xylochia B. Sutton (2)
Xyloglyphis Clem. (1)
Xylohypha (Fr.) E.W. Mason (6)
Xylohyphopsis W.A. Baker & Partr. (3)
Yalomyces Nag Raj (6)
Yinmingella Goh, C.K.M. Tsui & K.D. Hyde (1)
Ypsilomyces D.A.C. Almeida & Gusmão (1)
Yuccamyces Gour, Dyko & B. Sutton (6)
Zakatoshia B. Sutton (2)
Zebrospora McKenzie (1)
Zelandiocoela Nag Raj (1)
Zelodactylaria A.C. Cruz, Gusmão & R.F. Castañeda (1)
Zelopelta B. Sutton & R.D. Gaur (1)
Zelosatchmopsis Nag Raj (1)
Zetesimomyces Nag Raj (1)
Zevadia J.C. David & D. Hawksw. (1)
Zilingia Petr. (1)
Zinzipegasa Nag Raj (1)
Zopheromyces B. Sutton & Hodges (1)
Zunura Nag Raj (1)
Zythia Fr. (1)
Zyxiphora B. Sutton (1)

BASIDIOBOLOMYCOTA Doweld
Basidiobolomycetes Doweld*
Basidiobolales Jacz. & P.A. Jacz.*
Basidiobolaceae Engl. & E. Gilg
Basidiobolus Eidam (10)
Schizangiella J. Dwyer, B. Burwell, Humber, C. Mcleod, M. Fleetwood & T. Johnson bis (1)

BASIDIOMYCOTA R.T. Moore
Basidiomycota R.T. Moore
Agaricomycotina Doweld
Agaricomycetes Doweld
Agaricales Underw.
Agaricaceae Chevall.
Abstoma G. Cunn. (8)
Acutocapillitium P. Ponce de León (3)

Agaricus L. (ca. 500)
Arachnion Schwein. (13)
Barcheria T. Lebel (1)
Battarrea Pers. (3)
Battarreoides T. Herrera (1)
Calvatiopsis Hollós (1)
Chamaemyces Battarra ex Earle (2)
Chlamydopus Speg. (1)
Chlorolepiota Sathe & S.D. Deshp. (3)
Chlorophyllum Massee (19)
Clarkeinda Kuntze (5)
Clavogaster Henn. (2)
Coniolepiota Vellinga (1)
Coprinus Pers. (ca. 17)
Crucispora E. Horak (2)
Cystolepiota Singer (ca. 12)
Dictyocephalos L.M. Underwood ex V.S. White (1)
Disciseda Czern. (15)
Echinoderma (Locq. ex Bon) Bon (ca. 15)
Endolepiotula Singer (1)
Eriocybe Vellinga (1)
Gasterellopsis Routien (1)
Glyptoderma R. Heim & Perr.-Bertr. (1)
Heinemannomyces Watling (2)
Hiatulopsis Singer & Grinling (2)
Holocotylon Lloyd (3)
Hymenagaricus Heinem. (20)
Janauaria Singer (1)
Japonogaster Kobayasi (1)
Lepiota (Pers.) Gray (ca. 450)
Leucoagaricus Locq. ex Singer (ca. 135)
Leucocoprinus Pat. (ca. 50)
Lycoperdopsis Henn. (1)
Macrolepiota Singer (ca. 40)
Melanophyllum Velen. (3)
Metrodia Raithelh. (2)
Micropsalliota Höhn. (ca. 70)
Montagnea Fr. (5)
Mycenastrum Desv. (18)
Neosecotium Singer & A.H. Sm. (2)
Panaeolopsis Singer (4)
Phellorinia Berk. (1)
Phyllogaster Pegler (1)
Podaxis Desv. (10)
Pseudoauricularia Kobayasi (1)
Pseudolepiota Z.W. Ge (1)
Queletia Fr. (2)
Rugosospora Heinem. (2)
Schinzinia Fayod (1)
Schizostoma Ehrenb. ex Lév. (1)
Singerina Sathe & S.D. Deshp. (1)
Smithiogaster J.E. Wright (1)

Smithiomyces Singer (3)
Termiticola E. Horak (1)
Tulostoma Pers. (ca. 83)
Xanthagaricus (Heinem.) Little Flower, Hosag. & T.K. Abraham (12)
Xerocoprinus Maire (1)

Amanitaceae E.-J. Gilbert
Amanita Pers. (ca. 570)
Catatrama Franco-Mol. (2)
Limacella Earle (ca. 15)
Limacellopsis Zhu L. Yang, Q. Cai & Y.Y. Cui (2)
Zhuliangomyces Redhead (5)

Biannulariaceae Jülich
Anupama K.N.A. Raj, K.P.D. Latha & Manim. (1)
Callistosporium Singer (14)
Catathelasma Lovejoy (4)
Guyanagarika Sánchez-García, T.W. Henkel & Aime (3)
Macrocybe Pegler & Lodge (7)
Pleurocollybia Singer (6)
Pseudolaccaria Vizzini, Contu& Z.W. Ge (1)

Bolbitiaceae Singer
Agrogaster D.A. Reid (1)
Bolbitius Fr. (ca. 70)
Conocybe Fayod (ca. 221)
Cyttarophyllopsis R. Heim (1)
Descolea Singer (ca. 15)
Galerella Earle (8)
Galeropsis Velen. (9)
Gymnoglossum Massee (1)
Pholiotina Fayod (56)
Ptychella Roze & Boud. (1)
Rhodoarrhenia Singer (8)
Tubariella E. Horak & Hauskn. (1)
Tubariopsis R. Heim (1)
Tympanella E. Horak (1)
Wielandomyces Raithelh. (1)

Broomeiaceae Zeller
Broomeia Berk. (2)

Chromocyphellaceae Knudsen
Chromocyphella De Toni & Levi (5)

Clavariaceae Chevall.
Camarophyllopsis Herink (26)
Clavaria Vaill. ex L. (32)
Clavicorona Doty (10)
Clavulinopsis Overeem (34)
Hirticlavula J.H. Petersen & Læssøe (1)
Hodophilus R. Heim (13)

Hyphodontiella Å. Strid (2)
Lamelloclavaria Birkebak & Adamčík (1)
Ramariopsis (Donk) Corner (48)
Setigeroclavula R.H. Petersen (1)

Cortinariaceae R. Heim ex Pouzar
Cortinarius (Pers.) Gray (ca. 2250)
Protoglossum Massee (8)
Pyrrhoglossum Singer (12)
Quadrispora Bougher & Castellano (3)
Stephanopus M.M. Moser & E. Horak (5)

Crassisporiaceae Vizzini, Consiglio & M. Marchetti
Crassisporium Matheny, P.-A. Moreau & Vizzini (3)
Romagnesiella Contu, Matheny, P.-A. Moreau, Vizzini & A. de Haan (2)

Crepidotaceae (S. Imai) Singer
Crepidotus (Fr.) Staude (ca. 200)
Episphaeria Donk (1)
Nanstelocephala Oberw. & R.H. Petersen (1)
Pellidiscus Donk (3)
Pleuroflammula Singer (10)
Simocybe P. Karst. (26)

Cyphellaceae Lotsy
Asterocyphella W.B. Cooke (3)
Campanophyllum Cifuentes & R.H. Petersen (1)
Catilla Pat. (1)
Cheimonophyllum Singer (4)
Chondrostereum Pouzar (4)
Cunninghammyces Stalpers (2)
Cyphella Fr. (2)
Gloeocorticium Hjortstam & Ryvarden (1)
Gloeostereum S. Ito & S. Imai (1)
Granulobasidium Jülich (1)
Hyphoradulum Pouzar (1)
Incrustocalyptella Agerer (3)
Phaeoporotheleum (W.B. Cooke) W.B. Cooke (2)
Seticyphella Agerer (3)
Sphaerobasidioscypha Agerer (2)
Thujacorticium Ginns (1)

Cystostereaceae Jülich
Cericium Hjortstam (1)
Crustomyces Jülich (3)
Cystidiodontia Hjortstam (2)
Cystostereum Pouzar (7)
Parvobasidium Jülich (3)
Parvodontia Hjortstam & Ryvarden (2)
Rigidotubus J. Song, Y.C. Dai & B.K. Cui (1)

Entolomataceae Kotl. & Pouzar

Clitocella Kluting, T.J. Baroni & Bergemann (6)
Clitopilopsis Maire (2)
Clitopilus (Fr. ex Rabenh.) P. Kumm. (ca. 140)
Entocybe T.J. Baroni, V. Hofst. & Largent (10)
Entoloma P. Kumm. (ca. 1800)
Rhodocybe Maire (ca. 50)
Rhodophana Kühner (7)

Hemigasteraceae Gäum. & C.W. Dodge
Hemigaster Juel (1)

Hydnangiaceae Gäum. & C.W. Dodge
Hydnangium Wallr. (ca. 20)
Laccaria Berk. & Broome (ca. 85)
Maccagnia Mattir. (1)
Podohydnangium G.W. Beaton, Pegler & T.W.K. Young (1)

Hygrophoraceae Lotsy
Acantholichen P.M. Jørg. (6)
Aeruginospora Höhn. (2)
Ampulloclitocybe Redhead, Lutzoni, Moncalvo & Vilgalys (3)
Aphroditeola Redhead & Manfr. Binder (1)
Arrhenia Fr. (ca. 36)
Cantharocybe H.E. Bigelow & A.H. Sm. (3)
Chromosera Redhead, Ammirati & Norvell (5)
Chrysomphalina Clémençon (4)
Cora Fr. (189)
Corella Vain. (2)
Cuphophyllus (Donk) Bon (ca. 25)
Cyphellostereum D.A. Reid (9)
Dictyonema C. Agardh ex Kunth (28)
Eonema Redhead, Lücking & Lawrey (1)
Gliophorus Herink (ca. 17)
Haasiella Kotl. & Pouzar (2)
Humidicutis (Singer) Singer (12)
Hygroaster Singer (3)
Hygrocybe (Fr.) P. Kumm. (ca. 120)
Hygrophorus Fr. (ca. 200)
Lichenomphalia Redhead, Lutzoni, Moncalvo & Vilgalys (14)
Neohygrocybe Herink (5)
Porpolomopsis Bresinsky (5)
Pseudoarmillariella Singer (3)
Semiomphalina Redhead (1)
*Sinohygrocybe*C.Q. Wang, Ming Zhang & T.H. Li (1)

Hymenogastraceae Vittad.
Anamika K.A. Thomas, Peintner, M.M. Moser & Manim. (3)
Flammula (Fr.) P. Kumm. (ca. 10)
Galerina Earle (ca. 250)
Gymnopilus P. Karst. (ca. 200)
Hebeloma (Fr.) P. Kumm. (ca. 190)
Hymenogaster Vittad. (c.170)

Naucoria (Fr.) P. Kumm. (30)
Phaeocollybia R. Heim (ca. 80)
Psathyloma Soop, J.A. Cooper & Dima (2)
Psilocybe (Fr.) P. Kumm. (ca. 326)

Inocybaceae Jülich
Auritella Matheny & Bougher (8)
Inocybe (Fr.) Fr. (ca. 1000)
Tubariomyces Esteve-Rav. & Matheny (3)

Limnoperdaceae G.A. Escobar
Limnoperdon G.A. Escobar (1)

Lycoperdaceae Chevall.
Apioperdon (Kreisel & D. Krüger) Vizzini (1)
Bovista Pers. *Bryoperdon* Vizzini (ca. 58)
Calbovista Morse ex M.T. Seidl (1)
Calvatia Fr. (ca. 43)
Gastropila Homrich & J.E. Wright (4)
Lycoperdon Pers. (ca. 55)
Morganella Zeller (7)

Lyophyllaceae Jülich
Asterophora Ditmar (3)
Blastosporella T.J. Baroni & Franco-Mol. (1)
Calocybe Kühner ex Donk (46)
Calocybella Vizzini, Consiglio & Setti (4)
Clitolyophyllum Sesli, Vizzini & Contu (1)
Gerhardtia Bon (ca. 7)
Hypsizygus Singer (3)
Lyophyllopsis Sathe & J.T. Daniel (1)
Lyophyllum P. Karst. (ca. 60)
Myochromella V. Hofst., Clémençon, Moncalvo & Redhead (2)
Ossicaulis Redhead & Ginns (2)
Rugosomyces Raithelh. (ca. 12)
Sagaranella V. Hofst., Clémençon, Moncalvo & Redhead (4)
Sphagnurus Redhead & V. Hofst. (1)
Tephrocybe Donk (ca. 47)
Tephrocybella Picillo, Vizzini & Contu (1)
Termitomyces R. Heim (ca. 34)
Tricholomella Zerova ex Kalamees (1)

Macrocystidiaceae Kühner
Macrocystidia Joss. (5)

Marasmiaceae Roze ex Kühner
Amyloflagellula Singer (4)
Brunneocorticium Sheng H. Wu (1)
Campanella Henn. (ca. 39)
Chaetocalathus Singer (ca. 20)
Crinipellis Pat. (ca. 65)
Hymenogloea Pat. (1)

Marasmius Fr. (ca. 600)
Moniliophthora H.C. Evans, Stalpers, Samson & Benny (7)
Neocampanella Nakasone, Hibbett & Goranova (1)
Tetrapyrgos E. Horak (18)

Mycenaceae Overeem
Atheniella Redhead, Moncalvo, Vilgalys, Desjardin & B.A. Perry (7)
Cruentomycena R.H. Petersen, Kovalenko & O.V. Morozova (3)
Decapitatus Redhead & Seifert (1)
Favolaschia (Pat.) Pat. (ca. 54)
Flabellimycena Redhead (1)
Heimiomyces Singer (ca. 7)
Hemimycena Singer (ca. 60)
Hydropus Kühner ex Singer (ca. 100)
Mycena (Pers.) Roussel (ca. 600)
Mycopan Redhead, Moncalvo & Vilgalys (1)
Panellus P. Karst. (ca. 55)
Resinomycena Redhead & Singer (ca. 10)
Roridomyces Rexer (9)
Sarcomyxa P. Karst. (2)
Tectella Earle (3)
Xeromphalina Kühner & Maire (ca. 32)

Mythicomycetaceae Vizzini, Consiglio & M. Marchetti
Mythicomyces Redhead & A.H. Sm. (1)
Stagnicola Redhead & A.H. Sm. (1)

Niaceae Jülich
Digitatispora Doguet (2)
Flagelloscypha Donk (ca. 25)
Halocyphina Kohlm. & E. Kohlm. (1)
Lachnella Fr. (6)
Maireina W.B. Cooke (ca. 18)
Merismodes Earle (20)
Nia R.T. Moore & Meyers (3)
Peyronelina P.J. Fisher, J. Webster & D.F. Kane (1)
Woldmaria W.B. Cooke (1)

Omphalotaceae Bresinsky
Anthracophyllum Ces. (12)
Caripia Kuntze (1)
Connopus R.H. Petersen (1)
Gymnopanella Sand.-Leiva, J.V. McDonald & Thorn (1)
Gymnopus (Pers.) Gray (ca. 325)
Hymenoporus Tkalčec, Mešić & Chun Y. Deng (1)
Lentinula Earle (8)
Marasmiellus Murrill (ca. 260)
Mycetinis Earle (15)
Neonothopanus R.H. Petersen & Krisai (3)
Omphalotus Fayod (6)
Rhodocollybia Singer (ca. 35)
Paragymnopus J.S. Oliveira (6)

Pusillomyces J.S. Oliveira (3)

Physalacriaceae Corner
Anastrophella E. Horak & Desjardin (3)
Armillaria (Fr.) Staude (39)
Cibaomyces Zhu L. Yang, Y.J. Hao & J. Qin (1)
Cribbea A.H. Sm. & D.A. Reid (5)
Cryptomarasmius T.S. Jenkinson & Desjardin (15)
Cylindrobasidium Jülich (7)
Cyptotrama Singer (16)
Dactylosporina (Clémençon) Dörfelt (5)
Desarmillaria (Herink) R. A. Koch & Aime (2)
Epicnaphus Singer (2)
Flammulina P. Karst. (14)
Gloiocephala Massee (ca. 40)
Guyanagaster T.W. Henkel, M.E. Sm. & Aime (2)
Hymenopellis R.H. Petersen (ca. 50)
Laccariopsis Vizzini (1)
Manuripia Singer (1)
Mucidula Pat. (2)
Mycaureola Maire & Chemin (1)
Naiadolina Redhead, Labbé & Ginns (1)
Oudemansiella Speg. (ca. 20)
Paraxerula R.H. Petersen (4)
Physalacria Peck (33)
Ponticulomyces R.H. Petersen (2)
Protoxerula R.H. Petersen (1)
Rhizomarasmius R.H. Petersen (5)
Rhodotus Maire (2)
Strobilurus Singer (10)
Xerula Maire (ca. 17)

Pleurotaceae Kühner
Agaricochaete Eichelb. (4)
Hohenbuehelia Schulzer (ca. 50)
Lignomyces R.H. Petersen & Zmitr. (1)
Pleurotus (Fr.) P. Kumm. (25)
Resupinatus Nees ex Gray (33)

Pluteaceae Kotl. & Pouzar
Pluteus Fr. (ca. 500)
Volvariella Speg. (ca. 50)
Volvopluteus Vizzini, Contu & Justo (4)

Porotheleaceae Murrill
Phloeomana Redhead (6)
Porotheleum Fr. (ca. 16)

Psathyrellaceae Vilgalys, Moncalvo & Redhead
Coprinellus P. Karst. (70)
Coprinopsis P. Karst. (ca. 150)
Cystoagaricus Singer (7)

Gasteroagaricoides D.A. Reid (1)
Homophron (Britzelm.) Örstadius & E. Larss. (3)
Hormographiella Guarro & Gené (3)
Kauffmania Örstadius & E. Larss. (1)
Lacrymaria Pat. (14)
Macrometrula Donk & Singer (1)
Parasola Redhead, Vilgalys & Hopple (ca. 27)
Psathyrella (Fr.) Quél. (ca. 420)
Rhacophyllus Berk. & Broome (1)
Typhrasa Örstadius & E. Larss. (2)

Pseudoclitocybaceae Vizzini, Consiglio, P.-A. Moreau & P. Alvarado
Bonomyces Vizzini (3)
Cleistocybe Ammirati, A.D. Parker & Matheny (5)
Clitopaxillus G. Moreno, Vizzini, Consiglio & P. Alvarado (2)
Harmajaea Dima, P. Alvarado & Kekki (3)
Musumecia Vizzini & Contu (4)
Pogonoloma (Singer) Sánchez-García (3)
Pseudoclitocybe (Singer) Singer (16)

Pterulaceae Corner
Actiniceps Berk. & Broome (6)
Allantula Corner (1)
Aphanobasidium Jülich (17)
Chaetotyphula Corner (7)
Coronicium J. Erikss. & Ryvarden (5)
Deflexula Corner (ca. 11)
Lepidomyces Jülich (2)
Merulicium J. Erikss. & Ryvarden (1)
Parapterulicium Corner (3)
Pterula Fr. (ca. 50)
*Pteruliciu*m Corner (1)
Radulomyces M.P. Christ. (10)
Radulotubus Y.C. Dai, S.H. He & C.L. Zhao (1)

Schizophyllaceae Quél.
Auriculariopsis Maire (3)
Porodisculus Murrill (2)
Schizophyllum Fr. (6)

Stephanosporaceae Oberw. & E. Horak
Athelidium Oberw. (3)
Cristinia Parmasto (10)
Lindtneria Pilát (10)
Mayamontana Castellano, Trappe & Lodge (1)
Stephanospora Pat. (6)

Strophariaceae Singer & A.H. Sm.
Agrocybe Fayod (ca. 100)
Bogbodia Redhead (1)
Brauniella Rick ex Singer (1)
Deconica (W.G. Sm.) P. Karst. (44)

Hypholoma (Fr.) P. Kumm. (ca. 45)
Leratiomyces Bresinsky & Manfr. Binder ex Bridge, Spooner, Beever & D.C. Park (13)
Melanotus Pat. (ca. 33)
Pholiota (Fr.) P. Kumm. (ca. 157)
Protostropharia Redhead, Moncalvo & Vilgalys (14)
Pseudogymnopilus Raithelh. (1)
Stropharia (Fr.) Quél. (ca. 20)

Tricholomataceae R. Heim ex Pouzar
Albomagister Sánchez-García, Birkebak & Matheny (2)
Corneriella Sánchez-García (3)
Dennisiomyces Singer (5)
Dermoloma J.E. Lange ex Herink (ca. 25)
Leucopaxillus Boursier (ca. 16)
Porpoloma Singer (ca. 13)
Pseudobaeospora Singer (ca. 26)
*Pseudoporpoloma*Vizzini & Consiglio (1)
Pseudotricholoma (Singer) Sánchez-García & Matheny (2)
Tricholoma (Fr.) Staude (ca. 210)

Tubariaceae Vizzini
Cyclocybe Velen. (6)
Flammulaster Earle (10)
Hemistropharia Jacobsson & E. Larss. (1)
Pachylepyrium Singer (1)
Phaeomarasmius Scherff. (ca. 20)
Pleuromyces Dima, P.-A. Moreau & V. Papp (1)*
Tubaria (W.G. Sm.) Gillet (ca. 21)

Typhulaceae Jülich
Lutypha Khurana, K.S. Thind & Berthier (1)
Macrotyphula R.H. Petersen (6)
Tygervalleyomyces Crous (1)
Typhula (Pers.) Fr. (ca. 100)

Agaricales genera *incertae sedis*
Acanthocorticium Baltazar, Gorjón & Rajchenb. (1)
Acinophora Raf. (1)
Aleurocystis Lloyd ex G. Cunn. (3)
Amparoina Singer (2)
Amylolepiota Harmaja (1)
Aphyllotus Singer (1)
Arthromyces T.J. Baroni & Lodge (2)
Arthrosporella Singer (1)
Asproinocybe R. Heim (5)
Aspropaxillus Kühner & Maire (3)
Atractosporocybe P. Alvarado, G. Moreno & Vizzini (2)
Austroclitocybe Raithelh. (2)
Austroomphaliaster Garrido (1)
Baeospora Singer (13)
Callistodermatium Singer (1)
Calyptella Quél. (20)

Caulorhiza Lennox (3)
Cellypha Donk (10)
Cephaloscypha Agerer (1)
Cercopemyces T.J. Baroni, Kropp & V.S. Evenson (3)
Clavomphalia E. Horak (1)
Clitocybe (Fr.) Staude (ca. 300)
Clitocybula (Singer) Singer ex Métrod (25)
Coccobotrys Boud. & Pat. (2)
Collybia (Fr.) Staude (3)
Conchomyces Overeem (2)
Crucibulum Tul. & C. Tul. (7)
Cyathus Haller (ca. 59)
Cymatella Pat. (4)
Cymatellopsis Parmasto (1)
Cynema Maas Geest. & E. Horak (1)
Cyphellocalathus Agerer (1)
Cystoderma Fayod (ca. 36)
Cystodermella Harmaja (16)
Deigloria Agerer (5)
Delicatula Fayod (ca. 3)
Dendrocollybia R.H. Petersen & Redhead (1)
Dendrothele Höhn. & Litsch. (58)
Disporotrichum Stalpers (1)
Fayodia Kühner (ca. 10)
Fibulochlamys A.I. Romero & Cabral (2)
Fissolimbus E. Horak (1)
Fistulina Bull. (9)
Floccularia Pouzar (6)
Gamundia Raithelh. (ca. 7)
Gerronema Singer (58)
Giacomia Vizzini & Contu (1)
Glabrocyphella W.B. Cooke (12)
Gloioxanthomyces Lodge, Vizzini, Ercole & Boertm. (2)
Gramincola Velen. (1)
Hemipholiota (Singer) Bon (2)*
Henningsomyces Kuntze (ca. 21)
Hispidocalyptella E. Horak & Desjardin (1)
Hygrophorocybe Vizzini & Contu (1)
Infundibulicybe Harmaja (22)
Lactocollybia Singer (20)
Lecanocybe Desjardin & E. Horak (1)
Lepista (Fr.) W.G. Sm. (ca. 50)
Lepistella T.J. Baroni & Ovrebo (ca. 50)
Leucocalocybe X.D. Yu & Y.J. Yao (1)
Leucocortinarius (J.E. Lange) Singer (1)
Leucocybe Vizzini, P. Alvarado, G. Moreno & Consiglio (3)
Leucoinocybe Singer ex Antonín, Borovička, Holec & Kolařík (3)
Leucopholiota (Romagn.) O.K. Mill., T.J. Volk & Bessette (2)
Lignomphalia Antonín, Borovička, Holec & Kolařík (1)
Lulesia Singer (3)
Lycogalopsis E. Fisch. (1)
Megacollybia Kotl. & Pouzar (9)

Melanoleuca Pat. (ca. 60)
Melanomphalia M.P. Christ. (1)
Meottomyces Vizzini (1)
Mesophelliopsis Bat. & A.F. Vital (1)
Metraria (Cooke) Cooke & Massee (2)
Metulocyphella Agerer (2)
Mucronella Fr. (8)
Mycenella (J.E. Lange) Singer (10)
Mycoalvimia Singer (1)
Mycocalia J.T. Palmer (7)
Mycospongia Velen. (1)
Myxomphalia Hora (ca. 2)
Neoclitocybe Singer (11)
Neopaxillus Singer (6)
Nidula V.S. White (6)
Nidularia Fr. (3)
Nochascypha Agerer (3)
Notholepista Vizzini & Contu (1)
Omphaliaster Lamoure (7)
Omphalina Quél. (ca. 50)
Palaeocephala Singer (1)
Panaeolina Maire (2)
Panaeolus (Fr.) Quél. (15)
Paralepistopsis Vizzini (2)
Peglerochaete Sarwal & Locq. (1)
Pegleromyces Singer (1)
Phaeodepas D.A. Reid (2)
Phaeolepiota Maire ex Konrad & Maubl. (1)
Phaeomycena R. Heim ex Singer & Digilio (5)
Phaeopholiota Locq. & Sarwal (1)
Phlebonema R. Heim (1)
Phlebophyllum R. Heim (1)
Phyllotopsis E.-J. Gilbert & Donk ex Singer (5)
Physocystidium Singer (1)
Pleurella E. Horak (1)
Pleurocybella Singer (5)
Plicatura Peck (1)
Polygaster Fr. (1)
Pseudoclitopilus Vizzini & Contu (2)
Pseudofistulina O. Fidalgo & M. Fidalgo (3)
Pseudohiatula (Singer) Singer (ca. 5)
Pseudohygrophorus Velen. (1)
Pseudolasiobolus Agerer (1)
Pseudoomphalina (Singer) Singer (ca. 6)
Pseudotyphula Corner (1)
Radulomycetopsis Dhingra, Priyanka & J. Kaur (1)
Rectipilus Agerer (11)
Rhizocybe Vizzini, G. Moreno, P. Alvarado & Consiglio (4)
Rimbachia Pat. (11)
Ripartitella Singer (1)
Ripartites P. Karst. (5)
Secotium Kunze (ca. 10)

Singerocybe Harmaja (7)
Skepperiella Pilát (4)
Squamanita Imbach (10)
Stanglomyces Raithelh. (1)
Stemastrum Raf. (1)
Stromatocyphella W.B. Cooke (3)
Tephroderma Contu & Musumeci (1)
Trichocybe Vizzini (1)
Tricholomopsis Singer (ca. 33)
Tricholosporum Guzmán (7)
Trogia Fr. (ca. 94)
Ugola Adans. (3)
Vanromburghia Holterm. (1)
Verrucospora E. Horak (2)

Amylocorticiales K.H. Larss., Manfr. Binder & Hibbett
Amylocorticiaceae Jülich
Amyloathelia Hjortstam & Ryvarden (3)
Amylocorticiellum Spirin & Zmitr. (4)
Amylocorticium Pouzar (11)
Amyloxenasma (Oberw.) Hjortstam & Ryvarden (6)
Anomoloma Niemelä & K.H. Larss. (6)
Anomoporia Pouzar (8)
Ceraceomyces Jülich (16)
Irpicodon Pouzar (1)
Plicaturopsis D.A. Reid (2)
Podoserpula D.A. Reid (2)
Serpulomyces (Zmitr.) Zmitr. (1)

Atheliales Jülich
Atheliaceae Jülich
Amphinema P. Karst. (4)
Athelia Pers. (32)
Athelicium K.H. Larss. & Hjortstam (2)
Athelocystis Hjortstam & Ryvarden (1)
Athelopsis Oberw. ex Parmasto (14)
Butlerelfia Weresub & Illman (1)
Byssocorticium Bondartsev & Singer (11)
Elaphocephala Pouzar (1)
Hypochnella J. Schröt. (2)
Hypochniciellum Hjortstam & Ryvarden (1)
Leptosporomyces Jülich (15)
Lobulicium K.H. Larss. & Hjortstam (1)
Lyoathelia Hjortstam & Ryvarden (1)
Melzericium Hauerslev (3)
Mycostigma Jülich (1)
Piloderma Jülich (6)
Pteridomyces Jülich (4)
Taeniospora Marvanová (2)
Tretomyces K.H. Larss., Kotir. & Saaren. (2)
Tylospora Donk (2)

Auriculariales J. Schröt.
Auriculariaceae Fr.
Amphistereum Spirin & Malysheva (2)
Auricularia Bull. (ca. 21)
Eichleriella Bres. (ca. 14)
Elmerina Bres. (7)
Exidia Fr. (ca. 26)
Exidiopsis (Bref.) Möller (ca. 30)
Fibulosebacea K. Wells & Raitv. (1)
Heterochaete Pat. (ca. 40)
Heteroradulum Lloyd ex Spirin & Malysheva (7)
Protodaedalea Imazeki (2)
Pseudostypella McNabb (1)
Sclerotrema Spirin & Malysheva (1)

Hyaloriaceae Lindau
Helicomyxa R. Kirschner & Chee J. Chen (1)
Hyaloria Möller (3)
Myxarium Wallr. (14)

Auriculariales genera *incertae sedis*
Basidiodendron Rick (ca. 15)
Bourdotia (Bres.) Bres. & Torrend (1)
Ceratosebacina P. Roberts (3)
Dendrogloeon Spirin & Miettinen (1)
Ductifera Lloyd (ca. 11)
Endoperplexa P. Roberts (6)
Gelacantha V. Malysheva & Spirin (1)
Grammatus H.S. Yuan & C. Decock (2)
Guepinia Fr. (1)
Hauerslevia P. Roberts (1)
Heterorepetobasidium Chee J. Chen & Oberw. (2)
Heteroscypha Oberw. & Agerer (1)
Hyalodon V. Malysheva & Spirin (2)
Hydrophana V. Malysheva & Spirin (1)
Metabourdotia L.S. Olive (1)
Microsebacina P. Roberts (2)
Mycostilla Spirin & V. Malysheva (1)
Myxariellum Spirin & V. Malysheva (2)
Ofella Spirin & V. Malysheva (1)
Porpopycnis R. Kirschner (1)
Protoacia Spirin & V. Malysheva (1)
Protodontia Höhn. (3)
Protograndinia Rick (1)
Protohydnum Möller (3)
Protomerulius Möller (7)
Protoradulum Rick (1)
Pseudohydnum P. Karst. (1)
Renatobasidium Hauerslev (1)
Stypella Möller (4)
Stypellopsis Spirin & V. Malysheva (2)
Tremellacantha Jülich (1)

Boletales E.-J. Gilbert
Boletaceae Chevall.

Afroboletus Pegler & T.W.K. Young (8)
Afrocastellanoa M.E. Sm. & Orihara (1)
Alessioporus Gelardi, Vizzini & Simonini (2)
Aureoboletus Pouzar (33)
Australopilus Halling & N.A. Fechner (1)
Austroboletus (Corner) Wolfe (ca. 36)
Baorangia G. Wu & Zhu L. Yang (4)
Binderoboletus T.W. Henkel & M.E. Sm. (1)
Boletellus Murrill (ca. 50)
Boletochaete Singer (5)
Boletus L. (ca. 350)
Borofutus Hosen & Zhu L. Yang (1)
Bothia Halling, T.J. Baroni & Manfr. Binder (2)
Buchwaldoboletus Pilát (11)
Butyriboletus Arora & J.L. Frank (ca. 25)
Caloboletus Vizzini (14)
Carolinigaster M.E. Sm. & S. Cruz (1)
Castellanea T.W. Henkel & M.E. Sm. (1)
Chalciporus Bataille (ca. 30)
Chamonixia Rolland (8)
Chiua Y.C. Li & Zhu L. Yang (4)
Corneroboletus N.K. Zeng & Zhu L. Yang (1)
Costatisporus T.W. Henkel & M.E. Sm. (1)
Crocinoboletus N.K. Zeng, Zhu L. Yang & G. Wu (2)
Cupreoboletus Simonini, Gelardi & Vizzini (1)
Cyanoboletus Gelardi, Vizzini & Simonini (7)
Durianella Desjardin, A.W. Wilson & Manfr. Binder (1)
Erythrophylloporus Ming Zhang & T.H. Li (1)
Fistulinella Henn. (ca. 25)
Gastroboletus Lohwag (14)
Gastroleccinum Thiers (1)
Guyanaporus T.W. Henkel & M.E. Sm. (1)
Gymnogaster J.W. Cribb (1)
Harrya Halling, Nuhn & Osmundson (6)
Heimioporus E. Horak (14)
Heliogaster Orihara & K. Iwase (1)
Hemileccinum Šutara (5)
Hortiboletus Simonini, Vizzini & Gelardi (7)
Hourangia Xue T. Zhu & Zhu L. Yang (4)
Hymenoboletus Y.C. Li & Zhu L. Yang (1)
Imleria Vizzini (5)
Imperator G. Koller, Assyov, Bellanger, Bertéa, Loizides, G. Marques, P.-A. Moreau, J.A. Muñoz, Oppicelli, Puddu & F. Richard (3)
Indoporus A. Parihar, K. Das, Hembrom & Vizzini (1)
Ionosporus O. Khmelnitsky (2)
Jimtrappea T.W. Henkel, M.E. Sm. & Aime (2)
Kombocles Castellano, T.W. Henkel & Dentinger (1)
Lanmaoa G. Wu & Zhu L. Yang (7)
Leccinellum Bresinsky & Manfr. Binder (17)
Leccinum Gray (ca. 130)

Mackintoshia Pacioni & Sharp (1)
Mucilopilus Wolfe (1)
Mycoamaranthus Castellano, Trappe & Malajczuk (3)
Neoboletus Gelardi, Simonini & Vizzini (11)
Nigroboletus Gelardi, Vizzini, E. Horak, T.H. Li & Ming Zhang (1)
Octaviania Vittad. (ca. 40)
Parvixerocomus G. Wu & Zhu L. Yang (2)
Paxillogaster E. Horak (1)
Phylloboletellus Singer (1)
Phyllobolites Singer (1)
Phylloporus Quél. (ca. 90)
Porphyrellus E.-J. Gilbert (ca. 20)
Pseudoaustroboletus Y.C. Li & Zhu L. Yang (3)
Pseudoboletus Šutara (2)
Pulchroboletus Gelardi, Vizzini & Simonini (1)
Pulveroboletus Murrill (38)
Retiboletus Manfr. Binder & Bresinsky (12)
Rheubarbariboletus Vizzini, Simonini & Gelardi (2)
Rhodactina Pegler & T.W.K. Young (3)
Rossbeevera T. Lebel, Orihara & N. Maek. (10)
Royoungia Castellano, Trappe & Malajczuk (6)
Rubroboletus Kuan Zhao & Zhu L. Yang (14)
Rugiboletus G. Wu & Zhu L. Yang (2)
Setogyroporus Heinem. & Rammeloo (1)
Singerocomus T.W. Henkel & M.E. Sm. (2)
Singeromyces M.M. Moser (1)
Solioccasus Trappe, Osmundson, Manfr. Binder, Castellano & Halling (1)
Spongiforma Desjardin, Manfr. Binder, Roekring & Flegel (2)
Spongispora G. Wu, S.M.L. Lee, E. Horak & Zhu L. Yang (1)
Strobilomyces Berk. (ca. 27)
Suillellus Murrill (23)
Sutorius Halling, Nuhn & N.A. Fechner (2)
Tengioboletus G. Wu & Zhu L. Yang (2)
Tubosaeta E. Horak (6)
Turmalinea Orihara & N. Maek. (4)
Tylocinum Y.C. Li & Zhu L. Yang (1)
Tylopilus P. Karst. (ca. 100)
Veloporphyrellus L.D. Gómez & Singer (7)
Wakefieldia Corner & Hawker (2)
Xanthoconium Singer (10)
Xerocomellus Šutara (17)
Xerocomus Quél. (ca. 120)
Zangia Y.C. Li & Zhu L. Yang (6)

Boletinellaceae P.M. Kirk, P.F. Cannon & J.C. David
Boletinellus Murrill (1)
Phlebopus (R. Heim) Singer (14)

Calostomataceae E. Fisch.
Calostoma Desv. (16)

Coniophoraceae Ulbr.

Chrysoconia McCabe & G.A. Escobar (1)
Coniophora DC. (20)
Coniophoropsis Hjortstam & Ryvarden (2)
Gyrodontium Pat. (3)
Sedecula Zeller (1)

Diplocystidiaceae Kreisel
Astraeus Morgan (11)
Diplocystis Berk. & M.A. Curtis (2)
Endogonopsis R. Heim (1)
Tremellogaster E. Fisch. (1)

Gasterellaceae Zeller
Gasterella Zeller & L.B. Walker (1)

Gomphidiaceae Maire ex Jülich
Chroogomphus (Singer) O.K. Mill. (25)*
Cystogomphus Singer (1)
Gomphidius Fr. (10)
Gomphogaster O.K. Mill. (1)

Gyroporaceae (Singer) Manfr. Binder & Bresinsky
Gyroporus Quél. (24)

Hygrophoropsidaceae Kühner
Hygrophoropsis (J. Schröt.) Maire ex Martin-Sans (16)
Leucogyrophana Pouzar (13)

Paxillaceae Lotsy
Alpova C.W. Dodge (16)
Austrogaster Singer (4)
Gyrodon Opat. (10)
Hoehnelogaster Lohwag (1)
Hydnomerulius Jarosch & Besl (1)
Meiorganum R. Heim (3)
Melanogaster Corda (ca. 26)
Neoalpova Vizzini (1)
Paragyrodon (Singer) Singer (1)
Paxillus Fr. (19)

Protogastraceae Zeller
Protogaster Thaxt. (1)

Rhizopogonaceae Gäum. & C.W. Dodge
Fevansia Trappe & Castellano (1)
Rhizopogon Fr. (ca. 157)
Rhopalogaster J.R. Johnst. (1)

Sclerodermataceae Corda
Chlorogaster Læssøe & Jalink (1)
Favillea Fr. (2)
Horakiella Castellano & Trappe (2)

Pisolithus Alb. & Schwein. (17)
Scleroderma Pers. (ca. 46)

Serpulaceae Jarosch & Bresinsky
Austropaxillus Bresinsky & Jarosch (9)
Gymnopaxillus E. Horak (4)
Serpula (Pers.) Gray (ca. 11)

Suillaceae Besl & Bresinsky
Psiloboletinus Singer (1)
Suillus Gray (ca. 60)

Tapinellaceae C. Hahn
Bondarcevomyces Parmasto (1)
Pseudomerulius Jülich (4)
Tapinella E.-J. Gilbert (2)

Boletales genera *incertae sedis*
Corditubera Henn. (5)
Corneromyces Ginns (2)
Marthanella States & Fogel (1)
Phaeoradulum Pat. (1)

Cantharellales Gäum.
Aphelariaceae Corner
Aphelaria Corner (20)
Phaeoaphelaria Corner (1)
Tumidapexus D.A. Crawford (1)

Botryobasidiaceae Jülich
Acladium Link (20)
Allescheriella Henn. (5)
Alysidium Kunze (4)
Botryobasidium Donk (ca. 58)
Suillosporium Pouzar (4)

Ceratobasidiaceae G.W. Martin
Ceratobasidium D.P. Rogers (ca. 19)
Ceratoporia Ryvarden & de Meijer (1)
Ceratorhiza R.T. Moore (7)
Rhizoctonia DC. (ca. 50)
Scotomyces Jülich (1)
Thanatephorus Donk (12)

Hydnaceae Chevall.
Burgoa Goid. (9)
Burgella Diederich & Lawrey (2)
Burgellopsis Diederich & Lawrey (1)
Cantharellus Adans.ex Fr. (ca. 300)
Clavulina J. Schröt. (ca. 75)
Corallofungus Kobayasi (2)
Craterellus Pers. (ca. 80)

Gloeomucro R.H. Petersen (10)
Hydnum L. (49)
Ingoldiella D.E. Shaw (3)
Membranomyces Jülich (1)
Multiclavula R.H. Petersen (13)
Neoburgoa Diederich, E. Zimm. & Lawrey (1)
Parastereopsis Corner (1)
Osteomorpha G. Arnaud ex Watling & W.B. Kendr. (1)
Paullicorticium J. Erikss. (5)
Repetobasidiellum J. Erikss. & Hjortstam (1)
Repetobasidium J. Erikss. (12)
Rogersiomyces J.L. Crane & Schokn. (2)
Sistotrema Fr. (ca. 55)
Sistotremella Hjortstam (3)

Oliveoniaceae P. Roberts
Oliveonia Donk (5)

Tulasnellaceae Juel
Pseudotulasnella Lowy (1)
Tulasnella J. Schröt. (ca. 70)

Cantharellales genera *incertae sedis*
Boidinella Nakasone (2)
Bulbilla Diederich, Flakus & Etayo (1)
Clavulicium Boidin (3)
Minimedusa Weresub & P.M. LeClair (3)
Odontiochaete Rick (1)
Radulochaete Rick (2)
Schildia Franchi & M. Marchetti (1)
Stilbotulasnella Oberw. & Bandoni (1)

Corticiales K.H. Larss.
Corticiaceae Herter
Capillosclerotium Prameela & Deeba (1)
Corticirama Pilát (2)
Corticium Pers. (25)
Erythricium J. Erikss. & Hjortstam (6)
Galzinia Bourdot (9)
Giulia Tassi (1)
Laetisaria (Burds. (7)
Lawreymyces Lücking & Moncada (7)
Marchandiomyces Diederich & D. Hawksw. (3)
Necator Massee (1)
Tretopileus B.O. Dodge (3)
Waitea Warcup & P.H.B. Talbot (1)

Dendrominiaceae Ghobad-Nejhad
Dendrominia Ghobad-Nejhad & Duhem (4)

Punctulariaceae Donk
Dendrocorticium M.J. Larsen & Gilb. (9)

Punctularia Pat. (2)
Punctulariopsis Ghobad-Nejhad (4)

Vuilleminiaceae Maire ex Lotsy
Australovuilleminia Ghobad-Nejhad & Hallenb. (1)
Cytidia Quél. (5)
Vuilleminia Maire (8)

Corticiales genera *incertae sedis*
Ambivina Katz (1)
Amylobasidium Ginns (1)
Leptocorticium Hjortstam & Ryvarden (8)
Melzerodontia Hjortstam & Ryvarden (3)
Nothocorticium Gresl. & Rajchenb. (1)
Papyrodiscus D. A. Reid (1)
Ripexicium Hjortstam (1)

Geastrales K. Hosaka & Castellano
Geastraceae Corda
Geasteroides Long (1)
Geastrum Pers. (130)
Myriostoma Desv. (4)
Nidulariopsis Greis (2)
Phialastrum Sunhede (1)
Schenella T. Macbr. (4)
Sphaerobolus Tode (3)

Sclerogastraceae Locq. ex P. M. Kirk
Sclerogaster R. Hesse (11)

Geastrales genus *incertae sedis*
Boninogaster Kobayasi (1)

Gloeophyllales Thorn
Gloeophyllaceae Jülich
Boreostereum Parmasto (4)
Campylomyces Nakasone (2)
Chaetodermella Rauschert (1)
Gloeophyllum P. Karst. (13)
Griseoporia Ginns (2)
Heliocybe Redhead & Ginns (1)
Hispidaedalea Y. C. Dai & S.H. He (1)
Mycothele Jülich (1)
Neolentinus Redhead & Ginns (14)
Osmoporus Singer (2)
Stiptophyllum Ryvarden (1)
Veluticeps Cooke (12)

Gloeophyllales genus *incertae sedis*
Pileodon P. Roberts & Hjortstam (2)

Gomphales Jülich

Clavariadelphaceae Corner
Beenakia D. A. Reid (7)
Clavariadelphus Donk (20)

Gomphaceae Donk
Araeocoryne Corner (1)
Ceratellopsis Konrad & Maubl. (9)
Delentaria Corner (1)
Destuntzia Fogel & Trappe (5)
Gautieria Vittad. (37)
Gloeocantharellus Singer (12)
Gomphus Pers. (7)
Phaeoclavulina Brinkmann (41)
Protogautieria A. H. Sm. (2)
Pseudogomphus R. Heim (1)
Ramaria Fr. ex Bonord. (230)
Ramaricium J. Erikss. (5)
Terenodon Maas Geest. (1)
Turbinellus Earle (5)

Lentariaceae Jülich
Hydnocristella R.H. Petersen (2)
Kavinia Pilát (4)
Lentaria Corner (19)

Hymenochaetales Oberw.
Hymenochaetaceae Donk
Arambarria Rajchenb. & Pildain (1)
Asterodon Pat. (1)
Aurificaria D.A. Reid (2)
Botryodontia (Hjortstam & Ryvarden) Hjortstam (6)
Clavariachaete Corner (2)
Coltricia Gray (40)
Coltriciella Murrill (13)
Coniferiporia L.W. Zhou & Y. C. Dai (3)
Cylindrosporus L.W. Zhou (1)
Deviodontia (Parmasto) Hjortstam & Ryvarden (1)
Dichochaete Parmasto (2)
Erythromyces Hjortstam & Ryvarden (1)
Fomitiporella Murrill (13)
Fomitiporia Murrill (46)
Fulvifomes Murrill (33)
Fuscoporia Murrill (62)
Hastodontia (Parmasto) Hjortstam & Ryvarden (2)
Hydnochaete Bres. (1)
Hymenochaete Lév. (149)
Hymenochaetopsis S. H. He & Jiao Yang (16)
Inocutis Fiasson & Niemelä (9)
Inonotopsis Parmasto (1)
Inonotus P. Karst. (120)
Mensularia Lázaro Ibiza (6)
Neomensularia F. Wu, L. W. Zhou & Y.C. Dai (4)

Nothophellinus Rajchenb. (1)
Onnia P. Karst. (8)
Phellinidium (Kotl.) Fiasson & Niemelä (5)
Phellinopsis Y. C. Dai (10)
Phellinotus Drechsler-Santos, Robledo & Rajchenb. (2)
Phellinus Quél. (202)
Phellopilus Niemelä, T. Wagner & M. Fisch. (1)
Phylloporia Murrill (38)
Porodaedalea Murrill (14)
Pseudoinonotus T. Wagner & M. Fisch. (8)
Pyrrhoderma Imazeki (2)
Sanghuangporus Sheng H. Wu, L.W. Zhou & Y. C. Dai (13)
Tropicoporus L.W. Zhou, Y. C. Dai & Sheng H. Wu (12)
Tubulicrinis Donk (34)
Xanthoporia Murrill (3)

Neoantrodiellaceae Y.C. Dai, B. K. Cui, Jia J. Chen & H. S. Yuan
Neoantrodiella Y. C. Dai, B. K. Cui, Jia J. Chen & H.S. Yuan (2)

Nigrofomitaceae Jülich
Nigrofomes Murrill (3)

Oxyporaceae Zmitr. & V. Malysheva
Oxyporus (Bourdot & Galzin) Donk (18)

Rickenellaceae Vizzini
Alloclavaria Dentinger & D. J. McLaughlin (1)
Atheloderma Parmasto (2)
Contumyces Redhead, Moncalvo, Vilgalys & Lutzoni (3)
Cotylidia P. Karst. (10)
Globulicium Hjortstam (1)
Peniophorella P. Karst. (25)
Resinicium Parmasto (8)
Rickenella Raithelh. (10)

Schizoporaceae Jülich
Alutaceodontia (Parmasto) Hjortstam & Ryvarden (1)
Basidioradulum Nobles (1)
Echinoporia Ryvarden (3)
Fibrodontia Parmasto (6)
Hyphodontia J. Erikss. (86)
Lagarobasidium Jülich (5)
Leucophellinus Bondartsev & Singer (1)
Paratrichaptum Corner (1)
Poriodontia Parmasto (1)
Rogersella Liberta & A.J. Navas (1)
Odontiopsis Hjortstam & Ryvarden (2)
Schizopora Velen. (7)
Xylodon (Pers.) Gray (60)

Hymenochaetales genera *incertae sedis*
Caeruleomyces Stalpers (1)

Cantharellopsis Kuyper (1)
Cyanotrama Ghobad-Nejhad & Y.C. Dai (1)
Fibricium J. Erikss. (5)
Ginnsia Sheng H. Wu & Hallenb. (1)
Gyroflexus Raithelh. (1)
Kurtia Karasiński (3)
Lawrynomyces Karasiński (1)
Muscinupta Redhead, Lücking & Lawrey (1)
Physodontia Ryvarden & H. Solheim (1)
Sidera Miettinen & K. H. Larss. (6)
Skvortzovia Bononi & Hjortstam (1)
Subulicium Hjortstam & Ryvarden (3)
Trichaptum Murrill (27)
Tsugacorticium Nakasone & Burds. (1)

Hysterangiales K. Hosaka & Castellano
Gallaceaceae Locq. ex P. M. Kirk
Austrogautieria E. L. Stewart & Trappe (7)
Gallacea Lloyd (6)
Hallingea Castellano (3)

Hysterangiaceae E. Fisch.
Aroramyces Castellano & Verbeken (5)
Circulocolumella S. Ito & S. Imai (1)
Clathrogaster Petri (2)
Hysterangium Vittad. (54)

Mesophelliaceae Jülich
Andebbia Trappe, Castellano & Amar. (1)
Castoreum Cooke & Massee (3)
Chondrogaster Maire (2)
Gummiglobus Trappe, Castellano & Amar. (2)
Gummivena Trappe & Bougher (1)
Malajczukia Trappe & Castellano (8)
Mesophellia Berk. (15)
Nothocastoreum G. W. Beaton (1)

Phallogastraceae Locq.
Phallogaster Morgan (1)
Protubera Möller (13)

Trappeaceae P.M. Kirk
Phallobata G. Cunn. (1)
Restingomyces Sulzbacher, Grebenc & Baseia (1)
Trappea Castellano (1)

Jaapiales Manfr. Binder, K. H. Larss. & Hibbett
Jaapiaceae Manfr. Binder, K. H. Larss. & Hibbett
Jaapia Bres. (2)

Lepidostromatales B.P. Hodk. & Lücking
Lepidostromataceae Ertz, Eb. Fisch., Killmann, Sérus. & Lawrey

Ertzia B.P. Hodk. & Lücking (1)
Lepidostroma Mägd. & S. Winkl. (1)
Sulzbacheromyces B. P. Hodk. & Lücking (6)

Phallales E. Fisch.
Claustulaceae G. Cunn.
Claustula K.M. Curtis (1)
Gelopellis Zeller (6)
Kjeldsenia W. Colgan, Castellano & Bougher (1)
Phlebogaster Fogel (2)
Pseudogelopellis K. Tao & B. Liu (1)

Gastrosporiaceae Pilát
Gastrosporium Mattir. (2)

Phallaceae Corda
Abrachium Baseia & T. S. Cabral (1)
Aporophallus Möller (1)
Aseroë Labill. (2)
Blumenavia Möller (3)
Calvarula Zeller (1)
Clathrus P. Micheli ex L. (20)
Colus Cavalier & Séchier (4)
Echinophallus Henn. (1)
Endoclathrus B. Liu, Yin H. Liu & Z.J. Gu (1)
Endophallus M. Zang & R. H. Petersen (1)
Ileodictyon Tul. & C. Tul. (2)
Itajahya Möller (4)
Kobayasia S. Imai & A. Kawam. (1)
Laternea Turpin (2)
Ligiella J.A. Sáenz (1)
Lysurus Fr. (30)
Mutinus Fr. (21)
Neolysurus O. K. Mill., Ovrebo & Burk (1)
*Phallus*Junius ex L. (34)
Protuberella S. Imai & A. Kawam. (1)
Pseudoclathrus B. Liu & Y.S. Bau (5)
Pseudocolus Lloyd (2)
Staheliomyces E. Fisch. (1)
Staurophallus Mont. (1)
Stephanophallus MacOwan (1)
Xylophallus (Schltdl.) E. Fisch. (2)

Phallales genera *incertae sedis*
Saprogaster Fogel & States (1)
Vandasia Velen. (1)

Polyporales Gäum.
Cerrenaceae Miettinen, Justo & Hibbett
Cerrena Gray (7)
Irpiciporus Murrill (1)
Pseudolagarobasidium J. C. Jang & T. Chen (7)

Radulodon Ryvarden (11)

Dacryobolaceae Jülich
Amylocystis Bondartsev & Singer ex Singer (1)
Dacryobolus Fr. (7)
Jahnoporus Nuss (4)
Oligoporus Bref. (15)
Osteina Donk (1)
Postia Fr. (40)
Spongiporus Murrill (7)

Fomitopsidaceae Jülich*
Adustoporia Audet (1)
Anthoporia Karasiński & Niemelä (1)
Antrodia P. Karst. (80)
Antrodiopsis Audet (1)
Brunneoporus Audet (5)
Buglossoporus Kotl. & Pouzar (9)
Daedalea Pers. (12)
Dentiporus Audet (1)
Flavidoporia Audet (3)
Fomitopsis P. Karst. (40)
Fragifomes B. K. Cui, M.L. Han & Y. C. Dai (1)
Laricifomes Kotl. & Pouzar (1)
Lentoporia Audet (1)
Neoantrodia Audet (13)
Neolentiporus Rajchenb. (2)
Niveoporofomes B. K. Cui, M. L. Han & Y. C. Dai (1)
Ranadivia Zmitr. (5)*
Resinoporia Audet (11)
Rhizoporia Audet (1)
Rhodofomes Kotl. & Pouzar (5)
Rhodofomitopsis B.K. Cui, M. L. Han & Y. C. Dai (4)
Rubellofomes B. K. Cui, M.L. Han & Y. C. Dai (2)
Subantrodia Audet (2)
Ungulidaedalea B. K. Cui, M.L. Han & Y. C. Dai (1)
Wolfiporia Ryvarden & Gilb. (6)

Fragiliporiaceae Y. C. Dai, B.K. Cui & C. L. Zhao
Fragiliporia Y. C. Dai, B.K. Cui & C. L. Zhao (1)

Gelatoporiaceae Miettinen, Justo & Hibbett
Cinereomyces Jülich (2)
Gelatoporia Niemelä (2)
Obba Miettinen & Rajchenb. (2)
Sebipora Miettinen (1)

Grifolaceae Jülich
Aegis Gómez-Montoya, Rajchenb. & Robledo (1)
Grifola Gray (5)

Hyphodermataceae Jülich

Hyphoderma Fr. (20)

Incrustoporiaceae Jülich
Gloeoporellus Zmitr. (1)*
Incrustoporia Domanski (5)
Piloporia Niemelä (2)
Skeletocutis Kotl. & Pouzar (40)
Tyromyces P. Karst. (41)

Irpicaceae Spirin & Zmitr.
Byssomerulius Parmasto (8)
Ceriporia Donk (ca. 50)
Cytidiella Pouzar (2)
Efibula Sheng H. Wu (18)
Emmia Zmitr., Spirin & Malysheva (2)
*Flavodon*Ryvarden (3)
Gloeoporus Mont. (13)
Hydnopolyporus D. A. Reid (2)
Irpex Fr. (10)
Leptoporus Quél. (1)
Meruliopsis Bondartsev (4)
Raduliporus Spirin & Zmitr. (1)
Resiniporus Zmitr. (2)*
Trametopsis Tomšovský (4)

Ischnodermataceae Jülich
Ischnoderma P. Karst. (10)

Laetiporaceae Jülich
Kusaghiporia J. Hussein, S. Tibell & Tubuhwa (1)*
Laetiporus Murrill (15)
Phaeolus (Pat.) Pat. (3)

Meripilaceae Jülich
Meripilus P. Karst. (5)
Pseudonadsoniella T. O. Kondr. & S. Y. Kondr. (1)
Rigidoporus Murrill (30)

Meruliaceae Rea
Aurantiopileus Ginns, D. L. Lindner & T. J. Baroni (3)
Aurantiporus Murrill (6)
Ceriporiopsis Domański (40)
Climacodon P. Karst. (7)
Crustodontia Hjortstam & Ryvarden (1)
Geesterania Westphalen, Tomšovský & Rajchenb. (2)*
Hermanssonia Zmitr. (1)*
Hydnophanerochaete Sheng H. Wu & C.C. Chen (1)*
Hydnophlebia Parmasto (5)
Lilaceophlebia (Parmasto) Spirin & Zmitr. (2)
Luteoporia F. Wu, Jia J. Chen & S. H. He (1)
Merulius Fr. (150)
Mycoacia Donk (16)

Mycoaciella J. Erikss. & Ryvarden (5)
Odoria V. Papp & Dima (1)
Pappia Zmitr. (1)*
Phlebia Fr. (60)
Phlebiporia Jia J. Chen, B. K. Cui & Y. C. Dai (1)
Physisporinus P. Karst. (15)
Sarcodontia Schulzer (1)
Scopuloides (Massee) Höhn. & Litsch. (5)
Stereophlebia Zmitr. (1)*

Panaceae Miettinen, Justo & Hibbett
Cymatoderma Jungh. (11)
Panus Fr. (20)

Phanerochaetaceae Jülich
Bjerkandera P. Karst. (5)
Crepatura C.L. Zhao (1)*
Donkia Pilát (1)
Efibulella Zmitr. (1)
Geliporus Yuan Yuan, Jia J. Chen & S. H. He (1)
Hapalopilus P. Karst. (11)
Hyphodermella J. Erikss. & Ryvarden (7)
Odontoefibula C. C. Chen & Sheng H. Wu (1)*
Oxychaete Miettinen (1)
Phaeophlebiopsis D. Floudas & Hibbett (3)
Phanerina Miettinen (1)
Phanerochaete P. Karst. (80)
Phlebiopsis Jülich (22)
Pirex Hjortstam & Ryvarden (1)
Porostereum Pilát (15)
Rhizochaete Gresl., Nakasone & Rajchenb. (13)
Riopa D.A. Reid (3)
Terana Adans. (1)

Podoscyphaceae D.A. Reid
Abortiporus Murrill (4)
Podoscypha Pat. (36)
Pouzaroporia Vampola (1)

Polyporaceae Fr. ex Corda
Abundisporus Ryvarden (8)
Amauroderma Murrill (40)
Atroporus Ryvarden (3)
Australoporus P.K. Buchanan & Ryvarden (1)
Bresadolia Speg. (4)*
Cerarioporia F. Wu, L.W. Zhou & J. Si (1)
Cerioporus Quél. (15)
Cinereomycetella Zmitr. (1)*
Colospora Miettinen & Spirin (2)
Coriolopsis Murrill (19)
Cryptoporus (Peck) Shear (2)
Daedaleopsis J. Schröt. (7)

Datronia Donk (9)
Datroniella B.K. Cui, Hai J. Li & Y.C. Dai (6)
Dentocorticium (Parmasto) M.J. Larsen & Gilb. (3)*
Dextrinoporus H.S. Yuan (1)*
Dichomitus D.A. Reid (13)
Donkioporia Kotl. & Pouzar (2)
Donkioporiella L.W. Zhou (1)
Earliella Murrill (1)
Echinochaete D.A. Reid (5)
Endopandanicola Tibpromma & K.D. Hyde (1)
Epithele (Pat.) Pat. (17)
Epithelopsis Jülich (2)
Favolus Fr. (20)
Flammeopellis Y.C. Dai, B.K. Cui & C.L. Zhao (1)
Fomes (Fr.) Fr. (3)
Fomitella Murrill (2)
Globifomes Murrill (1)
Foraminispora Robledo, Costa-Rezende & Drechsler-Santos (1)
Funalia Pat. (10)
Furtadoa Costa-Rezende, Robledo & Drechsler-Santos (3)
Ganoderma P. Karst. (180)
Grammothele Berk. & M.A. Curtis (20)
Grammothelopsis Jülich (7)
Haddowia Steyaert (3)
Haploporus Bondartsev & Singer (13)
Hexagonia Fr. (17)
Hornodermoporus Teixeira (2)
Humphreya Steyaert (4)
Laccocephalum Mc Alpine & Tepper (5)
Leifiporia Y.C. Dai, F. Wu & C.L. Zhao (2)
Lentinus Fr. (55)
Lignosus Lloyd ex Torrend (8)
Lopharia Kalchbr. & MacOwan (7)
Megasporia B.K. Cui, Y.C. Dai & Hai J. Li (10)
Megasporoporia Ryvarden & J.E. Wright (3)
Megasporoporiella B.K. Cui, Y.C. Dai & Hai J. Li (5)
Melanoderma B.K. Cui & Y.C. Dai (2)
Microporellus Murrill (20)
Microporus P. Beauv. (13)
Mollicarpus Ginns (1)
Murinicarpus B.K. Cui & Y.C. Dai (2)
Myriothele Nakasone (1)
Navisporus Ryvarden (8)
Neodatronia B.K. Cui, Hai J. Li & Y.C. Dai (2)
Neodictyopus Palacio, Robledo, Reck & Drechsler-Santos (3)
Neofavolus Sotome & T. Hatt. (4)
Neofomitella Y.C. Dai, Hai J. Li & Vlasák (3)
Pachykytospora Kotl. & Pouzar (4)
Perenniporia Murrill (100)
Perenniporiella Decock & Ryvarden (5)
Perenniporiopsis C.L. Zhao (1)
Phaeotrametes Lloyd ex J. E. Wright (1)

Picipes Zmitr. & Kovalenko (16)
Pilatotrama Zmitr. (1)*
Podofomes Pouzar (3)
Polyporopsis Audet (1)
Polyporus [P. Micheli ex Adans.] Fr. (35)
Porogramme (Pat.) Pat. (4)
Pseudofavolus Pat. (4)
Pseudomegasporoporia X.H. Ji & F. Wu (1)
Pseudopiptoporus Ryvarden (2)
Pyrofomes Kotl. & Pouzar (8)
Rubroporus Log.-Leite, Ryvarden & Groposo (1)
Sparsitubus L.W. Hsu & J.D. Zhao (1)
Szczepkamyces Zmitr. (1)*
Theleporus Fr. (9)
Thermophymatospora Udagawa, Awao & Abdullah (1)
Tinctoporellus Ryvarden (4)
Tomophagus Murrill (2)
Trametes Fr. (70)
Truncospora Pilát (23)
Vanderbylia D.A. Reid (7)
Yuchengia B.K. Cui & K.T. Steffen (1)

Sparassidaceae Jülich
Crustoderma Parmasto (16)
Pycnoporellus Murrill (2)
Sparassis Fr. (7)

Steccherinaceae Parmasto
Antella Miettinen (3)
Antrodiella Ryvarden & I. Johans. (50)
Atraporiella Ryvarden (2)
Austeria Miettinen (1)
Butyrea Miettinen (2)
Cabalodontia Piątek (5)
Caudicicola Miettinen, M. Kulju & Kotir. (1)
Citripora Miettinen (2)
Elaphroporia Z.Q. Wu & C.L. Zhao (1)
Flabellophora G. Cunn. (18)
Flaviporus Murrill (14)
Frantisekia Spirin & Zmitr. (4)
Junghuhnia Corda (35)
Lamelloporus Ryvarden (1)
Loweomyces (Kotl. & Pouzar) Jülich (6)
Metuloidea G. Cunn. (5)
Mycorrhaphium Maas Geest. (6)
Niemelaea Zmitr., Ezhov & Khimich (5)
Nigroporus Murrill (3)
Steccherinum Gray (40)
Trullella Zmitr. (6)*
Xanthoporus Audet (2)

Polyporales genera *incertae sedis*

Aegeritopsis Höhn. (1)
Amaropostia B.K. Cui, L.L. Shen & Y.C. Dai (2)
Amaurohydnum Jülich (1)
Amauromyces Jülich (1)
Amethicium Hjortstam (1)
Amyloporia Singer (5)
Aquascypha D.A. Reid (1)
Auriporia Ryvarden (4)
Australicium Hjortstam & Ryvarden (2)
Australohydnum Jülich (2)
Austrolentinus Ryvarden (1)
Bourdotiella Duhem & Schultheis (1)
Bulbillomyces Jülich (1)
Calcipostia B.K. Cui, L.L. Shen & Y.C. Dai (1)
Candelabrochaete Boidin (12)
Climacocystis Kotl. & Pouzar (2)
Columnodontia Jülich (1)
Conohypha Jülich (2)
Coralloderma D.A. Reid (2)
Cordochaete Sanyal, Samita, Dhingra & Avn. P. Singh (1)
Cryptomphalina R. Heim (1)
Cyanodontia Hjortstam (1)
Cyanosporus McGinty (1)
Cystidiopostia B.K. Cui, L.L. Shen & Y.C. Dai (3)
Dendrophlebia Dhingra & Priyanka (1)
Diacanthodes Singer (3)
Diplomitoporus Domański (25)
Erastia Niemelä & Kinnunen (1)
Faerberia Pouzar (1)
Fibroporia Parmasto (10)
Fuscopostia B.K. Cui, L.L. Shen & Y.C. Dai (4)
Gilbertsonia Parmasto (1)
Globosomyces Jülich (1)
Globuliciopsis Hjortstam & Ryvarden (2)
Gyrophanopsis Jülich (2)
Henningsia Möller (5)
Hymenogramme Mont. & Berk. (1)
Hyphodontiastra Hjortstam (1)
Hypochnicium J. Erikss. (30)
Inflatostereum D.A. Reid (2)
Irpicochaete Rick (1)
Laetifomes T. Hatt. (1)
Macrohyporia I. Johans. & Ryvarden (2)
Meruliophana Duhem & Buyck (1)
Mycoleptodonoides Nikol. (4)
Mycorrhaphoides Hembrom, K. Das & Hallenb. (1)
Nigrohydnum Ryvarden (1)
Phaneroites Hjortstam & Ryvarden (1)
Phanerodontia Hjortstam & Ryvarden (4)
Phlebiella P.Karst. (20)
Piptoporellus B.K. Cui, M.L. Han & Y.C. Dai (3)

Pseudofibroporia Yuan Y. Chen, B.K. Cui & Y.C. Dai (1)
Repetobasidiopsis Dhingra & Avn. P. Singh (1)
Rhodonia Niemelä (1)
Rickiopora Westphalen, Tomšovský & Rajchenb. (1)
Roseofavolus T. Hatt. (1)
Roseograndinia Hjortstam & Ryvarden (1)
Ryvardenia Rajchenb. (2)
Sarcoporia P. Karst. (9)
Skeletohydnum Jülich (1)
Sparassiella Schwarzman (1)
Spathulina Pat. (1)
Spongioides Lázaro Ibiza (1)
Spongipellis Pat. (8)
Stegiacantha Maas Geest. (1)
Taiwanofungus Sheng H. Wu, Z.H. Yu, Y.C. Dai & C.H. Su (2)
Uncobasidium Hjortstam & Ryvarden (2)

Russulales Kreisel ex P. M. Kirk, P. F. Cannon & J. C. David
Albatrellaceae Nuss
Albatrellopsis Teixeira (8)
Albatrellus Gray (22)
Byssoporia M.J. Larsen & Zak (1)
Leucogaster R. Hesse (20)
Leucophleps Harkn. (3)
Mycolevis A.H. Sm. (1)
Polyporoletus Snell (4)
Scutiger Paulet (10)

Auriscalpiaceae Maas Geest.
Amylonotus Ryvarden (6)
Artomyces Jülich (17)
Auriscalpium Gray (8)
Dentipratulum Domański (3)
Lentinellus P. Karst. (30)
Stalpersia Parmasto (1)

Bondarzewiaceae Kotl. & Pouzar
Amylaria Corner (1)
Amylosporus Ryvarden (12)
Bondarzewia Singer (14)
Gloiodon P. Karst. (3)
Heterobasidion Bref. (15)
Laurilia Pouzar (2)
Lauriliella Nakasone & S.H. He (2)
Steccherícium D.A. Reid (7)
Wrightoporia Pouzar (32)

Echinodontiaceae Donk
Echinodontiellum S.H. He & Nakasone (1)
Echinodontium Ellis & Everh. (4)
Larssoniporia Y.C. Dai, Jia J. Chen & B.K. Cui (2)

Hericiaceae Donk

Dentipellicula Y.C. Dai & L.W. Zhou (3)
Dentipellis Donk (7)
Hericium Pers. (23)
Laxitextum Lentz (3)
Pseudowrightoporia Y.C. Dai, Jia J. Chen & B.K. Cui (10)
Wrightoporiopsis Y.C. Dai, Jia J. Chen & B.K. Cui (5)

Hybogasteraceae Jülich

Hybogaster Singer (1)

Peniophoraceae Lotsy

Amylofungus Sheng H. Wu (2)
Asterostroma Massee (19)
Baltazaria Leal-Dutra, Dentinger & G.W. Griff. (4)
Dendrophora (Parmasto) Chamuris (3)
Dichostereum Pilát (11)
Duportella Pat. (13)
Entomocorticium H.S. Whitney, Bandoni & Oberw. (1)
Gloiothele Bres. (12)
Lachnocladium Lév. (40)
Licrostroma P.A. Lemke (1)
Metulodontia Parmasto (1)
Peniophora Cooke (60)
Sceptrulum K.H. Larss. (1)
Scytinostroma Donk (35)
Vararia P. Karst. (50)
Vesiculomyces E. Hagstr. (1)

Russulaceae Lotsy

Boidinia Stalpers & Hjortstam (11)
Gloeopeniophorella Rick (6)
Lactarius Pers. (450)
Lactifluus (Pers.) Roussel (207)
Multifurca Buyck & V. Hofst. (10)
Pseudoxenasma K.H. Larss. & Hjortstam (1)
Russula Pers. (>3000)

Stereaceae Pilát

Acanthobasidium Oberw. (6)
Acanthofungus Sheng H. Wu, Boidin & C.Y. Chien (6)
Acanthophysellum Parmasto (14)
Acanthophysium (Pilát) G. Cunn. (20)
Aleurobotrys Boidin (10)
Aleurodiscus Rabenh. ex J. Schröt. (27)
Aleuromyces Boidin & Gilles (1)
Amylohyphus Ryvarden (1)
Amylosporomyces S. S. Rattan (2)
Confertextum Priyanka & Dhingra (2)
Conferticium Hallenb. (4)
Dextrinocystidium Sheng H. Wu (2)
Gloeocystidiellum Donk (8)

Gloeocystidiopsis Jülich (1)
Gloeomyces Sheng H. Wu (3)
Gloeosoma Bres. (1)
Matula Massee (2)
Megalocystidium Jülich (7)
Neoaleurodiscus Sheng H. Wu (2)
Scotoderma Jülich (1)
Stereum Hill ex Pers. (40)
Xylobolus P. Karst. (10)

Xenasmataceae Oberw.
Xenasma Donk (16)
Xenasmatella Oberw. (14)
Xenosperma Oberw. (4)

Russulales genera *incertae sedis*
Aleurocystidiellum P.A. Lemke (3)
Dentipellopsis Y.C. Dai & L.W. Zhou (1)
Dichantharellus Corner (2)
Dichopleuropus D. A. Reid (1)
Gloeoasterostroma Rick (1)
Gloeodontia Boidin (8)
Gloeohypochnicium (Parmasto) Hjortstam (2)
Haloaleurodiscus N. Maek., Suhara & K. Kinjo (1)
Laeticutis Audet (1)
Neoalbatrellus Audet (4)
Perplexostereum Ryvarden & S. Tutka (1)
Polypus Audet (1)
Scopulodontia Hjortstam (3)
Scytinostromella Parmasto (6)
Xeroceps Audet (2)

Sebacinales M. Weiss, Selosse, Rexer, A. Urb. & Oberw.
Sebacinaceae K. Wells & Oberw.
Chaetospermum Sacc. (4)
Ditangium P. Karst. (3)
Efibulobasidium K. Wells (1)
Globulisebacina Oberw., Garnica & K. Riess (2)
Helvellosebacina Oberw., Garnica & K. Riess (2)
Paulisebacina Oberw., Garnica & K. Riess (1)
Sebacina Tul. & C. Tul. (17)
Tremelloscypha D.A. Reid (4)

Serendipitaceae M. Weiss, Waller, A. Zuccaro & Selosse
Serendipita P. Roberts (11)

Stereopsidales Sjökvist, E. Larss., B.E. Pfeil & K.H. Larss.
Stereopsidaceae Sjökvist, E. Larss., B.E. Pfeil & K.H. Larss.
Stereopsis D.A. Reid (15)

Thelephorales Corner ex Oberw.
Bankeraceae Donk

Bankera Coker & Beers ex Pouzar (8)
Boletopsis Fayod (10)
Corneroporus T. Hatt. (1)
Hydnellum P. Karst. (39)
Sarcodon Quél. ex P. Karst. (49)

Thelephoraceae Chevall.
Amaurodon J. Schröt (10)
Lenzitopsis Malençon & Bertault (2)
Phellodon P. Karst. (18)
Polyozellus Murrill (1)
Pseudotomentella Svrček (17)
Skepperia Berk. (5)
Thelephora Ehrh. ex Willd. (50)
Tomentella Pers. ex Pat. (100)
Tomentellopsis Hjortstam (8)

Thelephorales genus *incertae sedis*
Thelephorella P. Karst. (1)

Trechisporales K.H. Larss.
Hydnodontaceae Jülich
Brevicellicium K. H. Larss. & Hjortstam (13)
Dextrinocystis Gilb. & M. Blackw. (2)
Dextrinodontia Hjortstam & Ryvarden (1)
Hydnodon Banker (1)
Litschauerella Oberw. (3)
Luellia K.H. Larss. & Hjortstam (3)
Porpomyces Jülich (1)
Scytinopogon Singer (5)
Sistotremastrum J. Erikss. (6)
Sphaerobasidium Oberw. (3)
Subulicystidium Parmasto (20)
Trechispora P. Karst. (48)
Tubulicium Oberw. (7)

Tremellodendropsidales Vizzini
Tremellodendropsidaceae Jülich
Tremellodendropsis (Corner) D.A. Crawford (8)

Agaricomycetes genera *incertae sedis*
Akenomyces G. Arnaud ex D. Hornby (1)
Aldridgea Massee (1)
Arthrodochium R.F. Castañeda & W.B. Kendr. (1)
Arualis Katz (1)
Blasiphalia Redhead (1)
Bridgeoporus T.J. Volk, Burds. & Ammirati (2)
Cenangiomyces Dyko & B. Sutton (1)
Ceraceopsis Hjortstam & Ryvarden (1)
Cilicia Fr. (2)
Corticomyces A.I. Romero & S. E. López (1)
Cruciger R. Kirschner & Oberw. (1)

Dendrosporomyces Nawawi, J. Webster & R.A. Davey (1)
Ellula Nag Raj (1)
Fibulocoela Nag Raj (1)
Fibulotaeniella Marvanová & Bärl. (1)
Geotrichopsis Tzean & Estey (1)
Gloeosynnema Seifert & G. Okada (2)
Glomerulomyces A.I. Romero & S.E. López (1)
Glutinoagger Sivan. & Watling (1)
Hallenbergia Dhingra & Priyanka (1)
Heteroacanthella Oberw. (3)
Intextomyces J. Erikss. & Ryvarden (4)
Korupella Hjortstam & P. Roberts (1)
Loreleia Redhead, Moncalvo, Vilgalys & Lutzoni (3)
Minostroscyta Hjortstam & Ryvarden (1)
Mylittopsis Pat. (1)
Myriococcum Fr. (1)
Odonticium Parmasto (7)
Pagidospora Drechsler (1)
Phlyctibasidium Jülich (1)
Purpureocorticium S.H. Wu (1)
Pycnovellomyces R.F. Castañeda (1)
Riessia Fresen. (5)
Riessiella Jülich (2)
Taiwanoporia T.T. Chang & W.N. Chou (1)
Titaeella G. Arnaud ex K. Ando & Tubaki (1)
Trechinothus E.C. Martini & Trichiès (1)
Trimitiella Dhingra (1)
Tubulicrinopsis Hjortstam & Kotir. (4)
Xerotus Fr. (4)

Bartheletiomycetes Thines
Bartheletiales Thines
Bartheletiaceae R. Bauer, Scheuer, M. Lutz & Grube
Bartheletia G. Arnaud ex Scheuer, R. Bauer, M. Lutz, Stabenth., Melnik & Grube (1)

Dacrymycetes Doweld
Dacrymycetales Henn.
Cerinomycetaceae Jülich
Cerinomyces G. W. Martin (13)

Dacrymycetaceae J. Schröt.
Calocera (Fr.) Fr. (18)
Cerinosterus R.T. Moore (1)
Dacrymyces Nees (50)
Dacryonaema Nannf. (1)
Dacryopinax G.W. Martin (24)
Dacryoscyphus R. Kirschner & Zhu L. Yang (1)
Ditiola Fr. (10)
Femsjonia Fr. (7)
Guepiniopsis Pat. (8)
Heterotextus Lloyd (6)

Unilacrymales Shirouzu, Tokum. & Oberw.
Unilacrymaceae Shirouzu, Tokum. & Oberw.
Unilacryma Shirouzu, Tokum. & Oberw. (1)

Tremellomycetes Doweld
Cystofilobasidiales Fell, Roeijmans & Boekhout
Cystofilobasidiaceae K. Wells & Bandoni
Cystofilobasidium Oberw. & Bandoni (8)

Mrakiaceae X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout
Itersonilia Derx (3)
Krasilnikovozyma X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (3)
Mrakia Y. Yamada & Komag. (12)
Phaffia M.W. Mill., Yoney. & Soneda (1)
Tausonia Babeva (3)
Udeniomyces Nakase & Takem. (4)
Vustinia Kachalkin, Turchetti & Yurkov (1)

Filobasidiales Jülich
Filobasidiaceae L.S. Olive
Filobasidium L.S. Olive (9)
Goffeauzyma X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (6)
Heterocephalacria Berthier (8)
Naganishia S. Goto (8)
Syzygospora G.W. Martin (2)

Piskurozymaceae X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout
Piskurozyma X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (12)
Solicoccozyma X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (7)

Holtermanniales Libkind, Wuczk., Turchetti & Boekhout
Holtermanniaceae Redhead
Holtermannia Sacc. & Traverso (8)
Holtermanniella Libkind, Wuczk., Turchetti & Boekhout (5)

Tremellales Fr.
Bulleraceae X. Zh. Liu, F.Y. Bai, M. Groenew. & Boekhout
Bullera Derx (4)
Fonsecazyma X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (3)
Genolevuria X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (4)
Pseudotremella X.Z. Liu, F.Y. Bai, A.M. Yurkov, M. Groenew. & Boekhout (4)

Bulleribasidiaceae X. Z. Liu, F.Y. Bai, M. Groenew. & Boekhout
Bulleribasidium J.P. Samp., M. Weiss & R. Bauer (11)
Derxomyces F.Y. Bai & Q.M. Wang (24)
Dioszegia Zsolt (18)
Hannaella F.Y. Bai & Q.M. Wang (11)
Nielozyma X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (2)
Vishniacozyma X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (11)

Carcinomycetaceae Oberw. & Bandoni
Carcinomyces Oberw. & Bandoni (3)

Cryptococcaceae Kütz. ex Castell. & Chalm.
Cryptococcus Vuill. (12)
Kwoniella Statzell & Fell (14)

Cuniculitremaceae J.P. Samp., R. Kirschner & M. Weiss
Fellomyces Y. Yamada & I. Banno (4)
Kockovaella Nakase, I. Banno & Y. Yamada (19)
Sterigmatosporidium G. Kraep. & U. Schulze (1)

Naemateliaceae X. Z. Liu, F. Y. Bai, M. Groenew. & Boekhout
Dimennazyma X. Z. Liu, F. Y. Bai, M. Groenew. & Boekhout (1)
Naematelia Fr. (4)

Phaeotremellaceae A.M. Yurkov & Boekhout
Gelidatrema A.M. Yurkov, X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (1)
Phaeotremella Rea (11)

Phragmoxenidiaceae Oberw. & R. Bauer
Phragmoxenidium Oberw. (1)

Rhynchogastremaceae Oberw. & B. Metzler
Papiliotrema J.P. Samp., M. Weiss & R. Bauer (30)
Rhynchogastrema B. Metzler & Oberw. (9)
Tetragoniomyces Oberw. & Bandoni (1)

Sirobasidiaceae Lindau
Fibulobasidium Bandoni (3)

Tremellaceae Fr.
Hormomyces Bonord. (6)
Mycocryptococcus Pollacci & Nann. (1)
Tremella Pers. (>500)

Trimorphomycetaceae X. Z. Liu, F.Y. Bai, M. Groenew. & Boekhout
Carlosrosaea A.M. Yurkov, X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (3)
Saitozyma X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (4)
Sugitazyma A.M. Yurkov, X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (1)
Trimorphomyces Bandoni & Oberw. (2)

Tremellales genera *incertae sedis*
Biatoropsis Räsänen (4)
Dictyotremella Kobayasi (1)
Neotremella Lowy (1)
Sigmogloea Bandoni & J.C. Krug (1)
Sirobasidium Lagerh. & Pat. (8)
Sirotrema Bandoni (3)
Tremellina Bandoni (1)
Xenolachne D.P. Rogers (2)

Trichosporonales Boekhout & Fell
Tetragoniomycetaceae Oberw. & Bandoni
Bandonia A.M. Yurkov, X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (1)

Cryptotrichosporon Okoli & Boekhout (5)
Takashimella Q.M. Wang (4)

Trichosporonaceae Nann.
Apiotrichum Stautz (21)
Cutaneotrichosporon X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (15)
Effuseotrichosporon A.M. Yurkov, X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (1)
Haglerozyma X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (1)
Pascua Takashima, Manabe, Nishimura, Sriswasdi, Ohkuma, Iwasaki & Sugita (1)
Prillingera Takashima, Manabe, Nishimura, Sriswasdi, Ohkuma, Iwasaki & Sugita (1)
Trichosporon Behrend (12)
Vanrija R. T. Moore (9)

Tremellomycetes genera *incertae sedis*
Heteromycophaga P. Roberts (2)
Phyllopta (Fr.) Fr. (1)
Trichosporonoides Haskins & J.F.T. Spencer (6)

Pucciniomycotina R. Bauer, Begerow, J.P. Samp., M. Weiss & Oberw.
Agaricostilbomycetes R. Bauer, Begerow, J.P. Samp., M. Weiss & Oberw.
Agaricostilbales Oberw. & R. Bauer
Agaricostilbaceae Oberw. & R. Bauer
Agaricostilbum J.E. Wright (4)
Pseudobensingtonia F.Y. Bai, Q.M. Wang, M. Groenewald & Boekhout (2)
Sterigmatomyces Fell (5)

Chionosphaeraceae Oberw. & Bandoni
Ballistosporomyces Nakase, G. Okada & Sugiy. (4)
Chionosphaera D.E. Cox (6)
Cystobasidiopsis R. Bauer, B. Metzler, Begerow & Oberw. (3)
Kurtzmanomyces Y. Yamada, Itoh, H. Kawas., I. Banno & Nakase (4)
Stilbum Tode (10)

Kondoaceae R. Bauer, Begerow, J. P. Samp., M. Weiss & Oberw.
Bensingtonia Ingold (5)
Kondoa Y. Yamada, Nakagawa & I. Banno (10)

Ruineniaceae Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout
Ruinenia Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (5)

Agaricostilbales genera *incertae sedis*
Jianyunia Q. M. Wang, F. Y. Bai, M. Groenew. & Boekhout (1)
Mycogloea L. S. Olive (7)

Atractiellomycetes R. Bauer, Begerow, J. P. Samp., M. Weiss & Oberw.
Atractiellales Oberw. & Bandoni
Atractogloeaceae Oberw. & R. Bauer
Atractogloea Oberw. & Bandoni (1)

Hoehnelomycetaceae Jülich
Basidiopycnis Oberw., R. Kirschner, R. Bauer, Begerow & Arenal (1)

Proceropycnis M. Villarreal, Arenal, V. Rubio, Begerow, R. Bauer, R. Kirschner & Oberw. (2)

Phleogenaceae Gäum.
Atractidochium Oono, Urbina & Aime (1)
Atractiella Sacc. (7)
Bourdotigloea Aime (9)
Helicogloea Pat. (25)
Hobsonia Berk. ex Massee (2)
Phleogena Link (1)
Saccosoma Spirin (9)

Classiculomycetes R. Bauer, Begerow, J. P. Samp., M. Weiss & Oberw.
Classiculales R. Bauer, Begerow, Oberw. & Marvanová
Classiculaceae R. Bauer, Begerow, Oberw. & Marvanová
Classicula R. Bauer, Begerow, Oberw. & Marvanová (2)
Jaculispora H. J. Huds. & Ingold (1)

Cryptomycocolacomycetes R. Bauer, Begerow, J.P. Samp., M. Weiss & Oberw.
Cryptomycocolacales Oberw. & R. Bauer
Cryptomycocolacaceae Oberw. & R. Bauer
Colacosiphon R. Kirschner, R. Bauer & Oberw. (1)
Cryptomycocolax Oberw. & R. Bauer (1)

Cystobasidiomycetes R. Bauer, Begerow, J. P. Samp., M. Weiss & Oberw.
Buckleyzymales R.L. Zhao & K.D. Hyde
Buckleyzymaceae Q. M. Wang, F.Y. Bai, M. Groenew. & Boekhout
Buckleyzyma Q. M. Wang, F.Y. Bai, M. Groenew. & Boekhout (5)

Cystobasidiales R. Bauer, Begerow, J.P. Samp., M. Weiss & Oberw.
Cystobasidiaceae Gäum.
Cystobasidium (Lagerh.) Neuhoff (20)
Halobasidium Z. Guo, Y.R. Wang, Q.C. Hou, W.C. Li, H. J. Zhao, Z. H. Sun & Z.D. Zhang (1)
Occultifur Oberw. (?9)

Erythrobasidiales R. Bauer, Begerow, J.P. Samp., M. Weiss & Oberw.
Erythrobasidiaceae Denchev
Bannoa Hamam. (4)
Erythrobasidium Hamam, Sugiy. & Komag. (3)

Erythrobasidiales genera *incertae sedis*
Cyphobasidium Millanes, Diederich & Wedin (2)
Cyrenella Goch. (1)
Hasegawazyma Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (1)

Naohideales R. Bauer, Begerow, J.P. Samp., M. Weiss & Oberw.
Naohideaceae Denchev
Naohidea Oberw. (1)

Sakaguchiales R.L. Zhao & K. D. Hyde
Sakaguchiaceae Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout

Sakaguchia Y. Yamada, K. Maeda & Mikata (5)

Cystobasidiomycetes families *incertae sedis*
Microsporomycetaceae Q.M. Wang, F. Y. Bai, M. Groenew. & Boekhout
Microsporomyces Q.M. Wang, F. Y. Bai, M. Groenew. & Boekhout (4)

Symmetrosporaceae Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout
Symmetrospora Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (10)

Cystobasidiomycetes genus *incertae sedis*
Queiroziella C.R. Félix, J.D.P. Bezerra, R.P. Neves & Landell (1)

Microbotryomycetes R. Bauer, Begerow, J.P. Samp., M. Weiss & Oberw.
Heterogastridiales Oberw. & R. Bauer
Heterogastridiaceae Oberw. & R. Bauer
Hyalopycnis Höhn. (1)
Krieglsteinera Pouzar (1)
Pycnopulvinus Toome & Aime (1)

Kriegeriales Toome & Aime
Camptobasidiaceae R.T. Moore
Camptobasidium Marvanová & Suberkr. (1)
Glaciozyma Turchetti, Connell, Thomas-Hall & Boekhout (4)

Kriegeriaceae Toome & Aime
Kriegeria Bres. (1)
Meredithblackwellia Toome & Aime (1)
Phenoliferia Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (4)
Yamadamyces Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (1)

Leucosporidiales Sampaio, M. Weiss & Bauer
Leucosporidiaceae Sampaio, M. Weiss & Bauer
Leucosporidium Fell, Statzell, I.L. Hunter & Phaff (11)

Microbotryales R. Bauer & Oberw.
Microbotryaceae R.T. Moore
Bauerago Vánky (9)
Microbotryum Lév. (100)
Sphacelotheca de Bary (50)
Zundeliomyces Vánky (1)

Ustilentylomataceae R. Bauer & Oberw.
Aurantiosporium M. Piepenbr., Vánky & Oberw. (4)
Fulvisporium Vánky (1)
Microbotryozyma S.O. Suh, D.A. Maslov, Molestina & J.J. Zhou (1)
Ustilentyloma Savile (4)

Sporidiobolales Doweld
Sporidiobolaceae R.T. Moore
Rhodosporidiobolus Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (11)
Rhodotorula F.C. Harrison (15)
Sporobolomyces Kluyver & C.B. Niel (10)

Microbotryomycetes families *incertae sedis*
Chrysozymaceae Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout
Bannozyma Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (2)
Chrysozyma Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (2)
Fellozyma Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (1)
Hamamotoa Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (4)

Colacogloeaceae Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout
Colacogloea Oberw. & Bandoni (13)

Microbotryomycetes genera *incertae sedis*
Atractocolax R. Kirschner, R. Bauer & Oberw. (1)
Curvibasidium Samp. & Golubev (3)
Heitmania X.Z. Liu, F.Y. Bai, M. Groenew. & T. Boekhout (3)
Libkindia Mašínová, A. Pontes, J.P. Samp. & Baldrian (1)
Oberwinklerozyma Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (3)
Pseudohyphozyma Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (3)
Pseudoleucosporidium V. de Garcia, M.A. Coelho, T. Maia, L.H. Rosa, A.B.M. Vaz, C.A. Rosa, J.P. Samp., P. Gonç., M.R. Van Broock & Libkind (1)
Sampaiozyma Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (2)
Slooffia Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (4)
Spencerozyma Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (1)
Trigonosporomyces Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (1)
Udeniozyma Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (1)
Vonarxula Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (1)
Yunzhangia Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (2)
Yurkovia Mašínová, A. Pontes, J.P. Samp. & Baldrian (1)

Mixiomycetes R. Bauer, Begerow, J.P. Samp., M. Weiss & Oberw.
Mixiales R. Bauer, Begerow, J.P. Samp., M. Weiss & Oberw.
Mixiaceae C.L. Kramer
Mixia C.L. Kramer (1)

Pucciniomycetes R. Bauer, Begerow, J.P. Samp., M. Weiss & Oberw.
Helicobasidiales R. Bauer, Begerow, J.P. Samp., M. Weiss & Oberw.
Helicobasidiaceae P.M. Kirk
Helicobasidium Pat. (6)
Tuberculina Tode ex Sacc. (26)

Pachnocybales R. Bauer, Begerow, J.P. Samp., M. Weiss & Oberw.
Pachnocybaceae Oberw. & R. Bauer
Pachnocybe Berk. (1)

Platygloeales R.T. Moore
Eocronartiaceae Jülich
Eocronartium G.F. Atk. (1)
Herpobasidium Lind (6)
Jola Möller (1)
Platycarpa Couch (2)
Ptechetelium Oberw. & Bandoni (1)

Platygloeaceae Racib.
Glomerogloea Doweld (1)
Glomopsis D.M. Hend. (2)
Insolibasidium Oberw. & Bandoni (1)
Platygloea J. Schröt. (16)

Pucciniales Clem. & Shear
Chaconiaceae Cummins & Y. Hirats.
Achrotelium Syd. (5)
Aplopsora Mains (6)
Botryorhiza Whetzel & Olive (1)
Ceraceopsora Kakish., T. Sato & S. Sato (1)
Chaconia Juel (12)
Goplana Racib. (13)
Maravalia Arthur (41)
Olivea Arthur (8)
Telomapea G.F. Laundon (1)

Coleosporiaceae Dietel
Ceropsora B.K. Bakshi & Suj. Singh (1)
Chrysomyxa Unger (38)
Coleosporium Lév. (125)
Diaphanopellis P.E. Crane (2)
Gallowaya Arthur (3)

Cronartiaceae Dietel
Cronartium Fr. (34)
Endocronartium Y. Hirats. (2)
Peridermium (Link) J.C. Schmidt & Kunze (50)

Melampsoraceae Dietel
Melampsora Castagne (100)

Mikronegeriaceae Cummins & Y. Hirats.
Blastospora Dietel (5)
Chrysocelis Lagerh. & Dietel (5)
Mikronegeria Dietel (3)

Phakopsoraceae Cummins & Hirats. f.
Aeciure Buriticá & J.F. Hennen (1)
Arthuria H.S. Jacks. (6)
Cerotelium Arthur (27)
Crossopsora Syd. & P. Syd. (16)
Dasturella Mundk. & Khesw. (3)
Kweilingia Teng (4)
Macabuna Buriticá & J.F. Hennen (7)
Monosporidium Barclay (3)
Newinia Thaung (3)
Nothoravenelia Dietel (3)
Phakopsora Dietel (116)
Phragmidiella Henn. (8)
Pucciniostele Tranzschel & K.L. Kom. (4)

Scalarispora Buriticá & J.F. Hennen (1)
Uredopeltis Henn. (7)

Phragmidiaceae Corda
Arthuriomyces Cummins & Y. Hirats. (3)
Campanulospora Salazar-Yepes, Pardo-Card. & Buriticá (1)
Gerwasia Racib. (19)
Gymnoconia Lagerh. (4)
Hamaspora Körn. (15)
Joerstadia Gjaerum & Cummins (4)
Kuehneola Magnus (22)
Morispora Salazar-Yepes, Pardo-Card. & Buriticá (1)
Phragmidium Link (100)
Physonema Lév. (1)
Scutelliformis Salazar-Yepes, Pardo-Card. & Buriticá (1)
Trachyspora Fuckel (5)
Xenodochus Schltdl. (2)

Pileolariaceae Cummins & Y. Hirats.
Atelocauda Arthur & Cummins (3)
Pileolaria Castagne (16)
Skierka Racib. (13)
Uromycladium McAlpine (11)

Pucciniaceae Chevall.
Allodus Arthur (1)
Chrysella Syd. (1)
Chrysocyclus Syd. (3)
Chrysopsora Lagerh. (1)
Cleptomyces Arthur (1)
Coleopucciniella Hara ex Hirats. (2)
Corbulopsora Cummins (3)
Cumminsiella Arthur (8)
Cystopsora E.J. Butler (2)
Endophyllum Lév. (43)
Gymnosporangium R. Hedw. ex DC.(64)
Kernella Thirum. (1)
Miyagia Miyabe ex Syd. & P. Syd. (3)
Polioma Arthur (5)
Puccinia Pers. (3300)
Ramakrishnania Ramachar & Bhagyan. (1)
Roestelia Rebent. (15)
Stereostratum Magnus (1)
Uromyces (Link) Unger (1500)
Xenostele Syd. & P. Syd. (4)
Zaghouania Pat. (2)

Pucciniastraceae Gäum. ex Leppik
Hyalopsora Magnus (21)
Melampsorella J. Schröt. (2)
Melampsoridium Kleb. (11)
Milesia F.B. White 1878 (20)

Milesina Magnus (65)
Naohidemyces S. Sato, Katsuya & Y. Hirats. (2)
Peridiopsora Kamat & Sathe (2)
Pucciniastrum G.H. Otth (50)
Thekopsora Magnus (7)
Uredinopsis Magnus (30)

Pucciniosiraceae Cummins & Y. Hirats.
Alveolaria Lagerh. (2)
Baeodromus Arthur (6)
Ceratocoma Buriticá & J.F. Hennen (1)
Chardoniella F. Kern (4)
Cionothrix Arthur (5)
Didymopsora Dietel (6)
Dietelia Henn. (13)
Gambleola Massee (1)
Pucciniosira Lagerh. (17)
Trichopsora Lagerh. (1)

Raveneliaceae Leppik
Allotelium Syd. (1)
Anthomyces Dietel (1)
Anthomycetella Syd. & P. Syd. (1)
Apra J.F. Hennen & F.O. Freire (1)
Bibulocystis J. Walker, Beilharz, Pascoe & Priest (3)
Cumminsina Petr. (1)
Cystomyces Syd. (1)
Diabole Arthur (1)
Diabolidium Berndt (1)
Dicheirinia Arthur (14)
Diorchidiella J.C. Lindq. (2)
Diorchidium Kalchbr. (20)
Endoraecium Hodges & D.E. Gardner (22)
Esalque J.F. Hennen, Figueiredo & A.A. Carvalho (1)
Hapalophragmium Syd. & P. Syd. (18)
Kernkampella Rajendren (8)
Lipocystis Cummins (1)
Nyssopsora Arthur (11)
Ravenelia Berk. (250)
Sphenospora Dietel (6)
Spumula Mains (7)
Triphragmiopsis Naumov (3)
Triphragmium Link (7)
Ypsilospora Cummins (3)

Sphaerophragmiaceae Cummins & Y. Hirats.
Austropuccinia Beenken (1)
Sphaerophragmium Magnus (24)

Uncolaceae Buriticá
Calidion Syd. & P. Syd. (4)
Uncol Buriticá & P.A. Rodr. (1)

Uropyxidaceae (P. Syd. & Syd.) Cummins & Y. Hirats.

Canasta A.A. Carvalho & J.F. Hennen (3)
Dasyspora Berk. & M.A. Curtis (13)
Didymopsorella Thirum. (2)
Dipyxis Cummins & J.W. Baxter (2)
Kimuromyces Dianese, L.T.P. Santos, R.B. Medeiros & Furlan. (1)
Leucotelium Tranzschel (3)
Macruropyxis Azbukina (2)
Mimema H.S. Jacks. (1)
Ochropsora Dietel (3)
Phragmopyxis Dietel (4)
Poliomopsis A.W. Ramaley (1)
Porotenus Viégas (7)
Prospodium Arthur (84)
Sorataea Syd. (8)
Tranzschelia Arthur (19)
Uropyxis J. Schröt. (15)

Pucciniales genera *incertae sedis*

Aecidiconium Vuill. (1)
Aecidiolum Unger (12)
Aecidium Pers. (ca. 800)
Caeoma Link (ca. 50)
Caetea Salazar-Yepes & A.A. Carvalho (1)
Cerradoa J.F. Hennen & Y. Ono (1)
Coleopuccinia Pat. (1)
Desmella Syd. & P. Syd. (4)
Desmellopsis J.M. Yen (1)
Desmosorus Ritschel, Oberw. & Berndt (1)
Edythea H.S. Jacks. (5)
Elateraecium Thirum., F. Kern & B.V. Patil (3)
Flaminia Sacc. & P. Syd. (1)
Hemileia Berk. & Broome (55)
Hennenia Buriticá (1)
Intrapes J.F. Hennen & Figueiredo (1)
Masseeëlla Dietel (6)
Mehtamyces Mundk. & Thirum. (1)
Phragmotelium Syd. (10)
Puccorchidium Beenken (2)
Schroeteriaster Magnus (4)
Sphenorchidium Beenken (2)
Uraecium Arthur (12)
Uredo Pers. (600)

Septobasidiales Couch ex Donk
Septobasidiaceae Racib.

Aphelariopsis Jülich (2)
Auriculoscypha D.A. Reid & Manim. (1)
Coccidiodictyon Oberw. (1)
Johncouchia S. Hughes & Cavalc. (1)
Septobasidium Pat. (200)
Uredinella Couch (2)

Spiculogloeomycetes Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout
Spiculogloeales R. Bauer, Begerow, J.P. Samp., M. Weiss & Oberw.
Spiculogloeaceae Denchev
Phyllozyma Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (7)
Spiculogloea P. Roberts (5)

Tritirachiomycetes Aime & Schell
Tritirachiales Aime & Schell
Tritirachiaceae Aime & Schell
Tritirachium Limber (4)
Paratritirachium Beguin, Pyck & Detandt (2)

Pucciniomycotina genera *incertae sedis*
Kryptastrina Oberw (1)
Paraphelaria Corner (2)
Zygogloea P. Roberts (1)

Ustilaginomycotina Doweld
Exobasidiomycetes Begerow, M. Stoll & R. Bauer
Ceraceosorales Begerow, M. Stoll & R. Bauer
Ceraceosoraceae Denchev & R.T. Moore
Ceraceosorus B.K. Bakshi (3)

Doassansiales R. Bauer & Oberw.
Doassansiaceae R.T. Moore ex P.M. Kirk, P.F. Cannon & J.C. David
Burrillia Setch. (4)
Doassansia Cornu (12)
Doassinga Vánky, R. Bauer & Begerow (1)
Entylomaster Vánky & R.G. Shivas (2)
Heterodoassansia Vánky (8)
Nannfeldtiomyces Vánky (2)
Narasimhania Thirum. & Pavgi (1)
Pseudodermatosorus Vánky (2)
Pseudodoassansia (Setch.) Vánky (2)
Pseudotracya Vánky (1)
Tracya Syd. & P. Syd. (2)

Melaniellaceae R. Bauer, Vánky, Begerow & Oberw.
Melaniella R. Bauer, Vánky, Begerow & Oberw. (2)

Rhamphosporaceae R. Bauer & Oberw.
Rhamphospora D.D. Cunn. (2)

Entylomatales R. Bauer & Oberw.
Entylomataceae R. Bauer & Oberw.
Entyloma de Bary (163)
Tilletiopsis Derx (3)

Exobasidiales Henn.
Brachybasidiaceae Gäum.
Brachybasidium Gäum. (1)
Dicellomyces L.S. Olive (4)

Kordyana Racib. (8)
Meira Boekhout, Scorzetti, Gerson & Sztejnb. (4)
Proliferobasidium J.L. Cunn. (1)

Cryptobasidiaceae Malençon ex Donk
Acaromyces Boekhout, Scorzetti, Gerson & Sztejnb. (1)
Botryoconis Syd. & P.Syd. (2)
Clinoconidium Pat. (6)
Coniodictyum Har. & Pat. (1)
Drepanoconis J. Schröt. & Henn. (3)
Phacellula Syd. (1)

Exobasidiaceae J. Schröt.
Arcticomyces Savile (1)
Austrobasidium Palfner (1)
Exobasidium Woronin (51)
Muribasidiospora Kamat & Rajendren (3)

Graphiolaceae Clem. & Shear
Graphiola Poit. (12)
Stylina Syd. & P. Syd. (1)

Laurobasidiaceae Pinruan, Sommai, Suetrong, Somrith. & E.B.G. Jones
Laurobasidium Jülich (2)

Georgefischeriales R. Bauer, Begerow & Oberw.
Eballistraceae R. Bauer, Begerow, A. Nagler & Oberw.
Eballistra R. Bauer, Begerow, A. Nagler & Oberw. (4)

Georgefischeriaceae R. Bauer, Begerow & Oberw.
Georgefischeria Thirum. & Naras. (4)
Jamesdicksonia Thirum., Pavgi & Payak (20)

Gjaerumiaceae R. Bauer, M. Lutz & Oberw.
Gjaerumia R. Bauer, M. Lutz & Oberw. (3)

Tilletiariaceae R.T. Moore
Phragmotaenium R. Bauer, Begerow, A. Nagler & Oberw. (5)
Tilletiaria Bandoni & B.N. Johri (1)
Tolyposporella G.F. Atk. (6)

Golubeviales Q.M. Wang, Begerow, F.Y. Bai & Boekhout
Golubeviaceae Q.M. Wang, F.Y. Bai, Begerow & Boekhout
Golubevia Q.M. Wang, F.Y. Bai, Begerow & Boekhout (1)

Microstromatales R. Bauer & Oberw.
Microstromataceae Jülich
Microstroma Niessl (16)

Quambalariaceae Z.W. de Beer, Begerow & R. Bauer
Quambalaria J.A. Simpson (7)

Volvocisporiaceae Begerow, R. Bauer & Oberw.
Volvocisporium Begerow, R. Bauer & Oberw. (2)

Microstromatales genera *incertae sedis*
Jaminaea Sipiczki & Kajdacsi ex T. Kij. & Aime (4)
Parajaminaea T. Kij. & Aime (2)
Pseudomicrostroma T. Kij. & Aime (3)
Sympodiomycopsis Sugiy., Tokuoka & Komag. (3)

Robbauerales Boekhout, Begerow, Q.M. Wang & F.Y. Bai
Robbaueraceae Boekhout, Begerow, Q.M. Wang & F.Y. Bai
Robbauera Boekhout, Begerow, Q.M. Wang & F.Y. Bai (1)

Tilletiales Kreisel ex R. Bauer & Oberw.
Erratomycetaceae Denchev & T. Denchev
Erratomyces M. Piepenbr. & R. Bauer (5)

Tilletiaceae J. Schröt.
Conidiosporomyces Vánky (3)
Ingoldiomyces Vánky (1)
Neovossia Körn. (1)
Oberwinkleria Vánky & R. Bauer (1)
Salmacisia D.R. Huff & A. Chandra (1)
Tilletia Tul. & C. Tul. (179)

Malasseziomycetes Q.M. Wang & F.Y. Bai
Malasseziales R.T. Moore
Malasseziaceae Denchev & R.T. Moore
Malassezia Baillon (18)

Moniliellomycetes Q.M. Wang, F.Y. Bai & Boekhout
Moniliellales Q.M. Wang, F.Y. Bai & Boekhout
Moniliellaceae Q.M. Wang, F.Y. Bai & Boekhout
Moniliella Stolk & Dakin (15)

Ustilaginomycetes R. Bauer, Oberw. & Vánky
Uleiellales Garnica, K. Riess, M. Schön, H. Butin, M. Lutz, Oberw. & R. Bauer
Uleiellaceae Vánky
Uleiella J. Schröt. (2)

Urocystidales R. Bauer & Oberw.
Doassansiopsidaceae Begerow, R. Bauer & Oberw.
Doassansiopsis (Setch.) Dietel (14)

Fereydouniaceae S. Nasr, Soudi, H.D.T. Nguyen, M. Lutz & Piątek
Fereydounia S. Nasr, M.R. Soudi, H.D.T. Nguyen, M. Lutz & Piątek (1)

Floromycetaceae S. Nasr, Soudi, H.D.T. Nguyen, M. Lutz & Piątek
Antherospora R. Bauer, M. Lutz, Begerow, Piątek & Vánky (12)
Floromyces Vánky, M. Lutz & R. Bauer (1)

Glomosporiaceae Cif.

Thecaphora Fingerh. (61)

Mycosyringaceae R. Bauer & Oberw.
Mycosyrinx Beck (4)

Urocystidaceae Begerow, R. Bauer & Oberw.
Flamingomyces R. Bauer, M. Lutz, Piątek, Vánky & Oberw. (1)
Melanoxa M. Lutz, Vánky & R. Bauer (2)
Melanustilospora Denchev (2)
Mundkurella Thirum. (5)
Urocystis Rabenh. ex Fuckel (166)
Ustacystis Zundel (2)
Vankya Ershad (3)

Ustilaginales G. Winter
Anthracoideaceae Denchev
Anthracoidea Bref. (112)
Cintractia Cornu (13)
Dermatosorus Sawada ex L. Ling (6)
Farysia Racib. (23)
Farysporium Vánky (1)
Heterotolyposporium Vánky (2)
Kuntzeomyces Henn. Ex Sacc. & P. Syd. (2)
Leucocintractia M. Piepenbr., Begerow & Oberw. (4)
Moreaua Liou & H.C. Cheng (39)
Orphanomyces Savile (3)
Pilocintractia Vánky (2)
Planetella Savile (1)
Portalia V. González, Vánky & Platas (1)
Schizonella J. Schröt. (5)
Stegocintractia M. Piepenbr., Begerow & Oberw. (6)
Testicularia Klotzsch (3)
Tolyposporium Woronin ex J. Schröt. (5)
Trichocintractia M. Piepenbr. (1)
Ustanciosporium Vánky (22)

Cintractiellaceae Vánky
Cintractiella Boedijn (2)

Clintamraceae Vánky
Clintamra Cordas & Durán (1)

Geminaginaceae Vánky
Geminago Vánky & R. Bauer (1)

Melanotaeniaceae Begerow, R. Bauer & Oberw.
Exoteliospora R. Bauer, Oberw. & Vánky (1)
Melanotaenium de Bary (9)
Yelsemia J. Walker (4)

Pericladiaceae Vánky
Pericladium Pass. (3)

Ustilaginaceae Tul. & C. Tul.
Anthracocystis Bref. (134)
Macalpinomyces Langdon & Full. (41)
Moesziomyces Vánky (8)
Sporisorium Ehrenb. ex Link (195)
Tranzscheliella Lavrov (17)
Ustilago (Pers.) Roussel (170)

Websdaneaceae Vánky
Restiosporium Vánky (21)
Websdanea Vánky (1)

Ustilaginales genera *incertae sedis*
Ahmadiago Vánky (1)
Aizoago Vánky (2)
Anomalomyces Vánky, M. Lutz & R.G. Shivas (2)
Bambusiomyces Vánky (1)
Centrolepidosporium R.G. Shivas & Vánky (1)
Dirkmeia F.Y. Bai, Q.M. Wang, Begerow & Boekhout (1)
Eriocaulago Vánky (2)
Eriocortex Vánky & R.G. Shivas (1)
Eriosporium Vánky (2)
Franzpetrakia Thirum. & Pavgi (3)
Kalmanozyma Q.M. Wang, F.Y. Bai, Begerow & Boekhout (3)
Langdonia McTaggart & R.G. Shivas (8)
Melanopsichium Beck (2)
Mycosarcoma Bref (5)
Parvulago R. Bauer, M. Lutz, Piątek, Vánky & Oberw. (1)
Pattersoniomyces Piątek, M. Lutz & C.A. Rosa (1)
Shivasia Vánky, M. Lutz & Piątek (1)
Stollia McTaggart & R.G. Shivas (5)
Triodiomyces McTaggart & R.G. Shivas (6)
Yunchangia L. Guo & B. Xu (1)

Violaceomycetales Albu, Toome & Aime
Violaceomycetaceae Albu, Toome & Aime
Violaceomyces Albu, Toome & Aime (1)

Ustilaginomycetes genus *incertae sedis*
Capitulocladosporium L.Y. Sun, X. Sun & L.D. Guo (1)

Wallemiomycotina Doweld
Wallemiomycetes Zalar, de Hoog & Schroers
Geminibasidiales H.D.T. Nguyen, N.L. Nick. & Seifert
Geminibasidiaceae H.D.T. Nguyen, N.L. Nick. & Seifert
Basidioascus Matsush. (3)
Geminibasidium H.D.T. Nguyen, N.L. Nick. & Seifert (2)

Wallemiales Zalar, de Hoog & Schroers
Wallemiaceae R.T. Moore
Wallemia Johan-Olsen (8)

Wallemiomycetes genus *incertae sedis*
Chernovia A.M. Yurkov & Begerow (1)

Basidiomycota genera *incertae sedis*
Anastomyces W.P. Wu, B. Sutton & Gange (1)
Anguillomyces Marvanová & Bärl. (1)
Arcispora Marvanová & Bärl. (1)
Arrasia Bernicchia, Gorjón & Nakasone (1)
Brevicellopsis Hjortstam & Ryvarden (1)
Celatogloea P. Roberts (1)
Cystogloea P. Roberts (1)
Microstella K. Ando & Tubaki (1)
Neotyphula Wakef. (1)
Radulodontia Hjortstam & Ryvarden (1)
Restilago Vánky (1)

Blastocladiomycota T.Y. James
Blastocladiomycetes Doweld
Blastocladiales H.E. Petersen
Blastocladiaceae H.E. Petersen
Allomyces E.J. Butler (13)
Blastocladia Reinsch (31)
Blastocladiopsis Sparrow (2)

Catenariaceae Couch
Catenophlyctis Karling (2)
Nematoceromyces Doweld (3)

Paraphysodermataceae Doweld
Paraphysoderma Boussiba, Zarka & T.Y. James (1)

Sorochytriaceae Dewel
Sorochytrium Dewel (1)

Blastocladiales genus *incertae sedis*
Endoblastidium Codreanu (1)

Callimastigales Doweld
Callimastigaceae Fonseca
Callimastix Weissenb. (2)

Catenomycetales Doweld
Catenomycetaceae Doweld
Catenomyces A.M. Hanson (2)

Coelomomycetaceae Couch
Coelomomyces Keilin (66)
Coelomycidium Debais. (2)

Blastocladiomycetes genus *incertae sedis*
Microallomyces R. Emers. & J.A. Robertson (1)

Physodermatomycetes Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov
Physodermatales Caval.-Sm.
Physodermataceae Sparrow
Physoderma Wallr. (99)

Calcarisporiellomycota Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov
Calcarisporiellomycotina Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov
Calcarisporiellomycetes Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov
Calcarisporiellales Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov
Calcarisporiellaceae Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov
Calcarisporiella de Hoog (1)
Echinochlamydosporium X.Z. Jiang, H.Y. Yu, M.C. Xiang, X.Y. Liu & Xing Z. Liu (1)

Caulochytriomycota Doweld
Caulochytriomycetes Doweld
Caulochytriales Doweld
Caulochytriaceae Subram.
Caulochytrium Voos & L.S. Olive (2)

Chytridiomycota Doweld
Chytridiomycetes Caval.-Sm.
Chytridiales Cohn
Asterophlyctaceae Doweld
Asterophlyctis H.E. Petersen (2)
Wheelerophlyctis P.M Letcher, M.J. Powell, W.J. Davis (2)*

Chytridiaceae Nowak.
Chytridium A. Braun (143)
Dendrochytridium Letcher, Longcore & M.J. Powell (1)
Dinochytrium Lesham, Letcher & M.J. Powell (1)
Irineochytrium Letcher, Longcore & M.J. Powell (1)
Polyphlyctis Karling (3)
Zopfochytrium M.J. Powell, Longcore, Letcher (1)*

Chytriomycetaceae Letcher
Avachytrium Vélez & Letcher (1)
Chytriomyces Karling (33)
Entophlyctis A. Fisch. (29)
Fayochytriomyces W.J. Davis, Letcher, Longcore & M.J. Powell (1)
Obelidium Nowak. (3)
Odontochytrium Vélez & Letcher (1)
Pendulichytrium K. Seto & Degawa (1)
Physocladia Sparrow (1)
Podochytrium Pfitzer (7)
Rhizoclosmatium H.E. Petersen (4)
Siphonaria H.E. Petersen (3)

Phlyctochytriaceae Doweld
Phlyctochytrium J. Schröt. (73)

Phlyctorhizaceae Doweld
Phlyctorhiza A.M. Hanson (3)

Pseudorhizidiaceae Doweld
Pseudorhizidium M.J. Powell, Letcher & Longcore (1)

Scherffeliomycetaceae Doweld
Scherffeliomyces Sparrow (4)

Zygorhizidiaceae Doweld
Zygorhizidium Löwenthal (12)

Chytridiales genus *incertae sedis*
Delfinachytrium Vélez & Letcher (1)

Nephridiophagales Doweld
Nephridiophagaceae R. Radek, Letcher, Wijayaw., P.M. Kirk & K.D. Hyde
Coleospora Gibbs (1)
Nephridiophaga Ivanić (12)
Oryctospora Purrini & Weiser (1)
Peltomyces Léger (1)

Polyphagales Doweld
Polyphagaceae F. Maekawa
Polyphagus Nowak. (15)

Saccopodiales Doweld
Saccopodiaceae Jacz. & P.A. Jacz.
Saccopodium Sorokīn (1)

Chytridiomycetes families *incertae sedis*
Amoebochytriaceae Doweld
Amoebochytrium Zopf (1)

Sparrowiaceae Doweld
Sparrowia Willoughby (2)

Sphaeromonadaceae Doweld
Sphaeromonas E. Liebet. (6)

Tetrachytriaceae Doweld
Tetrachytrium Sorokīn (1)

Thalassochytriaceae Doweld
Thalassochytrium Nyvall, M. Pedersén & Longcore (1)
Chytridiomycetes genera *incertae sedis*
Aphanistis Sorokīn (2)
Bertramia Mesnil & Caullery (3)

Blyttiomyces A.F. Bartsch (11)
Canteria Karling (1)
Dangeardia Schröd. (11)
Dangeardiana Valkanov ex A. Batko (4)
Dictyomorpha Mullins (2)
Gamolpidium Vlădescu (2)
Ichthyochytrium Plehn (1)
Loborhiza A.M. Hanson (1)
Macrochytrium Minden (1)
Megachytrium Sparrow (1)
Mitochytridium P.A. Dang. (2)
Mucophilus Plehn (1)
Nowakowskia Borzí (1)
Olpidiaster Pascher (4)
Perolpidium Doweld (2)
Physorhizophidium Scherff. (1)
Plasmophagus De Wild. (3)
Pseudopileum Canter (1)
Rhizidiocystis Sideris (1)
Rhizosiphon Scherff. (4)
Rhopalophlyctis Karling (1)
Riethophlyctis Doweld (1)
Saccomyces Serbinow (2)
Sagittospora Lubinsky (1)
Scherffeliomycopsis Geitler (1)
Schizolpidium Doweld (1)
Septolpidium Sparrow (1)
Septosperma Whiffen ex R.L. Seym. (5)
Solutoparies Whiffen ex W.H. Blackw. & M.J. Powell (1)
Sorokinocystis Doweld (1)
Sporophlyctidium Sparrow (2)
Sporophlyctis Serbinow (2)
Trematophlyctis Pat. (1)
Truittella Karling (1)
Volvorax Doweld (1)
Zygochytrium Sorokīn (1)
Zygophlyctis Doweld (1)

Cladochytriomycetes Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov
Cladochytriales Mozl.-Standr.
Catenochytridiaceae Doweld
Catenochytridium Berdan (6)

Cladochytriaceae J. Schröt.
Cladochytrium Nowak. (51)

Endochytriaceae Sparrow ex D.J.S. Barr
Diplophlyctis J. Schröt. (12)
Endochytrium Sparrow (7)

Nowakowskiellaceae Sparrow ex Mozl.-Standr.

Nowakowskiella J. Schröt. (18)

Septochytriaceae Mozl.-Standr.
Septochytrium Berdan (5)

Cladochytriales genera *incertae sedis*
Allochytridium D.J.S. Barr & Désauln. (2)
Cylindrochytridium Karling (2)
Nephrochytrium Karling (8)

Lobulomycetes Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov
Lobulomycetales D.R. Simmons
Alogomycetaceae Doweld
Alogomyces D.R. Simmons & Letcher (1)

Lobulomycetaceae D.R. Simmons
Clydaea D.R. Simmons (1)
Cyclopsomyces K. Seto & Degawa (1)
Lobulomyces D.R. Simmons (2)
Maunachytrium D.R. Simmons (1)

Lobulomycetales genus *incertae sedis*
Algochytrops Doweld (1)

Mesochytriomycetes Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov
Gromochytriales Karpov & Aleoshin
Gromochytriaceae Karpov & Aleoshin
Gromochytrium Karpov & Aleoshin (1)

Mesochytriales Doweld
Mesochytriaceae Doweld
Mesochytrium B.V. Gromov, Mamkaeva & Pljusch (1)

Polychytriomycetes Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov
Polychytriales Longcore & D.R. Simmons
Arkayaceae Doweld
Arkaya Longcore & D.R. Simmons (2)

Polychytriaceae Doweld
Karlingiomyces Sparrow (8)
Lacustromyces Longcore (1)
Neokarlingia Longcore & D.R. Simmons (1)
Polychytrium Ajello (1)

Rhizophydiomycetes Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov
Rhizophydiales Letcher
Alphamycetaceae Letcher
Alphamyces Letcher (1)

Betamyces Letcher (1)
Gammamyces Letcher (1)

Angulomycetaceae Letcher
Angulomyces Letcher (1)

Aquamycetaceae Letcher
Aquamyces Letcher (1)

Batrachochytriaceae Doweld
Batrachochytrium Longcore, Pessier & D.K. Nichols (2)

Collimycetaceae K. Seto & Degawa
Collimyces K. Seto & Degawa (1)

Coralloidiomycetaceae Doweld
Coralloidiomyces Letcher (1)

Dinomycetaceae Karpov & Guillou
Dinomyces Karpov & Guillou (1)

Globomycetaceae Letcher
Globomyces Letcher (1)
Urceomyces Letcher (1)

Gorgonomycetaceae Letcher
Gorgonomyces Letcher (1)

Halomycetaceae Letcher & M.J. Powell
Halomyces Letcher & M.J. Powell (1)
Paludomyces Letcher & M.J. Powell (1)
Paranamyces Letcher & M.J. Powell (1)
Ulkenomyces Letcher & M.J. Powell (1)

Kappamycetaceae Letcher
Kappamyces Letcher & M.J. Powell (1)

Operculomycetaceae Doweld
Operculomyces M.J. Powell, Letcher & Longcore (1)

Pateramycetaceae Letcher
Pateramyces Letcher (1)

Protrudomycetaceae Letcher
Protrudomyces Letcher (1)

Rhizophydiaceae Letcher
Rhizophydium Schenk ex Rabenh. (218)

Staurastromycetaceae S. Van den Wyngaert, K. Seto & K. Rojas
Staurastromyces Van den Wyngaert, K. Seto & K. Rojas (1)

Terramycetaceae Letcher
Boothiomyces Letcher (1)
Terramyces Letcher (1)

Uebelmesseromycetaceae M.J. Powell & Letcher
Uebelmesseromyces M.J. Powell & Letcher (1)

Rhizophydiales genus *incertae sedis*
Homolaphlyctis Longcore, Letcher & T.Y. James (1)

Rhizophlyctidomycetes Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov
Rhizophlyctidales Letcher
Arizonaphlyctidaceae Letcher
Arizonaphlyctis Letcher (1)

Borealophlyctidaceae Letcher
Borealophlyctis Letcher (2)

Rhizophlyctidaceae H.E. Petersen
Rhizophlyctis A. Fisch. (31)

Sonoraphlyctidaceae Letcher
Sonoraphlyctis Letcher (1)

Spizellomycetes Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov
Spizellomycetales D.J.S. Barr
Powellomycetaceae D.R. Simmons
Fimicolochytrium D.R. Simmons & Longcore (2)
Geranomyces D.R. Simmons (4)
Powellomyces Longcore (2)
Thoreauomyces D.R. Simmons & Longcore (1)

Spizellomycetaceae D.J.S. Barr
Barromyces M.J. Powell & Letcher (1)
Brevicalcar Letcher & M.J. Powell (1)
Bulbosomyces Letcher & Longcore (1)
Gaertneriomyces D.J.S. Barr (4)
Gallinipes Letcher & M.J. Powell (3)
Kochiomyces D.J.S. Barr (1)
Spizellomyces D.J.S. Barr (8)
Triparticalcar D.J.S. Barr (2)

Synchytriomycetes Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov
Synchytriales Doweld
Synchytriaceae J. Schröt.
Carpenterophlyctis Doweld (2)
Endodesmidium Canter (1)
Johnkarlingia Pavgi & S.L. Singh (1)
Synchytrium de Bary & Woronin (255)

Synchytriales genus *incertae sedis*
Micromyces P.A. Dang. (19)

Chytridiomycota genera *incertae sedis*
Achlyella Lagerh. (1)
Coenomyces K.N. Deckenb. (1)
Achlyogeton Schenk (4)

Entomophthoromycota Humber
Entomophthoromycotina Humber
Entomophthoromycetes Humber
Entomophthorales G. Winter
Ancylistaceae J. Schröt.
Ancylistes Pfitzer (6)
Conidiobolus Bref. (54)
Macrobiotophthora Reukauf (2)

Completoriaceae Humber
Completoria Lohde (1)

Entomophthoraceae Nowak.
Batkoa Humber (10)
Entomophaga A. Batko (22)
Entomophthora Fresen. (63)
Erynia (Nowak. ex A. Batko) Remaud. & Hennebert (27)
Eryniopsis Humber (5)
Furia (A. Batko) Humber (16)
Massospora Peck (15)
Orthomyces Steinkr., Humber & J.B. Oliv. (1)
Strongwellsea A. Batko & J. Weiser (3)
Tarichium Cohn *sensu stricto* (26)
Zoophthora A. Batko (38)

Meristacraceae Humber
Meristacrum Drechsler (= *Tabanomyces* Couch, R.J. Andrejeva, Laird & Nolan) (2)

Neozygitomycetes Humber
Neozygitales Humber
Neozygitaceae Ben Ze'ev, R.G. Kenneth & Uziel
Apterivorax S. Keller (2)
Neozygites Witlaczil (22)
Tarichium Cohn pro parte (27)
Thaxterosporium Ben Ze’ev & R.G. Kenneth (1)

Entorrhizomycota R. Bauer, Garnica, Oberw., Riess, Weiß & Begerow
Entorrhizomycetes Begerow, M. Stoll & R. Bauer
Entorrhizales R. Bauer & Oberw.
Entorrhizaceae R. Bauer & Oberw.
Entorrhiza C.A. Weber (c.15)

Talbotiomycetales K. Riess, R. Bauer, R. Kellner, Kemler, Piątek, Vánky & Begerow

Talbotiomycetaceae K. Riess, R. Bauer, R. Kellner, Kemler, Piątek, Vánky & Begerow
Talbotiomyces Vánky, R. Bauer & Begerow (1)

Glomeromycota C. Walker & A. Schüssler
Archaeosporomycetes Sieverd., G.A. Silva, B.T. Goto & Oehl
Archaeosporales C. Walker & A. Schüssler
Ambisporaceae C. Walker, Vestberg & A. Schüssler (= *Appendicisporaceae* C. Walker, Vestberg & A. Schüssler)
Ambispora C. Walker, Vestberg & A. Schüssler (basionym *Appendicispora* Spain, Oehl & Sieverding) (11)

Archaeosporaceae J.B. Morton & D. Redecker
Archaeospora J.B. Morton & D. Redecker (6)
Intraspora Oehl & Sieverd. (1)
Palaeospora Oehl, Palenz., Sánchez-Castro & G.A. Silva (1)

Geosiphonaceae Engl. & E. Gilg
Geosiphon F. Wettst. (1)

Glomeromycetes Caval.-Sm. emend. Oehl, G.A. Silva, B.T. Goto & Sieverd.
Diversisporales C. Walker & A. Schüssler emend. Oehl, G.A. Silva & Sieverd.
Acaulosporaceae J.B. Morton & Benny
Acaulospora Gerd. & Trappe (= *Kuklospora* Oehl & Sieverd.) (57)

Diversisporaceae C. Walker & A. Schüssler
Corymbiglomus Błaszk. & Chwat (3)
Desertispora Błaszk., Kozłowska, Ryszka, Al-Yahya'ei & Symanczik (1)
Diversispora C. Walker & A. Schüssler (21)
Otospora Oehl, Palenz. & N. Ferrol (1)
Redeckera C. Walker & A. Schüssler (6)
Sieverdingia Błaszk., Niezgoda & B.T. Goto (1)
Tricispora Oehl, Sieverd., G.A. Silva & Palenz. (1)

Pacisporaceae C. Walker, Błaszk., A. Schüssler & Schwarzott
Pacispora Sieverd. & Oehl (7)

Sacculosporaceae Oehl, Sieverd., G.A. Silva, B.T. Goto, Sánchez-Castro & Palenz.
Sacculospora Oehl, Sieverd., G.A. Silva, B.T. Goto, I.C. Sánchez & Palenz. (2)

Gigasporales S.P. Gautam & U.S. Patel (= *Gigasporales* Sieverd., G.A. Silva, B.T. Goto & Oehl)
Dentiscutataceae F.A. Souza, Oehl & Sieverd.
Dentiscutata Sieverd., F.A. Souza & Oehl (9)
Fuscutata Oehl, F.A. Souza & Sieverd. (5)
Quatunica F.A. Souza, Sieverd. & Oehl (1)

Gigasporaceae J.B. Morton & Benny
Gigaspora Gerd. & Trappe (7)

Intraornatosporaceae B.T. Goto & Oehl
Intraornatospora B.T. Goto, Oehl & G.A. Silva (1)
Paradentiscutata B.T. Goto, Oehl & G.A. Silva (2)

Racocetraceae Oehl, Sieverd. & F.A. Souza
Cetraspora Oehl, F. A. Souza & Sieverd. (8)
Racocetra Oehl, F.A. Souza & Sieverd. (13)

Scutellosporaceae Sieverd., F.A. Souza & Oehl
Bulbospora Oehl& G.A. Silva (1)
Orbispora Oehl, G.A. Silva & D.K. Silva (2)
Scutellospora C. Walker & F.E. Sanders (10)

Glomerales J.B. Morton & Benny emend. Oehl, G.A. Silva, B.T. Goto & Sieverd.
Entrophosporaceae Oehl & Sieverd.
Albahypha Oehl, G.A. Silva, B.T. Goto & Sieverd. (2)
Claroideoglomus C. Walker & A. Schüssler (6)
Entrophospora R.N. Ames & R.W. Schneid. (2)*

Glomeraceae Piroz. &Dalpé emend. Oehl, G.A. Silva & Sieverd.
Dominikia Błaszk., Chwat &Kovács (11)
Funneliglomus Corazon-Guivin, G.A. Silva & Oehl (1)
Funneliformis C. Walker & A. Schüssler emend. Oehl, G.A. Silva & Sieverd. (11)
Glomus Tul. & C. Tul. emend. Oehl, G.A. Silva & Sieverd. (49)
Halonatospora Błaszk., Niezgoda, B.T. Goto & Kozłowska (1)
Kamienskia Błaszk., Chwat & Kovács (1)
Microdominikia Oehl, Corazon-Guivin & G.A. Silva (1)
Microkamienskia Corazon-Guivin, G.A. Silva & Oehl (3)*
Nanoglomus Corazon-Guivin, G.A. Silva & Oehl (1)
Oehlia Błaszk., Kozłowska, Niezgoda, B.T. Goto & Dalpé (1)
Orientoglomus G.A. Silva, Oehl & Corazon-Guivin (1)
Rhizoglomus Sieverd., G.A. Silva & Oehl (22)*
Sclerocystis Berk. & Broome (8)
Sclerocarpum B.T. Goto, Błaszk., Niezgoda, Kozłowska & Jobim (1)
Septoglomus Sieverd., G.A. Silva & Oehl (13)
Simiglomus Sieverd., G.A. Silva & Oehl (1)
Viscospora Sieverd. Oehl & G.A. Silva (1)

Paraglomeromycetes Oehl, G.A. Silva, B.T. Goto & Sieverd.
Paraglomerales C. Walker & A. Schüssler
Paraglomeraceae J.B. Morton & D. Redecker
Paraglomus J.B. Morton & D. Redecker (8)
Innospora Błaszk., Kovács, Chwat & Kozłowska (1)

Pervetustaceae Błaszk., Chwat, Kozłowska, Symanczik & Al-Yahya'ei
Pervetustus Błaszk., Chwat, Kozłowska, Symanczik & Al-Yahya'ei (1)

Kickxellomycota Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov
Asellariomycetes Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov
Asellariales Manier ex Manier & Lichtw.
Asellariaceae Manier ex Manier & Lichtw.
Asellaria R.A. Poiss. (9)

Asellariales genus *incertae sedis*

Baltomyces Cafaro (1)

Barbatosporomycetes Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov
Barbatosporales Doweld
Barbatosporaceae Doweld
Barbatospora M.M. White, Siri & Lichtw. (1)

Dimargaritomycetes Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov
Dimargaritales R.K. Benj.
Dimargaritaceae R.K. Benj.
Dimargaris Tiegh. (7)
Dispira Tiegh. (4)
Tieghemiomyces R.K. Benj. (2)

Dimargaritales genus *incertae sedis*
Spinalia Vuill. (1)

Harpellomycetes Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov
Harpellales Lichtw. & Manier
Harpellaceae L. Léger & Duboscq ex P.M. Kirk & P.F. Cannon
Carouxella Manier, Rioux & Whisler (2)
Harpella L. Léger & Duboscq (7)
Harpellomyces Lichtw. & S.T. Moss (4)
Klastostachys Lichtw., M.C. Williams & M.M. White (1)
Stachylina L. Léger & M. Gauthier (40)
Stachylinoides Lichtw. & López-Lastra (1)

Legeriomycetaceae Pouzar
Austrosmittium Lichtw. & M.C. Williams (5)
Bactromyces William & Strongman (1)
Baetimyces L.G. Valle & Santam. (1)
Bojamyces Longcore (3)
Capniomyces S.W. Peterson & Lichtw. (3)
Caudomyces Lichtw., Kobayasi & Indoh (3)
Coleopteromyces Ferrington, Lichtw. & López-Lastra (1)
Dacryodiomyces Lichtw. (1)
Ejectosporus S.W. Peterson, Lichtw. & M.C. Williams (1)
Ephemerellomyces M.M. White & Lichtw. (1)
Furculomyces Lichtw. & M.C. Williams (3)
Gauthieromyces Lichtw. (3)
Genistelloides S.W. Peterson, Lichtw. & B.W. Horn (5)
Genistellospora Lichtw. (6)
Glotzia M. Gauthier ex Manier & Lichtw. (7)
Graminella L. Léger & M. Gauthier ex Manier (3)
Laculus William & Strongman (1)
Lancisporomyces Santam. (5)
Legerioides M.M. White (1)
Legeriomyces Pouzar (11)
Legeriosimilis M.C. Williams, Lichtw., M.M. White & J.K. Misra (8)

Orphella L. Léger & M. Gauthier (12)
Pennella Manier (8)
Plecopteromyces Lichtw., Ferrington & López-Lastra (3)
Pseudoharpella Ferrington, M.M. White & Lichtw. (1)
Pteromaktron Whisler (2)
Simuliomyces Lichtw. (1)
Sinotrichium Juan Wang (1)
Smittium R.A. Poiss. (1)
Spartiella Tuzet & Manier ex Manier (3)
Stipella L. Léger & M. Gauthier (2)
Stypomyces Doweld (2)
Tectimyces L.G. Valle & Santam. (3)
Trichozygospora Lichtw. (1)
Trifoliellum Strongman & M.M. White (1)
Zancudomyces Yan Wang, Tretter, Lichtw. & M.M. White (1)
Zygopolaris S.T. Moss, Lichtw. & Manier (2)
Zygopolaropsis Hirok. Sato & Degawa (1)

Harpellales genus *incertae sedis*
Trissocladomyces Doweld (1)

Kickxellomycetes Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov
Kickxellales Kreisel ex R.K. Benj.
Kickxellaceae Linder
Coemansia Tiegh. & G. Le Monn. (25)
Dipsacomyces R.K. Benj. (1)
Kickxella Coem. (1)
Linderina Raper & Fennell (2)
Martensella Coem. (1)
Martensiomyces J.A. Mey. (1)
Mycoemilia Kurihara, Degawa & Tokum. (1)
Myconymphaea Kurihara, Degawa & Tokum. (1)
Pinnaticoemansia Kurihara & Degawa (1)
Spirodactylon R.K. Benj. (1)
Spiromyces R.K. Benj. (2)

Ramicandelaberomycetes Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov
Ramicandelaberales Doweld
Ramicandelaberaceae Doweld
Ramicandelaber Y. Ogawa, S. Hayashi, Degawa & Yaguchi (4)

Kickxellomycotina genera *incertae sedis*
Aenigmatospora R.F. Castañeda, Saikawa, Guarro & M. Calduch (1)
Ballocephala Drechsler (1)
Zygnemomyces K. Miura (2)

Monoblepharomycota Doweld
Hyaloraphidiomycetes Doweld
Hyaloraphidiales Doweld

Hyaloraphidiaceae Doweld
Hyaloraphidium Korshikov (1)

Monoblepharidomycetes J.H. Schaffn.
Monoblepharidales Sparrow
Gonapodyaceae H.E. Petersen ex P.M. Kirk, P.F. Cannon & J.C. David
Gonapodya A. Fisch. (5)
Monoblepharella Sparrow (5)

Harpochytriaceae Wille
Harpochytrium Lagerh. (12)

Monoblepharidaceae A. Fisch.
Monoblepharis Cornu (15)

Oedogoniomycetaceae D.J.S. Barr
Oedogoniomyces Kobayasi & M. Ôkubo (1)

Telasphaerulaceae Longcore & T.Y. James
Telasphaerula Longcore & T.Y. James (1)

Sanchytriomycetes Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov
Sanchytriales Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov
Sanchytriaceae Karpov & Aleoshin
Amoeboradix Karpov, López-García, Mamkaeva & Moreira (1)
Sanchytrium Karpov & Aleoshin (1)

Mortierellomycota Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov
Mortierellomycotina Kerst. Hoffm., K. Voigt & P.M. Kirk
Mortierellomycetes Doweld
Mortierellales Caval.-Sm.
Mortierellaceae A. Fisch.
Aquamortierella Embree & Indoh (1)
Dissophora Thaxt. (3)
Gamsiella (R.K. Benj.) Benny & M. Blackw. (1)
Lobosporangium M. Blackw. & Benny (1)
Modicella Kanouse (2)
Mortierella Coem. (112)*

Mucoromycota Doweld
Mucoromycotina Benny
Endogonomycetes Doweld
Endogonales Jacz. & P.A. Jacz.
Densosporaceae Desirò, M.E. Sm., Bidartondo, Trappe & Bonito
Densospora McGee (9)*

Endogonaceae Paol.
Endogone Link (26)
Jimgerdemannia Trappe (2)

Peridiospora C.G. Wu & Suh J. Lin (2)
Sclerogone Warcup (1)
Sphaerocreas Sacc. & Ellis (4)

Mucoromycetes Doweld
Mucorales Fr.
Backusellaceae K. Voigt & P.M. Kirk
Backusella Hesselt. & J.J. Ellis (13)

Choanephoraceae J. Schröt.
Blakeslea Thaxt. (2)
Choanephora Curr. (2)
Gilbertella Hesselt. (2)
Poitrasia P.M. Kirk (1)

Cunninghamellaceae Naumov ex R.K. Benj.
Absidia Tiegh. (20)
Chlamydoabsidia Hesselt. & J.J. Ellis (1)
Cunninghamella Matr. (13)
Gongronella Ribaldi (6)
Halteromyces Shipton & Schipper (1)
Hesseltinella H.P. Upadhyay (1)

Lentamycetaceae K. Voigt & P.M. Kirk
Lentamyces Kerst. Hoffm. & K. Voigt (4)

Lichtheimiaceae Kerst. Hoffm., Walther & K. Voigt
Circinella Tiegh. & G. Le Monn. (11)
Dichotomocladium Benny & R.K. Benj. (5)
Fennellomyces Benny & R.K. Benj. (4)
Lichtheimia Vuill. (7)
Phascolomyces Boedijn ex Benny & R.K. Benj. (1)
Rhizomucor Lucet & Costantin (6)
Thamnostylum Arx & H.P. Upadhyay (4)
Thermomucor Subrahm., B.S. Mehrotra & Thirum. (1)
Zychaea Benny & R.K. Benj. (1)

Mucoraceae Dumort.
Actinomucor Schostak. (1)
Ambomucor R.Y. Zheng & X.Y. Liu (3)
Benjaminiella Arx (3)
Chaetocladium Fresen. (2)
Cokeromyces Shanor (1)
Dicranophora J. Schröt. (1)
Ellisomyces Benny & R.K. Benj. (1)
Helicostylum Corda (2)
Hyphomucor Schipper & Lunn (1)
Isomucor J.I. Souza, Pires-Zottar. & Harakava (2)
Kirkiana L.S. Loh, Kuthub. & Nawawi (1)
Kirkomyces Benny (1)
Mucor Fresen. (91)*
Nawawiella L.S. Loh & Kuthub. (1)

Parasitella Bainier (1)
Pilaira Tiegh. (7 and 1 subspecies)
Pirella Bainier (2)
Rhizopodopsis Boedijn (1)
Thamnidium Link (1)
Tortumyces L.S. Loh (2)

Mycocladaceae Kerst. Hoffm.
Mycocladus Beauverie (1)

Mycotyphaceae Benny & R.K. Benj.
Mycotypha Fenner (4)

Phycomycetaceae Arx
Phycomyces Kunze (3)
Spinellus Tiegh. (5)

Pilobolaceae Corda
Pilobolus Tode (10 and 1 subspecies)
Utharomyces Boedijn ex P.M. Kirk & Benny (1 sp. and 1 subspecies)

Radiomycetaceae Hesselt. & J.J. Ellis
Radiomyces Embree (3)

Rhizopodaceae K.voigt & P.M. Kirk
Rhizopus Ehrenb. (13)
Sporodiniella Boedijn (1)
Syzygites Ehrenb. (1)

Saksenaeaceae Hesselt. & J.J. Ellis
Apophysomyces P.C. Misra (5)
Saksenaea S.B. Saksena (5)

Syncephalastraceae Naumov ex R.K. Benj.
Protomycocladus Schipper & Samson (1)
Syncephalastrum J. Schröt. (2)

Umbelopsidomycetes Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov
Umbelopsidales Spatafora & Stajich
Umbelopsidaceae W. Gams & W. Mey.
Umbelopsis Amos & H.L. Barnett (16)

Mucoromycotina genera *incertae sedis*
Bifiguratus Torr.-Cruz & Porras-Alfaro (1)
Mucorodium K.W. Zaleski (1)
Palaeoendogone Strullu-Derr., Kenrick, Pressel, Duckett, J.P. Rioult & Strullu (1)
Planticonsortium C. Walker & D. Redecker (1)

Mucoromycota genus *incertae sedis*
Nothadelphia Degawa & W. Gams

Neocallimastigomycota M.J. Powell
Neocallimastigomycetes M.J. Powell
Neocallimastigales J.L. Li, I.B. Heath & L. Packer
Neocallimastigaceae I.B. Heath (= *Piromonadaceae* Doweld; = *Anaeromycetaceae* Doweld)
Anaeromyces Breton, Bernalier, Dusser, Fonty, B. Gaillard & J. Guillot (4)
Buwchfawromyces T.M. Callaghan & G.W. Griff. (1)
Caecomyces J.J. Gold (5)
Cyllamyces Ozkose, B.J. Thomas, D.R. Davies, G.W. Griff. & Theodorou (1)
Feramyces Radwa Hanafy, Mostafa Elshahed & Noha Youssef (1)
Liebetanzomyces Joshi, G.W. Griff. & Dagar (1)
Neocallimastix Vávra & Joyon ex I.B. Heath (7)
Oontomyces Dagar (1)
Orpinomyces D.J.S. Barr, H. Kudo, Jakober & K.J. Cheng (2)
Pecoramyces Hanafy, N.H. Youssef, G.W. Griff. & Elshahed (1)
Piromyces J.J. Gold, I.B. Heath & Bauchop (= *Piromonas* E. Liebet.) (6)

Olpidiomycota Doweld
Olpidiomycetes Doweld
Olpidiales Caval.-Sm.
Olpidiaceae J. Schröt.
Chytridhaema Moniez (1)
Cibdelia Juel (1)
Leiolpidium Doweld (5)
Olpidium (A. Braun) J. Schröt. (ca. 50)

Rozellomycota Doweld
Rudimicrosporea Sprague
Metchnikovellida Vivier
Amphiacanthidae Larsson
Amphiacantha Caullery & Mesnil (3)

Metchnikovellidae Caullery & Mesnil emend. Larsson
Amphiamblys Caullery & Mesnil (7)
Caulleryetta Dogiel (8)
Desportesia Issi & Voronin (1)
Metchnikovella Caullery & Mesnil (8)

Microsporidea Corliss & Levine
Amblyosporida Tokarev & Issi
Amblyosporidae Weiser emend. Tokarev & Issi
Aedispora Kilochitskii (1)
Amblyospora Hazard & Oldacre (90)
Andreanna Simakova, Vossbrinck & Andreadis (1)
Becnelia Tonka & Weiser (1)
Crepidulospora Simakova, Pankova & Issi (1)
Cristulospora Khodzhaeva & Issi (3)
Culicospora Weiser (2)
Culicosporella Weiser (1)
Dimeiospora Simakova, Pankova & Issi (1)
Edhazardia Becnel, V. Sprague & Fukuda (1)
Hyalinocysta Hazard & Oldacre (1)
Intrapredatorus Chen, Kuo & Wu (1)

Novothelohania Andreadis, Simakova, Vossbrinck, Shepard & Yurchenko (1)
Parastempellia Khodzhaeva (2)
Parathelohania Codreanu (25)
Trichoctosporea Larsson (1)
Tricornia Pell & Canning (1)

Caudosporidae Weiser emend. Tokarev & Issi
Binucleospora Bronnvall & Larsson (1)
Caudospora J. Weiser (1)
Flabelliforma Canning, R. Killick-Kendrick & Killick-Kendrick (4)
Myrmecomorba R.M. Plowes, J.J. Becnel, E.G. LeBrun, D.H. Oi, S.M. Valles, N.T. Jones & L.E. Gilbert (1)
Neoflabelliforma Morris & Freeman (2)
Octosporea Flu (18)
Polydispyrenia Canning & Hazard (2)
Ringueletium Garcia (1)
Scipionospora Bylén & Larsson (1)
Weiseria Doby & Saguez (3)

Gurleyidae Sprague emend. Tokarev & Issi
Agglomerata Larsson& Yan (5)
Binucleata Refardt, Decaestecker, Johnson & Vávra (1)
Conglomerata Vavra, Fiala, Krylova, Petrusek, Hylis (1)
Episeptum Larsson (6)
Gurleya Doflein (10)
Lanatospora Voronin (4)
Larssonia Vidtmann & Sokolova (2)
Marssoniella Lemmermann (1)
Norlevinea Vávra (1)
Paraepiseptum Hyliš, Oborník, Nebesářová & Vávra (4)
Pseudoberwaldia Vavra, Fiala, Krylova, Petrusek, Hylis (1)
Senoma Simakova, Pankova, Tokarev & Issi (1)
Zelenkaia Hyliš, Oborník, Nebesářová & Vávra (1)

Amblyosporida genera *incertae sedis*
Alfvenia Larsson (4)
Hazardia Weiser (2)
Multilamina Becnel, Scheffrahn, Vossbrinck & Bahder (1)
Takaokaspora Andreadis, Takaoka, Otsuka & Vossbrinck (1)
Trichotuzetia Vávra, Larsson & Baker (1)

Neopereziida Tokarev & Issi
Berwaldiidae Simakova, Tokarev & Issi
Berwaldia Larsson (4)
Fibrillanosema Slothouber Galbreath, Smith, Terry, Becnel & Dunn (1)

Neopereziidae Voronin emend. Issi, Tokarev, Seliverstova & Voronin
Bacillidium Janda (5)
Bryonosema Canning, Refardt, Vossbrinck, Okamura & Curry (2)
Neoperezia Issi & Voronin (2)
Pseudonosema Canning, Refardt, Vossbrinck, Okamura & Curry (1)
Schroedera Morris & Adams (2)

Trichonosema Canning, Refardt, Vossbrinck, Okamura & Curry (2)

Tubulinosematidae Franzen, Fischer, Schröder, Schölmerich & Schneuwly emend. Tokarev & Issi

Anncaliia Issi, Krylova & Nikolaeva (6)
Kneallhazia Sokolova & Fuxa (2)
Tubulinosema Franzen, Fischer, Schröder, Schölmerich & Schneuwly (5)

Neopereziida genera *incertae sedis*

Janacekia Larsson (6)
Systenostrema Hazard & Oldacre (5)

Ovavesiculida Tokarev & Issi
Ovavesiculidae Sprague, Becnel & Hazard emend. Tokarev & Issi

Antonospora Fries, Paxton, Tengo, Slemenda, da Silva, & Pieniazek (2)
Ovavesicula Andreadis & Hanula (1)
Paranosema Sokolova, Dolgikh, Morzhina, Nassonova, Issi, Terry, Ironside, Smith (4)

Ovavesiculida genus *incertae sedis*

Nematocida Troemel, Félix, Whiteman, Barrière & Ausubel (1)

Glugeida Gurley emend. Tokarev & Issi
Facilisporidae Jones, Prosperi-Porta & Kim

Facilispora Jones, Prosperi-Porta & Kim (1)

Glugeidae Gurley emend. Tokarev & Issi

Alloglugea Paperna & Lainson (1)
Amazonspora Azevedo & Matos (1)
Glugea Thélohan (40)
Ichthyosporidium Caullery & Mesnil (5)
Johenrea Lange, Becnel, Razafindratiana, Przybyszewski & Razafindrafara (1)
Loma Morrison & Sprague (12)
Parapleistophora Issi, Kadyrova, Pushkar, Khodzhaeva & Krylova (1)
Pseudoloma J.L. Matthews, A.M.V. Br., K. Larison, J.K. Bishop-Stewart, P. Rogers & M.L. Kent (6)

Myosporidae Stentiford, Bateman, Small, Moss, Shields, Reece & Tuck

Myospora Stentiford, Bateman, Small, Moss, Shields, Reece & Tuck (1)

Pereziidae Loubes, Maurand, Comps & Campillo emend. Tokarev & Issi

Ameson Sprague (2)
Nadelspora Olson, Tiekotter & Reno (1)
Perezia Léger & Duboscq (12)
Pernicivesicula Bylén & Larsson (1)

Pleistophoridae Doflein emend. Tokarev & Issi

Dasyatispora Diamant, Goren, Yokeş, Galil, Klopman, Huchon, Szitenberg & Karhan (1)
Heterosporis Schubert (4)
Myosporidium Baquero, Rubio, Moura, Pieniazek & Jordana (1)
Ovipleistophora Pekkarinen, Lom & Nilsen (2)
Pleistophora Gurley (10)
Trachipleistophora Hollister, Canning, Weidner, Field, Kench & Marriott (3)

Vavraia Weiser (10)

Spragueidae Weissenberg emend. Tokarev & Issi
Apotaspora Sokolova & Overstreet (1)
Inodosporus Overstreet & Weidner (2)
Microgemma Ralphs & Matthews (6)
Spraguea Weissenberg (2)
Potaspora Casal, Matos, Teles-Grilo & Azevedo (3)
Pseudokabatana Liu, Stentiford, Voronin, Sato, Li& Zhang (1)
Tetramicra Matthews & Matthews (1)

Thelohaniidae Hazard & Oldacre emend. Tokarev & Issi
Bohuslavia Larsson (1)
Chapmanium Hazard & Oldacre (4)
Coccospora Wallr. (1)
Cucumispora Ovcharenko, Bacela, Wilkinson, Ironside, Rigaud & Wattier (2)
Hyperspora Stentiford, Ramilo, Abollo, Kerr, Bateman, Feist, Bass & Villalba (1)
Napamichum Larsson (3)
Nudispora Larsson (1)
Octotetraspora Issi, Kadyrova, Pushkar, Khodzhaeva & Krylova (1)
Ormieresia Vivarès, Bouix & Manier (1)
Orthothelohania Codreanu & Codreanu-Balcescu (1)
Paradoxium Stentiford, Ross, Kerr, Bass & Bateman (1)
Pegmatheca Hazard & Oldacre (2)
Resiomeria Larsson (1)
Spherospora Garcia (1)
Thelohania Henneguy (50)

Unikaryonidae Sprague emend. Tokarev & Issi
Canningia Weiser, Wegensteiner & Žižka (2)
Dictyocoela Terry, Smith, Sharpe, Rigaud, Littlewood, Ironside, Rollinson, Bouchon, MacNeil, Dick & Dunn (8)
Larssoniella Weiser & David (2)
Unikaryon Canning, Lai & Lie (18)

Glugeida genus *incertae sedis*
Triwangia Wang, Nai, Chih Wang, Solter, Hsu, Wang & Lo (1)

Nosematida Labbe emend. Tokarev & Issi
Encephalitozoonidae Voronin
Encephalitozoon Levaditi, Nicolau & Schoen (12)
Mockfordia Sokolova, Sokolov & C.E. Carlton (1)

Enterocytozoonidae Cali & Owen emend. Tokarev & Issi
Desmozoon Freeman & Sommerville (3)
Enterocytozoon Desportes, Le Charpentier, Galian, Bernard, Cochand-Priollet, Lavergne, Ravisse & Modigliani (2)
Enterospora Stentiford, Bateman, Longshaw & Feist (2)
Hepatospora Stentiford, Bateman, Dubuffet, Chambers & Stone (1)
Nucleospora Hedrick, Groff & Baxa (3)
Obruspora Diamant, Rothman, Goren, Galil, Yokes, Szitenberg & Huchon (1)

Heterovesiculidae Lange, Macvean, Henry & Streett
Heterovesicula Lange, Macvean, Henry & Streett (1)

Mrazekiidae Léger & Hesse emend. Tokarev & Issi
Agmasoma Hazard & Oldacre (3)
Anostracospora Rode, Landes, Lievens, Flaven, Segard, Jabbour-Zahab, Michalakis, Agnew, Vivarés & Lenormand (1)
Euplotespora Fokin, Di Giuseppe, Erra & Dini (1)
Helmichia Larsson (5)
Hrabyeia Lom & Dyková (1)
Jirovecia Weiser (7)
Mrazekia Léger & Hesse (17)
Rectispora Larsson (1)

Nosematidae Tokarev, Huang, Solter, Malysh, Becnel & Vossbrinck
Nosema Nägeli (20)
Vairimorpha Pilley (15)

Ordosporidae Larsson, Ebert & Vávra
Ordospora Larsson, Ebert & Vávra (2)

Nosematida genera *incertae sedis*
Alternosema Lipa, Tokarev, Issi (1)
Anisofilariata Tokarev, Voronin, Seliverstova, Dolgikh, Pavlova, Ignatieva & Issi (1)
Crispospora Tokarev, Voronin, Seliverstova, Pavlova & Issi (1)
Cystosporogenes Canning, Barker, Nicholas & Page (4)
Endoreticulatus Brooks, Becnel & Kennedy (5)
Enterocytospora Rode, Landes, Lievens, Flaven, Segard, Jabbour-Zahab, Michalakis, Agnew, Vivarés & Lenormand (1)
Enteropsectra Zhang, Sachse, Prevost, Luallen, Troemel & Felix(2)
Glugoides Larsson, Ebert, Vávra & Voronin (1)
Liebermannia Sokolova, Lange & Fuxa (3)
Orthosomella Canning, Wigley & Barker (2)
Pancytospora Zhang, Sachse, Prevost, Luallen, Troemel & Felix (2)
Parahepatospora Bojko, Clark, Bass, Dunn, Stewart-Clark, Stebbing & Stentiford (1)
Percutemincola Nishikori, Setiamarga, Tanji, Kuroda, Shiraishi & Okashi-Kobayashi (1)
Sporanauta Ardila-Garcia & Fast (1)
Vittaforma Silveira & Canning (1)

Microsporidia families *incertae sedis*
Abelsporidae Azevedo
Abelspora Azevedo (1)

Areosporiidae Stentiford, Bateman, Feist, Oyarzún, Uribe, Palacios & Stone
Areospora Stentiford, Bateman, Feist, Oyarzún, Uribe, Palacios & Stone (1)

Burenellidae Jouvenaz & Hazard
Burenella Jouvenaz & Hazard (1)
Pilosporella Hazard & Oldacre (2)
Tabanispora Bykova, Sokolova & Issi (2)

Cougourdellidae Poisson

Cougourdella Hesse (7)

Cylindrosporidae Issi & Voronin
Cylindrospora Issi & Voronin (2)

Duboscqiidae R. Sprague
Duboscqia Pérez (11)
Mitoplistophora Codreanu (1)
Pulicispora Vedmed, Krylova & Issi (1)
Tardivesicula Larsson& Bylén (1)
Trichoduboscqia Léger (1)

Golbergiidae Issi
Golbergia Weiser (1)
Krishtalia Kilochitskii (1)
Simuliospora Khodzhaeva, Krylova & Issi (2)

Microfilidae Sprague, Becnel & Hazard
Microfilum Faye, Toguebaye & Bouix (1)

Neonosemoidiidae Faye, Toguebaye & Bouix
Neonosemoides Faye & Toguebaye (4)

Pleistosporidiidae Codreanu-Balcescu & Codreanu
Pleistosporidium Codreanu-Balcescu & Codreanu (1)

Pseudopleistophoridae Sprague
Pseudopleistophora Sprague (1)
Steinhausia Sprague, Ormières & Manier (4)

Striatosporidae Issi & Voronin
Striatospora Issi & Voronin (1)

Telomyxidae Léger & Hesse
Telomyxa Léger & Hesse (4)

Toxoglugeidae Larsson
Toxoglugea Léger & Hesse (15)
Toxospora Voronin (2)

Tuzetiidae Sprague, Tuzet & Maurand
Nelliemelba Larsson (1)
Pankovaia Simakova, Tokarev & Issi (1)
Paratuzetia Poddubnaya, Tokarev & Issi (1)
Tuzetia Maurand, Fize, Vernick & Michel (7)

Microsporidia genera *incertae sedis*
Auraspora Weiser & Purrini (1)
Baculea Loubès & Akbarieh (1)
Burkea Sprague (2)
Chytridioides Tregouboff (1)
Ciliatosporidium Foissner & Foissner (1)

Cryptosporina Hazard & Oldacre (1)
Evlachovaia Voronin (1)
Geusia Rühl & Korn (1)
Gurleyides Voronin (1)
Hamiltosporidium Haag, Larsson, Refardt & Ebert (2)
Hirsutosporos Batson (1)
Holobispora Voronin (1)
Issia Weiser (3)
Kinorhynchospora Adrianov & Rybakov (1)
Mariona Stempell (1)
Merocinta Pell & Canning (1)
Microsporidium Balbiani (120)[#]
Myxocystis Mrazek (1)
Nematocenator Sapir, Dillman, Connon, Grupe, Ingels, Mundo-Ocampo, Levin, Bladwin, Orphan & Sternberg (1)
Nosemoides Vinckier (5)
Pyrotheca Hesse (4)
Spiroglugea Léger & Hesse (1)
Stempellia Léger & Hesse (19)
Wittmannia Czaker (1)

Rozellomycota orders *incertae sedis*
Chytridiopsidea Weiser
Buxtehudidae Larsson
Jiroveciana Larsson (1)
Buxtehudea Larsson (1)

Chytridiopsidae Sprague, Ormières & Manier
Acarispora Radek and Alberti (1)
Chytridiopsis Schneider (11)
Intexta Larsson, Steiner & Bjørnson (1)
Nolleria Beard, Butler & Becnel (1)
Sheriffia Larsson (1)

Hesseidae Ormières & Sprague
Hessea Ormières & Sprague (1)

Rozellomycota genera *incertae sedis*
Mitosporidium Haag, James, Pombert, Larsson, Schaer, Refardt & Ebert (2)
Morellospora Corsaro, Walochnik, Venditti, Hauröder & Michel (1)
Nucleophaga Dangeard (2)
Paramicrosporidium Corsaro, Walochnik, Venditti, Steinmann, Müller & Michel (1)
Rozella Cornu (20)

[#]*Microsporidium* is a collective genus which incorporate species with uncertain genus allocation

Zoopagomycota Gryganskyi, M.E. Sm., Spatafora & Stajich
Zoopagomycetes Doweld
Zoopagales Bessey ex R.K. Benj.
Cochlonemataceae Dudd.
Aenigmatomyces R. F. Castañeda & W.B. Kendr. (1)
Amoebophilus P.A. Dang. (4)

Aplectosoma Drechsler (1)
Bdellospora Drechsler (1)
Cochlonema Drechsler (11)
Endocochlus Drechsler (4)
Euryancale Drechsler (4)

Helicocephalidaceae Boedijn
Brachymyces G.L. Barron (1)
Helicocephalum Thaxt. (6)
Rhopalomyces Corda (11)
Verrucocephalum Degawa (1)

Piptocephalidaceae J. Schröt.
Kuzuhaea R.K. Benj. (1)
Piptocephalis de Bary (ca. 25)
Syncephalis Tiegh. & G. Le Monn. (ca. 55)

Sigmoideomycetaceae Benny, R.K. Benj. & P.M. Kirk
Reticulocephalis Benny, R.K. Benj. & P.M. Kirk (2)
Sigmoideomyces Thaxt. (1)
Sphondylocephalum Stalpers (1)
Thamnocephalis Blakeslee (3)

Zoopagaceae Drechsler
Acaulopage Drechsler (27)
Cystopage Drechsler (9)
Lecophagus M.W. Dick (2)
Stylopage Drechsler (17)
Tentaculophagus Doweld (1)
Zoopage Drechsler (11)
Zoophagus Sommerst. (4)

Zoopagales genus *incertae sedis*
Massartia De Wild. (1)

Zoopagomycotina genus *incertae sedis*
Basidiolum Cienk. (1)

Outline of Fossil fungi

The legitimate fungal genera known so far are listed below (with number of species in each genus in brackets). Here we list genera based on Saccardoan System (Table 4), fossil fungal sporophores, mycelia and other fungal remains (Table 5) and modern fungal genera to which fossil species have been assigned (Table 6).

Table 4 Fossil fungal spores (according to Saccardoan System).

Fungi Imperfecti	Family	Genera
	Amerosporae	*Asyregraamspora* Locq. & Sal.-Cheb. (1) *Basidiosporites* Elsik (4)* *Biporipsilonites* Kalgutkar & Janson. (11)*

Table 4 Continued.

Fungi Imperfecti	Family	Genera
		Biporisporites Ke & Shi (2)
		Cervichlamydospora R. Kar, Mand. & R.K. Kar (1)
		Diporisporites Hammen (ca. 34)*
		Dremuspora Sal.-Cheb. & Locq. (1)
		Exesisporites Elsik (4)*
		Foliopollenites Sierotin (3)
		Foveodiporites C.P. Varma & Rawat (11)*
		Fusidiporosporonites Z.C. Song (1)
		Geotrichites Stubblef., C.E. Mill., T.N. Taylor & G.T. Cole (1)
		Graphiolites Fritel (1)
		Haplographites Félix(2)
		Hypoxylonites Elsik (ca. 60)*
		Inapertisporites Hammen (ca. 67)*
		Incertisporites Hammen (1)
		Lacrimasporonites R.T. Clarke (9)
		Magnosporites Rouse (1)
		Microsporonites R.K. Jain (2)
		Monoporisporites Hammen (ca. 58)
		Nigrosporites Debi Mukh. (1)
		Palaeoamphisphaerella Ramanujam & Srisailam (3)*
		Palaeopericonia C.G. Ibañez & Zamuner (1)*
		Portalites Hemer & Nygreen (1)
		Psiamspora Locq. & Sal.-Cheb. in Sal.-Cheb. & Locq. (2)
		Retidiporites C.P. Varma & Rawat (1)
		Saccisporonites Kalgutkar & Janson. (1)
		Spirotremesporites Dueñas (ca. 20)*
		Sporotrichites Göpp. & Berendt (3)
		Striadiporites C.P. Varma & Rawat (14)*
		Trichosporites Félix (1)
		Triporisporites Hammen (1)
		Uncinulites Pampal. (3)*
		Xylariasporites Debi Mukh. (1)
		Xylohyphites Kalgutkar & Sigler (1)
	Didymosporae	*Ampulliferinites* Kalgutkar & Sigler (1)
		Cladosporites Félix (3)*
		Dicellaeporisporites Kalgutkar (3)
		Dicellaesporites Elsik (ca. 58)
		Didymoporisporonites Sheffy & Dilcher (ca. 25)
		Didymosporonites Sal.-Cheb. & Locq. (1)
		Dyadosporites Hammen ex R.T. Clarke (ca. 41)*
		Felixites Elsik ex Janson. & Hills (2)
		Fusiformisporites Rouse (21)*
		Hilidicellites Kalgutkar & Janson. (21)*
	Phragmosporae	*Alleppeysporonites* Ramanujam & K.P. Rao (1)*
		Anatolinites Elsik, V.S. Ediger & Bati (13)*
		Axisporonites Kalgutkar & Janson. (1)*
		Brachysporisporites R.T. Lange & P.H. Sm. (23)*
		Ceratohirudispora R. Kar, Mand. & R.K. Kar (2)
		Cercosporites E.S. Salmon (3)*
		Chaetosphaerites Félix (4)*
		Chordecystia C.B. Foster (1)
		Circinoconites R. Kar, Mand. & R.K. Kar (1)
		Cladosporiumsporinites Debi Mukh. (1)
		Diporicellaesporites Elsik (ca. 61)
		Diporipollis S.K. Dutta & S.C.D. Sah emend. Kalgutkar & Janson. (2)

Table 4 Continued.

Fungi Imperfecti	Family	Genera
		Dwayabeejaesporonites Debi Mukh. (1)
		Edmundmasonaesporites Debi Mukh. (1)
		Foveoletisporonites Ramanujam & K.P. Rao (3)
		Fractisporonites R.T. Clarke (9)
		Heterocystinella Cookson & Eisenack (1)
		Jansoniisporites Kalgutkar (1)
		Kumarisporites Kalgutkar & Janson. (1)*
		Mathurisporites Kalgutkar & Janson. (2)*
		Monilites Pampal. (1)
		Multicellaesporites Elsik emend. P. Kumar (ca. 14)
		Multicellites Kalgutkar & Janson. (48)
		Ornasporonites Ramanujam & K.P. Rao (1)*
		Paragranatisporites Zhong Y. Zhang (5)
		Phialophoronites Debi Mukh. (1)
		Pluricellaesporites Hammen (ca. 72)*
		Quilonia K.P. Jain & R.C. Gupta emend. Kalgutkar & Janson. (11)
		Ramasricellites Kalgutkar & Janson. (2)*
		Reduviasporonites L.R. Wilson (9)
		Reticellites D.L.E. Glass, D.D. Br. & Elsik (1)
		Scolecosporites R.T. Lange & P.H. Sm. (4)
		Tripithonites Sat. K. Srivastava & Al-Tayyar (2)
		Tympanicysta Malme (1)
		Varmasporites Kalgutkar & Janson. (1)*
	Dictyosporae	*Centonites* Peppers (1)
		Ctenosporites Elsik & Janson. (3)
		Dictyosporites Félix emend. Kalgutkar & Janson. (ca. 20)
		Dictyostromata R. Kar, Mand. & R.K. Kar (2)
		Kutchiathyrites R.K. Kar emend. Kalgutkar & Janson. (7)*
		Lirasporis R. Potonié & S.C.D. Sah (3)
		Octosporites Sal.-Cheb. & Locq. (1)
		Palambages Wetzel (3)
		Papulosporonites Schmied. & G. Schwab (7)*
		Polyadosporites Hammen (ca. 9)
		Polycellaesporonites Anil Chandra, R.K. Saxena & Setty (7)*
		Staphlosporonites Sheffy & Dilcher (c.21)*
	Helicosporae	*Colligerites* K.P. Jain & R.K. Kar (3)*
		Elsikisporonites P. Kumar (1)
		Helicominites Barlinge & Paradkar (1)
		Helicoönites Kalgutkar & Sigler (1)
		Helicosporiates Kalgutkar & Sigler (1)
		Involutisporonites R.T. Clarke (ca. 8)
		Palaeocirrenalia Ramanujam & Srisailam (3)
		Paleoslimacomyces Kalgutkar & Sigler (3)*
		Retihelicosporonites Ramanujam & K.P. Rao (1)*
	Staurosporae	*Eoglobella* W.H. Bradley (1)
		Frasnacritetrus Taug. (7)*
		Mossopisporites Kalgutkar & Janson. (1)*
		Pesavis Elsik & Janson. (3)
		Spegazzinites Félix (3)
		Tribolites W.H. Bradley (2)*
		Trihyphites Kalgutkar & Janson. (1)*
		Triporicellaesporites Ke & Shi (4)*

Table 5 Fossil fungal fructifications, mycelia and other fungal remains.

Phylum	Order	Genera
Ascomycota	***Botryosphaeriales***	*Guignardiacarpites* Debi Mukh. (1)
	Capnodiales	*Mycosphaerellascoidetes* Debi Mukh. (1)
	Dothideales	*Cucurbitariaceites* R.K. Kar, R.Y. Singh & S.C.D. Sah (2)*
		Leptosphaerites Richon (2)
		Palaeoleptosphaeria Barlinge & Paradkar (1)
		Perisporiacites Félix (4)
	Erysiphales	*Erisiphites* Pampal. (1)
		Meliolinites Selkirk (9)
		Meliostroma R. Kar, Mand. & R.K. Kar (1)
		Palaeosclerotium G.W. Rothwell (1)*
		Perisporites Pampal. (2)
	Eurotiales	*Coleocarpon* Stubblef., T.N. Taylor, C.E. Miller & G.T. Cole (1)
		Cryptocolax R.A. Scott (2)
		Memnonillasporonites Debi Mukh. (1)
		Mycocarpon S.A. Hutch. (7)*
		Roannaisia T.N. Taylor, Galtier & Axsmith (1)
		Sporocarpon Will. (13)*
		Traquairia Carruth. ex Scott (4)
	Hysteriales	*Hysterites* Unger (16)
	Microthyriales	*Appendicisporonites* R.K. Saxena & S. Khare (1)
		Asterinites Doub. & D. Pons ex Kalgutkar & Janson. (2)
		Asterothyrites Cookson (16)
		Brefeldiellites Dilcher (2)
		Caldesites Puri (1)
		Callimothallus Dilcher (11)
		Cribrites R.T. Lange (1)
		Dictyotopileos Dilcher (1)
		Euthythyrites Cookson (4)
		Haplopeltis Theiss. (5)
		Kalviwadithyrites M.R. Rao (1)
		Koshalia S. Sarkar & V. Prasad (1)
		Mariusia D. Pons & Boureau (1)
		Melanosporites Pampal. (1)
		Microthyriacites Cookson (19)
		Microthyrites Pampal. (1)
		Molinaea Doub. & D. Pons (1)
		Palmellathyrites Locq., D. Pons & Sal.-Cheb. (1)
		Parmathyrites K.P. Jain & R.C. Gupta (5)
		Pelicothallos Dilcher (1)
		Phragmothyrites W.N. Edwards (24)*
		Plochmopeltinites Cookson (3)
		Polyhyphaethyrites R. Srivast. & R.K. Kar (1)
		Ratnagiriathyrites R.K. Saxena & N.K. Misra (1)*
		Spinosporonites R.K. Saxena & S. Khare (1)*
		Stomiopeltites Alvin & M.D. Muir (3)
		Trichopeltinites Cookson (5)
		Trichothyrites Rosend. (13)*
		Ussurithyrites Krassilov (1)
	Patellariales	*Rhytidhysteriumites* Debi Mukh. (1)
	Pezizales	*Ascodesmisites* Trivedi, Chaturv. & C.L. Verma (1)\
		Paleomorchella Poinar (1)
		Pezizites Göpp. & Berendt (4)
	Phyllachorales	*Paleoserenomyces* Currah, Stockey & B.A. LePage (1)
	Pleosporales	*Cryptodidymosphaerites* Currah, Stockey & B.A. LePage (1)*
		Dictyosporiuminites Debi Mukh. (1)
		Pleosporites Y. Suzuki (1)

Table 5 Continued.

Phylum	Order	Genera
	Sphaeriales	*Diploneurospora* K.P. Jain & R.C. Gupta (1)*
		Palaeosordaria Sahni & H.S. Rao (1)
		Petrosphaeria Stopes & H. Fujii (1)
		Valsarites Puri (1)
	Uredinales	*Aeciosporonites* Debi Mukh. (1)
	Xylariales.	*Chaethomites* Pampal. (1)
		Sphaerites Unger (48)
	Incertae sedis	*Cephalothecoidomyces* G. Worobiec, Neumann & E. Worobiec (1)
Basidiomycota	***Agaricales***.	*Archaeomarasmius* Hibbett, D. Grimaldi & Donoghue (1)
		Coprinites Poinar & Singer (1)*
		Gondwanagaricites Heads, A.N. Mill & J.L. Crane (1)
		Protomycena Hibbett, D .Grimaldi & Donoghue (1)
	Polyporales.	*Eopolyporoides* Rigby (1)
		Phellinites Singer & S. Archang. (1)
		Pseudopolyporus Hollick (1)
		Trametites A. Straus (3)
	Pucciniales.	*Shuklania* J.N. Dwivedi (1)
	Sphaeropsidales	*Archephoma* Kyoto Watanabe, H. Nishida & Tak. Kobay. (1)
		Ascochytites Barlinge & Paradkar (2)*
		Deccanodia Singhai (1)
		Diplodites D.N. Babajan & Tasl. ex Kalgutkar, Nambudiri & Tidwell (5)*
		Entopeltacites Selkirk (6)
		Meniscoideisporites Kyoto Watanabe, H. Nishida & Tak. Kobay. (1)
		Mohgaonidium Singhai (1)
		Palaeocytosphaera R.B. Singh & G.V. Patil (1)
		Palaeophoma Singhai (1)*
		Phomites Fritel (2)
		Rabenhorstinidium R.B. Singh & G.V. Patil (1)
	Uredinales	*Aecidites* Debey & Ettingsh. (4)
		Aeciosporonites Debi Mukh. (1)
		Hapalophragmites Ramanujam & Ramachar (1)
		Milesites Ramanujam & Ramachar (1)
		Pucciniasporonites Ramanujam & Ramachar (1)
	Ustilaginales	*Chlamydosporites* Paradkar (1)
		Teliosporites R. Kar, Mand. & R.K. Kar (2)
Chytridiomycota	***Chytridiales***	*Grilletia* Renault & C.E. Bertrand (1)
		Guizhounema X. Mu (1)
		Krispiromyces T.N. Taylor, Hass & W. Remy (1)
		Lyonomyces T.N. Taylor, Hass & W. (1)
		Milleromyces T.N. Taylor, Hass & W. Remy (1)
		Oochytrium Renault (1)
Mucoromycota	***Endogonales***	*Chlamydospora* R. Kar, Mand. & R.K. Kar (1)
		Endochaetophora J.F. White & T.N. Taylor (1)
		Gigasporites Carlie J. Phipps & T.N. Taylor (1)
		Palaeogigaspora R. Kar, Mand. & R.K. Kar (1)
		Palaeomycites Mesch. (21)*
		Udaria A. Gupta (2)
Mucoromycota genera *incertae sedis*		*Lithomucorites* R. Kar, Mand. & R.K. Kar (2)
Mycelia Sterilia		*Animikiea* Bargh. (1)
		Archaeorestis Bargh. (1)
		Celyphus Batten (1)
		Dendromyceliates K.P. Jain & R.K. Kar (2)
		Entosphaeroides Bargh. (1)

Table 5 Continued.

Phylum	Order	Genera
		Eoastrion Bargh. (2)
		Eomycetopsis J.W. Schopf (2)
		Fungites Hallier (7)
		Gunflintia Bargh. (2)
		Laevitubulus N.D. Burgess & D. Edwards (5)
		Ornatifilum N.D. Burgess & D. Edwards (2)
		Palaeancistrus R.L. Dennis (1)
		Palaeofibulus J.M. Osborn, T.N. Taylor & J.F. White (1)
		Sclerotites A. Massal. (16)
		Tormentella H.D. Pflug (2)
Fossil fungi		*Annella* Sat. K. Srivast. (2)
incertae sedis		*Caenomyces* E.W. Berry (*Pyrenomycetes* Schwein?) (1)
		Dictyomykus R. Kar, Mand. & R.K. Kar (1)
		Lithosporocarpia R. Kar, Mand. & R.K. Kar (1)
		Mycokidstonia D. Pons & Locq. (1)
		Mycozygosporangia R. Kar, Mand. & R.K. Kar (1)
		Netothyrites C.M. Misra, S.N. Swamy, B. Prasad, B.S. Pundeer, R.S. Rawat & K. Singh (2)
		Palaeocercospora S. Mitra and Manju Banerjee (1)
		Palaeocolletotrichum S. Mitra and Manju Banerjee (1)
		Paleoblastocladia W. Remy, T.N. Taylor & Hass (1)
		Palynomorphites L.R. Moore (1)
		Pilula Harker, Sarjeant & Caldwell ex Harker & Sarjeant (2)
		Protoascon L.R. Batra, Segal & R.W. Baxter (1)
		Protocolletotrichum R. Kar, Mand. & R.K. Kar (1)
		Reymanella Marcink. (1)
		Sorosporonites X. Mu (1)
		Stauromyca R. Kar, Mand. & R.K. Kar (1)
		Tetradigita R. Kar, Mand. & R.K. Kar (1)
		Tricellaesporonites Sheffy & Dilcher (3)

Table 6 Modern fungal genera to which fossil species have been assigned.

Phylum	Order	Family	Modern genera	Fossil species
Ascomycota	***Asterinales***	***Asterinaceae***	*Asterina* Lév.	*A. eocenica* Dilcher, *A. kosciuskensis* Selkirk, *A. nodosaria* Dilcher, *A. indodeightonii* Vishnu, Khan & Bera, *A. mioconsobrina* Vishnu, Khan & Bera, *A. miosphaerelloides* Vishnu, Khan & Bera, *A. neocombreticola* Vishnu, Khan & Bera, *A. neoelaeocarpi* Vishnu, Khan & Bera, *A. presaracae* Vishnu, Khan & Bera
	Botryosphaeriales			*D. rodei* Mahab. [Now: *Diplodites rodei* (Mahab.) Kalgutkar, Nambudiri & Tidwell], *D. sahnii* Singhai [Now: *Diplodites sahnii* (Singhai) Kalgutkar, Nambudiri & Tidwell]

Table 6 Continued.

Phylum	Order	Family	Modern genera	Fossil species
	Capnodiales	***Mycosphaerellaceae***	*Ramularia* Sacc.	*R. oblongispora* Casp.
	Chaetosphaeriales	***Chaetosphaeriaceae***	*Chaetosphaeria* Tul. & C. Tul.	*C. elsikii* M.J. Pound, J.M.K. O'Keefe, N.B. Nuñez Otaño, J.B. Riding
	Eurotiales	***Aspergillaceae***	*Penicillium* Link	*P. curtipes* Berk.
	Helotiales	***Mollisiaceae***	*Trimmatostroma* Corda.	*Trimmatostroma intertrappea* K.S. Patil & Datar
	Hypocreales	***Bionectriaceae***	*Acremonium* Link	*A. succineum* Casp.
		Ceratostomatacea	*Gonatobotrys* Corda	*G. primigenius* Casp.
	Laboulbeniales	***Laboulbeniaceae***	*Stigmatomyces* H. Karst.	*Stigmatomyces succini* W. Rossi, Kotrba & Triebel
	Lecanorales	***Sphaerophoraceae***	*Sphaerophorus* Pers.	*S. moniliformis* Menge
	Meliolales	***Meliolaceae***	*Meliola* Fr.	*M. anfracta* Dilcher [Now: *Meliolinites anfractus* (Dilcher) Kalgutkar & Janson.], *M. spinksii* Dilcher [Now: *Meliolinites spinksii* (Dilcher) Selkirk]
	Microthyriales	***Microthyriaceae***	*Trichopeltina* Theiss.	*T. exporrecta* Dilcher
	Mycocaliciales	***Mycocaliciaceae***	*Chaenothecopsis* Vain.	*C. bitterfeldensis* Rikkinen & Poinar
	Pleosporales	***Didymellaceae***	*Epicoccum* Link	*E. deccanense* R. Srivast., Kapgate & S. Chatterjee
		Pleosporaceae	*Alternaria* Nees ex Fr.	*A. malayensis* Trivedi & C.L. Verma [Now: *Pluricellaesporites malayensis* (Trivedi & C.L. Verma) Kalgutkar & Janson.]
		Torulaceae	*Torula* Pers. ex Fr.	*T. globulifera* Casp., *T. heteromorpha* Casp., *T. mengeana* Casp. & R. Klebs in Casp.
	Sporidesmiales	***Sporidesmiaceae***	*Sporidesmium* Link ex Fr.	*S. henryense* Dilcher
	Taphrinales	***Protomycetaceae***	*Protomyces* Unger	*P. protogenes* W. Sm.
	Trichosphaeriales	***Trichosphaeriaceae***	*Brachysporium* Sacc.	*B. minutum* Trivedi & C.L. Verma [Now: *Pluricellaesporites minutus* (Trivedi & C.L. Verma) ex Kalgutkar & Janson.]
	Dothideomycetes family ***incertae sedis***	***Vizellaceae***	*Vizella* Sacc.	*V. discontinua* Selkirk, *V. memorabilis* (Dilcher) Selkirk
	Incertae sedis	*Incertae sedis*	*Desmidiospora* Thaxt.	*D. marginiconvoluta* Kalgutkar
			Manginula G. Arnaud	*M. maegdefraui* Lange [Now: *Entopeltacites maegdefraui* (Lange) Selkirk], *M. memorabilis*

Table 6 Continued.

Phylum	Order	Family	Modern genera	Fossil species
				(Dilcher) Lange [Now: *Vizella memorabilis* (Dilcher) Selkirk], *M. osbornii* Lange [Now: *Entopeltacites osbornii* (Lange) Selkirk]
			Sarcophoma Höhn.	*S. deccani* R.B. Singh & G.V. Patil
			Tetracoccosporium Szabó	*T. eocenum* Biradar & Mahab.
			Monotosporella S. Hughes	*M. doerfeltii* Sadowski, Beimforde, Gube & A.R. Schmidt
			Rhexoampullifera (M.B. Ellis) P.M. Kirk & C.M. Kirk	*R. stogieana* M.J. Pound, J.M.K. O'Keefe, N.B. Nuñez Otaño, J.B. Riding, *R. sufflata* M.J. Pound, J.M.K. O'Keefe, N.B. Nuñez Otaño, J.B. Riding
Basidiomycota	***Agaricostilbales***	***Chionosphaeraceae***	*Stilbum* Tode ex Fr.	*S. succini* Casp.
	Boletales	***Sclerodermataceae***	*Scleroderma* Pers.	*S. echinosporites* Rouse
	Cantharellales	***Hydnaceae***	*Hydnum* L. ex Fr.	*H. argillae* R. Ludw.
	Geastrales	***Geastraceae***	*Geastrum* Pers.	*G. tepexense* Magallon-Puebla & Cevallos-Ferriz
	Nidulariales	***Nidulariaceae***	*Nidula* V.S. White	*N. baltica* Poinar
			Cyathus Haller	*C. dominicanus* Poinar
	Polyporales	***Polyporaceae***	*Fomes* (Fr.) Fr.	*F. idahoensis* R.W. Br.
	Urocystidales	***Urocystidaceae***	*Mundkurella* Thirum.	*M. mohgaoensis* Chitaley & Yawale
	Ustilaginales	***Ustilaginaceae***	*Ustilago* (Pers.) Roussel	*U. deccani* Chitaley & Yawale [Now: *Inapertisporites deccani* (Chitaley & Yawale) Kalgutkar & Janson.]
Chytridiomycota	***Chytridiales***	***Chytriomycetaceae***	*Entophlyctis* A. Fisch.	*E. willoughbyi* W.H. Bradley [Now: *Desmidiospora willoughbyi* (W.H. Bradley) D.L.E. Glass, D.D. Br. & Elsik]
Fungi *incertae sedis*			*Patoullardiella* Speg.	*P. imbricata* Dilcher

Outline of fungus-like organisms
Obazoa Brown et al.
Opisthokonta Cavalier-Smith
Holomycota Liu et al. = Nucletmycea Brown et al.

Nucleariae Tedersoo et al.
Fonticulida Tedersoo et al.
Fonticulea Tedersoo et al.
Fonticulida Cavaler-Smith
Fonticulidae Worley, Raper & Hohl
Fonticula Worley, Raper & M. Hohl

Diaphoretickes Adl et al.
S A R Burki et al. emend. Adl et al.
Rhizaria Cavalier-Smith
Endomyxa Cavalier-Smith
Phytomyxea Engler & Prantl
Plasmodiophorida Cook
Plasmodiophoridae Loeblich & Tappan
Ligniera Maire & A. Tison
Plasmodiophora Worona
Polymyxa Ledingham
Sorosphaerula Neuh. & Kirchm.
Spongospora Brunch.
Woronina Cornu

Phagomyxida Cavalier-Smith
Phagomyxidae Cavalier-Smith
Maullinia I. Maier, E.R. Parodi, Westermeier & D.G. Müll
Phagomyxa Karling

Cercozoa Cavalier-Smith
Sainouroidea Schuler et al.
Guttulinopsidae L.S. Olive
Guttulinopsis E.W. Olive

Straminipila M.W. Dick
Labyrinthulomycota Whittaker
Labyrinthulomycetes Dick
Labyrinthulales E.A. Bessey
Aplanochytriaceae Leander ex Cavalier-Smith
Aplanochytrium Bahnweg & Sparrow

Stellarchytriaceae Bennett et al. ad int.
Stellarchytrium FioRito & Leander

Labyrinthulaceae Haeckel
Labyrinthula Cienk.

Oblongichytridiales Bennett et al. ad int.
Oblongichytridiaceae Cavalier-Smith
Oblongichytrium R. Yokoy. & D. Honda

Thraustochytriales Sparrow
Althornidiaceae Jones and Alderman
Althornia E.B.G. Jones & Alderman

Thraustochytriacae Sparrow ex Cejp
Aurantiochytrium R. Yokoy. & D. Honda
Botryochytrium R. Yokoy., Salleh & D. Honda
Japanochytrium
Monorhizochytrium K. Doi & D. Honda
Parietichytrium R. Yokoy., Salleh & D. Honda
Schizochytrium S. Goldst. & Belsky ex Raghuk.

Sicyoidochytrium R. Yokoy., Salleh & D. Honda
Thraustochytrium Sparrow
Ulkenia A. Gaertn. ex M.W. Dick

Amphitremida Gomaa et al.
Amphitremidae Poch
Amphitrema Archer
Archerella Loeblich & Tappan
Paramphitrema Valkanov

Diplophrydae Cavalier-Smith
Diplophrys J.S.F. Barker

Amphifilida Cavalier-Smith
Amphifilidae Cavalier-Smith
Amphifila Caval.-Sm.

Sorodiplophryidae Cavalier-Smith
Fibrophrys Takahashi et al.
Sorodiplophrys L.S. Olive & Dykstra

Hyphochytriomycota Whittaker
Hyphochytriomycetes Sparrow
Hyphochytriales Bessey ex Sparrow
Hyphochytriaceae Fischer
Canteriomyces Sparrow
Cystochytrium Ivimey Cook
Hyphochytrium Zopf

Rhizidiomycetaceae Karling ex Kirk, Cannon & David
Latrostium Zopf
Reessia Fisch
Rhizidiomyces Zopf

Oomycota Arx
Peronosporomycetes M.W. Dick
Albuginales Thines
Albuginaceae Schroet**.**
Albugo (Pers.) Roussel (40)
Pustula Thines (11)
Wilsoniana Thines (5)

Peronosporales A.N. Beketov
Peronosporaceae de Bary
Basidiophora Roze & Cornu (3)
Baobabopsis R.G. Shivas, Y.P. Tan, Telle & Thines (2)
Benua Constant. (1)
Bremia Regel (15)
Calycofera R. Bennett & Thines (2)
Eraphthora Telle & Thines (1)
Graminivora Thines (1)
Halophytophthora H.H. Ho & S.C. Jong (6)

Hyaloperonospora Constant. (35)
Nothophytophthora T. Jung, Scanu, Bakonyi & M. Horta Jung (6)
Novotelnova Voglmayr & Constant. (1)
Paraperonospora Constant. (9)
Perofascia Constant. (2)
Peronospora Corda (350)
Peronosclerospora (S. Ito) Hara (15)
Phytophthora de Bary (150)
Phytopythium Abad, de Cock, Bala, Robideau, A.M. Lodhi & Lévesque (25)
Plasmopara J. Schröt. (150)
Plasmoverna Constant., Voglmayr, Fatehi & Thines (7)
Poakatesthia Thines (1)
Protobremia Voglmayr, Riethm., Göker, Weiss & Oberw. (1)
Pseudoperonospora Rostov. (9)
Sclerophthora Thirum., C.G. Shaw & Naras. (5)
Sclerospora J. Schröt. (2)
Viennotia Göker, Voglmayr, Riethm., M. Weiss & Oberw. (1)

Pythiaceae Schroet.
Elongisporangium Uzuhashi, Tojo & Kakish. (5)
Globisporangium Uzuhashi, Tojo & Kakish. (70)
Lagena Vanterp. & Ledingham (1)
Lagenidium Schenk (40)
Myzocytiopsis M.W. Dick (18)
Myzocytium Schenk (2)
Pilasporangium (Uzuhashi & Tojo) Uzuhashi, Tojo & Kakish. (1)
Pythiogeton Minden (16)
Pythium Pringsh. (200)

Salisapiliaceae
Salisapilia Hulvey, Nigrelli, Telle, Lamour & Thines (9)

Rhipidiales M.W. Dick
Rhipidiaceae Cejp
Aqualinderella Emerson & Weston (1)
Araiospora Thaxt. (4)
Mindeniella Kanouse (2)
Nellymyces A. Batko (1)
Rhipidium Cornu (6)
Sapromyces Fritsch (4)

Salispinaceae R. Bennett & Thines
Salispina Marano, A.L. Jesus & Pires-Zottar. (4)

Peronosporomycetes genera *incertae sedis*
Kawakamia Miyabe (4)
Paralagenidium Grooters, C.F.J. Spies, de Cock & Lévesque (2)
Trachysphaera Tabor & Bunting (1)

Saprolegniomycetes Thines & Beakes
Leptomitales Kanouse
Atkinsiellaceae Sparrow

Atkinsiella Vishniac (1)
Bolbea Buaya & Thines (1)

Leptomitaceae Kütz
Apodachlya Pringsh. (5)
Apodachlyella Indoh (1)
Blastulidium Pérez (1)
Leptomitus C. Agardh (11)

Ectrogellaceae Cejp
Crypticola Humber, Frances & A.W. Sweeney (1)
Ectrogella Zopf (8)
Lagenisma Schnepf (1)

Saprolegniales K. Prantl
Achlyaceae ined.
Achlya Nees (80)
Brevilegnia Coker & Couch (16)
Dictyuchus Leitg. (9)
Thraustotheca Humphrey (4)

Saprolegniaceae Warm.
Aplanopsis Höhnk (1)
Calyptralegnia Coker (3)
Couchia W.W. Martin (3)
Isoachlya Kauffmann (9)
Newbya M.W. Dick & M.A. Spencer (13)
Protoachlya Coker (7)
Pythiopsis de Bary (7)
Saprolegnia Nees (80)
Scoliolegnia M.W. Dick (5)

Verrucalvaceae M.W. Dick
Aphanomyces de Bary (40)
Aquastella Glockling & D.P. Molloy (2)
Geolegnia Coker (4)
Leptolegnia de Bary (9)
Pachymetra B.J. Croft & M.W. Dick (1)
Plectospira Drechsler (4)
Verrucalvus P. Wong & M.W. Dick (1)

Saprolegniomycetes genera *incertae sedis*
Aphanomycopsis Scherff. (6)
Brevilegniella M.W. Dick (1)
Cornumyces M.W. Dick (8)
Clamydomycium M.W. Dick (7)
Ducellieria Teiling (1)
Eurychasmopsis Canter & M.W. Dick (1)
Leptolegniella Huneycutt (7)
Nematophthora Kerry & D.H. Crump (1)
Pythiella Couch (3)
Sommerstorffia Arnaudov (1)

Synchaetophagus Apstein (1)

Oomycota orders *incertae sedis*
Anisolpidiales M.W. Dick
Anisolpidiaceae Karling
Anisolpidium Karling (7)

Diatomophthoraceae Buaya & Thines
Diatomophthora Buaya & Thines (3)

Eurychasmales Sparrow
Eurychasmataceae Petersen
Eurychasma Magnus (3)

Haliphthorales ined.
Haliphthoraceae Vishniac
Halioticida Muraosa & Hatai (1)
Halocrusticida K. Nakam. & Hatai (7)
Haliphthoros Vishniac (3)

Haptoglossales M.W. Dick
Haptoglossaceae M.W. Dick
Haptoglossa Drechsler (12)

Miraculales ined.
Miraculaceae Buaya, Hanic & Thines
Miracula Buaya, Hanic & Thines (2)

Olpidiopsidales M.W. Dick
Olpidiopsidaceae Sparrow
Olpidiopsis Cornu (12)

Pontismatales Thines
Postismataceae H.E. Petersen
Petersenia Sparrow (3)
Pontisma H.E. Petersen (10)
Sirolpidium H.E. Petersen (7)

Rozellopsidales M.W. Dick
Rozellopsidaceae M.W. Dick
Rozellopsis Karling (5)

Amorphea Adl et al.
Amoebozoa Lühe
Evosea Kang et al.
Eumycetozoa L.S. Olive
Dictyosteliomycetes Doweld
Acytosteliales S. Baldauf, S. Sheikh & Thulin
Acytosteliaceae Raper ex Raper & Quinlan
Acytostelium Raper
Heterostelium S. Baldauf, S. Sheikh & Thulin
Rostrostelium S. Baldauf, S. Sheikh & Thulin

Cavenderiaceae S. Baldauf, S. Sheikh & Thulin
Cavenderia S. Baldauf, S. Sheikh & Thulin

Dictyosteliales L.S. Olive ex P.M. Kirk et al.
Dictyosteliaceae Rostaf. ex Cooke
Dictyostelium Bref.
Polysphondylium Bref.

Raperosteliaceae S. Baldauf, S. Sheikh & Thulin
Hagiwaraea S. Baldauf, S. Sheikh & Thulin
Raperostelium S. Baldauf, S. Sheikh & Thulin
Speleostelium S. Baldauf, S. Sheikh & Thulin
Tieghemostelium S. Baldauf, S. Sheikh & Thulin

Dictyosteliales genus *incertae sedis*
Coremiostelium S. Baldauf, S. Sheikh, Thulin & Spiegel

Dictyosteliomycetes genera *incertace sedis*
Coenonia Tiegh.
Synstelium S. Baldauf, S. Sheikh & Thulin

Ceratiomyxomycetes D. Hawksw., B. Sutton & Ainsw. in Leontyev et al. (2019)
Ceratiomyxales G.W. Martin ex M.L. Farr & Alexop.
Ceratiomyxaceae J. Schröt.
Ceratiomyxa J. Schröt.
Protosporangiaceae Leontyev, Stephenson, Schnittler, Shchepin, Novozhilov
Clastostelium L.S. Olive & Stoian.
Protosporangium L.S. Olive & Stoian.

Myxomycetes G. Winter
Lucisporomycetidae Leontyev, Schnittler, S.L. Stephenson, Novozhilov & Shchepin
Cribrariales T. Macbr.
Cribrariaceae *Corda*
Cribraria Pers.
Licaethalium Rostaf.
Lindbladia Fr.

Reticulariales Leontyev, Schnittler, S.L. Stephenson, Novozhilov & Shchepin
Reticulariaceae Chevall. ex Corda
Alwisia Berk. & Broome (6)
Lycogala Adans.
Reticularia Bull.
Tubifera J.F. Gmel.
Siphoptychium Rostaf.
Thecotubifera Leontyev, Schnittler, S.L. Stephenson & Novozh.

Liceales E. Jahn
Liceaceae Chevall.
Licea Schrad.
Listerella E. Jahn

Trichiales T. Macbr.
Dianemataceae *T. Macbr.*
Calomyxa Nieuwl.
Dianema Rex
Dictydiaethalium Rostaf.
Prototrichia Rostaf.

Trichiaceae Chevall.
Arcyodes O.F. Cook
Arcyria F.H. Wigg.
Cornuvia Rostaf.
Hemitrichia Rostaf.
Metatrichia Ing
Oligonema Rostaf.
Perichaena Fr.
Trichia Haller

Lucisporomycetidae genera *incertae sedis*
Arcyriatella Hochg. & Gottsb.
Calonema Morgan
Minakatella G. Lister
Trichioides Novozh., Hoof & Jagers

Columellomycetidae Leontyev, Schnittler, S.L. Stephenson, Novozhilov & Shchepin
Echinosteliopsidales Shchepin, Leontyev, Schnittler, S.L. Stephenson, Novozhilov
Echinosteliopsidaceae L.S. Olive
Echinosteliopsis Reinhardt & L.S. Olive

Echinosteliales G.W. Martin
Echinosteliaceae Rostaf. ex Cooke
Barbeyella Meyl.
Echinostelium de Bary
Semimorula E.F. Haskins, McGuinn. & C.S. Berry

Clastodermatales Leontyev, Schnittler, S.L. Stephenson, Novozhilov & Shchepin
Clastodermataceae Alexop. & T.E. Brooks
Clastoderma A. Blytt.

Meridermatales Leontyev, Schnittler, S.L. Stephenson, Novozhilov & Shchepin
Meridermataceae Leontyev, Schnittler, S.L. Stephenson, Novozhilov & Shchepin
Meriderma Mar. Mey. & Poulain

Stemonitidales T. Macbr.
Amaurochaetaceae Rostaf. ex Cooke
Amaurochaete Rostaf.
Brefeldia Rostaf.
Comatricha Preuss
Enerthenema Bowman
Paradiacheopsis Hertel.
Stemonaria Nann.-Bremek., R. Sharma & Y. Yamam.
Stemonitopsis (Nann.-Bremek.) Nann.-Bremek.

Stemonitidaceae Fr.
Macbrideola H.C. Gilbert
Stemonitis Gled.
Symphytocarpus Ing & Nann.-Bremek.

Physarales T. Macbr.
Lamprodermataceae T. Macbr.
Collaria Nann.-Bremek.
Colloderma G. Lister
Diacheopsis Meyl.
Elaeomyxa Hagelst.
Lamproderma Rostaf.

Didymiaceae Rostaf. ex Cooke
Diderma Pers.
Didymium Schrad.
Lepidoderma de Bary
Mucilago Battarra

Physaraceae Chevall.
Badhamia Berk.
Craterium Trentep.
Fuligo Haller
Kelleromyxa Eliasson
Leocarpus Link
Physarella Peck.
Physarina Höhn.
Physarum Pers.
Willkommlangea Kuntze

Columellomycetidae genera *incertae sedis*
Diachea Fr.
Leptoderma G. Lister
Paradiachea Hertel
Protophysarum M. Blackw. & Alexop.
Trabrooksia H.W. Keller

Variosea Cavalier-Smith et al.
Protosteliida Olive & Stoian. sensu Shadwick et Spiegel in Adl et al. 2012
Protosteliidae Olive & Stoian., emend Spiegel
Protostelium L.S. Olive & Stoian.

Fractovitellida Lahr et al. sensu Kang et al. 2017
Schizoplasmodiidae Shadwick & Spiegel in Adl et al.
Ceratiomyxella L.S. Olive & Stoian.
Nematostelium L.S. Olive & Stoian.
Schizoplasmodium L.S. Olive & Stoian.

Soliformoviidae Lahr & Katz
Soliformovum Spiegel

Cavosteliida Shadwick & Spiegel in Adl et al.

Cavosteliidae S.L. Olive
Cavostelium S.L. Olive
Schizoplasmodiopsis S.L. Olive
Tychosporium Spiegel

Tubulinea Smirnov et al.
Elardia Kang et al.
Euamoebida Lepşi
Copromyxidae L.S. Olive & Stoian.
Copromyxa Zopf

Discosea Cavalier-Smith et al. sensu Smirnov et al. 2011
Flabellinea Smirnov et al.
Thecamoebida Schaeffer
Sappinia P.A. Dang.

Vannellida Smirnov et al.
Protosteliopsis L.S. Olive & Stoian.

Centramoebia Cavalier-Smith et al.
Acanthopodida Page
Acanthamoeba Volkonsky
Luapelamoeba Shadwick et al.

Pellitida Smirnov & Cavalier-Smith sensu Kang et al. 2017
Endostelium L.S. Olive, W.E. Benn. & Deasey
Discoba Simpson in Hampl et al.
Heterolobosea Page & Blanton
Tetramitia Cavalier-Smith
Eutetramitia Hanousková et al.
Acrasidae Poche
Acrasis Tiegh. (incl. *Pocheina* A.R. Loebl. & Tappan)

Discussion

Alternative classification of *Leotiomycetes* (Authors: A.H. Ekanayaka & K.D. Hyde)

The arrangement of *Leotiomycetes* in Ekanayaka et al. (2019) and Johnston et al et al. (2019) are based on morphological interpretations and phylogenies using different data, however, they are generally congruent. Johnston et al. (2019) used three phylogenetic reconstructions, one based on 3156 single-copy genes for 49 taxa, the second based on 15 genes for 279 taxa, and the third based on ITS alone for 568 taxa. Ekanayaka et al. (2019) used five genes with 482 taxa. There are, however, some differences and therefore the outline from Ekanayaka et al. (2019) with modifications is given below with notes. Understandably, if different taxa were used in the Ekanayaka et al. (2019) and Johnston et al. (2019) phylogenies, different conclusions have been drawn and therefore the classification of Leotiomycetes is not settled. We hope that by providing an alternative outline, this will initiate positive discussion and further research with fresh collections to resolve inconsistencies. However, with insufficient taxa in this class having been sequenced it will take several years before the classification is stabilized.

Taxa with notes in this section are indicated by [#].

Chaetomellales Crous & Denman
Chaetomellaceae Baral, P.R. Johnst. & Rossman

Chaetomella Fuckel (26)
Cornicularielle P. Karst. (1)
Pilidium Kunze (23)
Sphaerographium Sacc. (23)
Synchaetomella Decock & Seifert (3)
Xeropilidium Baral & Pärtel (1)

Cyttariales Luttr. ex Gamundí
Cordieritidaceae Sacc.[#]
Ameghiniella Speg. (2)
Annabella Fryar, Haelew., & D.E.A. Catches. (1)
Austrocenangium Gamundí (2)
Cordierites Mont. (5)
Diplocarpa Massee (2)
Diplolaeviopsis Giralt & D. Hawksw. (3)
Gelatinopsis Rambold & Triebel (8)
Ionomidotis E.J. Durand ex Thaxt. (13)
Llimoniella Hafellner & Nav.-Ros. (19)
Macroskyttea Etayo, Flakus, Suija & Kukwa (1)
Midotiopsis Henn. (2)
Phaeangella (Sacc.) Massee (11)
Rhymbocarpus Zopf (12)
Rhizocladosporium Crous & U. Braun (1)
Skyttea Sherwood, D. Hawksw. & Coppins (30)
Skyttella D. Hawksw. & R. Sant. (2)
Sabahriopsis Crous & M.J. Wingf. (1)
Thamnogalla D. Hawksw. (1)
Unguiculariopsis Rehm (25)

Cyttariaceae Lév.
Cyttaria Berk. (13)

Deltopyxidaceae Ekanayaka & K.D. Hyde[#]
Deltopyxis Baral & G. Marson (1)
Phaeopyxis Rambold & Triebel (1)

Erysiphales Gwynne-Vaughan[#]
Amorphothecaceae Parbery (= *Myxotrichaceae* Locq. ex Currah *fide* Ekanayaka et al. 2019)[#]
Amorphotheca Parbery (1)
Brefeldochium Verkley (1)
Byssoascus Arx (2)
Myxotrichum Kunze (12)
Oidiodendron Robak (ca. 30)
Polydesmia Boud. (7)
Hormoconis Arx & G.A. de Vries (2)

Erysiphaceae Tul. & C. Tul.
Arthrocladiella Vassilkov (1)
Blumeria Golovin ex Speer (1)
Brasiliomyces Viégas (6)
Bulbomicroidium Marm., S. Takam. & U. Braun (1)
Caespitotheca S. Takam. & U. Braun (1)

Cystotheca Berk. &M.A. Curtis (9)
Erysiphe R. Hedw. ex DC. (478)
Golovinomyces (U. Braun) V.P. Heluta (66)
Leveillula G. Arnaud (49)
Microidium (To-anun & S. Takam.) To-anun & S. Takam. (3)
Neoerysiphe U. Braun (15)
Oidiopsis Scalia (ca. 12)
Oidium Link (ca. 200+)
Ovulariopsis Pat. & Har. (ca. 13)
Parauncinula S. Takam. & U. Braun (4)
Phyllactinia Lév. (117)
Pleochaeta Sacc. & Speg. (5)
Podosphaera Kunze (124)
Pseudoidium Y.S. Paul & J.N. Kapoor (ca. 80)
Queirozia Viégas & Cardoso (1)
Sawadaea Miyabe (10)
Takamatsuella U. Braun & A. Shi (1)
Typhulochaeta S. Ito & Hara (ca. 4)

Helotiales Nannf. ex Korf & Lizoň
Arachnopezizaceae Hosoya, J.G. Han & Baral
Arachnopeziza Fuckel (15)
Arachnoscypha Boud. (3)
Austropezia Spooner (1)
Eriopezia (Sacc.) Rehm (30)
Durella Tul. & C. Tul. (5)
Bryoglossaceae Ekanayaka & K.D. Hyde
Bryoclaviculus L. Ludw., P.R. Johnst. & Steel (1)
Bryoglossum Redhead (2)
Neocudoniella S. Imai (2)

Chlorociboriaceae Baral & P.R. Johnst.[#]
Chlorociboria Seaver ex C.S. Ramamurthi, Korf & L.R. Batra (22)

Chlorospleniaceae Ekanayaka & K.D. Hyde
Chlorosplenium Fr. (5)

Chrysodiscaceae Baral & Haelew.
Chrysodisca Baral, Polhorský & G. Marson (1)

Discinellaceae Ekanayaka & K.D. Hyde
Articulospora Ingold (ca. 5)
Acidea Hujslová & M. Kolařík (1)
Cladochasiella Marvanová (1)
Discinella Boud. (ca. 15)
Fontanospora Dyko (1)
Gyoerffyella Kol (10)
Lemonniera De Wild. (7)
Naevala B. Hein (6)
Margaritispora Ingold (1)
Pezoloma Clem. (ca. 15)
Tetrachaetum Ingold (3)

Drepanopezizaceae Baral (=*Drepanopezizaceae* Bat. & H. Maia; Nom. inval., Arts 32.1(c), 36, 39.1 (Melbourne))

Blumeriella Arx (= *Higginsia* Nannf.; = *Phloeosporella* Höhn., = *Microgloeum* Petr.) (7)
Diplocarpon F.A. Wolf (7)
Drepanopeziza (Kleb.) Höhn. (= *Gloeosporidiella* Petr.) (5)
Felisbertia Viégas (7)
Leptotrochila P. Karst. (= *Ephelina* Sacc.; = *Fabraea* Sacc.; = *Sporonema* Desm.) (15)
Pseudopezicula Korf (2)
Spilopodia Boud. (= *Holmiodiscus* Svrček; = *Melanodiscus* Höhn.) (ca. 4)
Spilopodiella E. Müll. (1)
Thedgonia B. Sutton (6)

Gelatinodiscaceae S.E. Carp

Ascocoryne J.W. Groves & D.E. Wilson (= *Didymocoryne* Sacc. & Trotter) (8)
Ascotremella Seaver (2)
Chloroscypha Seaver (14)
Dimorphospora Tubaki (1)
Helicodendron Peyronel (3)
Neobulgaria Petr. (11)
Phaeangellina Dennis (1)
Skyathea Spooner & Dennis (1)

Godroniaceae Baral

Ascocalyx Naumov (4)
Atropellis Zeller & Goodd. (4)
Godronia Moug. & Lév. (ca. 30)
Gremmeniella M. Morelet (3)
Grovesiella M. Morelet (2)

Helotiaceae Rehm (= *Roesleriaceae* Y.J. Yao & Spooner *fide* Ekanayaka et al. 2019)

Amylocarpus Curr. (1)
Asterocalyx Höhn. (1)
Ascoconidium Seaver (3)
Bryoscyphus Spooner (19)
Calycella sensu (Sacc.) Sacc. (1)
Crocicreas Fr. (5)
Eubelonis Clem. (2)
Cudoniella Sacc. (31)
Cyathicula De Not. (30)
Dicephalospora Spooner (4)
Endoscypha Syd. (1)
Discorehmia Kirschst. (5)
Glarea Bills & Paláez (2)
Gloeotinia M. Wilson, Noble & E.G. Gray (2)
Helicocentralis Sri-indr., Chuaseehar., Boonyuen, K. Yamag., Suetrong & C.K.M. Tsui (1)
Hymenoscyphus Gray (170)
Hymenotorrendiella P.R. Johnst., Baral & R. Galán (9)
Lanzia Sacc. (55)
Muscicola Velen. (1)
Mytilodiscus Kropp & S.E. Carp. (1)
Ombrophila Fr. (11)

Phaeohelotium Kanouse (41)
Pirottaea Sacc. (28)
Pithyella Boud. (8)
Pseudoniptera Velen. (25)
Roesleria Thüm. & Pass. (ca. 10)
Roeslerina Redhead (3)
Symphyosirinia E.A. Ellis (6)
Tatraea Svrcek (2)
Torrendiella Boud. & Torrend (3)
Xylogramma Wallr. (18)

Heterosphaeriaceae Rehm
Heterosphaeria Grev. (7)

Hyaloscyphaceae Nannf.
Ambrodiscus S.E. Carp. (1)
Aeruginoscyphus Dougoud (7)
Arbusculina Marvanová & Descals (3)
Clathrosphaerina Beverw. (2)
Curviclavula G. Delgado, F.A. Fernández & A.N. Mill. (1)
Dimorphotricha Spooner (1)
Echinula Graddon (1)
Glutinomyces Nor. Nakam. (1)
Graddonidiscus Raitv. & R. Galán (3)
Grahamiella Spooner (3)
Hegermila Raitv. (4)
Hyaloscypha Boud. (45)
Hyalodendriella Crous (1)
Hyphopeziza J.G. Han, Hosoya & H.D. Shin (1)
Incrupila Raitv. (10)
Meliniomyces Hambl. & Sigler (3)
Olla Velen. (2)
Parachnopeziza Korf (8)
Polaroscyphus Huhtinen (1)
Proprioscypha Spooner (1)
Protounguicularia Raitv. & R. Galán (10)
Pseudaegerita J.L. Crane & Schokn. (7)
Psilocistella Svrcek (10)
Rhizoscyphus W.Y. Zhuang & Korf (1)
Scytalidium Pesante (ca. 30)
Thindiomyces Arendh. & R. Sharma (1)
Unguiculariella K.S. Thind & R. Sharma (1)
Unguiculella Höhn. (17)

Hydrocinaceae Ekanayaka & K.D. Hyde
Clathrosporium Nawawi & Kuthub. (1)
Filosporella Nawawi (6)
Hydrocina Scheuer (1)
Varicosporium W. Kegel (11)
Xerombrophila Baral (1)

Lachnaceae Raitv.

Albotricha Raitv. (19)
Asperopilum Spooner (1)
Belonidium Mont. & Dur. (1)
Brunnipila Baral (10)
Capitotricha (Raitv.) Baral (10)
Crucellisporiopsis Nag Raj (3)
Crucellisporium M.L. Farr (3)
Dasyscyphella Tranzschel (1)
Erioscyphella Kirschst. (10)
Incrucipulum Baral (6)
Lachnellula P. Karst. (40)
Lachnum Retz. (50)
Lachnopsis Guatim., R.W. Barreto & Crous (1)
Neodasyscypha Suková & Spooner (2)
Perrotia Boud. (19)
Proliferodiscus J.H. Haines & Dumont (8)
Tubolachnum Velen. (2)
Velebitea I. Kušan, Matočec & Jadan (1)

Loramycetaceae Dennis ex Digby & Goos
Acidomelania E. Walsh & N. Zhang (1)
Loramyces W. Weston (2)
Obtectodiscus E. Müll., Petrini & Samuels (2)

Mitrulaceae Rchb.
Mitrula Fr. (8)
Mollisiaceae Rehm
Bulbomollisia Graddon (1)
Cystodendron Bubák (2)
Discocurtisia Nannf. (12)
Mollisia (Fr.) P. Karst. (130)
Neotapesia E. Müll. & Hütter (3)
Niptera Fr. (10)
Nipterella Starbäck ex Dennis (2)
Phialocephala W.B. Kendr. (37)
Pseudonaevia Dennis & Spooner (2)
Pyrenopeziza Fuckel (3)
Sarconiptera Raitv. (1)
Scutobelonium Graddon (1)
Scutomollisia Nannf. (14)
Tapesia (Pers.) Fuckel (ca. 25)
Trimmatostroma Corda (30)
Variocladium Descals & Marvanová (1)

Ploettnerulaceae Kirschst.
Cadophora Lagerb. & Melin (15)
Collembolispora Marvanová & Pascoal (2)
Cylindrosporium Grev. (3)
Dennisiodiscus Svrcek (10)
Lasiomollisia Raitv. & Vesterh. (1)
Mastigosporium Riess (4)
Mycochaetophora Hara & Ogawa (2)

Nothophacidium J. Reid & Cain (1)
Oculimacula Crous & W. Gams (6)
Peltigeromyces A. Möller (3)
Ploettnerula Kirschst. (1)
Pseudopeziza Fuckel (4)
Rhexocercosporidium U. Braun (2)
Rhynchosporium Heinsen ex A.B. Frank (5)
Ypsilina J. Webster, Descals & Marvanová (1)

Solenopeziaceae Ekanayaka & K.D. Hyde
Geniculospora Sv. Nilsson ex Marvanová & Sv. Nilsson (2)
Graddonia Dennis (7)
Halenospora E.B.G. Jones (1)
Lasiobelonium Ellis & Everh. (20)
Mycofalcella Marvanová, Om-Kalth. & J. Webster (2)
Solenopezia Sacc. (7)
Trichopeziza Fuckel (30)
Trichopezizella Dennis ex Raitv. (12)
Tricladium Ingold (25)

Vibrisseaceae Korf
Acephala Grünig & T.N. Sieber (2)
Cheirospora Moug. & Fr. (2)
Diplococcium Grove (30)
Fuscosclera Hern.-Restr., J. Mena & Gené (1)
Gorgoniceps (P. Karst.) P. Karst. (3)
Leucovibrissea (A. Sánchez) Korf (1)
Pocillum De Not. (1)
Strossmayeria Schulzer (= *Pseudospiropes* M.B. Ellis) (16)
Srinivasanomyces S. Rana & S.K. Singh (1)
Vibrissea Fr. (34)

Helotiales genera *incertae sedis*
Aquapoterium Raja & Shearer (1)
Arboricolonus S. Bien & Damm (1)
Barrenia E. Walsh & N. Zhang (2)
Brackelia Zhurb. (1)
Bulgariella P. Karst. (4)
Cecidioskyttea Etayo (1)
Chlorovibrissea L.M. Kohn (4)
Colipila Baral & Guy García (2)
Connersia Malloch (1)
Cryptocline Petr. (20)
Encoeliopsis Nannf. (4)
Gamarada D.J. Midgley & Tran-Dinh (1)
Larissia Raitv. (1)
Lemalis Fr. (3)
Libartania Nag Raj (2)
Merodontis Clem. (1)
Mitrulinia Spooner (1)
Mollisiopsis Rehm (7)
Muscia Gizhitsk (1)

Patellariopsis Dennis (5)
Pestalopezia Seaver (3)
Phacidiella P. Karst. (1)
Pleuroascus Massee & E.S. Salmon (11)
Pseudomitrula Gamundí (1)
Sambucina Velen. (1)
Sarcomyces Massee (1)
Unguicularia Höhn. (7)

Lahmiales O.E. Erikss.
Lahmiaceae O.E. Erikss.
Lahmia Körb. (1)

Lauriomycetales Hern.-Restr., R.F. Castañeda & Guarro
Lauriomycetaceae Hern.-Restr., R.F. Castañeda & Guarro
Lauriomyces R.F. Castañeda (11)

Leotiales Korf & Lizoň
Cochlearomycetaceae Crous[#]
Cochlearomyces Crous (1)

Leotiaceae Corda
Geocoryne Korf (2)
Leotia Pers. (4)
Microglossum Gillet (ca. 10)
Thuemenidium Kuntze (1)
Mniaeciaceae Baral
Mniaecia Boud. (= *Epiglia* Boud.) (6)

Tympanidaceae Baral & Quijada
Aotearoamyces P.R. Johnst., J.A. Cooper & Quijada (1)
Claussenomyces Kirschst. (ca. 19)
Collophorina Damm & Crous (6)
Durandiella Seaver (15)
Gelatinosporium Peck (15)
Myriodiscus Boedijn (1)
Pragmopora A. Massal. (7)
Tympanis Fr. (ca. 27)

Leotiales genus *incertae sedis*
Gelatinomyces Sanoam., Sanoam., Jitjak, Rodtong & Whalley (2)

Lichinodiales M. Prieto, M. Schultz, Olariaga & Wedin
Lichinodiaceae M. Prieto, M. Schultz, Olariaga &Wedin
Lichinodium Nyl. (4)
Mycosymbioces J.L. Frank (1)

Lichinodiales genera *incertae sedis*
Epithamnolia Zhurb. (6)
Fulvoflamma Crous (1)

Marthamycetales P.R. Johnst. & Baral

Marthamycetaceae Baral, Lantz, Hustad & Minter
Cyclaneusma DiCosmo, Peredo & Minter (2)
Marthamyces Minter (13)
Mellitiosporiella Höhn. (2)
Mellitiosporium Corda (11)
Naemacyclus Fuckel (6)
Phragmiticola Sherwood (1)
Propolina Sacc. (1)
Propolis (Fr.) Corda (ca. 9)

Medeolariales Korf[#]
Ascocorticiaceae J. Schröt.
Ascocorticiellum Jülich & B. de Vries (3)
Ascocorticium Bref. (8)
Ascosorus P. Henn. & Ruhland (1)

Ascodichaenaceae D. Hawksw. & Sherwood
Ascodichaena Butin (2)
Delpinoina Kuntze (2)

Dermateaceae Fr.
Arctomollisia Raitv. (2)
Cashiella Petr. (3)
Davidhawksworthia Crous (1)
Dermea Fr. (25)
Gelatinoamylaria Prasher & R. Sharma (1)
Neofabraea H.S. Jacks. (7)
Pezicula Tul. & C. Tul. (50)
Phlyctema Desm. (30)
Pseudofabraea Chen Chen, Verkley & Crous (1)
Rhizodermea Verkley & J.D. Zijlstra (1)
Schizothyrioma Höhn. (1)
Verkleyomyces Y. Marín & Crous (1)

Medeolariaceae Korf
Medeolaria Thaxt. (1)

Medeolariales genera *incertae sedis*
Coleophoma Höhn. (35)
Parafabraea Chen Chen, Verkley & Crous (2)

Phacidiales C.E. Bessey

Helicogoniaceae Baral
Eleutheromycella Höhn. (1)
Eleutheromyces Fuckel (1)
Gelatinipulvinella Hosoya & Y. Otani (2)
Geltingia Alstrup & D. Hawksw. (1)
Helicogonium W.L. White (19)
Humicolopsis Cabral & S. Marchand (2)

Phacidiaceae Fr. (= *Bulgariaceae* Fr.; = *Phacidiostromataceae* Höhn. *fide* Jaklitsch et al. 2016a)

Allantophomopsiella Crous (1)
Allantophomopsis Petr. (8)
Bulgaria Fr. (2)
Calvophomopsis J.B. Tanney & Seifer (1)
Ceuthospora Grev. (ca. 100)[#]
Cornibusella J.B. Tanney & Seifer (1)
Darkera H.S. Whitney, J. Reid & Piroz. (5)
Gloeopycnis J.B. Tanney & Seifer (1)
Phacidiopycnis Potebnia (5)
Phacidium Fr. (ca. 200)
Potebniamyces Smerlis (1)[#]
Pseudophacidium P. Karst. (5)
Starbaeckia Rehm ex Starbäck (1)
Strasseria Bres. & Sacc. (1)[#]
[#]Ekanayaka et al. (2019) accepted these genera in *Phacidiaceae*

Phacidiales genus *incertae sedis*
Coma Nag Raj & W.B. Kendr. (2)

Rhytismatales M.E. Barr ex Minter

Rhytismataceae Chevall. (= *Hypodermataceae* Rehm; = *Cryptomycetaceae* Höhn. nom. inval. *fide* Jaklitsch et al. 2016a; = *Cudoniaceae* P.F. Cannon *fide* Ekanayaka et al. 2019)
Angelina Fr. (1)
Apiodiscus Petr. (1)
Bifusella Höhn. (11)
Bifusepta Darker (1)
Bivallum P.R. Johnst. (7)
Bonanseja Sacc. (1)
Canavirgella W. Merr, Wenner & Dreisbach (1)
Cavaraella Speg. (1)
Ceratophacidium J. Reid & Piroz. (1)
Cerion Massee (2)
Coccomyces De Not. (118)
Colpoma Wallr. (14)
Criella (Sacc.) Henn. (2)
Cryptomyces Grev. (1)
Cudonia Fr. (9)
Davisomycella Darker (10)
Didymascus Sacc. (1)
Discocainia J. Reid & A. Funk (4)
Duplicaria Fuckel (1)
Duplicariella B. Erikss. (1)
Elytroderma Darker (1)
Gelineostroma H.J. Swart (1)
Haplophyse Theiss. (10)
Heufleria Auersw. (1)
Hypoderma De Not. (1)
Hypodermella Tubeuf (3)
Hypodermellina Höhn. (1)
Hypohelion P.R. Johnst. (3)
Irydyonia Racib. (1)

Laquearia Fr. (1)
Lasiostictella Sherwood (1)
Lirula Darker (3)
Lophodermella Höhn. (9)
Lophodermium Chevall. (145)
Lophophacidium Lagerb. (5)
Macroderma Höhn. (1)
Meloderma Darker (9)
Moutoniella Penz. & Sacc. (1)
Mycomelanea Velen. (1)
Myriophacidium Sherwood (6)
Nematococcomyces C.L. Hou, M. Piepenbr. & Oberw. (9)
Neococcomyces Y.R. Lin, C.T. Xiang & Z.Z. Li (3)
Neophacidium Petr. (2)
Nothorhytisma Minter, P.F. Cannon, A.I. Romero & Peredo (3)
Nymanomyces Henn. (1)
Parvacoccum R.S. Hunt & A. Funk (1)
Phaeophacidium P. Henn. & Lindau (4)
Ploioderma Darker (7)
Propolidium Sacc. (2)
Pseudorhytisma Juel (1)
Pseudotrochila Höhn. (2)
Pureke P.R. Johnst. (7)
Rhytisma Fr. (21)
Soleella Darker (7)
Spathularia Pers. (ca. 12)
Sporomega Corda (7)
Terriera B. Erikss. (26)
Therrya Sacc. (7)
Triblidiopsis P. Karst. (2)
Tryblidiopsis P. Karst. (3)
Virgella Darker (1)
Vladracula P.F. Cannon, Minter & Kamal (2)
Xyloschizon Syd. (2)
Zeus Minter & Diamandis (2)

Triblidiaceae Rehm
Huangshania O.E. Erikss. (2)
Pseudographis Nyl. (3)
Triblidium Rebent. (6)

Thelebolales P.F. Cannon
Thelebolaceae A. Engler (=*Pseudeurotiaceae* Malloch & Cain *fide* Ekanayaka et al. 2019)
Antarctomyces Stchigel & Guarro (1)
Ascophanus Boud. (20)
Ascozonus (Renny) E.C. Hansen (6)
Caccobius Kimbr. (6)
Cleistothelebolus Malloch & Cain (13)
Coprobolus Cain & Kimbr. (1)
Geomyces Traaen (ca. 10)
Gymnostellatospora Udagawa, Uchiy. & Kamiya (ca. 6)
Holwaya Sacc. (= *Crinula* Fr.) (2)

Leptokalpion Brumm. (2)
Leuconeurospora Malloch & Cain (3)
Neelakesa Udaiyan & Hosag. (3)
Patinella Sacc. (1)
Pseudascozonus Brumm. (1)
Pseudeurotium J.F.H. Beyma (6)
Pseudogymnoascus Raillo (ca. 10)
Ramgea Brumm. (2)
Thelebolus Tode (13)

Thelebolales genera *incertae sedis*
Alatospora Ingold (4)
Gorgomyces M. Gönczöl & Révay (2)
Miniancora Marvanová & Bärl. (1)

Leotiomycetes families *incertae sedis*
Cenangiaceae Rehm[#]
Cenangium Fr. (30)
Moellerodiscus Henn. (7)
Piceomphale Svrcek (1)

Calloriaceae L. Marchand[#]
Aivenia Svrček (4)
Belonioscyphella Höhn. (4)
Calloria Fr. (5)
Chaetonaevia Arx (3)
Cistella Quél. (45)
Dactylaria Sacc. (ca. 100)
Diplonaevia Sacc. (23)
Duebenia Fr. (5)
Eupropolella Höhn. (7)
Hyalacrotes (Korf & L.M. Kohn) Raitv. (2)
Iridinea Velen. (2)
Laetinaevia Nannf. (15)
Leohumicola N.L. Nick. (7)
Loricella Velen. (2)
Micropodia Boud. (2)
Mycoarthris Marvanová & P.J. Fisher (1)
Naeviella (Rehm) Clem. (3)
Naeviopsis B. Hein (3)
Ploettnera Henn. (5)
Polyphilus D.G. Knapp, Ashrafi, W. Maier & Kovács (2)
Psilachnum Höhn. (28)
Rodwayella Spooner (3)
Rommelaarsia Baral & Haelew. (1)
Roseodiscus Baral (6)
Stamnaria Fuckel (5)
Tetracladium De Wild. (11)
Urceolella Boud. (24)

Hamatocanthoscyphaceae Ekanayaka & K.D. Hyde
Brachyalara Réblová & W. Gams (1)

Chalara (Corda) Rabenh. (ca. 100)
Ciliolarina Svrček (1)
Gremmenia Korf (4)
Hamatocanthoscypha Svrček (3)
Infundichalara Réblová & W. Gams (2)
Microscypha Syd. & P. Syd. (6)
Pseudohelotium Fuckel (50)
Xenochalara M.J. Wingf. & Crous (1)
Xenopolyscytalum Crous (1)

Hemiphacidiaceae Korf[#]
Calycellinopsis W.Y. Zhuang (1)
Cenangiopsis Rehm (2)
Chlorencoelia J.R. Dixon (4)
Crumenulopsis J.W. Groves (1)
Didymascella Maire & Sacc. (5)
Encoelia (Fr.) P. Karst. (40)
Fabrella Kirschst. (1)
Heyderia Link (6)
Hysterostegiella Höhn. (10)
Korfia J. Reid & Cain (1)
Rhabdocline Syd. (4)
Sarcotrochila Höhn. (4)
Trochila Fr. (15)
Velutarina Korf (3)

Hyphodiscaceae Ekanayaka & K.D. Hyde
Fuscolachnum J.H. Haines (7)
Hyalopeziza Fuckel (15)
Hyphodiscus Kirschst. (16)
Soosiella Hujslová & M. Kolařík (1)
Scolecolachnum Guatim., R.W. Barreto & Crous (2)
Venturiocistella Raitv. (7)

Leptodontidiaceae Hern.-Restr., Crous & Gené[#]
Leptodontidium de Hoog. (11)

Neocrinulaceae Crous
Neocrinula Crous (2)

Neolauriomycetaceae Crous[#]
Exochalara W. Gams & Hol.-Jech. (3)
Lareunionomyces Crous & M.J. Wingf. (2)
Neolauriomyces Crous (1)

Pezizellaceae Velen. (= *Bloxamiaceae* Locq. ex Hern.-Restr., Gené, R.F. Castañeda, J. Mena, Crous & Guarro *fide* Ekanayaka et al. 2019)[#]
Allophylaria (P. Karst.) P. Karst. (6)
Antinoa Velen. (8)
Bisporella Sacc. (19)
Bloxamia Berk. & Broome (19)
Calycellina Höhn (45)

Calycina Nees ex Gray (= *Pezizella* Fuckel) (30)
Micropeziza Fuckel (12)
Mollisina Höhn. ex Weese (11)
Mollisinopsis Arendh. & R. Sharma (3)
Moserella Pöder & Scheuer (1)
Orbiliopsis (Sacc. & D. Sacc.) Syd. & P. Syd. (2)
Phaeoscypha Spooner (1)
Phialina Höhn. (ca. 13)
Triposporium Corda (14)
Poculinia Spooner (1)
Scleropezicula Verkley (6)
Velutaria Fuckel (1)
Xiambola Minter & Hol.-Jech. (1)
Zymochalara Guatim., R.W. Barreto & Crous (2)

Rutstroemiaceae Holst-Jensen, L.M. Kohn & T. Schumach. [#]
Bicornispora Checa, Barrasa, M.N. Blanco & A.T. Martínez (2)
Dencoeliopsis Korf (2)
Lambertella Höhn. (6)
Neometulocladosporiella Crous & M.J. Wingf. (1)
Rutstroemia P. Karst. (ca. 100)

Sclerotiniaceae Whetzel[#]
Amerosporium Speg. (31)
Amphobotrys Hennebert (1)
Banksiamyces G. Beaton (4)
Botrytis P. Micheli ex Pers. (3)
Ciboria Fuckel (21)
Ciborinia Whetzel (ca. 16)
Clarireedia L.A. Beirn, B.B. Clarke, C. Salgado & J.A. Crouch (4)
Coprotinia Whetzel (1)
Cristulariella Höhn. (5)
Cudoniopsis Speg. (1)
Dumontinia L.M. Kohn (5)
Elliottinia L.M. Kohn (1)
Grovesinia M.N. Cline, J.L. Crane & S.D. Cline (2)
Haradamyces Masuya, Kusunoki, Kosaka & Aikawa (1)
Kohninia Holst-Jensen, Vrålstad & T. Schumach. (1)
Martininia Dumont & Korf (1)
Monilinia Honey (30)
Mycopappus Redhead & G.P. White (4)
Myrioconium Syd. & P. Syd. (10)
Myriosclerotinia N.F. Buchw. (10)
Ovulinia Weiss (9)
Phaeosclerotinia Hori (1)
Poculum Velen. (ca. 22）
Pseudociboria Kanouse (1)
Pycnopeziza W.L. White & Whetzel (5)
Redheadia Y. Suto & Suyama (1)
Sclerencoelia Pärtel & Baral (3)
Scleromitrula S. Imai (6)
Sclerotinia Fuckel (15)

Sclerotium Tode (100)
Seaverinia Whetzel (2)
Septotinia Whetzel ex J.W. Groves & M.E. Elliott (2)
Streptotinia Whetzel (3)
Stromatinia (Boud.) Boud. (15)
Valdensia Peyronel (3)
Valdensinia Peyronel (1)

Vandijckellaceae Sandoval-Denis
Vandijckella Sandoval-Denis (1)

Leotiomycetes family *incertae sedis*
Porodiplodiaceae Crous
Porodiplodia Crous (1)

Leotiomycetes genera *incertae sedis*
Adelodiscus Syd. (3)
Algincola Velen. (1)
Apiculospora Wijayaw., Camporesi, A.J.L. Phillips & K.D. Hyde (1)
Aquadiscula Shearer & J.L. Crane (2)
Ascluella DiCosmo, Nag Raj & W.B. Kendr. (1)
Ascoclavulina Otani (8)
Bagnisimitrula S. Imai (1)
Benguetia Syd. & P. Syd. (1)
Bioscypha Syd. (2)
Bulgariopsis Henn. (2)
Callerascus Whitton, K.D. Hyde & McKenzie (1)
Calloriopsis Syd. & P. Syd. (2)
Capillipes R. Sant. (1)
Capricola Velen. (1)
Cejpia Velen. (3)
Cenangiumella J. Fröhl. & K.D. Hyde (1)
Chloroepilichen Etayo (1)
Chlorospleniella P. Karst. (1)
Chondroderris Maire (1)
Ciliella Sacc. & P. Syd. (1)
Coleosperma Ingold (1)
Comesia Sacc. (3)
Cornuntum Velen. (1)
Coronellaria P. Karst. (4)
Criserosphaeria Speg. (1)
Crumenella P. Karst. (1)
Cryptohymenium Samuels & L.M. Kohn (1)
Cryptopezia Höhn. (1)
Dawsicola Döbbeler (1)
Dermateopsis Nannf. (2)
Didonia Velen. (5)
Discomycella Höhn. (1)
Echinodiscus Etayo & Diederich (2)
Epicladonia D. Hawksw. *sensu stricto* (3)
Episclerotium L.M. Kohn (2)
Erikssonopsis M. Morelet (1)

Flagellospora Ingold (6)
Gloeopeziza Zukal (8)
Godroniopsis Diehl & E.K. Cash (3)
Grimmicola Döbbeler & Hertel (1)
Grovesia Dennis (1)
Helotiella Sacc. (1)
Hemiglossum Pat. (2)
Hymenobolus Durieu & Mont. (3)
Hyphoscypha Velen. (1)
Hysteronaevia Nannf. (12)
Hysteropezizella Höhn. (19)
Involucroscypha Raitv. (10)
Jacobsonia Boedijn (1)
Lasseria Dennis (1)
Livia Velen. (1)
Masseea Sacc. (4)
Melanopeziza Velen. (1)
Melanormia Körb. (1)
Metapezizella Petr. (1)
Micraspis Darker (3)
Microdiscus Sacc. (1)
Monochaetiellopsis B. Sutton & DiCosmo (2)
Mycosphaerangium Verkley (3)
Obconicum Velen. (2)
Obscurodiscus Raitv. (1)
Ocotomyces H.C. Evans & Minter (1)
Otwaya G.W. Beaton (12)
Pachydisca Boud. (1)
Parencoelia Petr. (4)
Patinellaria P. Karst. (1)
Pezolepis Syd. (2)
Pezomela Syd. (1)
Phaeofabraea Rehm (1)
Phragmonaevia Rehm (?1)
Phyllopezis Petr. (1)
Physmatomyces Rehm (1)
Pleoscutula Vouaux (3)
Podophacidium Niessl (2)
Polydiscidium Wakef. (7)
Polydiscina Syd. (1)
Potridiscus Döbbeler & Triebel (1)
Pseudolachnum Velen. (1)
Pseudopeltis L. Holm & K. Holm (1)
Pseudotryblidium Rehm (1)
Psilophana Syd. (1)
Psilothecium Clem. (1)
Pteromyces E. Bommer, M. Rousseau & Sacc. (1)
Pubigera Baral, Gminder & Svrček (1)
Radotinea Velen. (1)
Rhizocalyx Petr. (1)
Rhizothyrium Naumov (1)
Riedera Fr. (1)

Sageria A. Funk (1)
Schnablia Sacc. & P. Syd. (1)
Sclerocrana Samuels & L.M. Kohn (4)
Scutulopsis Velen. (1)
Sinofavus W.Y. Zhuang (1)
Sorokina Sacc. (1)
Sorokinella J. Fröhl. & K.D. Hyde (2)
Spirosphaera Beverw. (8)
Stilbopeziza Speg. (1)
Themisia Velen. (8)
Tovariella Syd. (1)
Trichohelotium Killerm. (2)
Trizodia Laukka (1)
Trullula Ces. (15)
Waltonia Saho (1)
Woodiella Sacc. & P. Syd. (3)
Xeromedulla Korf & W.Y. Zhuang (3)
Zugazaea Korf, Iturr. & Lizoň (1)

Notes for alternative classification of *Leotiomycetes*

Amorphothecaceae (= *Myxotrichaceae*) – Ekanayaka et al. (2019) placed this family under *Erysiphales*, considering its morphological similarity with other taxa in *Erysiphales*.

The authors accept the synonymy of *Myxotrichaceae* under *Amorphothecaceae* as the close phylogenetic relatedness of these two families were shown in the phylogeny provided in Ekanayaka et al. (2019) (A.H. Ekanayaka & K.D. Hyde).

Calloriaceae and Pezizellaceae – In other classification systems, *Calloriaceae* and *Pezizellaceae* are members of *Helotiales*. Ekanayaka et al. (2019) placed *Calloriaceae* and *Pezizellaceae* under *Rhytismatales* based on their phylogeny. Johnston et al. (2019) placed these families within *Helotiales*. However, the placement of *Calloriaceae* is not clear. In addition, whereas *Pezizellaceae* was retrieved as a monophyletic family in the "pezizelloid clade" of the 15-gene tree, taxa from this family are polyphyletic in the ITS tree. In the present alternative classification for *Leotiomycetes* we accept these families under *Leotiomycetes* families *incertae sedis*, until we have more data to provide a stable classification (A.H. Ekanayaka & K.D. Hyde).

Cenangiaceae, Chlorociboriaceae, Hemiphacidiaceae, Rutstroemiaceae, Sclerotiniaceae – Those families formed a well-supported distinct clade in Ekanayaka et al. (2019). Therefore, here we keep them in *Leotiomycetes* families *incertae sedis* until we have more data (A.H. Ekanayaka & K.D. Hyde).

Cochlearomycetaceae – Within the phylogeny of Ekanayaka et al. (2019), this family clustered within *Leotiales*, and also Johnston et al. (2019) suggested its position should be within *Leotiales* based on their ITS phylogeny. As a result, we placed this family in *Leotiales* (A.H. Ekanayaka & K.D. Hyde).

Cordieritidaceae – Taxa of this family differ from other *Helotiales* by having a unique ionomidotic reaction (solubility of excipular pigments in KOH). Hence, Jaklitsch et al. (2016) suggested a separate phylogenetic position for this family away from other *Helotiales*. In Johnston et al. (2019), this family clustered in the "sclerotinoid clade" within *Helotiales* in their 15-gene tree. In the phylogeny of Ekanayaka et al. (2019), however, this family grouped sister to

Deltopyxidaceae within *Cyttariales*. Therefore, here we place this family under *Cyttariales* until we have more data to confirm its placement (A.H. Ekanayaka & K.D. Hyde).

Deltopyxidaceae – In the phylogeny of Ekanayaka et al. (2019), this family grouped sister to *Cordieritidaceae* with strong statistical support within *Cyttariales*. We are unable to compare with Johnston et al. (2019), as these authors did not include taxa from this family (A.H. Ekanayaka & K.D. Hyde).

Erysiphales – In Ekanayaka et al. (2019), this order formed a distinct clade, while in Johnston et al. (2019) its placement was within *Helotiales* both in the genomic-scale and 15-gene trees. However, we believe that this order is distinct as it has a unique morphology, which differs from taxa in *Leotiomycetes*. Further studies are needed to resolve this inconsistency (A.H. Ekanayaka & K.D. Hyde).

Leptodontidiaceae – This family sat in a well-supported clade away from *Helotiales* in the phylogeny provided by Ekanayaka et al. (2019). We cannot compare its placement with Johnston et al. (2019) as their phylogenies did not include taxa from this family. Therefore, we placed this family in Leotiomycetes families *incertae sedis* until more data are available to provide a stable classification (A.H. Ekanayaka & K.D. Hyde).

Medeolariales – *Ascocorticiaceae*, *Ascodichaenaceae*, *Dermateaceae*, *Medeolariaceae* – Ekanayaka et al. (2019) accommodated these families in *Medeolariales* based on morphological similarities and phylogenetic analysis. In Johnston et al. (2019), *Dermateaceae* formed the basal-most clade within *Helotiales*. However, Johnston et al. (2019) did not include *Ascocorticiaceae*, *Ascodichaenaceae* and *Medeolariaceae* in their phylogeny, thus, we were unable to compare their placements in *Leotiomycetes*. Future studies are needed to resolve the placement of these families (A.H. Ekanayaka & K.D. Hyde).

Neolauriomycetaceae – This family produces a well-supported clade within "Sclerotiniales" in the phylogeny of Ekanayaka et al. (2019). We cannot compare its placement with Johnston et al. (2019) as their phylogenies did not include taxa from this family. Therefore, we placed this family under *Leotiomycetes* families *incertae sedis* until more data become available to provide a stable classification (A.H. Ekanayaka & K.D. Hyde).

Multi-locus phylogenies and comprehensive treatments of the Xylariales (Author: M. Stadler)

Wendt et al. (2018) provided a multigene genealogy of the stromatic families of the *Xylariales*, including a significant number of representative species of the main lineages in the *Xylariaceae* and four DNA loci. This study resulted in the segregation of the *Xylariaceae sensu lato* in the traditional definition, and the *Hypoxylaceae* were resurrected and amended. Moreover, the genera *Biscogniauxia* and *Camillea* were transferred to the *Graphostromataceae*. The molecular phylogeny corresponds with the distribution of secondary metabolites and types of conidiogenous structures, while the ascospore morphology, which had traditionally constituted the salient feature to define the family, had to be abandoned. Notably, the *Lopadostomaceae* also contains genera with similar ascospores that had previously been accommodated in the *Xylariaceae sensu lato* and some genera like *Whalleya* and *Jumillera* were transferred to *Lopadostomataceae*.

Wendt et al. (2018) also proposed to exclude several genera of which no information on the asexual morph and no molecular data are available, from the *Xylariaceae* and place them at interim in *Xylariales incertae sedis*. Moreover, they resurrected the genus *Pyrenonopolyporus* for some species formerly placed in *Hypoxylon* with massive stromata and long tubular perithecia and segregated the new genus *Jackrogersella* from *Annulohypoxylon* as an outcome of their polyphasic study. Concurrently with the study by Wendt et al. (2018), Daranagama et al. (2018)

provided a very comprehensive overview on the families of the "stromatic" *Xylariales*, which roughly comprise the genera that had traditionally been classified in the *Xylariaceae* according to the traditional concept of the late 1990s, which was based on ascospore morphology. In the first comprehensive study of this type, they provided illustrations of most of the type species or other representative species and revised the history of their taxonomy. A molecular phylogeny was also presented, using data from additional taxa that represented genera that were not included in the paper by Wendt et al. (2018). Therefore, certain deviations from the concept were observed. In addition Daranagama et al. (2018) retained some genera in the *Xylariaceae* that were expelled from the family in the concurrent study. Helaly et al. (2018) reviewed the taxonomy, ecology and in particular the secondary metabolite production of the *Xylariales*. Even though no taxonomic novelties are provided in this paper, the records of endophytic and marine strains of *Xylariales* that had previously been reported in the literature to produce novel bioactive compounds were revised and numerous incongruities between the data published in chemistry journals and the current taxonomy were found. The authors gave an overview on the current taxonomic status of the taxonomy of the order in relation to the numbers of known metabolites and pointed out some genera and families that deserve further study as they seem to be hitherto unexplored. Recently, the genus *Dematophora* has been resurrected and divided from *Rosellinia* based on a comparison of molecular data, morphology of the asexual morphs and chemotaxonomic evidence (Wittstein et al. 2020), and all the serious pathogens like *D. necatrix* and *D. bunodes* now no longer belong to *Rosellinia*, which mainly comprises saprotrophic and endophytic species. Finally, Samarakoon et al. (2020) have recently found out that the sexual morph of the economically important endophytic genus *Muscodor* is close to *Induratia*, which was erected earlier and takes preference over the latter genus. They provided a polyphasic study involving a multi-locus phylogeny, divergence time estimations, morphological studies and comparison of volatile secondary metabolite profiles, which resulted in the recgnisiton of a new family *Induratiaceae* in the order *Xylariales*. This family is sister to the *Xylariaceae* sensu stricto and also includes the genus *Emarcea*. All names in *Muscodor* were newly combined in Induratia, and two new species were described with their full life cycle, comprising both the asexual and sexual morph.

Placement and phylogenies of *Laboulbeniomycetes* (Author: D. Haelewaters)

The placement of *Laboulbeniomycetes* has been traditionally problematic (Blackwell et al. 2020). First considered as cuticle hairs or even parasitic worms, life history studies and molecular phylogenetic analyses have helped in placing these fungi among filamentous *Ascomycota*. The first phylogenetic analysis of the class by Weir & Blackwell (2001) was based on SSU rDNA and supported the placement of *Laboulbeniales–Pyxidiophora* as a separate clade within *Ascomycota*, sister to *Sordariomycetes* although without statistical support for this sister relationship. Schoch et al. (2009) were the first ones to obtain support for the sister relationship between *Laboulbeniomycetes* and *Sordariomycetes* based on a six-locus dataset. Their results were later confirmed by Goldmann & Weir (2018) as well as Haelewaters et al. (2019b) who proposed the informal taxon 'laboulbeniomyceta' as a descriptor of the most recent common ancestor of both classes.

To date, limited sequence data are available for members of *Laboulbeniomycetes*. An NCBI GenBank search for '*Laboulbeniomycetes'* resulted in 727 sequences only, the majority of which are SSU sequences (17 February 2020). An SSU-based phylogeny by Goldmann & Weir (2018) including 65 isolates resulted in evidence for multiple clades in the class. Haelewaters et al. (2019b), based on a three-locus dataset with 61 isolates, described the third order in the class, *Herpomycetales*, to accommodate the genus *Herpomyces*. Blackwell et al. (2020) presented a phylogenetic reconstruction of the *Laboulbeniomycetes* from a concatenated SSU–LSU dataset of 75 isolates and found high support for 5 clades: orders *Herpomycetales*, *Laboulbeniales* and *Pyxidiophorales*, in addition to two unnamed clades, *Chantransiopsis* clade (*Chantransiopsis* sp., *Tetrameronycha* spp., *Subbaromyces splendens*) and *Laboulbeniopsis* clade (with *Laboulbeniopsis termitarius*). Finally, several recent studies have pointed at the polyphyly of accepted higher taxa

in the *Laboulbeniales* order (Goldmann & Weir 2018, Haelewaters et al. 2018b), and so future integration of molecular data will undoubtedly change the classification of the order and by extension the whole class.

Structural and functional organization of *Microsporidia* (Author: Yuri S. Tokarev)

Microsporidia is a monophyletic group of highly specialized intracellular parasites which are ultimately dependent upon and being able to develop only within the host cell (Vavra & Lukes 2013). *Microsporidia* infect *Metazoa* and some protists: *Gregarina*, *Ciliata*, *Paramyxea* (Fokin et al. 2008, Sokolova et al. 2013, Larsson 2014, Cali et al. 2017, Stentiford et al. 2017). Host switching between representatives of different families (Ghani et al. 2013, Malysh et al. 2018a, 2019), orders (Schuld et al. 1999, Ovcharenko et al. 2017, Malysh et al. 2018b), classes (Hinney et al. 2016) and phyla may occur (Franzen et al. 2006, Ironside et al. 2008, Nylund et al. 2010, Choudhary et al. 2011, Meissner et al. 2012). Parasite-host interactions are diverse, ranging from asymptomatic presence in the form of a latent infection to devastating epizootics especially in arthropods and fishes (Bader et al. 1998, Stentiford et al. 2013, Sokolova et al. 2015, Yu et al. 2019). Routes of transmission include alimentary and transovarial/ transplacental infection, transfer from host to host by parasites etc. (Becnel & Andreadis 1999, Dunn & Smith, 2001, Didier et al. 2004, Wang-Peng et al. 2018).

Typical life cycle includes merogonial (for parasite multiplication) and sporogonial sequence (for multiplication and spore formation). The cells multiply either by binary or multiple fission. The merogonial developmental stages are single cells or plasmodia delineated with a plasma membrane (Dunn & Smith 2001). In early sporogonial stages, cytoplasm becomes more condensed, electron dense material is deposited on the cell surface which further transforms into the spore wall. Other primordial spore structures emerge in late sporogonial stages (Issi et al. 2012a, Sokolova et al. 2015, Cali & Takvorian 2014). The nuclear apparatus is mono- or diplokaryotic, the number of nuclei varies from one to many (in plasmodia). In some species the transformation of the nuclear apparatus from one type to another one takes place (sometimes accompanied by meiosis) in the course of life cycle (Lee et al. 2014). The parasites develop either in direct contact with the host cell cytoplasm or within a parasitophorous vacuole which is derived from the membranes of endoplasmic reticulum, Golgi complex or nuclear envelope of the host cell (Bohne et al. 2011, Issi et al. 2012b, Vavra & Lukes 2013).

The spore is a specialized parasite cell which serves for invasion into the host cell, dissemination over the host organism and spreading within the host population (Vavra & Lukes 2013). The spore wall is a complex chitin- and protein-rich structure consisting of inner electron-translucent endospore layer with an underlying plasma membrane and outer electron-dense exospore layer (Bigliardi & Sacchi 2001). The main distinctive feature of microsporidia spore is the extrusion apparatus, which includes polar tube (polar filament), polar cap (polar sac – anchoring disc complex), polaroplast and posterior vacuole (Fig. 2) (Vavra & Larsson 2014). The polar tube is attached to the apical pole of the spore by the polar cap (Franzen 2004, Xu & Weiss 2005). The length, diameter and structure of polar tube vary greatly among species. Most often, the polar tube is thin and long, exceeding the length of the spore, with proximal and distal parts straight and coiled, respectively (Delbac & Polonais 2008, Issi et al. 2012a).

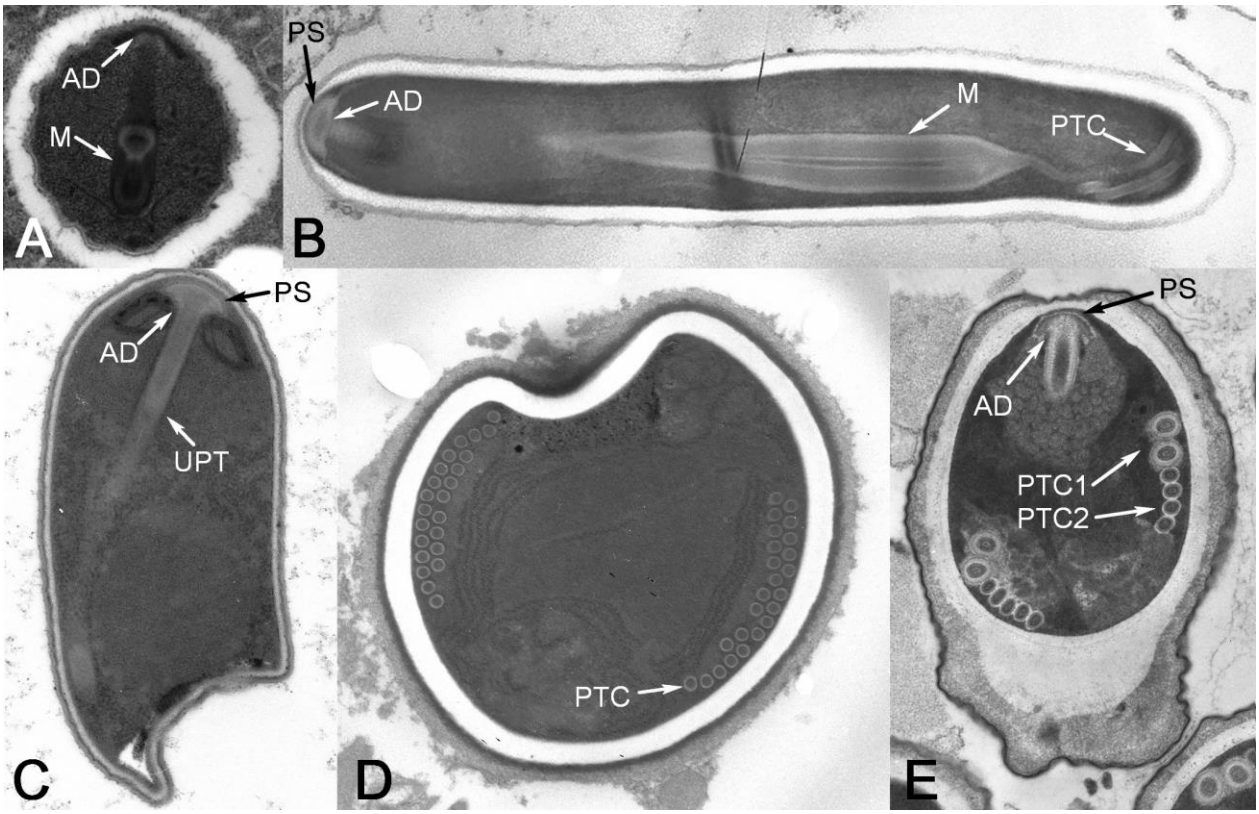

Figure 2 – Spore structure of *Microsporidia* with different types of polar tube. A *Metchnikovella incurvata* with a manubrial polar tube. B *Mrazekia macrocyclopis* with a manubrial polar tube containing a coiled distal part. C *Helmichia lacustris* with an uncoiled polar tube (UPT). D *Neoperezia* sp. with numerous coils of isofilar polar tube. E *Crepidulospora beklemishevi* with anterior (PTC1) and posterior (PTC2) polar tube coils of different structure and size. AD – anchoring disc; M – manubrium; PS – polar sac; PTC – polar tube coils. Figs 2A, 2E are reproduced with a kind permission of Yuliya Y. Sokolova (Institute of Cytology RAS, St. Petersburg, Russia) and Anastasia V. Simakova (Tomsk State University, Tomsk, Russia), respectively.

The number of coils ranges from 3 to 30. In isofilar polar tube, the diameter is the same throughout the tube length. It is either coiled (Fig. 2D) or uncoiled (Fig. 2C), as its length exceeds or do not exceed the spore length, respectively (Issi et al. 2012a, Tokarev et al. 2012). In anisofilar polar tube, several posterior coils are of lesser diameter and sometimes of different electron density (Tokarev et al. 2010). In heterofilar polar tube, the anterior coils are remarkably bigger as compared to the posterior ones and their structure is different (Fig. 2E) (Vavra & Larsson 2014). The manubrium is thick and short, not exceeding the spore length, cylindrical, usually thicker at central or distal ‘bulbal’ part, which is interconnected with manubrial cisternae associated with vesicles and/or short tubules (Fig. 2A) (Issi et al. 2010, Sokolova et al. 2013). Another type of polar tube is clavate, which is thick and short, not exceeding the spore length, thicker at distal ‘bulbar’ part, which is continued into thin polar tube with several coils (Fig. 2B). This clavate polar tube is sometimes referred to as “manubrium” (Issi et al. 2010, which is not correct. The manubrium is present in Rudimicrosporea (Sokolova et al. 2013), being different in its structure and supposed to be a primitive form of the canonical polar tube of higher *Microsporidia* (Vivier 1975). The polaroplast is a lamellar or vesicular (or combined), occupying the anterior part of the spore and surrounding the straight part of the polar tube (Vavra & Larsson 2014). Its function is unclear and participation in extrusion process is supposed. The spores are formed as separate units (“free spores”) or by packets enclosed within a common envelope of parasite origin, so called sporophorous vesicle (Dunn & Smith 2001, Sokolova et al. 2015).

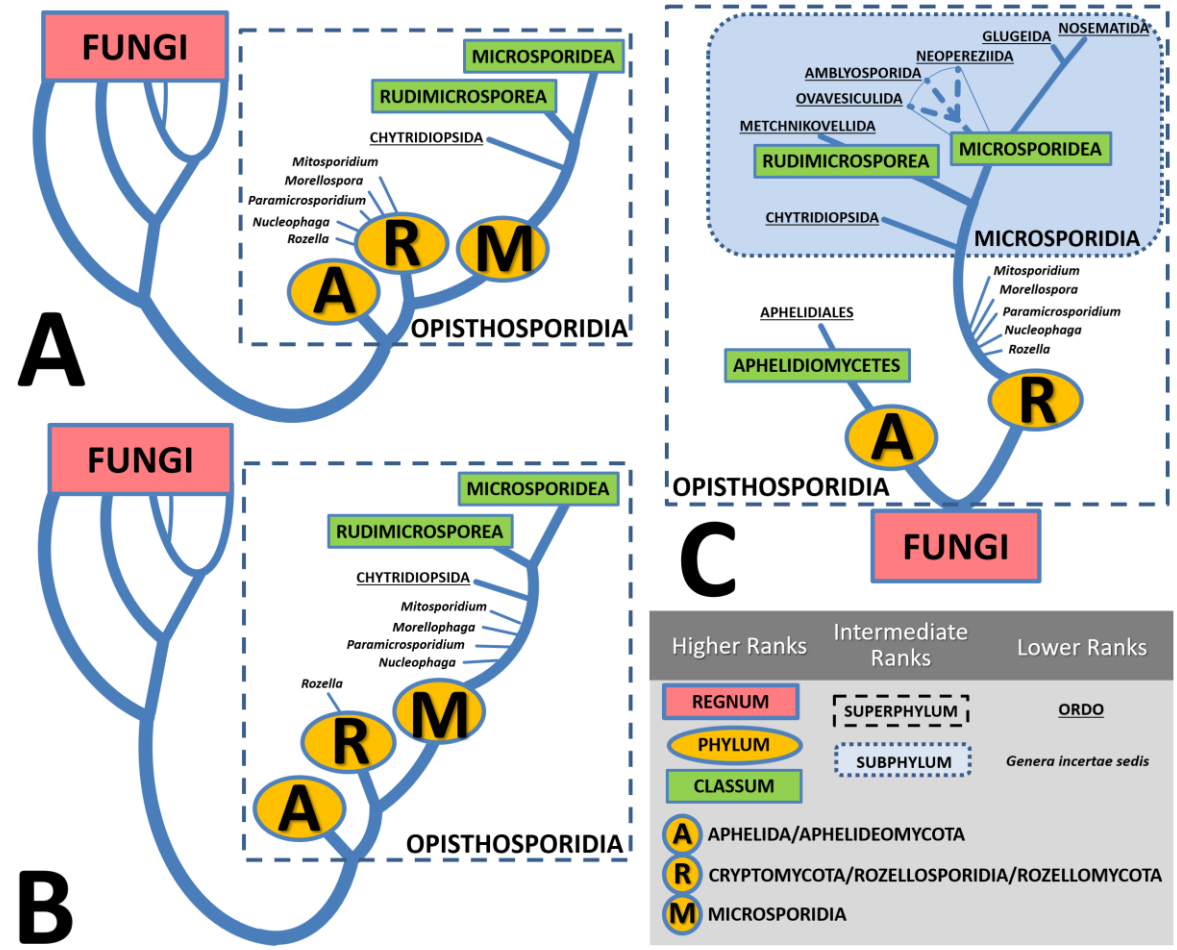

Figure 3 – Alternative hypotheses of phylogenetic and taxonomic relationships within Fungs-like representatives of *Aphelida* (*Aphelidiomycota*) – *Rozellomycota* (*Rozellida*/ *Cryptomycota*/ *Rozellosporidia*) – *Microsporidia* (ARM) clade and its relations to *Fungi*. The schematic phylogenetic trees follow the recent phylogenetic reconstructions by Karpov et al. (2014), Tedersoo et al. (2018), Bass et al. (2018), Corsaro et al. (2019, 2020). Three alternative schemes are presented as nowadays there is no consensus among the specialists. A Karpov et al. (2014) proposed the superphylum *Opisthosporidia* for the ARM clade, which was considered as a sister to *Fungi*. Several new genera related to *Rozella* and *Microsporidia* have been added to the tree more recently (Corsaro et al. 2014a, b, 2016, 2019, 2020, Haag et al. 2014). B In the interpretation of Bass et al. (2018) the boundaries of *Microsporidia* should be expanded to include all these genera except *Rozella*. C According to Tedersoo et al. (2018); Wijayawardene et al. (2018) ARM clade should be included into kingdom *Fungi*, and phylum *Microsporidia* should be merged with *Rozellomycota*. To further conserve *Microsporidia* as a monophyletic taxon within *Rozellomycota* it has been redefined as a subphylum. The labels for taxon ranks and phyla abbreviations are explained in the right lower corner. The synonymic names for the phyla are indicated: *Aphelidiomycota* Tedersoo et al 2018 = *Aphelida* Karpov, Aleoshin & Mikhailov 2014 = *Rozellida* Lara, Moreiro, López-García, 2010 = *Rozellomycota* James & Berbee, 2011 emend. Corsaro & Michel 2014 = *Cryptomycota* Jones & Richards 2011 emend. Karpov & Aleoshin 2014 = *Rozellosporidia* Karpov, Torruella, Moreira, Mamkaeva, López-García 2017.

Many of the basic physiological functions and biochemical processes in *Microsporidia* are reduced as they mostly rely on the host cell. As a result of deep adaptation to intracellular parasitism, structural organization of prespore stages is simplified, and many biochemical

pathways are absent. Basic nutrients are imported from the host cell including ATP (Tsaousis et al. 2008). The physiological processes in the host cell are altered and can be managed by the actively proliferating parasites to provide the latter with enough nutrients including sugars, amino- and fatty acids (Cuomo et al. 2012, Senderskiy et al. 2014). Exploitation of host cell metabolic pathways results in reorganization of host cell organelles: mitochondria, endoplasmatic reticulum and Golgi complex, which come into contact with the parasite cells (Simakova et al. 2005, Tokarev et al. 2010, Issi et al. 2012b, Vavra & Lukes 2013). Other adaptations to survival within the host cell include alteration of host cell cycle, suppression of host cell apoptosis (Martin-Hernandez et al. 2017, Sokolova et al. 2019) and renewal of infected epithelial cells (Issi 1986).

Mitochondria are reduced to mitosomes which lack genome (Williams et al. 2002). Vesicular transport of cargo proteins is absent (Beznoussenko et al. 2007). The genomes of *Microsporidia* are reduced and compact, many genes and gene families are lost and the sequences of ribosomal RNA and protein-coding genes are shortened and highly derived (Peyretaillade et al. 2015). The genome size is ranged from 2.3 to ~50 Mb, in the vast majority of sequenced species it does not exceed 15 Mb (Keeling et al. 2014).

Phylogenetic approaches and current status of *Rozellomycota* (Author: Yuri S. Tokarev)

With the advent of molecular phylogeny studies, major groups within *Microsporidia* Tree of Life were primarily recognized and polyphyletic nature of traditional high rank taxa was demonstrated (Fig. 3) (Vossbrinck & Debrunner-Vossbrinck 2005, Vossbrinck et al. 2014). Later on, some basal or sister groups of parasites were examined using molecular phylogenetic and phylogenomic approaches. In particular, relationships between *Aphelida*, *Rozellomycota* and *Microsporidia* were established (Karpov et al. 2014). Several new representatives of *Rozellomycota* were discovered and examined (Haag et al. 2014, Corsaro et al. 2014a, b, 2016, Quandt et al. 2017). Genome surveys of *Metchnikovellida* were provided (Mikhailov et al. 2016, Galindo et al. 2018) confirming basal position of this lineage within *Microsporidia* and demonstrating shared genomic signatures with other *Microsporidia*. Notably, the order of *Metchnikovellida* was always referred to as "primitive Microsporidia" (class *Rudimicrosporea*) on the basis of ultrastructural features, such as poorly developed or absent polaroplast and absent posterior vacuole as well as specific structure of polar tube, so called manubrium. Finally, phylogenetic position of *Chytridiopsis typographi* (order *Chytridiopsidea*) was also resolved (Corsaro et al. 2019), showing more basal position than *Metchnikovellida*. In this parasite species, only the sequences of rRNA genes are available, showing less compact organization as compared to other *Microsporidia*. In addition, spore structure of *C. typographi* is described as "unique" as compared to other *Microsporidia* (Purrini & Weiser 1985) and essentially, the developmental sequence of *C. typographi* includes a unique budding stage, unknown for other species of *Microsporidia*, which multiply by fission of cells only (Tonka et al. 2010). Thus, ultrastructural and developmental traits support the basal position of *Chytridiopsida* inferred in the phylogenetic reconstructions. Here the order *Chytridiopsida* includes the composition of the families and genera suggested by Larsson (2014) with exclusion of *Burkeidae*, which is less similar to the chytridiopsids and was attributed to this group only temporaly. The mentioned taxon is provisionally placed to *Microsporidia genera incertae sedis* as possessing more canonical ultrastructure.

Recently, Bass et al. (2018) proposed taxonomic expansion of *Microsporidia* to include unclassified genera of *Cryptomycota* (*Rozellomycota*). This assumption was based upon monophyletic arrangement of *Microsporidia* and sister taxa, though the vast majority of sequences used in that analysis were short (below 400 bp). We prefer to preserve *Microsporidia* as a more compact group unless more robust phylogenies are available. Thus, such representatives of *Rozellomycota* as *Nucleophaga*, *Paramicrosporidium*, *Morellospora* and *Mitosporidium* are not considered here as *Microsporidia*.

Upon following the ranking of Tedersoo et al. (2016) who proposed *Rozellomycota* (including *Microsporidia*) and *Aphelidiomycota* as phyla in Kingdom *Fungi*, the phylum

Microsporidia becomes obsolete. To recognize this group as a monophyletic lineage of highly specialized intracellular parasites with specific developmental, structural and genetic features (see above, Structural and functional organization of *Microsporidia*), we propose an intermediate rank of subphylum for this taxon. The superphylum *Opisthosporidia* proposed by Karpov et al. (2014) is also retained to include *Aphelidiomycota* and *Rozellomycota*. However recent transcriptomic data provide poor support for the monophyly of *Opisthosporidia* (Toruella et al. 2018), and in future the aphelids may be excluded and the higher ranks may be again reshuffled.

The *Microsporidia* Tree of Life consists of five major clades (Vossbrinck & Debrunner-Vossbrinck 2005, Vossbrinck et al. 2014). To accommodate these clades within a formal class-order-family system, the following changes to the taxonomy of *Microsporidia* are proposed. Orders *Dissociodihaplophasida* and *Meiodihaplophasida* are suppressed as polyphyletic. Orders *Glugeida* and *Nosematida* are redefined for the purposes of the current revision. Three new orders, *Amblyosporida* ord. nov., *Neopereziida* ord. nov. and *Ovavesiculida* ord. nov. are introduced in this study. All these orders are referred to as distinct monophyletic clades of the *Rozellomycota* Tree of Life, each presented by the type family: *Glugeidae*, *Nosematidae*, *Amblyosporidae*, *Neopereziidae* and *Ovavesiculidae*, respectively, and related taxa. Order *Chytridiopsidea* is excluded from *Microsporidia* (see the outline) and family *Enterocytozoonidae* is transferred to *Nosematida*. Allocation of order *Metchnikovellida* to class *Rudimicrosporea* is also supported.

Each phylogenetic lineage corresponding to the taxa of class, order or family rank contains representatives with diverse features. This makes it difficult to define these taxa using developmental, structural or ecological features, so that primary taxonomic allocation of species is based upon phylogeny.

Classification of *Glomeromycota* (Authors: B.T. Goto & N. Wijayawardene)

Outline of arbuscular mycorrhizal fungi (AMF) was initially organized in Gerdemann & Trappe (1974) and updated by Schenck & Peréz (1990). Initially, AMF fungi have been included in one order (i.e. *Glomerales*) in *Zygomycota* (Morton & Benny 1990). However, Schüßler et al. (2001) established new phylum, *Glomeromycota* to accommodate AMF. Since Schüßler et al. (2001), taxonomy of AMF has been rapidly updating over the last years (Oehl et al. 2011a, b, c, d, e, f, Goto et al. 2012, Błaszkowski et al. 2015, 2018a, b, 2019a, b, Corazon-Guivin et al. 2019a, b, Jobim et al. 2019). Oehl et al. (2008) introduced *Dentiscutataceae*, *Racocetraceae* and *Scutellosporaceae* and later Oehl et al. (2011b) introduced *Gigasporales*, to include these families along with *Gigasporaceae*. At the same time, Oehl et al. (2011b) introduced two new classes (i.e. *Archaeosporomycetes* and *Paraglomeromycetes*) thus currently *Glomeromycota* comprises three classes.

Morton & Msiska (2010) did not recognize families introduced in Oehl et al. (2008) and *Gigasporales* was not accepted in Wijayawardene et al. (2018b). Nevertheless, phylogenetic reconstructions using different genes (TUB2, RPB1, ITS, SSU and LSU rRNA) (e.g. Goto et al. 2012, Mello et al. 2012, Silva et al. 2012, Marinho et al. 2014, de Souza et al. 2018, Tedersoo et al. 2018) supported the monophyletic nature of the families and or genera proposed by Oehl et al (2008). Hence, we conclude that higher level classification of families in *Glomeromycota* is debatable. Therefore, in this study, we include an alternative classification for *Glomeromycota* which was included in Wijayawardene et al. (2018b).

Alternative classification for *Glomeromycota*

Glomeromycota C. Walker & A. Schüßler
Archaeosporomycetes Sieverd., G.A. Silva, B.T. Goto & Oehl
Archaeosporales C. Walker & A. Schüßler
Ambisporaceae C. Walker, Vestberg & A. Schüßler
Ambispora C. Walker, Vestberg & A. Schüßler (10)

Archaeosporaceae J.B. Morton & D. Redecker
Archaeospora J.B. Morton & D. Redecker (= *Intraspora* Oehl & Sieverd.) (3)
Palaeospora Oehl, Palenz., Sánchez-Castro & G.A. Silva (1)

Geosiphonaceae Engl. & E. Gilg
Geosiphon F. Wettst. (1)

Glomeromycetes Caval.-Sm.
Diversisporales C. Walker & A. Schüßler
Acaulosporaceae J.B. Morton & Benny
Acaulospora Gerd. & Trappe (= *Kuklospora* Oehl & Sieverd.) (57)

Diversisporaceae C. Walker & A. Schüßler
Corymbiglomus Błaszk. & Chwat (2)
Desertispora Błaszk., Kozłowska, Ryszka, Al-Yahya'ei & Symanczik (1)
Diversispora C. Walker & A. Schüßler (18)
Otospora Oehl, Palenz. & N. Ferrol (1)
Redeckera C. Walker & A. Schüßler (3)
Tricispora Oehl, Sieverd., G.A. Silva & Palenz. (1)

Gigasporaceae J.B. Morton & Benny
Bulbospora Oehl & G.A. Silva (1)
Cetraspora Oehl, F. A. Souza & Sieverd. (6)
Dentiscutata Sieverd., F.A. Souza & Oehl (7)
Gigaspora Gerd. & Trappe (7)
Intraornatospora B.T. Goto, Oehl & G.A. Silva (1)
Paradentiscutata B.T. Goto, Oehl & G.A. Silva (2)
Racocetra Oehl, F.A. Souza & Sieverd. (14)
Scutellospora C. Walker & F.E. Sanders (21)

Pacisporaceae C. Walker, Błaszk., A. Schüßler & Schwarzott
Pacispora Sieverd. & Oehl (6)

Sacculosporaceae Oehl, Sieverd., G.A. Silva, B.T. Goto, Sánchez-Castro & Palenz.
Sacculospora Oehl, Sieverd., G.A. Silva, B.T. Goto, I.C. Sánchez & Palenz. (2)

Glomerales J.B. Morton & Benny
Claroideoglomeraceae C. Walker & A. Schüßler
Claroideoglomus C. Walker & A. Schüßler (8)

Glomeraceae Piroz. & Dalpé
Dominikia Błaszk., Chwat & Kovács (13)
Funneliformis C. Walker & A. Schüßler (16)
Glomus Tul. & C. Tul. (55)
Halonatospora Błaszk., Niezgoda, B.T. Goto & Kozłowska (1)
Kamienskia Błaszk., Chwat & Kovács (1)
Oehlia Błaszk., Kozłowska, Niezgoda, B.T.Goto & Dalpé (1)
Rhizoglomus Sieverd., G.A. Silva & Oehl (19)
Rhizophagus P.A. Dang. (ca. 19)
Sclerocystis Berk. & Broome (10)
Sclerocarpum B.T. Goto, Błaszk., Niezgoda, Kozłowska & Jobim (1)
Septoglomus Sieverd., G.A. Silva & Oehl (10)

Simiglomus Sieverd., G.A. Silva & Oehl (1)

Glomeromycetes genus *incertae sedis*
Entrophospora R.N. Ames & R.W. Schneid. (3)

Paraglomeromycetes Oehl, G.A. Silva, B.T. Goto & Sieverd.
Paraglomerales C. Walker & A. Schüßler
Paraglomeraceae J.B. Morton & D. Redecker
Paraglomus J.B. Morton & D. Redecker (1)
Innospora Błaszk., Kovács, Chwat & Kozłowska (7)

Pervetustaceae Błaszk., Chwat, Kozłowska, Symanczik & Al-Yahya'ei
Pervetustus Błaszk., Chwat, Kozłowska, Symanczik & Al-Yahya'ei (1)

Oomycota (Author: M. Thines, with contributions from H.P. Grossart)

Traditionally, the *Oomycota* (from Greek ωάριο (egg) and μύκης (fungus) and were treated with other osmotrophic aseptate organisms in the polyphyletic "*Phycomycetes*". However, already at the turn from the 19th to the 20th century, it was known that the oomycetes differed in various aspects, and chlor-zinc-iodine solution, which gives a blue staining with cellulose, was widely used to identify oomycete thalli in their hosts (e.g. Petersen 1905). Already in 1939, just one year, after the first electron microscope became commercially available, Vlk (1939) reported that the zoospores of *Saprolegnia* did not resemble motile spores of fungi, but rather of heterokont algae. Since then, it was widely recognised that oomycetes belonged within heterokonta, which were suggested as an independent kingdom by Leedale (1974), largely congruent with the kingdom *Straminipila*, introduced by Dick (2001). By emphasizing periplastid protein targeting, cytoskeletal and periplastid evolution, Cavalier-Smith 2018 proposed a new classification, assuming that *Heterokonta*, *Alveolata*, *Rhizaria*, and *Hacrobia* (cryptophytes and haptophytes) are a monophylum which could be recognized as a re-circumscribed kingdom *Chromista*. However, there is still some controversy on the precise phylogenetic relationships between the different groups, in particular haptophytes and cryptomonads may not belong together with the heterokonts or the SAR clade, but be associated with the Archaeplastida (Burki et al. 2007, 2016).
Thus, oomycetes are currently best placed in the kingdom *Straminipila* and its phylum *Oomycota*.The kingdom *Straminipila* forms a major line of eukaryotes (e.g. van den Hoek et al. 1995) currently containing more than 25,000 known species, most of which belong to the two major phyla with photosynthetic members, *Phaeophyta* and *Bacillariophyta*. The osmotrophic *Oomycota* are, with about 1700 recognised species, the next largest phylum of the *Straminipila*. The main chracterisitic of the *Straminipila* is the formation of stiff hairs, one of the two flagella, which strengthens and reverses its thrust, rendering oomycete spores excellent swimmers. These stiff "straw hairs" gave their name to the whole group, derived from "stramen" (straw) and "pilus" (hair). The majority of the species of the *Oomycota* are parasitic (Beakes & Thines 2017), with *Phytophthora infestans*, the organism that triggered the Irish Potato Famine, being its most prominent member (Yoshida et al. 2013). Most *Oomycota* show an asexual reproduction via zoospores formed in zoosporangia or, in case of some genera of the obligate biotrophic downy mildes, such as *Peronospora*, *Hyaloperonospora*, and *Bremia*, via multinucleate, wind-dispersed conidiosporangia. Apart from the holocarpic oomycetes, in which the entire thallus is converted into a zoosporangium, asexual sporangia and conidiosporangia are formed by specialized parts of the mycelium, i.e. sporogenous hyphae, sporangiophores or sporangiophores (Beakes & Thines 2017). The holocarpic nature is the ancestral form for the whole group, but likey derived in members of *Lagenidiales* (Buaya & Thines 2020). Sexual reproduction in most of the species of the crown classes, *Peronosporomycetes* and *Saprolegniomycetes*, is by oogamy (gametangiogamy), whereby the zygote often converts into a thick-walled resting spore. However, in many species of the *Leptomitales* sexual reproduction is cryptic, e.g. by zoomeiospore fusion in

Lagenisma coscinodisci (Schnepf et al. 1977). *Leptomitales* are also unusual in that some have a significant amount of chitin in addition to glucans and cellulose in their cell walls (Lin & Aronson 1970). The orders of the oomycetes that branch before the crown classes are, with the exception of *Haliphthorales* not forming an extended hyphal network but, apart from the fragmenting thalli in some members of *Pontismatales* (Buaya et al. 2019), only simple globose to sacculate thalli that convert into zoosporangia. The oospore-like resting structures formed by *Olpidiopsidales* are likely reflecting convergent evolution to the crown groups. The oomycetes have likely origninated in the marine environment more than 500 million years ago, have colonised limnic and terrestrial habitats several times independently and are now found in almost any environment in which eukaryotic organisms strive (Marano et al. 2016). Most of the known species belong to the probably monophyletic downy mildews (Sharma et al. 2015), which are obligate biotrophic plant parasites that are similar to other obligate parasite groups, have diversified by host jumps, radiation and subsequent speciation (Choi & Thines 2015, Thines 2019). However, it can be assumed that across all oomycete groups only a small fraction of the existing species are known.

Myxomycetes (Author: D. Leontyev)

Even the limited phylogenetic data currently available support the conclusion that some very conspicuous characters traditionally considered as important for the classification of myxomycetes have evolved several times independently. This is the case for both the formation and reduction of the stalk and the capillitium, the crystallization of lime deposits, and the evolution of compound fruiting bodies (Leontyev et al. 2014, Leontyev & Schnittler 2017). All of these characters were used in the traditional system of classification to delimit genera, families and even orders (as was the case for the order *Liceales s. l.*, which was characterized by the absence of capillitium). However, in the light of the phylogenetic data, other characters appear to be better predictors of evolutionary relationships than the traditional criteria. These are, for example, the attachment of the capillitium to the peridium, details of stalk formation, color of the spore mass, or the presence of spore-like cells within the stalk. These new criteria were used to provide emended descriptions for some of the traditional myxomycete taxa in the recently published classification by Leontyev et al. (2019).

Dictyostelids (Author: D. Leontyev)

The new system of classification for dictyostelids works well for the genus level; however, it relies on 18S gene markers to distinguish species, and this does not always separate out some morphologically similar but genetically different taxa. Moreover, *Coremiostelium* and *Synstelium* still occupy a problematic position in the entire phylogeny (Sheikh et al. 2018). A consideration of morphological characteristics is essential for evaluating new species of dictyostelids. Identifying new genetic markers to use for distinguishing dictyostelids at the species level would be exceedingly worthwhile.

Hidden taxa of the fungal tree of life (Authors: F.Q. Brearley & D. Haelewaters)

Whereas four to five million species of fungi are estimated to be found across the globe, we have only described around 144,000 of these (i.e. less than 2%) (Willis et al. 2018). The question remains where are all these fungi yet to be described can be found? asa Lücking (2017) suggest that these missing fungi will be found in: **i)** habitats that are naturally diverse yet poorly explored, e.g., tropical forests; **ii)** cryptic taxa, those that are morphologically indistinguishable; and **iii)** in fungal collections that might contain cryptic or new species hidden under current names. These three categories are not mutually exclusive and, with the rapid rise of next-generation sequencing, we can also add **iv)** molecular novelties. A final category that is often neglected is the study of natural history collections of organisms other than fungi (plant herbaria, dried insect collections).

Large collections of dried, pinned insects have been dubbed “treasure troves” for the study of ectoparasitic fungi, such as the *Laboulbeniales* (*Laboulbeniomycetes*). During a study of different systematic insect collections around the world, *Laboulbeniales* fruit bodies were

discovered on 1,937 of 45,785 specimens (Haelewaters & Rossi 2017). This and other insect collections-based works have led to the description of multiple new species (e.g., Santamaria et al. 2016, Haelewaters & Rossi 2017), a better understanding of host usage patterns and global number of *Laboulbeniales* species (Weir & Hammond 1997), and estimates of parasite prevalences on a given host through time (Haelewaters et al. 2017). Likewise, plant herbaria can be screened for fungal "hitchhikers" inadvertently sampled along with the plant host (Lang et al. 2019). Examples are the causal agent of potato late blight (*Phytophthora infestans*), rust fungi, downy mildews, etc. Herbarium specimens allow for identification of fungal strains based on morphology and DNA sequence data, which can be coupled with host plant studies to provide a complete overview of host-pathogen dynamics.

Given that fungi are often microscopic, morphologically similar among species, occupy hidden habitats, and are often recalcitrant in axenic culture, it is difficult to find them, but perhaps they are simply 'hiding' in material already collected. Lücking et al. (2014) found that a single species of *Cora* was actually more than one-hundred species following more careful morphological observation and sequencing. This restudy/resequencing of currently known taxa is likely to increase the number of known species. An increasing number of examples of cryptic diversity is coming to light with the advances of molecular phylogenetic studies, in different groups, e.g., *Eurotiomycetes* (Pringle et al. 2005), *Laboulbeniomycetes* (Haelewaters et al. 2018a), *Lecanoromycetes* (Singh et al. 2015) and *Leotiomycetes* (Grünig et al. 2008) in *Ascomycota*; *Agaricomycetes* (Stefani et al. 2014, Accioly et al. 2019), and *Ustilaginomycetes* (Li et al. 2017) in *Basidiomycota*.

Because of the decreasing price and increasing availability, large-scale sequencing studies offer the opportunity to mined data for new species. These large-scale sequencing studies offer the opportunity to find new species as such studies regularly have a sizeable proportion of sequences that can only assigned at a phylum or even kingdom level. Indeed, the rate of accumulation of novel/unassigned sequences is massively outpacing the rate with which taxonomists can describe new species, especially given the lack of taxonomic expertise among, for example, the basal fungal clades.

Whilst some have called for a sequence-based taxonomy (Hibbett et al. 2016) we recognise that this is a controversial subject and, instead, note that these sequences can be used in a 'taxonomic feedback' capacity to identify new taxa. For example, Rosling et al. (2011) and Jones et al. (2011) described the class of ubiquitous soil-inhabiting fungi, the *Archaeorhizomycetes*, and the basal fungal phylum the *Cryptomycota*, respectively. Capitalising on the global sequencing of soil samples by Tedersoo et al. (2014), Tedersoo et al. (2017) re-analysed samples and found nearly 40 strongly supported new clades (roughly equivalent to orders) in the fungal tree of life. About half of these were in the basal clades (particularly *Rozellomycota*) and about half were found in tropical habitats. This study looked at soil samples only but fungi associated with other habitats such as aquatic fungi or endophytic fungi would benefit from further study – aquatic habitats may be particularly rich in new clades and taxa given the association of basal clades with aquatic habitats. The rich resource of DNA extracted from the millions of plant leaves stored in herbaria can also be fruitfully mined to find new plant-associated fungi (e.g. Datlof et al. 2017, Daru et al. 2018).

Another possibility is that the molecular markers we are currently using are not sufficient to delineate the full range of 'species' (OTUs, RSVs etc.) – this is certainly the case for *Glomeromycota* where the ITS region is not sufficiently phylogenetically informative and development and comparison of suitable primers has occupied a lot of energy (e.g. Kohout et al. 2014).

Whilst some have called for a molecular taxonomy, we recognise that this is controversial and, as yet, not incorporated into relevant taxonomic codes. Therefore, discovery of new physical specimens is required and the work of Henkel et al. (2012) and Hyde et al. (2018b) illustrate how dedicated work of mycologists over a number of years can lead to the discoveries and descriptions of numerous new fungal species. Indeed, Truong et al. (2017) show how this can be done with

straightforward short collecting expeditions of underexplored habitats (*Nothofagus* forest of South America in this case) combined with taxonomic work and sequencing of relevant material to advance our knowledge of fungal diversity in a comprehensive way.

Notes

Abrothallus De Not.

The phylogenetic reconstruction by Suija et al. (2015) showed that *Abrothallus* accommodates the monotypic *Epinephroma* Zhurb. and made a new combination based on that. Pérez-Ortega et al. (2011) showed that *Vouauxiomyces* Dyko & D. Hawksw. represents an asexual stage of *Abrothallus.* Synonymization with *Abrothallus* was done in Rossman et al. (2016) (A. Suija).

Abrothallaceae Pérez-Ort. & Suija

Diederich et al. (2018) proposed to synonymize *Licheniconiaceae* with *Abrothallaceae* as several studies beforehand (e.g. Liu et al. 2017) have revealed close relationships of these two monotypic families. However, Hngsanan et al. (2020) accepted *Licheniconiaceae* over *Abrothallaceae* (A. Suija & N. Wijayawardene).

Acrodictyaceae J.W. Xia & X.G. Zhang

Xia et al. (2017) established *Acrodictyaceae* and *Junewangiaceae* in *Sordariomycetes* (J. Ma).

Acrogenosporaceae Jayasiri & K.D. Hyde

Based on a multi-gene phylogeny, Jayasiri et al. (2018) showed that this is a distinct family within the *Minutisphaerales* (S. Fryar).

Aculeata W. Dong, H. Zhang & K.D. Hyde

Dong et al. (2018) introduced this genus in *Herpotrichiellaceae* based on phylogenetic analyses and distinct morphological characters (Q. Tian).

Adelolecia Hertel & Hafellner

Kistenich et al. (2018) transferred this genus from *Ramalinaceae* to *Lecanoraceae* (E. Timdal).

Aeruginoscyphus Dougoud

Dougoud (2012) introduced this genus within *Hyaloscyphaceae* to accommodate *Peziza sericea* (D. Haelewaters).

Agyriaceae Corda

Kraichak et al. (2018a) regarded that *Miltideaceae* Hafellner as a synonym of *Agyriaceae* (N. Wijayawardene).

Alanomyces Roh. Sharma

Sharma et al. (2017) showed that this genus is a separate lineage in *Aplosporellaceae* and introduced a new genus with a single species (A.J.L. Phillips).

Alleppeysporonites Ramanujam & K.P. Rao (fossil).

This genus shows striking similarity to the dematiaceous fungus *Grallomyces* F. Stevens (Barnett 1956, Ellis 1971, Subramanian 1971) (R.K. Saxena).

Allographa Chevall.

Lücking & Kalb (2018) resurrected *Allographa* from synonymy of *Graphis* (M. Kukwa).

Alternaria Nees

Currently, *Alternaria* has about with 589 legitimate species epithets (MycoBank 2019). More than 150 of them have been synonymized or assigned as "indistinguishable as unique" by Simmons (2007) since their descriptions and illustrations are scanty while the type material is unavailable. Remaining list of species should be reduced by sixty five synonymic names due to revisions of Woudenberg et al. (2014, 2015). Thirteen species should be transferred to *Alternaria* from abolished genera *Ulocladium* and *Nimbya* (Gannibal 2018, Gannibal & Lawrence 2018). Thus the genus *Alternaria* at the moment contains 366 accepted and recognizable species. Not all of them have been subjected to molecular phylogenetic studies (P.B. Gannibal).

Amarenomyces O.E. Erikss.

Rossman et al. (2015) treated *Amarenomyces* as a synonym of *Amarenographium*. Based on molecular analyses coupled with morphological characteristic, Wijayawardene et al. (2016) introduced *Amarenographium ammophilae* Wanas.et al.; whereas, Hyde et al. (2017) introduced *Amarenomyces dactylidis* Mapook et al. Multigene phylogenetic analyses revealed that these two genera were not congeneric, thus Hyde et al. (2017) reinstated *Amarenomyces* (R. Phookamsak).

Amazonotheca Bat. & H. Maia

Phookamsak et al. (2016) treated the genus in *Dothideomycetes*, genera *incertae sedis* based on herbarium study from Dr. Lima's collection (P-4. Serra do Veado-Serra do Navio, 24 August 1961, Lima J.A. (Leg.), A.C. Batista A.C. & Xavier Filho L. (det.), URM 28927). The type specimen was deposited in the Universidade Federal de Pernambuco (URM), Brazil but it could not be loaned (R. Phookamsak).

Amorphothecaceae Parbery

Amorphothecaceae is a monotypic family that was previously placed in *Leotiomycetes* genera *incertae sedis* (Baral 2016). Ekanayaka et al. (2019) retrieved it as sister to *Erisyphaceae* but this placement was without support. Strong support came with the 15-gene tree of Johnston et al. (2019), in which *Amorphothecaceae* was placed in the pezizelloid clade of *Helotiales* (D. Haelewaters).

Anatolinites Elsik, V.S. Ediger & Bati (fossil)

Spores of *Anatolinites* have a tendency to break apart along the septa. Kalgutkar & Jansonius (2000) considered *Cupulisporonites* Z.C. Song & Liu Cao a junior taxonomic synonym of *Anatolinites* (R.K. Saxena).

Annabella Fryar, Haelew., & D.E.A. Catches.

Fryar et al. (2019) introduced this genus for *A. australiensis* Fryar, Haelew., & D.E.A. Catches. from mangrove wood with perithecioid hyaline to yellowish apothecia. The genus is confirmed as a member of *Cordieritidaceae* based on the molecular phylogenetic analysis of a concatenated dataset of three ribosomal nuclear loci (D. Haelewaters).

Antennopsis R. Heim

Guswenrivo et al. (2018) used the partial 18S rRNA gene to place this genus within Ascomycota and found that it is positioned within Sordariomycetes. It has a sister relationship to *Graphium euwallaceae* (Graphiaceae), but we are reluctant in formally placing *Antennopsis* in this family, because the phylogeny was based only on 18S (D. Haelewaters).

Anthopsis Fil. March. et al.

Phylogenetic analyses placed this genus in Cyphellophoraceae, Chaetothyriales. The type species, *A. deltoidea*, clusters within a large *Cyphellophora* clade and therefore *Anthopsis* might be a synonym of *Cyphellophora*. The synonymy, however, has not yet been properly proposed. *Anthopsis* currently includes three species, *A. deltoidea*, *A. catenata* and *A. microspora*, but DNA sequence data proved that *A. catenata* is not a member of *Chaetothyriales* (Moussa et al. 2017). No DNA sequence data is available for *A. microspora* (H. Madrid).

Aotearoamyces P.R. Johnst., J.A. Cooper & Quijada

Quijada et al. (2018a) introduced this genus for *A. nothofagi*, a species from fallen wood in Nothofagaceae forests in New Zealand. It was placed in the family *Tympanidaceae* within the order *Phacidiales* based on the phylogenetic analysis of three ribosomal nuclear loci. Based on a larger 15-locus analysis, Johnston et al. (2019) placed *Aotearoamyces* within *Leotiales* genera *incertae sedis* with high support (D. Haelewaters).

Aplosporella Speg.

Slippers et al. (2013) suggested that this genus is the sexual morph of *Aplosporella*, but they declined to make a formal synonymy. Phillips et al. (2019) formally placed *Bagnisiella* as a synonym of *Aplosporella* (A.J.L. Phillips).

Appendicisporonites R.K. Saxena & S. Khare (fossil).

Appendicisporonites appears to be related to the setose pycnidia found in some *Coelomycetes* Grove (R.K. Saxena).

Aquacidia Aptroot

Aptroot et al. (2018) introduced this genus and confirmed its placement in *Pilocarpaceae* (N. Wijayawardene).

Aquimonospora J. Yang & K.D. Hyde

Yang et al. (2019) introduced this monotypic genus to accommodate the new species *Aquimonospora tratensis.* A new genus and species collected from freshwater habitat in Thailand (S. Tibpromma).

Arthrocladium Papendorf

This genus comprises four species which form a monophyletic group in Trichomeriaceae. They are associated mainly with plant material and occasionally also with opportunistic infections in humans (Nascimento et al. 2016) (H. Madrid).

Arthrophiala (D.J. Soares, R.W. Barreto & U. Braun) W.S. Lisboa et al.

This monotypic genus was recently erected to accommodate the plant pathogenic fungus *Pseudocercospora arthrospora*. DNA sequence data revealed that this fungus is a member of *Chaetothyriales* (Crous et al. 2016), while true *Pseudocercospora* species belong in Capnodiales. In the protologue, *Arthrophiala* was considered as a member of Chaetothyriaceae, but its definitive phylogenetic placement may require further study (H. Madrid).

Ascochytites Barlinge & Paradkar (fossil)

The genus name *Ascochytites* was first used by Teterevnikova-Babaian & Taslakhchian (1973), but not then validly published due to lack of illustration of the spores (R.K. Saxena).

Ascodesmisites Trivedi, Chaturv. & C.L. Verma (fossil)

The fossil specimen shows close affinity with family *Pezizaceae* but differs from the latter by the absence of exciple. Minute fruiting bodies and various sexual stages somewhat resemble

those of *Ascodesmis* Tiegh. In fossil specimen, the male and female sex organs are found growing on two different hyphae indicating that the fungus could be dioecious (R.K. Saxena).

Asterinites Doub. & D. Pons ex Kalgutkar & Janson. (fossil)

Jansonius & Hills (1976) remarked: "Two species described; until one of these is selected as type species, the genus is not validly published. The genus seems to be intended for mycelia, rather than definite fruiting bodies". The lectotype was designated by Kalgutkar & Jansonius (2000) (R.K. Saxena).

Asterothyrites Cookson emend. Kalgutkar & Janson. (fossil)

The lectotype was selected by Jansonius & Hills (1976). Kalgutkar & Jansonius (2000) emended the generic diagnosis. *Paramicrothallites* K.P. Jain & R.C. Gupta is a junior taxonomic synonym of *Asterothyrites* (Kalgutkar & Jansonius 2000) (R.K. Saxena).

Astragalicola Jaklitsch & Voglmayr

Jaklitsch et al. (2018) proposed this new genus based on morphological and molecular data (S. Fryar).

Atractium Syd. & P. Syd.

For many years, this genus was considered as a synonym of *Fusarium*, but a multilocus phylogenetic study by Gräfenhan et al. (2011) proved that *Atractium* represents a distinct genus in Nectriaceae (H. Madrid).

Axisporonites Kalgutkar & Janson. (fossil)

Kalgutkar and Jansonius (2000) designated *Multicellaesporites indicus* P. Kumar (Now: *Axisporonites indicus* (P. Kumar) Kalgutkar & Janson.) as type of this monotypic genus (R.K. Saxena).

Bacidia De Not.

Kistenich et al. (2018) treated *Bacidiopsora* Kalb as synonym of *Bacidia* (E. Timdal).

Bacillicladium Hubka, Réblová & Thureborn

This monotypic genus, typified by *B. lobatum*, forms a distinct lineage in *Chaetothyriales* which might represent an undescribed family (Réblová et al. 2016) (H. Madrid).

Baeomycetales Lumbsch et al.

Kraichak et al. (2018a) regarded that *Arctomiales* S. Stenroos et al., *Hymeneliales* S. Stenroos et al and *Trapeliales* B.P. Hodk. & Lendemer as synonyms of *Baeomycetales* (N. Wijayawardene).

Bahusandhika Subram.

Liu et al. (2018a) transferred this genus to the new family, *Lentimurisporaceae*, based on a multi-gene phylogeny (S. Fryar).

Barrenia E. Walsh & N. Zhang

Johnston et al. (2019) accepted this genus in *Mollisiaceae* (D. Haelewaters).

Barrmaeliaceae Voglmayr & Jaklitsch

Voglmayr et al. (2018) recognised the family *Barrmaeliaceae* with the genera *Barrmaelia* and *Entosordaria* from phylogenetic analyses of a combined DNA data matrix containing ITS, LSU, *rpb2* and *tub2* sequences of representative Xylariales including the type species of both genera. They also established that the morphologically similar genus *Clypeosphaeria* belongs to

Xylariaceae sensu stricto. The other genera of the family *Clypeosphaeraceae* aside from *Clypeosphaeria*, however, still need to be studied by methods of polyphasic taxonomy to assure their affinities to the *Xylariaceae*. The study by Vogmayr et al. (2018) also revealed that some DNA sequence data of the genera *Alloanthostomella*, *Neoanthostomella*, and *Pseudoanthostomella* that are available in the public domain were erroneous, which gave rise to some serious doubt as to their familiar affinities. These genera are therefore placed in *Xylariales Incertae sedis* until the phylogenetic position has been verified based on new DNA sequence data (M. Stadler).

Basidiobolales Jacz. & P.A. Jacz.

Basidiobolales Caval.-Sm., Biological Reviews Cambridge 73: 246 (1998) is an isonym (K. Bensch).

Basidiobolomycetes Doweld

Basidiobolomycetes Humber, Mycotaxon 120: 484 (2012) is an isonym, Doweld was published already in 2001; see IF and MB (K. Bensch).

Basidiosporites Elsik (fossil)

Kalgutkar & Jansonius (2000) considered *Amepiospora* Sal.-Cheb. & Locq. a later synonym of this genus (R.K. Saxena).

Bellicidia Kistenich, Timdal, Bendiksby & S.Ekman

Kistenich et al. (2018) introduced this genus in *Ramalinaceae* (E. Timdal).

Biatora Fr.

Kistenich et al. (2018) reduced *Ivanpisutia* S.Y. Kondr., Lőkös & Hur and *Myrionora* R.C. Harris under this genus (E. Timdal).

Bibbya J.H.Willis

Kistenich et al. (2018) resurrected this genus in *Ramalinaceae* (E. Timdal).

Bifusisporella R.M.F. Silva et al.

Silva et al (2019) placed this new genus in the family *Magnaporthaceae* based on molecular and morphological characters. This genus shown the phylogenetic inference related to *Omnidemptus* but differ in by having an asexual morph with sporodochial conidiomata (Cannon & Alcorn 1994) (S. Tibpromma).

Biporipsilonites Kalgutkar & Janson. (fossil)

Spores in this genus can be differentiated from *Diporisporites* Hammen by having pore chambers. Kalgutkar & Jansonius (2000) designated *Diporicellaesporites belluloides* Z.C. Song (Now: *Biporipsilonites belluloides* (Z.C. Song) Kalgutkar & Janson.) as type of this genus (R.K. Saxena).

Botryosphaeriaceae Theiss. & Syd.

See under *Endomelanconiopsis* E.I. Rojas & Samuels Tao (A.J.L. Phillips).

Botryozyma Shann & M.T. Sm. emend. Lachance & Kurtzman

Kurtzman & Boekhout (2017) include *Ascobotryozyma* J. Kerrigan, M.T. Sm. & J.D. Rogers (under *Botryozyma*) to comply with the Melbourne Code (W.P. Pfliegler & E. Horváth).

Boubovia Svrček

This genus and *Coprotus* Korf & Kimbr. represents an independent clade of *Pezizales*, not included in *Ascodesmidaceae*, as shown by Perry et al. (2007) and also Hansen et al. (2013) (P. Alvarado).

Brachysporisporites R.T. Lange & P.H. Sm. (fossil)

Granatisporites Elsik & Janson. is a junior taxonomic synonym of *Brachysporisporites* (Kalgutkar & Jansonius 2000). Spores of *Brachysporisporites* are usually compared to the conidia of the modern *Brachysporium* Sacc. (R.K. Saxena).

Bradymyces Hubka et al.

This genus currently includes with three species which form a monophyletic group within Trichomeriaceae (Réblová et al. 2016) (H. Madrid).

Brefeldiellites Dilcher (fossil)

The fossil form of this monotypic genus is similar to the *Brefeldiella* Speg. but cannot be placed in this extant genus because the spores are not known (R.K. Saxena).

Bresadolia Speg.

Motato-Vásquez et al. (2018) reinstated this genus and accepted as in Polyporaceae (V. Papp).

Brigantiaeaceae Hafellner & Bellem.

Kraichak et al. (2018a) regarded *Letrouitiaceae* as a synonym of *Brigantiaeaceae* (N. Wijayawardene).

Brunneofusispora S.K. Huang & K.D. Hyde

Brunneofusispora was introduced in Phookamsak et al. (2019) to accommodate massarina-like species and species identified as *Massarina rubi* (Fuckel) Sacc. Multi-gene phylogenetic analyses revealed that the genus formed a distinct clade within *Occultibambusaceae* (Phookamsak et al. 2019) (R. Phookamsak).

Brunneomurispora Phook. et al.

Phookamsak et al. (2019) introduced a monotypic genus *Brunneomurispora* to accommodate *B. lonicerae*. Multi-gene phylogenetic analyses showed that the genus formed a distinct clade basal to *Neosetophoma* in *Phaeosphaeriaceae*. However, the sexual morph of *Neosetophoma* has phragmosporous ascospores; whereas, *Brunneomurispora* has dictyosporous ascospores. Asexual morph of *Brunneomurispora* is undetermined (R. Phookamsak).

Bryobilimbia Fryday et al.

Fryday et al. (2014) introduced *Bryobilimbia* to accommodate six species, including *Lecidea hypnorum* and some related taxa based on morphological characters such as bacilliform conidia, slightly swollen paraphyses and thallus minutely squamulose without marginal lobes. Phylogenetic analyses revealed *Bryobilimbia* as a distinct monophyletic lineage within *Lecideaceae*, *Lecideales*, *Lecanoromycetes* (P. Rodriguez-Flakus).

Bulbomicroidium Marm. et al.

Marmolejo et al. (2018) introduced this monotypic genus and confirmed its placement in *Erysiphaceae* based on molecular phylogenetic analysis of the LSU (S. Takamatsu).

Byssonectria P. Karst.

The genus *Kotlabaea* Svrček has been reduced under *Byssonectria* by Lindemann et al. (2015) (P. Alvarado).

Callimothallus Dilcher (fossil)

Callimothallus lacks any central dehiscence and is characterized by numerous pores. Elsik (1978) pointed out that the porate condition in *Callimothallus* is required for at least in a number of the cells to separate it from *Phragmothyrites* W.N. Edwards and that if the porate nature is well represented, even fragments of the fructification are recognizable. Kalgutkar & Jansonius (2000) considered *Pseudosphaerialites* Venkatach. & R.K. Kar and *Siwalikiathyrites* R.K. Saxena & H.P. Singh as junior synonyms of *Callimothallus* (R.K. Saxena).

Calongea Healy, Bonito & Trappe

This genus was erected to accommodate *Pachyphloeus prieguensis* (Healy et al. 2009), reflecting a separate lineage within *Pezizaceae* (I. Kušan, N. Matočec & P. Alvarado).

Calyptosphaeria Réblová & A.N. Mill.

Réblová et al. (2018) introduced this genus to accommodate two new species and two new combinations based on a multi-gene phylogeny and morphological characters (S. Fryar).

Camptophora Réblová & Unter.

This genus, originally proposed to accommodate a '*Cyphellophora*' species clustering outside the *Cyphellophoraceae* clade. It currently includes two species, *viz. C. hylomeconis*, the generic type and *C. schimae* (Réblová et al. 2013, Yang et al. 2018a) (H. Madrid).

Candida Berkhout

Transfer of several *Candida* species to various yeast genera (including novel genera) is expected. But *Candida* is expected to be the retained genus name for the *C. tropicalis* clade instead of *Lodderomyces* Van der Walt in *Debaryomycetaceae* to comply with the Melbourne Code. Transferring the hundreds of *Candida* species to monophyletic genera is one of the main current challenges in yeast taxonomy (Kurtzman & Boekhout 2017) (W.P. Pfliegler & E. Horváth).

Castanedospora G. Delgado & A.N. Mill.

Delgado et al. (2018) introduced this hyphomycetous genus to accommodate *Sporidesmium pachyanthicola* R.F. Castañeda & W.B. Kendr. In the phylogenetic analyses, it grouped in *Extremaceae* (*Capnodiales*, *Dothideomycetes*) distant from *Sporidesmiaceae* sensu stricto in *Sordariomycetes* (G. Delgado & S. Fryar).

Catinaria Vain.

Kistenich et al. (2018) transferred this genus from *Ramalinaceae* to the *Lecanorales* genera *incertae sedis* (E. Timdal).

Cenangiaceae Rehm

In their 15-gene phylogeny, Johnston et al. (2019) found high support for a sclerotinioid clade including *Cenangiaceae* within the *Helotiales*. Here, we follow the emended concept of Pärtel et al. (2017) for the family *Cenangiaceae*, including the following genera: *Cenangiopsis*, *Cenangium*, *Chlorencoelia*, *Crumenulopsis*, *Encoelia*, *Fabrella*, *Heyderia*, *Rhabdocline*, *Sarcotrochila*, *Trochila*, and *Velutarina* (D. Haelewaters).

Cephaliophora Thaxt.

This genus is firmly nested as a separate lineage within *Ascodesmidaceae*, *Pezizales* (Kušan et al. 2018) (I. Kušan & N. Matočec).

Cercosporites E.S. Salmon (fossil)

Aspergillites Trivedi & C.L. Verma ex Janson., Hills & Hartk.-Fröd. is a taxonomic latter synonym of *Cercosporites* (Kalgutkar & Jansonius 2000) (R.K. Saxena).

Chaetosphaerites Félix (fossil)

This genus is characterized by spores having two middle cells being dark brown and two end cells pale brown. The shape of the sporidia is strongly obtuse spindle-shaped, almost like that of a cylinder with rounded ends. *Cannanorosporonites* Ramanujam & K.P. Rao is a latter taxonomic synonym of *Chaetosphaerites* (R.K. Saxena).

Cheirospora Moug. & Fr.

Johnston et al (2019) accepted this genus in *Mollisiaceae* (D. Haelewaters).

Chlorociboriaceae Baral & P.R. Johnst.

Based on Johnston et al.'s (2019) 15-gene phylogenetic analysis, *Chlorobiboriaceae* is part of the sclerotinioid clade within *Helotiales* (D. Haelewaters & N. Wijayawardene).

Chroogomphus (Singer) O.K. Mill.

Scambler et al. (2018) revised the infrageneric classification of the genus, introduced three subgenera (*Chroogomphus*, *Floccigomphus* and *Siccigomphus*) and five sections/clades within subg. *Chroogomphus* (*Chroogomphus*, *Confusi*, *Filiformis*, *Fulminei* and the informal *Vinicolores* clade). *Chroogomphus subfulmineus* from Cyprus, Finland and the UK, and *C. pakistanicus* and *C. pruinosus* from Pakistan were recently described bringing the number of recognized species to 25 (Scambler et al. 2018, Kiran et al. 2020) (D. Haelewaters).

Chrysodiscaceae Baral & Haelew.

Baral & Polhorský (2019) introduced this family to accommodate *Chrysodisca peziculoides*, a broadly distributed European discomycete resembling *Pezicula* but phylogenetically separated from previously recognized families within *Helotiales* (D. Haelewaters).

Chrysonectria Lechat & J. Fourn

Lechat et al (2018a) introduced this genus and showed that it is phylogenetically belongs to *Bionectriaceae* (N. Wijayawardene)

Cinereomycetella Zmitr.

Justo et al. (2017) showed that *Diplomitoporus overholtsii* (Pilát) Gilb. & Ryvarden forms a distinct phylogenetic lineage in the family *Polyporaceae*. Hence, Zmitrovich (2018) introduced the monotypic genus *Cinereomycetella* in *Gelatoporiaceae* to accommodate *Diplomitoporus overholtsii* (V. Papp).

Cladoniaceae Zenker

Kraichak et al. (2018a) revised *Lecanoromycetes* and showed that *Squamarinaceae* Hafellner, *Stereocaulaceae* Chevall are synonyms of *Cladoniaceae* Zenker (in *Lecanorales*) based on temporal-based classification (N. Wijayawardene).

Cladophialophora Borelli

The genus *Cladophialophora* is polyphyletic within *Chaetothyriales*. The generic type, *C. carrionii* and most species of this genus belong in *Herpotrichiellaceae*, but a few species are related to other chaetothyrialean families, such as *Epibryaceae* and Trichomeriaceae (Madrid et al. 2016) (H. Madrid).

Cladorrhinum Sacc. & Marchal

Phylogenetic studies by Cai et al. (2006), Madrid et al. (2011) and Carmarán et al. (2015) proved that this genus belongs in *Lasiosphaeriaceae*. Nevertheless, Hyde et al. (2020) accepted this genus in *Podosporaceae*. The genus, however, is polyphyletic within this fungal family (H. Madrid).

Cladosporites Félix (fossil)

The conidia greatly resemble those of the genera *Cephalothecium* Corda and *Cladosporium* Link. (R.K. Saxena).

Clarireedia L.A. Beirn

Salgado-Salazar et al. (2018) proposed this new genus with *C. homoeocarpa* as the type species (*Rutstroemiaceae*) based on molecular and morphological characters. The genus comprises three other species except the type species viz. *C. bennettii*, *C. jacksonii*, and *C. monteithiana* (Salgado-Salazar et al. 2018) (S. Fryar & S. Somrithipol).

Claussenomyces Kirschst.

According to Quijada et al (2018b) and Species Fungorum (2020), the genus *Claussenomyces* currently contains 16 species. However, the genus is "heterogeneous" (Jaklitsch et al. 2016a) and polyphyletic. As a result, it is currently under taxonomic revision. "*Claussenomyces*" *prasinulus* is treated as *Leotiales* genera incertae sedis based on its placement in Johnston et al.'s (2019) 15-gene tree. (D. Haelewaters, I. Kušan & N. Matočec).

Cochlearomyces Crous

Crous et al. (2017) established this genus to accommodate a synnematous fungus on leaf litter of *Eucalyptus*. The same authors also introduced a new family (*Cochlearomycetaceae*) for the genera *Cochlearomyces* and *Satchmopsis*, which was retrieved in *Leotiales* based on the phylogenies of both Ekanayaka et al. (2019) and Johnston et al. (2019) (D. Haelewaters).

Coleophoma Hohn.

Using a polyphasic approach, Crous & Groenewald (2016) established the teleomorph-anamorph connection between *Coleophoma* and *Parafabraea* Chen Chen, Verkley & Crous, thus reducing *Parafabraea* to synonymy. *Coleophoma* is placed in *Dermateaceae* (Johnston et al. 2019) (D. Haelewaters).

Colligerites K.P. Jain & R.K. Kar (fossil).

Involutisporonites Elsik broadly resembles *Colligerites* but in the former, coiling is not perfect and it has a hyaline cell at the tip (R.K. Saxena).

Compsocladium I.M. Lamb

Kistenich et al. (2018) transferred this genus from *Ramalinaceae* to the *Lecanorales incertae sedis* (E. Timdal).

Coprotus Korf & Kimbr.

See under *Boubovia* Svrček (P. Alvarado).

Coprinites Poinar & Singer (fossil)

The fossil mushroom has affinity with the present day genus *Coprinus* Pers (R.K. Saxena).

Corticifraga D. Hawksw. & R. Sant.

The genus *Corticifraga*, comprising 7 species and has been recently transferred to *Gomphilaceae* (Pino-Bodas et al. 2017, Suija et al. 2018), but so far only the type species has been sequenced (M. Kukwa & A. Suija).

Craspedodidimella F.R. Barbosa, R.F. Castañeda & Gusmão

Barbosa et al. (2017) introduced this genus and showed that it belongs in *Ascomycota* genera *incertae sedis* (F.R. Barbosa).

Crassiclypeus A. Hashim. et al.

Hashimoto et al. (2018) proposed this genus with *Crassiclypeus aquaticus* as the type species, which was previously included in the *Lophiostoma bipolare* species complex (S. Fryar).

Crepatura C.L. Zhao

Zhao et al. (2019) proposed this new genus with *Crepatura ellipsospora* as the type species based on molecular and morphological characters. While, this genus phylogenetically closely related to *Pirex concentricus* but morphology is different (S. Tibpromma).

Crustospathula Aptroot

Kistenich et al. (2018) transferred this genus from the *Ramalinaceae* to the *Malmideaceae* (E. Timdal).

Cryptodidymosphaerites Currah, Stockey & B.A. LePage (fossil)

This genus from the Princeton chert presents sufficient characters such as the presence of a pseudothecium, ascospores morphology, orientation and the mycoparasitic habit to place it close to *Didymosphaeria* Fuckel. (Aptroot 1995) (R.K. Saxena).

Cryptodiscus Corda

Pino-Bodas et al. (2017) regarded that *Lettauia* D. Hawksw. & R. Sant. as a synonym of *Cryptodiscus*, however, 3 species are still orphaned under that name, but so far have not been relocated (M. Kukwa & A. Suija).

Cryptophyllachora L. Kiss, Kovács & R.G. Shivas

Kiss et al. (2018) proposed *Cryptophyllachora* to accommodate *C. eurasiatica* (the type species) collected from common ragweed (*Ambrosia artemisiifolia*) in Hungary, and *C. ambrosiae* that was transferred from *Phyllachora ambrosiae* (S. Somrithipol).

Cucitella Jaklitsch & Voglmayr

Jaklitsch et al. (2018) proposed this new genus based on morphological and molecular data (S. Fryar).

Cucurbitariaceites R.K. Kar, R.Y. Singh & S.C.D. Sah (fossil)

Cucurbitariaceites is easily distinguishable from all the fossil genera of *Microthyriales* G. Arnaud. by its circular to subcircular shape, darker outer layer and thin inner layer, in the absence of true paraphyses and the presence of cylindrical asci. *Cucurbitariaceites* closely resembles the extant family *Cucurbitariaceae* G. Winter in all the characters and *Cucurbitaria* Gray is the widely known genus of this family (Bessey 1950) (R.K. Saxena).

Culbersonia Essl.

This genus is considered part of the *Caliciaceae* by Aptroot et al. (2019) (P. Alvarado).

Cylindriaceae Crous & L. Lombard

Crous et al. (2018) introduced this new family to accommodate *Cylindrium*, which was previously in *incertae sedis*. Hyde et al. (2020) accepted this family in *Amphisphaeriales* (S. Fryar).

Cylindrosporium Grev.

Baral (2016) and Ekanayaka et al. (2019) accepted this genus in *Ploettnerulaceae* (D. Haelewaters & N. Wijayawardene).

Cyphellophora G.A. de Vries

Species of *Cyphellophora* are characterized by slow-growing colonies, dematiaceous mycelium and phialidic conidiogenous cells usually with conspicuous collarettes. Phylogenetically, they form a distinct clade in *Chaetothyriales* for which the family *Cyphellophoraceae* was erected (Réblová et al. 2013) (H. Madrid).

Deccanodia Singhai (fossil)

Deccanodia resembles *Diplodia* Fr. in its pycnidium and 2-celled, brown and mostly ellipsoid conidia (Barnett 1960, Gilman 1959). However, in *Diplodia*, black pycnidia and equal 2-celled conidia are present thus showing a distinct difference from the fossil fungus which has slightly brown pycnidium and unequally divided 2-celled conidia. *Deccanodia* also resembles *Apiocarpella* Syd., belonging to Fungi Imperfecti (Barnett 1960) (R.K. Saxena).

Dekkera Van der Walt

Expected transfer of species to *Brettanomyces* Kufferath & van Laer to comply with the Melbourne Code (Kurtzman & Boekhout 2017) (W.P. Pfliegler and E. Horváth).

Dendrostoma X.L. Fan & C.M. Tian

Fan et al. (2018a) placed this new genus in the family Erythrogloeaceae with three species *viz. D. mali* (the type species), *D. quercinum*, and *D. osmanthi*. The genus comprises 19 species associated wood canker disease (Jaklitsch et al. 2019, Jiang et al. 2019b, Zhu et al. 2019). (S. Fryar, X. Fan & S. Somrithipol).

Densocarpa Gilkey

According to recently shown phylogenies (e.g. Kumar et al. 2017), this genus should not be considered as a synonymy of *Stephensia* as it represents separate lineage in *Geopyxis* clade (I. Kušan & N. Matočec).

Densospora McGee

Single-locus and multigene phylogenetic reconstructions depict *Densosporaceae* as a distant sister clade of *Endogonaceae* within the order *Endogonales* (Desirò et al. 2017) (K. Bensch).

Dentocorticium (Parmasto) M.J. Larsen & Gilb.

Liu et al. (2018b) treated *Dendrodontia* Hjortstam & Ryvarden and *Fuscocerrena* Ryvarden as synonyms of *Dentocorticium* (V. Papp).

Dextrinoporus H.S. Yuan

Yuan & Qin (2018) introduced this monotypic genus to accommodate the new species *D. aquaticus* H.S. Yuan and showed that it forms a distinct phylogenetic lineage in the family *Polyporaceae* (V. Papp).

Diademosa Shoemaker & C.E. Babc.

This genus has been originally considered as a genus of *Diademaceae* (Shoemaker & Babcock 1992). Later it was transferred to *Pleosporaceae* (Ariyawansa et al. 2014) but molecular phylogeny has not still used for its replacement (P.B. Gannibal).

Diaporthosporellaceae C.M. Tian & Q. Yang

Yang et al. (2018b) introduced *Diaporthosporellaceae* for *Diaporthosporella cercidicola*, a new genus and species collected from diseased branches of *Cercis chinensis* in China (S. Somrithipol & S.S.N. Maharachchikumbura).

Diaporthostoma X.L. Fan & C.M. Tian

Diaporthostoma machili is the type species of recently introduced genus *Diaporthostoma* by Fan et al. (2018a) (S.S.N. Maharachchikumbura).

Diaporthostomataceae X.L. Fan & C.M. Tian

This monotypic family was introduced by Fan et al. (2018a) based on morphology and the analysis of partial ITS, LSU, rpb2 and tef1-α gene sequences. This family belongs to the order *Diaporthales* (S.S.N. Maharachchikumbura and S. Fryar).

Dictyoceratosporella Y.R. Ma & X.G. Zhang

Ma et al. (2016) established this hyphomycetous genus. Sequence data are lacking thus taxonomic placement is uncertain (J. Ma).

Dictyosporites Félix (fossil)

These spores are comparable to the conidia of some modern genera like *Dictyosporium* Corda, *Stemphylium* Wallr., *Septosporium* Corda and *Alternaria* Nees, and the ascospores of *Pleospora* Rabenh. ex Ces. & De Not. *Arbusculites* Paradkar, *Dactylosporites* Paradkar, *Pleosporonites* R.T. Lange & P.H. Sm. and *Ravenelites* Ramanujam & Ramachar are latter taxonomic synonyms of *Dictyosporites* (Kalgutkar & Jansonius 2000) (R.K. Saxena).

Digitiseta Gordillo & Decock

Gordillo & Decock (2018) proposed *Digitiseta* and transferred two *Myrothecium* (*M. setiramosum* and *M. dimorphum*) into the genus as *D. setiramosa* (the type species) and *D. dimorpha*. *Digitiseta parvidigitata* and *D. multidigitata* were described as new and also included. *Digitiseta* differs from the two closely related genera, *Inaequalispora* and *Parvothecium*, in having short apical branches of the setoid extension (S. Somrithipol).

Diphymyces I.I. Tav.

Diphymyces was introduced by Tavares (1985) to accommodate *Laboulbeniales* species with thalli that have a septum vertically separating cells II and VI, four tiers of perithecial wall cells, and (sub-) apical perithecial outgrowths. The separation of this genus from *Corethromyces* Thaxt. was primarily based on the position of cells II and VI, which is a variable character (discussed in De Kesel & Haelewaters 2019). Also the genera *Asaphomyces* Thaxt. and *Euphoriomyces* Thaxt. might be synonymous. These four genera are placed in three different subtribes (Tavares 1985), but several higher taxa (subtribes and tribes) from the Tavares (1985) classification are polyphyletic following molecular phylogenetic treatments (Goldmann & Weir 2018, Haelewaters et al. 2018b). Molecular phylogeny is needed to resolve these taxonomic and systematic problems (D. Haelewaters).

Diplodites D.N. Babajan & Tasl. ex Kalgutkar, Nambudiri & Tidwell (fossil)

Kalgutkar et al. (1993) validated the name *Diplodites* to encompass fossil taxa that are morphologically similar to the extant fungi *Diplodia* Fr., *Botryodiplodia* (Sacc.) Sacc. and other related genera such as *Dothiorella* Sacc. and *Macrophoma* (Sacc.) Berl. & Voglino. *Palaeodiplodites* Kyoto Watanabe, H. Nishida & Tak. Kobay. is a junior taxonomic synonym of *Diplodites* (Kalgutkar & Jansonius 2000). (R.K. Saxena).

Diploneurospora K.P. Jain & R.C. Gupta (fossil)

This monotypic genus accommodates two-celled (cells unequal), uniseriate, elliptical ascospores with uneven margin; upper cell prominent, dark brown, thick-walled, wall sculptured with longitudinal ribs; lower cell hyaline, appendage-like, small in size, rib sculpture faint. It closely resembles to the single celled ascospores of extant genus *Neurospora* Shear & B.O. Dodge (R.K. Saxena).

Diporisporites Hammen (fossil)

Kalgutkar & Jansonius (2000) considered *Scabradiporites* Y.K. Mathur a latter taxonomic synonym of *Diporisporites* (R.K. Saxena).

Discinellaceae Ekanayaka & K.D. Hyde

Ekanayaka et al. (2019) introduced this family within *Helotiales*. Johnston et al. (2019) found high support for what they referred to as the *Discinella-Pezoloma* lineage (sensu Baral 2016), placed as sister clade to *Gelatinodiscaceae* in the discinelloid clade of *Helotiales*. A number of genera that were previously placed elsewhere are now considered members of *Discinellaceae*: *Cladochasiella*, *Fontanospora*, *Margaritispora*, *Naevala*, *Pseudopezicula* and *Tetrachaetum* (D. Haelewaters).

Dothiorella Sacc.

Yang et al. (2017) considered that *Spencermartinsia* should no longer be considered a separate genus and placed it as a synonym of *Dothiorella*. Currently 389 names are listed in MycoBank, but only 38 are known from culture (A.J.L. Phillips).

Drepanopezizaceae Baral

Introduced in Johnston et al. (2019) as sister family to *Ploettnerulaceae* within *Helotiales* (D. Haelewaters).

Ducatina Ertz & Søchting

Ertz et al. (2017b) introduced this genus which belongs in *Trapeliaceae* (N. Wijayawardene).

Durella Tul. & C. Tul.

Baral (2016) treated this genus in his "*Strossmayeria* lineage", which was confirmed by the ITS tree of Johnston et al. (2019). However, two species, "*Durella*" *macrospora* and "*D.*" *melanochlora*, are phylogenetically distinct from the type (*D. connivens*) and are here placed under *Helotiales* genera *incertae sedis* (D. Haelewaters).

Durotheca Læssøe et al.

De Long et al. (2019) described two new species of *Durotheca* from China and provided a new molecular phylogeny that proved the affinities of the genus to the Hypoxylaceae. This had already been indicated by morphological data, such as the presence of a nodulisporium-like asexual morph in some species (M. Stadler).

Dyadosporites Hammen ex R.T. Clarke (fossil)

Jansonius & Hills (1976) remarked that "although van der Hammen (1954) gave a diagnosis and the name of the type species, the latter was never described (or illustrated)". Therefore, *Dyadosporites* was not a validly published name of a taxon, but as merely proposed in anticipation of future acceptance of the group. Clarke (1965) was the first to have validly published this genus name and also the first to assign a species (*Dyadosporites ellipsus* R.T. Clarke) to it. *Dyadosporonites* Elsik and *Psidimobipiospora* Sal.-Cheb. & Locq. are latter taxonomic synonyms of *Dyadosporites* (Kalgutkar & Jansonius 2000) (R.K. Saxena).

Efibulella Zmitr.

Justo et al. (2017) showed that *Phlebia deflectens* (P. Karst.) Ryvarden forms a distinct phylogenetic lineage in the family Phanerochaetaceae. Hence, Zmitrovich (2018) introduced the monotypic genus *Efibulella* to accommodate *Phlebia deflectens* (V. Papp).

Elaphroporia Z.Q. Wu & C.L. Zhao

Wu et al. (2018) introduced this monotypic genus to accommodate the new species *E. ailaoshanensis* Z.Q. Wu & C.L. Zhao, and accepted it as a genus in the residual polyporoid clade based on phylogenetic analyses (V. Papp).

Emergomyces Dukik et al.

This genus of thermally dimorphic clinical fungi belongs in the family Ajellomycetaceae, according to multilocus phylogenetic studies by Dukik et al. (2017) (H. Madrid).

Endomelanconiopsis E.I. Rojas & Samuels Tao

Yang et al. (2017) considered that this genus warrants a separate family and thus introduced *Endomelanconiopsisaceae* to accommodate it. Phillips et al. (2019) took into account phylogeny (ITS, LSU), morphology and evolutionary divergence times and concluded that *Endomelanconiopsis* resides within *Botryosphaeriaceae*. Hence, Phillips et al. (2019) regarded *Endomelanconiopsisaceae* as a synonym of *Botryosphaeriaceae* (A.J.L. Phillips).

Endophoma Tsuneda & M.L Davey

This is a monotypic genus in *Didymellaceae*, typified by *E. elongata*. The fungus is an atypical coelomycete with endogenous conidiogenesis and its taxonomic position has been elucidated by DNA sequence analyses (Tsuneda et al. 2011a) (H. Madrid).

Enterodictyon Müll. Arg.

It is an autonomous genus in Wijayawardene et al. (2017a), but the type species, *E. indicum* Müll. Arg., was transferred to *Diorygma* (Joseph et al. 2018). However, some species still need to be studied and relocated (M. Kukwa).

Entrophospora Ames & Schneider

The fungus was treated as an *incertae sedis* in the last classification (Wijayawardene et al. 2018). Nevertheless, all partial rDNA sequences published within the last years, suggest that their type fungus (*E. infrequens*) belongs to *Claroideoglomus* clade (Oehl et al 2011e,f), justifying the use of *Entrophosporaceae* instead of *Claroideoglomeraceae*.

Epicladonia D. Hawksw.

According to Pino-Bodas et al. (2017), the generic type, *E. sandstedei* (Zopf) D. Hawksw. belongs to *Leotiomycetes* while other species are placed in *Ostropales* (A. Suija).

Epithamnolia Zhurb.

Suija et al. (2017) showed that lichenicolous species of *Hainesia* form a distinct phylogenetic lineage within *Phacidiales*, and provisionally transferred lichenicolous species to the morphologically similar genus *Epithamnolia*. According to molecular analysis by Quijada et al. (2018a), the genus was placed in the poorly known *Mniaecia* lineage, which is now family *Mniaeciaceae* within *Leotiales* (Johnston et al. 2019). In contrast, Ekanayaka et al. (2019) regarded this genus as a member of the *Epicladonia-Epithamnolia* clade in *Lichinodiales*, however this placement had no statistical support (D. Haelewaters, A. Suija & N. Wijayawardene).

Eudarluca Speg.

Rossman et al. (2015) treated *Eudarluca* as a synonym of *Sphaerellopsis* based on a study of Trakunyingcharoen et al. (2014). The congeneric status of *Eudarluca* and *Sphaerellopsis* was

clarified based on *Eudarluca caricis* and *Sphaerellopsis filum*. However, Phookamsak et al. (2014) examined the isotype of *Eudarluca australis* and compared the morphology with *E. caricis*. Based on morphological examination, Phookamsak et al. (2014, 2019) mentioned that these two genera were not congeneric and suggested to instate *Eudarluca* in *Phaeosphaeriaceae* for pending further studies (R. Phookamsak).

Eutiarosporella Crous

Based on ITS and LSU sequence phylogeny, Crous et al. (2015a) introduced *Eutiarosporella* as a new genus for tiarosporella-like fungi with long-necked conidiomata and holoblastic conidiogenesis (A.J.L. Phillips).

Exesisporites Elsik (fossil)

The centrally located pore in *Exesisporites* is generally surrounded by a dark circular patch which is interpreted as a thickened wall. Ethridge Glass et al. (1986) cited possible affinity of *Exesisporites* to the extant fungus *Nigrospora* Zimm. (R.K. Saxena).

Exochalara W. Gams & Hol.-Jech.

Crous et al (2018b) treat this genus as a member in *Neolauriomycetaceae* (K. Bensch).

Exophiala J.W. Carmich.

This is a species-rich genus of black yeast-like fungi, polyphyletic within *Chaetothyriales*. The type species, *E. salmonis*, and most members of this genus belong in *Herpotrichiellaceae*, but some species are related to other chaetothyrialean families, such as *Trichomeriaceae* (Madrid et al. 2016) (H. Madrid).

Extremaceae Quaedvl. & Crous

Paradevriesiaceae was introduced by Crous et al. (2019) and comprises *Paradevriesia compacta* (CBS 118294), *P. Americana* (CBS 117726), and *P. pseudoamericana* (CPC 16174). However, Crous et al. (2019) did not include sequence of *Extremaceae* in their phylogenetic tree. In Hongsanan et al. (in prep), *Paradevriesia* strains form a distinct lineages within *Extremaceae*. Hence, Hongsanan et al. (in prep.) regarded *Paradevriesiaceae* as a synonym of *Extremaceae* (S. Hongsanan & N. Wijayawardene).

Flabellascoma A. Hashim. et al.

Hashimoto et al. (2018) proposed this genus to accommodate two species which were previously in the *Lophiostoma bipolare* species complex (S. Fryar).

Flagellospora Ingold

Ekanayaka et al. (2019) retrieved this genus as a distinct phylogenetic lineage without support. We propose it here as *Leotiales* genera *incertae sedis* based on the placement of *F. curvula*, the type species, in the 15-gene tree of Johnston et al. (2019) (D. Haelewaters).

Flavignomonia N. Jiang et al.

Jiang et al. (2019c) proposed this new genus based on morphological and molecular data with synnemata similar to *Synnemasporella* but differ in orange synnematal tips and hyaline conidia (S. Tibpromma).

Fomitopsidaceae Jülich

Zmitrovich (2018) treated *Adustoporiaceae* Audet, *Amyloporiaceae* Audet, *Fibroporiaceae* Audet, *Lentoporiaceae* Audet, *Pycnoporellaceae* Audet, *Rhodoniaceae* Audet and *Sarcoporiaceae* Audet as synonyms of *Fomitopsidaceae* (V. Papp).

Fonsecaea Negroni

This genus currently includes eight species, most of which are associated with infections in humans. Phylogenetically, *Fonsecaea* belongs in *Herpotrichiellaceae* (Arzanlou et al. 2007, Madrid et al. 2016, Dong et al. 2018) (H. Madrid).

Foveodiporites C.P. Varma & Rawat emend. Kalgutkar & Janson. (fossil)

Punctodiporites C.P. Varma & Rawat is a later synonym of *Foveodiporites* as emended by Kalgutkar & Jansonius (2000) (R.K. Saxena).

Frasnacritetrus Taug. emend. R.K. Saxena & S. Sarkar (fossil)

Taugourdeau (1968) originally described this genus under *Acritarcha incertae sedis* from the Late Devonian (Frasnian) sediments of France. Kendrick & Carmichael (1973) published a list of staurosporous genera and their illustrations which strongly suggests that *Frasnacritetrus* is a fossil representative of *Tetraploa* Berk. & Broome, hence its placement under *Acritarcha incertae* sedis by Taugourdeau (1968) does not seem justified. All the seven assemblages studied by Saxena & Sarkar (1986), wherefrom the present microfossils have been recovered, contain poaceous pollen as well. Since *Tetraploa* mainly grows on Poaceae, the association of *Frasnacritetrus* with poaceous pollen is considered a supporting evidence for the affinity of *Frasnacritetrus* with *Tetraploa* (R.K. Saxena).

Frutidella Lalb

Kistenich et al. (2018) transferred this genus from the *Ramalinaceae* to the *Lecanoraceae* (E. Timdal).

Fuscosclera Hern.-Restr. et al.

Johnston et al (2019) accepted this genus in *Mollisiaceae* (D. Haelewaters).

Fusichalara S. Hughes & Nag Raj

Fusichalara minuta clustered in the family *Sclerococcaceae* (Réblová et al. 2016, Yu et al. 2018), but not type species (H. Zhang).

Fusiformisporites Rouse (fossil)

Striadyadosporites Dueñas is a later taxonomic synonym of *Fusiformisporites* (R.K. Saxena).

Galbinothrix Frisch et al.

This genus was recently introduced from Japan and Korea by Frish et al. (2018). Multi-gene phylogenetic analyses revealed that the monotypic genus formed a distinct clade together with *Chrysothrix*, *Melarthonis*, and *Arthonia* (P. Rodriguez-Flakus).

Geesterania Westphalen, Tomšovský & Rajchenberg

Westphalen et al. (2018) introduced this genus in Meruliaceae to accommodate *Junghuhnia carneola* (Bres.) Rajchenb. and *Geesterania davidii* Westphalen & Rajchenberg. (V. Papp).

Gelatinoamylaria Prasher & R. Sharma

Prasher et al. (2016) introduced *Gelatinoamylaria* as a new genus to accommodate a species with gelatinous apothecia and amyloid ascospores. It is tentatively placed in *Dermateaceae* but no sequences are available. It should be analyzed phylogenetically to determine its true systematic position (I. Kušan & N. Matočec).

Gelatinosporium Peck

This genus belongs to *Tympanidaceae* following the family concept of Baral (2016) and Quijada et al. (2020) (N. Wijayawardene).

Geonectria Lechat & J. Fourn.

This is newly described genus (Lechat et al. 2018b) that belongs to *Bionectriaceae* (I. Kušan & N. Matočec).

Gloeoporellus Zmitr.

Justo et al. (2017) showed that *Tyromyces merulinus* (Berk.) G. Cunn. forms a distinct phylogenetic lineage in the family Incrustoporiaceae. Hence, Zmitrovich (2018) introduced the monotypic genus *Gloeoporellus* to accommodate *Tyromyces merulinus* (V. Papp).

Gloniales Jayasiri & K.D. Hyde

Jayasiri et al. (2018) introduced this order as a distinct sister clade to the *Mytinidiales* (S. Fryar).

Grovesiella M. Morelet

Previously placed in *Tympanidaceae*. However, *G. abieticola*, the type species of the genus, was retrieved as a member of *Godroniaceae* in the ITS tree of Johnston et al. (2019) (D. Haelewaters).

Gymnostellatospora Udag. et al.

Previously regarded as a member of *Myxotrichaceae* (Baral 2016), this genus is now placed in *Pseudeurotiaceae*, *Thelebolales* based on the ITS phylogeny of Johnston et al. (2019). This placement agrees with the suggestion of Minnis & Lindner (2013) to consider the genera *Geomyces*, *Gymnostellatospora*, *Leuconeurospora*, *Pseudeurotium* and *Pseudogymnoascus* as members of the family *Pseudeurotiaceae* (D. Haelewaters).

Hanseniaspora Zikes

This teleomorph genus has a priority over its anamorphic counterpart, *Kloeckera*. *Kloeckera* species have recently been transferred here (Kurtzman & Boekhout 2017, Čadež et al. 2019) (W.P. Pfliegler & E. Horváth).

Harmoniella V.N. Boriss.

This enigmatic genus currently includes two species, the generic type *H. chrysocephala*, and *H. campanaensis*. They have been collected on plant material in Ukraine and Chile, respectively. Both are apparently non-culturable fungi and so far it has been impossible to generate DNA sequence data of them. No sexual morph is known for *Harmoniella* (H. Madrid).

Hemigraphaceae D.Q. Dai & K.D. Hyde

Dai et al. (2018) introduced this family in *Asterinales* to accommodate *Hemigrapha* (Müll. Arg.) D. Hawksw. (N. Wijayawardene).

Hemiphacidiaceae Korf

Ekanayaka et al. (2019) reinstated this family but careful analysis of previous work shows that this decision is flawed. Pärtel et al. (2017) included in their phylogenetic analysis the type species of the genus *Cenangium*, *C. ferruginosum*, to find that it is positioned in the clade that Ekanayaka et al. (2019) refer to as *Hemiphacidiaceae* but truly is *Cenangiaceae*. The clade named "*Cenangiaceae*" by Ekanayaka et al. (2019) is regarded as *Helotiales* genera *incertae sedis* by other studies, including Zhao et al. (2016) Pärtel et al. (2017), Johnston et al. (2019). This clade includes "*Cenangium*" *acuum*, *Piceomphale bulgarioides*, and *P. pinicola* (basionym *Moellerodiscus pinicola*). In this outline, we follow Pärtel et al.'s (2017) emended concept of *Cenangiaceae* including members of the previous *Hemiphacidiaceae* (see *Cenangiaceae*) (D. Haelewaters).

Hemipholiota (Singer) Bon

Bon (1986) elevated *Pholiota* subgen. *Hemipholiota* to genus level and typified by *Hemipholiota populnea* (Singer) Bon as the type species. Molecular data analyses confirmed that *Hemipholiota* is a separate genus from *Pholiota* with a unique and uncertain phylogenetic position, distinct from *Strophariaceae* (Moncalvo et al. 2002, Gulden et al. 2005) (B. Dima).

Henssenia Ertz, R.S. Poulsen & Søchting

Ertz et al. (2017a) introduced this genus and showed that it belongs in *Koerberiaceae* (N. Wijayawardene).

Hermanssonia Zmitr.

Justo et al. (2017) showed that *Phlebia centrifuga* P. Karst. forms a distinct phylogenetic lineage in the family Meruliaceae. Hence, Zmitrovich (2018) introduced the monotypic genus *Hermanssonia* to accommodate *Phlebia centrifuga* (V. Papp).

Herpomycetales Haelew. & Pfister

Haelewaters et al. (2019b) introduced this new order to accommodate the genus *Herpomyces*, which was previously placed in *Laboulbeniales*. Blackwell et al. (2020) found high support for the polyphyly of the thallus-forming *Laboulbeniomycetes*, i.e. orders *Herpomycetales* and *Laboulbeniales* (D. Haelewaters).

Hesperomyces Thaxt.

Wijayawardene et al. (2017a) mentioned eleven species for this genus. This number will be much higher, after Haelewaters et al. (2018a) found that *H. virescens* Thaxt. is a complex of multiple species, each with their own host. At least 10 species can be recognized within *H. virescens* sensu lato (D. Haelewaters, unpubl. data) (D. Haelewaters).

Heufleria Auersw.

Baral (2016) and Ekanayaka et al. (2019) accepted this genus in *Rhytismataceae* (N. Wijayawardene & D. Haelewaters).

Hilidicellites Kalgutkar & Janson. (fossil)

Kalgutkar & Jansonius (2000) opined that *Dicellaesporites appendiculatus* Sheffy & Dilcher is a misfit in *Dicellaesporites* Elsik and therefore they proposed *Hilidicellites* to accommodate it (R.K. Saxena).

Hoffmannoscypha Stielow, Göker & Klenk

This genus, erected for a single species (*Geopora pellita*), was recently shown to represent a separate phylogenetic lineage (Van Vooren et al. 2017) (I. Kušan & N. Matočec).

Hortaea Nishim. & Miyaji

This genus currently includes two species, *H. werneckii* and *H. thailandica*. *Hortaea werneckii* is a well-known clinically relevant fungus, causing superficial skin infections in humans (Marchetta et al. 2018) (H. Madrid).

Hyaloscyphaceae Nannf.

This family is currently polyphyletic. Based on a four-gene phylogenetic analysis, Han et al. (2014) found that *Hyaloscyphaceae* sensu lato is a heterogeneous assemblage of 10 hyaloscyphaceous taxa. In Johnston et al. (2019), three highly supported clades were retrieved, Han Clade 4 (*Gamarada*, *Hyphodiscus*, *Hyphopeziza*, *Venturiocistella*), Han Clade 7 (*Amicodisca*, *Dematioscypha*), and *Hyaloscyphaceae* ("*Chalara*" *longipes*, *Hyalopeziza*, type genus

Hyaloscypha, *Meliniomyces*, *Olla*, *Rhizoscyphus*). More taxa and sequence data are needed to resolve the classification and taxonomy within *Hyaloscyphaceae sensu lato* (D. Haelewaters).

Hydnocystis Tul.

Stephensia Tul. & C. Tul. has been treated as a synonym of *Hydnocystis* by Kumar et al. (2017) (P. Alvarado).

Hydnophanerochaete Sheng H. Wu & C.C. Chen

Chen et al. (2018) introduced this monotypic genus in Meruliaceae to accommodate *Phanerochaete odontoidea* Sheng H. Wu (V. Papp).

Hypomontagnella Sir et al.

Lambert at al. (2019) erected the new genus *Hypomontagnella* Sir et al. (*Hypoxylaceae*) based on a comparison of molecular and morphological data for *Hypoxylon monticulosum* and similar species. Interestingly, all strains so far cultured produce the selective antifungal polyketides of the sporothiolide type, which can therefore be regarded as a chemotaxonomic marker (M. Stadler).

Hypoxylonites Elsik. (fossil)

Hypoxylonsporites P. Kumar is a later taxonomic synonym of *Hypoxylonites* Elsik (Elsik 1990) (R.K. Saxena).

Immotthia M.E. Barr

Hyde et al. (2017) accommodated *Immotthia* in *Roussoellaceae* based on morphological characteristics resembling the genus *Roussoella*. However, phylogenetic affinity of the genus needs to be confirmed by molecular data (R. Phookamsak).

Inapertisporites Hammen (fossil)

Triporisporonites Sheffy & Dilcher is a later taxonomic synonym of *Inapertisporites*. *Inapertisporites* "Hammen ex Rouse" is illegitimate name being a later homonym (and later taxonomic synonym) of *Inapertisporites* Hammen (R.K. Saxena).

Intralichen D. Hawksw. & M.S. Cole

This genus was introduced by Hawksworth & Cole (2002) to accommodate dematiaceous hyphomycetes occurring in lichens, some of which were previously placed in *Bispora* or *Trimmatostroma*. The only available DNA sequence is labelled '*Bispora*' *christiansenii* IMI 227584, a sequence of 18S rDNA from a study by Sert et al. (2007), with the GenBank number AM279680. BLAST searches with this sequence, however, revealed that it shows 99% identity to yeasts of the genera *Candida*, *Debaryomyces* and *Meyerozyma*, indicating that probably a contaminant was sequenced (H. Madrid).

Jansoniisporites Kalgutkar (fossil)

Brachysporisporites endophragmia Kalgutkar & Sigler is a misfit in *Brachysporisporites* R.T. Lange & P.H. Sm. and therefore Kalgutkar (1997) proposed *Jansoniisporites* to accommodate it (R.K. Saxena).

Japewia Tønsberg

Kistenich et al. (2018) transferred this genus from the *Ramalinaceae* to the *Lecanoraceae* (E. Timdal)

Junewangiaceae J.W. Xia & X.G. Zhang

See under *Acrodictyaceae* (J. Ma).

Kellermania Ellis & Everh.

Based on phylogenetic information and morphology, Minnis et al. (2012) placed *Alpakesa*, *Piptarthron*, *Planistroma*, and *Planistromella* as synonyms of *Kellermania* (A.J.L. Phillips).

Khaleijomyces Abdel-Wahab

Abdel-Wahab et al (2018) erected this new genus for a new marine species within *Juncigenaceae* (S. Fryar).

Kiliasia Hafellner

Kistenich et al. (2018) resurrected this genus in the *Ramalinaceae* (E. Timdal).

Knufia L.J. Hutchison & Unter.

The molecular phylogeny and taxonomy of this genus has been studied by Tsuneda et al. (2011b), Isola et al. (2016) and Mehrabi et al. (2018) among others, revealing its placement in *Trichomeriaceae* (H. Madrid).

Kumarisporites Kalgutkar & Janson. (fossil)

Imprimospora ramanujamii Kumar is a misfit in *Imprimospora* and therefore Kalgutkar & Jansonius (2000) proposed *Kumarisporites* to accommodate it (R.K. Saxena).

Kusaghiporia J. Hussein et al.

Hussein et al. (2018) described this genus with *K. usambarensis* Hussein J., Tibell S. & Tibuhwa as the type species and showed that it belongs to *Laetiporaceae* (V. Papp).

Kutchiathyrites R.K. Kar (fossil)

Kalgutkar & Jansonius (2000) opined that *Kutchiathyrites* is a multicellular spore/ conidium showing a clear attachment area, scar or pore. *Kutchiathyrites eccentricus* R.K. Kar demonstrates close similarity to the conidia of the hyphomycetous fungus *Mycocenterolobium platysporum* Goos (R.K. Saxena).

Laboulbenia Mont. & C.P. Robin

The most recent number of species in this genus is 633 (Song et al. 2019). This number will likely increase in the future; based on a preliminary concatenated ITS-LSU rDNA dataset, Haelewaters et al. (2019a) showed that one of the most cosmopolitan taxa in the genus, *L. flagellata* Peyr., is a complex of species. A number of taxa were recently lectotypified in Haelewaters et al. (2015, 2019a) (D. Haelewaters).

Lachnopsis Guatimosim et al.

Lachnopsis was introduced in *Lachnaceae* to accommodate two species that are only distinguishable from *Lachnum* based on DNA sequence data (Guatimosim et al. 2016) (D. Haelewaters).

Lasionectriella Lechat & J. Fourn.

Lechat et al. (2016a) described this genus to accommodate two species within the family *Bionectriaceae* (I. Kušan & N. Matočec).

Lecanoraceae Körb. (= *Carbonicolaceae* Bendiksby & Timdal)

Kraichak et al. (2018a) regarded *Carbonicolaceae* as a synonym of *Lecanoraceae* (N. Wijayawardene).

Lentimurispora N.G. Liu et al.

Liu et al. (2018a) introduced this genus and *Lentimurisporaceae* which has a distinct lineage in *Pleosporales* (S. Fryar).

Lentistoma A. Hashim.

Hashimoto et al. (2018) proposed this genus to accommodate *Lentistoma bipolare*, which was transferred from *Lophiostoma* based on molecular and morphological characters (S. Fryar).

Lentithecium K.D. Hyde et al.

Lentithecium aquaticum Yin. Zhang, J. Fourn. & K.D. Hyde, *L. arundinaceum* (Sowerby) K.D. Hyde, J. Fourn. & Yin. Zhang, and *L. lineare* (E. Müll. ex Dennis) K.D. Hyde, J. Fourn. & Yin. Zhang do not group with *L. fluviatile* (Aptroot & Van Ryck.) K.D. Hyde, J. Fourn. & Yin. Zhang, the type species of the genus *Lentithecium* in molecular phylogenetic analysis (MycoBank: see under *Lentithecium carbonneanum* J. Fourn., Raja & Oberlies) (H. Raja).

Leptoparies A. Hashim.

Hashimoto et al. (2018) proposed this genus to accommodate a single species within the *Lophiostomataceae* (S. Fryar).

Leptosillia Höhn.

Voglmayr et al (2019) demonstrated that the genus *Leptosillia* belongs to the *Xylariales* based on a multi locus DNA sequence analyses of SSU-ITS-LSU rDNA, rpb1, rpb2, tef1 and tub2. They also established the genera *Cresporhaphis* and *Liberomyces* are congeneric with *Leptosillia* and erected the new family *Leptosilliaceae*. A number of taxa were epi-or lectotypified, and the new genus *Furfurella* was erected in family *Delonicicolaceae* (M. Stadler).

Lichinodium Nyl.

Lichinodium was previously placed in class *Lichinomycetes*. However, Prieto et al. (2019) showed that this genus is placed within *Leotiomycetes* as a previously unrecognized lineage and introduced a new order (*Lichinodiales*) and family (*Lichinodiaceae*) (M. Prieto).

Lithophila Selbmann & Isola

This monotypic genus, typified by *L. guttulata*, occurs on marble and was placed in *Trichomeriaceae* based on multilocus phylogenetic analyses (Isola et al. 2016) (H. Madrid).

Liua Phook. & K.D. Hyde

Phookamsak et al. (2019) introduced a monotypic genus *Liua* to accommodate camarosporium-like species and is typified by *L. muriformis* Phookamsak, H.B. Jiang & K.D. Hyde. Multi-gene phylogenetic analyses showed that *Liua* formed a sister lineage with *Cycasicola* in *Thyridariaceae* (R. Phookamsak).

Lodderomyces Van der Walt

Expected transfer of species to *Candida* Berkhout to comply with the Melbourne Code (Kurtzman & Boekhout 2017) (W.P. Pfliegler and E. Horváth).

Lonicericola Phook. et al.

Phookamsak et al. (2019) introduced the new genus *Lonicericola* based on DNA sequence analyses. The genus formed a distinct clade closely related with *Pseudomonodictys* and *Paratrimmatostroma* in *Parabambusicolaceae* (R. Phookamsak).

Lotinia Pérez-Butrón et al.

This genus, erected for a single species (*L. verna*), represents a separate phylogenetic lineage (Van Vooren et 2017) (I. Kušan & N. Matočec).

Manglicola Kohlm. & E. Kohlm.

Manglicola consists of two species, but molecular data supports only *M. guatemalensis* Kohlm. & E. Kohlm. showing phylogenetic affiliations to *Manglicolaceae*, while *M. samuelsii* Huhndorf, was placed in the *Hypsostromataceae* based on morphological data (Huhndorf 1994). Sequence data from *M. samuelsii* is necessary to place it within a phylogenetic framework and assess if the genus is polyphyletic within the *Dothideomycetes* (H. Raja).

Marasasiomyces Crous

Based on ITS and LSU sequence phylogeny, Crous et al. (2015a) introduced *Marasasiomyces* as a new genus for tiarosporella-like fungi with long-necked conidiomata covered in brown setae (A.J.L. Phillips).

Marthamycetales P.R. Johnst. & Baral

Introduced in Johnston et al. (2019) to accommodate the phylogenetically isolated family *Marthamycetaceae* within *Leotiomycetes* (D. Haelewaters).

Masonhalea Kärnefelt

Thell et al. (2018) proposed to resurrect the genus (A. Tsurykau).

Massariosphaeria (E. Müll.) Crivelli

This genus was firstly recognized as a section of *Leptosphaeria* (Müller 1950). However, *Massariosphaeria* was introduced by Crivelli (1983). Wang et al. (2007) showed that *Massariosphaeria* is polyphyletic. However, the type species *M. phaeospora* is closely related to the type species of *Cyclothyriellaceae*, *Cyclothyriella rubronotata*. Therefore, *Massariosphaeria* is placed in *Cyclothyriellaceae* (Jaklitsch et al. 2016a, Wijayawardene et al. 2018a) (S. Hongsanan).

Mathurisporites Kalgutkar & Janson. (fossil)

Kalgutkar & Jansonius (2000) opined that *Pluricellaesporites ellipticus* Y.K. Mathur & K. Mathur is a misfit in *Pluricellaesporites* Hammen and therefore they proposed *Mathurisporites* to accommodate it (R.K. Saxena).

Megalaria Hafellner

Kistenich et al. (2018) regarded that *Catillochroma* Kalb and *Lopezaria* Kalb & Hafellner as synonyms of this genus (E. Timdal).

Melaspileellaceae D.Q. Dai & K.D. Hyde

Dai et al. (2018) introduced this family in *Asterinales* to accommodate *Melaspileella* (P. Karst.) Vain (N. Wijayawardene).

Metschnikowiaceae T. Kamienski

Family status is expected to change following the phylogenetic relationships of the genera of *Debaryomycetaceae* and *Metschnikowiaceae* (Shen et al. 2016) (W.P. Pfliegler & E. Horváth).

Micraspidales Quijada & Tanney

Previously, the genus *Micraspis* was placed in different families (*Cryptomycetaceae*, *Helotiaceae*, *Phacidiaceae*, *Tympanidaceae*). Because of its isolated phylogenetic position within *Leotiomycetes*, Quijada et al. (2020) established the family *Micraspidaceae* and order *Micraspidales* to accommodate the genus (D. Haelewaters).

Microcaliciaceae Tibell

Kraichak et al. (2018a) accepted the family as in *Pertusariales* (N. Wijayawardene).

Microkamienskia Corazon-Guivin et al.

Corazon-Guivin et al. (2019) introduced *Microkamienskia* with two new combinations. This genus is an arbuscular mycorrhizal fungus and similar to *Kamienskia* in spore but differ in size (Błaszkowski et al. 2015) (S. Tibpromma).

Minimelanolocus R.F. Castañeda & Heredia

This genus is currently considered a putative member of *Herpotrichiellaceae*, although no DNA sequence data is available for the type species, *M. navicularis* (H. Madrid).

Mniaeciaceae Baral

Introduced in Johnston et al. (2019), elevating the *Mniaecia* lineage sensu Baral (2016) to family level. *Mniaeciaceae* is sister to *Leotiaceae* within *Leotiales* (D. Haelewaters).

Monoporisporites Hammen (fossil)

Polyporisporites Hammen, *Psiammopomopiospora* Sal.-Cheb. & Locq. and *Reticulatisporonites* Elsik are later taxonomic synonyms of *Monoporisporites* Hamme Dong n (Kalgutkar & Jansonius 2000) (R.K. Saxena).

Mortierella Coem.

There are 247 records of *Mortierella* species in the Species Fungorum, but according to Yadav et al. (2015) nearly 100 of validated species have been described (A. L. C. M. de A. Santiago).

Mossopisporites Kalgutkar & Janson. (fossil)

Kalgutkar & Jansonius (2000) opined that *Triporicellaesporites multicellulus* Ke & Shi is a misfit in *Triporicellaesporites* Ke & Shi and therefore they proposed *Mossopisporites* to accommodate it (R.K. Saxena).

Mucoharknessia Crous et al.

Based on ITS and LSU sequence phylogeny, Crous et al. (2015a) introduced *Mucoharknessia* as a new genus for tiarosporella-like fungi that resembles *Harknessia* (*Harknessiaceae*, *Diaporthales*), but are distinguished by having pycnidia that lack furfuraceous tissue around the ostiole and conidia with a mucoid apical appendage (A.J.L. Phillips).

Mucor Fresen.

The greatest number of mucoralean species described to date belongs to *Mucor* with more than 300 species cited in literature (Jacobs & Botha 2008, Álvarez et al. 2011). Although the exact number of valid taxa is unknown, Gherbawy et al. (2010) stated the number of species may have ranged from 50 to 75 at the time of the study. Based on morphological characteristics, maximum growth temperature and mating experiments, Schipper (1973, 1975, 1976, 1978) monographed the genus and described 39 species, four varieties and 11 forms. Knowledge of the genus was subsequently expanded with a description of 26 new taxa [Mehrotra & Mehrotra (1979), Mirza et al. (1979), Subrahamanyam (1983), Chen & Zheng (1986), Schipper & Samson (1994), Watanabe (1994), Zalar et al. (1997), Pei (2000), Alves et al. (2002), Jacobs & Botha (2008), Hermet et al. (2012), Madden et al. (2012), Voglmayr & Clémençon (2016), Li et al. (2016), Lima et al. (2017), Wanasinghe et al. (2018), De Souza et al. (2018), de Lima et al. (2018)]. (A. L. C. M. de A. Santiago)

Muellerella Müll. Arg.

Muggia et al. (2015) hypothesized that the genus represents sexual stage of *Lichenodiplis* (A. Suija).

Multicellaesporites Elsik emend. P. Kumar (fossil)

Kumar (1990) emended the generic diagnosis. *Warkallisporonites* Ramanujam & K.P. Rao is a later taxonomic synonym of *Multicellaesporites* Elsik (R. K. Saxena).

Mycobilimbia Rehm

Kistenich et al. (2018) transferred this genus from the *Lecideaceae* to the *Ramalinaceae* (E. Timdal).

Mycocarpon S.A. Hutch. (fossil)

Hutchinson (1955) opined that *Sporocarpon pachydermum* Will. is a misfit in *Sporocarpon* Will. and therefore he proposed *Mycocarpon* to accommodate it (R.K. Saxena).

Mycoceros D. Magyar & Z. Merényi

This genus was recently described to accommodate a species parasitizing *Pinaceae* grain pollens. Based on an ITS+LSU phylogeny, it was clearly placed within *Orbiliomycetes* by Magyar et al. (2018) (I. Kušan & N. Matočec).

Mycomicrothelia Keissl.

All the tropical species have been placed in *Bogoriella* (*Trypetheliaceae*, *Trypetheliales*), but type and other temperate taxa are still in *Mycomicrothelia* (Aptroot & Lücking 2016) (A. Aptroot).

Mycopappus Redhead & G.P. White

Baral (2016) and Ekanayaka et al. (2019) accepted this genus as in *Sclerotiniaceae* (N. Wijayawardene).

Mycosphaerellaceae Lindau

We accept only 111 genera which have been confirmed as well-established genera in *Mycosphaerellaceae* by phylogenetic analyses. Hongsanan et al. (2020) lists doubtful genera in *Mycosphaerellaceae* based on Videira et al. (2017) (N. Wijayawardene & R. Phookamsak).

Myelorrhiza Verdon & Elix

Kistenich et al. (2018) transferred this genus from the *Cladoniaceae* to the *Ramalinaceae* (E. Timdal).

Myochroidea Printzen et al.

Printzen et al. (2008) accommodate *Myochroidea* including four species of the *Lecidea leprosula* group such as *M. leprosula* (Arnold) Printzen, T. Sprib. & Tønsberg, *M. porphyrospoda* (Anzi) Printzen, T. Sprib. & Tønsberg, *M. rufofusca* (Anzi) Printzen, T. Sprib. & Tønsberg and *M. minutula* Printzen, T. Sprib. & Tønsberg based on morphological key characters. Although no phylogenetic analyses have been performed, the authors suggested to include this genus either in *Psoraceae*, *Pilocarpaceae*, or *Ramalinaceae* but to confirm the final placement of *Myochroidea* in the system, molecular analyses are needed (P. Rodriguez-Flakus).

Myrmecocystis Harkn.

This genus was recently resurrected by Alvarado et al. (2018) (P. Alvarado).

Myxotrichaceae Currah

Johnston et al. (2019) found high support for the placement of this family in the pezizelloid clade of *Helotiales*, placed sister to *Amorphothecaceae*. In the ITS tree of Johnston et al. (2019), *Amorphothecaceaea* consisting of *Byssoascus*, "*Malbranchea*" *flavorosea*, *Myxotrichum* and *Oidiodendron* was retrieved in a maximum supported branch sister to *Amorphotheca resinae* (D. Haelewaters).

Neocelosporium Crous

Crous et al. (2018) introduced a new family *Neocelosporiaceae* and new order *Neocelosporiales* to accommodate the genus *Neocelosporium*, which represents a distinct lineage in *Dothideomycetes*. However, Hongsanan et al. (in prep.) found that *Neocelosporiales* is placed within the order *Dothideales*. As a result, *Neocelosporiales* is here regarded as a synonym of *Dothideales* and *Neocelosporiaceae* is accommodated in *Dothideales* (N. Wijayawardene & S. Hongsanan).

Neodendryphiella Iturrieta-González et al.

Iturrieta-González et al. (2018) introduced this new genus with three new species in *Dictyosporiaceae.* Currently, the genus comprises three species viz. *N. mali*, *N. michoacanensis* and *N. tarraconensis* (the type species). *Neodendryphiella* differs from *Dendryphiella* in lacking of nodulose conidiophores bearing conidiogenous cells with pores surrounded by a thickened and darkened wall (S. Fryar & S. Somrithipol).

Neoeutypella M. Raza et al.

Neoeutypella was introduced as a monotypic genus in Phookamsak et al. (2019) to accommodate *N. baoshanensis* M. Raza et al. and the strains identified as "*Eutypella caricae* (strains EL51C and GL08362)". Based on phylogenetic analyses, *Neoeutypella* formed a distinct lineage, clustered with *Diatrypella* species but the genus differs from *Diatrypella* in having large entostromata, 8-spored, spindle-shaped asci and allantoid ascospores (Phookamsak et al. 2019) (R. Phookamsak).

Neolauriomycetaceae Crous

Neolauriomycetaceae was introduced within *Helotiales* by Crous et al. (2018) to accommodate three genera: *Exochalara*, *Lareunionomyces*, and *Neolauriomyces* (D. Haelewaters).

Neomelanconiella Crous

Crous et al. (2018) introduced this genus and showed that it has a distinct lineage in *Diaporthales*. A new family *Neomelanconiellaceae* is introduced (N. Wijayawardene).

Neomelanconiella Crous

Crous et al. (2018) introduced this genus and showed that it has a distinct lineage in *Diaporthales*. Hence introduced the new family *Neomelanconiellaceae* (N. Wijayawardene).

Neoscytalidium Crous & Slippers

Two species of *Neoscytalidium* were frequently reported from opportunistic infections in humans, i.e. *N. dimidiatum* and *N. hyalinum.* The latter species, however, is currently considered a hyaline mutant of *N. dimidiatum* (Huang et al. 2016). *Neoscytalidium* currently includes three species (H. Madrid).

Neoseptorioides Crous et al.

This genus was introduced for species morphologically distinct from *Septorioides* (Crous et al. 2015a) (A.J.L. Phillips).

Neostagonosporella C.L. Yang et al.

Yang et al. (2019) introduced a holomorph genus *Neostagonosporella* to accommodate massarina-like taxon collected from living bamboo culms from China. Multi-gene phylogenetic analyses revealed the genus in *Phaeosphaeriaceae* (R. Phookamsak).

Neptunomyces M. Gonçalves et al.

This monotypic genus was recently introduced by Gonçalves et al. (2019). Based on phylogenetic analysis this genus is closest to *Xenocamarosporium* but conidial morphology is distinct (Gonçalves et al. 2019) (S. Tibpromma).

Noosia Crous et al.

Recent phylogenetic analyses indicated that *Noosia* belongs to Periconiaceae (Tanaka et al. 2015, Thambugala et al. 2017) (D. Wanasinghe).

Nothomitra Maas Geest.

According to Hustad et al. (2013) and Hustad & Miller (2015), this genus is phylogenetically close to *Sarcoleotia* in a basal clade of *Geoglossomycetes* (I. Kušan & N. Matočec).

Oblongocollomyces Tao Yang & Crous

This genus was introduced by Yang et al. (2017) to accommodate *Sphaeropsis variablis* (A.J.L. Phillips).

Odontoefibula C.C. Chen & Sheng H. Wu

Chen et al. (2018) introduced this monotypic genus in *Phanerochaetaceae* to accommodate the new species *Odontoefibula orientalis* C.C. Chen & Sheng H. Wu (V. Papp).

Odoria V. Papp & Dima

Papp & Dima (2018) introduced this new monotypic genus in *Meruliaceae* to accommodate the threatened old-growth forest polypore, *Aurantiporus alborubescens* (Bourdot & Galzin) H. Jahn (V. Papp).

Ophiobolopsis Phook. et al.

Phookamsak et al. (2017) introduced *Ophiobolopsis* to accommodate ophiobolus-like species in *Phaeosphaeriaceae* based on multi-gene phylogenetic analyses (R. Phookamsak).

Opilionomyces Santam. et al.

Santamaria et al. (2017) introduced this monotypic genus and confirmed its placement in family *Laboulbeniaceae*, subfamily *Laboulbenioideae*, tribe *Laboulbenieae* based on morphological characters (D. Haelewaters).

Ornasporonites Ramanujam & K.P. Rao (fossil)

This monotypic genus differs from *Fusiformisporites* because the latter possesses only a single septum and is longitudinally ribbed and inaperturate (R.K. Saxena).

Oscarbrefeldia Holterm.

Doubtful genus not treated by Kurtzman (2011) (W.P. Pfliegler & E. Horváth).

Ovadendron Sigler & J.W. Carmich.

This fungal genus is listed as a member of *Onygenales* in de Hoog et al. (2015), but its family placement needs to be thoroughly assessed (H. Madrid).

Pachydisca Boud.

Dumont (1975) proposed to exclude the genus from *Sclerotiniaceae* and place it in *Helotiales* based on morphological study of the type species, *P. guernisacii*. Jaklitsch et al. (2016a) treated this genus as a synonym of *Discinella* Boud. However, Species Fungorum (2020) lists 32 accepted species. In this outline, *Pachydisca* is regarded as *Helotiales* genera *incertae sedis* (D. Haelewaters).

Pachyphlodes Zobel

Scabropezia Dissing & Pfister has been regarded as a synonym of *Plicariella* or *Pachyphlodes* Zobel in Healy et al. (2018) (P. Alvarado).

Palaeoamphisphaerella Ramanujam & Srisailam (fossil)

Imprimospora Norris is considered as a later synonym of *Palaeoamphisphaerella* (R.K. Saxena).

Palaeomycites Mesch. (fossil)

Phycomycites Ellis, *Palaeomyces* Renault ex Kidston & Lang, *Rhizophagites* E.J. Butler ex Rosend., *Propythium* Elias, *Aplanosporites* R.K. Kar, *Glomites* T.N. Taylor, W. Remy, Hass & Kerp are later taxonomic synonyms of *Palaeomycites* (R.K. Saxena).

Palaeopericonia Ibañez & Zamuner (fossil)

The material is made up of only asexual structures represented by conidia produced on single conidiophores. The closely related genera are *Periconia* Tode, *Torula* Pers., *Stachybotrys* Corda, *Humicola* Traaen, *Thermomyces* Tsikl. and *Chlamydomyces* Bainier (Ibañez & Zamuner 1996) (R.K. Saxena).

Palaeophoma Singhai (fossil)

One-celled hyaline, bent or curved or lunate conidia, and a spherical and brown pycnidium have been shared by the living genus *Selenophoma* Maire (Barnet 1960). But the fossil fungus also possesses spherical conidia which are not present in *Selenophoma*. Moreover, *Palaeophoma* has non-ostiolate pycnidium whereas *Selenophoma* possesses a definite ostiole (R.K. Saxena).

Palaeosclerotium G.W. Rothwell (fossil)

Dennis (1976) opined that *Palaeosclerotium* represents an intermediate evolutionary stage between Ascomycetes and Basidiomycetes. Pirozynski & Weresub (1979) stated that *Palaeosclerotium* is neither an ascomycete nor a basidiomycete, but an early dikaryotic fungus and a representative of a group that links *Basidiomycota* with extinct, probably symbiotic, lichen-like nematophytes (R.K. Saxena).

Paleoslimacomyces Kalgutkar & Sigler (fossil)

Conidia of this monotypic genus show some morphological similarity with those of extant *Slimacomyces monospora* (W.B. Kendr.) Minter, which was originally described by Kendrick (1958) in *Helicoma* Corda (R.K. Saxena).

Pappia Zmitr.

Papp & Dima (2018) showed that *Aurantiporus fissilis* (Berk. & M.A. Curtis) H. Jahn ex Ryvarden forms a distinct phylogenetic lineage in the family *Meruliaceae*. Hence, Zmitrovich (2018) introduced the new monotypic genus *Pappia* in *Meruliaceae* to accommodate *Aurantiporus fissilis* (V. Papp).

Papulosporonites Schmied. & A.J. Schwab (fossil)

In *Polyadosporites* Hammen, the individual cells are less tightly appressed into a spherical mass than those in *Papulosporonites* (R.K. Saxena).

Paracladophialophora Crous

This genus currently includes two species, *P. carceris* and *P. cyperacearum*. They form a distinct clade in *Chaetothyriales* for which the family *Paracladophialophoraceae* was recently proposed (H. Madrid).

Parafenestella Jaklitsch & Voglmayr

Jaklitsch et al. (2018) proposed this new genus in the *Cucurbitariaceae* based on morphological and molecular characters. (S. Fryar)

Parallopsora Kistenich et al.

Kistenich et al. (2018) introduced this genus in *Ramalinaceae* (E. Timdal).

Paraophiobolus Phook. et al.

Phookamsak et al. (2017) introduced *Paraophiobolus* to accommodate ophiobolus-like species in *Phaeosphaeriaceae* based on multi-gene phylogenetic analyses (R. Phookamsak).

Pararoussoella Wanas. et al.

Wanasinghe et al. (2018) introduced a monotypic genus to accommodate roussoella-like species in *Thyridariaceae*. However, Phookamsak et al. (2019) accommodated the genus in *Roussoellaceae* based on multi-gene analyses and this concurred with Jiang et al. (2019a) and Karunarathna et al. (2019). (R. Phookamsak)

Paratrimmatostroma Jayasiri et al.

Phookamsak et al. (2019) introduced the new genus *Paratrimmatostroma* based on multi-gene phylogenetic analyses coupled with morphological characteristic. *Paratrimmatostroma* is sister to *Pseudomonodictys* in *Parabambusicolaceae* based on phylogenetic analyses of a combined SSU, ITS, LSU and TEF1-α sequence dataset (Phookamsak et al. 2019). *Paratrimmatostroma* can be distinguished from *Pseudomonodictys* in forming sporodochia on host substrate and having branched, straight or flexuous conidia, with variable conidial shape such as helicoid, cylindrical, sigmoid, or reniform (Phookamsak et al. 2019) (R. Phookamsak).

Parazalerion Madrid et al.

Phookamsak et al. (2019) introduced a monotypic conidial genus to accommodate zalerion-like taxon and is typified by *P. indica* Madrid, Gené, Cano & Guarro. The genus was isolated from soil in India and is characterized by having irregularly coiled, dematiaceous, multiseptate conidia which often form knots of cells. Phylogenetic analysis revealed that the genus formed a sister lineage with *Spirosphaera minuta* in *Microthyriales* (R. Phookamsak & H. Madrid).

Parmulariales D.Q. Dai & K.D. Hyde

Dai et al. (2018) introduced this order to accommodate *Parmulariaceae* (N. Wijayawardene).

Patinella Sacc.

Patinella hyalophaea, the type species of the genus, was retrieved near *Holwaya mucida* and its anamorph *Crinula caliciiformis* in Johnston et al.'s (2019) ITS tree, as *Leotiomycetes* genera *incertae sedis*. In their 15-gene tree, the *Holwaya–Crinula* clade was placed sister to *Thelebolales* (*Pseudeurotiaceae*, *Thelebolaceae*) with high support (D. Haelewaters).

Patinella Sacc.

The type species of *Patinella* was nested near the order *Thelebolales* (Hyde et al. 2017) by two phylogenies (based on ITS and LSU) together with *Ramgea* Brumm. and *Holwaya* Sacc. as a weakly supported sister clade to the family *Thelebolaceae*. More phylogenetic information is

needed to ascertain the true position of these three genera. It is best to place this genus into *Phacidiales incertae sedis* at the moment (I. Kušan & N. Matočec).

Peltigeraceae Dumort.

Kraichak et al. (2018a) regarded that *Lobariaceae* Chevall. and *Nephromataceae* Wetm. ex J.C. David & D. Hawksw. are synonyms of *Peltigeraceae* (N. Wijayawardene).

Perennicordyceps Matočec & I. Kušan

The genus *Perennicordyceps* was erected by Matočec et al. (2014) to segregate a monophyletic clade of four species aside from *Polycephalomyces* based on both molecular and non-molecular evidence. According to Crous et al. (2017), this genus is phylogenetically placed within *Ophiocordycipitaceae* as a sister clade to *Polycephalomyces* (I. Kušan & N. Matočec).

Pertusaria DC.

Several species were combined into other genera (Wei et al. 2017), but as no recent taxonomic revision of the genus is available, the exact number of species is obscure (M. Kukwa).

Petrophila de Hoog & Quaedvl.

This monotypic genus, typified by *P. incerta*, was placed in the family *Extremaceae* in a phylogenetic study by Isola et al. (2016) (H. Madrid).

Phacidiales Bessey

The order *Phacidiales* includes two families, *Helicogoniaceae* and *Phacidiaceae* (Johnston et al. 2019). Two lineages that were previously recognized in *Phacidiales* (sensu Baral 2016), *Mniaeciaceae* (referred to as *Mniaecia* lineage in Baral (2016)) and *Tympanidaceae*, are now recognized within *Leotiales* (D. Haelewaters).

Phaeopoacea Thambug. et al.

Thambugala et al. (2017) introduced *Phaeopoacea* to accommodate phaeosphaeria-like taxa in *Phaeosphaeriaceae* and is typified by *Phaeopoacea festucae*. Thambugala et al. (2017) also transferred *Phaeosphaeria phragmiticola* Leuchtm. to *Phaeopoacea* as *P. phragmiticola* (Leuchtm.) Thambugala & K.D. Hyde based on molecular data. The sexual and asexual morph connection of this genus is well-resolved (R. Phookamsak).

Phialina Höhn.

Baral (2016) and Ekanayaka et al. (2019) accepted this genus in *Pezizellaceae* (N. Wijayawardene).

Phialocephala W.B. Kendr.

Phialocephala is currently placed in *Mollisiaceae* based on the phylogenetic reconstruction of a 15-gene dataset. It should be noted that consensus remains unclear about the systematic position of several mollisioid genera, including *Mollisia* and *Phialocephala* (Tanney & Seifert 2020) (D. Haelewaters).

Phialophora Medlar

This genus historically included a heterogeneous assemblage of phialidic dematiaceous hyphomycetes usually with poorly developed conidiophores, producing phialides with conspicuous collarettes. It comprised members of several families, orders and classes of ascomycetes (Gams 2000). The current concept of the genus, however, only includes phialidic members of *Herpotrichiellaceae* with or without a yeast phase in culture (Li et al. 2017) (H. Madrid).

Phragmonaevia Rehm

Kirk et al. (2008) regarded this name as doubtful, but Baral (2016) listed it among *Helotiales* genera *incertae sedis*. No sequences are currently available for any member of this genus (N. Wijayawardene).

Phragmothyrites W.N. Edwards (fossil)

Microthallites Dilcher is a later taxonomic synonym of *Phragmothyrites* (R.K. Saxena).

Phyllopsora Müll. Arg.

Kistenich et al. (2018) regarded that *Crocynia* (Ach.) A. Massal. as a synonym of this genus (E. Timdal).

Piricauda Bubák

Da Silva et al. (2016) showed that *Piricauda paraguayensis* could be accommodated in *Mycosphaerellaceae*. However, it should be pointed out that *Piricauda paraguayensis* is not the type species, thus, we tentatively keep this genus in *Mycosphaerellaceae* (N. Wijayawardene, S. Hongsanan & R. Phookamsak).

Picoa Vittad.

The genus *Phaeangium* Pat. Has been regarded as a synonym of *Picoa*, as discussed in Zitouni-Haouar et al. (2015) (P. Alvarado).

Pilatotrama Zmitr.

Zmitrovich (2018) introduced this new monotypic genus in *Polyporaceae* to accommodate *Trametes ljubarskyi* Pilát. (V. Papp).

Placocrea Syd.

Boonmee et al. (2017) treated this genus as a member in *Teratosphaeriaceae* (S. Boonmee).

Plagiosphaera Petr.

Voglmayr in Song et al. (2019) demonstrated that the taxon *P. immersa* Petr. belongs to the family *Magnaporthaceae* (*Magnaporthales*) based on a multi-locus phylogenetic study of ITS-LSU-rpb1-tef1 DNA sequence analyses. The other members of the genus are listed as *Sordariomycetes incertae sedis* (Huhndorf et al. 2004, Index Fungorum 2019) (D. Haelewaters).

Pleuromyces Dima, P.-A. Moreau & V. Papp

Crous et al. (2018) introduced this monotypic genus to accommodate the new species *P. hungaricus* V. Papp, Dima & P.-A. Moreau, and accepted it as a genus in *Tubariaceae* based on phylogenetic analyses (V. Papp).

Plicariella (Sacc.) Rehm

See under *Pachyphlodes* Zobel (P. Alvarado).

Pluricellaesporites Hammen (fossil)

Piriurella Cookson & Eisenack is a later taxonomic synonym of *Pluricellaesporites* Hammen (R.K. Saxena).

Polycellaesporonites Anil Chandra et al. (fossil)

Capsular, muriform fungal spores with a hilum, and distally with an elongated, knob-like or beaked, extension as that in the modern *Alternaria* (R.K. Saxena).

Polycephalomyces Kobayasi

After segregation of the genus *Perennicordyceps* (Matočec et al. 2014) and the description of several new species in the genus, *Polycephalomyces* currently includes 18 species (Xiao et al. 2018) (D. Haelewaters).

Prathoda Subram.

Simmons (2007) resurrected *Prathoda* which is distinct from *Alternaria* (Pleosporaceae). In MycoBank and Species Fungorum, *Prathoda* is mentioned as a synonym of *Alternaria*, but its molecular phylogeny has not been recovered and closest relationship with *Alternaria* has not been settled. Therefore we left *Prathoda* as a separate genus (P.B. Gannibal).

Proliferophorum Wang et al.

Phookamsak et al. (2019) introduced a monotypic genus *Proliferophorum* to accommodate hyphomycetous species, *P. thailandicum* G.N. Wang et al. in Diaporthomycetidae based on phylogenetic analysis. The genus is characterized by having mononematous, caespitose conidiophores, polyblastic, terminal, sympodial, pale brown or subhyaline, with minute, truncate conidiogenous cells, sometimes percurrently proliferating 1–2 times at broken ends of conidiogenous cells and fusiform to cylindrical, pigmented, septate conidia. The genus was collected from decaying submerged wood in Thailand (R. Phookamsak).

Protofenestella Jaklitsch & Voglmayr

Jaklitsch et al. (2018) proposed this new genus in the Cucurbitariaceae based on morphological and molecular characters (S. Fryar).

Protothelenellaceae Vezda et al.

Kraichak et al. (2018a) regarded that *Thrombiaceae* Poelt & Vezda ex J.C. David & D. Hawksw. as a synonym of *Protothelenellaceae*. Further, the family has been transferred to *Baeomycetales* from *Ostropales* (N. Wijayawardene).

Pseudaegerita J.L. Crane & Schokn.

This aero-aquatic hyphomycete genus was shown to be a member of *Hyaloscyphaceae* based on morphology of the associated sexual state (Abdullah et al. 2005) and DNA sequence data (Johnston et al. 2019, Vu et al. 2019) (H. Madrid).

Pseudoanungitea Crous

Crous et al. (2018) introduced this new genus in *Venturiaceae* (S. Fryar).

Pseudoastrosphaeriellopsis Devadatha et al.

Phookamsak et al. (2019) introduced *Pseudoastrosphaeriellopsis* as a monotypic genus in *Pseudoastrosphaeriellaceae* to accommodate trematosphaeria-like taxon. The genus is typified by *Pseudoastrosphaeriellopsis kaveriana* Devadatha et al. collected from decaying wood of *Avicennia marina* (Forssk.) Vierh. and *Suaeda monoica* Forssk. ex J.F.Gmel. in India. Based on multi-gene phylogenetic analyses, *Pseudoastrosphaeriellopsis* formed a distinct lineage basal to *Pseudoastrosphaeriella* (R. Phookamsak).

Pseudobambusicola Hern.-Restr. & Crous

This new genus was placed in *Sulcatisporaceae* using multi-gene phylogenetics and morphological characters by Rupcic et al. (2018). It is closely related to *Neobambusicola* but differs in having cylindrical-necked conidiomata surrounded by dark brown, smooth to slightly verruculose hyphae (Rupcic et al. 2018) (S. Fryar & S. Somrithipol).

Pseudofusicoccum Mohali

Yang et al. (2017) considered that this genus warrants a separate family and thus introduced *Pseudofusicoccumaceae* to accommodate it. Phillips et al. (2019) took into account phylogeny

(ITS, LSU), morphology and evolutionary divergence times and concluded that *Pseudofusicoccum* resides within *Phyllostictaceae*. Hence, Phillips et al. (2019) synonymised *Pseudofusicoccumaceae* under *Phyllostictaceae* (A.J.L. Phillips).

Pseudographis Nyl.

Based on the phylogenetic analysis of a three-gene dataset (ITS, LSU, mtSSU), Karakehian et al. (2019) placed *Pseudographis* in *Rhytismataceae*, not *Triblidiaceae*. Because of the inclusion of *Pseudographis* in the family, the authors expanded the morphological description of *Rhytismataceae* to include "ascospore cell walls that produce a strong blue/purple reaction in iodine-based reagents" (D. Haelewaters).

Pseudogymnoascus Raillo

In Johnston et al.'s (2019) 15-gene tree, *Pseudogymnoascus* was strongly supported as sister genus to *Leuconeurospora* within *Pseudeurotiaceae*, *Thelebolales*. In a genomic-scale tree based on 3156 single-copy genes, *Pseudogymnoascus destructans* was sister to *Thelebolus microsporus*, confirming its position in the order *Thelebolales* (Johnston et al. 2019) (D. Haelewaters).

Pseudolanzia Baral & G. Marson

Introduced to accommodate a species that bears morphological similarities to *Lanzia* but is phylogenetically distinct. It is placed on a long branch within *Rutstroemiaceae* based on an ITS+LSU phylogeny (Baral 2019) (D. Haelewaters).

Pseudomelanconidaceae C.M. Tian & X.L. Fan

The asexual morph of the family *Pseudomelanconidaceae* is somewhat similar to members of *Melanconiellaceae*, and *Juglanconidaceae*. However, phylogenetic inferences resolved this family as an individual group with well-supported group from other families of *Diaporthales* (Fan et al. 2018a) (S.S.N. Maharachchikumbura & S. Fryar).

Pseudomelanconis C.M. Tian & X.L. Fan

Pseudomelanconis caryae is the type species of new genus *Pseudomelanconis*, and only occurs on *Carya cathayensis* in China (Fan et al. 2018a) (S.S.N. Maharachchikumbura).

Pseudoneoconiothyrium Wanas. et al.

Wanasinghe et al. (2018) introduced a monotypic genus to accommodate neoconiothyrium-like species in *Thyridariaceae*. However, Phookamsak et al. (2019) accommodated the genus in *Roussoellaceae* based on multi-gene analyses and this concurred with Jiang et al. (2019a) and Karunarathna et al. (2019) (R. Phookamsak).

Pseudoophiobolus Phook. et al.

Phookamsak et al. (2017) introduced *Pseudoophiobolus* to accommodate ophiobolus-like species in *Phaeosphaeriaceae* based on multi-gene phylogenetic analyses including *P. achilleae, P. erythrosporus, P. galii, P. italicus, P. mathieui, P. rosae, P. subhyalinisporus* and *P. urticicola* (R. Phookamsak).

Pseudopaucispora A. Hashim.

Hashimoto et al. (2018) introduced this monotypic genus in *Lophiostomataceae* based on molecular and morphological characters (S. Fryar).

Ramalinaceae C. Agardh

The taxonomy of family *Ramalinaceae* was recently revised by Kistenich et al. (2018). According to phylogenetic analysis genera *Adelolecia*, *Catinaria*, *Compsocladium*, *Crustospathula*, *Frutidella*, *Japewia*, *Schadonia*, *Tasmidella* do not belong this family (A. Suija).

Ramasricellites Kalgutkar & Janson. (fossil)

Kalgutkar & Jansonius (2000) opined that *Multicellaesporites differentialis* Ramanujam & Srisailam is a misfit in *Multicellaesporites* and therefore they proposed *Ramasricellites* to accommodate it. The sharp differentiation between the dark, broad central cells and the narrower, elongate hyaline terminal cells, as well as the lack of constriction at the median septum, differentiate this form from species in *Multicellites* (R.K. Saxena).

Ramomarthamyces P.R. Johnst.

Marthamyces was found to be polyphyletic and therefore Johnston & Park (2019) described *Ramomarthamyces* within *Marthamycetaceae* (*Marthamycetales*) for species separated from *Marthamyces sensu stricto*. The four species in *Ramomarthamyces* have distinctly branched rather than propoloid paraphyses (D. Haelewaters).

Ramophialophora M. Calduch et al.

This genus is polyphyletic within *Sordariales* (Zhang et al. 2017), but its type species, *R. vesiculosa* is clearly phylogenetically placed in *Lasiosphaeriaceae* (Madrid et al. 2010) (H. Madrid)

Ranadivia Zmitr.

Zmitrovich (2018) introduced this new genus in *Fomitopsidaceae* to accommodate *Daedalea allantoidea* M.L. Han, B.K. Cui & Y.C. Dai, *D. africana* I. Johans. & Ryvarden, *D. stereoides* Fr., and *Polyporus modestus* Kunze ex Fr. Based on a multi-gene phylogeny, Han et al. (2016) accepted these species in the genus *Daedalea* Pers. (V. Papp).

Ratnagiriathyrites R.K. Saxena & N.K. Misra (fossil)

This monotypic genus is characterized by its non-radiating, hexagonal porate cells (R.K. Saxena).

Remersonia Samson & Seifert

Wang et al. (2018) showed that the genus belongs in the *Chaetomiaceae* (K. Bensch).

Requienellaceae Boise

This family was introduced by Boise (1986) in the class *Dothideomycetes* (as *Loculoascomycetes*) and she kept the family in *Melanommatales* (sensu Barr 1983) or *Pyrenulales* (sensu Eriksson 1984). However, *Requienellaceae* was not treated as a distinguished family by Hawksworth & Eriksson (1986), who maintained it under *Pyrenulaceae*. Barr (1990) and Aptroot (1991) accepted *Requienellaceae* as a family of *Melanommatales* and again Kirk et al. (2008) as a family of the *Pyrenulales*. Based on the sequence data, Jaklitsch et al. (2016b) reinstated *Requienellaceae* as a family of *Xylariales* (S.S.N. Maharachchikumbura).

Resiniporus Zmitr.

Zmitrovich (2018) introduced this new genus in Irpicaceae to accommodate *Ceriporiopsis resinascens* (Romell) Domański and *C. pseudogilvescens* (Pilát) Niemelä & Kinnunen (V. Papp).

Resinogalea Rikkinen & A.R. Schmidt

Rikkinen et al. (2016) proposed *Resinogalea* for *Resinogalea humboldtensis* collected from resin of *Araucaria humboldtensis* in New Caledonia (S. Somrithipol).

Retihelicosporonites Ramanujam & K.P. Rao (fossil)

Helical spores (conidia) are found in various hyphomycetes, viz. *Helicoma* Corda, *Helicomina* L.S. Olive, *Helicoon* Morgan, *Helicodendron* Peyronel, *Xenosporella* Höhn, *Hiospira* R.T. Moore, etc. (Barnett 1956, Ellis 1971, Ainsworth et al. 1973) (R.K. Saxena).

Retroconis de Hoog & Bat. Vegte

This genus belongs in *Chaetomiaceae*, *Sordariales* according to Crous et al. (2007) (H. Madrid).

Rhamphoria Niessl

Ramphoria is the type genus of the newly erected family *Rhamphoriaceae* (Réblová & Štěpánek (2018) (K. Bensch).

Rhamphoriaceae Réblová

Rhamphoriaceae is a novel family introduced by Réblová & Štěpánek (2018) to represent genera *Rhamphoria*, *Rhamphoriopsis*, *Linkosia* and *Xylolentia* (S.S.N. Maharachchikumbura).

Rhamphoriopsis Réblová & Gardiennet

Genus in the *Rhamphoriaceae* with *Rhamphoriopsis muriformis* as the type species (Réblová & Štěpánek 2018) (S.S.N. Maharachchikumbura).

Rhexoacrodictys W.A. Baker & Morgan-Jones

Xia et al. (2017) treated this genus as a member in *Savoryellales*, *Savoryellaceae*. (J. Ma)

Rhodoveronaea Arzanlou, W. Gams & Crous

Réblová & Štěpánek (2108) referred this genus to the newly erected family *Rhamphoriaceae* (K. Bensch).

Rhizoglomus Sieverd. et al.

The genus *Rhizophagus* was not accepted in the Fungal Kingdom, as *Rhizophagus populinus* is not an arbuscular mycorrhizal fungi but a plant root pathogen originally attributed to the *Peronosporales* (Sieverding et al. 2014) which at time is attributed to the kingdom *Chromista* (Cavalier-Smith 2018). *Glomus intraradices* became the type species of the new genus *Rhizoglomus* with several new species described using *Rhizoglomus* as generic name (Sudová et al. 2015, Błaszkowski et al. 2018a, b, 2019a. b, Turrini et al. 2018).

Rimularia Nyl.

Four species were included in the phylogeny (Resl. et al. 2015), but 25 species still need molecular data for the correct genus placement (M. Kukwa).

Roesleria Thüm. & Pass.

Baral (2016) maintained the family *Roesleriaceae* within his “Lineage B” (*Helotiaceae* sensu lato) to accommodate the genus *Roesleria* with its peculiar morphological characteristics. However, Johnston et al. (2019) found high support for the placement of this genus deep within the family *Helotiaceae* (D. Haelewaters).

Roselymyces Fiuza et al.

The monotypic genus *Roselymyces* was erected in the *Xylariales* based on morphological chacracters and a molecular phylogeny based on ITS and LSU data by Fiuza et al. (2018) with *Roselymyces brasiliensis* as the type species. The genus was not yet associated to one of the families of Xylariales, but shows morphological affinities to *Cylindrium*, *Polyscytalum*, *Pseudoidriella* and *Tristratiperidium* (M. Stadler).

Rostania Trevis.

According to Košuthová et al. (2019) the genus is not monophyletic and 2 species were transferred to *Leptogium* and *Scytinum*. At present 3 species are known to belong to the genus in its strict sense, but the species delimitation within *Rostania* needs further studies (M. Kukwa).

Rutstroemiaceae Holst-Jensen et al.

The *Rutstroemiaceae* + *Sclerotiniaceae* clade was retrieved with high statistical support in the sclerotinioid clade of *Helotiales* in the 15-gene tree of Johnston et al. (2019). If *Sclerotiniaceae* is retained, *Rutstroemiaceae* as currently recognized is not monophyletic and would need to be split in four families. More multigene and genomic-scale work is needed to resolve this sclerotinioid clade. Ekanayaka et al. (2019) proposed that this family belongs to an informal clade named "*Sclerotiniales*". However, this placement was without support (D. Haelewaters & N. Wijayawardene).

Saccharomycetes O.E. Erikss. & Winka.

In the case of *Saccharomycetes* yeasts, the status of several families and the status and familial placement of several genera has not been unequivocally cleared (Daniel et al. 2014, Hittinger et al. 2015, Shen et al. 2016, 2018, Kurtzman & Boekhout 2017) since the publication of the 5th edition of The Yeasts: A Taxonomic Study (Kurtzman 2011). Based on accumulating phylogenomic data, the status of some families are expected to change substantially (e.g. Shen et al. 2018). Thus, a comprehensive list of currently accepted sexual genera and non-synonymized asexual genera (that are expected to be retained following the Melbourne code, notably *Candida* Berkhout) are listed among the notes with additional notes on expected changes and protected names, following Kurtzman & Boekhout (2017) (W.P. Pfliegler & E. Horváth).

Saccisporonites Kalgutkar & Janson. (fossil)

Kalgutkar & Jansonius (2000) opined that *Lacrimasporonites stoughiae* Elsik is a misfit in *Lacrimasporonites* Elsik and therefore they proposed *Saccisporonites* to accommodate it (R.K. Saxena).

Sakireeta Subram. & K. Ramakr.

Based on ITS and LSU sequence phylogeny, Crous et al. (2015a) transferred *Sakireeta* to *Botryosphaeriaceae* (A.J.L. Phillips).

Saprochaete Coker & Shanor ex D.T.S. Wagner & Dawes

Expected transfer of species to *Magnusiomyces* Zender (Kurtzman & Boekhout 2017) (W.P. Pfliegler and E. Horváth).

Sarcoleotia S. Ito & S. Imai

Phylogeny in Hustad et al. (2011) demonstrates that *Sarcoleotia* is sister species to *Nothomitra*, both in a separate clade than the rest of *Geoglossomycetes* (V.P. Hustad).

Sarcopeziza Loizides et al.

This genus was recently introduced by Agnello et al. (2018) (P. Alvarado).

Sardiniella Linaldeddu et al.

This genus was introduced by Linaldeddu et al. (2016) to accommodate a diplodia-like species from diseased *Celtis africana* trees in Sardinia. Morphologically similar to *Diplodia* and *Dothiorella*, but phylogenetically distinct (A.J.L. Phillips).

Saxophila Selbmann & de Hoog

This is a monotypic genus, typified by *S. tyrrhenica*, a dematiaceous microcolonial fungus obtained from marble and limestone in Europe. Its placement in *Extremaceae* is supported by multilocus DNA sequence data (Isola et al. 2016) (H. Madrid).

Schadonia Körb.

Kistenich et al. (2018) transferred this genus from *Ramalinaceae* to *Pilocarpaceae* (E. Timdal).

Sclerencoelia Pärtel & Baral

This genus was introduced by Pärtel et al. (2017) to accommodate two species of *Encoelia* (*E. fascicularis* and *E. pruinosa*) that belonged to *Sclerotiniaceae*, whereas the type species *E. furfuraceae* was placed in *Cenangiaceae*. A third species of *Sclerencoelia* was also described by Pärtel et al. (2017) mostly based molecular data (D. Haelewaters).

Sclerococcum Fr.

Réblová et al. (2016) transferred it to *Sclerococcaceae* and this was supported by Yu et al. (2018). However, *Sclerococcum* has been transferred to *Dactylosporaceae* Bellem. & Hafellner [= *Sclerococcaceae* Réblová, Unter. & W. Gams] by Diederich et al. (2018) (H. Zhang & J. Etayo).

Scolecolachnum Guatimosim et al.

Scolecolachnum was introduced in *Hyaloscyphaceae* (Guatimosim et al. 2016). Based on both ITS and LSU phylogenetic analyses, it is retrieved as sister to *Hyphodiscus* in *Hyaloscyphaceae* Han Clade 4 (sensu Han et al. 2014, Johnston et al. 2019) (D. Haelewaters).

Scutula Tul.

Kistenich et al. (2018) transferred this genus from *Pilocarpaceae* to *Ramalinaceae* (E. Timdal).

Seltsamia Jaklitsch & Voglmayr

Jaklitsch et al. (2018) proposed this new genus in *Cucurbitariaceae* based on morphological and molecular characters (S. Fryar).

Septomelanconiella Samarak. & K.D. Hyde

Phookamsak et al. (2019) introduced a monotypic genus *Septomelanconiella* to accommodate a single species *S. thailandica* Samarak. & K.D. Hyde. *Septomelanconiella* can be distinguished from *Melanconiella* Sacc. in having finely verrucose brown mature conidia. Phylogenetic analysis revealed that the genus formed a distinct lineage with other genera in *Melanconiellaceae* (R. Phookamsak).

Septoriella Oudem.

Crous et al. (2015c) treated *Wojnowicia* as a synonym of *Septoriella* based on a neotypic study of *Wojnowicia hirta* Sacc. (R. Phookamsak).

Septorioides Quaedvl. et al.

This genus was introduced for species morphologically similar to *Septoria* but distinguishable on account of conidiomata that open by an irregular split, and paraphyses intermingled with the conidiogenous cells. Furthermore, they constitute a phylogenetic lineage in *Botryosphaeriaceae* and thus separate from *Septoria* and allied genera (Quaedvlieg et al. 2013). Wyka & Broders (2016) introduced the family *Septorioideaceae* in *Botryosphaeriales* to accommodate *Septorioides* species. Phillips et al. (2019) took into account phylogeny (ITS, LSU), morphology and evolutionary divergence times and concluded that *Septorioides* resides within

Saccharataceae. For this reason, Phillips et al. (2019) regarded *Septorioideaceae* as a synonym of *Saccharataceae* (A.J.L. Phillips).

Sepultariella Van Vooren et al.

This genus was erected to accommodate two species previously ascribed to *Leucoscypha*. It represents a separate phylogenetic lineage within *Pyrenomataceae* (Van Vooren et al. 2017) (I. Kušan & N. Matočec).

Sheathospora X.L. Fan

Fan et al. (2018b) proposed this new genus based on unique pycnidial conidiomata and conidia with distinct hyaline sheath in *Melanconiellaceae*. *Sheathospora cornuta* is the type to accommodate *Melanconiella cornuta* and currently so far known from *Cornus controversa* and *Juglans regia* in China (X.L. Fan).

Snippocia Ertz et al.

Ertz et al. (2018) introduced this genus and placed it in *Arthoniaceae* based on phylogenetic analyses (N. Wijayawardene).

Solanella Vaňha

Ekanayaka et al. (2018) proposed that this genus should be transferred to *Pezizomycotina incertae sedis* (I. Kušan & N. Matočec).

Solicorynespora R.F. Castañeda & W.B. Kendr.

Hernández-Restrepo et al. (2014) showed that *Solicorynespora insolita* has a high affinity with members of *Dothideomycetes*, and more specifically with *Astrosphaeriella livistonicola* (J. Ma)

Spadicoides S. Hughes

Réblová et al. (2018) accommodated this genus in *Xenospadicoidaceae* based on phylogenetic analyses (S. Fryar).

Spegazzinia Sacc.

This genus was shown to belong in *Didymosphaeriaceae* by Tanaka et al. (2015) (P. Alvarado).

Sphaerosporium Schwein.

According to a multilocus phylogenetic study in Song et al. (2019), the generic type, *S. lignatile* Schwein., belongs to *Pyronemataceae* (*Pezizomycetes*, *Pezizales*), whereas *S. equinum* (Desm.) J.L. Crane & Schokn. was placed among *Onygenales* based on LSU sequence data (Rokas et al. 2012) (D. Haelewaters).

Sphaerosporium Schwein.

According to a multilocus phylogenetic study by Haelewaters et al. in Song et al. (2019), the generic type, *S. lignatile* Schwein., belongs to *Pyronemataceae* (*Pezizomycetes*, *Pezizales*), whereas *S. equinum* (Desm.) J.L. Crane & Schokn. was placed among *Onygenales* based on LSU sequence data (Rokas et al. 2012) (D. Haelewaters).

Spinosporonites R.K. Saxena & S. Khare (fossil)

This monotypic genus includes circular to subcircular, inaperturate, multicellular spores, each cell giving rise to a robustly built spine. They readily resemble the setose pycnidia found in some Coelomycetes (R.K. Saxena).

Spiromastigaceae Hirooka et al.

The family was first invalidly published in Rizzo et al (2014) (Arts 38.11 and 42.1) and later validated in Hirooka et al. (2015) (K. Bensch).

Spirotremesporites Dueñas (fossil)

This genus includes ellipsoidal to elongate, aseptate, psilate fungal spores having aperture in the form of a single furrow at an angle to the axis of the spore, straight or curved to S-shaped or sigmoidal in outline, or spiral around the spore axis. *Varisulcosporites* Rouse & Mustard is a junior taxonomic synonym of *Spirotremesporites* (R.K. Saxena).

Sporacestra A. Massal.

Kistenich et al. (2018) resurrected this genus in *Ramalinaceae* (E. Timdal).

Sporastatiales Lumbsch & Leavitt

Kraichak et al. (2018a) raised *Sporastatiaceae* to ordinal level as *Sporastatiales* (N. Wijayawardene).

Sporocadaceae Corda

Liu et al. (2019) provided a revision of the *Sporocadaceae* based on multi-locus phylogenetic analyses, using LSU, ITS, tef-1α, tub2 and rpb2 loci, in combination with morphological data. A total of 30 well-supported monophyletic clades were recognized, representing 23 known and seven new genera. Typifications for the type species *Diploceras*, *Discosia*, *Monochaetia*, *Sporocadus* and *Truncatella*) and emendations of various genera and species were also provided (M. Stadler).

Sporocarpon Will. (fossil)

Dubiocarpon S.A. Hutch. and *Oidospora* Will. are later taxonomic synonyms of *Sporocarpon* Will. (R.K. Saxena).

Sporormiella Ellis & Everh.

The ostiolate *Sporormiella* has been recognized as a probable synonym of the earlier non-ostiolate *Preussia* for several decades and, based on morphology and phylogeny, Zhang et al. (2012) and Hyde et al. (2013) adopted *Preussia*. However, the type species *S. nigropurpurea* has not been sequenced, and *Sporormiella* is widely used in the literature of coprophilous fungi (e.g. Doveri 2004, Bell 2005) and palaeoecology (Raper & Bush 2009, Raczka et al. 2016) and contains many more species. If the genera are eventually proved to be congeneric molecularly, we consider that *Sporormiella* should be proposed for conservation over *Preussia* so both names are currently retained here (D.L. Hawksworth & N.N. Wijayawardene).

Staphlosporonites Sheffy & Dilcher (fossil)

Transeptaesporites V.S. Ediger is a later taxonomic synonym of *Staphlosporonites* (R.K. Saxena).

Steinera Zahlbr.

The genus, previously placed in *Koerberiaceae*, has been recently moved into *Arctomiaceae* (Ertz et al. 2017a). A new genus, *Henssenia*, was established for *Steinera* species remaining in *Koerberiaceae* (Ertz et al. 2017a) (M. Kukwa).

Stemphylium Wallr.

The major part of the family *Pleosporaceae* is represented by species of *Pleospora*, a genus that is considered paraphyletic (Kodsueb et al. 2006, Inderbitzin et al. 2009). The type species of *Pleospora*, *P. herbarum*, was synonymized with *Stemphylium herbarum*. At this time, however,

several hundreds of *Pleospora* epithets still have not been assigned to *Stemphylium* or other genera and are not included in this outline (P.B. Gannibal).

Stereophlebia Zmitr.

Zmitrovich (2018) segregated this new monotypic genus from *Lilaceophlebia* (Parmasto) Spirin & Zmitr. to accommodate *Phlebia tuberculata* (Berk. & M.A. Curtis) Ţura, Zmitr., Wasser & Spirinski (V. Papp).

Stictographaceae D.Q. Dai & K.D. Hyde

Dai et al. (2018) introduced this family in *Asterinales* to accommodate *Stictographa* Mudd, *Karschia* Körb., *Labrocarpon* Etayo & Pérez-Ortega and *Melaspileopsis* (Müll. Arg.) Ertz & Diederich (N. Wijayawardene).

Stigmatodiscus Voglmayr & Jaklitsch

Voglmayr & Pintos (2018) synonymised *Asterodiscus* Voglmayr et al. with *Stigmatodiscus* (P. Alvarado).

Striadiporites C.P. Varma & Rawat (fossil)

This genus includes unicellular, diporate fungal spores with striated spore wall. *Stridiporosporites* Ke & Shi is a junior taxonomic synonym of *Striadiporites* (R.K. Saxena).

Symbiotaphrina Kühlw. & Jurzitza ex W. Gams & Arx

Baral et al. (2017) validated the order *Symbiotaphrinales* and introduced the new family *Symbiotaphrinaceae* (K. Bensch).

Symmetrospora Q.M. Wang et al.

Symmetrospora was recently introduced for species previously placed in the asexual genera *Sporobolomyces* and *Rhodotorula* in the "*gracilis*/*marina* clade" of *Cystobasidiomycetes* (Wang et al. 2015b). Haelewaters et al. (2020) recently proposed three new species and a new combination, making 10 recognized species (D. Haelewaters).

Synnemasporella X.L. Fan & J.D.P. Bezerra

Synnemasporella was introduced by Fan et al. (2018a) to accommodate fungi with synnematous conidiomata. This genus is typified by *Synnemasporella toxicodendri* (S.S.N. Maharachchikumbura).

Synnemasporellaceae X.L. Fan & J.D.P. Bezerra

Fan et al. (2018a) proposed this new family to accommodate one new genus, *Synnemasporella* (Type species: *Synnemasporella toxicodendri*). The new genus and species have been collected from *Toxicodendron sylvestre* in China, and *S. aculeans* was transferred from *Cryptodiaporthe aculeans* (basionym: *Sphaeria aculeans*) (S. Fryar & S. Somrithipol).

Szczepkamyces Zmitr.

Zmitrovich (2018) introduced this new monotypic genus in *Polyporaceae* to accommodate *Dichomitus campestris* (Quél.) Domański & Orlicz (V. Papp).

Taeniolella S. Hughes

Heuchert et al. (2018) showed that the genus is polyphyletic with type species belonging *Kirschsteiniotheliaceae* (*Dothideomycetes*) while saprobic species cluster within *Sordariomycetes* in different families. Lichenicolous species form a monophyletic clade within *Asterotexiales*, *Dothideomycetes* but many species are still not sequenced (A. Suija).

Taitaia Suija et al.

Suija et al. (2018) introduced this lichenicolous genus and confirmed its placement in *Gomphillaceae, Graphidales* (N. Wijayawardene).

Tamsiniella S.W. Wong et al.

Phookamsak et al. (2019) treated *Tamsiniella* in *Phyllachoraceae* based on phylogenetic analysis (R. Phookamsak).

Tapesia (Pers.) Fuckel

Tapesia is considered a synonym of *Mollisia* (Hawksworth & David 1989) but many species are still classified under *Tapesia* (Species Fungorum 2020, Tanney & Seifert 2020). As a result, *Tapesia* is included in this outline (D. Haelewaters).

Tasmidella Kantvilas et al.

Kistenich et al. (2018) transferred this genus from *Ramalinaceae* to the *Lecanorales incertae sedis* (E. Timdal).

Thalloidima A. Massal.

Kistenich et al. (2018) resurrected this genus in the *Ramalinaceae* (E. Timdal).

Thecotheus Boud.

Placed in *Ascobolaceae*, *Pezizales*. This genus was treated by Kušan et al. (2015) who listed 23 known species, including the newly described *T. platyapiculatus* (I. Kušan & N. Matočec).

Tenuitholiascaceae S.H. Jiang et al.

Jiang et al. (2020) introduced this family based on the new genus *Tenuitholiascus*, which resides in *Strigulales* (N. Wijayawardene).

Thysanorea Arzanlou et al.

According to phylogenetic studies by Arzanlou et al. (2007) and Dong et al. (2018), this genus is a member of *Herpotrichiellaceae*. Dong et al. (2018) introduced the second species *Thysanorea aquatica* W. Dong, H. Zhang & K.D. Hyde. However, this species has been reported as a synonym with the type species *Thysanorea papuana* (Aptroot) Arzanlou, W. Gams & Crous (Wang et al. 2018) (H. Madrid & H. Zhang).

Toninia A. Massal.

Kistenich et al. (2018) placed Arthrosporum A. Massal. as a synonym of *Toninia* (E. Timdal)

Torrentispora K.D. Hyde et al.

Réblová et al. (2018) transferred *Torrentispora* from the Annulatascaceae to Xenospadicoidaceae based on multi-gene phylogenetic analyses (S. Fryar).

Tremellochaete Raitv.

Tremellochaete was reinstated in *Auriculariaceae* by Malysheva & Spirin (2017) based on morphological characteristics and phylogenetic analyses. Phookamsak et al. (2019) updated a species number in this genus. Based on morphological characteristics and phylogenetic analysis, three species are accommodated in this genus (Malysheva & Spirin 2017, Index Fungorum 2019, Phookamsak et al. 2019) (R. Phookamsak).

Triadelphia Shearer & J.L. Crane

Recent studies suggested that *Triadelphia* is polyphyletic, but no DNA sequence data is available for many of its members. The type species, *T. heterospora*, belongs in *Microascales* (Crous et al. 2015b) (H. Madrid).

Triblidiaceae Rehm

Triblidiaceae is considered a monophyletic family within *Rhytismatales*, including two genera, *Huangshania* and *Triblidium*. The previous order *Triblidiales* is synonymized under *Rhytismatales* (Karakehian et al. 2019) (D. Haelewaters).

Tribolites W.H. Bradley (fossil)

The fossil conidia resemble conidia of extant genera *Tetrachaetum* Ingold and *Lemonniera* D. Wild. *Trihyphaecites* Peppers is a junior taxonomic synonym of *Tribolites* (R.K. Saxena).

Trichomonascaceae Kurtzman & Robnett

Family status expected to change upon resolving *Blastobotrys*/*Trichomonascus* (W.P. Pfliegler and E. Horváth).

Trichomonascus H.S. Jackson emend. Kurtzman & Robnett

Expected transfer of species to *Blastobotrys* Klopotek to comply with the Melbourne Code (Kurtzman & Boekhout 2017) (W.P. Pfliegler & E. Horváth).

Trichothyrites Rosend. (fossil)

Notothyrites Cookson and *Sphaerialites* Venkatach. & R.K. Kar are later taxonomic synonyms of *Trichothyrites* (Kalgutkar & Jansonius 2000) (R.K. Saxena).

Trihyphites Kalgutkar & Janson. (fossil)

Trihyphaecites fractus Z.C. Song & Liu Cao, in Song et al. (1989) belongs to *Trihyphites*. (R.K. Saxena).

Triporicellaesporites Ke & Shi (fossil)

The spores of two species of *Triporicellaesporites*, viz. *T. elongatus* P. Ke & Z.Y. Shi and *T. simplex* (Elsik & Janson.) Kalgutkar & Janson., are very similar to spores of the extant *Ceratosporella bicornis* (Morgan) Höhnel. (R.K. Saxena).

Trullella Zmitr.

Zmitrovich (2018) treated that the name *Trulla* Miettinen & Ryvarden is illegitimate (non *Trulla* T.M. Harris), thus the new genus *Trullella* was proposed to accommodate *Trulla dentipora* (Ryvarden & Iturr.) Miettinen & Ryvarden and five other *Trulla* species (V. Papp).

Tubakiaceae U. Braun et al.

Braun et al. (2018) introduced *Tubakiaceae* (in *Diaporthales*) to accommodate *Tubakia* B. Sutton. and six other genera (*viz. Apiognomonioides* U. Braun, J.Z. Groenew. & Crous, *Involutscutellula* U. Braun & C. Nakash., *Paratubakia* U. Braun & C. Nakash., *Racheliella* Crous & U. Braun, *Saprothyrium* U. Braun, Crous & J.Z. Groenew., *Sphaerosporithyrium* U. Braun, Crous, O. Moreno-Rico & Marm.) (N. Wijayawardene).

Tylothallia P. James & H. Kilias

Kistenich et al. (2018) transferred this genus from *Lecanoraceae* to *Ramalinaceae* (E. Timdal).

Umbilicaria Hoffm.

Davydov et al. (2017) revised the *Umbilicariaceae sensu stricto* and accepted eight subgenera in the genus *Umbilicaria*: *viz.* Actinogyra (type: *U. muehlenbergii*), subg. *Agyrophora* (type*: A. atropruinosa*), subg. *Floccularia* subg. nov. (type: *U. deusta*), subg. *Gyrophora* (type: *U. vellea*), subg. *Iwatakia* subg. nov. (type: *U. esculenta*), subg. *Lasallia* (type: *L. pustulata*), subg. *Umbilicaria* (type: *U. hyperborea*), and subg. *Umbilicariopsis* subg. nov. (type: *Umbilicaria polyrhiza*) (G. Rambold).

Umthunziomyces Crous & M.J. Wingf.

Umthunziomyces was introduced for a septoria-like species that resides in *Planistromellaceae* (Crous et al. 2016) (A.J.L. Phillips).

Uncinulites Pampal. (fossil)

Graamspora Sal.-Cheb. & Locq. is a later taxonomic synonym of *Uncinulites* (R.K. Saxena).

Unguicularia Hohn.

Previously considered as a member of *Hyaloscyphaceae* (Baral 2016), but currently placed in *Helotiales* genera *incertae sedis* based on the ITS placement by Johnston et al. (2019). Additional sequence data are needed to resolve the placement of this genus (D. Haelewaters).

Varicellaria Nyl.

In Kraichak et al. (2018b), the monotypic family *Varicellariaceae* was validated (K. Bensch).

Varicosporellopsis Lechat & J. Fourn.

Lechat & Fournier (2016) described *Varicosporellopsis* and placed it in *Nectriaceae* (I. Kušan & N. Matočec).

Varmasporites Kalgutkar & Janson. (fossil)

Kalgutkar & Jansonius (2000) opined that *Fusiformisporites tonakkalensis* Y.N.R. Varma & R.S. Patil is a misfit in *Fusiformisporites* Rouse and therefore they proposed *Varmasporites* to accommodate it (R.K. Saxena).

Velebitea I. Kušan et al.

Velebitea was introduced in Phookamsak et al. (2019) to accommodate a single species, *Velebitea chrysotexta* I. Kušan, Matočec & Jadan in *Lachnaceae* based on molecular data. The genus was collected from decorticated branches and stump base of *Fagus sylvatica* L. (Fagaceae) in Croatia and is characterized by having apothecial ascomata, elongated cylindrical-deltoid asci, protruding above paraphyses at maturity, with in Lugol's solution apical apparatus moderately euamyloid, of *Calycina*-type and hyaline, elongated fusoid ascospores (R. Phookamsak).

Vermiconidia Egidi & Onofri

A multilocus phylogenetic study by Isola et al. (2016) placed all members of this genus in *Extremaceae* (H. Madrid).

Vitreoporus Zmitr.

Zmitrovich (2018) introduced this new genus to accommodate *Gloeoporus dichrous* (Fr.) Bres., *G. africanus* P.E. Jung & Y.W. Lim, *G. citrinoalbus* Yuan Yuan & Jia J. Chen, and *G. orientalis* P.E. Jung & Y.W. Lim. However, phylogenetic analyses by Jung et al. (2018) revealed that these species belong to a monophyletic clade in *Gloeoporus sensu stricto* (V. Papp).

Vittaliana Devadatha et al.

Devadatha et al. (2019) introduced this genus and showed that it is a member of *Phaeosphaeriaceae*. Its ascospores are similar to *Acericola* and *Vagicola* (S. Tibpromma).

Wheelerophlyctis P.M Letcher et al.

Letcher et al. (2018) introduced this genus, which comprises two species. Phylogenetic analyses confirmed its placement in *Asterophlyctaceae* (P. Letcher).

Xanthonectria Lechat et al.

Lechat et al. (2016b) described the monotypic genus *Xanthonectria* to accommodate *Nectria pseudopeziza* within *Bionectriaceae* (I. Kušan & N. Matočec).

Xenodactylaria Crous

Crous et al. (2018) introduced this genus and showed that it has a distinct lineage in *Myrmecridiales*. As a result, the family *Myrmecridiaceae* was introduced (N. Wijayawardene).

Xenospadicoidaceae Hern.-Restr et al.

Réblová et al. (2018) accepted *Calyptosphaeria*, *Lentomitella*, *Spadicoides* and *Torrentispora* as members of the *Xenospadicoidaceae***,** *Xenospadicoidales*. Furthermore, Réblová et al. (2018) reduced *Xenospadicoides* and *Pseudodiplococcium* under *Spadicoides* and synonymised *Lentomitellaceae* with *Xenospadicoidaceae* based on a multi-gene phylogeny (J. Ma & S. Fryar).

Xyladictyochaetaceae Crous & Hern.-Restr

Crous et al. (2018) introduced this family to accommodate the genus *Xyladictyochaeta* within the Xylariales (S. Fryar & K. Bensch).

Xylolentia Réblová

Xylolentia is a newly introduced genus in the family *Rhamphoriaceae*, with the type species *Xylolentia brunneola* (Réblová & Štěpánek 2018) (S.S.N. Maharachchikumbura).

Xylomyces Goos et al.

Nine species are currently reported within *Xylomyces*, but *Xylomyces chlamydosporus* Goos, R.D. Brooks & Lamore is the only species phylogenetically related to the *Jahnulales* (H. Raja).

Zopfochytrium M.J. Powell et al.

Powell et al. (2018) introduced this genus and confirmed its placement in *Chytridiaceae* (P. Letcher).

Zymochalara Guatimosim et al.

Zymochalara was introduced in *Helotiales* genera *incertae sedis* (Guatimosim et al. 2016) but in the ITS tree of Johnston et al. (2019) it was retrieved within *Pezizellaceae* (D. Haelewaters).

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