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 **Cnidosporida** (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 **Opisthosporida** 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 **Rozellosporida**) 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, Moniliellomycetes, 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 | Arthoniaceae (23)                  |
|                   | Lichenostigmatales | Phaeococcomycetaceae (3) |
| Candelariomycetes | Candelariales | Candelariaceae (4) |
|                   | Pycnoraceae | (1)            |
| Coniocybomycetes  | Coniocybales | Coniocybaceae (2) |
| Dothideomycetes   | Abrothallales | Abrothallaceae (2) |
| Acropermales      | Acropermales | Acropermacaceae (3) |
|                   | Acropermales genera incertae sedis (1) |
| Asterinales       | Asterinaceae (19) |
|                   | Asterotexaceae (1) |
|                   | Hemigraphaceae (1) |
|                   | Lembsiaceae (1) |
|                   | Melaspilellaceae (1) |
|                   | Neohueliellaceae (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) |
|                   | Capnodiales (9) |
|                   | Cladosporiaceae (8) |
|                   | Cystocolaceae (1) |
|                   | Dissoconiaaceae (5) |
|                   | Euantennariaceae (7) |
|                   | Extremaceae (8) |
|                   | Johansoniaceae (2) |
|                   | Metacapnodiales (3) |
|                   | Mycosphaerellaceae (111) |
|                   | Neodevriesiaceae (2) |
|                   | Phaeothecaceae (1) |
|                   | Phaeothecoidiellaceae (8) |
|                   | Piedraiaeae (1) |
|                   | Racodiaceae (1) |
|                   | Schizothyriaceae (10) |
Table 1 Continued.

| Phylum                      | Class* | Order*   | Family*                  |
|-----------------------------|--------|----------|-------------------------|
|                             |        |          | Teratosphaeriaceae (60)  |
|                             |        |          | Xenodevriesiaceae (1)    |
| Capnodiales                 |        |          |                         |
|                             |        |          |                         |
| Catinelloides               |        |          |                         |
| Cladoriellales              |        |          |                         |
| Collemopsidiales            |        |          |                         |
| Dothideales                 |        |          |                         |
| Dothideales genera incertae sedis (14) |
| Dyfrolomycetales            |        |          | Pleurotremataceae (3)    |
| Eremithallales              |        |          | Melaspileaceae (2)       |
| Eremomycetales              |        |          | Eremomycetaceae (2)      |
| Eremomycetales genus incertae sedis (1) |
| Glionales                   |        |          | Glioniaceae (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)    |
| Microthryiales              |        |          | Microthryiaceae (11)     |
| Microthryiales genus incertae sedis (6) |
| Minutisphaerales            |        |          | Acrogenosporaceae (1)    |
|                             |        |          | Minutisphaeraceae (1)    |
| Monoblástiales              |        |          | Monoblástiaceae (6)      |
| Murramarangomycetales       |        |          | Murramarangomycetaceae (1) |
| Muyocopronales              |        |          | Muyocopronaceae (9)      |
| Myriangiales                |        |          | Elsinoaceae (2)          |
| 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)     |

1069
| Phylum             | Class*   | Order*  | Family*               |
|--------------------|----------|---------|-----------------------|
|                    |          |         | Asciocylinicaceae (1)  |
|                    |          |         | Astrosphaeriellaceae (7)|
|                    |          |         | Bambusicolaceae (3)    |
|                    |          |         | Biatriosporaceae (1)   |
|                    |          |         | Camarosporiaceae (2)   |
|                    |          |         | Camarosporidiellaceae (1)|
|                    |          |         | Caryosporaceae (1)     |
|                    |          |         | Coniothyriaceae (5)    |
|                    |          |         | Corynesporaceae (2)    |
|                    |          |         | Cryptocoryneaceae (1)  |
|                    |          |         | Cucurbitariaceae (13)  |
|                    |          |         | Cyclothyriellaceae (2) |
|                    |          |         | Dacampiaceae (6)       |
|                    |          |         | Delitschiaceae (3)     |
|                    |          |         | Diademaceae (2)        |
|                    |          |         | Dictyosporaceae (15)   |
|                    |          |         | Didymellaceae (33)     |
|                    |          |         | Didymosphaeriaceae (32)|
|                    |          |         | Dothidothiaceae (7)    |
|                    |          |         | Fuscostagonosporaceae (1)|
|                    |          |         | Fusculinaceae (2)      |
|                    |          |         | Halotthiaceae (6)      |
|                    |          |         | Hermatomycetaceae (1)  |
|                    |          |         | Hypsomastomataceae (1) |
|                    |          |         | Latoruaceae (4)        |
|                    |          |         | Lentimurisporaceae (2) |
|                    |          |         | Lentitheciaceae (13)   |
|                    |          |         | Leptosphaeriaceae (13) |
|                    |          |         | Libertasomycetaceae (2)|
|                    |          |         | Ligninsphaeriaceae (2) |
|                    |          |         | Lindgomyctaceae (7)    |
|                    |          |         | Lizoniaceae (1)        |
|                    |          |         | Longipedicillataceae (3)|
|                    |          |         | Longistiolaceae (1)    |
|                    |          |         | Lophiostomataceae (28) |
|                    |          |         | Lophiotremataceae (7)  |
|                    |          |         | Macrodiplodiopsidaceae (2)|
|                    |          |         | Massariaceae (3)       |
|                    |          |         | Massarinaceae (8)      |
|                    |          |         | Melanommataceae (35)   |
|                    |          |         | Morosphaeriaceae (6)   |
|                    |          |         | Mycophoraceae (1)      |
|                    |          |         | Neocamarasporiaceae (2)|
|                    |          |         | Neohendersoniaceae (5) |
|                    |          |         | Neomassariaceae (1)    |
|                    |          |         | Neomassarinaceae (2)   |
|                    |          |         | Neophaeosphaeriaceae (1)|
|                    |          |         | Neopyrenochaetaceae (1) |
|                    |          |         | Nigrogranaceae (1)     |
|                    |          |         | Occultibambusaceae (5) |
|                    |          |         | Ohleriaceae (1)        |
|                    |          |         | Parabambusicolaceae (9)|
|                    |          |         | Paradictyoarthriiaceae (2)|
| Phylum                  | Class*             | Order*            | Family*                                      |
|------------------------|--------------------|-------------------|----------------------------------------------|
|                        |                    |                   | *Paralophiostomataceae* (1)                  |
|                        |                    |                   | *Parapyrenochaetaceae* (2)                   |
|                        |                    |                   | *Periconiaceae* (4)                          |
|                        |                    |                   | *Phaeoseptaceae* (2)                         |
|                        |                    |                   | *Phaeosphaeriaceae* (82)                     |
|                        |                    |                   | *Pleomassariaceae* (7)                       |
|                        |                    |                   | *Pleomonodictyidae* (2)                      |
|                        |                    |                   | *Pleosporaceae* (23)                         |
|                        |                    |                   | *Pseudoastrosphaeriellaceae* (3)             |
|                        |                    |                   | *Pseuderkerkesmiaceae* (1)                   |
|                        |                    |                   | *Pseuedocoledictyosporaceae* (2)             |
|                        |                    |                   | *Pseudolophiotremataceae* (2)                |
|                        |                    |                   | *Pseudomassarinaceae* (1)                    |
|                        |                    |                   | *Pseudopyrenochaetaceae* (1)                 |
|                        |                    |                   | *Pyrenochaetopsisidae* (3)                   |
|                        |                    |                   | *Roussoellaceae* (12)                        |
|                        |                    |                   | *Salsuginaceae* (2)                          |
|                        |                    |                   | *Shiralaceae* (3)                            |
|                        |                    |                   | *Sporormiaceae* (9)                          |
|                        |                    |                   | *Striatiguttulaceae* (2)                     |
|                        |                    |                   | *Sulcatisporeaceae* (6)                      |
|                        |                    |                   | *Teichosporaceae* (13)                       |
|                        |                    |                   | *Testudinaceae* (9)                          |
|                        |                    |                   | *Tetraplosphaeriaceae* (8)                   |
|                        |                    |                   | *Thyridariaceae* (7)                         |
|                        |                    |                   | *Torulaceae* (6)                             |
|                        |                    |                   | *Trematosphaeriaceae* (6)                    |
|                        |                    |                   | *Tzeananiaceae* (1)                          |
|                        |                    |                   | *Wicklowiaceae* (1)                          |
|                        |                    |                   | *Zopfiaceae* (6)                             |

*Pleosporales generas incertae sedis* (48)

|                            |                    |                   |                                          |
|-----------------------------|--------------------|-------------------|------------------------------------------|
| *Stigmatodiscaceae*         |                    |                   |                                          |
| *Strigulales*               |                    |                   |                                          |

*Superstratomycetales*      |                      |                   |                                          |
| *Trypetheliaceae*           |                      |                   |                                          |

| *Tubefuliales*              |                      |                   |                                          |
| *Bezerrymycetaceae*         |                      |                   |                                          |
| *Tubefuliacae*              |                      |                   |                                          |
| *Wiesneriomycetaceae*       |                      |                   |                                          |

*Valsariales*                |                      |                   |                                          |

*Venturiales*                |                      |                   |                                          |

*Venturiales generas incertae sedis* (3)

|                            |                    |                   |                                          |
|-----------------------------|--------------------|-------------------|------------------------------------------|
| *Zeloasperisporiaceae*      |                    |                   |                                          |
| *Incertae sedis*            |                    |                   |                                          |

*Incertae sedis*             |                      |                   |                                          |

*Argynnaceae*                |                      |                   |                                          |

*Ascoporiaceae*              |                      |                   |                                          |

*Balladynaceae*              |                      |                   |                                          |
| Phylum         | Class*     | Order*     | Family*                      |
|---------------|------------|------------|------------------------------|
|               |            |            | Cleistosphaeaceae (1)        |
|               |            |            | Coccoidaceae (3)             |
|               |            |            | Cookellaceae (2)             |
|               |            |            | Dimeriaceae (1)              |
|               |            |            | Dubujianaceae (1)            |
|               |            |            | Dysrhychnisceae (1)          |
|               |            |            | Endosporiaceae (1)           |
|               |            |            | Englerulaceae (8)            |
|               |            |            | Eremomycetaceae (3)          |
|               |            |            | Eriomycetaceae (5)           |
|               |            |            | Homortomycetaceae (1)        |
|               |            |            | Hyalomeliolinateae (1)       |
|               |            |            | Leptopeltidaceae (4)         |
|               |            |            | Macrovalisartae (1)          |
|               |            |            | Meliolinateae (2)            |
|               |            |            | Mesneriaeteae (3)            |
|               |            |            | Naetrocymbiaceae (5)         |
|               |            |            | Nematotheciaeae (3)          |
|               |            |            | Neoparodiaceae (1)           |
|               |            |            | Palawaniaceae (1)            |
|               |            |            | Paraneotriellaceae (2)       |
|               |            |            | Parodiellaceae (1)           |
|               |            |            | Perisporiopsidaceae (5)       |
|               |            |            | Phaeodimerteliaceae (1)      |
|               |            |            | Pododimeriaceae (2)          |
|               |            |            | Polyclypeolineaeae (1)       |
|               |            |            | Polystomellaceae (4)         |
|               |            |            | Protoscyphaceae (1)          |
|               |            |            | Pseudoperisporiaceae (4)      |
|               |            |            | Pseudorobillardaceae (1)     |
|               |            |            | Pyrenidaeae (1)              |
|               |            |            | Seynesiotplidetaeae (1)      |
|               |            |            | Stomatogeneaeae (1)          |
|               |            |            | Thyrintulaceae (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)       |
|               |               | Epibraceae (1)              |
|               |               | Herpotrichiellaceae (16)    |
|               |               | Lyrommataeae (1)            |
|               |               | Microtheliopsideae (1)      |
|               |               | Paracladophialophoraceae (1) |
|               |               | Pyrenotrichaceae (2)        |
|               |               | Trichomeriaceae (8)         |

Table 1 Continued.
| Phylum      | Class*          | Order*          | Family*                  |
|------------|----------------|----------------|--------------------------|
|            | *Chaetothyriales* genera incertae sedis (10) |                |                          |
|            | Coryneliales   |               | Coryneliaceae (7)        |
|            |                |               | Eremascaeae (1)          |
|            | Eurotiales     |               | Aspergillaceae (15)      |
|            |                |               | Elaphomycetaceae (2)     |
|            |                |               | Thermoascaceae (2)       |
|            |                |               | Trichocomaceae (7)       |
|            | Mycocaliciale  |               | Mycocaliciaceae (7)      |
|            | Onygenales     |               | Ajellomycetaceae (6)     |
|            |                |               | Arthrodermataceae (10)   |
|            |                |               | Ascophaeraceae (3)       |
|            |                |               | Gymnoascaceae (10)       |
|            |                |               | Nannizziosidaceae (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 (7)         |
|            | Geoglossomycetes genera incertae sedis (2) |        |                          |
|            | Labouleniomycetes |            | Herpomycetaceae (1)      |
|            | Labouleniales  |               | Ceratomyctaceae (12)     |
|            |                |               | Euceratomyctaceae (5)    |
|            |                |               | Labouleniaceae (125)     |
|            |                |               | Teratomyctaceae (1)      |
|            | Labouleniales genera incertae sedis (3) |            |                          |
|            | Pyxidiophorales |             | Pyxidiophoraceae (3)     |
|            | *Labouleniomycetes* genus incertae sedis (1) |          |                          |
|            | Lecanoromycetes |             | Acarosporaceae (11)      |
|            | Acarosporales  |               | Egleraceae (1)           |
|            | Baeomyctales   |               | Arcotomiaceae (4)        |
|            |                |               | Arthrorniphidaceae (1)   |
|            |                |               | Baemomyctaceae (5)       |
|            |                |               | Cameroniaceae (1)        |
|            |                |               | Hymeneliaceae (3)        |
|            |                |               | Protothelenniaceae (3)   |
| Phylum   | Class* | Order* | Family* |
|----------|--------|--------|---------|
|          |        |        | **Trapeliaceae** (12) |
|          |        |        | **Xylographaceae** (4) |
| **Caliciales** | Caliciaceae (36) |        | **Physciaceae** (18) |
|          |        |        | **Diploschistaceae** (35) |
|          |        |        | **Fissurinaceae** (6) |
| **Graphiales** | **Gomphillaceae** (26) |        | **Graphidaceae** (31) |
|          |        |        | **Redonographaceae** (2) |
| **Gyalectales** | Coenogoniaceae (1) |        | **Gyalectaceae** (3) |
|          |        |        | **Phlyctidaceae** (2) |
|          |        |        | **Sagiolechiaceae** (2) |
| **Lecanorales** | Bruceomycetaceae (2) |        | **Catillariaceae** (5) |
|          |        |        | **Cladoniaceae** (22) |
|          |        |        | **Gypsoplacaceae** (1) |
|          |        |        | **Haematommataceae** (1) |
|          |        |        | **Lecanoraceae** (28) |
|          |        |        | **Malmideaceae** (7) |
|          |        |        | **Megalariciaceae** (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) |
|          |        |        | **Leprocaulaceae** (3) |
| **Leprocaules** | **Microperlidaceae** (12) |        | |
|          |        |        | **Odontotremataceae** (10) |
| **Ostropales** | **Phaneromycetaceae** (1) |        | **Spirographaceae** (1) |
|          |        |        | **Stictidaceae** (28) |
| **Ostropales genera incertae sedis** (6) |        |        | |
| **Peltigerales** | Coccocarpidae (3) |        | **Collemataceae** (8) |
|          |        |        | **Koerberiaceae** (3) |
|          |        |        | **Massalongiaceae** (3) |
|          |        |        | **Pannariaceae** (27) |
|          |        |        | **Peltigeraceae** (15) |
|          |        |        | **Placynthiaceae** (3) |
|          |        |        | **Vahllicellaceae** (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) |
|            |        |        | **Variolariae** (1) |
| **Rhizocarpales** |        |        | **Rhizocarpaceae** (4) |
| **Sarrameanales**  |        |        | **Sarrameanaceae** (2) |
| **Schaereriales**   |        |        | **Schaererae** (1) |
| **Sporastatiales**  |        |        | **Sporastatia** (2) |
| **Teloschistales**  |        |        | **Brigantia** (2) |
|            |        |        | **Megalosporaceae** (3) |
|            |        |        | **Teloschistacea** (63) |
| **Teloschistales**  |        |        | **genus incertae sedis** (1) |
| **Thelenellales**   |        |        | **Thelenellaceae** (3) |
| **Turquoiseomycetales** |        |        | **Turquoiseomycetaceae** (1) |
| **Umbilicariales**  |        |        | **Elixia** (2) |
|            |        |        | **Fusciodeae** (4) |
|            |        |        | **Ophioparmaceae** (3) |
|            |        |        | **Ropalosporaceae** (1) |
|            |        |        | **Umbilicariaceae** (3) |
| **Incertae sedis** |        |        | **Epigloeaceae** (1) |
| **Lecanoromycetes** |        |        | **genera incertae sedis** (15) |
| **Leotiomyces**     |        |        | **Chaetomella** (4) |
| **Cyttariales**      |        |        | **Cyttaria** (1) |
| **Helotiaceae**      |        |        | **Amicodiscaceae** (1) |
|            |        |        | **Arachnopezizaceae** (5) |
|            |        |        | **Ascochitiaceae** (1) |
|            |        |        | **Ascodichaenacea** (2) |
|            |        |        | **Bloxamiaceae** (1) |
|            |        |        | **Bryoglossaceae** (3) |
|            |        |        | **Calloriaceae** (14) |
|            |        |        | **Cenangiaceae** (11) |
|            |        |        | **Chlorociboriae** (1) |
|            |        |        | **Chlorospentiaceae** (1) |
|            |        |        | **Chrysothicaceae** (1) |
|            |        |        | **Cordieritidaceae** (18) |
|            |        |        | **Dermateaceae** (14) |
|            |        |        | **Discinellaceae** (12) |
|            |        |        | **Drepanopezizaceae** (8) |
|            |        |        | **Erysipheaceae** (20) |
|            |        |        | **Gelatinosiscaceae** (9) |
|            |        |        | **Godroniaceae** (5) |
|            |        |        | **Helotiaceae** (33) |
|            |        |        | **Heterosphaeriaceae** (1) |
|            |        |        | **Hyaloscyphaceae** (37) |
|            |        |        | **Lachnameae** (18) |
|            |        |        | **Leptodontidaceae** (1) |
|            |        |        | **Loramyctaceae** (2) |
|            |        |        | **Mitrulaceae** (1) |
| Phylum          | Class*                  | Order*                      | Family*                      |
|-----------------|-------------------------|-----------------------------|------------------------------|
|                 |                         |                             | *Mollisiaceae (18)*          |
|                 |                         |                             | *Myxotrichaceae (3)*         |
|                 |                         |                             | *Neolauriomycetaceae (3)*    |
|                 |                         |                             | *Pezizellaceae (23)*         |
|                 |                         |                             | *Ploetnerulaceae (1)*        |
|                 |                         |                             | *Rutstroemiaceae (7)*        |
|                 |                         |                             | *Sclerotiniaceae (31)*       |
|                 |                         |                             | *Vibrisseaceae (5)*          |
|                 | *Helotiales* genera     |                             | *Pezizales*                  |
|                 | incertae sedis (144)    |                             | *Ascobolaceae (5)*           |
|                 |                         |                             | *Ascodesmidaceae (10)*       |
|                 | *Lahmiales*             | *Lahmiaceae (1)*             | *Caloscyphaceae (1)*         |
|                 | *Lauriomycetales*       | *Lauriomycetaceae (1)*       | *Chorioactidaceae (6)*       |
|                 | *Leotiales*             | *Cochlearomycetaceae (2)*    | *Discinaceae (5)*            |
|                 |                         | *Leotiaceae (4)*             | *Glaziellaceae (1)*          |
|                 |                         | *Mniaeaciaceae (2)*          | *Heliocolonaceae (7)*        |
|                 |                         | *Tympanidaceae (7)*          | *Phacidiaceae (9)*           |
|                 | *Leotiales* genera      |                             |                             |
|                 | incertae sedis (3)      |                             |                             |
|                 | *Lichinodiales*         | *Lichinodaceae (1)*          |                             |
|                 | *Marthamycetales*       | *Marthamycetaceae (9)*       |                             |
|                 | *Medeolariales*         | *Medeolariaaceae (1)*        |                             |
|                 | *Micraspidales*         | *Micraspidaceae (1)*         |                             |
|                 | *Phacidiales*           | *Helicogoniaceae (7)*        |                             |
|                 |                         | *Phacidiaceae (9)*           |                             |
|                 | *Phacidiales* genus     |                             |                             |
|                 | incertae sedis (1)      |                             |                             |
|                 | *Rhytismatales*         | *Cudoniaceae (2)*            |                             |
|                 |                         | *Rhytismataceae (52)*        |                             |
|                 |                         | *Tribliidaceae (2)*          |                             |
|                 | *Rhytismatales* genera  |                             |                             |
|                 | incertae sedis (9)      |                             |                             |
|                 | *Thelebolales*          | *Pseudeurotiaceae (8)*       |                             |
|                 |                         | *Thelebolaceae (10)*         |                             |
|                 | *Thelebolales* genera   |                             |                             |
|                 | incertae sedis (3)      |                             |                             |
|                 | *Leotiomyces*           |                             |                             |
|                 | genera incertae sedis   |                             |                             |
|                 | (20)                    |                             |                             |
|                 | *Lichinomyces*          | *Lichinales*                 | *Ascodesmidaceae (10)*       |
|                 |                         | *Gloeohelppiaceae (3)*       | *Caloscyphaceae (1)*         |
|                 |                         | *Lichinaceae (43)*           | *Chorioactidaceae (6)*       |
|                 |                         | *Petulaceae (1)*             | *Discinaceae (5)*            |
|                 | *Neolectomyces*         | *Neolectales*                | *Glaziellaceae (1)*          |
|                 | *Neolectales*           | *Neolecetae (1)*             |                             |
|                 | *Orbiliomyces*          | *Orbiliales*                 |                             |
|                 | *Orbiliales*            | *Orbiliaceae (12)*           |                             |
|                 | genera incertae sedis   |                             |                             |
|                 | (1)                     |                             |                             |
|                 | *Orbiliomyces*          |                             |                             |
|                 | genus incertae sedis    |                             |                             |
|                 | (1)                     |                             |                             |
|                 | *Pezzomyces*            | *Pezizales*                  | *Ascobolaceae (5)*           |
|                 |                         |                             | *Ascodesmidaceae (10)*       |
|                 |                         |                             | *Caloscyphaceae (1)*         |
|                 |                         |                             | *Chorioactidaceae (6)*       |
|                 |                         |                             | *Discinaceae (5)*            |
|                 |                         |                             | *Glaziellaceae (1)*          |
| Phylum               | Class*                        | Order*                        | Family*                      |
|---------------------|-------------------------------|-------------------------------|------------------------------|
|                     |                               |                               | Helvellaceae (5)             |
|                     |                               |                               | Kallistoskyphaceae (1)       |
|                     |                               |                               | Karstenellaceae (1)          |
|                     |                               |                               | Morchellaceae (7)            |
|                     |                               |                               | Pezizaceae (38)              |
|                     |                               |                               | Pseudomorphophilaceae (4)    |
|                     |                               |                               | Pulvinulaceae (3)            |
|                     |                               |                               | Pyronemataceae (61)          |
|                     |                               |                               | Rhizinaeae (3)               |
|                     |                               |                               | Sarcoscyphaceae (12)         |
|                     |                               |                               | Sarcosomataceae (9)          |
|                     |                               |                               | Strobiloscyphaceae (1)       |
|                     |                               |                               | Tarzettaceae (6)             |
|                     |                               |                               | Tuberaceae (7)               |
|                     |                               |                               | Pezizales genera incertae sedis (18) |
|                     |                               |                               | Pneumocystomycetes Pneumocystidales Pneumocystidaceae (1) |
|                     |                               |                               | Saccharomycetes Saccharomyctales Alloascoideaeaceae (1) |
|                     |                               |                               | Ascoideae (1)                |
|                     |                               |                               | Cephaloaosaceae (1)          |
|                     |                               |                               | Debaromyctaceae (13)         |
|                     |                               |                               | Dipodascaceae (5)            |
|                     |                               |                               | Lipomyctaceae (5)            |
|                     |                               |                               | Metschnikowiacaeae (3)       |
|                     |                               |                               | Phaffomyctaceae (5)          |
|                     |                               |                               | Pichiaceae (10)              |
|                     |                               |                               | Saccharomyctaceae (16)       |
|                     |                               |                               | Saccharomycodaceae (2)       |
|                     |                               |                               | Saccharomycopsisdaceae (2)    |
|                     |                               |                               | Trichomonascaceae (9)        |
|                     |                               |                               | Trigonopsidaceae (3)         |
|                     |                               |                               | Saccharomycetales genera incertae sedis (21) |
|                     |                               |                               | Schizosaccharomycetes Schizosaccharomyctales Schizosaccharomyctaceae (1) |
|                     |                               |                               | Sordariomycetes Amphiphaeriales Amphiphaeriae (3) |
|                     |                               |                               | Apiosporaceae (5)            |
|                     |                               |                               | Beliraniaeae (9)             |
|                     |                               |                               | Cylpeophysalosporaceae (4)   |
|                     |                               |                               | Cylindriaceae (1)            |
|                     |                               |                               | Hansfordiaeae (1)            |
|                     |                               |                               | Hyponectriaceae (17)         |
|                     |                               |                               | Iodosphaeraceae (1)          |
|                     |                               |                               | Melogrammataceae (1)         |
|                     |                               |                               | Phlogicylindriaceae (3)      |
|                     |                               |                               | Pseudomassariaceae (4)       |
|                     |                               |                               | Pseudotrumcatellaceae (1)    |
|                     |                               |                               | Sporocadaceae (33)           |
|                     |                               |                               | Vialaeaceae (1)              |
|                     |                               |                               | Amphiphaeriales genus incertae sedis (1) |
|                     |                               |                               | Amplistromatales Amplistromataceae (3) |
Table 1 Continued.

| Phylum         | Class*                  | Order*                  | Family*                  |
|----------------|-------------------------|-------------------------|--------------------------|
| Annulatascales | Annulatascales          |                         | Catabotryaceae (1)       |
|                | Annulatascales genus    |                         |                          |
|                | incertae sedis (1)      |                         |                          |
| Atractosporals |                         | Atractosporaceae (2)    |                          |
| Conlariaceae   |                         | Conlariaceae (2)        |                          |
|                |                         | Pseudoproboscisporaceae (2) |                      |
| Boliniales     |                         | Boliniaeae (9)          |                          |
| Calosphaeriales|                         | Calosphaeraceae (4)     |                          |
|                |                         | Jobelliaiaceae (1)      |                          |
|                |                         | Pleurostomataceae (1)   |                          |
|                | Calosphaeriales genera  |                         |                          |
|                | incertae sedis (4)      |                         |                          |
| Cephalothecales|                         | Cephalothecaceae (5)    |                          |
| Chaetosphaeriales|                         | Chaetosphaeraceae (44)  |                          |
|                |                         | Helminthosphaeraceae (7)|                          |
|                |                         | Leptosporellaceae (1)   |                          |
|                |                         | Leptosporellaceae (1)   |                          |
|                |                         | Linocarpaceae (2)       |                          |
|                | Chaetosphaeriales genera|                         |                          |
|                | incertae sedis (7)      |                         |                          |
| Coniochaetales |                         | Coniochaetaeae (2)      |                          |
|                |                         | Cordanaeae (1)          |                          |
| Coniochaetales genera incertae sedis (2)| |                         |                          |
| Conioscyphales |                         | Conioscyphaceae (1)     |                          |
| Coronophorales |                         | Bertiaeae (2)           |                          |
|                |                         | Ceratostomataeae (14)   |                          |
|                |                         | Chaetosphaerellaceae (3)|                          |
|                |                         | Coronophoraceae (1)     |                          |
|                |                         | Nitschkiaceae (14)      |                          |
|                |                         | Scortechiniaceae (10)   |                          |
| Coronophorales genera incertae sedis (2)| |                         |                          |
| Delonicicolales|                         | Delonicicolaceae (2)    |                          |
| Diaporthales   | Apiosporopsidaceae (1)  |                         |                          |
|                | Apoharknessiaceae (2)   |                         |                          |
|                | Asteroспорiaceae (1)    |                         |                          |
|                | Auratipycnidiellaceae (1)|                        |                          |
|                | Coryneaceae (1)         |                         |                          |
|                | Cryphonectriaceae (28)  |                         |                          |
|                | Cytosporaceae (6)       |                         |                          |
|                | Diaporphaeae (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)          |
|              |        |        | Neomeiranconiellaceae (1)      |
|              |        |        | Phaeoappendicosporaceae (2)    |
|              |        |        | Prosipidicolaceae (1)          |
|              |        |        | Pseudomelanconidaceae (2)      |
|              |        |        | Pseudoplagnisotomataceae (1)   |
|              |        |        | Schizoparmaceae (1)            |
|              |        |        | Stilbosporellaceae (4)         |
|              |        |        | Sydowiellaceae (16)            |
|              |        |        | Synnemasporellaceae (1)        |
|              |        |        | Tubakiaceae (8)                |
| Diaporthales |        |        | Diaporthales genera incertae sedis (36) |
| Distoseptisporales |  |        | Distoseptisporaceae (1)         |
| Falcocladiales |        |        | Falcocladia (1)                |
| Fuscosporellales |    |        | Fuscosporellaceae (6)          |
| Glomerellales |        |        | Australiascaceae (1)           |
|              |        |        | Glomerellaceae (1)             |
|              |        |        | Malaysiascaceae (1)            |
|              |        |        | Plectosphaerellaceae (24)      |
|              |        |        | Reticulascaceae (4)            |
| Glomerellales |        |        | Glomerellales genus incertae sedis (1) |
| Hypocreales  |        |        | Hypocreaceae (47)              |
|              |        |        | Calcarisporiaceae (1)          |
|              |        |        | Clavicipitaceae (42)           |
|              |        |        | Cocoonihabitaceae (1)          |
|              |        |        | Cordycepitaceae (17)           |
|              |        |        | F lammocladiae (1)             |
|              |        |        | Hypocreaceae (17)              |
|              |        |        | Myrotheciomycetaceae (4)       |
|              |        |        | Nectriaceae (69)               |
|              |        |        | Niessliaceae (21)              |
|              |        |        | Ophiocordycipitaceae (10)      |
|              |        |        | Sarocladiaceae (2)             |
|              |        |        | Stachybotryaceae (39)          |
|              |        |        | Tilachlidiaceae (3)            |
| Hypocreales  |        |        | Hypocreales genera incertae sedis (29) |
| Jobellisiales |        |        | Jobellisiaceae (1)            |
| Koralionastetiales |   |        | Koralionastetaceae (2)         |
| Lulworthiales  |        |        | Lulworthiaceae (15)           |
| Magnaporthales |        |        | Ceratosphaeraceae (1)          |
|              |        |        | Magnaporthaceae (22)           |
|              |        |        | Ophioceraceae (1)              |
|              |        |        | Pseudohaloniectaceae (1)       |
|              |        |        | Pyriculariaceae (11)           |
| Meliolales    |        |        | Armatellaceae (1)              |
|              |        |        | Meliolaceae (8)                |
| Microascales  |        |        | Ceratocystidaceae (11)         |
| Phylum | Class* | Order* | Family* |
|--------|--------|--------|---------|
|        |        |        | Chadefaudiae (2) |
|        |        |        | Gondwanamycetaceae (2) |
|        |        |        | Graphiaceae (1) |
|        |        |        | Halosphaeriaceae (66) |
|        |        |        | Microasaceae (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) |
|        |        |        | Telimenaecae (1) |
|        |        | Phyllachorales genus incertae sedis (1) |
|        |        | Pisorisporiales Pisorisporiaceae (2) |
|        |        | Pleurotheciales Pleurotheciaceae (11) |
|        |        | Pseudodactylariales Pseudodactylariaceae (1) |
|        |        | Savoryellales Savoryellaceae (4) |
|        |        | Sordariales Chaetomiaceae (37) |
|        |        |        | Lasiosphaeriaceae (32) |
|        |        |        | Podosphaeriaceae (3) |
|        |        |        | Sordariaceae (7) |
|        |        | Sordariales genera incertae sedis (22) |
|        |        | Spathulosporales Hispidicarpomycetaceae (1) |
|        |        |        | Spathulosporaceae (2) |
|        |        | Sporidesmiales Sporidesmiaceae (1) |
|        |        | Tirisporellales Tirisporellaceae (3) |
|        |        | Togniniiales Togniniaceae (2) |
|        |        | Torpedosporales Etheirophoraceae (2) |
|        |        |        | Juncigenaceae (5) |
|        |        |        | Torpedosporaceae (1) |
|        |        | Tracyllales Tracyllaceae (1) |
|        |        | Vermiculariopsiellales Vermiculariopsiellaceae (1) |
|        |        | Xenospadicoidales Xenospadicoidaceae (5) |
|        |        | Xylariales Anungitiomycetaceae (1) |
|        |        |        | Barrmaeliaceae (2) |
|        |        |        | Castanediellaceae (1) |
|        |        |        | Clypeospheriaceae (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 Taphrionales      |
|                                 |                      |                 | Protomyctaceae (6)               |
|                                 |                      |                 | Taphrinaceae (1)                 |
|                                 |                      |                 | Xylobotryomycetes Xylobotryales   |
|                                 |                      |                 | Cirrosporiaceae (1)              |
|                                 |                      |                 | Xylobotryaceae (1)               |
|                                 |                      |                 | Xylonomycetes Symbiotaphrionales |
|                                 |                      |                 | Symbiotaphriaceae (1)            |
|                                 |                      |                 | Xylonales                        |
|                                 |                      |                 | Xylonaceae (2)                   |
|                                 | Incertae sedis       |                 | Thelocarpales                    |
|                                 |                      |                 | Theilocarpaeae (2)               |
|                                 |                      |                 | Vezdaeales                       |
|                                 |                      |                 | Vezdaecaeae (1)                  |
|                                 | Incertae sedis       |                 | Aphanopsidaceae (2)              |
|                                 |                      |                 | Diporothecaeae (1)               |
|                                 |                      |                 | Eoterfeziaceae (2)               |
|                                 |                      |                 | Harpidiaceae (2)                 |
|                                 |                      |                 | Mucomassaritaceae (1)            |
|                                 |                      |                 | Saccardiaceae (7)                |
|                                 |                      |                 | Seurattiacae (2)                 |
|                                 |                      |                 | Strangosporaceae (1)             |
|                                 | *                    |                 | Ascomycota genera incertae sedis (1485) |
|                                 |                      |                 | Basidiobolomycota                |
|                                 | Basidiobolomyces     | Basidiobolales  | Basidiobolaceae (2)              |
|                                 | 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) |
|        |        |        | Mycena (16) |
|        |        |        | Mythicomyctaceae (2) |
|        |        |        | Niaceae (9) |
|        |        |        | Omphalotaceae (14) |
|        |        |        | Physalacriaceae (28) |
|        |        |        | Pleurotaceae (5) |
|        |        |        | Plateaceae (3) |
|        |        |        | Porotheleaceae (2) |
|        |        |        | Psathyrellaceae (13) |
|        |        |        | Pseudoclitocybaceae (7) |
|        |        |        | Pterulaceae (13) |
|        |        |        | Schizophyllaceae (3) |
|        |        |        | Stephaniaceae (5) |
|        |        |        | Strophariaceae (11) |
|        |        |        | Tricholomataceae (10) |
|        |        |        | Tubariaceae (7) |
|        |        |        | Typhulaceae (4) |
|        |        | Agaricales generas incertae sedis (134) |
|        |        | Amylocorticaceae (11) |
|        |        | Atheliales | Atheliales (20) |
|        |        | Auriculariales | Auriculariales (12) |
|        |        | Hyalorlida (3) |
|        |        | Auriculariales generas incertae sedis (31) |
|        |        | Boletaceae (92) |
|        |        | Boletinellaceae (2) |
|        |        | Calostomataceae (1) |
|        |        | Coniophoraceae (5) |
|        |        | Diplocystidiaceae (4) |
|        |        | Gasterellaceae (1) |
|        |        | Gomphidiaceae (4) |
|        |        | Gyroporaceae (1) |
|        |        | Hygrophoropsidaceae (2) |
|        |        | Paxillaceae (10) |
|        |        | Protogastraceae (1) |
|        |        | Rhizopogonaceae (3) |
|        |        | Scleroderma (5) |
| Phylum                        | Class*          | Order*          | Family*                  |
|------------------------------|-----------------|-----------------|--------------------------|
|                              | Serpulaceae (3) | Suillaceae (2)  | Tapinellaceae (3)        |
| Boletales genera incertae sedis (4) |                 |                 |                          |
| Cantharellales                | Aphelariaceae (3) |                |                          |
|                              | Botryobasidiaceae (5) |            |                          |
|                              | Ceratobasidiaceae (6) |          |                          |
|                              | Hydnaceae (21)  |                 |                          |
|                              | Oliveoniiaceae (1) |              |                          |
|                              | Tulasnellaceae (2) |              |                          |
| Bartheletiomycetes            | Bartheletiales   | Bartheletiaeae (1) |                          |
| Cantharellales genera incertae sedis (8) |                   |                 |                          |
| Corticiales                   | Corticiaceae (12) |                |                          |
|                              | Dendrominiaceae (1) |            |                          |
|                              | Punctulariaceae (3) |          |                          |
|                              | Vuilleminiaceae (3) |         |                          |
| Corticiales genera incertae sedis (7) |                   |                 |                          |
| Geastrales                    | Geastraceae (7)  |                 |                          |
|                              | Sclerogastriaceae (1) |          |                          |
| Geastrales genus incertae sedis (1) |                   |                 |                          |
| Gloeophyllales                | Gloeophyllaceae (12) |           |                          |
| Gloeophyllales genus incertae sedis (1) |                   |                 |                          |
| Gomphales                     | Clavariadelphaceae (2) |          |                          |
|                              | Gomphaceae (14)  |                 |                          |
|                              | Lentariaceae (3)  |                 |                          |
| Hymenochaetales               | Hymenochaetaceae (40) |            |                          |
|                              | Neoantrodiiaceae (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             | Lepidostromataeae (3) |          |                          |
| Phallales                     | Claustulaceae (5) |                 |                          |
|                              | Gastrosporiaceae (1) |           |                          |
|                              | Phallaceae (26)   |                 |                          |
| Phallales genera incertae sedis (2) |                   |                 |                          |
| Polyposporales                | Cerrenaceae (4)   |                 |                          |
|                              | Dacryobolaceae (7) |                 |                          |
|                              | Fomitopsidaceae (25) |           |                          |
| Phylum                  | Class*             | Order*             | Family*                  |
|------------------------|--------------------|--------------------|--------------------------|
|                        |                    |                    | *Fragiliporiaceae* (1)    |
|                        |                    |                    | *Gelatoporiaceae* (4)    |
|                        |                    |                    | *Grifolaceae* (2)        |
|                        |                    |                    | *Hyphodermataceae* (1)   |
|                        |                    |                    | *Incrustoporiaceae* (5)  |
|                        |                    |                    | *Irpiceae* (14)          |
|                        |                    |                    | *Ischnodermataceae* (1)  |
|                        |                    |                    | *Laetiporaceae* (3)      |
|                        |                    |                    | *Meripilaceae* (3)       |
|                        |                    |                    | *Meruliaceae* (22)       |
|                        |                    |                    | *Panaceae* (2)           |
|                        |                    |                    | *Phanerochaetaceae* (18) |
|                        |                    |                    | *Podoscyphaceae* (3)     |
|                        |                    |                    | *Polyporaceae* (85)      |
|                        |                    |                    | *Sparassidaceae* (3)     |
|                        |                    |                    | *Steccherinaceae* (22)   |
|                        | **Polyporales**    | **genera incertae s**|
|                        | **incertae s**     | **dis (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 s**|
|                        | **dis (15)**        |                    |                          |
|                        | **Sebacinales**     |                    | **Sebacinae** (8)        |
|                        |                    |                    | **Serendipitaceae** (1)  |
|                        | **Stereopsidales**  |                    | **Stereopsidaceae** (1)  |
|                        | **Thelephorales**   |                    | **Bankeraceae** (5)      |
|                        |                    |                    | **Thelephorae** (9)      |
|                        | **Thelephorales**   | **genus incertae s**|
|                        | **dis (1)**         |                    |                          |
|                        | **Trechisporales**  |                    | **Hydnodontaceae** (13)  |
|                        | **Tremellodendropsidales** | **Tremellodendropsidaceae** (1) |
|                        | **Agaricomycetes**  | **genera incertae s**|
|                        | **dis (40)**        | **Agaricostilbomycetes** |                          |
|                        | **Agaricostilbales**| **Agaricostilbaceae** (3) |
|                        |                    |                    | **Chionosphaeraceae** (5) |
|                        |                    |                    | **Kondoaceae** (2)       |
|                        |                    |                    | **Ruineniaceae** (1)     |
|                        |                    |                    | **Agaricostilbales**     |
|                        | **genera incertae s**|
|                        | **dis (2)**         | **Agaricomycetes**  |                          |
|                        | **Atractiellomycetes** | **Atractiellales** | **Atractiellaceae** (1)  |
|                        | **Hoehnelomyctaceae** (2) |
|                        | **Phleogenaceae** (7) |
|                        | **Classiculomycetes** | **Classiculales** | **Classiculaceae** (2)   |
| Phylum                  | Class*               | Order*               | Family*                                      |
|------------------------|----------------------|----------------------|----------------------------------------------|
| Cryptomycocolacomycetes| Cryptomycocolales     | Cryptomycocolaceae   | (2)                                          |
| Cystobasidiomycetes    | Buckleyzymales       | Buckleyzymaceae      | (1)                                          |
| Cystobasidiomycetes    | Cystobasidiales      | Cystobasidiaceae     | (3)                                          |
| Erythrobasidiales      | Erythrobasidiaceae   | Erythrobasidiaceae   | (2)                                          |
| Erythrobasidiales      | genera incertae sedis(3) |                     |                                              |
| Naohideales            | Naohideaceae (1)     |                      |                                              |
| Sakaguchiales          | Sakaguchiaceae (1)   |                      |                                              |
| Incertae sedis         | Microsporumyctaceae  | (1)                  |                                              |
| Incertae sedid         | Symmetrosporaceae(1) |                      |                                              |
| Cystobasidiomycetes    | genus incertae sedis(1) |                    |                                              |
| Dacrymycetes           | Dacrymyctales        | Cerinomyctaceae      | (1)                                          |
|                        |                      | Dacrymyctaceae (10)  |                                              |
|                        |                      | Unilacrmyales        | (1)                                          |
| Exobasidiomycetes      | Ceraceosorales       | Ceraceosoraceae      | (1)                                          |
|                        |                      | Doassansiales        | (11)                                         |
|                        |                      | Melaniellaceae (1)   |                                              |
|                        |                      | Rhamphosporaceae (1) |                                              |
|                        |                      | Entylomatales        | (2)                                          |
|                        |                      | Exobasidiales        | (5)                                          |
|                        |                      | Cryptobasidiaeae (6) |                                              |
|                        |                      | Exobasidiaeae (4)    |                                              |
|                        |                      | Graphioliaceae (2)   |                                              |
|                        |                      | Laurobasidiaeae (1)  |                                              |
|                        |                      | Georgefischeriales   | (1)                                          |
|                        |                      | Georgefischeriaae (2)|                                              |
|                        |                      | Gjaeruniiaceae (1)   |                                              |
|                        |                      | Tilletiariceae (3)   |                                              |
|                        |                      | Golubeviales         | (1)                                          |
|                        |                      | Microstomatales      | (1)                                          |
|                        |                      | Quambaliariaceae     | (1)                                          |
|                        |                      | Volvocisporiaae (1)  |                                              |
|                        |                      | Microstomatales      | (4)                                          |
|                        |                      | genera incertae sedis(4)|                                              |
|                        |                      | Robbauerales         | (1)                                          |
|                        |                      | Tilletiales          | Erratomyctaceae (1)                          |
|                        |                      | Tilletiaeae (6)      |                                              |
|                        |                      | Malasseziomycetes    | Malasseziales (1)                            |
| Microbotryomyctes      | Heterogastriales     | Heterogastriaceae    | (3)                                          |
|                        |                      | Kriegeriales         | Camptobasidiae (2)                           |
|                        |                      | Kriegeriaceae (4)    |                                              |
|                        |                      | Leucosporidiales     | Leucosporidiae (1)                           |
|                        |                      | Microbotryales       | Microbotryaceae (4)                          |
|                        |                      | Ustilentylomataceae  | (4)                                          |
|                        |                      | Sporidiobolales      | Sporidiobolaceae (3)                         |
|                        |                      | Incertae sedis       | Chrysozyymaeae (4)                           |
|                        |                      | Colacogloeaceae (1)  |                                              |
| Microbotryomyctes      | genera incertae sedis(15) |                |                                              |
| Mixiomyctes            | Mixiales             | Mixiaecae (1)        |                                              |
| Moniliellomycetes      | Moniliellales        | Moniliellaceae (1)   |                                              |
Table 1 Continued.

| Phylum            | Class*         | Order*             | Family*                           |
|-------------------|----------------|--------------------|-----------------------------------|
| **Pucciniomycetes** | Helicobasidiales | Helicobasidiaceae (2) |
| Pachnocybales     | Pachnocybaceae (1) |
| Platygloeales     | Eocronartiaceae (5) |
| **Pucciniales**   | Platygloeaceae (4) |
|                   | Chaconiaceae (9) |
|                   | Coleosporiaceae (5) |
|                   | Cronartiaceae (3) |
|                   | Melampsoraceae (1) |
|                   | Mikronegeriaceae (3) |
|                   | Phakopsoraceae (15) |
|                   | Phragmidiaceae (13) |
|                   | Pileolariaiceae (4) |
|                   | Pucciniaceae (21) |
|                   | Pucciniatraceae (10) |
|                   | Puccinisiraceae (10) |
|                   | Raveneliaceae (24) |
|                   | Sphaerophragmiaeae (2) |
|                   | Uncolaceae (2) |
|                   | Uropyxidaceae (16) |
| **Pucciniales genera incertae sedis** (24) |
| Septobasidiales   | Septobasidiaceae (6) |
| Spiculogloeomycetes | Spiculogloeales (2) |
| Tremellomycetes   | Cystofilobasidiales (1) |
|                   | Mrakiaiceae (7) |
| **Filobasidiales** | Filobasidiaceae (5) |
|                   | Piskurozymaceae (2) |
| **Holtermanniaceae** | Holtermanniaceae (2) |
| **Tremella**      | Bulleraceae (4) |
|                   | Bullerbasidiaceae (6) |
|                   | Carcinomyctaceae (1) |
|                   | Cryptococcaceae (2) |
|                   | Cuniculitremaceae (3) |
|                   | Naemateliaceae (2) |
|                   | Phaeotremellaceae (2) |
|                   | Phragmoxenidiaeae (1) |
|                   | Rhynchogastremaceae (3) |
|                   | Sirobasidiaceae (1) |
|                   | Tremellaceae (3) |
|                   | Trimorphomycetaceae (4) |
| **Tremella**      | Tremellales genera incertae sedis (8) |
| Trichosporonales  | Tetragonomyctaceae (3) |
|                   | Trichosporonaceae (8) |
| Tremellomycetes   | Tremellales genera incertae sedis (3) |
|                   | Tritirachiaceae (2) |
| Ustilaginomycetes | Ustilagiales (2) |
|                   | Uleiellaceae (1) |
| Phylum         | Class*          | Order*             | Family*                                      |
|---------------|-----------------|--------------------|----------------------------------------------|
| Urocystidales | Doassansiopsidaceae (1) |                    |                                              |
|               | Feraydoniaceae (1) |                    |                                              |
|               | Floromyctaceae (2) |                    |                                              |
|               | Glomosporiaceae (1) |                    |                                              |
|               | Mycosyringaceae (1) |                    |                                              |
|               | Urocystidaceae (7) |                    |                                              |
| Ustilaginales | Anthracoidaceae (19) |                |                                              |
|               | Cintractiellaceae (1) |                    |                                              |
|               | Clintamraceae (1) |                    |                                              |
|               | Gemininaceae (1) |                    |                                              |
|               | Melanotaeniaceae (3) |                   |                                              |
|               | Pericladiaceae (1) |                    |                                              |
|               | Ustilaginacea (6) |                    |                                              |
|               | Websdaneaceae (2) |                    |                                              |
|                | **Ustilaginales genera incertae sedis (20)** |         |                                              |
| Violaceomyctales | Violaceomyctaceae (1) |                  |                                              |
|                | Ustilaginomycetetes genus incertae sedis (1) |            |                                              |
|                | **Wallemiomyctetes genera incertae sedis (1)** |            |                                              |
|                | **Blastocladiomycota** |              |                                              |
| Blastocladiales | Blastocladiales | Blastocladiales (3) |                                           |
|                | Catenariaceae (2) |                    |                                              |
|                | Paraphysodermataceae (1) |                |                                              |
|                | Sorochytriaceae (1) |                    |                                              |
|                | **Blastocladiales genus incertae sedis (1)** |            |                                              |
|                | Callimastigales | Callimastigaceae (1) |                                          |
|                | Coelomomyctaceae (2) |                    |                                              |
|                | Catenomycetales | Catenomycetaceae (1) |                                      |
|                | **Blastocladiales genera incertae sedis (1)** |            |                                              |
|                | Physodermatomyctes | Physodermatales (1) |                                          |
|                | Physodermatales (1) |                    |                                              |
| Calcarisporiella Cross | Calcarisporiella Cross | Calcarisporiellaceae (2) |                              |
| Caulochytriumyctes | Caulochytriumyctes | Caulochytriales (1) |                                          |
| Chytridiomycota | **Chytridiomycetes** | **Chytridiales** (2) |                                     |
|                | **Chytridiales** (6) |                    |                                              |
|                | Chytriomycetaceae (11) |                  |                                              |
|                | Phlyctochytriaceae (1) |                 |                                              |
|                | Phlyctorhizaceae (1) |                    |                                              |
|                | Pseudorhizidiaceae (1) |                  |                                              |
|                | Scherffeliomycetaceae (1) |               |                                              |
|                | **Zygorhizidiaceae** (1) |                 |                                              |
Table 1 Continued.

| Phylum                        | Class*                          | Order*                          | Family*                           |
|-------------------------------|---------------------------------|---------------------------------|-----------------------------------|
| Chytridiomycetes genera incertae sedis (39) |                                |                                 |                                   |
| Cladochytriomycetes           | Cladochytriales                 | Catenochytridiaceae            | (1)                               |
| Mesochytriomycetes            | Gromochytriales                 | Gromochytridiaceae             | (1)                               |
| Polychytriomycetes            | Polychytriales                  | Arkayaceae                     | (1)                               |
| Rhizophydiomycetes            | Rhizophydiales                  | Alphamycetaceae                | (3)                               |
| Rhizophlyctidomycetes         | Rhizophlyctidales               |                                |                                   |

1. *Note: Some classes and orders are marked as genera incertae sedis (incertae sedis means "positions of uncertain placement"), indicating that their classifications are not fully resolved.
Table 1 Continued.

| Phylum                  | Class*                  | Order*                  | Family*                 |
|-------------------------|-------------------------|-------------------------|-------------------------|
| **Rhizophyceota**       | **Rhizophlyctidaceae**  |                         | Rhizophyceota (1)       |
| **Sonoraphyceota**      | **Sonoraphlyctidaceae** |                         | Sonoraphyceota (1)      |
| **Spizellomyctes**      | **Spizellomycetales**   | **Powellomycetaceae**   | Spizellomyctes (4)      |
|                         |                         | **Spizellomycetaceae**  |                         |
| **Synchytriomyctes**    | **Synchytriales**       | **Synchytriaceae**      | Synchytriomyctes (4)    |
|                         |                         |                         | Synchytriales genus     |
|                         |                         |                         | incertae sedis (1)      |
| **Chytridiomyctota**    | **Entomophthoromycota** | **Entomophthorales**    | Entomophthoromycota    |
|                         |                         |                         | Entomophthorales (11)   |
|                         |                         | **Completoriaceae**     |                         |
|                         |                         | **Entomophthorales**    |                         |
|                         |                         | **Meristacraceae**      |                         |
| **Neozygitomyctes**     | **Neozygitales**        | **Neozygitaeceae**      | Neozygitomyctes (4)     |
|                         |                         | **Entorrhizales**       | Entorrhizomyctes (1)    |
| **Entorrhizomyctes**    | **Entorrhizomycetes**   | **Entorrhizales**       | Entorrhizomyctes (1)    |
|                         |                         | **Talbotiomycetaceae**  | Talbotiomycetaceae (1)  |
| **Glomeromyctes**       | **Archaeosporomyctes**  | **Archaeosporales**     | Archaeosporomyctes (3)  |
|                         |                         | **Archaeosporaceae**    |                         |
|                         |                         | **Geosiphonaceae**      |                         |
| **Glomeromyctes**       | **Diversisporales**     |                         | Glomeromyctes (6)       |
|                         |                         | **Acaulosporales**      |                         |
|                         |                         | **Gigasporales**        |                         |
|                         |                         | **Dentiscutataceae**    |                         |
|                         |                         | **Gigasporaceae**       |                         |
|                         |                         | **Intraornatosporaceae**|                         |
|                         |                         | **Racocetraeae**        |                         |
|                         |                         | **Scutellosporaceae**   |                         |
| **Glomeromyctes**       | **Glomerales**          | **Entrophosporaceae**   | Glomeromyctes (3)       |
|                         |                         |                         | Glomeraceae (3)         |
| **Paraglomeromyctes**   | **Paraglomeraleae**     | **Paraglomeraceae**     | Paraglomeromyctes (2)   |
|                         |                         |                         |                         |
| **Kickxellomyctes**     | **Asellariomyctes**     | **Asellariales**        | Kickxellomyctes (3)     |
|                         |                         | **Asellariales genus**  |                         |
|                         |                         | **incertae sedis (1)**  |                         |
| **Barbatosporomyctes**  | **Barbatosporales**     |                         | Barbatosporomyctes (1)  |
| **Dimargaritomyctes**   | **Dimargaritales**      |                         | Dimargaritomyctes (3)   |
|                         |                         | **Dimargaritales genus**|                         |
|                         |                         | **incertae sedis (1)**  |                         |
| **Harpellomyctes**      | **Harpellales**         | **Harpellaceae**        | Harpellomyctes (3)      |
|                         |                         | **Legeriomyctaceae**    |                         |
|                         |                         | **Legeriomyctaceae (38)**|
| **Kickxellomyctes**     | **Kickxellales**        | **Kickxellaceae (11)**  | Kickxellomyctes (11)    |
| **Ramicandelaberomyctes**| **Ramicandelaberales**  | **Ramicandelaberaceae** | Ramicandelaberomyctes   |
|                         |                         |                         | Ramicandelaberales      |
| **Monoblepharomyctes**  | **Hyaloraphidiomyctes** | **Hyaloraphidiales**    | Monoblepharomyctes (1)  |
|                         | **Hyaloraphidiales**    | **Hyaloraphidaceae**    | Monoblepharomyctes (1)  |
|                         |                         | **Gonapodyaceae (2)**   |                         |
|                         |                         | **Harpochytriaceae (1)**|
|                         |                         | **Monoblepharaceae (1)**|
| Phylum                  | Class*                  | Order*                  | Family*                      |
|------------------------|-------------------------|-------------------------|------------------------------|
|                        |                         |                         | Oedogoniomycetaceae          |
|                        |                         |                         | (1)                          |
|                        |                         |                         | Telasphaerulaceae            |
|                        |                         |                         | (1)                          |
| Sanchytriomycetes      | Sanchytriales           |                         |                              |
|                        |                         |                         | Sanchytriaceae               |
|                        |                         |                         | (2)                          |
| Mortierellomyctota     | Mortierellomyctetes     | Mortierellales          | Mortierellaceae (6)          |
| Mucoromyctota          | Endogonomycetes         | Endogonales             | Endogonaceae (5)             |
|                        |                         |                         |                              |
|                        |                         |                         | Backusellaceae               |
|                        |                         |                         | (1)                          |
|                        |                         |                         | Choaenophoraceae             |
|                        |                         |                         | (4)                          |
|                        |                         |                         | Cunninghamellaceae (6)       |
|                        |                         |                         |                              |
|                        |                         |                         | Lentamycetaceae              |
|                        |                         |                         | (1)                          |
|                        |                         |                         | Lichtheimiaceae              |
|                        |                         |                         | (9)                          |
|                        |                         |                         | Mucoraceae                   |
|                        |                         |                         | (20)                         |
|                        |                         |                         | Mycocladaceae                |
|                        |                         |                         | (1)                          |
|                        |                         |                         | Mycotyphaceae                |
|                        |                         |                         | (1)                          |
|                        |                         |                         | Pilobolaceae                 |
|                        |                         |                         | (2)                          |
|                        |                         |                         | Radiomycetaceae              |
|                        |                         |                         | (1)                          |
|                        |                         |                         | Rhizopodaceae                |
|                        |                         |                         | (3)                          |
|                        |                         |                         | Saksenaceae                  |
|                        |                         |                         | (2)                          |
|                        |                         |                         | Syncphalasraceae             |
|                        |                         |                         | (2)                          |
| Umbelopsidomycetes     | Umbelopsidales          |                         | Umbelopsidaceae (1)          |
|                        |                         |                         |                              |
| Mucoromyctota genus    |                         |                         |                              |
| incertae sedis (1)     |                         |                         |                              |
| Neocallimastigomyctota | Neocallimastigomyctes   | Neocallimastigales       | Neocallimastigaceae          |
|                        |                         |                         | (11)                         |
| Olpidiomyctota         | Olpidiomyctes           | Olpidales               | Olpidiaceae (4)              |
| Rozellomyctota         | Rudimicrosporea         | Metchnikovellida        | Amphiacanthidae              |
|                        |                         |                         | (1)                          |
|                        |                         |                         | Metchnikovellidae            |
|                        |                         |                         | (4)                          |
|                        |                         |                         | Microsporidea                |
|                        |                         |                         | Amblyosporida                |
|                        |                         |                         | Amblyosporida (17)           |
|                        |                         |                         | Caudosporida (10)            |
|                        |                         |                         | Gurleyida (13)               |
|                        | Amblyosporida           |                         |                              |
|                        | genera incertae sedis   |                         |                              |
|                        | (5)                     |                         |                              |
|                        | Neopereziida            | Berwaldiida             |                              |
|                        |                         | Neopereziidae           |                              |
|                        |                         | Tubulinosematida (3)    |                              |
|                        | Neopereziida            |                         |                              |
|                        | genera incertae sedis   |                         |                              |
|                        | (2)                     |                         |                              |
|                        | Neopereziida            | Berwaldiida             |                              |
|                        |                         | Neopereziidae           | (6)                          |
|                        |                         | Tubulinosematida (3)    |                              |
|                        | Neopereziida            |                         |                              |
|                        | genera incertae sedis   |                         |                              |
|                        | (2)                     |                         |                              |
|                        | Ovavesiculida           | Ovavesiculida           |                              |
|                        |                         |                         | (3)                          |
|                        | Ovavesiculida           |                         |                              |
|                        | genus incertae sedis    |                         |                              |
|                        | (1)                     |                         |                              |
|                        | Glugeida                | Facilisporida           |                              |
|                        |                         | Glugeida (8)            |                              |
|                        |                         | Myosporida              |                              |
|                        |                         | Myosporida (1)          |                              |
|                        |                         | Pereziida               |                              |
|                        |                         | Pereziida (4)           |                              |
|                        |                         | Pleistophororida        |                              |
|                        |                         | Pleistophororida (7)    |                              |
|                        |                         | Spragueida              |                              |
|                        |                         | Spragueida (7)          |                              |
|                        |                         | Thelohaniida            |                              |
|                        |                         | Thelohaniida (15)       |                              |
|                        |                         | Unikaryonida            |                              |
|                        |                         | Unikaryonida (4)        |                              |
Table 1 Continued.

| Phylum                  | Class*            | Order*                  | Family*                |
|-------------------------|-------------------|-------------------------|------------------------|
|                         | Glugeida genus incertae sedis (1) |                         |                        |
| Nosematida              | Glugeida genus incertae sedis (1) |                         |                        |
|                         | Encephalitozoonidae (2) |                         |                        |
|                         | Enterocytozoonidae (6) |                         |                        |
|                         | Heterovesiculidae (1) |                         |                        |
|                         | Mrazekiidae (8) |                         |                        |
|                         | Nosematidae (2) |                         |                        |
|                         | Ordosporidae (1) |                         |                        |
| Nosematida genera incertae sedis (15) |                         |                        |                        |
| Incertae sedis          | Abelsporidae (1) |                         |                        |
|                         | Areosporidae (1) |                         |                        |
|                         | Burenellidae (3) |                         |                        |
|                         | Congourdellidae (1) |                         |                        |
|                         | Cylindrosporidae (1) |                         |                        |
|                         | Duboscqiidae (5) |                         |                        |
|                         | Golbergiidae (3) |                         |                        |
|                         | Microfilidae (1) |                         |                        |
|                         | Neososemioidiidae (1) |                         |                        |
|                         | Pleistosporidiidae (1) |                         |                        |
|                         | Pseudopleistophoridae (2) |                 |                        |
|                         | Striatosporidae (1) |                         |                        |
|                         | Telomyxidae (1) |                         |                        |
|                         | Toxoglugiidae (2) |                         |                        |
|                         | Tuzetiidae (4) |                         |                        |
| Incertae sedis          | Chytriopsidae (2) |                         |                        |
|                         | Buxehuidae (2) |                         |                        |
|                         | Chytriopsidae (5) |                         |                        |
|                         | Hesseidae (1) |                         |                        |
| Rozellomycota genera incertae sedis (5) |                         |                        |                        |
| Zoopagomycota           | Zoopagomycetes |                         |                        |
|                         | Zoopagales |                         |                        |
|                         | Cochlonemataceae (7) |                         |                        |
|                         | Helicocephalidaceae (4) |                 |                        |
|                         | Piptocephalidaceae (3) |                         |                        |
|                         | Sigmoidemycetaceae (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 (Nucleomyces 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, Cavostellida, 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 Protosporangiidae 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              | Eumycetozoa          |
|                        | Dictyosteliomycetes  |
|                        | (C)                  |
|                        | Ceratiomyxomycetes   |
|                        | (P)                  |
|                        | Protosporangiida     |
|                        | Myxomycetes          |
|                        | (P)                  |
| Protosteliida          | Protostelium         |
|                        | (P)                  |
| Fractovitellida        | Ceratiomyxella       |
|                        | (P)                  |
|                        | Nematospelum         |
|                        | (P)                  |
|                        | Schizoplasmodium     |
|                        | (P)                  |
|                        | Soliformovum         |
|                        | (P)                  |
| Fractovitellida        | Cavostelium          |
|                        | (P)                  |
|                        | Schizoplasmodiopsis  |
|                        | (P)                  |
|                        | Tychosporium         |
|                        | (P)                  |
| Tubulinea              | Euamoebida           |
|                        | Copromyxa(C)         |
| Discosea               | Centramoebia         |
|                        | Endostelium(P)       |
|                        | Luapelamoeba         |
|                        | (P)                  |
|                        | Protosteliopsis(P)   |
|                        | Vannella(P)          |
| Discoba                | Heterolobosea        |
|                        | Tetramitida          |
|                        | Acrasidae(C)         |
| Obazoa                 | Opisthokonta         |
|                        | Nucleomycea          |
|                        | 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, *Myxogastera*) 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 *Protosporangiacaeae*, 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 characteristics – 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    |               | Acyrosteliales               | Acyrosteliaceae (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       | Echinosteliopsidaceae (1)   |
|                        |               | Echinosteliaceae (3)         |                             |
|                        |               | Clastodermatales             | Clastodermataceae (1)       |
|                        |               | Meridermatales               | Meridermataceae (1)         |
|                        |               | Stemonitidales               | Amaurochaetaeaceae (7)      |
|                        |               |                             | Stemonitidae (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. Kalp upatkar & 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*, *Listeria*, *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 ultralong branches such as *Oedogonomyces* spp.
Figure 1 – Maximum likelihood phylogeny of the kingdom *Fungi* based on LSU, SSU, RP1 and RP2 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

**Apheliidae** Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

**Apheliaceae** 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)
- *Cryptphonia* Frisch & G. Thor (16)
- *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 Sporodochi Helloch) Aptroot & Sipman

Chrysothrichaceae 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
Alyxia Ach. (12)
Heterocyphelium Vain. (2)
Lecanographa Egea & Torrente (ca. 40)
Mixtoconidium Etayo (2)
Phacographa Hafellner (3)
Plectocarp 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)
Limonaea Egea & Torrente (4)
Nyungwea Sérus., Eb. Fisch. & Killmann (3)
Opegrapha Ach. (= Kalaallia Alstrup & D. Hawksw.) (ca. 100 + ca. 200 orphaned)
Parangiaderia 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.
Ancistrospirella G. Thor (3)
Austrographa Sparrius, Elix & A.W. Archer (3)
Australroccella Tehler & Ertz (1)
Chiodecton Ach. (ca. 22)
Crespoena 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)
Neoserigipea 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)
Streimmannia G. Thor (1)
Syncesia Taylor (ca. 25)
Tania Egea, Torrente & Sipman (2)
Vigneronia Ertz (3)

Roccelllographaceae Ertz & Tehler
Dimidiographa Ertz & Tehler (3)
Fulvophytton Ertz & Tehler (6)
Roccelllographa 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)
Phacotheccium Trevis. (1)
Phoebus R.C. Harris & Ladd (1)
Sporostigma Grube (1)
Synarthonia Müll. Arg. (5)
Synarthothelium Sparrius (2)
Tarbertia Dennis (1)
Trichophyrum Rehm (2)
Tylophorella Vain. (1)
Wegea Aptroot & Tibell (1)

Lichenostigmatales Ertz, Diederich & Lawrey
Phaeococcomycetaceae McGinnis & Schell
   Etayo 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 Miàdl., 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
   Aeminiun J. Trovão, I. Tiago & A. Portugal (1)

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

Capnodiales (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)
Limaciniiaseta D.R. Reynolds (1)
Readerieliopsis 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)
- *Camptomeripilia* 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)
- *Cercospora* Sacc. (ca. 100)
- *Cercosporidium* Earle (ca. 10)
- *Chuppomyces* Videira & Crous (1)
- *Claroophilum* Videira & Crous (1)
- *Clypoosphaerella* 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)
- *Hyalocercosporellium* Videira & Crous (1)
- *Hyalozasmidium* U. Braun, C. Nakash., Videira & Crous (2)
- *Janetia* M.B. Ellis (22)
- *Lecanosticta* Syd. (8)
- *Madagascarnomyces* 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)
Neocercospordium 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)
Nothophaeoecryptopus Videira, C. Nakash. & Crous (1)
Pachyramichloridium Videira & Crous (1)
Pallidocercospora Crous (9)
Pantospora Cif. (1)
Paracercospora Deighton (5)
Paracercospordium 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 Spec. (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 Spec. (4)
Ramulispora Miura (18)
Rhachisphaerella U. Braun, C. Nakash., Videira & Crous (1)
Rosiphaerella Videira & Crous (1)
Ruptoseptoria Quaedvl., Verkley & Crous (1)
Scolecostigmata U. Braun (23)
Septoria Sacc. (= Septocyta Petr. fide Quaedvlieg et al. 2013) (200<)
Sonderhenia H.J. Swart & J. Walker (2)
Sphaerulina Sacc. (65)
Stromatoseudoria Quaedvl., Verkley & Crous (1)
Sultanimyces Videira & Crous (1)
Trochophora R.T. Moore (2)
Uwemyces Hern.-Restr., Sarria & Crous (1)
Virophaerella 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
Neodevria Quaedvl. & Crous (21)
Trip spernum Speg. (27)

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

Phaeothecoidiellaceae K.D. Hyde & Hongsanan (=Nowamysetaceae Crous)
Chaetothyrinta Theiss. (6)
Exopassalora Videira & Crous (1)
Houjia G.Y. Sun & Crous (2)
Nowamyces Crous (2)
Phaeothecoidiella Batzer & Crous (2)
Rivilata Kohlm., Volkml.-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
Racidium 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)

Allographina Arx & E. Müll. (2)

Austroafricana Quaedvl. & Crous (3)

Austrostigmatidium 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)

Deeviesia Seifert & N.L. Nick. (11)

Elasticomyces Zucconi & Selbmann (1)

Eupenidiella Quaedvl. & Crous (1)

Euteratosphaeria Quaedvl. & Crous (1)

Friedmanniomyces Onofri (2)

Hispanoconidioma 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)
Xanthoricola 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)
Hysteroglomerium Rehm ex Lindau (2)
Oedohysterium E. Boehm & C.L. Schoch (3)
Ostrechinia 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
Mytilinidiales 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
   Aigialis S. Schatz & Kohlm. (5)
   Ascocratera Kohlm. (1)
   Fissuroma Jian K. Liu, Phook., E.B.G. Jones & K.D. Hyde (11)
   Neoastrospariaella Jian K. Liu, E.B.G. Jones & K.D. Hyde (3)
   Posidonomyces 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)
   Amorosisa Mantle & D. Hawksw. (1)
   Amorocoelephoma 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)
Purplea 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. 10 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)
Neocomiothyrium Crous (3)
Ochrocladosporium Crous & U. Braun (3)
Staurosphaeria Rabenh. (= Hazslinsskyomyces Crous & R.K. Schumach.) (12)

Corynesporasascaceae Sivan.
Corynespora Güssow (ca. 130)
Corynesporasca Sivan. (1)
Cryptocoryneaceae  A. Hashim. & Kaz. Tanaka
Cryptocoryneum Fuckel (ca. 20)

Cucurbitariaceae  G. Winter (= Fenestellaceae M.E. Barr)
Alloccurbitaria 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)
Paracurbitaria 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)
Leptocurthis 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  Boonme & K.D. Hyde
Aquadictyospora Z.L. Luo, K.D. Hyde & H.Y. Su (1)
Aquacheirospora Kodsueb & W.H. Ho (1)
Cheirosporum L. Cai & K.D. Hyde (2)
Dendryphiella Bubák & Ranoj. (12)
Dictyocheirospora M.J. D'souza, Boonme & K.D. Hyde (16)
Dictyopalmispora Pinruan, Boonme & 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)
Didymellaceae Gruyter, Aveskamp & Verkley (=Microsphaeropsidaceae Qian Chen, L. Cai & Crous fide Hongsanant et al. 2020)

Didymella Sacc. ex D. Sacc. (ca. 100)

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)

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)

Neoascochya 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)

Platyghora Petr. (1)

Remotididymella Valenz.-Lopez (2)

Similiphoma Valenz.-Lopez, Cano, Crous, 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)

Australopeospora 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)
Kalmusikambusa 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)*
Tremateia 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)
   Phaeomyccentrospora 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. Hira. (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)

Halothiaceae Ying Zhang, J. Fourn. & K.D. Hyde
   Brumneoclavispora Phook. & K.D. Hyde (1)
   Halothia 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.
   Hermatomycetes Speg. (ca. 20)
\textbf{Hypsostromataceae} Huhndorf  
\textit{Hypsostroma} Huhndorf (2)  

\textbf{Latoruaceae} Crous  
\textit{Latorura} Crous (1)  
\textit{Matsushimamycyes} Rahul Sharma & Rohit Sharma (2)  
\textit{Polyschema} H.P. Upadhyay (22)  
\textit{Pseudoasteromassaria} M. Matsum. & Kaz. Tanaka (2)  

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

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

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

\textbf{Libertasomycetaceae} Crous  
\textit{Libertasomyces} Crous & Roets (3)  
\textit{Neoplatysporoides} Crous & M.J. Wingf. (1)  

\textbf{Ligninsphaeriaceae} K.D. Hyde & Ariyaw. (Nom. inval., Art. 38.1(a) (Melbourne) \textit{fide Index Fungorum} 2020)  
\textit{Ligninsphaeria} Jin F. Zhang, Jian K. Liu, K.D. Hyde & Zi Y. Liu (1)  
\textit{Ligninsphaeriopsis} Phukh., Feng & K.D. Hyde (1)
**Lindgomycetaceae** K. Hiray., Kaz. Tanaka & Shearer
- *Arundellina* Wanas., E.B.G. Jones & K.D. Hyde (1)
- *Clohesomyces* 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)
- *Pseudoaxylomyces* 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)
- *Lophiopooacea* 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)*
- *Pseudoplatastomum* 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)
- Semifississpora 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)
Pleotrichociadium 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., Gaffarov & 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)
Clypeoiloculus 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
Dimorphosphoricola 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)
- *Versicolorisorum* 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 Schltldl. (ca. 5)
- *Aphanostigme* Syd. (21)
- *Arezzomyces* Y. Marin & 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)
Dihawksworthia 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)
Hydeomycyes 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)
Jeremymycyes Crous & R.K. Schumach. (1)
Junaceicola 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. & Volkma.-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)
Neophiobolus Mapook & K.D. Hyde (1)
Neosetophoma Gruyter, Aveskamp & Verkley (15)
Neosphaerellopsis Crous & Trakun. (10)
Neostagonospora Quaedvl., Verkley & Crous (6)
Neostagonospora 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)
Paraphiobolus Phook., Wanas. & K.D. Hyde (2)*
Paraphoma Morgan-Jones & J.F. White (8)
Parastagonospora Quaedvl., Verkley & Crous (ca. 19)
Parastagonospora M. Bakhshi, Arzanlou & Crous (1)
Phaeopoacea Thambug., Dissan. & K.D. Hyde (3)*
Phaeoseptoriella Crous (1)
Phaeocharaia 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)
Sclerotagonospora 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)
Tintelnottia 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)*
Vrubestaia Quaedvl., W.J. Swart, Verkley & Crous (1)
Wingfieldomyces Y. Marin & 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)*
Pseudoxyuconia Lar.N. Vassiljeva (1)
Pyrenophora Fr. (= Marielliotia 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)
   *Pseudoastrosphaeria* Phook., Z.L. Luo & K.D. Hyde (6)
   *Pseudoastrosphaeriellopsis* Devadatha, Wanas., Jeewon & V.V. Sarma (1)*

**Pseudoberkleasmaiaceae** Phukhams. & K.D. Hyde
   *Pseudoberkleasmiium* Tibpromma & K.D. Hyde (3)

**Pseudocodeolictyosporaceae** Doilom & K.D. Hyde
   *Pseudocodeolictyospora* Doilom & K.D. Hyde (3)
   *Subglobosporium* Doilom & K.D. Hyde (1)

**Pseudolophiotremataceae** K.D. Hyde & Hongsanan
   *Clematidis* Tibpromma, Camporesi & K.D. Hyde (1)
   *Pseudolophioptrema* 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)
   *Immothia* 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
   *Acrocardiopsis* 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)
- *Rubrosiraiar* D.Q. Dai & K.D. Hyde (1)
- *Siraiar* Henn. (1)

**Sporormiaceae** Munk
- *Chaetopreussia* Locq.-Lin. (1)
- *Forliomyces* Phukhams., Camporesi & K.D. Hyde (1)
- *Pleophragma* 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)

**Striaguttulaceae** S.N. Zhang, K.D. Hyde & J.K. Liu
- *Longicorpus* S.N. Zhang, K.D. Hyde & J.K. Liu (1)
- *Striaguttula* 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)
- *Pseuodaurantiascoma* 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)
   Polyblosphaeria Kaz. Tanaka & K. Hiray. (5)
   Pseudotetraploa Kaz. Tanaka & K. Hiray. (4)
   Quadriricra Kaz. Tanaka, K. Hiray. & Sat. Hatak. (3)
   Shrungabbeja 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)
   Cycaslicola Wanas., E.B.G. Jones & K.D. Hyde (2)
   Liu 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)
   Raghuskumaria 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.
   Celtidisa 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)
Setophaesphaeria 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 [= Lichenconiales Diederich, Lawrey & K.D. Hyde]
Lichenconiaceae Diederich & Lawrey [= Abrothallaceae Pérez-Ort. & Suija]*

Abrothallus De Not (=Epinephroma Zhurb.; Vouauxiomycines Dyko & D. Hawks.) (42)*
**Lichenoconium** Petr. & Syd. (15)

**Acrospermales** Minter, Peredo & A.T. Watson

**Acrospermaceae** Fuckel

- *Acropernum* 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.
- *Battistinula* 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)
  Caribaemomyces 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)*
  Alanphillisia 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)
  Marasasiamyces 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.
    Collemopsisidium Nyl. (27)
    Didymellopsis (Sacc.) Clem. & Shear (6)
    Frigidopyrenia Grube (1)
    Xanthopyrenia Bachm. (2)
    Zwackhiomacromyces Etayo & van den Boom (2)
    Zwackhiomyces Grube & Hafellner (35)

Dyfrolomyctales 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)  
*Calothryriopsis* 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)  
*Psuedomicrothyrium* 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)
- *Neoscoleobasidium* Crous (1)
- *Parazalerion* Madrid, Gené & Cano (1)*
- *Thyridictyella* 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)
Cyllostomella 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)
Pleistostomellina Bat., J.L. Bezerra & H. Maia (1)
Polycyclina Theiss. & Syd. (1)
Polycyclus Höhn. (2)
Protothyrium G. Arnaud (4)
Pseudolembosia Theiss. (4)
Rhaagadolobiopsis Guatim. & R.W. Barreto (1)
Rhaagadolobium P. Henn. & Lindau (10)
Rhipidocarpon (Theiss.) Theiss. & Syd. (1)
Symphaeophyma Speg. (1)
Syrrpeolitis 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 Aptoote (1)
Murangium Seaver (1)
Patellaria Fr. (12)
Poetschia Körb. (4)
Pseudoparodia Theiss. & Syd. (1)
Rhizodiscina Hafellner (1)
Rimula Velen. (1)
Schrakia Hafellner (1)
Stratosporella Hafellner (1)
Tryblidaria (Sacc.) Rehm (9)

**Phaeotrichales** Ariyaw., Jian K. Liu & K.D. Hyde

**Phaeotrichaceae** Cain

  *Echinoascotheca* Matsush. (1)
  *Phaeotrachum* Cain & M.E. Barr (2)
  *Trichodelitschia* Munk (4)

**Stigmatodisccales** 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* Höhnell (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)

**Trypetheliaceae** 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* Müller.) (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)
Bijfrontia Norman (2)
Boerlagiomyces Butzin (9)
Camporesiomyces D.P. Wei & K.D. Hyde (1)
Chaetosphaerulina I. Hino (6)
Chlamydotubeufia Boonmee & K.D. Hyde (8)
Dematiohelmica 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)
Pseudoamungitea 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 Lutr. 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)
Coccoidea 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)
*Parenenglerula* 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)

**Homortomyctaceae** Thamb., 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* Spec. (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* Spec. (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* Spec. (2)
- *Munkiella* Spec. (3)
- *Parastigmatea* Doidge (3)

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

**Pseudoperisporiaceae** Toro
- *Bryomyces* Döbbeler (12)
- *Eudimeriolium* Spec. (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)
Trichothyriella Petr. (2)

Trichothyriaceae Theiss.
Lichenopeltella Höhn. (48)
Macrographa Etayo (1)
Pachythryrium G. Arnauex 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
Acanthopus 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)
Calytra 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)
Ceratophoma Theiss. & Syd. (ca. 3)
Ceratotheca 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)
Coccospora Höhn. (4)
Coccochorina Hara (2)
Coccodothis Theiss. & Syd. (2)
Comesella Speg. (1)
Comminutispora A.W. Ramaley (1)
Coniosporium Link (ca. 20)
Crauatamyces Viégas (1)
Croton Theiss. & Syd. (1)
Cryomyces Selbmann, de Hoog, Mazzaglia, Friedmann & Onofri (4)
Cyclotheca Theiss. (9)
Dactuliophora C.L. Leakey (5)
Dawsomyces Döbbeler (2)
Dawsofila 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)
Dictyothyrum 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)
Hidakaae I. Hino & Katum. (2)
Hyalocrea Syd. & P. Syd. (4)
Hyaloscolecostroma Bat. & J. Oliveira (1)
Hyalosphaera F. Stevens (4)
Hyalotheltes 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. Upadhay (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)  
Lebmobiopeltis Bat. & J.L. Bezerra (2)  
Leptomeliola Höhn. (13)  
Letendreaopsis 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 Spec. (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 Spec. (9)  
Moriolomyces Cif. & Tomas. (1)  
Muricopeltis Viégas (1)  
Murioia I. Hino & Katum. (1)  
Mycocryptospora J. Reid & C. Booth (1)  
Myccodidymella C.Z. Wei, Y. Harada & Katum. (1)  
Myccola Hön. (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)
Othia 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. & Peglon (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)
Placosterina Toro (1)
Placodothis Syd. (1)
Placelon Cam. Cif. (1)
Placospaeria (De Not.) Sacc. (1, but several other epithets exist)
Plagiostromella Höhn. (1)
Plejobolus (E. Bommer et al.) O.E. Erikss. (1 or 2 species)
Plenotrichiaus Bat. & Valle (1)
Pleomerium Speg. (1)
Pleotrichiella Sivan. (1)
Polycyclinopsis Bat., A.F. Vital & I.H. Lima (1)
Polyrhzon Theiss., Syd. & P. Syd. (2)
Polyisoridiella Petr. (1)
Polystomellopsis F. Stevens (1)
Proliferosphaera T.P. Devi (1)
Pseudoarthrographis Crous & Thangavel (1)
Pseudomorfeia 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 & Thomman (1)
Scolecobonaria Bat. (2)
Scolecoxypium 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. Kendrick (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)
Teichospora (Sacc.) Sacc. (26)
Tratoschaeta Bat. & Fons.) (1)
Tetracrium Henn. (7)
Thalassoascus Ollivier (3)
Thelenidia Nyl. (1)
Thrylostora 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)
   Aphaneophora Réblová & Unter. (1)
   Arthrophia (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)
   Cyphellophorielia 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)
   Cladophilalophora Borelli (35)*
   Exophiliala 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)
Minimelanococcus R.F. Castañeda & Heredia (33)*
Phialophora Medlar (7)*
Pleomelogramma Speng. (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)*
Lithophila Selbmann & Isola (1)
Lithophila Selbmann & Isola (1)*
Neostrelitziana Crous & M.J. Wingf. (1)
Strelitziana Arzanlou & Crous (8)
Trichomerium Speng. (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)
Cellothelium A. Massal. (8)
Minutella 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)
Xenocylinindrosporium 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)
- Halosphora (Zschacke) Tomas. & Cif. (4)
Henrica de Lesd. (4)
Heterocarpon Müll. Arg. (1)
Heteroplacidium Breuss (12)
Hydropunctaria C. Keller, Gueidan & Thüs (8)
Involutropyrenium 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)
Placidioides A. Massal. (28)
Placocarpus Trevis. (5)
Placopyrenium Breuss (22)
Placothelium Müll. Arg. (1)
Plurisperma Sivan. (1)
Polyblasta A. Massal. (ca. 40 + ca. 50 orphaned)
Psoroglaena Müll. Arg. (17)
Rhabdopsis 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)
Theildiopsis Vain. (4)
Thelidium A. Massal. (ca. 50 + ca. 50 orphaned)
Trimmatotheca 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)
Gemmaspore D. Hawksw. & Halici (1)
Kalbiana Henssen (1)
Merismatium Zopf (10)

**Chaetothyriomycetidae** family incertae sedis

Chaetothyriomycetidae Winka & O.E. Erikss.

Rhynchomeliola Speg. (3)
Rhynchostoma P. Karst. (23)

Coryneliaceae 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
Arachnomyctales Gibas, Sigler & Currah
Arachnomyctaceae 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)
Penicilllopsis Solms (15)
Penicillus 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)
Trichomum Jungh. (2)

Onygenales Cif. ex Benny & Kimbr.
**Ajellomyctaceae** Unter., J.A. Scott & Sigler
  
  *Blastomyces* Gilchrist & W.R. Stokes (=*Ajellomyces* McDonough & A.L. Lewis; *Emmonsia* Cif. & Montemart.) (9)
  
  *Emmontioiopsis* Y. Marín, Stchigel, Guarro & Cano (2)
  
  *Emergozymes* 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)
  
  *Ascospheara* 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)
  
  *Gymnoascoides* G.F. Orr, K. Roy & G.R. Ghosh (1)
  
  *Gymnoascus* Baran. (=*Narasimhella* Thirum. & P.N. Mathur) (26)
  
  *Kraurogynocarpa* 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)
  
  *Ascovalvatia* Malloch & Cain (1)
  
  *Auxarthron* G.F. Orr & Kuehn (13)
  
  *Auxarthronopsis* Rah. Sharma, Y. Gräser & S.K. Singh (2)
  
  *Bijidocarpus* Cano, Guarro & R.F. Castañeda (2)
  
  *Bysssoonygena* Guarro, Punsola & Cano (1)
  
  *Castanedomycetes* 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* Ulfíg, 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)
*Polytolyta* 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)
*Chaenotheccopsis* Vain. (ca. 40)
*Mycocalicum* 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** Bellm. & 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*  
- *Neocladosphialaphora* 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)*

**Laboulbeniomyctes** Engler  
**Herpomyctetales** Haelew. & Pfister*  
**Herpomyctaceae** I.I. Tav.  
- *Herpomyces* Thaxt. (26)

**Laboulbeniales** Lindau  
**Ceratomyctetales** S. Colla  
- *Autoicomyces* Thaxt. (28)  
- *Ceratomyces* Thaxt. (32)  
- *Drepanomyces* Thaxt. (1)  
- *Eusynaptomyces* Thaxt. (5)  
- *Helodiomyces* F. Picard (1)  
- *Phurmomyces* Thaxt. (1)  
- *Plectomyces* Thaxt. (1)  
- *Rhynchophoromycetes* 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)  
- *Euceratomycetes* Thaxt. (1)  
- *Euzodiomyces* Thaxt. (2)  
- *Pseudoecteiniomyces* W. Rossi (1)
Laboulbeniaceae G. Winter

Acallomyces Thaxt. (3)
Acompsomyces Thaxt. (6)
Acragnomyces 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)
Benjamiomyces 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)
Capillisticus 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 Spec. (20)
Cupulomyces R.K. Benj. (= Balazucia R.K. Benj.) (1)
Dermapteromyces Thaxt. (1)
Dianidromyces Thaxt. (2)
Diaphoromyces Thaxt. (5)
Diconomyces Thaxt. (3)
Dimeromyces Thaxt. (118)
Dimorphomyces Thaxt. (32)
Diocomyces Thaxt. (32)
Dipphyomyc Thaxt. (25)*
Diplomyces Thaxt. (3)
Diplopodomyces W. Rossi & Balazuc (6)
Dipodomyc 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)
Filarioniomyces 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)
Laboulenia Mont. & C.P. Robin (= Scalonomyces I.I. Tav.) (ca. 633)*
Limnaiozymes Thaxt. (3)
Majewska 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)*
Ormonyces 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)
Siemaszkoæ 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)
  Coreomyctetopsis Thaxt. (1)
  Gliocephalis Matr. (2)

Pyxidiophorales P.F. Cannon
Pyxidiophoraceae Arnold
  Mycorhynchidiurn 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
Acarosporomyctetidae 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 Miadl., Lutzoni & Lumbsch

**Caliciales** Bessey

**Caliciaceae** Chevall.
  *Acolium* (Ach.) Gray (5)
  *Acroscyphus* Lévé (1)
  *Allocalicium* M. Prieto & Wedin (1)
  *Amandinea* M. Choisy ex Scheid. & M. Mayrhofer (35)
  *Australiacea* 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)
  *Cipiosa* 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)
  *Leucoderma* 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.
Bruceomyctaceae 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 (= Squamarinaeae 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
Gypsoplaea 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)
   Edradia 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 Sodanuk, S.D. Leav. & Lumbsch (1)
   Malmidea Kalb, Rivas Plata & Lumbsch (52)
   Savoronala Ertz, Eb. Fisch., Killmann, Razafrindr. & Sérus (1)
   Sprucidea M.Cáceres, Aptroot & Lücking (4)
   Zhurbenkoa Flakus, Etayo, Pérez-Ortega & Rodr. Flakus (3)

Megaliaceae 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. Cubl. & C.F. Cubl. (18)
Coelopogon Brusse & Kärnefelt (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)
Parmotrempopsis 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)
Pseudephbe 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)
Raesaenemia 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)
Loflammiiopsis 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)
Szczawinska 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. (= *Bacidopsora* 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)*
- *Phyllipsora* Müll. Arg. (= *Cro cynia* (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. Kiliias (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)*
   Coronplectrum Brusse (1)
   Cortriciruptor 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)
   Eremastrellia Vogel (2)
   Farnoldia Hertel (6)
   Immersaria Rambold & Pietschm. (8)
   Koerberiella Stein (2)
   Labyrinthina 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 Otáíora & 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 Féé (32)
Fuscoederma (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 Ách. (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)
Yarrurnia 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*

**Sporastatiae** Bendiksby & Timdal
- *Sporastatia* A. Massal. (4)
- *Toensbergia* Bendiksby & Timdal (1)

**Teloschistales** D. Hawksw. & O.E. Erikss.

**Brigantiaeaceae** Hafellner & Bellem. (= *Letroutiaceae* Bellem. & Hafellner)*
- *Brigantiaea* Trevis. (26)
- *Letroutitia* 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)
- *Caloplaaca* 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)
- *Dufouraea* Ach. (= *Xanthodactylon* P.A. Duvign.) (25)
- *Eilifdhahlia* 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; = *Lazarenkoioopsis* 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 (= Streimanniaella S.Y. Kondr. et al.) (5)
Olegblumia S.Y. Kondr., Lőkös & Hur (1)
Orientophilao Arup, Sochting & Frödén (4)
Pachypeltis Sochting, Arup & Frödén (4)
Parvoplaca Arup, Sochting & Frödén (6)
Polycauliona Hue (= ? Tomnashia S.Y. Kondr. & Hur) (18)
Pyrenodesmia A. Massal. (6)
Rehmaniella S.Y. Kondr. et al. (1)
Rufoplaca Arup, Sochting & Frödén (6)
Rusavskia S.Y. Kondr. & Kärnefelt (= ? Zeroviella S.Y. Kondr. & J.-S. Hur) (19)
Scutaria Sochting, Arup & Frödén (1)
Seirophora Poelt (ca. 8)
Shackletonia Sochting, Frödén & Arup (5)
Sirenophila Sochting, Arup & Frödén (= Elixjohnia S.Y. Kondr. & Hur; = Tarasginia S.Y. Kondr. et al.) (14)
Solitaria Arup, Sochting & Frödén (1)
Squamulea Arup, Sochting & Frödén (= Huriella S.Y. Kondr. & D. Upreti) (8)
Stellarangia Frödén, Arup & Sochting (3)
Tassiloa S.Y. Kondr., Kärnefelt, A. Thell, Elix & Hur (2)
Teloschistes Norman (ca. 24)
Teloschistopsis Frödén, Sochting & Arup (3)
Teuvoahtiana S.Y. Kondr. & Hur (3)
Upretia S.Y. Kondr., A. Thell & Hur
Usnochroma Sochting, Arup & Frödén (2)
Variospora Arup, Sochting & Frödén (16)
Villophora Sochting, Arup & Frödén (= Tayloriella S.Y. Kondr. et al.; = Tayloriellina S.Y. Kondr. et al.) (4)
Wetmoreana Arup, Sochting & 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)

Helocarpaeae Hafellner
Helocarpon Fr. (3)

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

Ostropomyxidaceae V. Reeb, Lutzoni & Cl. Roux
Baeomyxetidae 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)

Baeomyxetaceae Dumort.
Anina 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)

Prototheleniellaceae Vêzda, H. Mayrhofer & Poelt (= Thrombiaceae Poelt & Vêzda 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 & Sochting (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

**Diplochistaceae** 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)
- *Diplostistes* 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)
- *Enigmatrema* Lücking (1)
- *Fissurina* Fée (ca. 155)
- *Pycnotrema* Rivas Plata & Lücking (2)
**Gomphillaceae** Walt. Watson

*Actinopla*ca 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)
*Echinopla*ca Fée (40)
*Ferrara* 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)
*Ta*itaia 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)
*Creographe* A. Massal. (1)
*Cryptoschizotrema* Aptroot, Lücking & M. Càceres (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)
*Kalbographe* Lücking (5)
*Leiorreuma* Eschw. (18)
*Malmographina* M. Càceres, Rivas Plata & Lücking (1)
*Mangoldia* Lücking, Parnmen & Lumbsch (2)
*Palloidogramme* Staiger, Kalb & Lücking (13)
*Phaeographis* Müll. Arg. (ca. 180)
*Platygramme* Fée (30)
*Platythecium* Staiger (27)
*Pl iariona* A. Massal. (=* Phaeographina* Müll. Arg.) (1)
*Polistroma* Clemente (1)
Pseudochapsa Parnmen, Lücking & Lumbsch (18)
Pseudotopeliopsis Parnmen, Lücking & Lumbsch (4)
Sarcographa Féé (37)
Sarcographina Müll. Arg. (6)
Schistophoron Stirt. (5)
Thalloloma Trevis. (20)
Theccaria Féé (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)

Theletremataceae 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)
Psathyrophylyctis 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)
Flabellopiorina 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 Gamundi & Spinedi
Phaneromyces Spec. & Har. ex Spec. (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 (= Lettaiua 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 Stirr. (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. (= Chirlea Lendemer & B.P. Hodk.) (2)
Icmadophila Trevis. (4)
Pseudobaeomyces M. Sati (1)
Siphula Fr. (26)
Siphulella Kantvilas, Elix & P. James (1)
Thamnolia Ach. ex Schäerer (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)*

Varioliariaceae Fée ex Zenker

Lepra Scop. (= Marfloriae 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)
   *Pleioapatella* 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)
Haplopeltitheca Bat., J.L. Bezerra & Cavalc. (1)
Micropeltis Mont. (ca. 110)
Neopeltella Petr. (1)
Scolecopeltidium F. Stevens & Manter (ca. 80)
Stomioptelitis 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)
Haplolema 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)

Leotiomyces 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 Lutr. ex Gamundí
Cyttariaceae Speg.
Cyttaria Berk. (13)

Helotiales Nannf. ex Korf & Lizoñ
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)

**Ascocorticaceae** J. Schrot
  *Ascocorticium* 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)
  “*Crocireas*” *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 Gamundi (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)*
Corniculariella 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. Marin & 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)*
Caespiteotheca S. Takam. & U. Braun (1)
Cystotheca Berk. & Curtis (9)
Erysiphe DC. (478)
Golovinomyces (U. Braun) Heluta (66)
Levellula G. Arnaud (49)
Microdium (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)
Takamatsuelia 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)
*Filosorella* 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* Fукkel (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)
*Demattioscypha* 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)
Pseudoegerita J.L. Crane & Schokn. (7)*
Psilocistella Svrcek (10)
Pseudaegerita J.L. Crane & Schokn. (7)*
Rhizoscyphus W.Y. Zhuang & Korf (1)
Scolecolachnum Guatim., R.W. Barreto & Crous (2)*
Thindiomyces Arendh. & R. Sharma (1)
Unguiculella 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)
Dasycyphella Tranzschel (1)
Erioscryphella Kirschst. (10)
Incrucipulum Baral (6)
Lachnellula P. Karst. (40)
Lachnopsis Guatim., R.W. Barreto & Crous (2)*
Lachnum Retz. (50)
Lasiobelonium Ellis & Everh. (20)
Neodasycypha 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)

**Mollisiasceae** 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)
* Nipera Fr. (10)
* Nipeterella 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)

**Neolauriomyctaceae** 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)
* Microsycpha 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. Martinez (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)*
Myriocoonium Syd. & P. Syd. (10)
Myriosclerotinia N.F. Buchw. (10)
Ovulinia Weiss (9)
Phaeosclerotinia Hori (1)
Piceomphale Svrcek (1)

1184
**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. Kolarik (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)
**Benguettia** 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)
**Cejopia** 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)
**Clathrosporum** Nawawi & Kuthub. (1)
**Coleosperma** Ingold (1)
Colipila Baral & Guy Garcia (2)
Comesia Sacc. (3)
Cornuntum Velen. (1)
Coronellaria P. Karst. (4)
Criserosphaeria Speg. (1)
Croicreas 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)
Hysteronaeavia 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)
| Species Name                  | Authors                                      | References |
|------------------------------|----------------------------------------------|------------|
| Obconicum                    | Velen.                                       | (2)        |
| Obscurodiscus                 | Raıt,                                        | (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, Ashrafí, W. Maier & Kovács       | (2)        |
| Potridiscus                   | Dobbeler & Triebel                           | (1)        |
| Pseudohelotium                | Fuckel                                       | (50)       |
| Pseudolachnum                 | Velen.                                       | (1)        |
| Pseudomitrula                 | Gamundi                                      | (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)        |
| Rhexcercosporidium            | 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. Kolarik                       | (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. & Lizoñ (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 & Lizoñ
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)
   Marthamycetes 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)
   Eleutheromyccella 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)
   Phacidioptycnis 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)
Davisomyella Darker (11)
Discocainia J. Reid & A. Funk (4)
Duplicaria Fückel (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)
Lasiolepiota 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)

*Tribliidiaceae* Rehm*
Huangshania O.E. Erikss. (2)
Tribidium 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 Udaiyian & Hosag. (3)
- Pleuroascus Massee & E.S. Salmon (3)
- Pseudeurotium J.F.H. Beyma (8)
- Pseudogymnoascus Raillio (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)
- Pseudosascozonus 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)
- Helottella 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)*

1191
Phyllopezis Petr. (1)
Physmatomyces Rehm (1)
Polydiscina Syd. (1)
Psilotheicum Clem. (1)
Schnablia Sacc. & P. Syd. (1)
Trullula Ces. (5)

Lichinomycetes V. Reeb, Lutzoni & Cl. Roux
Lichinales Henssen & Büdel

Gloeopheppiaceae Henssen
  Gloeopheppia Gyeln. (5)
  Gudelia Henssen (1)
  Pseudopeltula Henssen (1)

Lichinaceae Nyl.
  Anema Nyl. ex Forssell (21)
  Calotrichopsis Vain. (4)
  Corynecystis Brusse (1)
  Cryptotothe 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)  
**Cleistiodophanus** J.L. Bezerra & Kimbr. (1)  
**Cubonia** Sacc. (ca. 7)  
**Saccobolus** Boud. (33)  
**Thecotheus** Boud. (23)*

**Ascodesmidaceae** J. Schröt.  
**Ascodesmis** Tiegh. (~10)  
**Cephalophora** 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)
  *Aguapeziza* D.M. Hu, L. Cai & K.D. Hyde (1)
  *Boudiera* Cooke (10)
  *Calongea* Healy, Bonito & Trappe (1)*
  *Carbomycyes* Gilkey (3)
  *Cazia* Trappe (2)
Delastria Tul. & C. Tul. (6)
Elderia McLennan (1)
Ere miomyces Trappe & Kagan-Zur (3)
Galactinia (Cooke) Boud. (ca. 5)
Hapsidomyces J.C. Krug & Jeng (1)
Hydnobolites Tul. & C. Tul. (ca. 6)
Hydnortyopsis Gilkey (4)
Iodophanus Korf (15)
Iodowynnea Medel, Guzmán & S. Chacón (1)
Kal ha r i t u b e r Trappe & Kagan-Zur (1)
Lepidotia Boud. (1)
Luteoamylascus Cabero, P. Alvarado & G. Moreno (1)
Marceleleina Brumm., Korf & Rifai (11)
Mattirolymes 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)
Tem perantia K. Hansen, Healy & Kovács (1)
Terfezia (Tul. & C. Tul.) Tul. & C. Tul. (19)
Tiranania Chatin (3)
Ulurua Trappe, Claridge & Kovács (1)

**Pseudombrrophilaceae** Ekanayaka, K.D. Hyde, Q. Zhao & E.B.G. Jones
Heydenia Fresen. (3)
Las iobolidium Malloch & Cain (7)
Orbicula Cooke (1)
Pseudombrrophila 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)
Genabae Tul. & C. Tul. (4)
Genea Vittad. (ca. 40)
Geneosperma Rifai (2)
Geopora Harkn. (ca. 20)
Gilkeya M.E. Sm., Trappe & Rizzo (1)
Hoffmannoscypa 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)
Monascus Guarro & Arx (1)
Myrmecocystis Harkn. (7)*
Neotiella (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)
Petchiomycetes 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. Lindemann & Healy (2)*
Smaradae 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)

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**Sordariomycetes** O.E. Erikss. & Winka

**Diasparthomyctidae** Senan., Maharachch. & K.D. Hyde

**Annulatascales** M.J. D'souza, Maharachch. & K.D. Hyde

**Annulatascales** S.W. Wong, K.D. Hyde & E.B.G. Jones

*Annulatuscus* K.D. Hyde (18)

*Annulhusmagnus* 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, R.F. Barbosa, Raja, A.N. Mill. & Shearer (1)

*Submersisphaeria* K.D. Hyde (5)

*Vertexicola* K.D. Hyde, Ranghoo & S.W. Wong (3)

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**Annulatascales** genus *incertae sedis*

*Clohiesia* K.D. Hyde (3)

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**Atractosporales** H. Zhang, K.D. Hyde & Maharachch.

**Atractosporaceae** H. Zhang, K.D. Hyde & Maharachch.

*Atractospora* Réblová & J. Fourn. (5)

*Rubellisphaeria* Réblová & J. Fourn. (1)

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**Conlariaceae** H. Zhang, K.D. Hyde & Maharachch.

*Conlarium* F. Liu & L. Cai (3)

*Riomyces* A. Ferrer, A.N. Mill., Sarmiento & Shearer (1)

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**Pseudoproboscisporaceae** H. Zhang, K.D. Hyde & Maharachch.

*Diluviicola* K.D. Hyde, S.W. Wong & E.B.G. Jones (2)

*Pseudoproboscispora* Punith. (3)

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**Calosphaerales** 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)
  Celoportha 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)
  Cryptometria 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)
Wuestnea Auersw. ex Fuckel (13)

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

**Diaporthaceae** Höhn. ex Wehm.
Apioporthella Petr. (1)
Apiosphaeria Höhn. (5)
Chaetoconis Clem. (1)
Chiangraiomycies 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)
Ophidiaporthe 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)
Pastulomyces 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)
   Nataraiania  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)
   Chapecickia  M.E. Barr (2)
   Hapalocystis  Auersw. ex Fuckel (9)
   Italiomyces  Senan., Camporesi & K.D. Hyde (1)
   Lambro  Racib. (3)
   Paragynomonia  Senan. & K.D. Hyde (1)
   Ramulospora  Senan., Camporesi & K.D. Hyde (1)
   Rossmannia  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)
  Involutsutellula 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)
  Sphaerosporothyrium 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 Laf. (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)
  Savulescu 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
   Bifussisporella R.M.F. Silva, R.J.V. Oliveira, J.D.P. Bezerra, Souza-Motta & G.A. Silva (1)*
   Budhanggarabania 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)
   Falciphorilla M. Hern.-Restr. & Crous (1)
   Gaeumannomyccella M. Hern.-Restr. & Crous (2)
   Gaeumannomyces Arx & D.L. Olivier (20)
   Herbampulla Scheuer & Nograsek (1)
   Kohlmeyeriopsis Klaubauf, M.-H. Lebrun & Crous (1)
   Magnaportheiopsis 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 Henr.-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)
*Mattirorella* 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, Marine. & M.J. Wingf. (4)
*Klasterskyia* 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)
*Sporomatoria* 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

*Bacusphearia* Norlail., Alias & Suetrong (1)
*Thailandiomycies* 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; = *Pseudoannulatasces* 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)
Pseudoostanjehughesia 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. Marin, Stchigel, Guarro & Cano (3)
  Echinusitheca Y. Marin, 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. Marin, 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)

_Nitschiaceae_ (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)
  Loranitschia Lar.N. Vassiljeva (1)
  Neochaetosphaerella Lar.N. Vassiljeva, S.L. Stephenson & Chernyshev (4)
  Neotrotteria Sacc. (1)
  Nitschia 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
Falcocladiales Somrith., E.B.G. Jones & K.L. Pang

Falcocladium S.F. Silveira, Alfenas, Crous & M.J. Wingf. (5)

Glomerellales Chadeff. ex Réblová, W. Gams & Seifert

Australiascaceae Réblová & W. Gams

Glomerellales Locq. ex Seifert & W. Gams

Malaysiaascaceae Tibpromma & K.D. Hyde

Malaysiasca Crous & M.J. Wingf. (1)

Plectosphaerellaceae W. Gams, Summerb. & Zare

Acremoniisimulans Tibpromma & K.D. Hyde (1)
Acrostalagmus Corda (13)
Brunneoclamydosporium 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 & Bilanenok (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)
Kylintria 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)
Laniatrix Döbbeler & P.G. Davison (1)
Lasionectria (Sacc.) Cooke (23)
Lasionectriella Lechat & J. Fourn. (2)*
Mycocitrus Malloch & Cain (2)
Mycoarachis Malloch & Cain (2)
Nectriella Nitschke ex Fuckel (84)
Nectriopsis Maire (70)
Nigrosabulum Malloch & Cain (1)
Ochronectria Rossman & Samuels (3)
Oviculdispora 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)
Protoacreopsis Yoshim Doi (12)
Roumegueriella Specg. (4)
Selinia P. Karst. (6)
Stephanonectria Schroers & Samuels (1)
Stilbocrea Pat. (7)
Stromatonectria Jaklitsch & H. Voglmayr (1)
Syninemisia N.K. Rao, Manohar. & Goos (2)
Trichonectria Kirschst. (19)
Verrucostoma Hirooka, Tak. Kobay. & P. Chaverri (2)
Xanthonecrella 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 Specg. (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)
Corallocystostroma 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)
Heteropichloë E. Tanaka, C. Tanaka, Gafur & Tsuda (2)
Konradia Racib. (2)
Loculistrorna F. Patt & Charles (1)
Metapochonia Kepler, S.A. Rehner & Humber (6)
Metarhiziospsis D.W. Li, R.S. Cowles & C.R. Vossbrinck (1)
Metarhizium Sorokin (=Chamaeleomycies 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)
Beejasamuh 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 Luangs-a-ard, Hywel-Jones & Spatafora (8)
Hyperdermium J.F. White, R.F. Sullivan, Bills & Hywel-Jones (3)
Leptobacillium Zare & W. Gams (1)
Parenpyodontium 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)
Pseuognellula 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.
Arachnocene Z. Moravec. (3)
Dialhypocreac Speg. (1)
Escoviosisoides 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)
**Myrotheciomyctaceae** Crous
- *Emericellopsis* J.F.H. Beyma (23)
- *Leucosphaerina* Arx (2)
- *Myrotheciomyces* Crous (1)
- *Trichotheicum* 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)
- *Chaetomicrotioides* Matsush. (1)
- *Chaetopsina* Rambelli (19)
- *Coccinonectria* Lombard & Crous (2)
- *Corallocladella* Henn. (4)
- *Corallonectria* C. Herrera & P. Chaverri (1)
- *Corineectria* C. González & P. Chaverri (3)
- *Cosmospora* Rabenh. (50)
- *Cosmosparellula* 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)
- *Dacryomyca* 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)
- *Glioccephalotrichum* J.J. Ellis & Hesselt. (13)
- *Gliocladiopsis* S.B. Saksena (15)
- *Hyloconecia* P. Chaverri & C. Salgado (23)
- *Macroconia* (Wollenw.) Gräfenhan, Seifert & Schroers (5)
- *Mariannaea* G. Arnaud ex Samson (22)
- *Microcera* Desm. (4)
- *Murinecretia* 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)
- *Opionectria* Sacc. (39)
- *Pandanaceomyces* Tibpromma & K.D. Hyde (1)
Paracremonium L. Lombard & Crous (5)
Payosphaira W.F. Leong (1)
Penicillifer Emden (7)
Persiciospora P.F. Cannon & D. Hawksw. (4)
Pleiocarpon L. Lombard & D. Aiello (3)
Pleogibberrella 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)
Sarcocephalium Ehrenb. (22)
Stylonectria Höhn. (5)
Thelonectria P. Chaverri & C.G. Salgado (46)
Thyronectria Sacc. (41)
Varicosperella Lechat & J. Fourn. (1)
Varicosperellopsis Lechat & J. Fourn. (1)*
Volutella Fr. (127)
Xenoacremonium Lombard & Crous (2)
Xenocyindrocladium 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)
Pseudohyrynchia 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 Luangsá-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)
Albosynema 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)
Striaticotryps 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)

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

**Hypocreales** genera *incertae sedis*
Acremoniopsis A. Giraldo, Gené & Guarro (1)
Berkeella (Sacc.) Sacc. (2)
Bulbithecium Udagawa & T Muroi (1)
Cephalosporiopsis Peyronel (10)
Chondronectria Etayo, Flakus & Kukwa (1)
Cylindronectria Etayo (1)
Diploëspora Grove (ca. 7)
Gynonecrida Döbbeler (1)
Hapsidospora Malloch & Cain (2)
Haptospora G.L. Barron (3)
Illospiriopsis D. Hawksw. (1)
Illosporium Mart. (17)
Leptobarya Etayo (2)
Lichenopenicillus Etayo (1)
Metadothella Henn. (1)
Munkia Speg. (4)
Neomunkia Petr. (1)
Peloronecrida Möller (3)
Pseudoacremonium Crous (1)
Pseudooidriella Crous & R.G. Shivas (1)
Pseudomeliola Speg. (10)
Rodentomyces Doveri, Pecchia, Sarrocco & Vannacci (1)
Roselliniella Vain (19)
Saksemamyces 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.
Alisaea J. Dupont & E.B.G. Jones (1)
Amphitrite S. Tibell (1)
Aniptodera Shearer & M. Miller (21)
Aniptosporopsis (K.D. Hyde) K.L. Pang (1)
Anisostigma 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)
Ascococcus 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; = Sigoidea 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)
Haiyangia 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)
Natantiospora J. Campb., J.L. Anderson & Shearer (3)
Nautiliosphaeria 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)
Sagaromyces K.L. Pang & E.B.G. Jones (3)
Sablicola E.B.G. Jones, K.L. Pang & Vrijmoed (1)
Thalassogenia 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)
Lophotchis 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)
Rhinocladiatum 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)
**Pisorisporiomyctetidae** 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)
Pseudovalssaria 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)
Brunneredinemasporium 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)
Cryptphiale Piroz. (ca. 20)
Cryptophilaloidae 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)
Helminthosphaeriaceae

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
Linocarpus Syd. & P. Syd. (42)
Neolinocarpus K.D. Hyde (13)

Chaetosphaeriales genera incertae sedis
Calvolachnella Marin., T.A. Duong & M.J. Wingf. (1)
Caudatispora J. Fröhli. & 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)
Coniochaetales Malloch & Cain
Barrina A.W. Ramaley (1)
Coniochaeta (Sacc.) Cooke (82)

Cordaneae 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  
**Phaeochorales** 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)
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. Kolařík (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. Voge (1)*
Staphylotrichum J.A. Mey. & Nicot (8)
Stolonocarpus X. Wei Wang & Houbraken (1)
Subramanuela 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 Rébolová (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)
Ramophilophora M. Calduch, Stchigel, Gené & Guarro (4)*
Rinaldiella Deanna A. Sutton, Y. Marin, 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)
  Lumulospora 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
**Batistiaeae** Samuels & K.F. Rodrigues
  Batistia Cif. (1)
Sordariomycetidae genera incertae sedis

*Areccaccola* Joanne E. Taylor, J. Fröhl. & K.D. Hyde (1)
*Buillumyces* 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)*
*Hanliniomycies* 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.

Amphisphaericae 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)

Hansfordiaeae 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)
- *Papiliononvella* Aptroot (1)
- *Pellucida* Duly., 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)
- *Distotononappendiculata* 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 (= *Dyrtiopsis* L. Cai, Jeewon & K.D. Hyde; = *Neotruncatella*)
**Immersidiscosia** Kaz. Tanaka, Okane & Hosoya (1)
**Monochaetia** (Sacc.) Allesch. (ca. 30)
**Morfina** 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)
**Pseudopesatalotiopsis** 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 Fückel (43)
Diatrypasimilis J.J. Zhou & Kohlm. (1)
Diatrype Fr. (ca. 244)
Diatrypella (Ces. & De Not.) De Not. (ca. 115)
Echinomyces Rappaz (2)
Endoxyлина 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., Luangs-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. & Petríni (26)

Leptosilliaceae Voglmayr & Jaklitsch
Leptosilla 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)

Microdochiaeae 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 & Genê (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)
Helicogermisliota Lodha & D. Hawksw. (9)
Hypocopra (Fr) J. Kickx f. (58)
Hypocreodendron Henn. (1)
Kretzschmaria Fr. (ca. 57)
Kretzschmariella Viégas (2)
Lepriueria Læssøe, J.D. Rogers & Whalley (1)
Lunatianculus 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)
Squamosotuberia 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)
Lasioberia 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)
Pauctethece Lloyd (1)
Pidoplitchkoviella Kirill. (1)
Polyancora Voglmayr & Yule (1)
Polycystalum 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)
Pyiformiascoma Daranag., Camporesi & K.D. Hyde (1)
Roselymeces 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)
Surculuseries 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)
Arecophiia K.D. Hyde (14)
Atrotorquata Kohlm. & Volkm.-Kohl. (2)
Cainia Arx & E. Müll. (6)
Seynesia Sacc. (ca. 46)

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

**Amplstromatales** M.J. D'souza, Maharachch. & K.D. Hyde

*Amplstromataceae* Huhndorf, A.N. Mill., Greif & Samuels*
- *Acidothrix* Hujslová & M. Kolařík (1)
- *Amplstroma* 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)
- *Acrosporoides* 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)
Apotheca Petr. (1)
Apoaeumannomycetes Matsush. (1)
Aquadulciospora Fallah & Shearer (1)
Areolosporea S.C. Jong & E.E. Davis (2 epithets in Index Fungorum 2020)
Aropsiclus Kohlm. & Volkm.-Kohlm. (1)
Ascorhiza Lechtt.-Trinka (1)
Ascoyunnania L. Cai & K.D. Hyde (1)
Atrogeniculata J.S. Monteiro, Gúsmão & 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)
Byssotheciumia Petr. (2)
Caleutypa Petr. (1)
Caproniella Berl. (1)
Chaetoamphisphaeria Hara (1)
Charonectria Sacc. (3)
Ciliotusospora 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)
Esfandiaromyces Ershad (1)
Fantasmycetes Dong Hyeon Lee, Marinc., Z.W. de Beer & M.J. Wingf. (1)
Farrowia D. Hawksw. (3)
Fassia Dennis (1)
Flamminispora 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 Jorg. 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 Costantín (22)
Protocucurbitaria Naumov (1)
Pulvinaria Bon. (2)
Pumilus Viala & Marsais (1)
Rehmiomyccella 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)
Scotosphaeria Sivan. (1)
Selenosporella G. Arnaud ex MacGarvie (12)
Servazziella J. Reid & C. Booth (1)
Sporocotomorpha 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 & Gőnczöl (1)
Tunstallia Agnhothr. (3 epithets in Index Fungorum 2020)
Urospora 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. & Juritzza 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

\textit{Xylonomycetes} Gazis & P. Chaverri
\textit{Symbiotaphrinales} Baral & E. Weber
\textit{Symbiotaphrinaceae} Baral & E. Weber
\textit{Symbiotaphrina} Kühlw. & Juritzza ex W. Gams & Arx (17)*

\textit{Xylonales} Gazis & P. Chaverri
\textit{Xylonaceae} Gazis & P. Chaverri
\textit{Trinosporium} Crous & Decock (1)
\textit{Xylona} Gazis & P. Chaverri (1)

\textit{Xylobotryomycetes} Voglmayr & Jaklitsch
\textit{Xylobotryales} Voglmayr & Jaklitsch
\textit{Cirrosporiaceae} Voglmayr & Jaklitsch
\textit{Cirrosporium} S. Hughes (1)

\textit{Xylobotryaceae} Voglmayr & Jaklitsch
\textit{Xylobotryum} Pat. (2)

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

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

\textit{Pezizomycotina} family incertae sedis
\textit{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)  
Oezvedalda Ertz & Diederich (1)  
Psammina Sacc. & M. Rousseau ex E. Bommer & M. Rousseau (8)  
Pygmaeosphaera Etayo & Diederich (3)  
Pyrenocollema Reinke (1)  
Solanella Váňha (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)  
**Miltiomyces** 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)

Metschnikowiaee 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)
   Wickerhamomycetes Kurtzman, Robnett & Basehoar-Powers (31)

Pichiaceae Zender
   Brettanomycoses Kufferath & van Laer (3)
   Dekkeria 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
   Citeromycoses 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* Schönnning (19)

**Trichomonascaceae** Kurtzman & Robnett*
- *Blastobotrys* Klopotek (23)
- *Diddensiella* Péter, Dlauchy & Kurtzman (1)
- *Groenewaldozyma* Kurtzman (3)
- *Spicercmartinsiella* Péter, Dlauchy, Tornai-Lehoczi, 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)*
- *Petroozyma* 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)

**TAPHIRINOMYCOTINA** 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)
Alciphiila 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)
Alysiidiopsis 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)
Amphilicephala 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)
Anacrasedodidymum 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)
Anaseptidium R.F. Castañeda, Heredia & R.M. Arias (1)
Anaverticicladus P.O. Costa, Malosso & R.F. Castañeda (1)
Anchoraspora Mig. Rodr. (1)
Anchorasporella J. Mena, Mercado & Heredia (1)
Angiopomopsis Höhn. (1)
Angulimaya Subram. & Lodha (1)
Angulospora Sv. Nilsson (1)
Annelodontimyces Matsush. (1)
Annelodochium Deighton (1)
Annelophorella Subram. (5)
Annelospermosporella 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)
Apoiocarpella Syd. & P. Syd. (8)
Apiotypa Petr. (1)
Apogloeum Petr. (1)
Apomelasmia Grove (8)
Aporellula B. Sutton (2)
Aposporella Thaxt. (1)
Aposestrassera Nag Raj (2)
Arachnophora Hennebert (11)
Arachnospora R.F. Castañeda, Minter & Camino (1)
Arborillus Munt.-Cvetk. & Gómez-Bolea (1)
Arborispora K. Ando (4)
Arkuadendron Sigler & J.W. Carmich. (2)
Ardhachandra Subram. & Sudha (3)
Argentinomyces Peña & Arambarrri (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)
Ascochytylina 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)
Atrossetaphiale 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)
Avettea Petr. & Syd. (3)
Bacillogelis 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)
Bahlkalasa Subram. & Chandrash. (1)
Balaniopsis P.M. Kirk (4)
Balanium Wallr. (1)
Barbarosporina Kirulis (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)
Beeladwaya Subram. (1)
Belemnospora P.M. Kirk (7)
Bellulicaua B. Sutton (2)
Beltramono Rashmi Dubey, A.K. Pandey bis & Manohar. (1)
Beltraniomyces Manohar., D.K. Agarwal & Rao (1)
Beniowskia Racib. (4)
Benjapalia Subram. & Bhat (1)
Berggrenia Cooke (2)
Bhadradriella Nagaraju, Kunwar & Manohar. (1)
Bhadradiomyces 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)
Biflura 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)
Caloctine Syd. (1)
Calongeomyces D. Hawksw. & Etayo (1)
Camaroglobulus Speer (1)
Camaropycnis E.K. Cash (1)
Camarosorellum 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)
Capnocrasera S. Hughes (1)
Capsicumycyes 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 Kodseub, K.D. Hyde & W.H. Ho (1)
Catenulaster Bat. & C.A.A. Costa (1)
Catinopeltis Bat. & C.A.A. Costa (1)
Ceuthodiplospora Died. (1)
Ceuthosira Petr. (1)
CeuthosorcylさまIso 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)
Ciliachora 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)
Clypeolium 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)
Columnedomus Petr. (1)
Columnothyrium Bubák (1)
Comatospora Piroz. & Shoemaker (1)
Comocephalum Syd. (1)
Complexipes C. Walker (2)
Condyllospora 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)
Coronasporella M.B. Ellis (4)
Coryncesporopsis V.K. Pal, M. Akhtar, N. Ahmad, Kamal & D.K. Agarwal (1)
Coryneciella 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)
Crasedodidimella F.R. Barbosa, R.F. Castañeda & Gusmão (1)*
Creodiplodina Petr. (1)
Creonecte Petr. (1)
Creoseptoria Petr. (1)
Creothyriella Bat. & C.A.A. Costa (1)
Cribopeltis 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)
Cytolacospaeria Petr. (2)
Cytosphaera Died. (2)
Cytosporrella Sacc. (32)
Cyttariella Palm (1)
Dactylifera Alcorn (1)
Dactylosporium Harz (2)
Dasysticta Speg. (2)
Davisella 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)
Dendrosporum Plakidas & Edgerton ex J.L. Crane (2)
Dendryphysiosphaera 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)
Diarmella 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)
Dictyceratosporrella 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)
Digitoraminispora R.F. Castañeda & W.B. Kendr. (4)
Dimastigosporium Faurel & Schotter (2)
Diplocladiella G. Arnaud ex M.B. Ellis (8)
Diplodinis Clem. (1)
Diplobothriella Tassi (1)
Diploplenodomus Died. (2)
Diplosporonema Höhn. (1)
Diplozythiella Died. (1)
Dipyrgis Clem. (1)
Discogloeum Petr. (1)
Discomycetoidea Matsush. (1)
Discosieiella Subram. & K.R.C. Reddy (1)
Discosporina Höhn. (1)
Discotheiciella Syd. & P. Syd (1)
Discothyria 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)
Dothideaodiplodia 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)
Dwayabeja Subram. (3)
Dwayaloma Subram. (1)
Dwayalomella Brisson, Piroz. & Pauzé (1)
Dwibahubeeja N. Srivast., A.K. Srivast. & Kamal (1)
Dwibeeja Subram. (1)
Dwiropella 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)
Ellisembioptis 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)
Endosporoides W.H. Ho, Yanna, K.D. Hyde & Goh (1)
Endothyria Petr. (1)
Enerthidium Syd. (1)
Engelhardtia A. Funk (1)
Enridescalsia R.F. Castañeda & Guarro (1)
Entallopycnidium F. Stevens (1)
Entoderma Hanula, Andreadis & M. Blackw. (1)
Epaphroconidia Calat. & V. Atienza (1)
Ephelidium C.W. Dodge & E.D. Rudolph (1)
Epilimum 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)
Eversica 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)
Fairmaniana Petr. & Syd. (1)
Farriolla Norman (1)
Favostroma B. Sutton & E.M. Davison (1)
Felgeniomyces 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)
Fujimycetes 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)
Gioannellodochium 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)
Goidanichella G.L. Barron ex W. Gams (5)
Goniobolobryum Sacc. (4)
Goniopila Marvanová & Descals (1)
Goosielia Morgan-Jones, Kamal & R.K. Verma (1)
Goosiyomes 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 Spec. (6)
Gymnoxyphium Cif., Bat. & I.J. Araújo (6)
Gyrophthorus Hafellner & Sancho (3)
Hadronema Syd. & P. Syd. (4)
Hadrosporum 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 Eriks. (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)
Helicobialis 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)
Hormiscioides 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)
Hypotrichynicola 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)
Infatiella 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)
Ityohoptrum P.M. Kirk (4)
Iyengarina Subram. (3)
Jahniella Petr. (3)
Javonarxia Subram. (2)
Jayarambhhatia 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)
Kionocephaia 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)
Leightonomyces 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 Speg. (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)
Macrotrichium 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)
Matsushinomyces 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 Spec. (2)
Microperella Höhn. (1)
Micropustulomyces R.W. Barreto (1)
Microstyle Spec. (1)
Microxyphiella Spec. (15)
Microxyphiopsis Bat. (2)
Mindoa Petr. (2)
Minimidochium B. Sutton (8)
Minterielia 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)
Mycellephas R.F. Castañeda (2)
Mycocentrodochium K. Matsush. & Matsush. (1)
Mycòinterolobium 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)
Myctodea Kirschst. (14)
Mycoysteria M.L. Farr (2)
Myiocoprua Petr. (2)
Myriellina Höhn. (2)
Myrmecomycyes 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)
Neoapakesa Punith. (1)
Neoarbuscula B. Sutton (1)
Neobarclaya Sacc. (2)
Neodiplodina Petr. (1)
Neofuckelii 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)
Neothyrium 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)
Oncosphora Kalchbr. (8)
Oncoспорella P. Karst. (1)
Oncostroma Bat. & Marasas (1)
Onychophora W. Gams, P.J. Fisher & J. Webster (1)
Oothyrium Syd. (1)
Ophiосpира Petr. (1)
Orhanocоela Nag Raj (3)
Ostracoderma Fr. (3)
Ostracodermidium Mukerji (1)
Oswaldina Rangel (1)
Paathramaya Subram. (5)
Pachycladina Marvanová (3)
Palawaniiopsis Bat., Cif. & Nascim. (1)
Papilionospora V.G. Rao & B. Sutton (1)
Pappimyces B. Sutton & Hodges (1)
Paraаoria R.K. Verma & Kamal (1)
Paraаrthrocладiаm Matsush. (1)
Parablastocatena Y.D. Zhang & X.G. Zhang (1)
Paraceratoclidium R.F. Castañeda (6)
Parаchionomyces Thaung (1)
Paracostantinella Subram. & Sudha (1)
Paracyryptophiale 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)
Paraеpicoсcum 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)
Pararобillaรdara Matsush. (1)
Parasphaeropsis Petr. (1)
Parastigmatellina Bat. & C.A.A. Costa (1)
Paratetraploа M.K.M. Wong & K.D. Hyde (1)
Paratоментиcola M.B. Ellis (2)
Paratrichоconis Deighton & Piroz. (4)
Paraulocladium R.F. Castañeda (2)
Paspalomyces Linder (1)
Patriciomyces D. Hawksw. (1)
Pazschkeella Syd. & P. Syd.
Peethasthabeегоja P. Rag. Rao (1)
| Genus                                      | Authors                                      | Notes  |
|-------------------------------------------|----------------------------------------------|--------|
| Pellionella                               | (Sacc.) Sacc.                                | (1)    |
| Peltasterinostroma                        | Punith.                                      | (1)    |
| Peltasteropsis                            | Bat. & H. Maia                               | (7)    |
| Peltistroma                               | Henn.                                        | (1)    |
| Peltistromella                            | Höhn.                                        | (1)    |
| Peltosoma                                  | Syd.                                         | (1)    |
| Peltostromella                            | 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)    |
| Petraikiopsis                             | Subram. & K.R.C. Reddy                       | (1)    |
| Phacostrroma                              | Petr.                                        | (1)    |
| Phacostromella                            | Petr.                                        | (1)    |
| Phaeoblastophora                          | Partr. & Morgan-Jones                        | (2)    |
| Phaeocandelabrum                          | R.F. Castañeda, Gusmão, Guarro & Iturr.      | (3)    |
| Phaeodactylum                             | Agnihothr.                                   | (7)    |
| Phaeodiscula                              | Cub.                                         | (1)    |
| Phaeodomus                                | Höhn.                                        | (3)    |
| Phaeohiratsukaeae                         | Udagawa & Iwatsu                            | (1)    |
| Phaeoidiomyces                            | Dorn.-Silva & Dianese                       | (2)    |
| Phaeolabrella                             | Speg.                                        | (1)    |
| Phaeomoniiia                              | 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)    |
| Phyllohedersonia                          | Tassi                                        | (25)   |
Physalidiella Rulamort (2)
Physalidiopsis R.F. Castañeda & W.B. Kendr. (1)
Piggotta 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)
Pirotostromella Sacc. (2)
Pithosira Petr. (1)
Pittostroma Kowalski & T.N. Sieber (1)
Placella Syd. (1)
Placodiopodia Bubák (2)
Placonema (Sacc.) Petr. (3)
Placonemina Petr. (1)
Placospheara 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)
Plesiocouturea 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)
Pleuroplacochaeria Syd. (1)
Pleurostromella Petr. (15)
Pleurotheciopsis B. Sutton (6)
Pleurothyriella Petr. & Syd. (1)
Pleurovularia R. Kirschner & U. Braun (1)
Pocillopycnis Dyko & B. Sutton (1)
Podoconema 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)
Polystrostra 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)
Pseudoacrodicytis 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)
Pseudocladathrospheira Voglmayr (2)
Pseudoconium Petr. (1)
Pseudocytoplacosphaeria Punith. & Spooner (1)
Pseudocytopsora Petr. (1)
Pseudodichomera Höhn. (3)
Pseudodidymaria U. Braun (3)
Pseudodiplodia (P. Karst.) Sacc. (45)
Pseudodiscula Laubert (2)
Pseudofuscophilis 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)
Pseudophleospora U. Braun (1)
Pseudophragnotrichum W.P. Wu, B. Sutton & Gange (1)
Pseudopolyostigmina Murashk. (2)
Pseudoramularia Matsush. (2)
Pseudorhizopogon Kobayasi (1)
Pseudoschizothyra Punith. (1)
Pseudosigoidea 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)
Pseudozothia Höhn. (1)
Psilosphaeria Cooke (1)
Pteromycula P. Cannon (1)
Pterulopsis Wakef. & Hansf. (1)
Pterygosporopsis P.M. Kirk (2)
Pucciniumia Spec. (1)
Pulchrochmeces Hennebert (1)
Pullospora Faurel & Schotter (2)
Pulvinella A.W. Ramaley (1)
Punctillina Toro (1)
Pycmaeosphaera Etayo & Diederich (3)
Pycnidioarsciella Punith. & N.D. Sharma (1)
Pycnidioptelis Bat. & C.A.A. Costa (1)
Pycnis Bref. (1)
Pycnodactylus Bat., A.A. Silva & Cavalc. (1)
Pycnodallia Kohlm. & Volkm.-Kohl. (1)
Pycnoharnessia Matsush. (1)
Pycnomma Syd. (1)
Pycnomereletia Ramaley (2)
Pycnoneynesia Kuntze (1)
Pycnothera N.D. Sharma & G.P. Agarwal (1)
Pycnothriella Bat. (2)
Pycnothryium Diederich (6)
Pyramidospora Sv. Nilsson (9)
Pyrenayllium Clem. (2)
Pyrgostroma Petr. (2)
Pyripnomyces Cavale. (1)
Quadracea Lunghini, Pinzari & Zucconi (3)
Quadricladium Nawa & 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)
Rhabdogleoeopsis 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)
Rhynchosomyces Willk. (1)
Rhynchoseptoria Unamuno (1)
Rhynchosporina Arx (2)
Riclaretia Peyronel (1)
Riley A. Funk (1)
Robakia Petr. (1)
Rogeroosiella 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)
Sarcothoma 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)
Sclerothyrithia Petch (1)
Scolecobasidiella M.B. Ellis (2)
Scolecobeltrania Iturr., R.F. Castañeda & Rob. Fernández (1)
Scolecodochium K. Matsush. & Matsush. (1)
Scolecosporiella Petr. (6)
Scolecotheca Sochting & 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)
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)
Setosarella Mustafá & 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)
Siroclyphellina Petr. (2)
Sirosperma Syd. & P. Syd. (2)
Sirosphaera Syd. & P. Syd. (2)
Sirosporonaemella Naumov (1)
Sirotheicum P. Karst. (3)
Sirotthyriella Höhn. (2)
Sirotthyrium Syd. & P. Syd. (1)
Sirozithia Höhn. (2)
Sirozythella 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)
| Species                                      | Authors/References |
|---------------------------------------------|--------------------|
| Spermatoloncha                               | Spec. (1)          |
| Spermatoloncha                               | Spec. (1)          |
| Spermochaetella                              | Cif. (1)           |
| Spermosporea                                 | R. Sprague (9)     |
| Spermosporella                               | Deighton (4)       |
| Sphaeridium                                  | Fresen. (5)        |
| Sphaeriostromella                            | Bubák (1)          |
| Sphaerothryium                               | 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)    |
| Spiroidea                                    | Cif. (ca. 40)      |
| Splanchospora                                | Lar. N. Vassiljeva (1) |
| Spondylocadiellia                            | Linder (2)         |
| Spondylocoadiopsis                           | M.B. Ellis (2)     |
| Sporhaplus                                   | H.B.P. Upadhyay (1) |
| Sporidesmiopsis                              | Subram. & Bhat (6) |
| Sporoglена                                   | 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)          |
| Stegonsporiosis                              | 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)
Strasserioptis B. Sutton & Tak. Kobay. (1)
Stratiphomyces 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)
Stygomyces 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)
Synchronoblasta 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)
Talpapelis 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)
Tetrabruneospora 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)
Thyrostromella 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 Bubá (2)
Tomenticola Deighton (1)
Tompetichia Subram. (1)
Toxosporiella B. Sutton (1)
Toxosporiopsis B. Sutton & Sellar (1)
Toxosporium Vuill. (2)
Trematophoma Petr. (2)
Tremellidium Petr. (1)
Tretendophragmia Subram. (1)
Tretospeira Subram. (1)
Tretolylea Cantillo, R.F. Castañeda & Gusmão (1)
Tretospora Piroz. (1)
Tretovularia Deighton (1)
Trichobolbus Deighton (1)
Trichobolbus Petr. (2)
Trichobolbus Subram. (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)
Trichomatostphaera Pereira-Carv., G.F. Sepúlveda & Dianese (1)
Trichopeltulum Spec. (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)
Trigonosporm Tassi (2)
Tripocladium 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)
Tryssoglobulus 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)
Überispora 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)
Vanderystiiella Henn. (1)
Vanterpoolia A. Funk (1)
Vasudevellia 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)
Verticiclados Matsush. (3)
Vesieladielia Crous & M.J. Wingf. (1)
Vesiculoiphomyces Armando, Pereira-Carv. & Dianese (1)
Vestigium Piroz. & Shoemaker (2)
Virgariella S. Hughes (11)
Viridiannula Etayo (1)
Vittalita 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)
Xenochoora Petr. (1)
Xenodomus Petr. (1)
Xenoheteroconium Bhat, W.B. Kendr. & Nag Raj (1)
Xenokylintra DiCosmo, S.M. Berch & W.B. Kendr. (2)
Xenomyxa Syd. (1)
Xenopeltis Syd. & P. Syd. (1)
Xenoplacea 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)
Zelaniocoela 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)
Zelingia Petr. (1)
Zinzipegasa Nag Raj (1)
Zopheromyces B. Sutton & Hodges (1)
Zunura Nag Raj (1)
Zythia Fr. (1)
Zyxiphora B. Sutton (1)

**BASIDIOBOLOMYCOTA** Doweld
Basiidiobolomyctes Doweld*
Basiidiobolales Jacz. & P.A. Jacz.*
Basiidiobolaceae Engl. & E. Gilg
   Basiidiobolus Eidam (10)
   Schizangiella J. Dwyer, B. Burwell, Humber, C. Mcleod, M. Fleetwood & T. Johnson bis (1)

**BASIDIOMYCOTA** R.T. Moore
Basiidiomycota R.T. Moore
Agaricomycotina Doweld
Agaricomycetes Doweld
Agaricales Underw.
Agaricaeae 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)
Battarreooides T. Herrera (1)
Calvatopsis 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)
Limacelopsis 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)
Pholiota 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)
  Protaglossum Massee (8)
  Pyrrhoglossum Singer (12)
  Quadrispora Bouger & Castellano (3)
  Stephanopus M.M. Moser & E. Horak (5)

Crassisporiaceae Vizzini, Consiglio & M. Marchetti
  Crassisorium 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)
  Pallidiscus 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)
Cuphophyllum (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)
Psathylloma 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)
Hypsiszygus 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)
Tephrocye 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)

Mythicomyctaceae 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 Tkalcčec, Mešič & 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)
Paragymnoporus J.S. Oliveira (6)
*Pusillomyces* J.S. Oliveira (3)

**Physalacriaceae** Corner  
*Anastrophella* E. Horak & Desjardin (3)  
*Armillaria* (Fr.) Staude (39)  
*Cibomyces* 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)  
*Cryptotrama* Singer (16)  
*Daetlyosporina* (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* Spec. (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* Spec. (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)

1276
**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)
- *Pterulicium* 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)
Amparoinea Singer (2)
Amylolepiota Harmaja (1)
Aphylotus Singer (1)
Arthromyces T.J. Baroni & Lodge (2)
Arthrosordella Singer (1)
Asprinoocybe 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)
| Species                        | Authors                                      | Count |
|-------------------------------|----------------------------------------------|-------|
| 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    |
| Cocccobotrys                 | 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     |
| Cyphelloca1athus             | 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                                       | 10    |
| Fibulochlamys                | A.I. Romero & Cabral                         | 2     |
| Fissolimbus                  | E. Horak                                     | 1     |
| Fistulina                    | Bull.                                        | 9     |
| Floccularia                  | Pouzar                                       | 6     |
| Gamundia                     | Raithelh.                                    | ca. 7 |
| Gerronema                    | Singer                                        | 58    |
| Giacoma                      | Vizzini & Contu                              | 1     |
| Glabroclyphella              | 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, Alvarado, Moreno & Consiglio        | 3     |
| Leucoinocybe                 | Singer ex Antonin, Borovička, Holec & Kolařík | 3     |
| Leucopholiota                | (Romagn.) O.K. Mill., T.J. Volk & Bessette   | 2     |
| Lignomphalia                 | Antonin, Borovička, Holec & Kolařík         | 1     |
| Lulesia                      | Singer                                       | 3     |
| Lycogalopsis                 | 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)
Phaeomyces 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)
Physoctydium 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)
Pseudomphalina (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)
Amylocorticium Pouzar (11)
Amyloxeinasma (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)
Hypochnicium Hjortstam & Ryvarden (1)
Leptosporomyces Jülich (15)
Lobulicium K.H. Larss. & Hjortstam (1)
Lyoathelia Hjortstam & Ryvarden (1)
Melzericum 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.

*Ampibisterum* Spirin & Malysheva (2)
*Auricularia* Bull. (ca. 21)
*Eichleriella* Bres. (ca. 14)
*Elmerina* Bres. (7)
*Exidia* Fr. (ca. 26)
*Exidiopsis* (Bref.) Möller (ca. 30)
*Fibulosebacina* 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)
Australobolus  Halling & N.A. Fechner (1)
Australoboletus  (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  (ca. 350)
Borofutus  Hosen & Zhu L. Yang (1)
Bothia  Halling, T.J. Baroni & Manfr. Binder (2)
Buchwaldoboletus  Pilát (11)
Butyroboletus  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)
Costatissorus  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)
Gynogaster  J.W. Cribb (1)
Harrya  Halling, Nuhn & Osmundson (6)
Heimioporus  E. Horak (14)
Heliogaster  Orihara & K. Iwase (1)
Hemileccinum  Šutara (5)
Hortiiboletus  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 Quéll. (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)
Soloiocasus 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)
Veloporphyrrellus L.D. Gómez & Singer (7)
Wakefieldia Corner & Hawker (2)
Xanthoconium Singer (10)
Xerocomeillum Šutara (17)
Xerocomus Quéll. (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 Quël. (24)

Hygrophoropsidaceae Kühner
Hygrophorus (J. Schröt.) Maire ex Martin-Sans (16)
Leucogyrophanha 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)
Rhopolagaster 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)
Gloeomuco 
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)
Sistotremsella 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)
Clavulicum 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 (Burd. (7)
Lawreymyces Lücking & Moncada (7)
Marchandiomyces Diederich & D. Hawksw. (3)
Necator Massee (1)
Tetopileus 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)

Vuilleminiacae 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)
Papyrodicus 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)
Hispidaela 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
   Araecoryne 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 Fissson & 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)
Phyllororia 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)

Neantrodiellaceae 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)
Contumycys 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)
Leucohellinus Bondartsev & Singer (1)
Paratrichaptum Corner (1)
Poriodontia Parmasto (1)
Rogersella Liberta & A.J. Navas (1)
Odontiopsis Hjortstam & Ryvarden (2)
Schizopora Velen. (7)
Xyldon (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 Raithehl. (1)
Kurtia Karasiński (3)
Lawrzymyces 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

Gallaceaeae 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 Jenn. (1)
Endoclathrus B. Liu, Yin H. Liu & Z.J. Gu (1)
Endophallus M. Zang & R. H. Petersen (1)
Ileodictyton 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)
Neolyssurus O. K. Mill., Ovrebo & Burk (1)
PhallusJunius 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 (Schltldl.) 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)*
- *Incrustopia* 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* Domanski (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)
Scopuloïdes (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 Quël. (15)
Cinereumycetella 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)
Denticorticium (Parmasto) M.J. Larsen & Gilb. (3)*
Dextrinopus 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)
Endopandanicolia 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)
Haplodorus 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)
Szczechamyces 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)
Prarassis 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)
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)
Amylopora Singer (5)
Aquascypha D.A. Reid (1)
Auriporia Ryvarden (4)
Australicum Hjortstam & Ryvarden (2)
Australohydnum Jülich (2)
Austrolectinus 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)
Columnnodonia Jülich (1)
Conohypha Jülich (2)
Coralloderma D.A. Reid (2)
Cordochaete Sanyal, Samita, Dhingra & Avn. P. Singh (1)
Cryptomphalina R. Heim (1)
Cyanodonta 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)
Inflastereum 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)
   Stecchericium 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)
**Hericaceae** Donk

*Dentipellis* Donk (7)

*Hericium* Pers. (23)

*Laxitextum* Lentz (3)

*Pseudowrighttoporia* 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)

*Multifarca* 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)  
Gloeasterostroma Rick (1)  
Gloeodontia Boidin (8)  
Gloeohypochniceium (Parmasto) Hjortstam (2)  
Haloeurodiscus N. Maek., Suhara & K. Kinjo (1)  
Laeticutis Audet (1)  
Neoalbatrellus Audet (4)  
Perplexostereum Ryvarden & S. Tutka (1)  
Polypus Audet (1)  
Scopulodontia Hjortstaw (3)  
Scytinostromella Parmasto (6)  
Xeroceps Audet (2)  

Sebacinales M. Weiss, Selosse, Rexer, A. Urb. & Oberw.  
Sebacinaeae 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)  
Tremilloscypha 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
Brevicellium 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. Kirchner & 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)
Hallenberga 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)
Odonticum 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)
Titaella G. Arnaud ex K. Ando & Tubaki (1)
Trechinothys 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

Cerinomycetes 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.
Unilacrymaeae Shirouzu, Tokum. & Oberw.
  Unilacryma Shirouzu, Tokum. & Oberw. (1)

Tremellomycetes Doweld
Cystofilobasidiales Fell, Roeijmans & Boekhout
Cystofilobasidiaeae 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)
  Udeniomycetes Nakase & Takem. (4)
  Vustinia Kachalkin, Turchetti & Yurkov (1)

Filobasidiales Jülich
Filobasidiaeae 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)

Piskurozymaeae 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)
  Genoleuvuria X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (4)
  Pseudotremella X.Z. Liu, F.Y. Bai, A.M. Yurkov, M. Groenew. & Boekhout (4)

Bulleribasidiaeae 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)
  Kwoninella 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)
  Tetragnomiomyces 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)

Trichosphoronales Boekhout & Fell

Tetragoniomyctaceae 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)
Vanrijia 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)
Bourdrotigloea Aime (9)
Helicogloea Pat. (25)
Hobsonia Berk. ex Massee (2)
Phleogena Link (1)
Saccosoma Spirin (9)

Classicolomycetes 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, Diedrich & 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)

Sakaguchiiales 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
Microsporomycetes 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
Heterogastridiaeae 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)
Yamadamycyes Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (1)

Leucosporidiales Sampaio, M. Weiss & Bauer
Leucosporidiales 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)
- *Hamamotoo* 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)

**Mixiomyctes** 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.

**Pachnocybea** 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)
   Botryorrhiza  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)
   Chrysoceles  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)
Physomonema Lév. (1)
Scutelliformis Salazar-Yepes, Pardo-Card. & Buriticá (1)
Trachyspora Fuckel (5)
Xenodochus Schltdl. (2)

Pileolariaeae Cummins & Y. Hirats.
Atelocauda Arthur & Cummins (3)
Pileolaria Castagne (16)
Skierka Racib. (13)
Uromycladium McAlpine (11)

Pucciniaeae Chevall.
Allocaus Arthur (1)
Chrysella Syd. (1)
Chrysocyclus Syd. (3)
Chrysoptala Lagerh. (1)
Cleptomyces Arthur (1)
Coleopucciniella Hara ex Hirats. (2)
Corbulopsora Cummins (3)
Cumminiella 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)
Ramakrishnan 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)
Melamsporidiun Kleb. (11)
Milesia F.B. White 1878 (20)
Milesina Magnus (65)
Naohidemycés S. Sato, Katsuya & Y. Hirats. (2)
Peridiopsora Kamat & Sathe (2)
Pucciniastrum G.H. Otth (50)
Thekopsora Magnus (7)
Uredinopsis Magnus (30)

**Pucciniastraceae** 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)
Diorchidiunm 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)
Sphenerospora 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)
- *Leucotelim* 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)
- *Caéoma* Link (ca. 50)
- *Caetéa* 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)
- *Auriculosphyrpa* 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.

**Doassansiae** R.T. Moore ex P.M. Kirk, P.F. Cannon & J.C. David

*Burriella* Setch. (4)

*Doassania* Cornu (12)

*Doassinga* Vánky, R. Bauer & Begerow (1)

*Entylomaster* Vánky & R.G. Shivas (2)

*Heterodoaassansiya* Vánky (8)

*Nannfeldtiomyces* Vánky (2)

*Narasimhania* Thirum. & Pavgi (1)

*Pseudodermatosorus* Vánky (2)

*Pseudodoassansiya* (Setch.) Vánky (2)

*Pseudotracya* Vánky (1)

*Tracya* Syd. & P. Syd. (2)

**Melaniellaceae** R. Bauer, Vánky, Begerow & Oberw.

*Melaniella* R. Bauer, Vánky, Begerow & Oberw. (2)

**Rhamphosphoraceae** R. Bauer & Oberw.

*Rhamphospora* D.D. Cunn. (2)

**Entylomatales** R. Bauer & Oberw.

**Entylomatacae** R. Bauer & Oberw.

*Entyloma* de Bary (163)

*Tilletiopsis* Derx (3)

**Exobasidiales** Henn.

**Brachybasidiae** Gäum.

*Brachybasidium* Gäum. (1)

*Dicellomyces* L.S. Olive (4)
Kordyana Racib. (8)
Meira Boekhout, Scorzetti, Gerson & Sztejn. (4)
Proliferobasidium J.L. Cunn. (1)

Cryptobasidiaceae Malençon ex Donk
   Acaromyces Boekhout, Scorzetti, Gerson & Sztejn. (1)
   Botryoconis Syd. & P.Syd. (2)
   Clinoconidium Pat. (6)
   Coniodictyum Har. & Pat. (1)
   Drepanoconis J. Schrötl. & Henn. (3)
   Phacellula Syd. (1)

Exobasidiaceae J. Schrötl.
   Arcticomyces Savile (1)
   Austrobasidium Palfner (1)
   Exobasidium Woronin (51)
   Muribasidiospora Kamat & Rajendren (3)

Graphiolaceae Clem. & Shear
   Graphiola Poit. (12)
   Stylinia 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.
   Georgefisocheria 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)
   Toyoosposporella 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)
- *Symposiumycopsis* 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.

**Erratomy cetaceae** 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)
- *Salmacista* 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

**Monil iellaceae** Q.M. Wang, F.Y. Bai & Boekhout

*Monilia lla* 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.

**Doassansiospidsia ceae** 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)

**Floromy cetaceae** 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)  
Kunteomyces Henn. Ex Sacc. & P. Syd. (2)  
Leucocintractia M. Piepenbr., Begerow & Oberw. (4)  
Moreaia 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)
- *Bambusioniomyces* Vánky (1)
- *Centrolepidosporium* R.G. Shivas & Vánky (1)
- *Dirkmeia* F.Y. Bai, Q.M. Wang, Begerow & Boekhout (1)
- *Eriocalula* Vánky (2)
- *Eriocortex* Vánky & R.G. Shivas (1)
- *Eriosporum* 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)
- *Pattersonioniomyces* 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)

**Wallemiomyctina** Doweld
**Wallemiomyctetes** Zalar, de Hoog & Schroers
**Geminibasidiales** H.D.T. Nguyen, N.L. Nick. & Seifert
**Geminibasidiaceae** H.D.T. Nguyen, N.L. Nick. & Seifert
- *Basidoascus* 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 Berenchia, Görjón & 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  
Catenomyctaceae Doweld  
Catenomyces A.M. Hanson (2)

Coelomycetales 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

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
   Phlyctochyrium 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 Ivanič (12)
   Oryctospora Purrini & Weiser (1)
   Peltomyces Léger (1)

Polyphagales Doweld
Polyphagaceae F. Maekawa
   Polyphagus Nowak. (15)

Saccopodiales Doweld
Saccopodiaceae Jacz. & P.A. Jacz.
   Saccopodium Sorokin (1)

Chytridiomycetes families incertae sedis
Amoebochytriaceae Doweld
   Amoebochytrium Zopf (1)

Sparrowiaceae Doweld
   Sparrowia Willoughby (2)

Sphaeromonadaceae Doweld
   Sphaeromonas E. Liebet. (6)

Tetrachytriaceae Doweld
   Tetrachytrium Sorokin (1)

Thalassochytriaceae Doweld
   Thalassochytrium Nyvall, M. Pedersén & Longcore (1)

Chytridiomycetes genera incertae sedis
   Aphanistis Sorokin (2)
   Bertramia Mesnil & Caullery (3)
Blyttiomycetes A.F. Bartsch (11)
Canteria Karling (1)
Dangeardia Schröd. (11)
Dangeardiana Valkanov ex A. Batko (4)
Dictyomorpha Mullins (2)
Gamolpidium Vládescu (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)
Physorhizodium Scherff. (1)
Plasmophagus De Wild. (3)
Pseudopileum Canter (1)
Rhizidiocystis Sideris (1)
Rhizosiphon Scherff. (4)
Rhopalophyctis Karling (1)
Riethophyctis Doweld (1)
Saccomyces Serbinow (2)
Sagittospora Lubinsky (1)
Schierffeliomycopsis 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)
Sporophytidium Sparrow (2)
Sporophyctis Serbinow (2)
Trematophyctis Pat. (1)
Truittella Karling (1)
Volvorax Doweld (1)
Zygochytrium Sorokîn (1)
Zygochyctis Doweld (1)

Cladochytriomycetes Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov
Cladochytriales Mozl.-Standr.
Catenochastrydiaceae Doweld
   Catenochastrydiun Berdan (6)

Cladochytriales J. Schröt.
   Cladochytrium Nowak. (51)

Endochastrydiaceae Sparrow ex D.J.S. Barr
   Diplophyctis J. Schröt. (12)
   Endochastryum Sparrow (7)

Nowakowskiaellaceae Sparrow ex Mozl.-Standr.
Nowakowskiiella 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

**Alogomyctaceae** 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)

**Lobulomycetaceae** 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
  *Alphamycetes* 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
  Rhizophydiun 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)

**Uebelmannseromyctaceae** M.J. Powell & Letcher
   *Uebelmannseromyces* M.J. Powell & Letcher (1)

**Rhizophydiales** genus *incertae sedis*
   *Homalophlyctis* Longcore, Letcher & T.Y. James (1)

**Rhizophlyctidomycetes** Tedersoo, Sanchez-Ramirez, Köljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

**Rhizophlyctidiales** Letcher
   **Arizonaphlyctidaceae** Letcher
      *Arizonaphlyctis* Letcher (1)

**Borealophlyctidaceae** Letcher
   *Borealophlyctis* Letcher (2)

**Rhizophlyctidaceae** H.E. Petersen
   *Rhizophlyctis* A. Fisch. (31)

**Sonoraphlyctidaceae** Letcher
   *Sonoraphlyctis* Letcher (1)

**Spizellomyctes** Tedersoo, Sanchez-Ramirez, Köljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

**Spizellomyctales** D.J.S. Barr

**Powellomyctaceae** D.R. Simmons
   *Fimicolochytrium* D.R. Simmons & Longcore (2)
   *Geranomyces* D.R. Simmons (4)
   *Powellomyces* Longcore (2)
   *Thoreauomyces* D.R. Simmons & Longcore (1)

**Spizellomyctaceae** 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, Köljalg, 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. Deekenb. (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, Kekler, 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 Blaszk. & Chwat (3)
Desertispora Blaszk., 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 Blaszk., Niezgoda & B.T. Goto (1)
Tricispora Oehl, Sieverd., G.A. Silva & Palenz. (1)

Pacisporaceae C. Walker, Blaszk., 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)
Denticutataceae F.A. Souza, Oehl & Sieverd.
Denticutata Sieverd., F.A. Souza & Oehl (9)
Fuscuta 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)
Paradenticutata 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* Blaszk., 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* Blaszk., Niezgoda, B.T. Goto & Kozłowska (1)
  *Kamienskia* Blaszk., 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* Blaszk., 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, Blaszk., 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* Blaszk., Kovács, Chwat & Kozłowska (1)

**Pervetustaceae** Blaszk., Chwat, Kozłowska, Symanczik & Al-Yahya’ei
  *Pervetustus* Blaszk., Chwat, Kozłowska, Symanczik & Al-Yahya’ei (1)

**Kickxellomycota** Tedersoo, Sanchez-Ramirez, Köljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

**Asellariomycetes** Tedersoo, Sanchez-Ramirez, Köljalg, 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, Kölljalg, 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, Kölljalg, 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, Kölljalg, 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)

Legeriomyctaceae Pouzar
Austromittium 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)
Ephemereellomyces 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)
Stippella L. Léger & M. Gauthier (2)
Stypomyces Doweld (2)
Tectimyces L.G. Valle & Santam. (3)
Trichogygospora 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, Köljalg, 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, Köljalg, 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

**Sanchytriiales** Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

**Sanchytriaceae** Karpov & Aleoshin
Anoeboradix 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.
Endogene 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
Lentamycyes 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)
Benjamiella 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, Köljalg, 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)

Anaeromycetes  Breton, Bernalier, Dusser, Fonty, B. Gaillard & J. Guillot (4)
Buwichfavromycetes  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
   Amphiambyls  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)
Episeptom Larsson (6)
Gurleya Doflein (10)
Lanatospora Voronin (4)
Larssonia Vidtmann & Sokolova (2)
Marssoniella Lemmermann (1)
Norlevinea Vávra (1)
Paraepiseptom 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
Alfvienia Larsson (4)
Hazardia Weiser (2)
Multilamina Becnel, Scheffrahn, Vossbrinck & Bahder (1)
Takaokaspora Andreadis, Takaoka, Otsuka & Vossbrinck (1)
Trichotuzetia Vávra, Larsson & Baker (1)

Neopereziiida Tokarev & Issi
Berwaldiidae Simakova, Tokarev & Issi
Berwaldia Larsson (4)
Fibrillanosema Slothouber Galbreath, Smith, Terry, Becnel & Dunn (1)

Neopereziiidae Voronin emend. Issi, Tokarev, Seliverstova & Voronin
Bacillidium Janda (5)
Bryonoosema Canning, Refardt, Vossbrinck, Okamura & Curry (2)
Neoperezia Issi & Voronin (2)
Pseudonoosema 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)
  Tubulinosematidae Franzen, Fischer, Schröder, Schölmerich & Schneuwly (5)

Neoperezizida 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, Tiektotter & 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)
  Heterosports 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)  
*Napamicium* Larsson (3)  
*Nudispora* Larsson (1)  
*Octotetraspora* Issi, Kadyrova, Pushkar, Khodzhaeva & Krylova (1)  
*Ormieresia* Vivarès, Boutix & 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)
*Anostracosporea* 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)

**Areosporidae** 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)

Cylindrosporidinae Issi & Voronin
Cylindrospora Issi & Voronin (2)

Duboscqiiidae R. Sprague
Duboscquia Pérez (11)
Mitoplistophora Codreanu (1)
Pulicispora Vedmed, Krylova & Issi (1)
Tardivesicula Larsson & Bylén (1)
Trichoduboscquia 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, Ormieres & Manier (4)

Striatosporidinae 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)
Baculeia 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)
Hamilto sporidium 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, Walochink, Venditti, Hauröder & Michel (1)
   Nucleophaga Dangeard (2)
   Paramicrosporidium Corsaro, Walochink, 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)
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)* |
|                  |        | Biporipsilones Kalgotkar & Janson. (11)* |
### Table 4 Continued.

| Fungi Imperfecti | Family | Genera |
|------------------|--------|--------|
| **Biporisporites** Ke & Shi (2) |
| **Cervichlamydomsora** 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) |
| **Geotrichtes** 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) |
| **Nigrosorites** 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) |
| **Reidiporites** C.P. Varma & Rawat (1) |
| **Saccisporonites** Kalgutkar & Janson. (1) |
| **Spirotremesporites** Dueñas (ca. 20)* |
| **Sporotrichites** Göpp. & Berendt (3) |
| **Striadioporites** 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)* |
| **Dicellaesporites** 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

| **Allepeysporonites** Ramanujam & K.P. Rao (1)* |
| **Anatolinites** Elsik, V.S. Ediger & Bati (13)* |
| **Axisporonites** Kalgutkar & Janson. (1)* |
| **Brachysporisporites** R.T. Lange & P.H. Sm. (23)* |
| **Ceratothiridiospora** 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) |
| **Diporcellaesporites** Elsik (ca. 61) |
| **Diporipollis** S.K. Dutta & S.C.D. Sah emend. Kalgutkar & Janson. (2) |
| 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)                                  |
|                  |         | Jansonisporites Kalugtuar (1)                                            |
|                  |         | Kumanisporites Kalugtuar & Janson. (1)*                                 |
|                  |         | Mathurisporites Kalugtuar & Janson. (2)*                                |
|                  |         | Monilies Pampal. (1)                                                    |
|                  |         | Multicellaesporites Elsik emend. P. Kumar (ca. 14)                     |
|                  |         | Multicellites Kalugtuar & 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. Kalugtuar & Janson. (11)         |
|                  |         | Ramasricellites Kalugtuar & Janson. (2)*                                |
|                  |         | Reduviasporonites L.R. Wilson (9)                                       |
|                  |         | Reticellites D.L.E. Glass, D.D. Br. & Elsik (1)                         |
|                  |         | Scolocosporites R.T. Lange & P.H. Sm. (4)                               |
|                  |         | Tripithonites Sat. K. Srivastava & Al-Tayyar (2)                        |
|                  |         | Tympanicysta Malme (1)                                                  |
|                  |         | Varmasporites Kalugtuar & Janson. (1)*                                  |
|                  |         | Dictyosporae                                                            |
|                  |         | Centonites Peppers (1)                                                  |
|                  |         | Ctenosporites Élsik & Janson. (3)                                       |
|                  |         | Dictyosporites Félix emend. Kalugtuar & Janson. (ca. 20)                |
|                  |         | Dictyostromata R. Kar, Mand. & R.K. Kar (2)                             |
|                  |         | Kutchiathyrites R.K. Kar emend. Kalugtuar & 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)                                          |
|                  |         | Polycellaeasporonites 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)                                   |
|                  |         | Helicóinítes Kalugtuar & Sigler (1)                                     |
|                  |         | Helicosporiates Kalugtuar & Sigler (1)                                  |
|                  |         | Involutisporonites R.T. Clarke (ca. 8)                                  |
|                  |         | Palaeocirrenalia Ramanujam & Srisailam (3)                              |
|                  |         | Paleoslimacomyces Kalugtuar & Sigler (3)*                               |
|                  |         | Retihelicosporonites Ramanujam & K.P. Rao (1)*                          |
|                  |         | Staurosporae                                                            |
|                  |         | Eoglobella W.H. Bradley (1)                                             |
|                  |         | Frasnacritetrus Taug. (7)*                                              |
|                  |         | Mossosporites Kalugtuar & Janson. (1)*                                  |
|                  |         | Pesavis Elsik & Janson. (3)                                             |
|                  |         | Spegazzinites Félix (3)                                                 |
|                  |         | Tribolites W.H. Bradley (2)*                                            |
|                  |         | Trihyphites Kalugtuar & Janson. (1)*                                    |
|                  |         | Triporiscellaeasporites 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          | Hysteresites 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)                                               |
|               |                      | Ethythyrites Cookson (4)                                                 |
|               |                      | Haplopetelis 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)                                                |
|               |                      | Molinae 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)                                            |
|               |                      | Polyphyphaeuthyrites R. Srivast. & R.K. Kar (1)                          |
|               |                      | Ratnagiriathyrites R.K. Saxena & N.K. Misra (1)*                         |
|               |                      | Spinosporonites R.K. Saxena & S. Khare (1)*                             |
|               |                      | Stomiopeptites 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)                        |
|               |                      | Paleomochrella Poinar (1)                                                |
|               |                      | Pezizites Göpp. & Berendt (4)                                            |
|               | Phyllachorales        | Paleoserenomyces Currah, Stockey & B.A. LePage (1)                      |
|               | Pleosporales          | Cryptodidymosphaerites Currah, Stockey & B.A. LePage (1)*               |
|               |                      | Dictyosporiuninites Debi Mukh. (1)                                       |
|               |                      | Pleosporites Y. Suzuki (1)                                               |
### Table 5

| Phylum       | Order       | Genera                                                                 |
|--------------|-------------|------------------------------------------------------------------------|
| **Sphaeriales** |            | **Diploneurospora** K.P. Jain & R.C. Gupta (1)*                        |
|              |             | **Palaeosordaria** Sahni & H.S. Rao (1)                                |
|              |             | **Petrospheaeria** Stopes & H. Fujii (1)                               |
|              |             | **Valsartes** Puri (1)                                                |
| **Uredinales** |            | **Aeciosporonites** Debi Mukh. (1)                                     |
| **Xylariales** |            | **Chaethomites** Pampal. (1)                                          |
| **Basidiomycota** |       | **Sphaerites** Unger (48)                                              |
| **Incertae sedis** |          | **Cephalothecoidomyces** G. Worobiec, Neumann & E. Worobiec (1)       |
| **Agaricales** |            | **Archaeomarasmus** Hibbett, D. Grimaldi & Donoghue (1)                |
|              |             | **Coprinites** Poinar & Singer (1)*                                    |
|              |             | **Gondwanagaricites** Heads, A.N. Mill & J.L. Crane (1)                |
|              |             | **Protomyccena** Hibbett, D. Grimaldi & Donoghue (1)                   |
| **Polyporales** |          | **Eopolyporoides** Rigby (1)                                           |
| **Pucciniales** |            | **Phellines** Singer & S. Archang. (1)                                 |
|              |             | **Pseudopolyper** Hollick (1)                                          |
|              |             | **Tramitites** A. Straus (3)                                           |
|              |             | **Shuklania** J.N. Dwivedi (1)                                         |
| **Sphaeropsidales** |      | **Archeboma** Kyoto Watanabe, H. Nishida & Tak. Kobay. (1)            |
|              |             | **Ascochyttites** Barlinge & Paradkar (2)*                             |
|              |             | **Deccanaconia** Singhai (1)                                           |
|              |             | **Diplodites** D.N. Babajan & Tasl. ex Kalgutkar, Nambudiri & Tidwell (5)* |
|              |             | **Entopolietcites** Selkirk (6)                                        |
|              |             | **Meniscoideisporites** Kyoto Watanabe, H. Nishida & Tak. Kobay. (1) |
|              |             | **Mohgaonidium** Singhai (1)                                           |
|              |             | **Palaeocystophora** R.B. Singh & G.V. Patil (1)                       |
|              |             | **Palaeophuma** Singhai (1)*                                           |
|              |             | **Phomites** Fritel (2)                                                |
|              |             | **Rabenhorstnidium** R.B. Singh & G.V. Patil (1)                       |
| **Uredinales** |            | **Accidites** Debey & Ettingsh. (4)                                    |
|              |             | **Aeciosporonites** Debi Mukh. (1)                                     |
|              |             | **Hapalophragmites** Ramanujam & Ramachar (1)                          |
|              |             | **Milesites** Ramanujam & Ramachar (1)                                 |
|              |             | **Pucciniasporonites** Ramanujam & Ramachar (1)                        |
| **Ustilaginales** |        | **Chlamydosporites** Paradkar (1)                                      |
| **Chytridiomycota** |     | **Teliosporites** R. Kar, Mand. & R.K. Kar (2)                         |
| **Chytridiales** |            | **Grilletlia** Renault & C.E. Bertrand (1)                             |
|              |             | **Guizhounema** X. Mu (1)                                              |
|              |             | **Krispyromyces** 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** |           | **Chlamydospora** R. Kar, Mand. & R.K. Kar (1)                         |
| **Endogonales** |            | **Endochaetophora** J.F. White & T.N. Taylor (1)                       |
|              |             | **Gigasporites** Carlie J. Phipps & T.N. Taylor (1)                   |
|              |             | **Palaeogigasporsa** R. Kar, Mand. & R.K. Kar (1)                     |
|              |             | **Palaeomyccetes** Mesch. (21)*                                        |
|              |             | **Udaria** A. Gupta (2)                                                |
| **Mucoromycota** |           | **Animikiea** Bargh. (1)                                               |
| **genera incertae sedis** | | **Archaeorestis** Bargh. (1)                                           |
| **Mycelia Sterilia** |         | **Celyphus** Batten (1)                                               |
|              |             | **Dendromyceliates** K.P. Jain & R.K. Kar (2)                         |
|              |             | **Entosphaeroides** Bargh. (1)                                         |
Table 5 Continued.

| Phylum        | Order     | Genera                                                                 |
|---------------|-----------|------------------------------------------------------------------------|
| Fossil fungi  |           |                                                                        |
| *incertae sedis* |           |                                                                        |
|               |           | *Eoastrion* Bargh. (2)                                                 |
|               |           | *Eomyctopsis* 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)                                           |
|               |           | *Annella* Sat. K. Srivast. (2)                                          |
|               |           | *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)                     |
|               |           | *Palaeocelletotrichum* 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)                        |
|               |           | *Protoelletotrichum* 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* Dolcher, *A. kosciusakensis* Selkirk, *A. nodosaria* Dolcher, *A. indodeightonii* Vishnu, Khan & Bera, *A. mioconsobrina* Vishnu, Khan & Bera, *A. mioesphaerelloides* Vishnu, Khan & Bera, *A. neocombreticoala* Vishnu, Khan & Bera, *A. neoesphaerelloides* Vishnu, Khan & Bera, *A. presaracae* Vishnu, Khan & Bera, *D. rodei* Mahab. [Now: *Diplodites rodei* (Mahab.) Kalgutkar, Nambudiri & Tidwell], *D. sahnii* Singhai [Now: *Diplodites sahnii* (Singhai) Kalgutkar, Nambudiri & Tidwell] |

*Botryosphaeriales*
Table 6 Continued.

| Phylum                  | Order            | Family                     | Modern genera                      | Fossil species                          |
|------------------------|------------------|----------------------------|------------------------------------|----------------------------------------|
| **Capnodiales**        | **Chaetosphaeriales** | **Mycosphaerellaceae**    | Ramularia Sacc.                    | *R. oblongispora* Casp.                |
|                        |                  | **Chaetosphaeriaceae**    | Chaetosphaeria                      | *C. elsikii* M.J. Pound, J.M.K.        |
|                        |                  |                            | Tul. & C. Tul.                     | O’Keefe, N.B. Nuñez Otaño, J.B. Riding |
| **Eurotiales**         | **Helotiales**   | **Aspergillaceae**        | Penicillium Link                    | *P. curtipes* Berk.                    |
|                        |                  | **Mollisiaceae**          | Trimmatostroma Corda.              | *Trimmatostroma intertrappea* K.S. Patil & Datar |
| **Hypocreales**        |                  | **Bionectriaceae**        | Acremonium Link                    | *A. succineum* Casp.                   |
|                        |                  | **Ceratostomataceae**     | Gonatobotrys Corda                 | *G. primigenius* Casp.                 |
| **Laboulbeniales**     |                  | **Laboulbeniaceae**       | Stigmatomyces succini W. Rossi, Kotrba & Triebel |
| **Lecanorales**        |                  | **Sphaerophoraceae**      | Sphaerophorus Pers.                | *S. montiliformis* Menge                |
| **Meliolales**         |                  | **Meliolaceae**           | Meliola Fr.                         | *M. anfracta* Dilcher [Now: Melioliines anfractus (Dilcher) Kalugutkar & Janson.], *M. spinksii* Dilcher [Now: Melioliines spinksii (Dilcher) Selkirk] |
| **Microthyriales**     |                  | **Microthyriaceae**       | Trichopeltina Theiss.              | *T. exprorecta* Dilcher                |
| **Mycocalicilales**    |                  | **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) Kalugutkar & Janson.] |
| **Taphriniales**       |                  | **Sporidesmiaceae**       | Sporidesmium Link ex Fr.           | *S. henryense* Dilcher                |
| **Trichosphaeriales**  |                  | **Protomycetaceae**       | Protomyces Unger                   | *P. protogenes* W. Sm.                 |
|                        |                  | **Trichosphaeriaceae**    | Brachysporium Sacc.                |                                        |
| **Dothideomycetes**    | family incertae | **Vizellaceae**           | Vizella Sacc.                      | *B. minutum* Trivedi & C.L. Verma [Now: Pluricellaesporites minutus (Trivedi & C.L. Verma) ex Kalugutkar & Janson.] |
| sedis                  |                  |                            |                                     |                                        |
| **Incertae sedis**     |                  | **Incertae sedis**        | Desmidiospora Thaxt.               | *D. marginiconvoluta* Kalugutkar       |
|                        |                  |                            | Manginula G. Arnaud                | *M. maegdefrau Lange* [Now: Entopeltacites maegdefrau (Lange) Selkirk], *M. memorabilis* |

1347
Table 6 Continued.

| Phylum           | Order               | Family                    | Modern genera                                      | Fossil species                                                                 |
|------------------|---------------------|---------------------------|----------------------------------------------------|--------------------------------------------------------------------------------|
| Basidiomycota    | Agaricostilbales    | Chionosphaeraceae         | Stilbum Tode ex Fr.                                | (Dilcher) Lange [Now: Vizella memorabilis (Dilcher) Selkirk], M. osbornii Lange [Now: Entopeltacites osbornii (Lange) Selkirk] |
|                  | 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 Cyathus Haller                   | N. baltica Poinar                                                              |
| Polyporales      | Polyporaceae        |                           | Fomes (Fr.) Fr. Mundkurella Thirum.                | C. dominicanus Poinar                                                          |
| Urocystidales    | Urocystidaceae      |                           |                                                     | F. idahoensis R.W. Br.                                                        |
| Ustilaginales    | Ustilaginaceae      |                           | Ustilago (Pers.) Roussel                           | M. moehgaensis Chitaley & Yawale                                               |
| Chytridiomycota  | Chytridales         | Chytriomycetaceae         | Entophlyctis A. Fisch.                             | U. deccani Chitaley & Yawale [Now: Inapertisporites deccani (Chitaley & Yawale) Kalgutkar & Janson.] |
| Fungi incertae   | Spec.               |                           |                                                     | E. willoughbyi W.H. Bradley [Now: Desmidiospora willoughbyi (W.H. Bradley) D.L.E. Glass, D.D. Br. & Elsik] |

Outline of fungus-like organisms
Obazoa Brown et al.
Opisthokonta Cavalier-Smith
Holomycota Liu et al. = Nucleotyceae Brown et al.

Nucleariae Tedersoo et al.
Fonticulid Fontesoo et al.
Fonticula Tedersoo et al.
Fonticulida Cavalier-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.
**Oblongichytridaceae** Cavalier-Smith
- *Oblongichytrium* R. Yokoy. & D. Honda

**Thraustochytriales** Sparrow
**Althornidiaceae** Jones and Alderman
- *Althornia* E.B.G. Jones & Alderman

**Thraustochytriaceae** 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

Amphitremina Gomaa et al.
Amphitreminae 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)
Phytophthora Abad, de Cock, Bala, Robideau, A.M. Lodhi & Lévesque (25)
Plasmodora 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)
Mindiennella 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* Hohnk (1)
- *Calyptrelegnia* 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*
- *Aphanomycosis* 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)
- *Nematophtora* 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
Diatomopthora Buaya & Thines (3)

Eurychasmales Sparrow
Eurychasmataceae Petersen
Eurychasma Magnus (3)

Haliphthorales ined.
Haliphthoraceae Vishniac
Halioicida 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)

Amorphe Adl et al.
Amoebozoa Lühe
Evosea Kang et al.
Eumycetozoa L.S. Olive
Dictyosteliomycetes Doweld
Acystosteliales S. Baldauf, S. Sheikh & Thulin
Acystosteliaceae Raper ex Raper & Quinlan

Acystostelium 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 *incertae 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.

**Protosporangiales** Leontyev, Stephenson, Schnittler, Shchepin, Novozhilov
  *Clastostelium* L.S. Olive & Stoian.
  *Protopsorangium* 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
  Arcyriotella: Hochg. & Gottsb.
  Calonema: Morgan
  Minakatella: G. Lister
  Trichioides: Novozh., Hoof & Jagers

Columellomyctidae: 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
*Didera* 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*
*Diacea* Fr.
*Leptoderma* G. Lister
*Paradiacchea* Hertel
*Protophysarum* M. Blackw. & Alexop.
*Trabrookisia* 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 Lepși
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

1357
Chaetomella Fuckel (26)
Corniculariella P. Karst. (1)
Pilidium Kunze (23)
Sphaerographium Sacc. (23)
Synchaetomella Decock & Seifert (3)
Xeropilidium Baral & Pärtel (1)

Cyttariales Luttr. ex Gamundí

Cordieritidaceae Sacc."
Ameghiniella Spec. (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)
Byssaoascus 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
    Bryocavliculus 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.; = Phloeospora 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 Srček; = 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)
- *Croicreas* 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)
Pseudoaegerita J.L. Crane & Schokn. (7)
Psilocistella Svrcek (10)
Rhizoscyphus W.Y. Zhuang & Korf (1)
Scytalidium Pesante (ca. 30)
Thindiomycetes 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)
Brunnilia Baral (10)
Capitotricha (Raitv.) Baral (10)
Crucellisporiopsis Nag Raj (3)
Crucellisporium M.L. Farr (3)
Dasycyphella Tranzschel (1)
Erioscyphella Kirschst. (10)
Incrucipulum Baral (6)
Lachnellula P. Karst. (40)
Lachnum Retz. (50)
Lachnopsis Guatim., R.W. Barreto & Crous (1)
Neodasycypha Suková & Spooner (2)
Perrotia Boud. (19)
Proliferodiscus J.H. Haines & Dumont (8)
Tubolachnum Velen. (2)
Velebita I. Kušan, Matočec & Jadan (1)

Loramycetaceae Dennis ex Digby & Goos
Acidomelania E. Walsh & N. Zhang (1)
Loramycyes W. Weston (2)
Obtectodiscus E. Müll., Petrini & Samuels (2)

Mitrulaceae Rehb.
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)
Mycoclaetophora Hara & Ogawa (2)
Nothophacidium J. Reid & Cain (1)
Oculimacula Crous & W. Gams (6)
Peltigeromyces A. Möller (3)
Ploettnerula Kirschst. (1)
Pseudoopeziza Fuckel (4)
Rhexocercosporidium U. Braun (2)
Rhynchosporium Heinsen ex A.B. Frank (5)
Ypsilina J. Webster, Descals & Marvanová (1)

Solenopezizaceae 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)
Solenopeziza Sacc. (7)
Trichoopeziza 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 (= Pseudospiretes M.B. Ellis) (16)
Srinivasanomyces S. Rana & S.K. Singh (1)
Vibrissea Fr. (34)

Helotiales genera incertae sedis
Aquapotarium 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)
Cryptoclina Petr. (20)
Enccoliopsis 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 Gamundi (1)
Sambucina Velen. (1)
Sarcomyces Massee (1)
Unguicularia Höhn. (7)

Lahmiales O.E. Erikss.
Lahmiaceae O.E. Erikss.
   Lahmia Körb. (1)

Lauriomyctales Hern.-Restr., R.F. Castañeda & Guarro
Lauriomyctaceae Hern.-Restr., R.F. Castañeda & Guarro
   Lauriomyces R.F. Castañeda (11)

Leotiales Korf & Lizoñ
Cochlearomyctaceae Crous
   Cochlearomyces Crous (1)

Leotiales 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)

Lichinoidiales M. Prieto, M. Schultz, Olariaga & Wedin
Lichinoidaceae M. Prieto, M. Schultz, Olariaga & Wedin
   Lichinodium Nyl. (4)
   Mycosymbioces J.L. Frank (1)

Lichinoidiales 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)
  *Mellitosporiella* Höhn. (2)
  *Mellitosporium* 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)

**Ascodicichaenaceae** D. Hawksw. & Sherwood
  *Ascodicichaena* 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. Marin & 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
  *Eleutheromyccella* 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)

**Phacidiaeae** Fr. (= *Bulgariaceae* Fr.; = *Phacidiostromataceae* Höhn. *fide* Jaklitsch et al. 2016a)
**Phacidiales** genus *incertae sedis*

*Coma* Nag Raj & W.B. Kendr. (2)

**Rhytismatales** M.E. Barr ex Minter

**Rhytismataceae** Chevall. (*= Hypodermataceae* Rehm; *= Cryptomyctaceae* 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* Auer. (1)

*Hypoderma* De Not. (1)

*Hypodermella* Tubeuf (3)

*Hypodermellina* Höhn. (1)

*Hypohelion* P.R. Johnst. (3)

*Irydyonia* Racib. (1)

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#Ekanayaka et al. (2019) accepted these genera in *Phacidiaceae*
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)

Tribliaceae 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 Udaivan & Hosag. (3)
Patinella Sacc. (1)
Pseudascozonus Brumm. (1)
Pseudoeurotium J.F.H. Beyma (6)
Pseudogymnoascus Raillot (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 Svrček (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, Ashrafí, W. Maier & Kovács (2)
   Psilachnum Höhn. (28)
   Rodwayella Spooner (3)
   Rommelaarsia Baral & Haelew. (1)
   Roseodiscus Baral (6)
   Stamnaria Fuckel (5)
   Tetractadium 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 Rěblová & 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)
Sarctrotchila 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)
Lareuniononomycys 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)#
Allophyllaria (P. Karst.) P. Karst. (6)
Antinoa Velen. (8)
Bispora 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)
Tripolaris 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)
Amphohotrys 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)
Myriocinion Syd. & P. Syd. (10)
Myriosclerotinia N.F. Buchw. (10)
Ovulina Weiss (9)
Phaeosclerotinia Hori (1)
Poculum Velen. (ca. 22)
Pseudociboria Kanouse (1)
Pycnoppeziza W.L. White & Whetzel (5)
Redheadia Y. Suto & Suyama (1)
Sclerencoelia Pärtel & Baral (3)
Scleromitrlula 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)

Leotiomyces family incertae sedis
Porodiplodiaceae Crous
Porodiplodia Crous (1)

Leotiomyces 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)

1371
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)
Involucrosocypha Raïtv. (10)
Jacobsonia Boedijn (1)
Lassertia Dennis (1)
Livia Velen. (1)
Masseea Sacc. (4)
Melanopeiza 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 Raïtv. (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)
Philopezis 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)
Psilotheicum 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)
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-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 Xylariales and four DNA loci. This study resulted in the segregation of the Xylariales 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 Lopadostomataceae also contains genera with similar ascospores that had previously been accommodated in the Xylariales 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 Xylariales 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 revisited 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 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 recognition 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 (Schulz 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).
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, Tórreulsa, 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 Chytridiopsidea inferred in the phylogenetic reconstructions. Here the order Chytridiopsidea 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 temporarily. 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 superphylum for this taxon. The superphylum Opisthosp ridia 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 Opisthosp ridia (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 Enteroxotocozoonidae 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 & Pérez (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, 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** Cav.-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)
- *Denticutata* 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)
- *Funnelformis* 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 asceptate 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 characteristic 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, sporangiotheca 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 originated 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 euakaryotic 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 Leotiomyces (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).

*Agryiaceae* Corda

Kraichak et al. (2018a) regarded that *Miltideaceae* Hafellner as a synonym of *Agryiaceae* (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).

**Anatoliniites** Elsik, V.S. Ediger & Bati (fossil)

Spores of *Anatoliniites* have a tendency to break apart along the septa. Kalgutkar & Jansonius (2000) considered *Cupulisporonites* Z.C. Song & Liu Cao a junior taxonomic synonym of *Anatoliniites* (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

Guswenirvo 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* A. 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).

**Asterinates** Doub. & D. Pons ex Kalgotkar & 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 Kalgotkar & Jansonius (2000) (R.K. Saxena).

**Asterothyrites** Cookson emend. Kalgotkar & Janson. (fossil)

The lectotype was selected by Jansonius & Hills (1976). Kalgotkar & Jansonius (2000) emended the generic diagnosis. *Paramicrothallites* K.P. Jain & R.C. Gupta is a junior taxonomic synonym of *Asterothyrites* (Kalgotkar & 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** Kalgotkar & Janson. (fossil)

Kalgotkar and Jansonius (2000) designated *Multicellaesporites indicus* P. Kumar (Now: *Axisporonites indicus* (P. Kumar) Kalgotkar & 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* Cavall.-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).

**Bipurisilontites** Kalgutkar & Janson. (fossil)

Spores in this genus can be differentiated from *Diporisporites* Hammén by having pore chambers. Kalgutkar & Jansonius (2000) designated *Diporicellaeosporites belluloides* Z.C. Song (Now: *Bipurisilontites 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. Pfiegl er & 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.

Kraičák 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. Kalgotkar & Jansonius (2000) considered *Pseudosphaerialites* Venkatach. & R.K. Kar and *Siwalikiahythrites* 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 *Debaryomyctaceae* 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 *Extremaeae* (Capnodiales, Dothideomycetes) distant from *Sporidesmiaceae* sensu stricto in *Sordariomycetes* (G. Delgado & S. Fryar).

**Catinaria** Vain.

Kistenich et al. (2018) transferred this genus from *Ramalinaeae* 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 (Kalugutkar & 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 Viniclores 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).

Cladoniaeae Zenker
   Kraichak et al. (2018a) revised Lecanoromycetes and showed that Squamarinaceae Hafellner, Stereocaulaceae Chevall are synonyms of Cladoniaeae 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 polyphylectic 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).
Craspedodimella 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).

Cryptodicus Corda
Pino-Bodas et al. (2017) regarded that Lettauia D. Hawksw. & R. Sant. as a synonym of Cryptodicus, 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).

Cucitiella 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 (Rêblová 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. Pfiegler 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)

Kalugutkar & 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 & Sochting

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*” *macropora* 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. & Loeq. are latter taxonomic synonyms of *Dyadosporites* (Kalugutkar & 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 *Mniaeciacaeae* 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 Spec.
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, *Pycnoporiaceae* 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 stauroporous 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 *Hemigrpha* (Müll. Arg.) D. Hawksw. (N. Wijayawardene).

**Hemiphtaciidae** 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 *Hemiphtaciidae* but truly is *Cenangiacae*. The clade named “*Cenangiacae*” 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 bulgaroides*, 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 *Hemiphtaciidae* (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 & Sochting

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 *Laboulbeniomyces*, 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 Meruliacae 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)

Hypoxylonsorites P. Kumar is a later taxonomic synonym of Hypoxylonites Elsik (Elsik 1990) (R.K. Saxena).

**Immothia** M.E. Barr

Hyde et al. (2017) accommodated Immothia in Rousoellaceae based on morphological characteristics resembling the genus Rousoella. However, phylogenetic affinity of the genus needs to be confirmed by molecular data (R. Phookamsak).

**Inapertisporites** Hammem (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 Hammem (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 Trimmatostruma. 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 *Paratrtrimmatostroma* 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 Lopearia 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, Helotiaaceae, 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).

**Mniaecia** Baral

Introduced in Johnston et al. (2019), elevating the *Mniaecia* lineage sensu Baral (2016) to family level. *Mniaecia* is sister to Leotiaceae within Leotiales (D. Haelewaters).

**Monoporisorites** Hammen (fossil)

*Polyporisorites* Hammen, *Psiammopomopiospora* Sal.-Cheb. & Locq. and *Reticulatisporonites* Elsik are later taxonomic synonyms of *Monoporisorites* 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 *Triporicellaeisporites multicellulus* Ke & Shi is a misfit in *Triporicellaeisporites* 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 tiorosporella-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), Subrahmanyam (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), Wanasisinghe 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** Elsi emend. P. Kumar (fossil)
Kumar (1990) emended the generic diagnosis. *Warkallisporonites* Ramanujam & K.P. Rao is a later taxonomic synonym of *Multicellaesporites* Elsi (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 *Sporocarpum pachydermum* Will. is a misfit in *Sporocarpum* 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. rufusica* (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), Amorphothecaceae consisting of Byssosascus, "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. tarracsonensis (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).

**Neomelanconiellaceae** 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).

**Neostagonosporella** C.L. Yang et al.
Yang et al. (2019) introduced a holomorph genus *Neostagonospora* 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).

**Oblongocollymyces** Tao Yang & Crous
This genus was introduced by Yang et al. (2017) to accommodate *Sphaeropsis variabilis* (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 zaleirion-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, multisepitate 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 hyalophae*, the type species of the genus, was retrieved near *Holwaya mucida* and its anamorph *Crinula caliciformis* in Johnston et al.’s (2019) ITS tree, as *Leotiomyces* genera incertae sedis. In their 15-gene tree, the *Holwaya–Crinula* clade was placed sister to *Thelebolales* (*Pseudeuropiaceae, 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 *Phacidiaeaceae* (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-rpb1-1ef1 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 *Tribliidiaceae*. 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 *Melanconiiellaceae*, 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. erythrosorus*, *P. galii*, *P. italicus*, *P. mathieu*, *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.

*Martamyces* was found to be polyphylectic 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 polyphylectic within *Sordariales* (Zhang et al. 2017), but its type species, *R. vesculosa* 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. stereoide Fr.*, and *Polyergus 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

*Rhamphoria* 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)

**Rhodoveryonaea** 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 characters 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 Elsk is a misfit in Lacrimasporonites Elsk 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).

Solanelia 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).

**Sporastiales** Lumbsch & Leavitt

Kraichak et al. (2018a) raised *Sporastatiaceae* to ordinal level as *Sporastiales* (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).

**Taenirolella** 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. Sujita).
**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).

**Triблиdiaceae** Rehm

*Triблиdiaceae* is considered a monophyletic family within *Rhytismatales*, including two genera, *Huangshania* and *Triблиdium*. The previous order *Triблиdiales* 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. *Trihyaепites* Peppers is a junior taxonomic synonym of *Tribolites* (R.K. Saxena).

**Trichомonascaceae** Kurtzman & Robnett

Family status expected to change upon resolving *Blastobotrys/Trichомonascus* (W.P. Pфliegler and E. Horvéth).

**Trichомonascus** H.S. Jackson emend. Kurtzman & Robnett

Expected transfer of species to *Blastobotrys* Klopotek to comply with the Melbourne Code (Kurtzman & Boekhout 2017) (W.P. Pfiegl& E. Horváth).

**Trichothyrites** Rosend. (fossil)

*Notothyrites* Cookson and *Sphaerialites* Venkatach. & R.K. Kar are later taxonomic synonyms of *Trichothyrites* (Kalгutkar & Jansonius 2000) (R.K. Saxena).

**Trihyphites** Kalгutkar & Janson. (fossil)

*Trihyaепites* *fractus* Z.C. Song & Liu Cao, in Song et al. (1989) belongs to *Trihyphites*. (R.K. Saxena).

**Triпориесporites** Ke & Shi (fossil)

The spores of two species of *Triпориесporites*, viz. *T. elongatus* P. Ke & Z.Y. Shi and *T. simplex* (Elsik & Janson.) Kalгутkar & 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. Groенew. & Crous, *Involutscutellula* U. Braun & C. Nakash., *Paratubakia* U. Braun & C. Nakash., *Racheliella* Crous & U. Braun, *Saprothyrium* U. Braun, Crous & J.Z. Groенew., *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. Actinogya (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).

Velebita I. Kušan et al.

Velebita was introduced in Phookamsak et al. (2019) to accommodate a single species, Velebita 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).

**Xanthoneutra** Lechat et al.

Lechat et al. (2016b) described the monotypic genus *Xanthoneutra* 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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