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Naming and outline of *Dothideomycetes*–2014 including proposals for the protection or suppression of generic names

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Abstract

Article 59.1, of the International Code of Nomenclature for Algae, Fungi, and Plants (ICN; Melbourne Code), which addresses the nomenclature of pleomorphic fungi, became effective from 30 July 2011. Since that date, each fungal species can have one nomenclaturally correct name in a particular classification. All other previously used names for this species will be considered as synonyms. The older generic epithet takes priority over the younger name. Any widely used younger names proposed for use, must comply with Art. 57.2 and their usage should be approved by the Nomenclature Committee for Fungi (NCF). In this paper, we list all genera currently accepted by us in *Dothideomycetes* (belonging to 23 orders and 110 families), including pleomorphic and nonpleomorphic genera. In the case of pleomorphic genera, we follow the rulings of the current ICN and propose single generic names for future usage. The taxonomic placements of 1261 genera are listed as an outline. Protected names and suppressed names for 34 pleomorphic genera are listed separately. Notes and justifications are provided for possible proposed names after the list of genera. Notes are also provided on recent advances in our understanding of asexual and sexual morph linkages in *Dothideomycetes*. A phylogenetic tree based on four gene analyses supported 23 orders and 75 families, while 35 families still lack molecular data.

Keywords

Article 59.1; Ascomycota; One name; Phylogeny; Pleomorphism

Introduction

Dothideomycetes is one of the largest and most significant classes within *Ascomycota* (Kirk et al. 2008; Schoch et al. 2009; Hyde et al. 2013). Thousands of species that are important either as plant pathogens in agriculture and forestry (Cortinas et al. 2006; Crous et al. 2007; Wikee et al. 2011, 2013a, b; Manamgoda et al. 2012), or medical (Siu and Lzumi 2004; da Cunha et al. 2012, 2013) or biotechnological industries (Verkley et al. 2004; Damm et al. 2008; de Wit et al. 2012; Ohm et al. 2012; Stergiopoulos et al. 2012; Hyde et al. 2014) are included in the *Dothideomycetes*. A large number of *Dothideomycetes* show pleomorphism, that is, they occur as sexual and asexual states through their life history, but may be separated in time and space (Kendrick 1979). As a result dual names have been applied to

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the same genus and this has resulted in a great deal of confusion among scientists interested in *Dothideomycetes* (Cannon and Kirk 2000; Wingfield et al. 2012). Furthermore, the dual names have a direct influence on many allied disciplines, such as plant quarantine and trade in food and fibre, human health, industrial mycology, and plant breeding. Saccardo (1904) promulgated the dual system of fungal nomenclature (i.e. asexual and sexual morphs with different names) as a solution to the confused situation of asexual and sexual morphs faced by taxonomists at the time. This was accepted by the International Botanical Congress (IBC) in Vienna, Austria (Briquet et al. 1906), and captured in what became Article 59 in more recent editions of the International Code of Botanical Nomenclature (ICBN) (Taylor 2011).

The concept of the 'holomorph' (i.e. the whole life cycle with sexual and asexual morphs) was first demonstrated by the Tulasne brothers and Berkeley (1857). Kendrick (1979) and Sivanesan (1984) are classic mycologists who attempted to integrate asexual and sexual morphs. Sutton (1980) also summarized established links between coelomycetous asexual states and their sexual states, while Seifert et al. (2011) did the same for hyphomycetous genera. Most of these established links were based on co-occurrence of both morphs on the same substrate (Walker and Sutton 1974) or culture-based methods, particularly the development of asexual morphs from single ascospore isolates (Leonard and Suggs 1974; Hyde et al. 1996). However, utilization of PCR and DNA sequencing in the fungi since the late-1990s (Nilsson et al. 2014), have established and confirmed many sexual and asexual links (e.g. *Alternaria-Lewia*, *Bipolaris-Cochliobolus*, *Botryosphaeria-Fusicoccum*, *Cladosporium-Davidiella*, *Mycosphaerella-Ramularia*, *Teratosphaeria-Kirramyces fide* Crous et al. 2009; Bensch et al. 2012; Manamgoda et al. 2012; Phillips et al. 2013; Hyde et al. 2014), while many other links have been rejected (e.g. *Cercospora-Mycosphaerella*, *Paraconiothyrium-Paraphaeosphaeria*, *Plenodomus-Leptosphaeria*, *Pseudocercospora-Mycosphaerella*, *Stagonospora-Phaeosphaeria fide* Crous et al. 2012; de Gruyter et al. 2013; Groenewald et al. 2013; Quaedvlieg et al. 2013, 2014; Verkley et al. 2014).

There has been considerable research interest in the molecular phylogeny of the *Dothideomycetes* in the last four years with studies based on single and multi-gene rDNA sequence data (Hyde et al. 2013). These phylogenetic advances have helped taxonomists to link species or generic names, enabling us to now propose or select one name for a single species, or genus. Decisions taken at the XVIIIth International Botanical Congress, in Melbourne, Australia in 2011 (Hawksworth 2012) ruled that separate nomenclatural status for naming of asexual and sexual names morphs of the same species was no longer permitted; this became effective from 30 July 2011 (Hawksworth 2012; Wingfield et al. 2012). Based on this ruling, mycologists now have the task to clear up the historical confusion that has resulted from the practice of dual nomenclature, and in this paper we deal with the largest group of ascomycetes, *Dothideomycetes*. We therefore propose a single name for pleomorphic dothideomycete genera to be added to the list of "accepted/protected names", while other names (sexual/asexual) will be included in a list of "suppressed names" (Table 1). At the same time, we incorporate all asexual genera into natural classification system where molecular data are available. Currently *Dothideomycetes* comprises of 23 orders, 110 families and 1261 genera. However, 23 orders and 76 families are supported by molecular data, while 36 families lack molecular data.

The draft of this manuscript with 71 initial authors from all disciplines interested in *Dothideomycetes* was first prepared and placed online on the International Commission on the Taxonomy of Fungi (ICTF) webpage (http://www.fungaltaxonomy.org/) on 20 February 2014. Comments were then invited from interested parties who were also invited to co-author the paper. A draft version was discussed at the "Genomes and Genera" symposium in Amsterdam on the 24–25 April 2014 and some of the more contentious cases in the Nomenclature Sessions during the 10th International Mycological Congress (IMC10) in Bangkok, Thailand, on 3–8 August 2014.

Materials and methods

The proposed names are based on Kirk et al. (2008, 2013), Lumbsch and Huhndorf (2010) and Hyde et al. (2013). The links between asexual and sexual morphs take into account the important publications of Kendrick (1979), Sivanesan (1984), Sutton (1980), Seifert et al. (2011), Hyde et al. (2011), Wijayawardene et al. (2012) and other recent research based on culture and molecular phylogeny (e.g. Crous et al. 2009, 2013; de Gruyter et al. 2013; Boonmee et al. 2012, 2014b; Chomnunti et al. 2011; Liu et al. 2011; Manamgoda et al. 2012; Phillips et al. 2013; Wijayawardene et al. 2014a, b, c).

Proposed names are selected depending on the following criteria:

1. The evidence for established links
    a. Culture-based (e.g. single-spore) methods
    b. Molecular methods
2. Number of epithets in Index Fungorum and MycoBank
3. The oldest generic name
4. Other significant aspects, such as pathogenic importance and industrial applications
5. Usage of the name in literature and databases

The oldest name is accepted where it conforms best with current practice, while usage of a widely used name is proposed when this is more significant. Proposed names (protected names) are listed in the first column (Table 1) of the table and second column comprises suppressed names. The suppressed name could be a sexual, asexual or a synasexual morph. Asterisk marks (*) are added for genera which we provide notes on recent changes and naming. Genera marked with (#) refer to changes made via articles in the same journal volume and annotated under the family or order (i.e. Ariyawansa et al. 2014c; Boonmee et al. 2014b; Hongsanan et al. 2014c; Thambugala et al. 2014c; Phookamsak et al. 2014). In the present outline, we have added (**C**) = coelomycetous and (**H**) = hyphomycetous asexual genera against entries where known.

In giving preference here to the earliest validly published generic name regardless of the morph represented by the type specimen of the type species of the genus, we are aware that Art. 57.2 of the current Code (McNeill et al. 2012) requires that in cases where a well-

established asexually typified name is preferred, there should first be a formal proposal made to the Nomenclature Committee for Fungi (NCF). We regard this is an unnecessarily time-consuming process, and proposals to delete this provision were strongly supported in the Nomenclature Sessions at IMC10 and will be made to the next International Botanical Congress in 2017. Inclusion in Lists of Accepted Names which are approved in due course by the NCF is a preferable way to handle such cases, and for *Dothideomycetes*, this article will be the basis of the eventual list for this class.

Phylogenetic analyses

Sequences (Table 1) were obtained from GenBank following Hyde et al. (2013) and other recent publications (eg. Crous et al. 2013; Phillips et al. 2013; Quaedvlieg et al. 2013, 2014; Slippers et al. 2013; Wijayawardene et al. 2013, 2014a, b, c; Pérez-Ortega et al. 2014). DNA sequences for each gene region (small subunits ribosomal RNA (SSU), large subunits ribosomal RNA (LSU), the translation elongation factor-1 alpha (TEF1) and the second largest subunit of RNA polymerase II (RPB2) were initially aligned using Bioedit (Hall 2004) and ClustalW v. 1.6 (Thompson et al. 1997). Alignments were manually checked and optimized wherever necessary. The dataset was refined visually in BioEdit v. 7.0.1 (Hall 2004). All absent genes were coded as missing data.

The phylogenetic analyses of the combined LSU, SSU, TEF1 and RPB2 data were performed using maximum likelihood, Bayesian and maximum parsimony algorithms.

Maximum likelihood (ML) analysis was performed at the RAxML 7.2.8 as part of the “RAxML-HPC2 on TG” tool (Stamatakis 2006) implemented in raxmlGUI v.0.9b2 (Silvestro and Michalak 2010). A general time reversible model (GTR) was applied with a discrete gamma distribution and four rate classes. Hundred thorough maximum likelihood (ML) tree searches were done in RAxML v. 7.2.7 under the same model. Maximum likelihood bootstrap values (MLBP) equal or greater than 50 % are given above each node (Fig. 1).

Maximum-parsimony analyses were performed by PAUP v. 4.0b10 (Swofford 2002) using the heuristic search option with 1,000 random taxa addition and tree bisection and reconnection (TBR) as the branch swapping algorithm. All characters were unordered and of equal weight and gaps were treated as missing data. The Tree Length (TL), Consistency Indices (CI), Retention Indices (RI), Rescaled Consistency Indices (RC) and Homoplasy Index (HI) were calculated for each tree generated. Maxtrees were unlimited, branches of zero length were collapsed and all multiple, equally parsimonious trees were saved. Clade stability was assessed using a bootstrap (BT) analysis with 1,000 replicates, each with 10 replicates of random stepwise addition of taxa (Hillis and Bull 1993). Maximum parsimony bootstrap values (MPBP) equal or greater than 50% are given above each node (Fig. 1).

The model of evolution was estimated by using MrModeltest 2.2 (Nylander 2004). Independent Bayesian phylogenetic analyses were performed in MrBayes v. 3.1.2 (Huelsenbeck and Ronquist 2001) using a uniform [GTR+I+G] model, lsetnst=6 rates=invgamma; prsetstatefreqpr =dirichlet (1,1,1,1). Posterior probabilities (PP) (Rannala

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and Yang 1996; Zhaxybayeva and Gogarten 2002) were determined by Markov Chain Monte Carlo sampling (BMCMC) in MrBayes v. 3.0b4 (Huelsenbeck and Ronquist 2001). Six simultaneous Markov chains were run for 10,000,000 generations and trees were sampled every 100th generation (resulting in 10,000 total trees).

Phylogenetic trees were visualized with Treeview v. 1.6.6 (Page 1996) and MEGA 5 (Tamura et al. 2011).

Results

Phylogenetic analyses

The combined LSU, SSU, TEF1 and RPB2 data set consists of 415 taxa, with *Schismatomma dirinellum* (S-F206034) and *S. decolorans* (DUKE 47570) which representing the outgroup taxa. The dataset consists of 4,302 characters after alignment, 1,496 characters are conserved, and 2,228 characters are parsimony informative, while 2,767 are variable characters. A heuristic search with random addition of taxa (1,000 replicates) and treating gaps as missing characters generated six equally parsimonious trees. The best scoring RAxML trees are shown in Fig. 1. Bootstrap support (BS) values of MP and ML (equal to or above 50 %) and Bayesian Posterior Probabilities (BYPP) with those equal or greater than 0.90 given below each node are shown on the upper branches.

Twenty-three orders (*Abrothallales*, *Acrospermales*, *Asterinales*, *Botryosphaeriales*, *Dothideales*, *Dyfrolomycetales*, *Capnodiales*, *Hysteriales*, *Jahnulales*, *Lichenoconiales*, *Lichenotheliales*, *Microthyriales*, *Monoblastiales*, *Mytilinidiales*, *Myriangiales*, *Natipusillales*, *Patellariales*, *Phaeotrichales*, *Pleosporales*, *Strigulales*, *Trypetheliales*, *Tubeufiales* and *Venturiales*) are recognized. This agrees with Hyde et al. (2013) and Pérez-Ortega et al. (2014), the latter who introduced *Abrothallales*. In their analyses, Pérez-Ortega et al. (2014) showed *Abrothallales* grouped with *Patellariales* however, in our analyses *Abrothallales* groups with *Asterinales* and *Lichenoconiales*. Recently introduced families by Slippers et al. (2013) *viz. Aplosporellaceae* Slippers et al., *Melanopsaceae* Phillips et al. and *Saccharataceae* Slippers et al. clustered within *Botryosphaeriales* with high bootstrap values. *Aureobasidiaceae* Thambugala & K.D. Hyde grouped as a distinct clade in *Dothideales* (Thambugala et al. 2014a). New clades appeared for *Camarosporium sensu stricto* (*Camarosporiaceae fide* Wijayawardene et al. in prep.) and *Homortomyces* with low and high bootstrap values respectively. *Wiesneriomycetaceae* grouped as a sister clade to *Tubeufiaceae* and this agrees with Suetrong et al. (2014). *Extremaceae* and *Neodevriesiaceae* appeared as new distinct clades in *Capnodiales* as shown by Quaedvlieg et al. (2014). However, *Teratosphaeriaceae* separated into two distinct clades (Fig. 1) which does not agree with Quaedvlieg et al. (2014).

Outline of the *Dothideomycetes*

Class *Dothideomycetes sensu* O.E. Erikss. & Winka

Subclass *Dothideomycetidae* P.M. Kirk et al. ex C.L. Schoch et al.

Asterinales M.E. Barr ex D. Hawksw. & O.E. Erikss.*

Asterinaceae Hansf. (=*Lembosiaceae* Hosag.)*

Asterina Lév.*

Asterinella Theiss.#

Asterotexis Arx#

Batistinula Arx#

Cirsosia G. Arnaud#

Echidnodella Theiss. & Syd.#

Halbania Racib.#

Lembosia Lév.*

Meliolaster Höhn.#

Parasterinopsis Bat.#

Platypeltella Petr.*

Prillieuxina G. Arnaud* (see in Table 1)

Schenckiella Henn.*

Trichasterina G. Arnaud#

Trichopeltospora Bat. & Cif.*

Uleothyrium Petr.#

Vizellopsis Bat. et al.*

#for notes see under *Asterinaceae*

Capnodiales Woron.

Antennulariellaceae Woron.

Achaetobotrys Bat. & Cif.*

Antennulariella Woron.* (see Table 1)

Capnofrasera S. Hughes

Capnodiaceae (Sacc.) Höhn. ex Theiss.

Capnodium Mont.* (see in Table 1)

Leptoxyphium Speg.

Phragmocapnias Theiss. & Syd.* (see in Table 1)

?*Plurispermiopsis* Pereira-Carv. et al.*

Scoriadopsis J.M. Mend.

Scorias Fr.

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Cladosporiaceae Nann.

Acroconidiella J.C. Lindq. & Alippi (**H**)

Cladosporium Link (**H**)* (see in Table 1)

Graphiopsis Trail (**H**)

Hoornsmania Crous (**H**)

Rachicladosporium Crous et al. (**H**)

Toxicocladosporium Crous & U. Braun (**H**)

Verrucocladosporium K. Schub. et al. (**H**)

Dissoconiaceae Crous & de Hoog*

Dissoconium de Hoog et al. (**H**)

Pseudoveronaea Crous & Batzer*

Ramichloridium Stahel (**H**)*

Uwebraunia Crous & M.J. Wingf. (**H**)*

Metacapnodiaceae S. Hughes & Corlett

Capnobotrys S. Hughes (**H**)

Capnophialophora S. Hughes (**H**)

Hyphosoma Syd.

Metacapnodium Speg.*

Extremaceae Quaedvlieg & Crous*

Extremus Quaedvlieg & Crous (**H**)*

Petrophila de Hoog & Quaedvlieg (**H**)*

Pseudoramichloridium Cheewangkoon & Crous (**H**)*

Staninwardia B. Sutton (**C**)*

Vermiconia Egidi & Onofri (**H**)*

Mycosphaerellaceae Lindau

Acervuloseptoria Crous & Jol. Roux (**C**)*

Achorodothis Syd.

Amycosphaerella Quaedvlieg & Crous*

Annellosympodiella Crous & Assefa*

Asperisporium Maubl. (**H**)

Brunneosphaerella Crous

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Bryopelta Döbbeler & Poelt*

Caryophylloseptoria Verkley et al. (**C**)*

Cercospora Fresen. (**H**)*

Cercosporella Sacc. (**H**)

Colletogloeum Petr. (**C**)*

Distocercospora N. Pons & B. Sutton (**H**)

Dothistroma Hulbary (**C**)

Euryachora Fuckel

Gillotia Sacc. & Trotter

Lecanosticta Syd. (**C**)* (see in Table 1)

Lembosiopsis Theiss.*

Lophiosphaerella Hara*

Melanodothis R.H. Arnold

Microcyclosporella J. Frank et al. (**H**)

Mycoporis Clem.*

Neoceratosperma Crous & Cheew. (**H**)*

Neomycosphaerella Crous*

Neopenidiella Quaedvlieg & Crous (**H**)*

Neopseudocercospora Crous (**H**)*

Neoseptoria Quaedvlieg et al. (**C**)*

Pallidocercospora Crous (**H**)

Paracercospora Deighton (**H**)*

Paramycosphaerella Crous & Jol. Roux*

Passalora Fr. (**H**)

Periconiella Sacc. (**H**)

Phaeocercospora Crous (**H**)

Phaeophleospora Rangel (**C**)*

Phloeospora Wallr. (**C**)*

Placocrea Syd.

Polyphialoseptoria Quaedvlieg et al. (**C**)*

Polysporella Woron.

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Polythrincium Kunze (**H**)* (see in Table 1)

Pseudocercospora Speg. (**H**)*

Pseudocercosporella Deighton (**H**)

Pseudostigmidium Etayo

Ramularia Unger (**H**)* (see in Table 1)

Ramulispora Miura (**H**)

Ruptoseptoria Quaedvlieg et al. (**C**)*

Scolecostigmina U. Braun

Septoria Sacc. (**C**)*

Sonderhenia H.J. Swart & J. Walker (**C**)

Sphaerellothecium Zopf

Sphaerulina Sacc.*

Stigmidium Trevis.

Stromatoseptoria Quaedvlieg et al. (**C**)*

Trochophora R.T. Moore (**H**)

? *Wernerella* Nav.-Ros. et al.

Xenomycosphaerella Quaedvlieg & Crous*

Zasmidium Fr. (**H**)*

Zymoseptoria Quaedvlieg & Crous (**C**)*

Neodevriesiaceae Quaedvlieg & Crous*

Neodevriesia Quaedvlieg & Crous (**H**)*

Piedraiaceae Viégas ex Cif. et al.

Piedraia Fonseca & Leão

Teratosphaeriaceae Crous & U. Braun

Acidomyces B.J. Baker et al. (**H**)

Apenidiella Quaedvlieg & Crous (**H**)*

Aulographina Arx & E. Müll.*

Austroafricana Quaedvlieg & Crous*

Batcheloromyces Marasas et al. (**H**)

Baudoinia J.A. Scott & Unter. (**H**)

Capnobotryella Sugiy. (**H**)

Catenulostroma Crous & U. Braun (**H**)

Constantinomyces Egidi & Onofri (**H**)*

Devriesia Seifert & N.L. Nick. (**H**)

Elasticomyces Zucconi & Selbmann (**H**)

Eupenidiella Quaedvlieg & Crous (**H**)*

Euteratosphaeria Quaedvlieg & Crous*

Friedmanniomyces Onofri (**H**)

Hispidoconidioma Tsuneda & Davey (**H**)

Hortaea Nishim. & Miyaji (**H**)

Incertomyces Egidi & Zucconi (**H**)*

Lapidomyces de Hoog & Stielow (**H**)*

Meristemomyces Isola & Onofri (**H**)*

Microcyclospora J. Frank et al. (**H**)

Monticola Selbmann & Egidi (**H**)*

Mycophycias Kohlm. & Volkm.-Kohlm

Myrtapenidiella Quaedvlieg & Crous (**H**)*

Neocatenulostroma Quaedvlieg & Crous (**H**)*

Neophaeothecoidea Quaedvlieg & Crous (**H**)*

Neotrimmatostroma Quaedvlieg & Crous*

Oleoguttula Selbmann & de Hoog (**H**)*

Pachysacca Syd.*

Parapenidiella Crous & Summerell (**H**)

Parateratosphaeria Quaedvlieg & Crous*

Penidiella Crous & U. Braun (**H**)

Phacellium Bonord. (**H**)

Phaeothecoidea Crous (**H**)

Pseudotaeniolina J.L. Crane & Schokn. (**H**)

Pseudoteratosphaeria Quaedvlieg & Crous*

Queenslandipenidiella Quaedvlieg & Crous (**H**)*

Ramopenidiella Crous & R.G. Shivas (**H**)*

Readeriella Syd. & P. Syd. (**C**)*

Recurvomyces Selbmann & de Hoog (**H**)

Stenella Syd. (**H**)

Suberoteratosphaeria Quaedvlieg & Crous*

Teratosphaeria Syd. & P. Syd.* (see in Table 1)

Teratosphaericola Quaedvlieg & Crous*

Teratosphaeriopsis Quaedvlieg & Crous*

Xenoconiothyrium Crous & Marinc. (**C**)

Xenopenidiella Quaedvlieg & Crous (**H**)*

Xenoteratosphaeria Quaedvlieg & Crous*

Capnodiales, genera *incertae sedis*

Arthrocatena Egidi & Selbmann*

Catenulomyces Egidi & de Hoog (**H**)*

Cystocoleus Thwaites*

?*Eriosporella* Höhn. (**C**)*

Hyphoconis Egidi & Quaedvlieg (**H**)*

Mucomycosphaerella Quaedvlieg & Crous*

Neohortaea Quaedvlieg & Crous (**H**)*

Perusta Egidi & Stielow*

Ramimonilia Stielow & Quaedvlieg (**H**)*

Dothideales Lindau*

Aureobasidiaceae K.M. Thambugala & K.D. Hyde*

Aureobasidium Viala & G. Boyer (**H**)#

Columnosphaeria Munk#

Kabatiella Bubák (**H**)#

Pseudoseptoria Speg.#

Pseudosydowia K.M. Thambugala & K.D. Hyde*

Saccothecium Fr.#

Selenophoma Maire (**C**)*

for notes see under *Aureobasidiaceae*

Dothideaceae Chevall.*

Coleophoma Höhn. (**C**)#

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Cylindroseptoria Quaedvlieg et al. (**C**)[#]

Delphinella (Sacc.) Kuntze[#]

Dictyodothis Theiss. & Syd.[#]

Dothidea Fr.[#]

Dothiora Fr.[#]

Endoconidioma Tsuneda et al.[#]

Endodothiora Petr.[#]

Hormonema Lagerb. & Melin (**H**)*

Kabatina R. Schneid. & Arx (**H**)[#]

Neocylindroseptoria K.M. Thambugala & K.D. Hyde*

Phaeocryptopus Naumov[#]

Plowrightia Sacc.[#]

?*Pringsheimia* Schulzer*

Stylodothis Arx & E. Müll.[#]

?*Sydowia* Bres.*

[#] for notes see under *Dothideaceae*

Dothideales, genera *incertae sedis*

Celosporium Tsuneda & M.L. Davey*

Lichenoconiales Diederich et al.

Lichenoconiaceae Diederich & Lawrey

Lichenoconium Petr. & Syd. (**C**)

Lichenotheliales K. Knudsen et al.

Lichenotheliaceae Henssen

Karschia Körb.*

Lichenostigma Hafellner

Lichenothelia D. Hawksw.

Myriangiales Starbäck

Elsinoaceae Höhn. ex Sacc. & Trotter*

Elsinoë Racib.* (see in Table 1)

Molleriella G. Winter*

Myriangiaceae Nyl.*

Anhellia Racib.*

Ascostratum Syd. & P. Syd.*

Butleria Sacc.*

Dictyocyclus Sivan. et al.*

Diplotheca C.C. Gordon & C.G. Shaw*

Eurytheca De Seynes*

Hemimyriangium J. Reid & Piroz*

Micularia Boedijn*

Myriangium Mont. & Berk.*

Zukaliopsis Henn.*

Subclass *Pleosporomycetidae* C.L. Schoch et al.

Pleosporales Luttrell ex M.E. Barr

Aigialaceae Suetrong et al.

Aigialus S. Schatz & Kohlm.

Ascocratera Kohlm.

Fissuroma J.K. Liu et al.

Neoastrosphaeriella J.K. Liu et al.

Rimora Kohlm. et al.

Amniculicolaceae Yin. Zhang et al.

?*Amniculicola* Y. Zhang & K.D. Hyde*

?*Anguillospora* Ingold (**H**)*

Murispora Y. Zhang bis et al.

Neomassariosphaeria Y. Zhang bis et al.

Anteagloniaceae K.D. Hyde et al.

Anteaglonium Mugambi & Huhndorf

Bambusicolaceae D.Q. Dai & K.D. Hyde

Bambusicola D.Q. Dai & K.D. Hyde

Biatriosporaceae K.D. Hyde

Biatriospora K.D. Hyde & Borse

Coniothyriaceae W.B. Cooke

Coniothyrium Corda (**C**)*

Camarosporaceae Wijayawardene & K.D. Hyde*

Camarosporium Schulzer (**C**)*

Corynesporascaceae Sivan.

Corynespora Güssow (**H**)*

Corynesporasca Sivan.

Cucurbitariaceae G. Winter

Cucurbidothis Petr.*

Cucurbitaria Gray*

Curreya Sacc.

Pyrenochaeta De Not. (**C**)*

Pyrenochaetopsis Gruyter et al. (**C**)

Rhytidiella Zalasky

Syncarpella Theiss. & Syd.*

Delitschiaceae M.E. Barr

Delitschia Auersw.

Ohleriella Earle

Semidelitschia Cain & LuckAllen

Diademaceae Shoemaker & C.E. Babc.

Comoclathris Clem.

Diadema Shoemaker & C.E. Babc.

Diademosa Shoemaker & C.E. Babc.

Didymellaceae Gruyter et al.

Ascochyta Lib. (**C**)*

Boeremia Aveskamp et al. (**C**)

Chaetasbolisia Speg. (**C**)

Dactuliochaeta G.L. Hartm. & J.B. Sinclair (**C**)

Didymella Sacc.*

Epicoccum Link (**H**)

Leptosphaerulina McAlpine*

Macroventuria Aa

Microsphaeropsis Höhn. (**C**)

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Mixtura O.E. Erikss. & J.Z. Yue*

Monascostroma Höhn.

Phoma Sacc. (**C**)*

Piggotia Berk. & Broome (**C**)

Pithomyces Berk. & Broome (**H**)*

Didymosphaeriaceae Munk (=*Montagnulaceae*)*

Alloconiothyrium Verkley & Stielow (**C**)[#]

Barria Z.Q. Yuan*

Bimuria D. Hawksw. et al.[#]

Deniquelata Ariyawansa & K.D. Hyde[#]

Didymocrea Kowalski[#]

Didymosphaeria Fuckel[#]

Julella Fabre*

Kalmusia Niessl[#]

Karstenula Speg.[#]

Letendraea Sacc.*

Montagnula Berl.[#]

Neokalmusia Kaz. Tanaka et al.*

Paracamarosporium Wijayawardene & K.D. Hyde (**C**)*

Paraconiothyrium Verkley (**C**)*

Paraphaeosphaeria O.E. Erikss.*

Phaeodothis Syd. & P. Syd.[#]

Pseudocamarosporium Wijayawardene & K.D. Hyde (**C**)*

Pseudotrichia Kirschst.*

*Trematei*a Kohlm. et al.[#]

[#] for notes see under *Didymosphaeriaceae*

Dothidotthiaceae Crous & A.J.L. Phillips

Dothidotthia Höhn.

Muellerites L. Holm*

Thyrostroma Höhn. (**H**)*

Halojulellaceae Suetrong et al.

Halojulella Suetrong et al.

Halotthiaceae Ying Zhang et al.

Halotthia Kohlm.

Mauritiana Poonyth et al.

Phaeoseptum Ying Zhang et al.

Pontoporeia Kohlm.

Hypsostromataceae Huhndorf

Hypsostroma Huhndorf

Lentitheciaceae Y. Zhang ter et al.

Katumotoa Kaz. Tanaka & Y. Harada

Lentithecium K.D. Hyde et al.

Setoseptoria Quaedvlieg et al. (**C**)

Tingoldiago K. Hiray. & Kaz. Tanaka

Leptosphaeriaceae M.E. Barr

Acicuseptoria W. Quaedvlieg et al. (**C**)*

Alternariaster E.G. Simmons*

Chaetoplea (Sacc.) Clem.*

Heterospora (Boerema et al.) Gruyter et al.*

Leptosphaeria Ces. & De Not.*

Neophaeosphaeria M.P.S. Câmara

Paraleptosphaeria Gruyter et al.

Plenodomus Preuss (**C**)*

Subplenodomus Gruyter et al. (**C**)*

Lindgomycetaceae K. Hiray. et al.

Clohesyomyces K.D. Hyde

Hongkongmyces Tsang et al.*

Lindgomyces K. Hiray. et al.

Lolia Abdel-Aziz & Abdel-Whab (**C**)

Lophiostomataceae Sacc.

Dimorphiopsis Crous (**C**)*

Lophiostoma Ces. & De Not.

Macrodiplodiopsis Petr.* (see in Table 1)

Tumularia Descals & Marvanová (**H**)

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Lophiotremataceae K. Hiray. & Kaz.

Lophiotrema Sacc.

Massariaceae Nitschke

Massaria De Not.

Massarinaceae Munk

Massarina Sacc.

Stagonospora (Sacc.) Sacc. (**C**)*

Melanommataceae G. Winter

Aposphaeria Sacc. (**C**)*

Asymmetricospora J. Fröhl. & K.D. Hyde

Bertiella (Sacc.) Sacc. & P. Syd.

Beverwykella Tubaki (**H**)

Bicrouania Kohlm. & Volkm.-Kohlm.

Byssosphaeria Cooke

Calyptronectria Speg.

Caryosporella Kohlm.

Exosporiella P. Karst. (**H**)* (see in Table 1)

Herpotrichia Fuckel

Mamillisphaeria K.D. Hyde et al.

Melanomma Nitschke ex Fuckel

Mycopappus Redhead & G.P. White (**H**)*

Navicella Fabre*

Nigrolentilocus R.F. Castañeda & Heredia

Ohleria Fuckel

Sporidesmiella P.M. Kirk (**H**)

Xenostigmina Crous (**H**)*

Morosphaeriaceae Suetrong et al.

Helicascus Kohlm.

Morosphaeria Suetrong et al.

Phaeosphaeriaceae M.E. Barr*

Amarenographium O.E. Erikss. (**C**)[#]

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Amarenomyces O.E. Erikss.[#]

Ampelomyces Ces. ex Schltdl. (**C**)[#]

Bricookea M.E. Barr[#]

Chaetosphaeronema Moesz (**C**)[#]

Dematiopleospora Wanasinghe et al.*

Dothideopsella Höhn.*

Entodesmium Riess[#]

Eudarluca Speg.[#]

Loratospora Kohlm. & Volkm.-Kohlm.[#]

Neosetophoma Gruyter et al. (**C**)[#]

Neostagonospora Quaedvlieg et al. (**C**)[#]

Nodulosphaeria Rabenh[#]

Ophiobolus Riess[#]

Ophiosphaerella Speg.*

Paraphoma Morgan-Jones & J.F. White (**C**)[#]

Parastagonospora Quaedvlieg et al. (**C**)[#]

Phaeosphaeria I. Miyake* (see in Table 1)

Phaeosphaeriopsis M.P.S. Câmara et al.[#]

Phaeostagonospora A.W. Ramaley (**C**)[#]

Sclerostagonospora Höhn. (**C**)[#]

Scolecosporiella Petr. (**C**)#

?*Scolicosporium* Lib. ex Roum. (**C**)*

?*Septoriella* Oudem. (**C**)[#]

Setomelanomma M. Morelet[#]

Setophoma Gruyter et al. (**C**)[#]

Tiarospora Sacc. & Marchal (**C**)[#]

Vrystaatia Quaedvlieg et al. (**C**)[#]

Wojnowicia Sacc. (**C**)*

Xenoseptoria Quaedvlieg et al. (**C**)[#]

[#] for notes see under Pahaeosphaeriaceae

Platystomaceae J. Schröt.

Ostropella (Sacc.) Höhn.

Platystomum Trevis.

Xenolophium Syd.

Pleomassariaceae M.E. Barr

Lichenopyrenis Calat. et al.

Peridiothelia D. Hawksw.

Prosthemium Kunze (**C**)* (see in Table 1)

Splanchnonema Corda

Pleosporaceae Nitschke

Alternaria Nees (**H**)* (see in Table 1)

Bipolaris Shoemaker (**H**)* (see in Table 1)

Clathrospora Rabenh.

Curvularia Boedijn (**H**)* (see in Table 1)

Decorospora Inderb. et al.

Dendryphion Wallr. (**H**)

Edenia M.C. González et al. (**H**)

Exserohilum K.J. Leonard & Suggs (**H**)* (see in Table 1)

Extrawettsteinina M.E. Barr

Marielliottia Shoemaker (**H**)

Neocamarosporium Crous & M.J. Wingf. (**C**)*

Paradendryphiella Woudenberg & Crous (**H**)*

Pleoseptum A.W. Ramaley & M.E. Barr*

Platysporoides (Wehm.) Shoemaker & C.E. Babc.

Pseudoyuconia Lar. N. Vassiljeva

Pyrenophora Fr.* (see in Table 1)

Stemphylium Wallr. (**H**)* (see in Table 1)

Salsugineaceae K.D. Hyde & S. Tibpromma

Acrocordiopsis Borse & K.D. Hyde

Salsuginea K.D. Hyde

Shiraiaceae Y.X. Liu et al.

Grandigallia M.E. Barr et al.*

Shiraia Henn.

Sporormiaceae Munk

Chaetopreussia Locq.-Lin.

Pleophragmia Fuckel

Preussia Fuckel

Sporormia De Not.

Westerdykella Stolk

Teichosporaceae M.E. Barr

Chaetomastia (Sacc.) Berl

Loculohypoxylon M.E. Barr

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

Teichospora Fuckel

Testudinaceae Arx

Tetraplosphaeriaceae Kaz. Tanaka & K. Hiray.

Polyplosphaeria Kaz. et al.

Pseudotetraploa Kaz. et al. (**H**)

Quadricrura Kaz. et al. (**H**)

Tetraploa Berk. & Broome (**H**)* (see in Table 1)

Triplosphaeria Kaz. et al.

Thyridariaceae Q. Tian & K.D. Hyde

Thyridaria Sacc.*

Trematosphaeriaceae K.D. Hyde et al.

Bryosphaeria Döbbeler*

Falciformispora K.D. Hyde

Hadrospora Boise*

Halomassarina Suetrong et al.

Medicopsis Gruyter et al. (**C**)*

Trematosphaeria Fuckel

Zopfiaceae G. Arnaud ex D. Hawksw.

Caryospora De Not.

Coronopapilla Kohlm. & Volkm.-Kohlm.

Rechingeriella Petr.

Richonia Boud.

Zopfia Rabenh.

Zopfiofoveola D. Hawksw.

Pleosporales, genera *incertae sedis*

Acrocalymma Alcorn & J.A.G. Irwin (**C**)*

Ascorhombispora L. Cai & K.D. Hyde

Aquasubmersa K.D. Hyde & Huang Zhang

Ascoronospora Matsush.*

Atradidymella M.L. Davey & Currah

Bahusandhika Subram.

Bellojisia Réblová

Berkleasmium Zobel (**H**)

Briansuttonia R.F. Castañeda et al. (**H**)

Cerebella Ces. (**H**)

Cheiromoniliophora Tzean & J.L. Chen (**H**)

Cyclothyrium Petr. (**C**)*

Dangeardiella Sacc. & P. Syd.

Dendryphiella Bubák & Ranoj.(**H**)

Dictyosporium Corda (**H**)

Didymosphaerella Cooke

Digitodesmium P.M. Kirk (**H**)

Diplococcium Grove (**H**)

Ellisembia Subram. (**H**)

Eremodothis Arx

Faurelina Locq.-Lin.

Fusculina Crous & Summerell (**C**)

Glaxoa P.F. Cannon*

Gordonomyces Crous & Marinc. (**C**)

Margaretbarromyces Mindell et al.

Massariosphaeria (E. Müll.) Crivelli

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Mycocentrospora Deighton (**H**)

Neopeckia Sacc.

Nigrograna Gruyter et al. (**C**)*

Noosia Crous et al. (**H**)

Ochrocladosporium Crous & U. Braun (**H**)

Periconia Tode (**H**)

Phaeomycocentrospora Crous et al.

Pleosphaerellula Naumov & Czerepan.

Polyschema H.P. Upadhyay (**H**)

Pseudochaetosphaeronema Punith. (**C**)

Pseudopassalora Crous (**H**)

Pseudopyrenidium Nav.-Ros. et al.

Rebentischia P. Karst.*

Repetophragma Subram. (**H**)

?*Scleroramularia* Batzer & Crous (**H**)

Setophaeosphaeria Crous & Y. Zhang ter*

Sirodesmium De Not. (**C**)

Spiroplana Voglmayr et al. (**H**)

Trinosporium Crous & Decock

Versicolorisporium Sat. Hatak. et al. (**C**)

Wicklowia Raja et al.

Xenobotryosphaeria Quaedvlieg et al.*

Dothideomycetes, orders *incertae sedis*

Abrothallales Pérez-Ortega & Suija*

Abrothallaceae Pérez-Ortega & Suija*

Abrothallus De Not.*

Botryosphaeriales C.L. Schoch et al.

Aplosporellaceae Slippers et al.*

Aplosporella Speg. (**C**)*

Bagnisiella Speg.*

Botryosphaeriaceae Theiss. & Syd.

Alanphillipsia Crous & M.J. Wingf.*

Auerswaldia Sacc.

Auerswaldiella Theiss. & Syd.

Barriopsis A.J.L. Phillips et al. (**C**)

Botryobambusa Phook. et al.

Botryosphaeria Ces. & De Not.* (see in Table 1)

Coccostromella Petr.*

Cophinforma Doilom et al.

Dichomera Cooke (**C**)

Diplodia Fr. (**C**)*

Dothiorella Sacc. (**C**)

Endomelanconiopsis E.I. Rojas & Samuels

Lasiodiplodia Ellis & Everh. (**C**)

Macrophomina Petr. (**C**)

Macrovalsaria Petr.

Metameris Theiss. & Syd.*

Microdiplodia Allesch. (**C**)

Neodeightonia C. Booth

Neofusicoccum Crous et al. (**C**)

Neoscytalidium Crous & Slippers (**H**)

Phaeobotryon Theiss. & Syd.

Phyllachorella Syd.

Pyrenostigme Syd.

Septorioides Quaedvlieg et al.*

Sivanesania W.H. Hsieh & Chi Y. Chen

Sphaeropsis Sacc. (**C**)* (see in Table 1)

Spencermartinsia A.J.L. Phillips et al.

Tiarosporella Höhn.

Vestergrenia Rehm

Melanopsaceae Phillips et al.*

Melanops Nitschke ex Fuckel

Phyllostictaceae Fr.

Leptoguignardia E. Müll.

Phyllosticta Pers. (**C**)* (see in Table 1)

Pseudofusicoccum Mohali et al. (**C**)*

Planistromellaceae M.E. Barr

Kellermania Ellis & Everh. (**C**)* (see in Table 1)

Mycosphaerellopsis Höhn.

Planistroma A.W. Ramaley*

Saccharataceae Slippers et al. *

Saccharata Denman & Crous

Botryosphaeriales, genera *incertae sedis*

Hendersonula Speg. (**C**)

Acrospermales Minter et al.

Acrospermaceae Fuckel

Acrospermum Tode*

Gonatophragmium Deighton (**H**)

Oomyces Berk. & Broome

Dyfrolomycetales K.L. Pang et al.

Dyfrolomycetaceae K.D. Hyde et al.

Dyfrolomyces K.D. Hyde et al.

Hysteriales Lindau

Hysteriaceae Chevall.

Actidiographium Lar. N. Vassiljeva

Coniosporium Link (**H**)

Gloniella Sacc.

Gloniopsis De Not.

Hysterium Pers.

Hysterobrevium E. Boehm & C.L. Schoch (**C**)

Hysterocarina H. Zogg

Hysteropycnis Hilitzer

Oedohysterium E. Boehm & C.L. Schoch*

Ostreichnion Duby

Psiloglonium Höhn.

Rhytidhysteron Speg.

Sphaeronaema Fr.

Jahnulales Pang et al.

Aliquandostipitaceae Inderbitzin

Aliquandostipite Inderb.

Brachiosphaera Nawawi (**H**)

Jahnula Kirschst.*

Megalohypha A. Ferrer & Shearer

Speiropsis Tubaki

Xylomyces Goos et al.

Manglicolaceae Suetrong & E.B.G. Jones

Manglicola Kohlm. & E. Kohlm.

Microthyriales G. Arnaud

Micropeltidaceae Clem. & Shear

Anariste Syd.*

Caudella Syd. & P. Syd.

Chaetothyrina Theiss.

Dictyopeltella Bat. & I.H. Lima

Haplopeltheca Bat. et al.

Heliocephala V. Rao et al.

Holubovaniella R.F. Castañeda (**H**)

Micropeltis Mont.

Scolecopeltidium F. Stevens & Manter

Sirothyriella Höhn.

Stomiopeltis Theiss.

Stomiopeltopsis Bat. & Cavalc.

Stomiotheca Bat.

Microthyriaceae Sacc.

Arnaudiella Petr.*

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Asterostomula Theiss. (**C**)

Calothyriopsis Höhn.

Caribaeomyces Cif.

Chaetothyriothecium Hongsanan & K.D. Hyde*

Hansfordiella S. Hughes (**H**)

Isthmospora F. Stevens (**H**)

Leptothyrium Kunze (**C**)

Microthyrium Desm.

Palawania Syd. & P. Syd.

Seynesiella G. Arnaud

Microthyriales, genera *incertae sedis*

Neomicrothyrium Boonmee et al.

Monoblastiales Lücking et al.

Monoblastiaceae Walt. Watson

Acrocordia A. Massal.

Anisomeridium (Müll. Arg.) M. Choisy

Caprettia Bat. & H. Maia

Megalotremis Aptroot

Monoblastia Riddle

Trypetheliopsis Asahina

Mytilinidiales Boehm et al.

Gloniaceae (Corda) Boehm et al.

Cenococcum Moug. & Fr. (**C**)

Cleistonium Speer (**C**)

Glonium Muhl.

Mytilinidiaceae Kirschst.

Actidium Fr.

Camaroglobulus Speer (**C**)*

Lophium Fr.

Mytilinidion Duby

Ostreola Darker

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Peyronelia Cif. & Gonz. Frag.

Quasiconcha M.E. Barr & M. Blackw.

Septonema Corda (**H**)

Taeniolella S. Hughes (**H**)

Zoggium Lar. N. Vassiljeva

Natipusillales Raja et al.

Natipusillaceae Raja et al.

Natipusilla A. Ferrer

Patellariales D. Hawksw. & O.E. Erikss.

Patellariaceae Corda

Baggea Auersw.

Colensoniella Hafellner*

Endotryblidium Petr.

Holmiella Petrini et al.

Lecanidiella Sherwood

Lirellodisca Aptroot

Murangium Seaver

Patellaria Fr.

Poetschia Körb.

Pseudoparodia Theiss. & Syd.

Rhizodiscina Hafellner

Schrakia Hafellner

Stratisporella Hafellner

Tryblidaria (Sacc.) Rehm

Phaeotrichales Ariyawansa et al.

Phaeotrichaceae Cain

Echinoascotheca Matsush.

Phaeotrichum Cain & M.E. Barr

Trichodelitschia Munk

Strigulales Lücking et al.

Strigulaceae Zahlbr.

Flavobathelium Lücking et al.

Phyllobathelium (Müll. Arg.) Müll. Arg

Phyllocratera Sérus. & Aptroot

Strigula Fr.

Trypetheliales Lücking et al.

Trypetheliaceae Zenker

Architrypethelium Aptroot

Bathelium Ach.

Polymeridium (Müll. Arg.) R.C. Harris

Pseudopyrenula Müll. Arg.

Trypethelium Spreng.

Tubeufiales Boonmee & K.D. Hyde*

Tubeufiaceae M.E. Barr*

Acanthohelicospora Boonmee & K.D. Hyde*

Acanthophiobolus Berl.[#]

Acanthostigma De Not.[#]

Acanthostigmina Höhn.[#]

Aquaphila Goh et al. (**H**)[#]

Bifrontia Norman[#]

Boerlagiomyces Butzin[#]

Chaetosphaerulina I. Hino*

Chlamydotubeufia Boonmee & K.D. Hyde[#]

Helicangiospora Boonmee*

Helicoma Corda (**H**)[#]

Helicomyces Link (**H**)[#]

Helicoön Morgan (**H**)

Helicosporium Nees (**H**)*

Kamalomyces R.K. Verma et al.[#]

Neoacanthostigma Boonmee et al.*

Podonectria Petch[#]

Tamhinispora Rajeshkumar & Rahul Sharma[#]

Thaxteriella Petr.[#]

Thaxteriellopsis Sivan. et al.*

Tubeufia Penz. & Sacc.[#]

[#] for notes see under *Tubeufiaceae*

Venturiales Yin. Zhang et al.

Venturiaceae E. Müll. & Arx ex M.E. Barr

Acantharia Theiss. & Syd.

Acroconidiellina (Berk. & Broome) M.B. Ellis (**H**)

Apiosporina Höhn.*

Atopospora Petr.

Caproventuria U. Braun

Coleroa Rabenh.

Helicodendron Peyronel (**H**)

Maireella Syd. ex Maire*

Metacoleroa Petr.

Pithosira Petr. (**H**)

Protoventuria Berl. & Sacc.

Pseudocladosporium U. Braun

Pseudoparodiella F. Stevens

Spilodochium Syd. (**H**)

Tyrannosorus Unter. & Malloch

Venturia Sacc.

Sympoventuriaceae Yin. Zhang ter et al.

Clavatispora S. Boonmee & K.D. Hyde*

Ochroconis de Hoog & Arx (**H**)*

Sympoventuria Crous & Seifert

Veronaeopsis Arzanlou & Crous (**H**)

Dothideomycetes, families *incertae sedis*

Argynnaceae Shearer & J.L. Crane

Argynna Morgan

Lepidopterella Shearer & J.L. Crane

Arthopyreniaceae W. Watson

Arthopyrenia A. Massal.

Ascoporiaceae Kutorga & D. Hawksw.

Ascoporia Samuels & A.I. Romero

Aulographaceae Luttr. ex P.M. Kirk et al.*

Aulographum Lib.[#]

Echidnodes Theiss. & Syd.*

Lembosiella Sacc.*

Lembosina Theiss.*

Morenoina Theiss.*

Thyriopsis Theiss. & Syd.*

[#]for notes see under *Aulographaceae*

Coccoideaceae Henn. ex Sacc. & D. Sacc.

Coccoidea Henn.

Coccoidella Höhn.

Cookellaceae Höhn. ex Saccardo & Trotter

Cookella Sacc.

Pycnoderma Syd. & P. Syd.*

Uleomyces Henn.

Dacampiaceae Körb.

Aaosphaeria Aptroot*

Clypeococcum D. Hawksw.

Dacampia A. Massal.

Eopyrenula R.C. Harris

Leptocucurthis Aptroot

Munkovalsaria Aptroot

Polycoccum Saut. ex Körb.

Pseudonitschkia Coppins & S.Y Kondr

Pyrenidium Nyl.

Weddellomyces D. Hawksw.

Englerulaceae Henn.*

Allosoma Syd.*

Capnodiastrum Speg. (**C**)

Digitosarcinella S. Hughes (**H**)

Englerula Henn.*

Goosia B. Song*

Parenglerula Höhn.*

Rhytidenglerula Höhn.*

Schiffnerula Höhn.*

Thrauste Theiss.*

Eremomycetaceae Malloch & Cain

Arthrographis G. Cochet ex Sigler & J.W. Carmich. (**H**)*

Eremomyces Malloch & Cain

Rhexothecium Samson & Mouch.

Euantennariaceae Hughes & Corlett

Antennatula Fr. ex F. Strauss (**H**)

Capnokyma S. Hughes (**H**)

Euantennaria Speg.

Hormisciomyces Bat. & Nascim. (**H**)

Plokamidomyces Bat. et al. (**H**)

Racodium Fr. (**H**)

Rasutoria M.E. Barr

Strigopodia Bat.

Trichothallus F. Stevens (**H**)

Fenestellaceae M.E. Barr

Fenestella Tul. & C. Tul.

Lojkania Rehm

Pleurostromella Petr. (**C**)

Kirschsteiniotheliaceae S. Boonmee & K.D. Hyde

Kirschsteiniothelia D. Hawksw.* (see in Table 1)

Leptopeltidaceae Höhn. ex Trotter

Dothiopeltis E. Müll.

Leptopeltis Höhn.

Nannfeldtia Petr.

Phacidina Höhn.

Ronnigeria Petr.

Staibia Bat. & Peres

Mesnieraceae Arx & E. Müll.

Bondiella Piroz.

Mesniera Sacc. & P. Syd.

Stegasphaeria Syd. & P. Syd.

Muyocopronaceae K.D. Hyde

Muyocopron Speg.

Naetrocymbaceae Höhn. ex R.C. Harris

Jarxia D. Hawksw.

Leptorhaphis Körb.

Naetrocymbe Körb. ex Körb.

Tomasellia A. Massal.

Paranectriellaceae S. Boonmee & K.D. Hyde

Paranectriella (P. Henn. ex Sacc & D. Sacc) Höhn.* (see in Table 1)

Puttemansia Henn.

Parmulariaceae E. Müll. & Arx ex M.E. Barr*

Aldona Racib.

Aldonata Sivan. & A.R.P. Sinha

Antoniomyces Inácio

Aulacostroma Syd. & P. Syd.

Campoa Speg.

Cocconia Sacc.

Cycloschizon Henn.

Cyclostomella Pat.

Dothidasteroma Höhn.*

Ferrarisia Sacc.

Hemigrapha (Müll. Arg.) R. Sant. ex D. Hawksw.

Hysterostomella Speg.

Inocyclus Theiss. & Syd.

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Kiehlia Viégas

Mintera Inácio & P.F. Cannon

Pachypatella Theiss. & Syd.

Palawaniella Doidge

Parmularia Lév.

Parmulariopsella Sivan.

Parmulariopsis Petr.

Parmulina Theiss. & Syd.

Placoasterella Sacc. ex Theiss. & Syd.*

Placosoma Höhn.*

Placostromella Petr.*

Pleiostomellina Bat. et al.*

Polycyclina Theiss. & Syd.

Polycyclus Höhn.

Protothyrium G. Arnaud

Pseudolembosia Theiss.

Rhagadolobium Henn. & Lindau

Rhipidocarpon (Theiss.) Theiss. & Syd.

Symphaeophyma Speg.

Thallomyces H.J. Swart

Viegasella Inácio & P.F. Cannon

Parodiellaceae Theiss. & H. Syd. ex M.E. Barr

Parodiella Speg.

Perisporiopsidaceae E. Müll. & Arx ex R. Kirschner & T.A. Hofm.

Alina Racib.

Balladyna Racib.

Balladynocallia Bat.

Balladynopsis Theiss. & Syd.

Chevalieropsis G. Arnaud

Cleistosphaera Syd. & P. Syd.

Dimeriella Speg.

Dimerium (Sacc. & P. Syd.) McAlpine

Dysrhynchis Clem.

Hyalomeliolina F. Stevens

Leptomeliola Höhn.

Neoparodia Petr. & Cif.

Ophiomeliola Starbäck

Ophioparodia Petr. & Cif.

Parodiellina Henn. ex G. Arnaud

Perisporiopsis Henn.

Pilgeriella Henn.

Scolionema Theiss. & Syd.

Stomatogene Theiss.

Polystomellaceae Theiss. & H. Syd.

Dermatodothella Viégas*

Munkiella Speg.

Parastigmatea Doidge

Protoscyphaceae Kutorga & D. Hawksw.

Protoscypha Syd.

Pseudoperisporiaceae Toro

Aphanostigme Syd.

Bryochiton Döbbeler & Poelt

Bryomyces Döbbeler

Chaetoscutula E. Müll.*

Epibryon Döbbeler

Episphaerella Petr.

Eudimeriolum Speg.

Eumela Syd.

Jaffuela Speg.*

Keratosphaera H.B.P. Upadhyay

Lasiostemma Theiss. et al.

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

Myxophora Döbbeler & Poelt

Nematostigma Syd. & P. Syd.

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Nematostoma Syd. & P. Syd.

Nematothecium Syd. & P. Syd.

Neocoleroa Petr.

Ophiociliomyces Bat. & I.H. Lima

Phaeodimeriella Speg.

Phaeostigme Syd. & P. Syd.

Phragmeriella Hansf.

Pododimeria E. Müll.

Raciborskiomyces Siemaszko

Toroa Syd.

Roussoellaceae J.K. Liu et al.*

Appendispora K.D. Hyde*

Cytoplea Bizz. & Sacc. (**C**)*

Neoroussoella J.K. Liu et al.*

Roussoella Sacc.

Roussoellopsis I. Hino & Katum.

Schizothyriaceae Höhn. ex Trotter et al.

Amazonotheca Bat. & H. Maia

Chaetoplaca Syd. & P. Syd.

Henningsiella Rehm

Hexagonella F. Stevens & Guba ex F. Stevens

Hysteropeltella Petr.*

Kerniomyces Toro

Lecideopsella Höhn.

Linopeltis I. Hino & Katum.

Mendogia Racib.

Metathyriella Syd.

Mycerema Bat. et al.

Myriangiella Zimm.

Neopeltella Petr.

Orthobellus A.A. Silva & Cavalc.

Plochmopeltis Theiss.

Schizothyrium Desm. (**H**)*

Zygophiala E.W. Mason (**H**)*

Seynesiopeltidaceae K.D. Hyde

Seynesiopeltis F. Stevens & R.W. Ryan

Trichopeltinaceae (Theiss.) Bat. (=*Brefeldiellaceae*) *

Acrogenotheca Cif. & Bat.*

Brefeldiella Speg.*

Saccardinula Speg.*

Trichopeltella Höhn.*

Trichopeltheca Bat. et al.*

Trichopeltina Theiss.*

?*Trichothyrinula* Petr.*

TrichothyriaceaeTheiss.

Lichenopeltella Höhn.

Macrographa Etayo

Pachythyrium G. Arnaud ex Spooner & P.M. Kirk

Trichothyrium Speg.

Vizellaceae H.J. Swart

Blasdalea Sacc. & P. Syd.* (see in Table 1)

Vizella Sacc.

Wiesneriomycetaceae Suetrong et al.*

Wiesneriomyces Koord.

Dothideomycetes, genera *incertae sedis*

Acanthorus Bat. & Cavalc. (**C**)

Acanthostigmella Höhn.*

Acarella Syd. (**C**)

Achorella Theiss. & Syd.

Acredontium de Hoog

Actinomyxa Syd. & P. Syd.

Alascospora Raja et al.

Allonecte Syd.

Amorosia Mantle & D. Hawksw. (**H**)

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Ampullifera Deighton (**H**)

Anguillosporella U. Braun (**H**)

Anopeltis Bat. & Peres

Anthracostroma Petr.* (see in Table 1)

Anungitea B. Sutton (**H**)

Anungitopsis R.F. Castañeda & W.B. Kendr. (**H**)

Apoa Syd.

Aptrootia Lücking & Sipman

Aquamarina Kohlm. et al.

Aquaticheirospora Kodsueb & W.H. Ho (**H**)

Arkoola J. Walker & Stovold

Armata W. Yamam.

Asbolisia Bat. & Cif.

Ascocoronospora Matsush. (**H**)

Ascominuta Ranghoo & K.D. Hyde

Asterinema Bat. & Gayão*

Asteritea Bat. & R. Garnier

Asterodothis Theiss.*

Asteromassaria Höhn.

Asteromella Pass. & Thüm. (**C**)

Asteronia (Sacc.) Henn.

Asterostromina (**C**)

Astrosphaeriella Syd. & P. Syd.*

Astrothelium Eschw.

Atramixtia Tsuneda et al.

Austropleospora R.G. Shivas & L. Morin

Bactrodesmium Cooke (**H**)

Bahugada K.A. Reddy & V. Rao

Bahusakala Subram. (**H**)

Bahusutrabeeja Subram. & Bhat (**H**)

Banhegyia L. Zeller & Tóth

Belizeana Kohlm. & Volkm.-Kohlm.

Biciliopsis Diederich

Bonaria Bat.

Botryochora Torrend*

Botryohypoxylon Samuels & J.D. Rogers* (see in Table 1)

Botryostroma Höhn.

Brachyconidiella R.F. Castañeda & W.B. Kendr. (**H**)

Bramhamyces Hosag.

Brevicatenospora R.F. Castañeda et al.

Brooksia Hansf.* (see in Table 1)

Bryorella Döbbeler

Bryostroma Döbbeler

Bryothele Döbbeler

Buelliella Fink

Buscalionia Sambo

Byssocallis Syd.

Byssogene Syd.

Byssolophis Clem.

Byssopeltis Bat. et al.

Byssothecium Fuckel

Callebaea Bat.

Calyptra Theiss. & Syd.

Campylothelium Müll. Arg.

Capillataspora K.D. Hyde

Capnocheirides J.L. Crane & S. Hughes (**H**)

Capnodaria (Sacc.) Theiss. & Syd.

Capnodinula Bat. & Cif.

Capnophaeum Speg.

Capnosporium S. Hughes (**H**)

Carinispora K.D. Hyde

Catenolaria G.Y. Sun & H.Y. Li

Catinella Boud.

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Catulus Malloch & Rogerson

Celtidia J.D. Janse

Ceramoclasteropsis Bat. & Cavalc.

Ceratophoma Höhn. (**C**)

Cercidospora Körb.

Cerodothis Muthappa

Ceuthodiplospora Died. (**C**)

Chaetocrea Syd.*

Chaetonectrioides Matsush.

Chaetosticta Petr. & Syd.

Chalara (Corda) Rabenh. (**H**)

Cheirosporium L. Cai & K.D. Hyde (**H**)

Chionomyces Deighton & Piroz.

Chuppia Deighton (**H**)

Cilioplea Munk

Cirsosina Bat. & J.L. Bezerra

Cirsosiopsis Butin & Speer

Cladoriella Crous (**H**)

Clasterosporium Schwein. (**H**)

Clavariopsis De Wild. (**H**)

Clypeispora A.W. Ramaley (**C**)

Clypeolina Theiss.

Clypeostroma Theiss. & Syd.

Cocciscia Norman

Coccochora Höhn.

Coccochorina Hara

Coccodothis Theiss. & Syd.

Comesella Speg.

Comminutispora A.W. Ramaley* (see in Table 1)

Coronospora M.B. Ellis*

Crauatamyces Viégas

Crotone Theiss. & Syd.

Cryomyces Selbmann et al. (**H**)

Cyclopeltis Petr.* (see in Table 1)

Cyclotheca Theiss.

Cylindrosympodium W.B. Kendr. & R.F. Castañeda

Cyrtidium Vain.

Cyrtidula Minks

Cyrtopsis Vain.

Cytostagonospora Bubák (**C**)

Dactuliophora C.L. Leakey (**H**)

Dawsomyces Döbbeler

Dawsophila Döbbeler

Decaisnella Fabre

Dermatodothis Racib. ex Theiss. & Syd.

Dianesea Inácio & P.F. Cannon

Dibotryon Theiss. & Syd.

Dictyoasterina Hansf.

Dictyodochium Sivan.

Dictyopeltis Theiss.

Dictyostomiopelta Viégas

Dictyothyrina Theiss.

Dictyothyrium Theiss.

Didymochora Hohn. (**C**)

Didymocyrtidium Vain.

Didymocyrtis Vain.

Didymolepta Munk

Didymopleella Munk

Diederichia D. Hawksw. (**C**)

Dilophospora Desm.

Diplochorina Gutner

Disculina Höhn. (**C**)

Dothichiza Lib. ex Roum.

Dothidasteromella Höhn.*

Dothidella Speg.

Dothivalsaria Petr.

Dubitatio Speg.

Dubujiana D.R. Reynolds & G.S. Gilber

Echinothecium Zopf

Elletevera Deighton (**H**)

Elmerinula Syd.

Endosporium Tsuneda (**H**)

Englerodothis Theiss. & Syd.

Epiphegia G.H. Otth

Epiphora Nyl.

Epipolaeum Theiss. & P. Syd.

Eriocercospora Deighton (**H**)

Eriocercosporella Rak. Kumar et al. (**H**)

Eriomycopsis Speg. (**H**)

Eriothyrium Speg. (**C**)

Eupelte Syd.*

Excipulariopsis P.M. Kirk & Spooner* (see in Table 1)

Exiliseptum R.C. Harris

Extrusothecium Matsush.

Farlowiella Sacc.* (see in Table 1)

Frondisphaeria K.D. Hyde

Fulvia Cif.

Fumiglobus D.R. Reynolds & G.S. Gilbert (**C**)

Funbolia Crous & Seifert (**H**)

Fusicladiella Höhn. (**H**)

Fusicladium Bonord. (**H**)

Gibbago E.G. Simmons (**H**)

Gibbera Fr.

Gibberidea Fuckel

Gilletiella Sacc. & P. Syd.

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Globoa Bat. & H. Maia

Globulina Speg.

Gloeodiscus Dennis

Glyphium Nitschke ex F. Lehm.

Govindua Bat. & H. Maia

Graphyllium Clem.

Halokirschsteiniothelia Boonmee & K.D. Hyde

Hansfordiellopsis Deighton (**H**)

Hansfordiopsis Bat.

Harknessiella Sacc.

Hassea Zahlbr.

Heleiosa Kohlm. et al.

Helminthopeltis Sousa da Câmara

Helminthosporium Link (**H**)

Heptameria Rehm & Thüm.

Heptaster Cif. et al. (**H**)

Heteroconium Petr. (**H**)

Heterosphaeriopsis Hafellner

Hidakaea I. Hino & Katum.

Hobsoniopsis D. Hawksw. (**H**)

Homortomyces Crous & M.J. Wingf. (**C**)

Homostegia Fuckel

Hormiokrypsis Bat. & Nascim. (**H**)

Houjia G.Y. Sun & Crous (**H**)

Hugueninia J.L. Bezerra & T.T. Barros

Hyalocrea Syd. & P. Syd.

Hyaloscolecostroma Bat. & J. Oliveira

Hyalosphaera F. Stevens

Hyalotheles Speg.*

Hypobryon Döbbeler

Hysterodifractum D.A.C. Almeida et al.

Hysteroglonium Rehm ex Lindau

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Hysteropsis Rehm

Idriella P.E. Nelson & S. Wilh. (**H**)

Immotthia M.E. Barr

Isthmosporella Shearer & J.L. Crane

Japonia Höhn.

Kabatia Bubák (**C**)

Koordersiella Höhn.

Kriegeriella Höhn.

Krishnamyces Hosag. (**C**)*

Kullhemia P. Karst.

Kusanobotrys Henn.

Lanatosphaera Matzer

Laocoön J.C. David (**H**)

Lasiobotrys Kunze

Lasmenia Speg.

Lautitia S. Schatz*

Lazarenkoa Zerova

Lembosiopeltis Bat. & J.L. Bezerra

Lemonniera De Wild. (**H**)

Leptospora Rabenh.

Letendraeopsis K.F. Rodrigues & Samuels

Leveillella Theiss. & Syd.*

Leveillina Theiss. & Syd.

Licopolia Sacc. et al.

Lidophia J. Walker & B. Sutton*

Limaciniopsis J.M. Mend.

Lineolata Kohlm. & Volkm.-Kohlm.

Lineostroma H.J. Swart

Lophiella Sacc.

Lophionema Sacc.

Lopholeptosphaeria Sousa da Câmara

Lucidascocarpa A. Ferrer et al.*

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Macowaniella Doidge*

Maheshwaramyces Hosag.*

Malacaria Syd.*

Manginula G. Arnaud (**C**)

Manoharachariella Bagyan. et al.

Marcelaria Aptroot et al.

Massariola Füisting

Maublancia G. Arnaud

Megaloseptoria Naumov (**C**)

Melioliphila Speg.*

Mendoziopeltis Bat.

Microcyclella Theiss.

Microcyclus Sacc. et al.

Microdothella Syd. & P. Syd.

Micropustulomyces R.W. Barreto (**C**)

Microxiphium (Harv. ex Berk. & Desm.) Thüm. (**H**)

Minteriella Heredia et al.

Minutisphaera Shearer et al.

Mitopeltis Speg.

Miuraea Hara (**H**)

Monoblastiopsis R.C. Harris & C.A. Morse

Monodictys S. Hughes (**H**)

Monotosporella S. Hughes (**H**)

Montagnella Speg.

Moriolomyces Cif. & Tomas.

Moristroma A.I. Romero & Samuels

Muroia I. Hino & Katum.

Mycocryptospora J. Reid & C. Booth

Mycodidymella C.Z. Wei et al.

Mycoglaena Höhn.

Mycomicrothelia Keissl.

Mycopepon Boise

Mycoporellum Müll. Arg.

Mycothyridium Petr.

Mycovellosiella Rangel (**H**)

Myriangiopsis Henn.

Myriostigmella G. Arnaud

Mytilostoma P. Karst.

Myxocyclus Riess (**C**)

Neocoleroa Petr.

Neodeightoniella Crous & W.J. Swart (**H**)

Neoovularia U. Braun (**H**)

Neoramularia U. Braun (**H**)

Neottiosporina Subram. (**C**)

Neoventuria Syd. & P. Syd.

Ocala Raja & Shearer

Omphalospora Theiss. & Syd.*

Ophiotrichum Kunze (**H**)

Otthia Nitschke ex Fuckel

Parahendersonia A.W. Ramaley (**C**)*

Paraliomyces Kohlm.

Parastenella J.C. David (**H**)

Parasterinella Speg.*

Parmulariella Henn.

Paropodia Cif. & Bat.

Passeriniella Berl.

Passerinula Sacc.

Pazschkeella Syd. & P. Syd.

Peltaster Syd. & P. Syd. (**C**)

Peltasterella Bat. & H. Maia (**C**)

Pendulispora M.B. Ellis (**H**)

Perischizon Syd. & P. Syd.

Peroschaeta Bat. & A.F. Vital

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Petrakina Cif.*

Petrakiopeltis Bat. et al.

Phaeocyrtidula Vain.

Phaeoglaena Clem.

Phaeopeltosphaeria Berl. & Peglion

Phaeoramularia Munt.-Cvetk. (**H**)

Phaeosclera Sigler et al. (**H**)

Phaeosperma Nitschke ex G.H. Otth

Phaeotheca Sigler et al. (**H**)

Phaeothecoidiella Batzer & Crous (**H**)

Phaeothyriolum Syd.

Phaeotomasellia Katum.

Phaeoxyphiella Bat. & Cif. (**C**)

Phanerococculus Cif.

Philobryon Döbbeler

Philonectria Hara

Phragmaspidium Bat.

Phragmogibbera Samuels & Rogerson

Phragmoscutella Woron. & Abramov*

Phragmosperma Theiss. & Syd.

Phycorella Döbbeler

Physalosporopsis Bat. & H. Maia

Pirozynskia Subram. (**H**)*

Placoasterina Toro

Placodothis Syd.

Placomelan Cif.*

Placosphaeria (De Not.) Sacc.

Plagiostromella Höhn.

Plectopycnis Bat. & A.F. Vital (**C**)

Plejobolus (E. Bommer et al.) O.E. Erikss.

Plenotrichaius Bat. & Valle (**C**)

Pleostigma Kirschst.

Pleotrichiella Sivan.

Pleurophoma Höhn. (**C**)

Pleurophomopsis Petr. (**C**)*

Podoplaconema Petr. (**C**)

Polychaetella Speg. (**C**)

Polyclypeolina Bat. & I.H. Lima

Polycyclinopsis Bat. et al.

Polyrhizon Theiss. et al.

Polysporidiella Petr.

Polystomellina Bat. & A.F. Vital

Polystomellopsis F. Stevens

Prathoda Subram. (**H**)

Pseudoallosoma F.B. Rocha et al.

Pseudodictyosporium Matsush. (**H**)

Pseudodidymella C.Z. Wei et al.* (see in Table 1)

Pseudoepicoccum M.B. Ellis

Pseudomorfea Punith.

Pseudopleospora Petr.

Pseudorobillarda M. Morelet (**C**)

Pseudoscypha J. Reid & Piroz.

Pseudovirgaria H.D. Shin et al. (**H**)

Pteridiospora Penz. & Sacc.

Pteropus R.W. Ham

Punctillum Petr. & Syd.

Pycnocarpon Theiss.

Pyrenobotrys Theiss. & Syd.

Pyrenochium Link

Pyrenocyclus Petr.

Quasiphloeospora B. Sutton et al. (**H**)

Quintaria Kohlm. & Volkm.-Kohlm

Racoleus R. Sant. & D. Hawksw.

Racovitziella Döbbeler & Poelt

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Ramulariopsis Speg. (**H**)

Resendea Bat.

Rhabdospora (Durieu & Mont. ex Sacc.) Sacc. (**C**)

Rhizogene Syd. & P. Syd.

Rhizopycnis D.F. Farr (**C**)

Rhizosphaera L. Mangin & Har.

Rhizotexis Theiss. & Syd.*

Rhopographus Nitschke ex Fuckel

Robillardiella S. Takim.

Rosaria N. Carter

Rosasphaeria Jaklitsch & Voglmayr

Rosellinula R. Sant.

Rosenscheldia Speg.

Rosenscheldiella Theiss. & Syd.

Roumegueria (Sacc.) Henn.

Saccharicola D. Hawksw. & O.E. Erikss

Sakireeta Subram. & K. Ramakr. (**C**)

Sapucchaka K. Ramakr.

Sarcinomyces Lindner (**H**)

Sarcophoma Höhn.

Saxomyces Selbmann & Isola

Scirrhia Nitschke ex Fuckel

Scleroconidioma Tsuneda et al. (**H**)

Sclerophoma Höhn. (**C**)*

Scolecobonaria Bat.

Scolecoxyphium Cif. & Bat. (**C**)

Semifissispora H.J. Swart

Semisphaeria K. Holm & L. Holm

Septoidium G. Arnaud (**H**)

Shearia Petr. (**C**)*

Shivamyces Hosag.

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Sirosporium Bubák & Serebrian. (**H**)

Sivanesaniella Gawande & D.K. Agarwal

Spermatoloncha Speg. (**H**)

Sphaerellopsis Cooke (**C**)

Spirosphaera Beverw. (**H**)

Sporidesmajora Batzer & Crous (**H**)

Sporidesmium Link (**H**)

Stegasphaeria Syd. & P. Syd.

Stegothyrium Höhn.

Stephanotheca Syd. & P. Syd.*

Stigmatodothis Syd. & P. Syd.

Stigmatophragmia Tehon & G.L. Stout

Stromatopogon Zahlbr.

Stuartella Fabre

Symphaster Theiss. & Syd.

Syrropeltis Bat. et al.

Teichosporella (Sacc.) Sacc.

Teratoschaeta Bat. & O.M. Fonseca

Tetracrium Henn. (**H**)

Thalassoascus Ollivier

Thelenidia Nyl.

Thryptospora Petr.

Thyrinula Petr. & Syd. (**C**)

Thyriodictyella Cif.

Thyrospora Kirschst.

Tilakiella Srinivas.

Titaea Sacc. (**H**)

Tomeoa I. Hino

Torulopsiella Bender (**H**)

Tothia Bat.

Trematosphaeriopsis Elenkin

Tretospora M.B. Ellis (**H**)

Trichodothella Petr.

Trichodothis Theiss. & Syd.

Trichometasphaeria Munk

Trichosporiella Kamyschko (**H**)

Trichothyriella Theiss.

Trichothyriomyces Bat. & H. Maia

Triposporium Corda (**H**)

*Tropospore*lla P. Karst. (**H**)

Uleodothis Theiss. & Syd.

Uredinophila Rossman*

Valsaria Ces. & De Not.

Verrucisporota D.E. Shaw & Alcorn (**H**)

Verruconis Samerpitak & de Hoog

Vishnumyces Hosag.*

Wentiomyces Koord.

Westea H.J. Swart

Wettsteinina Höhn.

Xenomeris Syd.

Xenophacidiella Crous

Xenosonderhenia Crous (**C**)

Xenosporium Penz. & Sacc.

Xenostomella Syd.

Xylopezia Höhn.

Yoshinagaia Henn.*

Yoshinagella Höhn.

Zalerion R.T. Moore & Meyers

Zeloasperisporium R.F. Castañeda (**H**)

Notes on recent changes and naming

In this section we provide notes explaining our proposals to grant particular generic names protected or suppressed status (Table 1), and also drawing attention to recent advances in our understanding of asexual and sexual morph linkages in *Dothideomycetes*. Furthermore, we

provide notes for all newly introduced names for families and genera *Dothideomycetes* since Hyde et al. (2013).

Aaosphaeria Aptroot, Nova Hedwigia 60 (3–4): 329 (1995)

Notes: Aptroot (1995) stated that the type species, *Aaosphaeria arxii* (Aa) Aptroot has a *Microsphaeropsis* asexual state that "could be close to *Polycoccum* in the *Dacampiaceae*". The type species of *Microsphaeropsis*, *Mi. olivacea* (Bonord.) Höhn. however, was shown to cluster in *Didymellaceae* (de Gruyter et al. 2009), thus we conclude *Aaosphaeria* has a microsphaeropsis-like asexual state.

Abrothallaceae Sergio Pérez-Ortega & Ave Suija, Fungal Diversity 64 (1): 303 (2014)

Notes: See notes under *Abrothallales*.

Abrothallales Sergio Pérez-Ortega & Ave Suija, Fungal Diversity 64 (1): 302 (2014)

Notes: Pérez-Ortega et al. (2014) introduced this order and it comprises one family *viz. Abrothallaceae*. Currently only one genus is placed in *Abrothallaceae* i.e. *Abrothallus* and it appears to be well-established order in *Dothideomycetes*. The molecular analyses of Pérez-Ortega et al. (2014) are supported in our multi-gene analyses (Fig. 1).

Abrothallus De Not., Mem Reale Accad Sci Torino ser. 2 10: 351–355 (1845)

Notes: See notes under *Abrothallales*.

Acanthohelicospora Boonmee & K.D. Hyde, Fungal Diversity 68 (2014)

Notes: The genus *Acanthohelicospora* (*Tubeufiaceae*) was introduced by Boonmee et al. (2014b) with *A. pinicola* Boonmee & K.D. Hyde as the type species. Currently the genus comprises four species including the type species *A. aureum*, *A. guianense* and *A. scopulum*.

Acanthostigmella Hön., Annls mycol. 3 (4): 327 (1905)

Notes: Boonmee et al. (2014b) excluded this genus from *Tubeufiaceae* and placed in *Dothideomycetes*, genera *incertae sedis*.

Acervuloseptoria Crous & Jol. Roux, Persoonia 32: 275 (2014)

Notes: Crous et al. (2014) introduced *Acervuloseptoria* with *A. ziziphicola* Crous & Jol. Roux as the type species. *Acervuloseptoria* is morphologically and phylogenetically quite distinct from *Septoria sensu stricto*, however, it belongs in *Mycosphaerellaceae* (Crous et al. 2014).

Achaetobotrys Bat. & Cif., Saccardoa 2: 49 (1963)

Notes: Kirk et al. (2008) stated that this genus has *Antennariella* Bat. & Cif. asexual states. However, taxonomic placement of *Antennariella* is uncertain; hence we do not synonymize these two genera. Further molecular-based analyses are essential.

Acicuseptoria Quaedvlieg et al., Stud. Mycol. 75: 376 (2013)

Notes: Quaedvlieg et al. (2013) introduced *Acicuseptoria* and molecular data analyses showed it belongs in *Leptosphaeriaceae*.

Acrocalymma Alcorn & J.A.G. Irwin, Trans. Br. mycol. Soc. 88 (2): 163 (1987)

Notes: Alcorn and Irwin (1987) established this genus with *Acrocalymma medicaginis* Alcorn & J.A.G. Irwin as the type species. Shoemaker et al. (1991) observed the sexual state of *Acrocalymma medicaginis* in pure culture and named it as *Massarina walkeri* Shoemaker et al. Zhang et al. (2012) introduced a new species, *Acrocalymma aquatica* H. Zhang & K.D. Hyde and confirmed the close relationship with *A. medicaginis* in their combined SSU and LSU and ITS analyses. However, Zhang et al. (2012) further showed that *Massarina walkeri* is not congeneric with *Massarina sensu stricto* and placed it in *Pleosporales* genera *incertae sedis* close to *Morosphaeriaceae*. Thus, we conclude that *Acrocalymma* has massarina-like sexual states.

Acrogenotheca Cif. & Bat., Saccardoa 2: 51 (1963)

Notes: Hongsanan et al. (2014a) accepted this genus in *Trichopeltinaceae*.

Acrospermum Tode, Fung. mecklenb. sel. (Lüneburg) 1: 8 (1790)

Notes: Carmichael et al. (1980) reported *Acrospermum compressum* Tode to have a *Dactylaria* Sacc. asexual state. However, *Dactylaria* is considered as polyphyletic (Seifert et al. 2011; Wijayawardene et al. 2012), hence we conclude that *Acrospermum* has dactylaria-like asexual states.

Alanphillipsia Crous & M.J. Wingf., Persoonia, Mol. Phyl. Evol. Fungi 31: 197 (2013)

Notes: Crous et al. (2013) introduced this genus with four species and megablast results showed it belongs to *Botryosphaeriaceae*.

Allosoma Syd., Annls mycol. 24 (5/6): 353 (1926)

Notes: Lumbsch and Huhndorf (2010) listed *Allosoma* under *Dothideomycetes*, genera *incertae sedis*. Thambugala et al. (2014c) refer *Allosoma* to *Englerulaceae* based on morphological similarities with the generic type of *Englerulaceae*.

Alternaria Nees, Syst. Pilze (Würzburg): 72 (1816) [1816–17]

= *Elosia* Pers., Mycol. Eur. (Erlanga) 1: 12 (1822)

= *Macrosporium* Fr., Syst. Mycol. (Lundae) 3: 373 (1832)

= *Rhopalidium* Mont., Ann. Sci. Nat., Bot., Sér. 2, 6: 30 (1836)

= *Brachycladium* Corda, Icon. Fungorum hucusque Cogn. (Prague) 2: 14 (1838)

= *Ulocladium* Preuss, Linnaea 24: 111 (1851)

= *Macrospora* Fuckel, Jb. nassau. Ver. Naturk. 23–24: 139 (1870) [1869–70]

= *Chmelia* Svob.-Pol., Biologia (Bratislava) 21: 82 (1966)

= *Embellisia* E.G. Simmons, Mycologia 63: 380 (1971)

= *Trichoconiella* B.L. Jain, Kavaka 3: 39 1976 [1975]

= *Botryomyces* de Hoog & C. Rubio, Sabouraudia 20: 19 (1982) (nom. illegit.)

= *Lewia* M.E. Barr & E.G. Simmons, Mycotaxon 25: 289 (1986)

= *Ybotromyces* Rulamort, Bull. Soc. Bot. Centre-Ouest, Nouv. Sér. 17: 192 (1986)

= *Nimbya* E.G. Simmons, Sydowia 41: 316 (1989)

= *Allewia* E.G. Simmons, Mycotaxon 38: 260 (1990)

= *Crivellia* Shoemaker & Inderb., Canad. J. Bot. 84: 1308 (2006)

= *Chalastospora* E.G. Simmons, CBS Biodiversity Ser. (Utrecht) 6: 668 (2007)

= *Teretispora* E.G. Simmons, CBS Biodiversity Ser. (Utrecht) 6: 674 (2007)

= *Undifilum* B.M. Pryor et al., Botany 87: 190 (2009)

= *Sinomyces* Yong Wang bis & X.G. Zhang, Fungal Biol. 115: 192 (2011)

Notes: Simmons (1986; 2002; 2007) showed that *Lewia* is the sexual morph of *Alternaria* and discussed the morphological differences of the latter from *Pleospora* to which *Alternaria* was originally linked (*Pleospora* is the sexual state of *Stemphylium*). Simmons (1986) also mentioned that *Lewia scrophulariae* (Desm.) M.E. Barr & E.G. Simmons, the generic type, has an *Alternaria* asexual state. Woudenberg et al. (2013) showed that *Lewia* states developed in several sections of *Alternaria*, and reduced *Brachycladium*, *Chalastospora*, *Chmelia*, *Crivellia*, *Embellisia*, *Lewia*, *Nimbya*, *Sinomyces*, *Teretispora*, *Ulocladium*, *Undifilum* and *Ybotromyces* to synonymy under *Alternaria* based on molecular and morphological studies. Furthermore, Woudenberg et al. (2013) treated the type species of *Macrospora* Fuckel, *M. scirpicola* (DC.) Fuckel as a synonym of *Alternaria scirpicola* (Fuckel) Sivan. which is the type species of *Alternaria*, section *Nimbya*.

Alternariaster E.G. Simmons, CBS Diversity Ser. (Utrecht) 6: 667 (2007)

Notes: Simmons (2007) introduced this monotypic genus and transferred *Alternaria helianthi* (Hansf.) E.G. Simmons to *Alternariaster helianthi* (Hansf.) E.G. Simmons. Simmons (2007) considered *Alternariaster* to be related to *Alternaria*, however, Alves et al. (2013) and Woudenberg et al. (2013) clealy showed *Alternariaster* (*Leptosphaeriaceae*) to have a distinct phylogenetic affinity in *Pleosporales* and removed it from *Alternaria sensu stricto* (*Pleosporaceae*).

Amniculicola Y. Zhang ter & K.D. Hyde, Mycol. Res. 112(10): 1189 (2008)

Notes: Zhang et al. (2009a, b) showed that this genus forms a well-established monophyletic clade in their LSU rDNA analysis. In the same clade, two asexual fungi i.e. *Anguillospora longissima* (Sacc. & P. Syd.) Ingold and *Repetophragma ontariense* (Matsush.) W.P. Wu also grouped. The type species of *Amniculicola*, *A. lignicola* Y. Zhang ter & K.D. Hyde grouped with *Anguillospora longissima*, the type species of *Anguillospora* with low bootstrap values. However, it is essential to include more strains and more gene regions before synonymizing *Amniculicola* under an older hyphomycete name.

Amycosphaerella Quaedvlieg & Crous, Persoonia 33: 22 (2014)

Notes: Quaedvlieg et al. (2014) showed that *Mycosphaerella africana* Crous & M.J. Wingf. is not congeneric with *Mycosphaerella sensu stricto* and introduced *Amycosphaerella* to accommodate *M. africana*. Both genera are distinct in morphology, and *Amycosphaerella* does not produce a *Ramularia* asexual morph (Quaedvlieg et al. 2014).

Anariste Syd., Annls mycol. 25(1/2): 76 (1927)

Notes: Hongsanan et al. (2014c) transferred this genus from *Asterinaceae* to *Micropeltidaceae*.

Anguillospora Ingold, Trans. Br. mycol. Soc. 25(4): 401 (1942) [1941]

Notes: See notes under *Amniculicola*.

Anhellia Racib., Parasit. Alg. Pilze Java's (Jakarta) 2: 10 (1900)

Notes: See notes under *Myriangiaceae*.

Annellosympodiella Crous & Assefa, Persoonia, Mol. Phyl. Evol. Fungi 32: 245 (2014)

Notes: Crous et al. (2014) introduced this genus and showed it belongs to *Mycosphaerellaceae*, *Capnodiales*.

Antennulariella Woron., Trudy Byuro Prikl. Bot. 8(6): 771 (1915)

= *Antennariella* Bat. & Cif., Quad. Lab. crittogam., Pavia 31: 22 (1963)

= *Capnodendron* S. Hughes, Mycologia 68(4): 750 (1976)

= *Capnociferria* Bat., Saccardoa 2: 76 (1963)

= *Capnocrinum* Bat. & Cif., Saccardoa 2: 78 (1963)

= *Capnodina* (Sacc.) Sacc., Syll. fung. (Abellini) 24(1): 366 (1926)

= *Capnodium* subgen. *Capnodina* Sacc., Syll. fung. (Abellini) 22: 60 (1913)

Notes: Hughes (1976; 2000) stated that the sooty mould genus *Antennulariella* is the sexual state of *Antennariella* and its *Capnodendron* synasexual. Most of these links were established based on co-occurrence of both morphs on the same substrate and so far not proved by molecular phylogeny. However, Hyde et al. (2013) synonymised *Antennariella* Bat. & Cif and *Capnodendron* S. Hughes under *Antennulariella*.

Anthracostroma Petr., Sydowia 8(1–6): 96 (1954)

= *Camarosporula* Petr., Sydowia 8(1–6): 99 (1954)

Notes: Petrak (1954) established *Camarosporula* to place the conidial state of *Anthracostroma*. This established link was confirmed by Crous et al. (2011) in their DNA sequence analysis. Both genera are monophyletic and thus priority should apply to the older name *Anthracostroma* and the asexual state *Camarosporula* synonymized under *Anthracostroma*.

Apenidiella Quaedvlieg & Crous, Persoonia 33: 28 (2014)

Notes: The genus *Apenidiella* was introduced to place the morphologically similar *Penidiella strumelloidea* (Milko & Dunaev) Crous & U. Braun (Quaedvlieg et al. 2014), which is phylogenetically distinct. It is placed in *Teratosphaeriaceae* by molecular data.

Apiosporina Höhn., Sber. Akad. Wiss. Wien, Math.-naturw. Kl., Abt. 1 119: 439 (1910)

= *Dibotryon* Theiss. & Syd., Annls mycol. 13(5/6): 663 (1915)

= *Parodiodia* Bat., Saccardoa 1:9 (1960)

Notes: Zhang et al. (2011) and Hyde et al. (2013) considered *Dibotryon* to be a synonym of *Apiosporina* following von Arx and Müller (1975), Barr (1968) and Crous et al. (2007). Furthermore, Winton et al. (2007) phylogenetically showed that *Apiosporina collinsii* (Schwein.) Höhn., the type species of *Apiosporina* and *Dibotryon morbosum* (Schwein.) Theiss. & Syd., the type species of *Dibotryon* are congeneric. Herein, we also accept *Dibotryon*, as a synonym of *Apiosporina*.

Aplosporella Speg., Anal. Soc. cient. argent. 10(5–6): 157 (1880)

Notes: See notes under *Aplosporellaceae*.

Aplosporellaceae Slippers et al., Stud Mycol 76: 41 (2013)

Notes: Slippers et al. (2013) showed that *Aplosporella* and *Bagnisiella*, *Melanops*, and *Saccharata* have distinct phylogenetic lineages in *Botryosphaeriales*. Hence they introduced *Aplosporellaceae* (*Aplosporella* and *Bagnisiella*), *Melanopsaceae* (*Melanops*) and *Saccharataceae* (*Saccharata*) as new families in *Botryosphaeriales*.

Aposphaeria Sacc., Michelia 2(no. 6): 4 (1880)

Notes: De Gruyter et al. (2013) showed that *Aposphaeria* accommodated in *Melanommataceae* in their molecular data analyses.

Appendispora K.D. Hyde, Anal. Soc. cient. argent. 46(1): 29 (1994)

Notes: Based on its similarities with *Roussoellaceae*, Ariyawansa et al. (2014b) placed *Appendispora* in *Roussoellaceae*.

Arnaudiella Petr., Annls mycol. 25(3/4): 339 (1927)

Notes: Crous and Kendrick (1994) introduced *Xenogliocladiopsis* to place the conidial state of *Arnaudiella eucalyptorum* Crous & W.B. Kendr. However, several collections of *X. eucalyptorum* from *Eucalyptus* in Australia and South Africa have since shown that this published connection was in fact incorrect, and that *Xenogliocladiopsis* is a distinct genus in the *Hypocreales* (*Nectriaceae*), and does not belong to the *Dothideomycetes* (P.W. Crous, unpubl. data). Presently there are no confirmed asexual morphs for *Arnaudiella*.

Arthrocatena E. Egidi & L. Selbmann, Fungal Diversity 65: 159 (2014)

Notes: This new genus was introduced with *A. tenebrio* Egidi & Selbmann in Egidi et al. (2014). Molecular analyses of a combined data set of nu LSU, RPB2, ITS, BT2 showed *Arthrocatena* to belong in *Capnodiales incertae sedis* (Egidi et al. 2014).

Arthrographis G. Cochet ex Sigler & J.W. Carmich., Mycotaxon 4(2): 359 (1976)

Notes: The genus *Arthrographis* is traditionally considered as a member of *Eremomycetaceae* (Malloch and Sigler 1988). Giraldo et al. (2014) showed that *Arthrographis* is polyphyletic. However, the type species of *Arthrographis*, *A. kalrae* (R.P. Tewari & Macph.) Sigler & J.W. Carmich. was shown to belong in *Eremomycetaceae* (Giraldo et al. 2014).

Ascohyta Lib., Pl. crypt. Arduenna (Liège), fasc. 1(Praef.): 8 (1830)

= *Ascochytella* Tassi, Bulletin Labor. Orto Bot. de R. Univ. Siena 5: 6, 27 (1902)

= *Ascochytula* (Potebnia) Died., Annls mycol. 10(2): 141 (1912)

= *Macrodiplodina* Petr., Sydowia 15(1–6): 190 (1962) [1961]

= *Stagonosporopsis* Died., Annls mycol. 10(2): 142 (1912)

Notes: De Gruyter et al. (2009) showed that *Ascochyta pisi*, the sexual state *Didymella pisi* and generic type of *Ascochyta*, groups close to *Didymella exigua* (Niessl) Sacc., the type species of *Didymella*. Peever et al. (2007) showed that *A. pinodes* L.K. Jones has *Didymella* sexual states (i.e. *D. pinodes* (Berk. & A. Bloxam). *Didymella exigua* was not linked with any *Ascochyta* spp., but it groups close to *A. pisi* and other *Ascochyta* spp. Woudenberg et al. (2009) however, also showed *Phoma clematidina* (Thüm.) Boerema also has a *Didymella* sexual state. Further research is necessary, however, to resolve clades in the *Didymellaceae*. Because the phylogeny of *Didymella* and *Ascochyta* has yet to be resolved, both genera are maintained for usage.

Ascoronospora Matsush., Matsush. Mycol. Mem. 10: 179 (2003)

Notes: Matsushima (2003) described the genus *Ascoronospora* and observed the *Coronospora* asexual state in culture. However, the link between *Ascoronospora* and type species of *Coronospora* was not confirmed. Hence we conclude *Ascoronospora* has coronospora-like asexual state.

Ascostratum Syd. & P. Syd., Annls mycol. 10(1): 41 (1912)

Notes: Tian et al. (2014) placed *Ascostratum* in *Myriangiaceae* based on the difference colour and shape of the ascospores and their completely different habits.

Asterina Lév., Annls Sci. Nat., Bot., sér. 3 3: 59 (1845)

= *Aphanopeltis* Syd., Annls mycol. 25(1/2): 82 (1927)

= *Asterolibertia* G. Arnaud, Annals d'École National d'Agric. de Montpellier, Série 2 16(1–4): 165 (1918) [1917]

= *Asterostomella* Speg., Anal. Soc. cient. argent. 22(4): 198 (1886)

= *Bheemamyces* Hosag., J. Threatened Taxa 2(12): 1323 (2010)

= *Gangamyces* Hosag., Mycosphere 3(5): 778 (2012)

= *Ishwaromyces* Hosag. [as 'Ishwaramyces'], J. Econ. Taxon. Bot. 28(1): 183 (2004)

= *Mahanteshomyces* Hosag. & C.K. Biju [as 'Mahanteshamyces'], J. Econ. Taxon. Bot. 28(1): 189 (2004)

= *Neostomella* Syd., Annls mycol. 25(1/2): 38 (1927)

= *Placoasterina* Toro, J. Dept. Agric. Porto Rico 14(4): 229 (1930)

= *Symphaster* Theiss. & Syd., Annls mycol. 13(3/4): 217 (1915)

Notes: Several genera listed above were newly synonymized under *Asterina* by Hongsanan et al. (2014c) who also provided a generic revision.

Asterinaceae Hansf., Mycol. Pap. 15: 188 (1946)

= *Lembosiaceae* Hosag., J. Mycopathol. Res. 39(1): 61 (2001)

= *Lembosiaceae* Höhn., Annls mycol. 16(1/2): 146 (1918)

Notes: Hongsanan et al. (2014c) revised *Asterinaceae* and accepted 16 genera. Furthermore, *Lembosiaceae* Hosag. and *Lembosiaceae* Höhn. were treated as synonyms of *Asterinaceae*. At the same time Hongsanan et al. (2014c) transferred *Aulographina* to *Teratosphaeriaceae* and *Yamamotoa* Bat. was listed as a synonym of *Lembosia*.

Asterinales M.E. Barr ex D. Hawksw. & O.E. Erikss., Syst. Ascom. 5(1): 177 (1986)

Notes: Hongsanan et al. (2014c) revisited *Asterinales* and accepted only one family i.e. *Asterinaceae. Aulographaceae* and *Parmulariaceae* was listed under *Asterinales* in Lumbsch and Huhndorf (2010) but Hongsanan et al. (2014c) treated both families as *Dothideomycetes*, family *incertae sedis*.

Asterinema Bat. & Gayão, Anais IV Congr. Soc. bot. Brasil: 160 (1953)

Notes: Wu et al. (2014) transferred this genus to *Asterinaceae*. However, Hongsanan et al. (2014c) treated this genus as *Dothideomycetes*, genera *incertae sedis* as the genus has characters that are typical of *Asterinaceae* and *Microthyriaceae*.

Asterodothis Theiss., Annls mycol. 10(2): 179 (1912)

Notes: Hongsanan et al. (2014c) transferred this genus from *Asterinaceae* to *Dothideomycetes*, genera *incertae sedis*.

Astrosphaeriella Syd. & P. Syd., Annls mycol. 11(3): 260 (1913)

Notes: Tanaka and Harada (2005) observed a pleurophomopsis-like conidial state in the cultures of *A. aggregata* (I. Hino & Katum.) Kaz. Tanaka & Y. Harada. However, molecular analysis has not been carried out for *Pleurophomopsis* hence its taxonomic position remains uncertain.

Aulographaceae Luttr. ex P.M. Kirk et al., Ainsworth & Bisby's Dictionary of the Fungi Edn 9 (Wallingford): ix (2001)

Notes: Hongsanan et al. (2014c) revised the family and accepted six genera.

Aulographina Arx & E. Müll., Sydowia 14: 330 (1960)

Notes: *Aulographina pinorum* (Desm.) Arx & E. Müll., the ex-type of *Aulographina*, clusters apart from *A. eucalypti* (Cooke & Massee) Arx & E. Müll., which has *Thyrinula eucalypti* (Cooke & Massee) H.J. Swart (type of *Thyrinula*) as asexual morph (Carnegie and Keane 2003). Target spot of *Eucalyptus*, should therefore more correctly be ascribed to *T. eucalypti* rather than to *Aulographina*. Both genera, *Aulographina* and *Thyrinula* should thus be retained. Hongsanan et al. (2014c) transferred *Aulographina* from *Asterinaceae* to *Teratosphaeriaceae*.

Aureobasidiaceae K.M. Thambugala & K.D. Hyde, Fungal Diversity 68 (2014)

Notes: See notes under *Dothideales* and Thambugala et al. (2014a).

Austroafricana Quaedvlieg & Crous, Persoonia 33: 25 (2014)

Notes: Quaedvlieg et al. (2014) introduced *Austroafricana* to accommodate three teratosphaeria-like species as *Teratosphaeria associata* (Crous & Carnegie) Crous & U. Braun, *T. keanei* Carnegie & G.S. Pegg and *T. parva* (R.F. Park & Keane) Crous & U. Braun, which are phylogenetically distinct from *Teratosphaeria sensu stricto* in their molecular data analysis.

Bagnisiella Speg., Anal. Soc. cient. argent. 10(5–6): 146 (1880)

Notes: See notes under *Aplosporellaceae*. Further taxonomic notes are provided in Thambugala et al. (2014a).

Barria Z.Q. Yuan, Mycotaxon 51: 313 (1994)

Notes: Hyde et al. (2013) listed this genus in *Phaeosphaeriaceae* but Phookamsak et al. (2014) excluded it based on morphological characters, and Ariyawansa et al. (2014c) transferred *Barria* to *Didymosphaeriaceae* based on morpholgy.

Bipolaris Shoemaker, Can. J. Bot. 37(5): 882 (1959)

= *Cochliobolus* Drechsler, Phytopathology 24: 973 (1934)

Notes: Manamgoda et al. (2012) resolved the complex of *Bipolaris*, *Cochliobolus* and *Curvularia* and showed *Bipolaris* to be the asexual state of *Cochliobolus*. At the same time Manamgoda et al. (2012) proposed the use of *Bipolaris* over the older *Cochliobolus* name stating the importance of *Bipolaris* as an economically significant pathogen. Manamgoda et al. (2012) also considered the number of epithets under each genus to support their argument, with *Bipolaris* having many more epithets than *Cochliobolus*. Rossman et al. (2013) introduced their proposal to conserve *Bipolaris* over *Cochliobolus*.

Blasdalea Sacc. & P. Syd., Syll. fung. (Abellini) 16: 634 (1902)

= *Singeriella* Petr., Sydowia 12(1–6): 252 (1959) [1958]

= *Chrysogloeum* Petr., Sydowia 12(1–6): 254 (1959) [1958]

Notes: Petrak (1958) established the genus *Chrysogloeum* to accommodate the conidial state of *Singeriella* Petr. *Singeriella* was considered as a synonym of *Blasdalea* Sacc. (Kirk et al. 2008) and as both genera are monotypic. Hence we propose the oldest name *Blasdalea* over *Chrysogloeum*.

Botryochora Torrend, Brotéria, sér. bot. 12: 65 (1914)

Notes: Lumbsch and Huhndorf (2010) listed this genus under *Dothioraceae* (=*Dothideaceae fide* Thambugala et al. 2014a) but Thambugala et al. (2014a) excluded this genus from *Dothideaceae* and placed in *Dothideomycetes*, genera *incertae sedis* based on morphology.

Botryohypoxylon Samuels & J.D. Rogers, Mycotaxon 25(2): 631 (1986)

= *Iledon* Samuels & J.D. Rogers, Mycotaxon 25(2): 633 (1986)

Notes: Samuels and Rogers (1986) described the genus *Botryohypoxylon*. Its coelomycetous asexual state was observed in culture and described as *Iledon*. Both genera are monotypic (Index Fungorum 2014, http://www.indexfungorum.org/names/names.asp). In this case, we give priority to the older sexual state and propose *Botryohypoxylon* over *Iledon*.

Botryosphaeria Ces. & De Not., Comm. Soc. crittog. Ital. 1(4): 211 (1863)

= *Fusicoccum* Corda, Deutschl. Fl., 3 Abt. (Pilze Deutschl.) 2: 111 (1829)

Notes: Slippers et al. (2004) reduced *Fusicoccum aesculi* Corda, the type species of *Fusicoccum* under *Botryosphaeria dothidea* (Moug.) Ces. & De Not., the type species of *Botryosphaeria*. Phillips et al. (2013) accept six species of *Botryosphaeria* with *Fusicoccum* asexual morphs based on culture and molecular studies. *Botryosphaeria* was chosen over the older name *Fusicoccum*, as its clearly defined, epitypified and commonly used in plant pathological literature.

Brefeldiella Speg., Boln Acad. nac. Cienc. Córdoba 11(4): 558 (1889)

Notes: Hongsanan et al. (2014a) accepted this genus in *Trichopeltinaceae*.

Brooksia Hansf., Proc. Linn. Soc. N.S.W. 81: 32 (1956)

= *Hiospira* R.T. Moore, Trans. Br. mycol. Soc. 45(1): 145 (1962)

Notes: Moore (1962) established *Hiospira* R.T. Moore to accommodate the conidial state of *Brooksia tropicalis* Hansf., the type species of *Brooksia* Hansf. Hence, we reduce *Hiospira*, the younger asexual typified name under *Brooksia*, the sexual typified name.

Butleria Sacc., Annales Mycologici 12: 302 (1914)

Notes: See notes under *Elsinoaceae*.

Bryopelta Döbbeler & Poelt, Mitt. bot. StSamml., Münch. 14: 126 (1978)

Notes: Lumbsch and Huhndorf (2010) referred this genus to *Dothideomycetes*, genera *incertae sedis* however, Li et al. (2014) reexamined the type species of *Bryopelta* and accepted it as a genus in *Mycosphaerellaceae*.

Bryosphaeria Döbbeler, Mitt. bot. StSamml., Münch. 14: 151 (1978)

Notes: Li et al. (2014) referred *Bryosphaeria* in *Trematosphaeriaceae* based on morphological similarities with the generic type *Trematosphaeria*.

Camaroglobulus Speer, Bull. trimest. Soc. mycol. Fr. 102: 100 (1986)

Notes: Speer (1986) introduced *Camaroglobulus* to accommodate the conidial state of *Mytilinidion resinae* Speer. However, *M. resinae* was not confirmed as a *Mytilinidion* species by molecular phylogeny. Therefore, we do not synonymize *Camaroglobulus* under *Mytilinidion* and conclude that *Camaroglobulus* has a mytilinidion-like sexual state.

Camarosporaceae Wijayawardene & K. D. Hyde (in prep.)

Notes: See notes under *Camarosporium*.

Camarosporium Schulzer, Verh. zool.-bot. Ges. Wien 20: 649 (1870)

Notes: Cortinas et al. (2006) showed that the type species, *C. quaternatum* Schulzer grouped outside the *Botryosphaeriaceae*. Liu et al. (2012), however concluded placement of *Camarosporium* under *Botryosphaeriales incertae sedis*. This genus has been considered as the asexual state of *Cucurbitaria* (Doilom et al. 2013), hence a generic revision for camarosporium-like coelomycetous fungi is required. However, Wijayawardene et al. (2014a) showed that *Camarosporium sensu stricto* groups in *Pleosporinae*, *Pleosporales*. Furthermore, it shows cucurbitaria-like sexual states (*viz. Cucurbitaria elongata* hence introduced as a new combination of *Camarosporium*) (Wijayawardene et al. 2014c). Furthermore, Wijayawardene et al. (2014c) showed that the genus *Camarosporium* is polyphyletic, and introduced *Paracamarosporium* Wijayawardene & K.D. Hyde and *Pseudocamarosporium* Wijayawardene & K.D. Hyde (*Montagnulaceae*, *Massarineae*), while Crous et al. (2014) introduced *Neocamarosporium* Crous & M.J. Wingf. Our phylogenetic

analyses agree with Wijayawardene et al. (2014a, c) and Wijayawardene et al. (in prep) introduced *Camarosporaceae* to accommodate *Camarosporium sensu stricto*.

Capnodium Mont., Annls Sci. Nat., Bot., sér. 3 11: 233 (1849)

= *Polychaeton* (Pers.) Lév., Dict. Univ. Hist. Nat. 8: 493 (1846)

= *Fumagospora* G. Arnaud, Annals d'École National d'Agric. de Montpellier, Série 2 10(4): 326 (1911)

Notes: Chomnunti et al. (2011) adopted *Capnodium*, the younger, but more widely used name over the older name, *Polychaeton*, typified by species with an asexual morph type. We also accept *Capnodium* as it has a larger number of epithets (Index Fungorum 2014) and thus this approach reduces nomenclature changes. This selection was given as an example of good practice in the Melbourne Code under Art. 57.2 (McNeill et al. 2012).

Caryophylloseptoria Verkley et al., Stud. Mycol. 75: 233 (2013)

Notes: Verkley et al. (2013) introduced this genus and showed it belongs in *Mycosphaerellaceae*.

Catenulomyces E. Egidi & G.S. de Hoog, Fungal Diversity 65: 154 (2014)

Notes: Egidi et al. (2014) introduced this genus with *C. convolutus* Egidi & de Hoog. as the type species. Molecular analyses showed that this genus is related to *Capnodiales*, genera *incertae sedis* (Egidi et al. 2014).

Celosporium Tsuneda & M.L. Davey, Botany 88: 472 (2010)

Notes: Thambugala et al. (2014a) treated this genus as *Dothideales*, genera *incertae sedis* as the type species of *Celosporium*, *C. laricicola* Tsuneda & M.L. Davey formed a distinct clade in their molecular data analyses.

Cercospora Fresen., Beitr. Mykol. 3: 91 (1863)

Notes: Goodwin et al. (2001) and Crous et al. (2007, 2009) accepted that *Cercospora* has mycosphaerella-like sexual states. However, Crous et al. (2009) restricted *Mycosphaerella sensu stricto* to *Ramularia sensu stricto* and synonymised the former under the latter genus. Thus, *Cercospora* is now recognized as a separate genus with mycosphaerella-like sexual morphs (Crous et al. 2009, 2013; Groenewald et al. 2013). The case is discussed in detail by Braun et al. (2013).

Chaetocrea Syd., Annls mycol. 25(1/2): 18 (1927)

Notes: Boonmee et al. (2014b) excluded this genus from *Tubeufiaceae* and placed in *Dothideomycetes*, genera *incertae sedis*.

Chaetoplea (Sacc.) Clem., Gen. fung., Edn 2 (Minneapolis): 275 (1931)

Notes: Hyde et al. (2013) listed this genus in *Phaeosphaeriaceae* but Phookamsak et al. (2014) excluded it based on morphological characters and placed the genus in *Leptosphaeriaceae*.

Chaetoscutula E. Müll., Sydowia 12(1–6): 190 (1959) [1958]

Notes: Lumbsch and Huhndorf (2010) placed *Chaetoscutula* in *Dothideomycetes*, genera *incertae sedis*. Based on morphological characters, Tian et al. (2014) transferred this genus to *Pseudoperisporiaceae*.

Chaetosphaerulina I. Hino, Bulletin Miyazaki Coll. Agric. Forest. 10: 62 (1938)

Notes: Boonmee et al. (2014b) treated this genus as a doubtful genera but listed under *Tubeufiaceae*.

Chaetothyriothecium Hongsanan & K.D. Hyde, Phytotaxa 161 (2): 161 (2014)

Notes: Hongsanan et al. (2014b) introduced *Chaetothyriothecium* as a new genus in *Microthyriaceae* based on LSU data analysis. This familial placement agrees with our molecular data analyses (Fig. 1).

Cladosporium Link, Mag. Gesell. naturf. Freunde, Berlin 7: 37 (1816) [1815]

= *Davidiella* Crous & U. Braun, Mycol. Progr. 2(1): 8 (2003)

Notes: Braun et al. (2003) proposed *Davidiella* to accommodate *Cladosporium sensu stricto* Schoch et al. (2006) introduced the family *Davidiellaceae* to accommodate these two genera. Bensch et al. (2012) and Crous et al. (2013) however, reinstated *Cladosporiaceae*, which had been introduced in Nannizzi (1934) and accepted *Cladosporium* as the family type. Hyde et al. (2013) also accepted this arrangement. We therefore propose using the oldest name *Cladosporim* over *Davidiella*. This makes sense as *Cladosporium* has many more described species (Bensch et al. 2012) and is well known amongst mycologists.

Clavatispora S. Boonmee & K.D. Hyde, Phytotaxa 176(1): 95 (2014)

Notes: Boonmee et al. (2014a) introduced this genus and molecular phylogenetic analyses show it belongs in *Sympoventuriaceae*, *Venturiales*. It has unusual alternaria-like asospores.

Coccostromella Petr., Sydowia 21: 267 (1968) [1967]

Notes: Thambugala et al. (2014a) excluded this genus from *Dothideaceae* and placed it in *Botryosphaeriaceae* as it has filiform pseudoparaphyses and clavate to cylindro-clavate asci and aseptate ascospores.

Colensoniella Hafellner, Beih. Nova Hedwigia 62: 160 (1979)

Notes: Based on morphological characters, Tian et al. (2014) suggested to place *Colensoniella* in *Patellariaceae* based on similarities in morphology.

Colletogloeum Petr., Sydowia 7(5–6): 368 (1953)

Notes: Sutton (1980) and Verkley and Priest (2000) reported *Colletogloeum* to have mycosphaerella-like sexual morphs. Although, morphologically, *Colletogloeum* and *Phloeospora* Wallr. are quite similar, Quaedvlieg et al. (2013) accepted both genera as legitimate names.

Comminutispora A.W. Ramaley, Mycologia 88(1): 132 (1996)

= *Hyphospora* A.W. Ramaley, Mycologia 88(1): 133 (1996)

Notes: When Ramaley (1996) established the genus *Comminutispora* with *C. agavacearum* A.W. Ramaley, its hyphomycetous asexual state i.e. *Hyphospora* (*Hyphospora agavacearum* A.W. Ramaley) was observed in the culture. We propose to accept the name of older sexual state *viz. Comminutispora* over *Hyphospora*.

Coniothyrium Corda, Icon. fung. (Prague) 4: 38 (1840)

Notes: *Coniothyrium* was considered to be the asexual state of *Leptosphaeria*, *Mycosphaerella* and *Massarina* (Sivanesan 1984). However, many species were removed from *Coniothyrium* and included in other genera or upgraded to generic level (Verkley et al. 2004, 2014; Cortinas et al. 2006). De Gruyter et al. (2013) reinstated *Coniothyriaceae* (*Coniothyrium* as family type), which was synonymized under *Leptosphaeriaceae* (Kirk et al. 2008). Hyde et al. (2013) recognized *Coniothyriaceae* as an accepted family.

Constantinomyces E. Egidi & S. Onofri, Fungal Diversity 65: 155 (2014)

Notes: The genus *Constantinomyces* was introduced by Egidi et al. (2014) with *C. virgultus* Egidi & Onofri as the type species. Multi-gene analysis of nu LSU, RPB2, ITS and BT2 showed this genus clusters in *Teratosphaeriaceae* (Egidi et al. 2014).

Coronospora M.B. Ellis, Mycol. Pap. 125: 16 (1971)

Notes: See notes under *Ascoronospora*.

Corynespora Güssow, Z. PflKrankh. PflPath. PflSchutz 16: 10 (1906)

Notes: *Corynespora* has been shown to be the asexual morph of many genera (Seifert et al. 2011). Sivanesan (1996) established *Corynesporascaceae* Sivan. to accommodate *Corynespora* and *Corynesporasca* Sivan. sexual states. Tanaka et al. (2005) stated that *Pleomassaria swidae* Kaz. Tanaka, Y. Harada & M.E. (*Pleomassariaceae*) has a *Corynespora* asexual state. Schoch et al. (2009) did not include *Corynesporascaceae* in their phylogenetic analysis but showed *Corynespora* to be polyphyletic. We conclude that this genus requires more work to confirm its taxonomic position and propose that the usage of the *Corynespora* and *Corynesporasca* should be continued pending further studies.

Cucurbidothis Petr., Annls mycol. 19(3–4): 201 (1921)

Notes: After observing the paratype of the genus *Cucurbidothis*, *C. pityophila*, Ariyawansa et al. (2014d) proposed to maintain this genus as a separate genus in *Cucurbitariaceae*.

Cucurbitaria Gray, Nat. Arr. Brit. Pl. (London) 1: 508, 519 (1821)

Notes: The link between *Cucurbitaria* and *Pyrenochaeta* was discussed by de Gruyter et al. (2010). They accepted *Cucurbitaria berberidis* (Pers.) Gray, the generic type of *Cucurbitaria* as the sexual state of *Pyrenochaeta berberidis* (Sacc.) Brunaud. In this study, they used the name *C. berberidis* (CBS 363.93 and CBS 394.84), and this was followed by de Gruyter et al. (2013). De Gruyter (2010) further showed that *C. berberidis* grouped along with *P. nobilis* De Not., the generic type of *Pyrenochaeta*. Doilom et al. (2013) however, considered these two genera to be distinct as *P. nobilis* De Not, the type species of *Pyrenochaeta*, groups separate from *Cucurbitaria berberidis* (Pers.) Gray, the type species of *Cucurbitaria*. We therefore propose the continued use of *Cucurbitaria* and *Pyrenochaeta* pending further studies.

Curvularia Boedijn, Bull. Jard. bot. Buitenz, 3 Sér. 13(1): 123 (1933)

= *Pseudocochliobolus* Tsuda, Ueyama & Nishih., Mycologia 69(6): 1117 (1978) [1977]

Notes: Manamgoda et al. (2012) confirmed the phylogenetic relationship between *Curvularia* and *Pseudocochliobolus* and proposed *Curvularia* to take priority. We agree with this as *Curvularia* is the oldest and more commonly used name, which is also used by plant pathologists (Monterio et al. 2003).

Cyclopeltis Petr., Sydowia 7(5–6): 370 (1953)

= *Cyclopeltella* Petr., Sydowia 7 (5–6): 373 (1953)

Notes: *Cyclopeltella* was described to accommodate the conidial state of *Cyclopeltis* Petr. in the same publication, but three pages after the sexual state was introduced (Petrak 1953). *Cyclopeltis* has more epithets than *Cyclopeltella* (Index Fungorum 2014), hence we propose usage of the older name, *Cyclopeltis* over *Cyclopeltella*.

Cyclothyrium Petr., Annls mycol. 21(1/2): 5 (1923)

Notes: *Cyclothyrium* was treated at subgeneric rank within *Cytoplea* Bizz. & Sacc. by Petrak and Sydow (1927). Sutton (1980) however, accepted *Cyclothyrium* as a distinct genus. Sutton (1980) mentioned that *Thyridaria rubronotata* (Berk. & Br.) Sacc. is the sexual state of *Cyclothyrium juglandis* (Schum .ex Rabenh.) Sutton, which is the type species of *Cyclothyrium*. This was accepted by Verkley et al. (2004) and Damm et al. (2008) while de Gruyter et al. (2013) showed its taxonomic placement in *Pleosporales* by analysis of SSU rDNA sequence data. However, the type species of *Thyridaria* is not linked to any *Cyclothyrium* species hence we conclude that *Cyclothyrium* has thyridaria-like sexual states.

Cystocoleus Thwaites, Ann. Mag. nat. Hist., Ser. 2 3: 241 (1849)

Notes: Phylogenetic analysis showed *C. ebeneusis* not close to lichenized members and rather belongs to *Capnodiales* (Muggia et al. 2008). Following a phylogenetic analysis, Hyde et al. (2013) suggested that *Cystocoleus* should be placed in *Capnodiales*, genera *incertae sedis*.

Cytoplea Bizz. & Sacc., Atti Ist. Veneto Sci. lett. ed Arti, Sér. 3 3: 307 (1885)

Notes: Hyde et al. (1996) showed by cultural methods that *Roussoella hysterioides* (Ces.) Höhn. has a conidial state in *Cytoplea* (i.e. *C. hysterioides* K.D. Hyde) and Hyde (1997) recognized *R. hysterioides* as an accepted species in *Roussoella*. Kang et al. (1998) confirmed this relationship using molecular data and Verkley et al. (2004) accepted this in the analyses of ITS and SSU sequence analyses. Liu et al. (2014) listed *Cytoplea* as a possible synonym of *Roussoëlla*. However, this relationship must be confirmed by using the type species of *Cytoplea* hence we propose the continued use of *Cytoplea* and *Roussoella* pending further studies. *Cytoplea* would have priority as it is the oldest genus and has higher number of species epithets (Index Fungorum 2014) and higher number of Google Scholar hits.

Dematiopleospora Wanasinghe et al., Crypto. Mycol. 35 (2): 110 (2014)

Notes: Wanasinghe et al. (2014) introduced *Dematiopleospora* with *D. mariae* Wanasinghe et al. as the type species. Combined gene analyses (LSU and SSU) shows *Dematiopleospora* belongs in *Phaeosphaeriaceae* (Wanasinghe et al. 2014).

Dermatodothella Viégas, Bragantia 4(1–6): 150 (1944)

Notes: Ariyawansa et al. (2013) placed *Dermatodothella* in *Polystomellaceae* based on multi-loculate, globose to subglobose ascostromata, with widely porate ostioles and its similarities with other genera in this family.

Dictyocyclus Sivan. et al., J. Linn. Soc., Bot. 126(4): 324 (1998)

Notes: See notes under *Myriangiaceae*.

Didymella Sacc., Michelia 2(no. 6): 57 (1880)

Notes: See note under *Ascochyta* and *Phoma*.

Didymosphaeriaceae Munk, Dansk bot. Ark. 15(no. 2): 128 (1953)

Notes: Ariyawansa et al. (2014c) revised the family *Didymosphaeriaceae* with 20 genera and listed *Montagnulaceae* as a symonym of *Didymosphaeriaceae*. Detailed taxonomic notes and revisions are provided in Ariyawansa et al. (2014c) for this family and its accepted genera.

Dimorphiopsis Crous, Persoonia, Mol. Phyl. Evol. Fungi 31: 217 (2013)

Notes: Crous et al. (2013) introduced this monotypic genus and placed it in *Lophiostomataceae* based on molecular data.

Diplodia Fr., Annls Sci. Nat., Bot., sér. 2 1: 302 (1834)

Notes: Phillips et al. (2008, 2013) and Liu et al. (2012) accepted this genus as a well-supported genus in *Botryosphaeriaceae* based on their molecular-based analyses. The type

species of *Diplodia*, *D. mutila* Fr. has a botryosphaeria-like sexual state, “Botryosphaeria stevensii”.

Diplotheca Starbäck, Botaniska Notiser: 30 (1893)

Notes: See notes under *Myriangiaceae*.

Dissoconiaceae Crous & de Hoog, Stud. Mycol. 64: 36 (2009)

Notes: Li et al. (2012) revised this family and their molecular analyses show *Dissoconiaceae* comprises of four distinct genera *viz. Dissoconium*, *Pseudoveronaea*, *Ramichloridium* and *Uwebraunia*.

Dothidasteroma Höhn., Sber. Akad. Wiss. Wien, Math.-naturw. Kl., Abt. 1 118: 1509 (1909)

Notes: See notes under *Placomelan*.

Dothidasteromella Höhn., Sber. Akad. Wiss. Wien, Math.-naturw. Kl., Abt. 1 119: 421 (1910)

Notes: Hongsanan et al. (2014c) transferred this genus from *Asterinaceae* to *Dothideomycetes*, genera *incertae sedis*.

Dothideales Lindau, Nat. Pflanzenfam., Teil. I (Leipzig) 1(1): 373 (1897)

Notes: Based on molecular data analyses, Thambugala et al. (2014a) have not treated *Dothioraceae* as a distinct family in *Dothideales* and reduced it under *Dothideaceae*. They accepted 15 genera in *Dothideaceae*. Furthermore, Thambugala et al. (2014a) introduced *Aureobasidiaceae* to place *Aureobasidium* and other six genera.

Dothideaceae Chevall., Fl. gén. env. Paris (Paris) 1: 446 (1826); as ‘*Dothideae*’.

Notes: See notes under *Dothideales* and Thambugala et al. (2014a). Notes for genera marked with # are provided in Thambugala et al. (2014a).

Dothideopsella Höhn., Sber. Akad. Wiss. Wien, Math.-naturw. Kl., Abt. 1 124: 70 (1915)

Notes: *Dothideopsella* shows similarities with *Phaeosphaeriaceae* in having immersed ascomata with short papillate ostioles, a peridium of pseudoparenchymatous cells, cellular pseudoparaphyses and pale brown, septate ascospores thus Ariyawansa et al. (2013) referred *Dothideopsella* to *Phaeosphaeriaceae*.

Echidnodes Theiss. & Syd., Annls. Mycol. 15(6): 422 (1918) [1917]

Notes: Hongsanan et al. (2014c) accepted this genus as a member of *Aulographaceae*.

Elsinoë Racib., Parasit. Alg. Pilze Java's (Jakarta) 1: 14 (1900)

= *Sphaceloma* de Bary, Ann. Oenol. 4: 165–167 (1874)

Notes: Sutton (1980) and Sivanesan (1984) stated that *Elsinoë* is the sexual state of *Sphaceloma*, which has also been well established based on different molecular studies (Mchau et al. 1998; Swart et al. 2001; Cheewangkoon et al. 2009). *Sphaceloma* has a larger number of species epithets (168) than *Elsinoë* (139) and is also the older genus. However, the number of Google scholar hits of *Elsinoë* (3810) is higher than *Sphaceloma* (2690). *Elsinoë* is also well established in the plant pathological and plant breeder community (Wang et al. 2009; Chung 2011) hence Hyde et al. (2013) recognised *Elsinoë* as the accepted name over *Sphaceloma*.

Elsinoaceae Höhn. ex Sacc. & Trotter, Syll. fung. (Abellini) 22: 584 (1913)

Notes: Jayawardena et al. (2014) revised the family and accepted only *Elsinoë* Racib. (=*Sphaceloma* de Bary) and *Molleriella* G. Winter. Furthermore, Jayawardena et al. (2014) excluded *Hemimyriangium*, *Butleria*, *Micularia* (placed in *Myriangiaceae*), *Saccardinula* (placed in *Trichopeltinaceae*), *Hyalotheles* Speg. (placed in *Dothideomycetes*, genera *incertae sedis*), *Beelia* F. Stevens & R.W. Ryan (*Chaetothyriaceae*) and *Xenodium* Syd. (*Sordariomycetes*, genera *incertae sedis*) from *Elsinoaceae*.

Englerula Henn., Bot. Jb. 34: 49 (1904)

Notes: See notes under *Englerulaceae*.

Englerulaceae Henn., Hedwigia Beibl. 43: 353 (1904)

Notes: Dai et al. (2014b) revised this family and accepted *Englerula*, *Goosia*, *Parenglerula*, *Rhytidenglerula*, *Schiffnerula* and *Thrauste*. Höhn. Thambugala et al. (2014c) accepted *Allosoma* Syd. as a genus in this family.

Eriosporella Höhn., Sber. Akad. Wiss. Wien, Math.-naturw. Kl., Abt. 1 125(1–2): 109 (1916)

Notes: Dai et al. (2014c) introduced a new species *Eriosporella* i.e. *Eriosporella bambusicola* Dai et al. and showed that this species is belonging to *Capnodiales incertae sedis* in their molecular data analyses. However, *Eriosporella calami* (Niessl) Höhn., the type species of *Eriosporella* was not linked with any taxonomic level (Wijayawardene et al. 2012). Hence we conclude that *Eriosporella sensu lato* belongs to *Capnodiales*.

Eupelte Syd., Annls mycol. 22(3/6): 426 (1924)

Notes: See notes under *Pirozynskia*.

Eupenidiella Quaedvlieg & Crous, Persoonia 33: 25 (2014)

Notes: The genus *Eupenidiella* was introduced to accommodate *Penidiella venezuelensis* Crous & U. Braun (Quaedvlieg et al. 2014) since it is phylogenetically distinct from *Penidiella sensu s t ricto* and i s placed in *Teratosphaeriaceae* by molecular data.

Eurytheca De Seynes, Bull. Soc. bot. Fr. 25: 88 (1878)

Notes: See notes under *Myriangiaceae*.

Euteratosphaeria Quaedvlieg & Crous, Persoonia 33: 25 (2014)

Notes: Quaedvlieg et al. (2014) introduced *Euteratosphaeria* to accommodate *Mycosphaerella verrucosiafricana* Crous & M.J. Wingf., which clusters in *Teratosphaeriaceae*. *Euteratosphaeria* is morphologically similar to species of *Teratosphaeria* but phylogenetically distinct.

Excipulariopsis P.M. Kirk & Spooner, Trans. Br. mycol. Soc. 78(2): 251 (1982)

= *Kentingia* Sivan. & W.H. Hsieh, Mycol. Res. 93(1): 83 (1989)

Notes: Sivanesan and Hsieh (1989) established *Kentingia* to accommodate the sexual state of *Excipulariopsis narsapurensis* (Subram.) Spooner & P.M. Kirk. Both genera are monotypic and hence we propose to use the oldest name, *Excipulariopsis* over *Kentingia*.

Exosporiella P. Karst., Finlands mögelsvampar, (Hyphomycetes fennici): 160 (1892)

= *Anomalemma* Sivan., Trans. Br. mycol. Soc. 81(2): 328 (1983)

Notes: Sivanesan (1983) introduced *Anomalemma* as a new combination and at the same time confirmed the link with its asexual morph *Exosporiella*. Each genus is monotypic and herein we propose usage of the oldest name *Exosporiella*.

Exserohilum K.J. Leonard & Suggs, Mycologia 66(2): 289 (1974)

= *Setosphaeria* K.J. Leonard & Suggs, Mycologia 66(2): 294 (1974)

Notes: *Exserohilum* has sexual states in *Setosphaeria*. We propose the usage of *Exserohilum* over *Setosphaeria*. *Exserohilum* has more epithets (Index Fungorum 2014), and is more commonly used in literature. Furthermore, several *Exserohilum* species names are considered to be of important quarantine significance (Takuya and Takao 2012), or of importance in medical mycology (Adler et al. 2006).

Extremus Quaedvlieg & Crous, Persoonia 33: 21 (2014)

Notes: *Devriesia sensu stricto* was shown to belong in *Teratosphaeriaceae*, but *D. adstricta* and *D. antarctica* grouped away from *Teratosphaeriaceae* (Quaedvlieg et al. 2014). Hence the genus *Extremus* was introduced (in *Extremaceae*) by Quaedvlieg et al. (2014) to accommodate these two species as *E. adstrictus* and *E. antarcticus*.

Extremaceae Quaedvlieg & Crous, Persoonia 33: 21 (2014)

Notes: Quaedvlieg et al. (2014) introduced this family and currently it comprises of five genera; *viz Extremus*, *Petrophila*, *Pseudoramichloridium*, *Staninwardia* and *Vermiconia*.

Farlowiella Sacc., Syll. fung. (Abellini) 9: 1100 (1891)

= *Acrogenospora* M.B. Ellis, Demat. Hyphom. (Kew): 114 (1971)

Notes: Ellis (1971, 1976) stated that *Farlowiella* is the sexual state of *Acrogenospora*. Schoch et al. (2009) accepted *Farlowiella* as the sexual state of *Acrogenospora* and hence, we propose usage of the oldest name, *Farlowiella* over *Acrogenospora*.

Glaxoa P.F. Cannon, Syst. Ascom. 15(1–2): 122 (1997)

Notes: Boonmee et al. (2014b) transferred this genus to *Pleosporales*, genera *incertae sedis* from *Tubeufiaceae*.

Goosia B. Song, Mycotaxon 87: 413 (2003)

Notes: See notes under *Englerulaceae*.

Grandigallia M.E. Barr et al., Mycotaxon 29: 196 (1987)

Notes: Based on similarities with *Shiraia*, Ariyawansa et al. (2013) suggested that *Grandigallia* can be referred to *Pleosporales* where it may be related to *Shiraiacaeae*.

Hadrospora Boise, Mem. N. Y. bot. Gdn 49: 310 (1989)

Notes: Hyde et al. (2013) listed this genus in *Phaeosphaeriaceae* however, Phookamsak et al. (2014) excluded it based on morphological characters and placed it in *Trematosphaeriaceae*.

Helicangiospora Boonmee et al., Fungal Diversity 68 (2014)

Notes: Boonmee et al. (2014b) introduced *Helicangiospora* with *H. lignicola* Boonmee et al. as the type species and showed it belongs in *Tubeufiaceae* in their molecular analyses.

Helicosporium Nees, Syst. Pilze (Würzburg): 68 (1816) [1816–17]

Notes: Boonmee et al. (2014b) showed that *Tubeufia cerea* (Berk. & M.A. Curtis) Höhn. grouped with the type species of *Helicosporium*, *H. vegetum* Nees in their molecular data analyses. Based on this, we conclude that *Helicosporium sensu stricto* has tubeufia-like sexual states.

Hemimyriangium J. Reid & Piroz., Can. J. Bot. 44: 650 (1966)

Notes: See notes under *Elsinoaceae*.

Heterospora (Boerema et al.) Gruyter et al., Stud. Mycol. 75: 18 (2012)

Notes: *Heterospora* was considered as a section of *Phoma* (Boerema 1997) and the type of this section is *P. heteromorphospora*. De Gruyter et al. (2013) showed by phylogenetic analysis that this species is unrelated to two other phoma-like genera (i.e. *Plenodomus* and *Subplenodomus*) in *Leptosphaeriaceae* as well *Phoma sensu stricto* in *Didymellaceae*. Hence, the section *Heterospora* was upgraded to generic level and *Phoma heteromorphospora* and *P. dimorphospora* were transferred to *H. chenopodii* and *H. dimorphospora* respectively and palced in *Leptosphaeriaceae*.

Hongkongmyces Tsang et al., Medical Mycology 52 (7): 740 (Tsang et al. 2014)

Notes: Tsang et al. (2014) introduced this mycelial fungal genus, known to infect humans, and showed it belongs to *Lindgomycetaceae* in their phylogenetic analysis.

Hormonema Lagerb. & Melin, Svensk Skogsv. Tidskr. 25: 233 (1927)

Notes: See notes under *Pseudosydowia* and *Sydowia*.

Hyalotheles Speg., Revta Mus. La Plata 15(2): 11 (1908)

Notes: See notes under *Elsinoaceae*.

Hyphoconis E. Egidi & W. Quaedvlieg, Fungal Diversity 65: 153 (2014)

Notes: Egidi et al. (2014) introduced this genus from a culture and showed it belongs to *Capnodiales incertae sedis* based on molecular data analysis of the combined data set of nu LSU, RPB2, ITS and BT2. However the type species of *Hyphoconis*, *H. sterilis* Egidi & Quaedvlieg lacks conidia or chlamydospores and thus morphological characters are unknown (Egidi et al. 2014).

Hysteropeltella Petr., Annls mycol. 21(1/2): 9 (1923)

Notes: *Hysteropeltella* shows similar characters with the genera of *Schizothyriaceae* thus Ariyawansa et al. (2013) tentatively referred *Hysteropeltella* in *Schizothyriaceae*.

Incertomyces E. Egidi & L. Zucconi Galli Fonseca, Fungal Diversity 65: 157 (2014)

Notes: The genus *Incertomyces* was introduced by Egidi et al. (2014) and shown to belong in *Teratosphaeriaceae* based on analysis of combined LSU, RPB2, ITS and BT2 sequence data.

Jaffuela Speg., Boln Acad. nac. Cienc. Córdoba 25: 39 (1921)

Notes: Thambugala et al. (2014a) excluded this genus from *Dothioraceae* (=*Dothideaceae fide* Thambugala et al. 2014a) and placed in *Pseudoperisporiaceae* based on morphology.

Jahnula Kirschst., Annls mycol. 34(3): 196 (1936)

Notes: Sivichai et al. (2011) predicted that *Jahnula aquatica* (Kirschst.) Kirschst., the type species of *Jahnula* would prove to be the sexual state of *Xylomyces chlamydosporus* Goos et al. the type species of *Xylomyces* Goos et al., using a culture-based approach. However, Campbell et al. (2007) and Suetrong et al. (2011) showed that the link was not supported by molecular data analysis. Hence, it is essential to carry out further molecular data analyses by using different isolates of both genera.

Julella Fabre, Annls Sci. Nat., Bot., sér. 6 9: 113 (1879) [1878]

Notes: Hyde et al. (2013) listed this genus in *Halojulellaceae* but with uncertainty. However, Ariyawansa et al. (2014c) transferred *Julella* to *Didymosphaeriaceae*.

Karschia Körb., Parerga lichenol. (Breslau): 459 (1865)

Notes: Thambugala et al. (2014b) transferred this genus from *Dothideomycetes incertae sedis* to *Lichenotheliaceae*.

Kellermania Ellis & Everh., J. Mycol. 1(12): 53 (1885)

= *Planistromella* A.W. Ramaley, Mycotaxon 47: 260 (1993)

= *Piptarthron* Mont. ex Höhn., Hedwigia: 60: 203 (1918)

= *Alpakesa* Subram. & K. Ramakr., J. Indian Bot. Soc. 33: 204 (1954)

= *Septoplaca* Petr., Sydowia 17: 271 (1964) [1963]

Notes: Ramaley (1993) introduced *Planistromella* to accommodate the sexual state of *Kellermania*. She recognized *Planistromella yuccifoliorum* A.W. Ramaley and *P. uniseptata* A.W. Ramaley as sexual state of *Kellermania yuccifoliorum* A.W. Ramaley and *K. yuccigena* Ellis & Everh. respectively. These links were confirmed by DNA sequence analyses and accepted by Minnis et al. (2012) and Monkai et al. (2013). Minnis et al. (2012) and Hyde et al. (2013) accepted the oldest name i.e. *Kellermania* as the preferred name and we agree with this conclusion.

Kirschsteiniothelia D. Hawksw., J. Linn. Soc., Bot. 91:182 (1985)

= *Dendryphiopsis* S. Hughes, Can. J. Bot. 31:655 (1953)

Notes: Boonmee et al. (2012) found in their DNA sequence analyses, that the type species of *Kirschsteiniothelia*, *K. aethiops* (Berk. & M.A. Curtis) D. Hawksw. grouped with *Dendryphiopsis atra* (Corda) S. Hughes, the type species of *Dendryphiopsis*. The link had previously been confirmed by Hughes (1978) from cultures of fragments of the ascomata. In Index Fungorum (2014) there are 18 epithets for *Kirschsteiniothelia*, whereas *Dendryphiopsis* only has six epithets. Further, asexual recombination not been established for many species of *Kirschsteiniothelia*. If we choose *Dendryphiopsis* it might result in more name changes than *Kirschsteiniothelia*. Therefore, we propose to use *Kirschsteiniothelia* over *Dendryphiopsis*, the former also being better established in literature than *Dendryphiopsis*. [This decision means that the correct name for the type species becomes ***Kirschteiniothelia atra*** (Corda) D. Hawksw., **comb. nov.** (Mycobank no. MB804962; basionym: *Dendryphion atrum* Corda, Icon. Fung. 4: 33, 1840; synonym: *Dendryphiopsis atra* (Corda) S. Hughes, Can. J. Bot. 31: 655, 1953)]

Krishnamyces Hosag., Zoos' Print Journal 18(8): 1159 (2003)

Notes: Hosagoudar (2003) introduced the genus *Krishnamyces* to accommodate the conidial state of *Rhytidenglerula tremae* (Sydow) Arx. However, the current name of *Rhytidenglerula tremae* is *Schiffnerula trematis* Syd. (Species Fungorum 2014) and we conclude that *Krishnamyces* has schiffnerula-like sexual states.

Lapidomyces de G.S. de Hoog & B. Stielow, Fungal Diversity 65: 159 (2014)

Notes: Egidi et al. (2014) introduced this genus in *Teratosphaeriaceae* based on molecular data analysis. However *Lapidomyces* was described from a culture and lacks distinguishing morphological characters (Egidi et al. 2014).

Lautitia S. Schatz, Can. J. Bot. 62(1): 31 (1984)

Notes: Phookamsak et al. (2014) excluded this genus from *Phaeosphaeriaceae* based on its morphological characters and placed in *Dothideomycetes*, genera *incertae sedis*.

Lecanosticta Syd., Annls mycol. 20(3/4): 211 (1922)

= *Eruptio* M.E. Barr, Mycotaxon 60: 437 (1996)

Notes: The sexual morph of *Lecanosticta acicola* is the type species of *Eruptio* (*E. acicola* (Dearn.) M.E. Barr ≡ *Mycosphaerella dearnesii* M.E. Barr) (Barr 1996). *Lecanosticta acicola* (=*L. pini fide* Crous et al. 2009), the type species of *Lecanosticta* is reported as the asexual state of *Mycosphaerella dearnesii* (Crous et al. 2009; Markovskaja et al. 2011). The genus *Lecanosticta* is of quarantine concern on conifers (Quaedvlieg et al. 2012). The older asexual morph-typified name *Lecanosticta* has been prioritized by Crous et al. (2009) and Hyde et al. (2013), as its well established in literature, and commonly used by plant pathologists.

Lembosia Lév., Annls Sci. Nat., Bot., sér. 3 3: 58 (1845)

= *Heraldoa* Bat., Atti Ist. bot. Univ. Lab. crittog. Pavia, Ser. 5 16: 105 (1959)

= *Lembosidium* Speg., Boln Acad. nac. Cienc. Córdoba 26(2–4): 342 (1921)

= *Lembosiellina* Bat. & H. Maia, Atas Inst. Micol. Univ. Recife 1: 323 (1960)

= *Yamamotoa* Bat., Publicações Inst. Micol. Recife 291: 11 (1960)

= *Viegasia* Bat., Bol. Secr. Agric. (Pernambuco) 18: 32 (1951)

= *Micrographa* Müll. Arg., Flora, Jena 73: 194 (1890)

= *Micrographomyces* Cif. & Tomas., Atti Ist. bot. Univ. Lab. crittog. Pavia, Ser. 5 10(1): 77 (1953)

= *Morenoella* Speg., Anal. Soc. cient. argent. 19(6): 258 (1885)

= *Trichamelia* Bat., Publicações Inst. Micol. Recife 295: 9 (1960)

Notes: Several genera listed above were newly synonymized under *Lembosia* by Hongsanan et al. (2014c) who also provided a generic revision.

Lembosiella Sacc., Syll. fung. (Abellini) 9: 1101 (1891)

Notes: Hongsanan et al. (2014c) accepted this genus as a member of *Aulographaceae*.

Lembosina Theiss., Annls mycol. 11(5): 437 (1913)

Notes: Hongsanan et al. (2014c) accepted this genus as a member of *Aulographaceae*.

Lembosiopsis Theiss., Annls mycol. 15(6): 422 (1917)

Notes: Hongsanan et al. (2014c) transferred this genus to *Mycosphaerellaceae* from *Asterinaceae*.

Leptosphaeria Ces. & De Not., Comm. Soc. crittog. Ital. 1(4): 234 (1863)

Notes: De Gruyter et al. (2009) and Aveskamp et al. (2010) showed that some species of *Phoma* grouped in the family *Leptosphaeriaceae*. However, de Gruyter et al. (2013) restricted *Phoma sensu stricto* for species in the *Didymellaceae*, hence new combinations were introduced in phoma-like species that grouped with *Leptosphaeria doliolum* (Pers.) Ces. & De Not. the type species of *Leptosphaeria*. Therefore, the usage of *Leptosphaeria* is maintained and asexual morphs are considered phoma-like.

Leptosphaerulina McAlpine, Fungus diseases of stonefruit trees in Australia and their treatment: 103 (1902)

Notes: Roux (1986) reported that *Leptosphaerulina chartarum* Cec. Roux was the sexual state of *Pithomyces chartarum* (Berk. & M.A. Curtis) M.B. Ellis. However, these species are not types of *Leptosphaerulina* or *Pithomyces. Leptosphaerulina australis* McAlpine and *Pithomyces flavus* Berk. & Broome are type species of these respective genera, hence we do not reduce the younger sexual name to synonymy under the older asexual typified name, and propose the continued use of both names until the link between the type species is proven by molecular data analyses. Recently, Phookamsak et al. (2013) reported that *Leptosphaerulina saccharicola* Phookamsak et al. has a pithomyces-like asexual state based on cultural studies. Furthermore, Phookamsak et al. (2013) showed that *Leptosphaerulina sensu stricto* and *Pithomyces sensu stricto* have distinct separate phylogenetic affinities.

Letendraea Sacc., Michelia 2(no. 6): 73 (1880)

= *Wilmia* Dianese et al., Mycologia 93(5): 1014 (2001)

Notes: Ariyawansa et al. (2014c) treated *Wilmia* Dianese et al. as a synonym of *Letendraea* Sacc.

Leveillella Theiss. & Syd., Annls mycol. 13(3/4): 284 (1915)

Notes: Hongsanan et al. (2014c) transferred this genus from *Asterinaceae* to *Dothideomycetes*, *genera incertae sedis*. The asci are subglobose unlike most *Asterinaceae*, however the brown conglobate ascospores, asci with a thick opaque region and colonies are rather typical of *Asterinaceae* (Hongsanan et al. 2014c).

Lidophia J. Walker & B. Sutton, Trans. Br. mycol. Soc. 62(2): 232 (1974)

Notes: Walker and Sutton (1974) introduced this genus with *Dilophospora* Desm. (*D. alopecuri* (Fr.) Fr.) as its asexual state. Their proposition was based on the psuedothecia of *L. graminis* (Sacc.) J. Walker & B. Sutton mixed with pycnidia of *Dilophospora alopecuri*. However this link was not established by culture or molecular methods (Walker and Sutton 1974), so both names should be retained until studies confirm this link.

Lophiosphaerella Hara, Byogaichu-Hoten (Manual of Pests and Diseases): 778 (1948)

Notes: Li et al. (2014) re-examined and illustrated *Lophiosphaerella euryae*, the type species of *Lophiosphaerella* and transferred it from *Dothideomycetes*, genera *incertae sedis* to *Mycosphaerellaceae*.

Lucidascocarpa A. Ferrer et al., Mycologia 100(4): 642 (2008)

Notes: Thambugala et al. (2014a) excluded this genus from *Dothideaceae* and placed in *Dothideomycetes*, genera *incertae sedis* based on morphology.

Macowaniella Doidge, Bothalia 1(1): 9 (1921)

Notes: Lumbsch and Huhndorf (2010) listed this genus under *Asterinaceae* however; Hongsanan et al. (2014c) treated it as a doubtful genus.

Macrodiplodiopsis Petr., Annls mycol. 20(5/6): 343 (1922)

= *Floricola* Kohlm. & Volkm.-Kohlm., Bot. Mar. 43(4): 385 (2000)

= *Misturatosphaeria* Mugambi & Huhndorf, Stud. Mycol. 64: 108 (2009)

Notes: Wijayawardene et al. (2014b) showed that *Floricola* and *Misturatosphaeria* grouped in a well-supported monophyletic clade with high bootstrap values in multi-gene analyses. Hence, Wijayawardene et al. (2014b) transferred the type species of *Floricola*, *F. striata* Kohlm. & Volkm.-Kohlm. to *Macrodiplodiopsis* and other nine species of *Misturatosphaeria. Macrodiplodiopsis* was used as it is the oldest name.

Maheshwaramyces Hosag., Indian Journal of Science and Technology 2(6): 12 (2009)

Notes: Lumbsch and Huhndorf (2010) listed *Maheshwaramyces* under *Asterinaceae* however; Hongsanan et al. (2014c) treated it as a doubtful genus.

Maireella Syd. ex Maire, Annls mycol. 6(2): 145 (1908)

Notes: Lumbsch and Huhndorf (2010) placed the genus in *Dothideomycetes*, genera *incertae sedis. Maireella* has similarities with *Venturiaceae* and shares similar characters with the type species of *Venturia*, thus Li et al. (2014) referred *Maireella* to *Venturiaceae* (*Venturiales*).

Malacaria Syd., Annls mycol. 28(1/2): 69 (1930)

Notes: Boonmee et al. (2014b) excluded this genus from *Tubeufiaceae* and placed in *Dothideomycetes*, genera *incertae sedis*.

Medicopsis Gruyter et al., Stud. Mycol. 75: 28 (2012) [2013]

Notes: de Gruyter et al. (2013) introduced this genus to accommodate a pyrenochaeta-like taxon in *Trematosphaeriaceae*.

Melanopsaceae Phillips et al., Stud. Mycol. 76: 43 (2014)

Notes: See notes in *Aplosporellaceae*.

Melioliphila Speg., Boln Acad. nac. Cienc. Córdoba 26(2–4): 344 (1921)

Notes: Lumbsch and Huhndorf (2010) listed this genus under *Tubeufiaceae* but Boonmee et al. (2014b) excluded this genus from *Tubeufiaceae* and placed in *Dothideomycetes*, genera *incertae sedis*.

Meristemomyces D. Isola & S. Onofri, Fungal Diversity 65: 158 (2014)

Notes: The genus *Meristemomyces* was introduced by Egidi et al. (2014) and clustered in *Teratosphaeriaceae* in their molecular analysis.

Metacapnodium S. Hughes & Corlett, N.Z. Jl. Bot. 10: 239 (1972)

Notes: The application of the earlier name *Antennularia* Reichenb. (≡*Antennaria* Link, non Gaertn.) has recently been clarified and found to apply to a species of *Metacapnodium* (Hyde et al. 2013). As the generic name *Antennularia* has not been adopted by modern authors, while *Metacapnodium* is well-established, protection of *Metacapnodium* is proposd.

Metameris Theiss. & Syd., Annls mycol. 13(3/4): 342 (1915)

Notes: Hyde et al. (2013) listed this genus under *Phaeosphaeriaceae* but Phookamsak et al. (2014) excluded it from *Phaeosphaeriaceae* and placed in *Botryosphaeriaceae* based on morpholgy.

Micularia Boedijn, Persoonia 2(1): 67 (1961)

Notes: See notes under *Elsinoaceae*.

Mixtura O.E. Erikss. & J.Z. Yue, Mycotaxon 38: 203 (1990)

Notes: Hyde et al. (2013) listed this genus under *Phaeosphaeriaceae* but Phookamsak et al. (2014) excluded it from *Phaeosphaeriaceae* and placed in *Didymellaceae* based on morphology.

Molleriella G. Winter, Boletim da Sociedade Broteriana, Coimbra, sér 1, 4: 199 (1886)

Notes: Jayawardena et al. (2014) accepted this genus as belonging in *Elsinoaceae*.

Monticola L. Selbmann & E. Egidi, Fungal Diversity 65: 155 (2014)

Notes: Egidi et al. (2014) described *Monticola* with *M. elongata* Selbmann & Egidi as the type species. Molecular analysis shows *Monticola* belongs in *Teratosphaeriaceae* (Egidi et al. 2014).

Morenoina Theiss., Annls mycol. 11(5): 434 (1913)

Notes: Hongsanan et al. (2014c) accepted this genus as a member of *Aulographaceae*.

Mucomycosphaerella Quaedvlieg & Crous, Persoonia 33: 22 (2014)

Notes: The genus *Mucomycosphaerella* (*Capnodiales*, *incertae sedis*) was introduced by Quaedvlieg et al. (2014) to accommodate *Mycosphaerella eurypotami* Kohlm. et al. *Mucomycosphaerella* is morphologically and phylogenetically distinguished from *Mycosphaerella sensu stricto* and there are no asexual states so far reported (Quaedvlieg et al. 2014).

Muellerites L. Holm, Svensk bot. Tidskr. 62: 231 (1968)

Notes: Dai et al. (2014a) this genus as a member of *Dothidotthiaceae*.

Mycopappus Redhead & G.P. White, Can. J. Bot. 63(8): 1430 (1985)

Notes: Phookamsak et al. (2014) showed this genus belongs to *Melanommataceae* in their molecular phylogenetic analyses and hence excluded it from *Phaeosphaeriaceae*.

Mycoporis Clem., Gen. fung. (Minneapolis) 50: 173 (1909)

Notes: Thambugala et al. (2014a) excluded this genus from *Dothideaceae* and placed in *Mycosphaerellaceae* based on morphology.

Myriangiaceae Nyl., Mém. Soc. Sci. nat. Cherbourg 2: 9 (1854)

Notes: Dissanayake et al. (2014) revised the family *Myriangiaceae* and accepted only *Anhellia*, *Ascostratum*, *Butleria*, *Dictyocyclus*, *Diplotheca*, *Eurytheca*, *Hemimyriangium*, *Micularia*, *Myriangium* and *Zukaliopsis* as the accepted genera.

Myriangium Mont. & Berk., London J. Bot. 4: 72 (1845)

Notes: See notes under *Myriangiaceae*.

Myrtapenidiella Quaedvlieg & Crous, Persoonia 33: 26 (2014)

Notes: The genus *Myrtapenidiella* was introduced by Quaedvlieg et al. (2014) to accommodate *Penidiella corymbia* Cheew. & Crous and *P. eucalypti* Cheew. et al. *Myrtapenidiella* and *Penidiella* share close morphological characters but show distinct phylogenetic placements in *Teratosphaeriaceae* (Quaedvlieg et al. 2014).

Navicella Fabre, Annls Sci. Nat., Bot., sér. 6 9: 96 (1879) [1878]

Notes: Based on superficial globose to subglobose, coriaceous ascomata with long, trabeculate pseudoparaphyses embedded in a gelatinous matrix and brown ascospores, Ariyawansa et al. (2014d) assign *Navicella* to *Melanommataceae* pending molecular investigation

Neoacanthostigma Boonmee et al., Fungal Diversity 68 (2014)

Notes: The generic name *Neoacanthostigma* is based on the type species, *N. fusiforme* Boonmee et al. and is a distinct genus in *Tubeufiaceae* (Boonmee et al. 2014b).

Neoacanthostigma is morphologically similar to *Acanthostigma* but phylogenetically distinct (Boonmee et al. 2014b).

Neocamarosporium Crous & M.J. Wingf., Persoonia 32: 273 (2014)

Notes: See notes under *Camarosporium*.

Neocatenulostroma Quaedvlieg & Crous, Persoonia 33: 26 (2014)

Notes: Quaedvlieg et al. (2014) introduced *Neocatenulostroma* to accommodate three *Catenulostroma* species, *viz. C. abietis* (Butin & Pehl) Crous & U. Braun, *C. germanicum* Crous & U. Braun and *C. microsporum* (Joanne E. Taylor & Crous) Crous & U. Braun, which group away from *Catenulostroma sensu stricto* in *Teratosphaeriaceae*.

Neoceratosperma Crous & Cheew., Persoonia, Mol. Phyl. Evol. Fungi 32: 257 (2014)

Notes: Crous et al. (2014) introduced this genus and showed it belongs to *Mycosphaerellaceae*.

Neocylindroseptoria K.M. Thambugala & K.D. Hyde, Fungal Diversity 68 (2014)

Notes: Thambugala et al. (2014a) introduced this genus and showed it belongs to *Dothideaceae*, *Dothideales*.

Neodevriesia Quaedvlieg & Crous, Persoonia 33: 24 (2014)

Notes: Quaedvlieg et al. (2014) showed that *Devriesia hilliana* Crous & U. Braun and *D. xanthorrhoeae* Crous et al. are phylogenetically distinct from *Devriesia sensu stricto* (*Mycosphaerellaceae*) and hence introduced *Neodevriesia* (*Neodevriesiaceae*) to accommodate them.

Neodevriesiaceae Quaedvlieg & Crous, Persoonia 33: 24 (2014)

Notes: See notes under *Neodevriesia*.

Neohortaea Quaedvlieg & Crous, Persoonia 33: 27 (2014)

Notes: The genus *Neohortaea* was introduced by Quaedvlieg et al. (2014) to place *Hortaea acidophila* Hölker which has distinct phylogenetic lineage from *Hortea sensu stricto* in *Teratosphaeriaceae*.

Neokalmusia Kaz. Tanaka et al., Fungal Diversity 68 (2014)

Notes: Ariyawansa et al. (2014c) introduced this genus to accomodate *Kalmusia brevispora* and *K. scabrispora* in *Didymosphaeriaceae*.

Neomycosphaerella Crous, Persoonia, Mol. Phyl. Evol. Fungi 31: 195 (2013)

Notes: Crous et al. (2013) introduced *Neomycosphaerella* with *N. pseudopentameridis* Crous as the type species. *Neomycosphaerella* is morphologically similar with

Mycosphaerella sensu stricto (i.e. *Ramularia sensu stricto*) but lacks *Ramularia* asexual states. However, *Neomycosphaerella* phylogenetically distinct from *Mycosphaerella* and closer related to *Brunneosphaerella* (Crous et al. 2013)

Neopenidiella Quaedvlieg & Crous, Persoonia 33: 22 (2014)

Notes: Quaedvlieg et al. (2014) showed that *Penidiella nectandrae* Crous et al. is not congeneric with *Penidiella sensu stricto* thus introduced *Neopenidiella* in *Mycosphaerellaceae*.

Neophaeothecoidea Quaedvlieg & Crous, Persoonia 33: 27 (2014)

Notes: Quaedvlieg et al. (2014) introduced *Neophaeothecoidea* (*Teratosphaeriaceae*) to accommodate *Phaeothecoidea proteae* Crous, which is phylogenetically distinct from *Phaeothecoidea sensu stricto* (*Mycosphaerellaceae*).

Neopseudocercospora Crous, Persoonia, Mol. Phyl. Evol. Fungi 31: 219 (2013)

Notes: Crous et al. (2013) introduced this genus and megablast results of LSU, SSU and ITS gene regions showed it belongs in *Mycosphaerellaceae*.

Neoseptoria Quaedvlieg et al., Stud. Mycol. 75: 352 (2013)

Notes: Quaedvlieg et al. (2013) introduced this genus and molecular data analyses showed it belongs in *Mycosphaerellaceae*.

Neoroussoella J.K. Liu et al. Phytotaxa (2014)

Notes: See notes under *Roussoellaceae*.

Neotrimmatostroma Quaedvlieg & Crous, Persoonia 33: 27 (2014)

Notes: Quaedvlieg et al. (2014) introduced *Neotrimmatostroma* to accommodate two *Trimmatostroma* species, *viz. T. bifarium* Gadgil & M.A. Dick and *T. excentricum* B. Sutton & Ganap. However, only *Neotrimmatostroma excentricum* (B. Sutton & Ganap.) Quaedvlieg & Crous is shown to belong in *Teratosphaeriaceae*.

Nigrograna Gruyter et al., Stud. Mycol. 75: 31 (2012) [2013]

Notes: De Gruyter et al. (2013) introduced this genus and showed it belongs in *Pleosporales* via molecular data analyses.

Ochroconis de Hoog & Arx, Kavaka 1: 57 (1973)

Notes: Machouart et al. (2014) showed that *Ochroconis* de Hoog & Arx belongs to *Sympoventuriaceae* (*Venturiales*) in their multi-gene analyses.

Oedohysterium E. Boehm & C.L. Schoch, Stud. Mycol. 64: 59 (2009)

Notes: Boehm et al. (2009) established *Oedohysterium* and mentioned the type species, *O. insidens* (Schwein.) E.W.A. Boehm & C.L. Schoch had a *Septonema spilomeum* as asexual state. However, *Septonema* was listed in *Mytilinidiaceae* (Seifert et al. 2011). We conclude that *Oedohysterium* has a septonema-like asexual state.

Oleoguttula L. Selbmann & G.S. de Hoog, Fungal Diversity 65: 152 (2014)

Notes: The genus *Oleoguttula* was described by Egidi et al. (2014) and belongs in *Teratosphaeriaceae* based on molecular analysis.

Omphalospora Theiss. & Syd., Annls mycol. 13(3/4): 361 (1915)

Notes: Thambugala et al. (2014a) excluded this genus from *Dothideaceae* and placed in *Dothideomycetes*, genera *incertae sedis* based on morphology.

Ophiosphaerella Speg., Anal. Mus. nac. B. Aires, ser. 3 12: 401 (1909)

Notes: See notes under *Wojnowicia*.

Pachysacca Syd., Annls mycol. 28(5/6): 435 (1930)

Notes: Thambugala et al. (2014c) excluded this genus from *Dothideaceae* and placed in *Teratosphaeriaceae* based on morphology.

Paracamarosporium Wijayawardene & K.D. Hyde, Crypt. Mycol. 35 (2): 183 (2014)

Notes: See notes under *Camarosporium*.

Paracercospora Deighton, Mycol. Pap. 144: 47 (1979)

Notes: Stewart et al. (1999) reduced *Paracercospora* to synonym with *Pseudocercospora*. Crous et al. (2012) show that *Paracercospora* is distinct from *Pseudocercospora* in their molecular DNA analysis hence the genus was reinstated.

Paraconiothyrium Verkley, Stud. Mycol. 50(2): 327 (2004)

Notes: See under *Paraphaeosphaeria* O.E. Erikss.

Paradendryphiella Woudenberg & Crous, Stud. Mycol. 75(1): 207 (2013)

Notes: Woudenberg et al. (2013) introduced this genus and showed it belongs in *Pleosporaceae* via their molecular data analyses.

Parahendersonia A.W. Ramaley, Aliso 14(2): 152 (1995)

Notes: Ramaley (1995) introduced *Parahendersonia* A.W. Ramaley to accommodate the coelomycetous asexual state of *Chaetoplea dasylirii* A.W. Ramaley based on culture methods. However, the relationship between *C. dasylirii* and *C. calvescens* (Fr.) Clem. the type species of *Chaetoplea* (Sacc.) Clem. is not confirmed. Hence we conclude *Parahendersonia* has chaetoplea-like sexual states.

Paramycosphaerella Crous & Jol. Roux, Persoonia 31: 245 (2013)

Notes: Crous et al. (2013) observed that *Paramycosphaerella* is morphologically similar to *Mycosphaerella*, but phylogenetically distinct from *Mycosphaerella sensu stricto* and also lacks a *Ramularia* asexual morph. It is placed in *Mycosphaerellaceae*.

Paranectriella (Henn. ex Sacc. & D. Sacc.) Höhn., Sber. Akad. Wiss. Wien, Math.-naturw. Kl., Abt. 1 119: 899 (1910)

= *Araneomyces* Höhn., Sber. Akad. Wiss. Wien, Math.-naturw. Kl., Abt. 1 118: 894 (1909)

Notes: *Araneomyces* was introduced as the asexual state of *Paranectria juruana* Henn. by Höhnel (1909). Höhnel (1910), however transferred *Paranectria juruana* into a new genus as new combination and established *Paranectriella* (Henn. ex Sacc. & D. Sacc.) Höhn. Hence *Araneomyces* was accepted as the asexual state of *Paranectriella* (Sutton 1984; Wu et al. 1997). Although *Araneomyces* is the oldest name, it has fewer epithets in Index Fungorum than *Araneomyces* and all *Paranectriella* species are not linked with *Araneomyces*. Thus we propose *Paranectriella* as the proposed name over *Araneomyces*.

Paraphaeosphaeria O.E. Erikss., Ark. Bot., ser. 2 6: 405 (1967)

Notes: Verkley et al. (2004) described *Paraconiothyrium* to accommodate coniothyrium-like fungi which are phyllogenetically distinct from *Coniothyrium palmarum*, the generic type of *Coniothyrium*. Verkley et al. (2004) also showed that *Paraconiothyrium* groups with *Paraphaeosphaeria* in their molecular data analysis. Further, Damm et al. (2008) also showed that the type species (*Paraphaeosphaeria michotii* (Westend.) O.E. Erikss. and *Paraconiothyrium estuarinum* Verkley & M. da Silva) of both genera cluster in same clade with other *Paraconiothyrium* species. However, Verkley et al. (2014) showed *Paraconiothyrium estuarinum* to represent a distinct phylogenetic linage from *Paraphaeosphaeria michotii* in their multi gene analyses. At the same time Verkley et al. (2014) introduced new combinations (as *Paraphaeosphaeria sporulosa* and *Para. minitans*) for *Paraconiothyrium sporulosa* and *P. minitans* which cluster with *Paraphaeosphaeria*. Hence we retain both genera i.e. *Paraconiothyrium* and *Paraphaeosphaeria*, acknowledging that *Paraphaeosphaeria* has paraconiothyrium-like asexual states. Ariyawansa et al. (2014a, c) showed that *Paraconiothyrium brasiliense* grouped with *Didymosphaeria rubi-ulmifolii* (in *Didymosphaeria sensu stricto*) hence the former name was synonymised under the later name. At the same time, Ariyawansa et al. (2014c) reported the sexual state of *Paraconiothyrium fuckelii*. Furthermore, Ariyawansa et al. (2014c) established a new epitype for *Paraphaeosphaeria michotii*.

Parasterinella Speg., Boln Acad. nac. Cienc. Córdoba 27(4): 382 (1924)

Notes: Lumbsch and Huhndorf (2010) listed this genus under *Asterinaceae* however; Hongsanan et al. (2014c) treated it as a doubtful genus.

Parateratosphaeria Quaedvlieg & Crous, Persoonia 33: 28 (2014)

Notes: The genus *Parateratosphaeria* is morphologically indistinguishable from *Teratosphaeria* but distinguishable with molecular data. Both genera group well in *Teratosphaeriaceae* with distinct phylogenetic linages (Quaedvlieg et al. 2014).

Parenglerula Höhn., Sber. Akad. Wiss. Wien, Math.-naturw. Kl., Abt. 1 119: 465 (1910)

Notes: See notes under *Englerulaceae*.

Parmulariaceae E. Müll. & Arx ex M.E. Barr, Mycologia 71(5): 944 (1979)

Notes: See notes under *Asterinales*.

Perusta E. Egidi & B. Stielow, Fungal Diversity 65: 155 (2014)

Notes: Egidi et al. (2014) introduced *Perusta*, with *P. inaequalis* Egidi & Stielow as the type species. Molecular analysis of ITS sequences shows that it belongs to *Capnodiales*, *incertae sedis* (Egidi et al. 2014).

Petrakina Cif., Annls mycol. 30(3/4): 225 (1932)

Notes: Hongsanan et al. (2014c) transferred this genus from *Asterinaceae* to *Dothideomycetes*, genera *incertae sedis* because its copious pseudoparaphyses, fusiform asci and muriform ascopores are atypical of *Asterinaceae*.

Petrophila G.S. de Hoog & W. Quaedvlieg, Fungal Diversity 65: 152 (2014)

Notes: The genus *Petrophila* was introduced by Egidi et al. (2014) and belonged in *Teratosphaeriaceae sensu lato*. However, Quaedvlieg et al. (2014) showed that *Petrophila* was more closely related with *Extremus* Quaedvlieg & Crous (*Extremaceae*).

Phaeophleospora Rangel, Arquiv Mus. Nac. Rio de Janeiro 18: 162 (1916)

Notes: Quaedvlieg et al. (2014) showed that three mycosphaerella-like species cluster with *Phaeophleospora sensu stricto* (*Mycosphaerellaceae*) in their molecular analysis and introduced new combinations of *Phaeophleospora* to accommodate *Mycosphaerella gregaria*, *M. scytalidii* and *M. stramenti*.

Phaeosphaeria I. Miyake, Bot. Mag., Tokyo 23: 93 (1909)

= *Phaeoseptoria* Speg., Revta Mus. La Plata 15: 39 (1908)

Notes: Quaedvlieg et al. (2013) showed that *Phaeoseptoria papayae* Speg., the type species of *Phaeoseptoria* groups with *Phaeosphaeria oryzae* I. Miyake, the type species of *Phaeosphaeria*. Furthermore, they reduced *Phaeoseptoria* under *Phaeosphaeria* as the latter sexual typified genus is the widely used name. We also agree with the adopted name i.e. *Phaeosphaeria*.

Phaeosphaeriaceae M.E. Barr, Mycologia 71(5): 948 (1979)

Notes: Phookamsak et al. (2014) revisited *Phaeosphaeriaceae* and accepted 30 genera. Detailed taxonomic notes for genera marked in # are provided in Phookamsak et al. (2014).

Phloeospora Wallr., Flora Cryptogamica Germaniae 2: 176 (1833)

Notes: Crous et al. (2012) showed that the type species of *Phloeospora*, *P. ulmi* (Fr.) Wallr. grouped in *Mycosphaerellaceae*. However, *Phloeospora* is shown to be polyphyletic by Quaedvlieg et al. (2011).

Phragmocapnias Theiss. & Syd., Annls mycol. 15(6): 480 (1918) [1917]

= *Conidiocarpus* Woron., Annls mycol. 24(3/4): 250 (1927) [1926]

Notes: Chomnunti et al. (2011) accepted that *Conidiocarpus* is the asexual state of *Phragmocapnias* and introduced new combination for the type species of *Conidiocarpus*, (i.e. *Conidiocarpus penzigii* Woron.) as *Phragmocapnias penzigii* (Woron.) Chomnunti & K.D. Hyde. We accept this adoption and propose to use *Phragmocapnias* as the accepted name.

Phyllosticta Pers., Traité Champ. Comest. (Paris): 55, 147 (1818).

= *Guignardia* Viala & Ravaz, Bull. Soc. mycol. Fr. 8: 63 (1892)

Notes: Glienke et al. (2011), Wikee et al. (2011) and Su and Cai (2012) reconfirmed the well-established relationship between *Phyllosticta* and *Guignardia* with molecular data. All the above publications use *Phyllosticta* over *Guignardia*. Liu et al. (2012) showed in their multigene analysis that both these genera have distinct phylogenetic relationships from other accepted genera in *Botryosphaeriaceae*. Hence, Wikee et al. (2013a, b) reinstated the family *Phyllostictaceae* to include both of these genera. Since *Phyllosticta* is the oldest name, is a more important pathogen, has more species and has been used over *Guignardia* in recent publications (Wulandari et al. 2010; Glienke et al. 2011; Wikee et al. 2011, 2013a, b; Su and Cai 2012), we also propose using *Phyllosticta* over *Guignardia*.

Phoma Sacc., Michelia 2: 4 (1880), nom. cons.

= *Phoma* Fr., Nov. Fl. Suec.: 80 (1819), nom. rej.

Notes: *Phoma* is very important phytopathogen (Aveskamp et al. 2010) and much research has been carried out on this the genus which was established by Saccardo (1880). Molecular based studies have shown that *Phoma* is polyphyletic and scattered throughout *Pleosporales* (*Cucurbitariaceae*, *Didymellaceae*, *Leptosphaeriaceae*, *Phaeosphaeriaceae* and *Pleosporaceae*) (de Gruyter et al. 2009, 2010, 2013; Aveskamp et al. 2010). The type species of *Phoma*, *P. herbarum* Westend. grouped in *Didymellaceae* (de Gruyter et al. 2009), hence *Pyrenochaetopsis* Gruyter et al. was introduced to accommodated phoma-like species in *Cucurbitariaceae* (de Gruyter et al. 2009), while *Setophoma* Gruyter et al., *Neosetophoma* Gruyter et al. and *Paraphoma* Morgan-Jones & J.F. White were introduced to accommodate phoma-like species in *Phaeosphaeriaceae*. Furthermore, de Gruyter et al. (2013) raised *Plenodomus* Preuss, *Heterospora* (Boerema, Gruyter & Noordel.) Gruyter et al. to generic level and introduced *Subplenodomus* Gruyter et al. to accommodate phoma-like species in *Leptosphaeriaceae*.

Phragmoscutella Woron. & Abramov, Annls mycol. 24(3/4): 231 (1927) [1926]

Notes: Hongsanan et al. (2014a) excluded this genus from *Trichopeltinaceae* and its placement is uncertain.

Pirozynskia Subram., Curr. Sci. 41(19): 711 (1972)

Notes: Subramaniam (1972) introduced *Pirozynskia* to accommodate the conidial state of the type species of *Maurodothina* i.e. *Maurodothina dothideoides* (Ellis & Everh.) Piroz. & Shoemaker (≡*Asteridium dothideoides* Ellis & Everh.). Von Arx and Müller (1975) moved *Maurodothina dothideoides* to *Eupelte* as a new combination i.e. *Eupelte dothideoides* (Ellis & Everh.) Arx & E. Müll. However, there is no established link between type species of *Eupelte*, *Eupelte amicta* Syd. and *Pirozynskia*, hence we propose the continued use of both names until prove the links between two genera by using molecular data analyses. Hongsanan et al. (2014c) regarded *Eupelte* as a doubtful genus as they could not locate good type material.

Pithomyces Berk. & Broome, J. Linn. Soc., Bot. 14: 100 (1873) [1875]

Notes: See notes under *Leptosphaerulina*.

Placoasterella Sacc. ex Theiss. & Syd., Annls mycol. 13(3/4): 236 (1915)

Notes: Hongsanan et al. (2014c) transferred this genus to *Parmulariaceae* from *Asterinaceae*.

Placomelan Cif., Atti Ist. bot. Univ. Lab. crittog. Pavia, ser. 5 19: 124 (1962)

Notes: The type species of *Placomelan*, i.e. *P. dipteridis* Cif. was the conidial state of *Melanoplaca dipteris* Syd. & P. Syd. (current name *Dothidasteroma dipteridis* (Syd. & P. Syd.) Arx. However, *D. dipteridis* is not the type species hence we conclude *Placomelan* has dothidasteroma-like sexual states.

Placosoma Syd., Annls mycol. 22(3/6): 302 (1924)

Notes: Hongsanan et al. (2014c) transferred this genus to *Parmulariaceae*.

Placostromella Petr., Sydowia 1(1–3): 9 (1947)

Notes: Thambugala et al. (2014c) examined and illustrated *Placostromella macrospora*, the type species of *Placostromella* and placed in *Parmulariaceae* based on its morphology.

Planistroma A.W. Ramaley, Mycotaxon 42: 69 (1991)

Notes: Minnis et al. (2012) treated this genus as a synonym of *Kellermania*. However, Monkai et al. (2013) recognized *Planistroma* as a distinct genus in *Planistromellaceae*.

Platypeltella Petr., Annls mycol. 27(1/2): 62 (1929)

Notes: Wu et al. (2014) include this genus in *Asterinaceae* based on superficial hyphae with intercalary capitate appressoria, and tis similar to *Asterinella*.

Pleiostomellina Bat. et al., Portug. acta biol., Sér. B 7(4): 373 (1964)

Notes: Ariyawansa et al. (2014d) referred *Pleiostomellina* to *Parmulariaceae* based on its solitary to gregarious, carbonaceous ascomata with multi-locules, fissitunicate, cylindrical asci and dark brown to reddish brown, 1-septate, verrucose ascospores.

Plenodomus Preuss, Linnaea 24: 145 (1851)

Notes: Boerema (1997) considered *Plenodomus* as one of the sections of *Phoma* and *Phoma lingam* (=*Plenodomus lingam*) was considered to be the type species of *Phoma* section *Plenodomus*; the sexual state was considered to be *Leptosphaeria maculans* (Schoch et al. 2006; de Gruyter et al. 2009). De Gruyter et al. (2013) reinstated the genus *Plenodomus*, and introduced new combinations for all *Leptosphaeria* and *Phoma* species that grouped with *Plenodomus lingam*. The renaming of *Leptosphaeria maculans* as *Plenodomus maculans* was unfortunate, and has caused ripples in the community working with *Brassica* crops. *Plenodomus maculans*, however, is unrelated to the type of *Leptosphaeria* (=*Leptosphaeria doliolum* (Pers.) Ces. & De Not.) and therefore *L. maculans* could not be retained in *Leptosphaeria* under any circumstances unless the type of *Leptosphaeria* was changed. The species epithet, "*maculans*" is also unavailable in *Leptosphaeria* for the blackleg disease of canola, as *L. maculans* (Sowerby) P. Karst. is a homonym of *L. maculans* (Fuckel) Ces. & De Not.

Pleoseptum A.W. Ramaley & M.E. Barr, Mycotaxon 54: 76 (1995)

Notes: Hyde et al. (2013) listed this genus under *Phaeosphaeriaceae* but Phookamsak et al. (2014) excluded it from *Phaeosphaeriaceae* and placed in *Pleosporaceae* based on morphology.

Plurispermiopsis Pereira-Carv et al., Mycologia 102(5): 1163 (2010)

Notes: Pereira-Carvalho et al. (2010) introduced this genus and placed in *Capnodiaceae* based on morphology.

Pleurophomopsis Petr., Annls mycol. 22(1/2): 156 (1924)

Notes: See notes under *Astrosphaeriella*.

Polyphialoseptoria Quaedvlieg et al., Stud. Mycol. 75: 355 (2013)

Notes: Quaedvlieg et al. (2013) introduced this genus and molecular data analyses showed it belongs to *Mycosphaerellaceae*.

Polythrincium Kunze, Mykol. Hefte (Leipzig) 1: 13 (1817)

= *Cymadothea* F.A. Wolf, Mycologia 27(1): 71 (1935)

Notes: Wolf (1935) established *Cymadothea* F.A. Wolf to accommodate the sexual state *Polythrincium trifolii* Kunze, the type species i.e. of *Polythrincium* Kunze. Simon et al.

(2009) provided molecular proof for the link, while Hyde et al. (2013) reduced the younger sexual typified name under older asexual typified name.

Prillieuxina G. Arnaud, Ann.École Nat.Agric. Montpellier, série 2 16(1–4): 161 (1918) [1917]

= *Leprieurina* G. Arnaud, Ann. École Nat. Agric. Montpellier, série 2 16(1–4): 210 (1918) [1917]

Notes: The genus *Leprieurina*, (type species *L. winteriana* G. Arnaud) was introduced to accommodate the conidial state of the type species of *Prillieuxina winteriana* (Pazschke) G. Arnaud, the type species of *Prillieuxina*. Hence, we propose use of the older name *Prillieuxina* over *Leprieurina*. Hongsanan et al. (2014c) also agree with this adoption.

Pringsheimia Schulzer, Verh. zool.-bot. Ges. Wien 16: 57 (1866)

Notes: Thambugala et al. (2014a) accommodate this genus in *Dothideaceae* but state that its placement is uncertain.

Prosthemium Kunze, Mykol. Hefte (Leipzig) 1: 17 (1817)

= *Pleomassaria* Speg., Anal. Soc. cient. argent. 9: (in plate to p. 192) (1880)

Notes: Tanaka et al. (2010) showed that the type species of *Pleomassaria* and *Prosthemium* (*Pleomassaria siparia* (Berk. & Broome) Sacc. and *P. betulinum* Kunze respectively) grouped together in a monophyletic clade in their molecular analysis. Hence we propose to adopt the older asexual typified name i.e. *Prosthemium* over younger sexual typified name i.e. *Pleomassaria*.

Pseudocamarosporium Wijayawardene & K.D. Hyde, Crypto. Mycol. 35 (2): 185 (2014)

Notes: See notes under *Camarosporium*.

Pseudocercospora Speg., Anal. Mus. nac. B. Aires, Ser. 3 13: 437 (1910)

Notes: *Pseudocercospora* was shown to be an asexual state in *Mycosphaerellaceae* (Stewart et al. 1999; Crous et al. 2009). Crous et al. (2009, 2013), showed that *Mycosphaerella sensu stricto* and *Pseudocercospora sensu stricto* represent different phylogenetic linages, and hence *Pseudocercospora* was accepted as distinct genus with mycosphaerella-like sexual states. Implications of this decision is that the major pathogens of banana, e.g. the Sigatoka disease complex, will be known as *P. fijiensis*, *P. eumusae* and *P. musae*.

Pseudodidymella C.Z. Wei et al., Mycologia 89(3): 494 (1997)

= *Pycnopleiospora* C.Z. Wei et al., Mycologia 89(3): 496 (1997)

Notes: Wei et al. (1997) described *Pseudodidymella* as the asexual state of *Pycnopleiospora* in the same publication as introducing the sexual state. The link was based on co-occurrence of both states on same substrate and also confirmed in culture (Wei et al. 1997). Hence we prioritize the first introduced name *Pseudodidymella* over *Pycnopleiospora*.

Pseudofusicoccum Mohali et al., Stud. Mycol. 55: 249 (2006)

Notes: Hyde et al. (2013) listed this genus under *Botryosphaeriaceae* and Slippers et al. (2013) and Phillips et al. (2013) also showed *Pseudofusicoccum* groups in *Botryosphaeriaceae*. However, the type species of *Pseudofusicoccum*, *P. stromaticum* (Mohali et al.) Mohali et al. groups in *Phyllostictaceae* in our analyses (Fig. 1).

Pseudoramichloridium Cheew. & Crous, Persoonia 23: 75 (2009)

Notes: Quaedvlieg et al. (2014) showed *Pseudoramichloridium* grouped in *Extremaceae* in their molecular data analyses.

Pseudosydowia K.M. Thambugala & K.D. Hyde, Fungal Diversity 68 (2014)

Notes: Crous et al. (2003) and Cheewangkoon et al. (2009) showed that *Sydowia eucalypti* is linked to the asexual morph *Selenophoma eucalypti*, and phylogenetically clusters with other *Aureobasidium* and *Hormonema* species. However, Thambugala et al. (2014c) showed that *Sydowia eucalypti* is not congeneric with *Sydowia sensu stricto* (*Dothideaceae*) and clustered in *Aureobasidiaceae* and hence introduced a new genus *Pseudosydowia* to accommodate the taxon.

Pseudoteratosphaeria Quaedvlieg & Crous, Persoonia 33: 29 (2014)

Notes: In morphology, *Pseudoteratosphaeria* is similar to *Teratosphaeria sensu stricto* but has distinct phylogenetic lineages in *Teratosphaeriaceae*.

Pseudotrichia Kirschst., Annls mycol. 37(1/2): 125 (1939)

Notes: Mugambi and Huhndorf (2009) included *Pseudotrichia* under *Melanommataceae* while Hyde et al. (2013) placed it in *Platystomaceae*. Thambugala et al. (2014b) assigned *Pseudotrichia* in *Didymosphaeriaceae* (*Montagnulaceae*) based on morphology.

Pseudoveronaea Crous & Batzer, Persoonia, Mol. Phyl. Evol. Fungi (2012)

Notes: Li et al. (2012) introduced this genus with two species and showed it belongs in *Dissaconiaceae*, *Capnodiales* in their molecular data analyses.

Pycnoderma Syd. & P. Syd., Annls mycol. 12(6): 563 (1914)

Notes: Hongsanan et al. (2014a) accepted *Pycnoderma* as a distinct genus in *Cookellaceae*.

Pyrenochaeta De Not., Mem. R. Accad. Sci. Torino, ser. 2 10: 348 (1849)

Notes: See notes under *Cucurbitaria*.

Pyrenophora Fr., Summa veg. Scand. (Stockholm) 2: 397 (1849)

= *Drechslera* S. Ito, Proc. Imp. Acad. Japan 6: 355 (1930)

Notes: Shoemaker (1962) and Sivanesan (1984) stated that *Pyrenophora* has *Drechslera* asexual states. Crous et al. (2011) and Ariyawansa et al. (2014b) showed with molecular

data that these genera group in the same clade. Although this was not based on type species, all included species are well-established taxa of these genera. *Pyrenophora* has more epithets (199 *fide* Index Fungorum 2014, http://www.indexfungorum.org/names/names.asp) and is the older name, hence we propose to reduce *Drechslera* under *Pyrenophora*. Furthermore, *Pyrenophora* is a generic name linked to important diseases of barley, and wheat (Ellwood et al. 2010; Manning et al. 2013), and is well-established in the plant pathology and plant breeder community.

Queenslandipenidiella Quaedvlieg & Crous, Persoonia 33: 29 (2014)

Notes: The genus *Queenslandipenidiella* was introduced to accommodate *Penidiella kurandae* Crous & J.K. Stone by Quaedvlieg et al. (2014). *Penidiella* and *Queenslandipenidiella* share a few common morpho-characters, but group as distinct clades in *Teratosphaeriaceae* (Quaedvlieg et al. 2014).

Ramichloridium Stahel ex de Hoog, Stud. Mycol. 15: 59 (1977)

Notes: Li et al. (2012) showed the type species of *Ramichloridium*, *R. apiculatum* (J.H. Mill. et al.) de Hoog grouped in *Dissaconiaceae*, *Capnodiales*.

Ramularia Unger, Exanth. Pflanzen (Wien): 119 (1833), nom. cons.

= *Ramularia* Roussek, Fl. Calvados, 2nd end 2: 98 (1806), nom. rej.

= *Mycosphaerella* Johanson, Öfvers. K. Svensk. Vetensk.-Akad. Förhandl. 41(9): 163 (1884)

Notes: The oldest asexual typified name, *Ramularia* was accepted over *Mycosphaerella* by Crous et al. (2009). *Mycosphaerella sensu stricto*. has *Ramularia sensu stricto*. asexual morphs. *Mycosphaerella sensu lato*, however, represents more than 40 diverse genera, distributed over several different families. If *Mycosphaerella* would be chosen over *Ramularia*, more than 500 new combinations would be required, whereas in choosing *Ramularia*, no new names are required, as all established connections already have species names in *Ramularia*. This adoption was accepted by Hyde et al. (2013).

Ramimonilia B. Stielow. & W. Quaedvlieg, Fungal Diversity 65: 155 (2014)

Notes: Egidi et al. (2014) introduced *Ramimonilia* with *R. apicalis* Stielow & Quaedvlieg as the type species. Molecular data analysis shows that *Ramimonilia* belongs in *Capnodiales*, *incertae sedis* (Egidi et al. 2014).

Ramopenidiella Crous & R.G. Shivas, Persoonia, Mol. Phyl. Evol. Fungi 32: 207 (2014)

Notes: The genus *Ramopenidiella* was introduced by Crous et al. (2014) with *R. cycadicola* Crous & R.G. Shivas as the type species. *Ramopenidiella* is morphologically and phylogenetically distinct from *Penidiella sensu stricto* but both genera belong to *Teratosphaeriaceae* (Crous et al. 2014).

Readeriella Syd. & P. Syd., Annls mycol. 6(5): 484 (1908)

= *Nothostrasseria* Nag Raj, Can. J. Bot. 61(1): 23 (1983)

= *Cibiessia* Crous, Fungal Diversity 26: 151 (2007)

Notes: Crous et al. (2009) accepted that *Cibiessia* is the synasexual morph of *Readeriella*. Furthermore, Crous et al. (2009) showed that *Nothostrasseria* has similar conidiogenesis to *Readeriella* and reduced the genus to synonymy under *Readeriella*. Hence, we accept *Cibiessia* and *Nothostrasseria* as synonyms of *Readeriella*.

Rebentischia P. Karst., Fungi Fenniae Exsiccati, Fasc. 9: no. 881 (1869)

Notes: Boonmee et al. (2014b) transferred this genus to *Pleosporales*, genera *incertae sedis* from *Tubeufiaceae* based on morphology.

Rhytidenglerula Höhn., Sber. Akad. Wiss. Wien, Math.-naturw. Kl., Abt. 1 127: 386 (1918)

Notes: See notes under *Englerulaceae*.

Rhizotexis Theiss. & Syd., Annls mycol. 15(1/2): 140 (1917)

Notes: *Rhexotexis* may be a synonym of *Asterotexis* (Hongsanan et al. 2014c).

Roussoellaceae J.K. Liu et al., Phytotaxa 181: 1–33

Notes: Liu et al. (2014) introduced *Roussoellaceae* based on *Roussoella* Sacc. as the type genus. This family currently comprises four genera *viz. Cytoplea*, *Neoroussoella*, *Roussoella* and *Roussoellopsis*. Nevertheless, Liu et al. (2014) listed *Cytoplea* as a possible synonym of *Roussoella* but we keep *Cytoplea* as a distinct genus in *Roussoellaceae* (See notes under *Cytoplea*).

Ruptoseptoria Quaedvlieg et al., Stud. Mycol. 75: 356 (2013)

Notes: Quaedvlieg et al. (2013) introduced *Ruptoseptoria* and molecular data analyses showed it belongs in *Mycosphaerellaceae*.

Saccardinula Speg., Anales de la Sociedad cientifica argentina 19: 257 (1885)

Notes: Jayawardene et al. (2014) transferred this genus to *Trichopeltinaceae* from *Elsinoaceae* based on morphological characters. Hongsanan et al. (2014a) accepted this genus in *Trichopeltinaceae*.

Saccharataceae Slippers et al., Stud. Mycol. 76: 41 (2014)

Notes: See notes under *Aplosporellaceae*.

Schenckiella Henn., Bot. Jb. 17: 523 (1893)

= *Allothyrium* Syd., Annls mycol. 37(4/5): 393 (1939)

Notes: Hongsanan et al. (2014c) treated *Allothyrium* Syd. as a synonym of *Schenckiella*.

Schiffnerula Höhn., Sber. Akad. Wiss. Wien, Math.-naturw. Kl., Abt. 1 118: 867 (1909)

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Notes: Dai et al. (2014b) treated *Mitteriella* Syd., *Questieriella* G. Arnaud ex S. Hughes, and *Sarcinella* Sacc. as synonyms of *Schiffnerula*.

Schizothyrium Desm., Annls Sci. Nat., Bot., sér. 3 11: 360 (1849)

Notes: Batzer et al. (2008) showed that *Schizothyrium pomi* (Mont. & Fr.) Arx grouped with *Zygophiala* spp. in their phylogenetic analysis of LSU rDNA sequence data. However, none of species included in their phylogenetic analysis, are the type species of their respective genera. However, the connection between *Schizothyrium* (1849) and *Zygophiala* (1945) appears to be well-established in culture, and if this is the case for the type species, preference should be given to the older name, *Schizothyrium*.

Sclerophoma Höhn., Sber. Akad. Wiss. Wien, Math.-naturw. Kl., Abt. 1 118: 1234 (1909)

Notes: Sutton (1980) and Sivanesan (1984) stated that *Sclerophoma pythiophila* (Cda) Höhn. is an asexual state of *Sydowia polyspora* (Bref. & Tavel) E. Müll. However, this link has not been confirmed by molecular sequence data analyses. Hence, we propose to retain *Sclerophoma* until its link with *Sydowia polyspora* is confirmed.

Scolicosporium Lib. ex Roum., Fungi Selecti Galliaei Exs.: no. 676 (1880)

Notes: Spooner and Kirk (1982) stated that *Asteromassaria macrospora* (Desm.) Höhn. (*Pleomassariaceae*) is the sexual state of the type species of *Scolicosporium* i.e. *S. macrosporium* (Berk.) B. Sutton. Wijayawardene et al. (2013), however, showed that *Scolicosporium minkeviciusii* Treigienė belongs in *Phaeosphaeriaceae* in their molecular analyses. Hence, the type species of the genus needs recollecting and sequence to confirm its correct taxonomic placement.

Selenophoma Maire, Bull. Soc. bot. Fr. 53: clxxxvii (1907)

Notes: Crous et al. (2003) linked *Selenophoma eucalypti* to *Sydowia eucalypti* based on culture studies, while Cheewangkoon et al. (2009) also confirmed this taxon to have a coniothyrium-like synasexual morph. Tsuneda et al. (2010) showed that *Discosphaerina fagi* (H.J. Huds.) M.E. Barr grouped with *Selenophoma mahoniae* A.W. Ramaley in their molecular analysis. *Selenophoma* is clearly paraphyletic, and we therefore retain *Selenophoma* until its type species (*S. catananches*) has been recollected and subjected to molecular data analysis.

Septoria Sacc., Syll. fung. (Abellini) 3: 474 (1884)

Notes: Quaedvlieg et al. (2013) revised the genus *Septoria* and showed it is polyphyletic in their molecular data analyses. Hence, several new genera have been introduced (e.g. *Cylindroseptoria* in *Dothideaceae*; *Ruptoseptoria* in *Mycosphaerellaceae*) to place septoria-like taxa. *Septoria* remained in *Mycosphaerellaceae*.

Septorioides Quaedvlieg et al., Stud. Mycol. 75: 383 (2013)

Notes: Quaedvlieg et al. (2013) introduced *Septorioides* and molecular data analyses showed it belongs to *Botryosphaeriaceae*.

Setophaeosphaeria Crous & Y. Zhang ter, Persoonia, Mol. Phyl. Evol. Fungi 32: 271 (2014)

Notes: Crous et al. (2014) introduced this genus with two species, (i.e. *Setophaeosphaeria badalingensis*, *S. hemerocallidis*) and with new combination (i.e. *S. vernoniae*). Based on molecular data blast searches, Crous et al. (2014) placed this genus in *Phaeosphaeriaceae*. However, Phookamsak et al. (2014) show the type species *Setophaeosphaeria hemerocallidis* forms a clade outside *Phaeosphaeriaceae*, close to *Cucurbitariaceae*, while *Sp. badalingensis* clusters with *Phaeosphaeria sensu stricto* in *Phaeosphaeriaceae*.

Shearia Petr., Annls mycol. 22(1/2): 180 (1924)

Notes: *Shearia* was reported as the asexual morph of *Pleomassaria* Speg. by Sutton (1980). *Shearia acericola* Petr. was proposed to be the asexual state of *Pleomassaria acericola* Petr. by Petrak (1952) as conidiomata and ascomata co-occurred on the same substrate. Petrak (1962) revised the genus and Sutton (1980) accepted this revision by mentioning that *Shearia formosa* is the asexual state of *Pleomassaria magnolia* Shear. These links have not been confirmed by molecular data, hence we conclude that *Shearia* has a pleomassaria-like sexual state. However, *Pleomassaria sensu stricto* is linked with *Prosthemium sensu stricto* by Tanaka et al. (2010). Thus placement of this genus is uncertain.

Sphaeropsis Sacc., Michelia 2: 105 (1880)

= *Phaeobotryosphaeria* Speg., Ann. Inst. Rech. Agron. 17, 10: 120 (1908)

Notes: Phillips et al. (2008) established the connection between the asexual and sexual morphs of *Sphaeropsis visci*, the type species of *Sphaeropsis*, *S. visci* (Alb. & Schwein.) Sacc. Phillips et al. (2013) considered *Sphaeropsis* to be more suitable than *Phaeobotryosphaeria*, since it is the oldest name and is the name most used in the literature.

Sphaerulina Sacc., Michelia 1(no. 4): 399 (1878)

Notes: In their molecular data analyses, Quaedvlieg et al. (2013) showed that *Sphaerulina* is a distinct genus in *Mycosphaerellaceae* but very closely related to *Septoria sensu stricto*. Furthermore, they show several septoria-like taxa also grouped in *Sphaerulina sensu stricto* clade hence they introduced several new combinations.

Stagonospora (Sacc.) Sacc., Syll. fung. (Abellini) 3: 445 (1884)

Notes: Quaedvlieg et al. (2013) showed that *Stagonospora sensu stricto* belongs in *Massarinaceae* in their molecular data analyses.

Staninwardia B. Sutton, Trans. Br. mycol. Soc. 57(3): 540 (1971)

Notes: Quaedvlieg et al. (2014) showed *Staninwardia* grouped in *Extremaceae* in their molecular data analyses.

Stemphylium Wallr., Fl. crypt. Germ. (Nurmberg) 2: 300 (1833)

= *Pleospora* Rabenh. ex Ces. & De Not., Comm. Soc. crittog. Ital. 1(4): 217 (1863)

Notes: The genus *Stemphylium* is preferred over *Pleospora* as *Stemphyllium* is the older name and has priorty, is better established in the literature (more than double the number of hits for *Stemphylium* in Google Scholar), and the genus is well-known to the plant pathology community, and is well circumscribed at the molecular level (Lawrence et al. 2012). Although there are more species epithets in *Pleospora*, most appear to belong to other genera, as many genera form pleospora-like sexual morphs (e.g. *Lewia*, linked to *Alternaria*). *Stemphylium*, however, is unique, and its conidium and conidiogenous morphology can in combination not easily be confused with say *Alternaria*, which is the genus morphologically most similar to it. Many serious diseases are known to be caused by *Stemphylium* species (purple spot of *Asparagus*, brown spot of barley, *Stemphylium* leaf blight of cotton, brown spot disease of pears, leaf spot disease of spinach, leaf spot and foliar blight of tomato), whereas these diseases are not clearly linked to *Pleospora* names. More than 2300 records are linked to “Stemphylium disease” in the CABI direct database.

Stephanotheca Syd. & P. Syd., Philippine Journal of Science Section C Botany 9 (2): 178 (1914) Notes: Jayawardena et al. (2014) accepted this genus as *Asterinaceae*. However, Hongsanan et al. (2014b) did not recognize *Stephanotheca* as a genus in *Asterinaceae*.

Suberoteratosphaeria Quaedvlieg & Crous, Persoonia 33: 31 (2014)

Notes: Quaedvlieg et al. (2014) introduced this genus in *Teratosphaeriaceae* with *S. suberosa* (Crous et al.) Quaedvlieg & Crous as the type species. *Suberoteratosphaeria* is morphologically quite similar to *Teratosphaeria sensu stricto* but able to distinguish by colony and ascospore characters (Crous et al. 2014).

Stromatoseptoria Quaedvlieg et al., Stud. Mycol. 75: 373 (2013)

Notes: Quaedvlieg et al. (2013) introduced *Stromatoseptoria* and molecular data analyses showed it belongs to *Mycosphaerellaceae*.

Subplenodomus Gruyter et al., Stud. Mycol. 75: 23 (2013)

Notes: This genus was introduced by de Gruyter et al. (2013) to accommodate four phoma-like species grouped in *Leptosphaeriaceae*, but separate from the clade in which *Plenodomus rabenhorstii* Preuss (=*Plenodomus lingam* (Tode: Fr.) Höhn., type species of *Plenodomus*) is placed. The name is therefore used for phoma-like species in *Leptosphaeriaceae* which differ from *Plenodomus* based on combined LSU and ITS rDNA analysis.

Sydowia Bres., Hedwigia 34 (Beibl.): 66 (1895)

Notes: Bills et al. (2004) showed that the type species of *Hormonema*, *H. dematioides* Lagerb. & Melin grouped with *Sydowia polyspora* (Bref. & Tavel) E. Müll. in their molecular data analysis. *Sydowia*, however, is polyphyletic (Crous et al. 2003), and hence it is best to retain *Hormonema* as separate from *Sydowia* until the type species, *S. gregaria*, has

been recollected and subjected to DNA analysis. For further taxonomic notes, see Thambugala et al. (2014c).

Syncarpella Theiss. & Syd., Annls mycol. 13(5/6): 631 (1915)

Notes: Ramaley and Barr (1997) described *Syntholus* A.W. Ramaley & M.E. Barr to accommodate the conidial state of *Syncarpella ribis* A.W. Ramaley & M.E. Barr i.e. *Syntholus ribis* A.W. Ramaley & M.E. Barr. However the relationship between *Syntholus tumefaciens* (Ellis & Harkn.) Theiss. & Syd. the type species of *Syncarpella* and *Syntholus ribis* has not been confirmed by molecular data. Hence we conclude that *Syncarpella* has syntholus-like asexual states and propose continued use of both generic names.

Teratosphaeria Syd. & P. Syd., Annls mycol. 10(1): 39 (1912)

= *Colletogloeopsis* Crous & M.J. Wingf., Can. J. Bot. 75(4): 668 (1997)

= *Kirramyces* J. Walker et al., Mycol. Res. 96(11): 919 (1992)

Notes: Crous et al. (2009) accepted that *Teratosphaeria sensu stricto* has *Colletogloeopsis* and *Kirramyces* asexual states. Hence we propose to use the older sexual typified name *Teratosphaeria* over *Colletogloeopsis* and *Kirramyces*.

Teratosphaericola Quaedvlieg & Crous, Persoonia 33: 32 (2014)

Notes: The genus *Teratosphaericola* was introduced by Quaedvlieg et al. (2014) to accommodate *Teratosphaeria pseudoafricana* (Crous & T.A. Cout.) Crous & U. Braun. *Teratosphaericola* is morphologically similar to *Teratosphaeria sensu stricto* thus can only be distinguished based on DNA phylogeny.

Teratosphaeriopsis Quaedvlieg & Crous, Persoonia 33: 33 (2014)

Notes: The genus *Teratosphaeriopsis* was introduced by Quaedvlieg et al. (2014) to place *Teratosphaeriopsis pseudoafricana* Quaedvlieg & Crous which is morphologically similar to *Teratosphaeria sensu stricto*. Hence, *Teratosphaeriopsis* and *Teratosphaeria* are can only be distinguished via phylogenetic data.

Tetraploa Berk. & Broome, Ann. Mag. nat. Hist., Ser. 2 5: 459 (1850)

= *Tetraplosphaeria* Kaz. Tanaka & K. Hiray., Stud. Mycol. 64: 177 (2009)

Notes: Tanaka et al. (2009) introduced the family *Tetraplosphaeriaceae* to place *Tetraploa sensu stricto*, and its newly introduced sexual state *Tetraplosphaeria*. Tanaka et al. (2009) clearly showed that *T. aristata* Berk. & Broome, the type species of *Tetraploa*, grouped closely with *Tetraplosphaeria sasicola* Kaz. Tanaka & K. Hiray, the type species of *Tetraplosphaeria*. Hyde et al. (2013) also accepted this link and adopted *Tetraploa*, the older asexual typified name over *Tetraplosphaeria*.

Thrauste Theiss., Verh. zool.-bot. Ges. Wien 66: 337 (1916)

Notes: See notes under *Englerulaceae*.

Thaxteriellopsis Sivan. et al., Kavaka 4: 39 (1977) [1976]

Notes: Subramanian and Sekar (1982) observed with moorella-like asexual morph in *Thaxteriellopsis lignicola* Sivan. et al. However, the authors (i.e. Subramanian and Sekar 1982) referred to the asexual genus and did not identify it to species level. Thus, we do not synonymize *Thaxteriellopsis* under *Moorella*. Boonmee et al. (2014b) accepted *Thaxteriellopsis* as a genus in *Tubeufiaceae* and provide detailed taxonomic notes and illustrations.

Thyridaria Sacc., Grevillea 4: 21 (1875)

Notes: See notes under *Cyclothyrium*.

Thyriopsis Theiss. & Syd., Annls mycol. 13(3/4): 369 (1915)

Notes: Hongsanan et al. (2014c) accepted this genus as a member of *Aulographaceae*.

Thyrostroma Höhn., Sber. Akad. Wiss. Wien, Math.-naturw. Kl., Abt. 1 120: 472 (1911)

Notes: Ramaley (2005) and Phillips et al. (2008) showed that *Dothidotthia symphoricarpi* (Rehm) Höhn., the generic type of *Dothidotthia* has a *Thyrostroma* asexual morph (i.e. *Thyrostroma negundinis* (Berk. & M.A. Curtis) A.W. Ramaley). This was confirmed by Seifert et al. (2011). However, no link has thus far been established between the type species of *Thyrostroma* and *Dothidotthia*. Hence we propose to continued use of both names until above mentioned links are proven. If shown to be synonymous, preference would be given to *Thyrostroma*, which is the older genus, with the majority of species names. Phillips et al. (2008) placed this genus in *Dothidotthiaceae*.

Trichopeltella Höhn., Sber. Akad. Wiss. Wien, Math.-naturw. Kl., Abt. 1 119: 458 (1910)

Notes: Hongsanan et al. (2014a) accepted this genus in *Trichopeltinaceae*.

Trichopeltheca Bat. et al., Atti Ist. bot. Univ. Lab. crittog. Pavia, Ser. 5 15: 44 (1958)

Notes: Hongsanan et al. (2014a) accepted this genus in *Trichopeltinaceae*.

Trichopeltina Theiss., Beih. bot. Zbl., Abt. 2 32: 3 (1914)

Notes: Hongsanan et al. (2014a) accepted this genus in *Trichopeltinaceae*.

Trichopeltinaceae (Theiss.) Bat. et al., Atti Ist Bot. Univ. Lab. Crittog. Pavia 15: 37 (1958)

= *Brefeldiellaceae* E. Müll. & Arx, Beitr. Kryptfl. Schweiz 11(no. 2): 148 (1962)

= *Saccardinulaceae* G. Arnaud, Annls Sci. Nat., Bot., sér. 10 7: 647 (1925)

= *Trichopeltaceae* Theiss., Centralbl. Bakteriol. Parasitol., II 39:629 (1914)

= Trichopeltidaceae Theiss. [as '*Trichopeltaceae*'], Zentbl. Bakt. ParasitKde, Abt. II 39: 629 (1914) [1913]

Notes: Hongsanan et al. (2014a) revised this family and accepted six genera *viz.* *Acrogenotheca*, *Brefeldiella*, *Saccardinula*, *Trichopeltina*, *Trichopeltheca* and *Trichopeltella*. Furthermore, Hongsanan et al. (2014a) treated *Brefeldiellaceae* E. Müll. & Arx as a synonym of *Trichopeltinaceae*.

Trichopeltospora Bat. & Cif., Publicações Inst. Micol. Recife 90: 17 (1958)

Notes: Wu et al. (2011) stated the placement of this genus in *Asterinaceae* is uncertain. However, Hongsanan et al. (2014c) referred *Trichopeltospora* to *Asterinaceae*.

Trichothyrinula Petr., Sydowia 4(1–6): 171 (1950)

Notes: Hongsanan et al. (2014a) mentioned that the placement of this genus in *Trichopeltinaceae* is uncertain and suggested that a new family might be needed to accommodate it.

Tubeufiaceae M.E. Barr, Mycologia 71(5): 948 (1979)

Notes: Boonmee et al. (2014b) revised the family *Tubeufiaceae* and accepted 19 genera. Boonmee et al. (2014b) also illustrated and redescribed most of the genera and provided detailed taxonomic notes for each genus. Notes for genera marked with a # are provided in Boonmee et al. (2014b).

Tubeufiales S. Boonmee & K.D. Hyde, Fungal Diversity 68 (2014)

Notes: Boonmee et al. (2014b) raised *Tubeufiaceae* as an order and currently it comprises one family.

Uredinophila Rossman, Mycol. Pap. 157: 43 (1987)

Notes: Boonmee et al. (2014b) excluded this genus from *Tubeufiaceae* and placed in *Dothideomycetes*, genera *incertae sedis*.

Uwebraunia Crous & M.J. Wingf., Mycologia 88(3): 446 (1996)

Notes: Species of *Uwebraunia* have mycosphaerella-like sexual morphs, are pathogenic on *Eucalyptus* spp. (Crous et al. 2004), but are also associated with sooty blotch and flyspeck syndromes on apples (Li et al. 2012). They are morphologically similar to species of *Dissoconium*, which are normally mycophylic on *Erysiphaceae* (de Hoog et al. 1991). Species of *Dissoconium* have large, obclavate to ellipsoid microconidia, and produce sclerotia in culture. *Uwebraunia*, on the other hand, has small, pyriform microconidia and does not form sclerotia in culture (Li et al. 2012).

Vermiconia E. Egidi & S. Onofri, Fungal Diversity 65: 150 (2014)

Notes: The genus *Vermiconia* was introduced by Egidi et al. (2014) and shown to belong in *Teratosphaeriaceae sensu lato*. However, Quaedvlieg et al. (2014) showed this genus to belong in the new family *Extremaceae*.

Vishnumyces Hosag., Indian Phytopath. 63(1): 85 (2010)

Notes: Lumbsch and Huhndorf (2010) listed this genus under *Asterinaceae* however; Hongsanan et al. (2014c) treated it as a doubtful genus.

Vizellopsis Bat. et al., Publções Inst. Micol. Recife 637: 5 (1969)

Notes: The monotypic genus *Vizellopsis* was introduced by Batista et al. (1969) and is typified by *V. grevilleae* Bat. Batista et al. (1969) placed *Vizellopsis* in the family *Microthyriaceae*, according to the black, circular, flattened thyriothecia. Lumbsch and Huhndorf (2010) included this genus as *Dothideomycetes*, genera *incertae sedis*, as the morphological characters are not similar to *Microthyriaceae*. Based on morphological characters of the type species of *Vizellopsis*, *V. grevilleae* Bat., Dai et al. (2014a) placed this genus in *Asterinaceae* and this was followed by Hongsanan et al. (2014c).

Wiesneriomycetaceae Suetrong et al., Phytotaxa 176 (1): 285 (2014)

Notes: Suetrong et al. (2014) introduced this family to place *Wiesneriomyces* which forms a distinct clade close to *Tubeufiales*.

Wojnowicia Sacc., Syll. fung. (Abellini) 10: 328 (1892)

Notes: De Gruyter et al. (2009) showed the type species of *Wojnowicia*, *W. hirta* (J. Schröt.) Sacc. groups with *Ophiosphaerella herpotricha* (Fr.) J. Walker in their LSU and SSU rDNA sequence analyses. However, there are no sequences of the type species of *Ophiosphaerella* (*Ophiosphaerella graminicola* Speg.) in GenBank, hence the link between *Ophiosphaerella sensu stricto* and *Wojnowicia* has not yet been proven. The use of *Ophiosphaerella* and *Wojnowicia* is therefore retained pending further studies. We conclude that *Wojnowicia* has ophiosphaerella-like sexual states.

Xenobotryosphaeria Quaedvlieg et al., Stud. Mycol. 75: 374 (2013)

Notes: Quaedvlieg et al. (2013) introduced this genus and showed it belongs in *Pleosporales*, genera *incertae sedis*.

Xenomycosphaerella Quaedvlieg & Crous, Persoonia 33: 24 (2014)

Notes: *Mycosphaerella elongata* Crous & M.J. Wingf., introduced by Crous et al. (2007) is distinct from *Mycosphaerella sensu stricto* and hence Quaedvlieg et al. (2014) introduced *Xenomycosphaerella* to accommodate *Mycosphaerella elongata* as *Xenomycosphaerella elongata* (Crous & M.J. Wingf.) Quaedvlieg & Crous.

Xenopenidiella Quaedvlieg & Crous, Persoonia 33: 33 (2014)

Notes: Quaedvlieg et al. (2014) showed that *Penidiella rigidophora* Crous et al. is not congeneric with *Penidiella sensu stricto*, hence *Xenopenidiella* was introduced to accommodate the taxon. *Penidiella* and *Xenopenidiella* are morphologically quite similar, but they are phylogenetically distinct.

Xenoteratosphaeria Quaedvlieg & Crous, Persoonia 33: 34 (2014)

Notes: The genus *Xenoteratosphaeria* was introduced to accommodate *Teratosphaeria jonkershoekensis* (P.S. van Wyk et al.) Crous & U. Braun. *Teratosphaeria* and *Xenoteratosphaeria* share close morphologies but are phylogenetically distinct.

Xenostigmina Crous, Mycol. Mem. 21: 154 (1998)

Notes: Phookamsak et al. (2014) showed *Xenostigmina* belongs to *Melanommataceae* in their molecular phylogenetic analyses and hence they excluded the genus from *Phaeosphaeriaceae*.

Yoshinagaia Henn., Hedwigia 43: 143 (1904)

Notes: Thambugala et al. (2014a) excluded this genus from *Dothideaceae* and placed in *Dothideomycetes* genera *incertae sedis* based on morphology.

Zasmidium Fr., Summa veg Scand. 2: 407 (1849)

Notes: Quaedvlieg et al. (2014) showed that *Mycosphaerella eucalyptorum* Crous & M.J. Wingf. is phylogenetically close to *Zasmidium sensu stricto* and introduced the new combination, *Z. eucalyptorum* (Crous & M.J. Wingf.) Quaedvlieg & Crous.

Zukaliopsis Henn., Hedwigia 43: 367 (1904)

Notes: See notes under *Myriangiaceae*.

Zygophiala E.W. Mason, Mycol. Pap. 13: 3 (1945)

Notes: See notes under *Schizothyrium*.

Zymoseptoria Quaedvl. & Crous, Persoonia, Mol. Phyl. Evol. Fungi 26: 64 (2011)

Notes: The genus *Zymoseptoria* is associated with a range of leaf spot diseases of cereals and grasses (Quaedvlieg et al. 2011; Crous et al. 2012). *Zymoseptoria tritici* (=*Mycosphaerella graminicola*) causes septoria tritici blotch in wheat, which is a very serious disease of this crop, occurring wherever wheat is grown. *Zymoseptoria* species have mycosphaerella-like sexual morphs, and although the genus occurs in the *Mycosphaerellaceae*, it is unrelated to *Mycosphaerella sensu stricto* (Stukenbrock et al. 2012).

Supplementary Material

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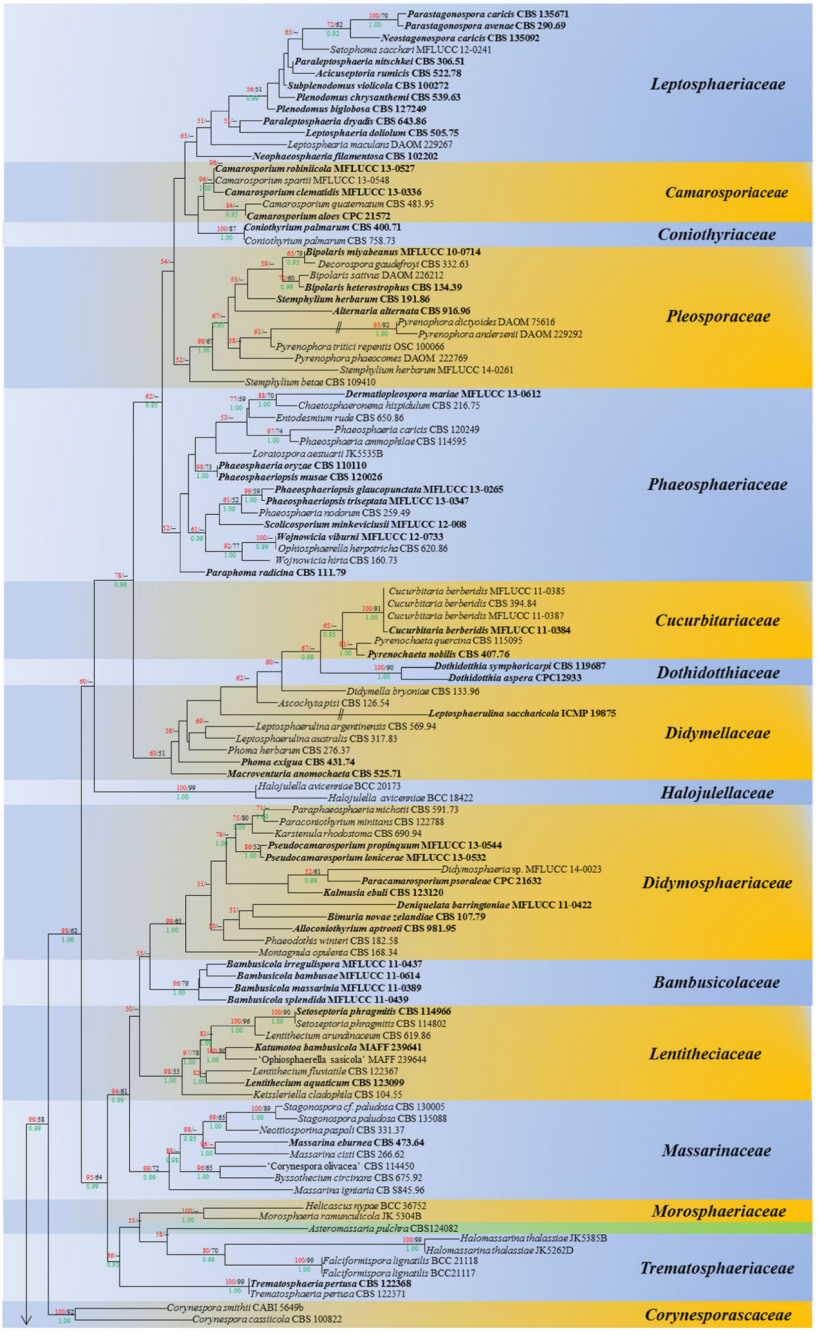

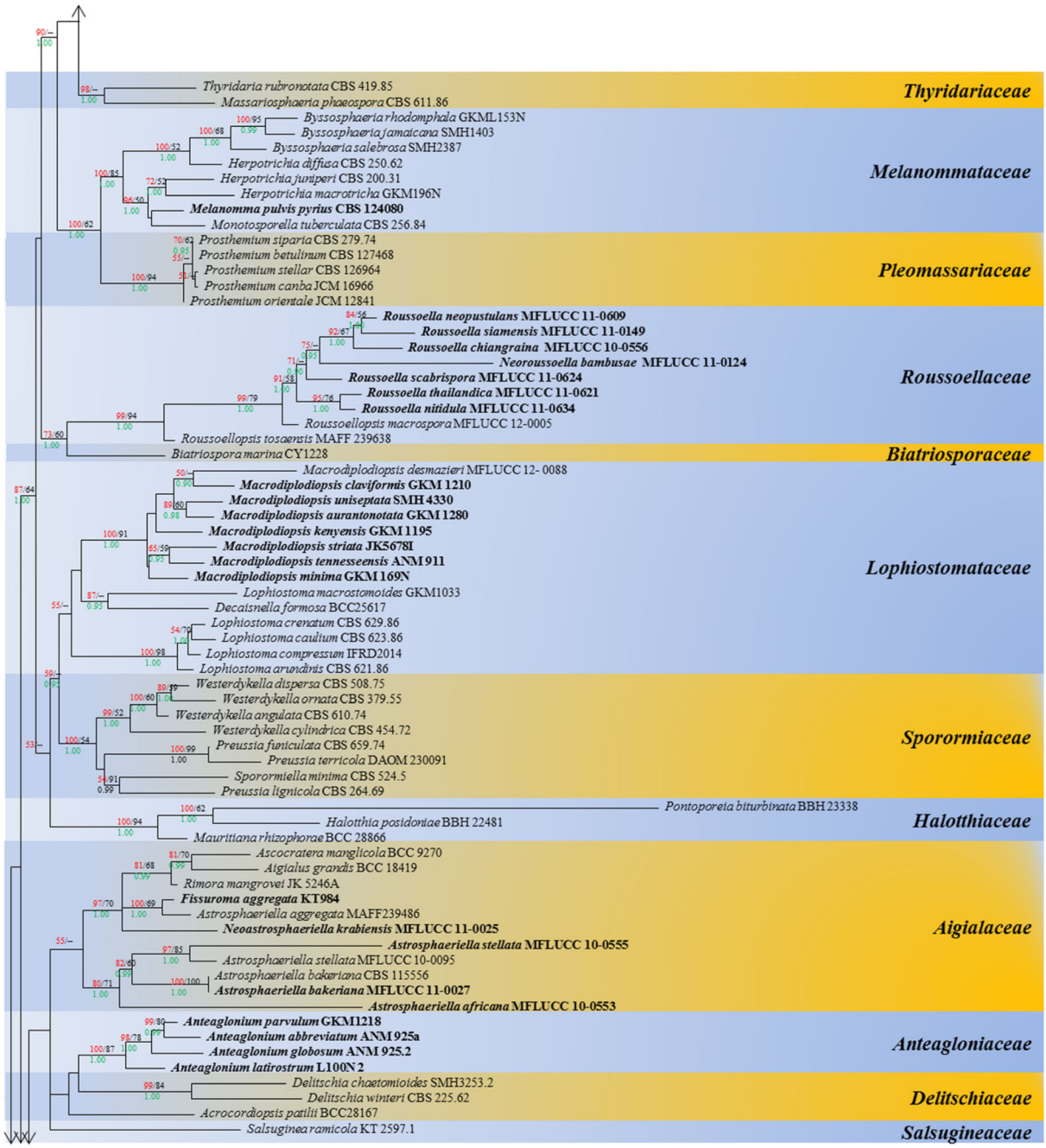

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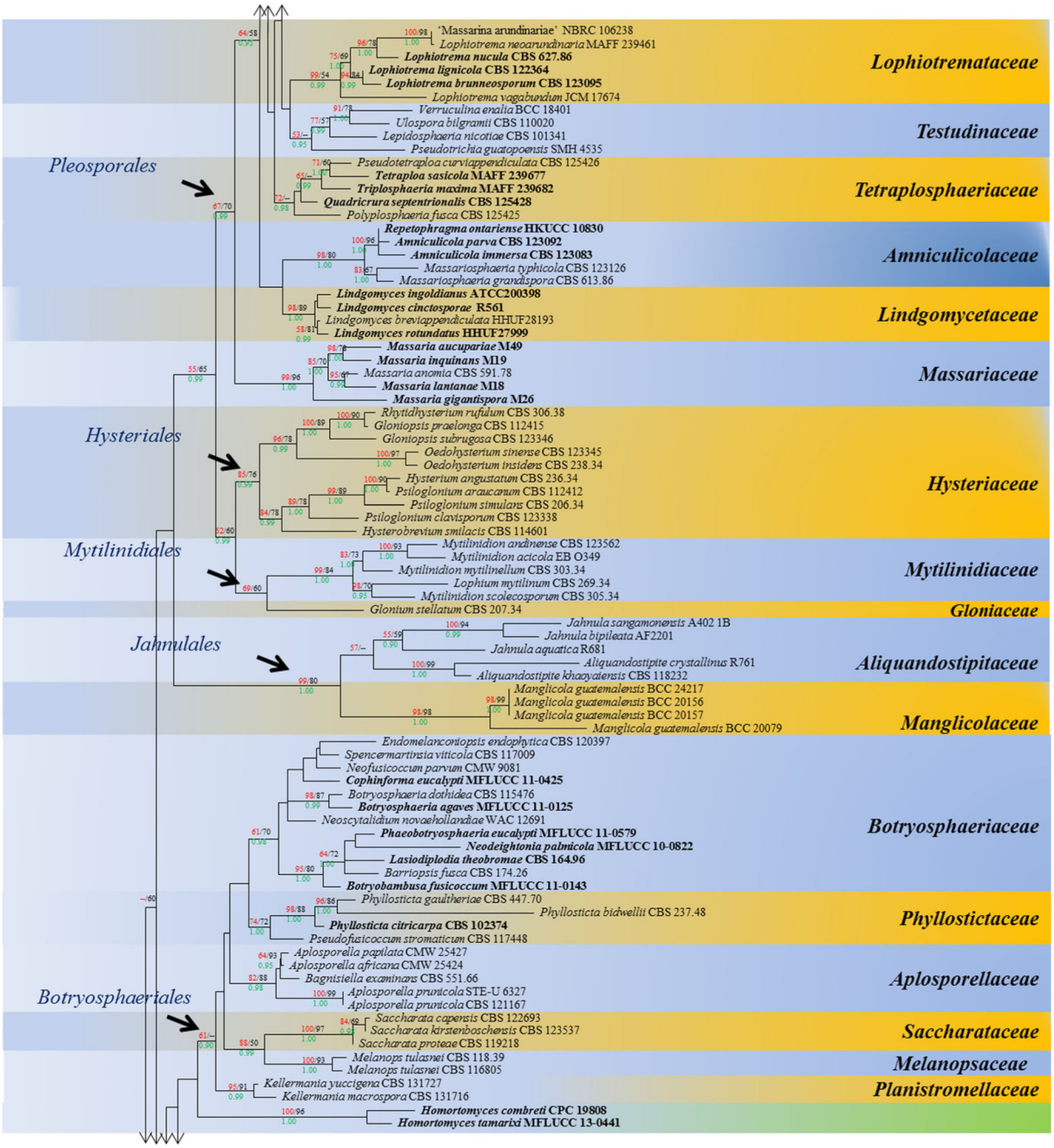

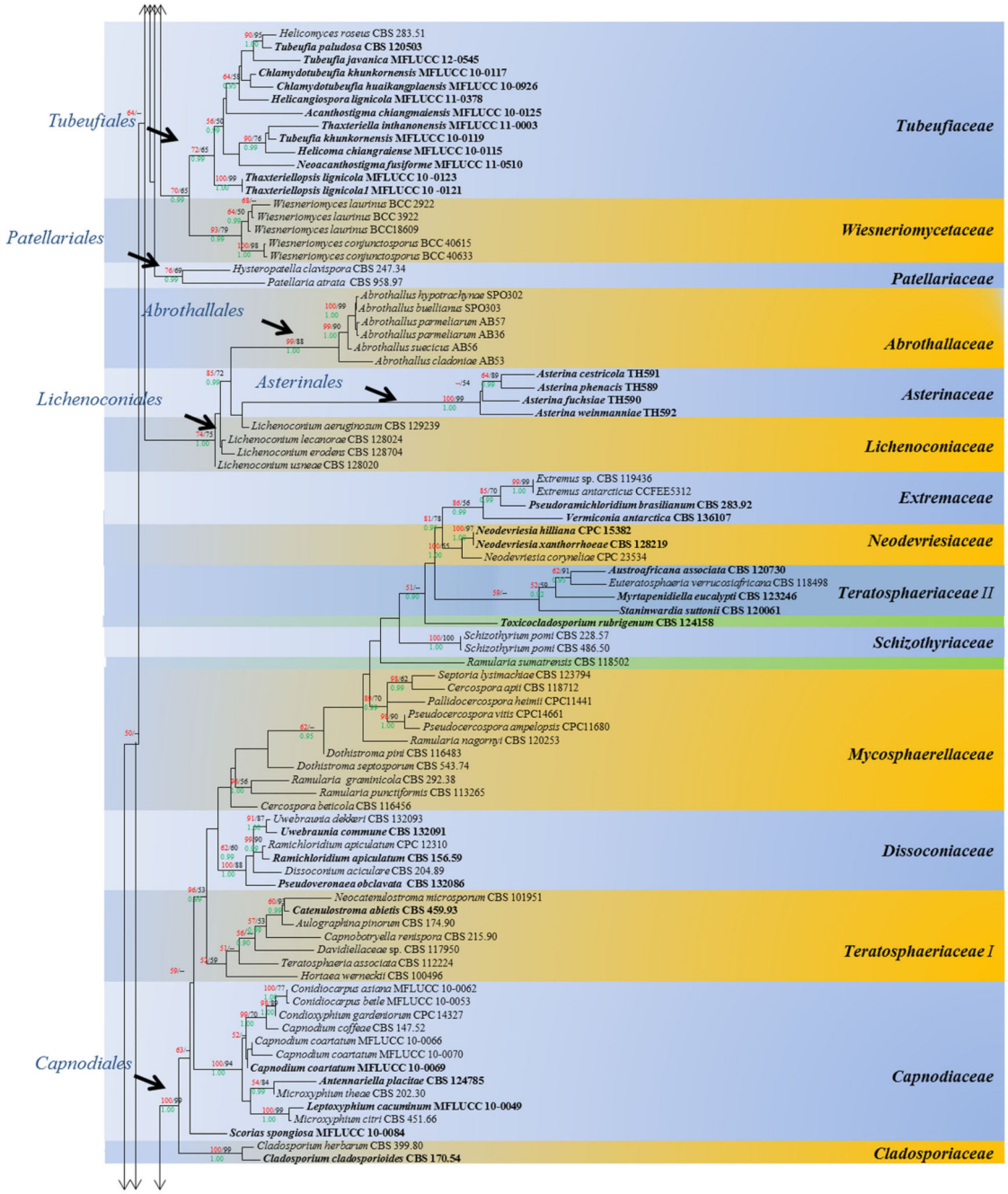

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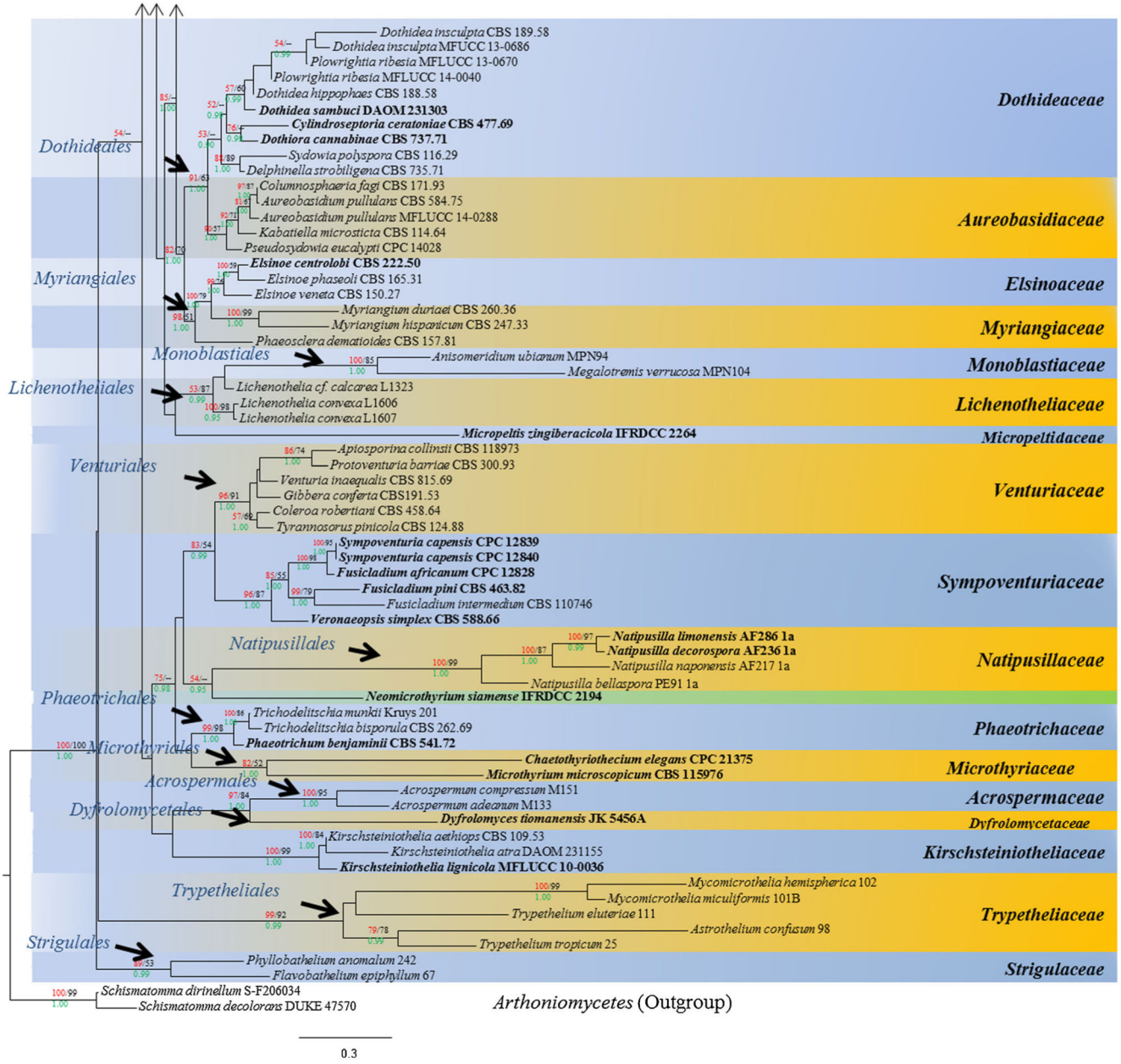

Fig. 1.

The best scoring RAxML *Dothideomycetes* tree from 415 taxa based on a combined dataset of LSU, SSU, TEF1 and RPB2 sequences with all lineages collapsed to family level where possible. The tree is the same as Fig. 1. Bootstrap support values for maximum likelihood (*ML*, *red*) and maximum parsimony (*MP*, *black*) greater than 50% are given above the nodes; Bayesian posterior probabilities (*BYPP*, *green*) above 0.90 are given below the nodes. The original strain numbers are given after the species names. Type and ex-type strains are emphasized in bold. The tree was rooted with *Schismatomma dirinellum* (S-F206034) and *S. decolorans* (DUKE 47570)

Table 1

Index to adopted names of pleomorphic genera

Protected names	Suppressed names
Alternaria Nees	*Lewia* M.E. Barr & E.G. Simmons
Antennulariella Woron.	*Antennariella* Bat. & Cif., *Capnodendron* S. Hughes
Anthracostroma Petr.	*Camarosporula* Petr.
Bipolaris Shoemaker	*Cochliobolus* Drechsler
Blasdalea Sacc. & P. Syd.	*Chrysogloeum* Petr.
Botryohypoxylon Samuels & J.D. Rogers	*Iledon* Samuels & J.D. Rogers
Botryosphaeria Ces. & De Not.	*Fusicoccum* Corda
Brooksia Hansf.	*Hiospira* R.T. Moore
Capnodium Mont.	*Polychaeton* (Pers.) Lév.
Cladosporium Link	*Davidiella*> Crous & U. Braun
Comminutispora A.W. Ramaley	*Hyphospora* A.W. Ramaley
Curvularia Boedijn	*Pseudocochliobolus* Tsuda et al.
Cyclopeltis Petr.	*Cyclopeltella* Petr.
Elsinoë Racib.	*Sphaceloma* de Bary
Excipulariopsis P.M. Kirk & Spooner	*Kentingia* Sivan. & W.H. Hsieh
Exosporiella P. Karst.	*Anomalemma* Sivan.
Exserohilum K.J. Leonard & Suggs	*Setosphaeria* K.J. Leonard & Suggs
Farlowiella Sacc.	*Acrogenospora* M.B. Ellis.
Kellermania Ellis & Everh.	*Planistromella* A.W. Ramaley
Kirschsteiniothelia D. Hawksw.	*Dendryphiopsis* S. Hughes
Lecanosticta Syd.	*Eruptio* M.E. Barr
Macrodiplodiopsis Petr.	*Misturatosphaeria* Mugambi & Huhndorf,
	Floricola Kohlm. & Volkm.-Kohlm.
Phaeosphaeria I. Miyake	*Phaeoseptoria* Speg.
Phragmocapnias Theiss. & Syd.	*Conidiocarpus* Woron.
Phyllosticta Pers.	*Guignardia* Viala & Ravaz
Polythrincium Kunze	*Cymadothea* F.A. Wolf
Prillieuxina G. Arnaud	*Leprieurina* G. Arnaud
Prosthemium Kunze	*Pleomassaria* Speg.
Pseudodidymella C.Z. Wei et al.	*Pycnopleiospora* C.Z. Wei et al.
Pyrenophora Fr.	*Drechslera* S. Ito
Ramularia Unger	*Mycosphaerella* Johanson
Sphaeropsis Sacc.	*Phaeobotryosphaeria* Speg.
Stemphylium Wallr	*Pleospora* Rabenh. ex Ces. & De Not.
Teratosphaeria Syd. & P. Syd.	*Colletogloeopsis* Crous & M.J. Wingf., *Kirramyces* J. Walker et al.
Tetraploa Berk. & Broome	*Tetraplosphaeria* Kaz. Tanaka & K. Hiray.