Recommended names for pleomorphic genera in *Dothideomycetes*

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Abstract: This paper provides recommendations of one name for use among pleomorphic genera in Dothideomycetes by the Working Group on Dothideomycetes established under the auspices of the International Commission on the Taxonomy of Fungi (ICTF). A number of these generic names are proposed for protection because they do not have priority and/or the generic name selected for use is asexually typified. These include: Acrogenospora over Farlowiella; Alternaria over Allewia, Lewia, and Crivellia; Botryosphaeria over Fusicoccum; Camarosporula over Anthracostroma; Capnodium over Polychaeton; Cladosporium over Davidiella; Corynespora over Corynesporasca; Curvularia over Pseudocochliobolus; Elsinoë over Sphaceloma; Excipulariopsis over Kentingia; Exosporiella over Anomalemma; Exserohilum over Setosphaeria; Gemmamyces over Megaloseptoria; Kellermania over Planistromella; Kirschsteiniothelia over Dendryphiopsis; Lecanosticta over Eruptio; Paranectriella over Araneomyces; Phaeosphaeria over Phaeoseptoria; Phyllosticta over Guignardia; Podonectria over Tetracrium; Polythrincium over Cymadothea; Prosthemium over Pleomassaria; Ramularia over Mycosphaerella; Sphaerellopsis over Eudarluca; Sphaeropsis over Phaeobotryosphaeria; Stemphylium over Pleospora; Teratosphaeria over Kirramyces and Colletogloeopsis; Tetraploa over Tetraplosphaeria; Venturia over Fusicladium and Pollaccia; and Zeloasperisporium over Neomicrothyrium. Twenty new combinations are made: Acrogenospora carmichaeliana (Berk.) Rossman & Crous, Alternaria scrophulariae (Desm.) Rossman & Crous, Pyrenophora catenaria (Drechsler) Rossman & K.D. Hyde, P. dematioidea (Bubák & Wróbl.) Rossman & K.D. Hyde, P. fugax (Wallr.) Rossman & K.D. Hyde, P. nobleae (McKenzie & D. Matthews) Rossman & K.D. Hyde, P. triseptata (Drechsler) Rossman & K.D. Hyde, Schizothyrium cryptogamum (Batzer & Crous) Crous & Batzer, S. cylindricum (G.Y. Sun et al.) Crous & Batzer, S. emperorae (G.Y. Sun & L. Gao) Crous & Batzer, S. inaequale (G.Y. Sun & L. Gao) Crous & Batzer, S. musae (G.Y. Sun & L. Gao) Crous & Batzer, S. gianense (G.Y. Sun & Y.Q. Ma) Crous & Batzer, S. tardecrescens (Batzer & Crous) Crous & Batzer, S. wisconsinense (Batzer & Crous) Crous & Batzer, Teratosphaeria epicoccoides (Cooke & Massee) Rossman & W.C. Allen, Venturia catenospora (Butin) Rossman & Crous, V. convolvularum (Ondrej) Rossman & Crous, V. oleaginea (Castagne) Rossman & Crous, and V. phillyreae (Nicolas & Aggéry) Rossman & Crous, combs. nov. Three replacement names are also proposed: Pyrenophora grahamii Rossman & K.D. Hyde, Schizothyrium sunii Crous & Batzer, and Venturia barriae Rossman & Crous noms. nov.

Key words:

Fungal systematics genera of fungi one fungus one name pleomorphism

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INTRODUCTION

A comprehensive account of the genera of Dothideomycetes was provided by Hyde et al. (2013), and updated by Wijayawardene et al. (2014). These works serve as the basis for the move to one scientific name for pleomorphic genera of fungi in this class. Based on the latter publication, an account is presented for all pleomorphic genera in Dothideomycetes including the generic names recommended for use. This article is essentially abstracted from Wijayawardene et al. (2014) to present only competing pairs of genera for consideration by the Nomenclature Committee for Fungi (NCF), as well as including minor corrections. All but three of the recommendations listed here agree with those of Wijayawardene et al. (2014). For Acrogenospora-Farlowiella, a case is now made for protecting Acrogenospora based on the wider use and fewer name changes required rather than following the principle of priority. Similarly Camarosporula was determined to be more widely used than the competing generic name Anthracostroma, which has equal priority; Camarosporula is consequently recommended for use. Although Sydowia and Hormonema were considered distinct by Wijayawardene et al. (2014), a study by Hirooka et al. (2012) suggested that their type species were congeneric. Thus, Sydowia is now recommended for use based on the greater number of species, wider use, and priority. Four additional pairs of genera were discovered to be synonyms as explained below. In addition, three generic names with synonyms listed in Wijayawardene et al. (2014) are probably not, as explained under names not included. Generic names

with synonyms that are not pleomorphic, i.e. all sexual or all asexually typified synonyms are not included.

A list of names of all pleomorphic genera, i.e. those having synonymous generic names for an alternate morph along with their type species and citations and the action required, if any, is presented in Table 1. A number of genera recommended for use require action by the NCF for two reasons. Generic names that do not have priority must be approved for protection by the NCF, equivalent to conservation. In addition, according to Article 57.2 of the International Code of Nomenclature for algae, fungi and plants (ICN; McNeill et al. 2012), generic names with type species typified by sexual morphs of species (S) must be suppressed or rejected before a generic name typified by a species with an asexual morph (A) can be used. We note, however, that the mycological community has proposed deletion of Art. 57.2 (Hawksworth 2015) so that names will in future compete on priority of publication regardless of the morph of their type species.

Clarifications of elements of the ICN relevant to this paper are as follows. One concerns the publication of two or more scientific names in the same publication. When this occurs, all names in that publication are considered to have equal priority. If names in that publication are determined to be synonyms, the first author to select one of them for use determines the priority. Secondly, if a generic name is protected for use because it is considered a synonym of another generic name but is later found not to be a synonym, that generic name remains available for use. This is similar to the concept of a genus that may initially be broadly circumscribed and later more narrowly defined. These and many other nomenclatural situations related to moving to one scientific name for fungi are explained in Rossman (2014), as determined by the ICN. For an updated account of the scientific names of fungi associated with plants including those previously having two names, consult the USDA SMML Fungal Databases (http://nt.ars-grin.gov/fungaldatabases/), which includes the scientific names of plant-associated fungi that reflect the most recent literature along with the host and worldwide distribution of each species.

PLEOMORPHIC GENERIC NAMES OF DOTHIDEOMYCETES AND RECOMMEN-DATIONS FOR USE OF ONE NAME

Protect Acrogenospora M.B. Ellis 1971 (A) over Farlowiella Sacc. 1891 (S)

The generic name Acrogenospora, typified by A. sphaerocephala, includes two of the 11 species that have sexual morphs placed in Farlowiella typified by F. repanda (also considered to be F. carmichaeliana). Although no molecular data exist to support the synonymy of Acrogenospora with Farlowiella, the distinctive morphology of the asexual morph suggests this and has long been accepted (Ellis 1971, 1976, Schoch et al. 2009). Three names representing two species have been described in Farlowiella, both of which have earlier names in Acrogenospora and thus would require name changes if Farlowiella were retained. All names in Acrogenospora would need to be changed if Farlowiella were used. In addition, confusion exists with the fungal name Farlowiella because it has also been used for an algal genus of Phaeophyta for which a replacement name was published in 1975, and because there is also an insect genus named Farlowella. If the generic name Acrogenospora is protected, only one name change would be required. Acrogenospora has been monographed (Goh et al. 1998), including especially those known from freshwater that may not all belong in that genus. Acrogenospora is commonly used by plant pathologists and ecologists, thus protection of the generic name Acrogenospora is favoured as it would contribute to nomenclatural stability of these species. This disagrees with our previous recommendation (Wijayawardene et al. 2014), which was supported by the argument that Farlowiella was adopted in the comprehensive account of Dothideomycetes by Schoch et al. (2009), a paper published prior to the shift to single nomenclature for pleomorphic fungi (Crous et al. 2015a).

Acrogenospora carmichaeliana (Berk.) Rossman & Crous, comb. nov.

MycoBank MB814513

- Basionym: Hysterium carmichaelianum Berk., in Hooker, Engl. Fl. 5 (2): 294 (1836).
- Synonyms: Farlowiella carmichaeliana (Berk.) Sacc., Syll. fung. **9**: 1101 (1891).
- Monotospora megalospora Berk. & Broome, Ann. Mag. nat. Hist., ser. 2, **13**: 462 (1854).
- Acrogenospora megalospora (Berk. & Broome) Goh et al., Mycol. Res. **102**: 1311 (1998).

- Hysterium repandum A. Bloxam ex Duby, Mém. Soc. Phys. Hist. nat. Genève **16**: 27 (1861).
- Farlowiella repanda (A. Bloxam ex Duby) Sacc., Syll. Fung. 9: 1101 (1891).

Use Alternaria Nees 1816 (A) rather than Lewia M.E. Barr & E.G. Simmons 1986 (S), Allewia E.G. Simmons 1990 (S) and Crivellia Shoemaker & Inderb. 2006 (S)

The genus Alternaria, typified by A. alternata, is a well-known genus with over 700 names including the causal organisms of diseases such as leaf spot of crucifers (A. brassicae), citrus fruit black spot (A. citri), sunflower blight (A. helianthi), and early blight of potatoes (A. solani) among others. Simmons (1986) was the first to describe a sexual morph for Alternaria based on Lewia scrophulariae having the asexual morph Alternaria conjuncta. A second sexually typified genus Allewia based on A. proteae was described for species that Simmons (1990) placed in Embellisia, a segregate of Alternaria. These genera, as well as the monotypic genus Crivellia typified by C. papaveracearum, were shown to be monophyletic and recognized as a broadly circumscribed Alternaria by Woudenberg et al. (2013, 2104). Given its widespread use, the number of species, and its priority, the use of Alternaria is recommended.

- Alternaria scrophulariae (Desm.) Rossman & W.C. Allen, comb. nov.
- MycoBank MB815091
- Basionym: Sphaeria scrophulariae Desm., Pl. Crypt. Nord Fr. ed. 1, fasc. 15, no. 718. (1834).
- Synonyms: Lewia scrophulariae (Desm.) M.E. Barr & E.G. Simmons, *in* Simmons, *Mycotaxon* **25**: 294 (1986)
- Pleospora scrophulariae (Desm.) Höhn., Sber. Akad. Wiss. Wien, Math.-naturw. Kl., Abt. 1 **126**: 374 (1917)
- Leptosphaeria scrophulariae (Desm.) Sacc., Syll. Fung. 2: 57 (1883)
- Alternaria conjuncta E.G. Simmons, Mycotaxon 25: 294 (1986)

When Barr & Simmons (in Simmons 1986) introduced the new generic name *Lewia* for the sexual morph of species of *Alternaria*, they selected *L. scrophulariae* (based on *Sphaeria scrophulariae*) as the type species. In the same publication the asexual morph of *L. scrophulariae* was described as a new species, *A. conjuncta*, thus there is no doubt that these names represent the same species. However, the oldest epithet for this species should be placed in *Alternaria*. Most reports of this species are under the names *L. scrophulariae* or *Pleospora scrophulariae*.

Protect *Bipolaris* Shoemaker 1959 (A) over *Cochliobolus* Drechsler 1954 (S)

The generic names *Bipolaris* typified by *B. maydis* and *Cochliobolus* typified by *C. heterostrophus*, the sexual morph of *B. maydis*, are unquestionably synonyms (Manamgoda *et al.* 2014). These genera include a number of economically important plant pathogens causing diseases of cereal crops worldwide, especially southern corn leaf blight caused by *B. maydis*. At present 115 names have been included in *Bipolaris* while 54 names have been described in *Cochliobolus*.

Rossman et al.

Table 1. Names of pleomorphic genera in *Dothideomycetes* that are proposed for protection or are asexually typified and recommended for use over sexually typified genera. For each genus the citation, type species and accepted name is given. NCF = Nomenclature Committee for Fungi.

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Generic name recommended for use, citation and type species	Suppressed generic name(s), citation, type species, and currently accepted name	Action required		
<i>Cladosporium</i> Link in Mag. Gesell. naturf. Freunde, Berlin 7: 37. 1816.	<i>Davidiella</i> Crous & U. Braun in Mycol. Progr. 2: 8. 2003.	Asexual type. Approval needed by NCF.		
Typus: <i>C. herbarum</i> (Pers.) Link 1816 (<i>Dematium herbarum</i> Pers. 1794.	Typus: <i>D. tassiana</i> (De Not.) Crous & U. Braun 2003 (<i>Sphaerella tassiana</i> De Not. 1863); now <i>Cladosporium herbarum</i> (Pers.) Link 1816.			
<i>Comminutispora</i> A.W. Ramaley in Mycologia 88: 132. 1996.	<i>Hyphospora</i> A.W. Ramaley in Mycologia 88: 133. 1996.	None.		
Typus: <i>C. agavacearum</i> A.W. Ramaley 1996.	Typus: <i>H. agavacearum</i> A.W. Ramaley 1996; now <i>Comminutispora agavacearum</i> A.W. Ramaley 1996.			
<i>Corynespora</i> Güssow in Z. PflKrankh. PflSchutz 16: 10. 1906.	<i>Corynesporasca</i> Sivan. in Mycol. Res. 100: 786. 1996.	Asexual type. Approval needed by NCF.		
Typus: <i>C. mazei</i> Güssow 1906; now <i>C. cassiicola</i> (Berk. & M.A. Curtis) C.T. Wei 1950.	Typus: <i>C. caryotae</i> Sivan. 1996; ? now <i>Corynespora cassiicola</i> (Berk. & M.A. Curtis) C.T. Wei 1950.			
<i>Curvularia</i> Boedijn in Bull. Jard. bot. Buitenz, sér. 3 13: 123. 1933.	<i>Pseudocochliobolus</i> Tsuda <i>et al.</i> in Mycologia 69: 1117. 1978.	Asexual type. Approval needed by NCF.		
Typus: C. lunata (Wakker) Boedijn 1933 (Acrothecium lunatum Wakker 1898).	Typus: <i>P. nisikadoi</i> Tsuda <i>et al.</i> 1978; now <i>Curvularia coicis</i> E. Castell. 1956.			
<i>Elsinoë</i> Racib., Parasit. Alg. Pilze Java's 1: 14. 1900.	Sphaceloma de Bary, Ann. Oenol. 4: 165. 1874.	Protect <i>Elsinoë</i> (1900) over <i>Sphaceloma</i> (1874).		
Typus: <i>E. canavaliae</i> Racib. 1900.	Typus: S. ampelinum de Bary 1874; now Elsinoë ampelina Shear 1929.			
<i>Excipulariopsis</i> P.M. Kirk & Spooner in Trans. Brit. mycol. Soc. 78: 251. 1982.	<i>Kentingia</i> Sivan. & W.H. Hsieh in Mycol. Res. 93: 83. 1989.	Asexual type. Approval needed by NCF.		
Typus: <i>E. narsapurensis</i> (Subram.) Spooner & P.M. Kirk 1982 (<i>Excipularia narsapurensis</i> Subram. 1956).	Typus: <i>K. corticola</i> Sivan. & W.H. Hsieh 1989; now <i>Excipulariopsis narsapurensis</i> (Subram.) Spooner & P.M. Kirk 1982.			
<i>Exosporiella</i> P. Karst., Finlands mögelsvampar (Hyphom. fenn.): 160. 1892.	<i>Anomalemma</i> Sivan. in Trans. Brit. mycol. Soc. 8: 328. 1983.	Asexual type. Approval needed by NCF.		
Typus: <i>E. fungorum</i> (Fr.) P. Karst. 1892 (<i>Epochnium fungorum</i> Fr. 1832).	Typus: <i>A. epochnii</i> (Berk. & Broome) Sivan. 1983 (<i>Sphaeria epochnii</i> Berk. & Broome 1866); now <i>Exosporiella fungorum</i> (Fr.) P. Karst. 1892.			
<i>Exserohilum</i> K.J. Leonard & Suggs in Mycologia 66: 289. 1974.	Setosphaeria K.J. Leonard & Suggs in Mycologia 66: 294. 1974.	Asexual type. Approval needed by NCF.		
Typus: <i>E. turcicum</i> (Pass.) K.J. Leonard & Suggs 1974 (<i>Helminthosporium turcicum</i> Pass. 1876).	Typus: S. turcica (Luttr.) K.J. Leonard & Suggs 1974 (<i>Trichometasphaeria turcica</i> Luttr. 1958); now <i>Exserohilum turcicum</i> (Pass.) K.J. Leonard & Suggs 1974.			
<i>Gemmamyces</i> Casagr. in Phytopath. Z. 66: 119. 1969.	Megaloseptoria Naumov, Bolêz. Rast. 14: 144. 1925.	Protect <i>Gemmamyces</i> (1969) over <i>Megaloseptoria</i> (1925).		
Typus: <i>G., piceae</i> (Borthw.) Casagr. 1969 (<i>Cucurbitaria piceae</i> Borthw. 1909).	Typus: <i>M. mirabilis</i> Naumov 1925; now <i>Gemmamyces piceae</i> (Borthw.) Casagr. 1969.			
<i>Kellermania</i> Ellis & Everh. in J. Mycol. 1(12): 153. 1885.	<i>Planistromella</i> A.W. Ramaley in Mycotaxon 47: 260. 1993.	Asexual type. Approval needed by NCF.		
Typus: K. yuccigena Ellis & Everh. 1885.	Typus: <i>P. yuccifoliorum</i> A.W. Ramaley 1993; now <i>Kellermania yuccifoliorum</i> A.W. Ramaley 1993.			
<i>Kirschsteiniothelia</i> D. Hawksw. in Bot J. Linn. Soc. 91: 182. 1985.	Dendryphiopsis S. Hughes in Can. J. Bot. 31: 655. 1953.	Protect <i>Kirschsteiniothelia</i> (1985) over <i>Dendryphiopsis</i> (1953).		
Typus: <i>K. aethiops</i> (Sacc.) D. Hawksw. 1985 (<i>Amphisphaeria aethiops</i> Sacc. 1882).	Typus: <i>D. atra</i> (Corda) S. Hughes 1953 (<i>Dendryphion atrum</i> Corda 1840); now <i>Kirschsteiniothelia atra</i> (Corda) D. Hawksw. 2014.			
<i>Lecanosticta</i> Syd. in Annls mycol. 20: 211. 1922.	Eruptio M.E. Barr in Mycotaxon 60: 437. 1996.	Asexual type. Approval needed by NCF.		
Typus: <i>L. pini</i> Syd. 1922; now <i>Lecanosticta acicola</i> (Thüm.) Syd. 1924 (<i>Cryptosporium acicola</i> Thüm. 1878).	Typus: <i>E. acicola</i> (Dearn.) M.E. Barr 1996 (<i>Oligostroma acicola</i> Dearn. 1926); now <i>Lecanosticta acicola</i> (Thüm.) Syd. 1924.			

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Table 1. (Continued).

Generic name recommended for use, citation	Suppressed generic name(s), citation, type	Action required
and type species	species, and currently accepted name	•
Paranectriella (Henn. ex Sacc. & D. Sacc.) Höhn. in Sber. Akad. Wiss. Wien, Mathnaturw. Kl., Abt. 1 119: 899. 1910. (Paranectria subgen. Paranectriella Henn. ex Sacc. & D. Sacc. 1905).	Araneomyces Höhn. in Sber. Akad. Wiss. Wien, Mathnaturw. Kl., Abt. 1 118: 894. 1909.	Protect <i>Paranectriella</i> (1910) over <i>Araneomyces</i> (1909).
Typus: <i>P. juruana</i> (Henn.) Höhn. 1910 (<i>Paranectria juruana</i> Henn. 1904).	Typus: A. acarifer Höhn. 1909.	
<i>Phaeosphaeria</i> I. Miyake in Bot. Mag., Tokyo 23: 93. 1909.	<i>Phaeoseptoria</i> Speg. in Revta Mus. La Plata 15: 39. 1908.	Protect <i>Phaeosphaeria</i> (1909) over <i>Phaeoseptoria</i> (1908).
Typus: <i>P. oryzae</i> I. Miyake 1909.	Typus: <i>P. papayae</i> Speg. 1908; now <i>Phaeosphaeria papaya</i> Quaedvlieg <i>et al.</i> 2013.	
<i>Phragmocapnias</i> Theiss. & Syd. in Annls mycol. 15: 480. 1918.	Conidiocarpus Woron. in AnnIs mycol. 24: 250. 1927.	None.
Typus: <i>P. betle</i> (Syd. <i>et al.</i>) Theiss. & Syd. 1918 (<i>Capnodium betle</i> Syd. <i>et al.</i> 1911).	Typus: <i>C. penzigii</i> Woron. 1927; now <i>Phragmo-capnias penzigii</i> (Woron.) Chomnunti & K.D. Hyde 2011.	
<i>Phyllosticta</i> Pers., Traité Champ. Comest.: 55, 147. 1818; nom. cons.	<i>Guignardia</i> Viala & Ravaz in Bull. Soc. Mycol. Fr. 8: 63. 1892; nom. cons.	Asexual type. Approval needed by NCF.
Typus: <i>P. convallariae</i> Pers. 1818; now <i>P. cruenta</i> (Fr.) J. Kickx f. 1849.	Typus: <i>G. bidwellii</i> (Ellis) Viala & Ravaz 1892 (<i>Sphaeria bidwellii</i> Ellis 1880); now <i>Phyllosticta</i> <i>ampelicida</i> (Engelm.) Aa 1973.	
<i>Podonectria</i> Petch in Trans. Brit. mycol. Soc. 7: 146. 1921.	Tetracrium Henn. in Hedwigia 41: 116. 1902.	Protect <i>Podonectria</i> (1921) over <i>Tetracrium</i> (1902).
Typus: <i>P. coccicola</i> (Ellis & Everh.) Petch 1921.	Typus: <i>T. aurantii</i> Henn. 1902; now <i>Podonectria aurantii</i> (Henn.) Petch 1921.	
Polythrincium Kunze, Mykol. Hefte 1: 13. 1817.	Cymadothea F.A. Wolf in Mycologia 27: 71. 1935.	Asexual type. Approval needed by
Typus: P. trifolii Kunze 1817.	Typus: <i>C. trifolii</i> (Pers.) F.A. Wolf 1935 (<i>Sphaeria trifolii</i> Pers. 1801); now <i>Polythrincium trifolii</i> Kunze 1817.	NCF.
Prillieuxina G. Arnaud in Annals École Nat. Agric. Montp., série 2 16: 161. 1918.	<i>Leprieurina</i> G. Arnaud in Annals École Nat. Agric. Montp., série 2 16: 210. 1918.	None.
Typus: <i>P. winteriana</i> (Pazschke) G. Arnaud 1918 (<i>Asterina winteriana</i> Pazschke 1892).	Typus: <i>L. winteriana</i> G. Arnaud 1918; now <i>Prillieuxina winteriana</i> (Pazschke) G. Arnaud 1918.	
Prosthemium Kunze, Mykol. Hefte 1: 17. 1817.	<i>Pleomassaria</i> Speg. in Anal. Soc. cient. argent. 9: [in tabula ad p. (192)]. 1880.	Asexual type. Approval needed by NCF.
Typus: <i>P. betulinum</i> Kunze 1817.	Typus: <i>P. siparia</i> (Berk. & Broome) Sacc. 1883 (<i>Sphaeria siparia</i> Berk. & Broome 1852); now <i>Prosthemium betulinum</i> Kunze 1817.	
<i>Pseudodidymella</i> C.Z. Wei <i>et al.</i> in Mycologia 89: 494. 1997.	<i>Pycnopleiospora</i> C.Z. Wei <i>et al.</i> in Mycologia 89: 496. 1997.	None.
Typus: <i>P. fagi</i> C.Z. Wei <i>et al</i> . 1997.	Typus: <i>P. fagi</i> C.Z. Wei <i>et al.</i> 1997; now <i>Pseudodidymella fagi</i> C.Z. Wei <i>et al.</i> 1997.	
Pyrenophora Fr., Summa Veg. Scand. 2: 397. 1849.	Drechslera S. Ito in Proc. Imp. Acad. Japan 6: 355. 1930.	None.
Typus: <i>P. phaeocomes</i> (Rebent.) Fr. 1849 <i>Sphaeria phaeocomes</i> Rebent. 1804).	Typus: <i>D. tritici-vulgaris</i> (Y. Nisik.) S. Ito ex S. Hughes 1958 (<i>Helminthosporium tritici-vulgaris</i> Y. Nisik. 1928; now <i>Pyrenophora tritici-repentis</i> (Died.) Drechsler 1923.	
	Marielliottia Shoemaker in Can. J. Bot. 76: 1559. 1999.	
	Typus: <i>M. biseptata</i> (Sacc. & Roum.) Shoemaker 1999 (<i>Helminthosporium biseptatum</i> Sacc. & Roum. 1882); now <i>Pyrenophora biseptata</i> (Sacc. & Roum.) Crous 2013.	
<i>Ramularia</i> Unger, Exanth. Pflanzen: 119. 1833; nom. cons.	<i>Mycosphaerella</i> Johanson in Öfvers. K. Svensk. VetenskAkad. Förhandl. 41(9): 163.1884.	Asexual type. Approval needed by NCF.
Typus: <i>R. pusilla</i> Unger 1833.	Typus: <i>M. punctiformis</i> (Pers.) Starbäck 1889 (<i>Sphaeria punctiformis</i> Pers. 1794); now <i>Ramularia</i> <i>endophylla</i> Verkley & U. Braun 2004.	

Table 1. (Continued).

Table 1. (Continued).		1
Generic name recommended for use, citation and type species	Suppressed generic name(s), citation, type species, and currently accepted name	Action required
Schizothyrium Desm. in Annls Sci. Nat., Bot., sér. 3 11: 360. 1849.	Zygophiala E.W. Mason in Mycol. Pap. 13: 3. 1945.	None.
Typus: S. acerinum Desm. 1849.	Typus: Z. jamaicensis E.W. Mason 1945; now Schizothyrium pomi (Mont. & Fr.) Arx 1959.	
Sphaerellopsis Cooke in Grevillea 12 (61): 23. 1883.	<i>Eudarluca</i> Speg. in Revta Mus. La Plata 15: 22. 1908.	Asexual type. Approval needed by NCF.
Typus: <i>S. quercuum</i> Cooke 1883; now <i>S. filum</i> (Biv.) B. Sutton 1977.	Typus: <i>E. australis</i> Speg. 1908.	
<i>Sphaeropsis</i> Sacc. in Michelia 2: 105. 1880; nom. cons.	<i>Phaeobotryosphaeria</i> Speg. in Anal. Mus. nac. B. Aires, Ser. 3 17(10): 120. 1908.	Asexual type. Approval needed by NCF.
Typus: <i>S. visci</i> (Alb. & Schwein.) Sacc. 1880 (<i>Sphaeria atrovirens</i> var. <i>visci</i> Alb. & Schwein. 1805).	Typus: <i>P. yerbae</i> Speg. 1908.	
Stemphylium Wallr., Fl. crypt. Germ. 2: 300. 1833.	<i>Pleospora</i> Rabenh. ex Ces. & De Not. in Comment. Soc. Crittog. Ital. 1: 217 (1863); nom. cons.	Asexual type. Approval needed by NCF.
Typus: S. botryosum Sacc. 1886.	Typus: <i>P. herbarum</i> (Pers.) Rabenh. 1854 (<i>Sphaeria herbarum</i> Pers. 1801); now <i>Stemphylium herbarum</i> E.G. Simmons 1986, nom. cons. prop.	
Sydowia Bres. in Hedwigia 34: (66). 1895.	Hormonema Lagerb. & Melin in Svensk Skogsvårdsförening Tidskr. 25: 233. 1927.	None.
Typus: S. gregaria Bres. 1895.	Typus: <i>H. dematioides</i> Lagerb. & Melin 1927; now <i>Sydowia polyspora</i> (Bref. & Tavel) E. Müll. 1953.	
<i>Teratosphaeria</i> Syd. & P. Syd. in Annls mycol. 10: 39. 1912.	<i>Kirramyces</i> J. Walker <i>et al.</i> in Mycol. Res. 96: 919. 1992.	None.
⊽ypus: <i>T. fibrillosa</i> Syd. & P. Syd. 1912.	Typus: <i>K. epicoccoides</i> (Cooke & Massee) J. Walker <i>et al.</i> 1992 (<i>Cercospora epicoccoides</i> Cooke & Massee 1891); now <i>Teratosphaeria epicoccoides</i> (Cooke & Massee) Rossman & W.C. Allen 2015.	
	<i>Colletogloeopsis</i> Crous & M.J. Wingf. in Canad. J. Bot. 75: 668. 1997.	
	Typus: <i>C. nubilosum</i> (Ganap. & Corbin) Crous & M.J. Wingf. 1997 (<i>Colletogloeum nubilosum</i> Ganap. & Corbin 1979); now <i>Teratosphaeria</i> <i>cryptica</i> (Cooke) Crous & U. Braun 2007.	
<i>Tetraploa</i> Berk. & Broome in Ann. Mag. nat. Hist., ser. 2 5: 459. 1850.	<i>Tetraplosphaeria</i> Kaz. Tanaka & K. Hiray. in Stud. Mycol. 64: 177. 2009.	Asexual type. Approval needed by NCF.
Typus: <i>T. aristata</i> Berk. & Broome 1850.	Typus: <i>T. sasicola</i> Kaz. Tanaka & K. Hiray. 2009; now <i>Tetraploa sasicola</i> (Kaz. Tanaka & K. Hiray.) Kaz. Tanaka & K. Hiray. 2013.	
Venturia Sacc., Syll. Fung. 1: 586. 1882.	Fusicladium Bonord., Handb. Allgem. Mykol.: 80. 1851.	Protect Venturia (1882) over Fusicladium (1851).
Typus: <i>V. inaequalis</i> (Cooke) G. Winter 1875 (<i>Sphaerella inaequalis</i> Cooke 1866).	Typus: <i>F. virescens</i> Bonord. 1851; now Venturia pyrina Aderh. 1896, nom. cons. prop.	
	<i>Pollaccia</i> E. Bald. & Cif. in Atti Ist. Bot. 'Giovanni Briosi', ser. 4 10: 71. 1937.	
	Typus: <i>P. radiosa</i> (Lib.) E. Bald. & Cif. 1939 (<i>Oidium radiosum</i> Lib. 1834); now <i>Venturia radiosa</i> (Lib.) Ferd. & C.A. Jørg. 1938.	
Zeloasperisporium R.F. Castañeda in Mycotaxon 60: 284. 1996.	<i>Neomicrothyrium</i> Boonmee <i>et al.</i> in Fungal Diversity 51: 217. 2011.	None.
Typus: Z. hyphopodioides R.F. Castañeda 1996.	Typus: <i>N. siamense</i> Boonmee <i>et al.</i> 2011; now <i>Zeloasperisporium siamense</i> (Boonmee <i>et al.</i>) Honganan & K. Hyde 2015.	

ARTICLE

Although the sexually typified Cochliobolus is an older name than the asexually typified Bipolaris, asexual morphs are more commonly encountered in nature, thus the name Bipolaris has been used more frequently than Cochliobolus. In all but one case, the sexual morphs for these species were named at a later time than the asexual morphs. Three species of Cochliobolus have been studied as model organisms and their genomes sequenced with publications concerning their genomics and genetics using the name in Cochliobolus. Rossman et al. (2013) proposed that the generic name Bipolaris be conserved over Cochliobolus and that B. maydis (syn. Helminthosporium maydis), be conserved over the type species of Cochliolobus, C. heterostrophus (syn. Ophiobolus heterostrophus). If the generic name Bipolaris and the species name B. maydis are conserved, none of the names of Bipolaris will need to be changed. In all cases except that of *Bipolaris maydis*, the oldest epithet is already placed in *Bipolaris*. Use of the generic name *Cochliobolus* would result in the need to transfer 46 names from Bipolaris to Cochliobolus while another seven names in Bipolaris would replace names currently used in Cochliobolus. Given the frequency with which the name Bipolaris is used by plant pathologists, including a recent monograph (Manamgoda et al. 2014), and the number of name changes required if Cochliobolus were retained, protecting the generic name Bipolaris is recommended.

Use *Botryohypoxylon* Samuels & J.D. Rogers 1986 (S) rather than *lledon* Samuels & J.D. Rogerson 1986 (A)

The monotypic genera *Botryohypoxylon* based on *B. amazonense* and *lledon* based on *l. versicolor* were described in the same article and thus have equal priority. Neither name has been used later in the literature. *Botryohypoxylon* is recommended for use.

Protect Botryosphaeria Ces. & De Not. 1863 (S) over Fusicoccum Corda 1829 (A)

The type species of Botryosphaeria, B. dothidea, was shown to be a synonym of Fusicoccum aesculi, the type species of Fusicoccum, by Slippers et al. (2004). Although many species names have been placed in both genera, this complex has been divided into several genera with relatively few species remaining in Botryosphaeria. In the most recent account, Phillips et al. (2013) accepted only six species in Botryosphaeria, which has now been clearly defined and the type species epitypified. Additionally, most names in Fusicoccum have been redisposed in other genera (Crous et al. 2006, Xu & Zhang 2006, Mohali et al. 2007, Phillips & Alves 2009, Phillips et al. 2013) and Botryosphaeria is the generic name used most commonly by plant pathologists. Given that the recent studies of this group have adopted the name Botryosphaeria while names in Fusicoccum have been placed in other genera, we recommend protection of Botryosphaeria.

Use *Brooksia* Hansf. 1956 (S) rather than *Hiospira* R.T. Moore 1962 (A)

Brooksia tropicalis, the type species of Brooksia, is a leaf parasite reported on diverse hosts throughout tropical regions

(Farr & Rossman 2015). The asexual morph was described as *Hiospira hendrickxii*, the type species of *Hiospira*, by Moore (1962); there is no question that these types represent the same species. A second variety of *Brooksia tropicalis* was described as well as a second species of *Hiospira*, but the identities of these remain obscure. Given the widespread use of *Brooksia* and its priority, the use of *Brooksia* is recommended.

Use *Camarosporula* Petr. 1954 (A) rather than *Anthracostroma* Petr. 1954 (S)

The monotypic generic names *Camarosporula* typified by *C. persooniae* and *Anthracostroma* by *A. persooniae* were published in the same article as alternate morphs of the same species by Petrak (1954), and thus have equal priority. Because this fungus has been reported most frequently as *Camarosporula persooniae* (Farr & Rossman 2015), as used by Crous *et al.* (2011b), *Camarosporula* is recommended for use, contrary to the proposal of Wijayawardende *et al.* (2014).

Protect Capnodium Mont. 1849 (S) over Polychaeton (Pers.) Lév. 1846 (A)

The generic name Capnodium is typified by C. salicinum, a species now regarded as a synonym of C. citri (Reynolds 1999). This genus is relatively large with over 100 names and is used for many common tropical leaf-inhabiting "sooty moulds". On the other hand, Polychaeton, typified by P. quercinum (Hughes 1976), includes only 16 names some of which have been placed in other genera. Crous et al. (2009a) and Chomnunti et al. (2011) suggested that these genera were congeneric although they did not include the type species of Polychaeton in their studies. It seems likely that these generic names are synonyms. Chomnunti et al. (2011) assumed this and suggested that, given the great number of epithets and its widespread use, the name Capnodium should be used and thus protected over Polychaeton. Protection of Capnodium will prevent an excessive number of name changes and is, by far, the most commonly used generic name. This case is cited as an example of good practice in the ICN (Art. 57.2 Ex 2).

Use *Cladosporium* Link 1816 (A) rather than *Davidiella* Crous & U. Braun 2003 (S)

Cladosporium, typified by *C. herbarum*, is a well-known genus including over 700 names and the ubiquitous air-borne species *C. cladosporioides*. A sexual morph of *C. herbarum* was discovered and described in *Davidiella*, typified by *D. tassiana* (Braun *et al.* 2003), thus these two generic names are synonyms. The monograph of Bensch *et al.* (2012) provided a reliable circumscription of the genus and included 169 species based on a multi-gene phylogeny. Most names in *Davidiella* have already been redisposed in *Cladosporium* (Crous *et al.* 2007a). Given its widespread use, the importance of the genus in indoor air and buildings (Bensch *et al.* 2015), the greater number of species, and priority of publication, the name *Cladosporium* is recommended for use.

Use *Comminutispora* A.W. Ramaley 1996 (S) rather than *Hyphospora* A.W. Ramaley 1996 (A)

These monotypic generic names describe alternate morphs of the same species, *Communitispora* based on *C*.

agavacearum and Hyphospora agavacearum, thus these names have equal priority. Several reports of this species as *C. agavacearum* exist (Farr & Rossman 2015), thus *Comminutispora* is recommended for use.

Use *Corynespora* Güssow 1906 (A) rather than *Corynesporasca* Sivan. 1996 (S)

The monotypic genus *Corynesporasca*, typified by *C. carotae*, was described by Sivanesan (1996) for the sexual morph of a species of *Corynespora* on a tropical plant. *Corynespora*, typified by *C. mazei*, a synonym of *C. cassiicola*, has been widely used and includes approximately 200 species names. The ubiquitous leaf spot fungus *C. cassiicola* has been shown to occur on many plant hosts, especially in tropical regions (Smith *et al.* 2009). Given the extensive use of the name *Corynespora* for plant pathogenic fungi and its priority, this generic name is recommended for use.

Use *Curvularia* Boedijn 1933 (A) rather than *Pseudocochliobolus* Tsuga et al. 1978 (S)

The generic name *Curvularia*, typified by *C. lunata*, has been recently separated from the related genera *Bipolaris*, *Exserohilum*, and *Pyrenophora* and monographed by Manamgoda *et al.* (2015). Although the sexual morph is known and placed in *Pseudocochliobolus* based on *P. nisikadoi*, that morph is rarely encountered. Species of *Curvularia* occur as both plant and animal pathogens with over 30 species described. Given its widespread use, priority, and number of species, the use of *Curvularia* is recommended.

Protect Elsinoë Racib. 1900 (S) over Sphaceloma de Bary 1874 (A)

The genus *Elsinoë* includes many species that cause a number of economically important leaf scab diseases, especially in tropical regions. The type species, *E. canavaliae*, occurs on *Canavalia* and is known from leguminous plants in the tropics (Sivanesan & Holliday 1971). Many species of *Elsinoë* have asexual morphs that are placed in *Sphaceloma*, a genus typified by *S. ampelinum*, and now known as *Elsinoë ampelina*, causing grape scab. Although *Sphaceloma* has priority, both genera contain about an equal number of names. Because *Elsinoë* is more commonly applied to these scab diseases and this name has been adopted in recent literature (Li *et al.* 2011, Crous *et al.* 2013), it is recommended that *Elsinoë* be protected.

Use *Excipulariopsis* P.M. Kirk & Spooner 1982 (A) rather than *Kentingia* Sivan. & W.H. Hsieh 1989 (S)

The monotypic genus *Kentingia*, typified by *K. corticola*, was established for the sexual morph of another monotypic genus, *Excipulariopsis* based on *E. narsapurensis* (Sivanesan & Hsieh 1989); there is no question that these genera are synonyms. Following the principle of priority of publication for these genera would prevent a name change, thus *Excipulariopsis* is recommended for use.

Use *Exosporiella* P. Karst. 1892 (A) rather than *Anomalemma* Sivan. 1983 (S)

The monotypic genus Anomalemma, based on A. epochnii, was described for the sexual morph of the monotypic

Exosporiella, typified by *E. fungorum* (Sivanesan 1983), thus these generic names are synonyms. Tian *et al.* (2015) found the asexual morph of an *Exosporiella* species when examining the isotype of *Anomalemma epochnii*. Even though molecular data for either the sexual or asexual morphs are lacking, following the principle of priority and use of the asexually typified name, *Exosporiella* is recommended for protection.

Use *Exserohilum* K.J. Leonard & Suggs 1974 (A) rather than *Setosphaeria* K.J. Leonard & Suggs 1974 (S)

The generic names *Exserohilum*, typified by *E. turcicum*, and *Setosphaeria*, typified by *S. turcicum*, were described in the same paper and thus have equal priority. Despite the use of the same epithet, these names are based on different type specimens and so are nomenclaturally distinct; however, Leonard & Suggs (1974) demonstrated that they represent the same species and so *Exserohilum* and *Setosphaeria* are synonyms. *Exserohilum* includes 36 names of important plant pathogens, such as *E. rostratum*, the cause of leaf spot and rot of wheat and other grasses, while only nine names have been placed in *Setosphaeria*. Use of *Exserohilum* would prevent a number of name changes, and so the use of *Exserohilum* is recommended.

Protect Gemmamyces Casagr. 1969 (S) over Megaloseptoria Naumov 1925 (A)

The generic name *Gemmamyces*, typified by *G. piceae*, was established for the cause of spruce bud blight occurring in northern Europe and China for which the asexual morph is *Megaloseptoria mirabilis*, type of the monotypic genus *Megaloseptoria* (Casagrande 1969, Sivanesan 1984). The basionym of *G. piceae*, *Cucurbitaria piceae*, has also been used when referring to this species although Yuan & Wang (1995) suggest that *Gemmamyces* is distinct from *Cucurbitaria* based on both biological and morphological characteristics. The latter authors describe a second species, *G. piceicola*. Given that *Gemmamyces* is widely used for the causes of spruce bud blight diseases (Hansen & Lewis 1997) and includes two species, the protection of *Gemmamyces* is recommended.

Use *Kellermania* Ellis & Everh. 1885 (A) rather than *Planistromella* A.W. Ramaley 1993 (S)

The generic name *Kellermania*, typified by *K. yuccigena*, was monographed by Minnis *et al.* (2012) who showed that *Planistromella*, typified by *P. yuccifoliorum*, is a synonym; this was subsequently confirmed by Monkai *et al.* (2013). Ramaley (1993) established *Planistromella* for the sexual morph of *K. yuccifoliorum*. *Kellermania* includes 38 names while 13 names have been placed in *Planistromella*, all except one of which also have names in *Kellermania*. Given its priority, widespread use, and adoption in a recent monographic account, the use of *Kellermania* is recommended.

Protect Kirschsteiniothelia D. Hawksw. 1985 (S) over Dendryphiopsis S. Hughes 1953 (A)

The type species of *Kirschsteiniothelia*, *K. aethiops*, is congeneric with the type species of *Dendryphiopsis*, *D. atra*,

as demonstrated by the molecular phylogeny presented in Boonmee et al. (2012). Both species have been regarded as having various synonyms, but it now seems likely that this represents a species complex. Hughes (1958) treated D. atra as the asexual morph of Amphisphaeria incrustans, and the connection was confirmed by ascospore cultures (Hughes 1978), then using the generic name Microthelia, susbequently ruled as a nomen rejiciendum in favour of Anisomeridium nom. cons. Sequenced epitypes may be required to resolve the connections at the species level, as Boonmee et al. (2012) shows some material named as K. aethiops and D. atra to be distinct but congeneric species. Kirschsteiniothelia currently includes 17 species, with some recently added by Chen & Hsieh (2004), and Wang et al. (2004). Dendryphiopsis includes six names, one of which is recombined as K. atra. Given that Kirschsteiniothelia includes the most species and is now widely used, that name is proposed for protection.

Use *Lecanosticta* Syd. 1922 (A) rather than *Eruptio* M.E. Barr 1996 (S)

Lecanosticta acicola, an older name for the type species of Lecanosticta, L. pini, is now regarded as the name for the fungus that causes the widespread disease of pine known as brown spot needle blight. Previously this species had been referred to as Scirrhia acicola in the asexual morph and Eruptio acicola (the type species of Eruptio) and Mycosphaerella dearnessii in the sexual morph; all are now treated as synonyms of L. acicola, as evidenced by Crous et al. (2009b) and Quaedvlieg et al. (2012). Neither Scirrha typified by S. rimosa (Crous et al. 2011a), nor Mycosphaerella now considered a synonym of *Ramularia* (see p. 518 below) are synonyms of Lecanosticta. The genus Lecanosticta includes eight names, while only the type species of the three names originally placed in *Eruptio* is currently retained in that genus. Given the widespread use of Lecanosticta, its priority, and the greater number of names, the use of Lecanosticta is recommended.

Protect *Paranectriella* (Henn. ex Sacc.) Höhn. 1910 (S) over *Araneomyces* Höhn. 1909 (A)

The type species of *Paranectriella*, *P. juruana*, is a relatively uncommon hyperparasite of stromatic leaf-inhabiting fungi in the tropics. Some authors have observed an associated asexual morph similar to the staurospores of *Araneomyces*, possibly *A. acarifer*, the generic type (Rossman 1987, Kirschner *et al.* 2010). It appears likely that these generic names are synonyms. The two names in *Araneomyces* were moved to *Titaea* (Damon 1952), but Sutton (1984) considered *A. acarifer* and thus *Araneomyces* to be distinct from *Titaea*. The genus *Paranectriella* includes 10 names while only two names have been placed in *Araneomyces*. In addition, *Paranectriella* has been more widely reported than *Araneomyces* and no name changes would be required if it were used, thus *Paranectriella* is proposed for protection.

Protect *Phaeosphaeria* I. Miyake 1909 (S) over *Phaeoseptoria* Speg. 1908 (A)

The type species of *Phaeosphaeria*, *P. oryzae*, was shown to be congeneric with the type species of *Phaeoseptoria*, *P. papayae*, by Quaedvlieg *et al.* (2013). The latter authors

reclassified a number of species in both genera placing some species of *Phaeoseptoria* in *Phaeosphaeria*. Over 200 names have been placed in *Phaeosphaeria* while *Phaeoseptoria* includes only 49 names. As *Phaeosphaeria* has a greater number of names and is more commonly used than *Phaeoseptoria*, *Phaeosphaeria* is proposed for protection.

Use *Phragmocapnias* Theiss. & Syd. 1918 (S) rather than *Conidiocarpus* Woron. 1927 (A)

The type species of *Phragmocapnias*, *P. betle*, was epitypified and classified as a member of *Capnodiaceae* by Chomnunti *et al.* (2011). Although molecular data were lacking, they followed Hughes (1976) who considered the type species of *Conidiocarpus*, *C. penzigii*, to be related to *Phragmocapnias* and transferred it to that genus; they therefore consider *Phragmocapnias* and *Conidiocarpus* to be synonyms. *Phragmocapnias* includes 13 names while only 10 names have been placed in *Conidiocarpus*. *Phragmocapnias* is more widely used for these species than *Conidiocarpus*, has priority, and includes the greatest number of species, so we recommend the use of *Phragmocapnias*.

Use *Phyllosticta* Pers. 1818 (A) rather than *Guignardia* Viala & Ravaz 1892 (S)

Both Phyllosticta and Guignardia have been widely used for ubiquitous leaf spot fungi on diverse hosts including black rot of grape (Farr & Rossman 2015). The relationship between the commonly encountered asexual morphs placed in Phyllosticta and the sexual morphs described in Guignardia is well known. Recent molecular research has also confirmed this relationship for such common species as Phyllosticta maculata (syn. Guignardia musae) causing freckle disease of banana in Southeast Asia and Oceania (Wong et al. 2012) and P. citricarpa (syn. G. citricarpa) causing citrus black spot (Glienke et al. 2011). These species are also commonly encountered as endophytes in leaves of woody plants, especially P. capitalensis (Wikee et al. 2013b). The relationship between Guignardia bidwellii, conserved type of Guignardia, and Phyllosticta ampelicida has been known for several decades (Aa 1973) and has recently been confirmed using molecular data (Zhang et al. 2013). Placement of the type species of Phyllosticta, P. convallariae, which is now considered a synonym of P. cruenta (Aa 1973), in the same genus has also been shown using a multigene phylogeny (Motohashi et al. 2009). There is therefore no doubt that these two generic names are synonyms. Over 3000 names have been placed in Phyllosticta (Aa & Vanev 2002), while over 300 names have been placed in Guignardia. The asexual morph is most commonly encountered, and thus species of Phyllosticta are widely reported (Farr & Rossman 2015). Given the priority of *Phyllosticta*, the greater number of names, and its widespread use including a recent account (Wikee et al. 2013a), the use of Phyllosticta is recommended.

Protect *Podonectria* Petch 1921 (S) over *Tetracrium* Henn. 1902 (A)

The generic name *Podonectria* is typified by *P. coccicola*, a species that has been used for the biocontrol of scale insects on *Citrus* (Moore 2002). The asexual morph of *P. coccicola* is

Tetracrium coccicola, which appears morphologically similar to *T. aurantii*, the type species of *Tetracrium*, a name with a sexual morph regarded as *P. aurantii* (Rossman 1978, 1987). Although neither genus has been studied using molecular data, these generic names appear to be synonyms. At present 11 names exist in *Podonectria*, and nine in *Tetracrium*. Many of the species are, however, poorly known. Although *Tetracrium* is older, the name *Podonectria* has been widely used within the biocontrol community and thus *Podonectria* is proposed for protection.

Use *Polythrincium* Kunze 1817 (A) rather than *Cymadothea* F.A. Wolf 1935 (S)

The type species of *Polythrincium*, *P. trifolii*, is known as the cause of sooty blotch of clover occurring on leaves throughout temperate regions. The sexual morph of this species was described as *Cymadothea trifolii*, the type of the monotypic genus *Cymadothea*, thus these generic names are synonyms. Both names have been well-used in the literature, but *Polythrincium* features more commonly than *Cymadothea* (in papers using these generic names). Given that there are five species names in *Polythrincium*, and just one in *Cymadothea*, and priority, the use of *Polythrincium* is recommended.

Use *Prillieuxina* G. Arnaud 1918 (S) rather than *Leprieurina* G. Arnaud 1918 (A)

The generic name *Lepreurina*, typified by *L. winteriana*, was established for the asexual morph of *Prillieuxina winteriana*, the type species of *Prillieuxina*, in the same article; these names therefore have equal priority. Over 70 names have been placed in *Prillieuxina*, compared with just four in *Leprieurina*, so *Prillieuxina* is recommended for use. The type species have both been placed in *Asterinella* Theiss. 1912, typified by *A. puiggarii* (Speg.) Theiss. 1912, but the species in that genus have a distinct peridial morphology and *Asterinella* is not congeneric with *Prillieuxina*.

Use *Prosthemium* Kunze 1817 (A) rather than *Pleomassaria* Speg. 1880 (S)

The type species of *Prosthemium*, *P. betulinum*, is the asexual morph of the type species of *Pleomassaria*, *P. siparia*. The connection was initially based on morphology (Sivanesan 1984, Hantula *et al.* 1998) and later confirmed using molecular data (Tanaka *et al.* 2010). Although more names have been placed in *Pleomassaria*, a number of these have now been removed to other genera, and recent studies have used *Prosthemium* (Kamiyama *et al.* 2009). Based on its priority and recent use in the literature, the use of *Prosthemium* is recommended.

Use *Pseudodidymella* C.Z. Wei *et al.* 1997 (S) rather than *Pycnopleiospora* C.Z. Wei *et al.* 1997 (A)

The monotypic generic names, *Pseudodidymella* typified by *P. fagi* and *Pycnopleiospora* typified by *P. fagi*, were described in the same publication and so have equal priority. Both names remain obscure, and no subsequent reports were traced, so we recommend the use of *Pseudodidymella*.

Use *Pyrenophora* Fr. 1849 (S) rather than *Drechslera* S. Ito 1930 (A) or *Marielliottia* Shoemaker 1999 (A)

The type species of Pyrenophora, P. phaeocomes, has long been said to have a Drechslera asexual morph (Sivanesan 1987), although it remained unnamed. Recent studies place this species in a genus including the type of Drechslera, D. tritici-vulgaris, now regarded as P. tritici-repentis (Ariyawansa et al. 2014). Many previous authors had noted this relationship (e.g. Shoemaker 1959, 1962, Sivanesan 1987, Zhang & Berbee 2001, Crous et al. 2011b), thus there is no doubt that Pyrenophora and Drechslera are generic synonyms. These fungi cause a number of important diseases on grasses, such as yellow leaf spot of wheat caused by P. tritici-repentis, and leaf blotch and head rot of oats caused by P. avenae. Both generic names are well known to plant pathologists. Many species of Drechslera, however, are now placed in the segregate genera Bipolaris, Curvularia, and Exserohilum (Sivanesan 1987, Manamgoda et al. 2012, 2014, 2015). More names have been placed in Pyrenophora than in Drechslera (199 vs 136 species epithets, respectively). Based on priority, the number of species, and recent usage, Pyrenophora is recommended for use.

The generic name *Marielliottia*, typified by *M. biseptata*, was established for three species segregated from *Drechslera* by Shoemaker (1999). *Marielliottia biseptata* (syn. *Drechslera biseptata*) as well as the two other species were shown to belong in *Pyrenophora* by Zhang & Berbee (2001) and Ariyawansa *et al.* (2014); *Marielliottia* is therefore considered a synonym of *Pyrenophora*.

The following new combinations into *Pyrenophora* are needed, based on the studies of Zhang & Berbee (2001), Crous *et al.* (2011b), and Ariyawansa *et al.* (2014):

Pyrenophora catenaria (Drechsler) Rossman & K.D. Hyde, **comb. nov.**

MycoBank MB815092

- Basionym: Helminthosporium catenarium Drechsler, J.Agric. Res. 24: 627 (1923).
- Synonym: Drechslera catenaria (Drechsler) S. Ito, Proc. Imper. Acad. Tokyo 6: 355 (1930).

Pyrenophora dematioidea (Bubák & Wróbl.) Rossman & K.D. Hyde, comb. nov.

MycoBank MB815093

Basionym: Helminthosporium dematioideum Bubák & Wróbl., Hedwigia **62**: 337 (1921).

Synonyms: Drechslera dematioidea (Bubák & Wróbl.) Scharif, Stud. Graminic. Sp. Helminthosporium: 81 (1963).

- Marielliottia dematioidea (Bubák & Wróbl.) Shoemaker, Canad. J. Bot. **76**: 1563 (1999).
- Pyrenophora fugax (Wallr.) Rossman & K.D. Hyde, comb. nov.

MycoBank MB815094

- Basionym: Helminthosporium fugax Wallr., Fl. crypt. Germ. 2: 164 (1833).
- Synonym: Drechslera fugax (Wallr.) Shoemaker, Canad. J. Bot. **36**: 765 (1958).

Pyrenophora grahamii Rossman & K.D. Hyde, nom. nov.

MycoBank MB819095

Replaced synonym: Helminthosporium dictyoides var. phlei J.H. Graham, Phytopathology **45**: 228 (1955).

Synonyms: Drechslera phlei (J.H. Graham) Shoemaker, Canad. J. Bot. **37**: 881 (1959).

Non P. phlei (E. Mull.) Crivelli 1983.

Pyrenophora nobleae (McKenzie & D. Matthews) Rossman & K.D. Hyde, comb. nov.

MycoBank MB815096

Basionym: Drechslera nobleae McKenzie & D. Matthews, Trans. Brit. mycol. Soc. **68**: 309 (1977).

Pyrenophora triseptata (Drechsler) Rossman & K.D. Hyde, **comb. nov.** MycoBank MB815097

- Basionym: Helminthosporium triseptatum Drechsler, J. Agric. Res. 24: 686 (1923).
- Synonyms: Drechslera triseptata (Drechsler) Subram. & B.L. Jain, *Curr. Sci.* **35**: 355 (1966).
- Marielliottia triseptata (Drechsler) Shoemaker, Canad. J. Bot. **76**: 1565 (1999).

Use *Ramularia* Unger 1833 (A) rather than *Mycosphaerella* Johanson 1884 (S)

The very large genus Mycosphaerella, typified by M. punctiformis, has long been known to include a diverse range of relatively non-descript sexual morphs that cause leaf spots. This became more obvious as their asexual morphs were explored and determined to belong to numerous genera (Sivanesan 1984, Crous & Braun 2003). Crous et al. (2009b, 2011b) determined that M. punctiformis, now regarded as Ramularia endophylla (Videira et al. 2015a), belongs in Ramularia typified by R. pusilla, thus Mycosphaerella and Ramularia are synonyms. Crous et al. (2009b, 2011b) and others have also determined that most of the 1738 names placed in Mycosphaerella are not congeneric with the type of the genus such that many species have already been placed in segregate genera including Batcheloromyces, Delphinella, Passalora, Pseudocercospora, Stenella, and Pseudocercospora amongst many others (Farr & Rossman 2015). Although Mycosphaerella includes many names, those that are congeneric with the type species are relatively few. Around 225 names in Mycosphaerella have been reported to be morphologically indistinguishable from *M. punctiformis* (Aptroot 2006) and are thus likely to belong to Ramularia. Given the extreme morphological convergence of the sexual morphs placed in Mycosphaerella and confusion associated with these names, the use of the generic name that has priority, Ramularia, for the species of Mycosphaerella sensu stricto as already reflected in the recent literature (Videira et al. 2015b), is recommended.

Use *Schizothyrium* Desm. 1849 (S) rather than *Zygophiala* E.W. Mason 1945 (A)

The type species of Zygophiala, Z. jamaicensis, was initially shown to be the asexual morph of Schizothyrium pomi by Batzer et al. (2005), although later Batzer et al. (2008) considered Z. jamaicensis to be distinct from S. pomi. Nevertheless Batzer et al. (2005, 2008), Gao et al. (2014), Li et al. (2010) and Ma et al. (2010) demonstrated that S. pomi and species of Zygophiala are congeneric. The type species of Schizothyrium, S. acerinum, is relatively unknown and has long been considered to be a synonym of S. pomi (Arx 1959). Schizothyrium includes over 50 names while Zygophiala includes only 11 names. These fungi cause sooty blotch and fly speck diseases such as S. pomi on the fruits of apple and pear. Based on priority, widespread use, and the greater number of names, the use of Schizothyrium is recommended. In the event that S. acerinum should eventually be typified and prove to not be congeneric with Z. jamaicensis, further disruption could be avoided by the conservation of Schizothyrium with S. pomi.

Based on the molecular phylogeny presented in Batzer *et al.* (2008), Li *et al.* (2010), Ma *et al.* (2010), and Gao *et al.* (2014), the following additional species are placed in *Schizothyrium*:

Schizothyrium cryptogamum (Batzer & Crous) Crous & Batzer, comb. nov.

MycoBank MB815098

Basionym: Zygophiala cryptogama Batzer & Crous, Mycologia 100: 254 (2008).

Schizothyrium cylindricum (G.Y. Sun *et al.*) Crous & Batzer, comb. nov.

MycoBank MB815099

Basionym: Zygophiala cylindrica G.Y. Sun et al., Mycol. Progr. 9: 250 (2010).

Schizothyrium emperorae (G.Y. Sun & L. Gao) Crous & Batzer, comb. nov.

MycoBank MB815100

Basionym: Zygophiala emperorae G.Y. Sun & L. Gao, *PLoS* ONE **9** (10, e110717): 6 (2014).

Schizothyrium inaequale (G.Y. Sun & L. Gao) Crous & Batzer, comb. nov.

MycoBank MB815101

Basionym: Zygophiala inaequalis G.Y. Sun & L. Gao, *PLoS* ONE **9** (10, e110717: 8 (2014).

Schizothyrium musae (G.Y. Sun & L. Gao) Crous & Batzer, comb. nov.

MycoBank MB815103

- Basionym: Zygophiala musae G.Y. Sun & L. Gao, *PLoS ONE* **9** (10, e110717): 7 (2014).
- Schizothyrium qianense (G.Y. Sun & Y.Q. Ma) Crous & Batzer, comb. nov.

MycoBank MB815104

Basionym: Zygophiala qianensis G.Y. Sun & Y.Q. Ma, Mycol. Progr. **9**: 153 (2010).

Schizothyrium sunii Crous & Batzer, nom. nov. MycoBank MB815102

Replaced name: Zygophiala longispora G.Y. Sun & L. Gao,

PLoS ONE **9** (10, e110717): 9 (2014). Non *S. longisporum* (Pat. & Gaillard) Arx 1962.

Schizothyrium tardecrescens (Batzer & Crous) Crous & Batzer, comb. nov.

MycoBank MB815105

- Basionym: Zygophiala tardicrescens Batzer & Crous, Mycologia **100**: 255 (2008).
- Schizothyrium wisconsinense (Batzer & Crous) Crous & Batzer, comb. nov.

MycoBank MB815106

Basionym; Zygophiala wisconsinensis Batzer & Crous, Mycologia **100**: 255 (2008).

Use Sphaerellopsis Cooke 1883 (A) rather than Eudarluca Speg. 1908 (S)

The confusion regarding the commonly encountered mycoparasitic species on rust fungi considered under the generic names *Sphaerellopsis* and *Eudarluca* has been clarified by Trakunyingcharoen *et al.* (2014). The type species of *Sphaerellopsis*, *S. quercuum*, for which the oldest name is *S. filum*, was suggested to be congeneric with the type species of *Eudarluca*, *E. australis*, often considered a synonym of *E. caricis* (Eriksson 1966). The name *Sphaerellopsis* was used in preference to *Eudarluca* by Trakunyingcharoen *et al.* (2014). *Sphaerellopsis* has the greater number of names, is most widely used, and has priority so the the use of the generic name *Sphaellopsis* is recommended.

Use Sphaeropsis Sacc. 1880 (A) rather than Phaeobotryosphaeria Speg. 1908 (S)

The generic name *Sphaeropsis* Sacc. 1880, typified by *S. visci*, has been conserved against *Sphaeropsis* Lév. 1842 (Donk 1968) and over 600 names have been included in this conserved genus. Phillips *et al.* (2008, 2013) have now shown that *S. visci* has a sexual morph that they placed in *Phaeobotryosphaeria* within *Botryosphaeriaceae*. The type species of *Phaeobotryosphaeria*, *P. yerbae*, was examined by Phillips *et al.* (2008) but not placed within *Sphaeropsis*. Nevertheless these genera appear to be synonyms. Given its widespread use, the number of names, its priority, and the recent study of this genus, the use of *Sphaeropsis* is recommended.

Use Stemphylium Wallr. 1833 (A) rather than *Pleospora* Rabenh. ex Ces. & De Not. 1863 (S) The type species of *Stemphylium, S. botryosum,* is considered the asexual morph of *Pleospora tarda,* cause of black mold rot and leaf blight on diverse hosts while the type species of *Pleospora, P. herbarum,* has an asexual morph referred to as *Stemphylium herbarum,* a widespread species (Ariyawansa *et al.* 2015). There is no question that these two generic names are synonyms. Although over 1000 names have been placed in *Pleospora* with only about 200 names in *Stemphylium,* many names initially placed in *Pleospora* have now been moved to other genera. *Stemphylium* is more widely used, especially by plant pathologists, and has priority, thus the use of *Stemphylium* is recommended.

Use Sydowia Bres. 1895 (S) rather than Hormonema Lagerb. & Melin 1927 (A)

The genus *Sydowia*, typified by *S. gregaria*, is congeneric with the type species of *Hormonema*, *H. dematioides*, now recognized as *S. polymorpha* by Hirooka *et al.* (2012). Twelve species are currently accepted in *Sydowia* while only seven are retained in *Hormonema*. Given the priority, the greater number of species, as well as the widespread use, *Sydowia* is recommended for use. This recommendation is contrary to that presented in Wijayawardene *et al.* (2014) who considered these genera to be distinct. Protection of *Sydowia* would not, however, preclude the use of *Hormonema* by anyone wishing to follow an alternative taxonomy and recognize both genera.

Use *Teratosphaeria* Syd. & P. Syd. 1912 (S) rather than *Kirramyces* J. Walker *et al.* 1992 (A) and *Colletogloeopsis* Crous & Wingfield 1997 (A)

The genus *Teratosphaeria*, typified by *T. fibrillosa*, has been circumscribed by Crous *et al.* (2009b) to include species having asexual morphs placed in *Kirramyces* and *Colletogloeopsis*. The type species of *Colletogloeopsis*, *C. nubilosum*, was placed in *Kirramyces* by Andjic *et al.* (2007), which was supported by molecular data. The type species of *Kirramyces*, *K. epicoccoides* (syn. *T. suttonii*), has also been sequenced and shown to be a species of *Teratosphaeria* (Crous *et al.* 2009b, Quaedvlieg *et al.* 2014). *Teratosphaeria* includes 90 names while *Colletogloeopsis* includes only 9, and *Kirramyces* 19. As *Teratosphaeria* has priority and the most names, the use of *Teratosphaeria* is recommended.

- Teratosphaeria epicoccoides (Cooke & Massee) Rossman & W.C. Allen, comb. nov.
- MycoBank MB815107
- Basionym: Cercospora epicoccoides Cooke & Massee, Grevillea **19**: 91 (1891).
- Synonyms: Kirramyces epicoccoides (Cooke & Massee) J. Walker et al. Mycol. Res. **96** 919 (1992).
- Phaeophleospora epicoccoides (Cooke & Massee) Crous et al., S. Afr. J. Bot. 63: 113 (1997).
- Readeriella epicoccoides (Cooke & Massee) Crous & U. Braun, *Stud. Mycol.* **58**: 11 (2007).
- Hendersonia grandispora McAlpine, Proc. R. Soc. N.S.W. 28: 99 (1903).
- Phaeoseptoria eucalypti Hansf., Proc. Linn. Soc. N.S.W. 82: 225 (1957).
- Phaeoseptoria luzonensis Tak. Kobay., Trans. Mycol. Soc. Japan 19: 377 (1978).
- *Mycosphaerella suttonii* Crous & M.J. Wingf., *Canad. J. Bot.* **75**(5): 783 (1997).
- Teratosphaeria suttonii (Crous & M.J. Wingf.) Crous & U. Braun, Stud. Mycol. 58: 11 (2007).

This species causes a leaf spot and premature defoliation of *Eucalyptus*, as described by Taole *et al.* (2012) and Walker *et al.* (1992) who provide the synonyms listed here. *Cercospora epicoccoides* provides the oldest epithet for this species, which is now placed in *Teratosphaeria*.

Use *Tetraploa* Berk. & Broome 1850 (A) rather than *Tetraplosphaeria* Kaz. Tanaka & K. Hiray. 2009 (S)

When Tanaka *et al.* (2009) proposed the generic name *Tetraplosphaeria*, they showed that the type species *T. sasicola* grouped closely with the type species of *Tetraploa*, *T. aristata*. This relationship was accepted by Hyde *et al.* (2013) and Wijayawardene *et al.* (2014), both of whom recommended the use of *Tetraploa* over *Tetraplosphaeria*. *Tetraploa* includes 20 names while *Tetraplosphaeria* has only four names, thus, having priority and the most names, use of *Tetraploa* is recommended.

Protect Venturia Sacc. 1882 (S) over Fusicladium Bonord. 1851 (A) and Pollaccia E. Bald. & Cif. 1947 (A)

The generic name Venturia is well known because of the ubiquitous disease of apple known as apple scab, caused by V. inaequalis, and for species causing other diseases especially on Rosaceae. Venturia is typified by V. inaequalis, which has an asexual morph referred to as Fusicladium pomi, while the type of Fusicladium, F. virescens, has a sexual morph known as Venturia pyrina, the cause of pear scab (Sivanesan & Waller 1974, Schubert et al. 2003). The genus Pollaccia, typified by P. radiosa, was established for the asexual morph of Venturia radiosa. Using a molecular phylogeny Crous et al. (2007b) showed that V. inaequalis, V. pyrina and V. radiosa were congeneric, thus Venturia, Fusicladium, and Pollaccia are synonymous generic names. All three generic names have been used in reports of the diseases. The names in Venturia, however, are more widely known than those in Fusicladium or Pollaccia so Venturia is recommended for protection.

Based on the molecular phylogeny presented by Crous *et al.* (2007b) and Zhang *et al.* (2011), the following species should also be placed in *Venturia*:

Venturia barriae Rossman & Crous, nom. nov. MycoBank MB815108

Replaced name: Fusicladium fagi Crous & de Hoog, Stud. Mycol. **58**: 209 (2007).

Non V. fagi M.E. Barr 1968.

Venturia catenospora (Butin) Rossman & Crous, comb. nov.

MycoBank MB815110

- Basionym: Pollaccia catenospora Butin, Mycol. Res. 96: 658 (1992).
- Synonym: Fusicladium catenosporum (Butin) Ritschel & U. Braun, Schlechtendalia **9**: 30 (2003).
- Venturia convolvularum (Ondřej) Rossman & Crous, comb. nov.

MycoBank MB815111

Basionym: Fusicladium convolvularum Ondřej, Česká Mykol.25: 171 (1971).

Venturia oleaginea (Castagne) Rossman & Crous, comb. nov. MycoBank MB815112

- Basionym: Cycloconium oleagineum Castagne, Cat. Pl. Mars.: 220 (1845).
- Synonym: Fusicladium oleagineum (Castagne) Ritschel & U. Braun, Schlechtendalia **9**: 70 (2003).
- Venturia phillyreae (Nicolas & Aggéry) Rossman & Crous, comb. nov.

MycoBank MB815113

- Basionym: Cycloconium phillyreae Nicolas & Aggéry, Bull. trimest. Soc. mycol. Fr. 44: 303 (1928).
- Synonym: Fusicladium phillyreae (Nicolas & Aggéry) Ritschel & U. Braun, Schlechtendalia **9**: 73 (2003).

Use Zeloasperisporium R.F. Castañeda 1996 (A) rather than *Neomicrothyrium* Boonmee *et al.* 2011 (S)

The type species of *Zeloasperisporium, Z. hyphopodioides*, was recently show to be congeneric with the monotype species of *Neomicrothyrium, N. siamense*, by Crous *et al.* (2015b) and Hongsanan *et al.* (2015), thus these generic names are synonyms. Crous *et al.* (2015b) added another species to *Zeloasperisporium* while Hongsanan *et al.* (2015) described two further new species of *Zeloasperisporium* and placed *N. siamense* in *Zeloasperisporium*. Given its priority and greater number of species, *Zeloasperisporium* is recommended for use here.

GENERA NOT COMPETING FOR USE

Notes are provided below on generic names that were considered synonyms by Wijayawardene *et al.* (2014), but upon closer examination may not be. Until questions about the relationships between the type species involved are answered, no recommendations are made.

Antennulariella Woron. 1915 (S) and Antennariella Bat. & Cif. 1963 (A) may not be synonyms

The type species of Anntenulariella, A. fulignosa, has been placed in Wentiomyces, a genus that includes 22 names while the type species of Antennariella, A. unedonis, is now considered a synonym of Polychaeton brasiliense, a name that should be placed in Capnodium. This suggests that these type species are not congeneric and thus the generic names Antennulariella and Antenariella are probably not synonyms.

Use Cyclopeltella Petr. 1953 (A)

The monotypic generic names *Cyclopeltis* and *Cyclopeltella* were described in the same article by Petrak (1953), however, *Cyclopeltis* is a later homonym of the fern genus *Cyclopeltis* J. Sm. 1846 (*Aspidiaceae*), and thus cannot be used. Only *Cyclopeltella* typified by *C. orbicularis* Petr. is available for use.

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