

## Recommendations of generic names in *Diaporthales* competing for protection or use

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**Abstract:** In advancing to one name for fungi, this paper treats generic names competing for use in the order *Diaporthales* (*Ascomycota*, *Sordariomycetes*) and makes a recommendation for the use or protection of one generic name among synonymous names that may be either sexually or asexually typified. A table is presented that summarizes these recommendations. Among the genera most commonly encountered in this order, *Cytospora* is recommended over *Valsa* and *Diaporthe* over *Phomopsis*. New combinations are introduced for the oldest epithet of important species in the recommended genus. These include *Amphiporthe tiliae*, *Coryneum lanciforme*, *Cytospora brevispora*, *C. ceratosperma*, *C. cinereostroma*, *C. eugeniae*, *C. fallax*, *C. myrtagena*, *Diaporthe amarantophila*, *D. annonacearum*, *D. bougainvilleicola*, *D. caricae-papayae*, *D. cocoina*, *D. cucurbitae*, *D. juniperivora*, *D. leptostromiformis*, *D. pterophila*, *D. theae*, *D. vitimegaspora*, *Mastigosporella georgiana*, *Piliidiella angustispora*, *P. calamicola*, *P. pseudogranati*, *P. stromatica*, and *P. terminaliae*.

### Key words:

Article 59

*Ascomycetes*

*Fungi*

nomenclature

one fungus-one name

pleomorphic fungi

taxonomy

unit nomenclature

**Article info:** Submitted: 8 May 2015; Accepted: 27 May 2015; Published: 4 June 2015.

## INTRODUCTION

The order *Diaporthales* includes 12 families with about 50 genera. In moving to one name for fungi in accordance with the *International Code of Nomenclature for algae, fungi and plants* (ICN; McNeill *et al.* 2012), two or more genera typified by a sexual or asexual morph may compete for use. Many genera in *Diaporthales* are known primarily from their sexual morphs and do not have competing generic names for their asexual morphs and *vice versa*; these are not considered here. A number of resources were consulted in order to find competing pairs of generic names in the order, including

Wijayawardene *et al.* (2012) and the USDA SMML Fungal Databases (url: <http://nt.ars-grin.gov/sbmlweb/fungi/index.cfm>). The procedure for determining whether two genera are synonyms based on their type species and the factors that were reviewed in considering which genus to recommend for use or protection are outlined in Johnston *et al.* (2014). In that paper recommendations are made for competing genera in *Leotiomyces*.

Following are recommendations for generic names in *Diaporthales* for use or protection when two or more names are synonyms. Although in general this follows the principle of priority, there are situations in which it is advantageous to

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protect a generic name that does not have priority by date of publication but has commonly been used as explained in Johnston *et al.* (2014). A synopsis of these recommendations for generic names in *Diaporthales* is provided in Table 1, which includes a list of competing generic names with the citation and type species. These generic names have been compared with those listed in Kirk *et al.* (2013). In most cases both names are listed there; in one case the recommended name is not included but it is anticipated that the list will be modified to be consistent with the recommendations proposed here, indeed some of these are already included in the updated online version of that list prepared for IMC10 (<http://www.indexfungorum.org/GeneraOfFungi/>).

## RECOMMENDATIONS

### Protect *Amphiporthe* 1971 over *Amphicytostroma* 1921

The type species of *Amphiporthe*, *A. hranicensis* based on *Diaporthe hranicensis*, is the sexual morph of the type species of *Amphicytostroma*, *A. tiliae* based on *Cytospora tiliae*, according to Petrak (1921) and Sutton (1980), thus these generic names are synonyms. This species occurs on dead branches of *Tilia* in Europe (Farr & Rossman 2015). Five names have been described in *Amphiporthe* while only two names have been included in *Amphicytostroma*. The second name in *Amphicytostroma*, *A. quercinum* based on *Gloeosporium quercinum*, is the asexual morph of *Amphiporthe leiphaemia* based on *Sphaeria leiphaemia*, cause of stem and twig lesions of oak in Europe (Sieber *et al.* 1995). Sogonov *et al.* (2008) showed that *Amphiporthe hranicensis* belongs in *Gnomoniaceae* while *A. castanea* and *A. leiphaemia* are unrelated to *A. hranicensis* and fall elsewhere in *Diaporthales* (Zhang & Blackwell 2001; Castlebury, unpubl.); these species should be placed in another genus. *Amphiporthe* is more widely used than *Amphicytostroma*, thus it seems best to protect *Amphiporthe*. Both names are included in Kirk *et al.* (2013), thus it is recommended that *Amphicytostroma* be deleted.

### *Amphiporthe tiliae* (Sacc.) Rossman & Castl., **comb. nov.**

Mycobank MB812583

*Basionym:* *Cytospora tiliae* Sacc., *Michelia* 1: 519 (1879).

*Synonyms:* *Diaporthe hranicensis* Petr., *Annlis mycol.* 12: 477 (1914).

*Amphiporthe hranicensis* (Petr.) Petr., *Sydowia* 24: 257 (1971).

### Protect *Apiognomonina* 1917 over *Discula* 1884

The genus *Apiognomonina* has recently been well-defined including five species (Sogonov *et al.* 2008) based on the type species, *A. veneta*, which had previously been distinguished from *A. errabunda* (Sogonov *et al.* 2007). The lectotype species of *Discula*, *D. quercina*, now considered a synonym of *D. umbrinella* (Sutton 1980), is the asexual morph of *Apiognomonina errabunda*; thus *Apiognomonina* and *Discula* are synonyms. *Apiognomonina errabunda* is the cause of anthracnose of oak and various hardwood trees

(Boewe *et al.* 1954, Neely & Himelick 1967, Hepting 1971, Sinclair *et al.* 1987, Hibben & Daughtrey 1988). The concept of the genus *Discula* has never been clearly defined with species having diverse affinities in *Gnomoniaceae*. A number of species placed in *Discula* have been linked with species of *Ophiognomonina* (Sogonov *et al.* 2008, Walker *et al.* 2014). The cause of dogwood anthracnose in North America, *Discula destructiva*, is not congeneric with the type of *Discula* nor does it group with *Ophiognomonina* (Sogonov *et al.* 2008). Given the ill-defined concept of *Discula* and that a number of species are now linked with the genus *Ophiognomonina*, we recommend the protection and use of *Apiognomonina*. Both names are listed in Kirk *et al.* (2013), thus it is recommended that *Discula* be deleted.

### Use *Coryneum* 1816 rather than *Pseudovalsa* 1863

The type species of *Coryneum*, *C. umbonatum*, is the asexual morph of *Pseudovalsa longipes*, while the type species of *Pseudovalsa*, *P. lanciformis*, is considered the sexual morph of *Coryneum brachyurum* (Sutton 1975). Assuming that *P. lanciformis* and *P. longipes* are congeneric, then *Coryneum* and *Pseudovalsa* are synonyms. Sutton (1975) monographed *Coryneum* and accepted 19 species, referring many additional names to other genera. Many of the commonly reported plant pathogenic species previously known as *Coryneum* have now been placed in other genera such as *Seiridium cardinale* (syn. *Coryneum cardinale*), cause of cypress canker (Danti *et al.* 2014, Sutton & Gibson 1972), and *Thyrostroma carpophilum* (syn. *Coryneum carpophilum*, *Stigmia carpophila*, and *Coryneum beyerinckii*), cause of shot-hole disease of *Rosaceae* (Sutton 1997, Tovar-Pedraza *et al.* 2014). Although 68 names have been described in *Pseudovalsa* and three important species have been shown to group together (de Silva *et al.* 2009), many species of *Pseudovalsa* are now placed in other genera. These two genera are about equal in the number of currently accepted species and a monograph of *Coryneum* exists, thus it seems advisable to use the earliest name, *Coryneum*. Among the species of *Coryneum* known to have *Pseudovalsa* sexual morphs, only one requires a name change. Both generic names are listed in Kirk *et al.* (2013) thus it is recommended that *Pseudovalsa* be deleted.

### *Coryneum lanciforme* (Fr.) Voglmayr & Jaklitsch, **comb. nov.**

Mycobank MB812584

*Basionym:* *Sphaeria lanciformis* Fr., *Observ. mycol.* 2: 324 (1818).

*Synonyms:* *Pseudovalsa lanciformis* (Fr.) Ces. & De Not., *Comm. Soc. crittog. Ital.* 1(4): 206 (1863).

*Coryneum brachyurum* Link, in Willdenow, *Sp. pl.*, 4<sup>th</sup> edn 6(2): 124 (1825).

### Use *Cryphonectria* 1905 rather than *Endothiella* 1906

The generic name *Cryphonectria* was recently conserved with the type species, *C. parasitica* (Gryzenhout *et al.* 2005), widely known as the cause of chestnut blight in North America (Anagnostakis 1987). Many additional species of

*Cryphonectria* have been discovered on woody plants in both temperate and tropical regions (Gryzenhout *et al.* 2009). The generic name *Endothiella* based on the type species, *E. gyrosa*, is now placed in *Cryphonectria* as *C. decipiens* (Gryzenhout *et al.* 2009). *Endothiella* has been used for the asexual morphs of species of *Cryphonectria*. Given the widespread use of the name *Cryphonectria* and its priority, this name is recommended for use. Both names are included in Kirk *et al.* (2013) thus it is recommended that *Endothiella* be deleted.

#### Use *Cryptosporella* rather than *Disculina* 1916

The genus *Cryptosporella*, based on the type species *C. hypodermia*, has recently been monographed by Mejia *et al.* (2008, 2011b) and includes 19 species. The genus *Disculina* is based on *D. neesii*, regarded as *D. vulgaris* by Sutton (1980), who considered it the asexual morph of *Ophiovalsa suffusa*, now placed in *Cryptosporella* as *C. suffusa* (Mejia *et al.* 2008). Thus, *Cryptosporella* and *Disculina* are synonyms. Given that *Cryptosporella* has priority and has been recently monographed, while *Disculina* includes only six names, we recommend the use of *Cryptosporella*. Both names are included in Kirk *et al.* (2013) thus it is recommended that *Disculina* be deleted.

#### Use *Cytospora* 1818 rather than *Valsa* 1825, *Valsella* 1870, *Leucostoma* 1917, *Valseutypella* 1919, or *Leucocytospora* 1927

Numerous diseases of woody plants including those of economic importance are caused by species of the asexual genus *Cytospora* and its sexual counterpart *Valsa* and related genera *Leucocytospora*, *Leucostoma*, *Valsella*, and *Valseutypella*. The type species of *Cytospora*, *C. chrysosperma* as clarified by Donk (1964), is the asexual morph of *Valsa sordida* and commonly causes cankers on members of *Salicaceae* (Callan 1998). The type species of *Valsa*, *V. ambiens*, is linked with *C. leucosperma* (Spielman 1985, Hayova & Minter 1998). There is no question that these generic names are synonyms as their type species are congeneric. Both names have been widely used. At present 562 names have been described in *Cytospora*, while *Valsa* includes 875 names. Given that *Cytospora* is the oldest name and that several recent accounts of *Cytospora* species have been published (Adams 2005, Fotouhifar *et al.* 2010, Fan *et al.* 2014), it seems best to use the generic name that has priority, namely *Cytospora*. The genus *Valsella* is based on *V. salicis*, now considered a synonym of *Cytospora fertilis*. An isolate of *V. salicis* grouped with others species now considered *Cytospora* (Castlebury *et al.* 2002). The type species of *Leucostoma*, *L. massarianum*, falls within the genus *Cytospora* (Adams *et al.* 2002, 2005) near *Cytospora mali* and *C. personii* and thus *Leucostoma* is also a synonym of *Cytospora*. Adams *et al.* (2005) listed *Leucocytospora* as a synonym of *Cytospora* although the type species of *L. corni* was not included in the study. *Leucostoma* and *Leucocytospora* were described for species similar to *Cytospora* and *Valsa* that have a whitish ring around the ostiole. This characteristic occurs in many species of *Cytospora* scattered throughout the genus (Castlebury *et al.* 2004, Adams *et al.* 2005). The type

species of *Valseutypella*, *V. tristicha* on *Rosa* spp., was also determined to fall within *Cytospora* based on molecular sequence data (Castlebury, unpubl.) and as suggested by Hubbes (1960) who described the asexual morph. No molecular data exist to support segregate genera within *Cytospora*, thus these generic names are all considered synonyms of *Cytospora*. *Cytospora* as well as *Leucostoma*, *Valsa*, *Valsella*, and *Valseutypella* are included in Kirk *et al.* (2013) while *Leucocytospora* is not. It is recommended that *Leucostoma*, *Valsa*, *Valsella* and *Valseutypella* be deleted.

Many names previously recognized in *Valsa* already have an older epithet in *Cytospora* with the correct scientific names presented in the SMML Fungal Databases (<http://nt.ars-grin.gov/fungaldatabases/>). New names for the common species of *Cytospora* previously placed in *Valsa* are provided here:

#### *Cytospora brevispora* (G.C. Adams & Jol. Roux) G.C. Adams & Rossman, **comb. nov.**

Mycobank MB812485

*Basionym:* *Valsa brevispora* G.C. Adams & Jol. Roux, *Stud. Mycol.* **52**: 91 (2005).

#### *Cytospora ceratosperma* (Tode) G.C. Adams & Rossman, **comb. nov.**

Mycobank MB812486

*Basionym:* *Sphaeria ceratosperma* Tode, *Fung. mecklenb. sel.* **2**: 53 (1791).

*Valsa ceratosperma* (Tode) Maire, *Publ. Inst. Bot. Barcelona* **3**(4): 20 (1937).

#### *Cytospora cinereostroma* (G.C. Adams & M.J. Wingf.) G.C. Adams & Rossman, **comb. nov.**

Mycobank MB812488

*Basionym:* *Valsa cinereostroma* G.C. Adams & M.J. Wingf., *Stud. Mycol.* **52**: 73 (2005).

#### *Cytospora eugeniae* (Nutman & F.M. Roberts) G.C. Adams & Rossman, **comb. nov.**

Mycobank MB 812489

*Basionym:* *Valsa eugeniae* Nutman & F.M. Roberts, *Trans. Brit. Mycol. Soc.* **36**: 229 (1953).

#### *Cytospora fallax* (Nitschke) G.C. Adams & Rossman, **comb. nov.**

Mycobank MB812490

*Basionym:* *Valsa fallax* Nitschke, *Jb. nassau. Ver. Naturk.* **23-24**: 200 (1870).

#### *Cytospora myrtagena* (G.C. Adams & M.J. Wingf.) G.C. Adams & Rossman, **comb. nov.**

Mycobank MB812491

*Basionym:* *Valsa myrtagena* G.C. Adams & M.J. Wingf., *Stud. Mycol.* **52**: 97 (2005).

#### Use *Diaporthe* 1870 rather than *Phomopsis* 1884

Species in both *Diaporthe* and *Phomopsis* have been used for fungi that cause canker diseases of woody plants such as *D. citri*, cause of citrus melanose (Mondal *et al.* 2003), *D. sojiae*, cause of pod and stem blight of soybean (Udayanga *et*

**Table 1.** Recommended generic names of *Diaporthales* among those that compete for use and their synonyms. The recommended generic name is listed in bold; see text for the rationale for these recommendations. For each generic name this list provides the author, its date and place of publication, the type species of the genus, its basionym, their dates of publication, and the currently accepted name, if different. The action required is indicated in the last column such as protection of names that do not have priority.

Accepted genus	Rejected genus	Action required
<b>Amphiportha</b> Petr., <i>Sydowia</i> <b>24</b> : 257 (1971); type species <i>A. hranicensis</i> (Petr.) Petr. (1971), basionym: <i>Diaportha hranicensis</i> Petr. (1914), now <i>Amphiportha tiliae</i> (Sacc.) Rossmann & Castl. (2015)	<i>Amphicytostroma</i> Petr., <i>Annls mycol.</i> <b>19</b> : 63 (1921); type species <i>A. tiliae</i> (Sacc.) Petr. (1921), basionym: <i>Cytospora tiliae</i> Sacc. (1879), now <i>Amphiportha tiliae</i> (Sacc.) Rossmann & Castl. (2015)	Protect <i>Amphiportha</i> (1971) over <i>Amphicytostroma</i> (1921)
<b>Apiognomonina</b> Höhn., <i>Ber. Deutsch. Bot. Ges.</i> <b>35</b> : 635 (1917); type species <i>A. veneta</i> (Sacc. & Speg.) Höhn. (1918), basionym: <i>Laestadia veneta</i> Sacc. & Speg. (1878)	<i>Discula</i> Sacc., <i>Syll. Fung.</i> <b>3</b> : 674 (1884); lectotype species: <i>D. quercina</i> (Cooke) Sacc. (1884), basionym: <i>Discella quercina</i> Cooke (1883), now <i>Apiognomonina errabunda</i> (Roberge ex Desm.) Höhn. (1918), basionym <i>Sphaeria errabunda</i> Roberge ex Desm. (1848)	Protect <i>Apiognomonina</i> (1917) over <i>Discula</i> (1884)
<b>Coryneum</b> Nees, <i>Syst. Pilze</i> : 34. (1816); type species: <i>C. umbonatum</i> Nees (1816)	<i>Pseudovalsa</i> Ces. & De Not., <i>Comment. Soc. Crittogam. Ital.</i> <b>1</b> : 206 (1863); type species: <i>P. lanciformis</i> (Fr.) Ces. & De Not. (1863), basionym <i>Sphaeria lanciformis</i> Fr. (1818), now <i>Coryneum lanciforme</i> (Fr.) Voglmayr & Jaklitsch (2015)	Use <i>Coryneum</i> (1816) rather than <i>Pseudovalsa</i> (1863)
<b>Cryphonectria</b> (Sacc.) Sacc. & D. Sacc., <i>Syll. Fung.</i> <b>17</b> : 783 (1905), basionym: <i>Nectria</i> subgen. <i>Cryphonectria</i> Sacc. (1883); conserved type species: <i>Cryphonectria parasitica</i> (Murrill) M.E. Barr (1978), basionym <i>Diaportha parasitica</i> Murrill (1906)	<i>Endothiella</i> Sacc., <i>Annls mycol.</i> <b>4</b> : 273 (1906); type species: <i>E. gyrosa</i> Sacc. (1906), now <i>Cryphonectria decipiens</i> Gryzenh. & M.J. Wingf. (2009) non <i>C. gyrosa</i> (Berk. & Broome) Sacc. & D. Sacc. (1905)	Use <i>Cryphonectria</i> (1905) rather than <i>Endothiella</i> (1906)
<b>Cryptosporella</b> Sacc., <i>Michelia</i> <b>1</b> : 30 (1877); lectotype species <i>C. hypodermia</i> (Fr.) Sacc. (1877), basionym: <i>Sphaeria hypodermia</i> Fr. (1823)	<i>Disculina</i> Höhn., <i>Sitzungsber. Kaiserl. Akad. Wiss., Math.-Naturwiss. Cl. Abt. 1.</i> <b>125</b> : 104 (1916); type species: <i>D. neesii</i> (Corda) Höhn. (1916), basionym: <i>Cryptosporium neesii</i> Corda (1837), now <i>Cryptosporella suffusa</i> (Fr.) L.C. Mejia & Castl. (2008)	Use <i>Cryptosporella</i> Sacc. (1877) rather than <i>Disculina</i> (1916)
<b>Cytospora</b> Ehrenb., <i>Sylv. mycol. berol.</i> : 2 (1818): Fr., <i>Syst. Mycol.</i> <b>2</b> : 540 (1823); designated type species: <i>C. chrysosperma</i> Pers. (1818)	<i>Valsa</i> Fr., <i>Syst. Orbis. Veg.</i> : 107 (1825); lectotype species <i>V. ambiens</i> (Pers.) Fr. (1849), basionym <i>Sphaeria ambiens</i> Pers. (1801), now <i>Cytospora leucosperma</i> (Pers.) Fr. (1823), basionym <i>Naemaspora leucosperma</i> Pers. (1796)	Use <i>Cytospora</i> (1818) rather than <i>Valsa</i> (1825), <i>Valsella</i> (1870), <i>Leucostoma</i> (1917), <i>Valseutypella</i> (1919), or <i>Leucocytospora</i> (1927).
	<i>Valsella</i> Fuckel, <i>Jb. nassau. Ver. Naturk.</i> <b>23–24</b> : 203 (1870); type species: <i>Valsella salicis</i> Fuckel (1870), now <i>Cytospora fertilis</i> Sacc. (1884)	
	<i>Leucostoma</i> (Nitschke) Höhn., <i>Ber. Deutsch. Bot. Ges.</i> <b>35</b> : 637 (1917), basionym: <i>Valsa</i> subg. <i>Leucostoma</i> Nitschke (1870); type species: <i>L. massarianum</i> (De Not.) Höhn. (1917), basionym: <i>Valsa massariana</i> De Not. (1863), now <i>Cytospora massariana</i> Sacc. (1884)	
	<i>Valseutypella</i> Höhn., <i>Annls mycol.</i> <b>16</b> : 224 (1919); type species: <i>V. tristicha</i> (De Not.) Höhn. (1919)	
	<i>Leucocytospora</i> (Höhn.) Höhn., <i>Mitt. bot. Inst. tech. Hochsch. Wien</i> <b>4</b> (2): 73 (1927), basionym: <i>Cytospora</i> subgen. <i>Leucocytospora</i> Höhn. (1918); type species: <i>L. corni</i> (Westend.) Höhn. (1927), basionym: <i>Cytospora corni</i> Westend. (1890), now <i>Cytospora fallax</i> (Nitschke) G.C. Adams & Rossmann (2015).	
<b>Diaportha</b> Nitschke, <i>Pyrenomyc. Germ.</i> <b>2</b> : 240 (1870); type species: <i>D. eres</i> Nitschke (1870), nom. cons. prop. (Rossmann et al. 2014)	<i>Phomopsis</i> (Sacc.) Bubák, <i>Öst. bot. Z.</i> <b>55</b> : 78 (1905), basionym: <i>Phoma</i> subgen. <i>Phomopsis</i> Sacc. (1884); type species: <i>P. lactucae</i> (Sacc.) Bubák (1905), basionym: <i>Phoma lactucae</i> Sacc. (1880)	Use <i>Diaportha</i> (1870) rather than <i>Phomopsis</i> (1884)

Table 1. (Continued).

Accepted genus	Rejected genus	Action required
<b>Endothia</b> Fr., <i>Summa Veg. Scand.</i> : 385 (1849); designated type species: <i>E. gyrosum</i> (Schwein.) Fr. (1849), basionym: <i>Sphaeria gyrosa</i> Schwein. (1822)	<i>Calopactis</i> Syd. & P. Syd., <i>Annl. mycol.</i> <b>10</b> : 82 (1912); type species: <i>C. singularis</i> Syd. & P. Syd., now <i>Endothia singularis</i> (Syd.) Shear & N.E. Stevens (1917)	Use <i>Endothia</i> (1849) rather than <i>Calopactis</i> (1912)
<b>Massariovalsa</b> Sacc., <i>Michelia</i> <b>2</b> : 569 (1882); type species: <i>M. sudans</i> (Berk. & M.A. Curtis) Sacc. (1882), basionym: <i>Massaria sudans</i> Berk. & M.A. Curtis (1876)	<i>Melanconiopsis</i> Ellis & Everh., <i>Bull. Torrey Bot. Club</i> <b>27</b> : 575 (1900); type species: <i>M. inquinans</i> Ellis & Everh. (1900), now <i>Massariovalsa sudans</i> (Berk. & M.A. Curtis) Sacc. (1882)	Use <i>Massariovalsa</i> (1882) rather than <i>Melanconiopsis</i> (1900)
<b>Mastigosporella</b> Höhn., <i>Sber. Akad. Wiss. Wien, Math.-naturw. Kl., Abt. 1</i> <b>123</b> : 135 (1914); type species: <i>M. hyalina</i> (Ellis & Everh.) Höhn. (1914), basionym: <i>Harknessia hyalina</i> Ellis & Everh. (1885)	<i>Wuestneiopsis</i> J. Reid & Dowsett, <i>Can. J. Bot.</i> <b>68</b> : 2406 (1990); type species: <i>W. georgiana</i> (J.H. Mill. & G.E. Thomps.) J. Reid & Dowsett (1990), basionym: <i>Gnomoniella georgiana</i> J.H. Mill. & G.E. Thomps. (1940), now <i>Mastigosporella georgiana</i> (J.H. Mill. & G.E. Thomps.) Rossman & Crous (2015)	Use <i>Mastigosporella</i> (1914) rather than <i>Wuestneiopsis</i> (1990)
<b>Mazzantia</b> Mont., <i>Bull. Soc. Bot. France</i> <b>2</b> : 525 (1855); type species <i>M. galii</i> (Fr.) Mont. (1856), basionym: <i>Sphaeria galii</i> Fr. (1828)	<i>Mazzantiella</i> Höhn., <i>Mitt. Bot. Lab. TH Wien</i> <b>2</b> : 61 (1925); designated type species: <i>M. sepium</i> (Brunaud) Höhn. (1925), basionym: <i>Placosphaeria sepium</i> Brunaud (1890), now <i>Mazzantia sepium</i> Sacc. & Penz. (1882)	Use <i>Mazzantia</i> (1855) rather than <i>Mazzantiella</i> (1925)
<b>Melanconis</b> Tul. & C. Tul., <i>Select. fung. carpol.</i> <b>2</b> : 115 (1863); type species: <i>M. stilbostoma</i> (Fr.) Tul. & C. Tul. (1863), basionym: <i>Sphaeria stilbostoma</i> Fr. (1817)	<i>Melanconium</i> Link, <i>Mag. Gesell. naturf. Freunde, Berlin</i> <b>3</b> (1–2): 9 (1809); type species: <i>M. atrum</i> Link (1809)	Protect <i>Melanconis</i> (1863) over <i>Melanconium</i> (1832)
<b>Pilidiella</b> Petr. & Syd., <i>Beih. Reprum nov. Spec. Regni veg.</i> <b>42</b> : 462 (1927); type species: <i>P. quercicola</i> (Oudem.) Petr. (1927), basionym <i>Macropodia quercicola</i> Oudem. (1902)	<i>Schizoparme</i> Shear, <i>Mycologia</i> <b>15</b> : 120 (1923); type species: <i>S. straminea</i> Shear (1923), now <i>Pilidiella castaneicola</i> (Ellis & Everh.) Arx (1957), basionym <i>Gloeosporium castaneicola</i> Ellis & Everh. (1895)	Protect <i>Pilidiella</i> (1927) over <i>Schizoparme</i> (1923)
<b>Plagiostoma</b> Fuckel, <i>Jahrb. Nassauischen Vereins Naturk.</i> <b>23–24</b> : 118 (1870); designated type species <i>P. euphorbiae</i> (Fuckel) Fuckel (1870), basionym <i>Sphaeria euphorbiae</i> Fuckel (1860)	<i>Diplodina</i> Westend., <i>Bull. Acad. Roy. Sci. Belgique, Cl. Sci. ser. 2.</i> <b>2</b> : 562 (1857); type species: <i>D. salicis</i> Westend. (1857), now <i>Plagiostoma apiculata</i> (Wallr.) L.C. Mejía (2011)	Protect <i>Plagiostoma</i> (1870) over <i>Diplodina</i> (1857), additional synonyms <i>Septomyxa</i> (1884) and <i>Cryptodiaporthe</i> (1921)
	<i>Septomyxa</i> Sacc., <i>Syll. Fung.</i> <b>3</b> : 766 (1884); type species: <i>Septomyxa aesculi</i> Sacc. (1878), now <i>Plagiostoma aesculi</i> (Fuckel) Sogonov (2008)	
	<i>Cryptodiaporthe</i> Petrak, <i>Annl. mycol.</i> <b>19</b> : 118 (1921); lectotype species <i>C. aesculi</i> (Fuckel) Petrak, basionym: <i>Cryptospora aesculi</i> Fuckel (1870), now <i>Plagiostoma aesculi</i> (Fuckel) Sogonov (2008)	
<b>Stilbospora</b> Pers., <i>Neues Mag. Bot.</i> <b>1</b> : 93 (1794); type species: <i>S. macrosperma</i> Pers. (1801)	<i>Prosthegium</i> Fresen., <i>Beitr. Mykol.</i> <b>2</b> : 62 (1852); type species: <i>P. ellipsosporum</i> Fresen. (1852), now <i>Stilbospora macrosperma</i> Pers. (1801)C	Use <i>Stilbospora</i> 1794 rather than <i>Prosthegium</i> (1852)

*al.* 2015), and *D. vaccinii*, cause of blueberry and cranberry twig blight (Friend & Boone 1968, Milholland & Daykin 1983, Oudemans *et al.* 1998), as well as endophytes in herbaceous and woody plants (Castlebury *et al.* 2002). When most names of *Diaporthe* or *Phomopsis* were described, species in these genera were considered to be host specific. However, recent studies using molecular data have shown that, while a few species are host-specific, many others have a broad host range. Most species of *Diaporthe* can be identified only through the use of molecular sequences (Udayanga *et al.* 2014a, b). About 1000 names have been described in each genus including many that are sexual and asexual morphs of the same species.

Recently the type species of *Diaporthe*, *D. eres*, has been carefully circumscribed (Udayanga *et al.* 2014a) and this name is conserved against 21 obscure earlier names (Rossman *et al.* 2014). The type species of *Phomopsis*, *P. lactucae*, has not been as clearly defined but there is no doubt that it is congeneric with *Diaporthe* and that *Diaporthe* and *Phomopsis* are synonyms. *Diaporthe* and *Phomopsis* have been used about equally, thus, it seems best to use the name that has priority, *Diaporthe*. *Diaporthe* but not *Phomopsis* is listed in Kirk *et al.* (2013).

Determining the correct name for species of *Diaporthe* is difficult considering that names in both genera must be taken into account and defining old names is nearly impossible. Due

to the lack of distinct morphological characteristics, examination of type specimens is only marginally useful. In his monograph of *Diaporthe*, Wehmeyer (1933) listed many synonyms under each of the species that he recognized. As in the case of *D. eres*, some of these names are older. Many names previously recognized in *Phomopsis* already have an older epithet in *Diaporthe* with the correct scientific names presented in the SMML Fungal Databases (<http://nt.ars-grin.gov/fungalatabases/>). However, a number of the most important and some recently described names in *Phomopsis* are here transferred to *Diaporthe*.

**Diaporthe amaranthophila** (Inácio *et al.*) Rossman & Udayanga, **comb. nov.**

MycoBank MB812492

*Basionym:* *Phomopsis amaranthophila* Inácio *et al.*, *Fitopatol. Brasil.* **24**: 185 (1999).

*Synonym:* *Phomopsis amaranthicola* Roskopf *et al.*, *Mycologia* **92**: 117 (2000); nom. inval. (Art. 40.3).

**Diaporthe annonacearum** (Bond.-Mont.) Rossman & Udayanga, **comb. nov.**

MycoBank MB812493

*Basionym:* *Phomopsis annonacearum* Bond.-Mont., *Acta Inst. bot. Komarov. Acad. Sci., Pl. Crypt., ser. 2* **3**: 721 (1936).

**Diaporthe bougainvilleicola** (M.M. Xiang *et al.*) Rossman & Udayanga, **comb. nov.**

MycoBank MB812494

*Basionym:* *Phomopsis bougainvilleicola* M.M. Xiang *et al.*, *Mycosystema* **22**: 516 (2003).

**Diaporthe caricae-papayae** (Petr. & Cif.) Rossman & Udayanga, **comb. nov.**

MycoBank MB812495

*Basionym:* *Phomopsis caricae-papayae* Petr. & Cif., *Annls mycol.* **28**: 412 (1930).

**Diaporthe cocoina** (Cooke) Rossman & Udayanga, **comb. nov.**

MycoBank MB812496

*Basionym:* *Phoma cocoina* Cooke, *Grevillea* **5**: 101 (1877).

*Synonyms:* *Phomopsis cocoina* (Cooke) Punith., *Trans. Brit. Mycol. Soc.* **64**: 435 (1975).

*Phyllosticta cocos* Cooke, *Grevillea* **8**: 94 (1880).

**Diaporthe cucurbitae** (McKeen) Udayanga & Castl., **comb. nov.**

MycoBank MB812623

*Basionym:* *Phomopsis cucurbitae* McKeen, *Canad. J. Bot.* **35**: 46. (1957).

This new combination was published in Udayanga *et al.* (2015) but without a registration number, so was not validly published there (Art. 42.1).

**Diaporthe juniperivora** (G.G. Hahn) Rossman & Udayanga, **comb. nov.**

MycoBank MB812497

*Basionym:* *Phomopsis juniperivora* G.G. Hahn, *Phytopathology* **10**: 249 (1920).

**Diaporthe leptostromiformis** (J.G. Kühn) Rossman & Udayanga, **comb. nov.**

MycoBank MB812498

*Basionym:* *Cryptosporium leptostromiforme* J.G. Kühn, *Ber. physiol. Lab. Versuch. landw. Inst. Univ. Halle:* [1] (1880).

*Synonyms:* *Phomopsis leptostromiformis* (J.G. Kühn) Bubák, *Danish Fungi:* 422 (1913).

*Diaporthe woodii* Punith., *Mycol. Pap.* **136**: 51 (1974).

**Diaporthe pterophila** (Nitschke ex Fuckel) Rossman & Udayanga, **comb. nov.**

MycoBank MB812508

*Basionym:* *Sphaeria pterophila* Nitschke ex Fuckel, *Jb. nassau. Ver. Naturk.* **23–24**: 377 (1870).

*Synonyms:* *Phomopsis pterophila* (Nitschke ex Fuckel) Died., *Annls mycol.* **9**: 28 (1911).

*Diaporthe samaricola* W. Phillips & Plowr., *Grevillea* **3**: 126 (1875).

**Diaporthe theae** (Petch) Rossman & Udayanga, **comb. nov.**

MycoBank MB812499

*Basionym:* *Phomopsis theae* Petch, *Ann. R. bot. Gdns Peradeniya* **9**: 324 (1925).

**Diaporthe vitimegaspora** (K.C. Kuo & L.S. Leu) Rossman & Udayanga, **comb. nov.**

MycoBank MB812500

*Basionym:* *Phomopsis vitimegaspora* K.C. Kuo & L.S. Leu, *Mycotaxon* **66**: 498 (1998).

*Synonym:* *Diaporthe kyushuensis* Kajitani & Kanem., *Mycoscience* **41**: 112 (2000).

**Use *Endothia* 1849 rather than *Calopactis* 1912**

The type species of *Endothia*, *E. gyrosa*, and the monotype species of *Calopactis*, *C. singularis*, were shown to be congeneric by Gryzenhout (2009) who recognized *C. singularis* as the asexual morph of *E. singularis*. A number of diseases are caused by species of *Endothia* such as stem and twig canker of chestnut caused by *E. singularis* (Sung & Han 1986). Given the widespread use of the name *Endothia* with 32 names and its priority over *Calopactis* with only one name, use of *Endothia* is recommended. *Endothia* but not *Calopactis* is included in Kirk *et al.* (2013).

**Use *Massariovalsa* 1882 rather than *Melanconiopsis* 1900**

The type species of *Massariovalsa*, *M. sudans*, is considered the sexual morph of *Melanconiopsis inquinans*, type species of *Melanconiopsis* (Wehmeyer 1939), thus these congeneric names are synonyms. Five names are included in *Massariovalsa* while eight fungi have been described in *Melanconiopsis*, some of which also have names in *Massariovalsa*. Suarez *et al.* (2000) discussed the disposition of three names in *Melanconiopsis* placing two of them in *Endomelanconium*. These generic names have been used about equally in the literature, referring primarily to *Massariovalsa sudans* (syn. *Melanconiopsis inquinans*). Neither genus has been recently monographed or studied using molecular data. Given the lack of rationale for using

*Melanconiopsis* and the lack of molecular data regarding the placement of species in either genus, the principle of priority should be followed, thus it is recommended that *Massariovalsa* be used. Both *Massariovalsa* and *Melanconiopsis* are listed in Kirk *et al.* (2013), thus it is recommended that *Melanconiopsis* be deleted.

### Use *Mastigosporella* 1914 rather than *Wuestneiopsis* 1990

The type species of *Mastigosporella*, *M. hyalina*, is considered to be the asexual morph of *Wuestneiopsis quercifolia* (as *Dicarpella quercifolia*) (Barr 1979, Nag Raj 1981). The generic type of *Wuestneiopsis* is *W. georgiana*. Both of these *Wuestneiopsis* names were placed in the illegitimate later homonym *Dicarpella* Syd. & P. Syd. 1921 non Bory 1824 by Reid & Dowsett (1990). Given that the type species of *Mastigosporella* and *Wuestneiopsis* were considered to be congeneric by Barr (1978) and that Reid & Dowsett (1990) suggested that *W. georgiana* may have a *Mastigosporella* asexual morph, these genera appear to compete for synonymy. The genus *Mastigosporella* containing two species was monographed by Nag Raj (1981) with another species, *M. anisophylleae*, added recently by Crous *et al.* (2013). Nag Raj (1981) examined the holotype of *W. georgiana* (as *Dicarpella georgiana*), which he considered to be the sexual morph of *M. nyssee*. Given that *Mastigosporella* is more widely used and has priority, use of *Mastigosporella* is recommended. Both *Mastigosporella* and *Wuestneiopsis* are listed in Kirk *et al.* (2013), thus *Wuestneiopsis* should be deleted. One new combination is needed.

***Mastigosporella georgiana*** (J.H. Mill. & G.E. Thomps.) Rossman & Crous, **comb. nov.**  
Mycobank MB812501

*Basionym:* *Gnomoniella georgiana* J.H. Mill. & G.E. Thomps.,  
*Mycologia* **32**: 8 (1940).

*Synonyms:* *Wuestneiopsis georgiana* (J.H. Mill. & G.E. Thomps.) J. Reid & Dowsett, *Canad. J. Bot.* **68**: 2406 (1990).

*Mastigosporella nyssee* Nag Raj & Di Cosmo, *Bibliotheca Mycol.* **80**: 57 (1981).

### Use *Mazzantia* 1855 rather than *Mazzantiella* 1925

The generic name for the sexual morph *Mazzantia*, based on *M. galii*, has been widely used and this genus includes 27 names. *Mazzantia galii* has been included in molecular studies of *Diaporthales* as a sister group for *Diaporthe* (Udayanga *et al.* 2014a). *Mazzantiella*, based on *M. sepium*, was described as the asexual morph of *Mazzantia sepia*, thus these type species are most likely congeneric. Each of the three names in *Mazzantiella* has a sexual morph name in *Mazzantia*, thus no name changes are required if *Mazzantia* is maintained. Given the greater use of *Mazzantia*, its priority, and the lack of required name changes, use of *Mazzantia* is recommended. *Mazzantia* but not *Mazzantiella* is listed in Kirk *et al.* (2013).

### Protect *Melanconis* 1863 over *Melanconium* 1832

Recently an account was provided of the type species of *Melanconis*, *M. stilbostoma* (Voglmayr *et al.* 2012) in distinguishing *Melanconis* from *Melanconiella*. The concept of *Melanconium* based on the type species, *M. atrum*, remains obscure with many species placed in other genera such as *Arthrinium*, *Greeneria*, and *Harknessia*. Conidial size and morphology of the lectotype specimen of *Melanconium atrum* is similar to *Melanconis alni*, but the latter is specific to *Alnus* and not known from *Fagus*, the host given for *M. atrum*; the true identity of *M. atrum* remains obscure (Voglmayr *et al.* 2012). Although more names exist in *Melanconium*, these generic names are reported in about equal numbers. Given the confusion surrounding *Melanconium* and the well-defined concept of *Melanconis*, we recommend that *Melanconis* be protected over *Melanconium*. Both generic names are listed in Kirk *et al.* (2013).

### Protect *Pilidiella* 1927 over *Schizoparme* 1923

The type species of *Pilidiella*, *P. quercicola*, is congeneric with the type species of *Schizoparme*, *S. straminea*, which is the sexual morph of *Pilidiella castaneicola* (van Niekerk *et al.* 2004). Species of the asexual *Pilidiella* have been more widely reported than those of the sexually typified *Schizoparme* (Samuels *et al.* 1993, Farr & Rossman 2015). Sixteen names exist in *Pilidiella* while only nine species of *Schizoparme* have been described, three of which already have names in *Pilidiella*. With the use of *Pilidiella* five species must be transferred from *Schizoparme*. However, more name changes would result if the name *Schizoparme* were used. Species of *Pilidiella* and the closely related but distinct genus *Coniella* are commonly encountered in plant-associated environments while the sexual morph *Schizoparme* is rarely reported, thus we recommend the use of *Pilidiella*. A number of diseases are caused by *Pilidiella*, including foliage blight of quaresmeira (*Tibouchina granulosa*) in Brazil caused by *P. tibouchinae* (Miranda *et al.* 2012), and crown and stem rot of pomegranate (*Punica granati*) caused by *P. granati* (Celiker *et al.* 2012). *Pilidiella* is not listed in Kirk *et al.* (2013) and should be added while *Schizoparme* should be deleted.

***Pilidiella angustispora*** (Samuels *et al.*) Rossman & Crous, **comb. nov.**  
Mycobank MB812502

*Basionym:* *Schizoparme angustispora* Samuels *et al.*,  
*Mycotaxon* **46**: 465 (1993).

***Pilidiella calamicola*** (J. Fröhl. & K.D. Hyde) Rossman & Crous, **comb. nov.**

Mycobank MB812503

*Basionym:* *Schizoparme calamicola* J. Fröhl. & K.D. Hyde,  
*Palm Microfungi*: 255 (2000).

***Pilidiella pseudogranati*** (Crous) Rossman & Crous, **comb. nov.**

Mycobank MB812504

*Basionym:* *Schizoparme pseudogranati* Crous, *Persoonia* **32**: 219 (2014).

**Pilidiella stromatica** (Samuels *et al.*) Rossman & Crous, **comb. nov.**  
 MycoBank MB812505  
*Basionym:* *Schizoparme stromatica* Samuels *et al.*,  
*Mycotaxon* **46**: 474 (1993). 1993

**Pilidiella terminaliae** (Samuels *et al.*) Rossman & Crous, **comb. nov.**  
 MycoBank MB812506  
*Basionym:* *Schizoparme terminaliae* Samuels *et al.*,  
*Mycotaxon* **46**: 478 (1993).

### **Protect *Plagiostoma* 1870 over *Diplodina* 1857, and the additional synonyms *Septomyxa* 1884 and *Cryptodiaporthe* 1921**

The type species of *Plagiostoma*, *P. euphorbiae*, has served as the basis for a monographic account of this genus (Mejia *et al.* 2011a) including a number of plant pathogens such as *P. populinum*, cause of bark necrosis of white poplar (Melnik & Zarudnaya 2008). The type species of *Diplodina*, *D. salicis*, is considered a synonym of *D. microsperma* by Sutton (1980), the asexual morph of *Plagiostoma apiculata* (Mejia *et al.* 2011a); thus *Diplodina* and *Plagiostoma* are synonyms. Although *Diplodina* includes several hundred names, these names have been placed in diverse genera, such as *Ascochyta*, *Discella*, *Microdiplodia*, and *Phloeospora*, suggesting that the concept of *Diplodina* is poorly defined. The concept of *Plagiostoma*, however, is well-defined, and there are two recent monographic works on the genus including many new species (Mejia *et al.* 2011a, Walker *et al.* 2014). These accounts suggest that the protection of this generic name is warranted, which would prevent a significant number of name changes. The type species of *Septomyxa*, *S. aesculi*, and *Cryptodiaporthe*, *C. aesculi*, are both regarded as *Plagiostoma aesculi* (Mejia *et al.* 2011a), thus those later generic names are synonyms of *Plagiostoma*. Sutton (1977) listed six additional generic synonyms of *Diplodina* but this synonymy could not be confirmed. *Plagiostoma*, *Cryptodiaporthe*, and *Diplodina*, but not *Septomyxa*, are listed in Kirk *et al.* (2013), thus *Cryptodiaporthe* and *Diplodina* should be deleted.

### **Use *Stilbospora* 1794 rather than *Prostheciium* 1852**

The type species of *Stilbospora*, *S. macrosperma*, is the name applied to the asexual morph of the type species of *Prostheciium*, *P. ellipsosporium*; thus these generic names are synonyms (Voglmayr & Jaklitsch 2014). At present 26 names have been described in *Prostheciium*, while 85 names were placed in *Stilbospora*; however, most names in *Prostheciium* and *Stilbospora* should most likely be excluded from both of these genera (Voglmayr & Jaklitsch 2014). *Stilbospora* appears to be more widely used, has priority, and has recently been monographed with three accepted species (Voglmayr & Jaklitsch 2014). In addition, many species of *Prostheciium* were redisposed in *Stilbospora* and *Stegonsporium* (Voglmayr & Jaklitsch 2008). *Stilbospora* appears to be more widely used, has priority, and has recently been monographed (Voglmayr & Jaklitsch 2014); thus, we recommend the use of *Stilbospora*. Both names are included in Kirk *et al.* (2013), and *Prostheciium* should therefore be deleted.

## **ACKNOWLEDGEMENT**

Hermann Voglmayr acknowledges financial support by the Austrian Science Fund (FWF; project P27645-B16).

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