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Recommendations about Generic Names Competing for Use in the Leotiomycetes

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Abstract:

Towards advancing to one scientific name for fungi, this paper treats genera competing for use in the phylogenetically defined class *Leotiomycetes* except for genera of the *Erysiphales.* Two groups traditionally included in the so-called “inoperculate discomycetes” have been excluded from this class and are also not included here, specifically the *Geoglossomycetes* and the *Orbiliomycetes*. A recommendation is made about the generic name to use in cases in which two or more generic names are synonyms or taxonomically congruent along with the rationale for the recommendation. In some cases the recommended generic name does not have priority or is based on an asexual type species, thus needs approval according to Art. 57.2 of the International Code of Nomenclature of algae, fungi and plants (ICN). A table is presented listing all competing generic names and their type species noting the recommended generic name. The following new names are introduced:

Key words: Ascomycetes, Fungi, inoperculate discomycetes, one name-one fungus, taxonomy, unit nomenclature

Introduction

As a contribution to the ‘one fungus-one name’ process resulting from changes introduced with the Melbourne Code (McNeill et al. 2012), this paper reviews genera competing for use in the class *Leotiomycetes.* A recommendation is made about the name to use in cases where two or more generic names are synonyms or taxonomically congruent. In some cases the recommended generic name does not have priority or is based on an asexual type species and thus needs approval according to Art. 57.2 of the International Code of Nomenclature of algae, fungi and plants (ICN). The background to the changes in the Code and the need for papers such as this one resulting in lists of accepted names (McNeill et al. 2012, Article 14.13) is provided by Rossman et al. (2013).

Many species of the *Leotiomycetes* have cup-shaped, often stalked ascomata with a widely exposed hymenium of unitunicate asci and sterile paraphyses arranged in a compact palisade. These fungi are ecologically diverse and include plant pathogens, saprobes of leaves and wood, endophytes, mycorrhizas, and aquatic hyphomycetes (Wang et al. 2006a,b). This breadth of ecology means that different research communities have worked more or less independently on these fungi, for example, some primarily dealing with aquatic fungi while others are concerned with plant pathogens. Likewise, researchers in the mycological community have often been concerned with asexual taxa while others have dealt primarily with fungi that primarily produce a sexual state. In an attempt to determine the correct single name to be applied to a pair of sexual-asexual genera, these communities are working together to determine the “best” or most widely accepted name for genera that represent the same group of related species regardless of whether the type species represents the sexual or asexual morph.

Traditionally the *Leotiomycetes* having morphologically similar ascomata and asci were regarded as an informal group termed the “inoperculate discomycetes” differentiated from the “operculate discomycetes” or *Pezizales*. The phylogenetically defined class *Leotiomycetes* within the subphylum *Pezizomycotina* does not include some of the groups previously considered to be “inoperculate discomycetes” such as the *Orbiliomycetes* and *Geoglossomycetes* (Wang 2006 a,b; Husted & Miller 2011); these groups are not considered in this paper. The class *Leotiomycetes* does include the ecologically specialised *Erysiphales*, the powdery mildews (Braun & Cook 2011); however, the genera and species of this order have already been considered by Braun (2013).

Within the *Leotiomycetes*, considerable taxonomic confusion exists at all levels, thus the orders and families are not mentioned for the genera considered here.The confusion extends to the genus level, making some decisions about connections between genera based on sexual and asexual morphs impossible at this time. For example a confused taxonomy has existed for the genera *Mollisia* and *Cadophora.* After de Hoog et al. (2000) showed that the type species of *Phialophora* is not a member of the *Leotiomycetes,* the name *Cadophora* Lagerb. & Melin was adopted by Gams (2000) for the phialophora-like asexual morphs of some *Mollisia* spp. Subsequently, it was determined that specimens representing the type species of *Mollisia*, *M. cinerea*, and *Cadophora*, *C. fastigiata*, belong in divergent clades (Day et al. 2012, Baschien et al. 2013) and these two genera do not represent the same lineage. A maximum likelihood tree places *Cadophora* *sensu stricto* into *Rhynchosporium* (Baschien et al. 2013) along with *Mollisia dextrinospora*, whereas *Mollisia* *sensu stricto* belongs in the *Vibrissea*-*Loramyces* clade (Wang et al. 2006a,b). Thus these genera are not taxonomically congruent, meaning that they do not circumscribe the same set of species and thus do not compete with each other for use as the single name for the genus represented by the type and related species.

Taxonomic confusion also results if a genus as currently conceived is not monophyletic. For example, the type species of the large genus *Lophodermium* is the grass-inhabiting *L. arundinaceum* (Johnston 2001)*.* This species is phylogenetically distinct from the important pine-inhabiting species such as *Lophodermium pinastri* and *L. seditiosum* (Lantz et al. 2011). In determining which genus names might compete with *Lophodermium*, only the type species influences this decision. The pine-inhabiting species must be placed in another genus unless *Lophodermium* is conserved with a new type species from among the pine-inhabiting species. The names of the asexual morphs connected with species of *Lophodermium* on pine such as *L. conigenum* are placed in *Leptostroma,* in this case *L. pinorum* (Minter 1980). However, the type species of *Leptostroma* is *L. scirpi*, again not congeneric with *L. pinorum* (Lantz et al. 2011). Thus, although *Lophodermium* *conigenum* is the sexual morph of *Leptostroma pinorum*, neither genus is appropriate for these species. Thus, in establishing the correct names for competing genera, the first step is always to review the phylogenetic status of their type species.

Many of the generic names of *Leotiomycetes* are old, especially those of the asexual morphs. DNA sequences are available for few of the type species, most certainly not from the type specimen but also not from a representative or epitype specimen. Thus, resolving the taxonomic issues amongst these fungi is difficult; however, knowing the phylogenetic position of the type species of competing genera is crucial. In addition, many genera, especially those applied to asexual morphs, are polyphyletic often including several hundred names described in the 1800’s that have since been placed outside the genus or that remain obscure. This resulted from asexual genera having previously been regarded as form-genera rather than representing monophyletic genera.

In reviewing the potentially competing generic names for sexual and asexual morphs of aquatic fungi, it was determined that only one of these appears to be truly taxonomically congruent. The names applied to the sexual and asexual morphs of a species are mostly based on polyphyletically defined genera in which the type species is not congeneric with the names used for the connected species names. For example, *Dimorphospora* *foliicola*, the monotype species of *Dimorphospora,* has a sexual morph placed in *Hymenoscyphus*. However, the type species of *Hymenoscyphus. H. fructigenus,* and *Dimorphospora foliicola* are probably not congeneric. A BLAST search of sequences from *D. foliicola* does not link *Dimorphospora* with *Hymenoscyphus.* Also, in Baschien et al. (2013), the ex-type culture of *D. foliicola* does not appear in a clade together with *Hymenoscyphus*. As another example *Tricladium splendens*, type of the genus *Tricladium,* has a sexual morph named *Hymenoscyphus* *splendens.* The latter species appears to be closely related to *H. varicosporoides* (Seena et al. 2010, Baschien et al. 2013), however, *H. varicosporoides* is considered the sexual morph a *Tricladium* (Sivichai et al. (2003) that is conspecificwith an isolate of *T. indicum* from South Africa for which Webster et al. (1995) described the sexual morph as *Cudoniella indica.* Given the differences in morphology between the aquatic hyphomycetes and their sexual morphs and the tendency towards morphological convergence in this habitat, determining whether these taxa are congeneric is difficult without molecular phylogenetic data.

Based on the type species, pairs of genera representing sexual and asexual morphs were investigated to determine if these generic names circumscribed the same group of species. If the type species of two genera represent the same species, then the respective genera are considered **synonyms**. If the type species of one genus is judged to be congeneric with the type species of the other genus, i.e. the type species circumscribe the same set of related species, these generic names are described as **taxonomically congruent** or congeneric. If molecular phylogenetic data are available, these are used to determine if type species are congeneric. If phylogenetic data are not avilable but it appears likely that the genera are congeneric, they are included. If later it is determined that these genera are not taxonomically congruent, then both generic names are available for use.

Based on the literature and discussion among users, one genus name of competing is recommended for use. Generic names compete for priority regardless of whether the type species represents a sexual or asexual morph. In most cases the generic name that has priority, i.e. the name that was described first, is recommended. However, a number of factors contribute to a recommendation that priority be over-ruled. One factor is the potential number of names changes required as included partially by the number of species names placed in each genus. This was determined by consulting current literature and by the number of names listed under each genus in *Index Fungorum*. A second factor is the frequency of use of each genus name as determined by searches of database resources such as Google, Google Scholar, MycoBank, and the SMML Fungal Databases. Consideration is given to which genus name is used most commonly and its importance to user communities. Finally this document was circulated among a number of users for comments as indicated in the Acknowledgements.

For each genus a discussion is presented of the rationale for this recommendation and inclusion on this list of protected genera of the Leotiomycetes. If a sexual genus that is younger than an asexual genus is recommended for use, then the term **protect** indicates that this genus does not have priority and thus must be effectively conserved. If an asexual genus has priority i.e. it is the oldest genus, and is recommended for use, then the term **protect** is indicates that this genus has priority but has an asexual type species and therefore must be protected as dictated in Article 57.2 of the ICN. These are the two situations in which action is needed such that these genera must be approved by the Committee for the Nomenclature of Fungi of the IAPT. For competing genera in which the genus representing the sexual morph has priority and is recommended for use, no action is needed even though the name is included on this list. Finally, if the generic synonymy is relatively conclusive, species names have been evaluated for priority. New combinations are made if an older epithet exists for the type and other species that must be placed in the genus recommended for use.

Generic names are presented in Table 1 with the recommended genus listed first and in bold. For each generic name, the place of publication and the type species with its place of publication and the currently accepted species name are listed. Additional synonyms of the recommended generic name are listed in the third column. If action is needed, this is noted in the last column.

**Rationale for recommendation of a single generic name:**

**Protect *Ascocalyx* 1926 (S) over *Bothrodiscus* 1907 (A) and *Pycnocalyx* 1916 (A).**

The sexual genus *Ascocalyx,* type species *A. abietis,* and the asexual genus *Bothrodiscus,* having the type species *B. bernice* now referred to as *B. pinicola,* were shown to be morphs of the same fungus by Groves (1936) by isolation of identical colonies from ascospores and conidia. In addition, the monotypic genus *Pycnocalyx,* with the type species *P. abietis,* is also considered a taxonomic synonym of *Ascocalyx* and *A. abietis* (Groves 1936);despite the identical species epithets, the names are heterotypic. Thus, these three generic names are considered synonyms. Seven species names have been placed in *Ascocalyx,* with only four remaining in that genus, while two of the three names in *Bothrodiscus* are synonyms. All species of this genus occur on the *Pinaceae* on which they cause minor cankers (refs.). *Ascocalyx* is the most frequently used genus name, therefore, we recommend that *Ascocalyx* be protected over the two younger asexually typified genera. Based on this recommendation, the binomial of the type and most commonly encountered species, a fungus causing a canker on pine (Kondo & Kobayashi 1984), must be changed as follows:

*Ascocalyx berenice* (Berk. & M.A. Curtis) Rossman comb. nov. MycoBank: MB \*\*\*\*\*.

Basionym: *Fusisporium berenice* Berk. & M.A. Curtis in Berkeley, *Grevillea* 3(no. 28): 147. 1875.

= *Bothrodiscus* *pinicola* Shear, *Bull. Torrey bot. Club* 34: 313. 1907.

= *Ascocalyx abietis* Naumov, *Morbi Plant. Script. Sect. Phytopath. Hort. Bot. Prince. USSR* 14: 138. 1926.

= [*Pycnocalyx*](http://www.speciesfungorum.org/Names/Names.asp?strGenus=Pycnocalyx) *abietis* Naumov, *Zap. Ural'sk. Obšč. Ljubit. Estestv.* 35(11-12, Champ. Ourall.): 35 (1916)

Note: Although the differentiation of *Ascocalyx abietis* from *Gremmeniella abietina* has sometimes been a matter of discussion (Petrini et al. 1989), the two are now generally considered distinct. The epithets for *A. berenice* as *A. abietis* and *G. abietina* should not be confused; these are two different fungi. The latter is the cause of a serious canker disease of conifers and has sometimes been classified in *Ascocalyx,* thus the use of this generic name in the literature may sometimes refer to *G. abietina*.

**Use *Ascoconidium* Seaver 1942 (A) over *Sageria* Funk1975 (S)**

The type species of *Ascoconidium, A. castaneae,* was described as the asexual morph of the earlier *Dermatea* *purpurascens* (Seaver, 1942), while the type species of *Sageria, S. tsugae,* is the sexual morph of *A. tsugae* (Funk 1975). Although one might question whether these two species are congeneric, Nag Raj & Kendrick (1975) present a convincing case for the generic synonymy, showing that both asexual morphs have large phialides with conidiogenous loci at the base and apices that rupture to release large, cylindrical, multiseptate conidia. The sexual morphs are likewise similar. Thus these generic names are regarded as taxonomically congruent, although there is presently no DNA sequence data to confirm this. The two genera, each with two named species, are well characterised. Although the species are considered minor pathogens, neither species is economically significant. Neither genus name is widely used. One argument in favour of *Sageria* is that ‘ascoconidium’ is also used as a technical term (Kirk et al. 2008) for conidia that arise from ascospores within asci; in fact, Seaver (1942) derived the generic name from this term. We propose following priority and recommend the older asexual genus name for use. The most commonly reported species is *Ascoconidium purpurascens* often as *Sageria purpurascens* or *Dermatea purpurascens* on *Castanea* in eastern North America (Verkley 1999). If *Ascoconidium* is used and *S. purpurascens* is considered a synonym of the type species, *A. castaneae*, then the basionym *Dermatea purpurascens* must be transferred to *Ascoconidium*.

*Ascoconidium purpurascens* (Ellis & Everh.) Rossman comb nov. MycoBank: MB \*\*\*\*\*.

Basionym: *Dermatea purpurascens* Ellis & Everh., J. Mycol. 4: 100. 1888.

= *Sageria purpurascen*s (Ellis & Everh.) ????

= *Ascoconidium castaneae* Seaver, Mycologia 34: 414. 1942.

**Protect *Ascocoryne* 1967 (S) over *Coryne* 1816 (A), *Pirobasidium* 1902 (A), *Pleurocolla* 1924 (A) and *Endostilbum* 1964 (A).**

The type species of the genus *Coryne,C. dubia*, isthe asexual morph of the type species of *Ascocoryne, A. sarcoides.* This genetic connection has been proven by culturing of ascospores and conidia (ref), and the two genera are synonyms. This species protects wood from decay by basidiomycetes and has been explored as a biological control of *Heterobasidion annosum* in Scandinavia, mostly under the confused moniker *Coryne sarcoides* (ref). The complexities of the nomenclature and typification of these two genera was described by Grove & Wilson (1967), who convincingly demonstrated that the epithet *sarcoides* should be applied to the sexual morph. *Pirobasidium* was based on the same epithet *sarcoides* but described as a new species by Höhnel (1902), and *Endostilbum is* typified by the asexual morph of a different species of *Ascocoryne, A. solitaria.* Both generic names predate *Ascocoryne.* Seifert *et al.* (2001) added *Pleurocolla,* typified by *P. tiliae,* to the list of asexual state names that precede *Ascocoryne. Coryne* includes 69 names, few of them considered in the last fifty years. Unpublished type and field studies by Seifert (pers. comm.) suggest that the number of species attributable to this genus may be large. Seven names are included in *Ascocoryne*, five of which are still classified in *Ascocoryne,* of whichtwo or three of them have known asexual morphs. At first glance, protection of *Ascocoryne* could require numerous name changes but the comparative obscurity of most of the names in *Coryne* suggests that this is unlikely. The generic concept of *Ascocoryne* has always been well-circumscribed and is presumably monophyletic whereas the classical concept of *Coryne* is heterogeneous. Also, *Coryne* is used for a genus of hydrozooans. Two of the other generic synonyms based on asexual morphs, *Pirobasidium* and *Endostilbum,* are monotypic and obscure; the third generic synonym, *Pleurocolla*, is also obscure but has been used mostly for a non-type species, *P. compressa,* which is a basidiomycete now classified in *Leucogloea (ref.)*. *Ascocoryne sarcoides* is used in the conversion of cellulosic biomass to liquid biofuels (Gianoulos 2012). For these reasons, we suggest protection of *Ascocoryne* over *Coryne* and the other names based on asexual morphs. This requires only a single name change for a species with known sexual and asexual morphs:

*Ascocoryne trichophora* (A.L. Smith) Seifert, comb. nov. MycoBank: MB \*\*\*\*\*.

Basionym: *Heydenia trichophora* A.L. Smith, *J. Linn. Soc., Bot.* **35**: 13. (1901).

≡ *Coryne trichophora* (A.L. Smith) Seifert, *Stud. Mycol.* 31: 159 (1989)

**Protect *Ascodichaena* 1977 (S) over *Polymorphum* 1822 (A) and *Psilospora* 1856 (A).**

Butin (1977) established *Ascodichaena* based on the type species *A. rugosa* as a sexual name for the asexual *Polymorphum rugosum.* The type species of *Polymorphum, P. fagineum*, was validated by Hawksworth & Punithalingham (1973) because the basionym *Opegrapha faginea* was originally invalid. They also considered the three species of *Polymorphum* including the type species, *P. fagineum,* to be synonyms of *P. rugosum*. Similarly *Psilospora* also based on *Opegrapha faginea*, later *Polymorphum fagineum*, is another synonym. A second species of *Ascodichaena, A. mexicana,* was described by Butin (1990). *Ascodichaena* is used more frequently than *Polymorphum*, because of its occurrence on and possible contribution to the declines of *Fagus* and *Quercus* in Europe (Minter & Cannon 2002.). Therefore, *Ascodichaena* is proposed for conservation and no name changes are required.

[KEITH to provide references.]

**Protect *Blumeriella* 1961 (S) over *Microgloeum* 1922 (A) and *Phloeosporella* 1924 (A) and conserve the name *Blumeriella jaapiii.***

*Blumeriella jaapii*, the type species of *Blumeriella*, causes shot-hole of *Prunus*, a common disease in temperate regions. The disease is also commonly called Coccomyces leaf spot and sometimes attributed to the name *Coccomyces hiemalis,* now widely accepted as a taxonomic synonym of *B. jaapii*. The asexual morphs of *B. jaapii* have been referred to as *Phloeosporella padi* for the macroconidial morph and *Microgloeum pruni* for the microconidial morph. Because *M.* *pruni* is the type species of *Microgloeum*, the generic names *Blumeriella* and *Microgloeum* have types that represent the same species and are thus synonyms. The name *P. padi* based on *Ascochyta padi* Lib. 1832, also commonly used for the cause of shot-hole of *Prunus,* is not the type species of *Phloesporella*. At present it is unclear whether *Phloeosporella* is congeneric with *Blumeriella* and *Microgloeum* because no DNA sequence data exist for the type species of *Phloeosporella, P. ceanothi*, causing leaf spot and dieback of *Ceanothus.* The only available data for *B. jaapii* is for α-deamylase CYP51, a gene that is not used in fungal phylogenetics. Because of the common use of the name *Blumeriella jaapii* for the widespread shot-hole disease of *Prunus*, and its frequent appearance on lists of regulated pests in countries with a stone fruit agricultural sector, it is essential to protect the generic name *Blumeriella* over *Microgloeum* and *Phloeosporella*. In addition, the species name *Pseudopeziza jaapii* would need to be conserved over the older names *Ascochyta padi* 1832 and *Hainesii feurichii* 1906. Given the prevalent use of *Blumeriella* *jaapii* for this disease in regulatory documents internationally, and the lack of certainty about its relationship to the type species of *Phloeosporella*, it seems prudent to conserve the genus *Blumeriella* and the species name for *B. jaapii*.

Among the species in *Blumeriella* with named asexual states in *Cylindrosporium*, one new combination is required. Many additional new names may be required for species of *Cylindrosporium* that are determined to be congeneric with *Blumeriella*.

*Blumeriella filipendulae* (Thüm.) Rossman comb. nov.

Basionym: [*Cylindrosporium*](http://www.indexfungorum.org/Names/Names.asp?strGenus=Cylindrosporium) *filipendulae* Thüm., *Symb. mycol. austr.* 2: 146 (1878)

≡ [*Phloeosporella*](http://www.indexfungorum.org/Names/Names.asp?strGenus=Phloeosporella) *filipendulae* (Thüm.) M.A. Will. & E.C. Bernard, *Can. J. Bot.* 66: 2052 (1988)

= [*Blumeriella*](http://www.indexfungorum.org/Names/Names.asp?strGenus=Blumeriella) *haddenii* M.A. Will. & E.C. Bernard, *Can. J. Bot.* 66(10): 2051 (1988)

*Blumeriella ceanothi* (Ellis & Everh.) Rossman comb. nov..

Basionym *Cylindrosporium ceanothi* Ellis & Everh., *Proc. Acad. nat. Sci. Philad.* **43**: 84. (1891)

≡ *Phloeosporella ceanothi* (Ellis & Everh.) Höhn., *Annls mycol.* **22**(1/2): 201 (1924)

**Protect *Botrytis* 1794 (A) over *Botryotinia* 1945 (S)**.

*Botrytis cinerea*, the type species of *Botrytis*, is an important and ubiquitous plant pathogen and also the cause of ‘noble rot’ exploited for the production of Tokaj, Sauternes, Beerenauslese, and Trockenbeerenauslese wines. When the sexual morph of *Botrytis cinerea* was discovered, it was placed in the genus *Botryotinia* as *B. fuckeliana* (Whetzel 1945)*.* The type species of *Botryotinia, B. convoluta*, basionym [*Sclerotinia*](http://www.indexfungorum.org/Names/Names.asp?strGenus=Sclerotinia) *convoluta,* and *Botrytis cinerea* are congeneric as indicated using ITS sequences (Holst-Jensen et al. 2004). Although their types are not the same species, *Botrytis* and *Botryotinia* are taxonomically congruent. More than 400 species were described in the classical concept of *Botrytis*, many of them excluded by Hughes (1958) and Hennebert (1963), and the status of many names remains poorly known. Only 20 names are included in *Botryotinia*, most also named in *Botrytis*. The name *Botryotinia fuckeliana* is mentioned only in connection with *Botrytis cinerea*. Other important plant diseases usually referred to by their *Botrytis* names include *B. aclada* and *B. allii,* major pathogens of onions worldwide, *B*. *convoluta* on *Iris* rhizomes, *B. fabae* causing chocolate spot on beans, *B. narcissicola* on bulbs and leavesof daffodils, *B. paeoniae* causing wilt on peonies,and *B. tulipae* causing ‘fire’ disease of tulips. Changing these names would severely disrupt the plant pathological literature. Despite its originally heterogeneous classical concept, *Botrytis* has been used in a taxonomically and phylogenetically consistent way for at least 50 years and no confusion or imprecision would follow from the use of this name for the genus. A round table discussion on *Botrytis* and *Botryotinia* and the consequences of ‘one name’ was held by users of these names during the XVIth International *Botrytis* Symposium, Locorotondo, Italy, June 23-28, 2013. There was unanimous support for retaining use of the name older name *Botrytis*. Given the frequency with which *Botrytis* *cinerea* is observed, recognition of this name, and the number of described species in *Botrytis*, it seems expedient to propose the generic name *Botrytis* for protection over *Botryotinia*. Two new combinations are needed for species of *Botryotinia:*.

*Botrytis arachidis* (I. Hino) Seifert & Kohn, comb. nov.

Basionym: [*Sclerotinia*](http://www.indexfungorum.org/Names/Names.asp?strGenus=Sclerotinia) *arachidis* I. Hino, *Collect. Bot. Pap.*: 215 (1911)

≡ *Botryotinia arachidis* (I. Hino) W. Yamam., *Trans. Mycol. Soc. Japan* 2(no. 2): 4 (1959)

*Botrytis fritillarii-pallidoflori* (Q.T. Chen & J.L. Li) Seifert & Kohn, comb. nov.

Basionym: [*Botryotinia*](http://www.indexfungorum.org/Names/Names.asp?strGenus=Botryotinia) *fritillarii-pallidiflori* Q.T. Chen & J.L. Li, *Acta Mycol. Sin.* 6(1): 15 (1987)

**Use *Calloria* 1836 (S) rather than *Cylindrocolla* 1851 (A), *Creothyrium* 1925 (A) or *Callorina* 1971 (S).**

The type species of *Calloria, C. fusarioides,* recently regarded as *C. neglecta*, is considered the sexual morph of the type species of *Cylindrocolla, C. urticae*, thus these types represent the same species and the two genera are synonyms (Hein 1976, Seifert 2011). *Callorina* was also described for the same species, thus this is another synonymous generic name. The monotypic genus *Creothyrium,* based on *C. pulchellum,* is obscure but Sutton (1977) considered it a synonym of *Cylindrocolla*. *Calloria* includes 122 names, only a few of which have been accounted for in recent monographs such as Hein (1976), while *Cylindrocolla* has never been monographed and includes 33 names, most of which are not considered in recent literature. No DNA sequence data exist for any species of this genus. *Calloria* has priority and because neither genus name is widely used, we choose to follow priority. However, the oldest epithet for the type species of both *Calloria* and *Cylindrocolla* must be transferred to *Calloria*.

*Calloria urticae* (Pers. : Fr.) Seifert comb. nov. MycoBank: MB \*\*\*\*\*.

Basionym: *Tremella urticae* Pers. : Fr., *Syn. meth. fung.* (Göttingen) **2**: 628 (1801).

≡ *Dacrymyces urticae* (Pers. : Fr.) Mart**.**, *Fl. crypt. erlang.* (Nürnberg): 368 (1817)

= *Peziza neglecta* Lib., Plantes Crypt. Ard., Nr. 29. 1832.

≡ [*Calloria*](http://www.indexfungorum.org/Names/Names.asp?strGenus=Calloria) *neglecta* (Lib.) B. Hein, *Beih. Willdenowia* 9: 54 (1976)

= [*Peziza*](http://www.indexfungorum.org/Names/Names.asp?strGenus=Peziza) *fusarioides* Berk., *Mag. Zool. Bot.* 1: 46 (1837)

≡ [*Calloria*](http://www.indexfungorum.org/Names/Names.asp?strGenus=Calloria) *fusarioides* (Berk.) Fr., *Summa veg. Scand.*, Section Post. (Stockholm): 359 (1849)

≡ *Mollisia fusarioides* (Berk.) Gillet, Champ. De France Discom., 120. 1879.

≡ *Callorina fusarioides* (Berk.) Korf, Phytologia 21:203. 1971.

**Use *Calycellina* 1918 (S) rather than *Chaetochalara* 1965 (A)**

The genus *Calycellina* based on *C. punctiformis*, now regarded as *C. punctata* (Lowen & Dumont (1984), includes 61 species. Although no asexual state is known for this species, another species, *C. carolinensis*, included in this genus by Lowen & Dumont (1984), was considered to have an asexual state named *Chaetochalara aspera.* The genus *Chaetochalara* based on ??? and including *C. aspera* and *C. bulbosa* was monographed by Nag Raj & Kendrick (1975) including eight species. Based on this literature *Calycellina* and *Chaetochalara* are considered taxonomically congruent. Given that *Calycellina* is the oldest name and has the most species, that generic name should be used. Most of the other names in *Chaetochalara* are now recognized in *Chalara* (Kirk 1984).

One new combination is made here:

*Calycellina aspera* (Piroz. & Hodges) Rossman comb. nov.

Basionym: *Chaetochalra aspera* Piroz. & Hodges, *Can. J. Bot.* 51(1): 157 (1973)

= *Calycellina carolinensis* Nag Raj & W.B. Kendr., *Monogr. Chalara Allied Genera* (Waterloo): 183 (1975)

**Protect *Chaetomella* 1870 (A) over *Zoellneria* 1934 (S), *Volutellospora* 1965 (A) and *Harikrishnaella* 1972 (A).**

Recent research has demonstrated that *Chaetomella* based on the type species, *C. oblonga,* is congeneric with *Zoellneria* based on *Z. rosarum* (Johnston & Baral, pers. comm.). In addition, *Index Fungorum* (2014) lists *Amerisporium patellarioides* as a synonym of *Zoellneria rosarum*; the former is also considered a synonym of *C. oblonga* (Rossman et al. 2004). Thus these three genera appear to be taxonomically congruent. The genus *Chaetomella* with about 40 names has been well-defined with species widely reported from plant hosts (Rossman et al. 2004) and some species are a source of the potential anticancer drugs based on inhibitors of Ras farnesyl-protein transferase (Bills et al. 1995). *Zoellneria,* with only six species, is relatively obscure. *Volutellospora* and *Harikrishnaella* were shown to be taxonomic synonyms of *Chaetomella* (Rossman et al. 2004). Given the frequent citation of *Chaetomella* and the number of species included in that genus, we recommend following priority and protecting *Chaetomella* as the name for this genus. Species in *Chaetomella* remain unchanged while not enough is known about the other two species in *Zoellneria* to make any name changes.

**Conserve *Chlorociboria* 1958 (S) over *Dothiorina* 1911 (A).**

The type species of *Chlorociboria* is the commonly encountered *C. aeruginosa;* the genus consists of 34 names including a number of species known primarily from New Zealand (Johnston & Park 2005). Dixon (1975) suggested that the asexual morph of *C. aeruginascens* might be the coelomycete *Dothiorina,* based on *D. tulasnei,* but a convincing connection between the two has not been made. *Dothiorina tulasnei* was little known until Sanchez & Bianchinotti (2007) provided a detailed description including an analysis of conidiogenesis. They concluded that *D. tulasnei* was not the asexual morph of *C. aeruginascens* based on significant deviations in in phialide morphology and conidial shape compared to what is known about *C. aeruginosa in vitro.* They questioned the classification of the two other species in *Dothiorina*, excluding *D. discoidea* and *D. subcarnea*. Although *Chlorociboria* is well-represented in GenBank, no DNA sequences of *Dothiorina* are available for comparison.The prevalence of the well-known name *Chlorociboria,* the number of species in that genus, and the lack of clarity about whether *Dothiorina* is actually a synonym argue that *Chlorociboria* should be proposed for conservation. No name changes are required.

**Protect *Claussenomyces* 1923 (S) over *Dendrostilbella* 1905 (A).**

The type species of *Claussenomyces, C. jahnianus*, was included in the monograph of Korf & Abawi (1971), with a key to four species including *C. prasinulus* (≡ *Peziza prasinula*). Seifert (1985) presented a morphological revision of the type species of *Dendrostilbella, D. prasinula*, considering it the asexual morph of *C. prasinulus* based on the observations of Dennis (1956), but he noted that the morphological species, *D. prasinula*, was associated with both *C. atrovirens* and *C. prasinulus*. No DNA sequence data exist for species of either genus to assist with our taxonomic interpretation. Based on these publications, *Claussenomyces* and *Dendrostilbella* are considered taxonomic synonyms, although it remains to be shown with DNA sequence analysis that *C. jahnianus* and *C. prasinulus* are actually congeneric. Although 23 species were named in *Dendrostilbella*, many are now placed in other genera (Seifert 1985). Nineteen species are currently accepted in *Claussenomyces* based on Korf & Abawi (1971), Ouellet & Korf (1979), Gamundí & Gialotti (1995), and Medardi (2007), although some of these species may not be congeneric with *C. jahnianus.* Considering the amount of recent taxonomic work on *Claussenomyces* and the number of accepted species, it seems advisable to protect *Claussenomyces* for this genus defined by its type species. At present not enough is known about the relationships among *Dendrostilbella* to make new combinations.

**Protect *Coma* 1972 (A) over *Ascocoma* 1987 (S).**

The type species of *Coma, C. circularis*, is the presumed asexual morph of the type species of *Ascocoma, A. eucalypti* (Swart 1986, Beilharz & Pascoe 2005). Although so far based on coincidental occurrence, if this connection is correct, then these genera represent the same species and are synonyms. Clearly, *Ascocoma* was named in full awareness that it was the same fungus as *Coma.* Using *Ascocoma* would require transferring *Pestalozziella circularis* into that genus, whereas use of *Coma* requires only that the orphan variety, *A. eucalypti* var. *didymospora*, be transferred to *Coma*. We recommend following priority for the choice of the generic name and make the formal new combination here.

*Coma eucalypti* var. *didymospora* (Swart) Rossman comb. nov. MycoBank: MB \*\*\*\*\*.

Basionym: *Ascocoma eucalypti* var. *didymospora* Swart, Trans. Brit. Mycol. Soc. 87: 607. 1987.

**Protect *Crinula* 1821 (A) over *Holwaya* 1889 (S).**

The type species of the genus *Crinula, C. caliciiformis*, was shown to be conspecific with the type species of *Holwaya, H. ophiobolus*, now regarded as *H. mucida* (Korf & Abawi 1971), thus these generic names are taxonomic synonyms. The connection has been confirmed by culturing (ref). Neither name has been used more commonly than the other, although *Holwaya* is a well-known name among amateurs interested in discomycetes. Ten names and two varieties have been included in *Crinula,* although most of the names have not been used in modern literature. Four names in *Holwaya* are synonyms of *H. mucida* and thus would be regarded as *C. caliciiformis*. The two remaining names in *Holwaya* have been placed outside the genus, thus no name changes are required if *Crinula* is protected.

**Protect *Cristulariella* 1916 (A) over *Nervostroma* 2006 (S).**

The genus *Nervostroma,* based on *N. depraedans,* was established for the sexual morph of *Cristulariella* *depraedans*, type of *Cristulariella*, thus these generic names are taxonomic synonyms (Narumi-Saito et al. 2006). In the same article, three species previously described in *Cristulariella* were removed to *Hinomyces* (Narumi-Saito et al. 2006), having a sexual morph in *Grovesinia*. Thus, *Cristulariella* now includes three species, whereas *Nervostroma* includes only two.?? Both of which already hae an older name in Cristulariella. Neither generic name is widely used, although leaf spots attributed to *Cristulariella* often appear in published plant disease surveys. The asexual state generic name has been used in the plant pathology literature, however, in these cases the name refers to ‘*C.’ moricola* and ‘*C.’ pyrimidalis,* now classified in *Grovesinia.* Given that *Cristulariella* has priority and its use would not result in any name changes, we suggest that this asexual name be protected.

**Conserve *Crumenulopsis* 1969 (S) over *Digitosporium* 1953 (A).**

The generic name *Crumenulopsis* with the type species *C. pinicola* based on *Peziza pinicola*, was established to replace the name *Crumenula* Rehm 1888 non De Not. 1864. Van Vloten & Gremmen (1953) described *Digitosporium piniphilum* for the asexual morph of *Crumenula* *sororia*, now referred to as *Crumenulopsis sororia*. Although no molecular data exist to determine whether *C. pinicola* and *C. sororia* are synonyms, this appears likely (REFS). Thus, the generic names *Crumenulopsis* and *Digitosporium* are most likely synonyms or at least taxonomically congruent. At present six taxa are named in *Crumenulopsis* including *C. pinicola* and *C. sororia*, both causing dieback diseases of pine in Europe, and *C. atropurpurea*, causing a disease of Japanese red pine in Georgia (Hanlin et al. 1992). Because the older, monotypic genus *Digitosporium* has not been widely used and many names changes would be requiredif it were used, it seems advisable to protect the name *Crumenulopsis*.

**Conserve *Dematioscypha* 1977 (S) over *Schizocephalum* 1852 (A) and *Haplographium* 1859 (A).**

The genus *Dematioscypha* based on *D. dematiicola* is circumscribed to include five related taxa (Svrček 1977, Huhtinen 1987, Hosoya & Otani 1997). The older genus *Schizocephalum*, based on *S. atrofuscum*, includes four species none of which have been considered since before 1900. The relationship of *S. atrofuscuma* to *D. dematiicola* is difficult to determine. *Schizocephalum atrofuscum* was placed in *Haplographium* by Saccardo (1886) but Seifert et al. (2011), based on the protologue, considered the identity to be unknown in modern terms. The type species of *Haplographium, H. delicatum*, is recognized as the asexual morph of *Dematioscypha dematiicola* (Huhtinen 1987), thus *Dematioscypha* and *Haplographium* are synonyms. Although 39 names are listed in *Haplographium*, some are now recognized in *Lauriomyces* including *H. catenatum* (Castenada Ruiz & Kendrick 1990), a species previously regarded as a synonym of *H. delicatum* (Hughes (1953, 1958). Many species of *Haplographium* have been placed in other genera such that Seifert et al. (2012) suggests that only three species belong in *Haplographium*. Based on the obscurity of *Schizocephalum* and the widespread use of the well-defined genus *Dematioscypha*, we suggest that *Dematioscypha* be protected over *Schizocephalum and Haplographium.*

One new combination is needed:

*Dematioscypha delicatum* (Berk. & Broome) Hosoya?? comb. nov.

Basionym: *Haplographium delicatum* Berk. & Broome, *Ann. Mag. nat. Hist.*, Ser. 3 **3**: 360. 1859

= *Peziza dematiicola* Berk. & Broome, *Ann. Mag. nat. Hist.*, Ser. 3 **15**: 446. 1865

≡ *Dematioscypha dematiicola* (Berk. & Broome) Svrček, *Česká Mykol.* **31**(4): 193. 1977

**Protect *Dermea* 1825 (S) over *Sphaeronaema* 1815 (A) and *Foveostroma* 1978 (A).**

*Dermea* based on *D. cerasi* is a well defined genus that includes a number of plant pathogenic species (Abeln et al. 2000). Although over 200 names have been placed in *Sphaeronaema*, almost nothing is known about the type species, *S. cylindricum*. Most of the names in *Sphaeronaema* that have been considered in the modern literature are now placed in other genera. Whether *Dermea* and *Sphaeronaema* are taxonomically congruent is not known. The genus *Foveostroma* was based on *F. drupacearum,* a name considered to represent the asexual morph of *D.* *cerasi* (DiCosmo 1978); thus, *Foveostroma* and *Dermea* are synonyms. *Dermea* includes 31 names, while eight names have been described in *Foveostroma.* Among these three genera *Dermea* is the best known some species of which have been sequenced (Abeln et al. 2000). Because of the unknown placement of the type species of *Sphaeronaema,* the less frequent use of *Foveostroma*, and the well-circumscribed concept of *Dermea*, it seems advisable to protect the name *Dermea* over *Sphaeronaema* and not use the name *Foveostroma*.

Three new combinations are required:

*Dermea abietinum* (Peck) Rossman, comb. nov.

Basionym: [*Gelatinosporium*](http://www.indexfungorum.org/Names/Names.asp?strGenus=Gelatinosporium) *abietinum* Peck, *Ann. Rep. Reg. Univ. St. N.Y.* 25: 84 (1873) [1872]

≡ *Foveostroma abietinum* (Peck) Di Cosmo, *Can. J. Bot.* 56: 1682 (1978)

= *Cenangium balsamea* Peck, *Ann. Rep. N.Y. St. Mus. nat. Hist.* 38: 101 (1885)

≡ *Derma balsamea* (Peck) Seaver in Dodge, *Mycologia* 24(5): 427 (1932)

*Dermea boycei* (Dearn.) Rossman, comb. nov.

Basionym: *Cryptosporium boycei* Dearn., *Mycologia* **20**: 245 (1928)

≡ *Foveostroma boycei* (Dearn.) A. Funk, *Can. J. Bot.* **57**: 767 (1979)

= *Dermea pseudotsugae* A. Funk, *Can. J. Bot.* **45**: 1803 (1967)

*Dermea stellata* (Ellis) Rossman, comb. nov.

Basionym: *Sphaeronaema stellatum* Ellis, *Bull. Torrey bot. Club* **6**: 107 (1876).

≡ *Micropera stellata* (Ellis) Jacz., *Nouv. Mem. Soc. Imp. nat. Moscou* **15**: 366 (1898).

= *Cenangium peckiana* Rehm, *Annls mycol.* **13**(1): 3 (1915).

≡ *Dermea peckiana* (Rehm) Seaver, *North American Cup-fungi*, (Inoperculates) (New York): 356. (1951).

**Protect *Diplocarpon* 1906 (S) over *Entomosporium* 1856 (A), *Bostrichonema* 1867 (A), *Marssonina* 1906 (A), and *Entomopeziza* 1914 (S)**.

The type species of *Diplocarpon, D. rosae*, has been linked to an asexual morph in *Marssonina, M. rosae*, for the serious disease of roses called black spot (Sivanesan & Gibson 1975a). The type species of *Entomosporium, E. mespili*, is used for the asexual morph of a cosmospolitan leaf and fruit spot disease of rose and other rosaceous plants to which the sexual morph name, *Diplocarpon* *mespili* (= *Diplocarpon maculatum*), has been applied (Sivanesan & Gibson 1975b). A third genus *Bostrichonema* based on *B. alpestre*, regarded as *B. polygoni*, includes seven names. This type species is considered the asexual state of *Diplocarpon polygoni* (Müller 1977). Assuming that *D. rosae* is congeneric with *D. mespili* and *D. polygoni*, then *Entomosporium* and *Bostrichonema* are taxonomically congruent with *Diplocarpon*. A fourth genus, *Marssonina* based on *M. potentillae* as *M. fragariae*, has a sexual morph referred to as *D. earlianum* (Sivanesan & Gibson 1975c) and thus also competes for synonymy with *Diplocarpon*. Although the conidia of these species appear superficially different because of the long appendages on the conidia of *E. mespili*, developmental similarities to the conidia of *M. rosae* and *M. fragariae* have been noted (Farr 1993, Sutton 1980) as well as the morphologically similar sexual morphs. In addition ITS sequences indicate that the type species of *Diplocarpon, Entomosporium*, and *Marssonina* may be congeneric (unpublished). Thus, *Diplocarpon, Entomosporium, Bostrichonema,* and *Marssonina* are considered taxonomically congruent. An obsure fifth genus, *Entomopeziza* based on *E. soraueri* (= *Entomosporium mespili*) is considered a synonym of *Diplocarpon.* The number of names in *Diplocarpon* and *Entomosporium* are about equal while *Diplocarpon* is more frequently used. Over 100 names have been placed in *Marssonina*, but this genus has not been well defined and many of these names represent unrelated species. Although *Entomosporium* is highly descriptive of the conidia and has been frequently used, *Diplocarpon* is more widely known for the serious, widespread diseases of rosaceous plants and is widely known in plant pathology literature. We recommend the protection of *Diplocarpon*.

Two new combinations are needed:

*Diplocarpon alpestre* (Ces.) Rossman comb. nov.

Basionym: [*Bostrichonema*](http://www.indexfungorum.org/Names/Names.asp?strGenus=Bostrichonema) *alpestre* Ces., *Erb. critt. Ital.*, Ser. 1, fasc. 2: no. 149 (1867)

= *Cylindrosporium polygoni* Unger, *Exanth. Pflanzen* (Wien): 169 (1833)

≡ *Bostrichonema polygoni* (Unger) J. Schröt., in Cohn, *Krypt.-Fl. Schlesien* (Breslau) 3.2(4): 484 (1897) [1908]

= [*Diplocarpon*](http://www.indexfungorum.org/Names/Names.asp?strGenus=Diplocarpon) *polygoni* E. Müll., *Beitr. Kryptfl. Schweiz* 15(no. 1): 40 (1977)

*Diplocarpon fragariae* (Sacc.) Rossman comb. nov.

Basionym: *Leptothyrium fragariae* Lib., *Pl. crypt. Arduenna*, fasc. (Liège) 2: no. 162 (1832)= = [*Peziza*](http://www.indexfungorum.org/Names/Names.asp?strGenus=Peziza) *earliana* Ellis & Everh., *Bull. Torrey bot. Club* 11: 74 (1884)

≡ *Diplocarpon earlianum* (Ellis & Everh.) F.A. Wolf [as '*earliana*'], *J. Elisha Mitchell scient. Soc.* 39(3-4): 158-159 (1924).

**Use *Gelatinipulvinella* 1995 (S) rather than *Aureohyphozyma* 1995 (A).**

The type species of the monotypic genera *Gelatinipulvinella, G. astraeicola*, and *Aureohyphozyma, A. astraeicola*, were described as the sexual and asexual morphs of the same species (Hosoya 1995). The type species of these genera represent the same species, thus they are synonyms and compete equally for use. Given the more widespread use of *Gelatinipulvinella* based on the past preference for sexual morph names it is recommended that *Gelatinipulvinella* be used.

**Protect *Gloeotinia* 1954 (S) over *Endoconidium* 1891 (A).**

The genus *Gloeotinia*,with the type species *G. temulenta* based on *Phialea temulentum*, was established for the sexual morph of *Endoconidium* *temulentum,* type species of *Endoconidium*. Thus, *Gloeotinia* and *Endoconidium* are synonyms. Although six species have been described in *Endoconidium* and only four species in *Gloeotinia*, the blind seed diseases caused by these fungi are most commonly referred to as *Gloeotinia granigena* and *G. temulenta*. Their distinction as two different species has only recently been reported (Alderman 1998). If *Endoconidium* were used, the relatively well known name *G. granigena* would have to be changed, thus it seems expedient to conserve the name *Gloeotinia*.

**Protect *Godronia* 1846 (S) over *Sphaeronaema* 1815 (A), *Topospora* 1836 (A), *Mastomyces* 1848 (A), *Clinterium* 1849 (A), *Fuckelia* 1864 (S), and *Chondropodiella* 1917 (A).**

The genus *Godronia,* based on the type species *G. muehlenbeckii* on *Phragmites communis* in Europe, was monographed by Groves (1965) and includes a number of plant pathogenic species, primarily on woody, dicotyledonous hosts. Only one species, *G. urceolata*, has been sequenced (de Gruyter et al. 2009); thus, the phylogenetic placement of this non-type species in the *Leotiomycetes* is confirmed, however, the relatedness of the type species to other species in *Godronia* or their asexual morphs is unknown. Although over 200 names have been placed in *Sphaeronaema*, almost nothing is known about the type species, *S. cylindricum* based on *Sphaeria cylindrica*. This type species is relatively obscure and undefined, described on *Quercus* and *Salix* in Sweden and Germany. Most of the names in *Sphaeronaema* that have been considered in the modern literature have been placed in other genera. The taxonomic congruence of *Godronia* with *Sphaeronaema* is not known. *Topospora* based on *T. uberiformis* is considered the asexual morph of *Godronia uberiformis* on *Ribes* (Groves 1965, Sutton 1980), thus these genera are taxonomically congruent. *Godronia* includes 88 names while eight species have been placed in *Topospora*. The type species of *Mastomyces, Clinterium* and *Chondropodiella* are linked to species placed in *Godronia* or *Topospora* (Sutton 1977). The type of *Fuckelia, F. ribis*, is a synonym of *G. ribis*. Based on the unknown phylogeny of *Sphaeronaema,* the relative obscurity of *Topospora*, and the accepted use of *Godronia*, it seems advisable to conserve the name *Godronia*. Not enough is know about the relationships among these species to make taxonomic changes. These generic names are available for segregate genera.

**Protect *Godroniopsis* 1929 (S) over *Sphaeronaema* 1815 (A) and *Dichaenopsella* 1952 (A).**

*Godroniopsis* is a small but well defined genus with two plant-pathogenic species including the type species *G. quernea*, the asexual state of *Dichaenopsella quernea*, the monotype species of *Dichaenopsella*. The asexual state of *Godroniopsis nemopanthi* is described as *Sphaeronema peckii*. Over 200 names have been placed in *Sphaeronaema*, yet almost nothing is known about the type species, *S. cylindricum*, as mentioned above. Most of the names in *Sphaeronaema* that have been considered in the modern literature have been placed in other genera. It is not known if *Godroniopsis* and *Sphaeronaema* are taxonomically congruent. Based on the unknown phylogeny of *Sphaeronaema* and the accepted use of *Godroniopsis*, it seems advisable to protect the name *Godroniopsis.*

One new combination is needed:

*Godroniopsis peckii* (Sacc. & P. Syd.) Stone comb. nov.

Basionym: [*Sphaeronaema*](http://www.indexfungorum.org/Names/Names.asp?strGenus=Sphaeronaema) *peckii* Sacc. & P. Syd., in Saccardo, *Syll. fung. (Abellini*) 14(2): 900 (1899).

= [*Godroniopsis*](http://www.indexfungorum.org/Names/Names.asp?strGenus=Godroniopsis) *nemopanthi* J.W. Groves [as 'nemopanthis'], *Mycologia* 29(1): 71 (1937)

**Protect *Gremmeniella* 1969 (S) over *Brunchorstia* 1891 (A) and conserve the name *G. abietina nom. cons. prop.***

The type species *of Gremmeniella, G. abietina* based on *Crumenula abietina*, has been used for the sexual morph of the asexual name *Brunchorstia pinea* based on *Septoria pinea*, a synonym of *B. destruens*, the type species of the genus *Brunchorstia*. All of these epithets are synonyms according to Punithalingam & Gibson (1973), Sutton (1980), and Müller & Dorworth (1983) and, thus, there is no doubt that these generic names are synonyms. The serious disease of conifers caused by *G. abietina* is known as Scleroderris canker or Brunchorstia dieback of pines and has plant quarnatine significance under that name (CABI 2013). Although seven names have been placed in *Gremmeniella*, only four species are still included in this genus. Among the seven names in *Brunchorstia*, only one remains in that genus. The name *Gremmeniella* especially for *G.* *abietina* is more widely used than *Brunchorstia*, thus it seems expedient to protect the name *Gremmeniella* as well as the name *G. abietina*.

**Use *Grovesinia* 1983 (S) rather than *Hinomyces* 2006 (A).**

The type species of *Grovesinia, G. pyramidalis*, is considered the sexual morph of the type species of *Hinomyces, H. moricola*, thus these two genera are synonyms (Narumi-Saito et al. 2006). This fungus causes bull’s eye or zonate leaf spot on a number of hosts in the colder regions of North America and Asia. Both genera have a second species, *Grovesinia pruni* (≡ *Hinomyces pruni*). These species have been placed in *Cristulariella* (Redhead 1975) but their separation into distinct genera was recognized by Narumi-Saito et al. (2006) as mentioned under *Cristulariella* versus *Nervostroma*. Given that useage of *Grovesinia* and *Hinomyces* is about equal, the oldest name, *Grovesinia*, is recommended for use. However, the oldest epithet for this species must be transferred to *Grovesinia*.

*Grovesinia moricola* (I. Hino) Redhead, comb. nov.

Basionym: *Botrytis moricola* I. Hino, *Bull. Miyazaki Coll. Agric. Forest.* 1: 80 (1929).  
≡ *Cristulariella moricola* (I. Hino) Redhead, *Mycologia* 71: 1249. 1974.

≡ [*Hinomyces*](http://www.indexfungorum.org/Names/Names.asp?strGenus=Hinomyces) *moricola* (I. Hino) Narumi & Y. Harada, *Mycoscience* 47(6): 357 (2006).

= [*Grovesinia*](http://www.indexfungorum.org/Names/Names.asp?strGenus=Grovesinia) *pyramidalis* M.N. Cline, J.L. Crane & S.D. Cline, Mycologia 75:991. (1983).

**Use *Helgardia* 2003 (A) rather than *Oculimacula* 2003 (S).**

These genera were described in the same paper based on the same type species and thus are synonyms having equal priority. Four species have been placed in *Helgardia* while *Oculimacula* includes two species. Crous et al. (2003) determined that the name commonly used for eyespot of wheat, *Tapesia yallundae*, must be moved to another genus because the genus name *Tapesia*, based on *T. fusca*, is now a rejected name (Hawksworth & David 1989). Both the names *Oculimacula* and *Helgardia* are used by plant pathologists for the eyespot diseases of wheat and barley. If the genus *Helgardia* were used, the name for the eyespot disease of wheat would be *H.* *herpotrichoides* while the name for the fungus causing eyespot disease of barley would remain *H. acuformis*. Because no name changes are required, the generic name *Helgardia* is recommended for use.

**Use *Heterosphaeria* 1824 (S) rather than *Heteropatella* 1874 (A).**

The type species of *Heterosphaeria, H. patella*, is the sexual morph of the type species of *Heteropatella, H. lacera* (Leuchtmann 1987, Nag Raj 1993), thus these two genera are synonyms. None of these species have been analyzed phylogenetically but Leuchtmann (1987) provides a monographic account of the eight species accepted in *Heterosphaeria*. The number of names in each genus is about equal and *Heterosphaeria* is slightly more commonly used than *Heteropatella*. Because there is no compelling reason to do otherwise, use of the oldest generic name, *Heterosphaeria*, is recommended.

Based on Leuchtmann (1987) one new combination is required:

*Heterosphaeria sublineolata* (Thüm.) Leuchtmann, comb. nov.

Basionym: *Septoria sublineolata* Thüm., *Bull. Soc. Imp. nat. Moscou* **52**(1): 116 (1877).

= *Heterosphaeria veratri* Nespiak & Müller, *Beitr. Kryptfl. Schweiz* **15**(no. 1): 44 (1977).

For further synonyms, see Leuchtmann (1987) and Müller (1977).

**Use *Hyphodiscus* 1907 (S) rather than *Catenulifera* Hosoya 2002 (A)**

The genus *Hyphodiscus* based on *H. gregarius*, now regarded as *H. theioideus*, was reviewed by Hosoya (2002) who described the genus *Catenulifera* typified by *C. rhodogena* as the asexual morph of *H. hymeniophilus*. More recently Bogale et al. (2010) confirmed the relationship based on sequence analyses of *H. hymeniophilus* and *C. rhodogena*. Assuming that *H. hymeniophilus* and *H. theioideus* are congeneric as suggested by Hosoya (2002), then *Hyphodiscus* and *Catenulifera* are taxonomically congruent. Bogale et al. (2010) transferred two species of *Phialophora* to *Catenulifera* now with four names in that genus. The genus *Hyphodiscus* currently includes 11 species many of which do not have known asexual morphs. Given the greater number of species, the frequency of use, and its priority, we recommend the use of *Hyphodiscus*.

Three species of *Catinulifera* should be transferred to *Hyphodiscus*:

*Hyphodiscus brachyconia* (W. Gams) Hosoya???, comb. nov.

Basionym: [*Phialophora*](http://www.indexfungorum.org/Names/Names.asp?strGenus=Phialophora) *brachyconia* W. Gams, in Gams & Holubová-Jechová, *Stud. Mycol.* 13: 68 (1976).

≡ [*Catenulifera*](http://www.indexfungorum.org/Names/Names.asp?strGenus=Catenulifera) *brachyconia* (W. Gams) Bogale & Unter., in Bogale, Orr, O'Hara & Untereiner, *Fungal Biology* 114(4): 404 (2010).

*Hyphodiscus brevicollaris* (W. Gams) Hosoya, comb. nov.

Basionym: [*Phialophora*](http://www.indexfungorum.org/Names/Names.asp?strGenus=Phialophora) *brevicollaris* W. Gams, in Gams & Holubová-Jechová, *Stud. Mycol.* 13: 71 (1976).

≡ [*Catenulifera*](http://www.indexfungorum.org/Names/Names.asp?strGenus=Catenulifera) *brevicollaris* (W. Gams) Bogale & Unter., in Bogale, Orr, O'Hara & Untereiner, *Fungal Biology* 114(4): 404 (2010).

*Hyphodiscus luxurians* (Bogale & Unter) Hosoya, comb. nov.

Basionym: [*Catenulifera*](http://www.indexfungorum.org/Names/Names.asp?strGenus=Catenulifera) *luxurians* Bogale & Unter., in Bogale, Orr, O'Hara & Untereiner, *Fungal Biology* 114(4): 404 (2010).

**Protect *Hypohelion* 1990 (S) over *Leptostroma* 1815 (A).**

The type species of *Hypohelion, H. scirpinum*, is based on *Hypoderma scirpinum,* which is considered the sexual morph of *Leptostroma scirpinum*, the type species of *Leptostroma*. This relationship was first established by Grove (1937) as *Leptothyrium scirpinum* (≡ *Leptostroma scirpinum*) and accepted by Minter (1997) as *Hypohelion scirpinum*. Thus, *Hypohelion* and *Leptostroma* are synonyms. The genus *Leptostroma* includes 208 names but many of these have been removed to other genera. Although Sutton (1980) recognized *Leptostroma*, he only included the type species. The remaining names in *Leptostroma* are of unknown phylogenetic affinities. Many species described in *Leptostroma* occur on *Pinus* (Minter 1980) more closely related to *Lophodermium* and are not congeneric with *L. scirpinum* (Lantz et al. 2011)*.*One additional species has been placed in *Hypohelion, H. durum* (Lin et al. 2004). Given the polyphyletic nature of the genus *Leptostroma* now taken up for species deviating from the type, it would seem most useful to conserve the well-characterized genus *Hypohelion*. No name changes are needed.

**Conserve *Leptotrochila* 1871 (S) over *Sporonema* 1847 (A)**

Yellow leaf blotch of alfalfa, a widespread disease in temperate regions, is caused by a fungus known as *Leptotrochila medicaginis,* which has an asexual morph referred to as *S. phacidioides*, the type species of *Sporonema* (Schuepp 1959, Sutton 1980). The type of *Leptotrochila* is *L. radians*, occurring on *Campanula* in Europe. Assuming that *L. medicaginis* is congeneric with *L. radians* (Schuepp 1959), then *Leptotrochila* and *Sporonema* are taxonomically congruent. No species in either of these genera have been sequenced. *Leptotrochila* was separated from *Pseudopeziza* by Schuepp (1959) who included 14 species in *Leptotrochila*. These genera are about equally well known although plant pathologists appear to use the name *Leptotrochila* most frequently. A number of species of Sporonema are placed in unrelated genera such as *Sirococcus* or *Coleophoma*. Given the use of the *Leptotrochila* for this important plant pathogen and the lack of knowledge about *Sporonema*, it seems useful to conserve the generic name *Leptotrochila*.

Based on Schuepp (1959) two name changes are required (or conserve *L. medicaginis*):

***Leptotrochila phacidioides* (Desm.) Rossman, comb. nov.**

**Basionym: *Sporonema phacidioides* Desm. 1847**

**=** *Pyrenopeziza medicaginis* Fuckel 1870 [1869-70]

≡ ***Leptotrochila medicaginis* (Fuckel) H. Schüepp 1959**

= *Pseudopeziza jonesii* Nannf. 1932

= *Ascochyta medicaginis* Fuckel 1870 [1869]

≡ *Phyllosticta medicaginis* (Fuckel) Sacc. 1884

= *Gloeosporium morianum* Sacc. 1886

Note*: Leptotrochila medicaginis* is distinct from *Pseudopeziza medicaginis*, the cause of a common leaf spot of lucerne (Booth & Waller 1979).

*Leptotrochila campanulae* (DC.) Rossman, comb. nov.

Basionym: *Xyloma campanulae* DC. in de Candolle & Lamarck, *Fl. franç.*, Edn 3 (Paris) **5/6**: 159 (1815).

= *Phacidium radians* Roberge ex Desm., *Annls Sci. Nat.*, Bot., sér. 2 **17**: 116 (1842).

≡ *Leptotrochila radians* (Roberge ex Desm.) P. Karst., *Bidr. Känn. Finl. Nat. Folk* **19**: 22, 245 (1871)

**Use *Micraspis* 1963 (S) rather than *Periperidium* 1963 (A)**

The type species of *Micraspis, M. acicola*, was described as the sexual morph of the type species of *Periperidium, P. acicola*, by Darker (1963), therefore, these generic names are synonyms. Two additional names have been placed in *Micraspis* and this name has been more frequently used than the monotypic *Periperidium*, thus the use of *Micraspis* is recommended. No name changes are needed.

**Use the sexual state name *Monilinia* 1928 (S) instead of *Monilia* 1794 (A), with the rejection of *Epochnium* 1809 (A)**

*Monilia* is one of the most heterogeneous of the classical hyphomycete genera. Named for species with constricted chains of spores (i.e. monilioid), it included about 350 species that were subsequently classified in a vast array of yeast and hyphomycete genera such as *Candida, Chrysonilia* (i.e. *Neurospora* asexual states), *Cladosporium*, *Aspergillus,* and *Scopulariopsis,* to name just a few. The extremely confused nomenclature of this genus name was reviewed by Donk (1963). It was originally proposed in the pre-binomial literature by Hill 1780 in this sense a synonym of the zygomycete genus *Syzigites*. Later Persoon 1794 provided several subsequent conflicting lectotypifications as did Link 1809 in this sense a synonym of *Bispora*. Donk (1963) proposed conservation of the genus with attribution to Bonorden (1851), choosing *M. cinerea* as lectotype, now a synonym of the asexual state of *Monilinia laxa*. Since that time, the genus name *Monilia* has been used consistently for the asexual states of *Monilinia.* Despite its older age, the extremely confused nomenclatural history and contradictory typifications prior to its stabilized taxonomic application argues against the use of *Monilia*. Although *Monilia* has been used in a consistent sense in the modern literature, the name is not used independently of the sexual state name, *Monilinia*.

Although *Monilinia* is a much younger genus name, it has been used in a taxonomically and phylogenetically consistent fashion in particular since the monograph of Batra (1991). This monograph includes an account of 30 species with a discussion of ten more names. The genus name *Monilinia* has been used almost exclusively in the plant pathogenic literature for economically important diseases of tree fruit such as *M. laxa* and *M. fructicola* on stone fruit, *M. oxycocci* and *M. vaccinii-corymbosi* on ericaceous berry crops, and *M. fructigena* on pome fruit (Batra 1991). Several of the species are involved in international quarantine legislation, most notably *M. fructicola*, of concern in the European Union (EPPO 2012).

Another asexual state genus name, *Epochnium* Link 1809, was considered a synonym of *Monilia* by Hughes (1958), but Donk (1963) questioned the logic of this; neither examined a type specimen. Because no author has examined the type of *Epochnium*, if it exists, and the name has never been used in any literature other than taxonomic compilations, it would be impractical to adopt this name. We propose that *Epochnium* Link and its type species *E. monilioides* Link both be placed on the list of formally rejected names.

One new combination is needed:

*Monilinia polystroma* (G. Leeuwen) Kohn, comb. nov.

Basionym: *Monilia polystroma* G. Leeuwen, *Mycol. Res.* 106: 450 (2002)

**Conserve and protect *Monochaetiellopsis* 1977 (A) over *Hypnotheca* 1970 (S)**

The monotypic genus *Hypnotheca* based on *H. graminis* was described as a sexual morph of the type species of *Monochaetiellopsis*, *M. themedae* with the basionym *Monochaetiella themedae* (Tommerup 1970), thus these genera are synonyms. The two species of *Monochaetiellopsis* (Nag Raj 1993) are more widely known than H. graminis. Although *Hypnotheca* has priority, its use would require that both names in *Monochaetiellopsis* be changed. Given the greater use of *Monochaetiellopsis* and lack of required name changes, it is recommended that *Monochaetiellopsis* be conserved and protected for use.

**Protect *Mycopappus* 1985 (A) over *Redheadia* 2005 (S).**

The type species of *Mycopappus, M. alni*, does not have a known sexual morph; however, a second species, *M. quercus*, is the asexual morph of the type species of *Redheadia, R. quercus* (Suto & Suyama 2005). When Redhead & White (1985) described *M. alni*, they suggestesd that it was a sclerotiniaceous fungus as is *M. quercus,* based on the apothecial morph arising from a sclerotium. Thus, it seems likely that *M. alni* and *M. quercus* are congeneric and thus the names *Mycopappus* and *Redheadia* are taxonomically congruent. Of the four names in *Mycopappus*, the two other species are now placed in the *Dothideomycetes*: *M. aceris* in *Xenostigmina* (Crous et al. 2009) and *M. aesculi* as the asexual morph of *Mycodidymella aesculi* (Wei et al. 1998). Although *Mycopappus* appears to be a widely used generic name, some references are to the species that no longer belong in that genus. Nevertheless, it seems advisable to use the earliest name, *Mycopappus*, for this genus. No name changes are required.

**Conserve *Neofabraea* 1913 (S) over *Phlyctema* 1847 (A) and *Allantozythia* 1924 (A).**

The genus *Neofabraea* is characterized by the type species *N. malicorticis* (Verkley 1999), the cause of bull’s eye rot of apple and pear, while the type species of *Phlyctema*, *P. vagabunda,* is the asexual morph of *N. alba* (E.J. Guthrie) Verkley. Given that Verkley (1999) accepts both species in *Neofabraea*, then *Neofabraea* and *Phlyctema* are taxonomically congruent. This monographic account provides a thorough account of the well circumscribed genus *Neofabraea*. In contrast, more than 60 names have been placed in *Phlyctema,* some of which have been transferred to other genera such as *Phomopsis* and *Rhabdospora* with other species of *Phlyctema* spread among other genera of morphologically simple coelomycetes (Verkley 1999). The virtually unknown genus *Allantozythia* based on *A. alutacea*, a synonym of *Phlyctema vagabunda*, is also a synonym of *Neofabraea*. Given that *Neofabraea* has been monographed, is well characterized phylogenetically (Abeln et al. 2000; de Jong et al. 2001), and includes a number of plant pathogens known in that genus, it seems expedient to conserve the name *Neofabraea* for this genus.

Based on Verkley (1999), two name changes are required:

*Neofabraea curvispora* (Peck) comb. nov. Or conserve *Neofabraea malicorticis*

Basionym: *Macrophoma curvispora* Peck, *Bull. Torrey bot. Club* **27**: 21 (1900).

= *Neofabraea malicorticis* H.S. Jacks., *Rep. Oregon Exp. Sta.*: 187 (1913) [1911-1912].

*Neofabraea vagabunda* (Desm.) Rossman comb. nov.

Basionym: *Phlyctema vagabunda* Desm., *Annls Sci. Nat.*, Bot., sér. 3 **8**: 16 (1847).

= *Peziza alba* E.J. Guthrie, *Trans. Br. mycol. Soc.* **42**(4): 504 (1959).

≡ *Neofabraea alba* (E.J. Guthrie) Verkley, *Stud. Mycol.* **44**: 125 (1999).

**Use *Ocotomyces* 1985 (S) rather than *Uyucamyces* 1985 (A)**

*Ocotomyces* and *Uyucamyces* are both monotype genera described for the same species. *Ocotomyces* is used more widely than *Uyucamyces*, thus *Ocotomyces* should be used.

**Use *Ovulinia* 1940 (S) rather than *Ovulitis* 1970 (A).**

The type species of *Ovulinia, O. azaleae*, is the sexual morph of *Ovulitis azaleae*, type species of *Ovulitis*, thus these generic names are synonyms. Both genera include a second species that are also synonyms. Because *Ovulinia* has priority, this name should be used. No name changes are required.

**Use *Pezicula* 1865 (S) over *Cryptosporiopsis* 1912 (A) and *Lagynodella* 1922 (A).**

The type species of *Pezicula, P. carpinea*, has an asexual morph regarded *as Cryptosporiopsis fasciculata* while the type species of *Cryptosporiopsis, C. nigra,* is the asexual morph of *Pezicula* *ocellata* (Pers. : Fr.) Seaver (Verkley 1999). The genus *Lagynodella* based on *L. pruinosa* as *Cryptosporiopsis pruinosa* is the asexual state of *P. pruinosa* and thus also a synonym of *Pezicula*. Both the monographic account by Verkley (1999) and a phylogeny of these species (Abeln et al. 2000) suggest that these three genera are taxonomically congruent. *Pezicula* and *Cryptosporiopsis* are used about equally. Some species of *Cryptosporiopsis* have also been linked to *Neofabraea* and may need to be placed in that genus while others have no known sexual morph. Verkley (1999) notes that those species of *Cryptosporiopsis* linked to *Neofabraea* rather than *Pezicula* tend to have conidia less regular in shape. Most species of *Cryptosporiopsis* that are in common use already have names in *Pezicula*. Because a monograph of *Pezicula* exists, this generic name should be used.

Out of the 26 species included in Verkley (1999), five name changes are needed as follows: In addition the species listed as *P. carpinea* in Verkley (1999) should be recognized as the existing name *P. fasciculata*.

*Pezicula cornina* (Peck) Rossman, comb. nov.

Basionym: *Sphaeropsis cornina* Peck, *Ann. Rep. N.Y. St. Mus. nat. Hist.* **32**: 38 (1880) [1879].

= *Pezicula corni* Petr., *Annls mycol.* **20**(3/4): 197 (1922).

*Pezicula coryli* (Peck) Rossman, comb. nov.

Basionym: *Sphaeronaema coryli* Peck, *Ann. Rep. N.Y. St. Mus.* **24**: 85 (1872) [1871].

= *Pezicula corylina* J.W. Groves, *Mycologia* **30**(1): 47 (1938).

*Pezicula grisea* (Pers. : Fr.) Rossman, comb. nov.

Basionym: *Naemaspora grisea* Pers: Fr., Syn. Meth. Fungi. 110. 1801 : Syst. Mycol. 3: 123. 1832.

= *Peziza cinnamomea* DC. : Fr., in de Candolle & Lamarck, *Fl. franç.*, Edn 3 (Paris) **5/6**: 23 (1815) : *Syst. mycol.* **2**(1): 77 (1822).

≡ *Pezicula cinnamomea* (DC. : Fr.) Sacc. *Syll. fung.* (Abellini) **8**: 311 (1889).

*Pezicula quercina* (Petr.) Rossman, comb. nov.

Basionym: *Cryptosporiopsis quercina* Petr., *Annls mycol.* **22**(1/2): 159 (1924).

= *Pezicula sporulosa* Verkley, *Stud. Mycol.* **44**: 117 (1999).

*Pezicula versiformis* (Alb. & Schwein.) Rossman, comb. nov.

Basionym: *Sphaeria versiformis* Alb. & Schwein., *Consp. fung.* (Leipzig): 52, t.9:3 (1805).

= *Peziza frangulae* Pers., *Mycol. eur.* (Erlanga) **1**: 324 (1822).

≡ *Pezicula frangulae* (Pers.) Fuckel, *Jb. nassau. Ver. Naturk.* **23-24**: 279 (1870) [1869-70] 1853

**Protect the name *Phacidiopycnis* 1912 (A) over *Potebniamyces* 1962 (S) and *Discosporiopsis* 1921 (A).**

The type species of *Phacidiopycnis* is *P. malorum*, now regarded as *P. pyri* (Windlmayr 1965). The genus *Phacidiella* Potebnia 1912 non P. Karst. 1884 was replaced by the name *Potebniamyces* by Smerlis (1962) typified by *P. discolor*, now regarded as *P. pyri*. *Phacidiopycnis pyri* is considered the asexual morph of *Potebniamyces pyri* (Brooks 1928, Sutton 1980 as *P. discolor*), thus these two genus names are synonyms. A third genus, *Discoriopsis*, was based on *Phacidiopycnis pyri* and is likewise a synonym of *Phacidiopycnis*. Both *Phacidiopycnis* and *Potebniamyces* are used in the plant pathology literature most recently in reference to a canker and twig dieback of pear also associated with pome fruits (Xiao and Boal 2005, Xiao et al. 2005). A number of species also occur on conifers (Gross & Weidensaul 1967, Punithalingam & Gibson 1976) but their phylogenetic affinities are not known. The frequency of use and number of names is highest for *Phacidiopycnis*, therefore we recommend protecting the asexual name that has priority, *Phacidiopycnis*. No name changes are required except possibly for *Potebniamyces gallicola* if determined to belong in this genus.

**Use *Phacidium* 1815 (S) rather than *Ceuthospora* 1826 (A).**

The type species of *Phacidium, P. lacerum*, has an asexual morph named *Ceuthospora pinastri* (DiCosmo et al. 1984.) while the type species of *Ceuthospora, C. lauri*, has been linked to *P. multivalve* (Di Cosmo et al 1984, Nag Raj 1993, Sutton 1972). The latter connection has not been reviewed in the recently literature but, given the number of species of *Ceuthospora* having sexual morphs in *Phacidium*, it seems likely that these genera are taxonomically congruent. Issues concerning the type species of *Ceuthospora* and conservation of Greville’s name were addressed by Sutton (1972). *Ceuthospora lauri* is known to cause a bleeding brown zonate leaf blight of tea (Ando et al. 1989). Species of *Phacidium* have been connected with a number of other genera, namely *Allantophomopsis* 1925 based on *A. cytisporea* and *Apostrasseria* 1983 based on *A. lunata*, neither of which are taxonomically congruent with *Phacidium*; however, the type species of these genera are synonyms (Carris 1990). The name *Phacidium* has been widely used and includes a greater number of names than *Ceuthospora*, therefore we recommend the use of the older name *Phacidium*. Given the number of species and lack of monographic accounts of either genus based on phylogenetic information, it is difficult to determine if name changes are required.

**Protect *Phialocephala* 1961 (A) over *Phaeomollisia* 2009 (S).**

Based on the phylogenetic study by Grünig et al. (2009), it is difficult to determine if the monotypic genus *Phaeomollisia* is congeneric with *Phialocephala*. Although an isolate of the type species of *Phialocephala* is included, it does not cluster strongly with *Phaeomollisia*. Given that 35 names exist in the genus *Phialocephala* and the genus was recently recircumscribed (Day et al. 2012), it seems expedient to use this older name. If they are not congeneric, both genus names are available.

**Protect *Pilidium* 1823 (A) over *Discohainesia* 1932 (S), *Hainesia* 1884 (A) or *Sclerotiopsis* 1882 (A)**

The genus *Pilidium* based on *P. acerinum* was shown to include *P. concavum*, the asexual morph of *Discohainesia oenotherae*, monotype species of *Discohainesia* (Rossman et al. 2004). The relationship between *D. oenotherae, P. concavum, Hainesia lythri*, and *Sclerotiopsis testudinacea* as morphs of the same species was shown by Palm (1991) who grew the various morphs in culture. The type species of *Hainesia, H. rhoina*, and the type species of *Sclerotiopsis, S. australasica*, have long been considered synonyms of this species as *Pezizella lythri* (Shear & Dodge, 1913; Sutton & Gibson 1977). Therefore, *Pilidium* is taxonomically congruent with *Discohainesia* as well as *Hainesia* and *Sclerotiopsis* while *Discohainesia, Hainesia* and *Sclerotiopsis* all represent the same species and thus are synonyms. About twenty species of *Pilidium* and *Sclerotiopsis* each have been described, but *Pilidium* is the most widely used generic name and includes a number of plant pathogenic species. Given that *Pilidim* is the oldest generic name and has been recently monographed (Rossman et al. 2004), we recommend the use of that genus. However, the common pathogen known as *Pilidium concavum* would need to be conserved or the older epithet *Dacryomyces lythri* transferred to *Pilidium*.

*Pilidium lythri* (Desm.) Rossman *comb. nov.*

Basionym: *Dacryomyces lythri* Desm., Pl. Crypt. France 1545. 1846.

= *Peziza oenotherae* Cooke & Ellis, *Grevillea* 6(no. 39): 90 (1878).

≡ *Discohainesia oenotherae* (Cooke & Ellis) Nannf., *Nova Acta R. Soc. Scient. upsal.*, Ser. 4 8(no. 2): 88 (1932).

Many additional synonyms exist for this species (Palm 1991).

**Use *Ploioderma* 1967 (S) rather than *Cryocaligula* 1986 (A).**

The monotypic genus *Cryocaligula* based on the type species *C. hedgcockii* was described for the asexual morph of *Ploioderma hedgcockii*, the type species of *Ploioderma*, thus these generic names are synonyms. The name *Cryocaligula* has not been used since it was described while the older *Ploioderma* includes 11 names and is well known, thus the use of *Ploioderma* is recommended. No name changes are needed.

**Use *Pragmopora* 1855 (S) rather than *Pragmopycnis* 1975 (A).**

Although the type species of *Pragmopora, P. amphibola*, was initially considered to be a doubtful lichen, later authors, most recently Groves (1967), concluded that a thallus was lacking in this species. He accepted six more species in his monograph of this genus including *P. pithya*. The type species of the monotypic genus *Pragmopycnis, P. pithya*, was described as the asexual morph of *Pragmopora pithya*, thus these genera are regarded as taxonomically congruent. None of these species have been sequenced. *Pragmopora* is most frequently cited and has priority, thus its use is recommended. No name changes are needed.

**Conserve *Pycnopeziza* 1938 (S) over *Acarosporium* 1911 (A), *Chaetalysis* 1922 (A), and *Ciliosira* 1942 (A).**

The genus *Pycnopeziza* based on *P. sympodialis* is regarded as the sexual state of the type species of *Acarosporium*, *A. sympodiale* (White & Whetzel 1938, 1940; Sutton 1980) thus these genera are synonyms. Nag Raj (1993) included three species in the genus *Acarosporium* with one species, *A. lichenicola*, added since then (Ihlen 1998), although it seems unlikely that this species belongs here. An equal number of species were recognized in *Pycnopeziza* by White & Whetzel (1938) and Whetzel & White (1940). Both *Chaetalysis* and *Ciliosira* are monotypic genera whose type species are regarded as synonyms of *Acarosporium sympodiale* (Sutton 1980). Using the type species of *Pycnopeziza, P.* *sympodialis*, Holst-Jensen (1997, 2004) confirmed the placement of this genus in the *Sclerotinaceae*. Given the recent phylogenetic placement of *Pycnopeziza* and the more extensive use of this name, it seems preferable to use *Pycnopeziza* for this genus. Although one or two name changes may be required, this should not be done until the placement of these species is confirmed.

**Conserve *Pyrenopeziza* 1870 (S) over *Cylindrosporium* 1823 (A)**

The genus *Pyrenopeziza* includes a number of important plant pathogenic species. Although reported several times from Europe on members of the *Apiaceae*, the type species*, P. chailletii*, has not been well-characterized. One important plant pathogen, *P. brassicae*, has been linked to the asexual name *Cylindrosporium concentricum*, type of the genus *Cylindrosporium* (Rawlinson et al. 1978, Cheah et al. 1980). Assuming that *P. chailleti* is congeneric with *P. brassicae* as *C. concentricum,* then *Pyrenopeziza* and *Cylindrosporium* are taxonomically congruent. Kirk et al. (2008) suggests that *Pyrenopeziza* includes ca. 59 names with three names in *Cylindrosporium*, although many more names in that genus remain obscure. Sutton (1980) states that “Few genera have been the subject of more confusion than *Cylindrosporium*...”. Considerable research has been published on *Pyrenopeziza* although no monographic account exists, and *Pyrenopeziza* is more commonly used than *Cylindrosporium*. Given the plant pathogenic species recognized as *Pyrenopeziza,* the greater use of the name *Pyrenopeziza*, and the lack of clarity about *Cylindrosporium*, it seems expedient to conserve the name *Pyrenopeziza* over *Cylindrosporium*.

One name change is required:

*Pyrenopeziza concentricum* (Grev.) Rossman comb. nov.

Basionym: [*Cylindrosporium*](http://www.indexfungorum.org/Names/Names.asp?strGenus=Cylindrosporium) *concentricum* Grev., *Scott. crypt. fl.* (Edinburgh) 1: pl. 27 (1822) non Unger (1833)

= [*Pyrenopeziza*](http://www.indexfungorum.org/Names/Names.asp?strGenus=Pyrenopeziza) *brassicae* B. Sutton & Rawl., in Rawlinson, Sutton & Muthyalu, *Trans. Br. mycol. Soc.* 71(3): 426 (1979) [1978]

**Conserve *Rhabdocline* 1922 (S) over *Meria* 1896 (A), *Hartigiella* 1900 (A), and *Rhabdogloeum* 1922 (A)**.

*Rhabdocline* and its asexual genus *Rhabdogloeum* were described in the same article based on different type species (Sydow & Petrak 1922). The type species of *Rhabdogloeum, R. pseudotsugae*, is connected to *Rhabdocline weirii* according to Parker & Reid (1969) who regarded *R. pseudotsugae* as polyphyletic. The genus *Rhabdocline* is clearly defined to include both the type species *of Rhabdocline, R. pseudotsugae* and *R. weirii* by Stone & Gernandt (2005), thus the genera *Rhabdocline* and *Rhabdogloeum* appear to be taxonomically congruent. Two older asexual genera are also considered synonymys of *Rhabdocline,* namely *Hartigiella* and *Meria.* The monotype species of *Hartigiella*, *H. laricis*, is a synonym of *Meria laricis* (Vuillemin 1905), thus *Hartigiella* is also taxonomically congruent with *Rhabdocline*. Gernandt et al. (1997) showed that the type species of *Meria, M. laricis,* and *Rhabdocline* *pseudotsugae* to be congeneric, thus *Meria* is also taxonomically congruent with *Rhabdocline*. *Rhabdocline* includes nine names and is more commonly used than *Meria* with two names or *Rhabdogloeum* with only the type species left in the genus. Of the two species of *Meria*, *M. parkeri* has a name in *Rhabdocline* while *M. laricis* Vuill. needs to be placed in *Rhabdocline*. Note that two additional *Meria* species belonging in the *Clavicipitaceae* were recombined in *Drechmeria* by Gams & Jannson (1985). Given its more common use, conserving the name *Rhabdocline* for this genus seems expedient. One name change is required.

*Rhabdocline laricis* (Vuill.) Stone, comb. nov.

Basionym: *Meria laricis* Vuill., *Compt.Rend. hebd. Séanc. Acad. Sci., Paris* **122**: 21 (1896)

= [*Allescheria*](http://www.indexfungorum.org/Names/Names.asp?strGenus=Allescheria) *laricis* R. Hartig, *Centralbl. Gesammte Forstwesen* **25**: 425 (1899)

≡ *Hartigiella laricis* (R. Hartig) Dietel & P. Syd. *Hedwigia* **39**(Beibl.): (91) (1900)

**Protect *Rhizothyrium* 1915 (A) over *Rhizocalyx* 1928 (S) and Bactrexcipula 1918 (A).**

The type species of *Rhizothyrium, R. abietis*, was shown to be the asexual morph of *Rhizocalyx abietis*, type species of *Rhizocalyx* by Smerlis (1967), thus *Rhizothyrium* and *Rhizocalyx* are synonyms. The type species, *Bactrexcipula strasseri*, of the monotypic genus *Bactexcipula* was considered to be the same as *Rhizothyrium abietis* by Petrak (1962). Based on Petrak’s (1928) hypothesis about the relationships of these taxa, Smerlis (1967) grew both morphs in culture and provided convincing descriptions and illustrations. While *Rhizocalyx* remains monotypic, a second species of *Rhizothyrium, R.* *parasiticum*, was described by Butin (1986). No molecular data exist for either genus. Although both genera are relatively obscure, *Rhizothyrium* has been used more often than *Rhizocalyx*, thus it seems most useful to protect the earlier name *Rhizothyrium* for this genus. No name changes are required.

**Use *Rhytisma* 1818 (S) rather than *Melasmia* 1846 (A)**

The type species of *Rhytisma, R. acerina*, is the sexual morph of the type species of *Melasmia, M. acerinum* (Cannon & Minter, 1984), therefore, the genera are synonyms. *Melasmia* is a morphologically simple, putatively spermatial asexual state. The genus *Rhytisma* has been widely used for species causing various tar spot diseases on living leaves.We recommended that the older, relatively well characterised name *Rhytisma* be used. Most names in *Melasmia* are obscure, thus it is difficult to determine if any name changes are required.

**Use *Scleropezicula* 1999 (S) rather than *Cryptosympodula* 1999 (A)**

These monotypic genera were described for the sexual and asexual morphs of the same species, therefore, the genera are synonyms. Neither name has been widely used but the sexual morph has been more frequently reported and is already in *Scleropezicula,* therefore, we recommend the use of the sexual morph name *Scleropezicula*.

**Use *Scytalidium* 1957 (A) rather than *Xylogone* 1969 (S)**

The type species of *Scytalidium, S. lignicola*, were shown to be congeneric with the type species of *Xylogone, X. sphaerosperma*, in the phylogenetic analyses by Kang et al. (2010), thus *Xylogone* and *Scytalidium* are taxonomically congruent. A second species of *Xylogone, X. ganodermophthora*, causes yellow rot of cultivated *Ganoderma lucidum* in Korea (Kang et al. (2010). The genus *Scytalidium* has included two well-known species that are now placed in the *Botryosphaeriaceae*, specifically the medically important and plant pathogenic species known as *Neoscytalidium* *dimidiatum* (= *Scytalidium dimidiatum*) and *N. hyalinum* (= *Scylatidium* *hyalinum*) (Crous et al. 2006, Phillips et al. 2013). The four species of *Scytalidium* having affinities with *Xylogone* are used in the forest products industry (Robinson et al. 2014). The remaining 18 species of *Scytalidium* are of unknown affinity, many of which were isolated from soil and wood but also animals including humans. Two thermophilic species are considered to belong outside of *Scytalidium*, although no genus was available (Straastma & Samson 1993). Given the number of species remaining in *Scytalidium* compared to the small genus *Xylogone*, it seems best to continue the use of *Scytalidium.*

**Use *Seaverinia* 1945 (S) rather than *Verrucobotrys* 1973 (A)**

The type species of *Verrucobotrys, V. geranii*, was established for the asexual morph of the type species of *Seaverinia, S. geranii*, thus these genera are synonyms. Both genera are monotypic. Given the equal citation of these names, the older *Seaverinia* should be used.

**Use *Septotinia* 1961 (S) rather than *Septotis* 1970 (A)**

The type species of *Septotis, S. podophyllina*, was established for the asexual morph of the type species of *Septotinia, S. podophyllina,* thus these genera are synonyms. Both genera include two names that represent the same two species. Given the equal citation of these names, the older *Septotinia* should be used.

**Use *Stamnaria* 1870 (S) rather than *Titaeospora* 1916 (A)**

*Stamnaria persoonii*, type species of *Stamnaria*, is a relatively common fungus on stems and leaves of *Equisetum* spp. in temperate regions (Farr & Rossman 2014). The asexual morph of *Stamnaria persoonii* is known as *Titaeospora equiseti* of which *T. detospora*, the type species of *Titaeospora,* is a synonym (von Arx 1970), thus *Stamnaria* and *Titaeospora* are synonyms. Given the equal number of species and the equal use of names in these genera, the older genus *Stamnaria* should be used.

**Use *Streptotinia* 1945 (S) rather than *Streptobotrys* 1973 (A)**

Although Hennebert (1973) stated that the genus *Streptobotrys* was the asexual morph of *Streptotinia*, the type species of *Streptobotrys, S. streptothrix,* does not have a known sexual morph. The other two species of *Streptobotrys* are listed with their corresponding sexual morphs including *Streptotinia arisaematis*, the type species of *Streptotinia*. Thus these two genera are taxonomically congruent. Given that the number of species in each genus is small and both generic names are cited about equally, the older name *Streptotinia* should be used.

The following new combination is required:

*Streptotinia streptothrix* (Cooke & Ellis) Seifert & Kohn, comb. nov.

Basionym: *Polyactis streptothrix* Cooke & Ellis, Grevillea 7: 39. 1878.

**Use *Strossmayeria* 1881 (S) rather than *Pseudospiropes* 1971 (A).**

The sexual morph of *Pseudospiropes nodosus*, the type species of *Pseudospiropes* has been shown to be *Strossmayeria atriseda* (Iturriaga & Korf 1990) who regard *S. atriseda* as congeneric with the type species of *Strossmayeria, S. basitricha*, thus *Strossmayeria* and *Pseudospiropes* are taxonomically congruent. They suggest that the asexual morphs of species of *Strossmayeria* are referrable to *Pseudospiropes*, but note that other phylogenetically distant, morphologically similar asexual species have been described in *Pseudospiropes*. Many of the 36 names described in *Pseudospiropes* have been placed in other genera leaving only 16 species in that genus while 20 speceis are accepted in *Strossmayeria* (Index of Fungi 2014, Iturriaga & Korf 1990). We recommend use of the older, well characterised name *Strossmayeria*. Although new combinations in *Strossmayeria* will be required among the seven species in *Pseudospiropes* without such names (Casteñada-Ruiz et al. 2001), we recommend that this be done as data become available because of the heterogeneity of *Pseudospiropes*.

**Use *Symphyosirinia* 1956 (S) rather than *Symphyosirella* 2009** (A).

Although the type species of *Symphyosirinia* based on *S. galii* and the type species of *Symphyosirella*, *S. parasitica,* are not synonyms, they are considered congeneric (Gams et al 2009), thus these genera are taxonomically congruent. While *Symphyosirella* was described for two species parasitic on seeds (Gams 2009), *Symphosirinia* includes five species (Baral 1994, Ellis 1956, Svrček 1989), is more widely used, and has priority, thus this genus is recommended for use. Priority at the species level requires recombination of *Symphyosirella parasitica* and *S. rosea* into *Symphyosirinia.*

*Symphosirinia parasitica* (Massee & Crossl.) Seifert, comb. nov.

Basionym: *Symphyosira parasitica* Massee & Crossl., *Naturalist*, Hull: 6 (1904)

≡ [*Symphyosirella*](http://www.indexfungorum.org/Names/Names.asp?strGenus=Symphyosirella) *parasitica* (Massee & Crossl.) Seifert, *Mycotaxon* 110: 105 (2009)

= [*Symphyosirinia*](http://www.indexfungorum.org/Names/Names.asp?strGenus=Symphyosirinia) *heraclei* E.A. Ellis, *Trans. Norfolk Norw. Nat. Soc.* 25(2): 43 (1980)

*Symphosirinia rosea* (Keissl.) Seifert, comb. nov.

Basionym: *Symphosira rosea* Keissl., Mycol. Zentbl. 2: 322. 1913.

≡ [*Symphyosirella*](http://www.indexfungorum.org/Names/Names.asp?strGenus=Symphyosirella) *rosea* (Keissl.) Seifert, *Mycotaxon* 110: 105 (2009)

**Use *Tympanis* 1790 (S) rather than *Sirodothis* 1909 (A) or *Pleurophomella* 1914 (A).**

The type species of *Tympanis, T. saligna*, is considered the sexual morph of *Sirodothis* *saligna* while the type species of *Sirodothis, S. populi,* is a synonym of *S. populnea*, the asexual morph of *Tympanis spermatiospora* (Sutton & Funk 1975, Sutton 1980), therefore these genera are taxonomically congruent. The type species of *Pleurophomella, P. eumorpha*, has been linked to “one of the three species” of *Tympanis* on *Pinus,* possibly *T. confusa* (Groves 1949), thus is also taxonomically congruent with *Tympanis*. The genus *Tympanis* has many more species than *Sirodothis* and *Pleurophomella* and is widely used. We recommend use of the well known genus *Tympanis*. Although some name changes may be required, most of the well known species of *Sirodothis* and *Pleurophomella* have names in *Tympanis*.

**Use *Unguiculariopsis* 1909 (S) rather than *Deltosperma* 1988 (A).**

When Zhuang (1988) monographed the genus *Unguiculariopsis*, she established the genus *Deltosperma* based on *D. infundibuliformis* for the asexual morph of *U. infundibuliformis*. The type species of *Unguiculariopsis, U. ilicincola*, was included in that genus by Zhuang (1988), thus *Unguiculariopsis* and *Deltosperma* are taxonomically congruent. Given that there are many more species of *Unguiculariopsis* than *Deltosperma* and that *Unguiculariopsis* is more frequently cited, the older name *Unguiculariopsis* should be used. Although two new combinations may be required, only the name with a known sexual morph is recombined using the older epithet here.

*Unguiculariopsis caespitosum* (Fuckel) W.Y. Zhuang, comb. nov.

Basionym: *Sphaeronema caespitosum* Fuckel, Fungi Rhenani Exs. 2147. 1868.

≡ *Deltosperma caespitosum* (Fuckel) W.Y. Zhuang, *Mycotaxon* 32(1): 48 (1988)

= [*Cenangium*](http://www.indexfungorum.org/Names/Names.asp?strGenus=Cenangium) *parasiticum* Fuckel, *Jb. nassau. Ver. Naturk.* 25-26: 43 (1871)

≡ *Unguiculariopsis parasitica* (Fuckel) W.Y. Zhuang, *Mycotaxon* 32(1): 46 (1988)

**Protect *Valdensia* 1923 (A) over *Valdensinia* 1953 (S) and *Asterobolus* 1972 (A).**

The monotype genus *Valdensinia* based on *V. heterodoxa* was established for the sexual morph *of Valdensia heterodoxa*, type of *Valdensia* (Peyronel 1923, 1953), thus *Valdensia* and *Valdensinia* are synonyms. This species has an asexual morph that produces large staurosporous conidia quite unlike the discoid sexual morph that represent the same species in the *Sclerotiniaceae* (Holst-Jensen et al. 1997) and cause a leaf-spot disease of ericaceous plants as well as others hosts. Although both generic names have been used, more reports have been made using the asexual genus, thus the earlier name *Valdensia* is proposed for protection. According to Redhead & Perrin (1972) their genus *Asterobolous* based on *A. gaultheriae* is a synonym of *Valdensia* *heterodoxa* while the second species in *Valdensia*, based on *Gloeosporium myrtilli* and also the type species of *Saliastrum* (Kujala 1946), does not belong in *Valdensia*, thus no name changes are required.

**Use *Vibrissea* 1822 (S) over *Anavirga* 1975 (A).**

The type species of *Vibrissea,* *V. truncorum,* occurring on submerged wood in temperate regions lacks a known asexual morph. The type of *Anavirga,* *A. laxa*, occurs on cupules of *Castanea sativa* and rotting tree leaves and lacks a known sexual morph. However, a second species of *Anavirga, A.* *dendromorpha,* on submerged leaves and twigs (Descals and Sutton 1976) has a sexual morph referred to as *Vibrissea flavovirens* (Pers.: Fr.) Korf & Dixon, initially as the name *Apostemidium torrenticola* Graddon (Hamad and Webster (1987). Phylogenetic studies are lacking that would confirm the congeneric status of the type species of *Vibrissea* and *Anavirga,* however, *A. laxa* is morphologically similar to *A. dendromorpha;* the differences in branching pattern and size of conidial elements are small, possibly due to differences in specimens from pure culture (*A. dendromorpha*) and nature (*A. laxa*).However, the phialocephala-like state observed in cultures of *A. dendromorpha* was not seen in the collections of *A. laxa* from nature. We suggest that *Vibrissea* and *Anavirga* circumscribe the same group of species and are taxonomically congruent. *Anavirga* has only three species including *A. vermiformis* known from a terrestrial habitat in a mountain forest in India associated with monsoon rains (Bhat and Kendrick 1993). The genus *Vibrissea* with over 50 species is widely known and thus that name is recommended for use.

Two new combinations are necessary:

*Vibrissea* *laxa* (B. Sutton) Maranova comb. nov..

Basionym: *Anavirga laxa* B. Sutton, Trans. Br. mycol Soc. 64: 406, (1975)

*Vibrissea vermiformis* (Bhat & W.B.Kendr.) Maranova comb. nov.

Basionym: *Anavirga vermiformis* Bhat & W.B. Kendr. Mycotaxon 49: 23, (1993)

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