BINOMIALS IN THE PERONOSPORALES, SCLEROSPORALES AND PYTHIALES

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1. Introduction

The following lists of genera, species and authorities for downy mildews (DMs) and related pathogens have been extracted from the complete lists for straminipilous fungi (Dick, 2001*b*). The genera are listed in alphabetic order under families; the species are listed in alphabetic order under each genus, with the type species identified, in Tables 2-7. The lists are concordant with the summary classification of the orders in the sub-classes Peronosporomycetidae and Saprolegniomycetidae (Dick, 1995, 2001*a*, *b;* Dick *et al.,* 1989) and given in Table 1. The validity of the sub-classes has now been substantiated by 18S rDNA data (Dick *et al.,* 1999), but the position of the Sclerosporaceae has yet to be ascertained by molecular data.

For uniformity, it is desirable that the recommendations of Brummitt and Powell (1992) or Kirk and Ansell (1992) for authority abbreviations are followed, but it should be noted that some authors do not fully accept these recommendations. Unfortunately, the most recent monographs on *Peronospora* (Kochman and Majewski, 1970; Constantinescu, 1991*a*); earlier entries in the *Index of Fungi;* the check-lists for *Pythium* (Dick, 1990*b*), and the most recent key to *Phytophthora* (Stamps *et al.,* 1990), did not use these forms of author abbreviations consistently. Erwin and Ribeiro (1996) adopted the potentially misleading style of citing the authors of the publication, rather than the authority for the binomial, after the masthead binomial.

Note that the spelling and use of accents in 'authority' notation may differ from the forms used in published articles, for example: Itô for Ito; Plaäts-Nit. for Plaats-Niterink; Skvortzov for Skvortzow; Sorokīn for Sorokin/Sorokine). Korf (1996) has been followed in that '*ex*' combinations have been shortened and '*et al.*' is used for authorities of three or more names (though these details are given in square brackets after the entry). For more recent taxa (and for most binomials in *Plasmopara*) the page reference to the *Index of Fungi* is given, with part numbers for the incomplete volume 6.

Many intra-specific taxa (e.g., Skalický, 1964; Skidmore and Ingram, 1985) are without justification in the sense that they have not been named in accordance with the

P.T.N. Spencer-Phillips et al. (eds.), Advances in Downy Mildew Research, 225-265.

TABLE 1. Partial classification of the Peronosporomycotina (with references to Table numbers following)

PERONOSPOROMYCOTINA

PERONOSPOROMYCETES

PERONOSPOROMYCETIDAE

PERONOSPORALES

PERONOSPORACEAE (Table 2)
ALBUGINACEAE (Table 3)

PYTHIALES

PYTHIACEAE (Table 4)
PYTHIOGETONACEAE (Table 5)

SAPROLEGNIOMYCETIDAE

SCLEROSPORALES

SCLEROSPORACEAE (Table 6)
VERRUCALVACEAE (Table 7)

ICBN rules; but because they may have some value for plant pathologists where they are supported by herbarium specimens (Constantinescu, 1991*a*), they have been included. Authors of non-taxonomic articles should note that the use of the binomial alone, where varietal names have been published, automatically includes all varieties and this may not be the intention! For example, the use of *Pythium ultimum* alone will include both *P. ultimum* var. *ultimum* and *P. ultimum* var. *sporangiiferum*. It should be remembered that while subspecies, varieties and forms (*formae*) have formal taxonomic status, with recommendations governing the use of one or other of these intraspecific categories, *formae speciales* are not governed by *ICBN* rules and recommendations. The list for *Plasmopara,* but not that for *Peronospora,* includes all of these *formae* and *formae speciales* names for the purposes of retrieval, but without taxonomic reappraisal.

Check-lists for the principal genera of the dicotyledonous downy mildews are not readily available (but see below) although taxonomic reviews of some of the genera of the Peronosporales can be found in Barreto and Dick (1991, 2001*b*), Biga (1955), Constantinescu (1979, 1989, 1991*b*, 1992, 1996*a*, *b,* 1998), de Bary (1863), Gäumann (1923), Gustavsson (1959*a*, *b*), Kochman and Majewski (1970), Săvulescu (1962), Săvulescu and Săvulescu (1952), Shaw (1978, 1981), Skaliký (1966) and Waterhouse and Brothers (1981). Hall (1996) has reviewed species concepts in the downy mildews. For brevity, excluded taxa and accepted synonyms are not given here, except where they have been used in the CABI database. The treatment of the Peronosporaceae here is not consistent from genus to genus because of the disparate numbers of species in genera, particularly *Peronospora* and *Plasmopara;* more detailed information on the treatment adopted is given under the genus name. The most complete, annotated, strictly alphabetic list *of Peronospora* names is in Constantinescu (1991*a*). There is no recent compilation for names in *Plasmopara*. *Albugo* has not been reviewed since the account

by Biga (1955). In Table 2, to facilitate comprehension of relationships, binomials are listed alphabetically under the sub-heads of the supra-ordinal groupings of the host angiosperm orders according to the most recent molecular phylogeny of the angiosperms (Soltis, Soltis, Chase *et al.,* 1998*a*, *b*; Soltis, Soltis and Chase, 1999) and the Angiosperm Phylogeny Group (APG, 1998). Note that the Urticaceae and related families are classified with the Rosids and that the asclepiads are included within the Apocynaceae. See Dick, this volume, for a summary table of host ranges according to this classification and Dick (2001*b*) for an integrated table of host relationships for all genera of the DMs and *Albugo*.

Waterhouse (1964) provided an earlier summary of the graminicolous downy mildews. Since then, Dick *et al.* (1984, 1989) and Dick (1988, 1990*a*, 1995) have proposed a reclassification of these fungi into the Sclerosporales.

New check-lists for accepted species, and taxa of debatable synonymy, for *Phytophthora* and *Pythium* are included because it seems increasingly probable that reference will need to be made to various species of *Phytophthora* (see Stamps *et al.,* 1990; Erwin and Ribeiro, 1996; Cooke *et al.* this volume; Dick, this volume) and *Pythium* (see Waterhouse, 1968; Plaats-Niterink, 1981; Dick, 1990*b*) when discussing the phylogeny and systematics of the downy mildews. Minor genera related to *Phytophthora* are also included.

A debate is being vigorously developed regarding the value of hierarchical versus hierarchy-less systematics (e.g., Hibbett and Donoghue, 1998; Dick, 2001*b* and this volume). The argument stems from the natural relationships and cladistic branching (phylogenies) presumed from molecular biological investigations. However, it is unlikely that all the known or named taxa will be characterized by molecular means in the foreseeable future. This is not because of technical ability, but because of the unavailablity of material or finance to carry out this work. Thus it is important that hierarchical systematics should continue to be developed alongside molecular biology. Nomenclatural changes based on molecular data can only be made when the type species have been characterized by these techniques. It is also pertinent to restate that these phylogenies are only probabilities (even if very highly significant probabilities) and that they are based on the sequences for very few genes (in many cases restricted solely to parts of the rDNA gene - 18S rDNA and the ITS and 5.8S regions). There is no indication that these genes are functionally important in determining the biodiversity, including host preferences, of the downy mildews. Evaluation of the possible relationships between incipient speciation and intra-specific variation will also need a molecular biodiversity input.

TABLE 2. Peronosporales: Peronosporaceae

BASIDIOPHORA Roze & Cornu

Basidiophora entospora Roze & Cornu **[type species]** [Saccardo: *Sylloge Fungorum* **6***:* 239]
Basidiophora kellermanii (Sacc.) G. W. Wilson [Swingle *ex* Sacc.] [≡ *Benua kellermanii*]
Basidiophora montana R. W. Barreto [*Index of Fungi* **6(4)**: 196]

BENUA Constant.

Benua kellermanii (Sacc.) Constant, [**type species; monotypic]**
[Swingle *ex* Sacc.] [*Index of Fungi* **6(17)**: 900]

BREMIA Regel

[NOTE: Some authorities would regard *Bremia sensu stricto* as monotypic. Infra-specific taxa may be of dubious standing. Synonymy has not been evaluated.]

Bremia betae H. C. Bai & X. Y. Cheng [*Index, of Fungi* **6(8)** -.422]
Bremia centaurea Syd.
Bremia cicerbitae C. J. Li & Z. Q. Yuan [*Index of Fungi* **6(20)**: 1085]
Bremia cirsii (Uljan.) J. F. Tao & Y. N. Yu [Jacz. *ex* Uljan.] [*Index of Fungi* **6(5)**: 260]
Bremia elliptica Sawada
Bremia gemminata (Unger) Kochman & T. Majewski [*Index of Fungi* **4**: 4]
Bremia graminicola Naumov var. *graminicola*
Bremia graminicola Naumov var. *indica* M. K. Patel [*Index of Fungi* **1**: 277]
Bremia lactucae Regel var. *lactucae* **[type species]**
Bremia lactucae Regel var. *arctii* Uljan. [*Index of Fungi* **4**: 4]
Bremia lactucae Regel var. *cardui* Uljan. [*Index of Fungi* **4**: 4]
Bremia lactucae Regel var. *hedypnoidis* Uljan. [*Index of Fungi* **4**: 4]
Bremia lactucae Regel var. *pterothecae* Uljan. [*Index of Fungi* **4**: 4]
Bremia lactucae Regel var. *willemetiae* Uljan. [*Index of Fungi* **4**: 4]
Bremia lactucae Regel var. *xeranthemi* Uljan. [*Index of Fungi* **4**: 4]
Bremia lactucae Regel forma *mulgedii* C. B. Benua [*Index of Fungi* **4**: 303]
Bremia lactucae Regel forma *taraxaci* L. Ling & F. L. Tai [*Index of Fungi* **1**: 226]
Bremia lactucae Regel forma *taraxaci* C. B. Benua [later homonym] [*Index of Fungi* **4**: 303]
Bremia lactucae Regel forma specialis *carthami* M. O. Milovtzova
Bremia lactucae Regel forma specialis *centaureae* D. I. Skidmore & D. S. Ingram [*Index of Fungi* **5***:* 470]
Bremia lactucae Regel forma specialis *chinensis* L. Ling & M. C. Tai
Bremia lactucae Regel forma specialis *cirsii* D. I. Skidmore & D. S. Ingram [*Index of Fungi* **5**: 470]
Bremia lactucae Regel forma specialis *crepidis* D. I. Skidmore & D. S. Ingram [*Index of Fungi* **5**: 470]
Bremia lactucae Regel forma specialis *hieracii* D. I. Skidmore & D. S. Ingram [*Index of Fungi* **5**: 470]
Bremia lactucae Regel forma specialis *lapsanae* D. I. Skidmore & D. S. Ingram [*Index of Fungi* **5**: 470]
Bremia lactucae Regel forma specialis *leontodi* D. I. Skidmore & D. S. Ingram [*Index of Fungi* **5**: 470]
Bremia lactucae Regel forma specialis *picridis* D. I. Skidmore & D. S. Ingram [*Index of Fungi* **5**: 470]
Bremia lactucae Regel forma specialis *ovata* L. Ling & M. C. Tai
Bremia lactucae Regel forma specialis *senecionis* D. I. Skidmore & D. S. Ingram [*Index of Fungi* **5**: 470]
Bremia lactucae Regel forma specialis *sonchi* D. I. Skidmore & D. S. Ingram [*Index of Fungi* **5**: 470]
Bremia lactucae Regel forma specialis *sonchicola* L. Ling & M. C. Tai
Bremia lactucae Regel forma specialis *taraxaci* L. Ling & M. C. Tai
Bremia lactucae Regel forma specialis *taraxaci* D. I. Skidmore & D. S. Ingram [*Index of Fungi* **5**: 470]

Table 2, continued.

Bremia lagoceridis Y. N. Yu & J. F. Tao	[*Index of Fungi* **6(5)**: 260]
Bremia lapsanae Syd. [as *'lampsanae'*]	
Bremia leibnitziae J. F. Tao & Y. Qin	[*Index of Fungi* **5**: 280]
Bremia moehringiae T. R. Liu & C. K. Pai	[*Index of Fungi* **5**: 421]
Bremia microspora Sawada	
Bremia ovata Sawada	
Bremia picridis S. Ito & Tokun.	
Bremia picridis-hieracioidis Savinceva	[*Index of Fungi* **4**: 303]
Bremia saussurea Sawada	
Bremia sonchi Sawada	
Bremia stellata (Desm.) Kochman & T. Majewski	[*Index of Fungi* **4**: 4]
Bremia taraxaci S. Ito & Tokun.	
Bremia tulasnei (Hoffm.) Syd.	

BREMIELLA G. W. Wilson

[NOTE: See Constantinescu (1979; 1991b).]

Bremiella baudysii (Skalický) Constant. & Negrean	[*Index of Fungi* **2**: 197; **4**: 589]
Bremiella megasperma (Berl.) G. W. Wilson **[type species]**	
Bremiella oenanthes J. F. Tao & Y. Qin [= *B. baudysii*]	[*Index of Fungi* **5***:* 421]
Bremiella sphaerosperma Constant.	

PARAPERONOSPORA Constant.

[NOTE: All hosts in Asteraceae. See Constantinescu (1989; 1996*a*).]

Paraperonospora apiculata Constant.	[*Index of Fungi* **6** (**14**): 768]
Paraperonospora artemisiae-annuae (L. Ling & M. C. Tai) Constant.	[*Index of Fungi* **1**: 168; **3**: 415; **5**: 1065]
Paraperonospora artemisiae-biennis (Gäum.) Constant.	[Saccardo: *Sylloge Fungorum* **26**: 31; *Index of Fungi* **3**: 415; **5**: 1065]
Paraperonospora chrysanthemi-coronarii (Sawada) Constant.	[Petrak's Lists **6**]
Paraperonospora leptosperma (de Bary) Constant, **[type species]**	[*Index of Fungi* **3**: 415; **5**: 1065]
Paraperonospora minor (Săvul. & Rayss) Constant.	[*Index of Fungi* **5**: 1065]
Paraperonospora multiformis (J. F. Tao & Y. Qin) Constant.	[*Index of Fungi* **5**: 1065]
Paraperonospora sulphurea (Gäum.) Constant.	[*Index of Fungi* **3**: 415; **5**: 1065]
Paraperonospora tanaceti (Gäum.) Constant.	[*Index of Fungi* **3**: 415; **5**: 1065]

Table 2, continued.

PERONOSPORA Corda

Peronospora rumicis Corda **[type species]**

[NOTES: Perhaps *ca* 75 species, 800 binomials and infra-specific taxa proposed; for the full list of binomials see Constantinescu (1991*a*) and *Index of Fungi* therafter. *Index of Fungi* references are mostly excluded because full information is available in Constantinescu (1991*a*). Dr Constantinescu writes (*in litt.,* 10 Jul 96): "I do not have a check-list of taxonomically correct or accepted *Peronospora* species. Such a list can only be made after a taxonomic study of the fungi involved. There is no such study covering the whole genus *Peronospora*".

To facilitate relationships in the following long list, species are entered alphabetically according to the phylogenetic arrangement of their hosts, using the Soltis, Soltis, Chase *et al.,* 1998*a*, *b*; Soltis, Soltis and Chase, 1999 and the Angiosperm Phylogeny Group (APG, 1998) system.

Names for *Peronospora* as used in Kochman & Majewski (1970) (i.e., including *Pseudoperonospora:* are referenced by [page number]-[entry number] to descriptions);
valid [bold-face] binomials for *Peronospora sensu stricto,* as moderated by Constantinescu (1991*a*) are justified left; updated from *Index of Fungi* to Vol 6 (16);
indented entries are those generally considered conspecific, either ≡ (nomenclatural synonym) or = (taxonomic synonym) [with relevant binomial with priority];
synonyms used in the CABI database have been included;
F is used to indicate information available in Farr *et al.* (1989);
valid, infra-specific taxa listed in Constantinescu (1991*a*) and Farr *et al.* (1989) are omitted.]

EUDICOTS; no supra-ordinal phylogeny

RANUNCULALES. Berberidaceae

Peronospora achlydis S. Ito & Tokun.

RANUNCULALES: Papaveraceae with Fumariaceae

Peronospora affinis Rossmann [140-58]
Peronospora arborescens (Berk.) Casp. [143-61; **F**]
Peronospora argemones Gaüm. [142-60]
Peronospora bocconiae Syd.
Peronospora bulbocapni Beck [138-55]
Peronospora chelidonii Jacz. & P. A. Jacz. [T. Miyabe ex Jacz & P. A. Jacz.]
Peronospora corydalis de Bary [139-56; **F**]
Peronospora corydalis-intermediae Gaüm. [140-57]
Peronospora cristata Tranzschel
Peronospora dicentrae Syd.
Peronospora gaeumannii Mundk. [= *P. indica* Gaum.]
Peronospora glaucii Lobik [141-59]
Peronospora hylomeconis S. Ito & Tokun.
Peronospora hypecoi Bremer [*nom. illegit.*] [Bremer in Petrak] [*Index of Fungi* **2**: 150]
Peronospora hypecoi Jacz. & P. A. Jacz. [as *'hypecoumis'*]
Peronospora meconopsidis Mayor [replaces *Peronospora mayorii* Gaüm.] [214-149; **F**]

Table 2, continued.

Peronospora papaveris Tul. [*nom. invalid.*] [Saccardo: *Sylloge Fungorum* **7**: 251]
Peronospora papaveris-pilosi Vienn.-Bourg. [*nom. invalid.*]
Peronospora roemeriae Zaprom.

RANUNCULALES: Ranunculaceae

Peronospora aconiti Y. N. Yu
Peronospora alpicola Gaüm. [133-49]
Peronospora alpina Johans. [≡ *Plasmopara alpina*] [Saccardo: *Sylloge Fungorum* **9**: 343]
Peronospora anemonones Tramier [*nom. invalid.*]
Peronospora apiospora G. Poirault
Peronospora consolidae Jacz. & P. A. Jacz. [Lagerh. ex Jacz & P . A. Jacz.] [131-45]
Peronospora eranthidis-hyemalis (Pass.) A. Fisch. [as *'eranthidis'*] [= *P. myosuri*] [Saccardo: *Sylloge Fungorum* **17**: 521]
Peronospora ficariae de Bary [Tul. *ex* de Bary] [137-54]
Peronospora gigantea Gaüm. [135-51]
Peronospora glacialis (A. Blytt) Gaüm. [=*P. ficariae*] [135-50]
Peronospora hellebori-purpurascentis **Săvul**. & Rayss
Peronospora hepaticae de Bary [= *Plasmopara pygmaea*] [Saccardo: *Sylloge Fungorum* **7**: 253]
Peronospora hiemalis Gaüm. [137-53; **F**]
Peronospora illyrica Gaüm.
Peronospora iwatensis S. Ito & Muray.
Peronospora leptopyri C. K. Pai
Peronospora macrocarpa Corda [≈ *Plasmopara pygmaea*] [Saccardo: *Sylloge Fungorum* **7**: 240]
Peronospora myosuri Fuckel [133-48]
Peronospora parvula Jacz. & P. A. Jacz. [≡ *Plasmopara parvula*] [W. G. Schneid. *ex* Jacz. & P. A. Jacz.] [132-47]
Peronospora pennsylvanica Gaüm. [**F**]
Peronospora pulveracea Fuckel [131-46]
Peronospora pygmaea Unger [≡ *Plasmopara pygmaea*] [Saccardo: *Sylloge Fungorum* **7**: 240]
Peronospora ranunculi Gaüm. [136-52; **F**]
Peronospora ranunculi-carpatici **Săvul**. & Rayss
Peronospora ranunculi-flabellati Vienn.-Bourg. [*nom. invalid.*]
Peronospora ranunculi-oxyspermi Jacz. & Sergeeva
Peronospora ranunculi-peduncularis Roiv.
Peronospora ranunculi-sardoi **Săvul**. & Rayss
Peronospora ranunculi-steveni **Săvul**. & Rayss
Peronospora yamadana Togashi

CORE EUDICOTS; no supra-ordinal phylogeny

Vitaceae

Peronospora viticola (Berk. & M. A. Curtis) de Bary [≡ *Plasmopara viticola*] [Saccardo: *Sylloge Fungorum* **3**: 111]

CARYOPHYLLALES: Aizoaceae

Peronospora mesembryanthemi Verwoerd

Table 2, continued.

CARYOPHYLLALES: Amaranthaceae [see also Chenopodiaceae]

Peronospora amaranthi Gaüm. [130-44]

CARYOPHYLLALES. Cactaceae

Peronospora cactorum Lebert & Cohn [as 'E. Cohn & Lebert'] [≡ *Phytophthora cactorum*] [Saccardo: *Sylloge Fungorum* **7**: 238]

CARYOPHYLLALES: Caryophyllaceae [see also Illebraceae]

Peronospora agrostemmatis Gaüm. [102-11]
Peronospora alsinearum Casp. [118-32; **F**]
Peronospora arenariae (Berk.) Tul. [112-25]
Peronospora atlantica Gaüm.
Peronospora campestris Gaüm. [103-12]
Peronospora cerastii-anomali **Săvul.** & Rayss
Peronospora cerastii-brachypetali **Săvul.** & Rayss [107-17]
Peronospora cerastii-glandulosi S. Ito & Tokun.
Peronospora cucubali S. Ito & Tokun.
Peronospora dianthi de Bary [113-26]
Peronospora dianthicola Barthelet [*nom. invalid.*] [107-18; **F**]
Peronospora fontana A. Gustavsson
Peronospora gypsophilae Jacz. & P. A. Jacz. [108-19]
Peronospora helvetica Gaüm.
Peronospora holostei de Bary [Casp. *ex de* Bary] [109-21]
Peronospora honckenyae (Syd. & P. Syd.) Syd. [= *P. alsinearum* var. *honckeniae*] [110-22]
Peronospora jaczewskii **Săvul.** & Rayss [= *P. gypsophilae*]
Peronospora lepigoni Fuckel [117-31]
Peronospora lychnitis Gaüm. [110-23]
Peronospora media Gaüm.
Peronospora melandrii Gaüm. [111-24]
Peronospora melandrii-noctiflori **Săvul.** & Rayss
Peronospora moenchiae C. Camara & Oliviera
Peronospora obovata Bonord. [115-29; **F**]
Peronospora parva Gaüm. [119-33]
Peronospora paula A. Gustavsson [106-16]
Peronospora polycarpi Mayor & Vienn.-Bourg. [as '*polycarponis*']
Peronospora pseudostellariae G. Y. Yin & Z. S. Yang [*Index of Fungi* **6(11)**: 621]
Peronospora septentrionalis Gaüm. [104-13]
Peronospora silenes G. W. Wilson [≡ *P. arenariae* var. *macrospora*] [114-28; **F**]
Peronospora stellariae de Bary [*nom. invalid.*]
Peronospora stellariae-aquaticae Sawada
Peronospora stellariae-radiantis S. Ito & Tokun.
Peronospora stellariae-uliginosae Sawada
Peronospora tomentosa Fuckel [= *P alsinearum*] [105-15]
Peronospora tornensis Gaüm.
Peronospora trivialis Gäum.
Peronospora uralensis Jacz. & P. A. Jacz.
Peronospora vernalis Gaüm. [116-30]
Peronospora vexans Gäum. [*nom. invalid.*]

Table 2, continued.

CARYOPHYLLALES: Chenopodiaceae [now subsumed in Amaranthaceae]

Peronospora atriplicis-halimi **Săvul.** & Rayss		
Peronospora atriplicis-hastatae **Săvul.** & Rayss		
Peronospora atriplicis-hortensis **Săvul.** & Rayss		
Peronospora atriplicis-tataricae Oescu & **Rădul.**		
Peronospora axyridis C. Benois		
Peronospora betae J. G. Kühn [= *P. farinosa*]		
Peronospora bohemica Gaüm.		
Peronospora boni-henrici Gaüm.		[125-39]
Peronospora ceratocarpi Kalymb. [*nom. invalid.*]	[*Index of Fungi* **3**: 193]	
Peronospora chenopodii Schltdl.		[123-37]
Peronospora chenopodii-ambrosioides Golinia [*nom. invalid.*]		
Peronospora chenopodii-ficifolii Sawada		
Peronospora chenopodii-glauci Gaüm.		[125-38]
Peronospora chenopodii-opulifolii **Săvul.** & Rayss		
Peronospora chenopodii-polyspermi Gaüm.		[126-40]
Peronospora chenopodii-rubri Gaüm.		
Peronospora chenopodii-urbici **Săvul.** & Rayss		
Peronospora chenopodii-vulvariae **Săvul.** & Rayss		
Peronospora daturae Hulea		
Peronospora echinopsili Tunkina		
Peronospora effusa (Grev.) Tul.		[129-43]
Peronospora epiphylla (Pers.) Pat. & Lagerh. [= *P. farinosa*]		
Peronospora eurotiae Kalymb.		
Peronospora farinosa (Fr.) Fr. *sensu lato*	[(Fr. : Fr.) Fr.] [**F**]	
Peronospora farinosa (Fr.) Fr. *sensu stricto*	[(Fr. : Fr.) Fr.]	
Peronospora iolotanica Kolosch.		
Peronospora kochiae Gaüm.		
Peronospora kochiae-prostratae Sandu & Iacob [= *P. kochiae-scopariae*]	[*Index of Fungi* **4**: 315]	
Peronospora kochiae-scopariae Kochman & T. Majewski		[127-41]
Peronospora litoralis Gaüm.		[120-34]
Peronospora minor (Casp.) Gaüm. [= *P. effusa* var. *minor*]		[120-35]
Peronospora minor (Casp.) Gäum. [≡ *P. farinosa*]		
Peronospora monolepidis Gaüm.		
Peronospora muralis Gaüm.		
Peronospora nitens Oescu & **Rădul.**		
Peronospora obionis-verruciferae **Săvul.** & Rayss		
Peronospora salicorniae Jenkina		
Peronospora schachtii Fuckel [≡ *P. farinosa*]		[122-36]
Peronospora spinaciae Laubert [≡ *P. farinosa]*		
Peronospora tatarica **Săvul.** & Rayss		
Peronospora teloxydis Jacz. & P. A. Jacz.		
Peronospora ussuriensis Jacz. & P. A. Jacz. [new name for *P. effusa* var. *manshurica* Naumov]		
Peronospora variabilis Gäum.		
Peronospora vistulensis Wróbl.		128-42]

CARYOPHYLLALES: Illecebraceae [now subsumed in Caryophyllaceae]

Peronospora herniariae de Bary		[108-20]
Peronospora scleranthi Rabenh.	[Rabenh. ex J. Schröt. in Cohn]	[113-27]

Table 2, continued.

CARYOPHYLLALES: Nyctaginaceae

Peronospora oxybaphi Ellis & Kellerm. [**F**]

CARYOPHYLLALES. Plumbaginaceae

Peronospora constantineanui Săvul. & Rayss
Peronospora limonii Simonyan
Peronospora statices Lobik

CARYOPHYLLALES: Polygonaceae

Peronospora americana Gaüm. [**F**]
Peronospora ducometii Siemaszko & Jank. [98-6]
Peronospora eriogoni H. Solheim & Gilb. [*Index of Fungi* **4**: 221; **F**]
Peronospora fagopyri Jacz. & P. A. Jacz.
Peronospora jaapiana Magnus [100-9]
Peronospora polygoni (Thüm.) A. Fisch [≡ *P. effusa* var. *polygoni*] [99-7]
Peronospora polygoni-convolvuli A. Gustavsson [99-8]
Peronospora rumicis Corda [**type species**] [101-10]
Peronospora rumicis-rosei Rayss
Peronospora sinensis D. Z. Tang

CARYOPHYLLALES: Portulacaceae

Peronospora calindriniae Speg.
Peronospora claytoniae Farl. [**F**]

SANTALALES: Santalaceae

Peronospora thesii Lagerh. [97-5]

SAXIFRAGALES: Crassulaceae

Peronospora sempervivi Schenk. [= *Phytophthora cactorum*] [Saccardo: *Sylloge Fungorum* **7**: 238]

SAXIFRAGALES: Grossulariaceae

Peronospora ribicola J. Schröt. [≡ *Plasmopara ribicola*] [Saccardo: *Sylloge Fungorum* **7**: 243]

SAXIFRAGALES: Saxifragaceae

Peronospora chrysosplenii Fuckel [181-108]
Peronospora minima G. W. Wilson [182-109]
Peronospora saxifragae Bubák [182-110; **F**]
Peronospora whippleae Ellis & Everh. [**F**]

Table 2, continued.

CORE EUDICOTS: ROSIDS: sister groups to Eurosids I and II

Zygophyllaceae

Peronospora tribulina Pass.

GERANIALES: Geraniaceae

Peronospora beccarii Pass. [= *P. conglomerata*]
Peronospora conglomerata Fuckel [**F**]
Peronospora effusa-ciconia Becc.
Peronospora erodii Fuckel [215-151; **F**]
Peronospora geranii Peck [≡ *Plasmopara geranii*] [Saccardo: *Sylloge Fungorum* **7**: 242]

CORE EUDICOTS: ROSIDS: EUROSIDS I

CUCURBITALES: Cucurbitaceae

Peronospora actinostemmatis (Sawada) Skalický [= *Pseudoperonospora cubensis*] [*Index of Fungi* **3**: 413]
Peronospora australis Speg. [≡ *Plasmopara australis*] [Saccardo: *Sylloge Fungorum* **7**: 260-261]
Peronospora cucumeris (Sawada) Skalický [= *Pseudoperonospora cubensis*] [*Index of Fungi* **3**: 413]
Peronospora luffae (Sawada) Skalický [= *Pseudoperonospora cubensis*] [*Index of Fungi* **3**: 413]
Peronospora momordicae (Sawada) Skalický [= *Pseudoperonospora cubensis*] [*Index of Fungi* **3**: 413]
Peronospora sicyicola Peck [= *Plasmopara australis*] [Saccardo: *Sylloge Fungorum* **7**: 260]

FABALES: Fabaceae

Peronospora aestivalis Syd. [201-134]
Peronospora astragali Syd.
Peronospora astragali-purpurei Mayor & Vienn.-Bourg.
Peronospora astragalina Syd. [191-121]
Peronospora cilicia Bremer & Gäum.
Peronospora coronillae Gaüm. [193-123]
Peronospora coronillae-minimae Vienn.-Bourg. [*nom. invalid.*]
Peronospora coronillicola C. Camara & Oliviera
Peronospora cytisi Rostr. [195-126]
Peronospora desmodii S. Ito & Tokun.
Peronospora dipeltae Jacz. & P. A. Jacz.
Peronospora dorycnii Uljan.
Peronospora ervi A. Gustavsson [= *P. viciae sensu lato*] [214-150]
Peronospora esperaussensis Mayor
Peronospora fabae Jacz. & Sergeeva [213-148]
Peronospora fulva Syd. [198-130]
Peronospora galegae Săvul. & Rayss [193-124]
Peronospora lagerheimii Gaüm. [192-122]
Peronospora lathyri-aphacae Săvul. & Rayss
Peronospora lathyri-hirsuti Săvul. & Rayss
Peronospora lathyri-humilis C. Benois

Table 2, continued.

Peronospora lathyri-maritimi Jermal.	
Peronospora lathyri-palustris Gaüm.	[**F**]
Peronospora lathyri-pisiformis M. I. Nikol.	
Peronospora lathyri-rosei Osipian	
Peronospora lathyri-verni A. Gustavsson	[197-128]
Peronospora lathyri-versicolaris Săvul. & Rayss	
Peronospora lathyrina Vienn.-Bourg.	
Peronospora lentis Gaüm.	[199-131]
Peronospora lotorum Syd.	[200-133; **F**]
Peronospora manshurica (Naumov) Syd. [≡ *Peronospora trifoliorum* var. *manshurica*]	[194-125; **F**]
Peronospora mayorii Gaüm.	[214-149; **F**]
Peronospora medicaginis-minimae Gapon.	
Peronospora medicaginis-orbicularis Rayss	
Peronospora medicaginis-tianschanicae Gapon.	
Peronospora meliloti Syd.	[203-136]
Peronospora melissiti Byzova & Dejeva	
Peronospora moreaui Rayss	
Peronospora narbonensis Gaüm.	[**F**]
Peronospora ononidis G. W. Wilson	[204-138]
Peronospora ornithopi Gaüm.	[205-139]
Peronospora orobi Gaüm.	[198-129]
Peronospora oxytropidis Gaüm.	[206-140]
Peronospora phacae Gaüm.	
Peronospora pisi Syd. [≡ *P. viciae*]	[206-141; **F**]
Peronospora pratensis Syd.	
Peronospora romanica Săvul. & Rayss [≡ *P . aestivalis* f. *medicaginis-falcatae*] [= *P. trifoliorum sensu lato*]	[202-135]
Peronospora ruegeriae Gaüm.	[204-137]
Peronospora savulescui Rayss	
Peronospora senneniana Gonz. Frag. & Sacc.	[195-127]
Peronospora septum Gaüm. [≡ *P. viciae*]	[211-146]
Peronospora sojae Lehman & F. A. Wolf [≡ *P. manschurica*]	
Peronospora tetragonolobi Gaüm.	[200-132]
Peronospora tetragonolobi-palestini Rayss	
Peronospora trifolii-alpestris Gaüm.	
Peronospora trifolii-arvensis Syd.	[210-145]
Peronospora trifolii-cherleri Rayss [*nom. invalid.*]	[*Index of Fungi* **3**: 120]
Peronospora trifolii-clypeati Rayss [*nom. invalid.*]	[*Index of Fungi* **3**: 120]
Peronospora trifolii-formosi Rayss	
Peronospora trifolii-hybridi Gaüm.	[209-144]
Peronospora trifolii-minoris Gaüm.	
Peronospora trifolii-pratensis A. Gustavsson	
Peronospora trifolii-pilularis Rayss [*nom. invalid.*]	[*Index of Fungi* **3**: 120]
Peronospora trifolii-purpurei Rayss [*nom. invalid.*]	[*Index of Fungi* **3**: 120]
Peronospora trifolii-repentis Syd.	
Peronospora trifoliorum de Bary *sensu lato*	[208-143; **F**]
Peronospora trifoliorum de Bary *sensu stricto*	
Peronospora trigonellae Gäum.	
Peronospora viciae (Berk.) Casp. *sensu lato*	[212-147; **F**]
Peronospora viciae (Berk.) Casp. *sensu stricto*	
Peronospora viciae-sativae Gaüm. [≡ *P. viciae*]	
Peronospora viciae-venosae Jacz. & P. A. Jacz.	

Table 2, continued.

Peronospora viciicola Campbell [as '*vicicola*'] [*nom. invalid.*] [F]
Peronospora viennotii Mayor [as '*viennoti*'] [207-142]

FAGALES: Fagaceae

Peronospora fagi R. Hartig [≡ *Phytophthora fagi* (? = *P. quercina*)]
[Saccardo: *Sylloge Fungorum* **7**: 238]

MALPIGHIALES: Euphorbiaceae

Peronospora andina Speg.
Peronospora chamaesycis G. W. Wilson [= *P. euphorbiae*]
Peronospora cyparissiae de Bary [218-154]
Peronospora embergeri Mayor & Vienn.-Bourg.
Peronospora esulae Gäum.
Peronospora euphorbiae Fuckel [219-155; F]
Peronospora euphorbii-glyptospermae Gäum.
Peronospora euphorbii-thymifoliae Sawada
Peronospora favargeri Mayor & Vienn.-Bourg.
Peronospora hypericifoliae Sinha & Mathur
Peronospora valesiaca Gäum.

MALPIGHIALES: Linaceae

Peronospora lini J. Schröt. [217-153; F]

MALPIGHIALES: Violaceae

Peronospora megasperma Berl. [≡ *Bremiella megasperma*] [Saccardo: *Sylloge Fungorum* **14**: 458]
Peronospora violae J. Schröt. [de Bary *ex* J. Schröt.] [220-156]

OXALIDALES: Oxalidaceae

Peronospora oxalidis Verwoerd & du Plessis

ROSALES: Rosaceae

Peronospora agrimoniae Syd. [= *P. sparsa*] [183-111]
Peronospora alchemillae G. H. Otth [=*P. sparsa*] [184-112]
Peronospora fragariae Roze & Cornu [= *P. sparsa*] [F]
Peronospora gei Syd. [=*P. sparsa*] [184-113]
Peronospora ibarakii S. Ito & Muray. [=*P. sparsa*]
Peronospora potentillae de Bary [185-114; F]
Peronospora potentillae-americanae Gäum. [= *P. sparsa* (*P. potentillae-anserinae*)]
[Petrak's Lists **3**: [542]]
Peronospora potentillae-anserinae Gaüm. [= *P. sparsa*] [188-117]
Peronospora potentillae-reptantis Gaüm. [=*P. sparsa*] [187-116]
Peronospora potentillae-sterilis Gaüm. [=*P. sparsa*] [186-115]
Peronospora rosae-gallicae Săvul. & Rayss [≡ *P. sparsa*]
Peronospora rubi Rabenh. [=*P. sparsa*] [190-119; F]
Peronospora sanguisorbae Gaüm. [=*P. sparsa*] [191-120]

Table 2, continued.

Peronospora sparsa Berk. *sensu lato* [188-118; **F**]
Peronospora sparsa Berk. *sensu stricto*

ROSALES: Ulmaceae

Peronospora celtidis Waite [= *Pseudoperonospora celtidis*] [Saccardo: *Sylloge Fungorum* **11**: 243]

ROSALES: Urticaceae

Peronospora cannabina G. H. Otth [= *Pseudoperonospora cannabina]* [93-1]
Peronospora boehmeriae G. Y. Yin & Z. S. Yang [*Index of Fungi* **6(11)**: 621]
Peronospora debaryi E. S. Salmon & Ware [97-4; **F**]
Peronospora parietariae Vanev & E. G. Dimitrova
Peronospora humuli (Miyabe & M. Takah.) Skalický [= *Pseudoperonospora humuli*] [94-2]
Peronospora illinoensis Farl. [= *Plasmopara obducens*] [Saccardo: *Sylloge Fungorum* **7**: 261]
Peronospora urticae (Lib.) Casp. [= *Pseudoperonospora urticae*] [96-3]

CORE EUDICOTS: ROSIDS: EUROSIDS II

BRASSICALES: Brassicaceae [see also Capparaceae]

Peronospora aethionomatis Simonyan [*nom. invalid.*]
Peronospora alliariae-wasabi Gaüm. [133-49]
Peronospora alyssi-calycini Gaüm. [145-53]
Peronospora alyssi-incani Gaüm.
Peronospora alyssi-maritimi Kochman
Peronospora arabidis-alpinae Gaüm. [147-65]
Peronospora arabidis-glabrae Gaüm.
Peronospora arabidis-hirsutae Gaüm. [148-67]
Peronospora arabidis-oxyphyllae Gaüm.
Peronospora arabidis-strictae Jacz. & P. A. Jacz.
Peronospora arabidis-turritae Gaüm.
Peronospora arabidopsidis Gaüm. [149-68]
Peronospora aubrietae Mayor
Peronospora barbareae Gaüm. [151-70]
Peronospora berteroae Gaüm. [152-71]
Peronospora biscutellae Gaüm. [152-72]
Peronospora brassicae Gaüm. [= *P. parasitica brassicae*] [153-73]
Peronospora buniadis Gaüm. [155-74]
Peronospora cakiles Savile
Peronospora calepinae Gaüm.
Peronospora camelinae Gaüm. [156-75]
Peronospora cardamines-laciniatae A. Gaüm.
Peronospora cardaminopsis A. Gustavsson [160-79]
Peronospora cardariae-repentis N. P. Golovina
Peronospora carpoceratis Byzova
Peronospora chartomatis Golvin & Kalymb.
Peronospora cheiranthi Gaüm. [161-80]
Peronospora chorisporae Gaüm.
Peronospora cochleariae Gaüm. [149-69; **F**]

Table 2, continued.

Peronospora coringiae Gäum.		
Peronospora coronopi Gaüm.		[162-82]
Peronospora coronopi-procumbentis Vienn.-Bourg. [*nom. invalid.*]		
Peronospora crambes Jacz. & P. A. Jacz.		
Peronospora cryptosporae Annal.		
Peronospora dentariae Rabenh.		[159-78]
Peronospora dentariae-macrophyllae Gaüm.		[158-77]
Peronospora desertorum Jacz. & P. A. Jacz.		
Peronospora diplotaxidis Gaüm.		[163-84]
Peronospora diptychocarpi Kalymb.		
Peronospora drabae Gaüm.		[164-85]
Peronospora drabae-majusculae Lindtner		
Peronospora eigii Rayss		
Peronospora erophilae Gaüm.		[165-86]
Peronospora erucastri Gaüm.		[166-87]
Peronospora erysimi Gaüm.		[166-88]
Peronospora euclidii **Săvul.** & Rayss		[167-89]
Peronospora gaeumanniana Jaap		
Peronospora galligena S. Blumer		[146-64]
Peronospora goldbachiae Jacz. & P. A. Jacz.		
Peronospora golovinii Kalymb.		
Peronospora heliophilae E. Müll. & Poelt		
Peronospora hesperidis Gaüm.		[168-90]
Peronospora hornungiae A. Gustavsson		
Peronospora hymenolobi Annal.		
Peronospora iberidis Gaüm.	[Gaüm. *ex* Gaüm.]	[169-91]
Peronospora iranica Petr. & Esfand.		
Peronospora isatidis Gaüm.		[169-92]
Peronospora jordanovii R. Krusch.		
Peronospora lepidii (McAlpine) G. W. Wilson [= *Peronospora parasitica* var. *lepidii*]		[170-93]
Peronospora lepidii-perfoliati **Săvul.** & Rayss		[171-94]
Peronospora lepidii-sativi Gaüm.		
Peronospora lepidii-virginici Gaüm.		
Peronospora leptalei Kolosch.		
Peronospora litwinowiae Kalymb.		
Peronospora lobulariae Ubrizsy & Vörös		[171-95]
Peronospora lunulariae Gaüm.		[172-96]
Peronospora malcolmiae Lobik		
Peronospora malyi Lindtner		
Peronospora matthiolae Gaüm.		[173-97]
Peronospora maublancii **Săvul.** & Rayss		
Peronospora menioci Kolosch.		
Peronospora minuta Vienn.-Bourg. [*nom. invalid.*]		
Peronospora myagri Mayor		
Peronospora nasturtii-aquatici Gaüm.		[174-98]
Peronospora nasturtii-montani Gaüm.		
Peronospora nasturtii-palustris S. Ito & Tokun.		
Peronospora nesliae Gaüm.		[174-99]
Peronospora niessliana A. Berl.		[144-62]
Peronospora norvegica Gaüm, [as *'norwegica'*]		
Peronospora ochracea Ces. [*nom. invalid.*]		[147-66]
Peronospora ochroleuca Ces. [= *Peronospora ochracea* Ces.] [*nom. invalid.*]		[147-66]

Table 2, continued.

Peronospora pachyphragmatis-macrophylli Savinceva	
Peronospora parasitica (Fr.) Fr.	[(Pers. *ex* Fr.) Fr.] [156-76]
Peronospora rapistri Jacz. & Sergeeva [as *'rapistrae'*]	
Peronospora rhaetica Gaüm.	[176-102]
Peronospora rorippae-islandicae Gaüm.	[176-101]
Peronospora savulescui Sandu [*nom. invalid.*]	
Peronospora senecionis Fuckel [= *P. parasitica*]	
Peronospora simonianii Osipian	
Peronospora sisymbrii-intermedii Gaüm.	
Peronospora sisymbrii-loeselii Gaüm.	
Peronospora sisymbrii-officinalis Gaüm.	[177-103]
Peronospora sisymbrii-orientalis Gaüm.	
Peronospora sisymbrii-sophiae Gaüm.	[163-83]
Peronospora sophiae-pinnatae Gaüm.	
Peronospora streptolomatis Golovin & Kalymb. [as *'streptolomatae'*]	
Peronospora syreniae Jenkina [*nom. invalid.*]	
Peronospora syreniae-cuspidatae Oescu & Rădul.	
Peronospora takahashii S. Ito	
Peronospora taurica Jacz. & P. A. Jacz.	
Peronospora tauscheriae Kalymb.	
Peronospora teesdaliae Gaüm. [as *'teesdalae'*]	[178-104]
Peronospora thlaspeos-alpestris Gaüm.	[179-106]
Peronospora thlaspeos-arvensis Gaüm.	[179-105]
Peronospora thlaspeos-perfoliati Gaüm.	
Peronospora torulariae Domashova [*nom. invalid.*]	*[Index of Fungi* **3**: 333]
Peronospora turritidis Gäum.	
Peronospora vvedenskyi Golovin	
BRASSICALES: Capparaceae [now subsumed in Brassicaceae]	
Peronospora capparidis Sawada [*nom. invalid.*]	
BRASSICALES: Limnanthaceae	
Peronospora floerkeae Kellerm.	[**F**]
BRASSICALES: Resedaceae	
Peronospora crispula Fuckel	[180-107]
MALVALES: Cistaceae	
Peronospora alpestris Gaüm.	[133-49]
Peronospora leptoclada Sacc.	[221-157]
MYRTALES: Onagraceae	
Peronospora arthurii Farl.	[222-159; **F**]
Peronospora epilobii G. H. Otth [≡ *Plasmopara epilobii*]	[Saccardo: *Sylloge Fungorum* **11**: xxiii]
Peronospora epilobii Rabenh. [≡ *Plasmopara epilobii*]	[Saccardo: *Sylloge Fungorum* **7**: 243]

Table 2, continued.

SAPINDALES: Meliaceae

Peronospora portoricensis (Lamkey) Skalický [≡ *Plasmopara portoricensis*] [*Index of Fungi* **3**: 413]

CORE EUDICOTS: ASTERIDS: sister groups to ASTERIDS I and II

ERICALES: Balsaminaceae

Peronospora impatientis Ellis & Everh. [= *Plasmopara obducens*] [Saccardo: *Sylloge Fungorum* **9**: 243]
Peronospora obducens J. Schröt. [≡ *Plasmopara obducens*] [Saccardo: *Sylloge Fungorum* **7**: 242]

ERICALES: Polemoniaceae

Peronospora phlogina Dietel & Holw. [**F**]
Peronospora giliae Ellis & Everh. [= *P. phlogina*]

ERICALES: Primulaceae

Peronospora agrorum Gaüm. [224-162]
Peronospora anagallidis J. Schröt. [Saccardo: *Sylloge Fungorum* **7**: 248; **F**]
Peronospora androsaces Niessl [223-161]
Peronospora candida Fuckel [223-160; **F**]
Peronospora cortusae Gaüm. & S. Blumer [224-163]
Peronospora gregoriae S. Blumer
Peronospora mirabilis Jacz. & P. A. Jacz.
Peronospora oerteliana J. G. Kühn [225-164]

ASTERIDS: EUASTERIDS I

ASTERIDS: EUASTERIDS I: families without ordinal grouping

Boraginaceae [see also Hydrophyllaceae]

Peronospora alkannae Vienn.-Bourg.
Peronospora anchusae Ziling
Peronospora arnebiae Golovin
Peronospora asperuginis J. Schröt. [231-172]
Peronospora bothriospermi Sawada
Peronospora cerinthes Uljan. [as '*cerinthe*'] [232-173]
Peronospora cynoglossi Swingle [Burrill *ex* Swingle] [233-174; **F**]
Peronospora echii (Krieger) Jacz. & P. A. Jacz. [= *P. myosotidis*]
Peronospora echinospermi (Swingle) Swingle [= *P. cynoglossi*] [233-175]
Peronospora eritrichii S. Ito & Tokun.
Peronospora lithospermi Gaüm. [234-176]
Peronospora microulae Y. R. Meng & G. Y. Yin
Peronospora myosotidis de Bary [235-177; **F**]

Table 2, continued.

Peronospora noneae Jacz. & Sergeeva [as *'nonneae'*] [236-178]
Peronospora omphalodis Gaüm. [236-179]
Peronospora pulmonariae Gaüm. [? = *P. myosotidis* f. *pulmonariae*] [237-180]
Peronospora rocheliae Kalymb.
Peronospora rugosa Jacz. & P. A. Jacz.
Peronospora solenanthi Byzova
Peronospora symphyti Gaüm. [237-181]
Peronospora thyrocarpi L. Ling & M. C. Tai [as *'thyrocarpii'*]
Peronospora trigonotidis S.Ito & Tokun.
Peronospora uljanishchevii Tunkina

Hydrophyllaceae [now subsumed in Boraginaceae]

Peronospora hydrophylli Waite **[F]**
Peronospora nemophilae C. G. Shaw **[F]**

ASTERIDS: EUASTERIDS I: orders and families

GENTIANALES: Apocynaceae

Peronospora vincae J. Schröt. [227-167]

GENTIANALES: Asclepiadiaceae [now subsumed in Apocynaceae]

Peronospora gonolobii Lagerh. [≡ *Plasmopara gonolobi*] [Saccardo: *Sylloge Fungorum* **11**: 243]

GENTIANALES: Gentianaceae

Peronospora canscorina Thite & M. S. Patil
Peronospora carnicola Gäum. [*nom. invalid.*]
Peronospora chlorae de Bary
Peronospora erythraeae Gaüm. [J. G. Kühn *ex* Gaüm.] [226-165]
Peronospora gentianiae Rostr. [226-166]

GENTIANALES: Rubiaceae

Peronospora aparines (de Bary) Gaüm. [≡ *P. calotheca* var. *aparines*] [228-169]
Peronospora borealis Gaüm.
Peronospora borreriae Lagerh. [≡ *Plasmopara borreriae*] [Saccardo: *Sylloge Fungorum* **11**: 243]
Peronospora calotheca de Bary [227-168]
Peronospora crucianellae Maire
Peronospora galii Fuckel [= *P. calotheca*] [229-170]
Peronospora galii-anglici Uljan.
Peronospora galii-pedemontani Săvul. & Rayss
Peronospora galii-rubioides Săvul. & Rayss
Peronospora galii-trifidii S. Ito & Tokun.
Peronospora galii-veri Gäum.
Peronospora hiratsukae S. Ito & Tokun.
Peronospora hommae S. Ito & Tokun.
Peronospora insubrica Gaüm.

Table 2, continued.

Peronospora rubiae Gäum.
Peronospora sakamotoi S. Ito & Tokun.
Peronospora seymourii Burrill in Underwood **[F]**
Peronospora sherardiae Fuckel [230-171]
Peronospora silvatica Gaüm.

LAMIALES: Buddlejaceae [formerly Loganaceae *pro parte*]

Peronospora hariotii Gaüm. [246-193]

LAMIALES: Lamiaceae

Peronospora amethysteae Jacz. & P. A. Jacz.
Peronospora calaminthae Fuckel [238-182]
Peronospora chamaesphaci Kalymb.
Peronospora clinopodii Terui
Peronospora dracocephali C. J. Li & Zhen Y. Zhao *[Index of Fungi* **6(19)**: 1048]
Peronospora davisii C. G. Shaw **[F]**
Peronospora elsholtziae T. R. Liu & C. K. Pai
Peronospora galeopsidis Lobik [238-183]
Peronospora glechomae Oescu & Rădul.
Peronospora glechomatis (Willi Krieg.) T. Majewski [≡ *P. lamii* var. *glechomae*] [239-184]
Peronospora hedeomatis Kellerm. & Swingle **[F]**
Peronospora ibrahimovii T. M. Achundov
Peronospora lallemantiae Golovin & Kalymb.
Peronospora lamii A. Braun [240-185; **F**]
Peronospora lamii var. *glechomae* Willi Krieg. [as '*glechomatis*'] [≡ *P. glechomae*] [Saccardo's Omissions: 48]
Peronospora leonuri T. R. Liu & C. K. Pai
Peronospora lophanthi Farl. **[F]**
Peronospora menthae X. Y. Cheng & H. C. Bai
Peronospora perillae Miyabe in S. Ito & Tokun.
Peronospora rossica Gaüm.
Peronospora saturejae-hortensis Osipian
Peronospora sideritidis Byzova
Peronospora scutellariae Bejlin [242-188]
Peronospora stachydis Syd. [243-189]
Peronospora stigmaticola Raunk. [241-186; **F**]
Peronospora swinglei Ellis & Kellerm. [241-187; **F**]
Peronospora teucrii Gaüm. [243-190]
Peronospora thymi Syd. [*nom. invalid.*]
Peronospora ziziphorae Byzova

LAMIALES: Plantaginaceae

Peronospora akatsukae S. Ito & Muray.
Peronospora alta Fuckel [262-213; **F**]
Peronospora canescens C. Benois
Peronospora plantaginis Underw. **[F]**
Peronospora plantaginis Burrill [264-21]
Peronospora lanceolatae Gapon. [*nom. invalid.*] [*Index of Fungi* **4**: 352]

Table 2, continued.

LAMIALES: Scrophulariaceae

Peronospora agrestis Gaüm. [260-210
Peronospora andicola Speg.
Peronospora antirrhini J. Schröt. [246-194; **F**]
Peronospora aquatica Gaüm. [257-207]
Peronospora arvensis Gaüm. [259-209]
Peronospora canadensis Gaüm.
Peronospora celsiae Syd. & P. Syd.
Peronospora densa Rabenh. [= *Plasmopara densa*] [Saccardo: *Sylloge Fungorum* **7**: 243]
Peronospora digitalis Gaüm. [247-195]
Peronospora erini Vienn.-Bourg. [*nom. invalid.*]
Peronospora flava Gaüm. [249-198; **F**]
Peronospora grisea (Unger) Unger [257-208; **F**]
Peronospora indica Syd. & P. Syd.
Peronospora jacksonii C. G. Shaw [252-202; **F**]
Peronospora lapponica Lagerh. [Saccardo: *Sylloge Fungorum* **9**: 344; 248-196]
Peronospora linariae Fuckel [250-199; **F**]
Peronospora linariae-genistifoliae Săvul. & Rayss [249-197]
Peronospora melampyri (Bucholz) Davis [251-200]
Peronospora melampyri-cristati Săvul. & Rayss
Peronospora orontii J. Schröt. [*nom. invalid.*]
Peronospora palustris Gaüm.
Peronospora pedicularis Palm
Peronospora pocutica T. Majewski [253-203]
Peronospora satarensis M.S. Patil
Peronospora saxatilis Gaüm.
Peronospora silvestris Gaüm.
Peronospora sordida Berk. & Broome [253-204; **F**]
Peronospora tozziae S. Blumer [254-253]
Peronospora tranzscheliana Bakhtin [252-201]
Peronospora verbasci Gaüm. [256-206]
Peronospora verna Gaüm.
Peronospora veronicae-cymbalariae Rayss

SOLANALES: Convolvulaceae

Peronospora convolvuli J. C. Lindq.
Peronospora fritzii J. Schröt.

SOLANALES: Solanaceae

Peronospora capsici J. F. Tao & T. J. Li
Peronospora devastatrix Casp. [= *Phytophthora infestans*] [Saccardo: *Sylloge Fungorum* **7**: 237]
Peronospora dubia A. Berl.
Peronospora fintelmannii Casp. [= *Phytophthora infestans*] [Saccardo: *Sylloge Fungorum* **15**: 241]
Peronospora hyoscyami de Bary [**F**]
Peronospora infestans (Mont.) de Bary [as 'de Bary'] [= *Phytophthora infestans*] [Saccardo: *Sylloge Fungorum* **7**: 237]
Peronospora infestans (Mont.) Casp. [as 'Casp.'] [= *Phytophthora infestans*] [Saccardo: *Sylloge Fungorum* **1**: 224]
Peronospora lycii L. Ling & M. C. Tai

Table 2, continued.

Peronospora nicotianae Speg.
Peronospora tabacina D. B. Adam [≡ *P. hyoscyami*] [245-192; **F**]
Peronospora trifurcata Unger [= *Phytophthora infestans*] [Saccardo: *Sylloge Fungorum* **7**: 237]

ASTERIDS: EUASTERIDS II: orders and families

APIALES: Apiaceae

Peronospora conii Tul. [*now. invalid.*; ? = *Plasmopara umbelliferarum sensu lato*]
[Saccardo: *Sylloge Fungorum* **7**: 241]
Peronospora macrocarpa Corda *sensu* Rabenh. [= *Plasmopara umbelliferarum*]
[Saccardo: *Sylloge Fungorum* **7**: 240]
Peronospora macrospora (Unger) Unger [= *Plasmopara umbelliferarum*]
[Saccardo: *Sylloge Fungorum* **7**: 241]
Peronospora podagrariae G. H. Otth [≡ *Plasmopara podagrariae*]
[Saccardo: *Sylloge Fungorum* **11**: xxiii]

APIALES: Araliaceae

Peronospora panacis Bunkina [*nomen nudum*] [≒ *Plasmopara panacis* Bondartsev & Bunkina]
[*Index of Fungi* **3**: 56)

ASTERALES: Asteraceae

Peronospora achilleae **Săvul.** & Vánky [= *Paraperonospora leptosperma*] [*Index of Fungi* **2**: 515]
Peronospora anthemidis Gäum. [= *Paraperonospora leptosperma*]
[Saccardo: *Sylloge Fungorum* **26**: 30]
Peronospora artemisiae-annuae L. Ling & M. C. Tai [≡ *Paraperonospora artemisiae-annuae*]
Peronospora artemisiae-biennis Gäum. [≡ *Paraperonospora artemisiae-biennis*]
Peronospora brachycomes Enkina [= *Paraperonospora leptosperma}* [*Index of Fungi* **3**: 561]
Peronospora buhrii **Săvul.** & Vánky [= *Paraperonospora leptosperma}* [*Index of Fungi* **2**: 515]
Peronospora crossostephii Sawada [= *Paraperonospora multiformis}* [*Index of Fungi* **2**: 395]
Peronospora danica Gäum.
Peronospora dimorphothecae **Săvul.** & Vanky [≒ *Paraperonospora leptosperma*]
[*Index of Fungi* **2**: 515]
Peronospora ganglioniformis Berk.) de Bary [as'l*gangliformis'*][= *Bremia lactucae*]
[Saccardo: *Sylloge Fungorum* **7**: 244]
Peronospora ganglioniformis (Berk.) Tul. [as Tul.'] [= *Bremia lactucae*]
[Saccardo: *Sylloge Fungorum* **7**: 244]
Peronospora halstedii Farl. [≡ *Plasmopara halstedii*] [Saccardo: *Sylloge Fungorum* **7**: 242]
Peronospora helianthi Rostr. [=] [Saccardo: *Sylloge Fungorum* **26**: 39]
Peronospora helichrysi Togashi & Egami [= *Paraperonospora sulphurea*] [Petrak's Lists **7**]
Peronospora kellermanii Fuckel [as '*kellermannii*'] [≡ *Benua kellermanii*]
[Saccardo: *Sylloge Fungorum* **7**: 263]
Peronospora leptosperma de Bary [≡ *Paraperonospora leptosperma*] [*Index of Fungi* **5**: 445] [**F**]
Peronospora pospelovii Gaponenko [probably an *Aspergillus*] [*Index of Fungi* **4**: 353]
Peronospora radii de Bary [269-221]
Peronospora simplex Peck [= *Basidiophora entospora*] Sacc. *Syllog. Fung.***7**: 239]
Peronospora sonchi Gapon. [a doubtful taxon - ? *Bremia,* see Constantinescu, 1991*a*]
[*Index of Fungi* **2**: 442]

Table 2, continued.

Peronospora sulphurea Gäum. [≡ *Paraperonospora sulphurea*] Sacc. *Syllog. Fung.* **26**: 55]
Peronospora tanaceti Gäum. [≡ *Paraperonospora tanaceti*] [Saccardo: *Sylloge Fungorum* **26**: 56]
Peronospora ursiniae Săvul. & Vánky [= *Paraperonospora leptosperma*] [*Index of Fungi* **2**: 515]

ASTERALES: Campanulaceae

Peronospora campanulae G. Nicholas & Aggéry [*nom. invalid.*]
Peronospora corollae Tranzschel [267-218]
Peronospora erinicola Durrieu
Peronospora phyteumatis Fuckel [268-219]
Peronospora specularіae Gaüm. [268-220]

DIPSACALES: Dipsacaceae

Peronospora cephalariae Vincens
Peronospora cephalariae-laevigatae Săvul. & Rayss
Peronospora dipsaci de Bary [Tul. *ex* de Bary] [264-215; **F**]
Peronospora karelii Bremer & Gaüm.
Peronospora knautiae J. Schröt. [Fuckel *ex* J. Schröt.] [265-216]
Peronospora violacea Berk. [variously cited as 'Berk. *ex* Cooke' or Berk. in Cooke (preferred)] [266-217]

DIPSACALES: Valerianaceae

Peronospora centranthi Massenot [*nom. invalid.*]
Peronospora patriniae Kalymb.
Peronospora valerianae Trail [261-211; **F**]
Peronospora valerianellae Fuckel [261-212]

MONOCOTS

ASPARAGALES: Alliaceae

Peronospora alliorum Fuckel [= *P. destructor*] [Saccardo: *Sylloge Fungorum* **7**: 257]
Peronospora destructor (Berk.) Casp. [270-222; **F**]
Peronospora fugitai S. Ito & Tokun.
Peronospora schleidenii Unger [= *P. destructor*]

LILIALES: Liliaceae

Peronospora lilii Stenina [very dubious taxon]

ALISMATALES: Araceae

Peronospora trichotoma Massee [unidentifiable, but cross-reference to *Phytophthora colocasiae*] [Saccardo: *Sylloge Fungorum* **9**: 344]

Table 2, continued.

COMMELINOIDS

POALES: Cyperaceae

Peronospora cyperi Ideta [*non P. cyperi* Miyabe & Ideta = *Phytophthora cyperi*] [F]

POALES: Poaceae

Peronospora diplachnis Milovtz. [? = *Sclerospora graminicola*]
Peronospora graminicola (Sacc.) Sacc. [= *Sclerospora graminicola*] [Saccardo: *Sylloge Fungorum* **7**: 238]
Peronospora maydis Racib. [= *Peronosclerospora maydis*] [Saccardo: *Sylloge Fungorum* **14**: 460]
Peronospora setariae Pass. [= *Sclerospora graminicola*] [Saccardo: *Sylloge Fungorum* **7**: 238]

Peronospora names in the CABI-data base, but excluded from *Peronospora*

Peronospora barcinonae Ferrán [as 'Ferraris', = *P. ferrani* Gimeno] [name used in connection with the agent for cholera] [Saccardo: *Sylloge Fungorum* **15**: 240]
Peronospora dilachnis [see *P. diplachnis* on Poaceae] [Petrak's Lists **8**]
Peronospora exigua Wm. G. Sm. [a hyphomycete, = *Ovularia sphaeroidea*[*Saccardo: Sylloge Fungorum* **11:** 598]
Peronospora gossypina Averna-Saccá [a hyphomycete, *Olpitrichum tenellum*] [Petrak's Lists **1**: [157/233]]
Peronospora interstitialis Berk. & Broome [a hyphomycete, *Ramularia primulae*] [Saccardo: *Sylloge Fungorum* **7**: 259]
Peronospora lutea Carmona y Valle [a bacterium] [Saccardo: *Sylloge Fungorum* **8**: 1054]
Peronospora muscorum Sorokīn [very doubtful taxon, on moss] [Saccardo: *Sylloge Fungorum* **9**: 343]
Peronospora nivea (Unger) Unger [as 'Unger'] [excluded (*nomen confusum*): see Costantinescu, 1991a] [Saccardo: *Sylloge Fungorum* **7**: 244]
Peronospora nivea de Bar[not listed in Constantinescu, 1991a] [Saccardo: *Sylloge Fungorum* **7**: 240]
Peronospora obliqua Cooke[a hyphomycete, *Ovularia obliqua*] [Saccardo: *Sylloge Fungorum* **4**: 145]
Peronospora rufibasis Berk. & Broome [a hyphomycete, *Ramularia rufibasis*] [Saccardo: *Sylloge Fungorum* **7**: 261]

PLASMOPARA J. Schröt.

[NOTE: All names from *Sylloge Fungorum, Petrak's Lists* and *Index of Fungi* are included here, except for a few recombinations now listed under other genera. Infra-specific taxa may be of dubious standing. Synonymy has not been evaluated. Hosts of thirteen species (in as many families) may be found under *Peronospora* synonyms; families are given below when not the type of the order; for other symbols, see note under *Peronospora*.]

Plasmopara acalyphae (G. W. Wilson) G. W. Wilson [Saccardo: *Sylloge Fungorum* **24**: 64; **F**] [host(s) in Malpighiales (Euphorbiaceae)]
Plasmopara achilleae (Săvul. & L. Vánky) Skalický [= *Paraperonospora leptosperma*] [*Index of Fungi* **3**: 415; 70-11]

Table 2, continued.

Plasmopara achyranthis J. F. Tao & Y. Qin [*Index of Fungi* **5**: 306] [host(s) in Caryophyllales (Amaranthaceae)]
Plasmopara aegopodii (Casp.) Trotter [= *P. umbelliferarum*] [Saccardo: *Sylloge Fungorum* **24**: 65]
Plasmopara affinis Novot. forma *affinis* [*Index of Fungi* **3**: 255] [host(s) in Asterales]
Plasmopara affinis Novot. forma *silphii* Novot. [*Index of Fungi* **3**: 255]
Plasmopara alpina (C. J. Johanson) A. Blytt [host(s) in Ranunculales]
Plasmopara ammi Constant. [*Index of Fungi* **3**: 492] [host(s) in Apiales]
Plasmopara amurensis [no authority; no reference, but in the CABI database; ? ≡ *P. viticola* var. *amurensis*]
Plasmopara anemones-dichotomae Benua [*Index of Fungi* **4**: 316] [host(s) in Ranunculales]
Plasmopara anemones-nemorosae Săvul. & O. Săvul. [*Index of Fungi* **3**: 364] [host(s) in Ranunculales]
Plasmopara anemones-ranunculoidis Săvul. & O. Săvul [*Index of Fungi* **3**: 364] [host(s) in Ranunculales]
Plasmopara anethi Jermal. [*Index of Fungi* **3**: 415] [host(s) in Apiales]
Plasmopara angelicae (Casp.) Trotter [Saccardo: *Sylloge Fungorum* **24**: 65] [host(s) in Apiales]
Plasmopara angustiterminalis Novot. forma *angustiterminalis* [*Index of Fungi* **3**: 255; 76-17] [host(s) in Asterales]
Plasmopara angustiterminalis Novot. forma *ambrosiae* Novot. [*Index of Fungi* **3**: 255]
Plasmopara angustiterminalis Novot. forma *bidentis* Novot. [*Index of Fungi* **3**: 255]
Plasmopara anthemidis (Gäum.) Skalický [≡ *Paraperonospora leptosperma*] [*Index of Fungi* **3**: 415; 72-13]
Plasmopara apii Săvul. & O. Săvul. [*Index of Fungi* **3**: 364] [host(s) in Apiales]
Plasmopara archangelicae Gapon. [*Index of Fungi* **4**: 354] [host(s) in Apiales]
Plasmopara artemisiae-annuae (L. Ling & M. C. Tai) Skalický [≡ *Paraperonospora artemisiae-annuae*]
Plasmopara artemisiae-biennis (Gäum.) Skalický [≡ *Paraperonospora artemisiae-biennis*]
Plasmopara asterea Novot. forma *asterea* [*Index of Fungi* **3**: 255] [host(s) in Asterales]
Plasmopara asterea Novot. forma *callistephi* Novot. [= *P. callistephi*] [*Index of Fungi* **3**: 255]
Plasmopara asterea Novot. forma *galatellae* Novot. [= *P. galatellae*] [*Index of Fungi* **3**: 255]
Plasmopara asterea Novot. forma *heteropappi* Novot. [= *P. heteropappi]* [*Index of Fungi* **3**: 255]
Plasmopara asystasiae Vienn.-Bourg. [*Index of Fungi* **2**: 249] [host(s) in Lamiales (Acanthaceae)]
Plasmopara australis (Speg.) Swingle [Saccardo: *Sylloge Fungorum* **9**: 342; **12**: 575; **20**: 422; **F**] [host(s) in Cucurbitales]
Plasmopara baicalensis Jacz. & P. A. Jacz. [host(s) in Ranunculales]
Plasmopara baudysii Skalický [≡ *Bremiella baudysii*] [*Index of Fungi* **2**: 197]
Plasmopara bidentis (Novot.) Novot. [host(s) in Asterales]
Plasmopara borreriae (Lagerh.) Constant. [*Index of Fungi* **6(4)**: 221] [host(s) in Gentianales (Rubiaceae)]
Plasmopara buhrii (Săvul. & L. Vánky) Skalický [≡ *Paraperonospora leptosperma*] [*Index of Fungi* **3**: 415]
Plasmopara calaminthae S. H. Ou [*Index of Fungi* **1**: 45] [host(s) in Lamiales]
Plasmopara callistephi (Novot.) Novot. [host(s) in Asterales]
Plasmopara carlottae Savile [*Index of Fungi* **3**: 334] [host(s) in Apiales]
Plasmopara carthami Negru [*Index of Fungi* **3**: 469] [host(s) in Asterales]
Plasmopara caucalis Săvul. & O. Săvul. [*Index of Fungi* **3**: 364] [host(s) in Apiales]
Plasmopara cenolophii Jermal. [*Index of Fungi* **3**: 415] [host(s) in Asterales]
Plasmopara centaureae-mollis T. Majewski [*Index of Fungi* **3**: 515; 73-14] [host(s) in Asterales]
Plasmopara cephalophora Davis [Saccardo: *Sylloge Fungorum* **24**: 64; **F**] [host(s) in Lamiales]
Plasmopara cercidis C. G. Shaw *[Index of Fungi* **2**: 61; **F**] [host(s) in Fabales]
Plasmopara chaerophyllii (Casp.) Trotter [Saccardo: *Sylloge Fungorum* **24**: 65] [host(s) in Apiales]
Plasmopara chinensis Gorlenko *[Index of Fungi* **3**: 534] [host(s) in Vitaceae]
Plasmopara chrysanthemi-coronarii Sawada [≡ *Paraperonospora chrysanthemi-coronarii]* [Petrak's Lists]
Plasmopara cimicifugae S. Ito & Tokun. [host(s) in Ranunculales]

Table 2, continued.

Plasmopara cissi Vienn.-Bourg. [*Index of Fungi* **2**: 249] [host(s) in Vitaceae]
Plasmopara conii (Casp.) Trotter [= *P. umbelliferarum sensu lato*] [Saccardo: *Sylloge Fungorum* **24**: 65]
Plasmopara conii (Wart.) Cif. & C. Camera [later homonym] [*Index of Fungi* **3**: 224]
Plasmopara cruseae C. G. Shaw & Safeeulla [= *P. borreriae*] [*Index of Fungi* **3**: 195]
Plasmopara crustosa (Fr.) Jørst. [*nomen confusum,* Constantinescu (1992); excluded] [*Index of Fungi* **3**: 224; **F**]
Plasmopara cryptotaeniae J. F. Tao & Y. Qin [*Index of Fungi* **5**: 606] [host(s) in Apiales]
Plasmopara cubensis(Berk. & M. A. Curtis) Humphrey var. *cubensis* [= *Pseudoperonospora cubensis*] [Saccardo: *Sylloge Fungorum* **17**: 520; **20**: 422, 1288]
[The two varieties listed below do not appear either to have been transferred or reduced to synonymy.]
Plasmopara cubensis (Berk. & M. A. Curtis) Humphrey var. *atra* Zimm. [Saccardo: *Sylloge Fungorum* **17**: 520; **20**: 422]
Plasmopara cubensis (Berk. & M. A. Curtis) Humphrey var. *tweriensis* Rostovzev [Saccardo: *Sylloge Fungorum* **17**: 520; **20**: 422]
Plasmopara curta (Berk.) Skalický subspecies *curta* [= *Plasmopara pygmaea*] [*Index of Fungi* **2**: 173]
Plasmopara curta (Berk.) Skalický subspecies *orientalis* Skalicky [*Index of Fungi* **2**: 173]
Plasmopara curta (Berk.) Skalický var. *fusca* (Peck) Skalický [*Index of Fungi* **2**: 173]
Plasmopara curta (Berk.) Skalický forma *curta* [*Index of Fungi* **2**: 173]
Plasmopara curta (Berk.) Skalický forma *hellebori* **Săvul.** & Rayss [*Index of Fungi* **2**: 173]
Plasmopara dahurici Benua [*Index of Fungi* **4**: 316] [host(s) in Apiales]
Plasmopara dauci **Săvul. & O. Săvul.** [*Index of Fungi* **3**: 364] [host(s) in Apiales]
Plasmopara delphinii (Gapon.) Novot. [host(s) in Ranunculales]
Plasmopara densa (Rabenh.) J. Schröt. [Saccardo: *Sylloge Fungorum* **7**: 243; **12**: 575; **20**: 422] [67-8] [host(s) in Lamiales]
Plasmopara elatostemmatis (Togashi & F. Onuma) S. Ito & Tokun. [as 'elatostematis'] [host(s) in Rosales (Urticaceae)]
Plasmopara elsholtziae J. F. Tao & Y. Qin [cf. *Pseudoperonospora elsholtziae*] [*Index of Fungi* **5**: 306] [host(s) in Lamiales]
Plasmopara entospora (Roze & Cornu) J. Schröt. [= *Basidiophora entospora*] [Saccardo: *Sylloge Fungorum* **7**: 239; **12**: 575; **20**: 423, 1288]
Plasmopara epilobii (G. H. Otth) Sacc. & P. Syd. [as '(G. Otth) Schröt.'] [63-6; **F**] [host(s) in Myrtales (Onagraceae)]
Plasmopara galatellae (Novot.) Novot. [host(s) in Asterales]
Plasmopara galinsogae L. Campb. [host(s) in Asterales]
Plasmopara geranii (Peck) Berl. & De Toni [**F**] [host(s) in Geraniales]
Plasmopara geranii-pratensis **Săvul. & O. Săvul.** [*Index of Fungi* **3**: 364] [host(s) in Geraniales]
Plasmopara geranii-sylvatici **Săvul. & O. Săvul.** [*Index of Fungi* **3**: 364] [[host(s) in Geraniales]
Plasmopara gnaphalii Novot. [*Index of Fungi* **3**: 255] [host(s) in Asterales]
Plasmopara gonolobi (Lagerh.) Swingle [**F**] [host(s) in Gentianales (Apocynaceae)]
Plasmopara halstedii (Farl.) Berl. & De Toni [**F**] [host(s) in Asterales - *Verbena*!]
Plasmopara harae S. Ito & Muray. [*Index of Fungi* **2**: 41] [host(s) in Cornales (Hydrangeaceae)]
Plasmopara helianthi Novot. forma *helianthi* [*Index of Fungi* **3**: 364; 75-16] [host(s) in Asterales]
Plasmopara helianthi Novot. forma *patens* Novot. [*Index of Fungi* **3**: 364]
Plasmopara helianthi Novot. forma *perennis* Novot. [*Index of Fungi* **3**: 364]
Plasmopara helichrysi (S. Ito & Tokun.) J. F. Tao & Y. Qin [= *Paraperonospora sulphurea*] [Togashi & Egami *ex* S. Ito & Tokun.] [*Index of Fungi* **5**: 776]
Plasmopara heliocarpi Lagerh. [host(s) in Malvales (Grewioideae) (formerly Tiliaceae)]
Plasmopara hellebori-purpurascentis **Săvul. & O. Săvul.** [*Index of Fungi* **3**: 364] [host(s) in Ranunculales]
Plasmopara hepaticae Casp. [= *P. pygmaea*]

Table 2, continued.

Plasmopara hepaticae (Casp.) C. G. Shaw [= *P. hepaticae*] [*Index of Fungi* **1**: 267]
Plasmopara heteropappi (Novot.) Novot. [host(s) in Asterales]
Plasmopara humuli Miyabe & Takah. [≡ *Pseudoperonospora humuli*] [Saccardo: *Sylloge Fungorum* **21**: 861]
Plasmopara illinoensis (Farl.) Davis [**F**] [host(s) in Rosales (Urticaceae)]
Plasmopara impatientis (Ellis & Everh.) Berl. [= *P. obducens*]
Plasmopara isopyri Skalický [*Index of Fungi* **2**: 173] [host(s) in Ranunculales]
Plasmopara isopyri-thalictroidis (Săvul. & Rayss) Săvul. & O. Săvul. [*Index of Fungi* **3**: 364] [host(s) in Ranunculales]
Plasmopara justiciae (Sawada) Skalický [host(s) in Lamiales (Acanthaceae)]
Plasmopara kellermanii (Ellis & Halst.) Swingle [as '*kellermannii*'] [Saccardo: *Sylloge Fungorum* **9**: 342]
Plasmopara lactucae-radicis Stangh. & Gilb. [*Index of Fungi* **5**: 842] [host(s) in Asterales]
Plasmopara laserpitii (Wartenw.) Săvul. & Rayss [host(s) in Apiales]
Plasmopara latifolii Savile [*Index of Fungi* **3**: 195; **F**] [host(s) in Myrtales (Onagraceae)]
Plasmopara leptosperma (de Bary) Skalický [≡ *Paraperonospora leptosperma*] [*Index of Fungi* **3**: 415; 71-12]
Plasmopara megasperma (Berl.) Berl. [≡ *Bremiella megasperma*]
Plasmopara megasperma Săvul. [later homonym] [*Index of Fungi* **1**: 231; **3**: 255]
Plasmopara mei-foeniculi Săvul. & O. Săvul [*Index of Fungi* **3**: 364] [host(s) in Apiales]
Plasmopara melampyri Bucholtz [≡ *Peronospora melampyri*]
Plasmopara mikaniae Vienn.-Bourg. [*Index of Fungi* **2**: 249] [host(s) in Asterales]
Plasmopara miyakeana S. Ito & Tokun. [host(s) in Rosales (Urticaceae)]
Plasmopara myosotidis C. G. Shaw [*Index of Fungi* **2**: 61; **F**] [host(s) in Boraginaceae]
Plasmopara nakanoi S. Ito & Muray. [*Index of Fungi* **2**: 41] [host(s) in Ranunculales (Papaveraceae)]
Plasmopara nivea (Unger) J. Schröt. [*nomen confusum,* see *P. umbelliferum sensu lato*]
Plasmopara obducens (J. Schröt.) J. Schröt. [60-4; **F** [host(s) in Ericales (Balsimmaceae)]
Plasmopara oenanthes J. F. Tao & Y. Qin [*Index of Fungi* **5**: 306] [host(s) in Apiales]
Plasmopara oplismeni Vienn.-Bourg. [*Index of Fungi* **2**: 517] [host(s) in Poales (Poaceae, Paniceae)]
Plasmopara palmae L. Campb. [host(s) in Asterales]
Plasmopara panacis Bondartsev & Bunkina [*Index of Fungi* **3**: 56] [host(s) in Apiales (Araliaceae)]
Plasmopara parvula (Jacz. & P. A. Jacz.) Skalický [as '(Schneider) Skalický'] [≡ *Peronospora parvula*] [W. G. Schneid. *ex* Jacz. & P. A. Jacz.]
Plasmopara pastinacae Săvul. & O. Săvul. [*Index of Fungi* **3**: 364] [host(s) in Apiales]
Plasmopara paulowniae C. C. Chen [*Index of Fungi* **4**: 251] [host(s) in Lamiales (Scrophulariaceae)]
Plasmopara penniseti R. G. Kenneth & J. Kranz [*Index of Fungi* **4**: 223] [host(s) in Poales (Poaceae, Paniceae)]
Plasmopara petasitidis S. Ito & Tokun. [host(s) in Asterales]
Plasmopara petroselini Săvul. & O. Săvul. [*Index of Fungi* **3**: 364] [host(s) in Apiales]
Plasmopara peucedani Nannf. [host(s) in Apiales]
Plasmopara phrymae S. Ito & Hara [*Index of Fungi* **2**: 41] [host(s) in Lamiales ([Phrymaceae] Verbenaceae]
Plasmopara pileae (Gäum.) Jacz. & P. A. Jacz. [Petrak's Lists: Supplement] [host(s) in Rosales (Urticaceae)]
Plasmopara pileae S. Ito & Tokun. [later homonym] [*Index of Fungi* **4**: 286]
Plasmopara pimpinellae Săvul. & O. Săvul. var. *pimpinellae* [*Index of Fungi* **3**: 364] [host(s) in Apiales]
Plasmopara pimpinellae Săvul. & O. Săvul. var. *maioris* B. Wrońska [*Index of Fungi* **5**: 690]
Plasmopara plantaginicola T. R. Liu & C. K. Pai [*Index of Fungi* **5**: 448] [host(s) in Lamiales (Plantaginaceae)]
Plasmopara plectranthi L. Ling & M. C. Tai [*Index of Fungi* **1**: 169] [host(s) in Lamiales]
Plasmopara plectranthi A. D. Sharma & Munjal [later homonym] [*Index of Fungi* **4**: 635]

Table 2, continued.

Plasmopara podagrariae (G. H. Otth) Nannf. [*Index of Fungi* **2**: 26] [host(s) in Apiales]
Plasmopara portoricensis (Lamkey) Waterh. [*Index of Fungi* **5**: 92] [host(s) in Sapindales (Meliaceae)]
Plasmopara pusilla (de Bary) J. Schröt. [59-2] [host(s) in Geraniales]
Plasmopara pygmaea (Unger) J. Schröt. forma *pygmaea* **[type species]**
[57-1; **F**] [host(s) in Ranunculales]
Plasmopara pygmaea (Unger) J. Schröt. forma *anemones* Gapon. [*Index of Fungi* **4**: 354]
Plasmopara pygmaea (Unger) J. Schröt. forma *delphinii* Gapon. [*Index of Fungi* **4**: 354]
Plasmopara pygmaea (Unger) J. Schröt. forma *hellebori* T. **Săvul.** & Rayss [*Index of Fungi* **3**: 534]
Plasmopara pygmaea (Unger) J. Schröt. forma *isopyri-thalictroidis* [Petrak's Lists, Supplement]
Plasmopara pyrethri Dudka & Burdjuk. [= *Paraperonospora sulphurea*] [*Index of Fungi* **4**: 635]
Plasmopara ribicola Davis [J. Schröt. *ex* Davis]
[60-3; **F**] [host(s) in Saxifragales (Grossulariaceae)]
Plasmopara sambucinae Nelen [*Index of Fungi* **3**: 415] [host(s) in Dipsacales (Caprifoliaceae)]
Plasmopara sanguisorbae C. J. Li *et al.* [C. J. Li, Z. Q. Yuan & Zhen Y. Zhao] [host(s) in Rosales]
Plasmopara saniculae **Săvul. & O. Săvul.** [*Index of Fungi* **3**: 364] [host(s) in Apiales]
Plasmopara satarensis P. B. Chavan & U. V. Kulkarni
[*Index of Fungi* **4**: 418] [host(s) in Malvales (Tiliaceae)]
Plasmopara satureiae F. L. Tai & C. T. Wei [host(s) in Lamiales]
Plasmopara saussureae Novot. [*Index of Fungi* **3**: 255] [host(s) in Asterales]
Plasmopara savulescui Novot. [*Index of Fungi* **3**: 255; 75-15] [host(s) in Asterales]
Plasmopara selini **B. Wrońska** [*Index of Fungi* **5**: 690] [host(s) in Apiales]
Plasmopara sigesbeckiae (Lagerh.) J. F. Tao [*nom. invalid.*] [= *Peronospora*]
[*Index of Fungi* **5**: 776]
Plasmopara sii Gapon. [*Index of Fungi* **4**: 354] [host(s) in Apiales]
Plasmopara silai **Săvul. & O. Săvul.** [*Index of Fungi* **3**: 364] [host(s) in Apiales]
Plasmopara skvortovii Miura [host(s) in Malvales]
Plasmopara smyrnii **Săvul.** & M. Bechet [*Index of Fungi* **4**: 72] (host(s) in Apiales]
Plasmopara solidaginis Novot. [*Index of Fungi* **3**: 255; 78-19] [host(s) in Asterales]
Plasmopara sordida [no authority, no reference in CABI database, probably *Peronospora sordida*]
Plasmopara sphaerosperma **Săvul.** [*Index of Fungi* **1**: 231; 77-18] [host(s) in Asterales]
Plasmopara spilanthicola Syd. [host(s) in Asterales]
Plasmopara sulphurea (Gäum.) Skalický [≡ *Paraperonospora sulphurea*]
[*Index of Fungi* **3**; 415; 70-10]
Plasmopara tanaceti (Gäum.) Skalický [≡ *Paraperonospora tanaceti*] [*Index of Fungi* **3**: 415; 69-9]
Plasmopara triumfettae A. D. Sharma & Munjal
[*Index of Fungi* **4**: 635] [host(s) in Malvales (Grewioideae) (formerly Tiliaceae)]
Plasmopara umbelliferanum (Casp.) Wartenw. var. *umbelliferarum*
[64-7] [J. Schröt. *ex* Wartenw.] [host(s) in Apiales]
[This species may include the doubtful *P. crustosa* and *P. nivea* (Constantinescu, 1992)]
Plasmopara umbelliferarum (Casp.) J. Schröt. var. *hacquetiae* Skalický [*Index of Fungi* **2**: 197]
Plasmopara ursiniae **(Săvul.** & L. Vánky) Skalický [= *Paraperonospora leptosperma*]
[*Index of Fungi* **3**: 415]
Plasmopara venezuelana Chardón [host(s) in Brassicales]
Plasmopara vernoniae-chinensis Sawada [host(s) in Asterales]
Plasmopara viburni Peck **[F]** [host(s) in Dipsacales (Caprifoliaceae)]
Plasmopara vincetoxici Ellis & Everh. [host(s) in Gentianales (Apocynaceae)]
Plasmopara viticola (Berk. & M. A. Curtis) Berl. & De Toni var. *viticola* [62-5; **F**] [host(s) in Vitaceae]
Plasmopara viticola (Berk. & M. A. Curtis) Berl. & De Toni var. *americana* N. P. Golovina
[*Index of Fungi* **2**: 398]
Plasmopara viticola (Berk. & M. A. Curtis) Berl. & De Toni var. *amurensis* N. P. Golovina
[*Index of Fungi* **2**: 398]

Table 2, continued.

Plasmopara viticola (Berk. & M. A. Curtis) Berl. & De Toni var. *parthica* N. P. Golovina [*Index of Fungi* **2**: 398]
Plasmopara viticola (Berk. & M. A. Curtis) Berl. & De Toni forma *aestivalis-labruscae* **Săvul.** [*Index of Fungi* **3**: 364]
Plasmopara viticola (Berk. & M. A. Curtis) Berl. & De Toni forma *sylvestris* **Săvul.** [*Index of Fungi* **3**: 364]
Plasmopara vilicola (Berk. & M. A. Curtis) Berl. & De Toni forma *viniferae-ampelopsidis* **Săvul.** [*Index of Fungi* **3**: 364]
Plasmopara wartenweileri Skalický [*Index of Fungi* **2**: 173] [host(s) in Ranunculales]
Plasmopara wildemaniana Henn. var. *wildemaniana* [Saccardo: *Sylloge Fungorum* **21**: 861; **24**: 64] [host(s) in Lamiales (Acanthaceae)]
Plasmopara wildemaniana Henn. var. *macrospora* Sawada [Saccardo: *Sylloge Fungorum* **24**: 64]
Plasmopara yunnanensis J. F. Tao & Y. Qin [*Index of Fungi* **5**: 776] [host(s) in Asterales]

PSEUDOPERONOSPORA Rostovzev

[NOTE: Hosts principally in different families of the Rosales (Cannabaceae, Celtidaceae, Ulmaceae, Urticaceae).]

Pseudoperonospora aethiomenatis (Simonyan) Waterh. [= *Peronospora parasite* [*Index*] *of Fungi* **5**: 93]
Pseudoperonospora elsholtziae D. Z. Tang [cf. *Plasmopara elsholtziae*] [*Index of Fungi* **5**: 403] [host(s) in Lamiales]
Pseudoperonospora cannabina (G. H. Otth) Curzi
Pseudoperonospora cassiae Waterh. [*Index of Fungi* **5**: 93]
Pseudoperonospora celtidis (Waite) G. W. Wilson
Pseudoperonospora cubensis (Berk. & M. A. Curtis) Rostovzev **[type species]**
Pseudoperonospora humuli (Miyabe & M. Takah.) G. W. Wilson
Pseudoperonospora urticae (Berk.) E. S. Salmon & Ware [Lib. *ex* Berk.]

TABLE 3. Peronosporales: Albuginaceae; angiosperm host orders included for cross-reference to Table 2: *Peronospora* and *Plasmopara*

ALBUGO (Pers.) Roussel

Albugo achyranthis (Henn.) Miyabe [host(s) in Caryophyllales (Amaranthaceae)]
Albugo aechmantherae Z.-y. Zhang & Y.-x. Wang[Index *of Fungi* **5**: 377] [in Lamiales (Scrophulariaceae)]
Albugo amaranthi (Schwein.) Kuntze [host(s) in Caryophyllales (Amaranthaceae)]
Albugo austro-africana Syd. & P. Syd. [host(s) in Caryophyllales (Aizoaceae)]
Albugo bliti (Biv.) Kuntze [host(s) in Caryophyllales (Amaranthaceae)]
Albugo Candida (J. F. Gmel.) Kuntze var. *Candida* [**type species**] [(J. F. Gmel.: Pers.)] [host(s) in Brassicales]
Albugo Candida (J. F. Gmel.) Kuntze var. *macrospora* Togashi [(J. F. Gmel.: Pers.)] [host(s) in Brassicales]
Albugo capparidis (de Bary) Cif. [host(s) in Brassicales]

Table 3, continued.

Albugo caryophyllacearum (Wallr.) Cif. & Biga [host(s) in Caryophyllales]
Albugo centaurii (Hansf.) Cif. & Biga [host(s) in Gentianales]
Albugo chardiniae Bremer & Petr. [host(s) in Asterales]
Albugo chardonii W. Weston [host(s) in Brassicales]
Albugo cynoglossi (Unamuno) Cif. & Biga [host(s) in Boraginaceae]
Albugo eomeconis Z. Y. Zhang & Ying X. Wang
[*Index of Fungi* **5**: 73] [host(s) in Ranunculales (Papaveraceae)]
Albugo eurotiae Tranzschel [host(s) in Caryophyllales (Amaranthaceae)]
Albugo evansii Syd. [host(s) in Lamiales (Scrophulariaceae)]
Albugo evolvulae (Damle) Cif. & Biga [host(s) in Lamiales]
Albugo gomphrenae (Speg.) Cif. & Biga [host(s) in Caryophyllales (Amaranthaceae)]
Albugo hyoscyami Z. Y. Zhang *et al.*
[Z. Y. Zhang, Ying X. Wang & Z. S. Fu] *[Index of Fungi* **5***:* 571] [host(s) in Solanales (Convolvulaceae)]
Albugo ipomoeae-aquaticae Sawada [host(s) in Solanales (Convolvulaceae)]
Albugo ipomoeae-hardwikii Sawada [host(s) in Solanales (Convolvulaceae)]
Albugo ipomoeae-panduratae (Schwein.) Swingle var. *ipomoeae-panduratae*
[host(s) in Solanales (Convolvulaceae)]
Albugo ipomoeae-panduratae (Schwein.) Swingle var. *tillaceae* Cif. & Biga
[host(s) in Solanales (Convolvulaceae)]
Albugo ipomoeae-pes-caprae Cif. [host(s) in Solanales (Convolvulaceae)]
Albugo keeneri Solheim & Gilb. [*Index of Fungi* **4**: 531] (host(s) in Ranunculales (Papaveraceae)]
Albugo lepidii A. N. S. Rao [*Index of Fungi* **5**: 41] [host(s) in Brassicales]
Albugo mangenotii Mayor & Vienn.-Bourg. [= *A. molluginis*]
[*Index of Fungi* **2**: 51] [host(s) in Caryophyllales]
Albugo mauginii (Parisi) Cif. & Biga [host(s) in Fabales]
Albugo minor (Speg.) Cif. [host(s) in Solanales (Convolvulaceae)]
Albugo molluginis S. Ito
[also cited as S. Ito & Tokun. *(in* Ito & Tokunaga)] [host(s) in Caryophyllales (Molluginaceae)]
Albugo mysorensis (Thirum. & Safeeulla) Vasudeva [*nom. invalid.*]
[*Index of Fungi* **3**: 455] [host(s) in Caryophyllales (Molluginaceae)]
Albugo occidentalis G. W. Wilson [host(s) in Caryophyllales (Amaranthaceae)]
Albugo pes-tigridis Gharse [as '(Verma) Gharse']
[*Index of Fungi* **3**: 269] [host(s) in Solanales (Convolvulaceae)]
Albugo pileae J. F. Tao & Y. Qin [*Index of Fungi* **5**: 277] [host(s) in Rosales (Urticaceae)]
Albugo platensis (Speg.) Swingle [host(s) in Caryophyllales (Nyctaginaceae)]
Albugo polygoni Z. D. Jiang & P. K. Chi
[*Index of Fungi* **6(10)**: 833] [host(s) in Caryophyllales (Polygonaceae)]
Albugo portulacae (DC.) Kuntze [host(s) in Caryophyllales (Amaranthaceae)]
Albugo portulacearum (Schltdl.) Kochman & T. Majewski
[*Index of Fungi* **4**: 2] [host(s) in Caryophyllales (Portulacaceae)]
Albugo quadrata (Kalchbr. & Cooke) Kuntze [later homonym] [host(s) in Lamiales (Acanthaceae)]
Albugo quadrata (Wallr.) S. D. Baker [? = *Albugo bliti*]
[*Index of Fungi* **2**: 207] [host(s) in Caryophyllales]
Albugo resedae (Jacz.) Cif. & Biga [host(s) in Brassicales (Resedaceae)]
Albugo solivae J. Schröt. [host(s) in Asterales]
Albugo solivarum (Speg.) Herter [*Index of Fungi* **4**: 301] [host(s) in Asterales]
Albugo spinulosus (de Bary) Herter [*Index of Fungi* **4**: 301] [host(s) in Asterales]
Albugo swertiae (Berl. & Kom.) G. W. Wilson [host(s) in Gentianales]
Albugo tilleae (Lagerh.) Cif. & Biga [host(s) in Saxifragales (Crassulaceae)]
Albugo tragopogonis (Pers.) Gray var. *tragopogonis* [host(s) in Asterales]
Albugo tragopogonis (Pers.) Gray var. *cirsii* Cif. & Biga [host(s) in Asterales]
Albugo tragopogonis (Pers.) Gray var. *inulae* Cif. & Biga [host(s) in Asterales]

Table 3, continued.

Albugo tragopogonis (Pers.) Gray var. *pyrethri* Cif. & Biga [host(s) in Asterales]
Albugo tragopogonis (Pers.) Gray var. *xeranthemi-annui* Săvul. & Rayss [host(s) in Asterales]
Albugo trianthemae G. W. Wilson [host(s) in Caryophyllales (Aizoaceae)]
Albugo tropica Lagerh. [host(s) in Piperales]

TABLE 4. Pythiales: Pythiaceae

[NOTE: When there has been a fully comprehensive molecular biological account of all the genera listed here, together with a full sampling of all the different sections of *Pythium sensu lato* and *Phytophthora sensu lato,* there will be new monophyletic genera rearranged among the orders PYTHIALES and PERONOSPORALES.]

CYSTOSIPHON Roze & Cornu

[NOTE: = *Pythium sensu lato;* this is the earliest valid generic name for species with spherical zoosporangia]

Cystosiphon canterae (Karling) M. W. Dick [Dick, 2001*b*]
Cystosiphon closterii (De Wild.) M. W. Dick [Dick, 2001*b*]
Cystosiphon dictyosporum (Racib.) M. W. Dick [Dick, 2001*b*]
Cystosiphon pythioides Roze & Cornu **[type species]**
Cystosiphon reducta (de Wild.) M. W. Dick [Dick, 2001*b*]

DIASPORANGIUM Höhnk

Diasporangium jonesianum Höhnk **[type species; monotypic]**

ENDOSPHAERIUM D'Eliscu [doubtful genus]

Endosphaerium funiculatum D'Eliscu **[type species; monotypic]**

HALOPHYTOPHTHORA H. H. Ho & S. C. Jong

Halophytophthora avicenniae (Gerr.-Corn. & J. A. Simpson) H. H. Ho & S. C. Jong [*Index of Fungi* **5***:* 358; **6(1)**: 14]
Halophytophthora bahamensis (Fell & Master) H. H. Ho & S. C. Jong [*Index of Fungi* **4**: 417; **6(1)**: 14]
Halophytophthora batemanensis (Gerr.-Corn. & J. A. Simpson) H. H. Ho & S. C. Jong [*Index of Fungi* **5***:* 358; **6(1)**: 14]
Halophytophthora epistomium (Fell & Master) H. H. Ho & S. C. Jong [*Index of Fungi* **4**: 417; **6(1)**: 14]
Halophytophthora exoprolifera H. H. Ho *et al.* [H. H. Ho, A. Nakagiri & S. Y. Newell] [*Index of Fungi* **6(5)**: 269]

Table 4, continued.

Halophytophthora kandeliae H. H. Ho *et al.*
[H. H. Ho, S. Y. Hsieh & H. S. Chang] [*Index of Fungi* **6(2)**: 76; **6(4)**: 208]
Halophytophthora masteri A. Nakagiri & S. Y. Newell [*Index of Fungi* **6(10)**: 547]
Halophytophthora mycoparasitica (Fell & Master) H. H. Ho & S. C. Jong
[*Index of Fungi* **4**: 417; **6(1)**: 14]
Halophytophthora operculata (Pegg & Alcorn) H. H. Ho & S. C. Jong [*Index of Fungi* **5**: 210; **6(1)**: 14]
Halophytophthora polymorphica (Gerr.-Corn. & J. A. Simpson) H. H. Ho & S. C. Jong
[*Index of Fungi* **5**: 358; **6(1)**: 14]
Halophytophthora porrigovesica Nakagiri *et al.*
[K. Nakagiri, Tad.Ito, L. Manoch, & M. Tanticharoen] [*Mycoscience* **42**: 34 (2001)]
Halophytophthora spinosa (Fell & Master) H. H. Ho & S. C. Jong var. *spinosa*
[*Index of Fungi* **4**: 417; **6(1)**: 14]
Halophytophthora spinosa (Fell & Master) H. H. Ho & S. C. Jong var. *lobata* (Fell & Master) H. H. Ho & S. C. Jong [*Index of Fungi* **4**: 417; **6(1)**: 14]
Halophytophthora tartarea A. Nakagiri & S. Y. Newell [*Index of Fungi* **6(10)**: 547]
Halophytophthora vesicula (Anastasiou & Churchl.) H. H. Ho & S. C. Jong [**type species]**
[*Index of Fungi* **3**: 534; **6(1)**: 14]

LAGENIDIUM Zopf

[NOTE: Retypification of the genus by *L. giganteum* is recommended: the genus would then be monotypic. The existing 'type' [see Dick, 1999*b*] species being transferred to *Myzocytium.*]

Lagenidium giganteum Couch **[proposed type species; monotypic]**

MYZOCYTIUM Schenk

Myzocytium megastomum De Wild.
Myzocytium proliferum Schenk **[type species]**
Myzocytium netrii (C. E. Mill.) M. W. Dick [Dick, 2001*b*]
Myzocytium rabenhorstii Zopf [type species of *Lagenidium*]

PERONOPHYTHORA W. H. Ko *et al.*
[C. C. Chen *ex* W. H. Ko, H. S. Chang, H. J. Su, C. C. Chen & L. S. Leu]

[NOTE: Referable to *Phytophthora sensu lato.*]

Peronophythora litchi W. H. Ko *et al.* **[type species; monotypic]**
[C. C. Chen *ex* W. H. Ko, H. S. Chang, H. J. Su, C. C. Chen & L. S. Leu]

Table 4, continued.

PHYTOPHTHORA de Bary

[NOTES: Species groups in Stamps *et al.* (1990) justified right.
Erwin & Ribeiro (1996) cite *publication authors,* not authorities, after the binomial.

Phytophthora nicotianae and ***P. parasitica*** re: Erwin & Ribeiro (1996: 391). There is no separate and distinct Code of Nomenclature governing the nomenclature of straminipilous organisms (Chromista) other than the Zoological Code (for heterotrophs without a cell wall) and the Botanical Code. The convention has been to use the Botanical Code for both the photosynthetic organisms and the fungal organisms, but taxa (especially Labyrinthista) have been described under either code. Unilateral action by workers in *Phytophthora* would create, within this kingdom, a chaotic nomenclatural situation, which must be avoided. Therefore the use of ***P. nicotianae*** should prevail over ***P. parasitica*** unless or until ***P. parasitica*** is formally conserved. The extensive use, over many years, of both these names inevitably weakens a submission in support of ***P. parasitica,*** but a workshop of interested parties could achieve consensus.]

Phytophthora arecae Rosenbaum **[II]**
Phytophthora boehmeriae Sawada **[II]**
Phytophthora botryosa Chee **[II]**
Phytophthora cactorum (Lebert & Cohn) J. Schröt. **[I]**
Phytophthora cajani K. S. Amin *et al.* [K. S. Amin, Baldev & F. J. Williams] **[VI]** [*Index of Fungi* **4**: 542]
Phytophthora castanae Katsura & S. Uchida **[II]** [*Index of Fungi* **4**: 514]
Phytophthora castanae (L. Mangin) I. MacFarl. [now. *invalid.*] [*Index of Fungi* **4**: 635]
Phytophthora cinchonae Sawada [*Index of Fungi* **4**: 71]
Phytophthora cambivora (Petri) Buisman **[VI]**
Phytophthora capsici Leonian **[II]**
Phytophthora cinnamomi Rands var. *cinnamomi* **[VI]**
Phytophthora cinnamomi Rands var. *parvispora* Krober & R. Marwitz [*Index of Fungi* **6(6)**: 347]
Phytophthora citricola Sawada **[III]**
Phytophthora citrophthora (R.E.Sm. & E.H.Sm.) Leonian **[II]**
Phytophthora clandestina P. A. Taylor *et al.*
[P. A. Taylor, Pascoe & F. C. Greenh.] **[I]** [*Index of Fungi* **5**: 447]
Phytophthora colocasiae Racib. **[IV]**
Phytophthora cryptogea Pethybr. & Laff. **[VI]**
Phytophthora cryptogea Pethybr. & Laff. forma specialis *begoniae* Krober [*Index of Fungi* **5**: 210]
Phytophthora cyperi (Ideta) S. Ito **[III]**
Phytophthora cyperi-bulbosi Seethal. & K. Ramakr. **[III]**
Phytophthora drechsleri Tucker var. *drechsleri* **[VI]**
Phytophthora drechsleri Tucker var. *cajani* M. Pal *et al.*
[M. Pal, Grewal & A. K. Sarbhoy] [*Index of Fungi* **4**: 71]
Phytophthora eriugena Clancy & Kavanagh [*nom. invalid.]* **[IV]** [*Index of Fungi* **4**: *635*]
Phytophthora erythroseptica Pethybr. var. *erythroseptica* **[VI]**
Phytophthora erythroseptica Pethybr. var. *drechsleri* (Tucker) Sarej. [*Index of Fungi* **4**: 71]
Phytophthora erythroseptica Pethybr. var. *pisi* Bywater & Hickman
Phytophthora fagi R. Hartig [=*Peronospora fagi,* ? = *Phytophthora quercina*]
Phytophthora formosana Sawada [= *P. nicotianae*] [*Index of Fungi* **4**: 41]
Phytophthora fragariae Hickman var. *fragariae* **[V]**
Phytophthora fragariae Hickman var. *oryzobladis* J. S. Wang & J. Y. Lu [*Index of Fungi* **4**: 542]
Phytophthora fragariae Hickman var. *rubi* W. F. Wilcox & Deacon [*Index of Fungi* **6(6)**: 347]
Phytophthora gonapodyides (H. E. Petersen) Buisman **[VI]**
Phytophthora heveae A. W. Thomps. **[II]**

Table 4, continued.

Phytophthora hibernalis Carne [**IV**]
Phytophthora humicola W. H. Ko & Ann [**V**]
Phytophthora idaei D. M. Kennedy [**I**] [*Index of Fungi* **6(10)**: 560]
Phytophthora ilicis Buddenh. & Roy A. Young [**IV**]
Phytophthora imperfecta Sarej. var. *imperfecta* [*Index of Fungi* **4**: 72]
Phytophthora imperfecta Sarej. var. *citrophthora* (R. E. Sm & E. H. Sm.) Sarej. [*Index of Fungi* **4**: 72, 176]
Phytophthora imperfecta Sarej. var. *nicotianae* (Breda de Haan) Sarej. [*Index of Fungi* **4**: 72]
Phytophthora infestans (Mont.) de Bary var. *infestans* [**type species**] [**IV**]
Phytophthora infestans (Mont.) de Bary var. *phaseoli* (Thaxt.) Leonian [*Index of Fungi* **4**: 72]
Phytophthora infestans (Mont.) de Bary forma specialis *mirabilis* E. M. Möller & De Cock [*Index of Fungi* **6(8)**: 445]
Phytophthora inflata Caros. & Tucker [**III**]
Phytophthora insolita Ann & W. H. Ko [**V**] [*Index of Fungi* **5**: 91]
Phytophthora ipomoeae W. G. Flier & N. J. Grünwald
Phytophthora iranica Ershad [**I**] [*Index of Fungi* **4**: 72]
Phytophthora italica S. O. Cacciola *et al.* [S. O. Cacciola, G. Magnano di San Lio & A. Belisario]
Phytophthora japonica Waterh. [**VI**] [*Index of Fungi* **4**: 316]
Phytophthora katsurae W. H. Ko & H. S. Chang [= *P. castanae*] [**II**] [*Index of Fungi* **4**: 635; **6(16)**: 868]
Phytophthora lateralis Tucker & Milbrath [**II**]
Phytophthora leersiae H. H. Ho & H. S. Chang [Sawada *ex* H. H. Ho & H. S. Chang] [*Index of Fungi* **6(4)**: 221]
Phytophthora lepironiae Sawada [**III**]
Phytophthora lycopersici Sawada [= *P. nicotianae*] [*Index of Fungi* **4**: 41]
Phytophthora macrochlamydospora J. A. G. Irwin [**III/IV**] [*Index of Fungi* **6(4)**: 221]
Phytophthora meadii McRae [**II**]
Phytophthora medicaginis E. M. Hansen & D. P. Maxwell [**V**] [*Index of Fungi* **6(3)**: 159]
Phytophthora megakarya Brasier & M. J. Griffin [**II**] [*Index of Fungi* **4**: 571]
Phytophthora megasperma Drechsler var. *megasperma* [**V**]
Phytophthora megasperma Drechsler var. *sojae* (Kaufm. & Gerd.) A. A. Hildebr. [*P. sojae* Kaufm. & Gerd.]
Phytophthora megasperma Drechsler forma specialis *glycines* T.-L. Kuan & Erwin [*nom. illeg.*] [*Index of Fungi* **5**: 171]
Phytophthora megasperma Drechsler forma specialis *medicaginis* T.-L. Kuan & Erwin [*nom. illeg.*] [*Index of Fungi* **5**: 171]
Phytophthora megasperma Drechsler forma specialis *trifolii* R. G. Pratt [*nom. illeg.*] [*Index of Fungi* **5**: 134]
Phytophthora melonis Katsura [**VI**] [*Index of Fungi* **4**: 514]
Phytophthora mexicana H. H. Hotson & Hartge [**II**]
Phytophthora mirabilis Galindo & H. R. Hohl [**IV**] [*Index of Fungi* **5**: 606]
Phytophthora multivesiculata Ilieva *et al.* [Ilieva, Man in't Veld, W. Veenb.-Rijksa & R. Pieters] [*Index of Fungi* **6(18)**: 992]
Phytophthora nicotianae Breda de Haan var. *nicotianae* [**II**]
Phytophthora nicotianae Breda de Haan var. *parasitica* (Dastur) Waterh.
Phytophthora oryzae (Brizi) K. Hara [= *P. japonica*] [*Index of Fungi* **4**: 72]
Phytophthora oryzae (S. Ito & Nagai) Waterh. [later homonym] [*Index of Fungi* **4**: 176]
Phytophthora palmivora (E. J. Butler) E. J. Butler var. *palmivora* [**II**]
Phytophthora palmivora (E. J. Butler) E. J. Butler var. *heterocystica* Babacauh [*Index of Fungi* **5**: 358, 899]
Phytophthora parasitica Dastur var. *parasitica* [**II**]
Phytophthora parasitica Dastur var. *capsici* (Leonian) Sarej. [*Index of Fungi* **4**: 72]

Table 4, continued.

Phytophthora parasitica Dastur var. *colocasiae* (Racib.) Sarej. [*Index of Fungi* **4**: 72]
Phytophthora pistaciae Mirabolfathy [*Mycol. Res.* **105**: 1173 (2001)]
Phytophthora phaseoli Thaxt. [**IV**]
Phytophthora porri Foister [**III**]
Phytophthora primulae J. A. Toml. [**III**]
Phytophthora pseudotsugae Hamm & E. M. Hansen [**I**] [*Index of Fungi* **5**: 358]
Phytophthora quercina T. Jung [**I**] [*Index, of Fungi* **7(2)**: 75]
Phytophthora quininea Crand. [**V**]
Phytophthora ramorum Werres, De Cock & Man in't Veld [*Mycol. Res.* **105:** 1164 (2001)]
Phytophthora richardiae Buisman [**VI**]
Phytophthora mini Sawada [= *P. nicotianae*] [*Index of Fungi* **4**: 41]
Phytophthora sinensis Y. N. Yu & W. Y. Zhuang [**VI**]
Phytophthora sojae Kaufm. & Gerd.
[= *P. megasperma* Drechsler var. *sojae* (Kaufm. & Gerd.) A. A. Hildebr.] [**V**]
Phytophthora syringae (Kleb.) Kleb. [**III**]
Phytophthora tentacula Kröber & R. Marwitz [**I**] [*Index of Fungi* **6(6):** 347]
Phytophthora trifolii E. M. Hansen & D. P. Maxwell [**V**] [*Index of Fungi* **6(3):** 159]
Phytophthora undulata (H. E. Petersen) M. W. Dick [**VI**]
Phytophthora verrucosa Alcock & Foister [**V**]
Phytophthora vignae Purss [**VI**]
Phytophthora vignae Purss forma specialis *adzukicola* S. Tsuchiya *et al.*
[S. Tsuchiya, M. Yanagawa & A. Ogoshi] [*Index of Fungi* **5**: 606]
Phytophthora vignae Purss forma specialis *medicaginis* S. Tsuchiya *et al.*
[S. Tsuchiya, M. Yanagawa & A. Ogoshi] [*Index of Fungi* **5**: 606]

PYTHIUM Pringsh. [*Pythium* sensu lato]

[NOTE: For a complete list of binomials and full citations see Dick (1990*b*); citation information in Plaats-Niterink (1981) is incomplete.]

Pythium acanthicum Drechsler
Pythium acanthophoron Sideris
Pythium acrogynum Y. N. Yu [*Index of Fungi* **4**: 252]
Pythium adhaerens Sparrow
Pythium amasculinum Y. N. Yu [*Index of Fungi* **4**: 252]
Pythium anandrum Drechsler
Pythium angustatum Sparrow
Pythium aphanidermatum (Edson) Fitzp.
Pythium apleroticum Tokun.
Pythium aquatile Höhnk
Pythium aristosporum Vanterp.
Pythium arrhenomanes Drechsler [*Index of Fungi* **6(14)**: 772]
Pythium australe M. W. Dick [*nomen nudum*] [*Index of Fungi* **6(3)**: 162]
Pythium betae M. Takah. [*Index of Fungi* **4**: 183]
Pythium boreale R. L. Duan [*Index of Fungi* **5**: 451]
Pythium buismaniae Plaäts-Nit. [*Index of Fungi* **5**: 137]
Pythium capillosum B. Paul var. *capillosum* [*Index of Fungi* **5**: 695]
Pythium capillosum B. Paul var. *helicoides* B. Paul [*Index of Fungi* **5**: 779]
Pythium catenulatum V. D. Matthews
Pythium caudatum (G. L. Barron) M. W. Dick [*Index of Fungi* **4**: 411; Dick, 2001*b*]
Pythium chamaehyphon Sideris
Pythium chondricola De Cock [*Index of Fungi* **5***:* 499]

Table 4, continued.

Pythium coloratum Vaartaja	
Pythium conidiophorum Jokl	
Pythium connatum Y. N. Yu	[*Index of Fungi* **4**: 252]
Pythium contiguanum B.Paul [= *Pythium drechsleri* B. Paul]	
Pythium cucumerinum Bakhariev	[*Index of Fungi* **5**: 404]
Pythium cryptogynum B. Paul	[*Index of Fungi* **6(2)**: 94]
Pythium cylindrosporum B. Paul	[*Index of Fungi* **6(5)**: 288]
Pythium debaryanum R. Hesse	
Pythium deliense Meurs	
Pythium diclinum Tokun.	
Pythium dictyosporum Racib.	
Pythium dimorphum F. F. Hendrix & W. A. Campb.	[*Index of Fungi* **4**: 106]
Pythium dissimile Vaartaja	
Pythium dissotocum Drechsler	
Pythium drechsleri B. Paul [later homonym - see *Pythium contiguanum*]	
Pythium drechsleri S. Rajgopalan & K. Ramakr.	[*Index of Fungi* **4**: 252]
Pythium echinulatum V. D. Matthews	
Pythium erinaceus G. I. Robertson [probably = *Pythium echinulatum*]	[*Index of Fungi* **4**: 636]
Pythium flevoense Plaäts-Nit.	[*Index of Fungi* **4**: 224]
Pythium fluminum D. Park var. *fluminum*	[*Index of Fungi* **4**: 515]
Pythium fluminum D. Park var. *flavum* D. Park	[*Index of Fungi* **4**: 515]
Pythium folliculosum B. Paul	[*Index of Fungi* **6(4)**: 225]
Pythium graminicola Subraman.	
Pythium grandisporangium Fell & Master	[*Index of Fungi* **4**: 419]
Pythium helicandrum Drechsler	
Pythium helicoides Drechsler	
Pythium helicum T. ltô	
Pythium hemmianum M. Takah.	
Pythium heterothallicum W. A. Campb. & F. F. Hendrix	
Pythium hydnosporum (Mont.) J. Schröt.	
Pythium hypoandrum Y. N. Yu & Y. L. Wang	[*Index of Fungi* **5**: 779]
Pythium hypogynum Middleton	
Pythium indigoferae E. J. Butler	
Pythium inflatum V. D. Matthews	
Pylhium insidiosum De Cock *et al.* [De Cock, L. Mend., A. A. Padhye, Ajello & Kaufman]	[*Index of Fungi* **5**: 695]
Pythium intermedium de Bary	
Pythium irregulare Buisman	
Pythium iwayamae S. Ito	
Pythium kunmingense Y. N. Yu	[*Index of Fungi* **4**: 252]
Pythium lobatum S. Rajagopalan & K. Ramakr.	[*Index of Fungi* **4**: 252]
Pythium tucens Ali-Shtayeh	[*Index of Fungi* **5**: 499]
Pythium lutarium Ali-Shtayeh	[*Index of Fungi* **5**: 499]
Pythium macrosporum Vaartaja & Plaäts-Nit.	[*Index of Fungi* **5**: 137]
Pythium mamillatum Meurs	
Pythium marinum Sparrow	
Pythium maritimum Höhnk	
Pythium marsipium Drechsler	
Pythium mastophorum Drechsler	
Pythium megalacanthum de Bary	
Pythium middletonii Sparrow	
Pythium middletonii S. Rajagopalan & K. Ramakr. [later homonym]	[*Index of Fungi* **4**: 252, 386]

Table 4, continued

Pythium minor Ali-Shtayeh [*Index of Fungi* **5**: 499]
Pythium monospermum Pringsh. **[type species]**
Pythium multisporum Poitras
Pythium mycoparasiticum Deacon *et al.*
[Deacon, S. A. K. Laing & L. A. Berry] [*Index of Fungi* **6(3)**: 162; **6(5)**: 228]
Pythium myriotylum Drechsler
Pythium nagae S. Ito & Tokun.
Pythium nodosum B. Paul *et al.*
[B. Paul, D. Galland, T. Bhatnagar & H. Dulieu] [*Index of Fungi* **6(18)**: 994]
Pythium nunn Lifsh. *et al.* [Lifsh., Stangh. & R. Baker] [*Index of Fungi* **5**: 362]
Pythium oedochilum Drechsler
Pythium okanoganense P. E. Lipps [*Index of Fungi* **5**: 93]
Pythium oligandrum Drechsler
Pythium opalinum M. W. Dick (*nomen nudum*) [*Index of Fungi* **6(3)**: 162]
Pythium ornacarpum B. Paul [*Index of Fungi* **7(2)**: 78]
Pythium ornamentatum B. Paul [*Index of Fungi* **5**: 779]
Pythium orthogonon C. Ahrens [*Index of Fungi* **4**: 73]
Pythium ostracodes Drechsler
Pythium pachycaule Ali-Shtayeh var. *pachycaule* [*Index of Fungi* **5**: 499]
Pythium pachycaule Ali-Shtayeh var. *ramificatum* B. Paul [*Index of Fungi* **6(6)**: 351]
Pythium paddicum Hirane
Pythium palingenes Drechsler
Pythium papillatum V. D. Matthews
Pythium parasiticum S. Rajagopalan & K. Ramakr. [*Index of Fungi* **4**: 252]
Pythium paroecandrum Drechsler
Pythium parvum Ali-Shtayeh [*Index of Fungi* **5**: 499]
Pythium periilum Drechsler
Pythium periplocum Drechsler
Pythium perniciosum Serbinow
Pythium perplexum H. Kouyeas & Theoh. [*Index of Fungi* **4**: 636]
Pythium pleroticum T. Itô
Pythium plurisporum G. Abad *et al.* [= *Pythium minor* ?]
[G. Abad, H. D. Shew, L. F. Grand & L. T. Lucas] [*Index of Fungi* **6(13)**: 729]
Pythium podbielkowskii (A. Batko) M. W. Dick [*Index of Fungi* **4**: 215; Dick, 2001*b*]
Pythium polycarpum B. Paul [*Index of Fungi* **5**: 555]
Pythium polymastum Drechsler
Pythium polypapillatum T. Itô
Pythium polytylum Drechsler
Pythium porphyrae M. Takah. & M. Sasaki [*Index of Fungi* **4**: 515]
Pythium prolatum F. F. Hendrix & W. A. Campb.
Pythium pulchrum Minden
Pythium pyrilobum Vaartaja
Pythium radiosum B. Paul [*Index of Fungi* **6(5)**: 288]
Pythium ramificatum B. Paul [*Index of Fungi* **5**: 695]
Pythium rostratum E. J. Butler
Pythium salinum Höhnk
Pythium salpingophorum Drechsler
Pythium scleroteichum Drechsler
Pythium sinense Y. N. Yu [*Index of Fungi* **4**: 252]
Pythium spinosum Sawada
Pythium splendens Hans Braun
Pythium sulcatum R. G. Pratt & J. E. Mitch. [*Index of Fungi* **4**: 224]

Table 4, continued.

Pythium sylvaticum W. A. Campb. & F. F. Hendrix	
Pythium tardicrescens Vanterp.	
Pythium tenue Gobi	
Pythium toruloides B. Paul	[*Index of Fungi* **5**: 555]
Pythium torulosum Coker & P. Patt.	
Pythium tracheiphilum A. Matta	
Pythium uladhum D. Park	[*Index of Fungi* **4**: 515]
Pythium ultimum Trow var. *ultimum*	
Pythium ultimum Trow var. *sporangiiferum* Drechsler	
Pythium uncinulatum Plaäts-Nit. & I. Blok	[*Index of Fungi* **4**: 574]
Pythium vanterpoolii V. Kouyeas & H. Kouyeas	
Pythium vexans de Bary var. *vexans*	
Pythium vexans de Bary var. *minutum* G. S. Mer & Khulbe	[*Index of Fungi* **5**: 310]
Pythium violae Chesters & Hickman	
Pythium volutum Vanterp. & Truscott	
Pythium zingiberis M. Takah.	

TRACHYSPHAERA Tabor & Bunting

[NOTE: Probably referable to *Phytophthora sensu lato.*]

Trachysphaera fructigena Tabor & Bunting **(type species; monotypic]**

TABLE 5. Pythiales: Pythiogetonaceae

MEDUSOIDES Voglmayr

Medusoides argyrocodium Voglmayr **[type species; monotypic]**
[*Index of Fungi* **17(1)**: 17]

PYTHIOGETON Minden

Pythiogeton autossytum Drechsler	
Pythiogeton dichotomum Tokun.	
Pythiogeton nigrescens A. Batko	
Pythiogeton ramosum Minden	
Pythiogeton transversum Minden	
Pythiogeton uniforme A. Lund	
Pythiogeton utriforme Minden **[type species]**	
Pythiogeton zeae H. J. Jee *et al.*	[H. J. Jee, H. H. Ho & W. D. Cho]

TABLE 6. Sclerosporales: Sclerosporaceae. For taxonomic reviews of the genera of the *Sclerosporales,* see Dick *et al.* (1984, 1989; Dick, 2001b) and Waterhouse (1964).

SCLEROSPORA J. Schröt.

Sclerospora butleri W. Weston
Sclerospora graminicola (Sacc.) J. Schröt. **[type species]**
Sclerospora iseilmatis Thirum. & Naras.
Sclerospora northii W. Weston
Sclerospora secalina Naumov

PERONOSCLEROSPORA (S. Ito) Hara
[Hara *in* Shirai, *not* Shirai & Hara (Shaw & Waterhouse, 1980); *not* C. G. Shaw (as in Hawksworth *et al.* (1995), see also type species.]

Peronosclerospora dichanthiicola (Thirum. & Naras.) C. G. Shaw [*Index of Fungi* **4**: 541, 570; **5**: 444]
Peronosclerospora globosa Kubicek & R. G. Kenneth [*Index of Fungi* **5**: 399]
Peronosclerospora heteropogonis Siradhana *et al.* [Siradhana, Dange, Rathore & S. D. Singh] [*Index of Fungi* **5**: 20]
Peronosclerospora maydis (Racib.) C. G. Shaw [*Index of Fungi* **4**: 541; **5**: 444]
Peronosclerospora miscanthi (T. Miyake) C. G. Shaw [*Index of Fungi* **4**: 541; **5**: 444]
Peronosclerospora noblei (W. Weston) C. G. Shaw [*Index of Fungi* **5**: 20]
Peronosclerospora philippinensis (W. Weston) C. G. Shaw [*Index of Fungi* **4**: 541; **5**: 444]
Peronosclerospora sacchari (T. Miyake) Hara [**type species**] [*Index of Fungi* **4**: 541, 570; **5**: 445]
Peronosclerospora sorghi (W. Weston & Uppal) C. G. Shaw [*Index of Fungi* **4**: 541]
Peronosclerospora spontanea (W. Weston) C. G. Shaw [*Index of Fungi* **4**: 541; **5**: 445]
Peronosclerospora westonii (M. C. Sriniv. *et al.*) C. G. Shaw [M. C. Sriniv., Naras. & Thirum.] [*Index of Fungi* **4**: 541; **5**: 445]
Peronosclerospora zeae Yao [*nom. illeg.*]

TABLE 7. Sclerosporales: Verrucalvaceae

PACHYMETRA B. J. Croft & M. W. Dick

Pachymetra chaunorhiza B. J. Croft & M. W. Dick [**type species; monotypic genus**] [*Index of Fungi* **5**: 897]

SCLEROPHTHORA Thirum. *et al.* [Thirum., C. G. Shaw & Naras.]

Sclerophthora cryophila W. Jones
Sclerophthora farlowii (Griffiths) R. G. Kenneth
Sclerophthora lolii R. G. Kenneth [*Index of Fungi* **3**: 285]
Sclerophthora macrospora (Sacc.) Thirum. *et al.* **[type species]** [Thirum., C. G. Shaw & Naras.]
Sclerophthora rayssiae R. G. Kenneth *et al.* var. *rayssiae* [R. G. Kenneth, Koltin & Wahl] [*Index of Fungi* **3**: 285]
Sclerophthora rayssiae R. G. Kenneth *et al.* var. *zeae* Payak & Naras. [R. G. Kenneth, Koltin & Wahl] [*Index of Fungi* **3**: 447]

Table 7, continued.

VERRUCALVUS P. Wong & M. W. Dick

Verrucalvus flavofaciens P. Wong & M. W. Dick [type species; monotypic genus] [*Index of Fungi* **5**: 458]

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