THUNBERGIA

15

O. CONSTANTINESCU

AN ANNOTATED LIST OF PERONOSPORA NAMES

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THUNBERGIA is the continuation of "Publications from the Herbarium, University of Uppsala", of which 19 numbers were issued between 1978 and 1986. The name is given in memory of Carl Peter Thunberg (1743–1828), a disciple of Linnaeus and a famous traveller to South Africa and Japan. His collections, about twentyseven thousand sheets, were transferred to our University in 1785, and became the foundation of the Botanical Museum. Thunberg succeeded Linnaeus filius as professor in 1785 and held the professorship to his death.

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BY

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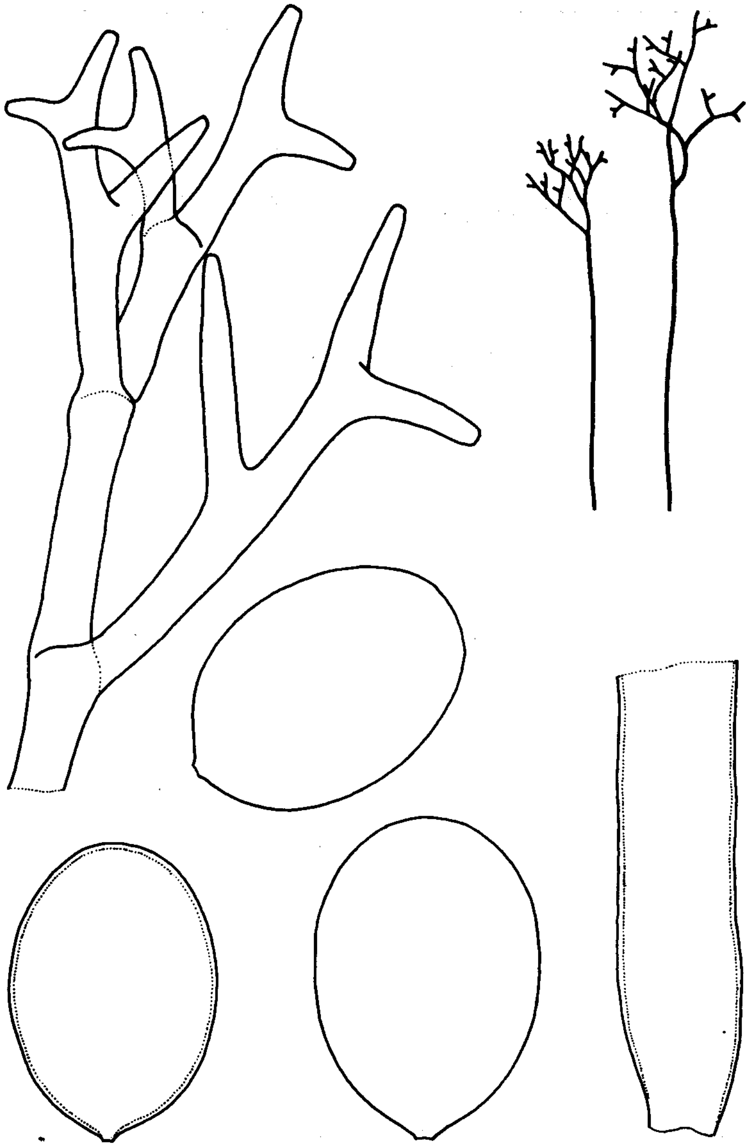

Peronospora rumicis Corda, the type species of the genus **Peronospora**. From the holotype (PRM 155590).

An annotated list of *Peronospora* names

O. Constantinescu

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Basic information concerning 787 names of taxa referred to *Peronospora*, of which 551 epithets are valid and legitimate, is compiled. For each taxon the author, bibliographical citation, host(s), and original specimen(s) are indicated. The nomenclatural status is revised and 36 taxa are lectotypified. For most of the taxa the location of the original specimen(s) was checked. Comments on the taxonomic position are added, mostly based on examination of the original specimens. In some cases, particularly for species of economic importance, the generally accepted conspecificity is indicated. Of the 113 names excluded from *Peronospora*, 88 belong to other genera of the Peronosporales, six have an ambiguous generic position, 14 do not belong to the Peronosporales, and five are not based on fungi. *P. interstitialis* and *P. rufibasis* are combined into *Ramularia*.

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Contents

INTRODUCTION

Peronospora Corda (1837) is the largest genus of the Peronosporales (Oomycota) comprising 551 validly published taxa out of about 787 introduced names (Tab. 2, 3). These fungi were originally described as being parasitic on 291 genera of phanerogams belonging to 48 families (Tab. 1).

However, the number of host genera on which they occur is much larger. Species of *Peronospora* have a world-wide distribution, particularly in areas with a temperate climate. Some cause important diseases of agricultural crops such as tobacco, peas, clover, soybean, onion, poppy, beet, various Cruciferae and Rosaceae etc.

Table 1. Host families, host genera, and described taxa of *Peronospora*

Host family	No of host genera	No of *Peron.* taxa[1]	Host family	No of host genera	No of *Peron.* taxa[1]
Aizoaceae	1	1	Linaceae	1	2
Alliaceae	1	4	Loganiaceae	1	1
Amaranthaceae	1	1	Nyctaginaceae	1	1
Apocynaceae	1	1	Onagraceae	1	1
Asteraceae	3	5	Oxalidaceae	1	2
Berberidaceae	1	1	Papaveraceae	11	25
Boraginaceae	23	32	Plantaginaceae	1	6
Campanulaceae	3	7	Plumbaginaceae	1	3
Capparidaceae	1	1	Polemoniaceae	2	2
Caryophyllaceae	18	44	Polygonaceae	6	13
Chenopodiaceae	13	53	Portulacaceae	2	2
Cistaceae	2	2	Primulaceae	5	9
Convolvulaceae	1	2	Ranunculaceae	10	30
Cruciferae	64	140	Resedaceae	1	1
Dipsacaceae	4	7	Rosaceae	8	14
Euphorbiaceae	1	11	Rubiaceae	7	24
Gentianaceae	6	7	Santalaceae	1	1
Geraniaceae	2	4	Saxifragaceae	3	5
Hydrophyllaceae	2	2	Scrophulariaceae	17	33
Illecebraceae	2	2	Solanaceae	4	11
Labiatae	23	32	Urticaceae	2	2
Leguminosae	25	103	Valerianaceae	4	4
Liliaceae	1	1	Violaceae	1	1
Limnanthaceae	1	1	Zygophyllaceae	1	1

[1] Including *formae speciales*. In a few cases, one *Peronospora* was described on more than one host genus.

In spite of their frequent occurrence, and of a large amount of specimens collected, there is no modern taxonomic treatment of *Peronospora*. The monograph by Gäumann (1923), treating 243 species, is still the main reference source, although it is mainly restricted to the flora of Switzerland. A number of local floras are also available but, with the notable exception of Kochman & Majewski (1970), they are rather uncritical. About 313 epithets were introduced after the publication of Gäumann's monograph. The lack of a world monograph has led to the publication of both taxonomically poorly justified taxa, and of nomenclaturally invalid and/or illegitimate names. In addition, some 40 epithets were never recorded in Saccardo's Sylloge Fungorum and subsequent lists of new fungal taxa.

The shortcomings of Gäumann's species concept, and numerous errors, particularly concerning the taxonomy of the hosts, have already been pointed out by Gustavsson (1959a, 1959b) and Skalický (1977, 1983). Moreover, Gäumann almost completely disregarded the type method, and most of the taxa described by him have still to be typified.

The popular belief, usually but not always confirmed by practice, that one host is parasitized by only one *Peronospora*, resulted in two common habits: the naming of specimens without a thorough microscopic investigation in the case of floristic studies, and a failure to examine the types in taxonomic studies. These are two of the reasons why no real progress has been made in the taxonomy of the genus *Peronospora* since Gäumann.

This check list is an attempt to bring together and to clarify some details of the basic information about the fungi described in *Peronospora*. The second step should be typification of the names. Taking into account the large number of taxa, the relatively simple morphology of *Peronospora*, and the fact that one should be qualified both in the taxonomy of the fungi and of the hosts, a monographic study of this genus is probably beyond the capacity of any one individual. Preliminary studies restricted to the host family level would be a more realistic goal.

Epithets included. This list was sent to printer on November 1991 and it is hoped that all names ever published or recorded, inclusive those from volume 6 part 2 of the *Index of Fungi* (July 1991 issue), are included.

The list comprises, with some exceptions noted below, all specific and subspecific epithets irrespective of their nomenclatural status or taxonomic position. For each epithet the authority name, bibliographic citation, and information about the original collection(s) and its location are indicated. The subspecific taxa are arranged alphabetically, following the specific epithet, irrespective of their rank or the authority name.

Epithets resulting from a change in rank are individually listed and information concerning the original collection is attached to the basionym.

Also included are some names, not accompanied with a diagnosis or description, ('*nomina nuda*'), distributed in exsiccatae. Although these epithets are nomenclaturally irrelevant, they may have some taxonomic significance because they are supported by specimens.

Similar *nomina nuda*, particularly introduced in some European exsiccatae as subspecific names repeating hosts' generic or specific epithets (sometimes both) are not included. Although mentioned as *formae*, the intention of the authors of such names was to indicate that the particular fungus occurs on the specified host. This 'form' name is often the only indication of the host and it seems that the authors considered it superfluous to repeat the name of the host as such. By present days standards these names should be considered *formae speciales*. However, no experimental proof of their parasitic specialization was provided.

Although *formae speciales* are not taxa in the sense of the ICBN (Greuter *et al.*, 1988), and are not governed by ICBN rules and recommendations, the relatively recently described ones, clearly designated as such by their authors, have been included. They may be of some interest to plant pathologists.

Herbarium names have been omitted.

Authority names. Names of the authors of taxa are abbreviated according to Hawksworth (1980) and Stevenson (1953). For some recent or less well known authors the names are spelt in full. Most of the names of Russian authors are spelt according to Parmasto (1985), but in some cases the transliteration favoured by ISO Recommendation R9-1968 (O'Connor & Woodford, 1976) was followed.

Bibliographical citation. Periodicals' abbreviations are those from Brown & Stratton (1963–65); other serial or classical works, mainly according to Hawksworth (1974). In most cases only the page where the protologue starts is indicated, even if the description or diagnosis runs over more pages. When a name was published more than once by the same author, only the first valid publication is mentioned, except when the publication occurred within the same year.

Table 2. Nomenclature of *Peronospora* taxa

Nomenclatural status	No of names
Validly published and legitimate	551
Nomina confusa	3
Invalidly published and/or illegitimate (162 names):	
Absence of description or diagnosis (Art. 32.1.c)[1]	87
Absence of Latin diagnosis after 1 Jan. 1935 (Art. 36.1)	15
Absence of rank indication after 1 Jan. 1953 (Art. 35.1)	2
Absence of holotype indication after 1 Jan. 1958 (Art. 37.1)	15
Published in exsiccatae after 1 Jan. 1953 (Art. 31.1)	1
Alternative names (Art. 34.3)	3
Provisional names (Art. 34.1.b)	7
Later homonyms (Art. 64.1)	24
Superfluous names (Art. 63.1)	7
TOTAL[2]	715

[1] Of these, 32 were later validated. [2] Some names failed to comply with the provisions of more than one article of the ICBN.

Nomenclatural status. Comments on the nomenclatural status are added within square brackets, usually after the bibliographical citation. In every case reference is made to the appropriate article of the ICBN. Although the term *nomen confusum* is no longer used by the ICBN, it was applied to some taxa in its old meaning as explained in Hawksworth (1974) and Jeffrey (1989).

Original collections. The information provided with the protologue was completed as far as possible by examining the specimens, by using other bibliographical sources and, in some cases, through information obtained from the Curators or Directors charged with their preservation.

The original collection(s) are those mentioned in the protologue and they are cited in the sequence given by the author. If more than one, their number is indicated within brackets.

When the type(s) and the place of deposit were unquestionably indicated by the original author, the kind of type and herbarium abbreviation are indicated as such in the list.

In some cases, although only one collection was cited in the protologue, I found more, (apparently) portions of the same collection, in different herbaria. In other cases, I found no specimen in the herbarium indicated by the author, but part(s) of the original collection were present in other herbaria. In a few instances specimens collected by the original author were found, but were different from those cited in the protologue. The location of these specimens was also included in order to help any future search for specimens, particularly important for taxa only known from one or a few collections.

I usually made no attempt to select a lectotype, except when I have examined the material and compared it with the protologue. These include 36 taxa, 31 of which were described from Romania.

As a rule, I have not indicated the herbarium of deposit when an original specimen is part of an exsiccata because, in most cases, it is difficult to establish which of the copies present in different herbaria is the one examined by the original author. However, in the case of some of Gäumann's taxa, I found specimens from various exsiccatae in herbaria B, BERN and ZT with his annotation labels attached. These are the original collections of Gäumann's taxa and should have precedence in the case of lectotypification. Such specimens are marked with the herbarium abbreviation and an exclamation mark.

Some of the collections on which Gäumann (1923) based his taxa were from herb. H. Sydow in Berlin. This collection was destroyed during the Second World War (Stafleu & Cowan 1986 p. 129). However, I have discovered some duplicates of these collections in herbaria LEP and S.

Host names are those in use at the time when this list went to press. Available, recently published, regional and local floras were used. When the name used in the list differs from that in the original publication, the latter is mentioned within brackets. Authors of host names are mostly abbreviated according to Tutin *et al.* (1964–1980). The host name is followed by an indication of the family abbreviation according to Weber (1982).

Collection site. The place of collection is indicated in descending sequence i.e. country, state (for USA), province, district or county, locality etc. The name of the countries are spelt in English, but the original spelling was preferred for divisions of national territories and any other names. Names in Cyrillic alphabets have been transliterated according to ISO Recommendation R9–1968. When a locality changed affiliation during recent history, both the country where it is located at present and the former country are mentioned. Because of the rapid changes occuring in Europe, particularly in the former Soviet Union, the name of some national territories may be obsolete at the time when this list is printed.

Specimen location. The location of the original specimens was checked as far as possible, either by visiting the herbaria, or through correspondence with the Curators and Directors of the collections. Herbarium abbreviations are those used in Holmgren *et al.* (1990). For more detailed information concerning the location of specimens, different symbols were added to the herbarium abbreviation, as explained under *Editing conventions and abbreviations*.

Taxonomic position. The taxonomic placement of the fungi described in *Peronospora* is summarised in Tab. 3. Comments about the taxonomic position were added to particular taxa when they resulted from examination of the type. In some cases, generally accepted conspecificity was indicated. However, all statements not based on type examination should be considered with caution.

Table 3. Taxonomy of fungi described in *Peronospora*

Taxonomic position	Number of taxa
Belong to *Peronospora*	653
Peronospora described as *formae speciales*	21
Peronosporales of ambiguous generic position	6
Belong to other fungi	14
Not based on fungi	5
Belong to other genera of Peronosporales (88 taxa):	
Basidiophora	5
Bremia	4
Bremiella	1
Paraperonospora	16
Peronosclerospora	1
Phytophthora	11
Plasmopara	37
Pseudoperonospora	10
Sclerospora	3
TOTAL	787

Editing conventions and abbreviations. The epithets in **bold** face are those validly published, nomenclaturally legitimate, and here considered as correctly placed in *Peronospora*. However, they may not be taxonomically justified taxa. Epithets in *italics* are invalid and/or illegitimate. When the fungus does not belong to *Peronospora*, an asterisk precedes the epithet. Names in ***bold italics*** are those I consider taxonomically correct for a fungus originally described in *Peronospora*.

The acronym Art. followed by figures refers to the articles of the International Code of Botanical Nomenclature (Greuter *et al.,* 1988).

The following marks were added to the herbarium abbreviations and acronyms (UPS used as an example), in order to supplement the information concerning the location of the specimens:

UPS	herbarium indicated by the author
UPS!	specimen seen by me
UPS–!	no specimen found by me in this herbarium
UPS?	specimen possibly deposited in this herbarium
UPS+	specimen location checked at my request, and confirmed
UPS–	specimen location checked at my request, and not confirmed

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agrimoniae H. Sydow in Gäum. – Beitr. KryptogFl. Schweiz 5(4): 289. 1923. Orig. coll. (2) on *Agrimonia striata* Michx. /ROS/, Canada: Ontario, near London, June 1912, J. Dearness (Sydow, Phyc. et Prot. 307, under *P. potentillae*); *A. eupatoria* L., Poland: Silesia, Legnica (formerly Liegnitz in Germany) Sept. 1871, J. Gerhardt (B–!). Note: See also Skalický *in* Folia geobot. phytotax., Praha 18: 78. 1983.

agrorum Gäum. – Beitr. KryptogFl. Schweiz 5(4): 90. 1923. = *P. agrorum* Gäum. – Mitt. naturf. Ges. Bern (1919): 179. 1920 [Nom. inval., Art. 32.1(c)]. Orig. coll. on *Androsace septentrionalis* L. /PRM/, Sweden: Uppsala, Slottsbacken, 19 May 1896, A.G. Eliasson (Sydow, Phyc. et Prot. 327, under *P. androsaces*).

agrostemmatis Gäum. – Beitr. KryptogFl. Schweiz 5(4): 52. 1923. Orig. coll. on *Agrostemma githago* L. /CRY/, Sweden: Uppland, Uppsala, June 1884, C.J. Johanson (UPS! holotype, S! isotype).

akatsukae S. Ito & D. Murayama – Trans. Sapporo nat. Hist. Soc. 17: 163. 1943. Orig. coll. (3) on *Plantago asiatica* L. (*P. major* L. var. *asiatica* (L.) Decne) /PTG/, Japan: Hokkaido, Ishikari Prov., Sapporo, 15 June 1939, K. Akatsuka (SAPA+ holotype); ditto, 25 June 1939 and 20 Aug. 1939, D. Murayama (SAPA+ paratypes).

alchemillae Otth – Mitt. naturf. Ges. Bern (1868): 65. 1869. Orig. coll. on *Alchemilla xanthochlora* Rothm. (*A. vulgaris* auct.) /ROS/, Switzerland: near Bern, summer, G. Otth (BERN!). Note: See also Skalický *in* Folia geobot. phytotax., Praha 18: 80. 1983.

alchemillae Niessl apud Thümen – Fungi austr. 424. 1872 [Nom. inval., Art. 32.1(c)]; also in Myc. univ. 250. 1875 [Nom. inval., Art. 32.1(c)]. A slip of the pen for *P. potentillae* var. *alchemillae* Niessl.

alkannae Viennot–Bourgin – Bull. trimest. Soc. mycol. Fr. 84: 503. 1969. Orig. coll. on *Alkanna lutea* DC /BOR/, Iran: Mazandéran, Shahsavar, Apr. 1968, G. Viennot–Bourgin (PC+ holotype).

alliariae–wasabi Gäum. – Beih. bot. Zbl. 35 (1): 519. 1918. Orig. coll. on *Eutrema wasabi* Maxim. (*Alliaria wasabi* (Maxim.) Prantl) /CRU/, Japan: Mt Amagi, 7 Sept. 1895, S. Hori (Herb. P. Sydow, B–!,S–!).

alliorum Fuckel – Fungi rhen. 41. 1863. Orig. coll. on *Allium cepa* L. /ALL/, Germany: most probably Hessen, Östrich. Note: Conspecific with *P. schleidenii* Unger, *fide* Fuckel *in* Fungi rhenani. Index Fasc. I–XV et Suppl. Fasc. I.: 16. 1865 and Symb. mycol.: 71. 1870. Both *P. alliorum* and *P. schleidenii* are generally regarded as synomyms of *P. destructor* (Berk.) Caspary ex Berk.

alpestris Gäum. – Beitr. KryptogFl. Schweiz 5(4): 74. 1923. = *P. alpestris* Gäum. – Mitt. naturf. Ges. Bern (1919): 181. 1920 [Nom. inval., Art. 32.1(c)]. Orig. coll. (2) on *Helianthemum oelandicum* (L.) DC ssp. *alpestre* (Jacq.) Breistr. (*H. alpestre* (Jacq.) DC) /CIS/, Sweden: Öland, Alfvar near Möckelmossen, 26 June 1902, G. Lagerheim (Vestergren, Microm. rar. sel. 588, under *P. leptoclada*); *H. ledifolium* (L.) Mill (*H. niloticum* Pers.), Algeria: Ferni near Flemceu, 21 Apr. 1906, R. Maire (Herb. Sydow, B–!, MPU?).

alpicola Gäum. – Beitr. KryptogFl. Schweiz 5(4): 113. 1923. = *P. alpicola* Gäum. – Mitt. naturf. Ges. Bern (1919): 182. 1920 [Nom. inval., Art. 32.1(c)]. Orig. coll. (3) on *Ranunculus aconitifolius* L. /RAN/, Switzerland: Canton Bern, Twannberg, July 1916, E. Gäumann (BERN–!); *R. pyrenaeus* L., Switzerland: Canton Valais, Saas Valley, near Mattmark, 29 July 1914, E. Mayor (NEU!); *R. seguieri* Vill., Germany: Berlin, Botanical Garden, 30 Aug. 1897, Graebner (B–!).

alpina* Johanson – Bot. Centrbl. 28: 393. 1886; also in Bot. Notiser 39: 173. 1886 ≡ ***Plasmopara alpina* (Johanson) Blytt – Christiania Vidensk.– Selsk. Forhandl. No. 6: 18. 1896. Orig. coll. on *Thalictrum alpinum* L. /RAN/, Sweden: Jämtland, Åre, 5 Aug. 1885, C.J. Johanson (UPS! holotype, Eriksson, Fungi parasit. scand. 295 isotypes).

alsinearum Caspary – Monatsb. K. Akad. Wiss. Berlin 3: 330. 1855. Orig. coll. (2) on *Stellaria media* (L.) Vill. /CRY/, Germany: near Berlin, Nov. 1853, R. Caspary (B–!); *Spergula morisonii* Boreau /CRY/, ditto, May 1854, A. Braun (B–!).

alsinearum Caspary f. **halianthi** Eriksson – Fungi parasit. scand. 96b. 1883. Orig. coll. on *Honkenya peploides* (L.) Ehrh. (= *Halianthus peploides* Fries) /CRY/, Sweden: Skåne, Ystad, 26 June 1882, E. Ljungström. Note: Conspecific with *P. honkenyae* (H. & P. Sydow) H. Sydow in Gäum., *fide* Gäumann *in* Beitr. KryptogFl. Schweiz 5(4): 57. 1923.

alsinearum Caspary var. **honkenyae** H. & P. Sydow [as 'honckenyae'] – Hedwigia 39: 124. 1900 ≡ *P. honkenyae* (H. & P. Sydow) H. Sydow in Gäum. [as 'honckeniae Sydow'] – Beitr. KryptogFl. Schweiz 5(4): 57. 1923. Orig. coll. on *Honkenya peploides* (L.) Ehrh. /CRY/, Germany: Rügen island, Klein–Zicker near Thiessow, 15 July 1899, P. Sydow (Sydow, Phyc. et Prot. 103).

alta Fuckel – Fungi rhen. 39. 1863. Orig. coll. on *Plantago major* L. /PTG/, Germany: Hessen, Hattenheim Distr., spring. Note: See also Francis *in* CMI Descr. Path. Fungi & Bact. No. 683. 1981.

alta Fuckel var. *pedunculorum* Roumeg. – Fungi Gall. exs. 3028. 1884 [Nom. inval., Art. 32.1(c)]. Orig. coll. on *Plantago major* L. /PTG/, France, Charente-Inférieure, near Saintes, June 1884, P. Brunaud.

alyssi–arduini Hruby – Hedwigia 69: 184. 1930 [Nom. inval., Art. 32.1(c)].

alyssi–calycini Gäum. – Beih. bot. Zbl. 35 (1): 519. 1918. Orig. coll. on *Alyssum alyssoides* (L.) L. (*A. calycinum* L.) /CRU/, Switzerland: bank of the Rhône, Bay Forest, near Vernier (Genève), 7 (4 on the label) June 1906, E. Mayor (NEU!).

alyssi–incani Gäum. – Beih. bot. Zbl. 35 (1): 520. 1918. Orig. coll. on *Berteroa incana* (L.) DC (*Alyssum incanum* L.) /CRU/, Czechoslovakia: Bohemia, Dolní Beřkovice, Mělník, 20 June 1902, F. Bubák (BPI!).

alyssi–maritimi Kochman – Bull. Acad. pol. Sci., Sér. Sci. biol. 15: 242. 1967. Orig. coll. on *Lobularia maritima* (L.) Desv. (*Alyssum maritimum* (L.) Lam.) /CRU/, Poland: Powsinek near Warszawa, 7 July 1958, J. Kochman (Herb. Dept. Plant Pathol., Agric. Univ. Warszawa – holotype; Kochman, Myc. pol. 28 isotypes). Note: Conspecific with *P. lobulariae* Ubriszy & Vörös, *fide* Kochman & Majewski, Grzby (Mycota). Vol. IV. Phycomycetes, Peronosporales: 171. 1970.

alyssi–montani Hruby – Hedwigia 69: 184. 1930 [Nom. inval., Art. 32.1(c)].

amaranthi Gäum. – Beitr. KryptogFl. Schweiz 5(4): 235. 1923. Orig. coll. on *Amaranthus lividus* L. (*A. blitum* L.) /AMA/, Switzerland: Zürichberg, June 1880, V. Fayod (G+ holotype).

americana Gäum. – Annu. Conserv. Jard. bot. Genève 21: 21. 1919. Orig. coll. on *Polygonum scandens* L. (as *Polygonum ramosissimum* Michx.) /PLG/, U.S.A.: Nebraska: Alma, 3 Oct. 1906, E. Bartholomew (Bartholomew, Fungi columb. 2245, under *P. rumicis*).

amethysteae Lebedeva in A.A. & P.A. Jaczewski – Opredelitel' Gribov. Vol. 1, Fikomitsety: 232. 1931. Orig. coll. on *Amethystea caerulea* L. /LAB/, Russia: Siberia, Altae (LE–!, LEP–!).

amethysteae Y. Li & J.-k. Bai – Acta mycol. sin. 7: 65. 1988 [Nom. illegit., Art. 64.1]. Orig. coll. on *Amethystea caerulea* L. /LAB/, China: Jilin Prov., Changchun Reg., Y.J. Yang, July 1984, Chang 8405 (Mycol. Herb. of Jilin Agric. Univ., and Shenyang Agric. Univ., HMAS–).

anagallidis Schröter in Rabenh. [as 'Personospora'] – Fungi eur. 1744. 1874; also in Hedwigia 13: 45. March 1874. Orig. coll. on *Anagallis foemina* Miller (*A. caerulea* Schreber) /PRM/, Germany: Baden–Württemberg, Rastatt, in fields, Oct. and Nov. 1873, J. Schröter.

anchusae Ziling – Ber. sibir. Inst. Land–u. Forstw. 8: 3. 1928. Orig. coll. on *Brunnera macrophylla* (Adams) I.M. Johnston (*Anchusa myosotidiflora* Lehm.) /BOR/, Russia: Siberia, Sajany, near Oznatshennaja, 18 July 1927, M.K. Ziling (BPI!, OMSKM?).

andicola Speg. – Rev. Argent. Bot. 1: 90. 1925. Orig. coll. on *Calceolaria plantaginea* Sm. /SCR/, Argentina: Mendoza Prov., Rio Mendoza river bank, near Punta de Vacas, Jan. 1909, C. Spegazzini (LPS!).

andina Speg. – Annls Mus. nac. B. Aires 19: 282. 1909. Orig. coll. on *Euphorbia rhytisperma* (Klotzsch & Garcke) Engelm. ex Boiss. /EUP/, Argentina: Cachueta near Mendoza, Feb. 1908, C. Spegazzini (LPS!).

androsaces Niessl in Rabenh., Fungi eur. 1875. 1874; also in Hedwigia 13: 186. Dec. 1874. Orig. coll. on *Androsace elongata* L. /PRM/, Czechoslovakia: Moravia, near Brno (formerly Brünn, Austria), Apr., G. von Niessl.

anemones Tramier – C. r. hebd. Séanc. Acad. Agric. Fr. 46: 624. 1960 [Nom. inval., Art. 36.1 and 37.1]; also in Annls Epiphyt. 14: 313. 1964 [Nom. inval. Art. 37.1]. Orig. coll. on *Anemone coronaria* L. /RAN/, France: Antibes. No details about the collection were provided. Note: See also Francis & Griffin *in* CMI Descr. Path. Fungi & Bact. No. 684. 1981 and Boerema & Hamers *in* Neth. J. Pl. Path. 96 (Suppl. 1): 11. 1990).

anthemidis* Gäum. – Beitr. KryptogFl. Schweiz 5(4): 126. 1923 ≡ *Plasmopara anthemidis* (Gäum.) Skalický – Preslia 38: 127. 1966. Orig. coll. on *Anthemis austriaca* Jacq. /AST/, Czechoslovakia: Bohemia, Teplice (formerly Teplitz in Austria), spring 1872, F. Thümen in Fungi austr. 745, under *P. leptosperma* f. *anthemidis–austriacae* (UPS! lectotype, NY! isolectotype). Note: Conspecific with ***Paraperonospora leptosperma* (de Bary) O. Const., *fide* Constantinescu *in* Sydowia 41: 89. 1989.

antirrhini Schröter – Hedwigia 13: 183. Dec. 1874. Orig. coll. on *Misopates orontium* (L.) Rafin. (*Antirrhinum orontium* L.) /SCR/, Germany: Baden–Württemberg, Rastatt, 17 Oct. 1873, J. Schröter (WRSL!); ditto, Oct. 1873 (NEU!, S!). Note: See also Francis *in* CMI Descr. Path. Fungi & Bact. No. 685. 1981.

aparines (de Bary) Gäum. [as 'n. sp.'] – Svensk. bot. Tidskr. 18: 444. 1919. See *P. calotheca* var. *aparines*. Note: It seems that originally Gäumann had no intention of making a combination. He even indicated a different type specimen (Eriksson, Fungi paras. scand. 95). However, in his monograph from 1923 he gave the authority as '(De By) Gäumann'.

apiospora Poirault – Bull. Assoc. Nat. Nice 2(3): 8. 1915. Orig. coll. on *Ranunculus gramineus* L. /RAN/, France: Alpes–Maritimes, Caussols. No details about the collection were provided.

aquatica Gäum. – Annls mycol. 16: 199. 1918. Orig. coll. on *Veronica anagallis–aquatica* L. (*V. anagallis* L.) /SCR/, Switzerland: Canton Neuchâtel, between Belmont and Perreux near Boudry, 30 July 1916, E. Mayor (NEU!).

arabidis–alpinae Gäum. – Beih. bot. Zbl. 35 (1): 520. 1918. Orig. coll. (2) on *Arabis alpina* L. /CRU/, Switzerland: Canton Bern, Berner Oberland, N. slope of the Niesen summit, 4 July 1915, E. Gäumann (BERN–!); *A. caucasica* Schlecht. (*A. albida* Stev.), Switzerland: Canton Vaud, Montagny sur Yverdon, in the garden of the parish, 17 July 1916, D. Cruchet (NEU!).

arabidis–glabrae Gäum. – Beih. bot. Zbl. 35 (1): 520. 1918. Orig. coll. on *Arabis glabra* (L.) Bernh. /CRU/, Canada: Ontario, London, June and July 1911, J. Dearness (Bartholomew, Fungi Columb. 3444, under *P. parasitica*).

arabidis–hirsutae Gäum. – Beih. bot. Zbl. 35 (1): 520. 1918. Orig. coll. (3) on *Arabis hirsuta* (L.) Scop. /CRU/, Switzerland: Canton Bern, Brüggmoos near Biel, 28 May 1915, E. Gäumann (BERN!); *Cardaminopsis arenosa* (L.) Hayek (*Arabis arenosa* (L.) Scop.) /CRU/, Germany: Wilmersdorf, Aug. 1887, P. Hennings (B–!). Poland: Świnoujście (formerly Swinemünde in Germany), 12 June 1867, ex herb. A. Braun (B–!); Switzerland: Canton Neuchâtel, Châtelet, Doubs defile, 28 Sept. 1913, P. Cruchet (NEU!).

arabidis–oxyphyllae Gäum. – Beih. bot. Zbl. 35 (1): 520. 1918. Orig. coll. on *Arabis drummondii* Gray (*A. oxyphylla* Greene) /CRU/, U.S.A.: Colorado, Durango, alt. 2000 m, 29 June 1907 (Clements, Crypt. form. colorad. 404, under *P. parasitica*).

arabidis–strictae A.A. & P.A. Jaczewski – Opredelitel' Gribov. Vol. 1, Fikomitsety: 139. 1931. Orig. coll. on *Arabis stricta* Hudson /CRU/, Russia. No details about the collection were provided. Note: A specimen collected from Irkutsia, near Irkutsk, 25 July 1924, coll. N. Rozhdestvenskaya (LEP!) is most probably the type.

arabidis–turritae Gäum. – Beih. bot. Zbl. 35 (1): 520. 1918. Orig. coll. on *Arabis turrita* L. /CRU/, Switzerland: Canton Neuchâtel, Boudry Mt, forest, 1 Aug. 1909, E. Mayor (NEU!).

arabidopsidis Gäum – Beih. bot. Zbl. 35 (1): 529. 1918. Orig. coll. on *Arabidopsis thaliana* (L.) Heynh. /CRU/, Switzerland: Canton Neuchâtel, Rugenet near Bevais, 15 Apr. 1914, E. Mayor (NEU!).

arborescens (Berk.) Caspary – Mber K. Akad. Wiss. Berlin 3: 330. 1855 ≡ *Botrytis arborescens* Berk. – J. hort. Soc., Lond. 1: 31. 1846. [Superfl.

isonyms: *P. arborescens* Berk. apud de Bary – Annls Sci. nat., Bot., sér. 4, 20: 119. 1863; *P. arborescens* (Berk.) de Bary apud Gäum. – Beitr. KryptogFl. Schweiz 5(4): 69. 1923]. Orig. coll. on *Papaver rhoeas* L. /PAP/, England: Northants., Kings Cliffe, June pre 1846, M.J. Berkeley (Herb. Berkeley in K). Note: See also Francis *in* CMI Descr. Path. Fungi & Bact. No. 686. 1981.

arenariae (Berk.) Tul. – C. r. hebd. Séanc. Acad. Sci., Paris 38: 1103. 1854 ≡ *Botrytis arenariae* Berk. – J. hort. Soc. Lond. 1: 31. 1846. [Superfl. isonym: *P. arenariae* Berk. apud de Bary – Annls Sci. nat., Bot., sér. 4, 20: 114. 1863, as 'Berk.'; *P arenariae* (Berk.) de Bary apud Berlese – Icon. Fung. Phycom.: 25. 1898]. Orig. coll. on *Moehringia trinervia* (L.) Clairv. (*Arenaria trinervia* L.) /CRY/, England: Northants., Kings Cliffe, June pre 1864, M.J. Berkeley. Note: Type not mentioned by Francis & Waterhouse *in* Trans. Br. mycol. Soc. 91: 9–10. 1988, and apparently not extant.

arenariae (Berk.) Tul. [as '(Berk.) de Bary'] var. **macrospora** Farlow – Bot. Gaz. 9: 38. 1884. Orig. coll. on *Silene* sp.? /CRY/, U.S.A.: Illinois, Anna, 27 Apr. 1883, coll. F.S. Earle (FH+). Note: Although in the protologue the collection site is Cobden, on the label of the original collection the place is Anna. Raised to species rank under *P. silenes* G.W. Wilson, *q.v.*

argemones Gäum. – Beitr. KryptogFl. Schweiz 5(4): 72. 1923. Orig. coll. on *Papaver argemone* L. /PAP/, Germany: Berlin, Lichterfelde, June 1896, P. Sydow (Sydow, Phyc. et Prot. 5, under *P. arborescens*).

arnebiae P.N. Golovin – Trudy Sredneaz. gos. univ., nov. ser. (Central Asian Univ. Studies, N.S.) 14(5): 4. 1950. Orig. coll. on *Arnebia decumbens* (Vent.) Cosson & Kralik (*A. cornuta* (Ledeb.) Fischer & C.A. Meyer var. *'parviflora'*) /BOR/, Uzbekistan: Bukhara Distr., Ganchi, 23 May 1913, Balabaev (TASM–).

artemisiae–annuae* Ling & M.C. Tai – Lloydia 9: 144. 1946 ≡ *Plasmopara artemisiae–annuae* (Ling & M.C. Tai) Skalický – Preslia 38: 127. 1966 ≡ *Bremiella artemisiae–annuae* (Ling & M.C. Tai) Tao – Acta mycol. sin. 1: 64. 1982 ≡ ***Paraperonospora artemisiae–annuae* (Ling & M.C. Tai) O. Const. – Sydowia 41: 85. 1989. Orig. coll. on *Artemisia annua* L. /AST/, China: Sichuan Prov., Chengdu Reg., 21 Apr. 1943 (HMAS 10724+).

artemisiae-biennis* Gäum. – Beitr. KryptogFl. Schweiz 5(4): 131. 1923 ≡ *Plasmopara artemisiae-biennis* (Gäum.) Skalický – Preslia 38: 127. 1966 ≡ ***Paraperonospora artemisiae-biennis* (Gäum.) O. Const. – Sydowia 41: 86. 1989. Orig. coll. on *Artemisia biennis* Willd. /AST/, U.S.A.: Dakota: Kulm, 9 July 1912 (Brenckle, Fungi dakot. 197, under *P. leptosperma*; S! lectotype).

arthurii Farlow [as 'arthuri'] – Bot. Gaz. 8: 315. 1883. Orig. coll. (2) on *Oenothera biennis* L. /ONA/, U.S.A.: Iowa, Arthur (FH–); Minnesota, lake Minnetonka, Aug. 1883, W.G. Farlow (FH+).

arvensis Gäum. – Annls mycol. 16: 198. 1918. Orig. coll. on *Veronica hederifolia* L. /SCR/, Hungary: Györ–Sopron Co., Mosonmagyaróvár (formerly Altenburg and Magyaróvár), Apr. 1885, G. Linhart (Linhart, Fungi hung. 488, under *P. grisea*).

asperuginis Schneider in Schröter [as 'Schroeter in litt.'] in Cohn – Krypt.-Fl. Schles. 3 (1), Pilze 1: 243. 1886. = *P. myosotidis* de Bary f. *asperuginis* Schneider – Herb. schles. Pilze 129. 1870 [Nom. inval., Art. 32.1(c)]. Orig. coll. (3) on *Asperugo procumbens* L. /BOR/, Poland: Silesia, suburb of Legnica (formerly Liegnitz in Germany), May 1869, J. Gerhardt (WRSL!); ditto in Schneider, Herb. schles. Pilze 129 (WRSL!); ditto, May (LEP!); Wrocław (Breslau), a street towards Psie Pole, May 1885, J. Schröter (WRSL!). Note: Schröter is usually credited with the description of this taxon. However, it is highly unlikely that he wrote to himself. Either 'Schneider' was replaced by 'Schroeter', or 'in litt' was added unintentionally. The first seems to be correct and it is also supported by the use of the name '*Peronospora asperuginis* Schnd. in litt.' by Thümen in Myc. univ. 342. 1876. Moreover, in Schröter's collection in WRSL, on the label of Schneider's, Herb. schles. Pilze No. 129, the text 'Peronospora Myosotidis de Bary Forma Asperuginis' was modified to 'Peronospora Asperuginis, nov. sp. Schnd.'

astragali H. Sydow in Gäum. – Beitr. KryptogFl. Schweiz 5(4): 188. 1923. Orig. coll. (2) on *Astragalus canadensis* L. /LEG/, U.S.A.: Minnesota, Minneapolis, 1883, W.G. Farlow (BERN!); U.S.A.: Iowa, Fayette, 5 June 1908, G.W. Wilson (Wilson & Seaver, Ascom. and Lower Fungi 64, under *P. trifoliorum*).

astragali-purpurei Mayor & Viennot-Bourgin – Rev. Path. vég. Ent. agric. Fr. 28: 42. 1949. Orig. coll. on *Astragalus purpureus* Lam. /LEG/, France: Alpes du Sud-Est, Verdon pass, 9 June 1948, E. Mayor and G. Viennot-Bourgin (PC+ holotype, NEU!, ZT! isotypes).

astragalina H. Sydow in Gäum. – Beitr. KryptogFl. Schweiz 5(4): 188. 1923. Orig. coll. (2) on *Astragalus alpinus* L. /LEG/, Sweden: Lappland, Abisko, Aug. 1917, E. Gäumann (BERN-!, ZT-!); *A. norvegicus* Weber (*A. oroboides* Hornem.), Norway: Sør-Trøndelag, Oppdal par., Drivdalen, Vollan, 27 July 1889, A. Blytt (O+, S-!). Note: A specimen collected by A. Blytt in 1887 at Drivdalen is in S!.

atlantica Gäum. – Beitr. KryptogFl. Schweiz 5(4): 62. 1923. Orig. coll. (2) on *Cerastium atlanticum* Dur. /CRY/, Algeria: Maison-Carrée, 4 March 1913, L. Ducellier (Maire, Myc. bor.-afr. 129, under *P. alsinearum* – BERN!); *C. oreophilum* Greene, U.S.A.: Colorado, Sierra Blanca, alt. 3000 m, 22 July 1907 (Clements, Crypt. Form. colorad. 403).

atriplicis-halimi Săvul. & Rayss – Bull. trimest. Soc. mycol. Fr. 50: 90. 1934. Orig. coll. (2) on *Atriplex halimus* L. /CHN/, France: Loire Infér., Pornic, 22 Aug. 1923, A. Maublanc (BUCM 1172! lectotype here selected); Charente-Infér., Meschers, 2 Aug. 1924, A. Maublanc (BUCM 1173!).

atriplicis-hastatae Săvul. & Rayss – Annls mycol. 30: 360. 1932; also in Săvul. – Herb. mycol. rom. 307. 1932. Orig. coll. on *Atriplex hastata* L. /CHN/, Moldavia: Ismail Distr., Vâlcov, 1 June 1931, T. Săvulescu & T. Rayss (BUCM 2262! lectotype here selected).

atriplicis-hortensis Săvul. & Rayss – Annls mycol. 30: 363. 1932 [Nom. et status nov., as 'nov. spec.']. See *P. litoralis* f. *romanica*.

atriplicis–tataricae Oescu & Rădulescu – Annls scient. Univ. Jassy 18: 429. 1933. Orig. coll. (4) on *Atriplex tatarica* L. /CHN/, Romania: Iaşi Distr., Copou, 2 Aug. 1932, C.V. Oescu & I.M. Rădulescu (BUCM 1174! lectotype here selected); ditto, 27 Apr. 1932 (BPI!); Nicolina, 2 June 1932; Ezăreni, 2 June 1932.

aubrietae Mayor [as 'aubrietiae'] – Ber. schweiz. bot. Ges. 74: 241. 1964. Orig. coll. on *Aubrieta deltoidea* (L.) DC /CRU/, Switzerland: Bern, 2 July 1964, E. Mayor (NEU!, two specimens).

australis* Speg. – An. Soc. cient. argent. 12: 81. 1881 ≡ ***Plasmopara australis* (Speg.) Swingle – Trans. Kans. Acad. Sci. 11: 72. 1889. [Superfl. comb.: *Plasmopara australis* (Speg.) Humphrey – Rep. Mass. agric. Exp. Sta. 8: 212. 1891] ≡ *Rhysotheca australis* (Speg.) G.W. Wilson – Bull. Torrey bot. Club 34: 406. 1907. Orig. coll. on *Cyclanthera hystrix* Arn. /CUC/, Argentina: near Recoleta, autumn 1881 ('III. 1881' on the label), C. Spegazzini (LPS!).

axyridis Ch. Benois in A.A. & P.A. Jaczewski – Opredelitel' Gribov. Vol. 1, Fikomitsety: 135. 1931, *emend.* Benua & Karpova–Benua – Parazitnye griby Yakutii: 39. 1973. Orig. coll. (2) on *Axyris amaranthoides* L. /CHN/, Russia: Yakutsia, Amga river, Chimnai, 28 July 1925, Ch. Benois; right bank of the river Lena, place called Rossoloda, 1 July 1926, Ch. Benois (LE–!, LEP–!). Note: The material is apparently lost (V.A. Melnik, *in litt.*).

barbareae Gäum. – Beih. bot. Zbl. 35 (1): 521. 1918. Orig. coll. (2) on *Barbarea vulgaris* R. Br. /CRU/, Poland: Silesia, Legnica (formerly Liegnitz in Germany), Apr. and Oct. 1877, J. Gerhardt (B–!).

**barcinonae* Ferrán – Rev. cien. méd., Barcelona 11: 147–150. 1885. Original publ. not seen. Cited by Th. Belval in Le Mouvement hygiénique No. 3: 126. Feb. 1885. Note: Name used in connection with the agent of cholera. Later changed to *P. ferrani* Gimeno.

basidiophora* Roze & Cornu – Bull. Soc. bot. Fr. 25: 294. 1878 [Nom. illegit., Art. 63.1]. Orig. coll. on *Conyza canadensis* (L.) Cronq. (*Erigeron canadensis* L.) /AST/, France: along the river Loire, 1868, M. Cornu. Note: This is a superfluous name for ***Basidiophora entospora* Roze & Cornu. See *P. entospora*.

beccarii Pass. – Comm. Soc. critt. ital. 2: 458. 1867. Orig. coll. on *Geranium dissectum* L. /GER/, Italy: Parma, April, G. Passerini. Note: Conspecific with *P. conglomerata* Fuckel, *fide* Berlese, Icon. Fung. Phycom.: 39. 1898.

berteroae Gäum. – Beih. bot. Zbl. 35 (1): 521. 1918. Orig. coll. (2) on *Berteroa incana* (L.) DC. /CRU/, Poland: Silesia, near Kunce and Legnica (formerly Kunitz and Liegnitz in Germany), May 1869, J. Gerhardt (Schneider, Herb. schles. Pilze 121, under *P. parasitica* f. *berteroae*); near Legnica, 16 May 1869, J. Gerhardt (B–!).

betae Kühn – Z. lantw. CentVer. Prov. Sachsen 29: 276. 1872; also in Bot. Ztg. 31: 499. 1873. Orig. coll. on *Beta vulgaris* L. /CHN/, Germany: Sachsen, Halle. Note: Usually considered conspecific with *P. farinosa* (Fr. : Fr.) Fr.

biscutellae Gäum. – Beih. bot. Zbl. 35 (1): 521. 1918 ≡ *P. parasitica* (Pers. : Fr.) Fr. ssp. *biscutellae* (Gäum.) Maire – Mém. Soc. Sci. nat. Maroc 45: 14 (1937). Orig. coll. on *Biscutella laevigata* L. /CRU/, Germany: Bayern, Allgäu Distr., Himmelsschrofen, 17 July 1898, P. Sydow (LEP!, S!).

bocconiae H. Sydow – Annls mycol. 37: 283. 1939. Orig. coll. on *Bocconia frutescens* L. /PAP/, Ecuador: Tungurahua Prov., near Baõos, Hacienda San Antonio, 30 Dec. 1937, H. Sydow 640 (ZT!).

bohemica Gäum. – Beitr. KryptogFl. Schweiz 5(4): 234. 1923. Orig. coll. on *Chenopodium ficifolium* Sm. /CHN/, Czechoslovakia: Bohemia, Velvary, 18 June 1898, J.E. Kabát (Kabát, Fungi bohemici 342, under *P. effusa*).

boni–henrici Gäum. – Mitt. naturf. Ges. Bern (1918): 63. 1919. Orig. coll. on *Chenopodium bonus–henricus* L. /CHN/, Switzerland: Canton Neuchâtel, Rebberge near Cortaillod, June 1915, E. Gäumann (BERN–!, ZT–!).

borealis Gäum. – Svensk. bot. Tidskr. 12: 444. 1919. Orig. coll. on *Galium boreale* L. /RUB/, Canada: Ontario, near London, 24 June 1912, J. Dearness (Sydow, Phycom. & Protom. 276, under *P. calotheca* – BERN!, NEU!).

borreriae* Lagerh. – Bull. Soc. mycol. Fr. 8: 123. 1892 ≡ *Rhysotheca borreriae* (Lagerh.) G.W. Wilson – Mycologia 6: 193. 1914 ≡ ***Plasmopara borreriae* (Lagerh.) O. Const – Mycologia 83: 476. 1991. Orig. coll. on *Mitracarpus hirtus* (L.) DC /RUB/, Ecuador: Puente de Chimbo, Sept. 1890, G. Lagerheim (LEP! holotype). Note: A specimen collected in 1891 is at NY!. Host initially identified as *Borreria* sp. but corrected by Wilson, *op. cit.*

bothriospermi Sawada – Rep. Dep. Agric., Govt Res. Inst. Formosa 27: 54. 1927. Latin description in Ito & Tokunaga – Trans. Sapporo nat. Hist. Soc. 14: 29. 1935. Orig. coll. (6) on *Bothriospermum tenellum* (Hornem.) Fisch. & Mey. /BOR/, China (Taiwan): Taipei, 2 March 1919, E. Kurosawa (TAI+); ditto, 21 Jan. 1920 (TAI+); 11 Feb. 1920 (TAI+); ditto, 6 Feb. 1925, K. Sawada (TAI+); ditto, 15 March 1926 (TAI+); Taipei Prov., 6 March 1920, E. Kurosawa (TAI+).

botrytis (Sowerby) Cocconi & Morini – Memorie R. Acad. Sci. Ist. Bologna, Ser. IV, 6: 394. 1884 [Nom. illegit., Art. 63.1] ≡ *Mucor botrytis* Sowerby [as 'botritis'] – Engl. Fungi 3(24) tab. 359. 1802 [Nom. illegit., Art. 63.1]. Orig. coll. on *Capsella bursa–pastoris* (L.) Medicus /CRU/, England, *sine loc. et dat.* Note: Conspecific with *P. parasitica* (Pers. : Fr.) Fr.

brachycomes* Jenkina – Mikol. i Fitopatol. 3: 482. 1969. Orig. coll. on *Brachycome iberidifolia* Benth. /AST/, Russia: Novosibirsk, Central Botanical Garden, 3 Aug. 1966, T.V. Jenkina (LE 43361! holotype). Note: Conspecifity with *Paraperonospora leptosperma* or *Parap. sulphurea* was suggested by Constantinescu *in* Sydowia 41: 104. 1989. Subsequent (Nov. 1989) examination of the type confirmed its conspecificy with ***Paraperonospora leptosperma* (de Bary) O. Const.

brassicae Gäum. – Beih. bot. Zbl. 35 (1): 521. 1918 ≡ *P. parasitica* (Pers. : Fr.) Fr. ssp. *brassicae* (Gäum.) Maire – Mém. Soc. Sci. nat. Maroc 45: 14.

1937. Orig. coll. (8) on *Brassica* spp. /CRU/. On *B. rapa* L. ssp. *oleifera* DC., Czechoslovakia: Bohemia, Děčín (formerly Tetschen in Austria), spring 1873, F. Thümen (Thümen,, Fungi austr. 1038, under *P. parasitica* f. *napi–oleiferae*); *B. oleracea* L., Switzerland: experimental field (most probably in Bern), 28 June 1915, E. Gäumann (BERN!); *B. oleracea* L. var. *botrytis* L, Czechoslovakia: Tábor, 6 March 1911, F. Bubák (BPI!); *B. oleracea* L. var. *capitata* L., Czechoslovakia: Bohemia, Praha – Trója, 25 Feb. 1901, F. Bubák (BPI!); *B. oleracea* L. var. *'capitata–rubra'*, May 1904, F. Bubák (BPI!); *B. oleracea* L. var. *gongylodes* L., Czechoslovakia: Tábor, 20 May 1903, F. Bubák (BPI!); *B. oleracea* L. var. *sabauda* L., Czechoslovakia: Praha, 25 Apr. 1900, F. Bubák (BPI!); *B. rapa* L. Switzerland: Bern, Botanical Garden, 28 June 1915, E. Gäumann (BERN!).

brassicae Gäum. f. sp. **brassicae** Gäum. – Landw. Jb. Schweiz 40: 467. 1926.

brassicae Gäum. f. sp. *brassicae* Dzhanuzakov [as 'f. brassicae (Gäum.) Dzhanuz. f. nov.'] – Bot. Zh. SSSR 47: 862. 1962 [later homonym of *P. brassicae* Gäum. f. sp. *brassicae* Gäum.].

brassicae Gäum. f. **brassicae–nigrae** Săvul. & Rayss in Săvul. – Herb. mycol. rom. 320. 1932. Orig. coll. on *Brassica juncea* (L.) Czern. /CRU/, Moldavia: Ismail Distr., Vâlcov–Bielogorod, 1 June 1931, T. Săvulescu & T. Rayss (BUCM 1219! lectotype here selected). Note: The host was initially identified as *Brassica nigra* (L.) Koch but corrected by G. Negrean.

brassicae Gäum. f. **major** Săvul. & Rayss in Săvul. – Herb. mycol. rom. 517. 1934. Orig. coll. on *Brassica oleracea* L. /CRU/, Moldavia: Cahul Distr., Ciumai, 21 June 1933, coll. C. Zahariadi (BUCM 1224! lectotype here selected).

brassicae Gäum. f. sp. **napi** Dzhanuzakov [as 'f. nov.'] – Bot. Zh. SSSR 47: 862. 1962.

brassicae Gäum. f. sp. **rapae** Dzhanuzakov [as 'f. nov.'] – Bot. Zh. SSSR 47: 862. 1962.

brassicae Gäum. f. sp. **raphani** Gäum. – Landw. Jb. Schweiz 40: 467. 1926.

brassicae Gäum. f. sp. *raphani* Sawada – Rep. Dep. Agric., Govt Res. Inst. Formosa 61: 24. 1931. Later homonym of *P. brassicae* f. sp *raphani* Gäum.

brassicae Gäum. f. sp. **rapiferae** Dzhanuzakov [as 'f. nov.'] – Bot. Zh. SSSR 47: 862. 1962.

brassicae Gäum. f. sp. **sinapidis** Gäum. – Landw. Jb. Schweiz 40: 467. 1926.

**buhrii* Săvul. & Vánky [as 'buhri'] – Arch. Freunde Natgesch. Mecklenb. 2: 355. 1956 ≡ *Plasmopara buhrii* (Săvul. & Vánky) Skalický – Preslia 38: 127. 1966. Orig. coll. (2) on *Ursinia anthemoides* (L.) Poir. /AST/, Germany: Mecklenburg, Rostock, Botanical Garden, 27 July 1947, H. Buhr (BUCM 1233! lectotype, B! isolectotype). On *U. speciosa* DC, ditto, 16 July 1950 (BUCM 1232! paratype). Note: Conspecific with *Paraperonospora* *leptosperma* (de Bary) O. Const., *fide* Constantinescu *in* Sydowia 41: 89. 1989.

bulbocapni Reich. apud Sacc. – Syll. Fung. 7: 263. 1888. Note: This epithet is neither mentioned in the reference cited by Saccardo (Reichard, Pilzfl. Niederösterr. III p. 489), nor in any of Reichardt's publications. Except for some editing, the description in Saccardo is similar to that of *P. bulbocapni* Beck. Moreover, *P. bulbocapni* Beck is not recorded in Saccardo. Most probably, *P. bulbocapni* Reich. is a mere slip of the pen for *P. bulbocapni* Beck.

bulbocapni G. Beck – Verh. zool. – bot. Ges. Wien 35: 370. Aug. 1885. *Orig. coll.* on *Corydalis bulbosa* (L.) DC (*Corydalis cava* (L.) Schweigg. & Koerte) /PAP/, Austria: Hermannskogl near Wien, May, G. de Beck (Krypt. Exs. Mus. Vind. 114).

bulbocapni G. Beck f. **corydalis–marschallianae** Săvul. & Rayss – Annls mycol. 28: 309. 1930; also in Săvul. – Herb. mycol. rom. 137. 1930. *Orig. coll.* (2) on *Corydalis bulbosa* (L.) DC ssp. *marschalliana* (Pallas) Chater (*C. cava* (L.) Schweigger & Koerte ssp. *marschalliana* Pallas) /PAP/, Romania: Ilfov Distr., Căţelu, 10 Apr. 1927 (BUCM 60127! lectotype here selected); Iaşi Distr., Copou, May 1913, coll. I.C. Constantineanu (BUCM 1245!).

buniadis Gäum. – Beih. bot. Zbl. 35 (1): 522. 1918. *Orig. coll.* on *Bunias orientalis* L. /CRU/, Russia: Kazan, 1884, coll. Korjinsky (BERN!, LEP!).

cactorum* Lebert & Cohn – Beitr. Biol. Pfl. 1: 56. 1870 ≡ ***Phytophthora cactorum* (Lebert & Cohn) Schröter in Cohn – Krypt.-Fl. Schles. 3(1) Pilze 1: 236 (1886). *Orig. coll.* on rotting Cactaceae, Czechoslovakia: Bratislava, Jacobi, in the garden of the duke, host 1868/69.

cakiles Savile – Can. J. Bot. 35: 197. 1957. *Orig. coll.* on *Cakile edentula* (Bigel.) Hook. var. *edentula* /CRU/, Canada: Nova Scotia, Antigonish Co., Tracadie, 14 Aug. 1956, D.B.O. Savile 3262 (DAOM 43012+ holotype, BPI!, FH+, IMI, TRT, UPS! isotypes).

calaminthae Fuckel – Fungi rhen. 1603. 1886. *Orig. coll.* on *Acinos arvensis* (Lam.) Dandy (*Calamintha acinos* (L.) Clairv.) /LAB/, Germany: Hessen, near Vollraths, spring.

calandriniae Speg. – An. Mus. nac. B. Aires 19: 282. 1909. *Orig. coll.* on *Calandrinia 'portulacoides'* /POR/, Argentina: Mendoza, Aconcagua summit (4000 m), near Las Cuevas, Feb. 1908, C. Spegazzini (LPS!).

calepinae Gäum. – Beih. bot. Zbl. 35 (1): 522. 1918. *Orig. coll.* on *Calepina irregularis* (Asso) Thell. /CRU/, Yugoslavia: Montenegro, Ulcinj, 14 Apr. 1903, F. Bubák (BPI!).

calotheca de Bary in Rabenh. – Herb. mycol. Ed. 2, 673. 1858. *Orig. coll.* (2) on *Galium odoratum* (L.) Scop. (*Asperula odorata* L.), Germany: Baden–Württemberg, near Freiburg, June 1857, A. de Bary; Germany: *sine loc.*, summer (Fuckel, Fungi rhen. 28, under *P. calotheca* f. *asperulae*).

Note: Initially de Bary indicated two hosts, *Galium odoratum* and *G. aparine* for his *P. calotheca*. The two hosts are indeed mixed in the packets of Rabenhorst's exsiccata at S!, but only *G. odoratum* is present at B! and ZT!. Later, de Bary separated the fungus on *Galium aparine* under *P. calotheca* var. *aparines*.

calotheca de Bary var. **aparines** de Bary – Annls Sci. nat., Bot., sér. 4, 20: 112. 1863 ≡ *P. aparines* (de Bary) Gäum. [as 'n. sp.'] – Svensk. bot. Tidskr. 18: 444. 1919. *Orig. coll.* on *Galium aparine* L. /RUB/, Germany: Baden–Württemberg, near Freiburg, June 1857, A. de Bary (Rabenh., Herb. mycol. Ed. 2, 673. 1858, under *P. asperulae*).

calotheca de Bary var. *asperulae* de Bary – Annls Sci. nat., Bot., sér. 4, 20: 112. 1863. [Nom. illegit., Art. 63.1; *P. calotheca* var. *calotheca* should have been introduced].

calotheca de Bary var. *galii–sylvatici* Niessl – Verh. Naturf. Ver. Brünn 3: 68. 1865 [Nom. inval., Art. 32.1(c)].

calotheca de Bary var. **galii–vaillantii** de Bary – Annls Sci. nat., Bot., sér. 4, 20: 112. 1863. *Orig. coll.* on *Galium spurium* L. (*G. vaillantii* DC) /RUB/. No details about the collection were provided.

calotheca de Bary var. **molluginis** de Bary – Annls Sci. nat., Bot., sér. 4, 20: 112. 1863. *Orig. coll.* on *Galium mollugo* L. /RUB/, Germany: Hessen, Hattenheim Distr., near Eberbach, spring, (Fuckel, Fungi rhen. 30, under *P. galii*).

calotheca de Bary var. **sherardiae** (Fuckel) de Bary – Annls Sci. nat., Bot., sér. 4, 20: 112. 1863. See *P. sherardiae*.

camelinae Gäum. – Beih. bot. Zbl. 35 (1): 522. 1918. *Orig. coll.* (5) on *Camelina microcarpa* Andrz. ex DC /CRU/, Germany: Baden–Württemberg, Hunneberg near Forbach, 16 May 1912, A. Ludwig (B!); Algeria: Kersauta, 7 May 1916, R. Maire 4191 (BERN!); Czechoslovakia: Bohemia, Ilka, 17 June 1899, J.E. Kabát (Kabát, Fungi bohem. 480, under *P. parasitica*); *Camelina sativa* (L.) Crantz, Germany: Sachsen, Halle, summer 1864, J. Kühn (Rabenh., Fungi eur. 790b, under *P. parasitica* – ZT!); Switzerland: Canton Valais, between Agaren and Tourtemagne, 19 July 1909, P. Cruchet (NEU!). Note: See also Gustavsson *in* Bot. Notiser 111: 200–208. 1958.

campanulae G. Nicolas & Aggéry – Revue Mycol. 4: 80. 1939. [Nom. inval., Art. 36.1]. *Orig. coll.* on *Campanula rapunculus* L. /CAM/, France: 7 km of Toulouse, farm Thibaut of l'Institut agricole de l'Université de Toulouse, June 1938, G. Nicolas and Aggéry.

campestris Gäum. – Beitr. KryptogFl. Schweiz 5(4): 49. 1923. *Orig. coll.* (2) on *Arenaria serpyllifolia* L. /CRY/, Switzerland: near Bern, G. Otth (BERN!, two specimens); *A. ciliata* L., Switzerland: Canton Vaud, near Leysin, along the road between Chalets de Mayen and Poyeux sheep cot, 1 July 1917, E. Mayor (NEU!).

canadensis Gäum. – Beitr. KryptogFl. Schweiz 5(4): 162. 1923. Orig. coll. on *Linaria canadensis* (L.) Dum.–Courset /SCR/, U.S.A., Massachusetts, Essex Co., Chebacco, June 1883, A.B. Seymour (Ellis, N. Amer. Fungi 1411).

candida Fuckel – Fungi rhen. 38. 1863. Orig. coll. on *Anagallis arvensis* L. (*A. caerulea* L.) /PRM/, Germany: Hessen, near Östrich, summer.

candida Fuckel f. *ramosissima* Roumeg. – Fungi sel. exs. 6760. 1895 [Nom. inval., Art. 32.1(c)]. Orig. coll. on *Anagallis arvensis* L. (*A. phoenicea* Scop.) /PRM/, France, 'in a garden', summer 1894, F. Fautrey.

canescens Ch. Benois in A.A. & P.A. Jaczewski – Opredelitel' Gribov. Vol. 1, Fikomitsety: 156. 1931, *emend.* Benua & Karpova-Benua – Parazitnye griby Yakutii: 48. 1973. Orig. coll. (3) on *Plantago canescens* Adams /PTG/, Russia: Yakutsia, Okhotsk area, between the rivers Amga and Aldan, Chermekon river valley, 22 July 1925, Ch. Benois; ditto, 23 July 1925; right bank of the river Lena, above Yakutsk, Lyutenga river valley, 2 July 1926, Ch. Benois (LE–!, LEP–!). Note: The material is apparently lost (V.A. Melnik, *in litt.*).

cannabina* Otth – Mitt. naturf. Ges. Bern (1868): 63. 1869 ≡ *Peronoplasmopara cannabina* (Otth) Peglion – R. C. Acad. Lincei 114: 260. 1917 ≡ ***Pseudoperonospora cannabina* (Otth) Curzi – Riv. Patol. Veg. Pavia 16: 234. 1926. [Superfl. isonym: *Pseudoperonospora cannabina* (Otth) Hoerner – J. Wash. Acad. Sci. 30: 133. 1940]. Orig. coll. on *Cannabis sativa* L. /CAN/, Switzerland: Canton Bern, near Steffisburg, summer, G. Otth (BERN! holotype).

canscorina Thite & Patil – Botanique, Nagpur 6: 111. 1975. Orig. coll. on *Canscora diffusa* R. Br. /GEN/, India: Maharashtra, Kolhapur, 8 Oct. 1973, M.S. Patil (HCIO 31649+).

capparidis Sawada – Trans. nat. Hist. Soc. Formosa 32 (225): 247. 1942 [Nom. inval., Art. 36.1]. Orig. coll. on *Capparis spinosa* L. /CPP/, China (Taiwan).

capsici J.F. Tao & T.J. Li – Acta phytopath. sin. 11(1): 58. 1981. Orig. coll. (2) on *Capsicum annuum* L. /SOL/, China: Sichuan Prov., Ya–an Reg., 10 Apr. 1980, T.J. Li & S.L. Li (Herb. Sichuan Agric. College, Ya–an 808002 – holotype, HMAS 45343+ isotype); ditto, 31 March 1971, J.F. Tao & T.J. Li (Herb. Sichuan Agric. College, Ya–an 790461 paratype).

cardamines–laciniatae Gäum. – Beih. bot. Zbl. 35 (1): 523. 1918. Orig. coll. (3) on *Cardamine laciniata* Wood /CRU/, U.S.A., Ohio: Columbus, 5 May 1903, W.A. Kellerman (Kellerman, Ohio Fungi 167, under *P. parasitica*); U.S.A.: Iowa, Fayette, 14 May 1908, G.W. Wilson (Wilson & Seaver, Ascom. & Lower Fungi 63, under *P. parasitica*); *Cardamine bulbifera* (L.) Crantz, Sweden: near Stockholm, 25 May 1889, L. Romell (Romell, Fungi exs. praes. scand. 197).

cardaminopsidis A. Gust. – Op. bot., Lund 3(1): 105. 1959. Orig. coll. on *Cardaminopsis arenosa* (L.) Hayek /CRU/, Sweden: Dalarna, Älvdalen, 100 m, W of the parish church, 15 Aug. 1954, A. Gustavsson 4618 (LD! holotype).

cardariae–repentis N.P. Golovina – Not. syst. Sect. crypt. Inst. bot. Acad. Sci. U.S.S.R. 12: 153. 1959. Orig. coll. on *Lepidium repens* (Schrenk) Boiss (*Cardaria repens* (Schrenk) Yarmolenko) /CRU/, Uzbekistan: Srednechirchik Distr., Abayatsaj, 2 June 1954, N.I. Gaponenko (LE–!, LEP–!).

carniolica Gäum. – Beitr. KryptogFl. Schweiz 5(4): 95. 1923 [Nom. inval., Art. 34.1(b).]. Orig. coll. on *Gentiana amarella* (L.) Börner /GEN/, Yugoslavia: Kranj Distr., near Trzic (formerly Neumarktl in Austria), 26 Aug. 1884, W. Voss (B–!, S!). Note: Conspecific with *P. gentianae* Rostrup, *fide* Gustavsson *in* Op. bot. Soc. bot. Lund. 3 (1): 170. 1959.

carpoceratis Byzova in Vasyagina *et al.* – Flora Sporovykh Rastenij Kazakhstana 10: 257. 1977. Orig. coll. on *Carpoceras ceratocarpum* (Pallas) N. Busch /CRU/, Kazakhstan: Alma Ata Distr., left bank of the river Ili, 30 May 1946, L.P. Gvozdeva (AA).

celsiae H. Sydow & Sydow – Annls mycol. 10: 245. 1912. Orig. coll. on *Verbascum coromandelianum* (Vahl.) O. Kuntze (*Celsia coromandelina* Vahl.) /SCR/, India: Pusa, 17 March 1911, E.J. Butler 1396 (BPI!).

celtidis* M.B. Waite – J. Mycol. 7: 105. 1892 ≡ *Plasmopara celtidis* (M.B. Waite) Berlese – Icon. Fung. Phycom.: 16. 1898 ≡ *Peronoplasmopara celtidis* (M.B. Waite) Clinton – Rep. Conn. agric. Exp. Sta. (1904): 334. 1905 ≡ ***Pseudoperonospora celtidis* (M.B. Waite) G.W. Wilson – Bull. Torrey bot. Club 34: 415. 1907. Orig. coll. (4) on *Celtis occidentalis* L. /ULM/, U.S.A.: Washington D.C., 7 Oct. 1891, M.B. Waite 556 (BPI!, K!); ditto, 9 Oct. 1891, no. 557 (BPI!, ILL 2345+, K!); Maryland, Still Pond, 10 Oct. 1891, W.T. Swingle nos 4026 and 4027.

centranthi Massenot – Bull. trimest. Soc. mycol. Fr. 84: 384. 1969 [Nom. inval., Art. 37.1]. Orig. coll. (2) on *Centranthus ruber* (L.) DC /VAL/, France: Seine–et–Oise, Grignon, Botanical Garden of E.N.S.A., 10 Nov. 1967, M. Massenot; *Centranthus lecoqii* Jordan., ditto.

cephalariae Vincens – Bull. Soc. mycol. Fr. 29: 174. 1913. Orig. coll. on *Cephalaria leucantha* (L.) Roemer & Schultes /DPS/, France: Toulouse, Botanical Garden, May 1909, F. Vincens.

cephalariae–laevigatae Săvul. & Rayss in Săvul. – Herb. mycol. rom. 529. 1934. Orig. coll. on *Cephalaria laevigata* (Waldst. & Kit.) Schrader /DPS/, Romania: Mehedinţi Distr., Mt. Domogled near Băile Herculane, 6 June 1933, T. Săvulescu & T. Rayss (BUCM 60520! lectotype here selected).

cerastii–anomali Săvul. & Rayss – Annls mycol. 28: 302. 18 Sept. 1930; also in Săvul. – Herb. mycol. rom. 128. 1930. Orig. coll. on *Cerastium dubium* (Bast.) O. Schwarz (*C. anomalum* Waldst. & Kit.) /CRY/, Romania: Ilfov Distr., Pasărea, 6 May 1928, T. Săvulescu & T. Rayss (BUCM 60128! lectotype here selected).

cerastii–brachypetali Săvul. & Rayss in Săvul. – Herb. mycol. rom. 314. 1932; also in Annls mycol. 32: 40. 1934. Orig. coll. (3) on *Cerastium brachypetalum* Pers. /CRY/, Romania: Ilfov Distr., Pasărea, 4 May 1930 (BUCM 1318); Prahova Distr., Chiţorani, 25 Apr. 1930, T. Săvulescu & T. Rayss (BUCM 1318! lectotype here selected); *C. glomeratum* Thuill (as *C. brachypetalum* but corrected by G. Negrean), Ilfov Distr., Tigăneşti, Brînzeasca forest, 8 May 1931 (BUCM 1317).

cerastii–glandulosi S. Ito & Y. Tokunaga – Trans. Sapporo nat. Hist. Soc. 14: 23. 1935. Orig. coll. (3) on *Cerastium vulgatum* L. var. *glandulosum* Regel /CRY/, Japan: Hokkaido, Ishikari Prov., Sapporo, 21 May 1928, Y. Tokunaga (SAPA+ holotype); ditto, 17 May 1930, S. Ito (SAPA+); near Sapporo, Maruyama, 27 May 1929, H. Otani (SAPA+).

ceratocarpi Kalymbetov – Trud. Inst. Bot. Akad. Nauk Kazakh SSR 11: 207. 1961 [Nom. inval., Art. 37.1]. Orig. coll. (2) on *Ceratocarpus turkestanicus* Sav.-Rycz. /CHN/, Kazakhstan: Alma-Atin Region., Ilii Distr., Myuyu-Kum sands, Nikolaevka village, 20 May 1958, B. Kalymbetov (AA, LE 24537!, TASM!); ditto, Sarytaukum sands, near Kurtly, 16 May 1956, B. Kalymbetov (AA).

cerinthe Uljanishchev in A.A. & P.A. Jaczewski – Opredelitel' Gribov. Vol. 1, Fikomitsety: 129. 1931, *emend.* Ul'yanischev – Dokl. Akad. Nauk Azerb. SSR 16: 390. 1960. Orig. coll. on *Cerinthe minor* L. /BOR/, Azerbajdzhan: Kussary Distr., 2 June 1928, V.I. Uljanishchev 1610 (LEP! holotype).

chamaesphaci Kalymbetov – Trud. Inst. Bot. Akad. Nauk Kazakh SSR 11: 206. 1961. Orig. coll. on *Chamaesphacos ilicifolius* Schrenk /LAB/, Kazakhstan: Zailijskij Alatau, western slope of Mt Syugaty, near Chilik, 25 May 1958, B. Kalymbetov (AA, LE 24539!).

chamaesycis G.W. Wilson – Mycologia 6: 204. 1914. Orig. coll. on *Euphorbia serpens* Humb., Bonpl. & Kunth (*Chamaesyce serpens* (Humb., Bonpl. & Kunth) Small) /EUP/, U.S.A.: Kansas, Rooks Co., 25 Aug. 1902, E. Bartholomew (Bartholomew, Fungi columb. 1750, under *P. euphorbiae*).

chartolomatis P.N. Golovin & Kalymbetov [as 'chartolomae'] – Not. syst. Sect. crypt. Inst. bot. Acad. Sci. U.S.S.R. 8: 89. 1952. Orig. coll. on *Chartoloma platycarpum* Bunge /CRU/, Turkmenia: Kara-Kum desert, Uzboj, near Ishmek water spring, 5 May 1951, P.N. Golovin & B. Kalymbetov (AA?, TASM?).

cheiranthi Gäum. - Beih. bot. Zbl. 35 (1): 524. 1918. Orig. coll. on *Cheiranthus cheiri* L. /CRU/, Switzerland: Canton Bern, Biel, 16 June 1915, E. Gäumann (BERN!).

chelidonii Miyabe ex A.A. & P.A. Jaczewski – Opredelitel' Gribov. Vol. 1, Fikomitsety: 148. 1931. = *Peronospora chelidonii* Miyabe in Sydow – Fungi exot. exs. 356. 1915 [Nom. inval., Art. 32.1(c)]. Orig. coll. on *Chelidonium majus* L. /PAP/, Japan: Sapporo, 20 May 1912, S. Ito.

chenopodii Caspary – Bot. Ztg. 12: 565. 1854 [Nom. illegit., Art. 64.1]. Orig. coll. on *Chenopodium album* L. /CHN/, Germany: Berlin, Schönberg, (B–!).

chenopodii Schlecht. – Bot. Ztg. 10: 619. 1852. Orig. coll. on *Chenopodium hybridum* L. /CHN/, Germany: Sachsen, Halle, coll. Schlechtendal (Rabenh., Klotzsch Herb. viv. mycol. 1776; HAL lectotype, selected by Braun *in* Feddes repert. 90: 412. 1979).

chenopodii–ambrosioides Golenia – Monogr. bot., Warszawa 13: 147. 1962 [Nom. inval., Art. 37.1]. Orig. coll. on *Chenopodium ambrosioides* L. and *Ch. ambrosioides* L. var. *anthelminticum* Gray /CHN/, Poland: near Poznań, A. Golenia (Herb. Inst. for Medicinal Plants Research, Poznań).

chenopodii–ficifolii Sawada – Agr. Exp. Sta. Formosa, Circ. Publ. (101): 15. June 1916 [in Japanese]; also in Formosan agric. Rev. (Taiwan Nôjinhô) (155): 450. 20 June 1916 [in Japanese]; in Tanaka – Mycologia 11: 83 1919 [in English]. Orig. coll. on *Chenopodium ficifolium* Sm. /CHN/, China (Taiwan): common. No details about the collection were provided. Note: Specimen in TAI ruined by insects (S.S. Tzean in litt.).

chenopodii–glauci Gäum. – Mitt. naturf. Ges. Bern (1918): 63. 1919. Orig. coll. on *Chenopodium glaucum* L. /CHN/, Germany: Berlin, Risdorf, Aug. 1892, P. Sydow (Sydow, Myc. march. 3595, under *P. effusa*).

chenopodii–opulifolii Săvul. & Rayss – Annls mycol. 30: 357. 1932. Orig. coll. on *Chenopodium opulifolium* Schrader ex Koch & Ziz /CHN/, Romania: Ilfov Distr., Mihai–Bravu, 2 Aug. 1931, T. Săvulescu & T. Rayss (BUCM 1417! holotype).

chenopodii–polyspermi Gäum. – Mitt. naturf. Ges. Bern (1918): 64. 1919. Orig. coll. on *Chenopodium polyspermum* L. /CHN/, Switzerland: Canton Bern, Brüggwald near Biel, July 1916, E. Gäumann (BERN–!, ZT–!).

chenopodii–rubri Gäum. – Mitt. naturf. Ges. Bern (1918): 64. 1919. Orig. coll. on *Chenopodium rubrum* L. /CHN/, Germany: Schöneberg near Berlin, Aug. 1887, P. Sydow (Sydow, Myc. march. 1534, under *P. effusa*).

chenopodii–urbici Săvul. & Rayss in Săvul. – Herb. mycol. rom. 206. 1931. Orig. coll. on *Chenopodium urbicum* L. /CHN/, Romania: Vâlcea Distr., Brezoi, 19 Aug. 1930, T. Săvulescu & T. Rayss (BUCM 1422! lectotype here selected).

chenopodii–vulvariae Săvul. & Rayss in Săvul. – Herb. mycol. rom. 508. 1934. Orig. coll. on *Chenopodium vulvaria* L. /CHN/, Romania: Prahova Distr., Găgeni, 24 June 1933, T. Săvulescu & T. Rayss (BUCM 1426! lectotype here selected).

chlorae de Bary in Rabenh. – Fungi eur. 1590. 1872. Orig. coll. on *Blackstonia perfoliata* (L.) Hudson (*Chlora perfoliata* (L.) L.) /GEN/, France: Hippodrome near Strassbourg, Sept. 1872, A. de Bary.

chlorae de Bary f. **cicendiae** Molliard – Bull. Soc. mycol. Fr. 20: 223. 1904. Orig. coll. (2) on *Exaculum pusillum* (Lam.) Caruel (*Cicendia pusilla*

(Lam.) Griseb.) /GEN/ and *Cicendia filiformis* (L.) Delarbre /GEN/, France: St–Léger, shore of lake Hollande, Aug. 1903, M. Molliard.

chorisporae Gäum. – Beih. bot. Zbl. 35 (1): 524. 1918. Orig. coll. on *Chorispora tenella* (Pallas) DC /CRU/, Russia: Novocherkassk, 17 Apr. 1911, O. Treboux (S!, B–!).

chorisporae Gäum. f. **elegantis** Gaponenko – Semejstvo Peronosporaceae Srednej Azii i Yuzhnogo Kazakhstana: 209. 1972. Orig. coll. on *Chorispora elegans* Camb. /CRU/, Uzbekistan: Bostandyk Distr., Majdantal, N. slope of Pulat–khan Mt, Angren, 10 Aug. 1955, N.I. Gaponenko (TASM!, two specimens).

chrysanthemi–coronarii* (Sawada) S. Ito & Y. Tokunaga – Trans. Sapporo nat. Hist. Soc. 14: 29. 1935 ≡ *Plasmopara chrysanthemi–coronarii* Sawada – Rep. Govt. Res. Inst. Dep. Agric. Formosa 51: 15. 1931 [Latin description in Ito & Tokunaga *op. cit.*] ≡ *Bremiella chrysanthemi–coronarii* (Sawada) Tao – Acta mycol. sin. 1: 64. 1982 ≡ ***Paraperonospora chrysanthemi–coronarii* (Sawada) O. Const. – Sydowia 41: 87. 1989. Orig. coll. on *Chrysanthemum coronarium* L. /AST/, China (Taiwan), Taichung Prov., Yuanlin, 21 March 1930, E. Kurosawa (TAI–, TNS F–192975! holotype).

chrysosplenii Fuckel – Fungi rhen. 1509. 1865. Orig. coll. on *Chrysosplenium alternifolium* L. /SAX/, Germany: Hessen, Östrich, forest.

cilicica Bremer & Gäum. – Ber. schweiz. bot. Ges. 55: 152 (1945). Orig. coll. on *Vicia narbonensis* L. /LEG/, Turkey: Adana, 8 March 1943, H. Bremer (ZT!).

claytoniae Farlow – Bot. Gaz. 8: 314. 1883. Orig. coll. on *Claytonia virginica* L. /POR/, U.S.A.: Kentucky, Lexington, May 1882, coll. W.A. Kellerman, comm. J.B. Ellis (BPI!, NY!).

clinopodii Terui – Ann. phytopath. Soc. Japan 44: 524. 1978. Orig. coll. on *Clinopodium sachaliense* Koidz. /LAB/, Japan: Aomori Pref., Mt. Ajara, Owani, 10 Oct. 1974, M. Terui.

cochleariae Gäum. – Beitr. KryptogFl. Schweiz 5(4): 280. 1923. Orig. coll. on *Cochlearia danica* L. /CRU/, Denmark: Fyn, Magaard, 27 Apr. 1876, E. Rostrup (C+).

colocasiae* Racib. apud Gola – L'Herbario Micologico di P.A. Saccardo. Catalogo. Padova: 105. 1930 [Nom. inval., Art. 32.1(c)]. Most probably a slip of the pen for ***Phytophthora colocasiae* Racib.

conferta (Unger) Unger – Bot. Ztg. 5: 314. 1847 [Nom. confusum] ≡ *Botrytis conferta* Unger – Die Exantheme der Pflanzen: 172. 1833. [Superfl. isonym: *P. conferta* (Unger) Gäum. – Mitt. naturf. Ges. Bern (1919): 183. 1920, as '*confesta*']. Note: Originally (Unger 1833) three hosts were mentioned: *Phyteuma betonicifolium* Vill. /CAM/, *Cardamine hirsuta* L. /CRU/ and *Sisymbrium 'impatiens'* /CRU/ from Austria: Tyrol, Kitzbühel. Another host, *Cerastium fontanum* Baumg. ssp. *triviale* (Link) Jalas (*C.*

vulgatum L.) /CRY/, collected in Austria: Steiermark, was later added (Unger 1847). Although it is clear that at least three species of *Peronospora* are involved, *P. conferta* was much used for the downy mildew of *Cerastium* spp. (see also Jørstad *in* Skr. norske Vidensk-Akad., Math.-naturv. Kl. 10: 8. 1963). Although under the present Code species based on discordant elements are not illegitimate, it is impossible from the protologue to know what Unger really meant. Moreover, Unger's specimens are not extant.

conglomerata Fuckel – Fungi rhen. 25. 1863. Orig. coll. on *Geranium pusillum* L. /GER/, Germany: Hessen, near Erbach, spring.

conii* Tul. – C. r. hebd. Séanc. Acad. Sci., Paris 38: 1003. 1854 [Nom. inval., Art. 32.1(c)]. This name refers, most probably, to ***Plasmopara umbelliferarum* s. lat.

conringiae Gäum. – Beih. bot. Zbl. 35 (1): 524. 1918. Orig. coll. on *Conringia orientalis* (L.) Dumort. /CRU/, Germany, Sachsen, Halle, Botanical Garden, July 1873, G. Winter (B–!).

consolidae Lagerh. ex A.A. & P.A. Jaczewski – Opredelitel' Gribov. Vol. 1, Fikomitsety: 158. 1931. = *P. consolidae* Lagerh. in Vesterg., Microm. sel. exs. 1527. 1912 [Nom. inval., Art. 32.1(c)]. Orig. coll. on *Consolida regalis* S.F. Gray (*Delphinium consolida* L.) /RAN/, Sweden: Gotland, Hemse, Aug. 1904, G. Lagerheim (Vestergr., *op. cit.*). Note: A duplicate of the original collection (LE 43374!) is marked 'Typus !' in Lagerheim's handwriting.

constantineanui Săvul. & Rayss – Annls mycol. 30: 375. 1932. Orig. coll. on *Limonium vulgare* Miller ssp. *serotinum* (Reichenb.) Gams /PLB/, Romania: Tulcea Distr., Rosetti, 2 June 1931, T. Săvulescu & T. Rayss (BUCM 2570! holotype). Note: Conspecific with *P. statices* Lobik (types compared).

convolvuli Lindq. – Revta Fac. Agron. La Plata 26: 29. 1946. Orig. coll. on *Convolvulus arvensis* L. /CNV/, Argentina: Los Hornos, La Plata, 7 Nov. 1943 (Herb. Dept. Phytopathol., Faculty of Agric., La Plata – holotype, LPS 11744 isotype).

corollae Tranzschel – Hedwigia 34: 214. 1895. Orig. coll. on *Campanula persicifolia* L. /CAM/, Russia: Novgorod Prov., Valdai Distr., Beresaika river, 20 June 1894, W. Tranzschel (LE 43375! holotype).

coronata* Niessl apud Oudemans – Enum. Syst. Fung. 2: 1049. 1920 [Nom. inval., Art. 32.1(c)]. Most probably a slip of the pen for ***Pleospora coronata* Niessl (Ascomycetes).

coronillae Gäum. – Beitr. KryptogFl. Schweiz 5(4): 190. 1923. Orig. coll. (3) on *Coronilla varia* L. /LEG/, Switzerland: Canton Neuchâtel, Prés, Perreux sur Boudry, 7 July 1914, E. Mayor (NEU!); *C. scorpioides* (L.) Koch, Yugoslavia: Dalmatien, Skradin near Sibenik (formerly Scardona near Sebenico), 2 July 1914, O. Jaap (Jaap, Fungi sel. exs. 701, under *P. trifoliorum* – BERN!).

coronillae–minimae Viennot–Bourgin – Bull. trimest. Soc. mycol. Fr. 69: 332. 1954 [Nom. inval., Art. 35.1]. *Orig. coll.* on *Coronilla minima* L. /LEG/, France: Seine–et–Oise, near Ferté–Allais, May 1952 (PC+ holotype).

coronillicola Camara & de Oliveira – Agron. lusit. 6: 305. 1944. *Orig. coll.* on *Coronilla valentina* L. ssp. *glauca* (L.) Batt. (*C. glauca* L.) /LEG/, Portugal: Sacavem, the garden of the Nat. Agron. Station, May 1942.

coronopi Gäum – Beih. bot. Zbl. 35 (1): 528. 1918. *Orig. coll.* on *Coronopus didymus* (L.) Sm. /CRU/, Argentina: Buenos Aires, G. Winter (B–!).

coronopi–procumbentis Viennot–Bourgin – Bull. trimest. Soc. mycol. Fr. 69: 333. 1954 [Nom. inval., Art. 36.1]. *Orig. coll.* on *Coronopus squamatus* (Forskål) Ascherson (*C. procumbens* Gilib.) /CRU/, France: Seine–et–Oise, near Noisy–le–Roi, June 1953, G. Viennot–Bourgin (PC+ holotype).

cortusae Gäum. & Blumer – Ber. schweiz. bot. Ges. 57: 252. 1947. *Orig. coll.* on *Cortusa matthioli* L. /PRM/, Switzerland: Canton Graubünden, "Sur Pra Grand" on the left side at the exit from the Val Maisas valley near Samnaun, alt. 1900 m, 24 July 1944, coll. W. Koch 44/P 50 (ZT!).

corydalis de Bary – Annls Sci. nat., Bot., sér. 4, 20: 111. 1863. *Orig. coll.* on *Corydalis solida* (L.) Swartz /PAP/. No details about the collection were provided.

corydalis–intermediae Gäum. – Beitr. KryptogFl. Schweiz 5(4): 82. 1923. *Orig. coll.* (3) on *Corydalis intermedia* (L.) Mérat /PAP/, Germany: Schleswig–Holstein, Escheburg near Bergedorf, 10 May 1908, O. Jaap (Jaap, Fungi sel. exs. 303a, under *P. corydalis*); *C. aurea* Willd. var. *occidentalis* Engelm., U.S.A.: Kansas, Manhattan, Apr. 1888 (Kellerman & Swingle, Kansas Fungi 13, under *P. corydalis* – BERN!); *C. micrantha* (Engelm.) Gray, U.S.A.: Nebraska, St. Paul, 25 May 1912, J.M. Bates (Bartholomew, Fungi columb. 3827, under *P. corydalis*).

corydalis–intermediae Gäum. f. **corydalis–capnoidis** Săvul. & Rayss in Săvul. – Herb. mycol. rom. 518. 1934. *Orig. coll.* on *Corydalis capnoides* (L.) Pers. /PAP/, Romania: Harghita Distr., Cheile Bicazului, 30 June 1933, T. Săvulescu & T. Rayss (BUCM 1462! lectotype here selected).

crambes A.A. & P.A. Jaczewski [as 'crambe'] – Opredelitel' Gribov. Vol. 1, Fikomitsety: 141. 1931. *Orig. coll.* on *Crambe kotschyana* Boiss. (*C. severzowi* Regel) /CRU/, Russia. No details about the collection were provided. *Note*: A specimen of *Crambe maritima* L. collected from Central Asia, Fergana Prov., Osch–Gulcza Distr., 3 Jul. 1900, coll. W. Trànzschel, det. A.A. Jaczewski (LEP!) is apparently the original one.

crispula Fuckel – Fungi rhen. 23. 1863. *Orig. coll.* on *Reseda luteola* L. /RSD/, Germany: Rheinland Pfalz, Mühlthal near Nassau, summer.

cristata Tranzschel – Trav. Mus. bot. Acad. imp. Sci. St. Petersb. 1: 49. 1902. *Orig. coll.* on *Papaver hybridum* L. /PAP/, Ukraine: Krym, Georgyievskyij Monastery near Sevastopol', 13 May 1901, W. Tranzschel (LE! – 185561).

Note: Although on the label the date is '13/26 IV 1901' there is little doubt that this is the original specimen. Three additional specimens, collected by W. Tranzschel from Crimea in 1902, are also deposited at LE! under 43377, 43378 and 43379.

crossostephii* Sawada – Trans. nat. Hist. Soc. Formosa 31: 266. 1941 [Nom. inval., Art. 36.1]. Orig. coll. on *Crossostephium artemisioides* Lees (*C. chinense* (Maxim.) Makino) /AST/, China (Taiwan): Taipei, 8 May 1936, K. Sawada (BPI! holotype). Note: Conspecific with ***Paraperonospora multiformis* (Tao & Y. Qin) O. Const., *fide* Constantinescu *in* Sydowia 41: 95. 1989. The specimen in TAI was ruined by insects (S.S. Tzean *in litt.*)

crucianellae Lindtner – Godišnjak biol. Inst. Saraj. (Annu. Inst. biol. Sarajevo) 9: 129. 1956 [Nom. illegit., Art. 64.1]. Orig. coll. (3) on *Crucianella angustifolia* L. /RUB/, Yugoslavia: Serbia orient., Koitnik near Niška Banja, 2 May 1953 (BEO 4927); ditto, 17 May 1955 (BEO 5879); ditto, 24 June 1955 (BEO 5927).

crucianellae Maire – Bull. Soc. Hist. nat. Afr. N. 36: 40. 1945. Orig. coll. on *Crucianella hirta* Pomel /RUB/, Algeria: Sud Oranais, Ben Zireg, Mt Antar, May, H. Humbert (MPU?).

**crustosa* (Fr. : Fr.) Fr. [as 'Perenospora'] – Summa veg. Scand.: 493. 1849 ≡ *Botrytis crustosa* Fr. : Fr. – Syst. mycol. 3: 403. 1832 ≡ *Verticillium crustosum* (Fr. : Fr.) Rabenh. – Deutschl. KryptFl. 1: 100. 1844 ≡ *Plasmopara crustosa* (Fr.) Jørstad – Skr. norske Vidensk-Akad., Mat.-naturv. Kl. 10: 12. 1963 [Nom. confusum]. Orig. coll. on *Heracleum sphondylium* L. /UMB/, Sweden: (most probably Småland, Femsjö), autumn, pre 1832 (UPS–!). Note: Most probably this fungus belongs to the Hyphomycetes. See also Skalický *in* Preslia 38: 125.1966, and Constantinescu *in* Mycotaxon 43: 472–474. 1992 (in press).

cryptosporae Annaliev – Vest. mosk. Univ., Ser. Biol. 15 (4): 54. 1960. Orig. coll. on On *Cryptospora falcata* Kar. & Kir. /CRU/, Turkmenia: Duzly–Tepe Distr., Tazy–Tapylan, 9 June 1959, S.A. Annaliev (AA, LE 24536!, MW!). Note: The collector on the label of the specimen in LE is Z.M. Byzova.

cryptosporae Annaliev in Kalymbetov – Trud. Inst. Bot. Akad. nauk Kazakh SSR 11: 203. 1961 [Nom. illegit., Art. 64.1]. Orig. coll. on *Cryptospora falcata* Kar. & Kir. /CRU/, Kazakhstan: foothills of the Zailijskij Alatau plain, 30 km of Ili, 21 May 1958, S.A. Annnaliev (AA?). Note: Two apparently duplicates were found: one at TASM! differs by the date (21.V.1988, most probably a slip of the pen for 1958) and the collector (B. Kalymbetov), and another (LE 24536!), labelled 'isotype' differs by the collector, Z.M. Byzova.

cubensis* Berk. & M.A. Curtis – J. Linn. Soc. (Bot.) 10: 363. 1869 ≡ *Plasmopara cubensis* (Berk. & M.A. Curtis) Humphrey – Rep. Mass. agric. Exp. Sta 8 (1890): 335. 1891 ≡ ***Pseudoperonospora cubensis* (Berk. & M.A. Curtis) Rostovtsev – Ann. Inst. agron. Moscou 9: 47. Jan. 1903; also in Flora, Jena 92: 422. Oct. 1903. [Superfl. comb.: *Peronoplasmopara cubensis* (Berk. & M.A. Curtis) Clinton in Rep. Conn. agric. Exp. Sta 1904: 335.

1905]. Orig. coll. on *Cucurbita* sp. /CUC/, Cuba: C. Wright (Herb. Berkeley no. 412 in K!).

cubensis* Berk. & M.A. Curtis var. *atra* Zimmerman – Zentbl. Bakt. ParasitKde Abt. 2, 8: 148. 1902. Orig. coll. on *Cucurbita pepo* L. /CUC/, Indonesia: Bogor, Zimmerman. Note: Conspecific with ***Pseudoperonospora cubensis* (Berk. & M.A. Curtis) Rostov., *fide* Waterhouse & Brothers *in* Mycol. Pap. 148: 7. 1981.

cucubali S. Ito & Y. Tokunaga – Trans. Sapporo nat. Hist. Soc. 14: 23. 1935. Orig. coll. (3) on *Cucubalus baccifer* L. var. *japonicus* Miq. /CRY/, Japan: Hokkaido, Ishikari Prov., Sapporo, 21 May 1928, Y. Tokunaga (SAPA–holotype); ditto, 6 June 1890, K. Miyabe (SAPA+); ditto 15 June 1934, Y. Tochinai et Y. Homma (SAPA+).

cucumeris* (Sawada) Skalický – Preslia 38: 126. 1966 ≡ *Peronoplasmopara cucumeris* Sawada – Trans. nat. hist. Soc. Formosa 21: 332. 1931 [Nom. illegit., Art. 63.1]. Orig. coll. (36) on *Cucumis sativus* L., *C. melo* L., *Cucurbita moschata* Duchesne ex Poiret and *Citrullus lanatus* (Thunb.) Mansfeld (*C. vulgaris* Schrader) /CUC/, all collected from China (Taiwan). Holotype on *Cucumis sativus*, Taipei, 15 June 1931. All specimens in TAI+. Note: Conspecific with ***Pseudoperonospora cubensis* (Berk. & M.A. Curtis) Rostov., *fide* Waterhouse & Brothers *in* Mycol. Pap. 148: 7. 1981.

curta* (Berk.) Berk. [as 'Casp.'] – Outl. Br. Fung. 349. 1860 ≡ *Botrytis curta* Berk. – Brit. Fungi, fasc. 3, no. 209. 1837; also in Ann. Mag. nat. Hist., Ser. I, 1: 262. 1838 ≡ *Plasmopara curta* (Berk.) Skalický – Preslia 26: 126. 1954. Orig. coll. on *Anemone nemorosa* L. /RAN/, England: Northants., Kings Cliffe, pre 1837, M.J. Berkeley (Brit. Fungi 209). Note: Conspecific with ***Plasmopara pygmaea* (Unger) Schröter.

cynoglossi Burrill ex Swingle – Trans. 21 meeting Kansas Acad. Sci. 11: 77. 1889. Orig. coll. on *Cynoglossum virginianum* L. /BOR/, U.S.A.: Illinois, Tunnel Hill, May 1882, A.B. Seymour (Ell. & Ev., N. Amer. Fungi 2206). Note: I found three original specimens collected by Seymour at 15 May 1882, no 4681 (BPI!,S!) and 12 May 1882, no 4655 (BPI!).

cynoglossi Burrill ex Swingle var. **echinospermi** Swingle – Trans. 21 meeting Kansas Acad. Sci. 11: 77. 1889 ≡ *P. echinospermi* (Swingle) Swingle – J. Mycol. 7: 126. 1892. Orig. coll. on *Lappula redowskii* (Hornem.) Greene f. *cupulata* (Gray) Scoogan (*Echinospermum redowskii* Lehm. var. *cupulatum* Gray) /BOR/, U.S.A.: Kansas, Rooks Co., 5 June 1889, E. Bartholomew 320.

cyparisiae de Bary – Annls Sci. nat., Bot., sér. 4, 20: 124. 1863. Orig. coll. on *Euphorbia cyparisias* L. /EUP/. No details about the collection were provided.

cyperi* Ideta [as 'cyper'] – Sinnôhô (New agric. News) 57: 31–32. 1903 ≡ *Kawakamia cyperi* (Ideta) Sawada – Agric. Mag. Formosa 38: 351. 1942 ≡ ***Phytophthora cyperi* (Ideta) Ito – Trans. Sapporo nat. Hist. Soc. 14: 13.

1935. Orig. coll. on *Cyperus malaccensis* Lam. /CYP/, Japan: Ooita Prefecture (TAI–).

**cyperi* Miyabe & Ideta – Lehrbuch der Pflanzenkrankheiten: 122. 1904 [Nom. illegit., Art. 64.1].

cytisi P. Magnus – Hedwigia 8: 149. 1892 [Nom. illegit., Art. 64.1; See also Magnus, P. – Abh. bot. Ver. Prov. Brandenburg 38 pp. 2 and 5. 1896]. Orig. coll. on *Laburnum anagyroides* Medicus (*Cytisus laburnum* L.) /LEG/, Germany: Bayern, Bad Kissingen, Aug. and Sept. 1891, P. Magnus. Note: The type of this taxon is not listed among those present in P. Magnus' herbarium at HBG by Friederichsen & Heide *in* Mitt. Inst. all. Bot. Hamburg 18: 117–132. 1982. Original specimens were distributed in Rabenh., Fungi eur. 3972. A specimen collected 18 Aug. 1891 is at B!.

cytisi Rostrup – Z. PflKrankh. 2: 1. 1892. Orig. coll. on *Laburnum anagyroides* Medicus (*Cytisus laburnum* L.) /LEG/, Denmark: Sælland, Roskilde. 9 Aug. 1890, E. Rostrup (C+). Note: See also Francis & Berrie *in* CMI Descr. Path. Fungi & Bact. No. 762 .1983.

danica Gäum. – Beitr. KryptogFl. Schweiz 5(4): 128. 1923. Orig. coll. on *Chrysanthemum segetum* L. /AST/, Denmark: near Lyngby, 7 Oct. 1913, J. Lind (Sydow, Phyc. et Prot. 309, under *P. radii* f. *foliicola*; UPS! lectotype, BPI!, S! isolectotypes). Note: Conspecific with *P. radii* de Bary (types compared); see Constantinescu *in* Sydowia 41: 101. 1989.

daturae Hulea in Bontea & O. Const. – Herb. mycol. rom., Schedae: 778. 1968 ≡ *P. daturae* Hulea in Săvul. – Herb. mycol. rom. 1502. 1955 [Nom. inval., Art. 31.1]. Orig. coll. on *Chenopodium hybridum* L. /CHN/, Romania: Dâmboviţa Distr., Voineşti, 12 Aug. 1951, V. Suta (BUCM 1338 lectotype here selected!). Note: The host was initially identified as *Datura stramonium* L. /SOL/. Conspecific with *P. farinosa* (Fr. : Fr.) Fr.

davisii C.G. Shaw – Mycologia 43: 445. 1951. Orig. coll. on *Dracocephalum parviflorum* Nutt. /LAB/, U.S.A.: Wisconsin, Douglas Co., Gordon, 17 July 1907, J.J. Davis (WIS+ holotype, BPI! isotype). Note: According to the curator (*in litt.*), there are 3 separate small packets at WIS, but none marked as type.

debaryi E. Salmon & Ware – Trans. Br. mycol. Soc. 14: 47. 1929. *Nom. nov.* for *P. urticae* (Libert ex Berk.) Caspary p.p. Orig. coll. on *Urtica urens* L. /URT/, England: Northants., Kings Cliffe, 25 June 1859, M.J. Berkeley (Herb. Berkeley in K! lectotype here selected). Note: See also Constantinescu *in* Mycotaxon 24: 309. 1985.

densa* Rabenh. – Klotzschii herb. viv. mycol. 1572. 1851; also in Bot. Ztg. 9: 668. 12 Sept. 1851; also in Flora 9: 573. 28 Sept. 1851 ≡ ***Plasmopara densa* (Rabenh.) Schröter in Cohn – Krypt.-Fl. Schles. 3(1) Pilze 1: 239. 1886 ≡ *Peronoplasmopara densa* (Rabenh.) G. Nicolas & Aggéry – Bull. trimest. Soc. mycol. Fr. 54: 121. 1938. Orig. coll. on *Rhinanthus 'major'* /SCR/, Germany: Driesen, coll. Lasch.

dentariae Rabenh. - Fungi eur. 86. 1859. Orig. coll. on *Cardamine heptaphylla* (Vill.) O.E. Schulz (*Dentaria heptaphylla* Vill.) /CRU/, Italy, Piemonte, Biella, May 1858, V. Cesati.

dentariae–macrophyllae Gäum. - Beih. bot. Zbl. 35 (1): 523. 1918. Orig. coll. on *Cardamine leucantha* (Tausch) O. E. Schulz (*Dentaria macrophylla* Bunge var. *dasyloba* (Turcz.) Makino) /CRU/, Japan, Hokkaido, Sapporo, 11 May 1906, M. Mirna (B–!, S–!, SAPA?).

desertorum A.A. & P.A. Jaczewski - Opredelitel' Gribov. Vol. 1, Fikomitsety: 139. 1931. Orig. coll. on *Alyssum desertorum* Stapf /CRU/, Russia. No details about the collection were provided. Note: A specimen collected from Novo Nikolaevsk Prov., Kamen' Distr., 25 May 1924, N. Rozhdestvenskaya (LEP!) is most probably the type.

desmodii Miyabe in S. Ito & Y. Tokunaga - Trans. Sapporo nat. Hist. Soc. 14: 27. 1935. Orig. coll. (12) on *Desmodium oxyphyllum* DC (*D. racemosus* (Thunb.) DC), /LEG/, Japan: Hokkaido, Ishikari Prov., Maruyama near Sapporo, 28 sept. 1934, Y. Tokunaga (SAPA+ holotype); ditto, 7 Aug. 1901, G. Yamada (SAPA+); ditto, 16 July 1934, S. Ito (SAPA+); Ishiyama, 15 July 1896, K. Miyabe (SAPA+); Iburi Prov., Mt Usu, 28 Sept. 1932, K. Ishizuka (SAPA+); Mushashi Prov., Tokyo, 29 Aug. 1900, G. Yamada (SAPA+); on *Dumasia truncata* Sieb. & Zucc./LEG/, Shimotsuke Prov., Hiraishi-mura, 25 July 1926, R. Kikuchi (SAPA+); Echigo Prov., Oshima-mura, 23 Aug. 1930, K. Ishizuka (SAPA+); ditto, 27 Aug. 1933 (SAPA+); on *Amphicarpaea monoica* Elliott (*A. comosa* G. Don; *Falcata comosa* O. Kuntze var. *japonica* Makino) /LEG/, Ishikari Prov., Maruyama near Sapporo, 14 Sept. 1930, K. Ishizuka (SAPA+); ditto, 2 Oct. 1934, Y. Tokunaga (SAPA+); Ugo Prov., Mt Komagadake, 31 July 1929, K. Togashi (SAPA+).

destructor (Berk.) Caspary ex Berk. - Outl. Br. Fung.: 349. 1860 ≡ *Botrytis destructor* Berk. - Ann. Mag. nat. Hist., Ser. 1, 6: 436. 1841. Orig. coll. on *Allium cepa* L. /ALL/, England: *sine loc.*, spring. Note: A specimen, collected from Northants., Kings Cliffe, *sine dat.*, is in Berkeley's herbarium at K!. This may be part of the collection distributed in Berk., British Fungi no. 345. See also Mukerji *in* CMI Descr. Path. Fungi & Bact. No. 456. 1975.

devastatrix* (Libert) Caspary - Monatsb. K. Akad. Wiss. Berlin 3: 325. 1855 ≡ *Botrytis devastatrix* Libert - Organe de Flandres, 19th Aug. 1845 ≡ *Phytophthora devastatrix* (Libert) Puttemans - Rodriguésia 2: 349. ?1937. Orig. coll. on *Solanum tuberosum* L. /SOL/. Note: Conspecific with ***Phytophthora infestans* (Mont.) de Bary., *fide* Waterhouse *in* Mycol. Pap. 122: 15, 16 & 54. 1970.

dianthi de Bary - Annls Sci. nat., Bot., sér. 4, 20: 114. 1863. Orig. coll. on *Petrorhagia prolifera* (L.) P.W. Ball & Heywood (*Dianthus prolifer* L.) /CRY/. No details about the collection were provided. Note: See also Francis *in* CMI Descr. Path. Fungi & Bact. No. 763. 1983.

dianthicola Barthelet - C. r. hebd. Séanc. Acad. Agric. Fr. 32: 576. 1946 [Nom. inval., Art. 36.1]; also in Annls Épiphyt. 4: 183. 1953 [Nom. inval., Art. 36.1]. Orig. coll. on *Dianthus* sp. cult. /CRY/, France: Antibes, Apr. 1946. Note: See also Francis *in* CMI Descr. Path. Fungi & Bact. No. 764. 1983.

dianthicola Heim – C. r. hebd. Séanc. Acad. Agric. Fr. 32: 576. 1946 sec. Index of Fungi 1: 192. 1947. This is a slip of the pen for *P. dianthicola* Barthelet.

dicentrae H. Sydow in Gäum. – Beitr. KryptogFl. Schweiz 5(4): 82. 1923. Orig. coll. (2) on *Dicentra canadensis* (Goldie) Walp. /PAP/, Canada: Ontario, near London, 20 May 1912, J. Dearness (Sydow, Phyc. et Prot. 277, under *P. corydalis*, NEU!); *D. cucullaria* (L.) Bernh., U.S.A.: Michigan, Madison (herb. Trelease in B–!).

digitalidis Gäum. – Beitr. KryptogFl. Schweiz 5(4): 162. 1923. Orig. coll. (3) on *Digitalis grandiflora* Miller (*D. ambigua* Murray) /SCR/, Poland: Jawor (formerly Hessberge, Janer Distr., Germany) 14 July 1878, J. Gerhardt (B–!); *D. lutea* L., Germany, Baden-Württemberg, Posthalden, June 1903, G. Lagerheim (B–!); *D. purpurea* L., Germany: Hessen, Rabenkopf Mt., forest near Östrich, L. Fuckel (Fuckel, Fungi rhen. 2101, under *P. sordida*).

dimorphothecae* Săvul. & Vánky – Arch. Freunde Natgesch. Mecklenb. 2: 350. 1956. Orig. coll. on *Dimorphotheca aurantiaca* DC /AST/, Germany: Mecklenburg, Rostock, Botanical Garden, 16 July 1950, H. Buhr (BUCM 1564! holotype, B! isotype). Note: Conspecific with ***Paraperonospora leptosperma* (de Bary) O. Const., *fide* Constantinescu *in* Sydowia 41: 89. 1989.

dipeltae A.A. & P.A. Jaczewski – Opredelitel' Gribov. Vol. 1, Fikomitsety: 150. 1931. Orig. coll. on *Astragalus dipelta* Bunge (*Dipelta turkestanica* Rgl. & Schmalh.) /LEG/, Russia. No details about the collection were provided (LE–!, LEP–!).

diplachnis* Milovtsova – Trud. Inst. Bot., Kharkov 2: 15. 1937. Orig. coll. on *Kengia squarrosa* (Trin.) Packer (*Cleistogenes squarrosa* (Trin.) Keng; *Diplachne squarrosa* (Trin.) Maxim.) /GRM/, Ukraine: Kharkov Distr., near Kreminnoi, 19 June 1919, M.V. Klokov (CWU–, KW–). Note: Only conidiophores and oogonia with oospores were mentioned in the original description. This is the only *Peronospora* described on Gramineae, a doubtful species, not mentioned by Novotelnova & Pystina, Flora Sporovykh Rastenij SSSR. Vol. 9. Griby (3) Peronosporales, 1985. It is possible that ***Sclerospora graminicola* (Sacc.) Schröter, parasitic on *Setaria* was actually involved.

diplotaxidis Gäum. – Beih. bot. Zbl. 35 (1): 524. 1918. Orig. coll. (3) on *Diplotaxis tenuifolia* (L.) DC /CRU/, Yugoslavia: Topčider near Beograd, June 1904, N. Ranojević (S!); ditto, (in Pilze Serbiens 29.2); Switzerland: Cañton Valais, Pfingsten, Sitten, 1916, E. Gäumann (BERN!).

dipsaci Tul. ex de Bary – Annls Sci. nat., Bot., sér. 4, 20: 118. 1863. = *P. dipsaci* Tul. – C. r. hebd. Séanc. Acad. Sci. Paris 38: 1103. 1854 [Nom.

inval., Art. 32.1(c)]. Orig. coll. on *Dipsacus fullonum* L. (*D. sylvestris* Hudson) /DPS/, France. No details about the collection were provided.

dipsaci Tul. ex de Bary f. *fulloni* Kühn – Hedwigia 14: 33. March 1875 [Nom. inval., Art. 32.1(c); only the symptoms were described]. Orig. coll. on *Dipsacus fullonum* L. /DPS/, Germany: Sachsen, Hohenthurm near Halle, spring 1884, J. Kühn.

diptychocarpi Kalymbetov [as 'diptichocarpi'] – Trud. Inst. Bot. Akad. Nauk Kazakh SSR 11: 204. 1961. Orig. coll. on *Diptychocarpus strictus* (Fischer) Trautv. /CRU/, Kazakhstan: 30 km of the Ili railway station, on the right bank of the river, 21 May 1958, B. Kalymbetov (AA, TASM!).

dorycnii Uljanishchev – Dokl. Akad. Nauk Azerb. SSR 16: 387. 1960. Orig. coll. on *Dorycnium pentaphyllum* Scop. ssp. *herbaceum* (Vill.) Rouy (*D. intermedium* Ledeb.) /LEG/, Azerbajdzhan: Nagorno–Karabakh Aut. Region, Mardakert Distr., near Kasapet, 28 June 1958, V.I. Uljanishchev (BAK!).

drabae Gäum. – Beih. bot. Zbl. 35 (1): 524. 1918. Orig. coll. (3) on *Draba reptans* (Lam.) Fern (*D. caroliniana* Walt.) /CRU/, U.S.A.: Kansas, Riley Co., Manhattan, W.A. Kellerman (Fl. of Kansas 511); U.S.A.: Iowa, Ames, 10 May 1881, E. Bessey (BERN!); *D. nemorosa* L. var. *leiocarpa* Lindblad, Finland: Karelia, Soulajaroi (now possibly in Russia), June 1898, J.I. Lindroth (Sydow, Phyc. et Prot. 215, under *P. parasitica*).

drabae Gäum. var. **jakutica** Ch. Benois in A.A. & P.A. Jaczewski – Opredelitel' Gribov. Vol. 1, Fikomitsety: 141. 1931, *emend.* Benua & Karpova–Benua – Parazitnye griby Yakutii: 40. 1973. Orig. coll. (2) on *Draba nemorosa* L. /CRU/, Russia: Yakutsia, Verkhoyansk area, between Yakustsk and the river Aldan, lake Atakhan, 23 Aug. 1925, Ch. Benois; ditto, Irkutsk Distr., Lena riverside, near Zhigalovo, 24 June 1926, Ch. Benois (LE–!, LEP–!). Note: The material is apparently lost (V.A. Melnik, *in litt.*).

drabae–majusculae Lindtner – Godišnjak biol. Inst. Saraj. (Annu. Inst. biol. Sarajevo) 9: 127. 1956. Orig. coll. (2) on *Erophila verna* (L.) Chevall. ssp. *verna* (*Draba majuscula* (Jordan) Hayek & Wibiral) /CRU/, Yugoslavia: Serbia, near Beograd, between Rušanj and Lipovica, 21 March 1953 (BEO 4606); Avala near Klenje, 24 Apr. 1955 (BEO 5855).

dubia Berl. – Icon. Fung., Phycomycetes, Fasc. 1: 23. 1898. Orig. coll. on *Hyoscyamus niger* L. /SOL/, Czechoslovakia: N. Bohemia, Bílina, summer 1873, F. de Thümen (Thümen, Fungi austr. 939, under *P. hyoscyami*).

ducometii Siemaszko & Jankowska in Jankowska [as 'ducometi'] – Roczniki Nauk Rolniczych i Leśnych 21: 157. 1929; also in Zentbl. Bakt. ParasitKde, Abt. 2, 78: 113. 27 May 1929. Orig. coll. (2) on *Fagopyrum esculentum* Moench (*F. sagittatum* Gilib.) /PLG/, Poland: Lublin Distr., Końskowola near Puławy, 1927; ditto, Puławy, summer 1928.

echii (Krieger) A.A. & P.A. Jaczewski – Opredelitel' Gribov. Vol. 1, Fikomitsety: 130. 1931. See *P. myosotidis* var. *echii*.

echinopsili Tunkina – Trud. Inst. Bot., Baku 19: 85. 1955. Orig. coll. on *Bassia hyssopifolia* (Pallas) Volk. (*Echinopsilon hyssopifolium* (Pallas) Moq.) /CHN/, Azerbajdzhan: Apsheron peninsula, Artem island, 10 May 1954, T. Tunkina (BAK!).

echinospermi (Swingle) Swingle [as 'Swingle'] – J. Mycol. 7: 126. 1892. See *P. cynoglossi* var. *echinospermi*.

echinospermi Miura in S. Ito & Y. Tokunaga – Trans. Sapporo nat. Hist. Soc. 14: 28. 1935 [Nom. inval., Art. 32.1(c)]. Most probably a slip of the pen for *P. echinospermi* (Swingle) Swingle *sensu* Miura.

effusa (Grev.) Rabenh. [as 'Desmaz.'] – Klotzsch. Herb. viv. mycol. 1880. 1853 ≡ *Botrytis effusa* Grev. – Fl. edin.: 468. 1824. [Superfl. isonyms: *P. effusa* (Grev.) Tul. – C. r. hebd. Séanc. Acad. Sci. Paris 38: 1103. 1854; *P. effusa* Grev. apud de Bary – Annls Sci. nat., Bot., sér. 4, 20: 115. 1863; *P. effusa* Grev. apud Cooke – Rusts, Smut, Mildew, & Mould: 216. 1865; *P. effusa* (Grev.) Cesati apud Wilson – Mycologia 6: 202. 1914]. Orig. coll. on *Spinacia oleracea* L. /CHN/, Scotland: Forth, Foxhall, coll. Wauch. Note: Type apparently not extant. Wilson (*loc. cit.*) misinterpreted the text on the label of Rabenhorst's exsiccata. Cesati is not the author of the combination but the collector of the first of the two specimens distributed under the same number. The collector of the second specimen is A. de Bary. This error was recently repeated by Brandenberger *et al. in* Mycotaxon 41: 157–160. 1991.

effusa (Grev.) Rabenh. var. *hyoscyami* Rabenh. – Fungi eur. 291. 1860 [Nom. inval., Art. 32.1(c); only the symptoms were described]. Orig. coll. on *Hyoscyamus* sp. /SOL/, Czechoslovakia: N. Slovakia, near Spišské Vlachy (formerly Zips–Olaszi in Hungary), Sept. 1859, coll. Kalchbrenner (in Rabenh., op.cit.).

effusa (Grev.) Rabenh. var. **intermedia** Caspary in Rabenh. – Herb. mycol. Ed. 2, 490. 1857. Orig. coll. on *Vicia* sp. /LEG/, Germany: near Bonn, J. Kühn.

effusa (Grev.) Rabenh. var. **major** Caspary [as 'maior']– Monatsb. K. Akad. Wiss. Berlin 3: 329. 1855. Orig. coll. (2) on *Chenopodium album* L. /CHN/, Germany: near Berlin, R. Caspary (Rabenh., Herb. myc. Ed. 2, 171) ; *C. hybridum* L., Germany: Sachsen, Halle, coll. Schlechtendal (Klotzsch. Herb. viv. mycol. 1776, under *Peronospora chenopodii* Schlecht.). Note: The second collection mentioned by Caspary is the type of *P. chenopodii* Schlecht.

effusa (Grev.) Rabenh. var. **manshurica** Naumov – Bull. Soc. mycol. Fr. 30: 72. 1914. Orig. coll. on *Chenopodium album* L. /CHN/, Russia: Primorsk Region, Ussurij Distr., Nikol'sk, 23 May 1912, N.A. Naumov (LE–!, LEP–!). Note: Name changed to *P. ussuriensis* A.A. & P.A. Jaczewski, *q.v.*

effusa (Grev.) Rabenh. var. **minor** Caspary – Monatsb. K. Akad. Wiss. Berlin 3: 330. 1855 ≡ *P. minor* (Caspary) Gäum. – Mitt. naturf. Ges. Bern (1918): 62. 1919. Orig. coll. on *Atriplex patula* L. /CHN/, Germany: near Berlin, R. Caspary. Note: Original specimens were apparently distributed in Rabenh. Herb. myc. Ed. 2, 172 (S!, ZT!), but in some sets of this exsiccata (e.g. B!, S!, ZT!), the place is Bonn, and the date 1 June 1855.

effusa (Grev.) Rabenh. var. *minor* Karsten – Mycol. Fenn. 4: 80. 1879 [Nom. illegit., Art. 64.1]. Orig. coll. on *Atriplex* sp. /CHN/, Russia: Kandalaksha (formerly Lappland, Kantalaks, in Finland) P.A. Karsten (H?).

effusa (Grev.) Rabenh. var. *plantaginis* Farlow – Bot. Gaz. 8: 328. 1883 [Nom. inval., Art. 32.1(c)].

effusa (Grev.) Rabenh. var. **polygoni** Thümen – Öst. bot. Z. 26: 21. 1876 ≡ *P. polygoni* (Thümen) A. Fischer [as 'Thümen'] in Rabenh. – Krypt.-Fl. 1(4): 481. 1892. Orig. coll. (2) on *Polygonum aviculare* L. / PLG/, Austria: Weinzierl near Krems, summer 1871, F. Thümen (Thümen, Fungi austr. 742, under *P. effusa* var. *avicularaie*); Czechoslovakia, Bohemia, Teplice (formerly Teplitz in Austria), spring 1872, F. Thümen (Thümen, Fungi austr. 836, under *P. effusa* var. *polygoni–convolvuli*).

effusa–ciconia Beccari – Erb. critt. ital. 366 (1366). 1866; also in Hedwigia 5: 109. 1866. Orig. coll. on *Erodium ciconium* (L.) L'Hér. /GER/, Italy: Bologna, March 1864, Beccari.

eigii Rayss – Palest. J. Bot., J. Ser. 1: 154. 1938. Orig. coll. on *Leptaleum filifolium* (Willd.) DC /CRU/, Israel: Jehuda desert, 28 Feb. 1935, M. Zohari (HUJ).

elliptica* (Berk.) W. G. Smith – Gdnrs' Chron. ser. 3, 4: 184. 1888 ≡ *Ovularia elliptica* Berk. – Gdnrs' Chron. 16: 340. 10 Sept. 1881; also in Grevillea 10: 51. Dec. 1881 ≡ ***Botrytis elliptica* (Berk.) Cooke – Jl R. hort. Soc. 26: cxxix. 1902. Orig. coll. on *Lilium* spp. /LIL/, England: *sine loc.*, coll. C. Wolley Dod, det. M.J. Berkeley (K–).

elsholtziae T.-r. Liu & C.-k. Pai – Acta mycol. sin. 4: 5. 1985. Orig. coll. (2) on *Elsholtzia ciliata* (Thunb.) Hyl. (*E. patrinii* (Lepechin) Garcke) /LAB/, China: Heilongjiang Prov., Mi–Shan Reg., June 1981, T.R. Liu 052 (Herb. Heilongjiang 'August 1' Agric. Univ. – holotype, HMAS+ isotype); Ke–Shan Region, July 1981, no. 067.

emaculata Schw. apud Gola – L'Herbario Micologico di P.A. Saccardo. Catalogo. Padova: 105. 1930 [Nom. inval., Art. 32.1(c)].

embergeri Mayor & Viennot–Bourgin – Rev. Path. vég. Ent. agric. Fr. 28: 37. 1949. Orig. coll. on *Euphorbia characias* L. /EUP/, France: Var, near Hyères, Fenouillet hill, 8 June 1948 (PC+, NEU!).

entospora* (Roze & Cornu) Berk. & Broome – Ann. Mag. nat. Hist., Ser. 4, 7: 431. 1871 ≡ ***Basidiophora entospora* Roze & Cornu – C. r. hebd. Séanc. Acad. Sci., Paris 68: 652. 1869; expanded in Bull. Soc. bot. Fr. 16: 9. 1869; more expanded in Annls Sci. nat., Bot., Sér. 5, 11: 84. 1869 ≡ *Plasmopara entospora* (Roze & Cornu) Schröter in Cohn – Krypt.-Fl. Schles. 3(1) Pilze 1: 237. 1886. Orig. coll. (4?) on *Conyza canadensis* (L.) Cronq. (*Erigeron canadensis* L.) /AST/, France: Joinville–le Pont; Meudon; Bois de

Boulogne (all three near Paris); Loiret near Châteauneuf–sur–Loire. All specimens collected in 1868–69.

epilobii* Otth – Mitt. naturf. Ges. Bern (1868): 63. 1869 ≡ ***Plasmopara epilobii* (Otth) Sacc. & P. Sydow [as '(Otth) Schröt.'] – Sacc. Syll. Fung. 14: 460. 1899 ≡ *Rhysotheca epilobii* (Otth) G.W. Wilson – Bull Torrey bot. Club 34: 401. 1907. Orig. coll. on *Epilobium parviflorum* Schreber /ONA/, Switzerland, near Bern, Sept., G. Otth (BERN!, two specimens).

epilobii* Rabenh. – Hedwigia 13: 45. March 1874; also in Fungi eur. 1747. 1874 [Nom. illegit., Art. 64.1] ≡ *Plasmopara epilobii* (Rabenh.) Schröter in Cohn – Krypt.-Fl. Schles. 3(1) Pilze 1: 238. 1886. Orig. coll. on *Epilobium parviflorum* Schreber /ONA/, Poland: Silesia (formerly Schlesien in Germany), *sine loc.*, July 1872, J. Gerhardt (Rabenh., Fungi eur. 1747). Note: Conspecific with ***Plasmopara epilobii* (Otth) Sacc. (types compared).

epiphylla (Pers.) Pat. & Lagerh. – Bull. Soc. mycol. Fr. 7: 167. 1891 ≡ *Botrytis epiphylla* Pers. – Mycol. eur. 1: 36 (1822). Orig. coll. on. *Atriplex hastata* L. /CHN/, *sine loc. et dat.* (L 910262-757! holotype). Note: Conspecific with *P. farinosa* (Fr. : Fr.) Fr. which, although introduced later, has protected status (Art. 13(d)).

eranthidis–hyemalis (Pass.) Fischer in Rabenh. [as '*eranthidis*'] – Krypt–Fl. 1 (4): 475. 1892. See *P. myosuri* f. *eranthidis–hyemalis*.

erini Viennot–Bourgin – Bull. trimest. Soc. mycol. Fr. 69: 334. 1954 [Nom. inval., Art. 36.1]. Orig. coll. on *Erinus alpinus* L. /SCR/, France: Hautes–Pyrénées, Cirque de Gavarnie, Aug. 1952 (PC+ holotype).

erinicola G. Durrieu – Bull. trimest. Soc. mycol. Fr. 80: 156. 1964. Orig. coll. on *Campanula erinus* L. /CAM/, France: Aude, near Tuchan, 7 June 1963, G. Durrieu (TLA 1826 holotype).

eriogoni Solheim & Gilbertson – Mycopath. Mycol. appl. 49: 155. 1973. Orig. coll. on *Eriogonum deflexum* Torr. /PLG/, U.S.A.: Arizona, Pima Co., Tucson Mt Park, east side of Gates Pass, 7 March 1968, W.G. Solheim 6673 (ARIZ+).

eritrichii S. Ito & Y. Tokunaga – Trans. Sapporo nat. Hist. Soc. 14: 28. 1935. Orig. coll. on *Eritrichium pectinatum* (Pallas) DC /BOR/, China: Jilin Prov., Gong–zhu–ling, 17 May 1921, M. Miura (SAPA+ holotype).

erodii Fuckel – Fungi rhen. 2102. 1868 ≡ *Plasmopara erodii* (Fuckel) Sacc. – Myc. ital. 890. 1902 ≡ *Pseudoperonospora erodii* (Fuckel) G.W. Wilson – Mycologia 6: 194. 1914. [Superfl. isonym: *Pseudoperonospora erodii* (Fuckel) A.A. & P.A. Jaczewski – Opredelitel' Gribov. Vol. 1, Fikomitsety: 123. 1931] ≡ *Peronoplasmopara erodii* (Fuckel) Săvul. – Bul. şti. Acad. Repub. pop. rom., Secţ. şt. biol. 3: 433 (1951). [Superfl. isonyms: *Peronoplasmopara erodii* (Fuckel) Ciferri – Riv. Pat. veg., Pavia Ser. 3, 1: 344. 1961; *Peronoplasmopara erodii* (Fuckel) Uljanishchev – Mikoflora Azerbajdzhana, vol. IV. Peronosporovye griby: 128. 1967]. Orig. coll. on *Erodium cicutarium* (L.) L'Hér. /GER/, Germany: Hessen, Östrich, summer.

erophilae Gäum. – Beih. bot. Zbl. 35 (1): 525. 1918. Orig. coll. on *Erophila verna* (L.) Chevall. /CRU/, Switzerland: Canton Neuchâtel, Perreux near Boudry, 15 Apr. 1914, E. Mayor (NEU!).

erucastri Gäum. – Beih. bot. Zbl. 35 (1): 525. 1918. Orig. coll. on *Erucastrum gallicum* (Willd.) O.E. Schulz (*E. pollichii* Schimper & Spenner) /CRU/, Switzerland: Canton Bern, Sutz near Biel, 6 June 1915, E. Gäumann (BERN–!).

ervi A. Gust. – Op. bot., Lund 3(1): 145. 1959. Orig. coll. on *Vicia hirsuta* (L.) S. F. Gray /LEG/, Sweden: Skåne, S. Mellby, Stenshuvud, 29 May 1953, A. Gustavsson 2674 (LD! holotype).

erysimi Gäum. – Beih. bot. Zbl. 35 (1): 525. 1918 ≡ *P. parasitica* (Pers. : Fr.) Fr. ssp. *erysimi* (Gäum.) Maire – Mém. Soc. Sci. nat. Maroc 45: 14. 1937. Orig. coll. (6) on *Erysimum* spp. /CRU/. *E. crepidifolium* Reichenb., Germany: Hessen, Rheingau Distr., Ingelheim, Apr. 1902, Geisenheyner (B–!); Czechoslovakia: Bohemia, Chuchelský vršek, 21 Apr. 1900, F. Bubák (BPI!); ditto, Hledsebe near Veltrusy, 17 May 1900, J.E. Kabát (Kabát, Fungi bohem. 583, under *P. parasitica*); *E. cheiranthoides* L., Poland: Lubsko (formerly Sommerfeld in Germany) 15 July 1910, H. Diedicke (B–!); *E. hieracifolium* L., Germany: Königstein, 26 June 1897, W. Krieger (Krieger, Fungi saxon. 1278, under *P. parasitica*); *E. repandum* L., Czechoslovakia: Bohemia, Teplice (formerly Teplitz in Austria), summer 1873, F. Thümen (Thümen, Fungi austr. 1135, under *P. parasitica* f. *erysimi–repandi*).

erythraeae Kühn ex Gäum. [as '(Kühn) Gäum.'] – Beitr. KryptogFl. Schweiz 5(4): 94. 1923. = *P. erythraeae* Kühn apud Fischer in Rabenh. – Krypt–Fl. 1 (4): 451. 1892 [Nom. inval., Art. 32.1(c)]. Orig. coll. (5) on *Centaurium* (*Erythraea*) spp. /GEN/. On *C. erythraea* Rafn (*E. centaurium* (L.) Pers.), Switzerland: Canton Vaud, Tuileries de Grandson, 15 July 1915, D. Cruchet (NEU–!); *C. littorale* (D. Turner) Gilmour var. *littorale* (*E. littoralis* (D. Turner) Fries; *E. linarifolia* Pers.), Germany: Schleswig–Holstein, Röm island, 20 July 1901, O. Jaap (Jaap, Fungi sel. exs. 6); Germany: Rügen island, Thiessow, east beach, 15 July 1899, P. Sydow (B–!, S!); *C. pulchellum* (Swartz) Druce (*E. pulchella* (Swartz) Fries; *E. ramosissima* (Vill.) Pers.), Switzerland: Canton Vaud, between Grandson and Tuileries, 5 Aug. 1915, D. Cruchet (NEU!); France: Marne, Villepansis, 10 July 1910, P. Hariot (NEU!).

erythreae Sacc. apud Oudemans – Enum. Syst. Fung. 4: 492. 1923 [Nom. inval., Art. 32.1(c)]. Most probably a slip of the pen for *P. erythreae* Kühn.

esperaussensis Mayor – Ber. schweiz. bot. Ges. 62: 481 (1952). Orig. coll. on *Lotus angustissimus* L. /LEG/, France: Départ. Tarn, Espérausses, Monts de Lacaune, 4–18 Aug. 1951, E. Mayor (NEU!).

esulae Gäum. – Annu. Conserv. Jard. bot. Genève 21: 11. 1919. Orig. coll. on *Euphorbia esula* L. /EUP/, Poland: Gorzów Wlpk (formerly Landsberg a. W. in Germany), June 1890, P. Sydow (Sydow, Myc. march. 2968, under *P. euphorbiae*).

euclidii Săvul. & Rayss in Săvul. - Herb. mycol. rom. 220. 1931; also in Annls mycol. 30: 369. 1932. Orig. coll. (2) on *Euclidium syriacum* (L.) R. Br. /CRU/, Romania: Ialomiţa Distr., Mărculeşti, 10 May 1930, T. Săvulescu & Rayss (BUCM 1667! lectotype here selected); ditto, Lehliu, 10 May 1931 (BUCM 1665!).

euphorbiae Fuckel - Fungi rhen. 40. 1863. Orig. coll. on *Euphorbia platyphyllos* L. /EUP/, Germany: Hessen, near Östrich, summer.

euphorbiae–glyptospermae Gäum. - Annu. Conserv. Jard. bot. Genève 21: 10. 1919. Orig. coll. on *Euphorbia glyptosperma* Engelm. /EUP/, U.S.A.: Nebraska, Red Cloud, 31 Aug. 1906, J.M. Bates (BPI!; also in Bartholomew, Fungi Columb. 2338, under *P. chamaesycis* G.W. Wilson).

euphorbiae–thymifoliae Sawada - Rep. Dep. Agric., Govt Res. Inst. Formosa 27: 55. 1927. Orig. coll. (11) on *Euphorbia pseudochamaesyce* Fisch., Mey. & Lallem. (*E. thymifolia* sensu Thunb. non L.) /EUP/, China (Taiwan): Taipei, 11 Oct. 1913, K. Sawada (TAI+); ditto, 19 Aug. 1914 (TAI+); ditto, 28 Aug. 1915 (TAI+); ditto, 12 Nov. 1918 (TAI+); ditto, 24 Oct. 1923 (TAI+); ditto, 13 Nov. 1925 (TAI+); ditto, 24 Nov. 1925 (TAI+); unknown place, 11 Oct. 1925 (TAI+); Taichong, 13 dec. 1925, E. Kurosawa (TAI+); Tainan, 8 July 1919 (TAI+); Gaoshong, 26 May 1920 (TAI+). An apparently original specimen, from Taipei, 24 Sept. 1925, K. Sawada, is at BPI!.

eurotiae Domashova & Gamalitskaya - Not. syst. Sect. crypt. Inst. bot. Acad. Sci. U.S.S.R. 15: 74. 1962 [Nom. illegit., Art. 64.1]. Orig. coll. (3) on *Eurotia ceratoides* (L.) C.A. Mayer /CHN/, Russia: Terskej–Alatau, Dzhety–Oguz syrt, Karakolka, 3200 m, 11 Aug. 1960 (LE 43384! holotype); Central Tyan'–Shan', Chaartash chain mountains, 1600 m, 5 Aug. 1959; Naryn river valley, near Aktalchat, 1700 m, 24 May 1958.

eurotiae Kalymbetov - Trud. Inst. Bot. Akad. Nauk Kazakh SSR 11: 208. 1961. Orig. coll. on *Eurotia ceratoides* (L.) C. A. Meyer /CHN/, Kazakhstan: Alma–Atin Region, Ilii Distr., plain at the foothills of Zalijsk Alatau, Muyun–kum sands, Nikolaevska village, 20 May 1958, B. Kalymbetov (AA, TASM! - two specimens).

exigua* W.G. Smith - Diseases of Field and Garden Crops: 13. 1884 ≡ *Ovularia exigua* (W.G. Smith) Sacc. - Syll. Fung. 11: 598. 1895. Orig. coll. on *Lotus corniculatus* L. /LEG/ and *Trifolium* sp. /LEG/, England: *sine loc. et dat.* (K–). Note: Name later changed to *P. sphaeroides* W.G. Smith, *q.v.* Conspecific with ***Ovularia sphaeroidea* (Sacc.) Sacc. (Hyphomycetes).

fabae Jaczewski & Serguiejeva in A.A. & P.A. Jaczewski - Opredelitel' Gribov. Vol. 1, Fikomitsety: 155. 1931. Orig. coll. on *Vicia faba* L. /LEG/, Russia. No details about the collection were provided. Note: A specimen collected from Azerbajdzhan, Shemakhinsk Distr., Bakinsk Co., Matrasi, 23 May 1930, coll. V.I. Uljanishchev 1859, det. A.A. Jaczewski (LEP!) is most probably the type.

fagi* Hartig – Z. Forst.–u. Jagdw. 8: 121. 1876 ≡ ***Phytophthora fagi* (Hartig) Hartig – Forstwiss. Zbl. 1: 162. 1879. Orig. coll. on *Fagus* sp. /FAG/, Germany.

fagopyri Elenev in A.A. & P.A. Jaczewski – Opredelitel' Gribov. Vol. 1, Fikomitsety: 156. 1931 [nom nov.; replaces *P. parva* Elenev non Gäum.]. Orig. coll. on *Fagopyrum esculentum* Moench /PLG/, Russia: Moscow Region. No details about the collection were provided. Note: Three specimens, initially labelled *P. parva* but corrected to *P. fagopyri*, are present at LEP!. One originates from Moscow Region, Podolsk, Shcherbinka, 28 July 1924, coll. & det. Jaczewski (also present at B!), and two from Moscow Region, collector unknown, July 1928. Although these specimens have undoubtedly been examined by Jaczewski, none is part of the original collection. Generally considered conspecific with *P. ducometii* Siemaszko & Jankowska.

fagopyri I. Tanaka – Trans. Sapporo. nat. Hist. Soc. 13: 205. 1934 [Nom. illegit., Art. 64.1]. Orig. coll. (6) on *Fagopyrum esculentum* Moench /PLG/, Japan: Hokkaido, Ishikari Prov., Sapporo, 1 Oct. 1916, R. Rsuji (SAPA+); Moiwa-mura, 19 June 1921, Y. Homma (SAPA+); Maruyama, 7 Aug. 1932, Y. Imai (SAPA+); Kotoni-mura, 28 June 1933, S. Iwadare (SAPA–); ditto, 28 June 1933, I. Tanaka (SAPA–); Tokachi Prov., Obihoro, 28 July 1932, I. Tanaka (SAPA+).

farinosa (Fr. : Fr.) Fr. [as 'Perenospora'] – Summa veg. Scand. 2: 493. 1849 ≡ *Botrytis farinosa* Fr. : Fr. – Syst. mycol. 3: 404. 1832. [Superfl. isonym: *P. farinosa* (Fr.) Keissler – Krypt. Exs. Mus. Vindb. 1829. 1911]. Orig. coll. on *Atriplex* sp. /CHN/, Sweden. No details about the collection were provided (UPS–!). Note: Type apparently not extant.

farinosa (Fr. : Fr.) Fr. f. sp. **betae** Byford – Trans. Br. mycol. Soc. 50: 606. 1967. Note: See also Francis & Byford *in* CMI Descr. Path. Fungi & Bact. No. 765. 1983.

farinosa (Fr. : Fr.) Fr. f. sp. **chenopodii** Byford – Trans. Br. mycol. Soc. 50: 606. 1967.

farinosa (Fr. : Fr.) Fr. f. sp. **spinaciae** Byford – Trans. Br. mycol. Soc. 50: 606. 1967.

favargeri Mayor & Viennot–Bourgin – Bull. trimest. Soc. mycol. Fr. 67: 116. 1951. Orig. coll. on *Euphorbia hirta* L. /EUP/, Ivory Coast: near Daloa, 4 Oct. 1949, C. Favarger (NEU!, two specimens).

**ferrani* Gimeno – Crón. méd., Valencia 8: 133–139. Jan. 1885 [Nom. nov., replaces *P. barcinonae* Ferrán, *q.v.*]. Orig. not seen. Cited in Le mouvement hygiénique No. 3: 125–126. 1885, No. 5: 205. Apr. 1885, No. 6: 257. 1885, and No. 7: 294–297. June 1885 (with description and illustration).

ficariae (Nees v. Esenb.) Tul. apud Gäum. – Beitr. KryptogFl. Schweiz 5(4): 114. 1923 [Nom. inval., Art. 32.1(c)]. A slip of the pen for *P. ficariae* Tul. ex de Bary.

ficariae Tul. ex de Bary – Annls Sci. nat., Bot., sér. 4, 20: 117. 1863. = *P. ficariae* Tul. – C. r. hebd. Séanc. Acad. Sci. Paris 38: 1103. 1854 [Nom. inval., Art. 32.1(c)]. Orig. coll. on *Ranunculus ficaria* L. /RAN/. No details about the collection were provided.

ficariae Tul. ssp. **glacialis** Blytt – Christiania Vid. Selsk. Forh. 1896 (6): 20. 1896 ≡ *P. glacialis* (Blytt) Gäum. – Mitt. naturf. Ges. Bern. (1919): 181. 1920. Orig. coll. on *Ranunculus glacialis* L. /RAN/, Norway: Sør–Trøndelag, Oppdal par., Knutshø, alt. 1500m, 1887, A. Blytt (O+ holotype, S!).

ficariae Tul. var. *isopyri* Murashkhinski ex Benua & Karpova–Benua, *pro. syn.* – Parazitnye griby Yakutii: 51. 1973 [Nom. inval., Art. 32.1(c)]. Cited as synonym of **P. parvula**.

filicum* Rabenh. – Fungi eur. 848. 1865 [Nom. inval., Art. 32.1(c)]. Orig. coll. on *Gymnocarpium drypoteris* (L.) Newman (*Polypodium dryopteris* L.). No details about the collection were provided. Note: *Peronospora* is restricted to Phanerogams. The copies in S! and UPS! contain leaves attacked by ***Hyalopsora aspidiotus* (P. Magnus) P. Magnus (Uredinales).

fintelmanii* Caspary – Verh. Ver. Gartenb. Berlin 21: 327. 1852. Orig. coll. on *Solanum tuberosum* L. /SOL/. Note: Considered conspecific with *P. devastatrix* by Caspary *in* Monatsb. K. Akad. Wiss., Berlin 3: 325. 1855, which is a synonym of ***Phytophthora infestans* (Mont.) de Bary.

flava Gäum. – Beitr. KryptogFl. Schweiz 5(4): 151. 1923. Orig. coll. on *Linaria vulgaris* Miller /SCR/, Sweden: Öland, Borgholm, June 1900, G. Lagerheim (Vestergr., Microm. rar. sel. 344, under *P. linariae*).

floerkeae Kellerman – J. Mycol. 10: 172. 1904. Orig. coll. (2) on *Floerkea proserpinacoides* Willd. /LIM/, U.S.A.: Ohio, Columbus, May 1902; ditto, 1904. Note: Specimens collected in May 15, 1903 have been distributed in Kellerman, Ohio Fungi 188.

fontana A. Gust. – Mycotaxon 30: 147. 1987. Orig. coll. on *Cerastium fontanum* Baumb. /CRY/, Sweden: Gotland, Vallstena, 4 June 1984, A. Gustavsson 7206 (LD! holotype).

fragariae Roze & Cornu – Bull. Soc. bot. Fr. 23: 242. 1876. Orig. coll. on *Potentilla sterilis* (L.) Garcke [as *Fragaria vesca* L.] /ROS/, France: Montmorency near Paris, 2 July 1876. Neotype (selected by Skalický *in* Folia geobot. phytotax., Praha 18: 91. 1983): France, Bresson d'Echirolles (Isère), May 1881, J. Therry (Thümen, Myc. univ. 2125, PRC). Note: The identification of the host was corrected by Viennot–Bourgin, Mildious, oidiums, caries, charbons, rouilles des plantes de France. Vol. 1: 129. 1956. See also Skalický *op. cit.* pp. 90–92, and Hall *in* Pl. Path. 38: 604–611. 1989.

fritzii Schröter – Jber. schles. Ges. vaterl. Cult. 61: 175. 1884. Orig. coll. on *Convolvulus althaeoides* L. /CNV/, Portugal: Madeira, Camincho nuovo, March 1880, J. Schröter (PC–, WRSL–).

fujitai S. Ito & Y. Tokunaga – Trans. Sapporo nat. Hist. Soc. 14: 30. 1935. Orig. coll. (5) on *Allium victorialis* L. /ALL/, Japan: Hokkaido, Shiribeshi Prov., Zenibako–tôge, 1 June 1930, K. Fujita (SAPA+ holotype); ditto, 12 June 1932, Y. Tokunaga (SAPA+); ditto, 28 May 1933 (SAPA+); Ishikari Prov., Mt Tengu, 15 June 1930, Y. Tokunaga (SAPA+); ditto, 21 June 1931, Y. Imai (SAPA+).

fulva Sydow in Gäum. – Beitr. KryptogFl. Schweiz 5(4): 195. 1923. Orig. coll. (2) on *Lathyrus pratensis* L. /LEG/, Switzerland: Canton Vaud, La Chaux, 18 July 1902, D. Cruchet (NEU–!); *L. vernus* (L.) Bernh., Switzerland: Canton Vaud, Leysin, June and July 1917, E. Mayor (NEU!).

fulva H. Sydow in Gäum. var. **jakutica** (Ch. Benois) Cherepanova – Trudy Biol. Nauchno–Issled. Inst., Leningr. Gosud. Univ. 29: 94. 1979. Note: See *P. lathyri–palustris* var. *jakutica*.

gaeumanniana Jaap in Gäum. [as 'gäumanniana'] – Beih. bot. Zbl. 35 (1): 522. 1918. Orig. coll. on *Berteroa mutabilis* (Vent.) DC /CRU/, Yugoslavia: near Dubrovnik (formerly Ragusa) towards Lapad, 5 June (5.4. on the label) 1914, O. Jaap (BERN!).

gaeumannii Mayor [as 'gaeumanni'] – Ber. schweiz. bot. Ges. 59: 278. 1949 [Nom. illegit., Art. 64.1; replaced by *P. meconopsidis* Mayor]. Orig. coll. (3) on *Meconopsis cambrica* (L.) Vig. /PAP/, Switzerland: Canton Neuchâtel, Val–de–Travers Distr., Pouëtta Raisse near Môtiers, 31 July 1945, E. Mayor (NEU!); ditto, 21 Sept. 1946 (NEU!, ZT!); ditto, 17 Sept. 1947 (NEU!). Note: One collection, dated 21 Sept. 1945 is kept as a separate packet, but collections from 31 July 1945, 21 Sept. 1946, 17 Sept. 1947, 17 Aug. 1949 and 14 July 1952 are mixed in the same folder at NEU!.

gaeumannii Mundkur [as 'gäumannii'] – Sci. Monogr. Coun. agric. Res. India 12: 8. 1938 [Nom. novum; replaces *P. indica* Gäum. 1923, a later homonym of *P. indica* Sydow 1920].

galegae Săvul. & Rayss – Annls mycol. 28: 315. 18 Sept. 1930; also in Săvul. – Herb. mycol. rom. 143. 1930. Orig. coll. on *Galega officinalis* L. /LEG/, Romania: Dâmboviţa Distr., Nucet, 11 June 1926, T. Săvulescu & T. Rayss (BUCM 60143! lectotype here selected).

galeopsidis Lobik in A.A. & P.A. Jaczewski – Opredelitel' Gribov. Vol. 1, Fikomitsety: 147. 1931. Orig. coll. on *Galeopsis tetrahit* L. /LAB/, Russia. No details about the collection were provided. Note: A specimen collected from N. Caucasus, Pyatigorsk Distr., Mashchuk, 13 July 1925, A.I. Lobik 678 (LEP!) is most probably the type.

galii Fuckel – Fungi rhen. 30. 1863. Orig. coll. on *Galium mollugo* L. /RUB/, Germany: Hessen, near Eberbach, coll. L. Fuckel. Note: Conspecific with *P. calotheca* de Bary, *fide* Fuckel *in* Fungi rhenani. Index Fasc. I–XV et Suppl. Fasc. I.: 16. 1865.

galii–anglici Uljanishchev – Dokl. Akad. Nauk Azerb. SSR 16: 389. 1960. Orig. coll. on *Galium transcaucasicum* Stapf (*G. anglicum* auct. non

Hudson /RUB/, Azerbajdzhan: Khanlar Distr., near Adzhikend, 2 June 1954, V.I. Uljanishchev (BAK!).

galii-pedemontani Săvul. & Rayss in Săvul. - Herb. mycol. rom. 245. 1931. Orig. coll. (2) on *Cruciata pedemontana* (Bellardi) Ehrend. (*Galium pedemontanum* (Bellardi) All.) /RUB/, Romania: Ialomiţa Distr., Lehliu, 10 May 1930, T. Săvulescu & T. Rayss (BUCM 1927! lectotype here selected); Ilfov Distr., Tigăneşti, 10 May 1931 (BUCM 1928!).

galii-rubioides Săvul. & Rayss - Annls mycol. 30: 383. 25 Apr. 1932; also in Săvul. - Herb. mycol. rom. 345. 1932. Orig. coll. on *Galium rubioides* L. /RUB/, Romania: Tulcea Distr., Danube Delta, Letea forest, 2 June 1931, T. Săvulescu & T. Rayss (BUCM 1932! holotype).

galii-trifidii S. Ito & Y. Tokunaga - Trans. Sapporo nat. Hist. Soc. 14: 25. 1935. Orig. coll. (2) on *Galium trifidum* L. /RUB/, Russia: S. Sakhalin, Higashitaraika near Shikka (formerly in Japan), 23 July 1930, H. Otani & Y. Imai (SAPA+ holotype); ditto, Shikka, 19 July 1930, H. Otani & Y. Imai (SAPA+).

galii-veri Gäum. - Svensk. bot. Tidskr. 12: 444. 1919. Orig. coll. on *Galium verum* L. /RUB/, Denmark: Jylland, Struer, 14 June 1912, J. Lind (Vestergr., Microm. rar. sel. 1600, under *P. calotheca*).

galligena Blumer - Mitt. naturf. Ges. Bern (1937): 24. 1938 ≡ *P. parasitica* f. sp. *galligena* (Blumer) Boerema & Verhoeven - Neth. J. Pl. Path. 78 (Suppl. 1): 33. 1972. Orig. coll. (3) on *Alyssum saxatile* L. /CRU/, Switzerland: Canton Bern, on the road from Thun to Merligen (ZT-!); ditto, Schwendibach near Thun, 25 Apr. 1937, S. Blumer (ZT!); ditto, Merligen, ?1936, S. Blumer (ZT-!).

**gangliformis* Berk. apud de Bary - Annls Sci. nat., Bot., sér. 4, 20: 108. 1863 [orthographic variant of *P. ganglioniformis*].

ganglioniformis* (Berk.) Tul. - C. r. hebd. Séanc. Acad. Sci. Paris 38: 1103. 1854 ≡ *Botrytis ganglioniformis* Berk. - J. hort. Soc. Lond. 1: 31. 1846. Orig. coll. on *Lactuca* sp. /AST/, England: Northants., Kings Cliffe, May, pre 1846, M.J. Berkeley. Note: Conspecific with ***Bremia lactucae* Regel.

gei H. Sydow in Gäum. - Beitr. KryptogFl. Schweiz 5(4): 291. 1923. Orig. coll. (3) on *Geum canadense* Jacq. (*G. album* Gmelin) /ROS/, Canada: Ontario, near London, July 1912, J. Dearness (Sydow, Phyc. et Prot. 282, under *P. potentillae* - NEU!); *G. rivale* L., Sweden: Öland, Stora Rör, July 1908, G. Lagerheim (S!); *G. urbanum* L., Denmark: Jylland, forest near Knivhold, near Fredrikshavn, 6 July 1903, J. Lind (herb. H. Sydow in B-!). Note: See also Skalický *in* Folia geobot. phytotax., Praha 18: 85–87. 1983.

gentianae Rostrup - Öfvers. K. svensk VetenskAkad. Förh. 40 (4): 39. 1883. Orig. coll. on *Gentiana campestris* (L.) Börner /GEN/. Sweden: Medelpad, Ånge, July 1882, E. Rostrup (C+).

geranii* Peck - Rep. N.Y. St. Mus. nat. Hist. 28: 63. 1876 ≡ ***Plasmopara geranii* (Peck) Berl. & De Toni in Sacc., Syll. Fung. 7: 242. 1888 ≡

Rhysotheca geranii (Peck) G.W. Wilson – Bull Torrey bot. Club 34: 399. 1907. Orig. coll. on *Geranium maculatum* L. /GER/, U.S.A.: New York, North Greenbush, June 1874, C.H. Peck (NYS! holotype).

gigantea Gäum. – Beitr. KryptogFl. Schweiz 5(4): 119. 1923. Orig. coll. on *Ranunculus lingua* L. /RAN/, Denmark: Sjæelland, Lekkende, 19 June 1886, E. Rostrup (C+).

giliae Ell. & Ev. – Contrib. U.S. Nat. Herb. 3: 276. 1895. Orig. coll. on *Microsteris gracilis* (Hook.) Greene (as *Gilia* sp.) /PLM/, U.S.A.: N. Idaho, 1892, J.H. Sandberg 1191 (BPI!, NY!). Note: Conspecific with *P.phlogina fide* Wilson *in* Mycologia 6: 206. 1914, who also corrected the host identification.

glacialis (Blytt) Gäum. – Mitt. naturf. Ges. Bern. (1919): 181. 1920. See *P. ficariae* ssp. *glacialis*.

glaucii Lobik in A.A. & P.A. Jaczewski – Opredelitel' Gribov. Vol. 1, Fikomitsety: 149. 1931. Orig. coll. on *Glaucium corniculatum* (L.) J.H. Rudolph /PAP/, Russia. No details about the collection were provided. Note: A specimen collected from N. Caucasus, Prikumsk, Novo–Romanovsk, 8 May 1925, A.I. Lobik 626 (LEP!) is most probably the type.

glaucii Săvul. & Rayss – Annls mycol. 33: 13. 1935 [Nom. illegit., Art. 64.1]. Orig. coll. on *Glaucium corniculatum* (L.) J.H. Rudolph /PAP/, Romania: Constanţa Distr., Murfatlar, 27 May 1934, T. Săvulescu & T. Rayss (BUCM 1943! holotype).

glechomae (Krieger) Majewski [as 'glechomatis'] – Acta mycol., Warszawa 4: 86. 1968 [Nom. illegit., Art. 63.1]. See *P. lamii* var. *glechomae*.

glechomae Oescu & Rădulescu – Bul. Fac. Sti. Cernăuţi 7: 100. 1934. Orig. coll. (3) on *Glechoma hederacea* L. /LAB/, Romania: Iaşi Distr., Copou, 12 June 1933 (BPI! lectotype here selected); ditto, Socola, 5 Aug. 1933; ditto, Ungheni, 17 Aug. 1933. Note: The last two specimens are not present at BUCM, IASI and IBIR, and are apparently lost.

goldbachiae A.A. & P.A. Jaczewski – Opredelitel' Gribov. Vol. 1, Fikomitsety: 142. 1931. Orig. coll. on *Goldbachia laevigata* DC /CRU/, Russia. No details about the collection were provided. Note: A specimen from Turkestan, 7 May 1912, coll. Barbarin, det. A.A. Jaczewski (LEP!) is most probably the type.

golovinii Kalymbetov – Not. syst. Sect. crypt. Inst. bot. Acad. Sci. U.S.S.R. 9: 115. 1953. Orig. coll. on *Tetracme recurvata* Bunge /CRU/, Turkmenia: Kara–Kum desert, Uzboj, near Ishmek and Chaloj water springs, 30 Apr. 1952, B. Kalymbetov (LE 43390!).

gonolobi* Lagerh. – J. Mycol. 7: 49. 1891 ≡ ***Plasmopara gonolobi* (Lagerh.) Swingle – J. Mycol. 7: 119. 1892 ≡ *Rhysotheca gonolobi* (Lagerh.) G.W. Wilson – Bull. Torrey bot. Club 34: 411. 1907. Orig. coll. on *Gonolobus caroliniensis* (Jacq.) Schult. (*Vincetoxicum hirsutum* Britton) /ASC/, U.S.A.: S. Carolina, Bluffton, J.H. Mellichamp (FH! holotype). Note: The host was initially identified as *Gonolobus* sp. and later corrected by Wilson (*op. cit.*) to *V. hirsutum*.

gossypina* Averna-Saccá – Bolm mens. Secr. Agric. S Paulo, Ser. 21 (4&5): 240. 1920. Orig. coll. on *Gossypium* sp. cult. /MLV/, Brazil: Piracicaba, School of Agriculture. Type not in existence (C.P.V. Pimentel *in litt.*). Note: The illustration and description is obviously indicative of ***Olpitrichum* (Hyphomycetes), most probably ***O. tenellum*** (Berk. & M.A. Curtis) Hol.–Jech.

graminicola* (Sacc.) Sacc. [as 'Sacc'] – Michelia 2: 586. 1882 ≡ *Protomyces graminicola* Sacc. – Nuovo G. bot. ital. 8: 172. 1876 ≡ ***Sclerospora graminicola* (Sacc.) Schröter in Cohn – Krypt.-Fl. Schles. 3 (1): 236. 1886. Orig. coll. on *Setaria verticillata* (L.) Beauv. /GRM/, Italy: Treviso, Selva, Sept. 1875 (PAD?).

**graminicola* Schröter apud Oudemans – Enum. Syst. Fung. 1: 719. 1919 [Nom. inval., Art. 32.1(c)]. A slip of the pen for *P. graminicola* (Sacc.) Sacc.

gregoriae Blumer – Mitt. naturf. Ges. Bern, N.F. 1: 48 (name) and 50 (description). 1944. Orig. coll. on *Douglasia vitaliana* (L.) Hooker fil. ex Pax (*Gregoria vitaliana* (L.) Duby) /PRM/, Switzerland: Canton Bern, Schynige Platte near Interlaken, Alpengarten, 15 Sept. 1941, S. Blumer (ZT!). Note: I found no *Peronospora* or other Peronosporaceous fungus in the type specimen.

grisea de Bary apud Oudemans – Enum. Syst. Fung. 4: 670. 1923 [Nom. inval., Art. 32.1(c)]. A slip of the pen for *P. grisea* (Unger) Unger.

grisea Fuckel apud Oudemans – Enum. Syst. Fung. 3: 851. 1921 [Nom. inval., Art. 32.1(c)]. A slip of the pen for *P. grisea* (Unger) Unger.

grisea Roumeg. apud Oudemans – Enum. Syst. Fung. 3: 888. 1921 [Nom. inval., Art. 32.1(c)]. A slip of the pen for *P. grisea* (Unger) Unger.

grisea (Unger) Unger – Bot. Ztg. 5 (18): 315. 1847 ≡ *Botrytis grisea* Unger [as 'C. grisea'] – Die Exantheme der Pflanzen: 172. 1833 [superfl. isonym: *P. grisea* (Unger) de Bary apud Berlese – Icon. Fung. Phycom.: 29. 1898]. Orig. coll. on *Veronica beccabunga* L. /SCR/, Austria: Tyrol. No details about the collection were provided. Note: See also Francis & Berrie *in* CMI Descr. Path. Fungi & Bact. No. 766. 1983.

grisea Unger var. **minor** Caspary – in Rabenh. – Herb. mycol. Ed. 2, 323. 1857. Orig. coll. on *Papaver rhoeas* L. /PAP/, Germany: Bonn, June 1856, R. Caspary. Note: Conspecific with *P. arborescens* (Berk.) de Bary.

gypsophilae A.A. & P.A. Jaczewski – Opredelitel' Gribov. Vol. 1, Fikomitsety: 132. 1931. Orig. coll. (2?) on *Gypsophila muralis* L. and *G. repens* L. /CRY/, Russia. No details about the collections were provided. Note: Three specimens on *G. muralis*, from Russia, Pskov Prov., Porkhov Distr., Nizhne–Zhelon, near Sel'tso, 6 Sept. 1919, coll. L. Aref'ev (LEP!);

Ukraine, Kiev Prov., June 1923, coll. M. Tselle (LEP!); ditto, around Smely, 24 Sept. 1912, coll. Garbowski (LEP!), are most probably original collections.

****halstedii*** Farlow – Proc. Am. Acad. Arts Sci. 18: 72. 1883. = *P. halstedii* Farlow in Ellis – N. Amer. Fungi 209. 1880 [Nom. inval., Art. 32.1(c)] ≡ ***Plasmopara halstedii*** (Farlow) Berl. & De Toni in Sacc., Syll. Fung. 7: 242. 1888 ≡ *Rhysotheca halstedii* (Farlow) G.W. Wilson – Bull Torrey bot. Club 34: 403. 1907. Orig. coll. (9) on Asteraceae in U.S.A. On *Eupatorium purpureum* L., Mass., Jamaica Plain, Bussey Institution, Bussey Wood's, May 1876, B.D. Halsted (FH!); ditto, Iowa, Ames, 23 July 1878, C.E. Bessey (FH!; Ellis, N. Amer. Fungi 209); *Bidens frondosa* L., Iowa, Ames, 24 Aug. 1878, C.E. Bessey (FH!); *Rudbeckia laciniata* L., Iowa, Ames, 20 Sept. 1878, C.E. Bessey (FH!); *Helianthus doronicoides* Lam., Iowa, Charles City, 12 Sept. 1882, J.C. Arthur (FH!); *Helianthus strumosus* L., Wisconsin, W. Trelease; *Helianthus tuberosus* L., Pensylvania, West Chester, J.B. Ellis; *Ambrosia artemisiifolia* L., Mass., Cambridge, W.G. Farlow (Ell., N. Amer. Fungi 210); Mass., Wood's Holl, W. Trelease (WSP 36957!); *Silphium terebinthinaceum* L., Wisconsin, W. Trelease.

hariotii Gäum. [as 'Harioti'] – Bull. Soc. neuchâtel. Sci. nat. 43: 302. 1919. Orig. coll. on *Buddleja globosa* J. Hope /LOG/, France: Orléans, 1913, G. Arnaud (PC+ holotype, NEU! isotype). Note: See also Francis *in* CMI Descr. Path. Fungi & Bact. No. 767. 1983.

hedeomatis Kell. & Swingle [as 'hedeomae'] – Trans. 21 meeting Kansas Acad. Sci. 11: 81. 1889. Orig. coll. (8) on *Hedeoma hispida* Pursh /LAB/, U.S.A.: Kansas, Manhattan, 3 Feb. 1889, D.B. Swingle 1576; ditto, 4 May 1888, 1548; ditto, 18 May 1889, 1610; ditto, 20 May 1888, 1550 (BPI!); ditto, 20 May 1889, 1671 (ILL 2554+); ditto, 22 May 1889, 1613; ditto, 6 June 1889, 1595; ditto, 18 June 1888, 1636.

helichrysi* Togashi & Egami in S. Ito & Y. Tokunaga – Trans. Sapporo nat. Hist. Soc. 14: 30. 1935 ≡ *Plasmopara helichrysi* (Togashi & Egami ex Ito & Y. Tokunaga) Tao – Acta mycol. sin. 6: 72. 1987. Orig. coll. (4) on *Helichrysum bracteatum* (Went.) Andrews /AST/, Japan: Hokkaido, Ishikari Prov., Sapporo, 26 July 1932, Y. Imai (SAPA+ holotype); ditto, 24 Sept. 1932, T. Fukushi and Y. Imai (SAPA+); Kotoni, 15 July 1925, K. Kuribayashi (SAPA+); Rikuchu Prov., Morioka, 5 Nov. 1931, T. Egami (SAPA+). Note: Conspecific with ***Paraperonospora sulphurea* (Gäum.) O. Const., *fide* Constantinescu *in* Sydowia 41: 95. 1989.

heliophilae E. Müller & Poelt – Nova Hedwigia 8: 232. 1964. Orig. coll. on *Heliophila deserticola* Schlechter /CRU/, South Africa: 19 miles ENE of Kenhardt, 914 m, 14 May 1961, O.A. Leistner 2309 (M+ holotype).

hellebori–purpurascentis Săvul. & Rayss in Săvul. – Herb. mycol. rom. 514. 1934. Orig. coll. on *Helleborus purpurascens* Waldst. & Kit. /RAN/, Romania: Prahova Distr., Sinaia, 18 May 1933, T. Săvulescu & T. Rayss (BUCM 1989! lectotype here selected).

helvetica Gäum. – Beitr. KryptogFl. Schweiz 5(4): 66. 1923. = *P. helvetica* Gäum. – Mitt. naturf. Ges. Bern (1919): 178. 1920 [Nom. inval., Art.

32.1(c)]. Orig. coll. on *Cerastium latifolium* L. /CRY/, Switzerland: Canton Graubünden, Col de l'Albula, Grisons, 6 Aug. 1916, E. Mayor (BPI!, NEU!).

hepaticae* Caspary – Monatsb. K. Akad. Wiss. Berlin 3: 329. 1855 ≡ *Plasmopara hepaticae* (Caspary) C.G. Shaw – Mycologia 41: 334. 1949. Orig. coll. on *Hepatica nobilis* Miller (*H. triloba* Chaix) /RAN/, Germany: Berlin, Botanical Garden, 1854, coll. R. Caspary. Note: The original collection was apparently distributed in Rabenh., Klotzsch Herb. viv. myc. 1972. A specimen collected 25 May 1854 is deposited at PC!. Conspecific with ***Plasmopara pygmaea* (Unger) Schröter.

**heraclei* Rabenh. – Fungi eur. 2567. 1881 [Nom. inval., Art. 32.1(c)]. Orig. coll. on *Heracleum mantegazzianum* Sommier & Levier (*H. giganteum* Fischer ex Hornem.) /UMB/, Germany: Meissen, June 1879, L. Rabenhorst. Note: According to Fischer *in* Rabenh., Krypt.-Fl. 1(4): 430 & 485. 1892 this is not based on a fungus but only on symptoms produced on the host. I found no fungus on the copies at L, LE and UPS.

herniariae de Bary – Annls Sci. nat., Bot., sér. 4, 20: 120. 1863. Orig. coll. on *Herniaria hirsuta* L. /ICB/. Germany: Brandenburg, Frankfurt an der Oder, *sine dat.*

hesperidis Gäum. – Beih. bot. Zbl. 35 (1): 525. 1918. Orig. coll. (2) on *Hesperis matronalis* L. /CRU/, Germany: Prignitz Distr., Triglitz, 12 June 1897, O. Jaap (Flora Prov. Brandenb. 259); Sweden: Uppland, July 1909, G. Lagerheim (B–!).

hiemalis Gäum. – Beitr. KryptogFl. Schweiz 5(4): 111. 1923. = *P. hiemalis* Gäum. – Mitt. naturf. Ges. Bern (1919): 183. 1920 [Nom. inval., Art. 32.1(c)]. Orig. coll. (3) on *Ranunculus acris* L. (*R. acer* L.) /RAN/, Switzerland: Canton Bern, Nidau near Biel, Apr. 1916, E. Gäumann (BERN–!, ZT–!); *R. auricomus* L., Germany: Charlottenburg, the garden of the castle, May 1887, P. Sydow (Sydow, Myc. march. 1337, under *P. ficariae*); *R. lanuginosus* L., Germany, Charlottenburg, the garden of the castle, May 1887, P. Sydow (Sydow, Myc. march. 1339, under *P. ficariae*).

hiratsukae S. Ito & Y. Tokunaga – Trans. Sapporo nat. Hist. Soc. 14: 25. 1935. Orig. coll. (2) on *Galium kikiumugura* Ohwi (*G. brachypodum* Maxim.) /RUB/, Japan: Hokkaido, Ishikari Prov., Mt Teine, 28 June 1925, N. Hiratsuka (SAPA+ holotype); ditto, Sounkyo, 19 Aug. 1925, K. Miyabe and N. Hiratsuka (SAPA+).

holostei Caspary ex de Bary – Annls Sci. Nat., Bot., Sér. 4, 20: 115. 1863. = *P. holostei* Caspary in Rabenh. [as 'holostii'] – Herb. mycol. Ed. 2, 774. 1858 [Nom. inval., Art. 32.1(c)]. Orig. coll. on *Holosteum umbellatum* L. /CRY/, Germany: near Berlin, R. Caspary (in Rabenh., *op. cit.*)

hommae S. Ito & Y. Tokunaga – Trans. Sapporo nat. Hist. Soc. 14: 26. 1935. Orig. coll. (4) on *Galium trifloriformis* Komarov /RUB/, Japan: Hokkaido, Ishikari Prov., Nopporo, 15 June 1929, Y. Tokunaga (SAPA+ holotype); Mt Moiwa, 19 June 1921, Y. Homma (SAPA+); Mt Teine, Sapporo, 28

June 1925, I. Tanaka (SAPA+); Russia: S. Sakhalin, Kitanayoshi (formerly in Japan), 28 Aug. 1929, Y. Tokunaga & K. Kawai (SAPA+).

honkenyae (H. & P. Sydow) H. Sydow in Gäum. [as 'honckeniae Sydow'] – Beitr. KryptogFl. Schweiz 5(4): 57. 1923. See *P. alsinearum* var. *honkeniae*.

hornungiae A. Gust. – Op. bot., Lund 3(1): 92. 1959. Orig. coll. on *Hornungia petraea* (L.) Reichenb. /CRU/, Sweden: Skåne, Benestad, 'Benestads backar', 6 May 1954, A. Gustavsson 3854 (LD! holotype).

humuli* (Miyabe & Takahashi) Skalický – Preslia 38: 126. 1966 ≡ *Peronoplasmopara humuli* Miyabe & Takahashi – Trans. Sapporo nat. Hist. Soc. 1: 153. 1905 ≡ ***Pseudoperonospora humuli* (Miyabe & Takahashi) G.W. Wilson – Mycologia 6: 194. 1914. Orig. coll. (5) on *Humulus lupulus* L. /CAN/, Japan: Hokkaido, Ishikari Prov., Sapporo, exp. fields of Hokkaido Agric. Exp. Sta., 3 July 1905, Y. Takahashi (SAPA+); ditto, 29 July 1905, K. Miyabe (SAPA+); ditto, hop fields belonging to Sapporo Brewery Comp., 15 June 1906, K. Miyabe (SAPA+); *H. lupulus* L. var. *cordifolius* Maxim., Hokkaido, Shiribenshi, at Zenibako, Aug. 1905, J. Hanzawa (SAPA+); Honshu, Rikuchu Prov., Morioka, July 1905, G. Yamada (SAPA! lectotype here selected).

hydrophylli M.B. Waite – J. Mycol. 7: 107. 1892. Orig. coll. (3) on *Hydrophyllum virginianum* L. /HYD/, U.S.A.: Illinois, Oregon, 1 June 1888, M.B. Waite 558 (NY!, S!); D.C., near Washington, 5 May 1889, M.B. Waite 559 (BPI!); Iowa, Iowa City, spring 1888, A.S. Hitchcock.

hylomeconis P.N. Golovin & Bunkina in Bondarzew – Fungi exs. URSS, Fasc.1, No. 2. 1959 [as 'hylomeconi'; nom. illegit., Art. 64.1]; also in Not. syst. Sect. crypt. Inst. bot. Acad. Sci. U.S.S.R. 14: 115. 1961. Orig. coll. (2) on *Chelidonium japonicum* Thunb. (*Hylomecon japonica* (Thunb.) Prantl /PAP/, Russia: Primorsk Region, near Vladivostok, Botanical Garden, 6 June 1958, I.A. Bunkina (VLA?). Note: A second specimen, collected from the same region, Slavyansk Distr., Suputinsk nature reserve, Grabov hill, 18 June 1958, I.A. Bunkina (VLA?) is mentioned in the publication from 1961.

hylomeconis S. Ito & Y. Tokunaga – Trans. Sapporo nat. Hist. Soc. 14: 31. 1935. Orig. coll. on *Chelidonium japonicum* Thunb. (*Hylomecon japonica* (Thunb.) Prantl) /PAP/, Japan: Honshu, Musashi Prov., Akabane, 24 Apr. 1900, N. Nambu and I. Uemura (SAPA+ holotype).

hymenolobi Annaliev – Vest. mosk. Univ., Ser. Biol. 15 (4): 55. 1960. Orig. coll. on *Hymenolobus procumbens* (L.) Nutt. ex Torrey & A. Gray /CRU/, Turkmenia: Csandyr valley, Ak, 13 Apr. 1959, S.A. Annaliev (MW!). Note: I found no fungus in the type specimen.

hyoscyami de Bary – Annls Sci. nat., Bot., sér. 4, 20: 123. 1863. Orig. coll. on *Hyoscyamus* sp. /SOL/, Czechoslovakia: N. Slovakia, near Spišské Vlachy (formerly Zips–Olaszi in Hungary), Sept. 1859, coll. Kalchbrenner (Rabenh., Fungi eur. 291, under *P. effusa* var. *hyoscyami*).

hyoscyami de Bary var. *minor* Berl. – Riv. Patol. veg. 10: 231. 1902 [Nom. inval., Art. 34.1(b).].

hyoscyami de Bary f. sp. **hybrida** Shepherd – Trans. Br. mycol. Soc. 55: 255. 1970.

hyoscyami de Bary f. sp. **tabacina** (Adam) Skalický – Acta Univ. Carol., Biol., Suppl. 2: 39. 1964 ≡ *P. tabacina* Adam. Note: See also Hall *in* CMI Descr. Path. Fungi & Bact. No. 975. 1989 (repeated *in* Mycopathologia 106: 191–193. 1989).

hyoscyami de Bary f. sp. **velutina** Shepherd – Trans. Br. mycol. Soc. 55: 255. 1970.

hypecoi Bremer in Petrak – Sydowia 7: 14. 1953. [Nom. illegit., Art. 64.1]. Orig. coll. on *Hypecoum* sp. /PAP/, Turkey: Ankara, 3 May 1950, H. Bremer 27/50 (W 1978/11713+ holotype).

hypecoi A.A. & P.A. Jaczewski [as 'hypecoumis'] – Opredelitel' Gribov. Vol. 1, Fikomitsety: 149. 1931. Orig. coll. on *Hypecoum pendulum* L. /PAP/, Russia. No details about the collection were provided. Note: A specimen collected from Azerbajdzhan, Kirovabad (Gandzha) Selection Station, 25 Apr. 1930, coll. Brezhnev 2339, det. A.A. & P.A. Jaczewski (LEP!) is most probably the type.

hypericifoliae Sinha & Mathur [as 'hypercifoliae'] – Indian Phytopath. 11: 191. 1958. Orig. coll. on *Euphorbia hypericifolia* L. /EUP/, India: Agra, 5 Aug. 1956, S. Sinha and S.B. Mathur (Herb. Bot. Dept, Agra College – holotype, HCIO– isotype).

ibarakii S. Ito & D. Murayama – Trans. Sapporo nat. Hist. Soc. 17: 163. 1943. Orig. coll. on *Filipendula kamtschatica* (Pall.) Maxim. /ROS/, Japan: Hokkaido, Shiribeshi Prov., Hariusu, 7 Oct. 1942, Y. Ibaraki (SAPA+ holotype).

iberidis Gäum. ex Gäum. – Annls mycol. 25: 176. 1927. = *P. iberidis* Gäum. – Beitr. KrytogFl. Schweiz 5(4): 273. 1923 [Nom. inval., Art. 32.1(c)]. Orig. coll. on *Iberis amara* L. /CRU/, Switzerland: Canton Vaud, between Yverdon and Chamblon, 22 Aug. 1922, E. Mayor (NEU!, ZT!). Note: I found no *Peronospora* in the specimen at ZT.

ibrahimovii Achundov – Nov. Sist. niz. Rast. 7: 258. 1970. Orig. coll. (3) on *Ziziphora capitata* L. /LAB/, Azerbajdzhan: Nakhichevan, Shakhbuzskij Distr., Arynch village, 27 May 1966, T.M. Achundov (BAK holotype, LE isotype); *Z. persica* Bunge, ditto, Ordubad Distr., Nyusnyus, 29 May 1963 (paratype); *Z. tenuior* L., ditto, Nakhichevan Distr., Boyuk–dyuz, 23 May 1963, T.M. Achundov (BAK! paratype). Note: Most probably conspecific with *P. ziziphorae* Byzova.

illinoensis* Farlow – Bot. Gaz. 8: 332. 1883. [Nom. inval., Art. 34.1(b).] ≡ *Rhysotheca illinoensis* (Farlow) G.W. Wilson – Bull. Torrey bot. Club 34: 407. 1907 ≡ ***Plasmopara illinoensis* (Farlow) Davis – Trans. Wis. Acad. Sci. Arts Lett. 21: 280. 1924. Orig. coll. (2) on *Parietaria pennsylvanica* Muhl.

/URT/, U.S.A.: Illinois, Quincy, 29 June 1882, A.B. Seymour 5354 (FH! lectotype here selected, ILL 2562+ & 2985+ isolectotypes); ditto, Camp Point, 27 June 1882, A.B. Seymour 5302 (FH!, ILL 2561+, S! isoparatypes).

illyrica Gäum. – Beitr. KryptogFl. Schweiz 5(4): 116. 1923. Orig. coll. on *Ranunculus illyricus* L. /RAN/, Russia: Novocherkassk, 17 Apr. 1911, O. Treboux (B–!).

impatientis* Ell. & Ev. – Proc. Acad. nat. Sci. Philad. 1: 86. 1892 ≡ ***Plasmopara impatientis* (Ell. & Ev.) Berlese – Icon. Fung., Phycom.: 15. 1898. Orig. coll. on *Impatiens capensis* Meerb. (*I. fulva* Nutt.) /BLS/, U.S.A.: Delaware, Wilmington, 28 Apr. 1890, A. Commons 1373 (NY! holotype). Note: Conspecific with ***Plasmopara obducens*** (Schröter) Schröter (types compared).

indica Gäum. – Beitr. KryptogFl. Schweiz 5(4): 72. 1923. [Nom. illegit., Art. 64.1]. Replaced by *P. gaeumannii* Mundkur. Orig. coll. on *Argemone mexicana* L. /PAP/, India: Pusa, 7 Feb. 1913, E.J. Butler (Sydow, Fungi exot. exs. 354, under *P. arborescens*).

indica H. Sydow & P. Sydow – Annls mycol. 18: 157. 1921. Orig. coll. on *Calceolaria scabiosifolia* Regel & Schmahl. /SCR/, India: Deha Dun, 16 Aug. 1905, E.J. Butler 720 (HCIO?).

infestans* (Mont.) Caspary in Klotzsch [as 'Caspary'] – Herb. viv. mycol. 1879. 1854 ≡ *Botrytis infestans* Mont. – J. univ. Sci. Soc. sav. Sect. I, 1845: 313. 1845; also in Bull. Soc. philomath. Paris 1845: 98–100. 1845 ≡ ***Phytophthora infestans* (Mont.) de Bary – Jl R. agric. Soc. 12, Ser. 2 (1): 240. 1876. [Superfl. isonym: *P. infestans* Mont. apud de Bary – Annls Sci. nat., Bot., sér. 4, 20: 105. 1863]. Orig. coll. on *Solanum tuberosum* L. /SOL/, France: Viroflay near Paris, 18 Aug. 1845, M. Vernois (PC holotype). Note: See Semal *et al. in* Bull. Rech. agron. Gembloux 17: 295–306. 1982.

insubrica Gäum. – Beitr. KryptogFl. Schweiz 5(4): 242. 1923. = *P. insubrica* Gäum. – Mitt. naturf. Ges. Bern (1919): 178. 1920 [Nom. inval., Art. 32.1(c)]. Orig. coll. on *Asperula purpurea* (L.) Ehrend. (*Galium purpureum* L.) /RUB/, Italy: near Lugano, road from Castagnola to Gandria, 3 Aug. 1908, E. Mayor (NEU!).

intermedia Rossman apud A. Fischer in Rabenh. – Krypt.-Fl. 1(4): 465. 1892 [Nom. inval., Art. 32.1(c)]. Quoted as a synonym of *P. affinis* Rossman.

interstitialis* Berk. & Broome – Ann. Mag. nat. Hist., Ser. 4, 15: 34. 1875 ≡ *Ovularia interstitialis* (Berk. & Broome) Massee – Br. Fung. Fl. 3: 322. 1893 ≡ ***Ramularia interstitialis* (Berk. & Broome) Gunnerbeck & O. Const., **comb. nov.** (Hyphomycetes). Orig. coll. (2) on *Primula veris* L. /PRM/, England: Glamis, J. Stevenson (Herb. Berkeley in K!); ditto, Menmuir, M. Anderson. Note: This is conspecific with, and antedates *Ramularia primulae* Thümen.

iolotanica L.M. Koloshina – Not. syst. Sect. crypt. Inst. bot. Acad. Sci. U.S.S.R. 7: 123. 1951. Orig. coll. on *Atriplex tatarica* L. /CHN/, Turkmenia: Iolotan' Distr., Murgab riverside, 11 Apr. 1947, L.M. Koloshina.

iranica Petrak & Esfandiari – Annls mycol. 39: 204 (1941). Orig. coll. on *Conringia planisiliqua* Fischer & C. A. Meyer /CRU/, Iran: Karadji, 23 May 1940, E. Esfandiari (W 1977/19484+ holotype).

isatidis Gäum – Beih. bot. Zbl. 35 (1): 526. 1918. Orig. coll. on *Isatis tinctoria* L. /CRU/, Switzerland: Canton Vaud, Steinbrüche near Chamblon, 7 June 1916, E. Gäumann (BERN!).

isatidis Gäum. var. **jakutica** Ch. Benois in A.A. & P.A. Jaczewski – Opredelitel' Gribov. Vol. 1, Fikomitsety: 142. 1931, *emend.* Benua & Karpova-Benua – Parazitnye griby Yakutii: 42. 1973. Orig. coll. (2) on *Isatis tinctoria* L. /CRU/, Russia: Yakutsia, right bank of the Lena river, near Yakutsk, Pavlovsk, 26 June 1926, Ch. Benois; ditto, a second specimen (LE–!, LEP–!). Note: The material is apparently lost (V.A. Melnik, *in litt.*).

iwatensis S. Ito & D. Murayama – Trans. Sapporo nat. Hist. Soc. 17: 162. 1943. Orig. coll. on *Trautvetteria japonica* Sieb. & Zucc. /RAN/, Japan: Honshu, Rikuchu Prov., Mt Iwate, 11 July 1935, R. Kurata (SAPA+ holotype).

jaapiana P. Magnus – Ber. dtsch. bot. Ges. 28: 250. 1911. Orig. coll. on *Rheum rhaponticum* L. /PLG/, Germany: Prignitz Distr., Triglitz, 5 Aug. 1909, O. Jaap (HBG holotype, Jaap, Fungi sel. exs. 403 isotypes). Note: See also Francis *in* CMI Descr. Path. Fungi & Bact. No. 687. 1981.

jacksonii C.G. Shaw – Mycologia 43: 448. 1951. Orig. coll. (2) on *Mimulus guttatus* DC. /SCR/, U.S.A.: Oregon, Umatilla Co., near Hermiston, 13 May 1915, H.S. Jackson (OSC 10614+ holotype); ditto, 12 May 1915 (OSC 10876+ paratype).

jaczewskii Săvul. & Rayss – Annls mycol. 32: 39. 1934. [Nom. inval., Art. 34.1(b).]. Orig. coll. (2) on *Gypsophila muralis* L. /CRY/, Romania: Arad Distr., Cladova, 18 June 1932, T. Săvulescu & T. Rayss (BUCM 2032! lectotype here selected); Hunedoara Distr., Orăştie (BUCM–!). Note: Conspecific with *P. gypsophilae* Jaczewski (types compared).

jordanovii R. Krusheva – C. r. Acad. bulg. Sci., 20: 240. 1967. Orig. coll. on *Brassica jordanoffii* O.E. Schultz /CRU/, Bulgaria: Mt Pirin, Kamenititsa, 8 July 1961, R. Krusheva (SOM?); ditto, 3 Sept. 1962 (SOM?).

karelii Bremer & Gäum. – Ber. schweiz. bot. Ges. 55: 153. 1945. Orig. coll. (2) on *Scabiosa rotata* Bieb. /DPS/, Turkey: Ankara, 27 May 1942, G. Karel (ZT!); ditto, 26 May 1943, H. Bremer (S!, W 1975/9444+, ZT!).

**kellermanii* Ellis & Halsted in Ellis & Ev. [as 'kellermanni'] – N. Amer. Fungi 2201. 1889 [Nom. inval., Art. 32.1(c)]. Orig. coll. on *Iva xanthifolia* Nutt. /AST/, U.S.A.: Kansas, June 1887, W.A. Kellerman. Note: The epithet was later used in *Plasmopara*, under *Plasmopara kellermanii*

Swingle ex Sacc. [as 'Kellermani (Ell. et Halst.) Swingl.'] – Syll. Fung. 9: 342. 1891 ≡ ***Basidiophora kellermanii*** (Swingle ex Sacc.) G.W. Wilson [as '(Ellis & Halsted)'] – Bull. Torrey bot. Club 34: 394. 1907. Although Swingle *in* Trans. Kans. Acad. Sci. 11: 74. 1889 was indeed first to suggest that this fungus should be placed in *Plasmopara*, he made no formal combination.

knautiae Fuckel ex Schröter in Cohn – Krypt.-Fl. Schles. 3 (1): 251. 1886. = *P. knautiae* Fuckel in Cornu – Bull. Soc. bot. Fr. 25: 298. 1878 [Nom. inval., Art. 32.1(c)]. Orig. coll. (6) on *Knautia* sp. /DPS/, France: Chartreuse, Aug. 1877, M. Cornu.; *K. arvensis* (L.) Coulter, Poland: Silesia, Nowy Dwór near Legnica (formerly Liegnitz in Germany), July 1871, J. Gerhardt (WRSL!); ditto in Schneider, Herb. schles. Pilze 434, under *P. dipsaci* f. *knautiae* (WRSL!); *Scabiosa* cf. *ochroleuca* L. /DPS/, Poland: Silesia, Piekary Wielkie near Legnica (Gross–Beckern near Liegnitz), July 1871, J. Gerhardt (WRSL!); ditto in Schneider, Herb. schles. Pilze 435, under *P. dipsaci* f. *scabiosae* (WRSL!); Poland: Gliwice (Gleiwitz), Aug. 1881 (WRSL!)

kochiae Gäum. – Mitt. naturf. Ges. Bern (1918): 64. 1919. Orig. coll. on *Bassia sedoides* (Pallas) Ascherson (*Kochia sedoides* (Pallas) Schrader) /CHN/, Russia: near Novocherkassk, 20 May 1912, O. Treboux (Sydow, Phyc. et Prot. 333, under *P. effusa* – BERN!). Note: Two additional specimens, collected 1 June 1911, are preserved at S!.

kochiae–prostratae Sandu–Ville & Iacob – Lucr. ştiinţ. Inst. agron. Iaşi, Ser. 1, (1970): 331. 1970. [Nom. inval., Art. 35.1]. Orig. coll. on *Kochia scoparia* (L.) Schrader /CHN/, Romania: near Iaşi, 17 June 1969, coll. V. Iacob, det. C. Sandu–Ville (BUCM 45152! holotype). Note: Host initially identified as *Kochia prostrata* (L.) Schrader but corrected by G. Negrean. Conspecific with *P. kochiae–scopariae* Kochman & Majewski.

kochiae–scopariae Kochman & Majewski – Bull. Acad. pol. Sci., Sér. Sci. biol. 15: 242. 1967. Orig. coll. on *Kochia scoparia* (L.) Schrader /CHN/, Poland: Rzeszów Distr., Sonina near Łańcut, 20 Aug. 1966, J. Kochman (Herb. Dept. Plant Pathol., Agric. Univ. Warszawa).

lactucae* Reg. apud Gola – L'Herbario Micologico di P.A. Saccardo. Catalogo. Padova: 106. 1930 [Nom. inval., Art. 32.1(c)]. Most probably a slip of the pen for ***Bremia lactucae* Regel.

lagerheimii Gäum. – Beitr. KryptogFl. Schweiz 5(4): 222. 1923. Orig. coll. on *Caragana arborescens* Lam. /LEG/, Norway, Akershus, Ås, Sept. 1894, G. Lagerheim (B–! holotype, LEP! and S! isotypes).

lallemantiae P.N. Golovin & Kalymbetov – Not. syst. Sect. crypt. Inst. bot. Acad. Sci. U.S.S.R. 9: 116. 1953. Orig. coll. (2) on *Lallemantia royleana* Bunge /LAB/, Turkmenia: Firyuza, 30 March 1952; ditto, Kizil–arvat, 2 Apr. 1952, (AA?, TASM?).

lamii (A. Braun) de Bary apud Sacc. – Syll. Fung. 7: 256. 1888 [Nom. inval., Art. 32.1(c)]. A slip of the pen for *P. lamii* Braun.

lamii A. Braun in Rabenh. – Herb. mycol. Ed. 2, 325. 1857. Orig. coll. on *Lamium purpureum* L. /LAB/, Germany: Berlin, May 1856, A. Braun. Note: See also Francis *in* CMI Descr. Path. Fungi & Bact. No. 688. 1981.

lamii A. Braun in Rabenh. var. **glechomae** Krieger [as 'glechomatis'] – Fungi saxon. 1880. 1905 ≡ *P. glechomae* (Krieger) Majewski [as 'glechomatis'] – Acta mycol., Warszawa 4: 86. 1968. Orig. coll. on *Glechoma hederacea* L. /LAB/, Germany: Sachsen, Sächsische Schweiz, Rathen, 26 June 1901, W. Krieger.

lanceolata Gaponenko – Semejstvo Peronosporaceae Srednej Azii i Yuzhnogo Kazakhstana: 308. 1972 [Nom. inval., Art. 37.1]. Orig. coll. (4) on *Plantago lanceolata* L. /PTG/, Turkmenia: Yarty–Kala, 12 May 1939, coll. Katajev (TASM); Moryjskaja Region, Iolotan' Distr., 5 May 1949, coll. Koloschina and Katajev (TASM); Tadzhikistan, Zarafshansk Mt, Yagnob river, 8 July 1939, P.N. Golovin (TASM); Uzbekistan, Sredne–Czirczikensis Distr., Parlisaj, 7 June 1953, coll. T.S. Panfilova (TASM).

lapponica Lagerheim – Bot. Not. 41: 50. 1888. Orig. coll. on *Euphrasia stricta* D. Wolff & J.F. Lehm. (*E. officinalis* L.) /SCR/, Sweden: Norrbotten, Kvikkjokk, July 1883, G. Lagerheim. Note: According to Gustavsson *in* Op. bot. Soc. bot. Lund. 3 (1): 192. 1959 the type was apparently not preserved. Specimens collected by Lagerheim in Norway, Tromsö, Jägervandet, July 1900, are deposited at LEP! and NY!.

lathyri–aphacae Săvul. & Rayss – Annls mycol. 28: 313. 1930. Orig. coll. on *Lathyrus aphaca* L. /LEG/, Bulgaria: Turtucaia (formerly in Romania), 2 June 1930, T. Săvulescu & T. Rayss (BUCM 2078! holotype).

lathyri–hirsuti Săvul. & Rayss – in Săvul. – Herb. mycol. rom. 331. 1932. Orig. coll. on *Lathyrus hirsutus* L. /LEG/, Romania: Ilfov Distr., Căţelu, 13 Apr. 1932, T. Săvulescu & T. Rayss (BUCM 60331! lectotype here selected).

lathyri–humilis Ch. Benois in A.A. & P.A. Jaczewski [as 'lathyri–pumili'] – Opredelitel' Gribov. Vol. 1, Fikomitsety: 151. 1931, *emend.* Benua & Karpova–Benua – Parazitnye griby Yakutii: 44. 1973. Orig. coll. on *Lathyrus humilis* (Ser.) Sprengel [as 'pumilus'] /LEG/, Russia: Yakutsia, Soly river source, 24 July 1926, Ch. Benois (LE–!, LEP–!). Note: The material is apparently lost (V.A. Melnik, *in litt.*).

lathyri–maritimi Jermalaviciute – Nov. Sist. niz. Rast. (1966): 129. 1966. Orig. coll. on *Lathyrus japonicus* Willd. ssp. *maritimus* (L.) P.W. Ball (*L. maritimus* Bigelow) /LEG/, Lithuania, Vilnius, Botanical Garden of the University, 12 Aug. 1960, S.I. Jermalaviciute (BILAS! holotype, LE 43400! isotype).

lathyri–palustris Gäum. – Beitr. KryptogFl. Schweiz 5(4): 192. 1923. Orig. coll. (3) on *Lathyrus palustris* L. /LEG/, Switzerland: Canton Genève, road between Bernex and Peney, 28 June 1900, E. Mayor (NEU!); *L. heterophyllus* L., Switzerland: Canton Graubünden, Engadine, near Fétan, 10 Aug. 1916, E. Mayor (BPI!, NEU!); *L. sativus* L., India: Lyallpur, 26 March 1903, E.J. Butler (B–!).

lathyri–palustris Gäum. var. **jakutica** Ch. Benois in A.A. & P.A. Jaczewski – Opredelitel' Gribov. Vol. 1, Fikomitsety: 151. 1931, *emend.* Benua & Karpova–Benua – Parazitnye griby Yakutii: 45. 1973 ≡ *P. fulva* Sydow var. *jakutica* (Ch. Benois) Cherepanova – Trudy Biol. Nauchno–Issled. Inst., Leningr. Gosud. Univ. 29: 94. 1979. Orig. coll. on *Lathyrus palustris* L. /LEG/, Russia: Yakutsia, Okhotsk area, Nokhu river valley, 21 July 1925, Ch. Benois (LE–!, LEP–!). Note: The material is apparently lost (V.A. Melnik, *in litt.*).

lathyri–pisiformis M.I. Nikolajeva – Nov. Sist. niz. Rast. 7: 252. 1970. Orig. coll. on *Lathyrus pisiformis* L. /LEG/, Russia: Voronezh, Botanical Garden of the University, 29 June 1965, M.I. Nikolajeva (LE 43401! holotype).

lathyri–rosei Osipian [as 'lathyri–roseus'] – Mikoflora Armyanskoj SSR. 1. Peronosp. Griby: 225. 1968. Orig. coll. on *Lathyrus roseus* Steven /LEG/, Armenia: Hrasdan Distr., Thakarlu, 12 June 1963, L.L. Osipian (LE 43402! holotype, ERCB isotype).

lathyri–verni A. Gust. – Op. bot., Lund 3(1): 151. 1959. Orig. coll. on *Lathyrus vernus* (L.) Bernh. /LEG/, Sweden: Öland, Köping, 2 km. S. of Lundegård, 18 May 1957, A. Gustavsson 5427 (LD! holotype).

lathyri–versicoloris Săvul. & Rayss – Annls mycol. 30: 373. 1932. Orig. coll. on *Lathyrus pannonicus* (Jacq.) Garcke ssp. *collinus* (Ortman) Sóo (*L. versicolor* auct.) /LEG/, Moldavia: Hotin Distr., Mihălăşeni, 25 June 1931, T. Săvulescu & T. Rayss (BUCM 2091! holotype).

lathyri–versicoloris Săvul. & Rayss var. **lathyri–verni** (A. Gust.) Cherepanova [as '*versicoloris*'] – Trudy Biol. Nauchno–Issled. Inst., Leningr. Gosud. Univ. 29: 94. 1979. See *P. lathyri–verni*.

lathyrina Viennot–Bourgin – Bull. trimest. Soc. mycol. Fr. 66: 64. 1950. Orig. coll. on *Lathyrus latifolius* L. /LEG/, France: Alpes Mts, Pelvoux Mt., Gironde valley, between the village Vollouise and Glacier Blanc shelter, 22 Aug. 1948, G. Viennot–Bourgin (PC+ holotype).

lentis Gäum. – Beitr. KryptogFl. Schweiz 5(4): 198. 1923. Orig. coll. on *Lens culinaris* Medicus (*L. esculenta* Moench) /LEG/, Germany: Berlin, the garden of the University, 1872, P. Magnus (B–!).

leonuri T.-r. Liu & C.-k. Pai – Acta mycol. sin. 4: 6. 1985. Orig. coll. (2) on *Leonurus macranthus* Maxim. /LAB/, China: Heilongjiang Prov., Sui–Fen–He Reg., July 1980, T.-r. Liu, No. 032 (Herb. Heilongjiang 'August 1' Agric. Univ. – holotype, HMAS+ isotype); Mi–Shan Reg., Aug. 1980, No. 039.

lepidii (McAlp.) G.W. Wilson [as 'sp. nov.'] – Mycologia 6: 198. 1914. See *P. parasitica* var. *lepidii*.

lepidii–perfoliati Săvul. & Rayss – Annls mycol. 30: 367. 25 Apr. 1932; also in Săvul. – Herb. mycol. rom. 325. 1932. Orig. coll. on *Lepidium perfoliatum* L.

/CRU/, Romania: Ilfov Distr., Călăraşi, 12 June 1931, T. Săvulescu & T. Rayss (BUCM 2116! lectotype here selected).

lepidii-sativi Gäum - Beih. bot. Zbl. 35 (1): 526 . 1918. Orig. coll. (8) on *Lepidium* spp. /CRU/: *L. campestre* (L.) R. Br., Poland: Silesia, Legnica (formerly Liegnitz in Germany), 1874, J. Gerhardt (B–!); Switzerland: Canton Vaud, Iverdon, 7 June 1916, E. Gäumann (BERN!); *L. draba* L., Czechoslovakia: Bohemia, near Louny, 6 May 1900, F. Bubák (Sydow, Phyc. et Prot. 107, under *P. parasitica* - BERN!); Switzerland: Canton Vaud, Montagny sur Yverdon, 10 May 1915, E. Mayor (NEU!); *L. latifolium* L., Russia: Novocherkassk, 10 May 1911, O. Treboux (B–!, LEP!); *L. ruderale* L., Poland: Silesia, Legnica (Liegnitz), beginning of May 1870, J. Gerhardt (B–!); Germany: Hessen, Rheingau Distr., Ingelheim, 23 Apr. 1874, G. Körnicke (B–!); *L. sativum* L., Switzerland: Bern, Botanical Garden, 15 June 1915 (15.7.1915 on the labels), E. Gäumann (BERN!, two specimens).

lepidii-virginici Gäum - Beih. bot. Zbl. 35 (1): 526. 1918. Orig. coll. on *Lepidium virginicum* L. /CRU/, U.S.A.: Kentucky, Lexington, May 1882, W.A. Kellerman (Rabenh., Fungi eur. 2970, under *P. parasitica* - NEU!, ZT!).

lepigoni Fuckel – Fungi rhen. 21. 1863. Orig. coll. on *Spergularia rubra* (L.) J. & C. Presl. (*Lepigonum rubrum* Wahlenb.) /CRY/, Germany: Hessen, Mt Boss, near Eberbach.

leptalei L.M. Koloshina – Not. syst. Sect. crypt. Inst. bot. Acad. Sci. U.S.S.R. 7: 122. 1951. Orig. coll. on *Leptaleum filifolium* (Willd.) DC /CRU/, Turkmenia: Ashkhabad Distr., Bagir, 31 March 1947, L.M. Koloshina.

leptoclada Sacc. – Michelia 2: 530. 1882. Orig. coll. on *Tuberaria guttata* (L.) Fourr. (*Helianthemum guttatum* (L.) Miller) /CIS/, Italy: Mt. Calaone, Sugana valley, June 1881, C. Bizzozero (PAD!). Note: A specimen collected in May 1881 is deposited at LEP!.

leptopyri C.K. Pai [as 'leptopyrii'] - Acta phytopath. sin. 3(2): 154. 1957. Orig. coll. (2) on *Leptopyrum fumarioides* (L.) Reichenb. /RAN/, R.P. China: Heilongjing Prov., Harbin Reg., 16 May 1950, F.C. Liu (HMAS 18289+ holotype); ditto, 9 May 1952, C.K. Pai.

leptosperma* de Bary – Annls Sci. nat., Bot., sér. 4, 20: 48. 1863 [description repeated at page 121] ≡ *Plasmopara leptosperma* (de Bary) Skalický – Preslia 38: 127. 1966 ≡ ***Paraperonospora leptosperma* (de Bary) O. Const. – Sydowia 41: 89. 1989. Orig. coll. on *Matricaria perforata* Mérat (*Tripleurospermum inodorum* (L.) Schultz Bip.) /AST/, Germany: Baden–Württemberg, Freiburg, autumn 1862, A. de Bary (Rabenh., Fungi eur. 574 (BPI! lectotype, L 910.237–1204! isolectotype).

**leptosperma* Gäum. [as '(de Bary) Gäum.' – Beitr. KryptogFl. Schweiz 5(4): 129. 1923 [Nom. illegit., Art. 64.1].

leptosperma* de Bary var. *sigesbeckiae* Lagerheim [as 'siegesbeckiae'] – Bull. Herb. Boissier 3: 61. 1895 ≡ ***Plasmopara sigesbeckiae* (Lagerheim) Tao [as 'siegesbeckiae (Lagerh. in Sacc.)'] – Acta mycol. sin. 6: 69. 1987. Orig. coll. on *Sigesbeckia* sp. /AST/, Ecuador: Pichincha, *sine dat.* Note: The type could not be located but the combination in *Plasmopara* seems correct. See also Constantinescu *in* Sydowia 41: 105. 1989.

lilii N.P. Stenina – Mikol. i Fitopatol. 2: 150. 1968. Orig. coll. on *Lilium candidum* L. /LIL/, Russia: St. Petersburg, Botanical Garden, 19 July 1966, N.P. Stenina (LE 43403! holotype). Note: This is a very doubtful taxon. The type consists of two fragments of a capsule bearing no fungus, and a microscopic slide containing a fungus similar to *P. destructor* (Berk.) Caspary ex Berk. It is very improbable that the slide was made from the specimen. It is also peculiar that no further collections of a fungus parasitic on such a common plant were made.

limonii Simonian – Biol. Zh. Armen. 29(4): 88 (1976). Orig. coll. on *Limonium meyeri* (Boiss.) Kuntze /PLB/, Armenia: Erevan, Botanical Garden, 25 June 1969, S. Simonian (EREM 7376! holotype). Note: Conidia which the author described as 5.9–6.6 x 3.3–3.7 μm are those of a saprophytic fungus, probably an yeast. The conidia are actually 19–22 x 16–18 μm. Conspecific with *P. statices* Lobik (types compared).

linariae Fuckel – Fungi rhen. 1903. 1867. Orig. coll. on *Chaenorhinum minus* (L.) Lange (*Linaria minor* (L.) Desf.) /SCR/, Germany: Hessen, Wisperthal near Lorch, summer.

linariae–genistifoliae Săvul. & Rayss – Annls mycol. 30: 377. 1932. Orig. coll. on *Linaria genistifolia* (L.) Miller /SCR/, Moldavia: Ismail Distr., Vâlcov, 1 June 1931, T. Săvulescu & T. Rayss (BUCM 2163! holotype).

lini Schröter – Jber. Schles. Ges. vaterl. Cult. 53: 116. 1876; also in Hedwigia 15: 134. 1876. Orig. coll. on *Linum catharticum* L. /LIN/, Germany: Baden–Württemberg, Rastatt, Aug. 1875, J. Schröter (WRSL!).

lini Ell. & Kellerman – J. Mycol. 3: 126. 1887 [Nom. illegit., Art. 64.1]. Orig. coll. on *Linum sulcatum* Riddell /LIN/, U.S.A.: Kansas, Manhattan, Sept. 1887, W.A. Kellerman 1077 (NY! holotype).

lithospermi Gäum. – Beitr. KryptogFl. Schweiz 5(4): 170. 1923. Orig. coll. on *Buglossoides arvensis* (L.) I. M. Johnston (*Lithospermum arvense* L.) /BOR/, Switzerland: Canton Vaud, Chamblon, 26 May 1899, D. Cruchet (NEU–!).

litoralis Gäum. – Mitt. naturf. Ges. Bern (1918): 62. 1919. Orig. coll. (2) on *Atriplex littoralis* L. /CHN/, Denmark: Fyn, Lundsborg, 12 July 1877, E. Rostrup (UPS!); *Atriplex hastata* L., Sweden: Stockholm Distr., Blidö, July 1882, O. Billberg (UPS!).

litoralis Gäum. f. **romanica** Săvul. & Rayss – in Săvul. – Herb. mycol. rom. 204. 1931. Orig. coll. on *Atriplex hortensis* L. /CHN/, Romania: Vâlcea Distr., Râmnicu Vâlcea, 17 Aug. 1930, T. Săvulescu & T. Rayss (BUCM 2252! lectotype here selected). Note: Name and rank later changed to *P. atriplicis–hortensis*, *q.v.*

litwinowiae Kalymbetov – Trud. Inst. Bot. Akad. Nauk Kazakh SSR 11: 204. 1961. Orig. coll. on *Litwinowia tenuissima* (Pallas) Woronow ex Pavlov /CRU/, Kazakhstan: Alma–Atin Region, N. slope of Mt Syugaty, 26 May 1958, B. Kalymbetov (AA, LE 24538!, TASM!).

lobulariae Ubriszy & Vörös – Acta phytopath. Acad. Sci. hung. 1: 147. 1966. Orig. coll. on *Lobularia maritima* (L.) Desv. /CRU/, Hungary: Debrecen, 1964, O. Tóth.

lophanthi Farlow - Bot. Gaz. 8: 333. 1883. Orig. coll. on *Agastache scrophulariaefolia* (Willd.) Kuntze (*Lophanthus scrophulariaefolius* Benth.) /LAB/, U.S.A.: Iowa, Charles City, 29 Aug. 1882, coll. J.C. Arthur (FH+).

lophanthi Farlow var. **moldavicae** Dearn. & Barth. - Mycologia 16: 145. 1924. Orig. coll. on *Dracocephalum parviflorum* Nutt.(*Moldavica parviflora* (Nutt.) Britt.) /LAB/, U.S.A.: Wyoming, Ten Sleep Canyon, 29 Aug. 1923, E. Bartholomew 8339 (DAOM+ holotype).

lotorum H. Sydow in Gäum. – Beitr. KryptogFl. Schweiz 5(4): 199. 1923. Orig. coll. (2) on *Lotus uliginosus* Schkuhr /LEG/, Switzerland: Canton Vaud, Lötschental valley, 5 Aug. 1905, E. Mayor (BPI!, NEU!); *L. corniculatus* L., Switzerland: Canton Graubünden, Engadine, between Avrona and Vulpera, 7 Aug. 1916, E. Mayor (NEU!).

luffae* (Sawada) Skalický – Preslia 38: 126. 1966 ≡ *Peronoplasmopara luffae* Sawada – Trans. nat. hist. Soc. Formosa 21: 335. 1931. Orig. coll. (15) on *Luffa cylindrica* Roem. /CUC/, China (Taiwan). Holotype: Taipei, 20 June 1931, K. Sawada (TAI–). Note: Conspecific with ***Pseudoperonospora cubensis* (Berk. & M.A. Curtis) Rostov., *fide* Waterhouse & Brothers *in* Mycol. Pap. 148: 7. 1981.

lunariae Gäum – Beih. bot. Zbl. 35 (1): 526. 1918. Orig. coll. (2) on *Lunaria annua* L. /CRU/, Romania: Băile Herculane, Domogled, 27 June 1905, F. Bubák (BPI!); *L. rediviva* L., Switzerland, Canton Bern, Taubenloch pass near Biel, 17 July 1915, E. Gäumann (BERN!, two specimens).

lutea* Carmona y Valle. [Orig. publ. not seen]. Note: A synonym of ***Babesia xanthopyretica* Trevisan (Bacteria), *fide* Sacc. – Syll. Fung. 8: 1054. 1889.

lychnitis Gäum. – Beitr. KryptogFl. Schweiz 5(4): 54. 1923. Orig. coll. on *Lychnis coronaria* (L.) Desr. /CRY/, Italy: Sicilia, Catania, Apr. 1901, Scalia (Sacc., Myc. ital. 725).

lycii Ling & M.C. Tai – Lloydia 9: 145. 1946. Orig. coll. on *Lycium chinense* Miller /SOL/, China: Sichuan Prov., Chengdu Reg., 10 Jan. 1944 (HMAS 10653+).

macrocarpa* Rabenh. – Klotzsch Herb. viv. mycol. 1172. 1847. Orig. not seen. Note: Conspecific with ***Plasmopara umbelliferarum* (Caspary) Schröter ex Wartenw., s. lat., *fide* Jørstad *in* Skr. norske Vidensk–Akad., Math.–naturv. Kl. 10: 13. 1963.

macrocarpa* Corda – Icon. Fung. 5: 52. 1842 ≡ *Monosporium macrocarpum* (Corda) Bonorden – Handb. Mykol.: 95. 1851. Orig. coll. (2?) on *Anemone* *nemorosa* L. and *A. ranunculoides* L. /RAN/, Czechoslovakia: Nové Město pod Smrkem (formerly Neustad) near Praha, May 1839 (PR?, PRM–). Note: Usually considered conspecific with ***Plasmopara pygmaea* (Unger) Schröter.

macrocarpa* Corda f. *elongata* Rabenh. – Fungi eur. 374. 1861 [Nom. inval., Art. 32.1(c)]. Orig. coll. on *Anemone nemorosa* L. /RAN/, Germany: Baden–Württemberg, Freiburg, Apr. 1860, A. de Bary. Note: Conspecific with ***Plasmopara pygmaea* (Unger) Schröter.

**macrosperma* Sacc. apud Gola – L'Herbario Micologico di P.A. Saccardo. Catalogo. Padova: 106. 1930 [Nom. inval., Art. 32.1(c)].

**macrospora* Caspary apud Oudemans – Enum. Syst. Fung. 4: 242. 1923 [Nom. inval., Art. 32.1(c)]. Most probably a slip of the pen for *P. macrospora* (Unger) Unger.

**macrospora* Corda apud Oudemans – Enum. Syst. Fung. 3: 122. 1921 [Nom. inval., Art. 32.1(c)]. Most probably a slip of the pen for *P. macrocarpa* Corda.

**macrospora* Sacc. apud Gola – L'Herbario Micologico di P.A. Saccardo. Catalogo. Padova: 106. 1930 [Nom. inval., Art. 32.1(c)].

macrospora* (Unger) Unger – Bot. Ztg. 5: 315. 1847 ≡ *Botrytis macrospora* Unger – Die Exantheme der Pflanzen: 173. 1833. Orig. coll. on *Pimpinella saxifraga* L./UMB/, Austria: Tyrol. No details about the collection were provided. Note: This is, most probably, ***Plasmopara umbelliferarum* (Caspary) Schröter ex Wartenw., s. lat.

malcolmiae Lobik in A.A. & P.A. Jaczewski – Opredelitel' Gribov. Vol. 1, Fikomitsety: 142. 1931. Orig. coll. on *Malcolmia africana* (L.) R. Br. /CRU/, Russia. No details about the collection were provided. Note: A specimen collected from Russia, Kabardino–Balkar, Tersk Prov., Mozdok Distr., Prokhladnaya, 20 May 1927, coll. P. Vilkov, det. A.I. Lobik 731 (LEP!) is most probably the type.

malyi Lindtner – Glasn. Muz. srpsk. Zeml. (Bull. Mus. Hist. nat. Pays Serbe), Ser. B, 9: 141. 1957. Orig. coll. on *Cardamine graeca* L. var. *eriocarpa* (DC) Frirsch. /CRU/, Yugoslavia: Serbia, near Niska Banja, N. side of the hill Koritnik, 2 May 1953 (BEO?).

manshurica (Naumov) H. Sydow in Gäum. – Beitr. KryptogFl. Schweiz 5(4): 221. 1923. See *P. trifoliorum* var. *manshurica*. Note: See also Francis *in* CMI Descr. Path. Fungi & Bact. No. 689. 1981.

matthiolae Gäum – Beih. bot. Zbl. 35 (1): 527. 1918. Orig. coll. on *Matthiola incana* R. Br. /CRU/ Germany: Bayern, Bayreuth, July 1875, F. Thümen (B–!, BPI!, S!).

maublancii Săvul. & Rayss – Bull. trimest. Soc. mycol. Fr. 50: 93. 1934. Orig. coll. on *Lepidium graminifolium* L. /CRU/, France: Paris, Oct. 1925, A. Maublanc. Note: A specimen collected at Paris, Porte d'Arcueil, Oct. 1929 is at BUCM 2205!.

maydis* Raciborski - Ber. dtsch. bot. Ges. 15: 475. 1897 ≡ *Sclerospora maydis* (Racib.) Butler - Mem. Dept. agric. India, Bot. 5: 275. 1913 ≡ ***Peronosclerospora maydis (Racib.) C.G. Shaw - Mycologia 70: 595. 1978. Orig. coll. on *Zea mays* L. /GRM/, Indonesia: Java. No details about the collection were provided. Note: Specimens, apparently original, were distributed in Racib. - Crypt. parasit. Insula Java lecte exs. no. 7. I found no fungus in the copy at ZT.

mayorii Gäum. - Beitr. KryptogFl. Schweiz 5(4): 217. 1923. Orig. coll. (3) on *Vicia cracca* L. /LEG/, Switzerland: Canton Neuchâtel, Corcelles, June 1876, P. Morthier (BERN!, NEU!, ZT!); *V. sativa* L. ssp. *nigra* (L.) Ehrh. (*V. angustifolia* All.), Yugoslavia: Plave (formerly Plava in Austria), May 1902, P. Sydow (Sydow, Phyc. et Prot. 225, under *P. viciae* - BERN!); *V. lutea* L., Yugoslavia: Topčider near Beograd, 4 Sept. 1905, N. Ranojević (B–!).

mayorii Gäum. var. **jakutica** Ch. Benois in A.A. & P.A. Jaczewski - Opredelitel' Gribov. Vol. 1, Fikomitsety: 155. 1931, *emend.* Benua & Karpova–Benua - Parazitnye griby Yakutii: 46. 1973. Orig. coll. on *Vicia cracca* L. /LEG/, Russia: Yakutsia, Sol'sk area, Byotejdyakh, 20 July 1926, Ch. Benois (LE–!, LEP–!). Note: The material is apparently lost (V.A. Melnik, *in litt.*).

meconopsidis Mayor - Mém. Soc. neuchâtel. Sci. nat. 9(1): 34. 1958 [Nom. novum, replaces *P. gaeumannii* Mayor, *q.v.*].

media Gäum. - Beitr. KryptogFl. Schweiz 5(4): 59. 1923. = *P. media* Gäum. - Mitt. naturf. Ges. Bern (1919): 183. 1920 [Nom. inval., Art. 32.1(c)]. Orig. coll. (2) on *Stellaria media* (L.) Vill. /CRY/, Switzerland: Bern, May 1916, E. Gäumann (BERN–!, ZT–!); *S. nemorum* L., Denmark: Jylland, Skanderborg, 8 July 1884, E. Rostrup (C+).

media Gäum. f. *neglectae* Gaponenko - Semejstvo Peronosporaceae Srednej Azii i Yuzhnogo Kazakhstana: 157. 1972 [Nom. inval., Art. 37.1]. Orig. coll. (4) on *Stellaria neglecta* Weihe /CRY/, Uzbekistan: Fergan valley, Frunze collective farm, 17 May 1944, N.I. Gaponenko (TASM); ditto, Margelan, 25 May 1949 (TASM); near Tashkent, 3 July 1965, N.I. Gaponenko (TASM); ditto, 6 Dec, 1965 (TASM).

media Gäum. f. *stellariae* Gaponenko - Semejstvo Peronosporaceae Srednej Azii i Yuzhnogo Kazakhstana: 155. 1972 [Nom. inval., Art. 37.1]. Orig. coll. (3?) on *Stellaria media* (L.) Vill. /CRY/: Kirgizstan: near Frunze, 19 Apr. 1948, Ordina (TASM); ditto, 14 July 1958, A.G. Pospelov (TASM); Uzbekistan: near Tashkent, 3 March–20 Apr. 1958–1964, N.I. Gaponenko (TASM).

medicaginis–minimae Gaponenko - Semejstvo Peronosporaceae Srednej Azii i Yuzhnogo Kazakhstana: 249. 1972. Orig. coll. on *Medicago minima* (L.) Bartal. /LEG/, Uzbekistan: Bostandyk Distr., Mountain Station of the Inst. Bot. Acad. Sci. Uzbekistan, May 1966, F. Fajzieva (TASM).

medicaginis–orbicularis Rayss – Palest. J. Bot., J. Ser. 3: 157. 1946. Orig. coll. on *Medicago orbicularis* (L.) Bartal. /LEG/, Israel: Jerusalem, 21 Feb. 1935, T. Rayss (HUJ, NEU!).

medicaginis–orbicularis Rayss f. **grossheimii** Gaponenko – Semejstvo Peronosporaceae Srednej Azii i Yuzhnogo Kazakhstana: 245. 1972. Orig. coll. on *Medicago grossheimii* Vass. /LEG/, Uzbekistan: Bostandyk Distr., Mountain Station of the Inst. Bot. Acad. Sci. Uzbekistan, May 1966, F. Fajzieva (TASM).

medicaginis–orbicularis Rayss f. **rigidulae** Fajzieva in Gaponenko – Semejstvo Peronosporaceae Srednej Azii i Yuzhnogo Kazakhstana: 248. 1972. Orig. coll. on *Medicago rigidula* (L.) All. /LEG/, Uzbekistan: Bostandyk Distr., Mountain Station of the Inst. Bot. Acad. Sci. Uzbekistan, May 1966, F. Fajzieva (TASM).

medicaginis–orbicularis Rayss f. **schischkinii** Gaponenko – Semejstvo Peronosporaceae Srednej Azii i Yuzhnogo Kazakhstana: 247. 1972. Orig. coll. on *Medicago schischkinii* Summ. /LEG/, Uzbekistan: Bostandyk Distr., Mountain Station of the Inst. Bot. Acad. Sci. Uzbekistan, May 1966, F. Fajzieva (TASM).

medicaginis–tianschanicae Gaponenko – Semejstvo Peronosporaceae Srednej Azii i Yuzhnogo Kazakhstana: 243. 1972. Orig. coll. on *Medicago tianschanica* Vass. /LEG/, Uzbekistan: Bostandyk Distr., Mountain Station of the Inst. Bot. Acad. Sci. Uzbekistan, May 1966, F. Fajzieva (TASM).

medicaginis–tianschanicae Gaponenko f. **agropyretori** Fajzieva in Gaponenko [as 'agropyretorum'] – Semejstvo Peronosporaceae Srednej Azii i Yuzhnogo Kazakhstana: 244. 1972. Orig. coll. on *Medicago tianschanica* Vass. var. *agropyretorum* Vass. /LEG/, Uzbekistan: Bostandyk Distr., Mountain Station of the Inst. Bot. Acad. Sci. Uzbekistan, May 1966, F. Fajzieva (TASM).

megasperma* Berl. – Icon. Fung., Phycomycetes, Fasc. 1: 21. 1898 ≡ *Plasmopara megasperma* (Berl.) Berl. – Riv. Patol. veg. 9: 86. 1902 (non Săvul. – Bull. Sect. scient. Acad. Roum. 24: 57. 1941) ≡ ***Bremiella megasperma* (Berl.) G.W. Wilson – Mycologia 6: 195. 1914. Orig. coll. on *Viola arvensis* Murray /VIO/, U.S.A.: Illinois, Cobden, Apr. 1882, A.B. Seymour in Ell. & Ev., N. Amer. Fungi 2207 (BUCM 51237! lectotype). Note: See Constantinescu *in* Trans. Br. mycol. Soc. 72: 510. 1979.

melampyri (Bucholtz) J. Davis – Trans. Wisc. Acad. Sci Arts Litt. 27: 183. 1932 ≡ *Plasmopara melampyri* Bucholtz – KorrespBl. naturf. Ver. Riga 52: 166. 1909. [Superfl. isonym: *Peronospora melampyri* (Bucholtz) T. Săvul. & Rayss – Annls mycol. 33: 18. 1935]. Orig. coll. on *Melampyrum nemorosum* L. /SCR/, Estonia, Saaremaa Isl., Lode near Kuresaare (formely Ösel Isl., Arensburg), 5 June 1908, F. Bucholtz 1394. Note: The type specimen is not present at EAA–, ILL–, LE–!, LEP–!, RIG– and TAA–, and is apparently lost (E. Vimba, *in litt.*).

melampyri–cristati Săvul. & Rayss – Annls mycol. 28: 317. 1930. Orig. coll. on *Melampyrum cristatum* L. /SCR/, Romania: Dâmboviţa Distr., Mănăstirea Dealului, 10 May 1930, T. Săvulescu & T. Rayss (BUCM 2216! holotype, B!, LE!, W 1973/29148+ isotypes).

melandrii Gäum. [as 'melandryi'] – Beitr. KryptogFl. Schweiz 5(4): 54. 1923. Orig. coll. (4) on *Silene alba* (Miller) E. H. L. Krause (*Melandrium pratense* Röhling) /CRY/, Sweden: Gotland, Dalhem, A. Nilsson (UPS!); ditto, 1883 (S!, two specimens, UPS!); Germany: Mark Brandenburg, Prignitz, Triglitz, 4 Oct. 1898, O. Jaap (HBG?); *Silene noctiflora* L. (*Melandrium noctiflorum* (L.) Fries, Poland: Silesia, Piekary Wielkie near Legnica (formerly Gross–Beckern near Liegnitz in Germany), Sept., J. Gerhardt (B–!).

melandrii–noctiflori Săvul. & Rayss in Săvul. – Herb. mycol. rom. 512. 1934. Orig. coll. on *Silene noctiflora* L. (*Melandrium noctiflorum* (L.) Fries) /CRY/, Romania: Buzău Distr., Buzău, 7 July 1933, T. Săvulescu & T. Rayss (BUCM 2226! lectotype here selected).

meliloti H. Sydow in Gäum. – Beitr. KryptogFl. Schweiz 5(4): 203. 1923. = *P. meliloti* H. Sydow – Myc. germ. 1518. 1921 [Nom. inval., Art. 32.1(c)]. Orig. coll. (5) on *Melilotus alba* Medicus /LEG/, Switzerland: Canton Neuchâtel, along the shore between Neuchâtel and Grandson, 25 Sept. 1914, E. Mayor (NEU!); *M. altissima* Thuill., Czechoslovakia: near Tábor, 6 Aug. 1912, Fr. Bubák (Sydow, Phyc. et Prot. 313, under *P. trifoliorum* – BERN!); *M. indica* (L.) All., India: Pusa, 8 March 1906, E.J. Butler (B–!); India: Punjab, Gujaranwala, 12 March 1911, J. Mitter (B–!); *M. officinalis* (L.) Pallas, Switzerland: Canton Neuchâtel, La Tène, near Préfargier, 1 July 1911, E. Mayor (NEU!);

melissiti Byzova & Dejeva in Vasyagina *et al.* – Flora Sporovykh Rastenij Kazakhstana 10: 262. 1977. Orig. coll. on *Trigonella platycarpa* L. (*Melissitus platycarpus* (L.) Golosk.) /LEG/, Kazakhstan: N. Kazakhstan, Ramazanovskoe forest, 12 July 1960, N.G. Dejeva (AA).

menioci L.M. Koloshina – Not. syst. Sect. crypt. Inst. bot. Acad. Sci. U.S.S.R. 7: 121. 1951. Orig. coll. on *Alyssum linifolium* Stephan ex Willd. (*Meniocus linifolius* (Stephan) DC) /CRU/, Turkmenia: Ashkhabad, 25 March 1947, L.M. Koloshina.

menthae Cheng X.–y. & Bai H.–c. – Acta mycol. sin. 5: 136. 1986. Orig. coll. on *Mentha arvensis* L. /LAB/, China: Gansu Prov., Pingliang Distr., 8 June 1981, Cheng X.–y. *et al.*, 47 (Herb. Pl. Path. Dept., Gansu Agric. Univ., Wu Wei; HMAS 48693+).

mesembryanthemi Verwoerd – Annale Univ. Stellenbosch, Ser. A. 2: 17 (in Afrikaans) and 18 (in Latin). 1924. Orig. coll. on *Mesembryanthemum* sp. /AIZ/, South Africa: Stellenbosch, P.A. van der Byl 1242 (STE–U).

microulae Meng Y.–r. & Yin G.–y. – Acta mycol. sin. 8: 247. 1989. Orig. coll. (2) on *Microula pseudotrichocarpa* W.T. Wang /BOR/, China: Gansu Prov., Qillanshan, alt. 3350 m, 27 June 1986, Meng Y.–r. 86090 (HMAS 57186+ holotype, HZAS 86090 and HMNAU-DM-003 isotypes); *Microula diffusa*

(Maxim.) Johnst., ditto, Meng Y.–r., Wei S.–l. & Luo G.–h. 87064 (HZAS 87064 and HMNAU-DM-004 paratypes).

minima G.W. Wilson – Mycologia 6: 209. 1914. Orig. coll. on *Saxifraga cernua* L. /SAX/, Norway: Tromsø, Fløyfjellet, Aug. 1895, G. Lagerheim (herb. G.W. Wilson). Note: I have detected three specimens collected by Lagerheim from the same locality in July 1893 (NY!), July 1894 (LEP!) and Aug. 1894 (S!).

minor (Caspary) Gäum. – Mitt. naturf. Ges. Bern (1918): 62. 1919. See *P. effusa* var. *minor*.

minuta Viennot–Bourgin – Bull. trimest. Soc. mycol. Fr. 69: 334. 1954 [Nom. inval., Art. 36.1]. Orig. coll. on *Arabidopsis thaliana* (L.) Heynh. (*Stenophragma thalianum* (L.) Celak.) /CRU/, France: Seine–et–Oise, near Milly, 26 Apr. 1951, G. Viennot–Bourgin (PC+ holotype).

mirabilis A.A. & P.A. Jaczewski – Opredelitel' Gribov. Vol. 1, Fikomitsety: 158. 1931. Orig. coll. on *Androsace filiformis* Retz. /PRM/, Russia. No details about the collection were provided (LE–!, LEP–!).

moenchiae Camara & de Oliveira – Agron. lusit. 6: 307. 1944. Orig. coll. on *Moenchia erecta* (L.) P. Gaertner, B. Meyer & Schreb. /CRY/, Portugal: Serra de S. Luís. (Alentejo), Feb. 1941.

momordicae* (Sawada) Skalický – Preslia 38: 126. 1966 ≡ *Peronoplasmopara momordicae* Sawada – Trans. nat. hist. Soc. Formosa 21: 337. 1931. Orig. coll. (6) on *Momordica charantia* L. /CUC/, China (Taiwan). Holotype: Taipei Prov., Busan Co., Kameyama, 6 Sept. 1931, E. Kurosawa (TAI–). Note: Conspecific with ***Pseudoperonospora cubensis* (Berk. & M.A. Curtis) Rostov., *fide* Waterhouse & Brothers *in* Mycol. Pap. 148: 7. 1981.

monolepidis Gäum. – Beitr. KryptogFl. Schweiz 5(4): 234. 1923. Orig. coll. on *Monolepis nuttaliana* (Schultes) Greene /CHN/, U.S.A.: Kansas, Stockton, 25 May 1909, E. Bartholomew (Bartholomew, Fungi columb. 2945, under *P. effusa*).

moreaui Rayss – Bull. trimest. Soc. mycol. Fr. 49: 386. 1933. Orig. coll. on *Lathyrus montanus* Bernh. (*L. macrorrhizus* Wimmer) /LEG/, France: Puy–de–Dôme, near Besse, Anglard Valley, 9 Aug. 1932, T. Rayss (BPI!, BUCM 2355!).

muralis Gäum. – Beitr. KryptogFl. Schweiz 5(4): 223. 1923. = *P. muralis* Gäum. – Mitt. naturf. Ges. Bern (1919): 184. 1920 [Nom. inval., Art. 32.1(c)]. Orig. coll. on *Chenopodium murale* L. /CHN/, England: Devonshire, on the shore at Sidmouth, July 1907, E. Mayor (NEU!).

**muscorum* Sorokin – Trudy Obshch. Estest. imp. kazan. Univ. 2: 22. 1873. Orig. coll. on the protonema of a moss, Russia, Kazan, Botanical Garden, greenhouse, March ?1871 (LE–!, LEP–!). Note: *Peronospora* is restricted to Phanerogams. The illustration suggests *Phytophthora*. Very doubtful species *fide* Jaczewski & Jaczewski, Opredelitel' Gribov. Vol. 1

– Fikomitsety. 1931, and not included in Novotelnova & Pystina, Flora Sporovykh Rastenij SSSR. Vol. 9. Griby (3) Peronosporales, 1985.

myagri Mayor – Ber. schweiz. bot. Ges. 72: 263 (1962). Orig. coll. on *Myagrum perfoliatum* L. /CRU/, France: Départ. Tarn, near Albi, 2–7 June 1961, E. Mayor (NEU!).

myosotidis de Bary in Rabenh. – Fungi eur. 572. 1863; also in Annls Sci. nat., Bot., sér. 4, 20: 112. 1863. Orig. coll. on *Myosotis arvensis* (L.) Hill (*M. intermedia* Link) /BOR/, Germany: Baden-Württemberg, Freiburg, Apr. 1862, A. de Bary.

myosotidis de Bary in Rabenh. var. **echii** Krieger – Fungi saxon. 1881. 1905 ≡ *P. echii* (Krieger) A.A. & P.A. Jaczewski – Opredelitel' Gribov. Vol. 1, Fikomitsety: 130. 1931. Orig. coll. on *Echium vulgare* L. /BOR/, Germany: Sachsen, Herrnskretschen, 28 July 1903, W. Krieger.

myosotidis de Bary in Rabenh. var. **minor** Ch. Benois in A.A. & P.A. Jaczewski – Opredelitel' Gribov. Vol. 1, Fikomitsety: 129. 1931, *emend.* Benua & Karpova-Benua – Parazitnye griby Yakutii: 37. 1973. Orig. coll. on *Myosotis arvensis* (L.) Hill (*M. intermedia* Link) /BOR/, Russia: Yakutsia, Verkhoyansk area, between Yakutsk and river Aldan, Atakhan lake, 23 Aug. 1925, Ch. Benois (LE–!, LEP–!). Note: The material is apparently lost (V.A. Melnik, *in litt.*).

myosotidis de Bary in Rabenh. f. **pulmonariae** Lobik in Karakulin & Lobik – Mater. mikol. Obsled. Ross. 2: 33: 1916. Orig. coll. (2) on *Pulmonaria mollissima* A. Kerner /BOR/, Russia: Ufimsk Prov., Menzelinsk, Agric. Farm, 12 June ?1914; *Buglossoides arvensis* (L.) I.M. Johnston (*Lithospermum arvense* L.)/BOR/, Germany: Bayern, Bayreuth, spring 1874, coll. F. de Thümen (Thümen, Myc. univ. 251, under *P. myosotidis*).

myosuri Fuckel – Symb. mycol.: 67. 1870. Orig. coll. on *Myosurus minimus* L. /RAN/, Germany: Frankfurt a. Main, spring, C. Fellner (G+ holotype).

myosuri Fuckel f. **eranthidis-hyemalis** Pass. in Thümen – Myc. univ. 1015. 1878 ≡ *P. eranthidis-hyemalis* (Pass.) Fischer in Rabenh. [as 'eranthidis'] – Krypt-Fl. 1 (4): 475. 1892. Orig. coll. on *Eranthis hyemalis* (L.) Salisb. /RAN/, Italy: Parma, spring 1871, G. Passerini. Note: Two specimens 'ex herb. de Thümen', collected Apr. 1871, are deposited at NEU!.

narbonensis Gäum. – Beitr. KryptogFl. Schweiz 5(4): 216. 1923. = *P. narbonensis* Gäum. – Mitt. naturf. Ges. Bern (1919): 179. 1920 [Nom. inval., Art. 32.1(c)]. Orig. coll. (2) on *Vicia narbonensis* L. /LEG/, Italy: Parma, Botanical Garden, May 1878, G. Passerini (Rabenh., Fungi eur. 2575, under *P. viciae*, ZT!); *V. americana* Muhl., U.S.A.: Colorado, Kremling, 21 Aug. 1898, C.L. Shear (Ell. & Ev., Fungi columb. 1489).

nasturtii-aquatici Gäum – Beih. bot. Zbl. 35 (1): 528. 1918. Orig. coll. on *Nasturtium officinale* R. Br. (*Rorippa nasturtium-aquaticum* (L.) Hayek) /CRU/, Germany: Mark Brandenburg, Prignitz, Triglitz, 4 Apr. 1896, O. Jaap (Flora Prov. Brandenb. 233).

nasturtii-montani Gäum – Beih. bot. Zbl. 35 (1): 528. 1918. Orig. coll. (2) on *Rorippa indica* (L.)Hiern. (*Nasturtium montanum* Wall. ex Benth.) /CRU/, Japan: Kanagawa-Ken, Kanazawa, 27 Nov. 1907, N. Nambu (B–!, S!); ditto, Nishigahara, Tokyo, 18 July 1899, N. Nambu (LEP!).

nasturtii-palustris S. Ito & Y. Tokunaga – Trans. Sapporo nat. Hist. Soc. 14: 31. 1935. Orig. coll. (6) on *Rorippa islandica* (Oeder) Borbás (*Nasturtium palustre* (L.) DC) /CRU/, Japan: Hokkaido, Ishikari Prov., Horomui, 1 June 1930, Y. Imai (SAPA+ holotype); Sapporo, 17 July 1924, I. Tanaka (SAPA+); ditto, 21 June 1929, M. Sakamoto (SAPA+); Russia: S. Sakhalin, Shikka (formerly in Japan), 31 July 1930, H. Otani et Y. Imai (SAPA+); Rikuchu Prov., Morioka, 20 May 1904, G. Yamada (SAPA+); ditto, 2 July 1934, K. Togashi (SAPA+).

nemophilae C.G. Shaw – Mycologia 43: 450. 1951. Orig. coll. (2) on *Nemophila pedunculata* Dougl. (*N. sepulta* Parish) /HYD/, U.S.A.: Washington, Jefferson Co., Dosewallips river, near Gamm Creek Camp, 19 June 1949, C.G. Shaw, W.D. Yerkes and M.R. Harris (WSP 20470+ holotype, BPI! isotype); California: San Mateo Co., King's Mt, 11 June 1906, W.R. Dudley (BPI!, WSP 36337+ paratypes).

nesliae Gäum [as 'nesleae'] – Beih. bot. Zbl. 35 (1): 527. 1918 ≡ *P. parasitica* (Pers. : Fr.) Fr. ssp. *nesliae* (Gäum.) Maire [as 'nesleae'] – Mém. Soc. Sci. nat. Maroc 45: 14. 1937. Orig. coll. (2) on *Neslia paniculata* (L.) Desv. /CRU/, Czechoslovakia: Bohemia, Srbsko near Karlštejn, 20 June 1902, F. Bubák (Sydow, Phyc. et Prot. 161, under *P. parasitica* – BERN!); ditto, Velvary, 21 June 1899, J.E. Kabát (Kabát, Fungi bohem. 337, under *P. parasitica*).

nicotianae Speg. – Revta argent. Hist. nat. 1: 36. 1891. Orig. coll. on *Nicotiana longiflora* Cav. /SOL/, Argentina: Palermo near Buenos Aires, 17 Dec. 1888, C. Spegazzini (LPS! holotype). Note: The type specimen consists of a few leaf fragments but I found no fungus. See also Shaw *in* Phytopathology 39: 675–676. 1949.

niessleana Berlese – Icon. Fung. Phycom.: 40. 1898. Orig. coll. on *Alliaria petiolata* (Bieb.) Cavara & Grande /CRU/ (as *Phyteuma* sp.), Czechoslovakia: Moravia. No details about the collection were provided. Note: Berlese (*op. cit.*,p. 41), corrected the host identification and changed the name to *P. parasitica* var. *niessleana* Berlese. Although in a later publication (Riv. Patol. veg. 10: 275. 1904) he used only the trinomial for this fungus, *P. niessleana* was preferred by subsequent authors.

nitens Oescu & Rădulescu – Annls scient. Univ. Jassy 18: 427. 1933. Orig. coll. (3) on *Atriplex nitens* Schkuhr /CHN/, Romania: Iaşi Distr., Copou, 29 May 1932, C.V. Oescu & I.M. Rădulescu (BPI! lectotype here selected); ditto, 14 July 1932; Pester–Copou, 4 June 1932. Note: The last two collections are not present at BPI, BUCM, IBIR or IASI, but another specimen, collected at Copou on 5 June 1932, is preserved under BUCM 2315!.

nivea (Martius) Unger [as 'Unger'] – Bot. Ztg. 5: 314. 1847 [Nom. illegit., Art. 63.1] ≡ *Botrytis nivea* Martius – Fl. crypt. erlang.: 342. 1817. Orig. coll.

on *Capsella bursa-pastoris* (L.) Medicus /CRU/, Germany: Bayern, Erlangen. Note: Conspecific with *Peronospora parasitica* (Pers. : Fr.) Fr. The citation of *Botrytis nivea* Mart. by Unger in an earlier publication (Die Exantheme der Pflanzen: 171. 1833), was considered a slip of the pen for *B. nivea* Unger (see e.g. Jørstad *in* Skr. norske Vidensk–Akad., Math.–naturv. Kl. 10: 12. 1963). However, later he (Unger, Ueber den Einfluß des Bodens auf die Vertheilung der Gewächse, nachgewiesen in der Vegetation des nordöstlichen Tirol's: 227. 1836) used the same authority name again. From the hosts listed in these two publications it is obvious that he had a very diffuse idea of the taxa involved, and mixed a number of species and even genera of Peronosporaceae. See below another interpretation of the nomenclature of this taxon.

nivea (Unger) Unger [as 'Unger'] – Bot. Ztg. 5: 314. 1847 [Nom. confusum] ≡ *Botrytis nivea* Unger [as 'Mart.'] – Die Exantheme der Pflanzen: 171. 1833 ≡ *Plasmopara nivea* (Unger) Schröter in Cohn – Krypt.-Fl. Schles. 3(1) Pilze 1: 237. 1886. Note: Eight different hosts: *Aegopodium podagraria* L. /UMB/, *Chenopodium bonus–henricus* L. /CHN/, *Geranium sylvaticum* L. /GER/, *Senecio vulgaris* L. /AST/, *Euphrasia officinalis* L. /SCR/, *Chrysosplenium alternifolium* L. /SAX/, *Isopyrum thalictroides* L. and *Ranunculus repens* L. /RAN/ belonging to 7 families, collected from Tyrol, Austria are indicated. No voucher herbarium material exists. Undoubtedly three genera, *Bremia* (on *Senecio*), *Peronospora* (on *Chenopodium*, *Euphrasia*, *Chrysosplenium*, *Ranunculus*, and possibly *Geranium*), and *Plasmopara* (on *Aegopodium*, *Isopyrum*, and possibly *Geranium*) and a larger number of species are involved. A very doubtful taxon *fide* Constantinescu *in* Mycotaxon 43: 474. 1992 (in press) who suggested the rejection of this name. See also *P. nivea* (Martius) Unger.

nivea (Unger) Unger [as 'Unger'] var. *geranii* Farlow apud Sacc. – Syll. Fung. 7: 242. 1888 [Nom. inval., Art. 32.1(c)]. Note: Saccardo *op. cit.*, Saccardo, Syll. Fung. 15: 241. 1901 and Gäumann (1923: 327) all indicated Farlow – Bull. Bussey Inst. 1: 426. 1876 as the original reference for this variety name. However, no such name was introduced by Farlow in the named publication.

nivea* (Unger) Unger [as 'Unger'] f. *pastinacae* Otth in Wartmann & Winter – Schweiz. Krypt. 701. 1880. Orig. coll. on *Pastinaca sativa* L. /UMB/, Switzerland: Bern, G. Otth (BERN!). Note: Conspecific with ***Plasmopara umbelliferarum* (Caspary) Schröter ex Wartenw.

noneae Jaczewski & Serguiejeva in A.A. & P.A. Jaczewski [as 'nonneae'] – Opredelitel' Gribov. Vol. 1, Fikomitsety: 130. 1931. Orig. coll. (2) on *Nonea lutea* (Descr.) DC and *Nonea* sp. /BOR/, Russia. No details about the collections were provided. Note: Two specimens, apparently part of the same collection, labelled *P. myosotidis* de Bary on *Nonea* sp., Russia: Kara–Czala, Garden, 20 Apr. 1929, coll. S. Rodiczew, det. M.K. Khokhriakov (LEP!) are most probably portions of the type.

norvegica Gäum. [as 'norwegica'] – Beitr. KryptogFl. Schweiz 5(4): 252. 1923. Orig. coll. on *Draba daurica* DC (*D. hirta* L.) /CRU/, Norway:

Sør–Trøndelag, Oppdal par., Kongsvoll, 8 Aug. 1880, A. Blytt (O+ holotype).

obducens* Schröter – Hedwigia 16: 129. Sept. 1877 ≡ ***Plasmopara obducens* (Schröter) Schröter in Cohn – Krypt.–Fl. Schles. 3(1) Pilze 1: 238. 1886 ≡ *Rhysotheca obducens* (Schröter) G.W. Wilson – Bull Torrey bot. Club 34: 402. 1907. Orig. coll. on *Impatiens noli–tangere* L. /BLS/, Germany: Baden–Württemberg, Geggenau near Rastatt, 6 May 1876, J. Schröter (WRSL! lectotype here selected).

obionis–verruciferae Săvul. & Rayss in Săvul. – Herb. mycol. rom. 509. 1934. Orig. coll. on *Halimione verrucifera* (Bieb.) Aellen (*Obione verrucifera* (Bieb.) Moq.) /CHN/, Romania: Buzău Distr., Balta Albă, 30 July 1933, T. Săvulescu & T. Rayss (BUCM 2317! lectotype here selected).

obliqua* Cooke – Rust, Smut, Mildew & Mould: 217. 1865 ≡ *Ovularia obliqua* (Cooke) Oudem. – Hedwigia 22: 85. 1883. Orig. coll. on *Rumex* sp. /PLG/, England. No details about the collection were provided. Note: Specimens, apparently original, have been distributed in Rabenh. Fungi eur. 789. The copy in UPS is ***Ramularia rubella* (Bon.) Nannf. (Hyphomycetes). Kalchbrenner & Cooke *in* Grevillea 9: 23. 1880 were the first to suggest that this fungus is a species of *Ramularia*.

obovata Bonorden in Rabenh. – Fungi eur. 289. 1860. Orig. coll. on *Spergula arvensis* L. /CRY/, Germany: Westfalen, *sine dat.*, H.F. Bonorden.

ochracea Cesati in Rabenh. – Herb. mycol. Ed. 2, 175. 1855 [Nom. inval., Art. 34.3]. Orig. coll. on *Arabis glabra* (L.) Bernh. (*Turritis glabra* L.) /CRU/, Italy: Vercellis, near Santhia, *sine dat.*, V. Cesati. Copies in B!, S! and M 4819!. Note: Portions of this collection were also distributed under another set of Rabenhorst's exsiccata, under the same number, 175, but as *P. ochroleuca* Cesati, *q.v.*

ochroleuca Cesati in Rabenh. – Herb. mycol. Ed. 2, 175. 1855 [Nom. inval., Art. 34.3]. Based on the same collection as *P. ochracea*, *q.v.* Note: Copies in BPI!, LE!, M 4873!, S! and ZT!. On the copy in ZT the date is 30 May 1855.

oerteliana Kühn – Hedwigia 23: 173. 1884; also in Rabenh., Fungi eur. 3177. 1884 and in Deutsche Bot. Montsschr. 2: 158. 1884. Orig. coll. on *Primula veris* L. (*P. officinalis* (L.) Hill) /PRM/, Germany: Harz Mt., Lauterberg, 2 June 1884, G. Oertel (Rabenh., Fungi eur. 3177).

omnivora* de Bary apud Gola – L'Herbario Micologico di P.A. Saccardo. Catalogo. Padova: 106. 1930 [Nom. inval., Art. 32.1(c)]. Most probably a slip of the pen for ***Phytophthora omnivora* de Bary.

omphalodis Gäum. – Beitr. KryptogFl. Schweiz 5(4): 172. 1923. Orig. coll. on *Omphalodes scorpioides* (Haenke) Schrank /BOR/, Czechoslovakia: Chotuc hill near Křinec, 9 Apr. 1900, Fr. Bubák (Sydow, Phyc. et Prot. 105, under *P. myosotidis*).

ononidis G.W. Wilson – Annls mycol. 8: 186. 1910. Orig. coll. on *Ononis repens* L. /LEG/, Germany: Rügen island, Grosse Zicker near Thiessow, 13 July 1899, P. Sydow (Sydow, Phyc. et Prot. 111, under *P. trifoliorum*).

ornithopi Gäum. – Beitr. KryptogFl. Schweiz 5(4): 207. 1923. Isotype on *Ornithopus perpusillus* L. /LEG/, Germany: Mark Brandenburg, Prignitz, Triglitz, 12 June 1916, O. Jaap (Jaap, Fungi sel. exs. 751, under *P. viciae* – BERN!).

orobi Gäum. – Beitr. KryptogFl. Schweiz 5(4): 194. 1923. Orig. coll. (2) on *Lathyrus montanus* Bernh. (*Orobus tuberosus* L.) /LEG/, Sweden: Småland, Källwik near Loftahammar, 20 June 1912, A.G. Eliasson (Sydow, Phyc. et Prot. 314, under *P. viciae* – BERN!); Switzerland: Canton Graubünden, Engadine Mt, forest between Scanfs and Sulsanna, Sept. 1916, Dora Nagel (NEU!). Note: The host of the first collection was wrongly indicated by Gäumann as *Lathyrus tuberosus* L., but later corrected by Rayss *in* Bull. trimest. Soc. mycol. Fr. 49: 387. 1933, and by Nannfeldt *in* Lundell & Nannfeldt, Fungi exsic. suec., praes. upsal. Fasc. XIII–XIV (Nr. 601–700): 35. 1938.

orontii Schröter apud Sydow – Myc. germ. 1166. 1913 [Nom. inval., Art. 32.1(c)]. Orig. coll. on *Misopates orontium* (L.) Rafin. (*Antirrhinum orontium* L.) /SCR/, Germany: Saarland, Lothringen, Kreuzberg near Forbach, 18 Sep. 1912, A. Ludwig. Note: This is most probably a slip of the pen for *P. antirrhini*. Sydow (*op. cit.*) indicated Hedwigia 13: 183. 1874 and Sacc. – Syll. Fung. 7: 255. 1888 as places where *P. orontii* was originally published. However, only *P. antirrhini* is mentioned in both references.

oxalidis Koval – Ukr. bot. Zh. 18(2): 71. 1961 [Nom. illegit., Art. 64.1]. Orig. coll. on *Oxalis obtriangulata* Maxim. /OXL/, Russia: Far East, Primorsk Region, Ussurij Distr., Kedrovaya Nature Reserve, 12 June 1952, E.Z. Koval (VLA?).

oxalidis Verwoerd & Du Plessis – S. Afr. J. Sci. 29: 314. 1932. Orig. coll. on *Oxalis pes–caprae* L. (*O. cernua* Thunb.) /OXL/, South Africa: Stellenbosch, 547 (STE?).

oxybaphi Ell. & Kellerman – J. Mycol. 1: 2. 1885. Orig. coll. on *Mirabilis nyctaginea* (Michx.) MacM. (*Oxybaphus nyctagineus* (Michx) Sweet) /NYC/, U.S.A.: Kansas, Manhattan, June 1884, Kellerman (NY holotype!, BPI isotype!).

oxytropidis Gäum. – Beitr. KryptogFl. Schweiz 5(4): 208. 1923. = *P. oxytropidis* Gäum. – Mitt. naturf. Ges. Bern (1919): 178. 1920 [Nom. inval., Art. 32.1(c)]. Orig. coll. on *Oxytropis campestris* (L.)DC /LEG/, Switzerland: Canton Graubünden, road to Albula, between Prada and Weissennstein, 6 Aug. 1916, P. Cruchet (NEU!).

pachyphragmatis–macrophylli Savintseva – Nov. Sist. niz. Rast. 11: 242. 1974. Orig. coll. on *Pachyphragma macrophyllum* (Hoffm.) N. Busch /CRU/, Russia: Kabardino–Balkar, near Khasan'ya, 25 Apr. 1971, Z.D. Savintseva (LE 142081! holotype). Note: The host is also heavily attacked by *Albugo candida*.

palustris Gäum. – Annls mycol. 16: 198. 1918. Orig. coll. on *Veronica scutellata* L. /SCR/, Denmark: Fyn, Skovlyse near Svendberg, 2 Sept. 1882, C.J. Johanson (UPS!).

panacis* Bunkina – Korean Farmacy 2: 41–44. 1957 (orig. in Korean, not seen) [Nom. inval., Art. 32.1(c)] ≡ ***Plasmopara panacis* (Bunkina) Bondarzew & Bunkina – Not. Syst. Sect. crypt. Inst. bot. Acad. Sci. USSR 13: 130. 1960 [Nom. inval., Art. 37.1]. Orig coll. (2) on *Panax ginseng* C.A. Meyer /ARL/, Russia: Primorye Region, Slavyan Distr., Suputin Nature Reserve, 27 June 1955, I.A. Bunkina (LE 43447!); ditto, 6 July 1956. One specimen, collected 8 July 1955 is at VLA!.

papaveris Tul. – C. r. hebd. Séanc. Acad. Sci., Paris 38: 1003. 1854 [Nom. inval., Art. 32.1(c)].

papaveris-pilosi Viennot–Bourgin – Bull. trimest. Soc. mycol. Fr. 69: 335. 1954. [Nom. inval., Art. 36.1]. Orig. coll. on *Papaver pilosum* Sibth. & Sm. /PAP/, France: Seine–et–Oise, Grignon, Botanical Garden, 27 Apr. 1931, G. Viennot–Bourgin (PC+ holotype).

parasitica (Pers. : Fr.) Fr. – Summa veg. Scand. 2: 493. 1849 ≡ *Botrytis parasitica* Pers. – Obs. mycol. 1: 96. 1796 ≡ *Botrytis parasitica* Pers. : Fr. – Syst. mycol. 3: 403. 1832. [Superfl. isonyms: *P. parasitica* (Pers.) Tul. – C. r. hebd. Séanc. Acad. Sci. Paris 38: 1103. 1854; *P. parasitica* Pers apud de Bary – Annls Sci. nat., Bot., sér. 4, 20: 110. 1863]. Orig. coll. on *Capsella bursa-pastoris* (L.) Medicus /CRU/. No details about the collection were provided (L–!).

parasitica (Pers. : Fr.) Fr. ssp. **biscutellae** (Gäum.) Maire – Mém. Soc. Sci. nat. Maroc 45: 14. 1937. See *P. biscutellae*.

parasitica (Pers. : Fr.) Fr. ssp. **brassicae** (Gäum.) Maire – Mém. Soc. Sci. nat. Maroc 45: 14. 1937. See *P. brassicae*.

parasitica (Pers. : Fr.) Fr. var. *brassicae* Wang [as 'parasitica Brassicae'] – Chin. J. Scient. Agric. 1(4): 254. 1944 [Nom. inval., Art. 36.1]. Orig. coll. (3) on *Brassica chinensis* L., *B. juncea* (L.) Czern. and *B. oleracea* L. /CRU/, China: Guizhou Prov., Meitan and Sichuan Prov., Chengdu Reg.

parasitica (Pers. : Fr.) Fr. var. *capsellae* Wang [as 'parasitica Capsellae'] – Chin. J. Scient. Agric. 1(4): 254. 1944 [Nom. inval., Art. 36.1]. Orig. coll. on *Capsella bursa-pastoris* (L.) Medicus /CRU/, China: Guzhou Prov., Meitan and Sichuan Prov., Chengdu Reg.

parasitica (Pers.) de Bary f. **drabae–vernae** Rabenh. – Fungi eur. 2346. 1876. Orig. coll. on *Erophila verna* (L.) Chevall. (*Draba verna* L.) /CRU/, Germany: Gaschwitz near Leipzig, 9 Apr. 1877, B. Frank. Note: The year of the collection is certainly wrong.

parasitica (Pers. : Fr.) Fr. ssp. **erysimi** (Gäum.) Maire – Mém. Soc. Sci. nat. Maroc 45: 14. 1937. See *P. erysimi*.

parasitica (Pers. : Fr.) Fr. ssp. *euparasitica* Maire [as 'eu–parasitica'] – Mém. Soc. Sci. nat. Maroc 45: 14. 1937. [Nom. inval., Art. 36.1, and nom. illegit., Art. 63.1]. Orig. coll. (2) on *Capsella bursa-pastoris* (L.) Medicus /CRU/, Algeria: Tazzeca Mt., R. Maire & R.G. Werner; *Hornungia petraea* (L.) Reichenb., Algeria: Zaglach Mt., near Fés, R. Maire & R.G. Werner MPU?).

parasitica (Pers. : Fr.) Fr. f. sp. *galligena* (Blumer) Boerema & Verhoeven – Neth. J. Pl. Path. 78 (Suppl. 1): 33. 1972 ≡ *P. galligena* Blumer.

parasitica de Bary var. **lepidii** McAlp. – Proc. R. Soc. Vict., N.S. 7: 221. 1895 ≡ *P. lepidii* (McAlp.) G.W. Wilson – Mycologia 6: 198. 1914. Orig. coll. on *Lepidium ruderale* L. /CRU/, Australia, Victoria, Goulburn Valley, Robinson 108.

parasitica (Pers. : Fr.) Fr. ssp. **nesliae** (Gäum.) Maire [as 'neslea'] – Mém. Soc. Sci. nat. Maroc 45: 14. 1937. See *P. nesliae.*

parasitica (Pers.: Fr.) Tul. [as'(Pers.) Tul.'] var. **niessleana** Berl. – Icon. Fung., Phycomycetes, Fasc. 1: 41. 1898 [Nom. nov.; replaces *P. niessleana* Berl.].

parasitica (Pers. : Fr.) Fr. [as 'Tul.'] var. *papaveris* (Tul.) Ohmüller [as 'Tul.'] – Ber. Bot. Ver. Landshut 4: 52. 1873 [Nom. inval., Art. 32.1(c)]. Based on *P. papaveris* Tul., q.v.

parasitica (Pers. : Fr.) Fr. var. *raphani* Wang [as 'parasitica Raphani'] – Chin. J. Scient. Agric. 1(4): 254. 1944 [Nom. inval., Art. 36.1]. Orig. coll. on *Raphanus sativus* L: /CRU/, China: collection not mentioned.

parietariae* Roum. – Revue mycol. 5: 180. 1883 [Nom. inval., Art. 32.1(c)]. Orig. coll. on *Parietaria diffusa* Mert. & Koch /URT/, France: Seine–et–Marne, Chailly, Feb. 1883, Feuilleaubois (Roum., Fungi gall. 2553). Note: According to Farlow *in* Bot. Gaz. 8: 332. 1883 the specimen in FH is a *Ramularia*. The copies at NEU! and UPS! contain ***Ramularia parietariae* Pass. (Hyphomycetes).

parietariae Vanev & Dimitrova – Fitologiya 34: 55. 1988. Orig. coll. on *Parietaria officinalis* L. (*P. erecta* Mert. & Koch.) /URT/, Bulgaria: Mt. Belasitsa, near Petrich, 18 Nov. 1980, S. Vanev and E. Dimitrova (SOM 15548 M! holotype).

parva Elenev [as 'Perenospora'] – Khozyain (7): 7. 1922 [Nom. inval., Art. 32.1(c). Only the symptoms were described]. Orig. coll. on *Fagopyrum esculentum* Moench /PLG/, Russia: Moskva Prov. Note: Jaczewski & Jaczewski, Opredelitel' Gribov. Vol. 1 – Fikomitsety: 156. 1931 emended the description and changed the name to *P. fagopyri* Elenev, *q.v.*

parva Gäum. – Beitr. KryptogFl. Schweiz 5(4): 55. 1923. Orig. coll. (4) on *Stellaria holostea* L. /CRY/, Czechoslovakia: Bohemia, Tábor, 12 Oct. 1903, F. Bubák (Sydow, Phyc. et Prot. 201, under *P. alsinearum* – BERN!); *S. calycantha* (Ledeb.) Bong (*S. borealis* Bigelow), Norway: Sør–Trøndelag, Oppdal par., Aug., A. Blytt (O–, UPS!); *S. graminea* L., Switzerland: Canton Neuchâtel, Saint–Blaise, near lake, vegetable gardens, 11 Oct. 1913, E. Mayor (BPI!, NEU!); *S. alsine* Grimm (*S.*

uliginosa Murray), Germany: Wannsee near Berlin, June 1892, P. Sydow (Sydow, Myc. march. 3597, under *P. arenariae*).

parvula Schneider ex A.A. & P.A. Jaczewski – Opredelitel' Gribov. Vol. 1, Fikomitsety: 158. 1931, *emend.* Benua & Karpova–Benua – Parazitnye griby Yakutii: 51. 1973. = *P. parvula* Schneider apud Sacc. – Syll. Fung. 7: 264. 1888 [Nom. inval., Art. 32.1(c)] ≡ *Plasmopara parvula* (Schneider ex A.A. & P.A. Jaczewski) [as 'Schneider'] Skalický – Preslia 26: 132. 1954. Orig. coll. (2) on *Leptopyrum fumarioides* (L.) Reichenb. (*Isopyrum fumarioides* L.) /RAN/, Russia: Yakutsia, Okhotsk area, Amga river, 24 July 1925; right bank of the river Lena, above Yakutsk, Rossolod, 2 July 1926, Ch. Benois (LE–!, LEP–!). Note: The material is apparently lost (V.A. Melnik, *in litt.*).

patriniae Kalymbetov – Trud. Inst. Bot. Akad. Nauk Kazakh SSR 11: 209. 1961. Orig. coll. on *Patrinia intermedia* (Hornem.) Roemer & Schultes /VAL/, Kazakhstan: Zailijskij Alatau, Talgarska fissure, 24 July 1935, G.S. Nevodovski (AA, LE 24534!).

paula A. Gust. – Op. bot., Lund 3(1): 45. 1959. Orig. coll. on *Cerastium semidecandrum* L. /CRY/, Sweden: Gotland, Visby, Visborgsslätt, 5 June 1953, A. Gustavsson 2743 (LD! holotype).

pedicularis B. Palm – Svensk bot. Tidskr. 5: 357. 1911. Orig. coll. on *Pedicularis lapponica* L. /SCR/, Sweden: Norrbotten: Abisko, Björkliden, Vaggejokk, 1909, B. Palm (S!).

pennsylvanica Gäum. – Beitr. KryptogFl. Schweiz 5(4): 118. 1923. Orig. coll. on *Ranunculus pennsylvanicus* L. /RAN/, U.S.A.: New York, Ithaca, 29 June 1911, B.B. Higgins (Bartholomew, Fungi columb. 3532, under *P. ficariae*).

pepli* Durieu de Maisonneuve – Act. Soc. linn. Bordeaux 20: 13. 1855. [Nom. inval., Art. 32.1(c); only the symptoms were described, and Art. 34.1(b).]. Orig. coll. (3) on *Euphorbia peplus* L. /EUP/, France: Paris, author's garden, summer 1852; ditto, June 1853; Bordeaux, author's garden, Sept. 1853. Note: According to de Bary *in* Annls Sci. nat., Bot., sér. 4, 20: 126. 1863 this is ***Erysiphe* sp. (Ascomycetes).

perillae Miyabe in S. Ito & Y. Tokunaga – Trans. Sapporo nat. Hist. Soc. 14: 29. 1935. Orig. coll. on *Perilla frutescens* (L.) Britt. var. *crispa* (Thunb.) Deane /LAB/, Japan: Honshu, Shimotsuke Prov., Utsunomiya, 16 July 1926, R. Kikuchi (SAPA+ holotype).

phacae Gäum. – Beitr. KryptogFl. Schweiz 5(4): 208. 1923. = *P. phacae* Gäum. – Mitt. naturf. Ges. Bern (1919): 178. 1920 [Nom. inval., Art. 32.1(c)]. Orig. coll. on *Astragalus alpinus* L. or *A. penduliflorus* Lam. (*Phaca alpina* L.) /LEG/, Switzerland: Canton Graubünden, Oberengadin, Silvaplana, 25 Aug. 1915, Ed. Fischer (BERN!, two specimens).

phlogina Dietel & Holway – Bot. Gaz. 19: 306. 1894. Orig. coll. on *Phlox divaricata* L. /PLM/, U.S.A.: Iowa, Decorah, 10 June 1888, E.W.D. Holway (BPI!, NY!).

phyteumatis Fuckel – Fungi rhen. 1604. 1866. Orig. coll. on *Phyteuma nigrum* F.W. Schmidt /CAM/, Germany: Hessen, Heimbach near Östrich.

phyteumatis Otth [as '(Fuck.?) Otth'] – Mitt. naturf. Ges. Bern (1868): 64. 1869 [Nom. illegit., Art. 64.1]. Orig. coll. on *Phyteuma spicatum* L. /CAM/, Switzerland: Bremergartenwald, G. Otth (BERN!).

pisi H. Sydow in Gäum. – Beitr. KryptogFl. Schweiz 5(4): 209. 1923. = *P. pisi* Sydow – Myc. germ. 1520. 1921 [Nom. inval., Art. 32.1(c)] ≡ *P. viciae* (Berk.) Caspary f. sp. *pisi* (H. Sydow) Boerema & Verhoeven – Neth. J. Pl. Pathol. 85: 166. 1979. Orig. coll. (2) on *Pisum sativum* L. /LEG/, Poland: Kostrzyn (formerly Tamsel near Küstrin in Germany), July 1904, P. Vogel (Sydow, Phyc. et Prot. 224, under *P. viciae* – BERN!); India: Pusa, 2 Feb. 1907, E.J. Butler (B–!).

plantaginis Underwood – Bull. Torrey bot. Club 24: 83. 1897. Orig. coll. on *Plantago aristata* Michx /PTG/, U.S.A.: Alabama, Auburn, May 1896, F.S. Earle (NY! holotype).

pocutica Majewski – Acta mycol., Warszawa 5: 14. 1969. Orig. coll. on *Rhinanthus angustifolius* C.C. Gmelin (*R. serotium* (Schönheit) Oborny) /SCR/, Ukraine: Oseredok near Kolomyja, 13 June 1913, A. Wróblewski (Inst. of Phytopath., School of Agric., Warszawa). Another specimen, collected June 1914 is at ZT!.

podagrariae* Otth in Trog – Mitt. naturf. Ges. Bern (1857): 45. 1857 ≡ ***Plasmopara podagrariae* (Otth in Trog) Nannf. in Lundell & Nannfeldt – Fungi exsic. suec. praes. upsal. Fasc.XXXIII–XXXIV (Nr. 1601–1700): 34. 1948. Orig. coll. on *Aegopodium podagraria* L. /UMB/, Switzerland: Bern, *sine dat.*, G. Otth (BERN!).

polycarpi Mayor & Viennot–Bourgin [as 'polycarponis'] – Rev. Mycol. 15: 82. 1950. Orig. coll. (2) on *Polycarpon tetraphyllum* (L.) L. /CRY/, France: Hérault, near Montpellier, 6 June 1948, E. Mayor and G. Viennot–Bourgin (NEU!, PC+); ditto, 10 June 1941, coll. G. Kuhnholtz–Lordat (PC+); Corse, Ajaccio, 21 May 1949, E. Mayor et G. Viennot–Bourgin (NEU!, PC+).

polygoni (Thümen) A. Fischer [as 'Thümen'] in Rabenh. – Krypt.–Fl. 1(4): 481. 1892. See *P. effusa* var. *polygoni*.

polygoni Halsted apud Sacc. – Syll. Fung. 17: 522. 1905 [Nom. inval., Art. 32.1(c)]. A slip of the pen for *P. polygoni* Thümen.

polygoni–convolvuli A. Gust. – Op. bot., Lund 3(1): 19. 1959. Orig. coll. on *Bilderdykia convolvulus* (L.) Dumort (*Polygonum convolvulus* L.) /PLG/, Sweden: Gotland, Garda, 500 m. S of the parish church, 21 Aug. 1952, A. Gustavsson 2124 (LD! holotype).

portoricensis* (Lamkey in Stevens) Skalický – Preslia 38: 127. 1966 ≡ *Peronoplasmopara portoricensis* Lamkey in Stevens – Mycologia 12: 52. 1920 ≡ *Pseudoperonospora portoricensis* (Lamkey in Stevens) Curzi – Riv. Pat. Veg. Pavia 16: 234. Oct. 1926 ≡ ***Plasmopara portoricensis* (Lamkey in

Stevens) Waterhouse [as 'Waterhouse'] – Mycol. Pap. 148: 23. 1981. [Superfl. isonyms: *Pseudoperonospora portoricensis* (Lamkey in Stevens) Seaver & Chardon – Scient. Survey Porto Rico Virg. Isl. 8 (1) Bot.: 13. Dec. 1926; *Pseudoperonospora portoricensis* (Lamkey in Stevens) Hoerner – J. Wash. Acad. Sci. 30: 134. 1940]. Orig. coll. (2) on *Melia azedarach* L. /MEL/, U.S.A.: Puerto Rico, Guanica, 1914, coll. F.L. Stevens 6852, det. Lamkey (ILL–); Puerto Rico, Florida Adentro, 1 July 1915, coll. F.L. Stevens 7687, det. Lamkey (ILL 2238+, IMI 43204!, K!, NY!).

pospelovii Gaponenko – Semejstvo Peronosporaceae Srednej Azii i Yuzhnogo Kazakhstana: 316. 1972 [Nom. dubium]. Orig. coll. on *Aster dahuricus* Benth. ex Baker (*Galatella dahurica* DC) /AST/, Kirgizstan: Tian'shan Region, Kachkor Distr., Chekyldyk farm, 26 July 1946, A.G. Pospelov (TASM!). Note: The original description was based on the examination of conidia, and on a drawing made by the collector. In the absence of the type examination I considered this species doubtful (Constantinescu *in* Sydowia 41: 105. 1989). The type became later available and on both the specimen and in the microscopic slide attached to the packet I only found *Aspergillus* sp. (Hyphomycetes).

potentillae de Bary – Annls Sci. nat., Bot., sér. 4, 20: 124. 1863. Orig. coll. on *Potentilla aurea* L. /ROS/. No collection was indicated, but the collector, Munter. Note: See Skalický *in* Folia geobot. phytotax., Praha 18: 87–90. 1983, and Hall *in* IMI Descr. Path. Fungi & Bact. No. 1061. 1991.

potentillae de Bary var. *alchemillae* Niessl – Verh. Naturf. Ver. Brünn 3: 69. 1865 [Nom. inval., Art. 32.1(c)].

potentillae de Bary var. **gei** Trail – Scott. Nat. NS 3: 84. 1887. Orig. coll. on *Geum rivale* L. /ROS/, Scotland: Dee, Balgownie near Aberdeen, Aug. 1886, Trail (ABD holotype).

potentillae de Bary var. *poterii* Niessl – Verh. Naturf. Ver. Brünn 3: 69. 1865 [Nom. inval., Art. 32.1(c)].

potentillae–americanae Gäum. apud Petrak – Just's bot. Jber. 56 (1928), Abt. 2: 542. 1937 [Nom. inval., Art. 32.1(c)]. A slip of the pen for *P. potentillae–anserinae* Gäum.

potentillae–anserinae Gäum. – Beitr. KryptogFl. Schweiz 5(4): 292. 1923. Orig. coll. on *Potentilla anserina* L. /ROS/, Germany: Zehlendorf near Berlin, 4 Aug. 1900, P. Sydow (Sydow, Phyc. et Prot. 109, under *P. potentillae* – BERN!).

potentillae–reptantis Gäum. – Beitr. KryptogFl. Schweiz 5(4): 293. 1923. Orig. coll. (3) on *Potentilla reptans* L. /ROS/, Germany: Rüdersdorf near Berlin, 11 June 1899, P. Sydow (Sydow, Phyc. et Prot. 70, under *P. potentillae* – BERN!); *P. recta* L., Russia: Kharkov, 30 June 1909, O. Treboux (B–!, LEP!); *P. supina* L., Poland: Silesia, Legnica (formerly Liegnitz in Germany), Aug. 1870, J. Gerhardt (B–!). Note: See Skalický *in* Folia geobot. phytotax., Praha 18: 92–94. 1983.

potentillae–sterilis Gäum. – Beitr. KryptogFl. Schweiz 5(4): 294. 1923. Orig. coll. on *Potentilla sterilis* (L.) Garke /ROS/, Germany: Hessen, near Bad Nauheim, 10 Sept. 1898, O. Jaap (Jaap, Fungi sel. exs. 30, under *P. potentillae* – BERN!).

pratensis H. Sydow in Gäum. – Beitr. KryptogFl. Schweiz 5(4): 213. 1923. Orig. coll. (3) on *Trifolium pratense* L. /LEG/, Switzerland: Canton Bern, along the road between Bözingen and Pieterlen, June 1916, E. Gäumann (BERN–!, ZT–!); *T. medium* L., Sweden: Öland, N. of Borgholm, July 1917, E. Gäumann (BERN–!, ZT–!); *T. incarnatum* L., Germany: Berlin, Botanical Garden, 4 July 1898, P. Hennings (B–!).

pulmonariae Gäum. – Bull. Soc. neuchâtel. Sci. nat. 306: 8. 1919. Orig. coll. on *Pulmonaria officinalis* L. /BOR/, France: Marly forest near Paris, summer 1890, L. Mangin (PC+ holotype).

pulmonariae A.A. & P.A. Jaczewski – Opredelitel' Gribov. Vol. 1, Fikomitsety: 130. 1931 [Nom. illegit., Art. 64.1]. Orig. coll. on *Pulmonaria mollissima* A. Kerner /BOR/, Russia. No details about the collection were provided (LE–!, LEP–!). Note: Although no formal combination was made, *P. myosotidis* de Bary f. *pulmonariae* Lobik is mentioned as synonym.

pulveracea Fuckel – Fungi rhen. 1. 1863. Orig. coll. on *Helleborus foetidus* L. /RAN/, Germany: Hessen, Wisperthal near Lorch, spring.

pusilla* de Bary – Annls Sci. nat., Bot., sér. 4, 20: 106. 1863 ≡ ***Plasmopara pusilla* (de Bary) Schröter in Cohn – Krypt.-Fl. Schles. 3(1) Pilze 1: 237. 1886. Orig. coll. (2) on *Geranium pratense* L. /GER/, Germany: No details about the collection were provided (Fuckel, Fungi rhen. 26, under *P. pygmaea* Unger); *G. sylvaticum* L., Germany: Schwarzwald Mt., coll. L. Fuckel.

pygmaea* (Unger) Unger – Bot. Ztg. 5: 315. 1847 ≡ *Botrytis pygmaea* Unger – Die Exantheme der Pflanzen: 172–173. 1833 ≡ ***Plasmopara pygmaea* (Unger) Schröter in Cohn – Krypt.-Fl. Schles. 3(1) Pilze 1: 239. 1886. Orig. coll. (?2) on *Anemone nemorosa* L. and *Hepatica nobilis* Miller (*Anemone hepatica* L.) /RAN/, Austria: Tyrol. No details about the collections were provided.

pygmaea* (Unger) Unger var. *elongata* de Bary – Annls Sci. nat., Bot., sér. 4, 20: 107. 1863. Orig. coll. on *Anemone nemorosa* L., *A. ranunculoides* L. and *Hepatica nobilis* Miller /RAN/, Germany. Note: Conspecific with ***Plasmopara pygmaea* (Unger) Schröter.

pygmaea* (Unger) Unger var. *vulgaris* de Bary – Annls Sci. nat., Bot., sér. 4, 20: 107. 1863. Orig. coll. on *Anemone nemorosa* L., *A. ranunculoides* L. and *Hepatica nobilis* Miller /RAN/, Germany. Note: Conspecific with ***Plasmopara pygmaea* (Unger) Schröter.

radii de Bary – Annls Sci. nat., Bot., sér. 4, 20: 48. 1863 (description repeated at page 121). Orig. coll. on *Matricaria perforata* Mérat (*Tripleurospermum inodorum* Schultz Bip.) /AST/, mostly in flowers, Germany: Baden-Württemberg, Freiburg, summer 1862, A. de Bary (Rabenh., Fungi eur. 573). Note: See Constantinescu *in* Sydowia 41: 99. 1989.

radii de Bary var. **epiphylla** Poirault – Bull. Assoc. Nat. Nice. 2(3): 9. 1915. Orig. coll. on *Coleostephus myconis* (L.) Reichenb. fil. (*Chrysanthemum myconis* L.) /AST/, France: Alpes-Maritimes, Cap d'Antibes. No details about the collection were provided. Note: Conspecific with *P. radii* de Bary, *fide* Constantinescu *in* Sydowia 41: 101. 1989.

radii de Bary f. *foliicola* Lind in Sydow – Phyc. et Prot. 309. 1913 [Nom. inval., Art. 32.1(c)]. Orig. coll. on *Chrysanthemum segetum* L. /AST/, Denmark: near Lyngby, 7 Oct. 1913, J. Lind. See *P. danica*. Note: Conspecific with **P. radii** de Bary, *fide* Constantinescu *in* Sydowia 41: 101. 1989.

ranunculi Gäum. – Beitr. KryptogFl. Schweiz 5(4): 116. 1923. = *P. ranunculi* Gäum. – Mitt. naturf. Ges. Bern (1919): 183. 1920 [Nom. inval., Art. 32.1(c)]. Orig. coll. (9) on *Ranunculus* spp. /RAN/. *R. repens* L., Germany: Brandenburg, Rangsdorf near Zossen, May 1882, P. Sydow (Sydow, Myc. march. 331, under *P. ficariae*); *R. alpestris* L., Switzerland: Canton Graubünden, Col de l'Albula, 6 Aug. 1916, E. Mayor (NEU!); *R. bulbosus* L., Switzerland: Canton Vaud, Montagny, behind the vicarage, 15 May 1902, D. Cruchet (BERN–!, ZT–!); *R. flammula* L., Switzerland: Canton Vaud, Pâtinaire de Payerne, 25 Aug. 1911, P. Cruchet (BERN–!, ZT–!); *R. montanus* Willd., Switzerland: Canton Vaud, forest above Plan Praz and Tressalayre, around Leysin, 27 June 1917, E. Mayor (NEU!); *R. pedatus* Waldst. & Kit., Russia: Kharkov, 15 Apr. 1910, O. Treboux (B–!, S!); *R. polyanthemos* L., Poland: Silesia, Legnica (formerly Liegnitz in Germany), June 1875, J. Gerhardt (B–!); *R. sceleratus* L., Hungary: Györ–Sopron Co., Mosonmagyaróvár (formerly Altenburg and Magyaróvár), beginning of May 1883, G. Linhart (Linhart, Fungi hung. 190, under *P. ficariae*); *R. velutinus* Ten., Italy: around Modena, Apr. 1881, A. Mori (S!).

ranunculi–carpatici Săvul. & Rayss – Annls mycol. 30: 365. 1932. Orig. coll. on *Ranunculus carpaticus* Herbich /RAN/, Romania: Prahova Distr., Sinaia, 18 May 1931, T. Săvulescu & T. Rayss (BUCM 2510! holotype).

ranunculi–flabellati Viennot–Bourgin – Bull. trimest. Soc. mycol. Fr. 69: 335. 1954. [Nom. inval., Art. 36.1]. Orig. coll. on *Ranunculus paludosus* Poiret (*R. chaerophyllos* L.) /RAN/, France: Seine–et–Oise, Grignon, Botanical Garden, May 1937, G. Viennot–Bourgin (PC+ holotype).

ranunculi–oxyspermi Jaczewski & Serguiejeva in A.A. & P.A. Jaczewski – Opredelitel' Gribov. Vol. 1, Fikomitsety: 160. 1931. Orig. coll. on *Ranunculus oxyspermus* Willd. /RAN/, Russia. No details about the collection were provided. Note: A specimen collected from Azerbajdzhan, Khanlar Distr., Eilnendorf, 26 Apr. 1929, coll. Brezhnev 2342, det. A.A. Jaczewski (LEP!) is most probably the type.

ranunculi–peduncularis Roivainen var. **ranunculi–minutiflori** Roivainen – Karstenia 17: 4. 1977. Orig. coll. on *Ranunculus minutiflorus* Smith /RAN/, Chile: Tierra del Fuego, Lago Escondido, Refugio, 9 Dec. 1969, H. Roivainen 925 (H holotype, NY! isotype).

ranunculi–peduncularis Roivainen var. **ranunculi–peduncularis** – Karstenia 17: 4. 1977. Orig. coll. on *Ranunculus peduncularis* Smith /RAN/, Chile: Tierra del Fuego, Lapataia, 13 Jan. 1970, H. Roivainen 1775 (H holotype, BPI!, NY!, ZT! isotypes).

ranunculi–sardoi Săvul. & Rayss – Annls mycol. 28: 304. 1930; also in Săvul. – Herb. mycol. rom. 133. 1930. Orig. coll. on *Ranunculus sardous* Crantz /RAN/, Romania: Vâlcea Distr., Râmnicu Vâlcea, 27 Apr. 1927, T. Săvulescu & T. Rayss, (BUCM 60133! lectotype here selected).

ranunculi–steveni Săvul. & Rayss – Annls mycol. 28: 306. 1930. Orig. coll. on *Ranunculus acris* L. ssp. *acris* /RAN/, Romania: Braşov Distr., Predeal, 25 May 1930, T. Săvulescu & T. Rayss (BUCM 2494! lectotype here selected). Note: Host initially identified as *R. stevenii* Andrz but corrected by G. Negrean.

rapistri Jaczewski & Serguiejeva in A.A. & P.A. Jaczewski [as 'rapistrae'] – Opredelitel' Gribov. Vol. 1, Fikomitsety: 143. 1931. Orig. coll. on *Rapistrum rugosum* (L.) All. /CRU/, Russia. No details about the collection were provided. Note: A specimen collected from Azerbajdzhan, Akstafin Distr., Akstafa, near the railway station, 11 June 1929, coll. V.I. Uljanishchev 2341, det. A.A. Jaczewski (LEP!) is most probably the type.

rapistri Oescu & Rădulescu – Annls scient. Univ. Jassy 18: 434. 1933. [Nom. illegit., Art. 64.1]. Orig. coll. (9) on *Rapistrum perenne* (L.) All. /CRU/, Romania: Iaşi Distr., Copou, 3 June 1932 (BUCM 2512! lectotype here selected; BPI! isolectotype); ditto, 20 Oct 1932; Mârzeşti, 1 July 1932; Capul Rediului, 8 July 1932; Aroneanu, 22 July 1932; Valea Lungă–Ruseni, 28 July 1932; Movileni, 9 Aug 1932; Larga, 12 Aug 1932; Bălţi, 25 July 1932. Note: The last eight specimens are not deposited at BPI, BUCM or IBIR.

rhaetica Gäum. – Beitr. KryptogFl. Schweiz 5(4): 251. 1923. Orig. coll. on *Sisymbrium strictissimum* L. /CRU/, Switzerland: Canton Graubünden, Engandine Mt., Schuls, 7 Aug. 1916, E. Mayor (NEU!).

ribicola* Schröter – Jber. schles. Ges. vaterl. Cult. 60: 178–179. 1883 [Nom. inval., Art. 32.1(c)]. = ***Plasmopara ribicola* Schröter in Cohn – Krypt.-Fl. Schles. 3(1) Pilze 1: 238. 1886 ≡ *Rhysotheca ribicola* (Schröter) G.W. Wilson – Bull. Torrey bot. Club 34: 410. 1907.

**ribis* Schröter in Sydow – Myc. march. 2865. 1889 [Nom. inval., Art. 32.1(c)]. Orig. coll. on *Ribes* sp. /GRS/, Germany: Risdorf, Späth'sche Baumschulen, Oct. 1889, P. Sydow. Note: The copies in S and UPS contain no fungus.

rocheliae Kalymbetov – Trud. Inst. Bot. Akad. Nauk Kazakh SSR 11: 206. 1961. Orig. coll. on *Rochelia bungei* Trautv. /BOR/, Kazakhstan: Zailijskij Alatau, bottom of the pass Csemolgan, 1 June 1958, B. Kalymbetov (AA).

rocheliae Kalymbetov f. **cardiosepalae** Gaponenko – Semejstvo Peronosporaceae Srednej Azii i Yuzshnogo Kazakhstana: 281. 1972. Orig. coll. on *Rochelia cardiosepala* Bunge /BOR/, Kazakhstan: Chan–tau, near station Espe, 28 May 1958, Z.M. Byzova (TASM).

roemeriae Zaprometov [as 'roemerii'] – Materialy po mikoflore Srednej Azii 2: 8. 1928. Orig. coll. on *Roemeria refracta* (Stev.) DC (*R. rhoediflora* Boiss.) /PAP/, Uzbekistan: Tashkent, Yalangach, 2 Apr. 1926, N.G. Zaprometov (LEP! holotype).

romanica Săvul. & Rayss in Săvul. – Herb. mycol. rom. 226. 1931 [Nom. et stat. nov., as 'nov. spec.'; replaces *P. aestivalis* Sydow f. *medicaginis–falcatae* Săvul. & Rayss].

romanica Săvul. & Rayss f. **lavrenkoi** Gaponenko – Semejstvo Peronosporaceae Srednej Azii i Yuzhnogo Kazakhstana: 240. 1972. Orig. coll. on *Medicago lavrenkoi* Vass. /LEG/, Uzbekistan: Bostandyk Distr., Mountain Station of the Inst. Bot. Acad. Sci. Uzbekistan, May 1966, F. Fajzieva (TASM).

romanica Săvul. & Rayss f. **transoxanae** Fajzieva in Gaponenko – Semejstvo Peronosporaceae Srednej Azii i Yuzhnogo Kazakhstana: 240. 1972. Orig. coll. on *Medicago transoxana* Vass. /LEG/, Uzbekistan: Bostandyk Distr., Mountain Station of the Inst. Bot. Acad. Sci. Uzbekistan, May 1966, F. Fajzieva (TASM).

rorippae–islandicae Gäum [as 'roripae–islandicae'] – Beih. bot. Zbl. 35 (1): 527. 1918. Orig. coll. (4) on *Rorippa islandica* (Oeder) Borbás /CRU/, Germany: Dahlem near Berlin, Oct. 1895, P. Sydow (Sydow, Myc. march. 4327, under *P. parasitica*); Czechoslovakia: Bohemia, Velvary, 9 June 1900, J.E. Kabát (Kabát, Fungi bohem. 608, under *P. parasitica*); *R. sylvestris* (R.) Besser, Poland: Sołtysowice near Wrocław (formerly Schottwitz near Breslau in Germany), J. Schröter (Schröter, Pilze schles. 528, under *P. parasitica*); Poland: Silesia, Legnica (Liegnitz), end of Oct., 1870, J. Gerhardt (B–!). Note: Gäumann *op. cit.*, gives the number of Schröter's exsiccata as 371. This number, placed on the label before the fungus name, is the consecutive number of the species as it appears in Schröter in Cohn - Krypt.-Fl. Schles. 3(1) Pilze 1: 244. 1886. The actual number of the exsiccata is printed on the right lower corner of the label! (T. Majewski *in litt.*, who also provided copy of the original label).

rosae–gallicae Săvul. & Rayss in Săvul.– Herb. mycol. rom. 329. 1932. Orig. coll. on *Rosa gallica* L. /ROS/, Romania: Buzău Distr., Buzău, 15 June 1932, T. Săvulescu & T. Rayss (BUCM 2602! lectotype here selected). Note: Conspecific with *P. sparsa* Berk., *fide* Waterhouse & Brothers *in* Mycol. Pap. 148: 24. 1981, and Skalický *in* Folia geobot. phytotax., Praha 18: 97. 1983.

rossica Gäum. - Beitr. KryptogFl. Schweiz 5(4): 135. 1923. Orig. coll. on *Dracocephalum thymiflorum* L. /LAB/, Russia: Tambov Prov., near Arapovo Distr., 25 May 1910, I. Shiraevskij (Tranzschel & Serebrianikov, Myc. ross. 151, under *P. lamii* - BERN!).

rubi Rabenh. ex Schröter in Cohn – Krypt.-Fl. Schles. 3 (1), Pilze 1: 250. 1886. = *P. rubi* Rabenh. – Fungi eur. 2676. 1881 [Nom. inval., Art. 32.1(c)]. Orig. coll. (3) on *Rubus caesius* L. /ROS/, Poland: Silesia, Piekary Wielkie near Legnica (formerly Gross–Beckern near Liegnitz in Germany), Sept. 1871, J. Gerhardt (WRSL!); *R. fruticosus* L. /ROS/, Germany: Sachsen, near Pfaffenstein and Königstein, 17 Sept. 1881, W. Krieger in Rabenh. Fungi eur. 2676; Poland: Silesia, near Legnica, a place formely called 'Unterförsterei Rehberg' but not longer in existence, Sept. 1871, J. Gerhardt (WRSL!). Note: See also Skalický *in* Folia geobot. phytotax., Praha 18: 94–96. 1983 and Hall *in* CMI Descr. Path. Fungi & Bact. No. 976. 1989 (repeated *in* Mycopathologia 106: 195–197. 1989).

rubiae Gäum. – Beitr. KryptogFl. Schweiz 5(4): 250. 1923. Orig. coll. on *Rubia tinctorum* L. /RUB/, Italy: Castelnuovo, 1 May 1914, O. Jaap (B–!).

ruegeriae Gäum. – Beitr. KryptogFl. Schweiz 5(4): 221. 1923. Orig. coll. on *Onobrychis viciifolia* Scop. (*O. sativa* Lam.) /LEG/, Switzerland: Canton Bern, Madretsch near Biel, May 1918, M. Rueger–Wüscher (BERN! holotype).

rufibasis* Berk. & Broome – Ann. Mag. nat. Hist., Ser. 4, 15: 34. Jan. 1875; also in Grevillea 3: 183. May 1875 ≡ *Ovularia rufibasis* (Berk. & Broome) Massee – Br. Fung. Fl. 3: 322. 1893 ≡ ***Ramularia rufibasis* (Berk. & Broome) Gunnerbeck & O. Const., **comb. nov.** (Hyphomycetes). Orig. coll. on *Myrica gale* L. /MYR/, England: Glamis, J. Stevenson, (K!). Note: This is conspecific with, and antedates *Ramularia destructiva* Phill. & Plowr. – Grevillea 6: 22. 1877 ≡ *Isariopsis destructivum* (Phill. & Plowr.) U. Braun – Nova Hedwigia 47: 338. 1988 ≡ *Phacellium destructivum* (Phill. & Plowr.) U. Braun – Nova Hedwigia 50: 509. 1990.

rugosa A.A. & P.A. Jaczewski – Opredelitel' Gribov. Vol. 1, Fikomitsety: 167. 1931. Orig. coll. on *Brachybotrys paridiformis* Maxim. ex Olivier /BOR/, Russia. No details about the collection were providede. Note: Two portions of the same collection, from Russia, Vladivostok Distr., Sujfun Raion, near the town of Kondratenk, forest on the river Kamenyshk, 3 June 1927, V. Tranzschel (LE 43421!, LEP!) belong, most probably, to the type.

rumicis Corda – Icon. Fung. 1: 20. 1837. Orig. coll. on *Rumex acetosella* L. /PLG/, Czechoslovakia: Bohemia, pre 1837, A.C.I. Corda (PRM 155590! holotype). Note: This is the type species of the genus *Peronospora*.

rumicis–rosei Rayss – Palest. J. Bot., J. Ser. 3: 154. 1946. Orig. coll. (2) on *Rumex cyprinus* Murb. (*R. roseus* L.) /PLG/, Israel: Judean Desert, Jehuda, 3 Jan. 1937, T. Rayss (HUJ); Lower Jordan Valley, Jericho, 11 Feb. 1935, T. Rayss (HUJ).

sakamotoi S. Ito & Y. Tokunaga – Trans. Sapporo nat. Hist. Soc. 14: 25. 1935. Orig. coll. (2) on *Galium pseudoasprellum* Makino /RUB/, Japan: Hokkaido, Shiribeshi Prov., Zenibako, 15 June 1929, M. Sakamoto (SAPA+ holotype); ditto, 15 June 1929, K. Fujita (SAPA+ paratype).

salicorniae Jenkina – Mikol. i Fitopatol. 3: 481. 1969. Orig. coll. on *Salicornia europaea* L. (*S. herbacea* (L.) L. f. *stricta* (Willd.) G.F.W. Meyer) /CHN/, Russia: Novosibirsk, shore of lake Karachi, 14 July 1967, T.V. Jenkina (LE 43422 holotype!). Note: Another specimen, collected at 17 Aug. 1968, is deposited under LE 43423!.

sanguisorbae Gäum. – Beitr. KryptogFl. Schweiz 5(4): 297. 1923. Orig. coll. (2) on *Sanguisorba officinalis* L. /ROS/, Poland: Silesia, 'Freiheit' near Kunice near Legnica (formerly Kunitz near Liegnitz in Germany), Sept. 1877, J. Gerhardt (Rabenh., Fungi eur. 2347, under *P. potentillae* – ZT!); Switzerland: Experimental field of the Institute for Seed Research, Zürich, alt. 470 m, 21 Sept. 1900, A. Volkart (ZT! lectotype, selected by Skalický *in* Folia geobot. phytotax., Praha 18: 82. 1983. Note: Contrary to all other new taxa described in his monograph, no clear indication of the examined collections was made by Gäumann in this case. Although *Sanguisorba* is not mentioned in the list of Rosaceous hosts examined (pp. 286–288), there is little doubt that the description of *P. sanguisorbae* is based on other specimens than those mentioned above. See also Skalický *in* Folia geobot. phytotax., Praha 18: 82–83. 1983.

satarensis Patil – J. Univ. Poona, Sci. & Tech. Sect. 22: 130 (1962). Orig. coll. on *Lindenbergia urticifolia* Lehm. /SCR/, India: Maharashtra, Satara, 7 Sept. 1958, S.D. Patil (Herb. Univ. Poona - holotype, HCIO–, and IMI isotypes).

saturejae–hortensis Osipian – Mikoflora Armyanskoj SSR. 1. Peronosp. Griby: 226. 1968. Orig. coll. on *Satureja hortensis* L. /LAB/, Armenia: Etsmiadsin Distr., Gucasavan, 20 Oct. 1963, L.L. Osipian (ERCB). Note: A second specimen (LE 43424!), collected on 27 May 1965, is wrongly labelled 'isotype'.

savulescui Rayss – Palest. J. Bot., J. Ser. 1: 156. 1938. Orig. coll. on *Medicago polymorpha* L. (*M. hispida* Gaertner) /LEG/, Israel: Jerusalem, 1 Apr. 1935, T. Rayss (BUCM 2641+, HUJ, ZT!).

savulescui Sandu–Ville [as 'Săvulescui'] – Lucr. ştiinţ. Inst. agron., Iaşi (Romania) (1960): 379. 1960 [Nom. illegit., Art. 64.1]. Orig. coll. on *Erophila verna* (L.) Chevall. (*Draba verna* L.) /CRU/, Romania: Iaşi Distr., Breazu, 26 Apr. 1953. Note: Type not in BUCM or IBIR and, apparently, not extant.

saxatilis Gäum. – Annls mycol. 16: 198. 1918. Orig. coll. on *Veronica fruticans* Jacq. /SCR/, Switzerland: Canton Vaud, along the road between Chalets de Mayens and Poyeux sheep cot, near Leysin, 1 July 1917, E. Mayor (BPI!, NEU!).

saxifragae Bubák – Hedwigia 42: (103). 1903. Orig. coll. (2) on *Saxifraga granulata* L. /SAX/, Czechoslovakia: near Praha, 2 May 1902, F. Bubák; Veltrusy near Velvary, 4 May 1900, coll. J.E. Kabát. Note: Specimens collected near Praha, 21 May 1902, by F. Bubák were distributed in Rabenh. – Pazschke, Fungi eur. & extraeur. 4478 (BPI!, S!); a portion of the same collection is at BPI!.

schachtii Fuckel – Fungi rhen., Suppl. Fasc. 1, 1508. 1865. Orig. coll. on *Beta vulgaris* L. /CHN/, Germany: Hessen, near Östrich, summer. Note: Generally considered conspecific with *P. farinosa* (Fr. : Fr.) Fr.

schactii Fuckel apud Berlese – Riv. Patol. veg. 10: 202. 1902 [Nom. inval., Art. 32.1(c)]. A slip of the pen for *P. schachtii* Fuckel.

schleidenii Unger [as 'schleideni'] – Bot. Ztg. 5: 315. 1847. Orig. coll. on *Allium fistulosum* L. /ALL/, Germany. No details about the collection were provided. Note: Usually considered conspecific with *P. destructor* (Berk.) Caspary ex Berk.

schleideniana Unger apud de Bary – Annls Sci. nat., Bot., sér. 4, 20: 122. 1863. This is an orthographic variant of *P. schleidenii* Unger.

scleranthi Rabenh. ex Schröter in Cohn – Krypt.-Fl. Schles. 3 (1): 251. 1886. = *P. scleranthi* Rabenh. – Klotzsch, Herb. viv. mycol. 1481b. 1850 [Nom. inval., Art. 32.1(c), and Art. 34.1(b).]. Orig. coll. (11?) on *Scleranthus annuus* L. /ICB/, Germany: Leipzig, *sine dat.*, coll. Rabenhorst (Klotzsch, Herb. viv. mycol. 1481b); Poland: Wrocław (formerly Breslau in Germany), 20 July 1880, J. Schröter (WRSL!); Zielona Góra (Grünberg), coll. Hellwig (WRSL!); Wrocław, B. Prus Street (Lehmdamm) (WRSL–!); Wrocław, Szczytniki (Scheitig) (WRSL–!); Trzebnika, Oborniki Śląskie (Trebnitz, Obernigk) (WRSL–!); Oleśnica, Domaszczyn (Oels, Domatschine) (WRSL–!); Brzeg, Szydłowice (Brieg, Scheidelwitz) (WRSL–!); Racibórz, Nędza (Ratibor, Nendza) (WRSL–!); Strzelce Opolskie, Góra Św. Anny (Gross-Strehlitz, Annaberg) (WRSL–!). Note: Rabenhorst is usually credited as the author of this taxon. Actually, he never provided a description. On the labels of the copies in herb. B!, FH! and WRSL (T. Majewski, *in litt.*), the printed text is '1481. *Sorosporium scleranthi* Rabenh. Mspt. Ad Lipsiam legit Auerswald.'. Later, Rabenhorst added by hand an 'a)' after 1481 and 'b) *Peronospora scleranthi* Rabenh. ad interim'. Most probably Rabenhorst noticed the presence of *Peronospora*, besides *Sorosporium*, after the labels were printed. In subsequent publications or exsiccatae the number was often wrongly cited as 147, 1471 or 1471b.

scutellariae Bejlin – Zashch. Rast., Leningrad 1: 158. 1924. Orig. coll. on *Scutellaria galericulata* L. /LAB/, Russia: Voronezh Prov., Biryuchinsk Distr., Livenka, 23 July 1915, coll. V. Zaks (LEP!).

sempervivi* Schenk – Sber. naturf. Ges. Leipzig 2 (7): 70–73. July 1875; also in Bot. Ztg. 33: 691. 15 Oct. 1875. Orig. coll. (4) on *Sempervivum* spp. /CRS/. *S. sedoides* Jaquem. (*S. album* Edgm.), *S. stenopetalum* Schnittsp. & Lehm. and *S. tectorum* L. (*S. glaucum* Ten.), Germany. No details about the collections were provided. Note: Most probably conspecific with ***Phytophthora cactorum* (Lebert & Cohn) Schröter.

senecionis Fuckel – Symb. mycol.: 69. 1870. Orig. coll. on *Lunaria rediviva* L. /CRU/ (as *Senecio cordatus* Koch), Germany: Oberbayern, near Hohenschwangau, summer (G! holotype). Note: In the absence of the type examination, Fischer *in* Rabenh. Krypt.-Fl. 1(4): 485. 1892 and Gäumann *in* Beitr. KryptogFl. Schweiz 5(4): 327. 1923 considered this fungus conspecific with *Bremia lactucae* Regel, whereas Constantinescu *in* Sydowia 41: 105. 1989 regarded as highly improbable the presence of a *Peronospora*-like fungus on this host. The examination of the type specimen showed that the host is *Lunaria rediviva* and the fungus *Peronospora parasitica* (Pers. : Fr.) Fr.

senneniana Fragoso & Sacc. – Atti Memmoriae R. Accad. Sci. Lett., Padova, N.S. 33: 158. 1917. Orig. coll. on *Lathyrus niger* (L.) Bernh. /LEG/ Spain: Planés (Cerdaña) in Pyrenais, alt. 1450 m, March 1916, coll. Fr. Sennen, det. Gz. Fragoso (BPI!). Note: I found four more specimens collected by Sennen from the same locality at 22 July 1916 (MA 2266!, PAD!, ZT!), and July 1916 (NEU!).

sepium Gäum. – Beitr. KryptogFl. Schweiz 5(4): 220. 1923 ≡ *P. viciae* (Berk.) Caspary f. *sepium* (Gäum.) Cherepanova – Trudy Biol. Nauchno–Issled. Inst., Leningr. Gosud. Univ. 29: 87. 1979. Orig. coll. on *Vicia sepium* L. /LEG/, Switzerland: Canton Vaud, Leysin, June and July 1917, E. Mayor (NEU!).

septentrionalis Gäum. – Beitr. KryptogFl. Schweiz 5(4): 65. 1923. = *P. septentrionalis* Gäum. – Mitt. naturf. Ges. Bern (1919): 181. 1920 [Nom. inval., Art. 32.1(c)]. Orig. coll. on *Cerastium cerastioides* (L.) Britton (*C. tryginum* Vill.) /CRY/, Norway: Finnmark, Alta, lake Onga, Aug. 1895, G. Lagerheim (Sydow, Phyc. et Prot. 1, under *P. alsinearum* – BERN!).

setariae* Pass. – Grevillea 7: 99. March 1879; also in Revue mycol. 1: 121. 1 July 1879; also in Thümen, Myc. univ. 1315. 1879. Orig. coll. on *Setaria verticillata* (L.) Beauv. /GRM/, Italy: Vigheffio near Parma, summer 1878, G. Passerini (PAD); isotypes in Thümen *op. cit.*, Rabenh., Fungi eur. 2564, and Erb. critt. ital., ser. II, 883. Note: Usually considered conspecific with ***Sclerospora graminicola* (Sacc.) Schröter.

seymourii Burrill in Underwood – Bull. Torrey bot. Club 24: 83. 1897. Orig. coll. on *Houstonia* sp., /RUB/, U.S.A.: Illinois, Union and Jackson Co., 11–28 Apr. 1882, A.B. Seymour.

sherardiae Fuckel – Fungi rhen. 31. 1863. Orig. coll. on *Sherardia arvensis* L. /RUB/, Germany: Hessen, near Neuhof, autumn, L. Fuckel.

sicycola* Trelease ex Farlow – Bot. Gaz. 8: 331. 1883. Orig. coll. on *Sicyos angulatus* L. /CUC/, U.S.A.: Wisconsin, near Madison, summer 1882, W. Trelease (FH!). Note: This is conspecific with ***Plasmopara australis* (Speg.) Swingle (types compared).

sideritidis Byzova in Vasyagina *et al.* – Flora Sporovykh Rastenij Kazakhstana 10: 288. 1977. Orig. coll. on *Sideritis montana* L. /LAB/, Kazakhstan: Alma–Ata Distr., S slope of Mt Alatau, 1600 m, 13 June 1946, M.N. Kuznetsova (AA, LE 24540!).

silenes G.W. Wilson – Mycologia 6: 197. 1914. New name for *P. arenariae* (Berk.) Tul. var. *macrospora* Farlow.

silvatica Gäum. – Svensk. bot. Tidskr. 12: 445. 1919. Orig. coll. on *Galium sylvaticum* L. /RUB/, Czechoslovakia: Sv. Jan pod Skalou near Karlštejn, 12 June 1902, F. Bubák (Sydow, Phycom. and Protom. 155, under *P. calotheca* – BERN!).

silvestris Gäum. – Annls mycol. 16: 199. 1918. Orig. coll. on *Veronica officinalis* L. /SCR/, Germany: Brandenburg, Marienspring near Cladow, June 1890, P. Sydow (Sydow, Myc. march. 2969, under *P. grisea*).

simonianii Osipian [as 'simoniani'] – Mikoflora Armyanskoj SSR. 1. Peronosp. Griby: 225. 1968. Orig. coll. on *Alyssum repens* Baumg. ssp. *trichostachycum* (Rupr.) Hayek (*A. trichostachyum* Rupr.) /CRU/, Armenia: Etsmiadsin Distr., Parakar, 9 May 1952, S.A. Simonian (ERCB holotype, EREM isotype).

simplex* Peck – Ann. Rep. N.Y. St. Mus. nat. Hist. 31: 45. 1879. Orig. coll. on *Aster novae-angliae* L. /AST/, U.S.A.: N.Y., North Greenbush, Sept. 1877, Ch. H. Peck. Note: Conspecific with ***Basidiophora entospora* Roze & Cornu.

sinensis Tang, D.-z. – Acta mycol. sin. 4: 80. 1984 (1985?). Orig. coll. on *Bilderdykia convolvulus* (L.) Dumort (*Polygonum convolvulus* L.) /PLG/, China: Gansu Prov., Kangle Reg., Aug. 1972, Tang, D.-z. 169 (Herb. Inst. Pl. Prot., Gansu Acad. Sci. – holotype, HMAS isotype).

sisymbrii-intermedii Gäum – Beih. bot. Zbl. 35 (1): 528. 1918. Orig. coll. on *Descurainia pinnata* (Walt.)Britton var. *intermedia* (Rydb.) Hitchc.(*Sisymbrium intermedium* Rydb.) /CRU/, U.S.A.: Colorado, Durango, alt. 2000 m, 29 June 1907 (Clements, Crypt. format. colorad. 404, under *P. parasitica*).

sisymbrii-loeselii Gäum – Beih. bot. Zbl. 35 (1): 528. 1918. Orig. coll. on *Sisymbrium loeselii* L. /CRU/, Germany: Wilmersdorf near Berlin, *sine dat.* (Sydow, Myc. march. 4328, under *P. parasitica*).

sisymbrii-officinalis Gäum – Beih. bot. Zbl. 35 (1): 529. 1918. Orig. coll. (3) on *Sisymbrium irio* L. /CRU/, Algeria: Amphithéatre d'El Djem, Apr. 1909, R. Maire (MPU?); *S. officinale* (L.) Scop., Switzerland: Canton Bern, Nidau, 7 July 1915, E. Gäumann (BERN!, two specimens); *S. altissimum* L. (*S. pannonicum* Jacq.), Germany: Grünau near Berlin, June 1905, P. Sydow (Sydow, Phyc. et Prot. 217, under *P. parasitica* – BERN!).

sisymbrii-orientalis Gäum – Beih. bot. Zbl. 35 (1): 529. 1918. Orig. coll. on *Sisymbrium orientale* L. /CRU/, Yugoslavia: Topčider near Beograd, May 1905, M. Ranojević (S!).

sisymbrii-sophiae Gäum – Beih. bot. Zbl. 35 (1): 529. 1918. Orig. coll. (3) on *Descurainia sophia* (L.) Webb. ex Prantl (*Sisymbrium sophia* L.) /CRU/, Switzerland: Canton Valais, road between Louêche-Gare and Tourtemagne, 19 July 1909, E. Mayor (NEU!); Germany: Bayern, Unterfranken, Gerolzhofen, June 1909, A. Vill (Vill, Fungi bavarici 955, under *P. parasitica*); *D. pinnata* (Walt.) Britton (*Sisymbrium canescens*

Nutt.), U.S.A.: Kansas, Riley Co., Manhattan, 15 June 1884, W.A. Kellerman (Flora of Kansas 736).

sisymbrii–sophiae Gäum. var. **jakutica** Ch. Benois in A.A. & P.A. Jaczewski – Opredelitel' Gribov. Vol. 1, Fikomitsety: 143. 1931, *emend.* Benua & Karpova-Benua – Parazitnye griby Yakutii: 43. 1973. Orig. coll. (3) on *Descurainia sophia* (L.) Webb ex Prantl. (*Sisymbrium sophia* L.) /CRU/, Russia: Yakutsia, Sol'sk area, Byutejdyakh, 20 July 1926, Ch. Benois; left bank of the river Amga, near Abaga, 2 Aug. 1926, Ch. Benois; ditto, near Chichimakh, 25 July 1925, Ch. Benois (LE–!, LEP–!). Note: The material is apparently lost (V.A. Melnik, *in litt.*).

sojae Lehman & Wolf – J. Elisha Mitchell sci. Soc. 39: 168. 1924. Orig. coll. (4) on *Glycine max* (L.) Merr. /LEG/, U.S.A.: N.C., Raleigh, 29 Aug. 1923?; near Wilmington, 30 Aug. 1923?; Tarboro; Willard (NCU; BPI–!). Note: Usually considered conspecific with *P. manshurica* (Naum.) H. Syd.

solenanthi Byzova in Vasyagina *et al.* – Flora Sporovykh Rastenij Kazakhstana 10: 280. 1977. Orig. coll. on *Solenanthus circinnatus* Ledeb. /BOR/, Russia: Kazakhstan, Alma-Ata Distr., N slope of Mt Alatau, 4 May 1946, M.N. Kuznetsova (AA, LE 24535!).

sonchi* Gaponenko [as 'Napon.'] – Not. syst. Sect. crypt. Inst. bot. Acad. Sci. U.S.S.R. 8: 87. 1952. Orig. coll. on *Sonchus oleraceus* L. /AST/, Uzbekistan: Margelan Distr., Frunze collective farm, 25 May 1949 (TASM!). Note: This is a doubtful taxon which certainly does not belong to *Peronospora*. Constantinescu *in* Sydowia 41: 105. 1989 expressed doubts concerning the identity of this species but no definitive solution was possible as the type was not available. However, the type was later (August 1990) examined. It consists of a few leaf fragments on which the scarce presence of ***Bremia lactucae* Regel was detected. A microscopic slide containing minute leaf fragments and a few conidiophores and conidia of a *Peronospora* is also included in the packet. The conidiophores are apparently not attached to the host and thus it may be a 'contaminant'. A second specimen (Sredne-Chirchik Distr., Konezavod no. 68, otdelenie no. 3, 13 June 1953, coll. Panfilova, det. N.I. Gaponenko) cited in Gaponenko (1972: 321) is also deposited at TASM!, but I found no fungus.

sophiae–intermediae Gäum. – Beitr. KryptogFl. Schweiz 5(4): 276. 1923 [Nom. inval., Art. 32.1(c)]. A slip of the pen for *P. sisymbrii–intermediae* Gäum.

sophiae–pinnatae Gäum – Beih. bot. Zbl. 35 (1): 529. 1918. Orig. coll. (3) on *Descurainia pinnata* (Walt.) Britton (*Sisymbrium incisum* Engelm.) /CRU/, U.S.A.: Colorado, Telluride, Aug. 1900, D. Griffiths (Griffiths, West Amer. Fungi 384); Kansas, Stocktown, 26 May 1905, E. Bartholomew (Ell. & Ev., Fungi Columb. 2130, under *P. parasitica*); *Sophia pinnata* Howell /CRU/, U.S.A.: Kansas, Stocktown, 17 May 1907, E. Bartholomew (Bartholomew, Fungi Columb. 2440, under *P. parasitica*).

sordida Berk. & Broome – Ann. Mag. nat. Hist., Ser. 3, 7: 449. 1861. Orig. coll. on *Scrophularia* sp. /SCR/, Scotland: Tweed, Jedburgh, pre 1861, A. Jerdon. Note: Type not present in Berkeley's herbarium at K and, apparently, not extant. Note: See Hall *in* IMI Descr. Path. Fungi & Bact. No. 1062. 1991.

sordida Berk. & Broome var. **odontitis–serotinae** C. Massal. [as 'Berk.'] – Bull. Soc. bot. ital. 1900. 256. 1900. Orig. coll. on *Odontites verna* (Bellardi) Dumort ssp. *serotina* (Dumort) Corb. (*Odontites serotina* Dumort) /SCR/, Italy: Verona, near Marcemigo, July 1895.

sparsa Berk. – Gdnrs' Chron., ser. 1, 14: 307. 1862 ≡ *Pseudoperonospora sparsa* (Berk.) Jacz., Zashch. Rast. 5: 597. 1928 ≡ *Peronoplasmopara sparsa* (Berk.) Săvul. – Bul. şti. Acad. Repub. pop. rom., Sect şt. biol. 3: 433. 1951. [superfl. isonym: *Peronoplasmopara sparsa* (Berk.) Uljanishchev – Mikoflora Azerbajdzhana, vol. IV. Peronosporovye griby: 127. 1967]. Orig. coll. on *Rosa* sp. cult. /ROS/, England: near London, in conservatories. Note: Type apparently not extant. See also Francis *in* CMI Descr. Path. Fungi & Bact. No. 690. 1981 and Skalický *in* Folia geobot. phytotax., Praha 18: 97–98. 1983.

speculariae Gäum. [as 'specularia'] – Bull. Soc. neuchâtel. Sci. nat. 304: 6. 1919. Orig. coll. (2) on *Legousia speculum–veneris* (L.) Chaix (*Specularia speculum–veneris* (L.) A. DC) /CAM/, France: Alpes maritimes, Nice, 28 Apr. 1913, G. Poirault (PC+); *L. hybrida* (L.) Delarbre (*S. hybrida* (L.) A. DC, France: Marne, between Jaloy and Matongues, 21 May 1913, Maury (PC+).

**sphaeroides* W.G. Smith – Gdnrs' Chron., N.S. 22: 84. 1884 [Nom. novum; replaces *P. exigua* W.G. Smith].

spinaciae Detmann apud Wilson – Mycologia 6: 202. 1914 [Nom. inval., Art. 32.1(c)]. This is a slip of the pen for *P. spinaciae* Laubert. Note: In the reference cited by Wilson, i.e. Bot. Cent. 105: 25. 1907, there is only a review by H. Detmann of Laubert's article on *P. spinaciae*.

spinaciae Laubert – Gartenflora 55: 461. 1906 [as 'Nom. nov.']. Orig. coll. on *Spinacia oleracea* L. /CHN/, Germany. No details about the collection were provided. Note: Three specimens collected by Laubert on 26 May 1906 at Berlin–Dahlem, the experimental field of (probably) Biologische Bundesanstalt für Land- und Fortswirtschaft, are deposited at B!. They are undoubtedly part of the original collection. Usually considered conspecific with *P. farinosa* (Fr. : Fr.) Fr.

spinuligera* Sacc. apud Gola – L'Herbario Micologico di P.A. Saccardo. Catalogo. Padova: 106. 1930 [Nom. inval., Art. 32.1(c)]. Most probably a slip of the pen for *Gilletia spinuligera* Sacc., which is a synomyn of ***Basidiophora entospora* Roze & Cornu.

stachydis H. Sydow in Gäum. – Beitr. KryptogFl. Schweiz 5(4): 140 1923. Orig. coll. on *Stachys palustris* L. /LAB/, Switzerland: Canton Vaud, Tuileries de Grandson, 10 Oct. 1899, D. Cruchet (BPI!, NEU!).

stachydis Thümen in Sacc. – Myc. veneta 1337. 1879 [Nom. inval., Art. 32.1(c)]. Orig. coll. on *Stachys palustris* L. /LAB/. Italy: Conegliano, Oct. 1878.

statices Lobik [as 'staticis'] – Materialy po floristicheskim i faunisticheskim obsledovaniyam Terskogo okruga: 18. 1928. Orig. coll. on *Limonium gmelinii* (Willd.) O. Kuntze (*Statice gmelinii* Willd.) /PLB/, Russia: Tersk Prov., Malyj Gokhaj island, 11 June 1925, A.I. Lobik (LE 43429! holotype).

stellariae de Bary apud Roumeg. – Fungi gall. exs. 3027 [Nom. inval., Art. 32.1(c)]. Orig. coll. on *Stellaria media* (L.) Vill. /CRY/, Belgium: near Bruxelles, Apr. 1884, E. Bommer & M. Rousseau.

stellariae–aquaticae Sawada – Trans. Formosan nat. Hist. Soc. 15 (79–80): 204. 1925; also in Rep. Dep. Agric., Govt Res. Inst. Formosa 27: 58. 1927. Latin description in Trans. Sapporo nat. Hist. Soc. 14: 24. 1935. Orig. coll. (8) on *Myosoton aquaticum* (L.) Moench (*Stellaria aquatica* (L.) Scop.) /CRY/, China (Taiwan): Taipei Prov., Taipei, 18 March 1924, K. Sawada (TAI+); ditto, 11 Feb. 1921, E. Kurosawa (TAI+); ditto, 13 Mar. 1921 (TAI+); ditto, 19 Mar. 1921 (TAI+); 14 Apr. 1921 (TAI+); ditto, 3 Mar. 1924, K. Sawada (TAI+); Taipei Prov., 28 Dec. 1920, E. Kurosawa (TAI+); ditto, 30 Mar. 1924, K. Sawada (TAI+).

stellariae–radiantis S. Ito & Y. Tokunaga – Trans. Sapporo nat. Hist. Soc. 14: 24. 1935. Orig. coll. on *Stellaria radians* L. /CRY/, Russia: S. Sakhalin, Shikka (formerly in Japan), 8 July 1933, Y. Hoshino (SAPA+ holotype).

stellariae–uliginosae Sawada – Trans. Formosan nat. Hist. Soc. 15 (79–80): 203. 1925; also in Rep. Dep. Agric., Govt Res. Inst. Formosa 27: 59. 1927. Latin description in Trans. Sapporo nat. Hist. Soc. 14: 24. 1935. Orig. coll. (11) on *Stellaria alsine* Grimm. var. *undulata* (Thunb.) Ohwi (*S. uliginosa* L.) /CRY/, China (Taiwan): Taipei Prov., Taipei, 29 Jan. 1911, K. Sawada (TAI+, indicated as type); ditto, 2 Apr. 1913 (TAI+); ditto, 9 Apr. 1920, E. Kurosawa (TAI+); ditto, 23 Apr. 1920 (TAI+); ditto, 26 Apr. 1920 (TAI+); ditto, 10 Apr. 1922, K. Sawada (TAI+); ditto, 19 March 1924 (TAI+, indicated as type); ditto, 16 Nov. 1924 (TAI+); ditto, 6 Feb. 1925 (TAI+); ditto, 26 Jan. 1926 (TAI+); ditto, 28 Dec. 1920, E. Kurosawa (TAI+).

stellata* (Desm.) Delacroix in Kickx [as 'Delacr.'] – Flore Crypt. Flandres 2: 291. 1867 ≡ *Botrytis stellata* Desm. – Annls Sci.nat., Ser. 3, Bot., 6: 65. 1846 ≡ ***Bremia stellata* (Desm.) Kochman & Majewski – Grzyby (Mycota), Vol. 4, Phycomycetes, Peronosporales: 82. 1970. Orig. coll. on *Sonchus* sp. /AST/, France.

stigmaticola Raunkiaer – Bot. Tidsskr. 18: 108. 1893. Orig. coll. on *Mentha aquatica* L. (in flowers) /LAB/, Denmark: Jylland, near Varde, 15 July 1889, C. Raunkiaer (C+).

streptolomatis P.N. Golovin & Kalymbetov [as 'streptolomae'] – Not. syst. Sect. crypt. Inst. bot. Acad. Sci. U.S.S.R. 9: 116. 1953. Orig. coll. on *Streptoloma desertorum* Bunge /CRU/, Turkmenia: Kara–kum desert, Bajram–Ali Distr., 12 Apr. 1952, P.N. Golovin & B. Kalymbetov (AA?, TASM?).

sulphurea* Gäum. [as 'sulfurea'] – Beitr. KryptogFl. Schweiz 5(4): 128. 1923 ≡ *Plasmopara sulphurea* (Gäum.) Skalický – Preslia 38: 127. 1966 ≡ ***Paraperonospora sulphurea* (Gäum.) O. Const. – Sydowia 41: 95. 1989. Orig. coll. (4) on *Artemisia absinthium* L. /AST/, Russia: near Novocherkassk, 27 Apr. 1911, O. Treboux (Sydow, Phyc. et Prot. 280, under *P. leptosperma*; UPS! lectotype, BPI! and S! isolectotypes); *A. ludoviciana* Nutt., U.S.A.: Dakota, Dickey Co., Hollan's Farm, 4 Apr. 1915, J.F. Brenckle in Fungi Dakot. 336, under *P. leptosperma*; *A. serrata* Nutt., U.S.A.: Iowa, Decorah, July 1885, E.W.D. Holway (Ell. & Ev., N. Amer. Fungi 1804); *A. vulgaris* L., Denmark: Jylland, Skive, 12 July 1909, J. Lind (Sydow, Phyc. et Prot. 253, under *P. leptosperma*).

sulphurea* Gäum. f. *minor* Săvul. & Rayss in Săvul. – Herb. mycol. rom. 146. 1930 ≡ ***Paraperonospora minor* (Săvul. & Rayss) O. Const. – Sydowia 41: 93. 1989. Orig. coll. on *Artemisia vulgaris* L. /AST/, Moldavia: Cetatea Albă Distr., Crocmaz, 22 June 1926, T. Săvulescu & T. Rayss (BUCM 60146! lectotype, L 979.256–961! isolectotype).

swinglei Ell. & Kellerman – J. Mycol. 3: 104. 1887. Orig. coll. on *Salvia reflexa* Hornem. (*S. lanceolata* auct.) /LAB/, U.S.A.: Kansas, Manhattan, June 1887, W.T. Swingle (Ell. & Ev., N. Amer. Fungi 2203).

symphyti Gäum. – Beitr. KryptogFl. Schweiz 5(4): 173. 1923. Orig. coll. (3) on *Symphytum cordatum* Waldst. & Kit. ex Willd. /BOR/, Ukraine: Lanchin near Delaytin (formerly Łanczyn near Delatyn, Galizien, Austria), 15 May 1914, A. Wróblewski (Sydow, Phyc. et Prot. 337, under *P. myosotidis*); *S. bulbosum* C. Schimper, Italy: Padua, Botanical Garden, Apr. 1904, G.B. Traverso (Sacc., Myc. ital. 1463); *S. tuberosum* L., Czechoslovakia: Bohemia, Malé Březno near Ustí n. Labem, 1 June 1901, Fr. Bubák (B–!).

syreniae Jenkina – Mikol. i Fitopatol. 3: 481. 1969. [Nom. inval., Art. 37.1]. Original collections (2) on *Syrenia siliculosa* (Bieb.) Andrz. ex C. A. Meyer /CRU/, Russia: Novosibirsk, Botanical Garden, 1 Sept. 1961, T.V. Jenkina (LE 43431!, NS); ditto, 10 July 1962 (LE 43430!, NS).

syreniae–cuspidatae Oescu & Rădulescu – Bull. Sect. sci. Acad. roum. 15 (7–8): 187. 1932. Orig. coll. (2) on *Erysimum cuspidatum* (Bieb.) DC (*Syrenia cuspidata* L.) /CRU/, Romania: Iaşi Distr., Vlădiceni, 14 May 1931, C.V. Oescu & I.M. Rădulescu (BUCM 2764! lectotype here selected; BPI! isolectotype); ditto, Pester–Copou, 26 May 1931 (paratype, apparently not extant).

tabacina Adam – J. Dep. Agric. Victoria 31: 416. 1933 ≡ *P. hyoscyami* de Bary f. sp. *tabacina* (Adam) Skalický – Acta Univ. Carol., Biol., Suppl. 2: 39. 1964. Orig. coll. on *Nicotiana suaveolens* Lehm. and *N. tabacum* L. /SOL/, Australia: Victoria. No details about the collection were provided. Note: Two apparently original specimens, collected form Australia, Victoria, by D.B. Adam, one without date and another collected on 24 March 1924 are deposited at ZT!. Generally considered conspecific with *P. hyoscyami* de Bary.

takahashii S. Ito – Trans. Sapporo nat. Hist. Soc. 17: 162. 1943. Orig. coll. on *Cochlearia oblongifolia* DC /CRU/, Japan: Kurile, Etrofu Island, Shibetoro, 14 Sept. 1940, Y. Takahashi (SAPA– holotype).

tanaceti* Gäum. – Beitr. KryptogFl. Schweiz 5(4): 130. 1923 ≡ *Plasmopara tanaceti* (Gäum.) Skalický – Preslia 38: 127. 1966 ≡ ***Paraperonospora tanaceti* (Gäum.) O. Const. – Sydowia 41: 99. 1989. Orig. coll. on *Tanacetum vulgare* L. /AST/, Czechoslovakia: Bohemia, near Teplice (formerly Teplitz in Austria), summer 1873, F. Thümen (Thümen, Fungi austr. 1235, under *P. leptosperma* f. *tanaceti*; UPS! lectotype).

tatarica Săvul. & Rayss – Annls mycol. 30: 359. 25 Apr. 1932; also in Săvul. – Herb. mycol. rom. 308. 1932. Orig. coll. on *Atriplex tatarica* L. /CHN/, Romania: Ilfov Distr., Călăraşi, 12 June 1931, T. Săvulescu & T. Rayss (BUCM 2783! lectotype here selected).

taurica A.A. & P.A. Jaczewski – Opredelitel' Gribov. Vol. 1, Fikomitsety: 139. 1931. Orig. coll. on *Alyssum minus* (L.) Rothm. (*A. campestre* L.) /CRU/, Russia. No details about the collection were provided. Note: Two specimens from Ukraine, Zaporozh Region, Melitopol', 1884, coll. Korjinsky, det. A.A. Jaczewski (BERN!, LEP!) belong most popbably to the original collection.

tauscheriae Kalymbetov – Trud. Inst. Bot. Akad. Nauk Kazakh SSR 11: 205. 1961. Orig. coll. on *Tauscheria lasiocarpa* Fischer ex DC /CRU/, Kazakhstan: Alma-Atin Region, N. slope of Mt Syugaty, 26 May 1958, B. Kalymbetov (AA, TASM!).

teesdaliae Gäum [as 'teesdalae'] – Beih. bot. Zbl. 35 (1): 530. 1918. Orig. coll. on *Teesdalia nudicaulis* (L.) R. Br. /CRU/, Poland: Silesia, 'Neurode' near Legnica (formerly Liegnitz in Germany), beginning of July 1871, J. Gerhardt (B–!).

teloxydis A.A. & P.A. Jaczewski [as 'telosydis'] – Opredelitel' Gribov. Vol. 1, Fikomitsety: 167. 1931. Orig. coll. on *Chenopodium aristatum* L. (*Teloxys aristata* (L.) Moq.) /CHN/, Russia. No details about the collection were provided. Note: Two portions of a collection from Rassia, Bashkir, Ufim Prov., Durass Belibin Distr., 18 July 1907, I. Shiraevskij (LE 43533!, LEP!) belong, most probably, to the original specimens.

tetragonolobi Gäum. – Beitr. KryptogFl. Schweiz 5(4): 209. 1923. Orig. coll. on *Tetragonolobus maritimus* (L.) Roth. (*T. siliquosus* (L.) Roth.) /LEG/, Switzerland: Canton Vaud, slope above Sierre, near Montana funicular railway, 16 July 1911, P. Cruchet (NEU!).

tetragonolobi–palestini Rayss [as 'palaestini'] – Palest. J. Bot., J. Ser. 1: 157. 1938. Orig. coll. on *Tetragonolobus palestinus* Boiss. & Bl. /LEG/, Israel: Safsaf, 25 Apr. 1935, T. Rayss (BUCM 2786+, HUJ).

teucrii Gäum. – Beitr. KryptogFl. Schweiz 5(4): 141. 1923. Orig. coll. on *Teucrium botrys* L. /LAB/, Czechlosovakia: Bohemia, Kostal near Trebnitz, 16 June 1902, Fr. Bubák (Sydow, Phyc. et Prot. 159, under *P. lamii* – BERN!).

teucrii Y.S. Paul & L.N. Bhardwaj – Indian J. Mycol. & Pl. Path. 17: 211. 1987 (publ. 1988). [Nom. illegit., Art. 64.1]. Orig. coll. on *Teucrium royleanum* Wall./LAB/, India: Himachal Pradesh, Solan, 26 Aug. 1985, coll. L.N. Bhardwaj (Mycol. Herb., Dept. Mycol. and Pl. Pathol., H.P. Krishi Vishva Vidyalaya, Palampur, Solan, 16T – holotype).

thesii Lagerheim – Mitt. bad. bot. Ver. 1888 (55/56): 35. 1888. Orig. coll. (2) on *Thesium pyrenaicum* Pourret (*T. pratense* Ehrh. ex Schrader) /SAN/, Germany: Schwarzwald Mt., Bärenthal and Hinterzarten, summer 1887 (S–!, UPS–!). Note: A specimen collected in July 1888, at Oberas (Oberes) Bärenthal by G. Lagerheim is deposited at S!.

thlaspeos–alpestris Gäum – Beih. bot. Zbl. 35 (1): 530. 1918. Orig. coll. on *Thlaspi alpestre* L. /CRU/, Czechoslovakia: Bohemia, Tábor, 6 May 1905, F. Bubák (Sydow, Phyc. et Prot. 216, under *P. parasitica* – BERN!).

thlaspeos–arvensis Gäum – Beih. bot. Zbl. 35 (1): 530. 1918. Orig. coll. (2) on *Thlaspi arvense* L. /CRU/, Switzerland: Canton Neuchâtel, Lignières, 23 Aug. 1913, E. Mayor (NEU!); Germany: Sachsen, near Meissen, 6 June 1903, W. Krieger (Krieger, Fungi saxon. 1790, under *P. parasitica*).

thlaspeos–perfoliati Gäum – Beih. bot. Zbl. 35 (1): 530. 1918. Orig. coll. on *Thlaspi perfoliatum* L. /CRU/, Switzerland: Canton Neuchâtel, Saint Blaise, near lake, 2 May 1909, E. Mayor (NEU!).

thymi Sydow – Myc. march. 1349. 1887 [Nom. inval., Art. 32.1(c)]. Orig. coll. on *Thymus serpyllum* L. /LAB/, Germany: Wilmersdorf near Berlin, May 1887, P. Sydow.

thyrocarpi Ling & M.C. Tai [as 'thyrocarpii'] – Lloydia 9: 144. 1946. Orig. coll. on *Thyrocarpus sampsonii* Hance /BOR/, China: Sichuan Prov., Chengdu Reg., 15 March 1943 (HMAS 10725+).

tomentosa Fuckel – Fungi rhen. 15. 1863. Orig. coll. on *Cerastium glomeratum* Thuill. /CRY/, Germany: Hessen, near Kiedrich, spring. Note: Conspecific with ***P. alsinearum*** Caspary, *fide* Fuckel *in* Fungi rhenani. Index Fasc. I–XV et Suppl. Fasc. I.: 16. 1865.

tornensis Gäum. – Beitr. KryptogFl. Schweiz 5(4): 62. 1923. = *P. tornensis* Gäum. – Mitt. naturf. Ges. Bern (1919): 181. 1920 [Nom. inval., Art. 32.1(c)]. Orig. coll. on *Cerastium alpinum* L. /CRY/, Sweden: Lappland, 15 km SW of Abisko, at a place called Sjangeli, Aug. 1917, E. Gäumann (BERN!, two specimens).

torulariae Domashova – Mikoflora Khrebta Terskej Ala–Too Kirgizskoj SSR: 77. 1960. [Nom. inval., Art. 37.1]. Orig. coll. (2) on *Neotorularia* sp (*Torularia* sp.) /CRU/, Russia: Kirgizstan, Pokrov watershed, Karakolka, 23 Aug. 1956; ditto, June 1954 (AA?, TASM?).

tozziae Blumer – Ber. schweiz. bot. Ges. 57: 255. 1947. Orig. coll. on *Tozzia alpina* L. /SCR/, Switzerland: Canton Schwyz, Stausee Wäggithal valley, 11 May 1947, S. Blumer (ZT!).

tranzscheliana Bakhtin – Bull. trimest. Soc. mycol. Fr. 40: 103. 1924; also in Zashch. Rast., Leningrad 2: 89. 1925. Orig. coll. on *Melampyrum pratense* L. (in flowers) /SCR/, Russia: Tsarskoe Selo near St. Petersburg, Suidy river, 7 June 1906, V. Tranzschel; Petergof near St. Petersburg, 7–8 July 1923, coll. Jaczewski, det. B. Bakhtin (BPI!). Note: Two specimens from Petergof, Sergievka, 6 Aug. 1924, collected by 'a group of phytopathologists' and identified by Jaczewski are deposited at LEP!.

tribulina Pass. – Grevillea 7: 99. March 1879; also in Revue mycol. 1: 121. July 1879 and in Thümen, Myc. univ. 1316. 1879. Orig. coll. on *Tribulus terrestris* L. /ZYG/, Italy: Parma, Botanical Garden, Aug. 1878, G. Passerini (PARMA?, Thümen, *op. cit.*). Note: Specimens from the original collection, but not part of the exsiccata, are present at BUCM 2826! and S!).

**trichotoma* Massee – J. Linn. Soc. (Bot.) 24: 48. 1888. Orig. coll. on *Colocasia esculenta* (L.) Schott /ARA/ Jamaica: Portland parish, near Priestman river, Dec. 1886 (NY! holotype). Note: The type specimen consists of a tuber slice. I found only hyphae and conidia of unidentifiable fungi. According to Wilson *in* Mycologia 6: 208. 1914, *P. trichotoma* is probably based on a hyphomycete which may possibly have overgrown an initial attack of *Phytophthora colocasiae* Racib.

trifolii–alpestris Gäum. – Beitr. KryptogFl. Schweiz 5(4): 210. 1923. = *P. trifolii–alpestris* Gäum. – Mitt. naturf. Ges. Bern (1919): 182. 1920 [Nom. inval., Art. 32.1(c)]. Orig. coll. on *Trifolium alpestre* L. /LEG/, Switzerland: Canton Valais, Champex, 28 July 1915, E. Mayor (NEU!).

trifolii–arvensis H. Sydow in Gäum. – Beitr. KryptogFl. Schweiz 5(4): 210. 1923. Orig. coll. on *Trifolium arvense* L. /LEG/, Switzerland: Canton Valais, near Stalden, 26 July 1914, E. Mayor (NEU!).

trifolii–cherleri Rayss in Probleme Actuale de Biologie şi Stiinţe Agricole. Acad. Rep. pop. Rom.: 201. 1961 [Nom. inval., Art. 37.1]. Orig. coll. (3) on *Trifolium cherleri* L. /LEG/, Israel: Beth Hakerem, 7 March 1943, E. Zwira; *T. stellatum* L., Israel: Motza, 10 March 1937; Israel, Mashavim, 6 Apr. 1950, T. Rayss? (HUJ?).

trifolii–clypeati Rayss in Probleme Actuale de Biologie şi Stiinţe Agricole. Acad. Rep. pop. Rom.: 198. 1961 [Nom. inval., Art. 37.1]. Orig. coll. (8) on *Trifolium clypeatum* L. /LEG/, Israel: Motza, near Jerusalem, 15 Jan. 1936; 22 March 1937; 31 March 1954; 10 March 1937; 18 Apr. 1943; Aquabella near Kiryat Anavim, 31 March 1943; Mont Heteri, near Zikhron Yaakov, 12 March 1945; *T. scabrum* L., Israel: Jerusalem, 17 Apr. 1942. All apparently collected by T. Rayss (HUJ?).

trifolii–formosi Rayss in Probleme Actuale de Biologie şi Stiinţe Agricole. Acad. Rep. pop. Rom.: 199. 1961. Orig. coll. on *Trifolium dasyurum* C. Presl (*T. formosum* D'Urv.) /LEG/, Israel: Beth Hakerem, 19 Apr. 1943, M. Goldzweig (HUJ?).

trifolii–hybridi Gäum. – Beitr. KryptogFl. Schweiz 5(4): 211. 1923 ≡ *P. trifolii–repentis* f. *trifolii–hybridi* (Gäum.) Cherepanova – Nov. Sist. niz.

Rast. 14: 132. 1977. Orig. coll. (3) on *Trifolium hybridum* L. /LEG/, Switzerland: Canton Genève, fields between Versoix and Myes, 26 June 1905, E. Mayor (NEU!); *T. spadiceum* L., Austria, Tyrol, Fimbertal valley, 1800 m, 2 Aug. 1898, P. Sydow (Sydow, Phyc. et Prot. 73, under *P. trifoliorum* – BERN!); *T. striatum* L., Poland: Silesia, 'Weissenrode' near Legnica (formerly Liegnitz in Germany), July, J. Gerhardt (B–!). Note: Conspecific with *P. trifoliorum* de Bary, *fide* Boerema & Verhoeven *in* Neth. J. Pl. Path. 85: 164. 1979.

trifolii–minoris Gäum. – Beitr. KryptogFl. Schweiz 5(4): 212. 1923. Orig. coll. (5) on *Trifolium dubium* Sibth. (T. minus Sm.) /LEG/, Switzerland: Canton Neuchâtel, plateau between Perreux and Bevaix, 12 May 1916, E. Mayor (NEU!); *T. aureum* Pollich (*T. agrarium* L.), (?), St. Hoor, 5 June 1877, G. Herpell (B–!); *T. badium* Schreber, Switzerland: Canton Vaud, Leysin, June and July 1917, E. Mayor (NEU!); *T. patens* Schreber, Italy: Parma, May 1879, G. Passerini (Erb. Critt. Ital., Ser. II, 882, under *P. trifoliorum*); *T. campestre* Schreber (*T. procumbens* L.), Switzerland: Canton Neuchâtel, Perreux near Boudry, 11 July 1914, E. Mayor (NEU!).

trifolii–pilularis Rayss in Probleme Actuale de Biologie şi Stiinţe Agricole. Acad. Rep. pop. Rom.: 200. 1961 [Nom. inval., Art. 37.1]. Orig. coll. (2) on *Trifolium pilulare* Boiss., /LEG/ Israel: Jerusalem, 4 Apr. 1954, H. Chabelska; Beth Hakerem, 14 Apr. 1939, T. Rayss? (HUJ?).

trifolii–pratensis A. Gust. – Op. bot., Lund 3(1): 136. 1959 ≡ *P. trifoliorum* de Bary f. *trifolii–pratensis* (A. Gust.) Cherepanova – Nov. Sist. niz. Rast. 14: 132. 1977. Orig. coll. on *Trifolium pratense* L. /LEG/, Sweden: Skåne, V. Karup, Mäsinge, 15 Sept. 1952, A. Gustavsson 2313 (LD! holotype). Note: Conspecific with *P. trifoliorum* de Bary, *fide* Boerema & Verhoeven *in* Neth. J. Pl. Path. 85: 164. 1979.

trifolii–purpurei Rayss in Probleme Actuale de Biologie şi Stiinţe Agricole. Acad. Rep. pop. Rom.: 197. 1961 [Nom. inval., Art. 37.1]. Orig. coll. (8) on *Trifolium purpureum* Loisel /LEG/, Israel: Motza, 27 March 1941; ditto, 31 March 1954; ditto, 4 Apr. 1951; ditto, 2 May 1949; Zikhron Yaakov, 3 Apr. 1954. All apparently collected by T. Rayss (HUJ?); *T. campestre* Schreber, Israel: Jerusalem, 12 March 1950, H. Chabelska; Sariz, 26 Apr. 1950, T. Segal; Kefar Witkin, 9 March 1950, T. Rayss? (HUJ?).

trifolii–repentis H. Sydow in Gäum. – Beitr. KryptogFl. Schweiz 5(4): 215. 1923. Orig. coll. (3) on *Trifolium repens* L. /LEG/, Switzerland: Canton Bern, along the road near Biel, June 1916, E. Gäumann (BERN–!, ZT–!); *T. montanum* L., Switzerland: Canton Neuchâtel, Perreux near Boudry, 24 May 1916, E. Mayor (NEU!); *T. rubens* L., Switzerland: Canton Bern, along the road between Leubringen and Ilfingen, June 1916, E. Gäumann (BERN–!, ZT–!). Note: Conspecific with *P. trifoliorum* de Bary *fide* Boerema & Verhoeven *in* Neth. J. Pl. Path. 85: 164. 1979.

trifolii–repentis H. Sydow in Gäum. f. **trifolii–hybridi** (Gäum.) Cherepanova – Nov. Sist. niz. Rast. 14: 132. 1977. See *P. trifolii–hybridi*.

trifolii–repentis Sydow f. sp. **trifolii–montani** Cherepanova – Nov. Sist. niz. Rast. 14: 132. 1977.

trifoliorum de Bary – Annls Sci. nat., Bot., sér. 4, 20: 117. 1863. Orig. coll. (3) on *Medicago sativa* L. /LEG/, Germany: Bonn, R. Caspary (Rabenh., Herb. myc. Ed. 2, 775, under *P. grisea* f. *medicaginis*); Germany, Hessen, Östrich, spring, L. Fuckel (Fuckel, Fungi rhen. 9, under *P. grisea* f. *medicaginis*); *Trifolium medium* L. /LEG/, Germany: Baden–Württemberg, Freiburg, May 1859, A. de Bary (Rabenh., Fungi eur. 375, under *P. grisea* f. *trifolii*). Note: Liro *in* Mycotheca Fennica. Die Etiketten. N:o 1–300: 9. 1934 suggested that *Trifolium medium* should be considered the typical host for this species. See also Boerema & Verhoeven *in* Neth. J. Pl. Path. 85: 164–165. 1979 and Francis *in* CMI Descr. Path. Fungi & Bact. No. 768. 1983.

trifoliorum de Bary var. **manshurica** Naumov – Bull. Soc. mycol. Fr. 30: 73. 1914 ≡ *P. manshurica* (Naumov) H. Sydow in Gäum. – Beitr. KryptogFl. Schweiz 5(4): 221. 1923. Orig. coll. on *Glycine max* (L.) Merr. (*G. hispida* (Moench) Maxim.) /LEG/, Russia: Primorsk Region, Ussurij Distr., Nikol'sk, 17 July 1912, N.A. Naumov ('20 July 1912 in herb. Sydow', fide Gäumann, *op. cit.*). Note: Apparently a part of the original collection is deposited at BPI!. Another specimen (LEP!) consists of a large packet labelled 14 July 1912, containing three smaller packets on which the date is 20 July 1912. However, all four are numbered 356, apparently a collection number. Only one of the smaller packets contain a few leaf fragments bearing very few conidiophores and conidia. Some measurements used in the description and crude illustrations of a conidium and of an oospore are marked on this packet.

trifoliorum de Bary f. sp. **medicaginis–sativae** Boerema & Verhoeven – Neth. J. Pl. Path. 85: 165. 1979.

trifoliorum de Bary f. **trifolii–alpestris** (Gäum.) Cherepanova – Nov. Sist. niz. Rast. 14: 132. 1977. See *P. trifolii–alpestri*.

trifoliorum de Bary f. sp. **trifolii–incarnati** Cherepanova – Nov. Sist. niz. Rast. 14: 132. 1977.

trifoliorum de Bary f. **trifolii–pratensis** (A. Gust.) Cherepanova – Nov. Sist. niz. Rast. 14: 132. 1977. See *P. trifolii-pratensis*.

trifoliorum de Bary f. sp. **trifolii–rubentis** Cherepanova – Nov. Sist. niz. Rast. 14: 132. 1977.

trifurcata* Unger – Bot. Ztg. 5: 314. 1847. Orig. coll. on *Solanum tuberosum* L. /SOL/. No details about the collection were provided. Note: Conspecific with ***Phytophthora infestans* (Mont.) de Bary., *fide* Waterhouse *in* Mycol. Pap. 122: 57. 1970.

trigonellae Gäum. – Beitr. KryptogFl. Schweiz 5(4): 216. 1923. Orig. coll. (2) on *Trigonella foenum-graecum* L. /LEG/, Algeria: arable land near Maison–Carrée, 26 Feb. 1913, R. Maire (Maire, Myc. bor.-afr. 130, under *P. trifoliorum* – BERN!); *T. polyceratia* L., India: Punjab, Jullundur, 11 Jan. 1911, J. Mitter (B–!).

trigonotidis S. Ito & Y. Tokunaga - Trans. Sapporo nat. Hist. Soc. 14: 28. 1935. Orig. coll. (3) on *Trigonotis peduncularis* (Trev.) Bentham ex Baker & S. Moore /BOR/, Japan: Honshu, Izu Prov., Iro–zaki, 18 Apr. 1934, Y. Tokunaga (SAPA+ holotype); Morioka Prov., Rikuchu, 6 May 1904, G. Yamada (SAPA+ paratype); Mino Prov., Nakamura, 5 June 1934, M. Hiura (SAPA+ paratype).

trivialis Gäum. - Beitr. KryptogFl. Schweiz 5(4): 63. 1923. Orig. coll. (3) on *Cerastium fontanum* Baumg. ssp. *triviale* (Link) Jalas (*C. triviale* Link) /CRY/, Switzerland: Canton Vaud,"La Grande Rape", near Payérne, 25 Sept. 1916, D. Cruchet (BERN!); Sweden: Stockholm, June 1892, H. Hesselman (UPS!); Germany, Zehlendorf near Berlin, Aug. 1898, P. Sydow (Sydow, Phyc. et Prot. 102, under *P. alsinearum* - BERN!). Note: The hosts of the second and third collections were given as *C. arvense* L. and *C. semidecandrum* L., respectively, but were later corrected by Nannfeldt *in* Lundell & Nannfeldt, Fungi exsic. suec., praes. upsal. Fasc. XXXIII–XXXIV (Nr. 1601–1700): 32. 1948, and Gustavsson *in* Op. bot. Soc. bot. Lund. 3 (1): 39–42. 1959.

turritidis Gäum - Beih. bot. Zbl. 35 (1): 531. 1918. Orig. coll. on *Arabis glabra* (L.) Bernh. (*Turritis glabra* L.) /CRU/, Germany: Sachsen, Königstein, May and June 1890, W. Krieger (Krieger, Fungi saxon. 845, under *P. parasitica*). Note: Conspecific with ***P. ochroleuca*** Cesati, *fide* Gäumann *in* Beitr. KryptogFl. Schweiz 5(4): 280. 1923.

uljanishchevii Tunkina - Trud. Inst. Bot., Baku 19: 103. 1955. Orig. coll. on *Argusia sibirica* (L.) Dandy (*Tournefortia sibirica* L.) /BOR/, Azerbajdzhan: Apsheron peninsula, Zykh, 13 May 1952, T. Tunkina (BAK–).

umbelliferarum* Caspary - Monatsb. K. Akad. Wiss. Berlin 3: 328. 1855 ≡ *Rhysotheca umbelliferarum* (Caspary) G.W. Wilson - Bull. Torrey bot. Club 34: 401. 1907 ≡ ***Plasmopara umbelliferarum* (Caspary) Schröter ex Wartenw. - Annls mycol. 16: 252. 1919 ≡ *Peronospora umbelliferarum* Caspary var. *aegopodii* Caspary - Monatsb. K. Akad. Wiss. Berlin 3: 328. 1855 ≡ *Plasmopara aegopodii* Trotter [as '(Caspary) Trotter', nom. illegit., Art. 63.1] in Sacc. - Syll. Fung. 24: 65. 1926. Orig. coll. on *Aegopodium podagraria* L. /UMB/, Germany: forest near Berlin, 5 July 1854, R. Caspary (ZT! lectotype). See Constantinescu *in* Mycotaxon 43: 474–475. 1992 (in press) for a discussion on the nomenclature of this fungus.

**umbelliferarum* Caspary var. *aegopodii* Caspary - Monatsb. K. Akad. Wiss. Berlin 3: 328. 1855. See above under *P. umbelliferarum*.

umbelliferarum* Caspary var. *angelicae* Caspary - Monatsb. K. Akad. Wiss. Berlin 3: 328. 1855 ≡ ***Plasmopara angelicae* (Caspary) Trotter in Sacc. - Syll. Fung. 24: 65. 1926. Orig. coll. on *Angelica sylvestris* L. /UMB/, Germany: Baden–Württemberg, Karlsruhe, A. Braun.

umbelliferarum* Caspary var. *berkeleyi* Cesati [as 'berkelei'] - Hedwigia 1: 120. 1857. Orig. coll. on *Pastinaca sativa* L. ssp. *sylvestris* (Miller) Rouy & Camus (*Pastinaca sylvestris* Miller) /UMB/, Italy: Vercellis, 1856, V. Cesati (Rabenh., Herb. mycol. ed. II, 585). This is conspecific with ***Plasmopara umbelliferarum* s. lat.

umbelliferarum* Caspary var. *chaerophylli* Caspary – Monatsb. K. Akad. Wiss. Berlin 3: 328. 1855 ≡ ***Plasmopara chaerophylli* (Caspary) Trotter in Sacc. – Syll. Fung. 24: 65. 1926. Orig. coll. on *Anthriscus sylvestris* (L.) Hoffm (*Chaerophyllum sylvestre* L) /UMB/, Germany: Baden–Württemberg, Breisgau Distr., Freiburg, coll. A. Braun.

umbelliferarum* Caspary var. *conii* Caspary – Monatsb. K. Akad. Wiss. Berlin 3: 328. 1855 ≡ ***Plasmopara conii* (Caspary) Trotter in Sacc. – Syll. Fung. 24: 65. 1926. Orig. coll. on *Conium maculatum* L. /UMB/, Germany: Berlin, R. Caspary (Rabenh., Herb. mycol. Ed. 2, 169).

uralensis A.A. & P.A. Jaczewski – Opredelitel' Gribov. Vol. 1, Fikomitsety: 132. 1931. Orig. coll. on *Cerastium pauciflorum* Stév. ex Sér. (*C. ledebourianum* Sér.) /CRY/, Russia. No details about the collection were provided (LE–!, LEP–!).

ursiniae* Săvul. & Vánky – Arch. Freunde Natgesch. Mecklenb. 2: 352. 1956 ≡ *Plasmopara ursiniae* (Săvul. & Vánky) Skalický – Preslia 38: 127. 1966. Orig. coll. (2) on *Ursinia calenduliflora* (DC) N.E.Br. /AST/, Germany: Mecklenburg, Rostock, Botanical Garden, 16 July 1950, H. Buhr (BUCM 2885! lectotype); *U. anthemoides* (L.) Poiret (*U. pulchra* N.E. Br.), ditto, 9 July 1940 (BUCM 2884! paratype). Note: Conspecific with ***Paraperonospora leptosperma* (de Bary) O. Const., *fide* Constantinescu *in* Sydowia 41: 89. 1989.

urticae* (Libert ex Berk) Caspary [as 'Libert'] – Monatsb. K. Akad. Wiss. Berlin 3: 330. 1855 ≡ *Botrytis urticae* Libert ex Berk. – Ann. Mag. nat. Hist., Ser. II, 7: 100–101. 1851. = *Botrytis urticae* Libert ex Berk. – J. hort. Soc. Lond. 1: 31. 1846 [Nom. inval., Art. 32.1(c)] ≡ ***Pseudoperonospora urticae* (Libert ex Berk.) E. Salmon & Ware – Ann. appl. Biol. 12: 141. 1925 ≡ *Peronoplasmopara urticae* (Libert ex Berk.) Săvul. & O. Săvul. – Bul. şti. Acad. Repub. pop. rom., Secţ. Sti. biol. geol. geogr. 3: 442. 1951. [superfl. isonym: *P. urticae* (Libert ex Berk.) de Bary [as '(Lib.)'] – Annls Sci. nat., Bot., sér. 4, 20: 116. 1863]. Orig. coll. (2) on *Urtica dioica* L. /URT/, England: Northants., Tansor, 1845, M.J. Berkeley (Herb. Berkeley in K!); France: Lille, Desmazières (Herb. Berk, K!). Note: See also Constantinescu *in* Mycotaxon 24: 303. 1985.

ussuriensis A.A. & P.A. Jaczewski – Opredelitel' Gribov. Vol. 1, Fikomitsety: 135. 1931 [Nom. nov.; replaces *P. effusa* Grev. var. *manshurica* Naumov].

valerianae Trail – Scott. Nat. NS 4: 69. 1889. Orig. coll. on *Valeriana officinalis* L. /VAL/, Scotland: Argyll, Cladich near Loch Awe, Sept. 1888 (Herb. Trail in ABD). Note: According to Francis & Waterhouse *in* Trans. Br. mycol. Soc. 91: 43–44. 1988 only a slide is extant.

valerianellae Fuckel – Fungi rhen. 35. 1863. Orig. coll. on *Valerianella carinata* Loisel. /VAL/, Germany: Hessen, near Östrich, spring.

valesiaca Gäum. – Annu. Conserv. Jard. bot. Genève 21: 9. 1919. Orig. coll. on *Euphorbia seguierana* Necker (*E. gerardiana* Jacq.) /EUP/, Switzerland:

Canton Valais, Rhône river bank, between Fully and Branson, 12 May 1915, (NEU!).

variabilis Gäum. – Mitt. naturf. Ges. Bern (1918): 62. 1919. Orig. coll. on *Chenopodium album* L. /CHN/, Switzerland: Canton Bern, Wabern near Bern, July 1915, E. Gäumann (BERN–!, ZT–!).

verbasci Gäum. – Beitr. KryptogFl. Schweiz 5(4): 154. 1923. Orig. coll. (6) on *Verbascum* spp. /SCR/. *V. densiflorum* Bertol. (*V. thapsiforme* Schrader), Czechoslovakia: Bohemia, Peruc, 13 June 1900, Fr. Bubák (Vestergr., Microm. rar. sel. 348, under *P. sordida*). *V. lychnitis* L., Switzerland: Canton Bern, Tschingel, 8 Oct. 1913 (herb. W. Rytz); *V. thapsus* L. ssp. *crassifolium* (Lam.) Murb. (*V. montanum* Schrader), Switzerland: Canton Valais, hill W. of Zermatt, 4 Aug. 1900 (NEU!); *V. nigrum* L., Germany: Brandenburg, Triglitz, 13 Aug. 1899, O. Jaap (Jaap, Flora der Prov. Brandenb. 969, under *P. sordida*); *V. phlomoides* L., Czechoslovakia: N. Bohemia, Krupka (formerly Graupen in Austria), summer 1872, F. Thümen (Thümen, Fungi austr. 934, under *P. sordida* f. *verbasci-phlomoidis*); *V. thapsus* L., Switzerland: near Zürich, July 1882, G. Winter (Rabenh., Fungi eur. 2874, under *P. sordida* – ZT!). Note: Most probably conspecific with *P. sordida*, *fide* Hall & Humphreys–Jones *in* Pl. Path. 38: 103–110. 1989.

verna Gäum. – Annls mycol. 16: 198. 1918. Orig. coll. on *Veronica serpyllifolia* L. /SCR/, Sweden, Stockholm, Djurgården, 29 June 1883, O. Juel (S–!, UPS–!).

vernalis Gäum. – Beitr. KryptogFl. Schweiz 5(4): 58. 1923. Orig. coll. (2) on *Spergula morisonii* Boreau (*S. vernalis* Willd.) /CRY/, Czechoslovakia: Bohemia, Hradisko near Sadská, 9 May 1902, F. Bubák (Sydow, Phyc. et Prot. 160, under *P. obovata* – BERN!); *S. pentandra* L., Germany, Berlin, Jongfernheide, June 1884, P. Sydow (Sydow, Myc. march. 4179, under *P. obovata*).

veronicae–cymbalariae Rayss – Palest. J. Bot., J. Ser. 3: 160. 1946. Orig. coll. (4) on *Veronica cymbalaria* Bodard. /SCR/, Israel: Judean Mt, Jerusalem, 5 March 1937, T. Rayss (HUJ, ZT!); King Solomon's pond, near Bethlehem, 20 Feb. 1943, T. Rayss (HUJ); Aquabella, 2 Feb. 1942, T. Rayss (HUJ); Silwan, 9 Jan. 1943, T. Rayss (HUJ).

vexans Gäum. – Beitr. KryptogFl. Schweiz 5(4): 50. 1923 [Nom. inval., Art. 34.1(b).]. Orig. coll. (5) on *Silene vulgaris* (Moench) Garcke (*S. inflata* Sm., *S. venosa* Ascherson) /CRY/, Switzerland: Canton Vaud, Tour d'Aï, near Leysin, 22 July 1917, E. Mayor (NEU!); Switzerland: Canton Graubünden, Gün, Safien, alt. 1550 m, 15 Aug. 1901, A. Volkart (ZT!); *S. noctiflora* L., Russia: near Novocherkassk, June 1911, O. Treboux (Sydow, Phyc. et Prot. 278, under *P. dianthi* – BERN!, NEU!); *S. armeria* L., Germany: Berlin, Botanical Garden, Aug. 1866, A. Braun (B–!); *S. otites* (L) Wibel, Switzerland: Canton Valais, between Branson and Follaterres, 12 May 1915, E. Mayor (NEU!).

viciae (Berk.) Caspary – Mber. K. Akad. Wiss. Berlin 3: 330. 1855 ≡ *Botrytis viciae* Berk. – J. hort. Soc., Lond. 1: 31. 1846. [Superfl. isonyms: *P. viciae*

Berk. apud de Bary – Annls Sci. nat., Bot., sér. 4, 20: 112. 1863; *P. viciae* (Berk.) de Bary apud Berlese – Icon. Fung. Phycom.: 33. 1898; *P. viciae* (Berk.) Gäum. – Mitt. naturf. Ges. Bern (1919): 184. 1920]. Orig. coll. on *Vicia sativa* L. /LEG/, England: Northants., Kings Cliffe, June, pre 1846, M.J. Berkeley. Note: Type not detected by Francis & Waterhouse (Trans. Br. mycol. Soc. 91: 27. 1988) and apparently not extant. See also Mukerji *in* CMI Descr. Path. Fungi & Bact. No. 455. 1975.

viciae (Berk.) Caspary f. **orobi** Sacc. – Syll. Fung. 7: 246. 1888. Orig. coll. on *Lathyrus vernus* (L.) Bernh. (*Orobus vernus* L.) /LEG/, Italy: Conegliano, Spegazzini (PAD?). Note: The oospores in this species have been described under *Protomyces reticulatus* Sacc. – Michelia 1: 13. 1877, and depicted in Sacc. – Fungi ital. aut. del. Tab. 102. 1877.

viciae (Berk.) Caspary f. sp. **pisi** (H. Sydow) Boerema & Verhoeven – Neth. J. Pl. Path. 85: 166. 1979. See *P. pisi* H. Sydow.

viciae (Berk.) Caspary f. sp. *pisi* (H. Sydow) Buchwald – Land-og Havebrugsplanternes Svampesygdome (Kopenhavn): 298. 1980. See *P. pisi* H. Sydow. Note: Combination antedated by *P. viciae* (Berk.) Caspary f. sp. *pisi* (H. Sydow) Boerema & Verhoeven.

viciae (Berk.) Caspary f. **sepium** (Gäum.) Cherepanova [as '(Berk.) de Bary'] – Trudy Biol. Nauchno–Issled. Inst., Leningr. Gosud. Univ. 29: 87. 1979. See *P. sepium* Gäum.

viciae (Berk.) Caspary f. **viciae–sativae** (Gäum.) Cherepanova [as '(Berk.) de Bary'] – Trudy Biol. Nauchno–Issled. Inst., Leningr. Gosud. Univ. 29: 87. 1979. See *P. viciae–sativae* Gäum.

viciae–sativae Gäum. – Beitr. KryptogFl. Schweiz 5(4): 219. 1923. = *P. viciae–sativae* Gäum. – Mitt. naturf. Ges. Bern (1919): 184. 1920 [Nom. inval., Art. 32.1(c)] ≡ *P. viciae* (Berk.) Caspary f. *viciae–sativae* (Gäum.) Cherepanova – Trudy Biol. Nauchno–Issled. Inst., Leningr. Gosud. Univ. 29: 87. 1979. Orig. coll. (3) on *Vicia sativa* L. /LEG/, Switzerland: Canton Neuchâtel, Perreux near Boudry, 14 May 1914, E. Mayor (NEU!); *V. americana* Muhl. ex Willd. (*V. linearis* (Nutt.) Greene), U.S.A.: S. Dakota, Aberdeen, June 1898 (Griffiths, West Amer. Fungi, 347); *V. villosa* Roth., Germany: Ukermark, Brodowin near Chorin, 25 June 1899, P. Sydow (Sydow, Phyc. et Prot. 116, under *P. viciae* – BERN!).

viciae–venosae A.A. & P.A. Jaczewski – Opredelitel' Gribov. Vol. 1, Fikomitsety: 168. 1931. Orig. coll. on *Vicia venosa* (Willd.) Maxim. /LEG/, Russia. No details about the collection were provided. Note: A specimen collected from Russia, Vladivostok Distr., Sujfun Co., near the city of Nikol'sk–Ussurij, 30 June 1927, V. Tranzschel (LEP!) is most probably the type.

viciicola Campbell [as 'vicicola'] – Bull. Wash. agric. exp. Stn. 318: 18. 1935 [Nom. inval., Art. 36.1]. Orig. coll. on *Vicia gigantea* Hook. /LEG/, U.S.A.: Wash., coastal areas.

viennotii Mayor [as 'viennoti'] – Ber. schweiz. bot. Ges. 62: 478. 1952. Orig. coll. on *Cytisus scoparius* (L.) Link (*Sarothamnus scoparius* (L.) Wimmer ex Koch) /LEG/, France: Tarn Distr., Espérausses, Monts de Lacaune, 4–18 Aug. 1951, E. Mayor (NEU!, ZT! two specimens).

vincae Schröter – Hedwigia 13: 183. Dec. 1874. Orig. coll. on *Vinca minor* L. /APO/, France: Valois, near Thury, May 1871, J. Schröter (WRSL!).

violacea Berk. in Cooke – Rust, Smut, Mildew, and Mould,: 217. 1865. = *P. violacea* Berk. – Outl. Br. Fung.: 349. 1860. [Nom. inval., Art. 32.1(c)]. Superfl. isonym: *P. violacea* Berk. – Ann. Mag. nat. Hist., ser. V, 1: 28. 1878. Orig. coll. on *Knautia arvensis* (L.) Coulter /DPS/, England: Northants., Kings Cliffe, 30 June 1859, M.J. Berkeley (Herb. Berkeley in K!). Note: Although according to Cooke *op. cit.*, the specimen was apparently lost, and it is not cited by Francis & Waterhouse *in* Trans. Br. mycol. Soc. 91: 22. 1988, it could be detected in herb. K. See also Horáková & Skalický *in* Česká mykol. 43: 13–29. 1989.

violacea (Lév.) Kickx [as 'Lév.'] – Flore Crypt. Flandres 2: 290. 1867 [Nom. illegit., Art. 64.1] ≡ *Botrytis violacea* Lév. – Annls Sci. nat., Bot., sér. 3, 5: 298. 1846. Orig. coll. (2) on *Chrysanthemum segetum* L., (*Pyrethrum arvense* Salzm. ex DC) /AST/, France: Montmorency near Paris (PC); *Lathyrus palustris* L. /LEG/, France: Enghien near Paris (PC). Note: Two species, *P. radii* and *P. senneniana*, are most probably involved.

violae de Bary ex Schröter in Cohn – Krypt.-Fl. Schles. 3 (1): 246. 1886. = *P. violae* de Bary – Annls Sci. nat., Bot., sér. 4, 20: 125. 1863 [Nom. inval., Art. 32.1(c)]. Orig. coll. (8) on *Viola arvensis* Murray (*V. tricolor* L. var. *arvensis* DC) /VIO/. Poland: Wrocław, Siedlce (formerly Breslau, Zedlitz in Germany), Sept. 1865 (Schneider, Herb. schles. Pilze 34, under *P. effusa* f. *violae*, WRSL!). Legnica (Liegnitz) (WRSL–!); Wrocław, Siedlce (Breslau, Zedlitz) (WRSL–!); Wrocław, Borek (Breslau, Kleinburg), 14 Nov. 1877 (WRSL!); Wrocław, Środa Śląska, Leśnica (Neumarkt, Lissa) (WRSL–!); Trzebnica, Oborniki Śląskie (Trebnitz, Obernigk) (WRSL–!); Brzeg, Lewin Brzeski (Brieg, Löwen) (WRSL–!); *V. riviniana* Reichenb. Silesia, 'Weissenrode' near Legnica (Liegnitz) (WRSL–!). Note: See also Hall *in* CMI Descr. Path. Fungi & Bact. No. 977. 1989 (repeated *in* Mycopathologia 106: 199–200. 1989).

vistulensis Wróblewski – Bull. int. Acad. sci. Cracovie, Cl. Sci. math. nat., Sér. B, 1915 (8–10): 243. 1916. Orig. coll. (2) on *Salsola kali* L. /CHN/, Poland: Ciechocinek, 12 Aug. 1897, A. Zalewski; Saska kępa in Warszawa, *sine dat.*, K. Łapczyński (both specimens in Herb. Dept. Plant Pathol., Warszawa Agric. Univ.). Note: Duplicates of the second collection are deposited at BPI! and ZT!.

viticola* (Berk. & M.A. Curtis) Caspary – Monatsb. K. Akad. Wiss. Berlin 3: 331. 1855 ≡ *Botrytis viticola* Berk. & M.A. Curtis in Berk. – Jl R. hort. Soc. 6: 289. 1851 ≡ *Phytophthora viticola* (Berk. & M.A. Curtis) Reichelt – Dt. Weinztg. 24 (81): 441–442. 1887 ≡ ***Plasmopara viticola* (Berk. & M.A. Curtis) Berlese & De Toni in Sacc. – Syll. Fung. 7: 239. 1888 ≡ *Rhysotheca viticola* (Berk. & M.A. Curtis) G.W. Wilson – Bull. Torrey bot. Club 34:

407. 1907. [Superfl. isonym: *Peronospora viticola* (Berk. & M.A. Curtis) de Bary – Annls Sci. nat., Bot., sér. 4, 20: 125. 1863]. Orig. coll. on *Vitis aestivalis* Michx /VIT/, U.S.A.: S. Carolina, Aiken, H.W. Ravenel (Herb. Berkeley in K! holotype). Note: Part of the original collection was apparently distributed in Ravenel, Fungi Carol. exs., Fasc. 5, no. 90.

vvedenskyi P.N. Golovin – Trudy Sredneaz. gos. univ., nov. ser. (Central Asian Univ. Studies, N.S.) 14(5): 5. 1950. Orig. coll. (2) on *Euclidium syriacum* (L.) R. Br. /CRU/, Uzbekistan: near Tashkent, 3 Apr. 1922, A. Vvedenskij; ditto, Pamiroalaj, Mt Kugitang, 21 Apr. 1928, Lepeshkin.

whippleae Ell. & Ev. – Bull. Torrey bot. Club 22: 364. 1895. Orig. coll. on *Whipplea modesta* Torr. /SAX/, U.S.A.: California, Mendocino Co., Ukiah, 22 May 1894, W.C. Blasdale (NY! holotype).

yamadana Togashi in S. Ito & Y. Tokunaga – Trans. Sapporo nat. Hist. Soc. 14: . 1935. Orig. coll. (2) on *Thalictrum filamentosum* Maxim. var. *tenerum* (Huth.) Ohwi (*T. tuberiferum* Maxim.) /RAN/, Japan: Honshu, Rikuchu Prov., Mt Iwate, 16 July 1934, K. Togashi (SAPA+ holotype); ditto, 18 july 1908, G. Yamada (SAPA+ paratype).

ziziphorae Byzova – Bot. Mater. Gerb. Inst. Bot. Akad. Nauk Kazakh SSR 2: 86. 1964. Orig. coll. on *Ziziphora tenuior* L. /LAB/, Kazakhstan: Mt Khantau, 27 May 1958, Z.M. Byzova (AA, LE 24533!).

HOST–FUNGUS INDEX

Host generic names in **bold** face. *Peronospora* epithets in Roman type are valid and legitimate, those in *italics* are invalid and/or illegitimate. Names preceded by an asterisk represent plant families and genera wrongly indicated as hosts for *Peronospora*, and epithets in *Peronospora* introduced for fungi that do not belong to this genus.

Matricaria
**leptosperma*
radii

***Rudbeckia**
**halstedii*

***Senecio**
**nivea* (Unger) Unger

***Sigesbeckia**
**leptosperma var. sigesbeckiae*

***Silphium**
**halstedii*

***Sonchus**
**sonchi*
**stellata*

***Tanacetum**
**tanaceti*

***Ursinia**
**buhrii*
**ursiniae*

*BALSAMINACEAE

***Impatiens**
**impatientis*
**obducens*

BERBERIDACEAE

Achlys
achlydis

BORAGINACEAE

Alkanna
alkannae

Argusia
uljanishchevii

Arnebia
arnebiae

Asperugo
asperuginis

Bothriospermum
bothriospermi

Brachybotrys
rugosa

Brunnera
anchusae

Buglossoides
lithospermi
myosotidis f. pulmonariae

Cerinthe
cerinthe

Cynoglossum
cynoglossi

Echium
echii
myosotidis var. echii

Eritrichium
eritrichii

Lappula
echinospermi
cynoglossi var. echinospermi

Microula
microulae

Myosotis
myosotidis
myosotidis var. minor

Nonea
noneae

Omphalodes
omphalodis

Pulmonaria
myosotidis f. pulmonariae
pulmonariae Gäum.
pulmonariae Jaczewski

Rochelia
rocheliae
rocheliae f. cardiosepalae

Solenanthus
solenanthi

Symphytum
symphyti

Thyrocarpus
thyrocarpi

Trigonotis
trigonotidis

CAMPANULACEAE

Campanula
campanulae
corollae
erinicola

litoralis f. romanica
minor
nitens
tatarica

Axyris
axyridis

Bassia
echinopsili
kochiae

Beta
betae
farinosa f. sp. betae
schachtii

Ceratocarpus
ceratocarpi

Chenopodium
bohemica
boni-henrici
chenopodii Caspary
chenopodii Schlecht.
chenopodii-ambrosioides
chenopodii-ficifolii
chenopodii-glauci
chenopodii-opulifolii
chenopodii-polyspermi
chenopodii-rubri
chenopodii-urbici
chenopodii-vulvariae
daturae
effusa var. major
effusa var. manshurica
farinosa f. sp. chenopodii
muralis
nivea (Unger) Unger
teloxydis
ussuriensis
variabilis

Eurotia
eurotiae Domash. & Gamal.
eurotiae Kalymb.

Halimione
obionis-verruciferae

Kochia
kochiae-prostratae
kochiae-scopariae

Monolepis
monolepidis

Salicornia
salicorniae

Salsola
vistulensis

Spinacia
effusa
farinosa f. sp. spinaciae
spinaciae Laubert

CISTACEAE

Helianthemum
alpestris

Tuberaria
leptoclada

CONVOLVULACEAE

Convolvulus
convolvuli
fritzii

*CRASSULACEAE

***Sempervivum**
**sempervivi*

CRUCIFERAE

Aethionema
aethionematis

Alliaria
niessleana
parasitica var. niessleana

Alyssum
alyssi-calycini
desertorum
galligena
menioci
parasitica f. sp. galligena
simonianii
taurica

Arabidopsis
arabidopsidis
minuta

Arabis
arabidis-alpinae
arabidis-glabrae
arabidis-hirsutae
arabidis-oxyphyllae
arabidis-strictae

Erysimum
erysimi
parasitica ssp. erysimi
syreniae-cuspidatae

Euclidium
euclidii
vvedenskyi

Eutrema
alliariae-wasabi

Goldbachia
goldbachiae

Heliophila
heliophilae

Hesperis
hesperidis

Hornungia
hornungiae
parasitica ssp. *euparasitica*

Hymenolobus
hymenolobi

Iberis
iberidis

Isatis
isatidis
isatidis var. jakutica

Lepidium
cardariae-repentis
lepidii
lepidii-perfoliati
lepidii-sativi
lepidii-virginici
maublancii
parasitica var. lepidii

Leptaleum
eigii
leptalei

Litwinowia
litwinowiae

Lobularia
alyssi-maritimi
lobulariae

Lunaria
lunariae
senecionis

Malcolmia
malcolmiae

Matthiola
matthiolae

Myagrum
myagri

Nasturtium
nasturtii-aquatici

Neotorularia
torulariae

Neslia
nesliae
parasitica ssp. nesliae

Pachyphragma
pachyphragmatis-macrophylli

Raphanus
parasitica var. *raphani*
brassicae f. sp. raphani Gäum.
brassicae f. sp. *raphani* Sawada

Rapistrum
rapistri Jaczewski & Serguiejeva
rapistri Oescu & Rădulescu

Rorippa
nasturtii-montani
nasturtii-palustris
rorippae-islandicae

Sinapis
brassicae f. sp. sinapidis

Sisymbrium
conferta
rhaetica
sisymbrii-loeselii
sisymbrii-officinalis
sisymbrii-orientalis

Streptoloma
streptolomatis

Syrenia
syreniae

Tauscheria
tauscheriae

Teesdalia
teesdaliae

Tetracme
golovinii

Thlaspi
thlaspeos-alpestris
thlaspeos-arvensis
thlaspeos-perfoliati

*CUCURBITACEAE

***Actinostemma**
**actinostemmatis*

***Citrullus**
**cucumeris*

***Cucumis**
**cucumeris*

***Cucurbita**
**cubensis*
**cubensis* var. *atra*
**cucumeris*

***Cyclanthera**
**australis*

***Luffa**
**luffae*

***Momordica**
**momordicae*

***Sicyos**
**sicycola*

*CYPERACEAE

***Cyperus**
**cyperi*

DIPSACACEAE

Cephalaria
cephalariae
cephalariae-laevigatae

Dipsacus
dipsaci
dipsaci f. *fulloni*

Knautia
knautiae
violacea Berk.

Scabiosa
karelii
knautiae

EUPHORBIACEAE

Euphorbia
andina
chamaesycis
cyparisiae
embergeri
esulae
euphorbiae
euphorbiae-glyptospermae
euphorbiae-thymifoliae
favargeri
hypericifoliae
**pepli*
valesiaca

*FAGACEAE

***Fagus**
**fagi*

GENTIANACEAE

Blackstonia
chlorae

Canscora
canscorina

Centaurium
erythraeae

Cicendia
chlorae f. cicendiae

Exaculum
chlorae f. cicendiae

Gentiana
carniolica
gentianae

GERANIACEAE

Erodium
effusa-ciconia
erodii

Geranium
beccarii
conglomerata
**geranii*
**pusilla*

*GRAMINEAE

***Kengia**
**diplachnis*

***Setaria**
**graminicola*
**setariae*

***Zea**
**maydis*

*GROSSLARIACEAE

***Ribes**
ribicola
ribis

HYDROPHYLLACEAE

Hydrophyllum
hydrophylli

Nemophila
nemophilae

ILLECEBRACEAE

Herniaria
herniariae

Scleranthus
scleranthi

LABIATAE

Acinos
calaminthae

Agastache
lophanthi

Amethystea
amethysteae Lebedeva
amethysteae Li & Bai

Chamaesphacos
chamaesphaci

Clinopodium
clinopodii

Dracocephalum
davisii
lophanthi var. moldavicae
rossica

Elsholtzia
elsholtziae

Galeopsis
galeopsidis

Glechoma
glechomae (Krieger) Majewski
glechomae Oescu & Rădulescu
lamii var. glechomae

Hedeoma
hedeomatis

Lallemantia
lallemantiae

Lamium
lamii

Leonurus
leonuri

Mentha
menthae
stigmaticola

Perilla
perillae

Salvia
swinglei

Satureja
saturejae-hortensis

Scutellaria
scutellariae

Sideritis
sideritidis

Stachys
stachydis H.Sydow in Gäum.
stachydis Thümen

Teucrium
teucrii Gäum.
teucrii Paul & Bhardwaj

Thymus
thymi

Ziziphora
ibrahimovii
ziziphorae

LEGUMINOSAE

Amphicarpaea
desmodii

Astragalus
astragali
astragali-purpurei
astragalina
dipeltae
phacae

Caragana
lagerheimii

Coronilla
coronillae
coronillae-minimae
coronillicola

trifolii-formosi
trifolii-hybridi
trifolii-minoris
trifolii-pilularis
trifolii-pratensis
trifolii-purpurei
trifolii-repentis
trifolii-repentis f. trifolii-hybridi
trifolii-repentis f. sp. trifolii-montani
trifoliorum
trifoliorum f. trifolii-alpestris
trifoliorum f. sp. trifolii-incarnati
trifoliorum f. trifolii-pratensis
trifoliorum f. sp. trifolii-rubentis

Trigonella
melissiti
trigonellae

Vicia
cilicica
effusa var. intermedia
ervi
fabae
mayorii
mayorii var. jakutica
narbonensis
sepium
viciae
viciae f. sepium
viciae f. viciae-sativae
viciae-sativae
viciae-venosae
viciicola

LILIACEAE

Lilium
**elliptica*
lilii

LIMNANTHACEAE

Floerkea
floerkeae

LINACEAE

Linum
lini Ell. & Kellerman
lini Schröter

LOGANIACEAE

Buddleja
hariotii

*MALVACEAE

***Gossypium**
**gossypina*

*MELIACEAE

***Melia**
**portoricensis*

*MYRICACEAE

***Myrica**
**rufibasis*

NYCTAGINACEAE

Mirabilis
oxybaphi

*ONAGRACEAE

***Epilobium**
**epilobii Otth*
**epilobii Rabenh.*

Oenothera
arthuri

OXALIDACEAE

Oxalis
oxalidis Koval
oxalidis Verwoerd & Du Plessis

PAPAVERACEAE

Argemone
gaeumannii Mundkur
indica Gäum.

Bocconia
bocconiae

Chelidonium
chelidonii
hylomeconis Golovin & Bunkina
hylomeconis Ito & Tokunaga

Corydalis
bulbocapni
bulbocapni f. corydalis-marschallianae
corydalis

corydalis-intermediae
corydalis-intermediae
f. corydalis-capnoidis

Dicentra
dicentrae

Fumaria
affinis

Glaucium
glaucii Lobik
glaucii Săvul. & Rayss

Hypecoum
hypecoi Bremer in Petrak
hypecoi Jaczewski

Meconopsis
gaeumannii Mayor
meconopsidis

Papaver
arborescens
argemones
cristata
grisea var. minor
papaveris-pilosi

Roemeria
roemeriae

PLANTAGINACEAE

Plantago
akatsukae
alta
alta var. *pedunculorum*
canescens
lanceolata
plantaginis

PLUMBAGINACEAE

Limonium
constantineanui
limonii
statices

POLEMONIACEAE

Microsteris
giliae

Phlox
phlogina

POLYGONACEAE

Bilderdykia
polygoni-convolvuli
sinensis

Eriogonum
eriogoni

Fagopyrum
ducometii
fagopyri Elenev
fagopyri Tanaka
parva Elenev

Polygonum
americana
effusa var. polygoni
polygoni

Rheum
jaapiana

Rumex
**obliqua*
rumicis
rumicis-rosei

PORTULACACEAE

Calandrinia
calandriniae

Claytonia
claytoniae

PRIMULACEAE

Anagallis
anagallidis
candida
candida f. *ramosissima*

Androsace
agrorum
androsaces
mirabilis

Cortusa
cortusae

Douglasia
gregoriae

Primula
**interstitialis*
oerteliana

RANUNCULACEAE
Aconitum
aconiti
Anemone
anemones
**curta*
**macrocarpa*
**macrocarpa* f. *elongata*
**pygmaea*
**pygmaea* var. *elongata*
**pygmaea* var. *vulgaris*
Consolida
consolidae
Eranthis
eranthidis-hyemalis
myosuri f. eranthidis-hyemalis
Helleborus
hellebori-purpurascentis
pulveracea
***Hepatica**
**hepaticae*
**pygmaea*
**pygmaea* var. *elongata*
**pygmaea* var. *vulgaris*
***Isopyrum**
**nivea* (Unger) Unger
Leptopyrum
leptopyri
parvula
Myosurus
myosuri
Ranunculus
alpicola
apiospora
ficariae
ficariae ssp. glacialis
gigantea
glacialis
hiemalis
illyrica
nivea (Unger) Unger
pennsylvanica
ranunculi
ranunculi-carpatici
ranunculi-flabellati
ranunculi-oxyspermi
ranunculi-peduncularis
ranunculi-peduncularis
var. ranunculi-minutiflori
ranunculi-sardoi
ranunculi-steveni
Thalictrum
**alpina*
yamadana
Trautvetteria
iwatensis

RESEDACEAE
Reseda
crispula

ROSACEAE
Agrimonia
agrimoniae
Alchemilla
alchemillae
Filipendula
ibarakii
Geum
gei
potentillae var. gei
Potentilla
fragariae
potentillae
potentillae-anserinae
potentillae-reptantis
potentillae-sterilis
Rosa
rosae-gallicae
sparsa
Rubus
rubi
Sanguisorba
sanguisorbae

RUBIACEAE
Asperula
insubrica
Crucianella
crucianellae Lindtner
crucianellae Maire
Cruciata
galii-pedemontani

Galium
aparines
borealis
calotheca
calotheca var. aparines
calotheca var. *asperulae*
calotheca var. galii-vaillantii
calotheca var. molluginis
galii
galii-anglici
galii-rubioides
galii-trifidii
galii-veri
hiratsukae
hommae
sakamotoi
silvatica

Houstonia
seymourii

***Mitracarpus**
**borreriae*

Rubia
rubiae

Sherardia
calotheca var. sherardiae
sherardiae

SANTALACEAE

Thesium
thesii

SAXIFRAGACEAE

Chrysosplenium
chrysosplenii
nivea (Unger) Unger

Saxifraga
minima
saxifragae

Whipplea
whippleae

SCROPHULARIACEAE

Calceolaria
andicola
indica H. & P. Sydow

Chaenorhinum
linariae

Digitalis
digitalidis

Erinus
erini

Euphrasia
lapponica

Linaria
canadensis
flava
linariae-genistifoliae

Lindenbergia
satarensis

Melampyrum
melampyri
melampyri-cristati
tranzscheliana

Mimulus
jacksonii

Misopates
antirrhini
orontii

Odontites
sordida var. odontitis-serotinae

Pedicularis
pedicularis

Rhinanthus
**densa*
pocutica

Scrophularia
sordida

Tozzia
tozziae

Verbascum
celsiae
verbasci

Veronica
agrestis
aquatica
arvensis
grisea
palustris
saxatilis
silvestris
verna
veronicae-cymbalariae

SOLANACEAE

Capsicum
capsici

Hyoscyamus
dubia
effusa var. *hyoscyami*
hyoscyami
hyoscyami var. *minor*

Lycium
lycii

Nicotiana
hyoscyami f. sp. hybrida
hyoscyami f. sp. tabacina
hyoscyami f. sp. velutina
nicotianae
tabacina

***Solanum**
**devastatrix*
**fintelmanii*
**infestans*
**trifurcata*

*ULMACEAE

***Celtis**
**celtidis*

*UMBELLIFERAE

***Aegopodium**
**nivea* (Unger) Unger
**podagrariae*
**umbelliferarum*
**umbelliferarum* var. *aegopodii*

***Angelica**
**umbelliferarum*
**umbelliferarum* var. *angelicae*

***Anthriscus**
**umbelliferarum*
**umbelliferarum* var. *chaerophylli*

***Conium**
**umbelliferarum*
**umbelliferarum* var. *conii*

***Heracleum**
**crustosa*
**heraclei*

***Pastinaca**
**nivea* f. *pastinacae*
**umbelliferarum* var. *berkeleyi*

***Pimpinella**
**macrospora*

URTICACEAE

Parietaria
**illinoensis*
**parietariae Roum.*
parietariae Vanev & Dimitrova

Urtica
debaryi
**urticae*

VALERIANACEAE

Centranthus
centranthi

Patrinia
patriniae

Valeriana
valerianae

Valerianella
valerianellae

VIOLACEAE

Viola
**megasperma*
violae

*VITACEAE

***Vitis**
**viticola*

ZYGOPHYLLACEAE

Tribulus
tribulina

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