

Volume LXXIII, pp. 33-44

October-December 1999

# SOME IMPORTANT CORRECTIONS TO THE ASCOMYCETES RECORDED ON CYPERACEAE AND JUNCACEAE FROM THE EASTERN ALPS BY SCHEUER (1988)

## **Christian SCHEUER**

Karl-Franzens-Universität Graz, Institut für Botanik, Holteigasse 6, A-8010 Graz, Austria (E-mail: christian.scheuer@kfunigraz.ac.at)

#### **Abstract**

The present paper is a compilation of important corrections to the work by Scheuer (1988, Bibliotheca Mycologica 123), dealing with small ascomycetes found on rotting leaves and stems of Cyperaceae and Juncaceae in the Eastern Alps. One nomen novum (*Pyrenopeziza perminuta*) and three new combinations (*Pyrenopeziza pubescens, Trichometasphaeria fusispora, Massarina pusillispora*) are proposed. The records of *Micropeziza comea* and *Psilachnum eburneum* were based on misidentifications and must be deleted. All records listed under *Lophodermium* are problematic. A full annotated list of the taxa recorded by Scheuer (1988) will be available on the World Wide Web (http://www-ang.kfunigraz.ac.at/~scheuer/publ.htm).

Key Words: Mycobiota, mycoflora, mycota; fungi, saprophytes; Austria. Europe.

Scheuer (1988) recorded 153 taxa of ascomycetes (55 genera) fruiting on dead leaves and stems of Cyperaceae and Juncaceae in the Eastern Alps. Subsequently, a number of important taxonomic changes (new combinations, better delimitation of species, etc.) happened to the taxa treated in this work. Schmid-Heckel (1988), Nograsek (1990), Magnes & Hafellner (1991), and Nograsek & Matzer (1994) also treated a considerable number of taxa on Cyperaceae and Juncaceae from the area and contributed important corrections and additions. It should be noted here that some taxa described by Nograsek (1990) were validated in a later publication (Nograsek & Matzer 1991). In addition, some typographic errors, a few misidentifications, and similar mistakes have come to light. The present paper deals with all mistakes discovered so far, and covers some of the taxonomic changes and unsolved problems.

All other references cited below usually belong to taxonomic literature used for identification. Unless stated otherwise, herbarium specimens are deposited in GZU. The currently accepted names and the new combinations are printed in **boldface italics**. A full annotated list of the taxa recorded by Scheuer (1988) will be available on the World Wide Web (http://www-ang.kfunigraz.ac.at/~scheuer/publ.htm).

Rich collections of cypericolous and juncicolous ascomycetes from the area have been distributed in the exsiccata series 'Mycotheca Graecensis' (Scheuer & Poelt† 1997) and in the duplicate series 'Dupla Fungorum' (Scheuer 1997).

- Brunnipila calycioides (Rehm) Baral in Baral & Krieglsteiner 1985. Magnes & Hafellner (1991) found that the apical ring of the asci shows an IKI+ red (hemiamyloid) reaction, not IKI+ blue (euamyloid) as erroneously indicated by Scheuer (1988). However, H.O. Baral (pers. comm.) noted that at low IKI concentrations both the IKI+ red (rr type) and the IKI+ blue (rb type) reaction may occur (see Baral 1987).
  - Cistella hoehnelii Scheuer 1988 (as nomen novum)

Bas.: Psilachnum granulosellum Höhnel 1926

(non Peziza granulosella P. Karsten 1869 ≡ Cistella granulosella (P. Karst.) Nannf.)

- ≡ Dasyscypha granulosella (Höhn.) Dennis 1949
- ≡ Clavidisculum granulosellum (Höhn.) Raitviir 1970

Syn.: Clavidisculum graminicola Raitviir 1969

≡ Cistella graminicola (Raitv.) Raitviir 1978

When Scheuer (1988) based his nomen novum on Höhnel's (1926) protologue of *Psilachnum granulosellum* and on the description and drawings provided by Dennis (1949), he was not aware of the paper by Raitviir (1978) who had already provided a new combination in *Cistella* for a later synonym of *P. granulosellum*, viz. *Clavidisculum graminicola* Raitviir, and listed *P. granulosellum* as a synonym of *C. graminicola*. Magnes & Hafellner (1991) and Nograsek & Matzer (1994) followed Raitviir (1978) instead of Scheuer (1988) and also named their collections *C. graminicola*. However, a taxon with a valid description and a satisfactory type specimen cannot be neglected. In the meantime, Höhnel's specimen of the type collection of *P. granulosellum* in FH was examined. It is designated here as the LECTOTYPE: 'Rehm: Ascomycetes exs. no. 1958. *Urceolella chionea* (Mass. et Crossl.) Rehm. An Blättern von *Carex pendula*. Pfalzau-Pressbaum im Wiener Wald, N.-Oesterreich. 4.1911, v. Keissler' (FH, Höhnel collection).

- Clathrospora heterospora (De Not.) Wehmeyer var. heterospora; Wehmeyer 1961, Shoemaker & Babcock 1992 as C. heterospora. Scheuer (1988, Taf. 29, Fig. c) mentioned a collection on Juncus jacquinii L. (Austria, Salzburg, Hohe Tauern, Hafner-Gruppe, Oberer Rotgüldensee, 2000 m alt., 20.08.1981, leg. Ch. Scheuer) with extremely large ascospores ('70-90 × 32-44 × 15 µm'). However, when a representative number of ascomata in this collection was re-examined, those large ascospores were not found again. Presumably they had been studied during the process of swelling before germination.
- Coronellaria caricinella (P. Karst.) P. Karst.; Müller & al. 1964, Baral in Baral & Krieglsteiner 1985. One of the alpine collections (on Carex aterrima Hoppe, Austria, Steiermark, Gurktaler Alpen, Turrach, Dieslingsee, 2000 m alt., 15.07.1930, leg. Genta) should be excluded from this species because the asci showed an IKI- apical apparatus when they were re-examined, just like the 'Coronellaria cf. caricinella' treated by Nograsek & Matzer (1994). These IKI- collections probably belong to Hysteronaevia rather than Coronellaria. They are possibly conspecific with Hysteronaevia fimbriata Dennis & Spooner (1993).
- 'Didymella' caricis H. Sydow 1921; Spooner & Dennis 1986. See also below under 'Wettsteinina cf. niesslii'. It must be noted here that two altitudes are given for one of the collections (on Carex pendula Huds., Austria, Oberösterreich, Schwarzberg S [of] Steyr, 21.04.1984, leg. Ch. Scheuer); 750 m is the correct altitude for this locality.

- Gaeumannomyces cf. tax. sp. 3 (Walker 1980). The hyphopodia found in our collections apparently agree with those of Walker's (1980) 'Gaeumannomyces tax. sp. 3', but the spores of this provisory taxon are much longer, (50)55-75(80) × 2-3(4) μm (Walker 1980). A collection on Juncus gerardii Loisel. from North Hoy (Orkney Is.; Dennis & Spooner 1992, 1993) agrees with our collections in ascospore characters (36-43 × 3.2-3.8 μm), but the hyphopodia figured by these authors look different. Unfortunately our material is too scant to provide a satisfactory holotype.
- Gibbera myrtilli (Cooke) Petr.; Barr 1968, Remler 1979. This record was not properly listed but included in the discussion of the macroscopically similar Niesslia exosporioides (as Gibbera cf. myrtilli). The specimens agree with collections on the typical substrate, dead leaves of Vaccinium myrtillus L. (Ericaceae).
- Hysteropeziza pubescens Hein & Scheuer 1986. H. pubescens and the following species, H. pusilla, belong in a group of species last treated by Défago (1968) under the generic name Pyrenopeziza (here termed the 'P. karstenii group'). When Hein & Scheuer (1986) described H. pubescens and H. pusilla, they emended the generic name Hysteropeziza Rabenh. to accommodate these two species, but did not suggest new combinations for any other species of the P. karstenii group. However, the type species of Hysteropeziza, H. erumpens (Fr.) Rabenh. (a synonym of Pyrenopeziza petiolaris (Alb. & Schw.: Fr.) Nannf.) should not be removed from the genus Pyrenopeziza (Hütter 1958; H.O. Baral, pers. comm.). Nauta & Spooner (1999) also suggested that Hysteropeziza should be treated as a synonym of the earlier Pyrenopeziza Fuckel. There is yet another, rather debatable possibility to separate the P. karstenii group from Pyrenopeziza, Saccardo (1884), when he described the genus Belonium, included only the species Belonium graminis (Desm.) Sacc. but drew up the generic description from material of what is now recognized as a different species, Belonium hystrix (De Not.) Höhn. As Baral (1994) pointed out, the type of Belonium is a specimen of Peziza graminis Desm. and that only by conservation could one change the application of the name Belonium. Baral (1994) suggested the adoption of Cejpia hystrix (De Not.) Baral, the abandonment of the ambiguously applied Belonium, and a review of the genera Ceipia, Hysteropezizella and Coronellaria. However, there is a case for the adoption of Belonium as originally typified (Peziza graminis Desm.). Desmazières' type material is now regarded as conspecific with either Pyrenopeziza karstenii Sacc. or P. fuscescens (Rehm) Défago. This is also supported by the illustrations provided by Boudier (1905-1910, pl. 548) under the name Pyrenopeziza graminis (Desm.) Sacc. Belonium Sacc. could therefore serve as a generic name for the Pyrenopeziza karstenii group. However, at present the generic taxonomy appears too unsettled to re-establish the generic name Belonium Sacc.

Hysteropeziza pubescens is clearly related to Pyrenopeziza karstenii and allied species as outlined by Défago (1968), and although the large genus Pyrenopeziza may be split up in the future, a new combination is suggested here:

Pyrenopeziza pubescens (Hein & Scheuer) Scheuer comb. nov.

Bas.: Hysteropeziza pubescens Hein & Scheuer 1986, Sydowia 38: 133.

• Hysteropeziza pusilla Hein & Scheuer 1986. — It must be added here that the ascomata of Hysteropeziza pusilla in the type collection were also found on living leaves which had persisted from the previous vegetation period. Any other collections published as H. pusilla so far are probably not conspecific with the type, e.g., the collections on Carex paniculata L. (Hein & Scheuer 1986) or Carex rostrata Stokes ex With. (Magnes & Hafellner 1991). Usually the ascus and ascospore sizes exceed the measurements given for the type collection on Carex brizoides L. (Magnes & Hafellner

1991). This is probably an aggregate of small to minute members of the *Pyrenopeziza* karstenii group, all keying out under *Hysteropeziza* pusilla at the moment.

For the same reasons as in *H. pubescens*, a new combination seems appropriate, but because of the earlier *Pyrenopeziza pusilla* Saccardo & Spegazzini (in Saccardo 1878, Michelia 1: 423) a nomen novum is necessary:

Pyrenopeziza perminuta Scheuer nom. nov.

Bas.: Hysteropeziza pusilla Hein & Scheuer 1986, Sydowia 38: 134.

• Keissleriella fusispora Scheuer 1988. — Barr (1987, 1990, 1992) found that the type species of the genus Keissleriella Höhn, belongs in the Melanommatales (Melanommataceae) and suggested to accommodate a number of former Keissleriella species in the genus Trichometasphaeria Munk (Pleosporales, Massarinaceae = Lophiostomataceae). Therefore the following new combination is proposed:

Trichometasphaeria fusispora (Scheuer) Scheuer comb. nov.

Bas.: Keissleriella fusispora Scheuer 1988, Biblioth. Mycol. 123: 86.

A typographic error occurred in the Latin diagnosis of the protologue. The corrected passage reads as follows:

```
Sporae ... symmetricae, primum 1-septatae ...
```

- Lachnum callimorphum (P. Karst.) P. Karst.; Dennis 1949 as Dasyscypha callimorpha, Raitviir 1970 as Dasyscyphus callimorphus, Dennis 1980 under Dasyscyphus imbecillis. The two collections with longer-stalked ascomata on Carex sempervirens Vill. mentioned by Scheuer (1988) are conspecific with the collections on Carex ericetorum Pollich (confirm. H.O. Baral).
- Lachnum elongatisporum Baral in Raitviir & Sacconi 1991 (as nom. prov. in Baral & Krieglsteiner 1985); Dennis 1949 as Dasyscypha carneola var. longispora.
- Lachnum imbecille P. Karst.; Dennis 1980 as Dasyscyphus imbecillis, Schmid-Heckel 1988 as Dasyscyphus imbecillis. It remains open to doubt whether the collections by Scheuer (1988) and Magnes & Hafellner (1991) are really conspecific with the type of Lachnum imbecille (H.O. Baral, pers. comm.; Dennis 1980).
  - Leptosphaeria caricis-firmae: see under Phaeosphaeria c.
- Lophodermium juncinum (Jaap) Terrier in Müller 1977 (sensu Terrier), on Juncus trifidus L., Austria, Salzburg, Radstädter Tauern, Esser Alm unterhalb vom Mosermandl [Mosermannl], 2100 m alt., 24.07.1982, leg. Ch. Scheuer. This specimen was misidentified by Scheuer (1988) as 'Rhytisma' juncicola (see below), and redetermined by P.R. Johnston (Auckland, 1996).
- Lophodermium Iuzulae Hazsl. The ascomata in the collection from Switzerland listed by Scheuer (1988) were apparently immature and not identifiable (vid. P.R. Johnston, Auckland, 1996); see also annotations to 'Rhytisma' juncicola below.
- 'Rhytisma' juncicola Rehm; Rehm '1896'. Except for the single specimen redetermined as Lophodermium juncinum sensu Terrier by P.R. Johnston (see above), all other identifications listed under Lophodermium juncinum, L. luzulae and 'Rhytisma' juncicola by Scheuer (1988) are uncertain. However, it should be noted here that Lophodermium luzulae and 'Rhytisma' juncicola agree in the structure of the ascoma wall. Coccomyces coronatus (Schum. ex Fr.) De Not., a species on leaves of deciduous trees, has the same wall structure (annot. P.R. Johnston, Auckland, 1996).
- Massariosphaeria grandispora (Sacc.) Leuchtmann 1984; Müller 1950 as Leptosphaeria g., Holm & Holm 1988. — Although the laterally compressed ostiole is often

lacking in smaller ascomata, the most convenient current name appears to be *Lophiotrema grandisporum* (Sacc.) Shoemaker & Babcock (1989).

• Massariosphaeria pusillispora Scheuer 1988. — The different concept for the genus Massariosphaeria (E. Müller) Crivelli suggested by Barr (1989, as Chaetomastia (Sacc.) Berl.) also excludes M. pusillispora. Scheuer (1991a) accommodated a very similar species in the genus Massarina Sacc. (Massarinaceae = Lophiostomataceae), M. tetraploa Scheuer. According to a revision of Massarina by Aptroot (1998), M. tetraploa was not combined into another genus. Therefore the following new combination is suggested:

Massarina pusillispora (Scheuer) Scheuer comb. nov.

Bas.: Massariosphaeria pusillispora Scheuer 1988, Biblioth. Mycol. 123: 100.

- Micropeziza comea (Berk. & Broome) Nannfeldt 1976. H.O. Baral (pers. comm.) has re-identified one of Scheuer's (1988) collections as 'Hymenoscyphus' salmanovicensis Svrček (1978). All other collections recorded by Scheuer (1988) are conspecific. In addition, it must be noted here that this fungus has apparently nothing to do with Trochila ignobilis P. Karst., a synonym of the real Micropeziza comea (Nannfeldt 1976).
- Monascostroma innumerosum (Desm.) Höhn.; Munk 1957, Müller & Arx 1962.
   Apparently the somewhat longitudinal arrangement of the finely verruculose ascospore wall ornament figured by Scheuer (1988) is not a regular feature of the ascospore wall surface.
- ?Montagnula spec. indet. Scheuer (1988) described and figured the coarsely ornamented, dark brown, almost opaque ascospore walls and suggested that this fungus might be a relative of Montagnula opaca (Wegelin) Crivelli with smaller, 'reduced' ascomata. It should be noted here that Nograsek (1990) did not follow this suggestion and placed two very similar species in the genus Phaeosphaeria Miyake, viz. Ph. glebosoverrucosa Nograsek and Ph. nanosalicium Nograsek. Leptosphaeria kochiana E. Müller (1951) is most probably another species of this group (E. Müller, pers. comm.).
- Mycosphaerella hypostomatica Höhn.; Tomilin 1979 (erroneously as M. hypostromatica). Type material should be compared with Scheuer's (1988) collections to assess the conspecificity.
- Naeviella paradoxa (Rehm) Clem.; Défago 1968 as Eupropolella p., Nannfeldt 1982. Scheuer (1988, as 'Naeviella aff. paradoxa') also recorded a very similar fungus with slightly shorter ascospores discovered in two collections on Elyna myosuroides (Vill.) Fritsch. Asci and ascospores from both collections on this host were figured by Scheuer (1988, Taf. 5, Fig. b and c). Unfortunately, Fig. c was erroneously labelled Naeviella volkartiana. It shows 'Naeviella aff. paradoxa' on Elyna myosuroides.
- Naeviella poeltiana Scheuer 1988. This is turning out to be a problematic taxon because of the apparent differences in the intensity of the hemiamyloid (IKI+ red) reaction of the apical ring between different collections. According to Nograsek & Matzer (1994), the asci in their collections of N. poeltiana on Carex firma Mygind show an IKI— apical ring. On the other hand, a collection on Luzula alpino-pilosa (Chaix) Breistr. showed a much more intense IKI+ red reaction than the type on Carex ferruginea Scop. (erroneously the iodine reaction of the collection on Luzula alpino-pilosa was cited as IKI+ blue by Nograsek & Matzer 1994).

● 'Leptosphaeria' caricis-firmae Petrak 1947; present name: Phaeosphaeria caricis-firmae (Petr.) Leuchtmann & Schmid-Heckel in Schmid-Heckel 1988. — Apparently the new combination and re-description of Petrak's species were published a bit too late to be included in the monograph by Shoemaker & Babcock (1989). These authors described a very similar taxon, Ph. exarata Shoemaker & Babcock, found on Carex sempervirens Vill. in Switzerland. According to their description and illustrations, it is most probably conspecific with Ph. caricis-firmae.

Nograsek (1990) pointed out two differences between our material (mainly on *Carex firma* Mygind, one collection on *Carex atrata* L.) and Petrak's protologue. Firstly, Petrak emphasized the parasitic lifestyle of the fungus, which should grow mainly on dead leaf tips, causing a dieback downward to the leaf base. Secondly, Petrak did not mention the characteristic longitudinally striate ornamentation of the ascospore wall. However, the type specimen in W shows that well-developed ascomata can also be found on dead (but still undecayed) leaves and that mature ascospores are uniformly striate.

- 'Phaeosphaeria eustoma (Fuckel) L. Holm 1957 sensu lato'. Both collections described under this name by Scheuer (1988) do not belong to Ph. eustoma s.str. as delimited in the revision by Shoemaker & Babcock (1989). The taxonomic positions of Scheuer's 'Phaeosphaeria eustoma I' and 'Phaeosphaeria eustoma II' (both on Juncus effusus L.) remain unclear. It should be noted here that they apparently belong in two different subgenera described by Shoemaker & Babcock (1989): 'Phaeosphaeria eustoma I' would key out in subgen. Phaeosphaeria (probably close to Phaeosphaeria eustoma s.str.), 'Phaeosphaeria eustoma II' resembles Phaeosphaeria moravica Shoemaker & Babcock (1989) and Phaeosphaeria juncinella (Mouton) Shoemaker & Babcock (1989) in subgen. Fusispora. On the other hand, the collections published by Magnes & Hafellner (1991, on Equisetum fluviatile L. and Carex rostrata Stokes ex With.) are apparently conspecific with Phaeosphaeria eustoma s.str.
- Phaeosphaeria herpotrichoides (De Not.) L. Holm 1957 sensu lato. Shoemaker & Babcock (1989) split up the former collective species Ph. herpotrichoides. The three collections tentatively identified by Scheuer (1988) as Eriksson's (1967) 'form 5a' and 'form 5b', can now be accommodated in Phaeosphaeria erikssonii Shoemaker & Babcock (1989). However, the asci and ascospores of the collection on Carex leporina L. are larger than in typical Ph. erikssonii and often show an additional septum in the lower hemispore.

The species in Scheuer's unilocal lowland collections on *Carex elata All., C. vesicaria* L. and *Scirpus radicans* Schkuhr could not be assigned to any of Eriksson's (1967) 'forms', nor to any of Shoemaker & Babcock's (1989) taxa (Scheuer 1988, Taf. 27, Fig. f).

• Phaeosphaeria juncicola (Rehm) L. Holm 1957; Leuchtmann 1984, Schmid-Heckel 1988, Shoemaker & Babcock 1989. — The isotype specimen of Ph. juncicola in GZU (Rehm: Ascomycetes exs. no. 533, as Leptosphaeria juncicola) agrees with the description of Holm (1957) or Leuchtmann (1984) who gave ascospore measurements of 30-46 × 4-4.5 μm. The ascospores from the isotype in FH figured by Shoemaker & Babcock (1989) are apparently shorter and slightly broader, 30-35 × 4.5-5.5 μm, just like in the original drawing by Rehm preserved with the type specimen in S. However, when the type specimen from S was examined, it was found that part of the ascomata in the type collection are slightly immature and that the ascospores drawn by Shoemaker & Babcock (1989) and Rehm apparently represent the lower range of variation.

- Phaeosphaeria juncina (Auersw. ap. Rabenh.) L. Holm 1957. Shoemaker & Babcock (1989) examined type material of this species and found that the ascospores have longitudinally striate walls and are also much smaller than in the species treated under the name Ph. juncina by Holm (1957), Hedjaroude (1969), Leuchtmann (1984), and Scheuer (1988). Shoemaker & Babcock (1989) re-separated all taxa synonymized by these authors under Ph. juncina. Now Scheuer's (1988) collections key out under Phaeosphaeria petkovicensis (Bub. & Ranoj. in Ranoj.) Shoemaker & Babcock (1989).
- Phomatospora berkeleyi Sacc. sensu lato; Arx & Müller 1954, Webster 1955, Nograsek 1990, Magnes & Hafellner 1991. The small-spored Phomatospora species usually identified as Ph. berkeleyi are in need of revision. The presence or absence of gelatinous coats or terminal appendages of the ascospore wall may provide some useful morphological characters, but ascospore proportions may also be important. For example, the fungus on Carex firma Mygind with conspicuously broader ascospores figured by Scheuer (1988, Taf. 15, Fig. e) and Nograsek (1990) is apparently not conspecific with Ph. berkeleyi.
- Phomatospora radegundensis Scheuer 1988. It must be noted here that the paratype collection (same locality as holotype, 24.05.1987) was erroneously termed 'Isotypus' after the Latin diagnosis and 'Topotypus' after the German description. At first this species was rather isolated within the genus, but two years later Nograsek (1990) described a very similar species found on Carex firma Mygind and Poa alpina L., Ph. admontensis. However, the type species of the genus, Ph. berkeleyi, and nearly all other currently accepted Phomatospora species have the typical striate ascospore wall ornamentation.
- Phomatospora striatigera Scheuer 1988. Fallah & Shearer (1998) re-examined the holotype of Ph. striatigera and added some important observations to the original description and illustrations. The ascospores show bipolar rounded gelatinous caps, just like Ph. berkeleyi s.str. (Fallah & Shearer 1998, holotype), Ph. aquatica Minoura & Muroi (1978), and Ph. bellaminuta Kohlmeyer & al. (1995). When mounted in lactic acid with azure A for several hours, the guttules in the ascospores become more distinct in shape and move slightly away from the centre at which time a septum becomes clearly visible in the middle of the ascospore. The majority of ascospores examined from the holotype were one-septate.

*Ph. striatigera* remains an unilocal species so far. The two less certain records given by Scheuer (1988) probably belong to an undescribed taxon with smaller ascomata and ascospores.

- Phyllachora therophila (Desm.) Arx & Müller 1954. Magnes & Hafellner (1991) pointed out that Scheuer (1988) had overlooked the small IKI+ red (hemiamyloid) apical ring of the ascus in this species. The same mistake was made in the key (Scheuer 1988, Key A, 8a/b). Therefore Ph. therophila would key out under 8a, together with the genus Physalospora. Barr (1994) accommodated Ph. therophila in Phomatospora again, as Ph. therophila (Desm.) Sacc.
- Physalospora alpestris Niessl; Arx & Müller 1954, Schmid-Heckel 1988, Nograsek 1990. The range of variation in peridium pigmentation and ascus/ascospore size among the different collections indicated by Scheuer (1988) has not yet been evaluated. Nograsek (1990) noted that the apical ring of the asci shows an IKI+red (hemiamyloid) reaction (IKI+ blue after pretreatment with KOH).

- Physalospora moutoni Sacc. & P. Syd., Syn. Ph. palustris Mout. (non Ph. palustris (Mont.) Sacc.); Saccardo & Sydow 1902 (erroneously cited as 'Saccardo 1902' by Scheuer 1988: 157). Magnes & Hafellner (1991) recorded a similar species, Ph. aquatica Ingold (1955). The differences between Ph. moutoni and Ph. aquatica would require a more detailed study, including type material, because the wide range of variation assumed by Scheuer (1988) would include this collection of Ph. aquatica in Ph. moutoni. However, Magnes & Hafellner (1991) emphasize the occurrence of septate, branched periphyses as a diagnostic character of Ph. aquatica. For the time being, this may be regarded as an acceptable solution in such an imperfectly known genus. Just like in Ph. alpestris, the iodine reactions of the asci should be tested on a broader basis. Magnes & Hafellner (1991) noted that the iodine reaction of the apical ring in Ph. aquatica was euamyloid (IKI+ blue).
  - PLEOSPORA Rabenh. ex Ces. & De Not.

Fam. Pleosporaceae; Crivelli 1983 ...

This is the correction of a typographic error in the heading of Scheuer's (1988) treatment of *Pleospora* spp.

- Pleospora scirpi (Rabenh.) Ces. & De Not. Shoemaker & Babcock (1992) revived the genus Macrospora Fuckel for P. scirpi and its allies. They also demonstrated that Crivelli's (1983) concept of the species was apparently too broad and separated two taxa united by him, viz. Macrospora scirpi (Fr. ex Rabenh.) Shoemaker & Babcock and M. scirpicola (DC.: Fr.) Fuckel. The two collections on Schoenoplectus lacustris (L.) Palla listed by Scheuer (1988) belong to Macrospora scirpicola.
- Psilachnum eburneum (Rob. ap. Desm.) Baral in Baral & Krieglsteiner 1985. This was a misidentification based on immature apothecia of *Psilachnum acutum* (Velen.) Svrček still lacking the characteristic lanceolate paraphyses.
  - 'Rhytisma' juncicola: see under Lophodermium.
- Taphrophila cornu-capreoli Scheuer 1988. Scheuer (1989, 1991b) added some important features to the original description, e.g., the presence of pseudoparaphyses in mature ascomata. Therefore it became obvious that Taphrophila Scheuer does not belong in the Herpotrichiellaceae, where it was tentatively placed by Scheuer in 1988, but to the Tubeufiaceae, close to Tubeufia Penzig & Sacc. s.l. as outlined by Barr (1980). Scheuer (1991b) found a hyphomycetous anamorph in pure cultures derived from single ascospores of British material. It was assigned to the form genus Mirandina Arn. ex Mats. (B. C. Sutton, pers. comm.). In addition, it should be noted that the mycelium is not only superficial but also intramatrical (Scheuer 1991b).

A typographic error occurred in the Latin diagnosis of the genus. The corrected passage reads as follows:

Mycelium superficiale, brunneum ...

• Trichonectria hyalocristata Scheuer 1988. — Unfortunately two mistakes occurred in the original description. Firstly, the author wrote 'Paraphyses in peritheciis maturis sparsissimae, indistinctae'. If any remnants of interascal hyphae are found in a Hypocrealean ascoma, they should normally be interpreted as pseudoparaphyses, not as paraphyses. Secondly, an important passage of five words was missing in the German version of the original description which should read:

... Pseudoparaphysen in reifen Fruchtkörpern sehr spärlich und undeutlich. - Asci sehr zahlreich, ± spindelig, ...

This minute species was also found in Britain (Scheuer 1989).

- Wentiomyces molarifer Scheuer 1988. Barr (1997) suggested the abandonment of the problematic name Wentiomyces Koord. and reinstated the genera Raciborskiomyces Siemaszko and Neocoleroa Petr. instead. The currently accepted name of W. molarifer is Neocoleroa molarifera (Scheuer) M.E. Barr.
- \*Wettsteinina cf. niesslii\* E. Müller 1950. According to a type study by Scheuer (1995), the fungus described by Scheuer (1988) under this name is definitely not conspecific with Wettsteinina niesslii s.str. Apparently it represents a new species closely related to Didymella caricis and W. niesslii s.str., but the present specimens are too scant to serve as type material. Although it may be assumed that these three species are congeneric, they are not typical representatives of the genus Wettsteinina, at least not if compared to the type species, Wettsteinina gigaspora Höhn. The same applies for the genera Didymella and Massarina. The choice of genera to accommodate such species is very limited at the moment, therefore no new combinations are proposed here.
- SPECIES INCERTAE SEDIS 1 and SPECIES INCERTAE SEDIS 2 (Scheuer 1988). These two species belong in the genus **Ceramothyrium** Petr., maybe close to **Ceramothyrium** camiolicum Constantinescu & al. (1989).

Finally, it must be noted that an incorrect date for the book by Breitenbach & Kränzlin (1984) occurred in the reference list (Scheuer 1988, p. 260) and in the text (p. 53, p. 192). The year of publication was erroneously given as 1981 instead of 1984.

# Acknowledgments

Thanks are due to the curators and staff of the herbaria FH, S, and W for loans of type specimens, and to Hans Otto Baral (Tübingen), Burghard Hein (Berlin), Peter R. Johnston (Auckland, N.Z.), Martin Magnes (Graz), Ain Raitviir (Tartu), Robert A. Shoemaker (Ottawa), and other colleagues for revisions of herbarium material, advice and helpful discussions.

### Literature cited

Aptroot A. 1998. A world revision of *Massarina* (Ascomycota). – Nova Hedwigia 66(1-2): 89-162.

Arx J.A. von & Müller E. 1954. Die Gattungen der amerosporen Pyrenomyceten. – Beiträge zur Kryptogamenflora der Schweiz 11(1), 434 pp.

Baral H.O. 1987. Lugol's solution/IKI versus Melzer's reagent: hemiamyloidity, a universal feature of the ascus wall. – Mycotaxon 29: 399-450.

Baral H.O. 1994. Comments on the 'Outline of the ascomycetes - 1993'. – Systema Ascomycetum 13: 113-128.

Baral H.O. & Krieglsteiner G.J. 1985. Bausteine zu einer Askomyzeten-Flora der BR Deutschland: In Süddeutschland gefundene inoperculate Discomyzeten. – Beihefte zur Zeitschrift für Mykologie 6: 1-160.

Barr M.E. 1968. The Venturiaceae in North America. – Canadian Journal of Botany 46: 799-864.

Barr M.E. 1980. On the family Tubeufiaceae (Pleosporales). – Mycotaxon 12(1): 137-167.

Barr M.E. 1987. Prodromus to Class Loculoascomycetes. – Amherst, Massachusetts. 168 pp.

Barr M.E. 1989. The genus *Chaetomastia* (Dacampiaceae) in North America. – Mycotaxon 34(2): 507-515.

Barr M.E. 1990. Melanommatales (Loculoascomycetes). In: North American Flora. Series II, Part 13: 1-129. – New York.

Barr M.E. 1992. Notes on the Lophiostomataceae. - Mycotaxon 55: 191-221.

Barr M.E. 1994. Notes on the Amphisphaeriaceae and related families. – Mycotaxon 51: 191-224.

Barr M.E. 1997. Notes on some 'dimeriaceous' fungi. - Mycotaxon 64: 149-171.

Boudier E. 1905-1910. Icones Mycologicae. Tome III. Planches 422 - 600. - Paris.

Breitenbach J. & Kränzlin F. 1984. Pilze der Schweiz. I. Ascomyceten (Schlauchpilze). – Luzern. 313 pp.

Constantinescu O., Holm K. & Holm L. 1989. Teleomorph-anamorph connections in Ascomycetes. 1 - 3. *Stanhughesia* (Hyphomycetes) new genus, the anamorph of *Ceramothyrium*. – Studies in Mycology 31: 69-84.

Crivelli P.G. 1983. Ueber die heterogene Ascomyceten-Gattung *Pleospora* Rabh.; Vorschlag für eine Aufteilung. – Dissertation ETH Zürich Nr. 7318, 213 pp.

Défago G. 1968. Les *Hysteropezizella* von Höhnel et leurs formes voisines (Ascomycetes). – Sydowia 21: 1-76.

Dennis R.W.G. 1949. A revision of the British Hyaloscyphaceae with notes on related European species. – Mycological Papers 32, 97 pp.

Dennis R.W.G. 1980. New or critical fungi from the Highlands and Islands. – Kew Bulletin 35: 343-361.

Dennis R.W.G. & Spooner B.M. 1992. The Fungi of North Hoy, Orkney - I. - Persoonia 14(4): 493-507.

Dennis R.W.G. & Spooner B.M. 1993. The Fungi of North Hoy, Orkney - II. - Persoonia 15(2): 169-177.

Eriksson O.E. 1967. On graminicolous pyrenomycetes from Fennoscandia. II. Phragmosporous and scolecosporous species. – Arkiv för Botanik 6(9): 381-440.

Fallah P.M. & Shearer C.A. 1998. Freshwater Ascomycetes: *Phomatospora* spp. from lakes in Wisconsisn. – Mycologia 90(2): 323-329.

Hedjaroude G.A. 1969. Études taxonomiques sur les *Phaeosphaeria* Miyake et leurs formes voisines (Ascomycetes). – Sydowia 22: 57-107.

Hein B. & Scheuer Ch. 1986. Neue Dermateaceen (Ascomycetes) auf Gramineen, Cyperaceen und Juncaceen aus den Alpen. – Sydowia 38: 125-135.

Höhnel F. von 1926. Über die Gattung *Pezizella* Fuckel. – Mitteilungen aus dem Botanischen Institut der Technischen Hochschule in Wien 3: 54-80.

Holm L. 1957. Études taxonomiques sur les Pléosporacées. – Symbolae Botanicae Upsalienses 14(3), 188 pp.

Holm L. & Holm K. 1988. Studies in the Lophiostomataceae, with emphasis on the Swedish species. – Symbolae Botanicae Upsalienses 28(2), IV + 50 pp.

Hütter R. 1958. Untersuchungen über die Gattung *Pyrenopeziza* Fuck. – Phytopathologische Zeitschrift 33(1): 1-54.

Ingold C.T. 1955. Aquatic ascomycetes: Further species from the English Lake District. – Transactions of the British Mycological Society 38: 157-168.

Karsten P.A. 1869. Monographia Pezizarum fennicarum. – Notiser ur Sällskapets pro Fauna et Flora Fennica Förhandlingar 10, N.S. 7: 99-206.

Kohlmeyer J., Volkmann-Kohlmeyer B. & Eriksson O.E. 1995. Fungi on *Juncus roemerianus*. 3. New Ascomycetes. – Botanica Marina 38: 175-186.

Leuchtmann A. 1984. Über *Phaeosphaeria* Miyake und andere bitunicate Ascomyceten mit mehrfach querseptierten Ascosporen. – Sydowia 37: 75-194.

Magnes M. & Hafellner J. 1991. Ascomyceten auf Gefäßpflanzen an Ufern von Gebirgsseen in den Ostalpen. – Bibliotheca Mycologica 139, II + 182 pp., mit 53 Abbildungen.

Minoura K. & Muroi T. 1978. Some freshwater Ascomycetes from Japan. – Transactions of the Mycological Society of Japan 19: 129-134.

Müller E. 1950. Die schweizerischen Arten der Gattung *Leptosphaeria* und ihrer Verwandten. – Sydowia 4: 185-319.

Müller E. 1951. Neue, alpine Arten der Gattung Leptosphaeria. – Sydowia 5: 49-55.

Müller E. 1977. Zur Pilzflora des Aletschwaldreservats. – Beiträge zur Kryptogamenflora der Schweiz 15(1), 125 pp.

Müller E. & Arx J.A. von 1962. Die Gattungen der didymosporen Pyrenomyceten. – Beiträge zur Kryptogamenflora der Schweiz 11(2), 922 pp.

Müller E., Hütter R. & Schüepp H. 1964. Über einige finnische Discomyceten. – Archivum Societatis zoologicae botanicae Fennicae 'Vanamo' 18: 189-193.

Munk A. 1957. Danish Pyrenomycetes. - Dansk Botanisk Arkiv 17(1), 491 pp.

Nannfeldt J.A. 1976. *Micropeziza* Fuck. and *Scutomollisia* Nannf. nov. gen. (Discomycetes inoperculati). – Botaniska Notiser 129: 323-340.

Nannfeldt J.A. 1982. *Naeviella* (Rehm) Clem., a resurrected genus of inoperculate discomycetes, and some remarks on ascospore symmetry. – Sydowia 35: 162-175.

Nauta M.M. & Spooner B.M. 1999. British Dermateaceae: 1. Introduction. – Mycologist 13(1): 3-6.

Nograsek A. 1990. Ascomyceten auf Gefäßpflanzen der Polsterseggenrasen in den Ostalpen. – Bibliotheca Mycologica 133, IV + 271 pp., mit 149 Abbildungen und 9 Photos im Anhang.

Nograsek A. & Matzer M. 1991. Nicht-pyrenokarpe Ascomyceten auf Gefäß-pflanzen der Polsterseggenrasen. I. Arten auf Dryas octopetala. – Nova Hedwigia 53 (3-4): 445-475.

Nograsek A. & Matzer M. 1994. Nicht-pyrenokarpe Ascomyceten auf Gefäßpflanzen der Polsterseggenrasen. II. Arten auf Cyperaceae und Poaceae. – Nova Hedwigia 58(1-2): 1-48.

Petrak F. 1947. Kleine Beiträge zur Pilzflora von Tirol. – Sydowia 1: 313-327.

Raitviir A. 1969. Discomycetes of Middle Asia. I. Descriptions of some new Helotiales. – Eesti NSV Teaduste Akadeemia toimetised, biol. seer. 18: 66-69.

Raitviir A. 1970. Synopsis of the Hyaloscyphaceae. - Scripta Mycologica 1, 115 pp.

Raitviir A. 1978. K sistematike roda *Cistella* i blizkich k nemu taksonov. – Scripta Mycologica 8: 147-159.

Raitviir A. & Sacconi S. 1991. Some interesting Hyaloscyphaceae from North Italy. 2. – Mycologia Helvetica 4(2): 161-168.

Rehm H. '1896'. Die Pilze Deutschlands, Oesterreichs und der Schweiz. III. Abtheilung: Ascomyceten: Hysteriaceen und Discomyceten. In: Dr. L. Rabenhorst's Kryptogamen-Flora von Deutschland, Oesterreich und der Schweiz. Zweite Auflage. Erster Band: Pilze. – Leipzig.

Remler P. 1979. Ascomyceten auf Ericaceen in den Ostalpen. – Bibliotheca Mycologica 68, II + 321 pp.

Saccardo P.A. 1878. Fungi Veneti novi vel critici vel Mycologiae Venetae addendi. – Michelia 1: 361-445.

Saccardo P.A. 1884. Conspectus generum Discomycetum hucusque cognitorum. – Botanisches Centralblatt 18: 213-256.

318 pp.

Saccardo P.A. & Sydow P. 1902. Sylloge fungorum omnium hucusque cognitorum. XVI. Supplementum universale. Pars V. – Padova.

Scheuer Ch. 1988. Ascomyceten auf Cyperaceen und Juncaceen im Ostalpenraum. – Bibliotheca Mycologica 123, IV + 274 pp., mit 5 Abbildungen im Text und 32 Tafeln im Anhang.

Scheuer Ch. 1989. Two small ascomycetes on *Carex* new to Britain. – Mycological Research 93(1): 115-118.

Scheuer Ch. 1991a. *Massarina tetraploa* sp. nov., the teleomorph of *Tetraploa aristata*. – Mycological Research 95(1): 126-128.

Scheuer Ch. 1991b. *Taphrophila* (Dothideales: Tubeufiaceae) and two species of *Tubeufia* with dark setae. – Mycological Research 95(7): 811-816.

Scheuer Ch. 1995. Lectotypification of *Wettsteinina niesslii* (Dothideales s.l., Ascomycetes). – Mycotaxon 54: 173-178.

Scheuer Ch. 1997. Dupla Fungorum (1997), verteilt vom Institut für Botanik der Universität Graz (GZU). – Fritschiana 9: 39-61.

Scheuer Ch. & Poelt J.(†) 1997. Mycotheca Graecensis, Fasc. 3 - 7 (Nr. 41-140). – Fritschiana 9: 1-37.

Schmid-Heckel H. 1988. Pilze in den Berchtesgadener Alpen. – Nationalpark Berchtesgaden, Forschungsbericht 15, 136 pp.

Shoemaker R.A. & Babcock C.E. 1989. *Phaeosphaeria*. – Canadian Journal of Botany 67: 1500-1599.

Shoemaker R.A. & Babcock C.E. 1992. Applanodictyosporous Pleosporales: *Clathrospora, Comoclathris, Graphyllium, Macrospora*, and *Platysporoides*. – Canadian Journal of Botany 70: 1617-1658.

Spooner B.M. & Dennis R.W.G. 1986. New or Interesting Ascomycetes from the Highlands and Islands. – Sydowia 38: 294-316.

Svrček M. 1978. New or less known Discomycetes. – Česká Mykologie 32(3): 157-160.

Sydow H. 1921. Novae fungorum species. XVII. – Annales Mycologici 19: 304-309. Tomilin B.A. 1979. Opredelitel gribow roda *Mycosphaerella* Johanson. – Leningrad.

Walker J. 1980. Gaeumannomyces, Linocarpon, Ophiobolus, and several other genera of scolecospored ascomycetes and *Phialophora* conidial states, with a note on hyphopodia. – Mycotaxon 11: 1-129.

Webster J. 1955. Graminicolous pyrenomycetes. V. Conidial states of *Leptosphaeria michotii*, *L. microscopica*, *Pleospora vagans*, and the perfect state of *Dinemasporium graminum*. – Transactions of the British Mycological Society 38: 347-365.

Wehmeyer L.E. 1961. A world monograph of the genus *Pleospora* and its segregates. – Ann Arbor, Michigan. XII + 451 pp.