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British Dermateaceae: 1. Introduction

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The first part of a synopsis of the British Dermateaceae (Leotiales) is presented. A description of the family and a key to subfamilies of the Dermateaceae are given, together with annotated lists of accepted genera and common synonyms and of excluded genera.

Keywords: Ascomycetes, Leotiales, Dermateoideae, Naevioideae, Peziculoideae, descriptions, keys

Family delimitation in the huge ascomycete order Leotiales is currently imprecise, being based on morphological characters, notably excipulum structure and ascus form, which are insufficient for integrating such a large number of taxa. The system has evolved with little modification since Nannfeldt (1932) and families as currently circumscribed are little more than heterogeneous assemblages of frequently ill-understood genera. An ever-increasing number of taxa referred to this order leads to ever-increasing confusion. However, it has to be recognised that the present state of knowledge is inadequate to construct a more natural system. Therefore, there is no other choice than to take a practical approach in tackling the British genera of Leotiales.

The family Dermateaceae is here defined in the 'traditional' sense, based on an excipulum composed, at least at the base, of globose or angular elements which are usually pigmented. Although the family is at present considered to be very heterogeneous, recognition of two families, Mollisiaceae and Dermateaceae, as discussed in Hawksworth (1994) in our opinion does not reflect the probable relationship between the respective type genera *Mollisia* (Fr.) P. Karst. and *Dermea* Fr. indicated by the structural similarity between them. Such a division leads to no more natural a solution than the traditional unit and it seems premature, given the present state of knowledge of the genera, to attempt any taxonomic revision at family level.

Three subfamilies are here recognised from Great Britain, *viz.* Dermateoideae, Naevioideae and Peziculoideae, though with a somewhat emended concept than that traditionally employed. Thus, the subfamilies Drepanopezizoideae and Pseudopezizoideae, often used for species which are parasitic at least in an anamorphic state, are not maintained in the present account as they have proved difficult to separate clearly from taxa placed in Dermateoideae. Although most of the latter are saprophytes, some parasitic species exist within *Mollisia* and closely related genera. Subfamilies Ephelinoideae, Discohainesioideae and Mollisioideae, recognised by Nannfeldt (1932), are also merged with Dermateoideae. Naevioideae, which mostly comprises pale or bright coloured species traditionally placed in the Dermateaceae, is retained in the family. However, these fungi do not conform closely in structure to typical members of the family and many have simple or reduced excipular structures which are difficult to interpret taxonomically. It is likely that the taxon as currently understood will prove to be heterogeneous, but further study of naevioid taxa is required before reconsidering the delimitation and taxonomic position of the subfamily.

It has not been possible in the current study to consider likely related genera which are currently referred to other families, notably *Lasiobelonium* Ellis & Everh. (Hyaloscyphaceae), which has a mollisioid excipulum, and *Calycellina* Höhn., *Orbiliopsis* Höhn., *Phaeohelotium* Kanouse, etc. (Leotiaceae), which have a cellular excipular structure apparently akin to that of some genera referred here to Dermateaceae. Similarly, it has not been possible to remove genera which are traditionally referred to Dermateaceae but appear to have little affinity with typical and core genera of the family.

The keys presented here are in principle practical ones, designed to distinguish the genera and not necessarily adequately to reflect taxonomy. However, an attempt has been made to reposition certain genera into the group with which they appear most closely related. *Diplonaevia*, for example, considered by Hein (1976) as belonging to the Naevioideae, is included here in the Dermateoideae.

Taxa which have been described or reported from Great Britain since the checklist of British Ascomycetes (Cannon *et al.*, 1985), are included here and, therefore, this account serves also as an up-to-date checklist for the British species of Dermateaceae, excluding *Mollisia* and *Pyrenopeziza*. Modern taxonomic concepts concerning this family have been taken into account in construction of the keys. The keys are, however, not necessarily based on a detailed study of herbarium specimens.

Keys are given to the subfamilies and to the genera. For each genus a short description is given, together with references to relevant modern literature, the number of known species in Great Britain and in total, a list of British species with their common synonyms and a key to the species, except for the genera *Mollisia* and *Pyrenopeziza*, which will be published elsewhere.

The lists of British species are mostly supported by specimens in the Kew Herbarium. If these are not in accordance with the Checklist (Cannon *et al.*, 1985), this has been indicated. The cited number of world species is based on the present literature, and may differ from that given in the Dictionary of the Fungi (Hawksworth *et al.*, 1995).

This work was initiated within the scope of the project 'The Ascomycetes of Great Britain and Ireland'. Preliminary publication of this synopsis to such a large and confusing group is considered important before presentation in the planned volumes on the British Ascomycota.

List of excluded genera

The following genera have been referred to Dermateaceae in British literature, but are excluded here:

Chlorosplenium Fr.
Referred to Dermateaceae in Hawksworth *et al.* (1995), following Dixon (1974), but British species combined here belong in other genera.

Cryptodiscus Corda
Referred by Dennis (1978) to Dermateaceae, but shown by Sherwood (1977) to be best placed in Stictidaceae.

Discorehmia Kirschst.
Referred to ?Dermateaceae in Cannon *et al.* (1985), but examination of the type specimen of the type species, *D. eburnea* Kirschst., shows it to have an excipular structure similar to that of typical members of Leotiaceae.

Durandiella Seaver
In Cannon *et al.* (1985) two species are given as British, *viz. D. fraxini* (Schwein.) Seaver and *D. seriata* (Fr.) Groves. According to Groves (1952) *D. fraxini* does not occur in Europe, whereas *D. fraxini sensu* Massee (1895) and Phillips (1887) is *Tympanis columnaris* Höhn. *Durandiella seriata* does not seem to have a dermateoid structure, but we have not had the opportunity to examine material during the present study.

Habrostictis Fuckel
Placed by Dennis (1978) and Cannon *et al.* (1985) in Dermateaceae. However, on account of the texture and structure of the apothecia the genus is more appropriately placed in Orbiliaceae as shown by Spooner (1987).

Lagerheima Sacc.
Placed by Cannon *et al.* (1985) in Dermateaceae. However, as shown by Gamundi (1981), this is a synonym of *Bulgariella* which belongs in Leotiaceae.

Patinella Sacc.
Although the type species, *P. hyalophaea* Sacc., is probably referable to Dermateaceae (Spooner, 1987), the two species reported as British (*P. macrospora* Massee and *P. rubrotingens* (Berk. & Broome) Sacc.; Cannon *et al.*, 1985) belong elsewhere, possibly in Orbiliaceae.

Phragmonaevia Rehm
The genus is of doubtful taxonomic position, but not related to Dermateaceae; it is a possible synonym of *Karstenia* (see Sherwood, 1977). Of the three British species of this genus mentioned in Cannon *et al.* (1985), *P. hysterioides* (Desm.) Rehm is a *Hysteropezizella*, and *P. fuckelii* Rehm and *P. peltigerae* (Nyl.) Rehm are of uncertain taxonomic position.

Potebniamyces Smerlis
Referred by Cannon *et al.* (1985) to Dermateaceae

following DiCosmo *et al.* (1983) who placed it tentatively in this family. However, further study of the genus by DiCosmo *et al.* (1984) has shown its taxonomic position to be uncertain.

Pragmopora A. Massal.
Although placed by Dennis (1978) in Dermateaceae, the genus seems structurally unlike typical members of that family as shown by Groves (1967). It is now usually placed in Leotiaceae (Eriksson & Hawksworth, 1993; Hawksworth *et al.*, 1995).

Propolomyces Sherwood
Included by Dennis (1978, as *Propolis* Fr.) in Dermateaceae, but the genus is referred now to Rhytismatales as suggested by Sherwood-Pike (1985).

DERMATEACEAE Fr., Summa Veg. Scand. 2:360, 1849 (as 'Dermatei').
= Mollisiaceae P. Karst. 1891
= Ploettnerulaceae Kirschst. 1924

Apothecia developed either within or below the epidermis and then immersed or becoming erumpent, sometimes subcuticular or superficial, sessile or short-stipitate. Hymenium varying from whitish to bright-coloured, or often greyish; receptaculum usually darker than hymenium. Outer excipulum at least near base a *textura angularis* or *textura globulosa*, consisting of elements with brown or sometimes pale yellowish-brown walls; hairs, setae or grana sometimes present; marginal excipulum hyaline or brown, cellular or not, sometimes gelatinised; medullary excipulum either cellular or hyphal, sometimes containing crystals. Asci clavate or cylindrical, I + or I - (i.e. pore blue or not in Melzer's reagent), thin-walled to thick-walled, (2-) 8-spored; spores 0 - several septate, rarely muriform, clavate, ellipsoid or fusiform, mostly smooth-walled, usually hyaline, sometimes pale brown or brown; paraphyses usually filiform, sometimes (apically) clavate or lanceolate, commonly hyaline, rarely with granulate walls.

Conidial state sometimes present, in several form genera, *viz. Anguillospora, Chrysosporium, Cryptocline, Cryptosporiopsis, Cylindrocolla, Cystodendron, Entomosporium, Foveostroma, Gloeosporidiella, Hainesia, Helicodendron, Leptothyrium, Marssonina, Microgloeum, Micropera, Monostichella, Phialophora, Phloeosporella, Phlyctema, Pilidium, Pseudocercosporella, Sphaeronema, Sporonema, Trichosporiella.*

Saprophytic or parasitic, on stems and leaves of dicotyledonous and monocotyledonous plants, often on woody substrata.

Key to Subfamilies

1. Apothecia erumpent or immersed, mostly brightly coloured or whitish, disc often pruinose, mostly lignicolous; commonly parasitic. Spores mostly broadly ellipsoid, commonly septate, sometimes muriform, large, commonly over 18 x 6 µm. Asci thick-walled, with broad pore deep blue in Melzer's reagent (sometimes only after pretreatment with KOH). Conidial state, if present, *Cryptosporiopsis* or *Phlyctema*.....**Pezizuloideae** Nannf.

1'. Apothecia immersed, erumpent or superficial, if brightly coloured then not lignicolous; disc not or rarely pruinose; parasitic or not. Spores various, sometimes septate, but never muriform, rarely longer than 18 µm. Asci mostly thin-walled, apical pore blue or not in Melzer's reagent. Conidial state when present not *Cryptosporiopsis* or *Phlyctema*.....2

2. Outer excipulum pale, usually subhyaline to yellowish throughout, rarely brownish near the margin, elements sometimes thick-walled but not gelatinised; marginal excipulum often reduced; stroma lacking; apothecia not developed beneath a shield; saprophytic on monocotyledonous and dicotyledonous plants .....**Naevioideae** Nannf.

2'. Outer excipulum brown to dark brown, at least at the base, rarely pale and then apothecia developed beneath a shield of brownish hyphae; sometimes gelatinised; marginal excipulum sometimes reduced; stroma present or not; saprophytic or parasitic on various substrata.....**Dermateoideae** (including Pseudopezizoideae Nannf. & Drepanopezizoideae Nannf.)

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References

Cannon, P. F., Hawksworth, D. L. & Sherwood-Pike, M. A. (1985) *The British Ascomycotina, an annotated checklist*. Slough: Commonwealth Mycological Institute.

Dennis, R. W. G. (1978) *British Ascomycetes*. Vaduz: J. Cramer

DiCosmo, F., Nag Raj, T. R & Kendrick, B. (1983) Prodromus for a revision of the Phacidiaceae and related anamorphs. *Canadian Journal of Botany* **61**: 31-44.

DiCosmo, F., Nag Raj, T. R. & Kendrick, W. B. (1984) A Revision of the Phacidiaceae and related anamorphs. *Mycotaxon* **21**: 1 - 234.

Dixon, J. R. (1974) *Chlorosplenium* and its segregates. I. Introduction and the genus *Chlorosplenium*. *Mycotaxon* **1**: 65-104.

Eriksson, O. E. & Hawksworth, D. L. (1993) Outline of the Ascomycetes - 1993. *Systema Ascomycetum* **12**: 51 - 257.

Gamundi, I. J. (1981) On *Lagerheima* Sacc. and *Bulgariella* Karst. *Sydowia* **34**: 82-93.

Groves, J. W. (1952) The genus *Tympanis*. *Canadian Journal of Botany* **30**: 571-651.

Groves, J. W. (1967) The genus *Pragmopora*. *Canadian Journal of Botany* **45**: 169 - 181.

Hawksworth, D. L. (ed.) (1994) *Ascomycete Systematics. Problems and perspectives in the Nineties*. NATO ASI Series A: Life Sciences vol. 269.

Hawksworth, D. L., Kirk, M., Sutton, B. C. & Pegler, D. N. (1995) *Ainsworth & Bisby's Dictionary of the Fungi*. 8th ed. CAB International.

Hein, B. (1976) Revision der Gattung *Laetinaevia* Nannf. (Ascomycetes) und Neuordnung der Naevioideae. *Willdenowia*, Beih. **9**: 1-136.

Massee, G. E. (1895) *British Fungus-Flora. A Classified Text-book of Mycology*. Vol.4. London: George Bell & Sons.

Nannfeldt, J. A. (1932) Studien über die Morphologie und Systematik der nichtlichenisierten inoperculaten Discomyceten. *Nova Acta Regiae Societatis Scientiarum Upsaliensis* ser. 4, **8** (2): 1 - 368.

Phillips, W. (1887) *A Manual of the British Discomycetes*. London: Kegan Paul, Trench & Co.

Sherwood, M. A. (1977) The Ostropalean fungi. *Mycotaxon* **5**: 1-277.

Sherwood-Pike, M. (1985) New and Unusual Ascomycetes from the Western United States. *Sydowia* **38**: 267 - 277.

Spooner, B. M. (1987) Helotiales of Australasia: Geoglossaceae, Orbiliaceae, Sclerotiniaceae, Hyaloscyphaceae. *Bibliotheca Mycologica* **116**.

List of included genera

Index to genera, including common synonyms, and subfamily placement as accepted in the present account:

Actinoscypha P. Karst.	= *Micropeziza*
Belonium Sacc.	=? *Pyrenopeziza*
Belonopsis (Sacc.) Rehm	Dermateoideae
Blumeriella Arx	Dermateoideae
Briardia Sacc.	= *Duebenia*
Bulbomollisia Graddon	= *Mollisia*
Calloria Fr.	Naevioideae
Callorina Korf	= *Calloria*
Catinella Boud.	Dermateoideae
Cejpia Velen.	Dermateoideae
Cenangella Sacc.	= *Dermea*
Chaetonaevia Arx	Naevioideae
Coleosperma Ingold	Naevioideae
Coronellaria P. Karst.	Dermateoideae
Crustomollisia Svrček	Naevioideae
Dennisiodiscus Svrček	Dermateoideae
Dermatea Fr.	= *Dermea*
Dermatella P. Karst.	= *Dermea*
Dermea Fr.	Dermateoideae
Dibeloniella Nannf.	Dermateoideae
Dibelonis Clem.	= *Leptotrochila*
Diplocarpa Mass.	Dermateoideae
Diplocarpon Wolf	Dermateoideae
Diplonaevia Sacc.	Dermateoideae
Discohainesia Nannf.	Dermateoideae
Drepanopeziza (Kleb.) Höhn.	Dermateoideae
Duebenia Fr.	Naevioideae
Ephelina Sacc.	= *Leptotrochila*
Eupropolella Höhn.	Dermateoideae
Fabraea Sacc.	= *Leptotrochila*
Graddonia Dennis	Dermateoideae
Haglundia Nannf.	Dermateoideae
Higginsia Nannf.	= *Blumeriella*
Hysteronaevia Nannf.	Dermateoideae
Hysteropeziza Rabenh.	= *Pyrenopeziza*
Hysteropezizella Höhn.	Dermateoideae
Hysterostegiella Höhn.	Dermateoideae
Laetinaevia Nannf.	Naevioideae
Leptotrochila P. Karst.	Dermateoideae
Melachroia Bourd.	= *Podophacidium*
Merostictis Clem.	= *Diplonaevia*
Micropeziza Fuckel	Dermateoideae
Mollisia (Fr.) P. Karst.	Dermateoideae
Mollisiopsis Rehm	= *Mollisia*
Myridium Clem.	= *Laetinaevia*
Naevala B.Hein	Naevioideae
Naevia Fr.	= *Naevala*
Naeviopsis B.Hein	Naevioideae
Niesslella Höhn.	= *Micropeziza*
Nimbomollisia Nannf.	= *Niptera*
Niptera Fr.	Dermateoideae
Ocellaria (Tul. & C. Tul.) P. Karst.	Peziculoideae
Patellariopsis Dennis	Dermateoideae
Pezicula Tul. & C. Tul.	Peziculoideae
Pirottaea Sacc.	Dermateoideae
Ploettnera Henn.	Naevioideae
Ploettnerula Kirschst.	= *Pirottaea*
Podophacidium Niessl.	Dermateoideae
Pseudonaevia Dennis & Spooner	Dermateoideae
Pseudopeziza Fuckel	Dermateoideae
Pyrenopeziza Fuckel	Dermateoideae
Schizothyrioma Höhn.	Dermateoideae
Scutobelonium Graddon	Dermateoideae
Scutomollisia Nannf.	Dermateoideae
Spilopodia Boud.	Dermateoideae
Stegopeziza Höhn.	= *Hysterostegiella*
Tapesia Fuckel	= *Mollisia*
Trichobelonium (Sacc.) Rehm	= *Belonopsis*
Trichodiscus Kirschst.	= *Dennisiodiscus*
Trochila Fr.	Dermateoideae

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British Dermateaceae: 2. Naevioideae

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Keywords: Dermateaceae, Naevioideae, descriptions, keys, Great Britain

This is the second part of a synopsis of the British Dermateaceae which aims to provide keys and descriptions for subfamilies and genera, and keys to species for all genera except *Mollisia* and *Pyrenopeziza*. The first part of this synopsis (Nauta & Spooner, 1998) provided an introduction to the family, with a key to subfamilies and annotated lists of included genera and synonyms and of excluded genera.

As noted in the Introduction, the subfamily Naevioideae is probably heterogeneous, including a number of genera with reduced excipular development whose true affinities are difficult to interpret. Further study is required to achieve a more precise delimitation of the subfamily. Changes to the 'traditional' classification of the following genera are proposed:

Coleosperma Ingold, *Crustomollisia* Svrček: placed here because of their pale-walled outer excipulum.

Duebenia Fr.: referred by Korf (1973) and Hein (1976) to Leotiaceae but here included in Naevioideae because the excipular structure is similar to that of other genera in this subfamily.

Pseudonaevia Dennis & Spooner: considered by Dennis & Spooner (1993) to be related to Laetinaevia. Not here placed in Naevioideae due to the presence of brownish basal tissue. It is apparently more closely related to *Micropeziza* and, like that genus, is referred to Dermateoideae.

Trochila Fr.: not included in Naevioideae, in contrast to Hein (1976), because of the well developed brown excipulum; regarded here as better placed in Dermateoideae

Naevioideae Nannf., Nova Acta Reg. Soc. Scient. Ups. **IV**(8): 186, 1932.

Apothecia developed either within or beneath the host epidermis, later often (partly) erumpent, sometimes remaining immersed, 0.1-1 mm diameter. Hymenium when fresh wax-like, light-coloured or bright-coloured, mostly translucent, yellow or orange to reddish-brown or blue-green; receptaculum varying from pale-coloured to brownish, sometimes not visible. Outer excipulum at least near base a *textura angularis* or *textura globulosa*, consisting of almost hyaline to pale yellowish-walled elements, marginal excipulum sometimes brown; hairs lacking (but marginal setae present in *Chaetonaevia*). Asci clavate, I + or I - (i.e. pore blue or not in Melzer's reagent), (2-)8-spored; spores 0-3-septate, broadly clavate or ellipsoid, hyaline, rarely becoming pale brown, [7-54 x 1.5-10 µm in British representatives]; paraphyses filiform, commonly enlarged at the apex.

Conidial state sometimes present, in form genera *Chrysosporium*, *Cylindrocolla*, *Phialophora* or *Trichosporiella*.

Saprophytic, mostly on stems and leaves of dicotyledonous herbs, rarely on woody substrata, on monocotyledonous plants, or on brown algae.

Key to genera of Naevioideae recognised in Great Britain

1. Apothecia bearing distinct marginal setae; setae hyaline, with lumen to apex, non-septate; asci 4-spored (*nannfeldtii*) or 8-spored (not recorded in Great Britain) ..... **Chaetonaevia**

1'. Apothecia lacking setae; asci (2 – 4) 8-spored 2

2. Surface of lower excipulum covered with yellow-brown to red-brown amorphous crust (observed in water); apothecia on decaying leaves of broad-leaved trees ..... **Crustomollisia**

2'. Surface of lower excipulum not covered with pigmented amorphous crust (sometimes excipular elements with slightly granulate walls); apothecia on various substrata 3

3. Spores packed with oil drops and with a delicate gelatinous sheath; asci I-; medullary excipulum strongly gelatinised; apothecia on submerged stems of *Schoenoplectus* ..... **Coleosperma**

3'. Spores not packed with oil drops, usually without gelatinous sheath; asci I + or I-; medullary excipulum not gelatinised; apothecia not on submerged substratum.....4

4. Apothecia developed beneath a covering layer of host/fungus tissue, disc exposed by splitting of this layer as teeth or upraised epidermis, later partly erumpent.....5

4'. Apothecia without a covering layer, erumpent in early state.....7

5. Paraphyses apically enlarged or capitate and often with coloured contents; ascospores becoming 1 - 3-septate; anamorphs lacking.....**Ploettnera**

5'. Paraphyses not or slightly enlarged apically, lacking coloured contents; spores 0 (- 1)-septate; anamorphs present or lacking.....6

6. Marginal excipulum hyaline.....**Naeviopsis**

6'. Marginal excipulum brown.....**Naevala**

7. Asci 2 - 6-spored, spores not septate; on *Fabaceae*.....**Duebenia compta**

7'. Asci 8-spored, spores 0-3 septate; on other hosts.....8

8. Asci I+ or I-; anamorph *Trichosporiella* or lacking.....**Laetinaevia**

8'. Asci I-; anamorph *Cylindrocolla* or lacking.....**Calloria**

Generic descriptions and keys to species in Naevioideae

Calloria Fr., *Flora Scanica*: 342, 1835.
Type: *Peziza fusarioides* Berk. (= *Calloria neglecta* (Lib.) B.Hein)
= *Callorina* Korf 1971

Apothecia erumpent; hymenium orange, wax-like, translucent in wet condition; margin indistinct. Basal excipulum consisting of *textura angularis*, marginal excipulum consisting of elongated elements often bearing brown granulae. Asci I-, mostly narrowly clavate, apex not differentiated, 8-spored; spores sometimes inequilateral or slightly clavate, 0-3-septate. Paraphyses hyaline, slightly enlarged at top.
Conidial state *Cylindrocolla* (*Calloria neglecta*) or unknown (other species). Saprophytic on herbaceous substrata (British species on *Urtica* or *Galium*).

Lit.: Hein, 1976

Number of species: 2 in GB, 5 in total.

Species in Great Britain:
Calloria neglecta (Lib.) B. Hein (= *Calloria fusarioides* (Berk.) Fr.)
Calloria galiorum Dennis

Key to British species of Calloria

1. Apothecia to 1 mm diam.; asci longer than 60 µm ascospores 10-15 x 4-5 µm. On *Urtica*.....**C. neglecta**

1'. Apothecia < 0.5 mm diam.; asci < 50 µm long; ascospores 7-9 x 1.5-2.5 µm. On *Galium*.....**C. galiorum**

Chaetonaevia von Arx, *Antonie van Leeuwenhoek* **17**: 85, 1951.
Type: *C. nannfeldtii* Arx

Apothecia later partly erumpent; hymenium yellowish. Excipulum thin, a *textura angularis*, consisting of 4-5 layers of small pale yellowish elements, with thick-walled, hyaline setae at margin. Asci broadly clavate, I-, 4-spored (*C. nannfeldtii*) or 8-spored; spores slightly curved, 0-1-septate, hyaline or sometimes becoming brown. Paraphyses filiform, subclavate, hyaline, overtopping asci.
Conidial state unknown.
Saprophytic on leaves of dicotyledonous plants (British species on *Arctostaphylos*).

Lit.: von Arx, 1951; Svrček, 1976, 1982 (non GB species)

Number of species: 1 in GB, 3 in total.

Species in Great Britain:
C. nannfeldtii Arx. Asci 50-65 x 15-22 µm; spores 43-54 x 7-10 µm.

Coleosperma Ingold, *Trans. Brit. mycol. Soc.* **37**: 9, 1954.
Type: *Coleosperma lacustre* Ingold.

Apothecia erumpent, hymenium white, wax-like; margin indistinct. Outer excipulum reduced, present only at base and there a *textura globulosa*, consisting of pale yellowish elements; medullary excipulum strongly gelatinised. Asci broadly clavate, with undifferentiated top structure, I -, 8-spored; spores lenticular, non-septate, hyaline, with a delicate gelatinous sheath, with numerous globules. Paraphyses

filiform, agglutinated at top and forming a pseudoepithecium, hyaline.
Conidial state unknown.
Saprophytic on submerged stems of *Schoenoplectus*.

Lit.: Ingold, 1954

Number of species: 1 in GB, 1 in total.

Species in Great Britain:
C. lacustre Ingold. Asci c. 140 x 18 µm; spores 23-33 x 6.5-9 µm, with delicate gelatinous sheath.

Crustomollisia Svrček, *Sydowia* **39**: 219, 1987
Type: *C. roburnea* (Velen.) Svrček

Apothecia erumpent; hymenium brown; receptaculum pale brownish, smooth. Outer excipulum a *textura angularis*, consisting of pale yellowish isodiametric elements, at base covered with yellow-brown to red-brown amorphous crust (in water); perihymenial excipulum consisting of yellowish thick-walled hyphae. Asci broadly clavate, I +, 8-spored; spores ellipsoid, 0 (-1)-septate, hyaline. Paraphyses subclavate, with brown contents.
Conidial state unknown.
Saprophytic on leaves of *Quercus*.

Lit.: Svrček, 1987

Number of species: 1 in GB, 1 in total.

Species in Great Britain:
C. roburnea (Velen.) Svrček (= *Pezizella roburnea* Velen.; ?= *Orbilia mollisioides* Höhn.). Asci 40-52 x 7-9 µm; spores 9-12 x 2-3 µm.

Duebenia Fr., *Summa Veg. Scand.*: 356, 1849.
Type: *D. rubra* Fr. (nom. nud.) (= *D. compta* (Sacc.) B. Hein; *D. purpurascens* (Rehm) Nannf.)
= *Briardia* Sacc. 1885

Apothecia erumpent; hymenium reddish-brown, wax-like; receptaculum concolorous. Outer excipulum in lower part a *textura angularis*, consisting of pale yellowish elements, at margin a *textura prismatica*, consisting of hyphae with minutely granulate walls (*D. compta*) or smooth. Asci narrowly clavate, I+ or I-, 2-6 spored (*D. compta*) or 8-spored; spores ellipsoid, non-septate, hyaline. Paraphyses apically subclavate, hyaline.
Conidial state unknown.
Saprophytic on Fabaceae.

Lit.: Hein, 1976

Number of species: 1 in GB, 2 in total.

Species in Great Britain:
D. compta (Sacc.) B. Hein (= *D. purpurascens* (Rehm) Nannf.). Asci 50-60 x 5-7 µm; spores 8-12 x 3-4 µm.

Laetinaevia Nannf. *Nova Acta Reg. Soc. Scient. Ups.* **IV**(8): 190, 1932 (nom. cons.)
Type: *Naevia lapponica* Nannf. (= *Laetinaevia adonis* (Fuckel) B.Hein)
= *Myridium* Clem. 1909

Apothecia erumpent; hymenium reddish, wax-like; receptaculum brownish. Outer excipulum usually subhyaline, at base a *textura angularis*, perihymenium a *textura prismatica*, consisting of thin-walled elements. Asci usually broadly clavate, I+ or I-, apical structure not differentiated, 8-spored; spores broadly ellipsoid, 0-3-septate, with gelatinous sheath when young. Paraphyses filiform, hyaline, later often agglutinated.
Conidial state *Trichosporiella* or unknown.
Saprophytic on herbaceous substrata, on leaves of trees or on brown algae.

Lit.: Défago, 1968; Graddon, 1977; Hein, 1976; Spooner, 1981 & 1984

Number of species: 4 in GB, 13 in total

Species in Great Britain:
Laetinaevia carneoflavida (Rehm) Nannf. ex B. Hein (= *Calloria carneoflavida* Rehm; *Callorina carneoflavida* (Rehm) Dennis)
Laetinaevia luzulae Spooner
Laetinaevia marina (Boyd) Spooner (= *Orbilia marina* Boyd)
Laetinaevia pustulata Graddon

Key to British species of Laetinaevia

1. On marine brown algae (*Ascophyllum & Fucus*); spores 2.5-3.5 µm wide ..... **L. marina**

1'. On stems or leaves of monocotyledonous or dicotyledonous plants; spores 3.5-5 µm wide.....2

2. Spores 30-33 µm long; asci up to 15 µm wide, I-; on *Luzula*.....**L. luzulae**

2'. Spores 9-15 µm long; asci up to 13 µm wide, I+; on other hosts.....3

3. Asci narrow, up to 75 x 6 µm, I+ blue; on *Quercus* leaves.....**L. pustulata**

3'. Asci broader, 30-60 x 10-13 µm, I+ violaceous; on *Urtica* or occasionally other herbaceous stems.....**L. carneoflavida**

Naevala B. Hein, *Willdenowia*, Beih. **9**: 83, 1976
Type: *Phacidium minutissimum* Auersw. (= *N. perexigua* (Roberge ex Desm.) L. Holm & K. Holm)

Apothecia developed beneath a reddish-brown or black-brown covering layer, later partly erumpent; hymenium reddish to brownish, translucent; receptaculum brown. Outer excipulum at base a *textura angularis* consisting of thick-walled, pale elements, at margin a *textura prismatica*, consisting of brown-walled elements. Asci broadly clavate, apically undifferentiated or I+ (*N. perexigua*), (2-)8-spored (8-spored in *N. perexigua*); spores ovoid, non-septate, hyaline. Paraphyses filiform, apically slightly enlarged.
Conidial state *Phialophora* or unknown.
Saprophytic on herbaceous substrata or on leaves of dicotyledonous trees (*N. perexigua*).

Lit.: Hein, 1976; Holm & Holm, 1978

Number of species: 1 in GB, 5 in total.

Species in Great Britain:
Naevala perexigua (Roberge ex Desm.) L. Holm & K. Holm (= *Naevala minutissima* (Auersw.) B. Hein; *Naevia minutissima* (Auersw.) Rehm). Asci 40-5 x 8-10 µm; spores 7-10 x 3-4 µm.

Naeviopsis B. Hein, *Willdenowia*, Beih. **9**: 60, 1976.
Type: *Phacidium epilobii* P. Karst. (= *Naeviopsis epilobii* (P. Karst) B. Hein)

Apothecia developed beneath a covering layer, in wet condition later erumpent; hymenium yellow to pale brownish, translucent, wax-like; receptaculum not visible. Outer excipulum a *textura globulosa* consisting of thick-walled, pale elements, towards margin elements more elongated; at base elements sometimes pale brown. Asci broadly clavate, I+ (*N. tithymalina*) or I-, 8-spored; spores broadly ellisoid, non-septate. Paraphyses usually enlarged at top to 4 µm and embedded in hyaline gel.
Conidial state *Phialophora*, *Chrysosporium*.
Saprophytic on herbaceous substrata (British species on stems of *Euphorbia*, sometimes *Solidago*).

Lit.: Hein, 1976

Number of species: 1 in GB, 14 in total.

Species in Great Britain:
N. tithymalina (Kunze) B. Hein (= *Laetinaevia tithymalina* (Kunze) Petr.; *Calloria tithymalina* Kunze; *Pseudopeziza euphorbiae* (Berk. & Broome) Massee; *Mollisia euphorbiae* (Berk. & Broome) W.Phillips). Asci 60-80 x 11-14 µm; spores 11-13.5 x 5.5-7.5 µm.

Ploettnera Henn., *Verh. Bot. Vereins Brandenb.* **41**: 94, 1899.
Type: *Ploettnera coeruleoviridis* (Rehm) Henn. (= *P. exigua* (Niessl) Höhn.)

Apothecia developed beneath a reddish-brown to blackish-brown covering layer, later erumpent; hymenium reddish-brown or blue-green; receptaculum not visible. Outer excipulum poorly developed, at base a *textura globulosa*, consisting of thick-walled, pale elements, at margin composed of brownish hyphae. Asci cylindrical, I+ or I-, 4-8-spored; spores cylindrical, sometimes curved, 1-3-septate, hyaline, later sometimes pale brown. Paraphyses usually apically enlarged to 5 µm, often with coloured contents.
Conidial state unknown.
Saprophytic on herbaceous or woody substrata.

Lit.: Hein, 1976

Number of species: 3 in GB, 4 in total.

Species in Great Britain:
Ploettnera exigua (Niessl) Höhn.
Ploettnera hyperici (Vestergr.) B. Hein

Ploettnera solidaginis (De Not.) B. Hein (= *Hyalinia ulcerata* (W. Phillips & Plowr.) Boud.; *Laetinaevia tripolii* (Berk. & Broome) Dennis)

Key to British species of Ploettnera

1. Substratum with blue-green stain. Asci 8-spored, apical pore I-; paraphyses tips swollen, with blue-green pigment. On *Rubus*. (spores 12-15 x 5-8 μm)..**P. exigua**

1'. Substratum without blue-green stain. Asci 4-8-spored, apical pore I +; paraphyses tips swollen or not, lacking blue-green pigment. On other hosts. (spores 11-17.5 x 5-9 μm).....2

2. Asci 4 (-6)-spored; paraphyses apically flexuous, not subcapitate, virtually hyaline; on Compositae).....**P. solidaginis**

2'. Asci 8-spored; paraphyses apically often subcapitate, with yellow-brown pigment; on *Hypericum* .....**P. hyperici**

References

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

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

Graddon, W. D. (1977) Some new discomycete species: 4. *Transactions of the British Mycological Society* **69**: 255-273:

Hein, B. (1976) Revision der Gattung *Laetinaevia* Nannf. (Ascomycetes) und Neuordnung der Naevioideae. *Willdenowia*, Beih. **9**: 1-136.

Holm, L. & Holm, K. (1978) Some pteridicolous Ascomycetes. *Botaniske Notiser* **131**: 97-115.

Ingold, C. T. (1954) Aquatic ascomycetes from lakes. *Transactions of the British Mycological Society* **37**:1-18.

Korf, R. P. (1973) Discomycetes and Tuberales. In Ainsworth, G. C., Sparrow, F. K. & Sussman, A. S., *The Fungi, An Advanced Treatise* **4A**: 249-319. New York, Academic Press.

Nauta, M. M. & Spooner, B. (1998) British Dermateaceae. 1. Introduction. *Mycologist* **13**: 3-6

Spooner, B. M. (1981) New records and species of British microfungi. *Transactions of the British Mycological Society* **76**: 265-301.

Spooner, B. M. (1984) An account of the fungi of Arran, Gigha and Kintyre. Ascomycetes. *Kew Bulletin* **38**: 548-576.

Svrček, M. (1976) New or less known discomycetes III. *Ceská Mykologie* **30**: 8-16.

Svrček, M. (1982) New or less known discomycetes XI. *Ceská Mykologie* **36**: 146-153.

Svrček, M. (1987) Über zwei neue Disco mycetengattungen (Helotiales). *Sydowia* **39**: 219 - 223.

Von Arx, J.A. (1951) Eine neue Discomycetengattung aus Skandinavien. *Antonie van Leeuwenhoek*, **17**: 85-89.

NAUTA M.M. & B. SPOONER (1999). British *Dermateaceae*: 3. *Peziculoideae*. *The Mycologist* 13(3): 98-101.

British Dermateaceae : 3. Peziculoideae

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As part of a synopsis of British *Dermateaceae* a key to the genera of subfamily *Peziculoideae* is presented, together with descriptions of the genera and keys to the species.

Keywords: Peziculoideae, descriptions, keys,Great Britain.

This is the third part of a synopsis of the British *Dermateaceae* which aims to provide keys and descriptions for subfamilies and genera, and keys to species for all genera except *Mollisia* and *Pyrenopeziza.* It follows the format of the previous two parts (Nauta & Spooner 1999a, 1999b). The first of these provided an introduction to the family, with a key to subfamilies and annotated lists of included genera and synonyms and of excluded genera. The second part considered the subfamily *Naevioideae*, providing keys to genera and species, and descriptions of genera known from Great Britain.
The subfamily Peziculoideae includes two genera, *Pezicula* and *Ocellaria,* and is distinguished by characters of the apothecia, which tend to be brightly coloured, are commonly caespitose and usually have a pruinose hymenium, and by the anamorph. Some members of the *Dermateoideae*, notably *Dermea,* may be similar in habit, but these have dark brown apothecia and conidial states belonging to different form-genera. The structure of the excipulum in species of *Dermea* also shows closer similarities with other core members of Dermateoideae, such as *Mollisia.*

Peziculoideae Nannf. in *Nova Acta Regiae Societatis Scientiarum Upsaliensis* ser. IV (8): 90, 1932.
Apothecia often brightly coloured, sometimes whitish, solitary or clustered, immersed or erumpent, sessile or short-stipitate. Hymenium usually pruinose, sometimes smooth *(Ocellaria);* receptaculum lacking hairs. Outer excipulum a *textura angularis* or *textura globulosa* composed of pale, subglobose or angular elements with thin or slightly thickened walls. Asci 4 - 8-spored, cylindric, tapered below, rather thick-walled, apex narrowed, rounded or broadly conical, apical pore broad, 1+ or rarely 1- (i.e. pore blue/violet or not in Melzer's reagent); spores mostly large and broadly ellipsoid or ovoid, hyaline, rarely slightly coloured with age, commonly becoming transversely septate and sometimes muriform, occasionally budding microconidia; paraphyses filiform, sometimes enlarged at the apex, often overtopping the asci, sometimes forming a pseudoepithecium.
Anamorph sometimes present, in form genera *Cryptosporiopsis* or *Phlyctema.* Saprophytic or parasitic on woody substrata, rarely on herbaceous stems.

Key to genera of *Peziculoideae* recognised in Great Britain

1. Apothecia erumpent, usually clustered; hymenium pruinose; paraphyses overtopping the asci, notagglutinated..... ***Pezicula***
1'. Apothecia immersed, partly erumpent, solitary; hymenium not pruinose; paraphyses agglutinated, forming a yellowish pseudoepithecium..... ***Ocellaria***

Generic descriptions and keys to species in *Peziculoideae*

Pezicula Tul. & C. Tul., *Selecta Fungorum Carpologia* III: 182, 1865 (*nom. cons., non* Paulet, 1791).
Type: *Peziza carpinea* Pers.

Apothecia usually clustered or caespitose, rarely solitary, erumpent, mostly brightly coloured, sometimes grey or whitish, disc plane or convex; hymenium pruinose. Outer excipulum a *textura angularis* or *textura globulosa* composed of thin walled, subglobose to angular elements with pale walls. Asci broadly cylindric, 4 - 8-spored, 1+ or rarely 1-; spores hyaline (later brownish in *P dennisii),* ovoid to ellipsoid or broadly ellipsoid, sometimes inequilateral, commonly transversely 1 - several septate, sometimes muriform, occasionally budding microconidia. Paraphyses filiform , sometimes branched, commonly enlarged at the apex and overtopping the asci. Anamorph sometimes present, in form genera *Cryptosporiopsis* and *Phlyctema.*
Saprophytic or parasitic on woody substrata, rarely on herbaceous stems.

Lit.: Boerema & Gremmen, 1959; Dennis, 1974; Fisher & Petrini, 1990; Groves, 1938, 1939, 1940, 1941; Guthrie, 1959; Hawksworth & Sivanesan,1976; Johansen, 1949; Seaver & Velazquez, 1933; Sharples, 1959; Wollenweber, 1939.

In general, apothecia of the various species of *Pezicula* are similar and offer few useful distinguishing characters. Consequently, identification of species based solely on the apothecial state can prove difficult. In the following key, substratum and, in some cases, characters of the anamorphic state have, therefore, been used as additional characters to distinguish species. The genus is in need of a thorough revision. It may be noted that *Pezicula dennisii,* with whitish apothecia on *Urtica,* may prove to be inappropriately placed in this genus, but further study is required before reconsidering its taxonomic position, and it is here maintained in *Pezicula.*

Number of species: 22 in GB, 50+ in total.
Species in Great Britain:

Pezicula acericola (Peck) Sacc.; Anamorph: *Cryptosporiopsis* sp.
Pezicula alba E. J . Guthrie; Anamorph: *Phlyctema vagabunda* Desm.
Volume 13, Part 3, August 1999
Pezicula carnea (Cooke & Elli s) Rehm (= *Dermatea pseudoplatani* W. Phillips) ; Anamorph: *Cryptosporiopsis* sp.
Pezicula carp in ea (Pers .) Tu!. & C. Tu!. (= *Pezicula fagi* (W. Phillips) Boud.); Anamorph: *Cryptosporiopsis fasciculata* (Tode) Petro
Pezicula cinnamomea (DC.) Sacc o (= *Pezicula dryina* (Cooke) Sacc.; *P. quercina* (Fuckel) Fuckel); Anamorph: *Cryptosporiopsis grisea* (Pers.) Petro
Pezicula corticola (C. A. .Icrg .) Nannf.; Anamorph: *Cryptosporiopsis corticola* (Edgerton) Nannf.
Pezicula coryli (Tul. & C. Tul.) Tul. & C. Tu!. ;Anamorph: unknown
Pezicula corylina J . W. Groves; Anamorph: *Cryptosporiopsie coryli* (Peck) B. Sutton
Pezicula dennisii D. Hawksw. ; Anamorph: unknown
Pezicula frangula e (Fr.) Fuckel ; Anamorph: *Cryptosporiopsis versi formis* (Alb. & Schwein.) Wollenw.
Pezicula houghtonii (w. Phillips) J . W. Groves; Anamorph: unknown
Pezicula livida (B erk. & Broome) Rehm (= *Pezicula eucrita* (P. Karst.) P. Karst.; *P conigena* (W. Phillips) Rehm; *P laricicola* Fuckel; *P nectrioides* (W. Phillips) Sacc.); Anamorph: *Cryptosporiopsis abietinum* (Rost r.) Petro
Pezicula malicorticis (H. S. Jacks.) Nannf. (= *Neofabraea perennans* Kienh.); Anamorph: *Cryptosporiopsis malicorticis* (Cordley) Nannf.
Pezicula myrtillina P. Karst. (= *Orbilia boydii* A.L. Sm. & Ramsb.); Anamorph: unknown
Pezicula alni Rehm; *Cryptosporiopsis* (?) sp.
Anamorph: *Pezicula paradoxa* Dennis; Anamorph: unknown
Pezicula amaena Tul & C. Tul.: Anamorph:
Cryptosporiopsis amaena (Hohn.) Petro
Pezicula pruinosa Farl .; Anamorph: *Lagynodella pruinosa* (Peck) Petro (= *Cryptosporiopsis* sp.)
Pezicula rhododendri Remler; Anamorph: unknown
Pezicula rubi (Lib.) Niessl (= *Pezicula rhabarbarina* (Berk.) Tul. & C. Tul.); Anamorph: *Cryptosporiopsis phaeosora* (Sacc.) Arx

Pezicula scoparia (Cooke) Dennis; Anamorph: unknown
Pezicula sepium (Desm.) Dennis (= *P crataegi* (Lasch) Fuckel); Anamorph: *Cryptosporiopsis pyri* (Fuckel) Petro
Pezicula subcarnea J. W. Groves; Anamorph: *Cryptosporiopsis* sp.

Key to British species of *Pezicula*

1. Apothecia on bark or cones of conifers; asci 4 - 8spored, <20 [J,m wide [spores 21-41 x 5-9 tJ.m]..... ***P.livida***
1.' Apothecia on bark, stems or leaves of angiosperms; asci 4- or 8-spored, width various 2

2. On dead stems of *Urtica;* hymenium whitish to pale yellowish; ascus mean width < 15 µm [spores 19-24 x 8-10 µm; 0-1-septate]..... ***P. dennisii***
2.' On stems or leaves of trees or shrubs; hymenium more deeply pigmented; ascus mean width and spore size various 3

3. On *Rosaceae* 4
3.' On other host families l0

4. On *Malus* or *Pyrus,* often associated with cankers 5
4.' On other host genera, not associated with cankers 7

5. Ascospores commonly 5 (- 6)-septate, 20-30 x 7-10 µm; conidia markedly curved to vermiform, 16-27 x 2.5-4 µm..... ***P. alba***
5.' Ascospores often non-septate, 1-3-septate with age, 13-31 x 4.5- µm; conidia not markedly curved nor vermiform 6

6. Ascospores 13-23 x 4.5-8 µm; conidia 11.5-16(-21)x 3-4 µm..... ***P. malicorticis***
6.' Ascospores 17-31 x 7-15 µm; conidia 26-42 x 7.5-10 µm..... ***P. corticola***

7. On *Rubus* or *Rosa* [spores 15-30 x 5-8 pm]..... ***P. rubi***
7.' On *Prunus* or *Crataegus* 8

8. Asci commonly 80-110 x 12-18 µm; spores mostly 6-9 µm wide (length 14-30 µm): on *Prunus spinosa*..... ***P. pruinosa***
8.' Asci commonly 120-160 x 19-26 µm; spores mostly 9-13 µm wide (length (16-)20-30(-33) µm; on *Crataegus* or *Prunus lusitanica* 9

9. Apothecia not strongly erumpent, yellow-brown pruinose margin present; on *Crataegus*..... ***P. sepium***
9.' Apothecia distinctly erumpent, margin lacking; on *Prunus lusitanica*.. ***P. houghtonii***

10.Apothecial flesh deep yellow to red-brown, or hymenium containing granules staining dark redbrown in Melzer's reagent..... l1
10.'Apothecial flesh pale, whitish to buff, or pale ochraceous; hymenium not obscured by granules.....15

11.Hymenium obscured by granules staining red-brown in Melzer's reagent; spores mostly 18-25 x 6-9 µm on *Acer pseudoplatanus*.. ***P. carnea***
l1.'Hymenium not obscured by granules; spores in range 16-40 x 6-11 µm on other hosts 12

12.On various hosts other than *Corylus;* disk cinnamon to red-brown.. ***P. cinnamomea***
12.'On *Corylus;* disc yellow ,,,13

13.Asci 130-150 x 20-25, spores (20-)28-40 x (7-)8-11 µm....................... .***P. paradoxa***
13.'Asci 85-125 x 14-20 µm, spores 15-30 x 6-10 µm..14

14.Apothecia pale yellow, not strongly erumpent. Conidiomata pulvinate; conidia 9-10.5 µm wide [spores 20-30 x 6-9 µm].. ***P. coryli***
14.'Apothecia bright yellow, strongly erumpent. Conidiomata cylindric to conical; conidia 7.5-8.5 µm wide (only *Cryptosporiopsis* anamorph known in Great Britain) [spores 15-27.5 x 6.5-10 µm ....***P. corylina***

15.Asci 4-spored; apothecia drying almost black; spores 3-5-septate, often muriform, 19-25 x 7-10*;* on *Frangula, Rhamnus*... ***P. frangulae***
15.'Asci 8-spored (rarely some 4-spored asci also present); apothecia not drying almost black; spore septation and size various; on other host genera....................................... 16

16.On *Ericaceae* 17
16' On other host families 18

17.Spores mostly 7-9 µm wide (length 18-36 um): asci > 15 µm wide; on fallen leaves and twigs of *Rhododendron*.. ***P. rhododendri***
17.'Spores mostly 4-6 µm wide (length 16-25 um): asci < 15 µm wide; on branches of *Vaccinium myrtillus*... ***P. myrtillina***

18.Asci < 15 µm wide, spores 5-6.5 µm wide (length 16-*21* µm, on *Quercus*.***P. amaena***
18.'Asci.> 15 µm wide, spores 7-14 µm wide (length 17-40 µm): on other host genera 19

19.On *Acer*... 20
19.'On other host genera.. 21

20.Asci 15-19 (-24) µm wide, spores mostly 8-10 µm wide (22-37 x 7.5-11 µm): on *Acer campestre, A. platanoides*.. ***P. acericola***
20.'Asci 21-30 µm wide, spores mostly 10-14 µm wide (21-40 x 10-15 µm): on *Acer pennsylvanica* (only *Cryptosporiopsis* anamorph known in Great Britain) ***P. subcarnea***

21. Asci commonly 130-190 µm long; spores up to 14 µm wide, 0 (-3) -septate, not becoming muriform; on *Carpinus* and *Fagus*.. **P. carpinea**
21.'Asci commonly 9-130 µm long; spores not over 10 µm wide, 0-6-septate, becoming muriform or not ; on other.hosts.. 22

22. On *Alnus ;* spores mostly 15-22 µm long, 0-3septate, not or rarely becoming muriform (only *Cryptosporiopsis* anamorph known in GreatBritain)..... ***P. alni***
22.'On *Cytisus* and *Ulex ;* spores mostly 20-30 µm long, becoming up to 6-septate and sometimes muriform..... ***P. scoparia***

Ocellaria (Tul. & C. Tul.) P. Karst., *Mycologia Fennica:* 21, 1871.
Type; O. *ocellata* (Pers.) J. Schrot.

Apothecia solitary, immersed or partly erumpent; hymenium not pruinose. Outer excipulum a *textura angularis* or *textura globulosa,* composed of pale , mostly thin-walled elements. Asci broadly cylindric, (4-) 8-spored, apical pore 1+; spores mostly broadly ellipsoid, sometimes inequilateral, hyaline, non- septate or occasionally with 1 - several transverse septa. Paraphyses agglutinated, forming a pseudoepithecium. Anamorph *Cryptosporiopsis* or unknown/lacking. Saprophytic on woody substrata.

Lit .: Wollenweber, 1939
Number of species: 2 in GB, c. 5 in total

Species in Great Britain:
O. ocellata (Pers.) J. Schrot, (= O. *aurea* Tul. & C. Tul.) Anamorph: *Cryptosporiopsis scutellata* (G. H. Otth) Petro
O. *masseeana* Sacco & Syd. *(=0. succinea* Massee)
Excluded name:
O. *punctiformis* (Pers.) Sacco (= *Cryptodiscus pallidus* (Pers.) Corda; British record based on C. *foveolaris* (Rehm) Rehm *teste* Sherwood (1977)

Key to British species of *Ocellaria*

1. Ascospores 20-30(-40) x 8-14 µm on *Salix,* rarely on *Populus, Crataegus* or ·*Sorbus* .....***O. ocellata***
1.' Ascospores 14-16 x 6 µm; on *Fagus*..... ***O. masseeana***

References
Boerema, G. H. & Gremmen, J. (1959) Een oppervlakkige bastkanker bij appel en peer veroorzaakt door *Pezicula corticola. Tijdschrift over Plantenziekten* 65: 165-176.
Dennis, R. W. G. (1974) New or Interesting British Microfungi, II. *Kew Bulletin* 29: 157-179.
Fisher, P. J. & Petrini, O. (1990) A comparat ive study of fungal endophytes in xylem and bark of *Alnus* species in England and Switzerland. *Mycological Research 94:* 313 ·319.
Groves , J . W. (1938) The Perfec t Stage of *Catinula turgida. Mycologia* 30: 46-53.
Groves , J . W. (1939) Some *Pez icula* sp ecies and their conidial stages. *Canadian Journal of Research* C 17:125-143.
Groves, J . W. (1940) Three *Pezicula* species occurring on *Alnus. Mycologia* 32: 112-123.
Groves, J. W. (1941) *Pezicula carnea* and *Pezicula subcarnea. Mycologia* 33: 510-522.
Guthrie, E. J . (1959) The occurrence of *Pezicula alba* sp. n ov. and *P. malicorticis ,* the p erfect st ates of *Gloeosporium album* and G. *perennans,* in England.*Transactions of the British Mycological Society 42:* 502-506.

Hawksworth, D. L. & Sivanesan, A. (1976) New and interesting microfungi from Slapton, South Devonshire: Ascomycotina II . *Transactions of the British Mycological Society* 67: 39-49.
J ohansen, G. (1949) The Danish species of the Discomycete genus *Pezicula. Dansk Botanisk Arkiv* 13(3): 1-26.
Nauta , M. M. & Spooner B. (199 9a) British Dermateaceae: 1. Introduction. *Mycologist* 13: 3-6.
Nauta , M. M. & Spooner, B. (1999b) British Dermateaceae : 2. Naevioideae. *Mycologist* 13: 65-69
Seaer, F. J . & Velazquez , J. (1933) *Dermea and Pezicula.Mycologia* 25: 139-148.
Sharples, R. O. (1959) Observations on the perfect state of *Gloeosporium perennans* in England. *Transactions of the British Mycological Society* 42: 507-512.
Sherwood, M. A. (19 77). The Ostropalean Fungi. *Mycotaxon* 5:1-277.
Wollenweber, H. W. (1939) Diskomyzetenstudien *(Pezicula* Tul. und *Ocellaria* Tul.). *Arbeiten aus der biologischen Reichsanstalt fur Land- und Forstwirtschaft* 22: 521-570.

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British Dermateaceae: 4A . Dermateoideae

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As part of a synopsis of British Dermateaceae a key to the genera of subfamily Dermateoideae and a description of the subfamily are presented.

Keywords: Dermateaceae, Dermateoideae, descriptions, keys, Great Britain

This is the fourth part of a synopsis of the British Dermateaceae which aims to provide keys and descriptions for subfamilies and genera, and keys to species for all genera except *Mollisia* and *Pyrenopeziza*. The first part of this synopsis (Nauta & Spooner, 1999a) provided an introduction to the family, with a key to subfamilies and annotated lists of included and excluded genera and synonyms. The second and third parts (Nauta & Spooner, 1999b; Spooner & Nauta, 1999) provided keys to genera and species, together with descriptions of genera, of the subfamilies Naevioideae and Peziculoideae respectively. In this part a key to the genera of Dermateoideae is included. In following parts descriptions of the genera and keys to the species of this group will be given.

The subfamily Dermateoideae is the largest and perhaps least well-defined of those recognised in the Dermateaceae in the present study. The salient characters of the subfamily are given below, but it seems likely that the taxon as circumscribed here remains heterogeneous. It incorporates the species segregated by Nannfeldt (1932) and many subsequent authors, as subfamilies Pseudopezizoideae and Drepanopezizoideae. These included species parasitic on herbaceous plants and leaves of broadleaved trees, but it has proved impractical to define the subfamilies clearly, and they have not been maintained here.

Dermateoideae Nannf., 1932
= Mollisioideae Nannf., 1932

Apothecia erumpent or superficial, rarely immersed, sometimes arising from stromatised host tissue. Receptaculum at least near base brown or blackish brown, rarely yellowish; hymenium usually greyish. Outer excipulum at least at base comprising *textura globulosa* or *textura angularis*, usually consisting of elements with dark brown and sometimes thickened walls; with or without hairs or thick-walled setae; lateral excipulum sometimes reduced; medullary excipulum usually well-developed; asci clavate, apical apparatus differentiated, I+ or sometimes I- (i.e. blue or not in Melzer's reagent) (may vary within species!); paraphyses filiform or broadly cylindrical, apically often subclavate, sometimes lanceolate; spores 0 - several-septate, mostly fusiform, or cylindrical, ellipsoid or clavate.

Conidial states often present, in form genera *Diplosporonema*, *Entomosporium*, *Foveostroma*, *Gloeosporidiella*, *Hainesia*, *Marssonina*, *Microgloeum*, *Micropera*, *Monostichella*, *Phialophora*, *Phloeosporella*, *Pilidium*, *Sphaeronema*, *Sporonema*.

Saprophytes or parasites on various plant parts.

Key to genera of Dermateoideae recognised in Great Britain

1. Apothecia entirely dark brown to black, mostly caespitose on a common base, leathery, thick-fleshed, on wood, erumpent through bark. Anamorphs mostly present with the teleomorph on the substrate. Paraphyses filiform, with brown contents, forming a (pseudo-)epithecium. Weak parasites. Host specific ..... **Dermea**

1'. Apothecia entirely pale or bright coloured, or if dark coloured then hymenium paler than receptaculum, rarely caespitose, mostly thin-fleshed and soft, superficial or erumpent, sometimes arising from a stroma, on wood or on herbaceous substrates, leaves or on fungi. Anamorphs rarely present with the teleomorph on the substrate. Paraphyses filiform, cylindrical or lanceolate, rarely with brown contents, sometimes forming an epithecium. Saprophytes or parasites. Host specific or not 2

2. Apothecia arising from a distinct, usually well-developed stroma, on leaves of herbs or woody plants 3

2'. Apothecia arising from host-tissue, stroma lacking or developed only in the epidermis, on wood or leaves, or herbaceous substrates or on fungi 7

3. Apothecia arising from stromatised vascular bundles which form rhizomorph-like strands in dead leaves ..... **Spilopodia**

3'. Apothecia not arising from stromatised vascular bundles; stroma on living or overwintered leaves 4

4. Excipulum lacking or scarcely developed; anamorph unknown ..... **Pseudopeziza**

4'. Excipulum present, mostly well-developed; anamorph *Diplosporonema*, *Entomosporium*, *Marssonina*, *Sporonema* or unknown 5

5. Apothecia subcuticular, asci 2-8-spored, spores 1-septate, anamorph unknown ..... **Schizothyrioma**

5'. Apothecia erumpent from beneath the epidermis, asci 4-8-spored, spores 0-1-septate; anamorph *Diplosporonema*, *Entomosporium*, *Marssonina*, *Sporonema* or unknown 6

6. Apothecia developed on living leaves, anamorph *Sporonema* or unknown; spores 0-1-septate, not constricted at septum ..... **Leptotrochila**

6'. Apothecia developed on overwintered leaves, anamorph *Diplosporonema*, *Entomosporium* or *Marssonina*; spores 1-septate, constricted at septum ..... **Diplocarpon**

7. Outer excipulum bearing dark brown, thick-walled hairs, separated by a thick brown septum from the thinner-walled excipulum elements, or outer excipulum bearing conspicuous clusters of (sometimes partly) dark-walled (sub)globose elements (grana) 8

7'. Outer excipulum lacking thick-walled hairs and grana, though relatively thin-walled hairs may be present 10

8. Grana lacking; paraphyses broadly cylindrical, with yellow contents, wall granular (obs. in water); asci broad, apex rounded, apically not strongly blueing in I (sometimes not blueing); spores ellipso-cylindrical, often yellowish, becoming septate; on monocotyledonous plants ..... **Cejpia**

8'. Grana usually present; paraphyses filiform, without yellow contents, smoothwalled; asci narrow, apex conical, apical pore blueing or not in I; spores mostly narrowly cylindrical or fusiform, hyaline; on various herbaceous plants 9

9. On dicotyledonous plants outer excipulum with dark brown, thick-walled 0-several -septate hairs, usually also with grana ..... **Pirottaea**

9'. On monocotyledonous plants septate hairs lacking grana or conspicuous clusters of partly and irregularly dark brown and thick-walled excipular elements present ..... **"Belonium" p.p.**

10. Paraphyses lanceolate, irregularly enlarged or fusoid at the apex 11

10'. Paraphyses simple to (sub)clavate at the apex 15

11. Outer excipulum a well-developed *textura angularis* or *textura globulosa* to the margin; paraphyses without granulate walls 12

11'. Outer excipulum with *textura angularis/globulosa* only developed near base of fruitbody; paraphyses sometimes with granulate walls 13

12. Apothecia sessile or shortly stipitate, smooth or minutely downy; paraphyses lanceolate or irregularly enlarged at apex, not septate at apex ..... **Mollisia** p.p. (= *Mollisiopsis*)

12'. Apothecia stipitate, tomentose; paraphyses with fusiform swollen septate apex ..... **Diplocarpa**

13. Asci broadly clavate, I-, relatively thick-walled; paraphyses irregularly enlarged at the apex, not acuminate ..... **Hysteronaevia**

13'. Asci cylindrical to clavate, I+, thin-walled; paraphyses lanceolate, enlarged just below the apex; margin with hyaline or pale brown, thin-walled hairs 14

14. Hairs on excipulum smooth; paraphyses with granulate walls (observe in water!) ..... **Hysteropezizella**

14'. Hairs on excipulum warty; paraphyses smooth-walled ..... **Hysterostegiella**

15. Outer excipulum with long, thin-walled or slightly thick-walled hairs 16

15'. Outer excipulum without hairs, though sometimes with periphysis-like structures or with clavate outgrowths of one or more excipular elements 17

16. Hairs encrusted, reddish brown; apothecia with subiculum; on grasses and *Carex* ..... **Dennisiodiscus**

16'. Hairs smooth, varying from pale brown to dark brown; apothecia with or without subiculum; on woody substrates ..... **Mollisia p.p.** (=*Haglundia*)

17. Apothecia superficially developed beneath a shield of radial hyphae, sometimes soon evanescent 18

17'. Apothecia immersed, erumpent or superficial, but not developed beneath a shield 21

18. Perihymenial and medullary excipulum strongly gelatinised; margin thick; elements of margin (= perihymenial excipulum) with thick, refractive walls; spores < 20 µm long ..... **Micropeziza**

18'. Perihymenial and medullary excipulum not or at most slightly gelatinised; margin thin; elements of margin lacking thick, refractive walls, but sometimes slightly thickened; spore length various 19

19. Basal and marginal excipulum pale yellowish, elements somewhat thick-walled; shield soon evanescent and difficult to observe; outer excipulum lacking dark striae ..... **Pseudonaevia**

19'. Basal and often marginal excipulum dark brown, elements thin-walled; shield hyphae usually observable on apothecia; outer excipulum with or without dark striae 20

20. Outer excipulum lacking dark striae ..... **Scutomollisia**

20'. Outer excipulum with locally superficially dark brown-walled elements, forming lateral 'striae' ..... **Scutobelonium**

21. Apothecia subepidermal, exposed by splitting of the epidermis as teeth or shedding as a lid; lateral excipulum reduced; disc emarginate, paraphyses often with greenish or brownish contents; on leaves of woody dicotyledonous plants.....22
21'. Apothecia superficial or if subepidermal not exposed by lid or teeth of host epidermis; lateral excipulum well-developed or not; disc marginate or not, paraphyses lacking greenish contents, sometimes with brownish contents; on various substrates.....23

22. Spores non-septate, 6 - 12 µm long; asci clavate; paraphyses usually with greenish contents....**Trochila**
22'. Spores 1 - 3-septate, 12 - 20 µm long; asci broadly clavate; paraphyses often with brownish contents .....**Eupropolella**

23. Apothecia on soil; margin dentate.....**Podophacidium**
23'. Apothecia never on soil, but on plants or plant debris, woody substrates etc.; margin-rarely dentate.....24

24. Spores large and clavate, 1-5-septate, hyaline; paraphyses sometimes forming a brown 'pseudo-epithecium'; on rotten wood.....**Patellariopsis**
24'. If spores clavate then no brown pseudo-epithecium present; spores septate or not, hyaline or brown; on various substrates.....25

25. Lateral excipulum poorly developed, asci I+; on leaves of Salicaceae or *Ribes*; anamorph *Gloeosporidiella*, *Marssonina*, or *Monostichella*, developed on living leaves.....**Drepanopeziza**
25'. Lateral excipulum more or less well-developed; asci I + or I-; on various plant parts of various families (incl. Salicaceae), anamorph unknown or, if present, in other form genera and usually not developed on living leaves.....26

26. Asci and spores relatively thick-walled; spores often with gelatinous sheath, with 'thick' (refractive) septum/septa.....**Niptera**
26'. Asci and spores thin-walled; spores without gelatinous sheath, if septate then septa thin.....27

27. Medullary excipulum composed of loosely interwoven hyphae, mostly with Ca-Ox crystals, hymenium drying yellow, with pruinose or granulose appearance.....28
27'. Medullary excipulum without embedded Ca-Ox crystals, usually compact; hymenium drying yellow or not, smooth.....29

28. Spores 1-septate, paraphyses overtopping asci; on woody substrata.....**Dibeloniella citrinella**
28'. Spores (0-) 3- several septate, paraphyses not overtopping asci; on monocotyledonous plants.**Belonopsis**

29. Spores dark-brown, constricted; paraphyses forming brown pseudo-epithecium; apothecia large (3-15 mm), hymenium olivaceous-brown.....**Catinella**
29'. Spores hyaline, not constricted; without pseudo-epithecium; apothecia usually smaller, hymenium usually paler.....30

30. Spores remarkably multiguttulate; asci with obtuse apex, I-.....**Graddonia**
30'. Spores not multiguttulate; asci (obtusely) conical at apex, I-/+.....31

31. Parasitic on leaves; apothecia developed on overwintered leaves.....32
31' Saprophytic or rarely parasitic; apothecia erumpent or superficial, on various substrates; rarely developed on living leaves.....33

32. Apothecia erumpent. Anamorphs in form genera *Hainesia* and *Pilidium*. Spores non-septate, 9-11 µm long.....**Discohainesia**
32'. Apothecia remaining immersed. Anamorphs in form genera *Phloeosporella*. Spores 0-3-septate, in British species 33-50 µm long.....**Blumeriella**

33. Apothecia superficial or erumpent; outer excipulum usually composed of radially arranged elements, forming a *textura globulosa*, at margin often changing into elongated hyaline or pale brown-walled elements, not overarching the hymenium; sclerotinised elements lacking; upper part of paraphyses in fresh state often with long, refractive vacuole.....**Mollisia**
33'. Apothecia erumpent or remaining partially immersed; outer excipulum composed of elements with or without radial arrangement, forming a *textura angularis* or *textura prismatica*; margin extending above and overarching the hymenium; sclerotinised elements sometimes present; paraphyses lacking long vacuole 34

34. Outer excipulum a brown-walled *textura angularis* reaching almost to the margin; margin only partly over-arching the hymenium and not thickened; periphysis-like elements lacking; apothecia at maturity usually at least 0.4 mm diam.....**Pyrenopeziza**
34'. Outer excipulum lacking dark-walled *textura angularis* in marginal and lateral excipulum; margin extending markedly above and overarching the hymenium, apothecia as a result apparently opening by a pore; periphysis-like elements often present; apothecia at maturity usually less than 0.4 mm diam. .....**Diplonaevia**

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References

Nannfeldt, J. A. (1932) Studien über die Morphologie und Systematik der nicht-lichenisierten Inoperculaten Discomyceten. *Nova Acta Regiae Societatis Scientiarum Upsaliensis* ser. IV, **8** (2): 1 - 368.

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

Nauta, M. M. & Spooner, B. M. (1999b) British Dermateaceae: 2. Naevioideae. *Mycologist* **13:** 65 -69.

Spooner, B. M. & Nauta, M. M. (1999) British Dermateaceae: 3. Peziculoideae. *Mycologist* **13:** 98-101

NAUTA M.M. & B. SPOONER (2000). British *Dermateaceae*: 4B. *Dermatoideae* Genera B-E. *The Mycologist* 14(1): 21-28.

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British Dermateaceae: 4B. Dermateoideae Genera B-E

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As part of a synopsis of British Dermateaceae, descriptions of genera and keys to species for the genera *Belonium* to *Eupropolella* (subfamily Dermateoideae) are presented.

This is the first part of the descriptions of genera and keys to species in the subfamily Dermateoideae. The key to the genera was published earlier (Nauta & Spooner, 1999c). The genera are alphabetically arranged, and the format follows that of previous parts in the series (Nauta & Spooner, 1999a,b; Spooner & Nauta, 1999).

Belonium Sacc., *Botanisches Centralblatt* 18: 219, 1884 sensu Graddon
Type: *B. graminis* (Desm.) Sacc.
=? *Pyrenopeziza*

Apothecia erumpent, sessile, small, up to c. 1 mm, hymenium greyish, receptaculum pale brownish, often with dark zones (striae); margin white. Outer excipulum a *textura angularis*, consisting of very pale brownish elements either with partly thickened, dark brown walls, sometimes with short, clavate dark-walled projections, or at the surface forming clusters of conspicuous dark-walled globose elements (grana). Asci I+, 8-spored; spores 0-1-septate. Paraphyses filiform, hyaline, smooth-walled.
Conidial state unknown.
Saprophytic on monocotyledonous plants.

According to Défago (1968), the type of *Belonium* may belong in *Pyrenopeziza*, but the material is in poor condition and difficult to assess. Some species described in *Belonium* by a.o. Graddon are probably congeneric with each other, but not with *B. graminis*. They are referred here to *Belonium* sensu Graddon, since there appears to be no appropriate genus available for them. They resemble species of *Pirottaea* in the presence of grana or dark-brown, hair-like elements, but differ in their occurrence on monocotyledonous substrates and in their excipular structure. The irregularly thickened walls of the excipular elements are also similar to those in some species which are currently referred to *Pyrenopeziza*, but may not necessarily belong there. Further study is necessary.

Lit.: Dennis, 1983; Graddon, 1972; Graddon, 1980; Hawksworth & Minter, 1980

Number of species: 4 in GB

Species in Great Britain:
B. graddonii Hawksw.
B. incurvatum Graddon
B. nigromaculatum Graddon
B. psammicola (Rostr.) Nannfeldt (= *Trochila psammicola* Rostr.)

Excluded names:
B. hystrix (de Not.) Höhn. = *Cejpia hystrix* (de Not.) Baral
B. quercinum Velen.: see Dennis (1964a); the collection on which this record is based, in K, is not a *Belonium*

Key to British species of Belonium sensu Graddon

1. Spores (12-)17-22 x 2-2.5 µm; apothecia to 750 µm in diameter (on grass) ..... **B. incurvatum**
1'. Spores < 12 µm long; apothecia smaller 2
2. Spores 8-12 x 2 µm; apothecia to 400 µm in diameter; on *Iris pseudacorus* ..... **B. nigromaculatum**
2'. Spores < 9 µm; apothecia smaller; other substrate 3
3. Outer excipulum with short dark- and thick-walled clavate projections, not in clusters; on *Ammophila*; spores 7-9 x 2-3 µm ..... **B. psammicola**
3'. Outer excipulum with clusters of dark- and thick-walled elements; host genus unknown ("straw"); spores 6.5-8 x 2 µm ..... **B. graddonii**

Belonopsis (Sacc.) Rehm in Rabenhorst, *Kryptogamen-Flora Deutschland, Österreich und der Schweiz* 2, 1: 571, 1891
Type: B. *excelsior* (P. Karst.) Rehm
= *Trichobelonium* (Sacc.) Rehm 1891

Apothecia early erumpent, pale; hymenium white or yellowish; receptaculum brownish only at the

base; subiculum present or not. Outer excipulum a *textura globulosa* consisting of few layers of (dark) brown elements, often laterally absent or pale-walled; medullary excipulum consisting of loosely interwoven hyphae, with Ca-Ox crystals. Asci I+ or I-, with well-developed apical apparatus; spores fusiform or cylindrical, (0-)1-5-septate, septa thin. Paraphyses hyaline, filiform, slightly enlarged at top, in fresh state either with long vacuole or with several globose vacuoles/oildrops.
Conidial state *Cystodendron, Phialophora.*
Saprophytic on grasses.

Belonopsis is here restricted to species in which the medullary excipulum comprises loosely interwoven hyphae with embedded Ca-Ox crystals, and in which spores become septate in an early stage. Future investigations will show whether it may be better to reduce the genus to subgeneric level within *Mollisia.*

Lit.: Aebi, 1972; Dennis, 1972; Ingold, 1954; Nannfeldt, 1985.

Number of species: c. 5 in GB, c. 20 in total

Species in Great Britain:
B. excelsior (P. Karst.) Rehm (listed in Cannon et al. as *Niptera*)
B. hydrophila (P. Karst.) Nannf. (= *Mollisia hydrophila* (P. Karst.) Sacc.)
B. mediella (P. Karst.) Aebi
Mollisia phalaridis (Lib.) Rehm (not combined in *Belonopsis* yet; the collections agreed in every aspect with other *Belonopsis* species)
B. retincola (Rabenh.) Le Gal & F. Mangenot

Excluded names:
B. asteroma (Fuckel) Aebi (listed in Cannon *et al.* as *Trichobelonium*) = *Mollisia*
B. ebudensis Dennis = *Mollisia*
B. filispora (Cooke) Nannf. = *Mollisia* (non *Mollisia filispora* Velen.)
B. graminea (P. Karst.) Sacc. & Syd. = *Mollisia graminea* (P. Karst.) P. Karst.
B. guestphalicum (Rehm) Aebi (listed in Cannon et al. as *Trichobelonium*) = *Mollisia*
B. iridis (Crouan & H. Crouan) Graddon = *Mollisia iridis* (Crouan & H. Crouan) Le Gal
B. juncicola Graddon = *Mollisia*
B. lacustris (Fr.) Höhn. var. *caricina* Velen. = *Mollisia*
B. litoralis W. Phillips & Plowr. = ? *B. mediella*
B. obscura (Rehm) Aebi (listed in Cannon *et al.* as *Trichobelonium*) = *Mollisia*
B. pulla (W. Phillips & Keith) Dennis = *Niptera pulla* (W. Phillips & Keith) Boud.
B. pallens (Sacc.) Keissler = *B. filispora* (= *Mollisia*)
B. rhenopalatica (Rehm) Dennis = *B. mediella*
B. scirpi Rabenh. = ? *B. mediella*

Key to British species of Belonopsis

1. On *Phalaris, Glyceria*, other grasses spores 17-25 x 2-3 µm, 1-septate ..... **Mollisia phalaridis**
1'. On *Phragmites* or *Arundo*, spores of various size, 0-5 septate 2
2. Paraphyses abruptly enlarged at top up to 7 µm; spores > 50 µm long [spores 50-80 x 3-4 µm; 3-10 septate] ..... **B. excelsior**
2'. Paraphyses slightly enlarged at top, to 3.5 µm; spores shorter than 50 µm 3
3. Spores 1-5 septate, 16-34 x 3 µm, fusiform with one pointed end; asci c. 9 µm wide ..... **B. mediella**
3'. Spores 0-1 septate; asci 5-6 µm wide 4
4. Apothecia developed on subiculum; spores 12.5-28 x 2-3 µm; asci 78-126 µm long ..... **B. retincola**
4'. Subiculum absent; spores 8-13 x 1.5-2.5 µm; asci 50-70 µm long ..... **B. hydrophila**

Blumeriella Arx, *Phytopathologische Zeitschrift* 42: 164, 1961
(nom. nov. for *Higginsia* Nannf. 1932)
Type: *Coccomyces hiemalis* Higgins (= *Blumeriella jaapii* (Rehm) Arx)
= *Higginsia* Nannf. 1932, nom. illeg. (non *Higginsia* Pers. 1805)

Apothecia subepidermal, closed at first, remaining immersed, to c. 300 µm diam., developed on underside of overwintered leaves; hymenium pale grey to flesh-coloured; excipulum at base a *textura globulosa* consisting of brown-walled elements. Asci I +, clavate, long-stalked, narrowed and sometimes papillate at the apex, 8-spored; spores cylindrical, hyaline, 0-3-septate, arranged in a fascicle in the ascus. Paraphyses hyaline, slightly enlarged at top and sometimes forked.
Conidial state *Microgloeum, Phloeosporella.*
Parasitic on leaves of deciduous trees and shrubs (British species on *Prunus*); apothecia on fallen, overwintered leaves in spring and early summer.

Lit.: Arx, 1961; Higgins, 1913, 1914; Höhnel, 1918; Nannfeldt, 1932; Williamson & Bernard, 1988

Number of species: 1 in GB, 3 in total.

Species in Great Britain:
B. jaapii (Rehm) Arx (only conidial stage known) (= *Pseudopeziza jaapii* Rehm; *Coccomyces hiemalis* B.B. Higgins; *Coccomyces prunophorae* B.B. Higgins; *Coccomyces lutescens* B.B. Higgins). Anamorphs: *Phloeosporella padi* (Lib.) Arx; *Microgloeum pruni* Petrak. Asci 70-95 x 11-14 µm; spores 33-50 x 3.5-4.5 µm.

Catinella Boud., *Histoire et Classification des Discomycètes d'Europe*: 150, 1907
Type: *Catinella olivacea* (Batsch) Boud.

Apothecia superficial, sessile, up to 15 mm in diam.; hymenium olivaceous brown; margin paler; receptaculum dark brown, covered with brown hyphae. Excipulum a *textura angularis* or *textura globulosa*, consisting of dark brown-walled elements up to 40 µm in diam. Asci I -, cylindrical, 8-spored; spores ellipsoid with median constriction, brown, 0-septate. Paraphyses overtopping the asci, enlarged up to c. 4 µm at the apex, agglutinated and apically encrusted with brown amorphous matter.
Conidial state unknown.
Saprophytic on rotten wood.

Lit.: Durand, 1922; Spooner & Legon, 1991; Strödel, 1984.

Number of species: 1 in GB, 2 in total

Species in Great Britain:
C. olivacea (Batsch) Boud. Asci 80-95 x 4-6 µm; spores 7-10 x 3.5-4.5 µm.

Cejpia Velen., *Monographia Discomycetum Bohemiae* 1: 125, 1934
Type: *Cejpia coerulea* Velen.

Apothecia erumpent, up to 0.5 mm diam.; hymenium grey; receptaculum dark brown and granulose, margin pale in *C. hystrix*. Outer excipulum well-developed, a *textura angularis* consisting of pale-walled angular elements, with distinct thick and brown-walled hairs. Asci I +, cylindrical, 8-spored; spores 0(-1-3)-septate, hyaline to yellowish. Paraphyses broadly cylindrical or lanceolate, up to 4.5 µm wide, with yellow contents and granulate walls.
Conidial state ? *Actinothyrium* (Höhnel, 1917).
Saprophytic on grasses, *Carex*, *Scirpus*.

According to Baral (1994) *Bellonium hystrix* has been erroneously considered by many authors a synonym of *Belonium graminis*, the type of the genus *Belonium*. It differs markedly from *B. graminis* in the presence of differentiated thick-walled stiff hairs and paraphyses with granulate walls and the two species cannot be considered as congeneric. *Belonium hystrix* belongs to the genus *Cejpia* Velen. and may prove to be a synonym of *C. coerulea*.

Lit.: Baral, 1994; Dennis, 1971; Hein, 1980a, 1981; Höhnel, 1917; Svrček, 1976

Number of species: 1 in GB, ?2 in total.

Species in Great Britain:
C. hystrix (de Not.) Baral (= *Belonium hystrix* (de Not.) Höhn.; = *C. amaena* (Boud.) Svrček). Asci 55 - 70 x 8 - 10 µm, spores 13 - 21 x 2.5 - 5 µm.

Dennisiodiscus Svrček, *Ceská Mykologie* 30: 9, 1976
Type: *Lachnella prasina* Quél.

Apothecia sessile, to c.1 mm diam., usually with brown anchoring hyphae, sometimes with thin subiculum; hymenium olivaceous orange to dark olivaceous brown, receptaculum with long (orange-)brown hairs. Excipulum a *textura globulosa* consisting of dark and brown-walled globose elements, running into long, > 100 µm, pale brown, relatively thin-walled hairs; hairs tapering towards the apex, walls encrusted with abundant reddish-brown granules. Asci narrowly clavate, apex bluntly conical, I +, (4-)8-spored; spores fusiform, often slightly curved , 0 (-3)-septate. Paraphyses hyaline, cylindrical.
Conidial state unknown.
Saprophytic on culms and leaves of monocotyledonous plants (*Carex*, Gramineae).

Lit.: Baral & Kriegelsteiner, 1985; Beyer, 1991; Hein, 1980b; Svrček, 1976.

Number of species: 1 in GB, 9 in total

Species in Great Britain:
D. prasinus (Quél.) Svrček. (= *Trichodiscus prasinus* (Quél.) Kirschst.). Asci 40 - 45 x 4 - 5 µm; spores 11-20 x 2.5-3 µm. On marsh grasses *(Glyceria, Phragmites)* & *Carex*.

Excluded names:
D. virescentulus (Mouton) Svrček = *Trichodiscus virescentulus* (Mouton) Dennis

Dermea Fr., *Systema orbis vegetabilis*: 114, 1825
Type: *Dermea cerasi* (Pers.) Fr.
= *Dermatea* Fr. 1849

Apothecia erumpent, leathery, caespitose; hymenium and receptaculum dark brown to blackish. Outer excipulum thin, a *textura globulosa* or *textura angularis*, consisting of brown-walled elements, often soon disintegrating; medullary excipulum thick, consisting of interwoven hyaline hyphae, with slightly gelatinised walls. Asci I+, narrowly clavate, mostly 8-spored; spores ellipsoid, hyaline to yellowish brown, 0 - several-septate. Paraphyses filiform, with brown contents, forming a pale brownish to yellowish epithecium.
Conidial state in form genera *Cornicullariella, Foveostroma, Micropera* and *Sphaeronema*.
Weakly parasitic, on woody substrates.

Lit.: Groves, 1946; Nannfeldt, 1932

Number of species: 5 in GB, c. 26 in total

Species in Great Britain:
D. ariae (Pers.: Fr.) Tul. Anamorph: *Sphaeronema pallidum* Peck (= *Micropera cotoneastri* Sacc.)
D. cerasi (Pers.) Fr. Anamorph: *Foveostroma drupacearum* (Lév.) DiCosmo
D. padi (Alb. & Schwein.) Fr. Anamorph: *Micropera padina* Sacc.
D. prunastri (Pers.: Fr.) Fr. Anamorph: *Micropera spuria* Höhn.
D. tulasnei Groves. Anamorph: *Micropera cryptosporioides* Höhn.

Key to British species of Dermea

1. On *Fraxinus*. Asci commonly 15 - 18 µm wide, spores 6 - 8 µm wide, conidia 25 - 40 x 6 - 8 µm [spores 15 - 22 µm long] ..... **D. tulasnei**
1. On Rosaceae. Asci mostly 8 - 14 µm wide, spores 2.5 - 7.5 µm wide; conidia various, mostly < 5 µm wide, if up to 7 µm wide then < 30 µm long 2
2. Asci 8 - 10 µm wide, mostly < 90 µm long, spores 3 - 5 µm wide, conidia mostly 15 - 20 µm long; on *Sorbus aucupariae* [spores 12 - 22 µm long] ..... **D. ariae**
2. Asci 10 - 14 µm wide, mostly > 90 µm long, spores 5 - 7 µm wide, conidia longer than 20 µm; on *Prunus* spp. 3
3. Apothecia 1 - 3 mm diam., conidia 40 - 60 µm long, on *P. cerasus, ?avium* [spores 15 - 25 µm long] ..... **D. cerasi**
3. Apothecia 0.5 - 1 mm diam., conidia 20 - 35 µm long, on *P. spinosa, domestica, padi* 4
4. Conidia 5 - 7 µm wide; pycnidia caespitose, beaked [spores 15 - 25 µm long] ..... **D. prunastri**
4. Conidia 2.5 - 4 µm wide; pycnidia mostly solitary, not beaked [spores 15 - 20 µm long] ..... **D. padi** (only known as anamorph in GB)

Dibeloniella Nannf., *Nova Acta Regiae Societatis Scientiarum Upsaliensis* ser. IV, 8 (2): 107, 1932
Type: *Beloniella vossii* Rehm (= *Dibeloniella raineri* (de Not.) Nannf.)
= *Dibelonis* Clem. & Shear 1931, non Clem. 1909.

Apothecia superficial, stipitate; hymenium yellowish, pruinose; receptaculum brownish. Outer excipulum a *textura globulosa* consisting of brown-walled, globose elements; medullary excipulum composed of hyaline hyphae. Asci I +, cylindrical to clavate, 8-spored; spores ellipsoid, hyaline, 1-septate. Paraphyses enlarged at top, overtopping asci.
Conidial state *Phialophora* or unknown.
Saprophytic on woody substrate.

Lit.: Müller & Défago, 1968.

Number of species: 1 in GB, c. 4 in total

Species in Great Britain:
Dibeloniella citrinella (Rehm) Müller & Défago (?= *Mollisia ramealis* (P. Karst.) P. Karst.). Asci 90 - 110 x 8 - 9 µm; spores 18 - 25 x 2.5 - 3 µm.

Excluded names:
D. eriophori (Kirchn.) E.Müller & Défago = *Nimbomollisia eriophori* (Kirchn.) Nannf. (= *Niptera*)
D. trichophoricola Graddon = *Nimbomollisia trichophoricola* (Graddon) Nannfeldt (= *Niptera*)

Diplocarpa Massee, *British Fungus Flora* 4: 307, 1895
Type: *D. curreyana* Massee (= *D. bloxamii* (W. Phillips) Seaver)

Apothecia often caespitose, stipitate; hymenium olivaceous; receptaculum dark brown-tomentose; stipe tomentose with pustular appearance at first, often becoming smooth and dark brown to blackish with age. Outer excipulum a *textura angularis* consisting of angular pale brown-walled elements, bearing multiseptate, thin-walled pale

brown hairs up to 150 µm long, with brownish contents and commonly with loosely attached dark yellow-brown to red-brown amorphous granules. Asci I -, clavate to cylindrical, apex obtusely conical, 8-spored; spores ellipsoid to ovate, non-septate. Paraphyses hyaline or pale yellow-brown, lanceolate, overtopping the asci; the apex distinctly enlarged, 2-4-septate and fusoid, enlarged up to 7µm, sometimes with a rugose appearance when observed in water.
Conidial state unknown.
Saprophytic on rotten wood.

Lit.: Massee, 1895; Seaver, 1937.

Number of species: 1 in GB, 1 in total

Species in Great Britain:
D. bloxamii (W. Phillips) Seaver (= *D. curreyana* Massee). Asci 68 - 75 x 6 - 7 µm; spores 6 - 9 x c.3 µm.

Diplocarpon F.A.Wolf, *Botanical Gazette* 54: 231, 1912
Type: *D. rosae* F.A.Wolf

Apothecia developed from a subcuticular stroma, erumpent, splitting open with irregular margin, sometimes developed below a shield of dark brown radiating hyphae *(D. rosae)*. Excipulum a *textura globulosa* consisting of brown-walled elements up to the margin. Asci subclavate, I+; spores ellipsoid, hyaline, 1-septate (unequally 2-celled), slightly constricted at the septum. Paraphyses slightly enlarged at top and overtopping asci.
Conidial state *Diplosporonema, Entomosporium, Marssonina.*
Parasitic as anamorph, causing reddish to black lesions; apothecia developed on overwintered leaves.

Lit.: Dodge, 1931; Höhnel, 1916; Sivanesan & Gibson, 1976a, 1976b & 1976c; Stowell & Backus, 1967; Wolf, 1912, 1924.

Number of species: 4 in GB, 6 in total

Species in Great Britain:
D. earlianum (Ellis & Everh.) F.A.Wolf. (= *Mollisia earliana* (Ellis & Everh.) Sacc.) Anamorph: *Marssonina fragariae* (Lib.) Kleb.
D. mespili (Sorauer) B.Sutton (= *D. maculatum* (G.F. Atk.) Jørst.; *Fabraea maculata* G.F. Atk.; *Diplocarpon soraueri* (Kleb.) Nannf.). Anamorph: *Entomosporium mespili* (DC.) Sacc.
D. rosae F.A.Wolf. Anamorph: *Marssonina rosae* (Lib.) Died.
D. saponariae (Ces.) Nannf. (= *D. agrostemmatis* (Fuckel) Nannf.; *Pyrenopeziza agrostemmatis* Fuckel). Anamorph: *Diplosporonema delastrei* (Delacr.) Petr.

Key to British species of Diplocarpon

1. On Caryophyllaceae [spores 17-20 x 4.5-5.5 µm] ..... **D. saponariae**
1. On Rosaceae 2
2. On *Fragaria* or *Potentilla* [spores 18-28 x 4-6 µm] ..... **D. earlianum**
2. On *Cydonia, Mespilus* or *Rosa* 3
3. On *Cydonia* or *Mespilus*; spores 16-24 x 6 - 10 µm ..... **D. mespili**
3. On *Rosa*; spores 20-25 x 5 - 6 µm ..... **D. rosae**

Diplonaevia Sacc., *Sylloge fungorum* 8: 666, 1889
Type: *Stictus caricum* Auersw. (= *D. seriata* (Lib.) B. Hein)
= *Merostictis* Clem., 1909; = *Pyrenodiscus* Petr., 1927; = *Asteronaevia* Petr., 1929

Apothecia subepidermal in development, remaining immersed, opening with a pore; hymenium yellowish-red, translucent; receptaculum translucent, reddish-brown. Outer excipulum a *textura angularis* consisting of thin-walled elements, perihymenial excipulum a *textura prismatica*. Medullary excipulum with periphysis-like elements, extending above and overarching the hymenium. Asci clavate, apical pore I +, 4 - 8-spored; spores ellipsoid to clavate, mostly non-septate, hyaline. Paraphyses filiform to subclavate, agglutinated, with a gelatinous pseudo-epithecium.
Conidial state unknown.
Saprophytic on herbs.

Lit.: Défago, 1968; Hein, 1983; Nannfeldt, 1984a; Scheuer, 1991

Number of species: 4 in GB, 27 in total

Species in Great Britain:
D. circinata (Lib.) B. Hein (= *Stictis circinata* Lib.; *Naevia circinata* (Lib.) Rehm)
D. exigua (Desm.) B. Hein (= *Stictis exigua* Desm.; *Hysteropezizella exigua* (Desm.) Nannf.; *Hysteropezizella rehmii* (Jaap) Nannf.
D. paulula (Roberge ex Desm.) Scheuer (=

Mollisia paulula (Roberge ex Desm.) W.Phillips)

D. seriata (Lib.) B. Hein (= *Stictis seriata* Lib.; *Merostictis seriata* (Lib.) Défago)

Key to British species of Diplonaevia

1. Asci not larger than 50 x 8 µm; spores up to 12 x 4 µm; apothecial margin lacking broad, isodiametric elements; on *Carex* or *Juncus* 2
1. Asci larger than 55 x 9 µm; spores in range 12 - 20 x 4 - 5.5 µm; apothecial margin including broad, isodiametric elements; on *Juncus* 3
2. On *Carex*; spores 2.5 - 3 µm wide; asci 5 - 6 µm wide ..... **D. seriata**
2. On *Juncus*; spores 3 - 4 µm wide; asci 6 - 8 µm wide ..... **D. circinata**
3. Asci 13 - 16 µm wide; spores not longer than 16.5 µm; apothecia erumpent; causing black spots on living culms ..... **D. paulula**
3. Asci 9 - 12 µm wide; spores to 20 µm long; apothecia not or scarcely erumpent; not causing black spots on living culms ..... **D. exigua**

Discohainesia Nannf., *Nova Acta Regiae Societatis Scientiarum Upsaliensis* ser. IV, 8 (2): 88, 1932

Type: *Peziza oenotherae* Cooke & Ellis in *Grevillea* 6: 90 (1878).

Apothecia frequently associated with anamorphic stages, erumpent, to c. 1 mm diam.; disc convex, whitish; receptaculum shallow cupulate to discoid, with short, stipe-like base, smooth. Excipulum well-developed, at base a *textura angularis* composed of subhyaline thin-walled elements; asci I- with conical apex, 8-spored; spores hyaline, non-septate, narrowly clavate, biseriate. Paraphyses filiform, branched.
Conidial state *Hainesia* and *Pilidium*.
Parasitic, on leaves of various dicotyledonous plants.

Lit.: Dennis, 1964b; Shear & Dodge, 1921.

Number of species: 1 in GB, 1 in total

Species in Great Britain:

D. oenotherae (Cooke & Ellis) Nannf., on *Castanea* (= *Pezizella oenotherae* (Cooke & Ellis) Sacc.). Anamorphs: *Hainesia lythri* Desm. and *Pilidium concavum* (Desm.) Höhn. Asci c. 70 x 5-6 µm, spores 9-11 x 2-2.5 µm.

Drepanopeziza (Kleb.) Höhn., *Annales Mycologici* 15: 332, 1917

Type: *D. populorum* (Desm.) Höhn.

Apothecia developed below the epidermis, not or scarcely erumpent; without stroma. Outer excipulum a *textura globulosa*, consisting of brown-walled globose elements; lateral excipulum poorly developed. Asci I +, clavate; spores ellipsoid, non-septate. Paraphyses hyaline, slightly enlarged at the apex.
Conidial state *Gloeosporidiella, Marssonina, Monostichella*
Parasitic as anamorph, apothecia developed on overwintered leaves of deciduous trees and shrubs (GB species on Salicaceae or *Ribes*).

Lit.: Gremmen, 1965; Nannfeldt, 1931; Rimpau, 1962.

Number of species: 7 in GB, 9 in total

Species in Great Britain:

D. populi-albae (Kleb.) Nannf. Anamorph: *Marssonina castagnei*

D. populorum (Desm.) Höhn. Anamorph: *Marssonina populi*

D. punctiformis Gremmen. Anamorph: *Marssonina brunnea*

D. ribis (Kleb.) Höhn. Anamorph: *Gloeosporidiella ribis*

D. salicis (Tul. & C. Tul.) Höhn. Anamorph: *Monostichella salicis*

D. sphaeroides (Pers.) Höhn. Anamorph: *Marssonina salicicola*

D. triandrae Rimpau. Anamorph: *Marssonina kriegeriana* (only anamorph known in GB)

Excluded names:
D. schoenicola Graddon =? *Mollisia*

Key to British species of Drepanopeziza

1. On *Ribes*; anamorph *Gloeosporidiella* ..... **D. ribis**
1. On Salicaceae; anamorph *Marssonina* or *Monostichella* 2
2. On *Populus* 3
2. On *Salix* 5
3. On *P. alba*; anamorph with macroconidia 18 - 20 x 5 - 9 µm ..... **D. populi-albae**
3. On *P. nigra* group or *P. x euramericana*; anamorph with macroconidia either larger or smaller 4
4. On *P. nigra* group; ascospores 5 - 9 µm wide; macroconidia 17 - 25 x 6 - 11 µm ..... **D. populorum**
4. On *P. x euramericana*; ascospores 4 - 7 µm wide; macroconidia 13 - 19 x 4 - 6 µm ..... **D. punctiformis**

5. Ascospores 10 - 13 x 5 - 6.5 µm; on *S. triandra* ..... **D. triandrae**
5. Ascospores larger, in range 13 - 22 x 6 - 9 µm; on other *Salix* spp 6
6. Apothecia 200 - 300 µm diam.; ascospores 13 - 22 µm long; on *S. caprea*, rarely on *S. alba* group ..... **D. sphaeroides**
6. Apothecia 150 - 200 µm diam.; ascospores 13 - 15 x 6 - 7 µm; on *S. alba* group ..... **D. salicis**

Eupropolella Höhn., *Annales Mycologici* 15: 311, 1917
Type: *E. vaccinii* (Rehm) Höhn.

Apothecia subcuticular or subepidermal, becoming erumpent, host tissue ruptured irregularly or as lobes or teeth. Perihymenial excipulum poorly developed, thin, consisting of hyaline to brownish septate hyphae, or almost lacking; basal excipulum composed of subglobose to angular cells with thin, usually pigmented walls. Asci I + or I -, clavate or cylindric-clavate; spores ellipsoid to cylindric or inequilateral, often slightly curved, (0-)1 - 3-septate and brownish at maturity, biseriate within the ascus. Paraphyses simple or branched above, often overtopping the asci, septate, apically enlarged, obtuse, uppermost cells often with brownish content, sometimes forming a brownish pseudo-epithecium.
Conidial state ?*Cryptocline* or unknown.
Parasitic or saprophytic on leaves of dicotyledonous plants or leaves or culms of monocotyledonous plants.

Lit.: Défago, 1968; Dennis, 1975; Eriksson, 1970; Graddon, 1977; Gregor, 1936; Kurkela, 1974; Morgan-Jones, 1972; Müller, 1957; Müller, Hütter & Schuepp, 1958.

Number of species: 3 in GB, 9 in total

Species in Great Britain:
E. arundinariae (E.K. Cash) Dennis (= *Sphaeropezia arundinariae* E.K.Cash). Anamorph: unknown
E. britannica Greenhalgh & Morgan-Jones. Anamorph: ? *Cryptocline phacidiella* (Grove) Arx
E. vaccinii (Rehm) Höhn. (= *E. arctostaphyli* E. Müll., Hütter & Schuepp; *Phacidium arctostaphyli* P. Karst.; *Pseudopeziza vaccinii* Rehm; *Sphaeropezia vaccinii* (Rehm) Rehm). Anamorph: unknown

Key to British species of Eupropolella

1. On *Ericaceae*. Paraphyses apically brown and clavate; spores curved, becoming 1 - 3- septate [spores 14-18 x 3-5 µm] ..... **E. vaccinii**
1. On other host families. Paraphyses apically hyaline and only slightly enlarged; spores not curved, (0-) 1 - 3-septate 2
2. On *Prunus laurocerasus*. Spores 5 - 6.5 µm wide, 1 - 2-septate, becoming pale brownish [length 9-16 µm] ..... **E. britannica**
2. On *Arundinaria*. Spores 3 - 5 µm wide, becoming 3-septate, remaining hyaline [length 12-20 µm] ..... **E. arundinariae**

References

Arx, J. A. von (1961) Über *Cylindrosporium padi*. *Phytopathologische Zeitschrift* **42**: 161 - 166.
Aebi, B. (1972) Untersuchungen über Discomyceten aus der Gruppe *Tapesia – Trichobelonium*. *Nova Hedwigia* **23**: 49-112.
Baral, H. O. (1994) Comments on 'Outline of the ascomycetes - 1993'. *Systema Ascomycetum* **13**: 113 - 128.
Baral H. O. & Kriegelsteiner, G. J. (1985) Bausteine zu einer Ascomycetenflora der Bundesrepublik Deutschland. *Beihefte zur Zeitschrift für Mykologie* **6**: 1-160.
Beyer, W. (1991) Über einige weniger bekannte inoperculate Discomyceten aus Oberfranken (Nordbayern). *Zeitschrift für Mykologie* **57**: 155-160.
Défago, G. (1968) Les *Hysteropezizella* von Höhnel et leurs formes voisines (Ascomycètes). *Sydowia* **21**: 1 - 76.
Dennis, R. W. G. (1964a) The Fungi of the Isle of Rhum. *Kew Bulletin* **19**: 77 - 131.
Dennis, R. W. G. (1964b) Remarks on the genus *Hymenoscyphus* S. F. Gray, with observations on sundry species referred by Saccardo and others to the genera *Helotium*, *Pezizella* or *Phialea*. *Persoonia* **3**: 29 - 80.
Dennis, R. W. G. (1971) New or interesting British Microfungi. *Kew Bulletin* **25**: 335 - 374.
Dennis, R. W. G. (1972) *Niptera* Fr. versus *Belonopsis* Rehm. *Kew Bulletin* **26**: 439 - 443.
Dennis, R. W. G. (1975) New or interesting British Microfungi, III. *Kew Bulletin* **30**: 345 - 365.
Dennis, R. W. G. (1983) Fungi of *Ammophila arenaria* in Europe. *Revista de Biologia* **12**: 15-48.
Dodge, B. O. (1931) A further study of the morphology and life history of the rose black spot fungus. *Mycologia* **23**: 446 - 462.
Durand, E. J. (1922) The genus *Catinella*. *Bulletin of the Torrey Botanical Club* **49**: 15 - 21.
Eriksson, B. (1970) On Ascomycetes on Diapensales and Ericales in Fennoscandia 1. Discomycetes. *Symbolae Botanicae Upsalienses* **19**(4): 1 - 71.
Graddon, W. D. (1972) Some new discomycete species: 2. *Transactions of the British Mycological Society* **58**: 147 - 159.
Graddon, W. D. (1977) Some new Discomycetes on *Cyperaceae*. *Kew Bulletin* **31**: 511 - 516
Graddon, W. D. (1980) Some new discomycete species: 5. *Transactions of the British Mycological Society* **74**: 265 - 269.

Gregor, M. J. F. (1936) A Disease of Cherry Laurel caused by *Trochila laurocerasi* (Desm.) Fr. *Annals of Applied Biology* **23**: 700 - 704.

Gremmen, J. (1965) Three Poplar-inhabiting *Drepanopeziza* species and their life-history. *Nova Hedwigia* **9**: 170 - 176.

Groves, J. W. (1946) North American species of *Dermea*. *Mycologia* **38**: 351 - 431.

Hawksworth, D. L. & Minter, D. W. (1980) New and interesting microfungi from the 1978 Exeter foray. *Transactions of the British Mycological Society* **74**: 567 - 577.

Hein, B. (1980a) Morphologische Untersuchungen an *Belonium hystrix* (De Not.) v. Höhnel und *Hysteropezizella diminuens* (Karsten) Nannfeldt unter besonderer Berücksichtigung der Paraphysenmerkmale. *Sydowia* **32**: 108 - 122.

Hein, B. (1980b) Raster-elektronenmikroskopische Untersuchungen an Haaren von Hyaloscyphaceae. *Nova Hedwigia* **32**: 31-62.

Hein, B. (1981) Zum Wert von Paraphysenauflagerungen für die Taxonomie des *Hysteropezizella*-Komplexes (Dermateaceae, Mollisioideae). *Nova Hedwigia* **34**: 449 - 474.

Hein, B. (1983) Ein erweitertes Konzept für die Ascomycetengattung *Diplonaevia* Sacc. (= *Merostictis* Clem. p.p.). *Sydowia* **36**: 78 - 104.

Higgins, B. B. (1913) The perfect stage of *Cylindrosporium* on *Prunus avium*. Science N.S. **37**: 637 - 638.

Higgins, B. B. (1914) Contribution to the life history and physiology of *Cylindrosporium* on stone fruits. *American Journal of Botany* **1**: 145 - 173.

Höhnel, F. von (1916) Über *Pyrenopeziza agrostemmatis* Fuck. *Fragmente zur Mykologie* 1017.

Höhnel, F. von (1917) Mycologische Fragmente. 154. *Über Peziza graminis*; 155. Über den Schlauchpilz von *Actinothyrium graminis* Kunze. *Annales Mycologici* **15**: 293-383.

Höhnel, F. von (1918) Über *Pseudopeziza jaapii* Rehm. *Fragmente zur Mykologie* 1104.

Ingold, C. T. (1954) Aquatic Ascomycetes from Lakes. *Transactions of the British Mycological Society* **37**: 1 - 18.

Kurkela, T. (1974) The association of *Eupropolella vaccinii* (Rem) v. Höhn. and winter mortality of some ericaceous plants. *Karstenia* **14**: 97 - 101.

Massee, G. (1895) *British Fungus-Flora. A Classified Text-book of Mycology*. Vol. IV. London & New York.

Morgan-Jones, G. (1972) A new species of *Eupropolella*. *Canadian Journal of Botany* **50**: 1073-1076.

Müller, E. (1957) Die Gattung *Eupropolella*. *Sydowia* **11**: 130-132.

Müller, E. & Défago, G. (1968) *Beloniella* (Sacc.) Boud. und *Dibeloniella* Nannf., zwei wenig bekannte Discomycetengattungen. *Sydowia* **20**: 157 - 168.

Müller, E., Hütter, R. & Schuepp, H. (1958) Über einige bemerkenswerte Discomyceten aus der Alpen. *Sydowia* **12**: 404 - 430.

Nannfeldt, J. A. (1931) Contributions to the Mycoflora of Sweden. *Svensk botanisk Tidskrift* **25**: 1-31.

Nannfeldt, J. A. (1932) Studien über die morphologie und systematik der nicht-lichenisierten Inoperculaten Discomyceten. *Nova Acta Regiae Societatis Scientiarum Upsaliensis* ser. IV, **8** (2): 1 - 368.

Nannfeldt, J. A. (1984) Notes on *Diplonaevia* (Discomycetes inoperculati), with special regard to the species on Juncaceae. *Nordic Journal of Botany* **4**: 791-815

Nannfeldt, J. A. (1985) *Niptera, Trichobelonium* und *Belonopsis*, drei noch zu erläuternde gattungen der mollisioiden Discomyceten. *Sydowia* **38**: 194 - 215.

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

Nauta, M. M. & Spooner, B. M. (1999b) British Dermateaceae: 2. Naevioideae. *Mycologist* **13**: 65 - 69.

Nauta, M. M. & Spooner, B. M. (1999c) British Dermateaceae: 4A. Dermateoideae. *Mycologist* **13**: 146-148.

Rimpau, R. H. (1962) Untersuchungen über die gattung *Drepanopeziza* (Kleb.) v. Höhn. *Phytopathologische Zeitschrift* **43**: 257-306.

Scheuer, C. (1991) *Diplonaevia paulula* comb. nov., a discomycete on *Juncus maritimus*. *Mycological Research* **95**: 634-636.

Seaver, F. J. (1937) Photographs and descriptions of Cup-fungi - XXVI. The genus *Diplocarpa*. *Mycologia* **29**: 174-177.

Shear, C. L. & Dodge, B. O. (1921) The life history and identity of *Patinella fragariae, Leptothyrium macrothecium* and *Peziza oenothera*. *Mycologia* **13**: 135-170.

Sivanesan, A. & Gibson, I. A. S. (1976a) *Diplocarpon maculatum*. *CMI Descriptions of Pathogenic Fungi and Bacteria* No. 481. Commonwealth Mycological Institute.

Sivanesan, A. & Gibson, I. A. S. (1976b) *Diplocarpon rosae*. *CMI Descriptions of Pathogenic Fungi and Bacteria* No. 481. Commonwealth Mycological Institute. No. 485.

Sivanesan & Gibson (1976c) *Diplocarpon earliana*. *CMI Descriptions of Pathogenic Fungi and Bacteria* No. 481. Commonwealth Mycological Institute. No. 486.

Spooner, B. M. & Legon, N. (1991) *Catinella olivacea* (Batsch) Boud. Profiles of Fungi 35. *The Mycologist* **5**: 86

Spooner, B. M. & Nauta, M. M. (1999) British Dermateaceae: 3. Peziculoideae. *Mycologist* **13**: 98-101.

Stowell, E. A. & Backus, M. P. (1967) Morphology and cytology of *Diplocarpon maculatum* on *Crataegus*. II. Initiation and development of the apothecium. *Mycologia* **59**: 623 - 636.

Strödel, R. (1984) Das Olivfarbene Kelchbecherchen, *Catinella olivacea*. *Beiträge zur Kenntnis der Pilze Mitteleuropas* **1**: 175 - 178.

Svrček, M. (1976) New or less known Discomycetes. III. *Ceská Mykologie* **30**: 8 - 16.

Williamson, M. A. & Bernard, E. C. (1988) Life cycle of a new species of *Blumeriella* (Ascomycotina: Dermateaceae), a leaf-spot pathogen of *Spirea*. *Canadian Journal of Botany* **66**: 2048 - 2054.

Wolf, F. A. (1912) The Perfect Stage of *Actinonema rosae*. *Botanical Gazette* **54**: 218 - 234.

Wolf, F. A. (1924) Strawberry leaf scorch. *Journal of the Elisha Mitchell Scientific Society* **39**: 117-163.

NAUTA M.M. & B. SPOONER (2000). British *Dermateaceae*: 4B. *Dermatoideae* Genera G-Z. *The Mycologist* 14(2): 65-74.

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Generic descriptions and keys to species in Dermateoideae: Genera G-Z

This is the second part of the descriptions of genera and keys to species in the subfamily Dermateoideae. The genera are alphabetically arranged, and the format follows that of previous parts in the series (Nauta & Spooner, 1999a,b; Spooner & Nauta, 1999), Nauta & Spooner, 2000. For the key to the genera see Nauta & Spooner (1999c). Two new combinations, *Leptotrochila svalbardensis* (Lind) Spooner & Nauta and *Niptera trichophoricola* (Graddon) Nauta & Spooner are proposed.

Graddonia Dennis, *Kew Bulletin* 359, 1955
Type: *G. coracina* (Bres.) Dennis

Apothecia sessile, superficial; hymenium reddish brown; receptaculum dark brown, glabrous. Outer excipulum a *textura globulosa* consisting of thin-walled elements with dark brown walls, paler towards margin. Asci I-, narrowly cylindrical with obtuse apex, apex not differentiated; spores ellipsoid to fusiform, hyaline, multiguttulate, 0-septate or becoming 1-septate. Paraphyses hyaline, slightly enlarged at top.
Conidial state unknown.
Saprophytic, on damp, rotten wood.

Lit.: Dennis, 1955; Gminder, 1993

Number of species: 1 in GB, 1 in total.

Species in Great Britain:
G. coracina (Bres.) Dennis. Asci 140-185 x 13-16 µm, spores 16 - 24 x (7-)8 - 10.5 µm.

Hysteronaevia Nannf., *Nordic Journal of Botany* 4: 227, 1984
Type: *Propolis holoschoeni* de Not.

Apothecia at first immersed, soon erumpent through a slit in the epidermis or epidermal 'lid'; hymenium expanding and broader than the receptaculum, retracting or not when dry. Outer excipulum laterally reduced, hyphal, brown-walled. Medullary excipulum laterally sometimes with refractive walls. Asci broadly clavate, I-, with thick refractive wall; spores large, subfusiform (13-36 x 2-8 µm), hyaline or faintly pigmented, 0 - 1 (-3)-septate. Paraphyses filiform, apex irregularly enlarged and with a gelatinous sheath bearing brownish, granular matter.
Conidial state unknown
Saprophytic on monocotyledonous plants: Juncaceae, *Carex*, grasses

Lit.: Nannfeldt, 1984b

Number of species: 4 in GB, 12 in total.

Species in Great Britain:
H. fimbriata Dennis & Spooner
H. lyngei (Lind) Nannf.
H. olivacea (Mont.) Nannf. (= *Eupropolella celata* Graddon)
H. scirpina (Peck) Nannf. (= *Hysteropezizella hebridensis* Graddon; *Mollisia foecunda* W. Phillips)

Key to British species of Hysteronaevia

1. Margin white fimbriate; spores 12 - 15 µm long; on *Carex* ..... **H. fimbriata**
1. Margin not white fimbriate; spores longer than 15 µm; on *Carex* or other hosts 2
2. Apothecia emerging through a 'lid' of host tissue, completely retracting when dry; spores eventually pale brown and sometimes finely punctate, commonly > 20 µm; on *Carex* ..... **H. olivacea**
2. Apothecia not emerging through a 'lid', not retracting when dry; spores remaining hyaline and smooth, length in range 16 - 36 µm; on *Trichophorum* or grasses 3
3. Spores mostly 16 - 20 µm long, on grasses ..... **H. lyngei**
3. Spores mostly 20 - 36 µm long, on *Trichophorum* ..... **H. scirpina**

Hysteropezizella Höhn., *Sitzungsberichten der Kaiserlichen Akademie der Wissenschaften, Mathematisch-naturwissenschaftliche Klasse*, Abt. 1, 126: 310, 1917

Type: *H. subvelata* (Rehm) Höhn. (= *H. diminuens* (P. Karst.) Nannf.)
= *Asteronaevia* Petrak 1929

Apothecia subepidermal in development, immersed then partly erumpent, up to c. 0.3 mm; hymenium yellowish or greyish; receptaculum dark brown. Outer excipulum a *textura angularis* comprising elements with brown, rather thickened walls; marginal excipulum composed of elongated elements with thin, yellow-brown walls. Asci I +, cylindrical or narrowly clavate, apex rounded; spores ellipsoid, 0 – 1-septate. Paraphyses enlarged toward the apex, typically lanceolate, with granulate walls, overtopping the asci.
Conidial state unknown.
Saprophytic, on monocotyledonous plants.

Lit.: Défago, 1968, Dennis, 1983; Hein, 1980, 1981, 1983; Nannfeldt, 1932

Number of species: 1 in GB, c. 10 in total.

Species in Great Britain:
H. diminuens (P. Karst.) Nannf. (= *Micropeziza subvelata* Rehm; = *Hysteropezizella caricis* (Peck) Sydow; = *Mollisia euparaphysata* (J. Schröt.) Rehm). Asci 45-60 x 10-12 µm; spores 11-22 x 3-5 µm.

Excluded names:
H. foecunda (W. Phillips) Nannf. = *Hysteronaevia scirpina* (Peck) Nannf.
H. hebridensis Graddon = *Hysteronaevia scirpina* (Peck) Nannf.
H. hysterioides (Desm.) Nannf. (= *Phragmonaevia hysterioides* (Desm.) Rehm) position uncertain, not a *Hysteropezizella*
H. lyngei (Lind) Nannf. = *Hysteronaevia lyngei* (Lind) Nannf.
H. olivacea (Mouton) Nannf. = *Hysteronaevia olivacea* (Mouton) Nannf.
H. prahliana var. *orcadensis* Dennis = not a *Hysteropezizella*
H. pusilla (Lib.) Nannf. = probably a *Diplonaevia*
H. rehmii (Jaap) Nannf. = *Diplonaevia exigua* (Desm.) B. Hein
H. seriatum Lib. = *Diplonaevia seriata* (Lib.) B. Hein (= *Merostictis seriata* (Lib.) Défago)
H. valvata (Mont.) Nannf. = *Hysterostegiella valvata* (Mont.) Höhn.

Hysterostegiella Höhn., *Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften, Mathematisch-naturwissenschaftliche Klasse,* Abt. 1, 126: 313, 1917
Type: *Stictis fenestrata* Desm.
= *Stegopeziza* Höhn. 1917

Apothecia intraepidermal in development; hymenium yellowish; receptaculum brownish. Basal excipulum a *textura globulosa* to *textura angularis*, walls pale brown; lateral excipulum of more elongated, pale brown elements, at the margin bearing cylindrical, obtuse hairs with verrucose walls. Asci I +, cylindrical; spores ellipsoid, non-septate. Paraphyses lanceolate, smooth.
Conidial state unknown.
Saprophytic on leaves and stems of various plants.

Lit.: Hein,1983

Number of species: 6 in GB, 10 in total.

Species in Great Britain:
H. dowardensis (Graddon) B. Hein (= *Hysteropezizella dowardensis* Graddon)
H. dumeti (Sacc. & Speg.) B. Hein (= *Stegia dumeti* Sacc. & Speg.)
H. fenestrata (Roberge ex. Desm.) Höhn. (= *Stictis fenestrata* Roberge ex Desm.)
H. lauri (Caldesi) B. Hein
H. quercea (Fautrey & Lambotte) B. Hein
H. valvata (Mont.) Höhn.

Excluded names:
H. crassomarginata Graddon = ? *Pyrenopeziza*

Key to British species of Hysterostegiella

1. Spores < 5 µm long, on leaves of *Laurus* ..... **H. lauri**
1'. Spores > 5 µm long, on other substrates 2
2. On *Ammophila*, apothecia twice as long as broad [spores 5.5-7 µm] ..... **H. valvata**
2'. Not on grasses, apothecia more roundish 3
3. Marginal hairs with apical threads of crystals 4
3'. Marginal hairs without threads 5
4. Crystal-threads <10 µm; on *Rubus*-twigs [spores 5-6 µm] ..... **H. dumeti**
4'. Crystal-threads longer; on leaves of *Quercus* ..... **H. quercea**
5. Receptaculum yellowish, apothecia up to 0.2 mm; spores clavate, 5-7 µm; on *Carex* ..... **H. dowardensis**
5'. Receptaculum brown, apothecia 0.6 x 0.4 mm; spores ellipsoid, 6-8 µm long; on *Cladium* or *Scirpus* ..... **H. fenestrata**

Leptotrochila P. Karst., *Bidrag till Kännedom af Finlands Natur och Folk* 19: 22, 1871
Type: *Leptotrochila radians* P. Karst.
= *Fabraea* Sacc. 1882; *Ephelina* Sacc. 1889

Apothecia erumpent, developed subepidermally, sometimes associated with *Sporonema* anamorph, hymenium yellowish; receptaculum dark. Stroma as spots on leaves. Excipulum well-developed, a *textura globulosa* composed of dark-walled elements up to the margin. Asci mostly I+, narrowly clavate; spores ellipsoid, hyaline, 0-1-septate. Paraphyses filiform, slightly enlarged at top, slightly overtopping the asci.
Conidial state *Sporonema* or unknown.
Parasitic, on leaves of various Dicotyledonous herbs.

Lit.: Dennis, 1951, 1975; Schüepp, 1959

Number of species: 10 in GB, 18 in total.

Species in Great Britain:
L. brunellae (Lind) Dennis (= *Beloniella brunellae* Lind; *Ephelina prunellae* W. Phillips)
L. cerastiorum (Wallr.) Schüepp (= *Pseudopeziza cerastiorum* (Wallr.) J. Schröt)
L. jasionis (Romell) Schüepp (= *Pseudopeziza jasionis* (Romell) Nannf.)
L. lugubris (de Not.) Schüepp (= *Ephelina lugubris* (de Not.) Höhn.; *Ephelina radicalis* (Cooke) Massee; *Ephelina rhinanthi* (W. Phillips) Sacc.; *Ephelis rhinanthi* W. Phillips)
L. medicaginis (Fuckel) Schüepp
L. radians (Roberge) P. Karst.
L. ranunculi (Fr.) Schüepp (= *Fabraea ranunculi* (Fr.) P. Karst.; *Pseudopeziza ranunculi* (Fr.) Fuckel)
L. repanda (Fr.) P. Karst.
***Leptotrochila svalbardensis* (Lind) Spooner & Nauta comb. nov.** (= *Pseudopeziza svalbardensis* (Lind) Nannf.)
basionym: *Pyrenopeziza svalbardensis* Lind, *Skrifter om Svalbard og Ishavet* 13: 13 (1928)
L. verrucosa (Wallr.) Schüepp

Key to British species of Leptotrochila

1. On *Prunella vulgaris*; ascospores large, 14 - 20 x 4 - 5 µm, asci to 100 µm long ..... **L. brunellae**
1'. On other hosts; asci and ascospores mostly smaller ... 2
2. Asci I- ; ascospores non-septate 3
2'. Asci I+ ; ascospores septate or not 4
3. On *Medicago*; ascospores 7.5 - 10 µm long ..... **L. medicaginis**
3'. On *Saxifraga*; ascospores 12 - 17 µm long ..... **L. svalbardensis**
4. On Campanulaceae 5
4'. On other host families 6
5. On *Campanula*, spores 9 - 11 x 2.5 - 3 µm ..... **L. radians**
5'. On *Jasione*, spores 9 - 14 x 2.5 - 3.5 µm ..... **L. jasionis**
6. Ascospores 1-septate; on *Cerastium* & *Stellaria* or *Potentilla* 7
6'. Ascospores non-septate; on other hosts 8
7. On *Cerastium* & *Stellaria*; ascospores 8 - 13 x 2.5 - 4 µm ..... **L. cerastiorum**
7'. On *Potentilla*; ascospores 12 - 19 x 2.5 - 3.5 µm ..... **L. repanda**
8. On *Ranunculus*; asci 11 - 14 µm wide, ascospores 11 - 16 µm long ..... **L. ranunculi**
8'. On other hosts; asci 6 - 10 µm wide, ascospores 7 - 13 µm long 9
9. On *Rhinanthus*; asci 55 - 75 µm long ..... **L. lugubris**
9'. On Rubiaceae; asci 50 - 90 µm long ..... **L. verrucosa**

Micropeziza Fuckel, *Symbolae mycologicae*: 291, 1870
Type: *Micropeziza scirpicola* Fuckel
= *Niesslella* Höhn. 1919; = *Actinoscypha* P. Karst. 1888

Apothecia superficially developed, below a shield of radial hyphae; hymenium pale yellowish-brown; receptaculum pale brownish. Outer excipulum comprising basally and on lower flanks of a *textura globulosa* consisting of brown, thin-walled elements, towards the margin composed of thick-walled, gelatinised, hyaline hyphae with refractive walls. Asci clavate, I +, 8-spored; spores ellipsoid, 0–3-septate, hyaline to pale brown. Paraphyses filiform, apically slightly enlarged, often with brown oily contents.
Conidial state unknown.
Saprophytic on Gramineae and Cyperaceae.

Lit.: Müller, 1966; Nannfeldt, 1976

Number of species: 2 in GB, 3 in total.

Species in Great Britain:
M. cornea (Berk. & Broome) Nannf. 1986 (= *Peziza cornea* Berk. & Broome; *M. scirpicola* Fuckel; *Actinoscypha scirpicola* (Fuckel) E. Müll.; *Mollisia sylvatica* P. Karst.; *Belonidium aurantiacum* Rehm)
M. poae Fuckel; *Mollisia poae* (Fuckel) Sacc.; *Niptera poae* (Fuckel) Rehm (= *M. karstenii* Nannf.; *Actinoscypha graminis* P. Karst.; non *Micropeziza graminis* (Desm.) Rehm)

Excluded names:
M. karstenii Nannf. = *M. poae* Fuckel (see above)

Key to British species of Micropeziza

1. Shield present; margin of apothecium thick, consisting of thick-walled, gelatinous, hyaline hyphae embedded in gel; spores 0 - 1 -septate, 14-21 x 2.5 - 3.5 µm; on grasses ..... **M. poae**
1'. Shield sometimes not visible; margin of apothecium narrow, consisting of few pale-brown - walled gelatinous outer excipular elements, and some hyaline, gelatinous hyphae; spores 0 - 3- septate, 15-18 x 2.5-3.5 µm, on sedges or rushes ..... **M. cornea**

Mollisia (Fr.) P. Karst., *Bidrag till Kännedom af Finlands Natur och Folk* 19: 15, 1871, nom. cons.
Type: *M. cinerea*
= *Mollisiopsis* Rehm 1908; = *Tapesia* Fuckel 1870; = *Haglundia* Nannf. 1932; = *Bulbomollisia* Graddon 1984

Apothecia superficial or erumpent in an early stage; subiculum absent or present. Outer excipulum usually well-developed, in its typical form composed of radially arranged rows of globose elements, forming a *textura globulosa*, sometimes forming clavate outgrowths or hairs; at margin often with more hyaline elongated elements. Medullary excipulum usually well-developed. Paraphyses filiform, subclavate; in fresh state mostly part of paraphyses with one striking, long vacuole with oily contents. Spores ellipsoid, 0-1(- 3)-septate, mostly only in a later stage becoming septate; septa thin.
Conidial state *Anguillospora*, *Phialophora* or unknown.
Saprophytic on various substrates.

Lit.: Dennis, 1950; Graddon, 1984; Gremmen, 1954, 1955, 1956a, 1956b, 1957, 1958; Le Gal & Mangenot, 1956, 1958, 1960, 1961, 1966

Number of species: c. 100 in GB, c. 200 in total.

A preliminary list of species in Great Britain and excluded names will be published in one of the next issues of Mycologist.

Niptera Fr., *Summa Vegetabilium Scandinaviae*: 359, 1849
Type: *N. lacustris* (Fr.) Fr.
= *Nimbomollisia* Nannf. 1983

Apothecia subepidermally developed, later erumpent; hymenium yellowish to pale brownish; receptaculum dark brown, drying black, margin concolorous, indistinct. Excipulum a *textura globulosa*, consisting of short rows of brown-walled elements ± perpendicular to surface; medullary excipulum consisting of narrow, repent, hyaline hyphae, without Ca-Ox-crystals. Asci broadly clavate to cylindrical, thick-walled when young, I+ or -, with usually broad, shallow apical apparatus, 8-spored in GB species; spores ellipsoid to fusiform, usually with gelatinous sheath, 1-3-septate, septa thick. Paraphyses hyaline, often enlarged at top.
Conidial state unknown (? *Phialophora*).
Saprophytic on monocotyledonous plants in GB.

Following Baral (1994), but in contrast to Nannfeldt (1983, 1986), *Niptera* and *Nimbomollisia* are considered synonymous here. For discussion see Baral (l.c.).

Lit.: Dennis, 1964, 1972; Graddon, 1976, 1977; Nannfeldt, 1983, 1986

Number of species: 8 in GB, c. 20 in total.

Species in Great Britain:
N. ambigua Dennis & Spooner
N. eriophori (Kirchn.) Rehm (= *Nimbomollisia eriophori* (Kirchn.) Nannf.; *Mollisia cymbispora* Rostrup; *Niptera phaea* (Rehm) Rehm)
N. lacustris (Fr.) Fr. (= *Patellaria aquatica* Curr.; *Peziza scirpicola* Rabenh.)
N. melanophaea Rehm
N. melatephra (Lasch) Rehm
N. melatephroides (Rehm) Sacc. (= *Nimbomollisia melatephroides* (Rehm) Nannf.)
N. pulla (W. Phillips & Keith) Boud.
***Niptera trichophoricola* (Graddon) Nauta & Spooner comb. nov.**
basionym: *Dibeloniella trichophoricola* Graddon, *Kew Bulletin* 31: 512 (1977)
(= *Nimbomollisia trichophoricola* (Graddon) Nannf.)

Excluded names:
N. excelsior (P. Karst.) Dennis = *Belonopsis excelsior* (P. Karst.) Rehm
N. exsiliens Speg. = probably *Mollisia*
N. muelleri-argoviensis Rehm (= *Pyrenopeziza muelleri-argoviensis* (Rehm) Galán) = *Mollisia*
N. myriadea (Cooke & Massee) Boud. = *Herpotrichia macrotricha* (Berk. & Broome) Sacc.

N. phaea (Rehm) Sacc. = *Niptera eriophori* (Kirchn.) Rehm
N. pilosa (Crossl.) Boud. = probably *Mollisia*
N. ramincola Rehm = probably *Mollisia*
N. stockii (Cooke & W. Phillips) Boud. =? *Lachnum sulphureum* (Pers.) P.Karst.
N. subbiatorina Rehm = ? *Mollisia*
N. submelaena Rehm = ? *Mollisia* (= *N. melatephra* sensu W. Phillips, 1887)
N. umbelliferarum Velen.: British material referred here appears to be misidentified and probably belongs in *Mollisia*.

Key to British species of Niptera

1. Spores longer than 25 µm 2
1'. Spores shorter than 25 µm 3
2. Spores 3-septate, 29-44 x 3.5-5 µm, ... **N. pulla**
2'. Spores 1-septate, 26-31 x 3 µm ..... **N. ambigua**
3. Spores 10-14 µm long, on *Trichophorum caespitosum* ..... **N. trichophoricola**
3'. Spores longer than 14 µm, on various substrates 4
4. Asci > 70 µm long; spores often becoming 3-septate 5
4'. Asci < 70 µm long; spores not more than 1-septate 7
5. Spores surrounded by thick gelatinous sheath (total width 10-13 µm) [spores 18-22 x 5-7 µm] ..... **N. melatephroides**
5'. Spores surrounded by narrower gelatinous sheath, total width up to 7 µm 6
6. Spores 15-20 x (4-)5-6 µm; asci with very low I + apical ring ..... **N. eriophori**
6'. Spores 19-25 3-4 µm; asci I + or I -, if I + with high apical ring ..... **N. lacustris**
7. Paraphyses filiform, not enlarged at apex; spores up to 6 µm wide [spores 15-17 x 6 µm] ..... **N. melanophaea**
7'. Paraphyses enlarged at apex up to 4 µm; spores 2.5 3 µm wide [spores 15-20 x 2.5-3 µm] ..... **N. melatephra**

Patellariopsis Dennis, *Kew Bulletin* 19: 114, 1964
Type: *P. clavispora* (Berk. & Broome) Dennis

Apothecia scattered, superficial, sessile, discoid, blackish throughout or purple-brown at margin. Disc plane, smooth. Receptaculum smooth or pruinose. Outer excipulum of radially arranged, hyaline, septate, thin-walled hyphae terminating in chains of subglobose cells with dark brown or red-brown, encrusting pigment. Asci narrowly clavate, strongly I+; spores hyaline, clavate, with 1 - several septa. Paraphyses filiform, apically enlarged or clavate, sometimes dark brown and then forming a pseudo-epithecium.
Conidial state unknown.
Saprophytic on wood.

Lit.: Dennis, 1964, 1974

Number of species: 2 in GB, 5 in total

Species in Great Britain:
P. atrovinosa (A. Bloxam ex Curr.) Dennis (= *Patellaria atrovinosa* A. Bloxam ex Curr.; *Durella atrovinosa* (A. Bloxam ex Curr.) Sacc.
P. clavispora (Berk. & Broome) Dennis (= *Lecanidion clavisporum* (Berk. & Broome) Sacc.; = *Patellaria crataegi* W.Phillips; = *Lecanidion crataegi* (W.Phillips) Sacc.)

Key to British species of Patellariopsis

1. Paraphyses tips dark brown, clavate forming a pseudo-epithecium; asci to 125 x 10 µm, ascospores 3 - 5-septate, 27 - 38 x 4.5 µm; outermost excipular cells dark brown, opaque, subhymenium paler; apothecial margin black, receptacle smooth ..... **P. clavispora**
1'. Paraphyses tips hyaline, slightly enlarged, not forming a pseudo-epithecium; asci to 90 x 8 µm, ascospores 1 - 3-septate, 20 - 30 x 3 - 4 µm; outermost excipular cells red-brown, not opaque, subhymenium black; apothecial margin purple-brown, receptacle pruinose ..... **P. atrovinosa**

Pirottaea Sacc., *Michelia* 1: 424, 1878
Type: *P. veneta* Sacc. & Speg.

Apothecia erumpent; receptaculum brown, hairy/setose; subiculum absent. Outer excipulum a *textura angularis* or *textura globulosa*, consisting of thin-walled or somewhat thick-walled, often pale brown elements, with dark brown thick-walled grana and/or setae which are abruptly set off with a dark, thick basal septum from the excipulum elements. Medullary excipulum a hyaline *textura prismatica* to *textura porrecta*. Asci I +, cylindrical; spores ellipsoid to fusiform, often elongate, mostly 0 - 3 (-5)-septate. Paraphyses filiform, slightly enlarged at the apex.
Conidial state unknown.
Saprophytic, on Dicotyledonous plants.

Lit.: Nannfeldt, 1985

Number of species: 10 in GB, 24 in total.

Species in Great Britain:
P. brevipila (Roberge) J.Schröt. (= *P. vectis* W. Phillips)
P. caesiella (Bres.) Nannf. (= *Mollisia caesiella* Bres.; = *P. bresadolae* Sacc.)
P. exilispora Graddon
P. inopinata Nannf.
P. lamii Nannf.

P. nigrostriata Graddon
P. paupercula Nannf.
P. plantaginis Graddon
P. symphyti Nannf.
P. veneta Sacc. & Speg.

Excluded names:
P. bresadolae Sacc. = *P. caesiella* (Bres.) Nannf. (see above)
P. bresadolae var. *bartsiae* Grove = *Pyrenopeziza euphrasiae* (Fuckel) J..Kunze (Nannfeldt, 1985)
P. senecionis Nannf. GB records are misidentifications (see Nannfeldt, 1985)

Key to British species of Pirottaea

1. Spores > 20 µm (average length) 2
1'. Spores < 20 µm (average length) 5

2. Spores 38- 42 x 2.5-3.5 µm, 3-septate; setae thin-walled, 25-40(-60) µm. On stems of *Plantago* ..... **P. plantaginis**
2'. Spores < 36 µm, 0 - 3-septate; setae of various length, mostly thick-walled 3

3. Setae mostly non-septate; spores eventually 3-septate; on stems and petioles of *Centaurea*. [spores 20-28 x 2.5-3 µm] ..... **P. brevipila**
3'. Setae pluriseptate; spores at most 1-septate 4

4. Grana absent; setae with cylindrical basal elements; spores 20-28 x 3-4 µm; asci I-; on stems of *Cirsium* ..... **P. caesiella**
4'. Grana numerous; setae with strongly bulging basal elements; spores 23-30 x 1-1.5 µm; asci I+; on stems of *Symphytum* ..... **P. symphyti**

5. Average spore length < 14 µm 6
5'. Average length of spores > 14 µm 8

6. Grana abundant, forming compact clumps; setae very numerous, 40-50 µm long; spores 8-12 (-15) µm; on petioles and leaves of *Helleborus* ..... **P. veneta**
6'. Grana scarce or not in clumps; setae numerous to (sometimes) absent; spores 7-12 x 2-2.5 µm; other hosts 7

7. Setae sometimes absent, if present 15-25 µm long, not apically enlarged; on stems of *Geranium*.. **P. paupercula**
7'. Setae always present, up to 50 µm long, sometimes apically enlarged; on stems of *Heracleum* ..... **P. nigrostriata**

8. Grana absent to very scarce; spores 16-21 µm; on stems of *Centaurea* ..... **P. inopinata**
8'. Grana abundant, often growing out to setae; spores (12-)14-21(-23) µm 9

9. Setae with strongly bulging basal elements; spores (12-)14-18(-20) µm, non-septate; on stems of *Lamium* ..... **P. lamii**
9'. Setae with cylindrical basal elements; spores (14-)16-21(-23) µm, eventually 1-3 septate; on stems of Labiatae ..... **P. exilispora**

Podophacidium Niessl, in Rabenhorst, *Botanische Zeitung* 26: 558, 1868
Type: *P. terrestre* Niessl (= *P. xanthomelum*)
= *Melachroia* Boud. 1885

Apothecia subsessile; hymenium sulphur-yellow, smooth; margin prominent, blackish, toothed; receptaculum blackish. Outer excipulum a *textura globulosa*, consisting of dark brown, thin-walled elements. Asci cylindrical-clavate, long-stalked, apical pore broad, strongly I+; spores hyaline, ellipso-fusoid, with 2 large guttules, uniseriate in the ascus, 0-septate. Paraphyses filiform, obtuse, slightly enlarged at apex.
Conidial state unknown.
Saprophytic, on soil and debris.

Lit.: Dennis, 1978; Otani *et al.*, 1991; Seaver, 1939

Number of species: 1 in GB, 1 in total.

Species in Great Britain:
P. xanthomelum (Pers.) J. Schröt. (as "*P. xanthomelan*"; = *Phacidium humigenum* Cooke & Massee; = *Podophacidium terrestre* Niessl). Asci c. 150 x 10 µm; spores 13 - 15 x 5 - 6 µm.

Pseudonaevia Dennis & Spooner in *Persoonia* 15: 177, 1993
Type: *Actinoscypha muelleri* Graddon (= *P. caricina* Dennis & Spooner)

Apothecia superficial, developed below a shield of brown-walled hyphae; hymenium and receptaculum pale yellow. Outer excipulum at base a *textura angularis* consisting of slightly thick-walled pale elements, at margin composed of rows of pale, slightly thick-walled prismatic elements. Asci I +, clavate, 8-spored in type; spores ellipsoid, 0-3-septate, hyaline. Paraphyses filiform, slightly enlarged at apex, overtopping asci.
Conidial state unknown.
Saprophytic on *Carex*.

Lit.: Dennis & Spooner, 1993

Number of species: 1 in GB, 1 in total.

Species in Great Britain:
Actinoscypha muelleri Graddon. Asci 80 - 110 x 16 - 19 µm, spores 18 - 28 x 5.5 - 8 µm.

Pseudopeziza Fuckel, *Symbolae mycologicae*: 290, 1870
Type: *P. trifolii* (Biv.) Fuckel

Apothecia developed from a stroma, evident as spots on leaves. Excipulum laterally lacking, basally composed of brown-walled elements. Asci I-, cylindrical to clavate; spores ellipsoid or narrowly clavate, hyaline, 0 - 1-septate, often guttulate. Paraphyses filiform, obtuse, slightly enlarged at the apex.
Conidial state unknown.
Parasitic, on leaves of dicotyledonous herbs.

Lit.: Schüepp, 1959

Number of species: 3 in GB, c. 8 in total

Species in Great Britain:
P. calthae (W. Phillips) Massee (= *Fabraea rousseauana* Sacc. & E. Bommer)
P. medicaginis (Lib.) Sacc.
P. trifolii (Biv.) Fuckel

Excluded names:
P. alismatis (W. Phillips & Trail) Sacc. = *Mollisia*
P. jasionis (Romell) Nannf. = *Leptotrochila jasionis* (Romell) Schüepp
P. svalbardensis (Lind) Nannf. = *Leptotrochila sualbardensis* (Lind) Spooner & Nauta

Key to British species of Pseudopeziza

1. On *Caltha*; spores 14 - 19 µm long, asci 13 - 19 µm wide ..... **P. calthae**
1'. On *Medicago* or *Trifolium*; spores 9 - 12 µm long, asci 10 - 14 µm wide 2
2. On *Medicago* ..... **P. medicaginis**
2'. On *Trifolium* ..... **P. trifolii**

Pyrenopeziza Fuckel, *Symbolae mycologicae*: 293, 1870
Type: *P. chailletii* Fuckel

Apothecia erumpent; hymenium greyish; receptaculum dark; margin usually white-fimbriate and arching over hymenium. Outer excipulum a tight *textura angularis*, brown-walled, occasionally with an outer layer with partly sclerotinised walls; marginal excipulum with elongated hyaline elements arching over hymenium; medullary excipulum sometimes with gelatinised walls. Asci I+ or I-, cylindrical; spores ellipsoid to subclavate, 0 - 1 - septate. Paraphyses hyaline, subclavate, slightly enlarged at top, smooth-walled, in living state with amorphous contents or several vacuoles.
Conidial state sometimes present, *Phialophora* or unknown.
Saprophytic or parasitic on various substrates, usually on dicotyledonous herbs.

Lit.: Gremmen, 1958; Hütter, 1958; Nannfeldt, 1932; see also *Mollisia*.

Number of species: c. 25 in GB; c. 50 in total.

A preliminary list of species in Great Britain and excluded names will be published in one of the next issues of Mycologist.

Schizothyrioma Höhn., *Annales Mycologici* 15: 296, 1917
Type: *S. ptarmicae* (Desm.) Höhn.

Apothecia subcuticular; developed in a stroma on nerves of leaves. Basal excipulum *textura angularis* consisting of dark brown-walled elements; lateral excipulum reduced. Asci I+ or I, narrowly clavate, 2 - 8-spored; spores obovoid to subclavate, hyaline, with 1 submedian septum. Paraphyses hyaline, slightly enlarged at top.
Conidial state unknown.
Parasitic, on leaves of dicotyledonous herbs (British species on *Achillea*).

Lit.: Holm, 1971

Number of species: 2 in GB, 4 in total.

Species in Great Britain:
S. aterrimum (P. Karst.) Holm (= *Fabraea aterrima* P Karst.)
S. ptarmicae (Desm.) Höhn. (= *Labrella ptarmicae* Desm.)

Key to British species of Schizothyrioma

1. Asci (6-) 8-spored, I +; spores 2 - 2.5 µm wide [length 10-12.5 µm] ..... **S. aterrimum**
1. Asci 2- (4)-spored, I-; spores 4 - 5 µm wide [length 9-12.5 µm] ..... **S. ptarmicae**

Scutobelonium Graddon, *Transactions of the British Mycological Society* 83: 379, 1984.
Type: *S. amorilens* Graddon

Apothecia sessile, developed beneath a shield of dark brown, radially arranged hyphae. Outer excipulum a *textura globulosa*, of pale brown, thin-walled elements with at the surface sometimes dark brown, clavate elements, forming dark "striae". Asci I+, narrowly clavate; spores cylindrical-clavate. Paraphyses slightly enlarged at the apex, wall slightly granulate.
Conidial state unknown.

Saprophytic on grasses.

Lit.: Graddon, 1984

Number of species: 1 in GB, 1 in total.

Species in Great Britain:
S. amorilens Graddon on *Poa*. Asci 65 x 6 µm; spores 1-septate, 7 - 9 x 2 µm.

Scutomollisia Nannf., *Botaniska Notiser* 129: 337, 1976
Type: *S. punctum* (Rehm) Nannf.

Apothecia superficial, developed beneath a shield of brown, radial hyphae. Outer excipulum a *textura globulosa* consisting of brown-walled elements; marginal excipulum consisting of more elongated elements. Asci I + or I -, cylindrical; spores ellipsoid to clavate, 0-3-septate. Paraphyses hyaline, slightly enlarged at apex.
Conidial state unknown.
Saprophytic on monocotyledonous herbs.

Lit.: Graddon, 1980, 1984, 1990; Nannfeldt, 1976

Number of species: 9 in GB, 14 in total.

Species in Great Britain:
S. contraria Graddon
S. fimbriomarginata Graddon
S. integromarginata Graddon
S. morvernensis Graddon
S. operculata Nannf.
S. pallideochracea Graddon
S. papillata Graddon
S. punctum (Rehm) Nannf.
S. stenospora Nannf.

Key to British species of Scutomollisia

1. Asci I-, broadly clavate, c. 55 x 12 µm; spores 1-septate; apothecia on grasses ..... **S. punctum**
1'. Asci I+, cylindric-clavate, < 12 µm wide; spores septate or not; apothecia on grasses or other monocotyledonous plants 2

2. Ascospores mean length >16 µm 3
2'. Ascospores mean length < 16 µm 4

3. Ascospores non-septate, 16 - 22 x 2 - 3 µm; paraphyses c. 2 µm wide above; on *Juncus* ..... **S. stenospora**
3'. Ascospores 3-septate, 22 - 30 x 3.5 - 5 µm; paraphyses to 5 µm wide at apex; on grasses ..... **S. pallideochracea**

4. Ascospores 3 - 3.5 µm wide, 1-septate; paraphyses 4 - 6 µm wide above, overtopping the asci by c. 15 µm; excipulum surface with hyaline, projecting cells; on grasses ..... **S. papillata**

4'. Ascospores 2 - 2.5 µm wide, 0 - 1-septate; paraphyses 2.5 - 3 µm wide above, not overtopping the asci; excipulum surface lacking hyaline, projecting cells; on grasses or *Carex* 5

5. Spores 1-septate, 12 - 16 µm long; on grasses ..... **S. integromarginata**
5'. Spores non-septate, 6 - 12 µm long; on grasses or *Carex* 6

6. Apothecia entirely white; spores 6.5 - 8 µm long; on grasses ..... **S. contraria**
6'. Apothecia either entirely pigmented or white only at margin; spores 8 - 12 µm long; on grasses or *Carex* 7

7. Margin fimbriate, white; spores 11 - 12 µm long; on grasses ..... **S. fimbriomarginata**
7'. Margin even, pale brown; spores 8 - 11 µm long; on grasses or *Carex* 8

8. On *Carex*; shield remaining intact, appressed to the apothecium ..... **S. operculata**
8'. On grasses; shield ruptured and soon obscured by the developing apothecia ..... **S. morvernensis**

Spilopodia Boud., *Bulletin trimestriel de la Société Mycologique de France* 1: 120, 1885
Type: *S. nervisequa* (Pers.) Boud.

Apothecia developed from hyphal strand in veins of rotting leaves, erumpent, dark grey to blackish, sessile; receptaculum smooth. Outer excipulum a *textura globulosa/angularis*, consisting of brown-walled elements. Asci I+ or I-, cylindrical; spores ellipsoid, hyaline, 0 - several-septate. Paraphyses filiform, somewhat enlarged towards the apex, obtuse.
Conidial state sometimes present, *Melanodiscus*.
Saprophytic, on decaying leaves of dicotyledonous herbs.

Lit.: Boudier, 1885; Graddon, 1984; von Höhnel, 1920; Müller, 1989

Number of species: 3 in GB, 5 in total.

Species in Great Britain:
S. melanogramma Boud.
S. nervisequa (Pers.) Boud.
S. ranunculi Graddon

Key to British species of Spilopodia

1. On *Ranunculus*; spores 2 - 2.5 µm wide, 1-septate [spores 10 - 12 µm long] ..... **S. ranunculi**
1'. On *Mercurialis* or *Plantago*; spores 3 - 4 µm wide, non-septate 2

2. On *Mercurialis perennis*; apothecia to c. 0.5 mm diam. [spores 10 - 12 µm long] ..... **S. melanogramma**
2'. On *Plantago lanceolata*; apothecia to c. 1 mm diam. [spores 10 - 13 µm long] ..... **S. nervisequa**

Trochila Fr., *Summa Vegetabilium Scandinaviae*: 367, 1849
Type: *T. craterium* (DC.) Fr.

Apothecia developed beneath the epidermis, not or scarcely erumpent; hymenium greenish grey. Marginal excipulum scarcely present or lacking, basal excipulum a *textura globulosa* consisting of dark brown elements. Asci I +, cylindrical; spores ellipsoid, 0-septate, hyaline or sometimes becoming pale brownish. Paraphyses enlarged at top up to 7 µm, with olivaceous contents (observe in water).
Conidial state *Cryptocline, Myxosporium* or unknown.
Saprophytic, on leaves of dicotyledonous plants.

Lit.: Arx, 1970; Cannon *et al.*, 1985; DiCosmo *et al.*, 1984; Gregor, 1936; Greenhalgh & Morgan-Jones, 1964; Grove, 1937; Korf, 1973; Krieglsteiner, 1982; Siepe, 1996

Number of species: 3 in GB, 20+ in total.

Species in Great Britain
T. craterium (DC.) Fr. Anamorph: *Cryptocline paradoxa* (de Not.) Arx
T. laurocerasi (Desm.) Fr. (incl. *T. laurocerasi* var. *smaragdina* (Lév.) Sacc.) Anamorph: *Cryptocline phacidiella* (Grove) Arx
T. ilicina (Nees) Greenh. & Morgan-Jones (= *T. ilicis* (Fr.) P. Crouan & H. Crouan)

Excluded names:
T. buxi Capron ex Cooke = *Hyponectria buxi* (DC.) Sacc.
T. populorum Desm. = *Drepanopeziza populorum* (Desm.) Höhn.
T. salicis Tul. & C. Tul. = *Drepanopeziza salicis* (Tul. & C. Tul.) Höhn.
T. tini (Duby) Quél. = *Pyrenopeziza tini* (Duby) Nannf.

Key to British species of Trochila

1. Apothecia with remnants of covering attached as lid, apothecia -1 mm diam., on leaves of *Ilex* [spores 9 - 12 x 3.5 - 4.5 µm] ..... **T. ilicina**
1'. Apothecia with remnants of covering attached as teeth, apothecia smaller 2
2. On leaves of *Hedera*; spores 6-8 x 4-5 µm; asci -60 µm long ..... **T. craterium**
2'. On leaves of *Prunus laurocerasus*; spores 7-10 x 3-4 µm; asci 50-65 x 6-9 µm ..... **T. laurocerasi**

References

Arx, J. A. von (1970) A revision of the fungi classified as *Gloeosporium*. *Bibl. Mycol.* **24**.

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

Boudier, E. (1885) Nouvelle Classification Naturelle des Discomycetes Charnus. *Bulletin Société Mycologique de France* **1**: 91-120.

Cannon, P. F., Hawksworth, D. L. & Sherwood-Pike, M. A. (1985) *The British Ascomycotina. An Annotated Checklist*. CAB.

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

Dennis, R.W.G. (1950) Karsten's species of *Mollisia*. *Kew Bulletin* **1950**: 171-178.

Dennis, R. W. G. (1951) Notes on Scottish Fungi. *Transactions and Proceedings of the Botanical Society of Edinburgh* **35**: 427-430.

Dennis, R. W. G. (1955) Two Proposed New Genera of Helotiales. *Kew Bulletin* **10**: 359 - 362.

Dennis, R. W. G. (1964) The Fungi of the Isle of Rhum. *Kew Bulletin* **19**: 77-131.

Dennis, R. W. G. (1972) *Niptera* Fr. versus *Belonopsis* Rehm. *Kew Bulletin* **26**: 439-443.

Dennis, R. W. G. (1974) New or interesting British Microfungi, II. *Kew Bulletin* **29**: 157-179.

Dennis, R. W. G. (1975) New or interesting British Microfungi, III. *Kew Bulletin* **30**: 345-365.

Dennis, R. W. G. (1978) *British Ascomycetes*. Revised edition. Vaduz: Cramer

Dennis, R. W. G. (1983) Fungi of *Ammophila arenaria* in Europe. *Revista de Biologia* **12**: 15-48.

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

DiCosmo, F., Nag Raj, T. R. & Kendrick, W. B. (1984) A revision of the Phacidiaceae and related anamorphs. *Mycotaxon* **21**: 1-234.

Gminder, A. (1993) *Graddonia coracina* (Bresadola) Dennis. *Rheinl.-Pfälz. Pilzjourn.* **3**: 104-107.

Graddon, W. D. (1976) Discomycete notes and records. *Transactions of the British Mycological Society* **66**: 169-172.

Graddon, W. D. (1977) Some new Discomycetes on Cyperaceae. *Kew Bulletin* **31**: 511-516.

Graddon, W. D. (1980) Some new discomycete species: 5. *Transactions of the British Mycological Society* **74**: 265-269.

Graddon, W. D. (1984) Some new Discomycete species: 6. *Transactions of the British Mycological Society* **83**: 377-382.

Graddon, W. D. (1990) Some new discomycete species: 8. *Mycological Research* **94**: 231-236.

Greenhalgh, G. N. & Morgan-Jones, G. (1964) Some species of *Trochila* and an undescribed discomycete on leaves of *Prunus laurocerasus*. *Transactions of the British Mycological Society* **47**: 311-320.

Gregor, M. J. F. (1936) A Disease of Cherry Laurel caused by *Trochila laurocerasi* (Desm.) Fr. *Annals of Applied Biology* **23**: 700-704.

Gremmen, J. (1954) Taxonomical notes on Mollisiaceous Fungi I. A study on some Dutch species growing on *Rubus* stems. *Fungus* **24**: 1-8.

Gremmen, J. (1955) Taxonomical notes on Mollisiaceous Fungi II. Some caulicolous *Mollisia* species inhabiting various hosts, mainly Compositae. *Fungus* **25**: 1-12.

Gremmen, J. (1956a) Taxonomical notes on Mollisiaceous Fungi III. The polyphagous species *Mollisia pastinacae* Nannfeldt. *Fungus* **26**: 28-31.

Gremmen, J. (1956b) Taxonomical notes on Mollisiaceous Fungi IV. Species inhabiting previous year's stems of *Epilobium* and *Ulmaria*. *Fungus* **26**: 32-37.

Gremmen, J. (1957) Taxonomical notes on Mollisiaceous Fungi V. On some species described by Velenovsky. *Fungus* **27**: 30-33.

Gremmen, J. (1958) Taxonomical notes on Mollisiaceous Fungi VI. The genus *Pyrenopeziza* Fuck. *Fungus* **28**: 37-46.

Grove, W. B. (1937) British Stem- and Leaf-fungi (Coelomycetes). Vol. II. Cambridge University Press.

Hein, B. (1980) Morphologische Untersuchungen an *Belonium hystrix* (De Not.) v. Höhnel und *Hysteropezizella diminuens* (Karsten) Nannfeldt unter besonderer Berücksichtigung der Paraphysenmerkmale. *Sydowia* **32**: 108-122.

Hein, B. (1981) Zum Wert von Paraphysenauflagerungen für die Taxonomie des *Hysteropezizella*-Komplexes (Dermateaceae, Mollisioideae). *Nova Hedwigia* **34**: 449-474.

Hein, B. (1983) Die Gattung *Hysterostegiella* v. Höhnel (Ascomycetes, Dermateaceae). *Nova Hedwigia* **38**: 669-702.

Höhnel, F. von (1920) Über *Pseudopeziza, Pyrenopeziza, Ephelina* und *Spilopodia*. *Berichte Deutsche Botanisches Gesellschaft* **38**: 96-101.

Holm, L. (1971) Taxonomic Notes on Ascomycetes VII. *Schizothyrioma Ptarmicae* (Desm.) von Höhnel and its double. *Svensk Botanisk Tidskrift* **65**: 208-212.

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

Korf, R. P. (1973) Discomycetes and Tuberales. In Ainsworth, G. C., Sparrow, F. K. & Sussman, A. S. (eds). *The Fungi. An Advanced Treatise* **4A**: 249-319. Academic Press.

Krieglsteiner, G. J. (1982) Über einige neue, seltene, kritische Macromyzeten in der Bundesrepublik Deutschland. *Zeitschrift für Mykologie* **48**: 43-64.

Le Gal, M. & Mangenot, F. (1956) Contribution à l'étude des Mollisioïdées I. Note préliminaire: les formes conidiennes. *Revue de mycologie*. **21**: 1-13.

Le Gal, M. & Mangenot, F. (1958) Contribution à l'étude des Mollisioïdées II. *Revue de mycologie* **23**: 28-86.

Le Gal, M. & Mangenot, F. (1960) Contribution à l'étude des Mollisioïdées III. *Revue de mycologie* **25**: 135-214.

Le Gal, M. & Mangenot, F. (1961) Contribution à l'étude des Mollisioïdées IV. *Revue de mycologie* **26**: 263-331.

Le Gal, M. & Mangenot, F. (1966) Contribution à l'étude des Mollisioïdées V. *Revue de mycologie* **31**: 3-44.

Müller, E. (1966) *Actinoscypha* Karsten eine verkannte Discomyceten-Gattung. *Berichte der Schweiz Botanischen Gesellschaft* **76**: 230-238.

Müller, E. (1989) *Spilopodiella*, eine neue Gattung aus der Verwandtschaft von *Pyrenopeziza* Fuckel. *Sydowia* **41**: 219-223.

Nannfeldt, J. A. (1932) Studien über die Morphologie und Systematik der nicht-lichenisierten Inoperculaten Discomyceten. *Nova Acta Regiae Societatis Scientiarum Upsaliensis* ser. IV, **8** (2): 1-368.

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

Nannfeldt, J. A. (1983) *Nimbomollisia* and *Discocurtisia*: two new genera of mollisioid discomycetes. *Mycologia* **75**: 292-310.

Nannfeldt, J. A. (1984) *Hysteronaevia*, a new genus of mollisioid Discomycetes. *Nordic Journal of Botany* **4**: 225-247.

Nannfeldt, J. A. (1985) *Pirottaea* (Discomycetes Inoperculati), a critical review. *Symbolae Botanicae Upsalienses* **25**: 1-41.

Nannfeldt, J. A. (1986) *Niptera, Trichobelonium* und *Belonopsis*, drei noch zu erläuternde gattungen der mollisioiden Discomyceten. *Sydowia* **38**: 194 - 215.

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

Nauta, M. M. & Spooner, B. M. (1999b) British Dermateaceae: 2. Naevioideae. *Mycologist* **13**: 65-69.

Nauta, M. M. & Spooner, B. M. (1999c) British Dermateaceae: 4A. Dermateoideae. *Mycologist* **13**: 146-148.

Otani, Y., Hosoya, T. & Furuya, K. (1991) Miscellaneous notes on Japanese discomycetes (II). *Transactions of the Mycological Society of Japan* **32**: 315-322.

Schuepp, H. (1959) Untersuchungen uber Pseudopezizoideae sensu Nannfeldt. *Phytopathologische Zeitschrift* **36**: 213-269.

Seaver, F. J. (1939) Photographs and descriptions of Cup-fungi - XXXII. *Podophacidium*. *Mycologia* **31**: 350-353.

Siepe, K. (1996) Über einige seltene oder neue Askomyzeten in Baden-Württemberg. *Beiträge zur Kenntnis der Pilze Mitteleuropas* **10**: 113-119.

Spooner, B. M. & Nauta, M. M. (1999) British Dermateaceae: 3. Peziculoideae. *Mycologist* **13**: 98-101 (1999).

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British Dermateaceae: 5. Index to species names

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The final part of a synopsis of British Dermateaceae (Leotiales) presents a list of the epithets of all species and synonyms recognised in the previous parts.

This is the final part of a synopsis of British Dermateaceae and provides a list of the epithets with their appropriate disposition for all species and synonyms recognised in earlier parts (Nauta & Spooner 1999a,b,c, 2000a,b; Spooner & Nauta, 1999). All genera and species reported from Britain are included in this synopsis with the exception of *Mollisia* and *Pyrenopeziza*. Generic descriptions and preliminary lists of accepted taxa for these two genera will be provided separately.

In the following list recognised species appear in bold, whereas non-bold entries refer to synonyms and other names. For species which are considered to require redisposition their appropriate genus is indicated.

Epithet	In present keys
***acericola* (Peck) Sacc.**	***Pezicula***
agrostemmatis (Fuckel) Nannf., Diplocarpon	Diplocarpon saponariae
agrostemmatis Fuckel, Pyrenopeziza	Diplocarpon saponariae
***alba* E. J. Guthrie**	***Pezicula***
alismatis (W. Phillips & Trail) Sacc., Pseudopeziza	Mollisia alismatis W. Phillips & Trail
***alni* Rehm**	***Pezicula***
***amaena* Tul. & C. Tul.**	***Pezicula***
amaena (Boud.) Svrček, Cejpia	Cejpia hystrix
***ambigua* Dennis & Spooner**	***Niptera***
***amorilens* Graddon**	***Scutobelonium***
aquatica Currey, Patellaria	Niptera lacustris
arctostaphyli E. Müll., Hütter & Schüepp, Eupropolella	Eupropolella vaccinii
arctostaphyli P. Karst., Phacidium	Eupropolella vaccinii
***ariae* (Pers.: Fr.) Tul. & C. Tul.**	***Dermea***
***arundinariae* (E. K. Cash) Dennis**	***Eupropolella***
arundinariae E. K. Cash, Sphaeropezia	Eupropolella arundinariae
asteroma (Fuckel) Aebi, Belonopsis	Mollisia
asteroma (Fuckel) Rehm, Trichobelonium	Mollisia
aterrima P. Karst., Fabraea	Schizothyrioma aterrimum
***aterrimum* (P. Karst.) Holm**	***Schizothyrioma***
***atrovinosa* (A. Bloxam ex Curr.) Dennis**	***Patellariopsis***
atrovinosa (A. Bloxam ex Curr.) Sacc., Durella	Patellariopsis atrovinosa
atrovinosa A. Bloxam ex Curr., Patellaria	Patellariopsis atrovinosa
aurantiacum Rehm, Belonidium	Micropeziza cornea
aurea Tul. & C. Tul., Ocellaria	Ocellaria ocellata
bloxamii W. Phillips, Encoelia	Diplocarpa bloxamii
***bloxamii* (W. Phillips) Seaver**	***Diplocarpa***
boydii, A. L. Sm. & Ramsb., Orbilia	Pezicula myrtillina
bresadolae Sacc., Pirottaea	Pirottaea caesiella
bresadolae var. bartsiae Grove, Pirottaea	Pyrenopeziza euphrasiae (Fuckel) J. Kunze
***brevipila* (Roberge) J. Schröt.**	***Pirottaea***
***britannica* Greenhalgh & Morgan-Jones**	***Eupropolella***

***brunellae* (Lind) Dennis**
brunellae Lind, Beloniella
buxi Capron ex Cooke, Trochila
***caesiella* (Bres.) Nannf.**
caesiella Bres., Mollisia
***calthae* (W. Phillips) Massee**
caricis (Peck) Sydow, Hysteropezizella
caricum Auersw., Stictis
***carnea* (Cooke & Ellis) Rehm**
***carneoflavida* (Rehm) B. Hein**
carneoflavida Rehm, Calloria
carneoflavida (Rehm) Dennis, Callorina
***carpinea* (Pers.) Tul. & C. Tul.**
celata Graddon, Eupropolella
***cerasi* (Pers.) Fr.**
***cerastiorum* (Wallr.) Schüepp**
cerastiorum (Wallr.) J. Schröt., Pseudopeziza
***cinnamomea* (DC.) Sacc.**
***circinata* (Lib.) B. Hein**
circinata Lib., Stictis
circinata (Lib.) Rehm, Naevia
***citrinella* (Rehm) E. Müll. & Défago**
***clavispora* (Berk. & Broome) Dennis**
clavisporum (Berk. & Broome) Sacc., Lecanidion
coeruleoviridis (Rehm) Henn., Ploettnera
***compta* (Sacc.) B. Hein**
conigena (W. Phillips) Rehm
***contraria* Graddon**
***coracina* (Bres.) Dennis**
***cornea* (Berk. & Broome) Nannf.**
cornea Berk. & Broome, Peziza
***corticola* (C. A. Jørg.) Nannf.**
***coryli* (Tul. & C. Tul.) Tul. & C. Tul.**
***corylina* J. W. Groves**
crassomarginata Graddon, Hysterostegiella
crataegi (Lasch) Fuckel, Pezicula
crataegi W. Phillips, Patellaria
crataegi (W. Phillips) Sacc., Lecanidion
***craterium* (DC.) Fr.**
curreyana Massee, Diplocarpa
cymbispora Rostrup, Mollisia
***dennisii* D. Hawksw.**
***diminuens* (P. Karst.) Nannf.**
***dowardensis* (Graddon) B. Hein**
dowardensis Graddon, Hysteropezizella
dryina (Cooke) Sacc., Pezicula
***dumeti* (Sacc. & Speg.) B. Hein**
dumeti Sacc. & Speg., Stegia
dumeti (Sacc. & Speg.) Spooner, Stegopeziza
earliana (Ellis & Everh.) Sacc., Mollisia
***earlianum* (Ellis & Everh.) F. A. Wolf**
ebudensis Dennis, Belonopsis
elegantior Graddon, Haglundia
eriophori (Kirchn.) E. Müll. & Défago, Dibeloniella
***eriophori* (Kirchn.) Rehm**
eriophori (Kirchn.) Nannf., Nimbomollisia
eucrita (P. Karst.) P. Karst., Pezicula
euparaphysata (J. Schröt.) Rehm, Mollisia
euphorbiae Berk. & Broome, Peziza
euphorbiae (Berk. & Broome) Massee, Pseudopeziza
euphorbiae (Berk. & Broome) W. Phillips, Mollisia
***excelsior* (P. Karst.) Rehm**
excelsior (P. Karst.) Dennis, Niptera

Leptotrochila
Leptotrochila brunellae
Hyponectria buxi (DC) Sacc.
Pirottaea
Pirottaea caesiella
Pseudopeziza
Hysteropezizella diminuens
Diplonaevia seriata
Pezicula
Laetinaevia
Laetinaevia carneoflavida
Laetinaevia carneoflavida
Pezicula
Hysteronaevia olivacea
Dermea
Leptotrochila
Leptotrochila cerastiorum
Pezicula
Diplonaevia
Diplonaevia circinata
Diplonaevia circinata
Dibeloniella
Patellariopsis
Patellariopsis clavispora
Ploettnera exigua
Duebenia
Pezicula livida
Scutomollisia
Graddonia
Micropeziza
Micropeziza cornea
Pezicula
Pezicula
Pezicula
?Pyrenopeziza
Pezicula sepium
Patellariopsis clavispora
Patellariopsis clavispora
Trochila
Diplocarpa bloxamii
Niptera eriophori
Pezicula
Hysteropezizella
Hysterostegiella
Hysterostegiella dowardensis
Pezicula cinnamomea
Hysterostegiella
Hysterostegiella dumeti
Hysterostegiella dumeti
Diplocarpon earlianum
Diplocarpon
Mollisia
Mollisia
Niptera eriophori
Niptera
Niptera eriophori
Pezicula livida
Hysteropezizella diminuens
Naeviopsis tithymalina
Naeviopsis tithymalina
Naeviopsis tithymalina
Belonopsis
Belonopsis excelsior

***exigua* (Desm.) B. Hein**	***Diplonaevia***
exigua Desm., Stictis	Diplonaevia exigua
exigua (Desm.) Nannf., Hysteropezizella	Diplonaevia exigua
***exigua* (Niessl) Höhn.**	***Ploettnera***
***exilispora* Graddon**	***Pirottaea***
exsiliens Speg., Niptera	?Mollisia
fagi (W. Phillips) Boud., Pezicula	Pezicula carpinea
***fenestrata* (Roberge ex Desm.) Höhn.**	***Hysterostegiella***
fenestrata Roberge ex Desm., Stictis	Hysterostegiella fenestrata
filispora (Cooke) Nannf., Belonopsis	Mollisia
***fimbriata* Dennis & Spooner**	***Hysteronaevia***
***fimbriomarginata* Graddon**	***Scutomollisia***
foecunda W. Phillips, Mollisia	Hysteronaevia scirpina
foecunda (W. Phillips) Nannf., Hysteropezizella	Hysteronaevia scirpina
***frangulae* (Fr.) Fuckel**	***Pezicula***
fusarioides (Berk.) Fr., Calloria	Calloria neglecta
***fuscella* (P. Karst.) Nannf.**	***Hysteropezizella***
***galiorum* Dennis**	***Calloria***
***graddonii* D. Hawksw.**	***Belonium***
graminea (P. Karst.) Sacc. & Syd., Belonopsis	Mollisia graminea (P. Karst.) P. Karst.
graminis P. Karst., Actinoscypha	Micropeziza poae
guestphalicum (Rehm) Aebi, Belonopsis	Mollisia
guestphalicum Rehm, Trichobelonium	Mollisia
hebridensis Graddon, Hysteropezizella	Hysteronaevia scirpina
hiemalis B. B. Higgins, Coccomyces	Blumeriella jaapii
***houghtonii* (W. Phillips) J. W. Groves**	***Pezicula***
humigenum Cooke & Massee, Phacidium	Podophacidium xanthomelum
***hydrophila* (P. Karst.) Nannf.**	***Belonopsis***
hydrophila (P. Karst.) Sacc., Mollisia	Belonopsis hydrophila
***hyperici* (Vestergr.) B. Hein**	***Ploettnera***
hysterioides (Desm.) Nannf., Hysteropezizella	uncertain position
hysterioides (Desm.) Rehm, Phragmonaevia	Hysteropezizella hysterioides
***hystrix* (De Not.) Baral**	***Cejpia***
hystrix (De Not.) Höhn., Belonium	Cejpia hystrix
***ilicina* (Nees) Greenh. & Morgan-Jones**	***Trochila***
ilicis (Fr.) P. Crouan & H. Crouan, Trochila	Trochila ilicina
***incurvatum* Graddon**	***Belonium***
***inopinata* Nannf.**	***Pirottaea***
***integromarginata* Graddon**	***Scutomollisia***
iridis (P. Crouan & H. Crouan) Graddon, Belonopsis	Mollisia iridis (P. Crouan & H. Crouan) Le Gal
***jaapii* (Rehm) Arx**	***Blumeriella***
jaapii Rehm, Pseudopeziza	Blumeriella jaapii
***jasionis* (Romell) Schüepp**	***Leptotrochila***
jasionis (Romell) Nannf., Pseudopeziza	Leptotrochila jasionis
juncicola Graddon, Belonopsis	Mollisia
karstenii Nannf., Micropeziza	Micropeziza poae
***lacustre* Ingold**	***Coleosperma***
lacustris (Fr.) Höhn. var. caricina Velen.	Mollisia
***lacustris* (Fr.) Fr.**	***Niptera***
***lamii* Nannf.**	***Pirottaea***
laricicola Fuckel, Pezicula	Pezicula livida
***lauri* (Caldesi) B. Hein**	***Hysterostegiella***
lauri (Caldesi) Höhn., Stegopeziza	Hysterostegiella lauri
***laurocerasi* (Desm.) Fr.**	***Trochila***
litoralis W. Phillips & Plowr., Belonopsis	Belonopsis ?mediella
***livida* (Berk. & Broome) Rehm**	***Pezicula***
***lugubris* (De Not.) Schüepp**	***Leptotrochila***
lugubris (De Not.) Höhn., Ephelina	Leptotrochila lugubris
lutescens B. B. Higgins, Coccomyces	Blumeriella jaapii
***luzulae* Spooner**	***Laetinaevia***
***lyngei* (Lind) Nannf.**	***Hysteronaevia***
lyngei (Lind) Nannf., Hysteropezizella	Hysteronaevia lyngei
***macrospora* (P. Karst.) Nannf.**	***Hysteropezizella***

maculata G. F. Atk., Fabraea	Diplocarpon mespili
maculatum (G. F. Atk.) Jørst., Diplocarpon	Diplocarpon mespili
malicorticis **(H. S. Jacks.) Nannf.**	***Pezicula***
marina Boyd, Orbilia	Laetinaevia marina
marina **(Boyd) Spooner**	***Laetinaevia***
masseeana **Sacc. & Syd.**	***Ocellaria***
medicaginis **(Fuckel) Schüepp**	***Leptotrochila***
medicaginis **(Lib.) Sacc.**	***Pseudopeziza***
mediella **(P. Karst.) Aebi**	***Belonopsis***
melanogramma **Boud.**	***Spilopodia***
melanophaea **Rehm**	***Niptera***
melatephra **(Lasch) Rehm**	***Niptera***
melatephra ss W. Phillips, Niptera	Niptera submelaena (=?Mollisia)
melatephroides **(Rehm) Sacc.**	***Niptera***
melatephroides (Rehm) Nannf., Nimbomollisia	Niptera melatephroides
mespili **(Sorauer) B. Sutton**	***Diplocarpon***
minutissimum (Auersw.) B. Hein, Naevala	Naevala perexigua
minutissima (Auersw.) Rehm, Naevia	Naevala perexigua
minutissimum Auersw., Phacidium	Naevala perexigua
morvernensis **Graddon**	***Scutomollisia***
muelleri Graddon, Actinoscypha	Pseudonaevia
muelleri-argoviensis Rehm, Niptera	Mollisia
muelleri-argoviensis (Rehm) Galán, Pyrenopeziza	Mollisia
myriadea (Cooke & Massee) Boud., Niptera	Herpotrichia macrotricha (Berk. & Broome) Sacc.
myrtillina **P. Karst.**	***Pezicula***
nannfeldtii **Arx**	***Chaetonaevia***
nectrioides (W. Phillips) Sacc.	Pezicula livida
neglecta **(Lib.) B. Hein**	***Calloria***
nervisequa **(Pers.) Boud.**	***Spilopodia***
nigromaculatum **Graddon**	***Belonium***
nigrostriata **Graddon**	***Pirottaea***
obscura (Rehm) Aebi, Belonopsis	Mollisia
obscurum (Rehm) Rehm, Trichobelonium	Mollisia
ocellata **(Pers.) J. Schröt.**	***Ocellaria***
oenotherae **(Cooke & Ellis) Nannf.**	***Discohainesia***
oenotherae (Cooke & Ellis) Sacc., Pezizella	Discohainesia oenotherae
olivacea **(Batsch) Boud.**	***Catinella***
olivacea Mouton, Naevia	Hysteronaevia olivacea
olivacea (Mouton) Nannf., Hysteropezizella	Hysteronaevia olivacea
olivacea **(Mouton) Nannf.**	***Hysteronaevia***
operculata **Nannf.**	***Scutomollisia***
padi **(Alb. & Schwein.) Fr.**	***Dermea***
pallens (Sacc.) Keissler, Belonopsis	Belonopsis filispora (= Mollisia)
pallideochracea **Graddon**	***Scutomollisia***
papillata **Graddon**	***Scutomollisia***
paradoxa **Dennis**	***Pezicula***
paulula **(Roberge ex Desm.) Scheuer**	***Diplonaevia***
paulula (Roberge ex Desm.) W. Phillips, Mollisia	Diplonaevia paulula
paupercula **Nannf.**	***Pirottaea***
penyardensis Graddon, Haglundia	Mollisia ?ligni (Desm.) P. Karst.
perelegans Nannf., Haglundia	Mollisia
perennans Kienh., Neofabraea	Pezicula malicorticis
perexigua **(Roberge ex Desm.) L. & K. Holm**	***Naevala***
perexiguum Roberge ex Desm., Phacidium	Naevala perexigua
phaea (Rehm) Sacc., Niptera	Niptera eriophori
phalaridis (Lib.) Rehm, Mollisia	Belonopsis
pilosa (Crossl.) Boud., Niptera	?Mollisia
plantaginis **Graddon**	***Pirottaea***
poae **Fuckel**	***Micropeziza***
poae (Fuckel) Sacc., Mollisia	Micropeziza poae
poae (Fuckel) Rehm, Niptera	Micropeziza poae
populi-albae **(Kleb.) Nannf.**	***Drepanopeziza***
populorum **(Desm.) Höhn.**	***Drepanopeziza***

populorum Desm., Trochila
prahliana v. orcadensis Dennis, Hysteropezizella
***prasinus* (Quél.) Svrček**
prasinus (Quél.) Kirschst., Trichodiscus
***pruinosa* Farl.**
***prunastri* (Pers.: Fr.) Fr.**
prunellae W. Phillips, Ephelina
prunophorae B. B. Higgins, Coccomyces
***psammicola* (Rostr.) Nannf.**
psammicola Rostr., Trochila
pseudoplatani W. Phillips, Dermatea
***ptarmicae* (Desm.) Höhn.**
ptarmicae Desm., Labrella
***pulla* (W. Phillips & Keith) Boud.**
pulla (W. Phillips & Keith) Dennis, Belonopsis
***punctiformis* Gremmen**
punctiformis (Pers.) Sacc., Ocellaria
***punctum* (Rehm) Nannf.**
purpurascens (Rehm) Nannf., Duebenia
pusilla (Lib.) Nannf., Hysteropezizella
***pustulata* Graddon**
***quercea* (Fautr. & Lamb.) B. Hein**
quercea Fautr. & Lamb., Stegia
quercea (Fautr. & Lamb.) Spooner, Stegopeziza
quercina (Fuckel) Fuckel, Pezicula
***radians* (Roberge) P. Karst.**
radicalis (Cooke) Massee, Ephelina
ramincola Rehm, Niptera
***ranunculi* (Fr.) Schüepp**
ranunculi (Fr.) P. Karst., Fabraea
ranunculi (Fr.) Fuckel, Pseudopeziza
***ranunculi* Graddon**
rehmii (Jaap) Nannf., Hysteropezizella
***repanda* (Fr.) P. Karst.**
retincola (Rabenh.) Rehm, Trichobelonium
***retincola* (Rabenh.) Le Gal & F. Mangenot**
rhabarbarina (Berk.) Tul. & C. Tul.
rhenopalatica (Rehm) Dennis, Belonopsis
rhinanthi (W. Phillips) Sacc., Ephelina
rhinanthi W. Phillips, Ephelis
***rhododendri* Remler**
***ribis* (Kleb.) Höhn.**
***roburnea* (Velen.) Svrček**
roburnea Velen., Pezizella
***rosae* F. A. Wolf**
rousseauana Sacc. & E. Bommer, Fabraea
***rubi (Lib.)* Niessl**
salicis Tul. & C. Tul., Trochila
***salicis* (Tul. & C. Tul.) Höhn.**
***saponariae* (Ces.) Nannf.**
sarmentorum Svrček, Haglundia
schoenicola Graddon, Drepanopeziza
scirpi Rabenh., Belonopsis
scirpicola Fuckel, Micropeziza
scirpicola (Fuckel) E. Müll., Actinoscypha
scirpicola Rabenh., Peziza
***scirpina* (Peck) Nannf.**
***scoparia* (Cooke) Dennis**
senecionis (Cooke & W. Phillips) Nannf., Pirottaea
***sepium* (Desm.) Dennis**
***seriata* (Lib.) B. Hein**
seriata (Lib.) Défago, Merostictis
seriata (Lib.) Fuckel, Naevia

Drepanopeziza populorum
uncertain position
Dennisiodiscus
Dennisiodiscus prasinus
Pezicula
Dermea
Leptotrochila brunellae
Blumeriella jaapii
Belonium
Belonium psammicola
Pezicula carnea
Schizothyrioma
Schizothyrioma ptarmicae
Niptera
Niptera pulla
Drepanopeziza
Cryptodiscus pallidus (Pers.) Corda
Scutomollisia
Duebenia compta
?Diplonaevia
Laetinaevia
Hysterostegiella
Hysterostegiella quercea
Hysterostegiella quercea
Pezicula cinnamomea
Leptotrochila
Leptotrochila lugubris
?Mollisia
Leptotrochila
Leptotrochila ranunculi
Leptotrochila ranunculi
Spilopodia
Diplonaevia exigua
Leptotrochila
Belonopsis retincola
Belonopsis
Pezicula rubi
Belonopsis mediella
Leptotrochila lugubris
Leptotrochila lugubris
Pezicula
Drepanopeziza
Crustomollisia
Crustomollisia
Diplocarpon
Pseudopeziza calthae
Pezicula
Drepanopeziza salicis
Drepanopeziza
Diplocarpon
Mollisia
Mollisia
Belonopsis ?mediella
Micropeziza cornea
Micropeziza cornea
Niptera lacustris
Hysteronaevia
Pezicula
based on misidentifications
Pezicula
Diplonaevia
Diplonaevia seriata
Diplonaevia seriata

seriata Lib., Stictis
***solidaginis* (De Not.) B. Hein**
soraueri (Kleb.) Nannf., Diplocarpon
***sphaeroides* (Pers.) Höhn.**
***stenospora* Nannf.**
stockii (Cooke & W. Phillips) Boud., Niptera
subbiatorina Rehm, Niptera
***subcarnea* J. W. Groves**
submelaena Rehm, Niptera
subvelata Rehm, Micropeziza
succinea Massee, Ocellaria
***svalbardensis* (Lind) Spooner & Nauta**
svalbardensis (Lind) Nannf., Pseudopeziza
svalbardensis Lind, Pyrenopeziza
sylvatica P. Karst., Mollisia
***symphyti* Nannf.**
terrestre Niessl, Podophacidium
tini (Duby) Quél., Trochila
***tithymalina* (Kunze) B. Hein**
tithymalina Kunze, Calloria
tithymalina (Kunze) Petr., Laetinaevia
tithymalina (Kunze) Rehm, Naevia
***triandrae* Rimpau**
***trichophoricola* (Graddon) Nauta & Spooner**
trichophoricola Graddon, Dibeloniella
trichophoricola (Graddon) Nannf, Nimbomollisia
***trifolii* (Biv.) Fuckel**
tripolii (Berk. & Broome) Dennis, Laetinaevia
tulasnei Groves
ulcerata (W. Phillips & Plowr.) Boud., Hyalinia
umbelliferarum Velen., Niptera
***vaccinii* (Rehm) Höhn.**
vaccinii Rehm, Pseudopeziza
vaccinii (Rehm) Rehm, Sphaeropezia
valvata (Mont.) Nannf., Hysteropezizella
***valvata* (Mont.) Höhn.**
vectis (Berk. & Broome) W. Phillips, Pirottaea
***veneta* Sacc. & Speg.**
***verrucosa* (Wallr.) Schüepp**
virescentulus (Mouton) Svrček, Dennisiodiscus
***xanthomelum* (Pers.) J. Schröt.**

Diplonaevia seriata
Ploettnera
Diplocarpon mespili
Drepanopeziza
Scutomollisia
?Lachnum sulphureum (Pers.) P. Karst.
?Mollisia
Pezicula
?Mollisia
Hysteropezizella diminuens
Ocellaria masseeana
Leptotrochila
Leptotrochila svalbardensis
Leptotrochila svalbardensis
Micropeziza cornea
Pirottaea
Podophacidium xanthomelum
Pyrenopeziza tini (Duby) Nannf.
Naeviopsis
Naeviopsis tithymalina
Naeviopsis tithymalina
Naeviopsis tithymalina
Drepanopeziza
Niptera
Niptera trichophoricola
Niptera trichophoricola
Pseudopeziza
Ploettnera solidaginis
Dermea
Ploettnera solidaginis
based on misidentifications of ?Mollisia spp.
Eupropolella
Eupropolella vaccinii
Eupropolella vaccinii
Hysterostegiella valvata
Hysterostegiella
Pirottaea brevipila
Pirottaea
Leptotrochila
Trichodiscus virescentulus (Mouton)Dennis
Podophacidium

References

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

Nauta, M. M. & Spooner, B. M. (1999b) British Dermateaceae: 2. Naevioideae. *Mycologist* **13**: 65-69.

Nauta, M. M. & Spooner, B. M. (1999c) British Dermateaceae: 4A. Dermateoideae. *Mycologist* **13**: 146-148.

Nauta, M. M. & Spooner, B. M. (2000a) British Dermateaceae: 4B. Dermateoideae Genera B-E. *Mycologist* **14**: 21-28.

Nauta, M. M. & Spooner, B. M. (2000b) British Dermateaceae: 4B. Dermateoideae Genera G-Z. *Mycologist* **14**: 65-74.

Spooner, B. M. & Nauta, M. M. (1999) British Dermateaceae: 3. Peziculoideae. *Mycologist* **13**: 98-101.