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The 2025 classification and checklist of lichenicolous fungi: documenting a rapidly growing knowledge of diversity

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Abstract. Lichenicolous fungi comprise a diverse group of highly specialized organisms inhabiting lichens, occurring as parasites, commensals or saprotrophs, either host-specific or generalists. Since our 2018 checklist, the field has seen remarkable growth, notably through the publication of the first two volumes of the *Flora of Lichenicolous Fungi* (2022, 2024), which described numerous new species and genera of Basidiomycota and hyphomycetes. Here, we present an updated classification and checklist of lichenicolous fungi in the Ascomycota and Basidiomycota, incorporating all relevant literature from 2018–2025. The checklist now includes 2,795 taxa (2,442 obligately lichenicolous [non-lichenized], 280 lichenized [including species that are facultatively or obligately lichenicolous, as well as juvenile forms initially growing on lichens before becoming independent], and 73 facultatively or doubtfully lichenicolous [non-lichenized] taxa), distributed among 454 genera, 125 families, 52 orders, and 15 classes—a substantial increase from 2,319 taxa in 2018. This edition reflects recent advances in taxonomy and phylogeny, with no new nomenclatural or taxonomic novelties proposed herein. Our work provides an authoritative and up-to-date reference for the global diversity and classification of lichenicolous fungi.

Keywords. Lichenicolous lichens, microbiome, mycoparasites, phylogeny.

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Lichenicolous fungi, organisms that inhabit lichens as their primary substrate, represent a fascinating and ecologically significant component of fungal diversity. Many are obligate parasites, often highly host-specific, while others live as host-specific commensals or saprotrophs, with a minority exhibiting facultative associations with lichens. Despite centuries of study, the biology, host specificity, and ecological roles of many lichenicolous fungi remain incompletely understood, with most species known only from field collections and rarely from culture.

Since the publication of our previous checklist in 2018 (Diederich et al. 2018a), the field has experienced a surge in discoveries and taxonomic refinement, including the publication of two landmark volumes of the *Flora of Lichenicolous Fungi* (Diederich et al. 2022j, 2024j), which together described over 120 new species and several new genera, and provided phylogenetic frameworks for both lichenicolous Basidiomycota and hyphomycetes. These comprehensive works have been instrumental in shaping the present update and are fully integrated into our checklist.

All checklists are snapshots in time that provide a published record of recognised diversity. Taken together, they indicate how rapidly our knowledge of the group's diversity is expanding. This checklist documents a remarkable increase in numbers of newly discovered lichenicolous taxa since 2018, and this increase in so short a time, along with newly published information on host ecology, cultures, and molecular data, is an encouraging sign that the field is vibrant, active and attracting new investigators. It also argues for keeping the list current. Our original plan to publish updated lists at approximately five-year intervals would seem to be appropriate, and we

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DOI: 10.1639/0007-2745-128.4.765

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0007-2745/25/$10.75/0

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Table 1. Comparison of key statistics: 2018 vs 2025. 'Lichenicolous' designates obligately lichenicolous non-lichenized fungi; 'Lichenized' designates lichens that are facultatively or obligately lichenicolous or that have juvenile lichenicolous stages; and 'Facultative' designates facultatively or doubtfully lichenicolous non-lichenized fungi.

Taxonomic level	Category	2018	2025
Species, subsp. or var.	Lichenicolous	2000	2442
	Lichenized	257	280
	Facultative	62	73
	Total	2319	2795
Genera	Lichenicolous	341	388
	Lichenized	63	73
	Facultative	34	43
	Total	397	454
Families	Lichenicolous	98	115
	Lichenized	28	27
	Facultative	21	28
	Total	115	125
Orders	Lichenicolous	45	51
	Lichenized	16	15
	Facultative	17	19
	Total	55	52
Classes	Lichenicolous	8	14
	Lichenized	4	5
	Facultative	6	8
	Total	10	15

plan to assess the need for updates to this list in that timeframe.

Results and Discussion

This 2025 checklist documents 2,795 lichenicolous taxa, a notable increase from the 2,319 listed in 2018, while the obligately lichenicolous non-lichenized fungi increase from 2000 to 2442 (**Table 1**, **Fig. 1**). It represents the latest stage in a near-linear upward trend of about 50 new non-lichenized lichenicolous species per year since 1989 (Clauzade et al. 1989). The number of genera (454 vs 397 in 2018) and families (125 vs 115) has also risen recently, reflecting both the discovery of new taxa and advances in phylogenetic classification (**Table 1**). The number of genera (**Table 2**) and families (**Table 3**) with exclusively lichenicolous species has increased, and molecular data are now available for a larger proportion of genera (**Table 4**).

All of these advances highlight the dynamic nature of lichenicolous fungal research and underscore the importance of continued exploration and documentation.

The 2025 classification and checklist of lichenicolous fungi in the Ascomycota and Basidiomycota

This edition maintains the structure and approach of the 2018 checklist, listing all currently accepted lichenicolous taxa in the Ascomycota and Basidiomycota, organized phylogenetically and accompanied by information on types, synonyms, hosts, relevant literature, and molecular data availability. Unlike the previous edition, no new nomenclatural, taxonomic, or phylogenetic novelties are proposed here; the focus is on providing a thoroughly updated and authoritative reference.

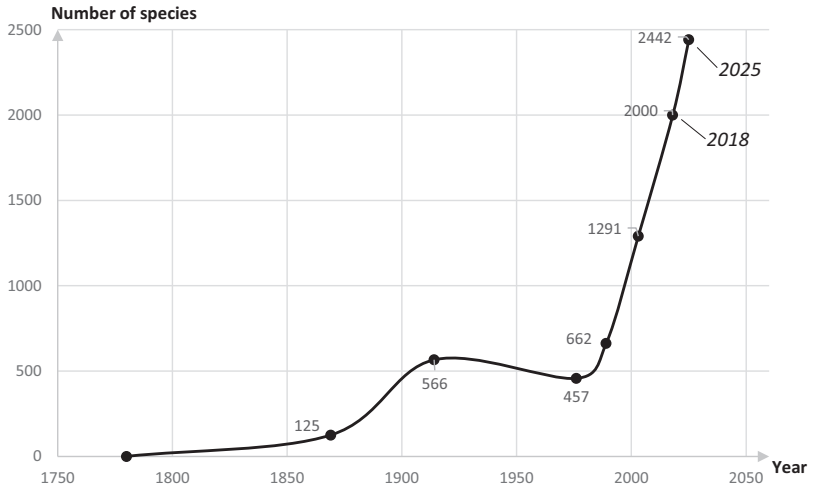

Figure 1. Number of obligate non-lichenized lichenicolous taxa (species, subspecies or varieties) accepted by Lindsay (1869), Vouaux (1912–14), Clauzade & Roux (1976), Clauzade et al. (1989), Lawrey & Diederich (2003), Diederich et al. (2018a) and the present classification (2025).

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Table 2. Genera grouped by cumulative proportion of species that are lichenicolous (2025).

Ratio of lichenicolous species	Number of genera
Exclusively (100%) lichenicolous	228 (50.2 %)
At least 80% lichenicolous	240 (52.9 %)
At least 50% lichenicolous	263 (57.9 %)
At least 20% lichenicolous	317 (69.8 %)
Any lichenicolous (> 0%)	454 (100 %)

Table 3. Families and orders with only lichenicolous species (2025).

Taxonomic rank	Name	Number of species
Family	Abrothallaceae	63
	Hemigraphaceae	10
	Polycoccaceae	80
	Pyrenidiaceae	18
	Adelococcaceae	17
	Sarcopyreniaceae	11
	Spirographaceae	24
	Paranectriaceae	11
	Obryzaceae	3
	Crittendeniaceae	18
	Cyphobasidiaceae	9
Order	Abrothallales	63
	Cyphobasidiales	9

Table 4. Molecular data availability for lichenicolous genera.

Category	Number of genera 2018	Number of genera 2025
Lichenicolous species sequenced	128 (32.2 %)	198 (43.6 %)
Type sequenced	171 (43.1 %)	231 (50.9 %)
Type and lichenicolous species sequenced	102 (25.7 %)	170 (37.4 %)
Total lichenicolous genera	**397**	**454**

The checklist that follows serves as a baseline for future studies and a resource for researchers in taxonomy, ecology, and lichenology worldwide.

For each genus entry, the following information is given: type, synonyms (only when the type species is lichenicolous), data on the existence of sequences [e.g., in "Mol.: yes (T, L)", "yes" means that sequences exist, "T" that the generic type has been sequenced and "L" that at least one lichenicolous species has been sequenced], nomenclatural or taxonomic notes, and number of taxa in each category [e.g., "23-1-2 (80)" means that 23 species, subspecies or varieties are obligately lichenicolous (non-lichenized), 1 taxon is a lichenicolous lichen, 2 taxa are facultatively or doubtfully lichenicolous, while the genus includes a total of c. 80 species (estimation based on recent literature and online databases); the latter number is omitted when all species are lichenicolous].

Species names are given in bold regular font for **obligately lichenicolous taxa** (non-lichenized fungi living exclusively on lichens), bold italic font for ***lichenicolous lichens*** (including species facultatively or obligately growing on lichens, and those with juvenile stages on lichens that later become independent), and bold underlined font for **facultatively or doubtfully lichenicolous taxa** (non-lichenized fungi colonizing lichens opportunistically or of uncertain status).

The checklist includes species that were invalidly published or intentionally published 'ad interim' but excludes endolichenic species of *Lawreymyces* (which were included in the 2018 checklist). Some new species and combinations currently in press have also been included. References to the *International Code of Nomenclature for algae, fungi, and plants* (ICN) refer to the 2025 *Madrid Code* (Turland et al. 2025).

The hosts listed for each species typically represent the host of the type specimen or closely related hosts, whereas unrelated or infrequently reported hosts from the literature are generally omitted.

Phylum ASCOMYCOTA Caval.-Sm.

Subphylum PEZIZOMYCOTINA O.E.Erikss. & Winka

Class ARTHONIOMYCETES O.E.Erikss. & Winka

Order **Arthoniales** D.Hawksw. & O.E.Erikss.

Family **Arthoniaceae** Rchb.

Arthonia Ach. s.l.; type: *A. radiata* (Pers.) Ach. (lichenized) [= *Asterotrema* Müll.Arg.; type: *A. parasiticum*; = *Celidiopsis* A.Massal.; type: *C. gyrolophii*; = *Celidium* Tul.; type: *C. fuscopurpureum*; = *Charcotia* Hue; type: *C. rufidula*; = *Conida* A. Massal.; type: *C. clemens*; = *Conida* subgen. *Conidella* Elenkin; type: *C. urceolata*; = *Helicobolomyces* Matzer; type: *H. lichenicola* (asexual), i.e., *A. cinnabarinula*; = *Spilodium* A. Massal.; type: *S. fuscopurpureum*; = *Subhysteropycnis* Wedin & Hafellner; type: *S. maculiformans* (asexual), i.e., *A. maculiformis*; incl. *Bryostigma* Poelt & Döbbeler; type: *B. leucodontis* Poelt & Döbbeler].

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Mol.: yes (T, L). Currently polyphyletic.
Species: 164[+2 var.]-1-0 (650). **abrothallina** Nyl.: on *Pseudocyphellaria*; **acanthotheciicola** Ertz & Common: on *Acanthothecis floridensis*; **agelastica** R. C.Harris & Lendemer: on *Lecanora louisiana*; **albotrachynae** Etayo: on *Hypotrachyna endochlora*; **almquistii** Vain.: on *Amygdalaria*, *Koerberiella*, *Porpidia* and *Trapelia*; **amandineicola** van den Boom & Ertz: on *Amandinea efflorescens*; **amylospora** Almq.: on *Porpidia* and *Farnoldia*; **anatolica** Halıcı & Candan: on *Circinaria contorta*; **anjutae** S.Y.Kondr. & Alstrup [as '*anjutii*']: on *Teloschistes*; **apotheciorum** (A.Massal.) Almq. [≡ *Bryostigma apotheciorum* (A. Massal.) S.Y.Kondr. & Hur; =? *A. galactinaria* Leight.; =? *A. subvarians* Nyl.]: on *Polyozosia*; **arthoniicola** Diederich & Aptroot: on *Arthonia catenulata*; **aspiciliae** Alstrup & E.S.Hansen: on *Aspicilia* s.l.; **atropunctata** Vain.: on sterile foliicolous cf. *Echinoplaca*; **aurantia** Kantvilas & Motiej.: on an unidentified *Leprocaulon*-like lichen; **ayseniae** Halıcı & Candan [as '*aysenae*']: on *Acarospora*; **Celidium bacidiosporum** Steiner: on *Parmotrema andinum* [a poorly known species possibly belonging to *Arthonia* s.l.]; **badia** Wedin & Hafellner: on *Pseudocyphellaria granulata*; **biatoricola** Ihlen & Owe-Larss. [≡ *Bryostigma biatoricola* (Ihlen & Owe-Larss.) S.Y.Kondr. & Hur]: on *Biatora efflorescens*; **boomiana** Etayo: on *Nephromopsis chlorophylla*; **breussii** F.Berger & E.Zimm.: on *Placidium* cf. *squamulosum*; **brussei** Egea & Torrente [≡ *A. capensis* Egea & Torrente, nom. illeg., non *A. capensis* Stizenb.]: on *Lecanographa*; **buelliae** Zhurb.: on *Buellia stellulata*; **caerulescens** (Almq.) R.Sant.: on *Lecanora varia*; **calicii** Kantvilas & Wedin [as '*caliciae*']: on *Calicium tricolor*; **candelariae** Etayo: on *Candelaria* cf. *concolor*; **catillarioides** Etayo: on *Sticta*; **cinnabarinula** Müll.Arg. [= *Helicobolomyces lichenicola* Matzer]: on foliicolous *Porina* and *Trichothelium*; **circinata** Th.Fr.: on *Umbilicaria*; **clemens** (Tul.) Th.Fr. var. **clemens** [≡ *Conida clemens* (Tul.) A. Massal.]: on *Rhizoplaca*; **clemens** var. **peltatae** Zhurb.: on *Protoparmeliopsis peltata*; **cohabitans** Coppins: on *Arthothelium reagens*; **colombiana** Etayo: on *Cladonia*; **coniocraeae** Brackel: on *Cladonia coniocraea*; **coriifoliae** Wedin & Hafellner: on *Pseudocyphellaria coriifolia*; **coronata** Etayo: on *Flavoparmelia caperata*; **cryptothecia**e Matzer & R.Sant.: on foliicolous *Myriostigma candida*; **darbishirei** Follmann & Werner: on *Roccella nigerrima*; **destruens** Rabenh. var. **destruens**: on *Physcia*; **destruens** var. **nana** Grube & Hafellner: on *Xanthomendoza fallax*; **digitatae** Hafellner: on *Cladonia* [often co-occurring with *Milospium lacoizquetae*]; **digitispora** Etayo [as '*digitospora*']: on *Sticta*; **diorygmatis** S.Joshi, D.K.Upreti & S.Nayaka [as '*dioryg-mae*']: on *Diorygma*; **diploiciae** Calat. & Diederich: on *Diploicia canescens*; **dokdoensis** S.Y.Kondr., L. Lőkös, B.G.Lee, J.-J.Woo & Hur [≡ *Bryostigma dokdoense* (S.Y.Kondr., L.Lőkös, B.G.Lee, J.-J.Woo & Hur) S.Y.Kondr. & Hur]: on *Orientophila yokjidoensis*; **donoraticensis** Brackel: on *Flavoparmelia soredians*; **dufayelensis** Alstrup & Olech, nom. inval. (ICN Art. F.5.2): on *Austroplaca cirrochrooides*; **endocarpa** Kantvilas & Motiej.: on *Amandinea neoconglomerata*; **epifarinosa** Etayo: on *Pannaria*; **epimela** (Almq.) I.M.Lamb: on *Amandinea punctata*; **epiparmelia** Zhurb.: on *Parmelia sulcata*; **epiphyscia** Nyl. [≡ *Bryostigma epiphyscium* (Nyl.) S.Y.Kondr. & Hur]: on *Physcia*; **epipolytropa** Hafellner & Grube: on *Lecanora polytropa*; **epiramboldia** M.Westb., Isaksson & Frisch: on *Ramboldia cinnabarina*; **epitoninia** Halıcı & Candan: on *Toninia*; **ericetorum** (Rehm) Clauzade, Diederich & Cl.Roux, comb. inval. [≡ *Celidium ericetorum* Rehm]: on *Baeomyces*; **excentrica** Th.Fr. [≡ *Bryostigma excentricum* (Th.Fr.) Etayo & Pino-Bodas]: on *Lepraria*; **farinacea** (H.Olivier) R.Sant.: on *Ramalina*, especially *R. farinacea*; **flavicantis** Wedin & Hafellner: on *Pseudocyphellaria flavicans*; **follmaniana** Diederich: on *Roccella*; **frostiicola** Hollinger & Lendemer: on *Dirinaria frostii*; **fuscopurpurea** (Tul.) R.Sant. [≡ *Celidium fuscopurpureum* Tul.; ≡ *Spilodium fuscopurpureum* (Tul.) A.Massal.]: on *Peltigera*; **galligena** Hollinger, Lendemer & P.A.Scott: on *Lecanora masana* and *L. rugosella*; **garajonayi** Etayo: on *Porina*; **gelidae** R.Sant.: on *Placopsis gelida*; **glacialis** Alstrup & E.S.Hansen: on *Rhizoplaca melanophthalma*; **glaucomaria** (Nyl.) Nyl.: on *Glaucomaria rupicola*; **graphidicola** Coppins: on *Graphis scripta*; **griseopruinosa** F.Berger & E.Zimm.: on *Pertusaria pseudocorallina*; **Celidiopsis gyrolophii** A.Massal.: on *Cora* [a poorly known species pertaining to *Arthonia* s.l.]; **haematommatum** Kalb & Hafellner: on *Haematomma*; **haematostigma** Grube & Hafellner: on *Ramalina*; **hawksworthii** Halıcı: on *Dimelaena*; **hertelii** (Calat., Barreno & V.J.Rico) Hafellner & V. John: on *Aspicilia* s.l.; **heterodermiae** Etayo: on *Heterodermia*; **Bryostigma huriellae** S.Y. Kondr. & Hur: on *Huriella pohangensis*; ***infectans*** Egea & Torrente: lichen, juvenile lichenicolous on *Lecanographa hypothallina* and *Sparria cerebriforme*; **ingaderiae** Follmann: on *Ingaderia*; **insitiva** (Körb.) Clauzade, Diederich & Cl.Roux, comb. inval. [≡ *Celidium insitivum* Körb.]: on saxicolous *Lecanora subfusca* s.l.; **insularis** Kantvilas & Wedin: on *Sirenophila eos*; **intermedia** Matzer: on foliicolous

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Porina; **intexta** Almq.: on *Lecidella*; **invadens** Coppins: on *Schizotrema quercicola*; **japewiae** Grube & Holien: on *Japewia*; **lecaniicola** van den Boom & M. Haji Moniri: on *Lecania triseptata*; **lecanoricola** Alstrup & Olech [as '*lecanoriicola*']: on *Polyozosia populicola*; **lecanorina** (Almq.) R.Sant.: on *Lecanora albella*; **lecideicola** Zhurb. & Stepanch.: on *Lecidea erythrophaea*; **lepidiota** (H.Olivier) R.Sant.: on *Fuscopannaria praetermissa*; **Abrothallus lepidophilus** Anzi: on *Cladonia* [a poorly known species possibly belonging to *Arthonia* s.l.]; **lethariicola** Alstrup & M.S. Cole: on *Letharia*; **leucomelodis** F.Berger & E.Zimm.: on *Leucodermia leucomelos*; **livingstonensis** Alstrup & Olech, nom. inval. (ICN Art. F.5.2): on *Leptogium puberulum*; **lobariellae** Etayo [≡ *Bryostigma lobariellae* (Etayo) S.Y.Kondr. & Hur]: on *Lobariella*; **lobothalliae** Etayo: on *Lobothallia alphoplaca*; **maculiformis** Wedin & Hafellner [= *Subhysteropycnis maculiformans* Wedin & Hafellner]: on *Pseudocyphellaria glabra* and *P. homoeophylla;* **marginalis** Etayo: on *Pseudocyphellaria*; **mazosiicola** Matzer & R.Sant. [= *A. mazosiae* R.Sant., nom. inval., nom. illeg., non *A. mazosia* (A.Massal.) Willey]: on foliicolous *Mazosia*; **microsticta** Vain.: on foliicolous cf. *Fellhanera bouteillei* [a species of doubtful application]; **minuta** Wedin & Hafellner: on *Pseudocyphellaria coriifolia*; **molendoi** (Frauenf.) R.Sant. [≡ *Bryostigma molendoi* (Frauenf.) S.Y.Kondr. & Hur]: on *Calogaya* and *Rusavskia*; **navasiana** Etayo: on *Lepraria*; **neglectula** Nyl. [≡ *Bryostigma neglectulum* (Nyl.) S.Y.Kondr. & Hur]: on a sterile, sorediate crust (*Lepraria neglecta*?); **nephromiaria** Nyl.: on *Nephroma*; **nideri** (J.Steiner) Clauzade, Diederich & Cl.Roux, comb. inval.: on *Pyrenodesmia*; **obscurior** Triebel: on *Pilophorus dovrensis*; **olechiana** Etayo [= *A. massalongiae* Alstrup & Olech, nom. inval. (ICN Art. F.5.2)]: on *Steinera olechiana*; **oligospora** Vězda: on *Lecania nylanderiana* and *Polyozosia crenulata*; **pannariae** Zhurb. & Grube: on *Protopannaria pezizoides* and *Psoroma hypnorum*; **pantherina** Etayo: on *Pertusaria pustulata*; **Asterotrema parasiticum** Müll.Arg.: on *Athallia pyracea* [probably belongs to *Arthonia*, fide Aptroot 1991; incorrectly cited as *Arthonia parasitica* (Müll.Arg.) Aptroot by Sundin et al. 2012 and Frisch et al. 2014a]; **parietinaria** Hafellner & A.Fleischhacker [≡ *Bryostigma parietinarium* (Hafellner & A. Fleischhacker) S.Y.Kondr. & Hur]: on *Xanthoria parietina*; **parmeliae** (C.W.Dodge & G.E.Baker) D. Hawksw. & Iturr.: on *Physcia caesia*; **peltigerea** Th. Fr.: on *Peltigera* and *Pseudosolorina*; **peltigerina** (Almq.) H.Olivier [≡ *Bryostigma peltigerinum* (Almq.) S.Y.Kondr. & Hur]: on *Peltigera* and *Pseudosolorina*; **pelvetii** (Hepp) H.Olivier: on *Crocodia aurata*; **pepei** Etayo & Pérez-Ort.: on *Parmelina*; **pertusariicola** Alstrup & Olech, nom. inval. (ICN Art. F.5.2): on *Lepra corallophora*; **phaeophysciae** Grube & Matzer [≡ *Bryostigma phaeophysciae* (Grube & Matzer) S. Y.Kondr. & Hur]: on *Phaeophyscia*; **physcidiicola** Frisch & G. Thor: on *Physcidia wrightii*; **plectocarpoides** (S.Y.Kondr. & D.J.Galloway) Wedin & S.Y. Kondr.: on *Pseudocyphellaria scabrosa*; **pleopsidii** E. Zimm. & F.Berger: on *Pleopsidium chlorophanum*; **polia** Etayo & R.Sant.: on *Diploicia canescens*; **polydactylonis** Diederich & Ertz [≡ *A. ceracea* Etayo & Breuss nom. illeg.]: on *Peltigera polydactylon* [a younger homonym of *Arthonia ceracea* Fée]; **pragensis** Horáková: on *Kuettlingera teicholyta*; **prominens** Follmann: on *Pentagenella gracillima*; **protoparmeliae** Etayo: on *Protoparmelia badia*; **protoparmeliopseos** Etayo & Diederich: on *Protoparmeliopsis muralis*; **pseudocyphellariae** Wedin: on *Pseudocyphellaria multifida*; **pseudopegraphina** Matzer: on foliicolous *Mazosia*; **punctella** Nyl.: on *Diplotomma*; **rakusae** Alstrup & Olech, nom. inval. (ICN Art. F.5.2): on *Amandinea petermannii*; **rangiformicola** Brackel & Etayo: on *Cladonia rangiformis*; **rimularum** (Weddell) Monnat & Cl.Roux: on *Polyozosia*; **rinodinicola** Candan & Halıcı: on *Rinodina oleae*; **rubescens** (Arnold) Clauzade, Diederich & Cl.Roux, comb. inval. [≡ *Conida rubescens* Arnaud]: on *Diplotomma epipolium*; **rufidula** (Hue) D. Hawksw., R.Sant. & Øvstedal [≡ *Charcotia rufidula* Hue]: on *Umbilicaria*; **sagenidii** Vězda & Kantvilas: on *Lecanactis mollis*; **sampaianae** (Diederich & Etayo) Ertz & Diederich [≡ *Plectocarpon sampaianae* Diederich & Etayo]: on *Nevesia sampaiana*; **santessoniana** Wedin & Hafellner: on *Pseudocyphellaria scabrosa*; **santessonii** Matzer: on foliicolous *Porina*; **scrobiculatae** Frisch & M.Westb.: on *Lobarina scrobiculata*; **semi-immersa** Wedin & Hafellner: on *Pseudocyphellaria*; **sherparum** Grube & Matzer: on *Lecanora sherparum*; **squamarinae** Etayo: on *Squamarina*; **stereocaulina** (Ohlert) R.Sant. [≡ *Bryostigma stereocaulinum* (Ohlert) S.Y.Kondr. & Hur]: on *Stereocaulon*; **stevensoniana** R.C.Harris & Lendemer: on *Haematomma accolens*; **stictaria** Nyl.: on *Pseudocyphellaria*; **stipitata** M.M.E.Alves, Aptroot & M. Cáceres: on unidentified sterile, sorediate, corticolous lichen (?*Bacidina*, *Fellhanera*); **subaggregata** Wedin & Hafellner: on *Pseudocyphellaria hirsuta*; **subantarctica** Øvstedal: on *Buellia babingtonii*; **subclemens** Hafellner, Grube & Muggia: on *Lecanora polytropa*; **subconveniens** Nyl. [=? *A. ricasoliae* Müll.Arg.]: on *Lobaria*; **subfuscicola** (Linds.) Triebel: on *Glaucomaria carpinea* and *Lecanora albella*; **subgraphidicola** Ertz, Common & Diederich: on *Graphis assimilis*; **subvelutinae** (Vain.) R. Sant.: on foliicolous *Sporopodium*; **sytnikii** S.Y. Kondr.: on *Dufourea*; **tavaresii** Grube & Hafellner:

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on *Anthracothecium* and *Pyrenula*; **tetraspora** S.Y. Kondr. & Kärnefelt: on *Hosseusiella chilensis*; **thelotrematis** Coppins: on *Thelotrema*; **toensbergii** Holien & Frisch: on *Mycoblastus affinis*; **tremelloides** Etayo: on *Heterodermia*; **triebeliae** Zhurb.: on *Dactylina*; **urceolata** (Elenkin) Calat., Barreno & V.J.Rico [≡ *Conida urceolata* Elenkin]: on *Aspicilia* s.l.; **varians** (Davies) Nyl.: on *Glaucomaria bicincta*, *G. rupicola*, *G. swartzii* and *Lecanora helicopis*; **vorsoeensis** Alstrup [= *A. aggregata* Alstrup, M.S.Christ. & Hafellner]: on *Amandinea punctata*; **xanthoparmeliarum** Etayo: on *Xanthoparmelia*.
Lit.: Alstrup 1993a, 2002; Alstrup & Cole 1998; Alstrup & Hansen 2001; Alstrup & Olech 1996; Alves et al. 2014, 2018; Aptroot et al. 1995, 1997; Berger & Zimmermann 2016, 2025; Brackel 2010a, 2015, 2025b; Calatayud et al. 1995, 2004a; Candan & Halıcı 2009; Diederich 1995; Diederich et al. 2919; Ertz et al. 2005; Etayo 1993, 1996, 2002a, 2008, 2010b, 2010c, 2017, 2018b; Etayo & Breuss 1998; Etayo & Diederich 2009; Etayo & López de Silanes 2024; Etayo & Pérez-Ortega 2016; Etayo & Sancho 2008, 2023; Etayo et al. 2023; Fleischhacker et al. 2016; Follmann & Werner 2003; Frisch & Holien 2018; Frisch et al. 2014b; Grube & Matzer 1997; Grube et al. 1995; Hafellner 2009; Hafellner & Grube 2023; Halıcı 2008; Halıcı & Candan 2009, 2011; Hawksworth 1991a; Hawksworth & Iturriaga 2006; Hertel 1969; Hollinger et al. 2024; Horáková 1994; Ihlen et al. 2004b; Joshi et al. 2013; Kalb et al. 1995; Kantvilas & Motiejūnaitė 2023; Kantvilas & Vězda 1992; Kantvilas & Wedin 2015; Kärnefelt et al. 2002; Kocourková et al. 2012; Kondratyuk 1996a; Kondratyuk & Zelenko 2002; Kondratyuk et al. 2019b, 2020b,c; Lendemer et al. 2016; Matzer 1996; Roux 2020b; Santesson 1993a; Santesson et al. 2004; Triebel et al. 1991; van den Boom & Haji Moniri 2018; van den Boom et al. 2017; Wedin & Hafellner 1998; Wedin & Kondratyuk 1997; Westberg et al. 2025; Zhurbenko 2002, 2021d, 2024; Zhurbenko & Grube 2010; Zhurbenko et al. 2020a.

Arthothelium A.Massal.; type: *A. tremellosum* A.Massal. (lichenized). Mol.: yes. Currently polyphyletic.
Species: 1-1-0 (12). **hymeniicola** Ertz & Fryday: on *Bacidia* (hymenium); ***insolitum*** Kantvilas: lichenicolous lichen over an unidentified squamulose lichen.
Lit.: Ertz & Fryday 2017; Kantvilas 2021.

Briancoppinsia Diederich, Ertz, Lawrey & van den Boom; type: *B. cytospora*. Mol.: yes (T, L). Asexual, pycnidial.
Species: 1-0-0. **cytospora** (Vouaux) Diederich, Ertz, Lawrey & van den Boom [≡ *Phoma cytospora* (Vouaux) D.Hawksw.]: on parmelioid lichens, *Cladonia*, *Lecanora conizaeoides*, *Lepra*, etc.
Lit.: Diederich et al. 2011b; Pinault et al. 2024.

Synarthonia Müll.Arg.; type: *S. bicolor* Müll.Arg., i.e., *S. inconspicua* (Stirt.) Van den Broeck & Ertz. Mol.: yes (T, L).
Species: 3-2-0 (21). **hodgesii** (Lendemer & R.C. Harris) Van den Broeck & Ertz [≡ *Arthonia hodgesii* Lendemer & R.C.Harris]: on *Graphis cupei* and *G. lineola*; ***lopingensis*** (Zahlbr.) Van den Broeck, Frisch & Ertz [≡ *Arthonia lopingensis* Zahlbr.]: lichen, juvenile parasite on *Graphis*; ***ochracea*** (Dufour) Van den Broeck & Ertz [≡ *Arthonia ochracea* Dufour]: lichen, juvenile parasite on *Graphis scripta* s.l.; **ochrodes** (Nyl.) Van den Broeck & Ertz [≡ *Arthonia ochrodes* Nyl.]: on *Graphis*; **rimeliicola** (Diederich) Van den Broeck, Diederich & Ertz [≡ *Arthonia rimeliicola* Diederich]: on *Parmotrema crinitum*.
Lit.: Van den Broeck et al. 2018.

Family **Lecanographaceae** Ertz, Tehler, G.Thor & Frisch

Lecanographa Egea & Torrente; type: *L. lyncea* (Sm.) Egea & Torrente (lichenized). Mol.: yes (T).
Species: 4-1-0 (42). ***dialeuca*** (Cromb.) Egea & Torrente: lichen, facultatively lichenicolous on *Roccella*; **imitans** Werner & Follmann: on *Roccella*; **occidentalis** Egea & Torrente: on *Roccellina*; **rinodinae** (Vězda) R.Sant.: on *Phaeorrhiza nimbosa*; **rosea** Etayo & Paz-Berm.: on *Roccella montagnei*.
Lit.: Egea & Torrente 1994; Follmann & Werner 2003; Gonnet et al. 2017; Paz-Bermúdez & Etayo 2019; Hafellner 2009; van den Boom & Etayo 2006; Vězda 1969.

Phacographa Hafellner; type: *P. glaucomaria*. Mol.: yes (T, L).
Species: 4-0-0. **glaucomaria** (Nyl.) Hafellner [= *Opegrapha maculans* (Arnold) Poelt & Türk]: on *Glaucomaria rupicola* s.l. (incl. *G. bicincta*); **lapponica** (Ihlen) Frisch & Ihlen [≡ *Epicladonia lapponica* Ihlen]: on *Pleopsidium chlorophanum*; **protoparmeliae** Hafellner: on *Protoparmelia badia*; **zwackhii** (Zwackh) Hafellner [≡ *Opegrapha zwackhii* (Zwackh) Hafellner]: on *Phlyctis*.
Lit.: Frisch et al. 2022a; Hafellner 2009; Ihlen & Wedin 2005.

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Plectocarpon Fée; type: *P. pseudosticta* [≡ *Delisea* Fée, nom. illeg.; = *Epiphora* Nyl.; type: *E. encaustica*; = *Lichenomyces* Trevis.; type: *L. parasiticus* Trevis., nom. illeg., i.e., *P. lichenum*]. Mol.: yes (L).
Species: 44-0-0 (45). **aequatoriale** Etayo: on *Sticta*; **armoricum** Brackel: on *Xanthoparmelia conspersa*; **arthonioides** Diederich: on *Lobaria isidiophora*; **bunodophori** Wedin, Ertz & Diederich: on *Bunodophoron patagonicum*; **cladoniae** R.Sant.: on *Cladonia*; **concentricum** Ertz, Diederich & Wedin: on *Pseudocyphellaria homeophylla*; **coppinsii** Ertz & Diederich: *Pseudocyphellaria crocata*; **cristalliferum** Christnach, Ertz & Diederich: on *Sticta*; **diedertzianum** Y.Joshi, Upadhyay & Chandra: on *Myelochroa*; **dimorphosporum** Etayo, Flakus & Kukwa: on *Ricasolia patinifera*; **dirinariae** Ertz & van den Boom: on *Dirinaria*; **encausticum** (Nyl.) R.Sant. [≡ *Epiphora encaustica* Nyl.]: on *Brodoa intestiniformis*; **galapagoense** Ertz & Bungartz: on *Sarcographa tricosa*; **gallowayi** (S.Y. Kondr.) Ertz & Diederich: on *Pseudocyphellaria dissimilis*; **gayanum** Etayo: on *Siphula*; **hypogymniae** Zhurb. & Diederich: on *Hypogymnia bitteri*; **lambinonii** Diederich & Etayo: on *Lobaria*; **latisporum** Ertz, Diederich & Wedin: on *Pseudocyphellaria coriifolia*; **leuckertii** (S.Y.Kondr. & D.J.Galloway) Ertz & Diederich: on *Pseudocyphellaria intricata* and *P. norvegica*; **lichenum** (Sommerf.) D.Hawksw.: on *Lobaria anomala*, *L. anthraspis* and *L. pulmonaria*; **linitae** (R. Sant.) Wedin & Hafellner: on *Lobaria linita*; **macaronesiae** Diederich, Etayo & Sérus.: on *Lobaria immixta* and *L. macaronesiae*; **melanohaleae** Christnach, Ertz & Diederich: on *Melanohalea ushuaiensis*; **nephromeum** (Norman) R.Sant.: on *Nephroma bellum*; **obtectum** Ertz & Diederich: on *Pseudocyphellaria encoensis*; **opegraphoideum** Christnach, Ertz, Diederich & Wedin: on *Pseudocyphellaria homeophylla* and *P. multifida*; **parmeliarum** Y.Joshi: on *Parmelia meiophora*; **parmotrematis** Etayo, Flakus & Kukwa: on *Parmotrema reticulatum*; **peltigerae** Zhurb., Ertz, Diederich & Miądl.: on *Peltigera leucophlebia*; **pseudocyphellariae** Diederich: on *Pseudocyphellaria gilva*; **pseudoleuckertii** Diederich, Ertz & Wedin: on *Pseudocyphellaria coriifolia*; **pseudosticta** (Fée) Fée: on *Pseudocyphellaria freycinetii* and *P. glabra*; **ramalinae** Etayo & Flakus: on *Ramalina celastri*; **santessonii** Zhurb.: on *Parmotrema pseudonilgherrense*; **scrobiculatae** Diederich & Etayo: on *Lobarina scrobiculata*; **serusiauxii** Ertz & Diederich: on *Sticta*; **stereocaulicola** Kukwa, Etayo & Flakus: on *Stereocaulon*; **sticticola** Ertz, Wedin & Diederich: on *Sticta*; **tibellii** Ertz & Diederich: on *Pseudocyphellaria rubella*; **triebeliae** Diederich & Ertz: on *Lobaria* and *Ricasolia quercizans*; **usneae** Diederich & Etayo: on *Usnea exasperata*; **usneaustralis** Etayo: on *Usnea*; **venustum** Ertz, Coppins & Diederich: on *Nephroma papillosum*; **violaceum** Ertz, R.Sant., Diederich & Wedin: on *Nephroma antarcticum*.
Lit.: Aptroot et al. 1997; Brackel 2024; Diederich & Ertz 2018; Diederich & Etayo 1994; Ertz & Diederich 2007; Ertz & van den Boom 2012; Ertz et al. 2003, 2005; Etayo 2007, 2017; Etayo & Sancho 2008; Etayo et al. 2018; Hawksworth & Galloway 1984; Hyde et al. 2019; Joshi et al. 2016c; Kukwa et al. 2012; Santesson 1993a, 1994a; Scholz 1998; Wedin & Hafellner 1998; Zhurbenko 2021c; Zhurbenko & Ezhkin 2025a; Zhurbenko et al. 2008.

Family **Opegraphaceae** Stizenb.

Opegrapha Ach. s.l.; type: *O. vulgata* (Ach.) Ach. (lichenized) [= *Kalaallia* Alstrup & D.Hawksw.; type: *K. reactiva*; = *Leciographa* A.Massal.; type: *L. parasitica*; = *Lecoglyphis* Clem.; type: *L. centrifuga* (see under *O. rupestris*); = *Mycopegrapha* Vain.; type: *M. hymeniicola*; = *Opegraphoidea* Fink; type: *O. staurotheliicola*]. Mol.: yes (T, L). Currently polyphyletic, some species belonging to Lecanographaceae, e.g., *O. brevis*.
Species: 82-0-0 (380). **agelaea** Fée: on pyrenocarpous lichen; **anomea** Nyl.: on *Lepra*, *Ochrolechia*, *Pertusaria* and *Varicellaria*; **arthoniicola** Coppins & S.Y.Kondr.: on *Arthonia radiata*; **bacidiae** R.Sant.: on *Brasilicia brasiliensis*; **brevis** Coppins: on *Crutarndina petractoides*; **brevissima** Kalb & Hafellner: on *Haematomma*; **briancoppinsii** S.Y.Kondr., L.Lőkös & Hur: on *Porpidia albocaerulescens*; **brigantina** Hafellner: on *Brigantiaea*; **bryoriae** Zhurb.: on *Bryoria*; **buelliae** Zhurb.: on *Tetramelas insignis*; **chapsae** Etayo: on *Chapsa*; **chionographa** Nyl. [≡ *O. blakii* Ertz & Diederich]: on cf. *Ochrolechia*; **cladoniicola** Ertz & Diederich: on *Cladonia*; **cryptotheciae** Matzer: on foliicolous *Myriostigma candidum*; **diffracticola** R.C.Harris & Ladd: on *Bacidia diffracta*; **dirinicola** Fink: on *Dirina ceratoniae*; **ectolechiacearum** Matzer & R. Sant.: on foliicolous *Calopadia*, *Loflammia* and *Sporopodium*; **encephalographoidea** Diederich & Aptroot: on *Pyrenula*; **enterographae** Etayo & R. Sant.: on *Enterographa*; **epiporina** Matzer: on foliicolous *Porina*; **foreaui** (Moreau) Hafellner & R.Sant. [= *O. trassii* S.Y.Kondr. & Coppins]: on *Heterodermia*; **Leciographa furfuracea** (Anzi) Rehm: on *Glaucomaria rupicola* and *Rhizocarpon* [a poorly known species pertaining to *Opegrapha* s.l.];

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geographicola (Arnold) Hafellner [≡ *Weddellomyces geographicola* (Arnold) Alstrup & D.Hawksw.]: on *Rhizocarpon*; **gregalis** Vain.: on pyrenocarpous lichen; **grossulina** Müll.Arg.: on Pyrenulaceae; **gyalolechiae** Y.Joshi: on *Gyalolechia flavorubescens*; **Leciographa gyrolophii** (A.Massal.) Vouaux: on *Cora* [a poorly known species pertaining to *Opegrapha* s.l.]; **hafellneri** E.Zimm., Etayo & F. Berger: on *Placopsis gelida*; **hellespontica** Vondrák & Kocourk.: on *Variospora aurantia*; **hochstetteri** Coppins: on *Verrucaria hochstetteri* and *V. muralis*; **Mycopegrapha hymeniicola** Vain.: on *Lecanora* [a poorly known species pertaining to *Opegrapha* s.l.]; **hyperphysciae** van den Boom: on *Hyperphyscia adglutinata*; **inconspicua** Ertz, S.R.Clayden & K.E. Driscoll: on *Verrucaria aethiobola*; **insidens** (J.Steiner) S.Y.Kondr.: on *Athallia pyracea*, *Pyrenodesmia variabilis* and *Verrucaria buschirensis*; **invadens** Etayo: on *Pannaria farinosa*; **kalbii** Matzer: on foliicolous *Byssoloma*; **lamyi** (Nyl.) Triebel: on corticolous *Lecanora*; **lepidella** Nyl.: on cf. *Pertusaria*; **lichenicola** Thor, Lücking & Tat.Matsumoto: on *Porina*; **lopezariae** Etayo & Sipman: on *Lopezaria*; **maligna** Triebel: on *Lecidea fuscoatra*; **matzeri** Lücking: on foliicolous *Amazonomyces sprucei*; **mazosiae** Matzer: on foliicolous *Mazosia*; **melanospila** Müll.Arg.: on *Parmotrema*; **menegazziae** F.Berger & E.Zimm.: on *Menegazzia*; **Leciographa nephromatis** Stein: on *Nephroma* [a poorly known species pertaining to *Opegrapha* s.l.]; **nigeriensis** C.W.Dodge: on *Cryptothecia*; **opaca** Nyl.: on *Verrucaria nigrescens* and *V. viridula*; **parasitica** (A.Massal.) H.Olivier: on *Circinaria calcarea* and *C. hoffmanniana*; **parmeliiperda** Ertz, K.E.Driscoll & S.R.Clayden: on *Parmelia*; **perturbans** Follmann: on *Ingaderia pulcherrima*; **pertusariicola** Coppins & P.James: on *Pertusaria leioplaca*; **phaeophysciae** R.Sant., Diederich, Ertz & Christnach: on *Phaeophyscia hispidula*; **phlyctidicola** (Vouaux) Etayo: on *Phlyctis*; **phyllobathelii** Matzer & R.Sant.: on foliicolous *Phyllobathelium*; **phylloporinae** Müll.Arg.: on foliicolous *Porina*; **physciae** Y.Joshi: on *Physcia sorediosa*; **physcidiae** Kalb & Elix: on *Physcidia australasica*; **pigozziana** Etayo & Aptroot: on *Thelotrema*; **placidiicola** (Zhurb.) Nav.-Ros. & Romero [≡ *O. pulvinata* var. *placidiicola* Zhurb.: on *Placidium*; **plectocarpoidea** Diederich: on Pyrenulaceae (originally described from '*Phaeographis*'); **porinicola** Matzer: on foliicolous *Porina*; **pulvinata** Rehm [= *Trematosphaeria lophiostoma* Werner & M. Choisy; =? *Homostegia dermatocarponis* Alstrup & M.Cole (as '*dermatocarpae*'); = *Opegrapha romsiae* S.Y.Kondr. & Kudratov (as '*romsae*'); =? *Phaeospora dermatocarponis* (R.G.Werner) S.Y.Kondr.]: on *Dermatocarpon* and *Staurothele*; **reactiva** (Alstrup & D.Hawksw.) Etayo & Diederich: on *Ionaspis lacustris*; **reinkellae** Follmann: on *Roccella lirellina*; **rotunda** Hafellner: on *Physconia distorta*; **rouxiana** Nav.-Ros. & Hladun: on *Polyblastia nidulans*; **rupestris** Pers. [=? *O. centrifuga* A.Massal.; ≡ *Lecoglyphis centrifuga* (A.Massal.) Clem.]: on *Bagliettoa*; **sawyeriana** Coppins: on *Coniocarpon cinnabarinum*; **sipmanii** Matzer: on foliicolous *Porina*; **sphaerophoricola** Isbrand & Alstrup: on *Sphaerophorus globosus*; **Opegraphoidea staurothelicola** Fink: on cf. *Willeya diffractella* [a poorly known species]; **stellanigra** Etayo: on *Sticta*; **stereocaulicola** Alstrup & D.Hawksw.: on *Stereocaulon*; **stigmodes** Nyl.: on *Porina*; **strigulae** Matzer & R. Sant.: on foliicolous *Strigula* s.l.; **submaritima** Hafellner: on *Tephromela atra*; **thelotrematis** Coppins: on *Thelotrema lepadinum* and *T. macrosporum*; **uniseptata** Matzer: on foliicolous *Strigula* s.l.; **velata** (Müll.Arg.) Vain.: on foliicolous *Actinoplaca*, *Calenia*, ?*Echinoplaca* and *Gyalectidium*; **verseghyklarae** S.Y.Kondr., L. Lőkös & Hur: on *Ochrolechia pallescens*; **vulpina** Vondrák, Kocourk. & Tretiach: on *Caloplaca* s.l., incl. *Leproplaca cirrochroa*, *Pyrenodesmia erodens* and *Variospora flavescens*.

Lit.: Alstrup & Cole 1998; Alstrup & Hawksworth 1990; Aptroot el al. 1997; Awasthi 1991; Berger & Zimmermann 2016, 2022; Clauzade et al. 1989; Coppins & Kondratyuk 1998; Coppins et al. 2021; Ertz 2009; Ertz & Diederich 2003; Ertz et al. 2004, 2005, 2021, 2023; Etayo 1996, 2007, 2010b, 2017; Etayo & Aptroot 2006; Etayo & Sancho 2008; Fink 1927; Follmann & Werner 2003; Hafellner 1985b, 1994a, 2007, 2009; Harris & Ladd 2007; Isbrand & Alstrup 1992; Joshi 2018, 2019; Kalb & Elix 1995; Kalb et al. 1995; Kondratyuk & Galloway 1995c; Kondratyuk & Kudratov 2002; Kondratyuk & Zelenko 2002; Kondratyuk et al. 2015a, 2016b; Lücking 1998; Matzer 1996; Navarro-Rosinés & Hladun 1995; Navarro-Rosinés & Romero 2020; Orange 2002; Triebel 1989; van den Boom 2021; Vondrák & Kocourková 2008; Zhurbenko 2009b, 2013a; Zhurbenko & Vershinina 2014.

Paralecanographa Ertz & Tehler; type: *P. grumulosa*. Mol.: yes (T, L).

Species: 1-1-0. ***grumulosa*** (Dufour) Ertz & Tehler [≡ *Opegrapha grumulosa* Dufour; incl. *Lecanographa hemisphaerica* (Laundon) Egea & Torrente]: initially lichenicolous on *Roccella*, rarely on *Dirina*, *Gorgadesia* or *Opegrapha*, eventually developing an own thallus; **thelopsisocia** (B. de Lesd.) Cl. Roux, comb. provis. [≡ *Opegrapha grumulosa*

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var. *thelopsisocia* B. de Lesd.; ≡ *O. thelopsisocia* (B. de Lesd.) B. de Lesd.]: on *Thelopsis isiaca*.
Lit.: Egea & Torrente 1994; Roux 2014.

Family **Roccellaceae** Chevall.

Cresponea Egea & Torrente; type: *C. premnea* (Ach.) Egea & Torrente (lichenized). Mol.: yes.
Species: 1-0-0 (24). **lichenicola** Aptroot & M. Cáceres: on *Pyrenula*.
Lit.: Cáceres et al. 2014.

Enterographa Fée; type: *E. crassa* (DC.) Fée (lichenized). Mol.: yes (T).
Species: 9-0-1 (63). **bagliettoae** F.Seavey & J.Seavey: on *Bagliettoa*; **brezhonega** Sparrius & Aptroot: on *Porina rosei*, *Coenogonium luteum* and *C. nimisii*; **confusa** Ertz & Van den Broeck: on *Arthonia ochraceella*; **epigraphis** Etayo & Sipman: on *Graphis*; **epiphylla** (Sérus.) Ertz, Diederich & Sparrius: on foliicolous *Coenogonium geralense* [= *C. flavicans*]; **fellhaneroides** Yeshitela, Eb. Fisch., Killmann & Sérus.: on *Coenogonium*; **mazosiae** Matzer & R.Sant.: on foliicolous *Mazosia*; **meklitiae** Yeshitela, Eb.Fisch., Killmann & Sérus.: probably lichenicolous over *Coenogonium*; **osagensis** C.A.Morse: on *Woessia*; **punctata** Ertz & Diederich: on *Lobaria*.
Lit.: Cáceres et al. 2001; Ertz el.2005; Etayo 2017; Matzer 1996; Morse 2013; Seavey et al. 2017; Sparrius & Aptroot 2007; Van den Broeck & Ertz (2018).

Mazosia A.Massal.; type: *M. rotula* (Mont.) A.Massal. (lichenized). Mol.: yes.
Species: 1-0-0 (28). **adelphoparasitica** Matzer: on foliicolous *Mazosia rotula*.
Lit.: Matzer 1996.

Schismatomma A.Massal. s.l.; type: *S. pericleum* (Ach.) Branth & Rostr. (lichenized). Mol.: yes (T).
Species: 1-0-0 (11). **physconiicola** Ertz & Diederich: on *Physconia*.
Lit.: Ertz & Diederich 2006.

Sigridea Tehler; type: *S. californica* (Tuck.) Tehler (lichenized). Mol.: yes (T).
Species: 1-0-0 (7). **labyrinthica** (Follmann) Ertz & Diederich: on *Roccella portentosa*.
Lit.: Ertz et al. 2005.

Order Arthoniales genera incertae sedis

Arthophacopsis Hafellner; type: *A. parmeliarum*. Mol.: no.
Species: 3-0-0. **heterodermiae** Zhurb. & Diederich: on *Heterodermia*; **parmeliarum** Hafellner: on *Parmelia* s. str.; **zhurbenkoi** Y.Joshi: on *Heterodermia*.
Lit.: Hafellner 1998a; Joshi & Bansal 2024; Zhurbenko et al. 2020a.

Milospium D.Hawksw.; type: *M. graphideorum*. Mol.: yes (T). Asexual, hyphomycetous.
Species: 2-0-0 (4). **graphideorum** (Nyl.) D.Hawksw.: lichenized, or lichenicolous on *Dirina massiliensis*; **lacoizquetae** Etayo & Diederich: on *Cladonia* [often co-occurring with *Arthonia digitatae*, which might be its sexual stage].
Lit.: Crous et al. 2015; Diederich et al. 2024s; Etayo & Diederich 1996a; Hawksworth 1975, 1979a.

Mixtoconidium Etayo; type: *M. canariense*. Mol.: no.
Species: 2-0-0. **insidiens** (Vouaux) Etayo & van den Boom [= *M. canariense* Etayo]: on *Ramalina*; **nashii** (Hafellner) Etayo & van den Boom: on *Niebla robusta*.
Lit.: Ertz & Diederich 2007; Etayo 1995a; van den Boom & Etayo 2017.

Paradoxomyces Matzer; type: *P. nymanii*. Mol.: no.
Species: 1-0-0. **nymanii** Matzer: on foliicolous *Strigula* s.l.
Lit.: Matzer 1996.

Perigrapha Hafellner [a hemihomonym of *Perigrapha* Lederer, Lepidoptera]; type: *P. superveniens*. Mol.: no.
Species: 5-0-0. **cetrariae** Zhurb.: on *Cetraria laevigata*; **lobariae** Zhurb.: on *Lobaria japonica* agg.; **nitida** Ertz, Diederich, Christnach & Wedin: on *Pseudocyphellaria glabra*; **phaeophysciae** Etayo & Pérez-Vargas: on *Phaeophyscia* cf. *orbicularis*; **superveniens** (Nyl.) Hafellner: on *Parmelia* s.str.
Lit.: Ertz et al. 2005; Hafellner 1996a; Pérez-Vargas et al. 2013; Zhurbenko & Ohmura 2018; Zhurbenko et al. 2015d.

Phacothecium Trevis.; type: *P. varium*. Mol.: no.
Species: 1-0-0. **varium** (Tul.) Trevis. [≡ *Arthonia varia* (Tul.) Jatta; = *Opegrapha physciaria* (Nyl.) D. Hawksw. & Coppins]: on *Xanthoria*.
Lit.: Hafellner 2009.

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Spiloma Ach.; typification not clear. Mol.: no. Most species attributed to this genus, including the only lichenicolous taxon, belong to other genera.
Species: 0-1-0 (30). ***auratum*** Sm.: lichenized, facultatively lichenicolous on *Dirina* spp.
This name was erroneously published in *Spilomium* Nyl. by Diederich et al. (2018a). That was an unfortunate lapsus, not an intentional new combination.
Lit.: Giavarini & Purvis 2009b.

Trichophyma Rehm; type: *T. bunchosiae*. Mol.: no.
Species: 2-0-0. **bunchosiae** Rehm: on foliicolous *Strigula* s.l.; **similis** Matzer: on foliicolous *Strigula* s.l.
Lit.: Matzer 1996.

Order **Lichenostigmatales** Ertz, Diederich & Lawrey

Family **Phaeococcomycetaceae** McGinnis & Schell

Etayoa Diederich & Ertz; type: *E. trypethelii*. Mol.: yes (T, L).
Species: 1-0-0. **trypethelii** (Flakus & Kukwa) Diederich & Ertz: on Graphidaceae, *Lecanora*, *Pertusaria*, *Trypetheliaceae* and other crustose lichens.
Lit.: Diederich & Ertz 2024a; Ertz et al. 2014b; Flakus & Kukwa 2012.

Lichenostigma Hafellner s.str.; type: *L. maureri* [= *Diederimyces* Etayo (not validly published); type: *D. fuscideae* Etayo; = *Phaeosporobolus* D. Hawksw. & Hafellner; type: *P. usneae* D.Hawksw. & Hafellner]. Mol.: yes (T, L). Many lichenicolous *Lichenostigma* species do not belong to *Lichenostigma* s.str., but obviously pertain to Lichenotheliaceae; they are treated under that family within *Lichenostigma* s.l.
Species: 6-0-0. **alpinum** (R.Sant., Alstrup & D. Hawksw.) Ertz & Diederich: on *Lepra*, *Ochrolechia*, *Varicellaria* and other lichens; **chlaroterae** (F.Berger & Brackel) Ertz & Diederich: on *Lecanora* and other lichens; **fellhanerae** (R.C.Harris & Lendemer) Ertz & Diederich: on *Fellhanera granulosa*; **hyalosporum** Kalb & Hafellner: on *Haematomma eremaeum*; **maureri** Hafellner: mainly on fruticose lichens; **minutum** (Etayo) Diederich & Ertz: on *Pertusaria microcarpa* and neighbouring *Coccotrema cucurbitula*.
Lit.: Diederich & Ertz 2024b; Ertz et al. 2014b; Etayo 1995b; Etayo & Sancho 2008; Hawksworth & Hafellner 1986; Kalb et al. 1995.

Class DOTHIDEOMYCETES O.E.Erikss. & Winka

Order **Abrothallales** Pérez-Ort. & Suija [= Lichenoconiales Diederich, Lawrey & K.D.Hyde]

Family **Abrothallaceae** Pérez-Ort. & Suija [= Lichenoconiaceae Diederich & Lawrey]

Abrothallus De Not.; type: *A. bertianus* [= *Epinephroma* Zhurb.; type: *E. kamchatica*; = *Pseudolecidea* Marchand; type: *P. parmeliarum*, i.e., *A. parmeliarum*; = *Vouauxiomyces* Dyko & D.Hawksw.; type: *V. truncatus*, i.e., *A. microspermus*]. Mol.: yes (L).
Species: 47-0-0. **acetabuli** Diederich: on *Pleurosticta acetabulum*; **altoandinus** Flakus, Etayo & Rodr. Flakus: on *Usnea duriezii*; **bertianus** De Not. [= *A. glabratulae* I.Kotte]: on *Melanelixia*, also reported from *Melanohalea* and other parmelioid lichens; **boomii** Pérez-Ort. & Suija: on *Nephroma*; **brattii** (S.Y. Kondr.) Suija & Pérez-Ortega: on *Pseudocyphellaria faveolata*; **bryoriarum** Hafellner: on *Bryoria*; **buellianus** De Not.: on *Parmelina*; **caerulescens** I.Kotte [=? *A. tulasnei* M.S.Cole & D.Hawksw.]: on *Xanthoparmelia*; **canariensis** Pérez-Ort., van den Boom & Suija: on *Crocodia aurata*; **chrysanthus** Stein: on *Usnea*; **cladoniae** R.Sant. & D.Hawksw.: on *Cladonia*; **diederichii** Suija & F.Berger: on *Lobaria pulmonaria*; **doliiformis** Pérez-Ort. & Suija: on *Sticta*; **epiclathratus** Suija, Etayo & Flakus: on *Crocodia clathrata*; **eriodermatis** Suija, Etayo & Pérez-Ort. [as '*eriodermae*']: on *Erioderma*; **ertzii** Suija & Pérez-Ort.: on *Lobaria pulmonaria*; **etayoi** Pérez-Ort. & Suija: on *Sticta*; **granulatae** Wedin: on *Pseudocyphellaria*; **halei** Pérez-Ort., Suija, D. Hawksw. & R.Sant.: on *Lobaria*; **heterodermiicola** Etayo & F.Berger: on *Leucodermia leucomelos*; **hypotrachynae** Etayo & Diederich: on *Hypotrachyna*; **kamchatica** (Zhurb. & Stepanch.) Pérez-Ort. & Suija [≡ *Epinephroma kamchatica* Zhurb. & Stepanch.]: on *Nephroma*; **leifidii** Etayo & Zhurb.: on *Leifidium tenerum*; **lobariae** (Diederich & Etayo) Diederich & Ertz [≡ *Phoma lobariae* Diederich & Etayo; = *A. puntilloi* Brackel]: on *Lobaria*; **macrosporus** Etayo & R.Sant.: on *Lobariella*; **microspermus** Tul. [= *Vouauxiomyces truncatus* (B. de Lesd.) Dyko & D.Hawksw.]: on *Flavoparmelia caperata*; **nephromatis** Suija & Pérez-Ort.: on *Nephroma*; **niger** Etayo: on *Hypotrachyna*, and possibly *Parmotrema* and *Usnea*; **nitassinan** Arsenault, P.Baines & Suija: on *Erioderma*; **parmeliarum** (Sommerf.) Arnold [≡ *Pseudolecidea parmeliarum* (Sommerf.) Marchand;

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= *Abrothallus cetrariae* I.Kotte]: on *Nesolechia* (mainly *N. oxyspora*, rarely *N. oxyspora* var. *fusca* or *N. thallicola*, with or without visible galls) over *Parmelia*, *Parmotrema*, *Platismatia*, *Xanthoparmelia*, etc.; **parmotrematis** Diederich: on *Parmotrema*; **peyritschii** (Stein) I.Kotte: on *Cetraria*, also reported from *Allocetraria*; **pezizicola** Diederich & R.C. Harris: on *Cladonia peziziformis*; **prodiens** (Harm.) Diederich & Hafellner: on *Hypogymnia*; **psoromatis** (Zhurb. & U.Braun) Diederich & Zhurb. [≡ *Phoma psoromatis* Zhurb. & U.Braun]: on *Psoroma*; **ramalinae** Diederich: on *Ramalina*; **santessonii** (D.Hawksw.) Suija, D.Hawksw. & Pérez-Ort. [≡ *Vouauxiomyces santessonii* D.Hawksw.]: on *Platismatia glauca*; **secedens** Wedin & R.Sant.: on *Pseudocyphellaria*; **stereocaulorum** Etayo & Diederich: on *Stereocaulon*; **stictarum** Etayo: on *Sticta*; **stroblii** Hafellner: on *Menegazzia terebrata*; **subhalei** Etayo, Flakus & Kukwa: on *Lobariella*; **suecicus** (Kirschst.) Nordin [= *Vouauxiomyces ramalinae* (Nordin) D.Hawksw.; ≡ *Phoma ramalinae* Nordin]: on *Ramalina*; **teloschistis** Brackel, Pérez-Ort. & Suija: on *Seirophora* and *Teloschistes*; **tetrasporus** (Etayo & Osorio) Etayo, Flakus & Rodr. Flakus: on *Usnea*; **usneae** Rabenh.: on *Usnea*; **welwitschii** Mont.: on *Sticta*.

Lit.: Brackel 2015; Brackel & Puntillo 2016; Diederich 1990, 2003, 2004a, 2011; Diederich et al. 2017; Etayo 2002a, 2010b, 2017; Etayo & Diederich 1995; Etayo & Osorio 2004; Etayo & van den Boom 2006; Flakus et al. 2019a; Hafellner 1994a; Hafellner et al. 2008; Hawksworth 1990a; Ihlen & Wedin 2008; Kondratyuk 1996b; Nordin 1964; Pérez-Ortega et al. 2014; Senanayake et al. 2023; Suija 2006; Suija et al. 2011, 2015a, 2018a, 2024a; Wedin 1994; Zhurbenko & Braun 2013; Zhurbenko et al. 2012.

Lichenoconium Petr. & Syd.; type: *L. lichenicola*. Mol.: yes (L).

Species: 16-0-0. **aeruginosum** Diederich, M.Brand, van den Boom & Lawrey: on *Cladonia*; **cargillianum** (Linds.) D.Hawksw.: on *Letharia*, *Parmotrema*, *Platismatia*, *Ramalina* and *Usnea*; **christiansenii** M. S.Cole & D.Hawksw.: on *Nodobryoria abbreviata*; **echinosporum** D.Hawksw.: on *Cladia muelleri*; **edgewoodensis** Alstrup & M.S.Cole: on *Parmelia sulcata*; **erodens** M.S.Christ. & D.Hawksw.: on various lichens; **follmannii** S.Y.Kondr. & D.J.Galloway: on *Lobaria pulmonaria*; **hawksworthii** Flakus, Etayo, Kukwa & Rodr. Flakus: on *Heterodermia comosa*; **laevisporum** Kalb & Hafellner: on *Haematomma*; **lecanorae** (Jaap) D.Hawksw.: on various lichens; **lichenicola** (P.Karst.) Petr. & Syd.: on *Physcia*; **plectocarpoides** S.Y.Kondr. & D.J.Galloway: on *Pseudocyphellaria*; **pyxidatae** (Oudem.) Petr. & Syd.: on *Cladonia*; **reichlingii** Diederich: on *Ramalina fraxinea*; **usneae** (Anzi) D.Hawksw.: on various lichens; **xanthoriae** M.S.Christ.: on various lichens.

Lit.: Alstrup & Cole 1998; Christiansen 1956, 1980; Cole & Hawksworth 2004; Diederich 1986; Hawksworth 1977b, 1981; Kalb et al. 1995; Kondratyuk & Galloway 1995b; Kondratyuk et al. 1994; Lawrey et al. 2011; Wijayawardene et al. 2021.

Order **Acrospermales** Minter, Peredo & A.T.Watson

Family **Acrospermaceae** Fuckel

Acrospermum Tode; type: *A. compressum* Tode: Mol.: yes (T, L).

Species: 1-0-0 (47). **bolivianum** Darmostuk & Flakus: on various lichens.

Lit.: Darmostuk & Flakus 2024.

Gonatophragmium Deighton; type: *G. mori* (Sawada) Deighton. Mol.: yes (T, L). Asexual, hyphomycetous.

Species: 1-0-0 (8). **lichenophilum** F.Berger & U.Braun [= *G. physciae* Crous & Boers]: on various lichens.

Lit.: Berger et al. 2015; Ertz et al. 2024a.

Order **Asterinales** D.Hawksw. & O.E.Erikss.

Family **Hemigraphaceae** D.Q.Dai & K.D. Hyde [= Neobuelliellaceae Hongsanan & K.D.Hyde; =? Melaspileellaceae D.Q.Dai & K.D. Hyde]

Hemigrapha (Müll.Arg.) D.Hawksw.; type: *H. asteriscus* (lectotypified by Ertz & Diederich 2015). Mol.: yes (T, L).

Species: 9-0-0. **asteriscus** (Müll.Arg.) D.Hawksw.: on *Peltigera*; **atlantica** Diederich & Wedin: on *Sticta canariensis*; **graphidicola** Diederich & Common: on *Graphis assimilis*; **nephromatis** Wedin & Diederich: on *Nephroma australe*; **phaeospora** Matzer & Lücking: on foliicolous *Phylloporis phyllogena*; **pilocarpacearum** M.Cáceres & Lücking: on *Byssoloma* and *Fellhanera*; **pseudocyphellariae** Diederich & Wedin: on *Pseudocyphellaria argyracea*; **strigulae** Matzer: on foliicolous *Strigula* s.l.; **tenellula** (Müll. Arg.) Matzer: on foliicolous *Porina*.

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Lit.: Cáceres & Lücking 2000; Diederich & Wedin 2000; Diederich et al. 2019; Eriksson et al. 2001; Ertz & Diederich 2015; Hawksworth 1975; Matzer 1996.

Neobuelliella Hongsanan & K.D.Hyde; type: *N. poetschii*. Mol.: yes (T, L).
Species: 1-0-0. **poetschii** (Hafellner) Hongsanan & K.D.Hyde: on *Endocarpon*.
Lit.: Hafellner et al. 2008; Heuchert et al. 2024c.

Family **Stictographaceae** D.Q.Dai & K.D.Hyde

Buelliella Fink; type: *B. minimula* (lectotypified by Hafellner 1979). Mol.: yes (T, L).
Species: 14-0-0. **colombiana** Etayo: on *Phlyctis andensis*; **dirinariae** Diederich: on *Dirinaria picta*; **eximia** Kalb & Hafellner: on *Pyxine cocoes*; **heppiae** van den Boom: on *Heppia arenacea*; **himalayensis** Falswal & Bhandari: on *Pertusaria ariaquassiae*; **indica** Pushpi Singh & Kr.P.Singh: on *Graphis longiramea*; **inops** (Triebel & Rambold) Hafellner: on *Caloplaca* s.l.; **lecanorae** Suija & Alstrup: on *Lecanora*; **minimula** (Tuck.) Fink: on *Pertusaria*; **ohmurae** Zhurb. & Diederich: on *Icmadophila ericetorum*; **physciicola** Poelt & Hafellner: on *Phaeophyscia* and *Physcia*; **protoparmeliopseos** Etayo & Pérez-Ort.: on *Protoparmeliopsis*; **pusilla** Hafellner: on *Brigantiaea leucoxantha*; **trypethelii** (Tuck.) Hafellner: on *Trypethelium*.
Lit.: Aptroot et al. 1997; Ertz & Diederich 2015; Etayo 2002a; Falswalm & Bhandari 2022; Hafellner 1979, 1985b; Kalb 1990; Pérez-Ortega & Etayo 2010; Singh & Singh 2019; Suija & Alstrup 2004; Suija & Haldeman 2025; van den Boom 2010; Zhurbenko & Ohmura 2020.

Karschia Körb.; type: *K. talcophila* (lectotypified by Hafellner 1979). Mol.: yes (T, L).
Species: 3-0-0 (4). **alpicolae** D.Hawksw. & Alstrup: on *Allantoparmelia alpicola*; **santessonii** Hafellner: on *Porpidia*; **talcophila** (Ach.) Körb.: on *Diploschistes*.
Lit.: Alstrup & Hawksworth 1990; Ertz & Diederich 2015; Hafellner 1979; Santesson 1994a.

Labrocarpon Etayo & Pérez-Ort.; type: *L. canariense*. Mol.: yes (T, L).
Species: 1-0-0. **canariense** (D.Hawksw.) Etayo & Pérez-Ort.: on *Pertusaria*, also on *Ochrolechia africana*.
Lit.: Ertz & Diederich 2015; Hawksworth 1982b; Pérez-Ortega & Etayo 2010; Seavey et al. 2017.

Melanographa Müll.Arg.; type: *M. tribuloides* (lectotypified by Ertz & Diederich 2015). Mol.: no.
Species: 1-0-0. **tribuloides** (Tuck.) Müll.Arg.: on *Anthracothecium* and *Pyrenula*.
Lit.: Ertz & Diederich 2015.

Melaspilea Nyl. s.l.; type: *M. arthonioides* Nyl. (lichenized). Mol.: yes (T, L). The type belongs to Melaspileaceae (Eremithallales). All lichenicolous species need transfer to other genera, probably within Asterinales.
Species: 10-0-0 (150). **amarkantakensis** S.Joseph & G.P.Sinha: on *Pertusaria amarkantakana*; **cupularis** Müll.Arg.: on *Pyrenula*; **epigena** Müll.Arg.: on *Reimnitzia santensis*, also on *Leucodecton compunctum*; **epigraphella** (Nyl.) Müll.Arg.: on *Acanthothecis consocians*; **galligena** Zhurb. & Zhdanov: on *Pertusaria*; **insitiva** Stirt.: on *Pertusaria leioplaca*; **leciographoides** Vouaux: on *Verrucaria*; **lekae** Brackel & Kalb: on *Sarcographa*; **nitidochapsae** Pushpi Singh, Y.Joshi & Kr.P. Singh: on *Nitidochapsa leprieurii*; **tucumana** Flakus, Etayo & Kukwa: on *Pertusaria*.
Lit.: Clauzade et al. 1989; Ertz & Diederich 2015; Flakus et al. 2014; Joseph & Sinha 2015; Kalb et al. 2012; Seavey et al. 2017; Singh et al. 2017; Zhurbenko & Zhdanov 2013.

Melaspileopsis (Müll.Arg.) Ertz & Diederich; type: *M. diplasiospora* (Nyl.) Ertz & Diederich (type specimen saprotrophic). Mol.: yes (T, L).
Species: 1-0-0. cf. **diplasiospora** (Nyl.) Ertz & Diederich: on *Graphis elegans*.
Lit.: Ertz & Diederich 2015.

Stictographa Mudd; type: *S. lentiginosa*. Mol.: yes (T, L).
Species: 2-0-0. **dirinariicola** Diederich & Ertz: on *Dirinaria picta*; **lentiginosa** (Leight.) Müll.Arg.: on *Phaeographis dendritica*.
Lit.: Ertz & Diederich 2015; Diederich et al. 2017.

Taeniolella S.Hughes s.l.; type: *T. exilis* (P.Karst. S.Hughes (saprotrophic). Mol.: yes (T, L). Asexual, hyphomycetous. The type belongs to Kirschsteiniotheliaceae (Dothideomycetes). Most lichenicolous species need transfer to other genera within Asterinales.

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Species: 33-0-1 (49). **arctoparmeliae** Heuchert & Zhurb.: on *Arctoparmelia separata*; **arthoniae** (M.S. Christ. & D.Hawksw.) Heuchert & U.Braun: on various lichens genera of Arthoniales; **atricerebrina** Hafellner: on *Tephromela atra*; **breviuscula** (Berk. & M.A.Curtis) S.Hughes: facultatively lichenicolous; **caespitosa** M.S.Cole & D.Hawksw.: on *Pertusaria*; **christiansenii** Alstrup & D.Hawksw.: on *Stereocaulon* (incl. on *Arthonia* lichenicolous on *Stereocaulon*); **chrysothrichis** Diederich: on *Chrysothrix candelaris*; **cladinicola** Alstrup: on *Cladonia* subgen. *Cladina* and on the *C. uncialis* group; **commonii** (Diederich, Zhurb. & van den Boom) Ertz, Diederich & Heuchert [≡ *Trimmatostroma commonii* Diederich, Zhurb. & van den Boom]: on Graphidaceae; **delicata** M.S.Christ. & D.Hawksw.: on various lichens; **diederichiana** Etayo & Calat.: on *Placopsis*; **diminuta** Diederich & Ertz: on *Fissurina*; **diploschistis** Heuchert, U. Braun, Diederich & Zhurb.: on *Diploschistes scruposus*; **fissurinae** Diederich, Ertz & Heuchert: on *Fissurina dumastii*; **friesii** (Hepp) Hafellner: on *Swinscowia stigmatella*; **frigidae** Alstrup & Olech, nom. inval. (ICN Art. F.5.2): on *Ochrolechia frigida*; **glebarum** (Brackel) Diederich [≡ *Trimmatostroma glebarum* Brackel]: on *Flavoparmelia caperata*; **hawksworthiana** Heuchert, Ertz & Common: on *Phaeographis*; **ionaspisicola** Alstrup & E.S.Hansen: on *Ionaspis odora*; **lecanoricola** Heuchert & Diederich: on *Glaucomaria rupicola*; **pertusariicola** D.Hawksw. & H.Mayrhofer: on *Glaucomaria*, *Lepra*, *Ochrolechia*, *Ophioparma*, *Pertusaria* and *Varicellaria*; **phaeophysciae** D.Hawksw.: mainly on *Phaeophyscia*, also on *Hyperphyscia*, *Pectenia*, *Pertusaria*, *Physcia* and *Physconia*; **punctata** M.S.Christ. & D.Hawksw.: on *Graphis*, more rarely on other lichens; **pyrenulae** Heuchert & Diederich: on *Pyrenula*; **rolfii** Diederich & Zhurb.: on *Cetraria* and *Cetrariella*; **santessonii** Etayo & Heuchert: on *Roccellina cerebriformis*; **strictae** Alstrup: on *Cladonia*; **thelotrematis** Heuchert & Brackel: on *Thelotrema*; **toruloides** Heuchert & Diederich: on *Thelotrema*; **trapeliopsidis** Diederich: on *Trapeliopsis*; **umbilicariae** Heuchert & Etayo: on *Umbilicaria*; **umbilicariicola** Heuchert & Etayo: on *Umbilicaria*; **verrucosa** M.S.Christ. & D.Hawksw.: on *Aspicilia* s.l., *Micarea*, *Pachnolepia* and other lichens; **weberi** Heuchert & Sparrius: on *Thelotrema weberi*.

Lit.: Alstrup 1993b; Alstrup & Hansen 2001; Alstrup & Hawksworth 1990; Alstrup et al. 2018; Brackel 2015; Cole & Hawksworth 2001; Diederich 1989, 1990, 1992b; Diederich & Zhurbenko 1997, 2001; Diederich et al. 2020b; Ertz et al. 2016; Etayo 2010b; Etayo & Calatayud 2005; Etayo & Sancho 2008; Hafellner 1998b, 2007; Hawksworth 1979a; Heuchert et al. 2018, 2019, 2024c; Zhurbenko & Alstrup 2004.

Talpapellis Alstrup & M.Cole; type: *T. peltigerae*. Mol.: no. Asexual, hyphomycetous.

Species: 10[+1 var.]-0-0. **beschiana** (Diederich) Zhurb., U.Braun, Diederich & Heuchert: on *Cladonia*; **chlorinae** Ertz, Diederich & F.Berger: on *Chrysothrix chlorina*; **dendrographae** Diederich & van den Boom: on *Dendrographa decolorans*; **graphidis** Heuchert, Common, U. Braun & Diederich: on *Graphis caesiella*; **lendemeri** Diederich: on *Lecania cyrtella*; **pachnolepiae** Diederich & van den Boom: on *Pachnolepia pruinata*; **peltigerae** Alstrup & M.S.Cole var. **peltigerae**: on *Peltigera venosa*; **peltigerae** var. **rossica** Heuchert, Zhurb. & U.Braun: on *Peltigera*; **pseudocyphellariae** (Etayo) Diederich, U.Braun & Heuchert [≡ *Taeniolella pseudocyphellariae* Etayo]: on *Nephroma antarcticum* and *Pseudocyphellaria hillii*; **psorulae** Zhurb. & U. Braun: on *Psorula rufonigra*; **solorinae** Zhurb., Heuchert & U.Braun: on *Solorina crocea*.

Lit.: Alstrup & Cole 1998; Diederich 1992b; Diederich et al. 2017, 2019; Heuchert et al. 2014, 2018, 2024c; Zhurbenko & Braun 2013; Zhurbenko & Diederich 2024b; Zhurbenko et al. 2015c.

Order **Botryosphaeriales** C.L.Schoch, Crous & Shoemaker

Family **Phyllostictaceae** Fr.

Phyllosticta Pers.; type: *P. convallariae* Pers. Mol.: yes. Asexual, pycnidial.

Species: 1-0-0 (100). **galligena** F.Moreau: on *Parmotrema* [a poorly known species that might not belong here].

Lit.: Moreau 1951.

Order **Capnodiales** Woron.

Order Capnodiales Woron. genus incertae sedis

Psammina Sacc. & M.Rousseau; type: *P. bommeriae* Sacc. & M.Rousseau. Mol.: yes (T, L). Asexual, hyphomycetous.

Species: 0-0-5 (9). **angustata** van der Kolk: facultatively lichenicolous, over algae or lichens; **filamentosa** van der Kolk & Earl.-Benn.: facultatively lichenicolous, over algae or lichens; **inflata** Earl.-Benn. & D.Hawksw.:

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facultatively lichenicolous, over algae or lichens; **simplex** Earl.-Benn. & D.Hawksw.: facultatively lichenicolous, over algae or lichens; **stipitata** D.Hawksw.: facultatively lichenicolous, over algae or lichens.
Lit.: Earland-Bennett & Hawksworth 1999a; Hawksworth 1979a; van der Kolk et al. 2020, 2024c.

Order **Cladosporiales** Abdollahz. & Crous

Family **Cladosporiaceae** Chalm. & R.G.Archibald

Cladosporium Link; type: *C. herbarum* (Pers.) Link. Mol.: yes (T, L).
Species: 3-0-3 (300). **antarcticum** K.Schub., Crous & U.Braun: isolated from *Gondwania regalis*, probably lichenicolous; **diploschisticola** Diederich: on *Diploschistes*; **licheniphilum** Heuchert & U.Braun: on various lichens; **macrocarpum** Preuss: facultatively lichenicolous on *Cetraria islandica* and *Xanthoria parietina*; **peltigerae** Diederich & Schiefelbein: on *Peltigera rufescens*; **tenuissimum** Cooke: facultatively lichenicolous on *Cetrelia cetrarioides*.
Lit.: Bensch et al. 2012; Brackel 2014; Diederich et al. 2024h; Heuchert & Braun 2006; Zhurbenko 2012.

Verrucocladosporium K.Schub., Aptroot & Crous; type: *V. dirinae*. Mol.: yes (T, L).
Species: 2-0-0 (4). **dirinae** K.Schub., Aptroot & Crous: on *Dirina massiliensis*; **roccellae** U.Braun, Diederich & Heuchert: on *Roccella*.
Lit.: Braun et al. 2009; Crous et al. 2007; Diederich et al. 2024n.

Order **Collemopsidiales** Pérez-Ort., Garrido-Ben. & Grube

Family **Xanthopyreniaceae** Zahlbr.

Collemopsidium Nyl.; type: *C. iocarpum* (Nyl.) Nyl. (lichenized). Mol.: yes.
Species: 1-0-0 (27). **cephalodiorum** (Triebel & Grube) Grube [≡ *Cercidospora cephalodiorum* Triebel & Grube]: on *Pilophorus cephalodiorum*.
Lit.: Grube 2005.

Didymellopsis (Sacc.) Clem. & Shear; type: *D. latitans*. Mol.: no.
Species: 9-0-0. **antarctica** Alstrup & Olech, nom. inval. (ICN Art. F.5.2): on *Acarospora macrocyclos*; **Pharcidia collematis** Dughi: on *Lempholemma chalazanum* [a poorly known taxon placed provisionally here]; **collematum** (J.Steiner) Grube & Hafellner: on *Collema*; **latitans** (Nyl.) Clem. & Shear: on *Lempholemma* and *Lichinella*; **nephromatis** Zhurb. & Etayo: on *Nephroma cellulosum*; **perigena** (Nyl.) Grube & Hafellner: on *Placidium squamulosum*; **pulposi** (Zopf) Grube & Hafellner: on *Collema*, *Enchylium*, *Lathagrium*, *Lempholemma* and *Scytinium*; **solorinae** Zhurb.: on *Pseudosolorina bispora* and *P. saccata*; **viridireagens** Etayo: on *Leptogium*.
Lit.: Alstrup et al. 2018; Etayo 2017; Grube & Hafellner 1990; Roux 2014; Zhurbenko 2021b; Zhurbenko et al. 2015b.

Zwackhiomyces Grube & Hafellner; type: *Z. coepulonus*. Mol.: yes (T, L).
Species: 43-0-0. **arenicola** R.C.Harris: on unidentified areolate, saxicolous thallus; **argentinae** (Räsänen) D. Hawksw. & V.Atienza: on *Acarospora*; **aspiciliae** Halıcı & Candan: on *Aspicilia* s.l.; **bagliettoanus** Brien, Cl. Roux, Diederich & Poumarat: on *Toniniopsis bagliettoana*; **berengerianus** (Arnold) Grube & Triebel: on *Lecidea berengeriana*; **calcariae** (Flagey) Hafellner & Nik.Hoffm.: on *Circinaria*; **calcisedus** Cl.Roux: on *Verrucariaceae*; **cervinae** Calat., Triebel & Pérez-Ort.: on *Acarospora*; **cladoniae** (C.W.Dodge) Diederich: on *Cladonia*; **coepulonus** (Norman) Grube & R.Sant.: on *Calogaya*, *Caloplaca* s.str. and *Rusavskia elegans*; **diederichii** D.Hawksw. & Iturr.: on *Cladonia*; **dispersus** (Körb.) Triebel & Grube: on *Protoblastenia rupestris*; **echinulatus** Brackel: on *Physconia*; **errinundrensis** Zhurb.: on *Pannaria microphyllizans*; **esfahanensis** S.Y. Kondr. & B.Zarei-Darki: on *Protoparmeliopsis garovaglii*; **euplocinus** Hafellner, Grube & Egan: on *Speerschneidera euploca*; **fuscatus** Poumarat, Daval & Cl.Roux: on *Acarospora fuscata*; **heppiae** van den Boom: on *Heppia arenacea*; **inconspicuus** Grube & Hafellner: on *Polyozosia dispersa*; **kantvilasii** S.Y.Kondr.: on *Parmotrema*; **khodosovtsevii** Darmostuk: on *Verrucaria*; **kiszkianus** D.Hawksw. & Miądl.: on *Peltigera*; **lacustris** (Arnold) Orange: on *Ionaspis lacustris*; **lecaniae** D.Gonnet, O.Gonnet & Cl.Roux: on *Lecania olivacella*; **lecanorae** (Stein) Nik. Hoffm. & Hafellner: on *Polyozosia*; **lithoiceae** (B. de Lesd.) Hafellner & V.John: on *Verrucaria*; **macrosporus** Alstrup & Olech: on *Protopannaria*; **martinatianus** (Arnold) Triebel & Grube: on *Porpidia*; **melanohaleae** Etayo & van den Boom: on *Melanohalea exasperata*; **namibiensis** Diederich & M.Schultz: on *Psorotichia*; **peltigerae** Miądl. & Alstrup: on *Peltigera*; **physciicola**

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Alstrup: on *Physcia caesia*; **polischukii** Darmostuk & Khodos.: on *Bacidia*; **protoparmeliopsidis** Y.Joshi: on *Protoparmeliopsis garovaglii*; **rolfii** (Etayo) Etayo: on *Candelina*; **sipmanii** Diederich & Zhurb.: on *Phaeorrhiza sareptana*; **socialis** (Körb.) Cl.Roux [= *Z. immersae* (Arnold) Grube & Triebel]: on *Clauzadea*; **solenopsorae** van den Boom: on *Solenopsora holophaea*; **sphinctriniformis** Grube & Hafellner: on *Romjularia lurida*; **sphinctrinoides** (Zwackh) Grube & Hafellner: on *Lecanora campestris*; **sulcatus** Pérez-Ort. & Etayo: on *Austroparmelina macrospora*; **turcicus** Kocakaya, Halıcı & Aksoy: on *Physcia magnussonii*; **zareii** S.Y.Kondr.: on *Rhizoplaca melanophthalma*.

Lit.: Alstrup 1993a; Alstrup & Olech 1993; Aptroot et al. 1997; Darmostuk 2021a; Diederich & Zhurbenko 2009; Etayo 2010b; Grube & Hafellner 1990; Halıcı & Candan 2009; Harris 1995; Hawksworth & Atienza 1994; Hawksworth & Iturriaga 2006; Hawksworth & Miądlikowska 1997a; Hoffmann & Hafellner 2000; Joshi 2022b; Kocakaya et al. 2011; Khodosovtsev & Darmostuk 2017; Kondratyuk 1996b; Kondratyuk et al. 2011; Miądlikowska & Alstrup 1995; Orange 2002; Pérez-Ortega et al. 2011a; Poumarat et al. 2022; Roux 2014; Roux et al. 2023b, 2024; van den Boom 2010; van den Boom & Etayo 2014; Zhurbenko 2023a.

Order **Dothideales** Lindau

Family **Dothideaceae** Chevall.

Plowrightia Sacc.; type: *P. ribesia* (Pers.) Sacc. Mol.: yes.
Species: 1-0-0 (50). **mereschkowskyi** Vouaux: on *Circinaria hispida* [a poorly known species].
Lit.: Clauzade et al. 1989.

Family **Saccotheciaceae** Bonord.

Pseudoseptoria Speg.; type: *P. donacicola* Speg. Mol.: yes.
Species: 1-0-0 (8). **usneae** (Vouaux) D.Hawksw.: on *Usnea*.
Lit.: Hawksworth 1981.

Saccothecium Fr.; type: *S. sepincola* (Fr.) Fr. [= *Metasphaeria* Sacc.; type: *S. sepincola*]. Mol.: yes (T).
Species: 1-0-0 (10). **Metasphaeria verrucosa** Alstrup & Olech [as '*verrucosae*'], nom. inval. (ICN Art. F.5.2): on *Megaspora verrucosa*.
Lit.: Alstrup et al. 2018.

Order **Lichenotheliales** K.Knudsen, Muggia & K.D.Hyde

Family **Lichenotheliaceae** Henssen

Lichenothelia D.Hawksw.; type: *L. scopularia* (Nyl.) D. Hawksw. (saxicolous, non-lichenized). Mol.: yes (T, L). Species: 3-0-3 (30). **convexa** Henssen [= *Lichenostigma saxicola* K.Knudsen & Kocourk.]: over siliceous rocks, facultatively lichenicolous; **renobalesiana** D.Hawksw. & V.Atienza: on endolithic Verrucariaceae (*Bagliettoa*, *Thelidium Verrucaria*) over calcareous rocks; **rugosa** (G.Thor) Ertz & Diederich [≡ *Lichenostigma rugosum* G.Thor, as '*rugosa*']: on *Diploschistes*; **scopularia** (Nyl.) D.Hawksw.: over siliceous rocks, facultatively lichenicolous; **spiralispora** Etayo [as '*spiratispora*']: on *Acarospora sphaerospora*; **umbrophila** Muggia, Kocourk. & K.Knudsen: over rocks, facultatively lichenicolous.
Lit.: Atienza & Hawksworth 2008; Etayo 2010c; Ertz et al. 2014b; Kocourková & Knudsen 2011b; Muggia et al. 2015a; Thor 1985.

Lichenostigma Hafellner s.l. [incl. *Lichenostigma* subgen. *Lichenogramma* Nav.-Ros. & Hafellner; type: *L. elongatum*; see under Lichenostigmatales for *Lichenostigma* s. str.]. Mol.: yes (L). All species treated here have been described in *Lichenostigma* but certainly do not belong there. They obviously belong to Lichenotheliaceae (*L.* cf. *elongatum* and several unidentified specimens have been sequenced by Ertz et al. 2014), but the generic affinities are yet unknown.
Species: 30-0-0. **amplum** Calat. & Hafellner: on *Buellia*; **anatolicum** Halıcı & Kocakaya: on brown *Acarospora*; **bolacinae** Nav.-Ros., Calat. & Hafellner: on *Polycauliona bolacina*; **canariense** Etayo & van den Boom: on *Circinaria calcarea*; **corymbosae** Alstrup & Olech, nom. inval. (ICN Art. F.5.2): on *Catillaria corymbosa*; **cosmopolites** Hafellner & Calat.: on *Xanthoparmelia*; **cupreogriseae** P.Pinault & Cl.Roux: on *Circinaria cupreogrisea*; **dimelaenae** Calat. & Hafellner: on *Dimelaena oreina*; **diploiciae** Calat., Nav.-Ros. & Hafellner: on *Diploicia subcanescens*; **elongatum** Nav.-Ros. & Hafellner [as '*elongata*']: on *Circinaria* and *Lobothallia*; **epipolinum** Nav.-Ros., Calat. & Hafellner [as '*epipolina*']: on *Diplotomma epipolium*; **epiporpidiae** S.Y.Kondr., L.Lőkös & Hur: on *Porpidia*; **epirupestre** Pérez-Ort. & Calat.: on *Pertusaria pertusa*; **episquamarinae** (Etayo) Poumarat & Cl.Roux [≡ *Sphaerellothecium episquamarinae*

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Etayo]: on *Squamarina lentigera*; **episulphurella** Etayo & van den Boom: on *Lecanora sulphurella*; **epiumbilicariae** P.Pinault & Cl.Roux: on *Umbilicaria*; **gracile** Calat., Nav.-Ros. & Hafellner: on *Acarospora fuscata*; **heterodermiae** S.Y.Kondr., L.Lőkös & Hur: on *Heterodermia*; **iranicum** Brackel & Valadbeigi: on *Lobothallia praeradiosa*; **lecanorae** Calat. & Nav.-Ros.: on *Lecanora farinacea*; **radicans** Calat. & Barreno: on *Aspicilia* s.l.; **rouxii** Nav.-Ros., Calat. & Hafellner: on *Squamarina*; **rupicolae** Fern.-Brime & Nav.-Ros.: on *Pertusaria rupicola*; **semi-immersum** Hafellner: on *Buellia*; **spermatomanis** P. Pinault & Cl.Roux: on *Aspicilia spermatomanes*; **subradians** Hafellner, Calat. & Nav.-Ros.: on *Acarospora*; **supertegentis** Ihlen & R.Sant.: on *Aspicilia supertegens*; **svandae** Vondrák & Šoun: on *Acarospora cervina*; **triseptatum** Halıcı & D. Hawksw.: on *Aspicilia* s.l.; **verrucosum** Brackel & Valadbeigi: on *Pleopsidium gobiense*.
Lit.: Alstrup & Hawksworth 1990; Alstrup et al. 2018; Calatayud & Barreno 2003; Calatayud & Navarro-Rosinés 2000; Calatayud et al. 2002, 2004b; Etayo 2008; Etayo & Sancho 2008; Fernández-Brime et al. 2010; Hafellner 1982a, 1999; Hafellner & Calatayud 1999; Halıcı & Hawksworth 2007; Halıcı et al. 2009d; Harris & Lendemer 2009; Ihlen 2004; Kondratyuk et al. 2013, 2017; Knudsen & Kocourková 2010b; Navarro-Rosinés & Hafellner 1996; Pérez-Ortega & Calatayud 2009; Roux & Pinault 2021b, 2023; van den Boom & Etayo 2006; Valadbeigi & Brackel 2011; Vondrák & Šoun 2007.

Order **Mycosphaerellales** (Nannf.) P.F.Cannon

Family **Dissoconiaceae** Crous & de Hoog

Ramichloridium de Hoog; type: *R. apiculatum* (J.H. Mill., Giddens & A.A.Foster) de Hoog. Mol.: yes (T).
Species: 2-0-0 (35). **cladoniicola** U.Braun & Heuchert: on *Cladonia;* **tropicum** U.Braun & Diederich: on crustose lichen with *Trentepohlia*.
Lit.: Braun et al. 2009; Diederich & Braun 2024a; Diederich et al. 2017.

Family **Mycosphaerellaceae** Lindau

Pseudocercospora Speg.; type: *P. vitis* (Lév.) Speg. Mol.: yes (T).
Species: 3-0-0 (950). **lichenum** (Keissl.) D.Hawksw.: on *Loxospora* and *Pertusaria*; **normandinae** Diederich: on *Normandina pulchella*; **spadicea** Diederich, Boers & Kukwa: on *Lecanora* and *Ramalina*.
Lit.: Diederich et al. 2024c; Hawksworth 1979a.

Sphaerulina Sacc. s.l.; type: *S. myriadea* (DC.) Sacc. Mol.: yes (T). The two lichenicolous species are poorly known and might not belong here.
Species: 2-0-0 (65). **dubiella** (Nyl.) W.Wats.: on a crustose lichen; **lepidiotae** (Anzi) Vain.: on *Fuscopannaria praetermissa*.
Lit.: Clauzade et al. 1989.

Wernerella Nav.-Ros., Cl.Roux & Giralt [a hemihomonym of *Wernerella* Karny, Orthoptera]; type: *W. maheui*. Mol.: no. The genus *Wernerella* and its type species *W. maheui* were validly published by Navarro-Rosinés, Roux & Giralt in 1998. While *Index Fungorum* currently treats the name as invalid, the protologue provides a Latin description and an explicit type designation, thereby fulfilling the requirements of the ICN. The new combination *W. maheui* clearly cites its basionym as required by Art. 41.5, and the indication of the type specimen (collected by R.–G. Werner on 12 Aug. 1936, now preserved in BC) is sufficiently precise. The names are therefore here accepted as validly published.
Species: 2-0-0. **acarosporae** Etayo: on *Acarospora nodulosa*; **maheui** (Werner) Nav.-Ros., Cl.Roux & Giralt: on *Rinodina*.
Lit.: Etayo 2010c; Navarro-Rosinés et al. 1996b, 1998d.

Family **Teratosphaeriaeae** Crous & U.Braun

Austrostigmidium Pérez-Ort. & Garrido-Benavent; type: *A. mastodiae*. Mol.: yes (T, L).
Species: 1-0-0. **mastodiae** Pérez-Ort. & Garrido-Benavent: on *Mastodia tessellata*.
Lit.: Pérez-Ortega et al. 2015.

Hobsoniopsis D.Hawksw.; type: *H. santessonii*. Mol.: yes (T, L).
Species: 1-0-0. **santessonii** (Lowen & D.Hawksw.) D. Hawksw.: on *Peltigera scabrosa* (Eurasia, incl. type) and *P. neopolydactyla* (North America).
Lit.: Ertz & Diederich 2024; Lowen et al. 1986; Sikaroodi et al. 2001.

Lawreya Ertz, Common, Diederich & U.Braun; type: *L. glyphidiphila*. Mol.: yes (T, L).

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Species: 1-0-0. **glyphidiphila** U.Braun, Common, Diederich & Ertz: on *Glyphis scyphulifera*, more rarely on *Graphis* and *Trypethelium*.
Lit.: Diederich et al. 2019, 2024i.

Xanthoriicola D.Hawksw.; type: *X. physciae*. Mol.: yes (T, L).
Species: 1-0-0. **physciae** (Kalchbr.) D.Hawksw.: on *Xanthoria parietina*.
Lit.: Diederich et al. 2024l; Hawksworth 1979a; Hawksworth & Punithalingam 1973; Ruibal et al. 2011.

Order **Patellariales** D.Hawksw. & O.E.Erikss.

Family **Patellariaceae** Corda

Stratisporella Hafellner; type: *S. episemoides*. Mol.: no.
Species: 1-0-0. **episemoides** (Nyl.) Hafellner: on *Enterographa*.
Lit.: Aptroot et al. 1997; Hafellner 1979; Kutorga & Hawksworth 1997.

Tryblidaria (Sacc.) Rehm; type: *T. fenestrata* (Cooke & Peck) M.E.Barr. Mol.: no. The lichenicolous species is poorly known.
Species: 1-0-0 (9). **capensis** (Stizenb.) Vouaux: on *Buellia callaina*.
Lit.: Clauzade et al. 1989.

Order **Pleosporales** M.E.Barr.

Family **Corynesporascaceae** Sivan.

Corynespora Güssow; type: *C. mazei* Güssow, i.e., *C. cassiicola* (Berk.) & M.A.Curtis) C.T.Wei. Mol.: yes (T). Asexual, hyphomycetous.
Species: 0-0-2 (130). **laevistipitata** (M.S.Cole & D. Hawksw.) Heuchert & U.Braun: facultative lichenicolous; **thorii** U.Braun, Zhurb. & Frisch: facultative lichenicolous.
Lit.: Diederich et al. 2024d; Heuchert & Braun 2006; Zhurbenko et al. 2015a.

Family **Dacampiaceae** Körb.

Dacampia A.Massal.; type: *D. hookeri*. Mol.: yes (T).
Species: 14-1-0. **caloplacicola** Halıcı, Candan & Etayo: on *Blastenia crenularia*; **cladoniicola** Halıcı & A.Ö. Türk: on *Cladonia*; **cyrtellae** Brackel: on *Lecania cyrtella*; **engeliana** (Saut.) A.Massal.: on *Pseudosolorina*; ***hookeri*** (Borrer) A.Massal.: lichenicolous lichen on *Pseudosolorina*; **lecaniae** Kocourk. & K.Knudsen: on *Lecania fuscella*; **leptogiicola** (D.Hawksw.) D.Hawksw.: on *Leptogium*; **muralicola** Halıcı & D.Hawksw.: on *Protoparmeliopsis muralis*; **peltigericola** D. Hawksw. & C.J.B.Hitch: on *Peltigera*; **pentaseptata** Etayo: on *Parmotrema*; **rhizocarpicola** D. Hawksw.: on *Rhizocarpon*; **rubra** Halıcı, Candan & Calat.: on *Aspicilia* s.l.; **rufescentis** (Vouaux) D.Hawksw.: on *Peltigera*; **thamnoliicola** Zhurb. *ad int.*: on *Thamnolia*; **xanthomendozae** Etayo & Halıcı: on *Xanthomendoza*.
Lit.: Brackel 2010a, 2010b; Earland-Bennett et al. 2006; Ertz et al. 2015; Etayo 2017; Halıcı & Hawksworth 2008; Halıcı et al. 2008, 2009a, 2009b; Hawksworth 1980b, 1986; Henssen 1995; Khodosovtsev & Darmostuk 2016; Kocourková & Knudsen 2010b; Zhurbenko 2012.

Family **Didymellaceae** Gruyter

Ascochyta Lib.; type: *A. pisi* Lib. Mol.: yes (T).
Species: 2-0-0 (400). **candelariellicola** D.Hawksw. & Kalb: on *Candelariella aurella*; **santessonii** Alstrup & D.Hawksw.: on *Phaeophyscia sciastra*.
Lit.: Alstrup & Hawksworth 1990; Hawksworth & Kalb 1992.

Chaetopyrena Pass.; type: *C. hesperidium* Pass. Mol.: yes (L).
Species: 0-0-1 (10). **penicillata** (Fuckel) Höhn.: facultatively lichenicolous over various lichens.
Lit.: Darmostuk et al. 2022b.

Epicoccum Link; type: *E. nigrum*. Mol.: yes (T, L).
Species: 0-0-1 (56). **nigrum** Link: facultatively lichenicolous over various lichens.
Lit.: David & Hawksworth 1995; Diederich 2004b, 2024e.

Leptosphaerulina McAlpine; type: *L. australis* McAlpine. Mol.: yes (T).
Species: 1-0-0 (30). **peltigerae** (Fuckel) Riedl: on *Peltigera*.
Lit.: Hawksworth 1980b.

Phoma Sacc. s.l.; type: *P. herbarum* Westend. Mol.: yes (T). Asexual, pycnidial. Most lichenicolous *Phoma* species from which molecular data are available belong to

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Didymocyrtis (Phaeosphaeriaceae, Pleosporales), and some more pertain to that genus on the basis of morphological characters. The remaining species, of unknown phylogenetic affinities, are enumerated here.
Species: 11-0-0 (100). **acarosporae** Alstrup & Olech, nom. inval. (ICN Art. F.5.2): on *Acarospora macrocyclos*; **aggregata** Calat. & Etayo: on *Diploschistes ocellatus*; **biformis** Vouaux: on *Anisomeridium biforme* [a poorly known taxon]; **dubia** (Linds.) Sacc. & A.Trotter: on *Usnea*; **everniae** D.Hawksw.: on *Evernia prunastri*; **fistulata** Etayo & Osorio: on *Concamerella fistulata* [does not belong to *Didymocyrtis*]; **lecanorina** Diederich: on *Lecanora*; **maculiformans** Ihlen: on *Dibaeis baeomyces*; **melanohaleicola** D.Hawksw. & Earl.-Benn.: on *Melanohalea exasperata*; **pisutii** S. Y.Kondr., A.Lackovičová, E.Lisická & A.Guttová: on *Xanthomendoza ulophyllodes*; **recepii** Halıcı & Candan: on *Caloplaca* s.str.
Lit.: Alstrup et al. 2018; Brackel 2011a; Calatayud & Etayo 2001; Diederich 1986; Earland-Bennett et al. 2006; Etayo & Osorio (2004); Hafellner & Wieser 2000; Halıcı et al. 2014; Hawksworth 1980b, 1981, 1994; Ihlen 1998; Martínez & Hafellner 1998; Oksner 2010.

Family **Didymosphaeriaceae** Munk

Pseudodidymocyrtis Flakus, Rodr. Flakus & Etayo; type: *P. lobariellae*. Mol.: yes (T, L).
Species: 1-0-0. **lobariellae** Flakus, Rodr. Flakus & Etayo: on *Lobariella pallida*.
Lit.: Flakus et al. 2019a.

Family **Leptosphaeriaceae** M.E.Barr

Leptosphaeria Ces. & De Not.; *L. doliolum* (Pers.) Ces. & De Not. Mol.: yes (T).
Species: 3-0-0 (150). **clarkii** D.Hawksw.: on *Peltigera*; **oxneriae** Cl.Roux & S.Y.Kondr.: on *Xanthomendoza ulophyllodes*; **pycnostigma** (Nyl.) Sacc. & D.Sacc.: on *Baeomyces*.
Lit.: Clauzade et al. 1989; Hawksworth 1980b; Kondratyuk et al. 2017.

Family **Massarinaceae** Munk

Stagonospora (Sacc.) Sacc.; type: *S. paludosa* (Sacc. & Speg.) Sacc. Mol.: yes (T). Asexual, pycnidial.
Species: 1-0-0 (220). **exasperatulae** Brackel: on *Melanohalea exasperatula*.
Lit.: Brackel 2009.

Family **Microsphaeropsidaceae** Q.Chen, L.Cai & Crous

Microsphaeropsis Höhn.; type: *M. olivacea* (Bonord.) Höhn. Mol.: yes (T).
Species: 3-0-0 (37). **caloplacae** Etayo & Yazici: on *Calogaya*; **lichenicola** Etayo: on *Pannaria*; **physciae** Brackel: on *Physcia*.
Lit.: Brackel 2014; Etayo & Sancho 2008; Etayo & Yazici 2009.

Family **Periconiaceae** Nann.

Periconia Tode; type: *P. lichenoides* Tode. Mol.: yes (L). Asexual, hyphomycetous.
Species: 0-0-1 (45). **digitata** (Cooke) Sacc.: facultatively lichenicolous on *Cladonia*, *Peltigera* and *Xanthoria parietina*.
Lit.: Brackel 2014.

Family **Phaeosphaeriaceae** M.E.Barr

Didymocyrtis Vain.; type: *D. consimilis* (lectotypification by Ertz et al. 2015) [= *Diederichia* D.Hawksw.; type: *D. pseudeverniae*; = *Diederichomyces* Crous & Trakunyingcharoen; type: *D. xanthomendozae*]. Mol.: yes (T, L). Several *Phoma* and one *Leptosphaeria* species obviously belong here, but no new combinations are proposed for them, as they might represent synonyms of other species.
Species: 30-0-0 (34). **azorica** Etayo & Pino-Bodas: *Hypotrachyna rockii*; **bryonthae** (Arnold) Hafellner [=? *Phoma denigricans* Hafellner]: on *Lecanora epibryon*; **canariensis** van den Boom & Etayo: on *Ramalina subgeniculata*; **Phoma candelariellae** Z. Kocakaya & Halıcı: on *Candelariella aurella* [similar to *D. consimilis*]; **cladoniicola** (Diederich, Kocourk. & Etayo) Ertz & Diederich [≡ *Ph. cladoniicola* Diederich, Kocourk. & Etayo]: on *Cladonia*, *Flavoparmelia*, *Parmelina*, *Ramalina* and *Squamarina*; **consimilis** Vain. [= *Ph. caloplacae* D.Hawksw.]: on *Caloplaca* s. str., possibly also on *Cladonia*, *Heterodermia* and *Melanohalea*; **epiphyscia** Ertz & Diederich [≡ *Ph. physciicola* Keissler; =? *Ph. epiphyscia* Vouaux, described from *Xanthoria* and *Phaeophyscia*, neotype on *Phaeophyscia sciastra*]: on *Physcia aipolia*,

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probably also on *Physcia adscendens*, *P. stellaris*, *P. tenella* and *Xanthoria parietina*; **foliaceiphila** (Diederich, Kocourk. & Etayo) Ertz & Diederich [≡ *Ph. foliaceiphila* Diederich, Kocourk. & Etayo]: on *Cladonia*, *Parmelia* and *Pseudevernia*; **Phoma fuliginosa** M.S.Cole & D.Hawksw.: on *Xanthomendoza trachyphylla* [similar to *D. consimilis*]; **graphidacearum** van den Boom & Ertz: on *Pallidogramme*; **grumantiana** (Zhurb. & Diederich) Zhurb. & Diederich [≡ *Ph. grumantiana* Zhurb. & Diederich]: on *Cladonia*; **Phoma heterodermiae** S.Y.Kondr., L.Lőkös & Hur: on *Heterodermia* [similar to *D. consimilis*]; **infestans** (Speg.) Hafellner: on *Teloschistes chrysophthalmos and T. flavicans*; **kaernefeltii** (S.Y.Kondr.) Hafellner [≡ *Polycoccum kaernefeltii* S.Y.Kondr.]: on *Teloschistes chrysophthalmos*; **melanelixiae** (Brackel) Diederich, Harris & Etayo [≡ *Ph. melanelixiae* Brackel]: on *Canoparmelia*, *Cetraria*, *Cetrelia*, *Evernia*, *Hypotrachyna*, *Melanelixia*, *Parmelia*, *Parmotrema*, *Platismatia*, *Pseudevernia*, *Punctelia* and *Usnea*; **menegazziae** F. Berger: on *Menegazzia terebrata*; **micropunctum** Etayo: on *Parmotrema*; **microxanthoriae** Poumarat, Delhoume, Diederich & Suija: on *Xanthoria parietina*; **peltigerae** (Fuckel) Hafellner [≡ *Polycoccum peltigerae* (Fuckel) Vězda; =? *Phoma peltigerae* (P. Karst.) D.Hawksw.]: on *Peltigera*; **pertusariae** Y. Joshi: on *Pertusaria*; **Leptosphaeria protousneae** Etayo: on *Protousnea* [similar to *D. ramalinae*]; **physciae** (Brackel) Hafellner [≡ *Merismatium physciae* Brackel; ≡ *Pleospora physciae* (Brackel) Hafellner & E.Zimm.]: on *Physcia*; **pseudeverniae** (Etayo & Diederich) Ertz & Diederich [≡ *Diederichia pseudeverniae* (Etayo & Diederich) D.Hawksw.; ≡ *Macrophomina pseudeverniae* Etayo & Diederich]: on *Pseudevernia*; **ramalinae** (Desm.) Ertz, Diederich & Hafellner [= *Ph. ficuzzae* Brackel; =? *Pyrenidium ucrainicum* S.Y.Kondr., L.Lőkös & Hur]: on *Ramalina*; **rhizoplacae** Y.Joshi & K.Bisht: on *Rhizoplaca chrysoleuca*; **Phoma rozziana** Etayo: on *Pseudocyphellaria* [similar to *D. cladoniicola*]; **slaptoniensis** (D.Hawksw.) Hafellner & Ertz [≡ *Polycoccum slaptoniense* D. Hawksw.]: on *Xanthoria parietina*; **Phoma thamnoliae** Zhurb. ad int.: on *Thamnolia*; **trassii** Suija, Darmostuk & Khodos.: on *Cetraria aculeata*; **xanthomendozae** (Diederich & Freebury) Diederich & Freebury [≡ *Diederichomyces xanthomendozae* (Diederich & Freebury) Crous & Trakunyingcharoen; ≡ *Ph. xanthomendozae* Diederich & Freebury]: on *Xanthomendoza*.
Lit.: Berger & Zimmermann 2022; Brackel 2008, 2010a; Diederich et al. 2007; Etayo 1996, 2017; Etayo & Diederich 1996a; Etayo & Pino-Bodas 2021; Etayo & Sancho 2008; Hafellner 1994a, 2015, 2019a; Hafellner & Zimmermann 2012; Hawksworth 1981, 1994, 2003; Hawksworth & Cole 2004; Joshi et al. 2018; Joshi et al. 2024a; Khodosovtsev et al. 2018; Kocakaya et al. 2015; Kondratyuk 2008; Kondratyuk et al. 2012, 2013; Lawrey et al. 2012; van den Boom et al. 2017; Zhurbenko 2012.

Lichenohendersonia Calat. & Etayo; type: *L. squamarinae*. Mol.: yes (L). Asexual, pycnidial.
Species: 5-0-0. **cetrariae** Darmostuk: on *Cetraria aculeata*; **physciicola** F.Berger & Brackel: on *Physcia*; **squamarinae** Calat. & Etayo: on *Squamarina*; **uniseptata** Etayo & Calat.: on *Parmelia* and *Parmelina*; **varians** Calat. & Etayo: on *Rhizoplaca*.
Lit.: Berger & Brackel 2021; Calatayud & Etayo 2001; Crous et al. 2025.

Ophiobolus Riess; type: *O. disseminans* Riess. Mol.: yes (T). Both lichenicolous species probably do not belong here.
Species: 2-0-0 (350). **aspiciliae** (H.Olivier) Vouaux: on *Aspicilia* s.l.; **thallicola** (Ces. & De Not.) Sacc.: on *Peltigera* [often considered a synonym of *Neolamya peltigerae*, but following Brackel (2014) possibly a distinct species].
Lit.: Brackel 2014; Clauzade et al. 1989.

Phaeoseptoria Speg.; type: *P. papayae* Speg. [= *Phaeosphaeria* I.Miyake; type: *P. orizae* I.Miyake]. Mol.: yes (T).
Species: 1-0-0 (90). **peltigerae** Punith. & Spooner: on *Peltigera*.
Lit.: Punithalingam & Spooner 1997.

Xenophoma Crous & Trakunyingcharoen; type: *X. puncteliae*. Mol.: yes (T, L).
Species: 1-0-0. **puncteliae** (Diederich & Lawrey) Crous & Trakunyingcharoen [≡ *Phoma puncteliae* Diederich & Lawrey]: on *Punctelia*.
Lit.: Lawrey et al. 2012; Trakunyingcharoen et al. 2014.

Family **Pleomassariaceae** M.E.Barr

Lichenopyrenis Calat., Sanz & Aptroot; type *L. galligena*. Mol.: no.
Species: 1-0-0. **galligena** Calat., Sanz & Aptroot: on *Leptochidium albociliatum*.
Lit.: Calatayud et al. 2001b.

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Family **Pleosporaceae** Nitschke

Pleospora Ces. & De Not.; type: *P. herbarum* (Pers.) Ces. & De Not. Mol.: yes (T).
Species: 6-0-0 (65). **bernadetiae** van den Boom [as *Plaeospora bernadetae*]: on *Protoparmeliopsis muralis*; **collematum** Zukal: on Collemataceae; **Verrucaria congestula** Cromb.: on *Aspiciliopsis macrophthalma* [a taxon of uncertain position, provisionally placed here]; **crozalsii** Vouaux: on *Sticta sylvatica*; **tretiachii** Hafellner [= *P. aquatica* Tretiach & Nimis, non Griffiths]: on *Aspicilia* s.l.; **xanthoriae** Khodos. & Darmostuk: on *Xanthoria parietina*.
Lit.: Clauzade et al. 1989; Khodosovtsev & Darmostuk 2016; Tretiach & Nimis 1999; van den Boom 2015.

Family **Pyrenochaetopsidaceae** Valenzuela-López, Crous, Cano, Guarro & Stchigel

Pyrenochaetopsis Gruyter; type: *P. leptospora* (Sacc. & Briard) Gruyter. Mol.: yes (T, L).
Species: 0-0-1 (28). **microspora** (Gruyter & Boerema) Gruyter, Aveskamp & Verkley: facultatively lichenicolous on *Buellia*.
Lit.: de Gruyter et al. 2010.

Family **Sporormiaceae** Munk

Preussia Fuckel [a hemihomonym of *Preussia* Karsch, Orthoptera]; type: *P. funiculata* (Preuss) Fuckel [= *Sporormiella* Ellis & Everh.; type: *S. nigropurpurea* Ellis & Everh.]. Mol.: yes (T).
Species: 1-0-0 (50). **peltigerae** (Brackel) Diederich [≡ *Sporormiella peltigerae* Brackel]: on *Peltigera rufescens*.
Lit.: Brackel 2009.

Order Pleosporales genera incertae sedis

Paraëpicoccum Matsush.; type: *P. amazonense* Matsush. Mol.: yes (T).
Species: 2-0-0 (3). **hypotrachynae** Diederich, Etayo, van den Boom & Giavarini: on *Hypotrachyna*; **ocellulariae** Diederich: on *Ocellularia*.
Lit.: Diederich et al. 2024q.

Pyrenochaeta De Not.; type: *P. nobilis* De Not. Mol.: yes (T, L).
Species: 2-0-0 (5). **collematis** Vouaux: on *Enchylium tenax* [not a *Pyrenochaeta*, fide Roux 2014]; **xanthoriae** Diederich: on *Xanthoria*.
Lit.: Clauzade et al. 1989; Diederich 1990; Hafellner 1982a.

Order **Strigulales** Lücking, M.P.Nelsen & K.D.Hyde

Family **Strigulaceae** Zahlbr.

Strigula Fr.; type: *S. smaragdula* Fr. (lichenized). Mol.: yes (T).
Species: 3-0-0 (72). **dichosporidii** Etayo: on *Dichosporidium nigrocinctum*; **graphidicola** Diederich & Common: on *Graphis assimilis*; **perparvula** Diederich & Common: on Graphidales, incl. *Fissurina*, *Graphis*, *Phaeographis* and *Sarcographa*.
Lit.: Diederich et al. 2019; Etayo 2002a.

Order **Trypetheliales** Lücking, Aptroot & Sipman

Family **Polycoccaceae** Ertz, Hafellner & Diederich

Ajaysinghia Y.Joshi; type: *A. dendriscostictae*. Mol.: no. Possibly a synoynm of *Polycoccum*.
Species: 1-0-0. **dendriscostictae** Joshi: on *Dendriscosticta praetextata*.
Lit.: Joshi 2022a.

Clypeococcum D.Hawksw.; type: *C. cladonema*. Mol.: yes (L).
Species: 16-0-0. **amylaceum** Etayo: on *Parmotrema*; **bisporum** Zhurb.: on *Cetraria* and *Nephromopsis*; **cajasense** Etayo: on *Hypotrachyna*; **cetrariae** Hafellner: on *Cetraria* and *Nephromopsis*; **cladonema** (Wedd.) D.Hawksw.: on *Cetrelia* and *Xanthoparmelia*; **epimelanostolum** (D.Hawksw. & Øvstedal) Grube & Hafellner: on *Buellia melanostola*; **galloides** Etayo: on *Lecidea* s.l.; **grossum** (Körb.) D.Hawksw.: on *Umbilicaria*; **hemiamyloideum** Shivarov: on *Verrucaria latebrosa*; **hypocenomyces** D.Hawksw.: on *Hypocenomyce*; **lenae** Zhurb.: on *Pseudosolorina bispora*; **lichenostigmoides** Flakus, Etayo & Rodr. Flakus: on *Glaucomaria rupicola*; **placopsiiphilum** Øvstedal & D.Hawksw.: on *Placopsis*; **psoromatis** (A. Massal.) Etayo [≡ *Polycoccum psoromatis* (A.Massal.) Hafellner; = *C. epicrassum* (H.Olivier) Hafellner & Nav.-Ros.]: on *Squamarina*; **rugosisporum** Etayo & Zhurb.: on *Parmotrema*; **wedinii** Zhurb.: on *Bunodophoron*.
Lit.: Ertz et al. 2015; Etayo 2010b, 2017; Etayo & Triebel 2010; Grube & Hafellner 1990; Hafellner

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1994a, 1995a, 2018; Hawksworth 1977a, 1980a, 1982a; Navarro-Rosinés et al. 1994; Øvstedal & Hawksworth 1986; Senanayake et al. 2023; Shivarov 2019; Zhurbenko 2009a, 2020, 2023c; Zhurbenko et al. 2016.

Polycoccum Körb.; type: *P. sauteri*, i.e., *P. trypethelioides*. Mol.: yes (T, L).
Species: 62[+1 var.]-0-0. **acarosporicola** Halıcı & D. Hawksw.: on *Acarospora cervina*; **aksoyi** Halıcı & V. Atienza: on *Aspicilia* s.l.; **alboatrae** (Vouaux) Etayo: on *Diplotomma*; **alpinum** E.Zimm. & F.Berger: on *Thamnolia vermicularis*; **amygdalariae** F.Berger & Triebel: on *Amygdalaria*; **anatolicum** Halıcı & E.Akgül: on *Lepraria incana*; **atrostriatae** van den Boom: on *Physcia atrostriata*; **cartilaginosum** (Arnold) D. Hawksw.: on an unidentified saxicolous lichen?; **cladoniae** Diederich & D.Hawksw.: on *Cladonia*; **clauderouxii** S.Y.Kondr., L.Lőkös & Hur: on *Zeroviella laxa*; **clauzadei** Nav.-Ros. & Cl.Roux: on *Rusavskia elegans*; **crassum** Vězda: on *Peltigera*; **crespoae** Váczi & D.Hawksw.: on *Xanthoparmelia*; **decolorans** Calat. & Triebel: on *Immersaria*; **deformans** R.Sant. & Brackel: on *Placopsis*; **dictyonematis** Etayo & R.Sant.: on *Cora*; **diederichianum** Nav.-Ros., nom. inval. (ICN Art. 30.9): on *Placynthium*; **dzieduszyckii** (Boberski) D.Hawksw.: on *Baglietoa*; **epiphyllum** Matzer: on foliicolous *Trichothelium*; **epizoharyi** Calat. & V.Atienza: on *Buellia zoharyi*; **evae** Calat. & V.J.Rico: on *Dimelaena*; **follmannii** (C.W. Dodge) Alstrup: on *Lecidea cremoricolor*; **hawksworthianum** Y.Joshi: on *Lepra* and *Varicellaria*; **heterodermiae** Calat.: on *Heterodermia*; **hymeniicola** (Berk. & Broome) Zhurb. [≡ *Endococcus hymeniicola* (Berk. & Broome) D.Hawksw.]: on *Lobaria* [generic position uncertain]; **ibericum** Etayo & van den Boom: on *Rinodina*; **innatum** (Müll.Arg.) D.Hawksw.: on an unidentified corticolous lichen; **islandicum** Brackel & F.Berger: on *Placopsis gelida*; **jamesii** D. Hawksw.: on *Psoromidium*; **kerneri** J.Steiner: on *Lecidea fuscoatra*; **laursenii** Zhurb.: on *Cladonia*; **lecanorum** Y. Joshi: on *Lecanora frustulosa*; **longisporum** Etayo: on *Pseudocyphellaria*; **marmoratum** (Kremp.) D. Hawksw.: on crustose lichens on calcareous rocks (*Clauzadea*, *Polyblastia*, *Thelidium*, *Verrucaria*); **microcarpum** Diederich & Etayo: on *Cladonia*; **microstictum** (Leight.) Arnold: on *Acarospora*, also reported from *Buellia*, *Ionaspis* and *Rhizocarpon*; **minus** (Kernst.) Brackel: on *Lecidella carpathica*; **minutulum** Kocourk. & F.Berger: on *Trapelia placodioides*; **montis-wilhelmii** Diederich: on *Hypotrachyna*; **nigrosporum** Etayo: on *Buellia aethalea*; **ochvarianum** Y. Joshi: on *Ochrolechia*, *Pertusaria* and *Varicellaria*; **opulentum** (Th.Fr. & Almq.) Arnold: on *Polyblastia*; **parmotrematis** van den Boom: on *Parmotrema*; **perrugosae** Brackel: on *Placopsis perrugosa*; **psorae** Zhurb. & Triebel: on *Anamylopsora pulcherrima*; **pulvinatum** (Eitner) R.Sant.: on *Physcia*; **rinodinae** van den Boom var. **rinodinae**: on *Rinodina*; **rinodinae** var. **galligenum** Y.Joshi & S.Bisht: on *Rinodina*; **rubellianae** Calat. & V.Atienza: on *Caloplaca rubelliana*; **rugulosarium** (Linds.) D. Hawksw.: on *Austroplaca cirrochrooides* and *Gondwania*; **serusiauxii** Matzer: on foliicolous *Byssolecania*; **sporastatiae** Arnold: on *Sporastatia*; **squamarioides** (Mudd) Arnold: on *Placopsis*; **stellulatae** (Vouaux) Hafellner: on *Buellia stellulata*; **stictaria** (Linds.) D.J.Galloway: on *Pseudocyphellaria*; **superficiale** D.Hawksw. & Miądl.: on *Peltigera*; **teresum** Halıcı & K.Knudsen: on *Xanthoria*; **thallicola** Arnold: on cf. *Aspicilia candida*; **tinantii** Diederich: on *Blastenia ferruginea*; **trypethelioides** (Th. Fr.) R.Sant. [= *P. sauteri* Körb., fide Santesson 1960]: on *Stereocaulon*; **ventosicola** Zhurb.: on *Ophioparma ventosa*; **vermicularium** (Linds.) D.Hawksw.: on *Thamnolia*; **versisporum** (Bagl. & Carestia) D. Hawksw.: on *Rhizocarpon geographicum* and an unidentified saxicolous lichen.
Lit.: Alstrup 2002; Aptroot el al.1997; Atienza & Hawksworth 2008; Atienza et al. 2003; Berger 2000; Brackel & Berger 2010, 2019; Calatayud 2004; Calatayud & Atienza 2000; Calatayud & Rambold 1998; Calatayud & Rico 1995; Clauzade et al. 1989; Diederich 1990; Ertz et al. 2015; Etayo 2010b, 2010c; Etayo & Diederich 1998; Etayo & Sancho 2008; Galloway 2004; Gaya & Navarro-Rosinés 2008; Hafellner 2015; Halıcı et al. 2007a, 2009c, 2013; Hawksworth 1985b; Hawksworth & Diederich 1988; Hawksworth & Miądlikowska 1997a; Joshi 2020; Joshi et al. 2017a, 2022b, 2025; Kocourková & Berger 1999; Kondratyuk et al. 2016b; Lord et al. 2013; Matzer 1996; Navarro-Rosinés 1992; Navarro-Rosinés & Roux 1990, 1998; Triebel 1989; Váczi & Hawksworth 2001; van den Boom 2010, 2012, 2020b; van den Boom & Etayo 2014; Zhurbenko 2007b, 2010b; Zhurbenko & Dillman 2010; Zimmermann & Berger 2021.

Family **Trypetheliaceae** Eschw.

Arthopyrenia A.Massal; type: *A. cerasi* (Schrad.) A. Massal. Mol.: yes (T). The lichenicolous species may not belong to this genus.
Species: 1-0-0 (100). **symbiotica** (Nyl.) Zahlbr. [≡ *Verrucaria symbiotica* Nyl.; =? *Didymella*

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pulposi var. *garovaglii* Vouaux; =? *Lichenochora hypanica* S.Y.Kondr., L.Lőkös & Hur]: on *Endocarpon*.
Lit.: Fernández-Brime et al. 2020.

Order **Tubeufiales** Boonmee & K.D.Hyde

Family **Tubeufiaceae** M.E.Barr

Berkleasmium Zobel; type: *B. cordeanum* Zobel, i.e., *B. concinnum* (Berk.) R.T.Moore. Mol.: yes (T). The two lichenicolous species may not belong to this genus.
Species: 2-0-0 (40). **lichenicola** Diederich & W.R.Buck: on an unidentified, sterile, corticolous lichen; **parmeliellae** Etayo & Diederich: on *Parmeliella testacea*.
Lit.: Diederich & Etayo 2024a; Etayo & Diederich 1995.

Lichenotubeufia Etayo; type: *L. eriodermatis*. Mol.: no.
Species: 9-0-0. **boomiana** Etayo: on *Sticta*; **calabrica** Brackel: on *Parmelina*; **cryptica** Etayo & Flakus: on *Lobariella pallida*; **eriodermatis** (Etayo) Etayo [as '*eriodermae*']: on *Erioderma*; **etayoi** Zhurb.: on *Trachyderma gayanum*; **heterodermiae** (Etayo) Etayo: on *Heterodermia* and *Physcia*; **pannariae** (Etayo) Etayo: on *Pannaria rubiginosa*; **tafallae** Etayo: on *Leptogium*; **tibellii** Zhurb.: on *Coccocarpia palmicola*.
Lit.: Brackel & Puntillo 2023; Etayo 2002a, 2002b, 2017; Flakus et al. 2019a; Zhurbenko 2022c.

Order **Venturiales** Yin.Zhang & K.D.Hyde

Family **Venturiaceae** M.E.Barr

Venturia Sacc. [a hemihomonym of *Venturia* Schrottky, Hymenoptera]; type: *Venturia inaequalis* Sacc. (saprotrophic) [= *Fusicladium* Bonord.; type: *F. virescens* Bonord.]. Mol.: yes (T, L).
Species: 1-0-1 (75). **lichenophila** U.Braun, Diederich & Brackel: on *Physcia adscendens* and *P. tenella*; **peltigericola** Crous & Diederich: isolated from *Peltigera*, probably lichenicolous.
Lit.: Braun & Diederich 2024; Crous et al. 2011.

Class Dothideomycetes familiae incertae sedis

Family **Pseudoperisporiaceae** Toro

Keratosphaera H.P.B.Upadhyay; type: *K. batistae* [= *Sporhaplus* H.B.P.Upadhyay; type: *S. rondoniensis*, i.e., *K. batistae*; = *Sphaeromma* H.B.P.Upadhyay; type: *S. mazosiae*, i.e., *K. batistae*]. Mol.: no.
Species: 5-0-0 (6). **antoniana** Flakus, Farkas & Lücking: on foliicolous *Trichothelium*; **batistae** H. B.P.Upadhyay [= *Sphaeromma mazosiae* H.B.P. Upadhyay; = *Sporhaplus rondoniensis* H.B.P. Upadhyay]: on foliicolous *Mazosia*; **dimerellae** Matzer: on foliicolous *Coenogonium*; **furcatiseta** Matzer [= *Sphaeromma furcatiseta* Matzer]: on foliicolous *Porina*; **porinae** Matzer [= *Sphaeromma porinae* Matzer]: on foliicolous *Porina*.
Lit.: Farkas 2010; Matzer 1996.

Myxophora Döbbeler & Poelt; type: *M. amerospora* Döbbeler & Poelt. Mol.: no.
Species: 5-0-0 (7). **apotheciicola** Nik.Hoffm. & Hafellner: on *Leptogium azureum*; **leptogiophila** (G.Winter) Nik.Hoffm. & Hafellner: on *Collema* and *Scytinium plicatile*; **ovalispora** Nik.Hoffm. & Hafellner: on *Collema*; **placynthii** Nik.Hoffm. & Hafellner: on *Placynthium caesium*; **tetraspora** Nik.Hoffm. & Hafellner: on *Collema flaccidum*.
Lit.: Hoffmann & Hafellner 2000.

Neocoleroa Petr.; type: *N. sibirica* Petr. Mol.: no.
Species: 2[+1 var.]-0-0 (6). **inundata** (Vain.) Diederich: on *Woessia*; **lichenicola** (Hansf.) M.E. Barr. subsp. **lichenicola** [≡ *Wentiomyces lichenicola* (Hansf.) D.Hawksw.]: on foliicolous lichens; **lichenicola** subsp. **bouteillei** (Bricaud, Cl.Roux & Sérus.) Barr: on *Fellhanera bouteillei*, *Byssoloma* and possibly *Woessia*.
Lit.: Barr 1997; Hawksworth 1980b; Matzer 1996; Roux et al. 1994; Sérusiaux et al. 1999.

Family **Pyrenidiaceae** Zahlbr.

Pyrenidium Nyl.; type: *P. actinellum* [= *Dacampiosphaeria* D. Hawksw.; type: *D. rivana*; = *Homostegia* Fuckel; type: *H. adusta*, i.e., *H. piggotii*; fide Navarro-Rosinés et al. in prep.]. Mol.: yes (T, L). Several species are provisionally placed here, without being formally combined, awaiting the taxonomic revision of the genus.
Species: 18-0-0. **actinellum** Nyl.: on *Scytinium*; **aggregatum** Knudsen & Kocourk.: on *Phaeophyscia* and *Physcia*; **borbonicum** Huanraluek, Ertz & K.D.Hyde: on *Sticta*; **coccineum** Aptroot: on *Siphula decumbens*; **crozalsii** (Vouaux) Nav.-Ros., comb. inval. (ICN Art. 30.9) [≡ *Leptosphaeria crozalsii* Vouaux]: on *Circinaria* gr. *calcarea*; **cryptotheciae** Matzer: on foliicolous

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Myriostigma candida; **Phaeospora granulosae** Arnold: on *Trapeliopsis granulosa*; **Homostegia hertelii** D. Hawksw., V.Atienza & M.S.Cole: on *Flavoparmelia caperata*; **hetairizans** (Leight.) D.Hawksw.: on *Staurothele*; **hypotrachynae** Y.Joshi: on *Hypotrachyna coorgiana*; **Leptosphaeria leucomelaria** (Mudd) Vouaux: on *Leucodermia leucomelos*; **macrosporum** Motiej., Zhurb., Suija & Kantvilas: on *Parasiphula*; **octosporum** Looman: on an unidentified lichen; **Homostegia piggotii** (Berk. & Broome) P.Karst. [= *H. adusta* Fuckel; = *Phaeospora fritzei* Stein; =? *Sphaeria parmeliarum* W.Phillips & Plowr.]: on *Parmelia* s.str.; **Dacampiosphaeria rivana** (De Not.) D.Hawksw.: on *Peltigera*; **santessonii** Lücking: on *Bacidia psychotriae* and *Bapalmuia*; **sporopodiorum** Matzer: on foliicolous *Sporopodium*; **zamiae** (Müll.Arg.) Matzer: on foliicolous *Porina*.

Lit.: Aptroot 2014; Hawksworth et al. 2004; Huanraluek et al. 2019; Joshi et al. 2018; Looman 1962; Lücking 1998; Matzer 1996; Motiejūnaitė et al. 2019; Navarro-Rosinés 1992; Roux 2014.

Family **Trichothyriaceae** Theiss.

Lichenopeltella Höhn.; type: *L. maculans* [= *Micropeltopsis* Vain.; type: *M. cetrariicola*; ≡ *Microthyris* Clem.; type: *M. maculans*; = *Trichothyrina* (Petr.) Petr.; type: *T. alpestris* (Sacc.) Petr.]. Mol.: yes.

Species: 40[+1 var.]-0-0 (49). **arctomiae** Pérez-Ort. & T.Sprib.: on *Arctomia delicatula*; **biatorae** Pérez-Ort. & T.Sprib.: on *Biatora flavopunctata*; **bunodophoronis** Diederich: on *Bunodophoron*; **cetrariae** (Bres.) Höhn.: on *Cetraria*; **cetrariicola** (Nyl.) R.Sant. [≡ *Micropeltopsis cetrariicola* (Nyl.) Vain.]: on *Cetraria*; **cladoniarum** E.S.Hansen & Alstrup: on *Cladonia* subgen. *Cladina*; **communis** Etayo: on *Hypotrachyna*; **epiphylla** R.Sant.: on foliicolous *Mazosia* and *Porina*; **heppiae** van den Boom: on *Heppia*; **heterodermiae** Diederich: on *Heterodermia*; **heterodermiicola** M. S.Cole & D.Hawksw. subsp. **heterodermiicola**: on *Heterodermia*; **heterodermiicola** subsp. **endothallina** Etayo: on *Heterodermia*; **hypogymniae** Diederich: on *Hypogymnia zeylanica*; **hypotrachynae** Diederich: on *Hypotrachyna*; **inconspicua** (Nyl.) Cl.Roux [=? *L. coppinsii* Earl.-Benn. & D.Hawksw.; =? *L. hydrophila* R.Sant.]: on *Verrucaria*; **lecanoricola** Brackel ad int.: on *Lecanora horiza*; **leprosulae** Pérez-Ort. & T.Sprib.: on *Myochroidea leprosula*; **leptogii** Diederich: on *Leptogium*; **lobariae** Etayo & Diederich: on *Lobaria*; **maculans** (Zopf) Höhn. [≡ *Microthyris maculans* (Zopf) Clem.]: on *Umbilicaria*; **megalosporae** Diederich: on *Megalospora*; **microspora** Diederich: on *Parmeliella*; **minuta** R.Sant.: on *Agonimia foliacea*; **mobergii** Zhurb.: on *Hypogymnia kiboensis*; **pannariacearum** Diederich: on Pannariaceae; **peltigericola** (D.Hawksw.) R.Sant.: on *Peltigera*; **physciae** Diederich: on *Physcia*; **pseudocyphellariae** Diederich: on *Pseudocyphellaria*; **ramalinae** Etayo & Diederich: on *Ramalina*; **rangiferinae** Brackel: on *Cladonia*; **sakhalinensis** Zhurb.: on *Parmelia squarrosa*; **santessonii** (P.M. Kirk & Spooner) R.Sant.: on *Peltigera*; **sclerenchymatica** Etayo: on *Pseudocyphellaria*; **setifera** Matzer: on foliicolous *Bacidia*; **soiliae** Zhurb. & Pino-Bodas: on *Cladia*; **stereocaulorum** Zhurb.: on *Stereoculon*; **swaminathaniana** Harih., Mibey & D.Hawksw.: on *Porina*; **thalamica** Etayo, Flakus & Kukwa: on *Pseudocyphellaria*; **thamnoliae** R.Sant.: on *Thamnolia*; **thelidii** Diederich: on *Thelidium*; **uncialicola** Brackel: on *Cladonia uncialis*.

Lit.: Aptroot et al. 1997; Brackel 2010c, 2011b, 2021; Cole & Hawksworth 2002; Earland-Bennett & Hawksworth 1999b; Etayo 2010b, 2017; Etayo & Diederich 1996b; Etayo & Sancho 2008; Hansen & Alstrup 1995; Hariharan et al. 1996; Matzer 1996; Molitor & Diederich 1997; Pérez-Ortega & Spribille 2009; Roux 2020a; Santesson 1988, 1989, 1998, 2001; van den Boom & Giralt 2012; Zhurbenko 2010a, 2021c; Zhurbenko & Ezhkin 2025b; Zhurbenko & Pino-Bodas 2015.

Macrographa Etayo; type: *M. antarctica*. Mol.: no.

Species: 1-0-0. **antarctica** Etayo: on *Nephroma antarcticum*.

Lit.: Etayo & Sancho 2008.

Class Dothideomycetes genera incertae sedis

Ampullifera Deighton; type: *A. foliicola* [= *Ampulliferella* Bat. & Cavalc.; type: *A. amoeboides*; = *Ampulliferopsis* Bat. & Cavalc.; type: *A. myriapoda*, i.e., *A. amoeboides*; = *Teratoschaeta* Bat. & O.M.Fonseca; type: *T. rondoniensis*, i.e., *A. amoeboides*]. Mol.: no.

Species: 6-0-0. **amoeboides** (Bat. & Cavalc.) D. Hawksw.: on foliicolous *Mazosia*; **foliicola** Deighton: on foliicolous, more rarely corticolous lichens; **hippocrateacearum** (Bat. & Caval.) D.Hawksw.: on foliicolous *Mazosia* and other lichens; **leonensis** Deighton: on foliicolous lichens; **pirozynskii** D.Hawksw.: on foliicolous lichens; **ugandensis** Deighton: on *Byssoloma subdiscordans* and possibly other foliicolous lichens.

Lit.: Diederich & Hawksworth 2024a; Hawksworth 1979; Matzer 1996.

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Cercidospora Körb.; type: *C. ulothii*, i.e., *C. macrospora*. Mol.: no.
Species: 44-0-1 (100). **alpina** Ihlen & Wedin: on *Stereocaulon cumulatum*; **anomala** Etayo: on *Pertusaria pertusa*; **apiosporoides** (Vouaux) Nav.-Ros., Hafellner & Calat. ad int. [≡ *Didymella epipolytropa* var. *apiosporoides* Vouaux]: on *Aspicilia* s.l.; **appennina** Brackel: on *Polyozosia albescens*; **barrenoana** Calat. & Nav.-Ros.: on *Rhizoplaca peltata*; **caudata** Kernst.: on *Xanthocarpia lactea* and other Teloschistaceae; **cecidiiformans** Grube & Hafellner: on *Rhizocarpon*; **cladoniicola** Alstrup: on *Cladonia*; **crozalsiana** (H.Olivier) Nav.-Ros., Cl.Roux & Casares: on *Squamarina*; **decolorella** (Nyl.) O.E.Erikss. & Yue: on terricolous algae, mosses and lichens; **epicallopisma** Arnold: on *Variospora aurantia*; **epicarphinea** (Nyl.) Grube & Hafellner: on *Usnochroma*; **epidesertorum** Nav.-Ros. & Calat. ad int.: on *Gyalolechia desertorum*; **epipolytropa** (Mudd) Arnold: on *Lecanora*; **epithamnolia** Zhurb.: on *Thamnolia*; **etayoana** Nav.-Ros. & Calat. ad int.: on *Physcia caesia*; **exiguella** (Nyl.) Arnold: on *Rinodina mniaraea*; **galligena** Hafellner & Nav.-Ros.: on *Aspicilia* s.l.; **hypotrachynicola** Etayo: on *Hypotrachyna*; **javalambrensis** Calat. & Nav.-Ros. ad int.: on *Aspicilia desertorum*; **lecidomae** Zhurb. & Triebel: on *Lecidoma demissum*; **lobothalliae** Nav.-Ros. & Calat.: on *Lobothallia*; **macrospora** (Uloth) Hafellner & Nav.-Ros. [= *C. ulothii* Körb.]: on *Protoparmeliopsis*; **melanophthalmae** Nav.-Ros., Calat. & Hafellner: on *Rhizoplaca melanophthalma*; **mongolica** Zhurb. & Cl.Roux: on *Rhizoplaca chrysoleuca* and *R. subdiscrepans*; **mutabilicola** Calat. et al. ad int.: on *Megaspora verrucosa* var. *mutabilis*; **navarroi** Y.Joshi: on *Rinodina*; **ochrolechiae** Zhurb.: on *Ochrolechia* and *Pertusaria coriaceae*; **parva** Hafellner & Ihlen: on *Baeomyces*; **pertusariicola** Alstrup & Olech, nom. inval. (ICN Art. F.5.2): on *Lepra corallophora*; **punctillata** (Nyl.) R.Sant. [= *C. lichenicola* (Zopf) Hafellner]: on *Solorina* and *Peltigera*, reported from many other hosts; **rinodinae** Etayo & van den Boom: on *Rinodina conradii*; **santessonii** Motiej., Zhurb., Suija & Kantvilas: on *Siphula*; **solearispora** Calat., Nav.-Ros. & Hafellner: on *Aspicilia* s.l.; **soror** Obermayer & Triebel: on *Arthrorhaphis* gr. *citrinella*; **stenotropae** Nav.-Ros. & Hafellner ad int.: on *Lecanora* gr. *polytropa*; **stereocaulorum** (Arnold) Hafellner: on *Stereocaulon*; **thamnogalloides** Zhurb.: on *Thamnolia*; **thamnoliae** Zhurb.: on *Thamnolia*; **thamnoliicola** Ihlen: on *Thamnolia*; **trypetheliza** (Nyl.) Hafellner & Obermayer [= *C. arthrorhaphidicola* Alstrup]: on *Arthrorhaphis alpina*; **tyanshanica** Zhurb. & Cl.Roux: on *Protoparmeliopsis peltata* and *Rhizoplaca chrysoleuca*; **verrucosaria** (Linds.) Arnold: on *Megaspora verrucosa*; **werneri** Nav.-Ros., Calat. & Hafellner: on *Aspicilia* s.l.; **xanthoriae** (Wedd.) R.Sant.: on *Xanthoria*.
Lit.: Alstrup 1997; Alstrup et al. 1994, 2018; Brackel 2025b; Calatayud et al. 2013; Clauzade et al. 1989; Etayo 2010a, 2017; Etayo & van den Boom 2005; Hafellner 1987b, 1993; Hafellner & Obermayer 1995; Ihlen 1995, 1998; Ihlen & Wedin 2007; Motiejūnaitė et al. 2019; Navarro-Rosinés et al. 1995, 1996a, 2004, 2009a; Triebel 1989; Triebel & Scholz 2001; Yoshi et al. 2022; Zhurbenko 2010b, 2012, 2024; Zhurbenko & Triebel 2003; Zhurbenko et al. 1995.

Echinothecium Zopf; type: *E. reticulatum*. Mol.: no.
Species: 5-0-0. **aerophilum** Alstrup & M.S.Cole: on *Alectoria*; **hypogymniae** Zhurb.: on *Hypogymnia*; **micareae** Boers, Diederich & van der Kolk: on *Micarea lignaria*; **reticulatum** Zopf [≡ *Sphaerellothecium reticulatum* (Zopf) Etayo]: on *Parmelia*, doubtfully reported from other parmelioid hosts; **rhizoplacae** P.Pinault & Cl.Roux: on *Rhizoplaca* and *Lecanora* gr. *polytropa*.
Lit.: Alstrup & Cole 1998; Clauzade et al. 1989; Roux & Pinault 2021a; Roux & Triebel 1994; van der Kolk et al. 2024a; Zhurbenko & Pino-Bodas 2015; Zhurbenko et al. 2019.

Koordersiella Höhn.; type: *K. javanica* [= *Ascohansfordiellopsis* D.Hawksw.; type: *A. deightonii*; = *Hansfordiellopsis* Deighton; type: *H. aburiensis* Deighton, i.e., *K. insectivora*]. Mol.: no.
Species: 5-0-0. **deightonii** (D.Hawksw.) D.Hawksw. & O.E.Erikss.: on foliicolous cf. Gomphillaceae and other lichens; **insectivora** (Hansf.) D.Hawksw. & O.E.Erikss.: on foliicolous *Asterothyrium*, *Bullatina*, *Gyalectidium*, *Tricharia* and other lichens; **javanica** Höhn.: on foliicolous cf. Gomphillaceae and other lichens; **tenuissima** (D.Hawksw.) D.Hawksw.: on foliicolous lichens; **variegata** (D.Hawksw.) D. Hawksw.: on foliicolous *Bullatina*, *Calenia* and other lichens.
Lit.: Eriksson & Hawksworth 1987; Hawksworth 1979a, 2016; Hawksworth et al. 2024a; Matzer 1996.

Lanatosphaera Matzer; type: *L. porinicola*. Mol.: no.
Species: 2-0-0. **dimerellae** Matzer: on foliicolous *Coenogonium subluteum*; **porinicola** Matzer: on foliicolous *Porina epiphylla*.
Lit.: Matzer 1996.

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Monodictys S.Hughes; type: *M. putredinis* (Wallr.) S. Hughes. Mol.: yes (T).
Species: 5-0-1 (50). **anaptychiae** (Lindau) D. Hawksw.: on *Anaptychia*; **cellulosa** S.Hughes: on various crustose, corticolous lichens; **epicladonia** (Zhurb.) Diederich: on *Cladonia*; **epilepraria** Kukwa & Diederich: on *Lepraria*; **pachnolepiae** Diederich & Ertz: on *Pachnolepia pruinata*; **phlyctidis** R.C.Harris: on *Phlyctis*.
Lit.: Brackel 2019; Diederich et al. 2024m; Etayo & Diederich 1996b; Hawksworth 1975, 1979a; Kukwa & Diederich 2005; Muscavitch et al. 2017.

Pseudonitschkia Coppins & S.Y.Kondr.; type: *P. parmotrematis*. Mol.: no.
Species: 1-0-0. **parmotrematis** Coppins & S.Y.Kondr.: on *Parmotrema*.
Lit.: Coppins & Kondratyuk 1995.

Pseudorobillarda M.Morelet; type: *P. phragmitis* (Cunnell) Nag Raj, Morgan-Jones & W.B.Kendr. Mol.: yes (T).
Species: 2-0-0 (13). **peltigerae** Diederich: on *Peltigera*, rarely on *Cladonia*; **subfusca** Brackel: on *Peltigera*.
Lit.: Brackel 2019; van den Boom et al. 1998.

Rhabdospora (Sacc.) Sacc.; type: *Septoria oleandri* Durieu & Mont. Mol.: yes. A poorly known genus.
Species: 1-0-0 (150). **haematommatum** Kalb & Hafellner: on *Haematomma*.
Lit.: Kalb et al. 1995.

Rhagadodidymellopsis Fern.-Brime, Gaya, Llimona & Nav.-Ros.; type: *R. endocarpi*. Mol.: no.
Species: 1-0-0. **endocarpi** Fern.-Brime, Gaya, Llimona & Nav.-Ros.: on *Endocarpon*.
Lit.: Fernández-Brime et al. 2020.

Rosellinula R.Sant.; type: *R. haplospora*. Mol.: no.
Species: 4-0-0. **frustulosae** (Vouaux) R.Sant.: on *Lecanora frustulosa* and *L. argopholis*; **haplospora** (Th.Fr.) R.Sant.: on *Aspicilia* s.l. and *Bellemerea*; **kalbii** (Hafellner) Hafellner & R.W.Rogers: on *Haematomma puniceum*; **lopadii** (Vouaux) D.J. Galloway: on *Brigantiaea*.
Lit.: Galloway 2004; Hafellner 1985a, 2004.

Sphaerellothecium Zopf; type: *S. araneosum*. Mol.: no.
Species: 40-0-0. **abditum** Triebel: on *Immersaria* and *Lecidea*; **aculeatae** Khodos., Gavrylenko & Klymenko: on *Cetraria aculeata*; **araneosum** (Arnold) Zopf [= *Echinothecium glabrum* M.S.Christ., Alstrup & D. Hawksw.]: on *Ochrolechia*, *Lepra* and *Varicellaria*; **arctoparmeliae** (Brackel & Schiefelbein) Diederich, Zhurb. & Brackel: on *Arctoparmelia incurva*; **arnoldii** (A.Massal.) Hafellner [= *Polycoccum arnoldii* (Hepp) D.Hawksw.]: on *Diploschistes*; **atryneae** (Arnold) Cl. Roux & Triebel: on *Glaucomaria bicincta*, *G. rupicola*, *G. swartzii* and *Lecanora cenisia*; **breussii** K.Knudsen, Kocourk. & Etayo: on *Placidium lacinulatum*; **buelliae** (C.W.Dodge) D.Hawksw. & Iturr.: on *Buellia*; **cinerascens** Etayo & Diederich: on *Cladonia parasitica*; **cladoniae** (Alstrup & Zhurb.) Hafellner [≡ *S. araneosum* var. *cladoniae* Alstrup & Zhurb.]: on *Cladonia* subgen. *Cladonia* and *Stereocaulon*; **cladoniicola** E. S.Hansen & Alstrup: on *Cladonia* subgen. *Cladina*; **conioides** (Nyl.) Cl.Roux & Diederich: on *Baeomyces*; **contextum** Triebel: on *Calvitimela*, *Protoparmelia*, *Rhizocarpon*, *Rhizoplaca* and *Sporastatia*; **epilecanora** Zhurb.: on *Lecanora epibryon*; **episoralium** Etayo: on soralia of *Heterodermia*; **gallowayi** Diederich: on *Heterodermia*; **giraltiae** van den Boom: on *Rinodina*; **gowardii** Alstrup & M.S.Cole: on *Acarospora schleicheri*; **griseae** Darmostuk & Guttová: on *Solenopsora cesatii* and *S. grisea*; **heterodermiae** van den Boom: on *Heterodermia*; **icmadophilae** (R.Sant.) Zhurb.: on *Icmadophila ericetorum*; **leratianum** Gardiennet & Cl.Roux: on *Brodoa*; **minutum** Hafellner: on *Sphaerophorus*; **nimisii** Brackel & Puntillo: on *Xanthoparmelia conspersa*; **pannariacearum** Etayo: on *Pannaria*; **parietinarium** (Linds.) Hafellner & V. John: on *Xanthoria*; **parmeliae** Diederich & Etayo: on *Parmelia*; **parmotrematis** van den Boom [as '*parmotremae*']: on *Parmotrema*; **phaeorrhizae** Diederich & Zhurb.: on *Phaeorrhiza sareptana*; **placopsiicola** Alstrup & Olech, nom. inval. (ICN Art. F.5.2): on *Placopsis contortuplicata*; **propinquellum** (Nyl.) Cl.Roux & Triebel: on *Glaucomaria* gr. *carpinea*; **pumilum** (Lettau) Nav.-Ros., Cl.Roux & Hafellner [= *S. aipolium* Nav.-Ros. & Cl.Roux; =? *Thelidium parvum* C.W.Dodge & G.E.Baker]: on *Physcia*; **siphulae** Zhurb.: on *Siphula ceratites*; **soechtingii** Zhurb. & Alstrup: on *Arthrorhaphis alpina*; **stereocaulorum** Zhurb.: on *Stereocaulon*; **subtile** Triebel & Rambold: on *Teloschistes*; **taimyricum** (Zhurb.) Zhurb.: on *Thamnolia* [≡ *S. thamnoliae* var. *taimyricum* Zhurb.]; **thamnoliae** Zhurb.: on *Thamnolia*; **umbilicariae** Brackel & E.Zimm.; **usneicola** Etayo: on *Usnea*.

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Lit.: Alstrup & Cole 1998; Alstrup et al. 2018; Brackel 2023; Brackel & Puntillo 2023; Darmostuk et al. 2022a; Diederich 2007b; Diederich & Zhurbenko 2009; Etayo 2017; Etayo & Diederich 1998; Etayo & Sancho 2008; Gardiennet & Roux 2013; Hafellner 1993, 2019b; Hansen & Alstrup 1995; Hawksworth & Iturriaga 2006; Khodosovtsev et al. 2016; Knudsen et al. 2009b; Navarro-Rosinés & Roux 2017; Navarro-Rosinés et al. 2018; Roux & Triebel 1994; Schiefelbein et al. 2017; Triebel 1989; Triebel et al. 1991; van den Boom 2010, 2016; Zhurbenko 2007, 2008a, 2015, 2012, 2015; Zhurbenko & Alstrup 2004; Zhurbenko & Brackel 2013; Zhurbenko & Triebel 2008; Zhurbenko et al. 2019.

Stromatopogon Zahlbr.; type: *S. baldwinii*. Mol.: no.
Species: 3-0-0. **baldwinii** Zahlbr.: on *Usnea*; **cladoniae** Diederich & Sérus.: on *Cladonia*; **geminatum** Etayo & Breuss: on *Usnea*.
Lit.: Diederich 1992a; Diederich & Sérusiaux 2003; Etayo & Breuss 2004.

Trematosphaeriopsis Elenkin; type: *T. parmeliana*. Mol.: no.
Species: 1-0-0. **parmeliana** (Jacz.) Elenkin: on *Xanthoparmelia*.
Lit.: Hafellner 2001.

Weddellomyces D.Hawksw.; type: *W. epicallopisma*. Mol.: no.
Species: 12-0-0. **aspiciicola** Alstrup: on *Lobothallia*; **epicallopisma** (Wedd.) D.Hawksw.: on *Protoblastenia*, *Pyrenodesmia* and *Variospora*; **erythrocarpae** Nav.-Ros. & Cl.Roux: on *Kuettlingeria erythrocarpa*; **gasparriniae** (C.W.Dodge) D.Hawksw. & Iturr.: on ? *Caloplaca*; **heterochrous** Nav.-Ros. & Cl.Roux: on *Aspicilia* s.l.; **macrosporus** D.Hawksw., Renob. & Coppins: on *Circinaria calcarea* and *Lobothallia radiosa*; **pachyosporicola** Nav.-Ros. & Cl.Roux: on *Aspicilia* s.l.; **peripheric**us (Taylor) Alstrup & D. Hawksw.: on *Pertusaria pseudocorallina*; **pertusariicola** Halıcı: on *Varicellaria lactea*; **protearius** Nav.-Ros. & Cl.Roux: on *Leproplaca proteus* and *Rusavskia elegans*; **turcicus** Halıcı & Orange: on *Acarospora*; **xanthoparmeliae** Calat. & Nav.-Ros.: on *Xanthoparmelia*.
Lit.: Alstrup 1992; Calatayud & Navarro-Rosinés 1998; Halıcı 2010; Halıcı et al. 2006; Hawksworth 1978a, 1986, 1990a; Hawksworth & Iturriaga 2006; Navarro-Rosinés & Roux 1995, 1997b.

Class EUROTIOMYCETES O.E.Erikss. & Winka

Subclass CHAETOTHYRIOMYCETIDAE Doweld

Order **Chaetothyriales** M.E.Barr.

Family **Epibryaceae** S.Stenroos & C.Gueidan

Epibryon Döbbeler; type: *E. plagiochilae* (Gonz.Frag.) Döbbeler. Mol.: yes (T).
Species: 4-0-0 (30). **conductrix** (Norman) Nik. Hoffm. & Hafellner [= *Stigmidium catapyrenii* Cl. Roux & Triebel]: on *Catapyrenium cinereum* and *C. daedaleum*; **lichenicola** Matzer: on *Mazosia*; **parvipunctum** (Stein) Diederich: on *Thelidium*; **solorinae** (Vain.) Nik.Hoffm. & Hafellner: on *Pseudosolorina*.
Lit.: Hoffmann & Hafellner 2000; Matzer 1996; Sérusiaux et al. 1999.

Family **Herpotrichiellaceae** Munk

Capronia Sacc.; type: *C. sexdecimspora* (Cooke) Sacc. Mol.: yes.
Species: 26-0-0 (65). **amylacea** Etayo: on *Peltigera*; **andina** Etayo: on *Placopsis gelida*; **baeomycetis** Diederich: on *Baeomyces*; **cogtii** Zhurb.: on *Vahliella leucophaea*; **diederichiana** P.Pinault & Cl.Roux: on *Cladonia*; **epilobarina** S.Y.Kondr. & D.J.Galloway: on *Lobaria* and *Lobariella*; **etayoi** Flakus & Kukwa: on *Cora*; **guatemalensis** Etayo & van den Boom [as '*guatamalense*']: on *Parmotrema*; **harrisiana** Hollinger & Lendemer: on *Crocodia aurata*; **hypotrachynae** Etayo & Diederich: on *Hypotrachyna* and *Menegazzia*; **josefhafellneri** Zhurb. & Etayo: on *Septotrapelia triseptata*; **lecanorae** Brackel ad int.: on *Lecanora horiza*; **leopoldiana** Etayo: on *Leptogium*; **leptogii** Etayo & Diederich: on *Leptogium*; **magellanica** Etayo: on *Fuscopannaria*; **marginalis** Zhurb. & Etayo: on *Psoroma pallidum*; **minutosetosae** Halıcı, D.Hawksw., A.O.Türk & Candan: on *Thelenella muscorum*; **muellerelloides** Etayo: on *Heterodermia*; **normandinae** R.Sant. & D.Hawksw.: on *Normandina pulchella*; **paranectrioides** Etayo, Flakus & Kukwa: on *Erioderma leylandii*; **pseudonormandinae** Diederich: on *Normandina simodensis*; **santessoniana** Etayo: on *Cora*; **solitaria** Etayo: on *Heterodermia* and perhaps on *Lobaria*, *Lobariella* and *Sticta*; **suijae** Tsurykau & Etayo: on *Xanthoria parietina*; **thamnoliae** Zhurb.: on

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Thamnolia; **triseptata** (Diederich) Etayo [≡ *Muellerella triseptata* Diederich]: on various lichens.
Lit.: Aptroot el al.1997; Brackel 2021a; Diederich 1986; Etayo 2002a, 2003, 2010b, 2017; Etayo & Diederich 1998; Etayo & Sancho 2008; Etayo & van den Boom 2006; Etayo et al. 2013b; Flakus & Kukwa 2012; Halıcı et al. 2010; Hawksworth 1990a; Hollinger & Lendemer 2021; Kondratyuk & Galloway 1995a; Tsurykau & Etayo 2017; Zhurbenko 2012, 2023a; Zhurbenko et al. 2016, 2019.

Cladophialophora Borelli; type: *C. carrionii* (Trejos) de Hoog, Kwon-Chung & McGinnis. Mol.: yes (T, L). Asexual, hyphomycetous.
Species: 13-0-0 (64). **cladoniae** (Diederich) Diederich: on *Cladonia*; **denigrans** (Diederich) Boers, Diederich & Ertz: on *Cliostomum*, *Diploicia*, *Lecanora* and other lichens; **dimorphospora** P.Pinault & Diederich: on *Evernia*, *Melanohalea* and *Parmelina*; **dirinae** Diederich & Sérusiaux: on *Dirina ceratoniae*; **haematommatis** Boers, Ertz & Diederich: on *Haematomma ochroleucum*; **harrisii** Diederich: on *Dirinaria confluens*; **hawksworthii** (Etayo & Diederich) Diederich: mainly on *Megalospora tuberculosa*; **hepatica** Diederich: on *Megalospora*; **megalosporae** Diederich: on *Megalospora pachycheila*; **normandinae** (Diederich & Etayo) Diederich: mainly on *Normandina pulchella*, also on various other lichens [possibly the asexual stage of *Capronia normandinae*]; **novozhilovii** Zhurb. & Diederich: on *Psoroma hypnorum*; **parmeliae** (Etayo & Diederich) Diederich & Unter.: mainly on parmelioid lichens, also on *Lobaria* and *Pannaria* [possibly the asexual stage of *Capronia hypotrachynae*]; **zimmermannii** Diederich & F.Berger: on *Mycoblastus affinis*.
Lit.: Diederich 2010; Diederich et al. 2013, 2024f; Etayo & Diederich 1995, 1996a; Etayo & Sancho 2008; Zhurbenko 2023a.

Family **Trichomeriaceae** Chomnunti & K.D.Hyde

Knufia L.J.Hutchison & Unter.; type: *K. cryptophialidica* L.J.Hutchison & Unter. Mol.: yes (T, L).
Species: 1-0-0 (25). **peltigerae** (Fuckel) Réblová & Unter. [≡ *Capronia peltigerae* (Fuckel) D.Hawksw.]: on *Peltigera*.
Lit.: Hawksworth 1980b; Réblová et al. 2013; Roux et al. 2020; Untereiner et al. 2011.

Order Chaetothyriales genera incertae sedis

Laeviomyces D.Hawksw.; type: *L. pertusariicola*. Mol.: no. Asexual, pycnidial.
Species: 1-0-0. **pertusariicola** (Nyl.) D.Hawksw. [≡ *Lichenodiplis pertusariicola* (Nyl.) Diederich]: on *Pertusaria*.
Lit.: Hawksworth 1979a; Zhurbenko & Otte 2012.

Lichenodiplis Dyko & D.Hawksw.; type: *L. lecanorae*. Mol.: yes (T, L). Asexual, pycnidial.
Species: 12-0-0. **anomala** Etayo & Pérez-Vargas [as *anomalus*]: on *Ochrolechia*; **crespoae** Pérez-Ort. & V.Atienza: on *Calicium notarisii*; **dendrographae** Diederich & van den Boom: on *Dendrographa*; **fallaciosa** (Hafellner & Kalb) Diederich: on *Buellia* and *Orcularia*; **hawksworthii** F.Berger & Diederich: on *Pertusaria*; **lecanorae** (Vouaux) Dyko & D. Hawksw. [=? *Vouauxiella caloplacae* Alstrup]: on *Caloplaca*
s.l., *Lecanora* s.l. and other crustose lichens; **lecanoricola** (M.S.Cole & D.Hawksw.) Diederich: on *Lecanora*; **lichenicola** Dyko & D.Hawksw.: on *Rinodina*; **ochrolechiae** Y.Joshi & M.Tripathi: on *Ochrolechia*; **opegraphae** (D.Hawksw.) Diederich: on *Opegrapha*; **poeltii** S. Y.Kondr. & D.Hawksw.: on *Xanthoria parietina*; **rinodinicola** Kocourk. & K.Knudsen: on *Rinodina*.
Lit.: Alstrup 1993a; Berger & Diederich 1996; Berger & LaGreca 2014; Cole & Hawksworth 2001; Diederich 2003; Hawksworth 1981; Hawksworth & Dyko 1979; Joshi et al. 2016b; Kalb 1990; Knudsen & Kocourková 2009; Kondratyuk 1996a; Muggia et al. 2015b; Pérez-Vargas et al. 2013.

Minutoexcipula V.Atienza & D.Hawksw.; type: *M. tuckerae*. Mol.: no. Asexual, pycnidial-sporodochial.
Species: 8-0-0. **beaglei** Etayo: on *Lecanora*; **calatayudii** V.Atienza: on *Hypogymnia*; **kovalenkoi** Zhurb. & Diederich: on *Lecanora* cf. *pulicaris*; **mariana** V. Atienza: on *Lepra* and *Pertusaria*; **miniatoexcipula** R. C.Harris & Lendemer: on *Pertusaria*, mainly *P. epixantha*; **tephromelae** V.Atienza, Etayo & Pérez-Ort.: on *Tephromela*; **tuckerae** V.Atienza & D.Hawksw.: on corticolous *Pertusaria*; **tuerkii** Hafellner: on *Pertusaria glomerata*.
Lit.: Atienza 2002; Atienza & Hawksworth 1994; Atienza et al. 2009; Diederich et al. 2024z; Etayo & Sancho 2008; Hafellner 1994a; Lendemer et al. 2016; Zhurbenko & Diederich 2024b; Zhurbenko et al. 2020a.

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Muellerella Müll.Arg.; type: *M. polyspora* [≡ *Muellerellomyces* Cif. & Tomas.; type: *M. polyspora*; = *Pleothelis* M. Choisy; type: *P. myriocarpa*, i.e., *M. pygmaea*; = *Polycarpella* Theiss. & Syd.; type: *P. cookei*, i.e., *M. erratica*; = *Thelidiola* C.W.Dodge; type: *T. eklundii*, i.e., *Muellerella pygmaea*]. Mol.: yes (L). Polyphyletic.
Species: 15-0-0 (17). **antarctica** Etayo: on *Hypogymnia antarctica*; **atricola** (Linds.) Sacc. & D.Sacc.: on *Tephromela atra*; **erratica** (A.Massal.) Hafellner & V. John [= *M. pygmaea* var. *athallina* (Müll.Arg.) Triebel; = *Polycarpella cookei* (Linds.) Theiss. & Syd.]: on various lichens; **hospitans** Stizenb.: on *Bacidia fraxinea* and *B. rubella*; **lecanactidis** Diederich & van den Boom: on *Sigridea californica*; **lichenicola** (Sommerf.) D.Hawksw.: on various lichens; **polyspora** Müll.Arg. [= *Muellerellomyces polysporae* Cif. & Tomas.]: on diverse lichens; **pygmaea** (Körb.) D.Hawksw. [= *Pleothelis myriocarpa* M. Choisy; = *Thelidiola eklundii* C.W.Dodge]: on various lichens; **rhizocarpicola** Brackel: on *Rhizocarpon geographicum*; **solenopsorae** Brien, Cl.Roux & Monnat: on *Solenopsora holophaea*; **sibirica** Zhurb.: on *Bryobilimbia fissuriseda*; **stictinae** (H.Olivier) Vouaux: on *Sticta*; **thalamita** (Nyl.) D.Hawksw., F. Berger & LaGreca: on *Buellia* and *Orcularia*; **ventosicola** (Mudd) D.Hawksw.: on *Ophioparma*, possibly also on *Dimelaena*, *Protoparmelia* and *Rhizocarpon*; **vesicularia** (Linds.) D.Hawksw.: on *Toninia*.
Lit.: Berger & LaGreca 2014; Brackel 2023; Clauzade et al. 1989; Diederich 2003; Etayo & Sancho 2008; Hawksworth 1985a; Muggia et al. 2015b, 2019; Roux et al. 2022a; Triebel 1989; Zhurbenko 2025.

Order **Phaeomoniellales** K.H.Chen, A.E.Arnold, Gueidan & Lutzoni

Family **Phaeomoniellaceae** P.M. Kirk

Leptorhaphis Körb.; type: *L. oxyspora* (Nyl.) Körb. Mol.: yes.
Species: 1-0-0 (15). **haematommatum** Hafellner & Kalb: on *Haematomma*.
Lit.: Kalb et al. 1995.

Order **Verrucariales** D.Hawksw. & O.E.Erikss.

Family **Adelococcaceae** Triebel

Adelococcus Theiss. & Syd.; type: *A. alpestris*. Mol.: no.
Species: 4-0-0. **alpestris** (Zopf) Theiss. & Syd.: on *Acarospora*; **immersus** Etayo & Breuss: on *Dermatocarpon biennense*; **interlatens** (Arnold) Matzer & Hafellner: on *Clauzadea*, *Hymenelia*, *Ionaspis*, *Polysporina* and *Sarcogyne*; **porocyphii** S.Zelenko & S.Y.Kondr.: on *Porocyphus*.
Lit.: Etayo & Breuss 1998; Kondratyuk & Zelenko 2002; Matzer & Hafellner 1990.

Pseudopyrenidium Nav.-Ros., Zhurb. & Cl.Roux; type: *P. tartaricola*. Mol.: yes (L).
Species: 2-0-0. **epipertusariae** Etayo & Pino-Bodas: on *Pertusaria hymenea* and *P. pertusa*; **tartaricola** (Linds.) Nav.-Ros., Zhurb. & Cl.Roux [≡ *Weddellomyces tartaricola* (Linds.) Alstrup & D.Hawksw.]: on *Ochrolechia*.
Lit.: Alstrup & Hawksworth 1990; Etayo & Pino-Bodas 2021; Navarro-Rosinés et al. 2010.

Sagediopsis Vain.; type: *S. tartarina*, i.e., *S. campsteriana*. Mol.: no.
Species: 11-0-0. **aquatica** (Stein) Triebel: on *Koerberiella wimmeriana*; **aspiciliae** Nik.Hoffm. & Hafellner: on *Aspicilia myrinii*; **barbara** (Th.Fr.) R.Sant. & Triebel: on *Porpidia*; **bayozturkii** Halıcı, Güllü & Parnikoza: on *Acarospora macrocyclos*; **campsteriana** (Linds.) D.Hawksw. & R.Sant. [= *S. tartarina* (Nyl.) Vain.]: on *Ochrolechia*; **dissimilis** Triebel: on *Paraporpidia leptocarpa*; **epimalvinae** Etayo, T.B. Wheeler & Fryday: on *Aspicilia malvinae*; **fissurisedens** Hafellner: on *Aspicilia myrinii*; **lomnitzensis** (Stein) Orange: on *Ionaspis lacustris* and *I. odora*; **pertusariicola** Zhurb.: on *Pertusaria*; **vasilyevae** Zhurb.: on *Rhizocarpon*.
Lit.: Alstrup & Hawksworth 1990; Fryday et al. 2021; Hafellner 1993; Halıcı et al. 2017; Hoffmann & Hafellner 2000; Orange 2002; Triebel 1989; Triebel 1993; Zhurbenko 2009c; Zhurbenko & Yakovchenko 2014.

Family **Sarcopyreniaceae** Nav.-Ros. & Cl.Roux

Sarcopyrenia Nyl.; type: *S. gibba* [= *Hassea* Zahlbr.; type: *H. bacillosa*]. Mol.: no.
Species: 11-0-0. **acutispora** Nav.-Ros. & Cl.Roux: on cf. *Bagliettoa calciseda*; **bacillosa** (Nyl.) Nav.-Ros. & Hladun [≡ *Hassea bacillosa* (Nyl.) Zahlbr.]: on saxicolous lichens; **bacillospora** Nav.-Ros. & Hladun: on *Thelidium* and *Verrucaria*; **baetica** Nav.-Ros. & Hladun: on *Lecania* cf. *erysibe*; **beckhausiana** (J. Lahm) M.B.Aguirre, Nav.-Ros. & Hladun: on saxicolous lichens, mainly Verrucariaceae; **cylindrospora**

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(P.Crouan & H.Crouan) M.B.Aguirre: mainly on *Aspicilia* s.l.; **gibba** (Nyl.) Nyl. var. **gibba**: on saxicolous lichens, incl. *Acarospora* and *Aspicilia* s.l.; **gibba** var. **geisleri** (Beckh.) Nav.-Ros. & Hladun: on saxicolous lichens; **lichinellae** Nav.-Ros. & Hladun: on *Lichinella stipatula*; **pluriseptata** Nav.-Ros. & Cl.Roux: on *Pyrenodesmia variabilis*; **sigmoideospora** Tretiach & Nav.-Ros.: on *Bagliettoa*.
Lit.: Knudsen & Lendemer 2006; Navarro-Rosinés & Hladun 1990; Navarro-Rosinés & Hladun 2004; Navarro-Rosinés et al. 1998b, 2009b; Tretiach & Navarro-Rosinés 1996.

Family **Verrucariaceae** Zenker

Bellemerella Hafellner & Cl.Roux; type: *B. trapeliae*. Mol.: no.
Species: 4-0-0. **acarosporae** Calat. & Nav.-Ros.: on *Acarospora fuscata*; **polysporinae** Calat. & Nav.-Ros.: on *Polysporina simplex*; **ritae** Pérez-Ort. & T.Sprib.: on *Xylographa*; **trapeliae** Nav.-Ros. & Cl.Roux: on *Trapelia*.
Lit.: Calatayud & Navarro-Rosinés 2001; Navarro-Rosinés & Roux; 1997a; Pérez-Ortega & Spribille 2007.

Clauzadella Nav.-Ros. & Cl.Roux; type: *C. gordensis*. Mol.: no.
Species: 1-0-0. **gordensis** Nav.-Ros. & Cl.Roux: on *Verrucaria viridula*.
Lit.: Navarro-Rosinés & Roux 1996.

Endococcus Nyl.; type: *E. rugulosus* [= *Discothecium* Zopf; type: *D. stigma*]. Mol.: yes (L). Several poorly known species are provisionally placed here, without being formally combined in this genus.
Species: 57-0-0. **alectoriae** (D.Hawksw.) D. Hawksw.: on *Alectoria*; **apiciicola** (J.Steiner) R. Sant.: on *Usnea*; **brachysporus** (Zopf) M.Brand & Diederich: on *Porpidia*; **caesiocinereae** Diederich, Cl.Roux & M. Brand: on *Aspicilia verrucigera* and *Circinaria caesiocinerea*; **Microthelia calcaricola** Mudd: on *Aspicilia* s.l.; **caudisporus** J.C.David & Etayo: on *Lathagrium auriforme*; **cladiae** Zhurb. & Pino-Bodas: on *Cladia*; **collematis** Brackel: on *Collema*, *Enchylium* and *Lathagrium*; **complanatae** Arnold: on *Miriquidica*; **epiacarosporus** Cl. Roux: *Acarospora impressula*; **exerrans** Nyl.: on *Rhizocarpon*; **freyi** Hafellner: on *Umbilicaria*; **Verrucaria fumosaria** Leight.: on *Lecidea fuscoatra*; **fusiger** Th.Fr. & Almq.: on *Rhizocarpon*; **gennarii** Cl.Roux, Diederich & U.Schiefelbein: on *Rinodina gennarii*; **grumantianus** Zhurb.: on *Steinia geophana* and cyanobacteria; **hafellneri** (Zhurb.) Zhurb. [≡ *Stigmidium hafellneri* Zhurb.]: on *Nephromopsis cucullata*; **hafellnerianus** Motiej., Suija & Kantvilas: on *Parasiphula*; **incrassatus** Etayo & Breuss: on *Placidiopsis*; **janae** K.Knudsen: on *Acarospora rhabarbarina*; **karlstadtensis** Kocourk. & Brackel: on *Endocarpon*; **Tichothecium latzelii** Keissl.: on *Collema*; **macrosporus** (Arnold) Nyl.: on *Rhizocarpon*; **matzeri** D.Hawksw. & Iturr.: on *Buellia*; **Mycoporum melacoccum** Nyl.: on a sterile, saxicolous lichen with a sorediate C+ red thallus; **montanus** Brackel: on *Lecanora polytropa*; **nanellus** Ohlert: on *Stereocaulon*; **oreinae** Hafellner: on *Dimelaena oreina*; **oropogonicola** Etayo: on *Oropogon*; **pallidosporus** Etayo: on *Pseudocyphellaria*; **parentium** Etayo: on *Pseudocyphellaria*; **parmeliarum** Etayo: on *Parmelia saxatilis*; **pellax** Nyl.: on *Collema*; **peltigericola** Zhurb. & Stepanch.: on *Peltigera*; **perminutus** Vain.: on *Bacidia subincompta*; **perpusillus** Nyl.: on *Schaereria*, also reported from other saxicolous lichens; **physciae** Y. Joshi: on *Physcia*; **propinquus** (Körb.) D.Hawksw.: on *Porpidia*, also reported from other saxicolous lichens; **protoblasteniae** Diederich: on *Protoblastenia*; **pseudocarpus** Nyl.: on *Callome*, *Enchylium*, *Lathagrium*, *Peltula* and *Scytinium*; **pseudocyphellariae** Etayo: on *Pseudocyphellaria* (also *Nephroma*); **ramalinarius** (Linds.) D.Hawksw.: on *Ramalina*; **rugulosus** (Leight.) Nyl.: on *Verrucaria*, also reported from other saxicolous lichens; **sardous** Brackel: on *Rhizocarpon geographicum*; **sendtneri** (Arnold) Hafellner: on *Polyblastia sendtneri*; **sipmanii** Etayo: on *Heterodermia*; **stigma** (Körb.) Stizenb. [≡ *Discothecium stigma* (Körb.) Zopf]: on *Acarospora*; **thamnoliae** Etayo & R. Sant.: on *Thamnolia*; **thelommatis** Kocourk. & K. Knudsen: on *Thelomma santessonii*; **tricolorans** Alstrup: on *Platismatia glauca*; **truncatus** Cl. Roux & Diederich: on *Porpidia albocaerulescens*; **umbilicariae** (Linds.) Hafellner [≡ *Polycoccum umbilicariae* (Linds.) D.Hawksw.]: on *Lasallia*; **variabilis** Halıcı, Kocourk. & Diederich: on *Staurothele*; **verrucisporus** Alstrup: on *Ionaspis lacustris*; **verrucosus** Hafellner: on *Aspicilia* s.l.; **xanthoparmeliae** Y.Joshi, S.Y.Kondr., L.Lőkös & Hur: on *Xanthoparmelia*; **zahlbrucknerellae** (Henssen) D.Hawksw.: on *Zahlbrucknerella*.
Lit.: Alstrup 1993b, 1996; Alstrup et al. 1994; Brackel 2021a, 2023; Brackel & Berger 2019; Brackel & Kocourková 2006; David & Etayo 1995; Etayo 2002a, 2010b, 2017; Etayo & Breuss 2001; Etayo & Sancho 2008; Hafellner 1994a, 2019a; Hafellner et al. 2002,

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2008; Halıcı et a1. 2007b; Hawksworth 1979b, 1982a; Hawksworth & Iturriaga 2006; Joshi 2018; Joshi et al. 2015; Knudsen 2008; Kocourková & Knudsen 2011a; Matzer 1993; Matzer et al. 1996; Motiejūnaitė et al. 2019; Roux 2020b; Roux et al. 2023a; Santesson 1994b; Sérusiaux et al. 1999; Triebel 1989; Zhurbenko 2022d; Zhurbenko & Pino-Bodas 2015; Zhurbenko et al. 2012, 2019.

Haleomyces D.Hawksw. & Essl.; type: *H. oropogonicola*. Mol.: no.
Species: 1-0-0. **oropogonicola** D.Hawksw. & Essl.: on *Oropogon lopezii*.
Lit.: Hawksworth & Esslinger 1993.

Heteroplacidium Breuss; type: *H. imbricatum* (Nyl.) Breuss (lichenized). Mol.: yes (T, L).
Species: 0-3-0 (12). ***fusculum*** (Nyl.) Gueidan & Cl.Roux: lichen, juvenile parasite on *Circinaria calcarea*; ***transmutans*** K.Knudsen, Breuss & Kocourk.: lichen, juvenile parasite on *Acarospora socialis*; ***zamenhofianum*** (Clauzade & Cl.Roux) Cl.Roux [≡ *Verrucaria zamenhofiana* Clauzade & Roux]: lichenicolous lichen on *Staurothele areolata*, eventually becoming independent.
Lit.: Breuss 1994; Knudsen et al. 2014.

Halospora (Zschacke) Tomas. & Cif.; type: *H. deminuta*. Mol.: no.
Species: 4-0-0. **deminuta** (Arnold) Tomas. & Cif. [= *Merismatium deminutum* (Arnold) Cl.Roux & Nav.-Ros.]: on *Polyblastia*, *Staurothele*, *Thelidium* and *Verrucaria*, etc.; **discrepans** (Arnold) Hafellner [= *M. discrepans* (Arnold) Triebel]: mainly on *Protoblastenia*, also on *Aspicilia* s.l., *Hymenelia*, *Verrucaria*, etc.; **longispora** (Cl.Roux & Nav.-Ros.) Hafellner [= *M. deminutum* subsp. *longisporum* Cl. Roux & Nav.-Ros.]: on endolithic lichens; **scammoeca** (Lettau) Hafellner [= *M. scammoecum* Lettau]: on *Polyblastia*, *Thelidium* and *Verrucaria*.
Lit.: Hafellner 2011; Roux et al. 2002; Triebel 1989.

Norrlinia Theiss. & Syd.; type: *N. peltigericola*. Mol.: yes (T, L).
Species: 2-0-0. **medoborensis** S.Y.Kondr.: on *Peltigera*; **peltigericola** (Nyl.) Theiss. & Syd.: on *Peltigera*.
Lit.: Hawksworth 1980b; Kondratyuk & Galloway 1995a.

Phaeospora Stein; type: *P. rimosicola*. Mol.: no.
Species: 17-0-0. **arctica** Horáková & Alstrup: on *Arctoparmelia*, *Cetraria* and *Nephromopsis*; **antarctica** Alstrup & Olech, nom. inval. (ICN Art. F.5.2): on *Rinodina olivaceobrunnea*; **catolechiae** Zopf: on *Catolechia wahlenbergii*; **convolutae** Alstrup & Olech, nom. inval. (ICN Art. F.5.2): on *Acarospora convoluta*; **everniae** Etayo & van den Boom: on *Evernia*; **exoriens** (Stirt.) A.L.Sm.: on *Pannaria*; **lecanorae** Eitner: on *Lecanora* and *Polyozosia*; **parasitica** (Lönnr.) Arnold: on *Rhizocarpon* [and *Lopadium*?]; **peltigericola** D.Hawksw.: on *Peltigera* and *Pseudocyphellaria* [and *Lobaria*?]; **perrugosaria** (Linds.) D.J.Galloway: on *Placopsis*; **protoblasteniae** Alstrup & Olech: on *Protoblastenia incrustans*; **quaterna** Eitner: on *Rhizocarpon*; **rimosicola** (Mudd) Stein: on *Rhizocarpon* [also reported on *Aspicilia* s.l. and *Diplotomma*]; **squamarinae** Etayo: on *Squamarina cartilaginea*; **subantarctica** Øvstedal & D.Hawksw.: on *Lecania gerlachei*; **triplicantis** (Vain.) Arnold [≡ *Endococcus triplicantis* Vain.]: on *Mycobilimbia microcarpa* and *M. tetramera* [≡ *Lecidea triplicans*]; **verrucariae** Alstrup & E.S.Hansen: on *Verrucaria placynthiae*.
Lit.: Alstrup & Hansen 2001; Alstrup & Olech 1996; Alstrup et al. 2018; Arnold 1895; Etayo 2010c; Galloway 2004; Hawksworth 1980b, 1983; Horáková & Alstrup 1994; Øvstedal & Hawksworth 1986; Sérusiaux et al. 1999; van den Boom & Etayo 2014; Wainio 1883; Zhurbenko 2014; Zopf 1896.

Placidiopsis Beltr.; type: *P. grappae* Beltr. (lichenized). Mol.: yes (T).
Species: 0-1-0 (20). ***minor*** var. ***longispora*** Etayo & Breuss: lichenicolous lichen on *Diploschistes*.
Lit.: Etayo 2017.

Placocarpus Trevis.; type: *P. schaereri*. Mol.: yes (T, L).
Species: 0-3-0 (5). ***americanus*** K.Knudsen, Breuss & Kocourk.: lichen, juvenile parasite on *Protoparmeliopsis muralis*; ***melanophthalmosus*** Cl.Roux & Gueidan: lichen, juvenile parasite on *Rhizoplaca melanophthalma*; ***schaereri*** (Fr.) Breuss: lichen, juvenile often parasitic on *Protoparmeliopsis muralis*.
Lit.: Breuss 1985; Knudsen et al. 2009a; Roux & Gueidan 2011; Zhurbenko & Notov 2015.

Placopyrenium Breuss; type: *P. bucekii* (Nádv. & Servít) Breuss (lichenized). Mol.: yes (T, L).
Species: 0-6-0 (22). ***breussii*** Cl.Roux & Gueidan: lichen, juvenile parasite on *Circinaria calcitrapa*;

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canellum Nyl.: lichen, juvenile parasite on *Aspicilia* s.l.; ***cinereoatrum*** (Degel.) Orange: facultatively lichenicolous on *Staurothele fissa*; ***formosum*** Orange: lichen, juvenile parasite on *Circinaria aquatica*; ***fuscellum*** (Turner) Gueidan & Cl.Roux: lichen, juvenile facultatively parasite on *Bagliettoa* and *Verrucaria*; ***noxium*** Breuss: lichenicolous lichen on *Staurothele areolata*.
Lit.: Breuss 1998, 2009; Orange 2004, 2009; Roux & Gueidan 2011.

Telogalla Nik.Hoffm. & Hafellner; type: *T. olivieri*. Mol.: no.
Species: 2-0-0. **cajasense** Etayo: on *Leptogium*; **olivieri** (Vouaux) Nik.Hoffm. & Hafellner: on *Xanthoria*.
Lit.: Etayo 2017; Hoffmann & Hafellner 2000.

Thelidium A.Massal.; type: *T. amylaceum* A.Massal. Mol.: yes.
Species: 0-1-0 (100). ***impressulum*** Zschacke: on Verrucariaceae with an endolithic thallus.
Lit.: Roux 2014.

Verrucaria Schrad.; type: *V. rupestris* Schrad. (lichenized). Mol.: yes (T, L). Currently polyphyletic.
Species: 3-5-0 (300). ***bernardinensis*** Breuss: lichenicolous lichen on *Staurothele*; ***cetera*** Breuss: lichenicolous lichen on *Staurothele areolata*, eventually becoming independent; **conturmatula** Nyl.: on *Ionaspis lacustris*; ***falcata*** Breuss: lichen appearing lichenicolous on or between areoles of *Verrucaria maculicarpa*; ***inficiens*** Breuss: lichenicolous lichen on *Staurothele areolata* and *S. elenkinii*, eventually becoming independent; **phaeosperma** Arnold: on calcicolous lichens, incl. *Hymenelia prevostii*, *Thelidium decipiens* and ?*Verrucaria* spp.; ***placynthiae*** Alstrup & E.S.Hansen: lichenicolous lichen on *Placynthium nigrum*; **pulvinata** Eitler: on *Rhizocarpon disporum* [poorly known species].
Lit.: Alstrup & Hansen 2001; Breuss 1998, 2007; Orange 2002; Orange et al. 2009; Thüs & Schultz 2009.

Verrucula J.Steiner; type: *V. egyptiaca*. Mol.: yes (L).
Species: 0-22-0. ***ahlesiana*** (Zwackh) J.Steiner: lichen, probably lichenicolous; ***arnoldaria*** Nav.-Ros. & Cl. Roux: lichenicolous lichen on *Calogaya arnoldii*; ***biatorinaria*** (Zehetl.) Nav.-Ros. & Cl.Roux: lichenicolous lichen on *Calogaya biatorina*; ***clauzadaria*** Nav.-Ros. & Cl.Roux: lichenicolous lichen on *Calogaya clauzadeana*; ***coccinearia*** (Zehetl.) Nav.-Ros. & Cl. Roux: lichenicolous lichen on *Caloplaca coccinea*; ***coronataria*** Nav.-Ros. & Cl.Roux: lichenicolous lichen on *Flavoplaca coronata*; ***egyptiaca*** (Müll.Arg.) J.Steiner: lichenicolous lichen on *Variospora*; ***elegantaria*** (Zehetl.) Nav.-Ros. & Cl.Roux: lichenicolous lichen on *Rusavskia elegans*; ***fulvaria*** Nav.-Ros. & Cl. Roux ad int.: lichenicolous lichen on *Leproplaca proteus*; ***granulosaria*** (Clauzade & Zehetl.) Nav.-Ros. & Cl.Roux: lichenicolous lichen on *Flavoplaca granulosa*; ***helvetica*** (B. de Lesd.) Nav.-Ros. & Cl.Roux: lichenicolous lichen on *Leproplaca cirrochroa*; ***hladuniana*** (Nav.-Ros. & Cl.Roux) Nav.-Ros. & Cl. Roux: lichenicolous lichen on *Flavoplaca marina*; ***inconnexaria*** Nav.-Ros. & Cl.Roux: lichenicolous lichen on *Athallia inconnexa*; ***lactearia*** Nav.-Ros. & Cl.Roux: lichenicolous lichen on *Xanthocarpia lactea* s.str.; ***latericola*** (Erichs.) Nav.-Ros. & Cl.Roux: lichenicolous lichen on *Calogaya pusilla*; ***maritimaria*** Nav.-Ros. & Cl.Roux: lichenicolous lichen on *Flavoplaca maritima*; ***microspora*** Nav.-Ros. & Cl.Roux: lichenicolous lichen on *Variospora velana*; ***navasaria*** Nav.-Ros. & Cl.Roux: lichenicolous lichen on *Flavoplaca navasiana*; ***polycarparia*** Nav.-Ros. & Cl.Roux.: lichenicolous lichen on *Flavoplaca polycarpa*; ***protearia*** (Zehetl.) Nav.-Ros. & Cl.Roux: lichenicolous lichen on *Leproplaca proteus*; ***pusillaria*** Nav.-Ros. & Cl.Roux: lichenicolous lichen on *Calogaya pusilla*; ***tarraconensis*** Nav.-Ros. & Cl.Roux: lichenicolous lichen on *Variospora*.
Lit.: Hoffman & Hafellner 2000; Navarro-Rosinés et al. 2007; Roux 2014; Zehetleitner 1978.

Verruculopsis Gueidan, Nav.-Ros. & Cl.Roux; type: *V. poeltiana*. Mol.: yes (T, L).
Species: 0-3-0 (6). ***flavescentaria*** Gueidan, Nav.-Ros. & Cl.Roux: lichenicolous lichen on *Variospora flavescens*; ***irrubescentis*** (Ménard & Cl.Roux) Gueidan, Nav.-Ros. & Cl.Roux: lichenicolous lichen on *Squamulea subsoluta*; ***poeltiana*** (Clauzade & Cl.Roux) Gueidan, Nav.-Ros. & Cl.Roux: lichenicolous lichen on *Variospora aurantia*.
Lit.: Ménard & Roux 1991; Navarro-Rosinés et al. 2007.

Order Verrucariales genera incertae sedis

Gemmaspora D.Hawksw. & Halıcı; type: *G. lecanorae*. Mol.: no.
Species: 1-0-0. **lecanorae** (Werner) D.Hawksw. & Halıcı: on *Aspicilia* s.l.
Lit.: Hawksworth & Halıcı 2007.

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Merismatium Zopf; type: *M. lopadii* (Arnold) Zopf, i.e., *M. nigritellum* [= *Heterophracta* (Sacc. & D.Sacc.) Theiss. & Syd.; type: *Leptosphaerulina heterophracta*, i.e., *M. heterophractum*; *Phaeocyrtis* Vain.; type: *P. consocians*, i.e., *M. heterophractum*]. Mol.: no.
Species: 11-0-0. **cladoniicola** Alstrup: on *Cladonia ciliata*; **coccisporum** (Norm.) Vouaux: on *Amygdalaria*, *Euopsis*, etc.; **coccotremicola** Etayo: on *Coccotrema*; **corae** (Pat.) Etayo & R.Sant.: on *Cora*; **decolorans** (Arnold) Triebel [=? *M. cladoniicola* Alstrup; =? *Sphaerulina dolichotera* (Nyl.) Vouaux; =? *S. intermedia* Vouaux]: on *Bilimbia*, *Lopadium*, *Placynthiella*, *Trapeliopsis*, etc.; **heterophractum** (Nyl.) Vouaux [= *Leptosphaerulina heterophracta* (Nyl.) Sacc. & D.Sacc.; = *Phaeocyrtis consocians* (Nyl.) Vain.]: on *Biatora*, *Bilimbia*, *Lopadium*, etc.; **lecanorae** (H.Olivier) Vouaux: on *Ochrolechia parella*; **lobariae** Zhurb.: on *Lobaria* and *Lobarina*; **nigritellum** (Nyl.) Vouaux [= *M. lopadii* (Arnold) Zopf]: on *Catapyrenium*, *Leptogium*, *Lichenomphalia*, *Lopadium*, *Micarea*, *Mycobilimbia*, *Ochrolechia*, *Protoblastenia*, etc.; **peregrinum** (Flot.) Triebel: on *Rimularia*; **thamnoliicola** Alstrup & E.S.Hansen: on *Thamnolia vermicularis*.
Lit.: Alstrup 1997; Alstrup & Hansen 2001; Etayo 2010b; Etayo & Sancho 2008; Hafellner 2011; Hertel & Rambold 1990; Triebel 1989; Zhurbenko et al. 2020b.

Pseudostigmidium Etayo; type: *P. nephromiarium*. Mol.: no.
Species: 5-0-0. **biseptatum** Etayo: on *Pseudocyphellaria*; **confusum** Etayo: on *Pseudocyphellaria*; **disparatum** Etayo: on *Pseudocyphellaria*; **fumosum** Etayo: on *Pseudocyphellaria*; **nephromiarium** (Linds.) Etayo: on *Nephroma antarcticum*.
Lit.: Etayo & Sancho 2008.

Stigmidium Trevis.; type: *S. schaereri* [= *Pharcidia* Körb.; type: *P. congesta*, i.e., *S. congestum*]. Mol.: yes.
Species: 104[+2 var.]-0-0 (109). **acetabuli** Calat. & Triebel: on *Pleurosticta acetabulum*; **aggregatum** (Mudd) D.Hawksw.: on *Aspicilia* s.l.; **ahtii** Etayo & Palice: on apothecia of *Cladonia lopezii*; **alectoriae** (Linds.) Etayo: on *Usnea*; **allogenum** (Nyl.) D. Hawksw.: on *Rhizocarpon*; **anguinellicola** Etayo & Aptroot: on *Nyungwea anguinella*; **aquense** (Croz. & Dughi) Cl.Roux & S.Poumarat [≡ *Pyrenocollema aquense* Croz. & Dughi]: on *Collema*, *Enchylium* and *Lempholemma*; **arthoniae** (Arnold) Hafellner: on *Arthonia*; **arthrorhaphidis** Hafellner & Obermayer: on *Arthrorhaphis* gr. *citrinella*; **aspiciliae** (J.Lahm) Cl. Roux: on *Circinaria* gr. *calcarea*; **bellemerei** Cl.Roux & Nav.-Ros.: on *Lecania*; **beringicum** Zhurb. & Triebel: on *Stereocaulon*; **buelliae** Zhurb. & Himelbr. var. **buelliae**: on *Buellia disciformis*; **buelliae** var. **thallinum** Y. Joshi: on *Buellia*; **californicum** K.Knudsen & Kocourk.: on *Caloplaca stanfordensis*; **calopadiae** Matzer: on foliicolous *Calopadia*; **cartilagineae** Calat. & Triebel: on *Squamarina*; **cerinae** Cl.Roux & Triebel: on *Caloplaca* s. str., also reported from other Teloschistaceae; **cladoniicola** Zhurb. & Diederich: on *Cladonia*; **clauzadei** Cl. Roux & Nav.-Ros.: on *Verrucaria*; **collematis** Cl.Roux & Triebel: on *Collema*; **congestum** (Körb.) Triebel [≡ *Pharcidia congesta* Körb.]: on apothecia of *Lecanora* gr. *chlarotera*; **conspurcans** (Th.Fr.) Triebel & R.Sant.: on *Psora rubiformis*; **croceae** (Arnold) Cl.Roux & Triebel: on *Solorina*; **cupulare** (Pat.) D.Hawksw.: on *Sticta*; **degelii** R.Sant.: on *Degelia*; **disconephromeum** Etayo: on *Nephroma antarcticum* and *Lobariella pallida*; **ephebes** (Henssen) D.Hawksw.: on *Ephebe*; **epinesolechia** Etayo: on *Nesolechia oxyspora* galls over *Punctelia*; **epiphyllum** Matzer: on foliicolous *Actinoplaca* and *Echinoplaca*; **epistigmellum** (Vouaux) Kocourk. & K.Knudsen: on marine *Polycauliona*; **epixanthum** Hafellner: on *Acarospora*; **eucline** (Nyl.) Vězda: on *Varicellaria*; **exasperatum** Etayo: on *Melanohalea exasperata*; **fellhanerae** van den Boom: on *Fellhanera christiansenii*; **frigidum** (Sacc.) Alstrup & D.Hawksw.: on *Thamnolia*; **fuscatae** (Arnold) R.Sant.: on *Acarospora*; **glebarum** (Arnold) Hafellner: on *Toninia*; **grex** Alstrup & Olech: on *Ochrolechia* cf. *frigida*; **gyrophorarum** (Arnold) D. Hawksw. [≡ *Endococcus gyrophorarum* (Arnold) J.C. David & D.Hawksw.]: on *Umbilicaria*; **haesitans** (Nyl.) Diederich [≡ *Pharcidia haesitans* Nyl.]: on *Protothelenella sphinctrinoides*; **hageniae** (Rehm) Hafellner: on *Anaptychia* and *Physconia*; **hesperium** Kocourk., K.Knudsen & Diederich: on *Polycauliona* and *Wetmoreana*; **heterodermiae** Etayo: on *Heterodermia*; **humidum** Pérez-Ort., Halıcı & K. Knudsen: on *Thelenella muscorum*; **hygrophilum** (Arnold) R.Sant.: on *Rhizocarpon* and *Porpidia*; **hypogymniae** Brackel: on *Hypogymnia physodes*; **hypotrachynicola** Etayo: on *Hypotrachyna*; **joergensenii** R.Sant.: on *Agonimia foliacea*; **johnii** Halıcı & D.Hawksw.: on *Caloplaca* s.l.; **kashiwadanii** Zhurb.: on *Siphula coriacea*; **lecidellae** Triebel, Cl.Roux & Le Coeur: on *Lecidella elaeochroma*; **lendemeri** Kocourk. & K.Knudsen: on *Aspicilia* s.l.; **lepprariae** Zhurb.: on *Lepraria neglecta*; **leptogii** Etayo: on *Leptogium*; **leucophlebiae** Cl.Roux & Triebel: on *Peltigera leucophlebia*; **lichenum** (Arnold) Triebel & P.Scholz: on *Verrucaria maculiformis*; **lobariae** Zhurb. & Etayo: on *Lobaria*; **marinum** (Deakin)

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Swinscow: on maritime *Verrucaria*; **Pharcidia maritima** B. de Lesd.: on *Verrucaria* [a poorly known taxon provisionally placed here]; **mayrhoferi** E. Zimm. & F.Berger [as '*S. divaricatae* E.Zimm. & F. Berger' in Diederich et al. 2018a]: on *Evernia divaricata*; **menegazziae** F.Berger & E.Zimm. ad int.: on *Menegazzia terebrata*; **micareae** van den Boom: on *Micarea alabastrites*; **microcarpum** Alstrup & J.C. David: on *Cetraria* and *Nephromopsis cucullata*; **microspilum** (Körb.) D.Hawksw.: on *Graphis scripta*; **microsporum** Etayo & Osorio: on *Teloschistes*; **mitchellii** Cl.Roux & Bricaud: on *Pannaria conoplea*; **mycobilimbiae** Cl.Roux, Triebel & Etayo: on *Bilimbia*; **neofusceliae** Calat. & Triebel: on *Xanthoparmelia pulla*; **parmotrematis** F.Berger & E.Zimm.: on *Parmotrema*; **parvum** (Henssen) Diederich [≡ *Pharcidia parva* Henssen]: on *Ephebe lanata*; **peltideae** (Vain.) R.Sant.: on *Peltigera*, also reported from *Pseudocyphellaria*, *Pseudosolorina* and *Sticta*; **petri** Hafellner: on *Clauzadea monticola*; **phyllobaeidis** Zhurb., Etayo & Flakus: on *Phyllobaeis*; **placopsidis** E.Zimm. & F. Berger: on *Placopsis*; **placopsiiphila** Alstrup & Olech, nom. inval. (ICN Art. F.5.2): on *Placopsis contortuplicata*; **placynthii** Cl.Roux & Nav.-Ros.: on *Placynthium nigrum*; **porinae** Matzer: on foliicolous *Porina*; **pseudopeltideae** Cl.Roux & Triebel: on *Peltigera*; **pseudosquamariae** Zhurb.: on *Protoparmeliopsis peltata*; **psorae** (Anzi) Hafellner: on *Psora* and *Psorula*; **pyrenulae** van den Boom: on *Pyrenula*; **ramalinae** (Müll.Arg.) Etayo & Diederich [= *S. epiramalina* (Vouaux) Hafellner]: on *Ramalina*; **rivulorum** (Kernst.) Cl.Roux & Nav.-Ros.: on *Verrucaria*; **rouxianum** Calat. & Triebel: on *Acarospora cervina*; **schaereri** (A.Massal.) Trevis.: on *Pseudosolorina* thalli parasitized by *Dacampia hookeri*; **schizoporum** Matzer: on foliicolous *Porina*; **seirophorae** Etayo & van den Boom: on *Seirophora scorigena*; **solenopsoricola** Darmostuk & Guttová var. **solenopsoricola**: on *Solenopsora candicans* and *S. grisea* (thallus); **solenopsoricola** var. **apotheciorum** Y.Joshi: on *Solenopsora candicans* (apothecia); **solorinarium** (Vain.) D.Hawksw.: on *Pseudosolorina*; **spegazzinii** Etayo: on *Pseudocyphellaria*; **squamariae** (B. de Lesd.) Cl.Roux & Triebel: on *Lecanora*, *Protoparmeliopsis* and *Rhizoplaca*; **squamarinicola** Calat. & Triebel: on *Squamarina*; **stereocaulorum** Zhurb. & Triebel: on *Stereocaulon*; **stygnospilum** (Minks) R.Sant.: on *Dermatocarpon*; **subcladoniicola** van den Boom: on *Cladonia*; **superpositum** (Nyl.) D. Hawksw.: on *Sporodictyon*; **tabacinae** (Arnold) Triebel: on *Thalloidima*; **tetrasporum** Etayo: on Verrucariaceae; **trichotheliorum** Matzer: on foliicolous *Trichothelium*; **triebeliae** Etayo: on *Parmotrema*; **Pharcidia verrucariarum** (Arnold) Sacc. & D. Sacc.: on *Verrucaria* [a poorly known taxon provisionally placed here]; **verrucariopsidis** Monnat & Cl.Roux: on *Verrucariopsis suaedae*; **vezdae** Matzer: on foliicolous *Fellhanera colchica*; **xanthoparmeliarum** Hafellner: on *Xanthoparmelia*.

Lit.: Alstrup 1993a; Alstrup & Hawksworth 1990; Alstrup & Olech 1996; Alstrup et al. 2018; Berger & Zimmermann 2016, 2022; Brackel & Puntillo 2023; Calatayud & Triebel 1999, 2001; Clauzade et al. 1989; Darmostuk et al. 2022a; Etayo 1994, 2000, 2002a, 2010c, 2017; Etayo & Sancho 2008; Etayo et al. 2020; Gueidan et al. 2022; Hafellner 1982c, 1994a, 1994b; Hafellner & Obermayer 1995; Hafellner et al. 2008; Hawksworth 1975; Joshi et al. 2024b; Kihlman 1891; Kocourková & Knudsen 2009a, 2009b, 2010, 2012; Lord et al. 2013; Matzer 1996; Matzer & Hafellner 1990; Molitor & Diederich 1997; Motiejūnaitė et al. 2019; Pérez-Ortega et al. 2010; Roux 2014, 2025; Roux & Navarro-Rosinés 1994; Roux & Triebel 1994; Roux et al. 1995; Santesson 1989, 1993b; Triebel 1989; Triebel & Scholz 2001; Roux et al. 1998; van den Boom 2016, 2020a, 2020b; van den Boom & Etayo 2017; Zhurbenko 2024; Zhurbenko & Etayo 2012; Zhurbenko & Diederich 2008; Zhurbenko & Ohmura 2020; Zhurbenko et al. 2012; Zimmermann & Berger 2018.

Subclass MYCOCALICIOMYCETIDAE Tibell

Order **Mycocaliciales** Tibell & Wedin

Family **Sphinctrinaceae** M.Choisy

Chaenothecopsis Vain.; type: *C. rubescens*. Mol.: yes (T, L). Currently polyphyletic.

Species: 24-0-10 (41). **arthoniae** Tibell: on *Arthonia vinosa*; **australis** Tibell: on *Lecanactis abietina*; **brevipes** Tibell: on *Arthonia* and *Lecanactis*; **cinerea** Tibell: on *Lecanactis abietina*; **consociata** (Nádv.) A.F. W.Schmidt: on *Chaenotheca chrysocephala*; **dibbleandersoniarum** Selva: on *Felipes leucopellaeus*; **epithallina** Tibell: on *Chaenotheca trichialis*; **formosa** Titov: on *Chaenotheca sphaerocephala*; **haematopus** Tibell: facultatively lichenicolous; **hospitans** (Th.Fr.) Tibell: on *Haematomma ochroleucum* and *Lecanora*; **inconspicua** van der Kolk, Ertz, Hessen & Boers: on *Lecanora expallens*; **kalbii** Tibell & K.Ryman: on *Lecanora caesiorubella*; **lecanactidis** Tibell: on *Lecanactis abietina*; **leifiana** Titov: on *Arthonia*; **lignicola** (Nádv.) A.F.W. Schmidt: facultatively lichenicolous, especially on

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Chaenotheca; **nigra** Tibell: on *Chaenotheca*; **ochroleuca** (Körb.) Tibell & K.Ryman: on *Haematomma ochroleucum*; **parasitaster** (Bagl. & Carestia) D.Hawksw.: on *Cladonia*, also reported from *Hypocenomyce scalaris*; **pilosa** Tibell & Kalb: on *Tylophoron*; **pusilla** (Ach.) A. F.W.Schmidt: on *Calicium*, *Chaenotheca*, *Psilolechia*, algae or most commonly lignicolous; **pusiola** (Ach.) Vain.: on *Chaenotheca* or saprophytic; **retinens** (Nyl.) Tibell: on *Inoderma byssaceum* and *Sporodophoron cretaceum*; **rubescens** Vain.: on *Inoderma byssaceum*, other lichens with *Trentepohlia* or saprophytic; **rubina** Tibell: on *Pyrgidium montellicum* [non-lichenized]; **sagenidii** Tibell: on *Lecanactis mollis*; **savonica** (Räsänen) Tibell: on *Chaenotheca* or saprophytic; **sinensis** Titov: on unidentified lichen with chlorococcoid algae; **subparoica** (Nyl.) Tibell: on *Haematomma ochroleucum*; **tasmanica** Tibell: on diverse lichens, incl. *Chaenotheca chrysocephala*; **treicheliana** (Stein) Kalb: on corticolous *Lecanora*; **vainioana** (Nádv.) Tibell: on *Arthonia*, *Lecanactis abietina*, *Calicium salicinum*, other lichens with *Trentepohlia* or saprophytic; **vinosa** Titov: on lichens; **viridialba** (Kremp.) A.F.W.Schmidt: on *Chaenotheca chrysocephala* or saprophytic; **viridireagens** (Nádv.) A.F.W. Schmidt: on *Calicium*, *Chaenotheca* or on free-living algae.

Lit.: Clauzade et al. 1989; Gasparyan et al. 2014; Selva 2013; Tibell 1991b, 1998; Tibell & Ryman 1995; Titov 2006; van der Kolk et al. 2025.

Mycocalicium Vain.; type: *M. subtile* (Pers.) Szatala. Mol.: yes (T, L).

Species: 4-0-0 (13). **campylidiophorum** Ertz, Komposch, Huereca, Lendemer & Diederich: on *Ochrolechia*; **chiodectonicola** Aptroot & Etayo: on *Chiodecton*; **enterographicola** Aptroot & M. Cáceres: on *Enterographa* cf. *quassiaecola*; **rapax** Tibell: on *Pertusaria*.

Lit.: Aptroot et al. 2016; Ertz et al. 2023; Etayo & Aptroot 2017; Titov 2006.

Sphinctrina Fr.; type: *S. turbinata*. Mol.: yes (T, L).

Species: 10-0-0. **anglica** Nyl.: on *Protoparmelia*; **benmargana** Selva: on *Pertusaria*; **intermedia** Tibell: on *Pertusaria*; **leucopoda** Nyl.: on *Pertusaria* and *Diploschistes*; **ophioparmae** Kalb: on *Ophioparma araucariae*; **pallidella** (Willey) Selva: on *Pertusaria*; **paramerae** D.Muñiz & Hladun: on *Pertusaria paramerae*; **sessilis** Etayo & Pino-Bodas: on *Pertusaria excludens*; **tubaeformis** A.Massal.: on *Pertusaria*; **turbinata** (Pers.) de Not.: on *Pertusaria*.

Lit.: Etayo et al. 2023; Kalb 2001; Löfgren & Tibell 1979; Muñiz et al. 2013; Purvis et al. 1992; Tibell et al. 2014; Titov 2006.

Subclass SCLEROCOCCOMYCETIDAE Réblová, Unter. & W.Gams

Order **Sclerococcales** Réblová, Unter. & W.Gams [= Dactylosporales Ekanayaka, E.B.G.Jones, Q.Zhao & K.D.Hyde]

Family **Dactylosporaceae** Bellem. & Hafellner [= Sclerococcaceae Réblová, Unter. & W.Gams]

Sclerococcum Fr.; type: *S. sphaerale* [= *Dactylospora* Körb.; type: *D. floerkei*, i.e., *D. parasitica*]. Mol.: yes (T, L).

Species: 75[+1 var.]-0-4 (94). **acarosporae** S.Y. Kondr.: on *Acarospora*; **acarosporicola** Ertz & Diederich [≡ *Dactylospora acarosporae* (H.Magn.) Hafellner]: on *Acarospora*; **aeruginosum** (Holien & Ihlen) Ertz & Diederich [≡ *D. aeruginosa* Holien & Ihlen]: on various lichens, also on bark or wood; **ahtii** (Zhurb. & Pino-Bodas) Ertz & Diederich [≡ *D. ahtii* Zhurb. & Pino-Bodas]: on *Cladonia*; **allantoideum** (Alstrup & D.Hawksw.) Ertz & Diederich [≡ *D. allantoidea* Alstrup & D.Hawksw.]: on *Xanthoparmelia pulla*; **amygdalariae** (Triebel) Ertz & Diederich [≡ *D. amygdalariae* Triebel]: on *Amygdalaria*; **Dactylospora antarctica** Alstrup & Olech, nom. inval. (ICN Art. F.5.2): on *Lecidea*; **anziae** (Zhurb., Ezhkin, Skirina & Y.Ohmura) Ertz & Diederich [≡ *D. anziae* Zhurb., Ezhkin, Skirina & Y.Ohmura]: on *Anzia*; **areolatum** Etayo: on cf. *Xylographa*; **aspiciliicola** (Alstrup & D.Hawksw.) Ertz & Diederich [≡ *D. aspiciliicola* Alstrup & D.Hawksw.]: on *Aspicilia* s.l.; **athallinum** (Müll.Arg.) Ertz & Diederich [≡ *D. athallina* (Müll.Arg.) Hafellner; =? *Abrothallus placophyllus* Anzi]: on *Baeomyces*; **attendendum** (Nyl.) Ertz & Diederich [≡ *D. attendenda* (Nyl.) Arnold]: on *Amygdalaria*, *Icmadophila*, *Pilophorus* and *Porpidia*; **australe** (Triebel & Hertel) Ertz & Diederich [≡ *D. australis* Triebel & Hertel]: on *Coccotrema*, *Lecidea*, *Paraporpidia*, *Poeltiaria*, *Poeltidea*, *Porpidia*, *Rimularia* and *Tremolecia*; **boreale** (Holien & Ihlen) Ertz & Diederich [≡ *D. borealis* Holien & Ihlen]: on *Mycoblastus*, other lichens or directly on the bark; **cladoniicola** (Alstrup & Olech) Ertz & Diederich [≡ *D. cladoniicola* Alstrup & Olech]: on *Cladonia*; **crassitunicatum** Zhurb., Diederich & U. Braun: on *Cladonia*; **crassum** (Sarrión & Hafellner)

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Ertz & Diederich [≡ *D. crassa* Sarrión & Hafellner]: saprotrophic on *Juniperus oxycedrus*, also on old *Parmelia*; **davidii** (Hafellner & H.Mayrhofer) Ertz & Diederich [≡ *D. davidii* Hafellner & H.Mayrhofer]: on *Pseudocyphellaria*; **deminutum** (Th.Fr.) Ertz & Diederich [≡ *D. deminuta* (Th.Fr.) Triebel; = *D. rinodinicola* Alstrup & D.Hawksw.]: on various lichens; **dendriscostictae** Y.Joshi: on *Dendriscosticta* and *Sticta*; **dobrowolskii** (Olech & Alstrup) Ertz & Diederich [≡ *D. dobrowolskii* Olech & Alstrup]: on *Calogaya saxicola*; **epicladonia** Zhurb.: on *Cladonia*; **epiphytorum** Diederich: on *Varicellaria hemisphaerica*; **ewersii** Elix, P.M.McCarthy & Hafellner: on *Trapeliopsis*; **fissurinae** Pérez-Ort.: on *Fissurina insidiosa*; **frigidum** (Hafellner) Ertz & Diederich [≡ *D. frigida* Hafellner]: on *Brigantiaea*; **gelidarium** Etayo & F.Berger: on *Placopsis*; **glaucomarioides** (Tuck.) Ertz & Diederich [≡ *D. glaucomarioides* (Tuck.) Hafellner]: on *Ochrolechia*; **Dactylospora haematommatis** Alstrup & Olech, nom. inval. (ICN Art. F.5.2): on *Haematomma erythromma*; **hafellnerianum** (Sérus.) Ertz & Diederich [≡ *D. hafellneriana* Sérus.]: on *Santessonia lagunebergii*; **heterodermiae** (Etayo) Ertz & Diederich [≡ *D. heterodermiae* Etayo]: on *Heterodermia*; **homoclinellum** (Nyl.) Ertz & Diederich [≡ *D. homoclinella* (Nyl.) Hafellner]: on *Lecanora* and *Tephromela*; **inconspicuum** (Etayo) Ertz & Diederich [≡ *D. inconspicua* Etayo]: on *Menegazzia*; **inquilinum** (Tuck.) Ertz & Diederich [≡ *D. inquilina* (Tuck.) Hafellner]: on corticolous *Pertusaria*; **knudsenii** Zhurb.: on *Polycauliona bolacina*; **leuckertii** Diederich & P.Scholz: on *Buellia aethalea* and *B. spuria*; **lobariellum** (Nyl.) Ertz & Diederich [≡ *D. lobariella* (Nyl.) Hafellner; = *Monodictys fuliginosa* Etayo]: on *Lobaria pulmonaria*, also reported from other *Lobaria* and *Ricasolia* species; **microsporum** (Etayo) Ertz & Diederich [≡ *D. microspora* Etayo]: on *Catinaria atropurpurea*; **montagnei** Hafellner: mainly on *Glaucomaria rupicola*; **olivaceum** Etayo & F.Berger: on *Flavoparmelia soredians*; **ophthalmizae** Coppins: on *Pertusaria ophtalmiza*; **orygmaeum** (Nyl.) Ertz & Diederich [≡ *D. orygmaea* (Nyl.) S.Y.Kondrat. & D.J. Galloway]: on *Pseudocyphellaria berberina*; **parasitaster** (Nyl.) Ertz & Diederich [≡ *D. parasitaster* (Nyl.) Arnold]: on *Mycobilimbia sphaeroides* and *Thelenella muscorum*; **parasiticum** (Flörke) Ertz & Diederich [≡ *D. parasitica* (Flörke) Arnold; = *D. floerkei* Körb., nom. illeg.; = *Sclerophyton occidentale* Herre]: on *Lepra*, *Ochrolechia* and *Pertusaria*; **parellarium** (Nyl.) Ertz & Diederich [≡ *D. parellaria* (Nyl.) Arnold]: on *Ochrolechia parella*; **parmotrematis** Etayo & Paz-Berm.: on *Parmotrema carballalianum*; '**Spilodochium**' **parmotrematis** Diederich & Etayo [= *Sclerococcum pseudosipmanii* Zhurb. & Diederich]: on *Parmotrema*; **pertusariicola** (Tuck.) Ertz & Diederich [≡ *D. pertusariicola* (Tuck.) Hafellner]: on saxicolous *Pertusaria*; **phaeophysciae** Diederich & van den Boom: on *Phaeophyscia orbicularis*; **phyllobaeis** Etayo: on *Phyllobaeis*; **physciae** Y. Joshi: on *Physcia*; **pleiospermum** (Triebel) Ertz & Diederich [≡ *D. pleiosperma* Triebel]: on *Lecanora caesiorubella*; **polysporum** (Triebel) Ertz & Diederich [≡ *D. polyspora* Triebel]: on *Protoparmelia*; **porphyreum** (Hafellner & Kalb) Ertz & Diederich [≡ *D. porphyrea* Hafellner & Kalb]: on *Bacidia*, *Brigantiaea* and *Phyllopsora*; **protothallinum** (Anzi) Ertz & Diederich [≡ *D. protothallina* (Anzi) Hafellner]: on *Fuscopannaria* and *Parmeliella*; **purpurascens** (Triebel) Ertz & Diederich [≡ *D. purpurascens* Triebel]: on *Amygdalaria*, *Pilophorus* and *Porpidia*; **pyrenaicum** (Etayo) Ertz & Diederich [≡ *D. pyrenaica* Etayo]: over bryophytes, perhaps associated with *Mycobilimbia pilularis*; **rhyparizae** (Arnold) Ertz & Diederich [≡ *D. rhyparizae* Arnold]: on *Bryodina rhipariza*; **ricasoliae** (Vouaux) Flakus, Rodr. Flakus & Etayo: on *Lobariella* and *Ricasolia*; **rimulicola** (Müll.Arg.) Ertz & Diederich [≡ *D. rimulicola* (Müll.Arg.) Hafellner]: on *Lecanora* and ?*Pertusaria*; **rostrupii** (Alstrup) Ertz & Diederich [≡ *D. rostrupii* Alstrup]: on *Lepra dactylina*; **saxatile** (Schaer.) Ertz & Diederich var. **saxatile** [≡ *D. saxatilis* (Schaer.) Hafellner]: on *Ochrolechia* and *Pertusaria*; **saxatile** var. **laureri** (Hafellner) Ertz & Diederich [≡ *D. saxatilis* var. *laureri* Hafellner]: on *Pertusaria*; **scottii** Diederich: on *Hypotrachyna croceopustulata*; **serusiauxii** Boqueras & Diederich: on *Parmelina*; **simplex** D. Hawksw.: on corticolous *Lepra*, *Ochrolechia* and *Pertusaria*; **sipmanii** Diederich: on *Anomomorpha* cf. *roseola*; **sphaerale** (Ach.) Fr.: on *Lepra*; **stictae** Meng, Diederich & Thiyagaraja: on *Sticta*; **stigma** (Rehm) Nav.-Ros. & C. Romero: on *Porpidia macrocarpa*; **suburceolatum** (Coppins & Fryday) Ertz & Diederich [≡ *D. suburceolata* Coppins & Fryday]: on a whitish-yellowish muscicolous crustose lichen; **tegularum** (Arnold) Ertz & Diederich [≡ *D. tegularum* (Arnold) Hafellner]: on *Caloplaca* s.l., incl. *Rufoplaca*; **tephromelarum** Etayo & Calat.: on *Tephromela*; **thelotrematicola** (Elix) Fryday [≡ *Buellia thelotrematicola* Elix (as '*thelotremicola*')]: on *Gintarasia lamellifera*; **toensbergii** Diederich: on various corticolous lichens; **tremoleciae** Zhurb. & Diederich: on *Tremolecia atrata*; **umbilicariae** E.

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Zimm. & F.Berger: on *Umbillicaria*; **urceolatum** (Th.Fr.) Ertz & Diederich [≡ *Dactylospora urceolata* (Th.Fr.) Arnold]: on *Protothelenella sphinctrinoides*, also reported from other hosts; **verrucisporum** Alstrup: on *Bellemerea diamarta*; **zhurbenkoi** F.Berger & E.Zimm.: on *Thamnolia vermicularis*.
Lit.: Alstrup 1993a; Alstrup & Hawksworth 1990; Alstrup & Olech 1993; Alstrup et al. 1994, 2018; Berger 2000; Berger & Zimmermann 2025; Boqueras & Diederich 1993; Brackel 2014; Clauzade et al. 1989; Diederich 1990, 2015; Diederich & Scholz 1995; Diederich & van den Boom 2017; Diederich et al. 2013, 2018b, 2024k; Ekanayaka et al. 2019; Elix 2018; Elix et al. 2019; Etayo 1991, 2010c, 2017; Etayo & Berger 2002; Etayo & Calatayud 1998; Etayo & Diederich 1995; Etayo & Sancho 2008; Flakus et al. 2019a; Fryday 2019; Fryday & Coppins 2012; Hafellner 1979, 1985b, 1996b; Hafellner & Mayrhofer 2007; Hafellner et al. 2002; Hawksworth 1975, 1979a, 2003; Ihlen et al. 2004a; Joshi 2021; Kondratyuk & Galloway 1995c; Kondratyuk & Zelenko 2002; Meng et al. 2025; Navarro-Rosinés & Romero 2019; Olech & Alstrup 1996; Paz-Bermúdez et al. 2023; Pino-Bodas et al. 2017; Réblová et al. 2017; Sarrión et al. 2002; Sérusiaux & Wessels 1984; Sparrius 2004; Spribille et al. 2020; Thiyagaraja et al. 2022; Triebel 1989; Zhurbenko 2022b; Zhurbenko & Diederich 2024b; Zhurbenko & Pino-Bodas 2017; Zhurbenko et al. 2017, 2020a; Zimmermann & Berger 2021.

Class Eurotiomycetes familia incertae sedis

Family **Rhynchostomataceae** Winka & O.E.Erikss.

Rhynchomeliola Speg.; type: *R. pulchella* Speg. Mol.: no. Species: 1-0-0 (3). **lichenicola** Henssen & Kantvilas: on *Wawea*.
Lit.: Henssen & Kantvilas 1985.

Class LECANOROMYCETES O.E.Erikss. & Winka

Subclass ACAROSPOROMYCETIDAE Reeb, Lutzoni & Cl.Roux

Order **Acarosporales** Reeb, Lutzoni & Cl.Roux

Family **Acarosporaceae** Zahlbr.

Acarospora A.Massal.; type: *A. schleicheri* (Ach.) A.Massal. (lichenized). Mol.: yes (T, L). Some species described by H. Magnusson are poorly known. Species: 1-33-0 (200). ***aeginaica*** H.Magn.: on *Circinaria caesiocinerea*; ***anatolica*** H.Magn.: lichenicolous lichen on *Dimelaena*; ***applanata*** H. Magn.: facultatively lichenicolous lichen on *Acarospora* and *Aspicilia* species; ***brevilobata*** H. Magn.: lichenicolous lichen on *Rhizocarpon*; **destructans** K.Knudsen, Kocourk. & Hodková: on an unidentified crustose lichen; ***epiaspicilia*** Cl.Roux & M.Bertrand: lichenicolous lichen on *Aspicilia* s.l.; ***episulphurata*** Cl.Roux & M. Bertrand: lichenicolous lichen on *Acarospora sulphurata*; ***epithallina*** H.Magn.: lichenicolous lichen on *Acarospora hilaris* and *Usnochroma carphinea*; ***fissurata*** K.Knudsen, Kocourk. and Hodková: facultatively lichenicolous lichen on *Acarospora novomexicana*; ***freyi*** H.Magn.: facultatively lichenicolous lichen on *Aspicilia* s.l.; ***heufleriana*** Körb.: lichenicolous lichen on *Lecanora valesiaca*; ***hospitans*** H.Magn.: lichenicolous lichen on *Aspicilia* s. l., *Bellemerea*, *Leanora*, *Lecidea* and *Tremolecia*; ***imbricatula*** H.Magn.: facultatively lichenicolous lichen on *Aspicilia* s.l.; ***impressula*** Th.Fr.: facultatively lichenicolous lichen on *Aspicilia* s.l.; ***insignis*** H.Magn.: lichenicolous lichen on *Aspicilia* s.l.; ***insolata*** (B. de Lesd.) Redinger: lichenicolous lichen on *Immersaria* and *Rhizocarpon*, becoming independent; ***interjecta*** H.Magn.: lichenicolous lichen on *Acarospora novomexicana*; ***invadens*** H. Magn.: lichenicolous lichen on *Aspicilia* and *Dimelaena*, becoming independent; ***jenisejensis*** H.Magn.: lichenicolous lichen on *Buellia*, *Dimelaena* and *Lecanora*, becoming independent; ***lendemeri*** K.Knudsen & Kocourk. [≡ *Sarcogyne sphaerospora* J.Steiner]: lichenicolous lichens on *Candelariella*; ***mayrhoferi*** K.Knudsen & Kocourk.: lichenicolous lichen on *Dimelaena oreina*, becoming independent; ***microcarpa*** (Nyl.) Weddell: lichenicolous lichen on *Diploschistes actinostomus*, more rarely *Acarospora*, *Dimelaena* and *Ingvariella*, becoming independent; ***nashii*** K.Knudsen: lichenicolous lichen on *Dimelaena* and *Pleopsidium*, becoming independent; ***nodulosa*** (Dufour) Hue: facultatively lichenicolous lichen on *Diploschistes diacapsis*; ***pulvinata*** H.Magn.: lichenicolous lichen on *Aspicilia* s.l.; ***scottii*** K.Knudsen & Kocourk.: lichenicolous lichen on crustose lichens; ***sphaerospora*** H.Magn.: lichenicolous lichen on *Aspicilia* s. l., becoming independent; ***stapfiana*** (Müll.Arg.) Hue: lichenicolous lichen on *Caloplaca* s.l. and *Rusavskia elegans*; ***subfuscescens*** (Nyl.) H.Magn.: on crustose lichens on siliceous rocks, e.g., *Acarospora*, *Buellia*, *Caloplaca* s.l., *Candelariella*,

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Lecidea, later becoming an independent lichen, possibly heterogeneous; ***succedens*** H.Magn.: facultatively lichenicolous lichen on *Dimelaena oreina*; ***superans*** H.Magn.: lichenicolous lichen on *Aspicilia* s.l. and *Dimelaena*; ***suprasedens*** H. Magn.: lichenicolous lichen on *Aspicilia* s.l. and *Lecanora*; ***tominiana*** H.Magn.: lichenicolous lichen on *Aspicilia* s.l.; ***umbrina*** H.Magn.: lichenicolous lichen on *Lecanora*.
Lit.: Knudsen 2011; Knudsen & Kocourková 2010a, 2018b, 2020a, 2020b; Knudsen et al. 2021a, 2022, 2023; Lendemer et al. 2009; Magnusson 1929; Mouedden et al. 2023; Pino-Bodas et al. 2017; Rambold & Triebel 1992; Roux et al. 2019.

Myriospora Nägeli; type: *M. rufescens* (Ach.) Nägeli (lichenized). Mol.: yes (T, L).
Species: 0-2-0 (9). ***bullata*** K.Knudsen, Kocourk. & Hodková: lichen facultative lichenicolous on *Lecidea inops*; ***hassei*** (Herre) K.Knudsen & L. Arcadia: facultatively lichenicolous lichen (juvenile obligately lichenicolous?) on *Acarospora socialis*.
Lit.: Knudsen & Bungartz 2014; Knudsen et al. 2021b.

Sarcogyne Flot.; type: *S. corrugata* Flot. (lichenized). Mol.: yes (L).
Species: 1-1-0 (30). ***paradoxa*** Kocourk. & K.Knudsen: lichenicolous on crustose lichens; **pusilla** Anzi: on crustose lichens on calcareous rocks, e.g., *Acarospora*, *Caloplaca* s.l., *Protoblastenia*.
Lit.: Knudsen & Kocourková 2008, 2020a; Knudsen et al. 2023.

Subclass CANDELARIOMYCETIDAE Timdal & M.Westb.

Order **Candelariales** Miądl., Lutzoni & Lumbsch

Family **Candelariaceae** Hakul.

Candelariella Müll.Arg.; type: *C. vitellina* (Ehrh.) Müll. Arg. (lichenized). Mol.: yes (T).
Species: 0-2-0 (50). ***dispersa*** (Räsänen) Hakul.: lichenicolous lichen on *Placynthium*; ***superdistans*** (Nyl.) Malme: lichenicolous lichen on *Polyozosia populicola*.
Lit.: Gilbert & James 2009.

Subclass LECANOROMYCETIDAE Miądl., Lutzoni & Lumbsch

Order **Caliciales** Bessey

Family **Caliciaceae** Chevall.

Acolium (Ach.) Gray; type: *A. sessile*. Mol.: yes (T, L).
Species: 2-0-0 (5). **marcianum** (B. de Lesd.) M. Prieto & Wedin [≡ *Cyphelium marcianum* B. de Lesd.]: on *Pertusaria*, mainly *P. pseudocorallina*; **sessile** (Pers.) Trevis. [≡ *C. sessile* (Pers.) Trevis.]: on *Pertusaria coccodes* and other corticolous *Lepra* and *Pertusaria*.
Lit.: Giavarini & Purvis 2009a; Prieto & Wedin 2017; Tibell 1971.

Amandinea Scheid. & M.Mayrhofer; type: *A. coniops* (Wahlenb.) Scheid. & M.Mayrhofer. Mol.: yes (T).
Species: 2-0-0 (35). **adjuncta** (Th.Fr.) Hafellner [≡ *Buellia adjuncta* Th.Fr.]: on *Lecanora straminea* (possibly also on *Caloplaca* and *Rinodina olivaceobrunnea*); **deminuta** Hafellner (Febr. 2004) [= *Buellia uruguayensis* Etayo & Osorio (July 2004)]: on *Caloplaca felipponei*.
Lit.: Etayo & Osorio 2004; Hafellner 2004c.

Buellia De Not.; type: *B. disciformis* (Fr.) Mudd (lichenized). Mol.: yes (T, L).
Species: 5-8-0 (300). **albulella** Elix: on *Buellia albula*; ***caloplacivora*** Llimona & Egea: lichenicolous lichen on *Caloplaca* s.l., becoming independent; ***campbelliana*** Elix: lichenicolous lichen on basal squamules of *Cladonia*; ***griseosquamulata*** Scheidegger: lichenicolous lichen on *Buellia tirolensis*; ***imshaugii*** Hafellner: lichenicolous lichen on *Dimelaena oreina*; ***insularis*** Øvstedal: lichenicolous lichen on *Pannaria* and *Vestergrenopsis*; ***miriquidica*** Scheidegger: lichenicolous lichen on *Schaereria fuscocinerea*; **servilosina** Elix & Kantvilas: on *Xanthoparmelia mougeotina*; **subadjuncta** Elix & Kantvilas: on *Nevilleiella lateritia*; **teloschistis** Vězda: on *Teloschistes*; ***uberior*** Anzi: lichenicolous lichen on *Schaereria fuscocinerea*, soon becoming independent; ***uberiuscula*** (Nyl.) Zahlbr.: facultatively lichenicolous lichen on *Acarospora fuscata*; **vouauxii** Calat. & Barreno: on *Rhizoplaca melanophthalma*.
Lit.: Calatayud & Barreno 1995; Clauzade et al. 1989; Elix et al. 2017; Hafellner 1979; Llimona & Egea 1984; Øvstedal et al. 2009; Rambold & Triebel 1992; Scheidegger 1987, 1993.

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Caliciella Vain.; type: not selected. Mol.: no.
Species: 1-0-0. **parasitica** Räsänen: on *Chaenotheca furfuracea*.
Lit.: Clauzade et al. 1989; Kaufmann & Hofmann 1998.

Calicium Pers.; type: *C. viride* Pers. Mol.: yes (T, L).
Species: 4-0-0 (33). **corynellum** (Ach.) Ach.: on *Haematomma ochroleucum* and other saxicolous lichens; **episcalaris** Tibell & Knutsson: on *Hypocenomyce scalaris* [the epithet may be regarded as a noun in apposition and does not need to be corrected to '*episcalare*', as done in Index Fungorum and MycoBank, consulted on 18 May 2025]; **poculatum** G.Thor, McMullin & Gockman: on *Lecanora caesiorubella* subsp. *saximontana*; **ramboldiicola** Tibell, S. R. Clayden & Wedin: on *Ramboldia elabens*.
Lit.: Roux 2014; Thor et al. 2024; Tibell & Knutsson 2016; Tibell et al. 2024.

Dimelaena Norman; type: *D. oreina* (Ach.) Norman (lichenized). Mol.: yes (T).
Species: 0-1-0 (10). ***lichenicola*** K.Knudsen., Sheard, Kocourk. & H.Mayrhofer: lichen, juvenile lichenicolous on *D. oreina* and *D. thysanota*.
Lit.: Knudsen et al. 2013.

Diplotomma Flot.; type: *D. alboatrum* (Hoffm.) Flot. (lichenized). Mol.: yes (T, L).
Species: 1-6-0 (30). ***murorum*** (A.Massal.) Coppins: lichenicolous lichen on *Kuettlingeria teicholyta*; ***nivale*** (Bagl. & Carestia) Hafellner: on *Rusavskia* and *Caloplaca* s.l., soon with its own thallus; **parasiticum** (B. de Lesd.) Diederich, Cl.Roux & Van Haluwyn: on *Polyozosia*, indistinctly lichenized; ***renobalesii*** Cl.Roux [= *Buellia lecanoricola* Renob., nom. nud.]: on *Polyozosia albescens*, soon with its own thallus; ***scheideggerianum*** (Bricaud & Cl.Roux) Nimis: lichenicolous lichen on *Leproplaca xantholyta*; ***venustum*** Körb.: juvenile lichenicolous lichen on *Protoparmeliopsis versicolor*, soon with its own thallus; ***vezdanum*** (P.Scholz & Knoph) Coppins: lichenicolous lichen on *Polycauliona verruculifera*.
Lit.: Bricaud & Roux 1991; Duke & Purvis 2009; Hafellner 1979; Renobales 1996; Roux 2014.

Endohyalina Marbach; type: *E. rappii* (R.C.Harris) Marbach (lichenized). Mol.: no.
Species: 2-1-0 (10). ***brandii*** Giralt, van den Boom & Elix: on *Aspicilia intermutans*, often lichenized with an own thallus; **diederichii** Giralt, van den Boom & Elix: on *Ramalina*, rarely lichenized with a reduced thallus; **insularis** (Arnold) Giralt, van den Boom & Elix: on *Glaucomaria rupicola* agg., very rarely lichenized with a reduced thallus.
Lit.: Giralt et al. 2010.

Monerolechia Trevis.; type: *M. bayrhofferi* (Schaer.) Trevis. Mol.: yes (L).
Species: 0-4-0. ***badia*** (Fr.) Kalb [≡ *Buellia badia* (Fr.) A.Massal.]: lichen, juvenile parasite on saxicolous lichens; ***californica*** (H.Magn.) Elix [≡ *Dimelaena californica* (H.Magn.) Sheard]: lichen, juvenile parasite on saxicolous *Dimelaena radiata*; ***glomerulans*** (Müll.Arg.) Elix [≡ *Buellia glomerulans* (Müll.Arg.) Zahlbr.]: lichen, juvenile parasite on *Xanthoparmelia*; ***norstictica*** Elix: lichen, juvenile parasite on saxicolous *Lecanora* or *Pertusaria*;
Lit.: Elix 2015; Kalb 2004.

Tetramelas Norman; type: *T. geophilus* Norman. Mol.: yes (T, L).
Species: 3-1-0 (17). **caloplacae** Alstrup & Olech, nom. inval. (ICN Art. F.5.2): on *Gondwania sublobulata*; ***concinnus*** (Th.Fr.) Giralt: lichenicolous lichen on *Buellia*, *Melanelia*, *Parmelia*, *Physcia* and *Pseudephebe*, becoming independent; **phaeophysciae** A.Nordin & Tibell: on *Phaeophyscia* and *Physcia*; **pulverulentus** (Anzi) A. Nordin & Tibell [≡ *Buellia pulverulenta* (Anzi) Jatta]: mainly on *Physconia*, also on *Anaptychia*, *Phaeophyscia* and *Physcia*.
Lit.: Alstrup et al. 2018; Hafellner & Poelt 1980; Nordin & Tibell 2005; Scheidegger & Ruef 1988.

Family **Physciaceae** Zahlbr.

Rinodina (Ach.) Gray; type: *R.sophodes* (Ach.) A.Massal. (lichenized). Mol.: yes (T, L).
Species: 1-9-0 (300). ***afghanica*** Steiner & Poelt: lichenicolous lichen on *Calogaya polycarpoides* and *Diplotomma alboatrum*; ***canariensis*** Matzer, H. Mayrhofer & Clerc: lichenicolous lichen on saxicolous lichens; **egedeana** (Linds.) Alstrup & D.Hawksw.: on *Parmelia* and *Peltigera*; ***epimilvina*** H.Mayrhofer: lichenicolous lichen on *Rinodina milvina*; ***milvina*** (Wahlenb.) Th.Fr.: lichen, facultatively lichenicolous on saxicolous lichens; ***milvinoides*** H.Mayrhofer: lichenicolous lichen on *Aspicilia* s.l.; ***obnascens*** (Nyl.) H.Olivier: lichenicolous lichen on *Aspicilia* s.l. and *Rhizocarpon*; ***parasitica*** H.Mayrhofer & Poelt: lichenicolous lichen on *Aspicilia*

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s.l., *Lecanora* and *Lecidea*; ***santorinensis*** J.Steiner: lichen, facultatively lichenicolous on *Diploicia*, *Ochrolechia*, *Pertusaria*, etc.; ***superposita*** H.Magn.: lichenicolous lichen on *Lecanora* and *Lecidea*.
Lit.: Alstrup & Hawksworth 1990; Matzer et al. 1994; Mayrhofer 1984a, 1984b; Rambold & Triebel 1992.

Order **Lecanorales** Nannf.

Family **Catillariaceae** Hafellner

Catillaria A.Massal.; type: *C. chalybeia* (Borrer) A. Massal. (lichenized). Mol.: yes (T).
Species: 4-1-0 (150). **japonica** Zhurb. & Hafellner: on *Dibaeis* and *Pseudobaeomyces*; **lobariicola** (Alstrup) Coppins & Aptroot [≡ *Scutula lobariicola* Alstrup; = *Phoma lobariicola* Alstrup]: on *Lobarina scrobiculata*; ***mediterranea*** Hafellner: lichenicolous lichen with a reduced thallus, on *Anaptychia ciliaris*, also reported from other hosts; **stereocaulorum** (Th.Fr.) H.Olivier [≡ *Scutula stereocaulorum* (Th.Fr.) Körb.]: on *Stereocaulon*; **usneicola** Etayo: on *Usnea*.
Lit.: Alstrup 1997; Etayo 2000; Hafellner 1982b; Zhurbenko & Ohmura 2020.

Family **Lecanoraceae** Körb.

Carbonea (Hertel) Hertel; type: *C. atronivea*. Mol.: yes (L).
Species: 13-6-0 (21). **aggregantula** (Müll.Arg.) Diederich & Triebel: on *Lecanora* (mainly *L. polytropa*), also reported from *Rhizoplaca*; **antarctica** (C.W.Dodge & G.E.Baker) D.Hawksw. & Iturr.: on *Pseudephebe*; ***assimilis*** (Körb.) Hafellner & Hertel: juvenile lichenicolous lichen on *Aspicilia* s.l., *Lecanora*, *Lecidea*, *Pertusaria* and *Rhizocarpon*, becoming independent; ***atronivea*** (Arnold) Hertel: juvenile lichenicolous lichen on *Lecidella*; **austroshetlandica** Alstrup & Olech, nom. inval. (ICN Art. F.5.2): on *Carbonea assentiens* and *Rhizocarpon geographicum*; **degelii** Alstrup: on *Lecanora intricata*; ***distans*** (Kremp.) Hafellner & Obermayer var. ***distans***: lichenicolous lichen on *Lecidea obscurissima* and *Orphniospora mosigii*; ***distans*** var. ***buelliarum*** (Hertel) Hertel: lichenicolous lichen on *Buellia*; **herteliana** Hafellner & Matzer: on *Rhizocarpon*; **Catillaria hospitans** H.Magn.: on *Lecidea* [a poorly known taxon, provisionally placed here]; **intrudens** (H.Magn.) Hafellner: on *Rhizocarpon*; ***invadens*** (H.Magn.) M.P.Andreev: lichen, juvenile lichenicolous on *Rhizocarpon geographicum*; **neuropogonis** Etayo: on *Usnea aurantiaco-atra*; **Nesolechia oxysporiza** J. Steiner: on *Lecanora polytropa* [probably a *Carbonea*, fide Roux 2014]; **superjecta** (Nyl.) Hertel: on *Lecanora disjungenda*; **supersparsa** (Nyl.) Hertel: on *Lecanora* (mainly *L. polytropa*), rarely *Rhizoplaca*; **tephromelae** M.Svensson & M.Westb.: on *Tephromela atra*; **vitellinaria** (Nyl.) Hertel: on *Candelariella*; ***vorticosa*** (Flörke) Hertel: lichen, facultatively lichenicolous on *Physcia dubia*.
Lit.: Alstrup et al. 1994, 2018; Chambers et al. 2009; Ertz et al. 2014a; Etayo & Sancho 2008; Hafellner 1999, 2006, 2021; Hawksworth & Iturriaga 2006; Hertel 1967; Obermayer 1993; Rambold &Triebel 1992; Roux 2014; Svensson & Westberg 2021.

Lecanora Ach.; type: *L. allophana* Nyl. (lichenized). Mol.: yes (T, L).
Species: 3-11-0 (550). ***epithallina*** H.Magn.: lichenicolous lichen on *Tingiopsidium isidiatum*; ***gislerиana*** Müll.Arg.: lichenicolous lichen on *Lecanora epanora*, *L. handelii* and *L. subaurea*; ***gyrophorina*** Poelt & Zhurb.: lichenicolous lichen on *Umbilicaria hyperborea*; ***laatokaensis*** (Räsänen) Poelt: lichenicolous lichen on *Aspicilia* s.l. and other lichens, when young; **lasalliae** Pérez-Ort. & Etayo: on *Lasallia pustulata*; ***latro*** Poelt: lichenicolous lichen on *Miriquidica nigroleprosa*; **lecanoricola** (Alstrup, D.Hawksw. & R.Sant.) Rambold & Triebel [≡ *Lecidella lecanoricola* Alstrup, D.Hawksw. & R.Sant.]: on *Lecanora cenisia*; ***mosigiicola*** (Eitner) Hertel & Rambold var. ***mosigiicola***: lichenicolous lichen on *Orphniospora mosigii*; ***mosigiicola*** var. ***buelliarum*** (Hertel) Hertel & Rambold: lichenicolous lichen on *Buellia*; ***nohedensis*** Cl.Roux & M. Barbero: lichenicolous lichen on *Placopyrenium breussii*; ***printzenii*** Pérez-Ort., Vivas & Hafellner: lichenicolous lichen on *Umbilicaria*; ***thallophila*** H. Magn.: lichenicolous lichen on *Dermatocarpon*; ***tolypodes*** Poelt & Vězda: lichenicolous lichen on *Aspicilia* cf. *grisea*; **usneicola** Etayo: on *Usnea antarctica*.
Lit.: Etayo & Sancho 2006; Hafellner 1995b; Lumbsch et al. 2011; Pérez-Ortega & Etayo 2008; Poelt et al. 1996; Rambold & Triebel 1992; Ryan et al. 2004.

Lecidella Körb.; type: *L. viridans* (Flot.) Körb. (lichenized). Mol.: yes.
Species: 1-2-0 (80). ***dimelaenophila*** Hertel: lichen, juvenile lichenicolous on *Dimelaena oreina*; **parasitica** Sanderson: on *Pyrrhospora quernea*; ***vorax***

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Leuckert & Poelt: lichenicolous lichen on *Glaucomaria rupicola*.
Lit.: Rambold & Triebel 1992.

Miriquidica Hertel & Rambold; type: *M. complanata* (Körb.) Hertel & Rambold (lichenized). Mol.: yes (T, L).
Species: 0-6-0 (30). ***complanata*** (Körb.) Hertel & Rambold: juvenile facultatively lichenicolous lichen on *Rhizocarpon* gr. *geographicum*; ***instrata*** (Nyl.) Hertel & Rambold: facultatively lichenicolous lichen on *Aspicilia* s.l. (and on *Rhizocarpon*?); ***intrudens*** (H.Magn.) Hertel & Rambold: lichenicolous lichen on *Rhizocarpon*; ***invadens*** Hafellner, Obermayer & Tretiach: lichenicolous lichen on *Sporastatia*, becoming independent; ***nigroleprosa*** (Vain.) Hertel & Rambold: juvenile facultatively lichenicolous lichen on *Rhizocarpon* gr. *geographicum*; ***verrucariicola*** (B.D.Ryan) K.Knudsen & Kocourk. [= *Protoparmelia ryaniana* van den Boom, Sipman & Elix, nom. illeg.]: lichenicolous lichen on *Dimelaena radiata*, *Tephromela* and *Verrucaria subdivisa*, becoming independent.
Lit.: Hafellner et al. 2005, 2014; Hertel & Rambold 1987; Knudsen et al. 2015; Rambold & Triebel 1992.

Polyozosia A.Massal; type: *P. poliophaea* (Wahlenb.) A. Massal. (lichenized). Mol.: yes (T).
Species: 0-1-0 (47). ***invadens*** (H.Magn.) S.Y.Kondr., Lőkös & Farkas [≡ *Lecanora invadens* H.Magn.; =? *Lecanora dispersa* f. *parasitans* (Wedd.) Harm.]: facultatively lichenicolous lichen on saxicolous hosts.
Lit.: Roux 2025; Śliwa 2007.

Family **Malmideaceae** Kalb, Rivas Plata & Lumbsch

Zhurbenkoa Flakus, Etayo, Pérez-Ort. & Rodr. Flakus; type: *Z. epicladonia*. Mol.: yes (T, L).
Species: 3-0-0. **cladoniarum** (Müll.Arg.) Flakus, Etayo, Pérez-Ort. & Rodr. Flakus: on *Cladonia ceratophylla*; **epicladonia** (Nyl.) Flakus, Etayo, Pérez-Ort. & Rodr. Flakus [≡ *Arthonia epicladonia* (Nyl.) Alstrup & Zhurb.; ≡ *Scutula epicladonia* (Nyl.) Sacc.]: on *Cladonia*; **latispora** Flakus, Etayo, Pérez-Ort. & Rodr. Flakus: on *Cladonia*.
Lit.: Flakus et al. 2019b.

Family **Parmeliaceae** Eschw.

Nesolechia A.Massal; type: *N. oxyspora*. Mol.: yes (T, L).
All lichenicolous species, except *N. falcispora*, often develop subspherical to lobate or foliose gall-like structures that may be regarded as an own lichenized thallus. A high morphological plasticity, sometimes correlated with host selection, has led to the description of many poorly characterized taxa, most of which are not accepted here. One species of uncertain generic position (*N. diversispora*) is provisionally kept here.
Species: 5[+1 var.]-0-0. **diversispora** Grélet: on *Lecanora* [a poorly known species]; **doerfeltii** (Alstrup & P.Scholz) Diederich [≡ *Phacopsis doerfeltii* Alstrup & P.Scholz]: on *Arctoparmelia centrifuga*; **falcispora** (Triebel & Rambold) Diederich [≡ *Ph. falcispora* Triebel & Rambold; = *Ph. falcispora* var. *sipmanii* Diederich & Triebel]: on *Usnea*; **oxyspora** (Tul.) A.Massal. var. **oxyspora** [≡ *Punctelia oxyspora* (Tul.) Divakar, Crespo, D.Hawksw. & Lumbsch; = *Ph. oxyspora* var. *defecta* Triebel & Rambold; = *Ph. menegazziae* Triebel & Rambold; = *N. rufa* Müll. Arg.; = *Celidium tabescens* Anzi]: on Parmeliaceae [populations with reddish to dark brown apothecia and a hyaline to pale brown hypothecium]; **oxyspora** var. **fusca** (Triebel & Rambold) Diederich [≡ *N. fusca* (Triebel & Rambold) Pérez-Ort.; ≡ *Ph. oxyspora* var. *fusca* Triebel & Rambold; = *Ph. australis* Aptroot & Triebel; = *N. cetrariicola* (Linds.) Arnold; ≡ *Lecidea cetrariicola* Linds.]: on *Xanthoparmelia* and other Parmeliaceae [populations with dark brown to black, immersed to superficial apothecia and a brown to dark brown hypothecium]; **thallicola** (A.Massal.) A.Massal. [= *Abrothallus curreyi* Linds.]: on *Flavoparmelia caperata* [type of *N. thallicola*], *Parmotrema* [type of *A. curreyi*], *Cetrelia*, *Flavopunctelia* and *Hypotrachyna*.
Lit.: Aptroot & Triebel 2002; Divakar et al. 2015, 2017; Hafellner 1998a; Scholtz 1998; Spribille et al. 2010; Triebel & Rambold 1988; Triebel et al. 1995; Zhurbenko & Hafellner 1999; Zhurbenko et al. 2019.

Phacopsis Tul.; type: *P. vulpina*. Mol.: yes (T, L).
Species: 5-0-0. **cephalodioides** (Nyl.) Triebel & Rambold: on *Hypogymnia physodes*; **lethariellae** Hafellner & Rambold: on *Lethariella intricata*; **prolificans** (Müll.Arg.) Triebel & Rambold: on *Platismatia interrupta*; **vulpicidae** Zhurb. & Diederich: on *Vulpicida juniperina*; **vulpina** Tul.: on *Letharia*.
Lit.: Divakar et al. 2015; Hafellner 1987a; Triebel & Rambold 1988; Triebel et al. 1995; Zhurbenko et al. 2019.

Protoparmelia M.Choisy; type: *P. badia* (Hoffm.) Hafellner (lichenized). Mol.: yes (T, L).

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Species: 0-7-0 (35). ***atriseda*** (Fr.) R.Sant. & V. Wirth: lichen, juvenile lichenicolous on *Rhizocarpon*; ***cupreobadia*** (Nyl.) Poelt: lichen, juvenile lichenicolous on *Rhizocarpon*; ***hierrensis*** van den Boom & Ertz: lichenicolous lichen on *Pertusaria*; ***leproloma*** (R.Sant.) Rambold & Poelt: lichenicolous lichen on *Lecidea praenubila*; ***loricata*** Poelt & Vězda: lichenicolous lichen on *Lecanora umbrosa*; ***phaeonesos*** Poelt: lichenicolous lichen on *Aspicilia myrinii*; ***placentiformis*** (J.Steiner) Poelt: lichen, juvenile lichenicolous on *Lecaimmeria cupreoatra*.
Lit.: Rambold & Triebel 1992; van den Boom & Ertz 2012.

Raesaenenia D.Hawksw., C.Boluda & H.Lindgren; type: *R. husskonenii*. Mol.: yes (T, L).
Species: 2-0-0. **huuskonenii** (Räsänen) D.Hawksw., C.Boluda & H.Lindgr. [≡ *Phacopsis huuskonenii* Räsänen; ≡ *Protousnea huuskonenii* (Räsänen) Divakar, Crespo & Lumbsch]: on *Bryoria*; **usneae** (C.W.Dodge) Etayo & Pino-Bodas: on *Usnea* subgen. *Neuropogon*.
Lit.: Divakar et al. 2015, 2017; Etayo & Sancho 2006; Etayo et al. 2023; Lindgren et al. 2015; Triebel & Rambold 1988.

Family **Pilocarpaceae** Zahlbr.

Epicladonia D.Hawksw. s.l.; type: *E. sandstedei*. Mol.: yes (T, L). The generic type belongs to Leotiomycetes. Both *E. simplex* and *E. stenospora* are not related to the type but represent a distinct clade in the Pilocarpaceae. More studies are needed before a new genus can be described for them, hence they are provisionally placed here.
Species: 2-0-0. **simplex** D.Hawksw.: on *Cladonia*; **stenospora** (Harmand) D.Hawksw.: on *Cladonia*.
Lit.: Hawksworth 1981; Pino-Bodas et al. 2017.

Fellhanera Vězda; type: *F. fuscatula* (Müll.Arg.) Vězda (lichenized). Mol.: yes (T).
Species: 0-1-0 (100). ***stictae*** Etayo: lichenicolous lichen on *Sticta*.
Lit.: Etayo 2017.

Micarea Fr.; type: *M. prasina* Fr. (lichenized). Mol.: yes (T, L). Other Micarea species may occasionally overgrow lichen thalli.
Species: 6-2-0 (120). ***amplissima*** van den Boom & Etayo: lichenicolous lichen on *Ricasolia amplissima*; **inquinans** (Tul.) Coppins: on *Dibaeis baeomyces;* ***intrusa*** (Th.Fr.) Coppins & H.Kilias [≡ *Carbonea intrusa* (Th.Fr.) Rambold & Triebel; ≡ *Scoliciosporum intrusum* (Th.Fr.) Hafellner]: lichen, frequently lichenicolous on *Rhizocarpon*, *Lecidea* or other saxicolous lichens; **kemmleri** Brackel: on *Cladonia*; **lichenicola** Alstrup & Olech, nom. inval. (ICN Art. F.5.2): on *Lepra corallophora*; **novae-zelandiae** Zhurb.: on *Bunodophoron*; ***parasitica*** van den Boom & Etayo: on decaying thalli of *Parmotrema* and *Hypotrachyna*; **stereocaulorum** Etayo & van den Boom: on *Stereocaulon*; **usneae** van den Boom & Ertz: on *Usnea*.
Lit.: Alstrup et al. 2018; Brackel 2016; Coppins 2009; Etayo 2017; van den Boom & Ertz 2014; van den Boom et al. 2023; Zhurbenko 2023b.

Family **Psoraceae** Zahlbr.

Glyphopeltis Brusse; type: *G. eburina*, i.e., *G. ligustica*]. Mol.: yes (T, L).
Species: 0-1-0. ***ligustica*** (B. de Lesd.) Timdal [= *G. eburina* Brusse]: lichen, juvenile parasite on *Peltula*.
Lit.: Ott & Scheidegger 1992; Rambold & Triebel 1992.

Psorula Gotth.Schneid.; type: *P. rufonigra*. Mol.: yes (T, L).
Species: 0-1-0 (3). ***rufonigra*** (Tuck.) Gotth.Schneid.: lichenicolous lichen on *Spilonema*.
Lit.: Rambold & Triebel 1992.

Family **Ramalinaceae** C.Agardh.

Bacidia De Not.; type: *B. rosella* (Pers.) De Not. (lichenized). Mol.: yes (T).
Species: 1-0-0 (200). **killiasii** (Hepp) D.Hawksw.: on *Peltigera*.
Lit.: Rambold & Triebel 1992.

Kiliasia Hafellner; type: *K. athallina* (Hepp) Hafellner (lichenized). Mol.: yes (T, L).
Species: 1-1-0 (9). **episema** (Nyl.) Hafellner [≡ *Toninia episema* (Nyl.) Timdal; =? *Scutula aspiciliae* (Müll.Arg.) Rehm]: on *Aspicilia* s.l.; ***nordlandica*** (Th. Fr.) Kistenich, Timdal, Bendiksby & S.Ekman [≡ *Toninia nordlandica* Th.Fr.]: lichenicolous lichen on *Placynthium* and other lichens with cyanobacteria.
Lit.: Kistenich et al. 2018; Timdal 1992.

Myrionora R.C.Harris; type: *M. albidula* (Willey) R.C. Harris (lichenized). Mol.: yes (T).

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Species: 0-1-0 (2). ***pseudocyphellariae*** (Etayo) S. Ekman & Palice [≡ *Scoliciosporum pseudocyphellariae* Etayo]: lichenicolous lichen on *Pseudocyphellaria*.
Lit.: Etayo & Sancho 2008; Palice et al. 2013.

Scutula Tul.; type: *S. wallrothii*, i.e., *S. miliaris* [= *Hollosia* Gyeln.; type: *H. vertescens*, i.e., *S. epiblastematica*; = *Karsteniomyces* D.Hawksw.; type: *K. peltigerae* (P.Karsten) D.Hawksw.; = *Libertiella* Speg. & Roum.; type: *L. malmedyensis* Speg. & Roum., i.e., probably *S. epiblastematica*]. Mol.: yes (T, L). Species on non-Peltigerales hosts probably do not belong to *Scutula* s.str.
Species: 14-2-0 (20). **cladoniicola** Alstrup & D. Hawksw.: on *Cladonia trassii* [does not belong to *Scutula*]; **curvispora** (D.Hawksw. & Miądl.) Diederich [≡ *Libertiella curvispora* D.Hawksw. & Miądl.]: on *Peltigera*; ***dedicata*** Triebel, Wedin & Rambold: lichenicolous lichen on *Peltigera*; **didymospora** (D.Hawksw. & Miądl.) Diederich [≡ *Libertiella didymospora* D. Hawksw. & Miądl.]: on *Peltigera*; **epiblastematica** (Wallr.) Rehm [= *S. aggregata* (Bagl. & Carestia) Rehm; = *Hollosia vertescens* Gyeln.; =? *Orbilia peltigerae* (Fuckel) Sacc.; =? *Libertiella malmedyensis* Speg. & Roum.]: on cyanobacterial *Peltigera* species; ***heerii*** (Hepp) Trevis.: lichenicolous lichen on *Peltigera*; **Libertiella fennica** Alstrup: on *Peltigera*; **Libertiella lepraria**e Etayo & Diederich: on *Lepraria*; **leptogica** (Nyl.) Zopf: on *Polychidium muscicola*; **Karsteniomyces llimonae** Boqueras & Diederich: on *Parmelina quercina*; **miliaris** (Wallr.) Trevis. [= *S. wallrothii* Tul., nom. illeg.; = *Karsteniomyces peltigerae* (P.Karst.) D. Hawksw.; = *Diplodina peltigerae* Vouaux]: on cyanobacterial *Peltigera* species; **nephromatis** (Speg.) Etayo: on *Nephroma antarcticum*; **Libertiella obscurior** Gerber: on *Brodoa intestiniformis* [a poorly known species]; **pseudocyphellariae** Etayo & Triebel: on *Pseudocyphellaria*; **tuberculosa** (Th.Fr.) Rehm [= *S. krempelhuberi* Körb.; = *S. solorinaria* (Nyl.) P.Karst.; = *S. solorinicola* (Vain.) Rehm]: on *Pseudosolorina*; **Karsteniomyces tuberculosus** Alstrup & D.Hawksw.: on green-algal *Peltigera* species [probably distinct from *S. epiblastematica*].
Lit.: Alstrup 1997; Alstrup & Hawksworth 1990; Boqueras & Diederich 1993; Etayo & Diederich 1995; Etayo & Sancho 2008; Etayo & Triebel 2010; Hawksworth 1980b, 1981; Hawksworth & Miądlikowska 1997a; Pino-Bodas et al. 2017; Triebel et al. 1997; Wedin et al. 2007.

Thalloidima A.Massal.; type: *T. candidum* (Weber) A. Massal. (lichenized). Mol.: yes (T).
Species: 2-0-0 (17). **collematicola** (Timdal) Timdal: on *Collema*; **leptogii** (Timdal) Timdal: on *Collema* and *Scytinium*.
Lit.: Kistenich et al. 2018; Timdal 1992.

Toninia A.Massal.; type: *T. cinereovirens* (Schaer.) A. Massal. (lichenized). Mol.: yes (T, L).
Species: 9-1-0 (19). **lobothalliae** Y.Joshi: on *Aspicilia almorensis* and *Lobothallia praeradiosa*; **nashii** Timdal: on *Lecidella asema* (and *Lecanora gangaleoides*?); **plumbina** (Anzi) Hafellner & Timdal: on *Degelia*; **poeltiana** S.Y.Kondr., L.Lőkös & Hur: on *Verrucaria fuscella*; **subfuscae** (Arnold) Timdal: on *Lecanora*, rarely on other lichens; **subdispersa** (Nyl.) K.Knudsen [= *T. talparum* Timdal]: on *Lecania*; **subtalparum** van den Boom: on *Lecania*; **tecta** C.A.Morse & Ladd: on *Dermatocarpon*; ***ualae*** Etayo: lichenicolous lichen on *Pseudocyphellaria* and *Nephroma antarcticum*; **verrucariae** (Nyl.) Timdal: on *Bagliettoa* and *Encephalographa elisae*.
Lit.: Etayo & Sancho 2008; Joshi 2022b; Knudsen & Lendemer 2007; Knudsen & Kocourková 2018a; Kondratyuk et al. 2016b; Ladd & Morse 2018; Rambold & Triebel 1992; Timdal 1992; van den Boom 2004.

Toniniopsis Frey; type: *T. obscura* Frey (lichenized). Mol.: yes (L).
Species: 0-1-0 (8). ***verrucarioides*** (Nyl.) Kistenich, Timdal, Bendiksby & S.Ekman: lichenicolous lichen on *Placynthium*.
Lit.: Kistenich et al. 2018; Timdal 1992.

Family **Ramboldiaceae** S.Stenroos, Miądl. & Lutzoni

Ramboldia Kantvilas & Elix; type: *R. stuartii* (Hampe) Kantvilas & Elix (lichenized). Mol.: yes (T, L).
Species: 0-1-0 (30). ***insidiosa*** (Th.Fr.) Hafellner: lichenicolous lichen on *Lecanora varia*.
Lit.: Hafellner & Türk 1995.

Family **Scoliciosporaceae** Hafellner

Scoliciosporum A.Massal.; type: *S. holomelaeum* (Flörke) A.Massal. (lichenized). Mol.: no.
Species: 0-1-0 (13). ***vouauxii*** (B. de Lesd.) Hafellner: lichenicolous lichen on *Ramalina*.
Lit.: Hafellner 2002, 2004b.

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Family **Stereocaulaceae** Chevall.

Paralecia Brackel, Greiner, Peršoh & Rambold; type: *P. pratorum*. Mol.: yes (T, L).
Species: 1-0-0. **pratorum** Brackel, Greiner, Peršoh & Rambold: on *Protoparmeliopsis muralis*.
Lit.: Liu et al. 2015.

Family **Tephromelataceae** Hafellner [= Mycoblastaceae Hafellner]

Tephromela M.Choisy; type: *T. atra* (Huds.) Hafellner (lichenized). Mol.: yes (T).
Species: 3-1-0 (30). **campestricola** (Nyl.) Rambold & Triebel: on *Lecanora pseudistera* and *L.* sp.; **cerasina** (Müll.Arg.) Rambold & Triebel: on *Dirinaria*; **koliensis** (Räs.) Rambold & Triebel: on *Lecanora argopholis*; ***parasitica*** Øvstedal & Søchting: lichenicolous lichen on *Lecidella*.
Lit.: Rambold 1993; Søchting et al. 2004.

Order Lecanorales genera incertae sedis

Corticiruptor Wedin & Hafellner; type: *C. abelonae*. Mol.: no.
Species: 2-0-0. **abeloneae** (P.M.Jørg.) Wedin & Hafellner: on *Sticta*; **corallinus** Etayo: on *Pseudocyphellaria*.
Lit.: Etayo & Sancho 2008; Wedin & Hafellner 1998.

Lichenosticta Zopf; type: *L. podetiicola*, i.e., *L. alcicorniaria*. Mol.: yes (T, L).
Species: 6-0-0. **alcicorniaria** (Linds.) D.Hawksw. [as '*alcicornaria*'] [= *L. podetiicola* Zopf]: on *Cladonia*; **dombrovskae** Zhurb.: on *Stereocaulon*; **hoegnabbae** Zhurb. & Pino-Bodas: on *Cladia*; **jurgae** Kukwa & Flakus: on *Lecanora*; **lecanorae** (Vouaux) Brackel & Zhurb.: on *Lecanora*; **wirthii** Brackel: on *Loxospora cismonica*.
Lit.: Brackel & Wirth 2023; Flakus & Kukwa 2012; Hawksworth 1981; Pino-Bodas et al. 2017; Zhurbenko 2010a; Zhurbenko & Pino-Bodas 2015; Zhurbenko et al. 2015d.

Nimisiostella Calat., Barreno & O.E.Erikss.; type: *N. lichenicola*. Mol.: no.
Species: 1-0-0. **lichenicola** Calat., Barreno & O.E. Erikss.: on *Parmelia saxatilis*.
Lit.: Calatayud et al. 1997.

Umbilithecium Etayo; type: *U. pseudocyphellariae*. Mol.: no.
Species: 1-0-0. **pseudocyphellariae** Etayo: on *Pseudocyphellaria*.
Lit.: Etayo & Sancho 2008.

Umushamyces Etayo; type: *U. kuturnus*. Mol.: no.
Species: 2-0-0. **kuturnus** Etayo: on *Coccotrema cucurbitula*; **wedinii** Zhurb. & Etayo: on *Bunodophoron*.
Lit.: Etayo & Sancho 2008; Zhurbenko 2023b.

Order **Lecideales** Vain.

Family **Lecideaceae** Chevall.

Cecidonia Triebel & Rambold; type: *C. umbonella*. Mol.: yes (T, L).
Species: 2-0-0. **umbonella** (Nyl.) Triebel & Rambold: on *Lecidea*; **xenophana** (Körb.) Triebel & Rambold [= *Lecidea hymeneliicola* Alstrup & D.Hawksw.]: on *Porpidia*.
Lit.: Triebel & Rambold 1988.

Immersaria Rambold & Pietschm.; type: *I. athroocarpa*. Mol.: yes (T, L).
Species: 0-2-0 (8). ***athroocarpa*** (Ach.) Rambold & Pietschm.: lichen, juvenile facultatively lichenicolous on *Aspicila* and other lichens; ***usbekica*** (Hertel) Barbero, Nav.-Ros. & Cl.Roux: lichen, juvenile facultatively lichenicolous on *Aspicila* and other lichens.
Lit.: Rambold & Triebel 1992.

Lecaimmeria C.M.Xie, Lu L.Zhang & Li S.Wang; type: *L. orbicularis* C.M.Xie & Lu L.Zhang. Mol.: yes (T, L).
Species: 0-1-0 (12). ***cupreoatra*** (Nyl.) C.M.Xie [≡ *Bellemerea cupreoatra* (Nyl.) Clauzade & Cl.Roux]: lichenicolous lichen on *Buellia*, becoming independent.
Lit.: Rambold & Triebel 1992; Xie et al. 2022.

Lecidea Ach. s.l.; type: *L. fuscoatra* (L.) Ach. (lichenized). Mol.: yes (T).
Species: 4-7-0 (100). **acervata** Stiz.: on *Pseudoparmelia* [a poorly known taxon]; ***buellielloides*** S.Y. Kondr. & Hur: on *Follmannia suborthoclada*; ***degeliana***

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Hertel: lichenicolous lichen on *Acarospora*; **diexcipula** D.Hawksw. & Alstrup: on *Lecanora polytropa*; ***grummannii*** Hertel: lichenicolous lichen on *Acarospora*; **halacsyi** J.Steiner: on *Rhizocarpon geographicum*; ***leprosolimbata*** (Arnold) Poelt: lichenicolous lichen on *Bellemerea subcandida*; ***percutiens*** Poelt: lichenicolous lichen on *Diploschistes scruposus*; **perforans** Stiz.: on *Parmotrema* [a poorly known taxon]; ***rapax*** Hertel: lichenicolous lichen on *Aspicilia* s.l. and *Bellemerea*; ***verruca*** Poelt: lichenicolous lichen on *Aspicilia* s.l.
Lit.: Hafellner 2006; Kondratyuk et al. 2020b; Rambold & Triebel 1992.

Poeltiaria Hertel; type: *P. turgescens* (Körb.) Hertel (lichenized). Mol.: yes (L).
Species: 0-1-0 (8). ***coromandelica*** (Zahlbr.) Rambold & Hertel: lichen, juvenile lichenicolous on *Parapordia leptocarpa*.
Lit.: Rambold & Triebel 1992.

Order **Leprocaulales** Lendemer & B.P.Hodk.

Family **Leprocaulaceae** Lendemer & B.P.Hodk.

Halecania M.Mayrhofer; type: *H. alpivaga*. Mol.: yes (T, L).
Species: 1-6-0 (23). ***ahtii*** Zhdanov: lichenicolous lichen on *Aspicilia* s.l.; ***alpivaga*** (Th.Fr.) M.Mayrhofer: lichenicolous lichen on *Physcia* and *Placynthium*; **fuscopannariae** Etayo & van den Boom: on *Fuscopannaria*; ***giraltiae*** van den Boom & Etayo: lichenicolous lichen on saxicolous lichens; ***lobulata*** van den Boom & Elix: lichen, possibly lichenicolous over *Hymenelia*; ***parasitica*** Aptroot & K.H.Moon: lichenicolous lichen over *Schaereria fuscocinerea*, becoming independent; ***santessonii*** M.P.Andreev: lichenicolous lichen on *Porpidia albocaerulescens*.
Lit.: Andreev 2010; Aptroot & Moon 2015; M. Mayrhofer 1987; van den Boom 2009; van den Boom & Elix 2005; van den Boom & Etayo 2001; Zhdanov 2020.

Order **Rhizocarpales** Miądl. & Lutzoni s.l.

Family **Rhizocarpaceae** Hafellner

Epilichen Clem.; type: *E. scabrosus*. Mol.: yes (T, L).
Species: 1-2-0. ***glaucinigellus*** (Nyl.) Hafellner: lichenicolous lichen on *Baeomyces*; ***scabrosus*** (Ach.) Clements: lichenicolous lichen on *Baeomyces*; **stellatus** Triebel: on *Lecidea* cf. *tessellata*.
Lit.: Hafellner 1978; Triebel 1989.

Rhizocarpon DC.; type: *R. geographicum* (L.) DC. (lichenized). Mol.: yes (T, L).
Species: 7-33-0 (225). **advenulum** (Leight.) Hafellner & Poelt: on *Pertusaria flavicans* and *P. rupicola*; ***asiaticum*** (Poelt) Poelt: lichenicolous lichen on *Sporastatia*; **aspiciliae** (Räsänen) D.Hawksw. & V.Atienza: on *Hymenelia*; ***atrovirellum*** (Nyl.) Zahlbr.: lichenicolous lichen on *Aspicilia* s.l.; **bryonthae** Poelt: on *Pertusaria bryontha*; ***captans*** Poelt: lichenicolous lichen on *Aspicilia* s.l.; ***cleptophilum*** Alstrup & E.S.Hansen: lichenicolous lichen on *Acarospora picea*; ***dahlii*** Øvstedal: lichenicolous lichen on the prothallus of *Rhizocarpon geographicum*; ***destructans*** Alstrup: lichenicolous lichen on *Lecanora polytropa*; ***dimelaena*** Timdal: lichenicolous lichen on *Dimelaena oreina*; ***dinothetes*** Hertel & Leuckert: lichenicolous lichen on *Protoparmelia*; ***diploschistidina*** McCune: lichenicolous lichen on *Diploschistes muscorum*; ***effiguratum*** (Anzi) Th.Fr.: facultatively lichenicolous lichen on *Pleopsidium flavum*; ***epispilum*** (Nyl.) Zahlbr. s.l.: lichenicolous lichen on saxicolous *Pertusaria*; ***fratricida*** Poelt & Nimis: lichenicolous lichen on *Rhizocarpon*; ***fuegianum*** Poelt, nom. nud.: lichenicolous lichen on *Rhizocarpon geographicum*; ***furax*** Poelt & V.Wirth: lichenicolous lichen on *Lecidea*; ***inimicum*** Poelt & Vězda: lichenicolous lichen on *Glaucomaria rupicola* s.l.; ***intermediellum*** Räsänen: lichen, juvenile lichenicolous on other lichens; ***kakurgon*** Poelt: lichenicolous lichen on *Aspicilia* s.l.; ***kansuense*** H.Magn.: lichenicolous lichen on *Aspicilia* s.l.; ***lusitanicum*** (Nyl.) Arnold: lichenicolous lichen on saxicolous *Lepra*; **malenconianum** (Llimona & Werner) Hafellner & H.Mayrhofer: on *Diploschistes*; ***mosigiae*** Poelt & Obermayer: lichenicolous lichen on *Rimularia gibbosa*; **narssaqense** Alstrup: on *Lecanora atromarginata*; ***norvegicum*** Räsänen: lichen, juvenile lichenicolous on other lichens, mainly *Acarospora*; **ochrolechiae** (Poelt & Nimis) Hafellner: on *Ochrolechia parella*; ***parvum*** Runem.: lichen, juvenile lichenicolous on *Tremolecia atrata*; ***pusillum*** Runem.: lichenicolous lichen on *Sporastatia*; ***rapax*** V.Wirth & Poelt: lichenicolous lichen on *Acarospora*, *Aspicilia* s.l. and *Rimularia*; ***renneri*** Poelt: lichenicolous lichen on *Dimelaena oreina*; ***santessonii*** Timdal: lichenicolous lichen on *Tremolecia atrata*; ***schedomyces*** Hafellner & Poelt: lichenicolous lichen on saxicolous *Pertusaria*;

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subtile Runem.: lichen, juvenile lichenicolous on *Tremolecia*; ***superficiale*** (Schaer.) Vain.: lichen, juvenile lichenicolous on *Acarospora oxytona*; ***tephromelae*** Øvstedal: lichenicolous lichen on *Tephromela atra*; ***trapeliicola*** Brand: lichenicolous lichen on *Trapelia*; **tungurahuae** Etayo & Palice: on *Gyalidea*; ***viridiatrum*** (Wulf.) Körb.: lichen, juvenile often lichenicolous on *Aspicilia* s.l., *Lecidea*, *Tremolecia*; ***vorax*** Poelt & Hafellner: lichenicolous lichen on *Ochrolechia parella* and *Pertusaria*.
Lit.: Alstrup & Hawksworth 1990; Etayo 2017; Feuerer & Timdal 2004; Hawksworth & Atienza 1994; Holtan-Hartwig & Timdal 1987; Lumbsch et al. 2011; Øvstedal et al. 2009; Poelt & Obermayer 1995; Poelt & Vězda 1984; Rambold & Triebel 1992.

Order **Teloschistales** D.Hawksw. & O.E.Erikss.

Family **Teloschistaceae** Zahlbr.

Caloplaca Th.Fr. s.l.; type: *C. cerina* (Hedw.) Th.Fr. (lichenized). Mol.: yes (T, L). We also include here species belonging to *Caloplaca* s.l. for which no molecular data are available.
Species: 0-20[+1 var.]-0 (350). ***adelphoparasitica*** Nimis & Poelt: lichenicolous lichen on *Caloplaca* and other lichens; ***anchon-phoeniceon*** Poelt & Clauzade: lichenicolous lichen on *Aspicilia* s.l.; ***cacuminum*** Poelt: lichen, juvenile facultatively lichenicolous on saxicolous lichens; ***epitoninia*** O. Breuss: lichenicolous lichen on *Toniniopsis aromatica*; ***grimmiae*** (Nyl.) H.Olivier: lichenicolous lichen on *Candelariella*; ***inconnexa*** (Nyl.) Zahlbr. var. ***inconnexa***: lichen, juvenile lichenicolous on *Acarospora*, *Aspicilia* s.l., *Caloplaca*; ***inconnexa*** var. ***nesodes*** Poelt & Nimis: lichenicolous lichen on *Aspicilia* s.l.; ***infestans*** H.Magn.: lichenicolous lichen on *Aspicilia* s.l., *Caloplaca* s.l., *Lecanora*; ***insularis*** Poelt: lichenicolous lichen on *Aspicilia* s.l.; ***interna*** Poelt & Nimis: lichenicolous lichen on *Aspicilia* s.l.; ***isidiigera*** Vězda: lichenicolous lichen on saxicolous lichens; ***lecanorae*** F.C.Seavey & J.L. Seavey: lichenicolous lichen on *Lecanora leprosa*, also on *Buellia*; ***magni-filii*** Poelt: lichenicolous lichen on *Miriquidica nigroleprosa*; ***megalariicola*** Øvstedal: lichenicolous lichen on *Megalaria grossa*; ***necator*** Clauzade & Poelt: lichenicolous lichen on *Aspicilia* s.l.; ***nubigena*** (Kremp.) Dalla Torre & Sarnth.: lichen, facultatively lichenicolous on *Clauzadea immersa*; ***peludella*** (Nyl.) Hasse: lichen, juvenile facultatively lichenicolous on saxicolous lichens; ***placidia*** (A.Massa.) J.Steiner: lichen, juvenile facultatively lichenicolous on *Pyrenodesmia chalybaea*; ***psoricida*** Hansen, Poelt & Søchting: lichenicolous lichen on *Psora rubiformis*; ***rinodinae-albae*** Poelt & Nimis: lichenicolous lichen on *Rinodina alba*; ***tenuatula*** (Nyl.) Zahlbr.: lichenicolous lichen on *Bagliettoa calciseda*.
Lit.: Breuss 1990; Fryday & Øvstedal 2012; Nimis et al. 1994; Rambold & Triebel 1992; Roux 2014; Seavey & Seavey 2012; Seavey et al. 2017; Wetmore 1999.

Catenarina Søchting, Søgaard, Arup, Elvebakk & Elix; type: *C. desolata*. Mol.: yes (T, L).
Species: 0-1-0 (3). ***desolata*** Søchting, Søgaard & Elvebakk: lichenicolous lichen on *Aspicilia* s.l.
Lit.: Søchting et al. 2014.

Erichansenia S.Y.Kondr., Kärnefelt & A.Thell; type: *E. epithallina*. Mol.: yes (T, L).
Species: 0-2-0 (3). ***epithallina*** (Lynge) S.Y. Kondr., Kärnefelt & A.Thell: lichenicolous lichen on *Acarospora*, *Aspicila*, *Dimelaena*, *Lecanora*, *Melanelia*, *Pleopsidium*, *Psorinia*, *Rhizocarpon*, *Rhizoplaca*, *Stereocaulon*, *Tephromela*, *Umbilicaria*; ***sauronii*** (Søchting & Øvstedal) S.Y.Kondr., Kärnefelt & A.Thell: lichenicolous lichen on *Buellia*.
Lit.: Kondratyuk et al. 2020a.

Flavoplaca Arup, Søchting & Frödén; type: *F. citrina* (Hoffm.) Arup, Søchting & Frödén. Mol.: yes (T, L).
Species: 0-4-0 (27). ***coronata*** (Körb.) J.Steiner: lichen, juvenile facultatively lichenicolous on saxicolous lichens; ***microthallina*** (Wedd.) Zahlbr.: lichen, facultatively lichenicolous on saxicolous lichens, especially *Hydropunctaria maura*; ***oasis*** (A.Massal.) Szatala: lichen, facultatively lichenicolous on saxicolous lichens, especially *Bagliettoa calciseda*; ***polycarpa*** (A.Massal.) Arup, Frödén & Søchting: lichenicolous lichen on *Bagliettoa*.
Lit.: Arup et al. 2013; Roux 2014.

Gyalolechia A.Massal.; type: *G. aurea* (Schaer.) A.Massal (lichenized) [= *Fulgensia* A.Massal. & De Not.; type: *F. fulgens* (Sw.) Elenkin (lichenized)]. Mol.: yes (T).
Species: 0-2-0 (30). ***epiplacynthium*** (Etayo) Diederich [≡ *Fulgensia epiplacynthium* Etayo]: lichenicolous lichen on *Placynthium filiforme*; ***paradoxa*** Himelbr., Stepanch. & I.V.Frolov: facultatively lichenicolous lichen on *Psora rubiformis*.
Lit.: Etayo 2010c, Frolov et al. 2025.

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Kuettlingeria Trevis.; type: *K. visianica* (A.Massal.) Trevis., i.e., *K. teicholyta* (Ach.) Trevis. (lichenized). Mol.: yes (T, L).
Species: 0-3-0 (21). ***emilii*** (Vondrák, Khodos., Cl.Roux & V.Wirth) I.V.Frolov, Vondrák & Arup: lichen, juvenile lichenicolous on saxicolous lichens; ***erythrocarpa*** (Pers.) I.V.Frolov, Vondrák & Arup: lichen, juvenile facultatively lichenicolous on *Circinaria calcarea*; ***furax*** (Egea & Llimona) I.V.Frolov, Vondrák & Arup: lichen, juvenile lichenicolous on other lichens, especially *Aspicilia* s.l.
Lit.: Vondrák et al. 2013.

Marchantiana S.Y.Kondr., Kärnefelt, Elix, A.Thell & Hur; type: *M. occidentalis* (Elix, S.Y.Kondr. & Kärnefelt) S. Y.Kondr., Kärnefelt, A.Thell, Elix, J.Kim, A.S.Kondr. & Hur. Mol.: yes (T, L).
Species: 0-1-0 (14). ***tephromelae*** (Kantvilas, Suija & Motiej.) S.Y.Kondr., Kärnefelt, L.Lőkös & A. Thell: on *Tephromela atra* and *T. granularis*.
Lit.: Kantvilas et al. 2021; Kondratyuk et al. 2025.

Pachypeltis Søchting, Arup & Frödén [a hemihomonym of *Pachypeltis* Signoret, Heteroptera]; type: *P. castellana* (Räsänen) Søchting, Frödén & Arup (lichenized). Mol.: yes (T, L).
Species: 0-1-0 (4). ***invadens*** (Lynge) Søchting, Frödén & Arup: lichenicolous lichen on *Lecanora*, *Physcia caesia*.
Lit.: Arup et al. 2013.

Pisutiella S.Y.Kondr., Lőkös & Farkas; type: *P. conversa* (Kremp.) S.Y.Kondr., Lőkös & Farkas. Mol.: yes (T, L).
Species: 0-1-0 (6). ***grimmiae*** (Nyl.) H.Olivier: lichenicolous lichen on *Candelariella*.
Lit.: Kondratyuk et al. 2020a.

Shackletonia Søchting, Frödén & Arup; type: *S. hertelii* (Søchting, Øvstedal & Sancho) Søchting, Frödén & Arup (lichenized). Mol.: yes (T, L).
Species: 1-1-0 (5). **buelliae** (Olech & Søchting) Søchting: on *Buellia*; ***Caloplaca psoromatis*** Olech & Søchting: lichenicolous lichen on *Psoroma* and *Pannaria hookeri* [provisionally placed here].
Lit.: Garrido-Benavent et al. 2016; Olech & Søchting 1993; Søchting et al. 2004.

Sirenophila Arup, Søchting & Frödén; type: *S. gintarasii* (S.Y.Kondr. & Kärnefelt) Arup, Frödén & Søchting. Mol.: yes (T, L).
Species: 0-1-0 (8). ***ovis-atra*** Søchting, Søgaard & Sancho: lichenicolous lichen on *Hydropunctaria*.
Lit.: Søchting et al. 2016.

Tassiloa S.Y.Kondr., Kärnefelt, A.Thell, Elix & Hur; type: *T. digitaurea* (Søgaard, Søchting & Sancho) S.Y. Kondr., Kärnefelt, A.Thell, Elix, J.Kim, A.S.Kondr. & Hur. Mol: yes (T, L).
Species: 0-1-0 (3). ***wetmorei*** (Nimis, Poelt & Tretiach) S.Y.Kondr., Kärnefelt, A.Thell, Elix, J.Kim, A.S.Kondr. & Hur: lichenicolous lichen on saxicolous hosts, mainly *Aspicilia*, *Buellia* and *Pertusaria*.
Lit.: Kondratyuk et al. 2015b; Schumm 2025.

Variospora Arup, Søchting & Frödén; type: *V. velana*. Mol.: yes (T, L).
Species: 0-2-0 (20). ***epierodens*** (M.Bertrand & Cl. Roux) Cl.Roux & M.Bertrand: lichenicolous lichen on *Pyrenodesmia erodens*; ***velana*** (A. Massal.) Arup, Søchting & Frödén: lichen, juvenile facultatively lichenicolous on *Pyrenodesmia variabilis*.
Lit.: Arup et al. 2013; Roux & Bertrand 2019.

Villophora Søchting, Arup & Frödén; type: *V. isidioclada* (Zahlbr.) Søchting, Frödén & Arup. Mol.: yes (T, L).
Species: 0-2-0 (8). ***onas*** Søchting, Søgaard & Arup: on *Rhizocarpon* and crustose lichens; ***patagonica*** Søchting & Søgaard: lichenicolous lichen on crustose hosts.
Lit.: Søchting et al. 2014.

Subclass OSTROPOMYCETIDAE Reeb, Lutzoni & Cl.Roux

Order **Graphidales** Bessey

Family **Diploschistaceae** Zahlbr.

Diploschistes Norman; type: *D. scruposus* (Schreb.) Norman (lichenized). Mol.: yes (T, L).
Species: 0-5-0 (31). ***bisporus*** (Bagl.) J.Steiner: lichen, facultatively lichenicolous on *Rhizocarpon geographicum* s.l.; ***caesioplumbeus*** (Nyl.) Vainio: lichen, juvenile lichenicolous on *Lecanora gangaleoides*; ***euganeus*** (A. Massal.) J.Steiner: lichen, facultatively lichenicolous on *Ochrolechia parella*; ***muscorum*** (Scop.) R.Sant.: lichenicolous on *Cladonia* (rarely *Stereocaulon*) when young, later an independent lichen; ***stereocaulorum*** Lumbsch,

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C. Morris & McCune: on *Stereocaulon*, thallus not distinct.
Lit.: Lumbsch 1989; Lumbsch et al. 2023.

Family **Gomphillaceae** Walt.Watson

Adelphomyces Xavier-Leite, M.Cáceres & Lücking; type: *A. epithallinus*. Mol.: yes (T, L).
Species: 3-0-0. **cochlearifer** (Lücking & Sérus.) Xavier-Leite, M.Cáceres & Lücking: on foliicolous Gomphillaceae; **epithallinus** (Lücking) Xavier-Leite, M.Cáceres & Lücking: on foliicolous *Gyalideopsis vulgaris*; **parvulus** (Hafellner & Vězda) Xavier-Leite, M.Cáceres & Lücking: on foliicolous Pilocarpaceae.
Lit.: Etayo 2010b, 2017; Lücking 1997; Lücking & Sérusiaux 1998; Xavier-Leite et al. 2023.

Corticifraga D.Hawksw. & R.Sant.; type: *C. peltigerae*. Mol.: yes (T, L).
Species: 11-0-0. **chugachiana** Zhurb.: on *Lobaria oregana*; **fuckelii** (Rehm) D.Hawksw. & R.Sant.: on *Peltigera*; **fusispora** Zhurb.: on *Peltigera aphthosa* and *P. leucophlebia*; **melanohaleae** P.Pinault & Cl. Roux: on *Melanohalea exasperata*; **microspora** Etayo & Flakus: on *Lobariella pallida*; **nephromatis** Pérez-Ort.: on *Nephroma bellum*; **peltigerae** (Fuckel) D.Hawksw. & R.Sant.: on *Peltigera*, exceptionally on *Solorina* and *Pseudocyphellaria*; **pseudocyphellariae** Etayo: on *Pseudocyphellaria*; **ramalinae** P.Pinault, Ertz & Cl.Roux: on *Ramalina fraxinea*; **santessonii** Zhurb. & Zavarzin: on *Lobaria* and *Nephroma*; **scrobiculatae** Pérez-Ort.: on *Lobarina scrobiculata*.
Lit.: Etayo & Sancho 2008; Flakus et al. 2019a; Hawksworth & Santesson 1990; Pino-Bodas et al. 2017; Roux & Pinault 2024; Roux et al. 2022b; Spribille et al. 2010, 2020; Zhurbenko 2007c; Zhurbenko 2009b.

Gyalideopsis Vězda; type: *G. peruviana* Vězda (lichenized). Mol.: yes.
Species: 1-0-1 (97). **stipitata** Kalb & Vězda: facultatively lichenicolous on *Dictyonema*; **usneicola** Etayo: on *Usnea*.
Lit.: Etayo 2010b, 2017; Lücking 1997; Lücking & Sérusiaux 1998.

Paragyalideopsis Etayo; type: *P. floridae*. Mol.: no.
Species: 4-0-0. **breussii** Etayo: on *Hypotrachyna*; **floridae** (Etayo & Diederich) Etayo: on *Parmotrema*; **minuta** Etayo: on *Trypethelium*; **stereocaulicola** (Etayo) Etayo: on *Stereocaulon*.
Lit.: Etayo 2017; Etayo & Diederich 2001.

Taitaia Suija, Kaasalainen, Kirika & Rikkinen; type: *T. aurea*. Mol.: yes (T, L).
Species: 1-0-0. **aurea** Suija, Kaasalainen & Rikkinen: on *Crocodia* cf. *clathrata*.
Lit.: Diederich et al. 2024e; Suija et al. 2018b.

Order **Ostropales** Nannf.

Family **Graphidaceae** Dumort.

Chroodiscus (Müll.Arg.) Müll.Arg.; type: *C. coccineus*. Mol.: yes (T, L).
Species: 0-6-0 (14). ***australiensis*** Vězda & Lumbsch: lichen, facultatively lichenicolous on *Porina mirabilis*, rarely *P. lucida*; ***coccineus*** (Leight.) Müll. Arg.: lichen, facultatively lichenicolous on *Porina subepiphylla*, rarely *P. epiphylla*; ***neotropicus*** Kalb & Vězda: lichen, facultatively lichenicolous on *Porina pseudoapplanata*; ***rubentiicola*** Lücking, Grube & Kalb: lichenicolous lichen on *Porina rubentior*; ***submuralis*** Lücking: lichen, facultatively lichenicolous on *Porina*; ***verrucosus*** R.Sant. & Lücking: lichen, facultatively lichenicolous on *Porina* sp. indet.
Lit.: Lücking & Grube 2002.

Family **Spirographaceae** Flakus, Etayo & Miądl.

Spirographa Zahlbr.; type: *S. fusisporella* [≡ *Graphinella* Zahlbr.; type: *G. fusisporella*; = *Asteroglobulus* Brackel; type: *A. giselae*; *Cornutispora* Piroz.; type: *C. limaciformis*; = *Pleoscutula* Vouaux; type: *P. arsenii* Vouaux; = *Pleospilis* Clem.; type: *P. vermiformis* (Leight.) Clem.; = *Spilomela* (Sacc.) Keissl.; type: *S. vermifera* (Leight.) Keissl.; = *Spirographomyces* Cif. & Tomas.; type: *S. spiralis* Cif. & Tomas.]. Mol.: yes (L).
Species: 23-0-1. **aggregata** Flakus, Etayo & Miądl.: on *Polyblastidium corallophorum*; **arsenii** (Vouaux) Flakus, Etayo & Miądl.: on *Heterodermia* and *Polyblastidium japonicum*; **ascaridiella** (Nyl.) Flakus, Etayo & Miądl.: on ? *Porpidia*; **bunodophoronis** Zhurb.: on *Bunodophoron*; **ciliata** (Kalb) Flakus, Etayo & Miądl.: on various lichens; **fusisporella** (Nyl.) Zahlbr.: on Graphidaceae; **galligena** Flakus, Etayo & Miądl.: on *Erioderma*; **giselae** (Brackel)

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Flakus, Etayo & Miądl.: hyperparasite of *Lichenopeltella* on *Parmotrema* and *Ramalina*; **herteliana** (Knoph) Flakus, Etayo & Miądl.: on *Lecidella*; **hypotrachynae** (Etayo & Diederich) Flakus, Etayo & Miądl. [comb. valid, although wrong author citation "(Etayo)", ICN Art. 41.6] [≡ *Pleoscutula hypotrachynae* Etayo & Diederich]: on *Hypotrachyna*; **intermedia** (Punith. & D.Hawksw.) Flakus, Etayo & Miądl.: on various lichens; **lichenicola** (D.Hawksw. & B.Sutton) Flakus, Etayo & Miądl.: on various lichens; **limaciformis** (Piroz.) Flakus, Etayo & Miądl.: facultatively lichenicolous on *Protoparmeliopsis muralis*; **longispora** Etayo: on *Sticta*; **maroneae** Flakus, Etayo & Miądl.: on *Maronea constans*; **ophiurospora** (Etayo) Flakus, Etayo & Miądl.: on *Lobariella*; **parmotrematis** Flakus, Etayo & Miądl.: on *Parmotrema*; **pittii** (D. Hawksw. & Punith.) Flakus, Etayo & Miądl.: on *Hypotrachyna*; **pyramidalis** (Etayo) Flakus, Etayo & Miądl.: on *Hypotrachyna* and *Remototrachyna*; **skorinae** Tsurykau, Brackel, Flakus & Kukwa: on *Polycauliona polycarpa*; **triangularis** (Diederich & Etayo) Flakus, Etayo & Miądl.: on *Pertusaria*; **tricupulata** (F.Berger & E.Zimm.) Flakus, Etayo & Miądl.: on *Physcia stellaris*; **usneae** Flakus, Kukwa & Etayo: on *Usnea*; **vermiformis** (Leight.) Flakus, Etayo & Miądl.: on *Lepra*.

Lit.: Brackel 2011a; Diederich 2004; Etayo 2002a, 2010a; Etayo & Diederich 1995; 2017; Flakus & Kukwa 2012; Flakus et al. 2019a; Gierl & Kalb 1993; Hafellner 1982b; Hawksworth 1976, 1981; Knoph 2004; Manawasinghe et al. 2024; Punithalingam 2003; Sherwood-Pike 1987; Sutton 1980; van den Boom & Etayo 2000; Zhurbenko 2023b; Zimmermann & Berger 2018.

Family **Stictidaceae** Fr.

Cryptodiscus Corda; type: *C. pallidus* [= *Lettauia* D. Hawksw. & R.Sant.; type: *L. cladoniicola*]. Mol.: yes (T, L).

Species: 6-0-0 (12). **cladoniicola** (D.Hawksw. & R. Sant.) Pino-Bodas, Zhurb. & S.Stenroos [≡ *Lettauia cladoniicola* D.Hawksw. & R.Sant.]: on *Cladonia*; **epicladonia** Zhurb. & Pino-Bodas: on *Cladonia*; **galaninae** Zhurb. & Pino-Bodas: on *Cladonia*; **gassicurtiae** Etayo & Aptroot: on *Gassicurtia coccinea*; **ihlenii** Zhurb.: on *Dibaeis arcuata*; **tirolensis** F. Berger, Feusi & E.Zimm.: on *Lepra corallina*.

Lit.: Berger & Zimmermann 2021; Etayo et al. 2020; Hawksworth & Santesson 1990; Pino-Bodas et al. 2017; Zhurbenko & Ohmura 2020.

Lettauia D.Hawksw. & R.Sant. s.l.; type: *L. cladoniicola*., i.e., *Cryptodiscus cladoniicola*. Mol.: no. The generic type has recently been shown to belong to *Cryptodiscus*. The phylogenetic affinities of the three other species described in *Lettauia* are currently unknown.

Species: 3-0-0. **hypotrachynae** Etayo: on *Hypotrachyna*; **santessonii** Ihlen & Tønsberg: on *Loxospora pustulata*; **usneae** Etayo: on *Usnea*.

Lit.: Etayo 2002a, 2017; Ihlen & Tønsberg 1996.

Nanostictis M.S.Christ.; type: *N. peltigerae*. Mol.: no.

Species: 9-0-0. **caucasica** Zhurb.: on *Parmelia sulcata*; **christiansenii** Etayo: on *Lobaria pulmonaria*; **confusa** Etayo: on *Hypotrachyna*; **heterodermiae** Etayo & Sipman: on *Heterodermia*; **nephromatis** Etayo: on *Nephroma antarcticum*; **peltigerae** M.S. Christ.: on *Peltigera*; **pluriseptata** Etayo: on *Lobariella*; **pseudocyphellariae** Sherwood: on *Pseudocyphellaria*; **stictae** Etayo: on *Sticta*.

Lit.: Etayo 2002a, 2017; Etayo & Diederich 1996b; Etayo & Sancho 2008; Zhurbenko 2017.

Sphaeropezia Sacc.; type: *S. alpina* Sacc. [= *Lethariicola* Grummann; type: *L. sipei*]. Mol.: yes (L).

Species: 17-0-0 (20). **bryoriae** (Diederich & Etayo) Baloch & Wedin [≡ *Odontotrema bryoriae* Diederich & Etayo]: on *Bryoria*; **cucularis** (Norman) Baloch & Wedin: on *Parmeliopsis*; **figulina** (Norman) Baloch & Wedin: on *Lecanora polytropa*; **intermedia** (Diederich, Zhurb. & Etayo) Baloch & Wedin [≡ *O. intermedium* Diederich, Zhurb. & Etayo]: on *Thamnolia vermicularis*; **japewiae** (Zhurb. & Diederich) Baloch & Wedin [≡ *O. japewiae* Zhurb. & Diederich]: on *Japewia tornoënsis*; **lecanorae** (Diederich & G.Marson) Baloch & Wedin [≡ *O. lecanorae* Diederich & G. Marson]: on *Lecanora*; **melaneliae** (Diederich & Zhurb.) Baloch, Gilenstam & Wedin [≡ *O. melaneliae* Diederich & Zhurb.]: on *Melanelia hepatizon* and *Melanohalea olivacea*; **mycoblasti** Diederich, Baloch & Wedin: on *Mycoblastus*; **navarinoi** (Etayo) Baloch & Wedin [≡ *O. navarinoi* Etayo]: on *Micarea magellanica*; **neuropogonis** Etayo & Pino-Bodas: on *Usnea antarctica*; **ochrolechiae** (Diederich, Holien & Zhurb.) Baloch & Wedin [≡ *O. ochrolechiae* Diederich, Holien & Zhurb.]: on *Ochrolechia*; **pertusariae** (Etayo, Diederich & Coppins) Baloch & Wedin [≡ *O. pertusariae* Etayo, Diederich & Coppins]: on *Pertusaria hymenea*; **rhizocarpicola** (Zhurb., Diederich & Himelbr.) Baloch & Wedin

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[≡ *O. rhizocarpicola* Zhurb., Diederich & Himelbr.]: on *Rhizocarpon* gr. *geographicum*; **santessonii** (Zhurb., Etayo & Diederich) Baloch & Wedin [≡ *O. santessonii* Zhurb., Etayo & Diederich]: on *Thamnolia vermicularis*; **sipei** (Grummann) Baloch & Wedin [≡ *Lethariicola sipei* Grummann]: on *Letharia*; **Odontotrema stereocaulicola** Zhurb.: on *Stereocaulon* [provisionally placed here; probably does not belong to *Sphaeropezia*]; **thamnoliae** (Zhurb., Diederich & Etayo) Baloch & Wedin [≡ *O. thamnoliae* Zhurb., Diederich & Etayo]: on *Thamnolia*.
Lit.: Baloch et al. 2013; Diederich et al. 2002b; Etayo & Sancho 2008; Etayo et al. 2023; Zhurbenko 2009b, 2010a.

Stictis Pers.; type: *S. radiata* (L.) Pers. Mol.: yes (T). The only lichenicolous species probably does not belong to *Stictis*.
Species: 1-0-0 (4). **cladoniae** (Rehm) Sacc.: on *Cladonia*.
Lit.: Pino-Bodas et al. 2017; Sherwood 1977.

Order Ostropales genera incertae sedis

Aabaarnia Diederich; type: *A. siphulicola*. Mol.: no.
Species: 1-0-0. **siphulicola** Diederich: on *Siphula*.
Lit.: Diederich 2014; Motiejūnaitė et al. 2019.

Biazrovia Zhurb. & Etayo; type: *B. stereocaulicola*. Mol.: no.
Species: 1-0-0. **stereocaulicola** Zhurb. & Etayo: on *Stereocaulon*.
Lit.: Zhurbenko & Etayo 2013.

Normanogalla Diederich; type: *N. cribriformis*. Mol.: no.
Species: 1-0-0. **cribriformis** (Norman) Diederich [≡ *Unguiculariopsis cribriformis* (Norman) Alstrup & D.Hawksw.]: on *Lepra dactylina* and *Pertusaria oculata*.
Lit.: Alstrup & Hawksworth 1990; Diederich 2014.

Paralethariicola Calat., Etayo & Diederich; type: *P. aspiciliae*. Mol.: no.
Species: 1-0-0. **aspiciliae** Calat., Etayo & Diederich: on *Aspicilia* s.l.
Lit.: Calatayud et al. 2001a.

Order **Pertusariales** D.Hawksw. & O.E.Erikss.

Family **Microcaliciaceae** Tibell

Microcalicium Vain.; type: *M. disseminatum*. Mol.: yes (T, L).
Species: 3-0-0 (4). **arenarium** (A.Massal.) Tibell: on *Psilolechia*; **conversum** Tibell: on *Calicium* and *Chaenotheca*; **disseminatum** (Ach.) Vain.: on *Calicium* and *Chaenotheca*, rarely on free living algae.
Lit.: Clauzade et al. 1989; Hawksworth 1981; Prieto et al. 2013; Tibell 1978.

Order **Schaereriales** Lumbsch & Leavitt

Family **Schaereriaceae** Hafellner

Schaereria Th.Fr.; type: *S. lugubris* (Fr.) Körb. [= *Hafellnera* Houmeau & Cl.Roux; type: *H. parasemella*]. Mol.: yes.
Species: 0-1-0 (16). ***parasemella*** (Nyl.) Lumbsch [≡ *Hafellnera parasemella* (Nyl.) Houmeau & Cl. Roux]: lichenicolous lichen on *Biatora vernalis*.
Lit.: Houmeau & Roux 1984; Rambold & Triebel 1992.

Subclass Ostropomycetidae familiae incertae sedis

Family **Arthrorhaphidaceae** Poelt & Hafellner

Arthrorhaphis Th.Fr.; type: *A. flavovirescens*, i.e., *A. citrinella* (Ach.) Poelt. Mol.: yes (T, L). Juvenile parasitism on *Baeomyces* or other terricolous lichens has been observed in several other species, but these are not considered here as lichenicolous lichens.
Species: 6-0-0 (16). **aeruginosa** R.Sant. & Tønsb.: on *Cladonia*; **arctoparmeliae** Kocourk. & van den Boom: on *Arctoparmelia incurva*; **grisea** Th.Fr.: on *Baeomyces placophyllus* and *B. rufus*; **muddii** Obermayer: on *Dibaeis baeomyces*; **olivaceae** R.Sant. & Tønsb.: on *Melanohalea olivacea*; **phyllobaeis** Etayo & Palice: on *Phyllobaeis imbricata*.
Lit.: Etayo 2017; Frisch et al. 2022b; Kocourková & van den Boom 2005; Obermayer 1994; Santesson & Tønsberg 1994.

Family **Epigloeaceae** Zahlbr.

Epigloea Zukal; type: *E. bactrospora* Zukal (algicolous). Mol.: yes.

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Species: 1-0-1 (13). **soleiformis** Döbbeler: on algal films, occasionally on terricolous lichens; **urosperma** Döbbeler: on *Placynthiella*.
Lit.: Döbbeler 1994; Motiejūnaitė et al. 2019.

Family **Protothelenellaceae** Vězda, H.Mayrhofer & Poelt

Protothelenella Räsänen; type: *P. reducta* (Th.Fr.) Räsänen, i.e., *P. sphinctrinoidella* (Nyl.) H.Mayrhofer & Poelt (lichenized). Mol.: yes (T, L).
Species: 3-0-3 (11). **croceae** (Bagl. & Car.) Hafellner & H.Mayrhofer: on *Solorina crocea*, more rarely *Peltigera*; **leucothelia** (Nyl.) H.Mayrhofer & Poelt: facultatively ~~lichenicolous~~ on moribund lichens, especially *Cladonia*; **pseudocyphellariae** Etayo: on *Pseudocyphellaria*; **santessonii** H.Mayrhofer: on *Cladonia*; **sphinctrinoidella** (Nyl.) H.Mayrhofer & Poelt: facultati~~vely lichenicolous~~ on *Cladonia*, *Peltigera* and *Stereocaulon*; **sphinctrinoides** (Nyl.) H.Mayrhofer & Poelt: facultati~~vely lichenicolous~~ on *Peltigera* and *Solorina* s.l.
Lit.: Etayo & Sancho 2008; H. Mayrhofer 1987; Pino-Bodas et al. 2017.

Family **Xylographaceae** Tuck.

Lambiella Hertel; type: *L. psephota* (Tuck.) Hertel (lichenized). Mol.: yes (T, L).
Species: 0-2-0 (12). ***furvella*** (Mudd) M.Westb. & Resl: lichenicolous lichen on various lichens; ***insularis*** (Nyl.) T.Sprib.: lichenicolous lichen on *Glaucomaria rupicola*.
Lit.: Rambold & Triebel 1992.

Class Lecanoromycetes genus incertae sedis

Piccolia A.Massal.; type: *P. crocea* (Spreng.) A.Massal. (lichenized). Mol.: yes.
Species: 0-1-0 (7). ***nannaria*** (Tuck.) Lendemer & Beeching: lichen, at least facultatively lichenicolous on *Pyrrhospora varians*.
Lit.: Lendemer & Harris 2014.

Class LEOTIOMYCETES O.E.Erikss. & Winka

Order **Helotiales** Korf & Lizon

Family **Amorphothecaceae** Parbery [= *Myxotrichaceae* Currah]

Myxotrichum Kunze; type: *M. chartarum* Kunze. Mol.: yes (T).
Species: 0-0-1 (12). **bicolor** (Ehrenb.) Fr.: on dying thalli of *Usnea*, possibly only fortuitously lichenicolous.
Lit.: Hawksworth 1979a.

Polydesmia Boud.; type: *P. pruinosa* (Berk. & Broome) Boud. Mol.: yes (T).
Species: 1-0-0 (7). **lichenis** Huhtinen & R.Sant.: on *Peltigera*.
Lit.: Huhtinen & Santesson 1997.

Family **Calloriaceae** Marchand

Laetinaevia Nannf.; type: *L. lapponica* (Nannf.) Nannf. Mol.: yes.
Species: 1-0-0 (20). **epithallina** (W.Phillips & Plowr.) Baral [≡ *Pezizella epithallina* (W.Phillips & Plowr.) Sacc.]: on *Peltigera*.
Lit.: Hawksworth 1980b; Suija et al. 2015b.

Family **Cordieritidaceae** (Sacc.) Sacc.

Diplolaeviopsis Giral & D.Hawksw.; type: *D. ranula*. Mol.: yes (T, L).
Species: 4-0-0. **japonica** Zhurb. & Diederich: on *Gyalolechia flavorubescens*; **ranula** Giralt & D.Hawksw.: on *Lecanora strobilina* and *L. strobilinoides*; **symmictae** Diederich & Coppins: on *Lecanora symmicta*; **vietnamensis** Zhurb. & Diederich: on *Bathelium*.
Lit.: Diederich & Coppins 2014; Etayo et al. 2015; Giralt & Hawksworth 1991; Suija et al. 2015b; Zhurbenko et al. 2015d, 2020a.

Lawreyella Flakus, Etayo, Kukwa & Rodr. Flakus; type: *L. lobariella*. Mol.: yes (T, L).
Species: 1-0-0. **lobariella** (S.Y.Kondr. & D.J. Galloway) Flakus, Etayo, Kukwa & Rodr. Flakus: on *Lobariella* and *Ricasolia*.
Lit.: Flakus et al. 2019a.

Llimoniella Hafellner & Nav.-Ros.; type: *L. scabridula*. Mol.: yes (L).
Species: 21-0-0. **acarosporicola** (Kocourk. & K. Knudsen) Diederich & Ertz: on *Acarospora socialis*; **adnata** Hafellner & Nav.-Ros.: on *Placidium*; **bergeriana** Etayo: on *Punctelia*; **bryonthae** Zhurb. & Diederich: on *Pertusaria bryontha*; **catapyrenii** Zhurb., Kukwa & Flakus: on *Catapyrenium*; **chilensis**

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Zhurb.: on *Dibaeis*; **cinnabarinae** Pérez-Ort., Etayo & T.Sprib.: on *Ramboldia cinnabarina*; **fuscatae** Hafellner & Obermayer: on *Acarospora fuscata*; **gregorellae** (Alstrup & D.Hawksw.) Triebel & Hafellner: on *Gregorella humida*; **groenlandiae** (Alstrup & D. Hawksw.) Triebel & Hafellner: on *Athallia* and *Flavoplaca*, possibly on *Gyalolechia* and *Xanthocarpia*; **heppiae** (Nav.-Ros., Hladun & Llimona) Diederich & Ertz: on *Heppia*; **parmotrematis** Etayo: on *Parmotrema*; **pertusariae** Diederich & Etayo: on *Lepra ophthalmiza* and *Pertusaria glaucomela*; **phaeophysciae** Diederich, Ertz & Etayo: on *Phaeophyscia*; **placomaroneae** Etayo & Diederich: on *Placomaronea candelarioides*; **placopsidis** Diederich & Fryday: on *Placopsis*; **pyrenulae** Diederich & Etayo: on *Pyrenula*; **ramalinae** (Müll.Arg.) Etayo & Diederich: on *Ramalina celastri* and *R. unilateralis*; **scabridula** (Müll.Arg.) Nav.-Ros. & Hafellner: on *Acarospora nodulosa* and *A. placodiiformis*; **terricola** (Arnold) M.Schultz, Diederich & Ertz: on *Leptogium byssinum*; **vinosa** (Holien & Triebel) Diederich & Etayo: on *Ochrolechia* and *Lepra* cf. *borealis*.

Lit.: Alstrup & Hawksworth 1990; Diederich & Etayo 2000; Diederich et al. 2010b; Etayo 2010b, 2017; Pérez-Ortega et al. 2011b; Suija et al. 2015b; Zhurbenko 2013a, 2021c; Zhurbenko & Ohmura 2020.

Macroskyttea Etayo, Flakus, Suija & Kukwa; type: *M. parmotrematis*. Mol.: yes (T, L).

Species: 1-0-0. **parmotrematis** Etayo, Flakus & Kukwa: on *Parmotrema*.

Lit.: Etayo et al. 2015.

Rhymbocarpus Zopf; type: *R. punctiformis*, i.e., *R. geographici*. Mol.: yes (L).

Species: 12-0-0. **aggregatus** Etayo & Diederich: on *Buellia griseovirens*; **boomii** Etayo & Diederich: on *Dirina ceratoniae*; **cruciatus** (Sherwood, D.Hawksw. & Coppins) Etayo & Diederich: on *Diploicia canescens*; **ericetorum** (Körb.) Etayo, Diederich & Ertz: on *Dibaeis baeomyces*; **fuscoatrae** (Hafellner) Diederich & Etayo: on *Lecidea fuscoatra*; **geographici** (J.Steiner) Vouaux [≡ *R. punctiformis* Zopf]: on *Rhizocarpon*; **makarovae** Diederich & Etayo: on *Porpidia*; **neglectus** (Vain.) Diederich & Etayo: on *Lepraria neglecta*; **pertusariae** Diederich, Zhurb. & Etayo: on *Lepra panyrga*; **pubescens** (Etayo & Diederich) Diederich & Etayo: on *Lepraria*; **roccellae** (Etayo, Paz-Bermúdez & Diederich) Etayo, Diederich & Ertz: on *Roccella*; **stereocaulorum** (Alstrup & D.Hawksw.) Etayo & Diederich: on *Stereocaulon*.

Lit.: Diederich & Etayo 2000; Diederich et al. 2010b; Etayo & Diederich 2011; Suija et al. 2015b.

Skyttea Sherwood, D.Hawksw. & Coppins; type: *S. nitschkei*. Mol.: yes (T, L).

Species: 31-0-0. **anziae** Etayo & Diederich: on *Anzia*; **buelliae** Sherwood, D.Hawksw. & Coppins: on *Amandinea punctata*; **bumyoungsungii** S.Y. Kondr. & Hur: on unidentified epilithic thallus (*Gyalidea* or *Porpidia*?); **caesii** Diederich & Etayo: on *Mycoblastus* (incl. *M. caesius*); **carboneae** Diederich & Etayo: on *Carbonea montevidensis*; **cismonicae** Hafellner: on *Loxospora cismonica*; **dacampiae** Zhurb.: on *Dacampia hookeri*; **elachistophora** (Nyl.) Sherwood & D.Hawksw.: on cf. *Tylothallia biformigera*; **fusispora** Sherwood, D. Hawksw. & Coppins: on *Ochrolechia*; **gossypina** Etayo: on *Phlyctis argena*; **graphidicola** Diederich, Common & Suija: on *Graphis* spp., possibly also *Melaspilea* s.l.; **gregaria** Sherwood, D.Hawksw. & Coppins: on *Violella fucata*; **hawksworthii** Diederich: on *Verrucaria*; **heterochroae** Nav.-Ros. & Muñiz: on *Pertusaria heterochroa*; **insignis** Driscoll, S.R.Clayden & R.C.Harris: on *Lecanora insignis*; **lecanorae** Diederich & Etayo: on *Lecanora*; **mayrhoferi** Diederich & Etayo: on *Pertusaria melanospora*; **megalosporae** Etayo & Diederich: on *Megalospora tuberculosa*; **nitschkei** (Körb.) Sherwood, D.Hawksw. & Coppins: on *Thelotrema lepadinum*; **ochrolechiae** Zhurb.: on *Ochrolechia trochophora*; **pertusariicola** Diederich & Etayo: on corticolous *Pertusaria*; **pyrenulae** Diederich, Etayo & Coppins: on *Pyrenula*; **radiatilis** (Tuck.) R. Sant., Etayo & Diederich: on cf. *Loxospora pustulata*; **recognita** Etayo & Diederich: on epiphytic crustose lichens; **richardsonii** Iturr. & D.Hawksw.: on an unidentified lichen; **spinosa** D.Hawksw. & Coppins: on *Verrucaria nigrescens*; **tavaresae** R.Sant., Etayo & Diederich: on *Pyrrhospora* cf. *quernea*; **tephromelarum** Kalb & Hafellner: on *Tephromela*; **thelotrematis** Diederich & Etayo: on *Thelotrema lepadinum*; **violacea** Etayo: on *Tephromela*; **viridis** D.Hawksw. & Coppins: on *Micarea* cf. *denigrata*.

Lit.: Diederich & Etayo 2000, 2004; Diederich et al. 2019; Driscoll et al. 2016; Etayo 2002a, 2010c, 2017; Etayo & Sancho 2008; Hafellner 2000; Kondratyuk et al. 2018; Navarro-Rosinès & Muñiz 2009; Suija et al. 2015b; Zhurbenko et al. 2015d.

Skyttella D.Hawksw. & R.Sant.; type: *S. mulleri*. Mol.: yes (T, L).

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Species: 2-0-0. **mulleri** (Willey) D.Hawksw. & R. Sant.: on *Peltigera*; **stictae** Etayo: on *Sticta*.
Lit.: Etayo 2017; Hawksworth & Santesson 1988; Moriyama et al. 2024.

Thamnogalla D.Hawksw.; type: *T. crombiei*. Mol.: yes (T, L).
Species: 2-0-0. **crombiei** (Mudd) D.Hawksw. [=? *Didymocyrtis thamnoliicola* Y.Joshi, R.Bajpai & Upreti]: on *Thamnolia*; **episolorina** Zhurb.: on *Pseudosolorina saccata*.
Lit.: Hoffmann & Hafellner 2000; Joshi et al. 2016a; Lord et al. 2013; Suija et al. 2015b; Zhurbenko 2021b.

Unguiculariopsis Rehm; type: *U. ilicincola* (Berk. & Broome) Rehm (saprotrophic). Mol.: yes (L).
Species: 15-0-0 (25). **acrocordiae** (Diederich) Diederich & Etayo: on *Acrocordia gemmata*; **ahtii** D.Hawksw., D.J.Galloway & S.Y.Kondr.: on *Pseudocyphellaria*; **damingshanica** W.Y.Zhuang: on unidentified lichen on bamboo; **helmutii** S.Y. Kondr., L.Lőkös & Hur: on *Rinodina* aff. *sophorodes*; **lesdainii** (Vouaux) Etayo & Diederich: on *Lecanoropsis saligna*; **lettaui** (Grummann) Coppins: on *Evernia prunastri*; **lucaniae** Brackel: on *Lecidella elaeochroma*; **macrocarpa** Etayo: on *Pseudocyphellaria*; **manriquei** Etayo: on *Lobaria pulmonaria*; **Llimoniella muralicola** Halıcı: on *Protoparmeliopsis muralis* [belongs to *Unguiculariopsis* s.l.]; **peltigericola** Etayo: on *Peltigera*; **refractiva** (Coppins) Coppins: on *Bilimbia*; **stenospora** F.Berger, R.Cezanne & M. Eichler: on *Celothelium lutescens*; **thallophila** (P. Karst) W.Y.Zhuang: on *Lecanora*; **triregia** S.Y.Kondr. & D.J.Galloway: on *Sticta*.
Lit.: Berger et al. 2025; Brackel 2011a; Coppins 1988; Diederich & Etayo 2000; Etayo 2017; Etayo & Diederich 1996b; Etayo & Sancho 2008; Kondratyuk et al. 1994; Kondratyuk & Galloway 1995a; Kondratyuk & Galloway 1995b; Kondratyuk et al. 2016b; Suija et al. 2015b; Zhuang 2000.

Family **Deltopyxidaceae** Ekanayaka & K.D.Hyde

Bachmanniomyces D.Hawksw.; type: *B. uncialicola* [= *Phaeopyxis* Rambold & Triebel; type: *P. punctum*]. Mol.: yes (T, L).
Species: 6-0-0 (7). **australis** (Rambold & Triebel) Diederich & Pino-Bodas [≡ *Phaeopyxis australis* Rambold & Triebel]: on *Paraporpidia*; **muscigenae** (Alstrup & E.S.Hansen) Diederich & Pino-Bodas [≡ *P. muscigenae* Alstrup & E.S.Hansen]: on *Physconia*; **pseudocyphellariae** Etayo: on *Pseudocyphellaria*; **punctum** (A.Massal.) Diederich & Pino-Bodas [≡ *P. punctum* (A.Massal.) Rambold, Triebel & Coppins; = *B. uncialicola* (Zopf) D.Hawksw.]: on *Cladonia*; **santessonii** Etayo: on *Sticta*; **varius** (Coppins, Rambold & Triebel) Diederich & Pino-Bodas [≡ *P. varia* Coppins, Rambold & Triebel]: on *Trapeliopsis*.
Lit.: Alstrup & Hansen 2001; Etayo 2010b; Etayo & Sancho 2008; Hawksworth 1981; Pino-Bodas et al. 2017; Rambold & Triebel 1990; Suija et al. 2015b.

Family **Helotiaceae** Rehm

Bryoscyphus Spooner; type: *B. conocephali* (Boyd) Spooner. Mol.: yes.
Species: 1-0-0 (19). **lichenicola** Alstrup & M.S.Cole: on *Cladonia* cf. *pyxidata*.
Lit.: Alstrup & Cole 1998.

Family **Hyaloscyphaceae** Nannf.

Protounguicularia Raitv. & R.Galán; type: *P. brevicapitata* Raitv. & R.Galán. Mol.: yes (L).
Species: 4-0-0 (10). **fasciculata** (Etayo) Etayo: on *Ramalina stenospora*; **hispidula** (Etayo) Etayo: on *Psoroma hispidulum*; **nephromae** (Zhurb. & Zavarzin) Huhtinen, D.Hawksw. & Ihlen [the epithet *nephromae* is a valid Latinized genitive in the first declension and not an orthographical error; its correction to *nephromatis* by some authors is therefore unjustified (ICN Art. 32.2)]: on *Nephroma*; **usneae** Etayo: on *Usnea*.
Lit.: Etayo 2010b, 2017; Etayo & Triebel 2010; Huhtinen et al. 2008; Zhurbenko 2007a.

Family **Mollisiaceae** Rehm

Mollisia (Fr.) P.Karst.; type: *M. cinerea* (Batsch) P.Karst. Mol.: yes (T).
Species: 1-0-0 (130). **collematis** Boud. [≡ *Pyrenopeziza collematis* (Boud.) Boud.]: on *Collema* [a poorly known species that does not belong to *Mollisia*].
Lit.: Clauzade et al. 1989; Vouaux 1914.

Niptera Fr.; type: *N. lacustris* (Fr.) Fr. Mol.: yes. Both lichenicolous species are poorly known and possibly do not belong to *Niptera*.

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Species: 2-0-0 (10). **lichenicola** (Speg.) Sacc.: on *Flavoparmelia caperata*; **microscopica** (P.Crouan & H.Crouan) Vouaux: on *Placynthiella uliginosa*.
Lit.: Clauzade et al. 1989; Vouaux 1914.

Trimmatostroma Corda s.l.; type: *T. salicis* Corda. Mol.: yes (T). Asexual, hyphomycetous. Probably polyphyletic, the lichenicolous taxa unlikely to be closely related to the type species.
Species: 15-0-1 (40). **acetabuli** Diederich: on *Pleurosticta acetabulum*; **aptrootii** Diederich: on *Neobrownliella holochracea*; **cetrariae** Brackel: on *Cetraria islandica*; **dendrographae** Diederich, Ertz, U.Braun & Heuchert: on *Dendrographa*; **harrisii** Diederich: on an unidentified corticolous lichen; **lecanoricola** Diederich, Etayo, U.Braun & Heuchert: on *Glaucomaria rupicola* and *Lecanora*; **lecideicola** Diederich & Schiefelbein: on *Lecidea inops*; **physciae** Diederich & van den Boom: on *Physcia tenella*; **quercicola** Diederich, U.Braun & Heuchert: facultatively lichenicolous on sterile, corticolous, crustose lichens; **rhizocarpivorum** Diederich & Ertz: on *Rhizocarpon geographicum*; **rhizocarponi** Diederich & F.Berger: on *Rhizocarpon geographicum*; **roccellacearum** Diederich, Ertz, F.Berger & Millanes: on *Lecanactis abietina* and *Roccella*; **rouxii** Diederich, Tehler & van den Boom: on saxicolous Arthoniales; **umbilicariicola** Heuchert & U.Braun: on *Umbilicaria*; **vandenboomii** Diederich: on various crustose lichens; **varicellariae** Heuchert & U.Braun: on *Varicellaria rhodocarpa*.
Lit.: Diederich 2021; Diederich et al. 2010a, 2024t; Heuchert & Braun 2014; Zhurbenko & Brackel 2013.

Family **Pezizellaceae** Velen.

Bloxamia Berk.& Broome; type: *B. truncata* Berk & Broome, i.e., *B. leucophthalma*. Mol.: yes (T, L).
Species: 0-0-1 (11). **leucophthalma** (Lév.) Höhn.: facultatively lichenicolous on various lichens.
Lit.: Brackel et al. 2024.

Calycina Gray [a hemihomonym of *Calycina* Gregory, Echinozoa]; type: *C. herbarum* (Pers.) Gray [= *Pezizella* Fuckel; type: *P. pulchella* Fuckel]. Mol.: yes (T, L).
Species: 2-0-0 (30). **lobariae** (Etayo) Suija & Jonsson [≡ *Chalara lobariae* Etayo; = *Calycina alstrupii* Suija & Motiej.]: on *Lobaria*; **Pezizella stictae** Etayo: on *Sticta* [provisionally placed here, possibly not belonging to *Calycina*].
Lit.: Etayo 2002a; Suija & Jonsson 2025; Suija & Motiejūnaitė 2017.

Chalara (Corda) Rabenh. s.l.; type: *C. fusidioides* (Corda) Rabenh. Mol.: yes (T).
Species: 5-0-0 (20). **lichenicola** M.S.Christ.: on *Cladonia*; **ochrolechiae** Brackel & Zhurb.: on *Lepra* and *Ochrolechia*; **pseudocyphellariae** Etayo: on *Pseudocyphellaria faveolata*; **ramalinae** Etayo: on *Evernia*, *Parmelia* and *Ramalina*; **valdiviana** Zhurb. & Diederich: on *Nephroma plumbeum*.
Lit.: Brackel 2015; Christiansen 1993; Diederich et al. 2024o; Etayo & Diederich 1996b; Etayo & Sancho 2008; Zhurbenko & Diederich 2024b.

Nagrajchalara W.F.Wu & Y.Z.Diao; type: *N. yongnianii* W. P.Wu & Y.Z.Diao. Mol.: yes (T, L).
Species: 0-0-2 (43). aff. **inflatipes** (Preuss) W.P.Wu & Y.Z.Diao: facultatively lichenicolous on *Flavoparmelia caperata*; aff. **insignis** (Sacc., M.Rousseau & E. Bommer) W.P.Wu & Y.Z.Diao: facultatively lichenicolous on *Ochrolechia androgyna*.
Lit.: Diederich et al. 2024o.

Order Helotiales genus incertae sedis

Kukwaea Suija, Motiej. & Zhurb.; type: *K. pubescens*. Mol.: yes (T, L).
Species: 1-0-0. **pubescens** Motiej. & Zhurb.: on *Cetraria islandica*.
Lit.: Suija et al. 2020.

Order **Leotiales** Korf & Lizon

Family **Lichinodiaceae** M.Prieto, M.Schultz, Olariago & Wedin

Lichinodium Nyl.; type: *L. sirosiphoideum*. Mol.: yes (T, L).
Species: 0-1-0 (4). ***sirosiphoideum*** Nyl.: lichen, juvenile parasite of *Parmelia* s.l.
Lit.: Rambold & Triebel 1992.

Family **Mniaeciaceae** Baral

Epithamnolia Zhurb.; type: *E. karatyginii*. Mol.: yes (T, L). Asexual.

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Species: 9-0-0. **atrolazulina** (Etayo) Diederich: on *Hypotrachyna*; **brevicladoniae** (Diederich & van den Boom) Diederich & Suija: on *Cladonia* and *Solorina*; **karatyginii** Zhurb.: on *Thamnolia*; **khersonica** Darmostuk & Suija: on *Cladonia*; **longicladoniae** (Diederich & van den Boom) Diederich & Suija: on *Cladonia*; **pertusariae** (Etayo & Diederich) Diederich & Suija [= *H. bryonorae* Zhurb.; = *H. peltigerae* Zhurb. & Davydov]: on various lichens; **rangiferinae** E. Zimm., Diederich & Suija: on *Cladonia rangiferina*; **rugosopycnidiata** Etayo & Flakus: on *Lobariella* and *Lopezaria*; **xanthoriae** (Brackel) Diederich & Suija: on various lichens.
Lit.: Brackel 2009, 2014; Diederich & van den Boom 2013; Etayo 2017; Etayo & Diederich 1996a; Flakus et al. 2019a; Quijada et al. 2018; Suija et al. 2018b, 2024b; Zhurbenko 2012, 2013b; Zhurbenko & Brackel 2013.

Class Leotiomycetes familiae incertae sedis

Family **Helicogoniaceae** Baral

Geltingia Alstrup & D.Hawksw.; type: *G. associata*. Mol.: yes (T, L).
Species: 1-0-0. **associata** (Th.Fr.) Alstrup & D. Hawksw.: on *Ochrolechia*, more rarely on *Lepra dactylina* and *Thamnolia*.
Lit.: Alstrup & Hawksworth 1990; Diederich et al. 2010b; Suija et al. 2015b.

Family **Hyphodiscaceae** Ekanayaka & K.D.Hyde

Hyalopeziza Fuckel; type: *H. patula* (Pers.) Fuckel. Mol.: yes.
Species: 2-0-0 (15). **heterodermiae** Etayo: on *Heterodermia*; **rapax** Huhtinen: on *Pseudocyphellaria*.
Lit.: Etayo 2017; Huhtinen et al. 2008.

Hyphodiscus Kirschst.; type: *H. gregarius* Kirschst. Mol.: yes (T, L).
Species: 1-0-0 (16). **ucrainicus** (S.Y.Kondr.) Suija, Tsurykau & Diederich [≡ *Pezizella ucrainica* S.Y.Kondr.]: on *Cladonia*.
Lit.: Kondratyuk & Galloway 1995a; Oksner 2010; Suija et al. 2018c; Zhurbenko & Pino-Bodas 2017.

Family **Sclerotiniaceae** Whetzel

Pycnopeziza W.L.White & Whetzel; type: *P. sympodialis* W.L.White & Whetzel [≡ *Acarosporium* Bubák & Vleugel; type: *A. sympodiale* Bubák & Vleugel]. Mol.: yes (T).
Species: 1-0-0 (5). **Acarosporium lichenicola** Ihlen & Tønsberg: on *Icmadophila* [provisionally placed here, possibly not belonging to *Pycnopeziza*].
Lit.: Ihlen 1998.

Class Leotiomycetes genera incertae sedis

Brackelia Zhurb.; type: *B. lunkei*. Mol.: no.
Species: 1-0-0. **lunkei** Zhurb.: on *Cladonia*.
Lit.: Zhurbenko & Pino-Bodas 2017.

Cecidioskyttea Etayo; type: *C. osorioi*. Mol.: no.
Species: 1-0-0. **osorioi** Etayo: on *Parmotrema fistulatum*.
Lit.: Etayo & Osorio 2004.

Chloroepilichen Etayo; type: *C. rolfii*. Mol.: no.
Species: 1-0-0. **rolfii** Etayo: on *Yoshimuriella* cf. *peltigera*.
Lit.: Etayo 2010b.

Epicladonia D.Hawksw. s.str.; type: *E. sandstedei*. Mol.: yes (T, L). Asexual, pycnidial. Two further species, *E. simplex* and *E. stenospora*, are treated within *Epicladonia* s.l. under Pilocarpaceae, based on phylogenetic results.
Species: 2-0-0. **heterodermiae** Y.Joshi, Falswal & R. Joshi: on *Heterodermia*; **sandstedei** (Zopf) D.Hawksw.: on *Cladonia*.
Lit.: Hawksworth 1981; Joshi et al. 2017b; Pino-Bodas et al. 2017.

Neoechinodiscus Molinari & R.Sierra [≡ *Echinodiscus* Etayo & Diederich, a younger synonym of *Echinodiscus* Mann, diatoms, and of *Echinodiscus* Bentham, Fabaceae; a hemihomonym of *Echinodiscus* Leske, Echinozoa]; type: *N. lesdainii*. Mol.: no.
Species: 2-0-0. **kozhevnikovii** (Zhurb.) Molinari & R. Sierra: on *Cetraria*; **lesdainii** (Vouaux) R.Sierra & Molinari: on *Lecania*.
Lit.: Etayo & Diederich 2000; Sierra & Molinari-Novoa 2020; Zhurbenko 2009a.

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Strossmayeria Schulzer; type: *S. rackii* Schulzer [= *Pseudospiropes* M.B.Ellis; type: *P. nodosus* (Sacc.) M.B.Ellis]. Mol.: yes. Molecular data of both facultatively lichenicolous species are needed to determine if they belong to *Strossmayeria*.
Species: 0-0-2 (16). **Pseudospiropes costaricensis** (E.F. Morris) de Hoog & Arx: facultatively lichenicolous on *Crocodia aurata*; **P. longipilus** (Corda) Hol.-Jech.: facultatively lichenicolous on *Lepraria*.
Lit.: Braun et al. 2008; Johnston et al. 2014.

Class LABOULBENIOMYCETES Engl.

Order **Pyxidiophorales** P.F.Cannon

Family **Pyxidiophoraceae** G.R.W.Arnold

Gliocephalis Matr.; type: *G. hyalina* Matr. Mol.: yes (T).
Species: 1-0-0 (2). **pulchella** (Penz. & Sacc.) D. Hawksw.: on *Peltigera*, *Sticta* and unidentified Lobariaceae.
Lit.: Diederich et al. 2024p; Hawksworth 1979a.

Class LICHINOMYCETES Reeb, Lutzoni & Cl.Roux

Order **Lichinales** Henssen & Büdel

Family **Lichinaceae** Nyl.

Phylliscum Nyl.; type: *P. demangeonii*. Mol.: yes (T, L).
Species: 0-1-0 (8). ***demangeonii*** (Moug. & Mont.) Nyl.: lichen, juvenile parasite on *Ochrolechia frigida*.
Lit.: Rambold & Triebel 1992.

Class SORDARIOMYCETES O.E.Erikss. & Winka

Subclass DIAPORTHOMYCETIDAE Senan., Maharachch. & K.D.Hyde

Order **Sporidesmiales** Crous

Family **Sporidesmiaceae** Fr.

Ellisembia Subram.; type: *E. coronata* (Fuckel) Subram. Mol.: yes (T).
Species: 1-0-0 (79). **lichenicola** Heuchert & U. Braun: on various lichens.
Lit.: Heuchert & Braun 2006; Heuchert et al. 2024b.

Sporidesmium Link; type: *S. atrum* Link. Mol.: yes.
Species: 2-0-0 (330). **lichenicola** Iturr., D.Hawksw. & J.L.Crane: on *Leptogium;* **usneae** Etayo: on *Usnea*.
Lit.: Etayo 2017; Iturriaga et al. (2008).

Subclass HYPOCREOMYCETIDAE O.E.Erikss. & Winka

Order **Coronophorales** Nannf.

Family **Nitschkiaceae** (Fitzp.) Nannf.

Acanthonitschkea Speg.; type: *A. argentinensis* Speg. Mol.: yes (T).
Species: 1-0-0 (10). **peltigericola** (Alstrup & Olech) O. E.Erikss. & R.Sant. [≡ *Hystrix peltigericola* Alstrup & Olech]: on *Peltigera*.
Lit.: Alstrup & Olech 1993.

Lasiosphaeriopsis D.Hawksw. & Sivan.; type: *L. salisburyi*. Mol.: no.
Species: 7-0-0. **cephalodiorum** (Rostr.) Alstrup: on *Placopsis*; **christiansenii** Alstrup & D.Hawksw. [=? *L. supersparsa*]: on *Porpidia tuberculosa*; **lecanorae** Pérez-Ort. & Halıcı: on *Lecanora polytropa*; **pilophori** Zhurb. & Triebel: on *Pilophorus*; **salisburyi** D.Hawksw. & Sivan.: on *Peltigera*; **stereocaulicola** (Linds.) O.E.Erikss. & R.Sant.: on *Stereocaulon*; **supersparsa** (Zopf) Triebel: on *Porpidia*.
Lit.: Alstrup et al. 1994; Alstrup & Hawksworth 1990; Eriksson & Santesson 1986; Hawksworth 1980b; Pérez-Ortega & Halıcı 2008; Triebel 1989; Zhurbenko & Triebel 2005.

Rhagadostoma Körb.; type: *R. corrugatum*, i.e., *R. lichenicola*. Mol.: no.
Species: 8-0-0. **antarctica** Alstrup & Olech, nom. inval. (ICN Art. F.5.2): on *Psoroma hypnorum*; **boleae** Nav.-Ros. & Hladun: on *Lecania*; **brevisporum** (Nav.-Ros. & Hladun) Nav.-Ros.: on *Nephroma*, *Peltigera* and *Pseudosolorina*; **collematum** Etayo & Nav.-Ros.: on *Lathagrium auriforme*; **lichenicola** (De Not.) Keissl. [= *R. corrugatum* Körb.]: on *Pseudosolorina* and *Solorina*; **pannariae** Etayo: on *Pannaria*; **rugosum** Nav.-Ros. & Hladun: on *Verrucaria nigrescens*; **verrucariarum** Nav.-Ros. & Hladun: on *Verrucaria*.
Lit.: Alstrup et al. 2018; Etayo & Sancho 2008; Navarro-Rosinés & Hladun 1994; Navarro-Rosinés et al. 1999.

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Rhagadostomella Etayo; type: *R. gregaria*. Mol.: no.
Species: 2-0-0. **gregaria** Etayo: on *Sticta*; **hypolobariella** Etayo & Flakus: on *Lobariella pallida*.
Lit.: Etayo 2002a; Flakus et al. 2019a.

Order **Hypocreales** Lindau

Family **Bionectriaceae** Samuels & Rossman

Acremonium Link; type: *A. alternatum* Link. Mol.: yes (T, L). Asexual, hyphomycetous.
Species: 6-0-2 (150). **antarcticum** (Speg.) D.Hawksw.: on various lichens; **bavaricum** Brackel: on *Melanelixia* and *Melanohalea*; **hypholomatis** (Boedijn) D. Hawksw.: on *Physcia stellaris*, facultatively lichenicolous [the lichenicolous populations are possibly the asexual stage of *Pronectria echinulata* Lowen]; **persicinum** (Nicot) W.Gams: isolated from lichens, facultatively lichenicolous; **pertusariae** Brackel & Etayo: on *Lepra* and *Pertusaria*; **spegazzinii** D.Hawksw.: on *Leptogium* and *Scytinium*; **subeffusum** (Ellis & Galw.) Etayo & Brackel: on various lichens; **vanderkolkii** Boers & Diederich: on various lichens.
Lit.: Brackel et al. 2012; Diederich 1989; Diederich & Braun 2009; Diederich et al. 2024g; Hawksworth 1979a; Lowen 1995.

Illosporium Mart.; type: *I. roseum* Mart. Mol.: yes (T, L).
Species: 1-0-0. **carneum** Fr.: on *Peltigera*.
Lit.: Ertz et al. 2024c.

Lasionectria (Sacc.) Cooke; type: *L. mantuana* (Sacc.) Cooke. Mol.: yes (T, L).
Species: 1-0-0 (14). **lecanodes** (Ces.) Petch [≡ *Nectriopsis lecanodes* (Ces.) Diederich & Schroers]: on cyanobacterial macrolichens, mainly *Lobaria*, *Peltigera* and *Pseudocyphellaria*, also on *Collema* and *Leptogium*;
Lit.: Lechat & Fournier 2019b; Sérusiaux et al. 1999.

Nectriopsis Maire; type: *N. violacea* (Fr.) Maire. Mol.: yes (T, L).
Species: 22-0-1 (70). **albida** Etayo: on *Sticta*; **bacidinae** van den Boom: on *Bacidina*; **cariosae** Brackel & D.G.Zimm.: on *Cladonia*; **cladoniicola** M.S.Cole & D.Hawksw.: on *Cladonia*; **collematis** Diederich: on *Collema*; **curtiseta** Etayo: on *Lobariella*, *Ricasolia* and *Sticta*; **frangospora** Brackel: on *Lepra albescens* and *Pertusaria rubefacta*; **gangwondoensis** S.Y.Kondr., L. Lőkös & Hur: on *Phaeophyscia adiastola*; **guamuesii** Etayo: on *Sticta*; **heterodermiae** Etayo: on *Heterodermia*; **hirta** Etayo: on various lichens; **indigens** (Arnold) Diederich & Schroers: on perithecioid lichens, often near water; **leptogii** Diederich: on *Leptogium*; **melongenoidea** Etayo: on *Gomphillus*; **micareae** Diederich, van den Boom & Ernst: on *Micarea viridileprosa*; **mindoensis** (Petr.) Samuels: facultatively lichenicolous on *Coenogonium*; **peruviana** Etayo & R.Sant.: on *Cora* and *Coccocarpia*; **physciicola** D.Hawksw. & Earl.-Benn.: on *Physcia*, more rarely on *Heterodermia*, *Physconia* and other lichens; **porinicola** Samuels: on foliicolous *Porina*; **silvaustralis** Etayo: on *Pseudocyphellaria*; **tatrensis** (Alstrup) Lisická & Alstrup: on *Thelidium*; **verseghyklarae** S.Y.Kondr., L.Lőkös & Hur: on *Verseghya klarae*; **vivida** Etayo & Sipman: on unidentified crustose lichen.
Lit.: Alstrup 1996; Aptroot et al. 1997; Brackel 2010a; Brackel & Zimmermann 2012; Cole & Hawksworth 2001; Diederich et al. 2024g; Earland-Bennett et al. 2006; Etayo 2002a, 2010a, 2017; Etayo & Sancho 2008; Kondratyuk et al. 2016a, 2018; Matzer 1996; Samuels 1988; Sérusiaux et al. 1999; van den Boom 2021.

Pronectria Clem.; type: *P. lichenicola*, i.e., *P. robergei*. Mol.: yes (T, L).
Species: 48[+1 var.]-0-1. **algicola** Vondrák, Naumovich & Khodos.: on terricolous microbial crusts possibly associated with *Sarcosagium* or *Steinia*; **biglobosa** Etayo: on *Hypotrachyna*; **caloplacae** Khodos., Vondrák & Naumovich: on *Flavoplaca austrocitrina*; **casaresii** Etayo: on *Evernia prunastri*; **collematis** Etayo & Brackel: on *Lathagrium*; **dealbans** (Müll.Arg.) Etayo & Breuss: on *Endocarpon*; **dermatocarpi** E.Zimm. & F.Berger: on *Dermatocarpon intestiniforme*; **dillmaniae** Zhurb.: on *Catapyrenium cinereum*; **diplococca** Kocourk., Khodos., Naumovich, Vondrák & Motiej.: on *Collema*; **echinulata** Lowen: on *Dirina*, *Phaeophyscia*, *Physcia* and *Physconia*; **erythrinella** (Nyl.) Lowen: on *Peltigera*; **etayoi** E.Zimm. & F. Berger: on *Physcia*; **gromakovae** Darmostuk: on *Lecanora populicola*; **hymeniicola** Etayo: on *Collema*; **invisibilis** Etayo: on *Nephroma antarcticum*; **japonica** Zhurb., Tadome & Y. Ohmura: on *Ochrolechia*; **lecideicola** Zhurb.: on *Lecidea ramulosa*; **leptaleae** (J.Steiner) Lowen: on *Physcia*; **leptogii** Etayo: on *Leptogium*; **lilae** Brackel: on *Seirophora villosa*; **menegazziae** F.Berger & E.

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Zimm.: on *Menegazzia*; **microspora** Etayo: on *Lobaria*; **minuta** Motiej. & Kukwa: on *Cladonia* subg. *Cladina*; **neofissuriprodiens** F.Berger & E. Zimm.: on *Lobaria*; **occulta** Etayo: on *Usnea*; **oligospora** Lowen & Rogersen var. **oligospora**: on *Punctelia*; **oligospora** var. **octospora** Etayo: on *Punctelia*; **parmotrematis** Etayo: on *Parmotrema*; **pedemontana** Brackel: on *Lathagrium auriforme*; **pertusariicola** Lowen: on *Pertusaria* [asexual populations on *Lepra* and *Pertusaria* referred to *P. pertusariicola* belong to *Protocreopsis gallica*]; **pilosa** Etayo & López Silanes: on *Collema*; **pycnidioidea** Etayo: on *Heterodermia*; **raetzelii** Brackel, Cezanne & Eichler: on *Peltigera didactyla*; **rhizocarpicola** Brackel: on *Rhizocarpon geographicum*; **robergei** (Mont. & Desm.) Lowen [= *P. lichenicola* (Ces.) Clem.]: on *Peltigera*, *Pseudosolorina* and *Solorina*; **rolfiana** Etayo: on *Pseudosolorina*; **roseopunctata** Etayo: on *Hypotrachyna*; **santessonii** (Lowen & D. Hawksw.) Lowen: on *Anaptychia runcinata* and rarely *A. ciliaris*; **scrobiculatae** Etayo & López de Silanes: on *Lobarina scrobiculata*; **sticticola** Etayo: on *Sticta*; **tenacis** (Vouaux) Lowen: on *Collema*; **tenuispora** (D. Hawksw.) Lowen: on *Peltigera*; **terrestris** Lowen & Diederich: on *Thrombium epigaeum*; **tibellii** Zhurb.: on *Cladonia*; **tincta** (Fuckel) Lowen: on *Anaptychia ciliaris*; **toniniae** Etayo: on *Thalloidema sedifolium*; **verrucariae** (Vouaux) Lowen: on *Verrucaria*; **walkerorum** Zhurb.: on *Ochrolechia*; **xanthoriae** Lowen & Diederich: on *Xanthoria*; **zhurbenkoi** Brackel: on *Peltigera praetextata*.

Lit.: Berger & Zimmermann 2016, 2022, 2025; Berger et al. 2020; Brackel 2013a, 2013b, 2015, 2025a,b; Brackel & Etayo 2010; Darmostuk 2021b; Etayo 1998, 2001, 2002a, 2010b, 2010c, 2017; Diederich et al. 2024g; Etayo & Breuss 1996; Etayo & Diederich 1996b; Etayo & López de Silanes 2024; Etayo & Sancho 2008; Etayo & Triebel 2010; Hawksworth 1979a; Khodosovtsev 2012; López de Silanes et al. 2009; Lowen 1995; Lowen & Diederich 1990; Lowen & Hawksworth 1986; Motiejūnaitė & Kukwa 2008; Rossman et al. 1999; Sikaroodi et al. 2001; Zhurbenko 2007b, 2009d; Zhurbenko & Alstrup 2004; Zhurbenko et al. 2005, 2018.

Protocreopsis Yoshim. Doi; type: *P. fusigera* (Berk. & Broome) Yoshim. Doi. Mol.: yes (L).

Species: 5-0-0 (26). **chlamydospora** Lin Zhao & Crous: on *Anaptychia*; **gallica** Lin Zhao & Crous: on *Lepra albescens* and *Pertusaria pertusa*; **globulosa** Darmostuk: on *Lecania cyrtella*; **loweniae** (Flakus, Etayo, Rodr. Flakus & Zhurb.) Lin Zhao & Crous [≡ *Pronectria loweniae* Flakus, Etayo, Rodr. Flakus & Zhurb.]: on *Pseudosolorina*; **physciae** Crous & Boers: on *Physcia caesia*.

Lit.: Crous et al. 2024; Senanayake et al. 2023; Visagie et al. 2024; Zhao et al. 2025.

Family **Calcarisporiaceae** Jing Z. Sun, X.Z.Liu & K.D.Hyde

Neobaryopsis Flakus, Etayo, Kukwa & Rodr. Flakus; type: *N. andensis*. Mol.: yes (T, L). Note: *N. ciliaris*, *N. eriodermaticola*, *N. peltigerae* and *N. teloschistis* are in press, and are not validly published here, ICN Art. 36.1.

Species: 5-0-0. **andensis** Flakus, Etayo, Kukwa & Rodr. Flakus: on *Lobariella*; **ciliaris** (Etayo) Darmostuk, Etayo, Kukwa & Flakus [= *Neobarya ciliaris* Etayo]: on *Heterodermia*; **eriodermaticola** Darmostuk, Etayo, Kukwa & Flakus: on *Erioderma*; **peltigerae** (Lowen, Boqueras & Gómez-Bolea) Darmostuk [= *Neobarya peltigerae* Lowen, Boqueras & Gómez-Bolea]: on *Peltigera membranacea*; **teloschistis** Darmostuk, Etayo, Kukwa & Flakus: on *Teloschistes flavicans*.

Lit.: Darmostuk et al. 2025a,b; Ertz et al. 2024d; Flakus et al. 2019a.

Family **Clavicipitaceae** (Lindau) O.E.Erikss.

Neobarya Lowen; type: *N. parasitica* (fungicolous). Mol.: yes (T).

Species: 2-0-0 (10). **darwiniana** Etayo: on *Nephroma antarcticum*; **lichenophila** (Ferd. & Winge) Lowen & Samuels: on *Cladonia*.

Lit.: Candoussau et al. 2007; Etayo 2002a; Etayo & Sancho 2008.

Family **Cordycipitaceae** G.H.Sung, J.M.Sung, Hywel-Jones & Spatafora

Syspastospora P.F.Cannon & D.Hawksw.; type: *S. parasitica* (Tul.) P.F.Cannon & D.Hawksw. Mol.: yes (T).

Species: 1-0-0 (4). **cladoniae** Etayo: on *Cladonia foliacea*.

Lit.: Etayo 2008.

Family **Hypocreaceae** De Not.

Hypomyces (Fr.) Tul. & C.Tul.; type: *H. lactifluorum* (Schwein.) Tul. & C.Tul. Mol.: yes (T, L).

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Species: 1-0-0 (150). **peltigericola** Lechat & Gardiennet: on *Peltigera canina*.
Lit.: Lechat et al. 2017.

Lichenobarya Etayo, Diederich & Lawrey; type: *L. usneae*. Mol.: yes (T, L).
Species: 1-0-0. **usneae** (Etayo) Etayo, Diederich & Lawrey: on *Usnea*.
Lit.: Etayo 2000a; Lawrey et al. 2015.

Family **Nectriaceae** Tul. & C.Tul.

Cosmospora Rabenh.; type: *C. coccinea* Rabenh. Mol.: yes (T).
Species: 1-0-0 (20). **marelliana** (Speg.) Etayo: on *Parmelia microsticta*.
Lit.: Etayo 2003.

Globonectria Etayo; type: *G. cochensis*. Mol.: no.
Species: 1-0-0. **cochensis** Etayo: on *Lobariella*.
Lit.: Diederich et al. 2024g; Etayo 2002a; Flakus et al. 2019a.

Microcera Desm.; type: *M. coccophila* Desm. Mol.: yes (T, L). Asexual, hyphomycetous.
Species: 1-0-0 (13). **physciae** Crous & Boers [= *M. lichenicola* Crous & Boers]: on various lichens.
Lit.: Crous et al. 2021, 2022; Ertz et al. 2024b.

Nectria (Fr.) Fr. s.l. [a hemihomonym of *Nectria* Gray, Asterozoa]; type: *N. cinnabarina* (Tode) Fr. Mol.: yes (T).
Species: 1-0-1 (29). **brutia** Diederich & Puntillo: on *Collema* [does not belong to *Nectria* s.str.]; **paraguayensis** Speg.: facultatively lichenicolous on lichens.
Lit.: Diederich & Puntillo 1995; Etayo & Sancho 2008; Hirooka et al. 2012.

Scolecofusarium L.Lombard, Sand.-Den. & Crous; type: *S. ciliatum*. Mol.: yes (T. L). Asexual, hyphomycetous.
Species: 0-0-1. **ciliatum** (Link) L.Lombard, Sand.-Den. & Crous [= *Fusarium peltigerae* Westend.]: facultatively lichenicolous on *Lobaria*, *Parmeliella* and *Peltigera*.
Lit.: Diederich et al. 2024a; Hawksworth 1979a.

Xenonectriella Weese; type: *X. lutescens*. Mol.: no.
Species: 21[+1 var.]-0-0. **angulospora** (Etayo) F.Berger [≡ *Pronectria angulospora* Etayo]: on *Heterodermia*; **aurantiaca** Etayo: on *Pseudocyphellaria*; **calabrica** Brackel & Puntillo: on *Pertusaria pertusa*; **coppinsiana** Etayo: on *Lobariella* and *Yoshimuriella subdissecta*; **dirinariae** Etayo & van den Boom: on *Dirinaria*; **fissuriprodiens** (Etayo) Etayo: on *Lobaria*; **humilis** Etayo: on *Pseudocyphellaria*; **leptaleoides** (Etayo) Etayo: on *Leptogium*; **lutescens** (Rehm) Weese: on *Peltigera* and *Pseudosolorina*; **mycoblasti** F.Berger & E.Zimm.: on *Mycoblastus sanguinarius*; **nephromatis** Pérez-Ort.: on *Nephroma* cf. *bellum*; **ornamentata** (D. Hawksw.) Rossman: on *Peltigera*; **physciacearum** F. Berger, E.Zimm. & Brackel: on *Phaeophyscia*, *Physcia*, *Physconia* and *Heterodermia*; **protopannariae** (Zhurb.) Brackel: on *Protopannaria pezizoides*; **rosea** Etayo: on *Pannaria*; **rugulatispora** Etayo: on *Lobariella*; **septemseptata** (Etayo) Etayo & van den Boom: on *Melanelixia* and *Melanohalea*; **streimannii** (S.Y.Kondr., Coppins & D.J.Galloway) Rossman: on *Lobaria* and *Sticta*; **subimperspicua** (Speg.) Etayo var. **subimperspicua**: on *Parmelia* and *Punctelia*, also reported from *Physcia*; **subimperspicua** var. **degenerans** Etayo: on *Parmotrema*; **vertebrata** Etayo: on *Heterodermia*; **zimmermanni** F.Berger & Brackel: on *Physcia*, rarely *Xanthoria parietina*.
Lit.: Berger & Zimmermann 2025; Berger et al. 2020; Brackel 2014; Brackel & Puntillo 2016; Etayo 2002a, 2017; Etayo & Sancho 2008; Etayo & Triebel 2010; Etayo & van den Boom 2013; Rossman et al. 1999; Spribille et al. 2020; van den Boom & Etayo 2014.

Family **Niessliaceae** Kirschst.

Atronectria Etayo; type: *A. magellanica*. Mol.: no.
Species: 3-0-0. **lobariellae** Etayo & Flakus: on *Lobariella crenulata*; **magellanica** Etayo: on *Pseudocyphellaria* and *Nephroma*; **thelotrematis** Zhurb.: on *Thelotrema lepadinum*.
Lit.: Etayo & Sancho 200; Flakus et al. 2019a; Zhurbenko 2022a.

Melanopsamma Niessl.; type: *M. pomiformis* (Pers.) Sacc. Mol.: yes (T).
Species: 1-0-0 (40). **lettauiana** (Keissl.) Vouaux: on saxicolous, crustose lichens [a poorly known species].
Lit.: Clauzade et al. 1989.

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Niesslia Auersw.; type: *N. chaetomium* (Corda) Auersw. [= *Nitschkiopsis* Nannf. & R.Sant.; type: *N. stictarum*]. Mol.: yes (L).
Species: 20-0-0 (90). **cladoniicola** D.Hawksw. & W. Gams: on *Cladia*, *Cladonia* and *Peltigera*; **coarctatae** (S.Y.Kondr., L.Lőkös & Hur) S.Y.Kondr., L.Lőkös & Hur [≡ *Stigmidium coarctatae* S.Y.Kondr., L.Lőkös & Hur]: on *Trapelia coarctata*; **coenogonii** van den Boom: on *Coenogonium*; **echinoides** Etayo, Flakus & Kukwa: on *Erioderma* [does not belong to *Niesslia*, fide Gams et al. 2019]; **evae** Etayo: on *Erioderma*; **globispora** Etayo [as '*globospora*']: on *Cora* [does not belong to *Niesslia*, fide Gams et al. 2019]; **keissleri** Zhurb. [= *Echinothecium cladoniae* Keissl., nom. nud.]: on *Cladia* and *Cladonia*; **kununguakii** Alstrup & E.S. Hansen: on *Arthrorhaphis alpina* [does not belong to *Niesslia*, fide Gams et al. 2019]; **lobariae** Etayo & Diederich: on *Lobaria*; **parviseta** Darmostuk, Etayo & Flakus: on *Erioderma barbellatum*; **peltigerae** Pérez-Ort.: on *Peltigera kristinssonii*; **peltigericola** (D.Hawksw.) Etayo [≡ *Wentiomyces peltigericola* D. Hawksw.; ≡ *Raciborskiomyces peltigericola* (D. Hawksw.) M.E.Barr]: on *Peltigera*; **pseudocyphellariae** Etayo & Diederich: on *Pseudocyphellaria*; **robusta** Tretiach: on *Tephromela grumosa*; **schizospora** Etayo [as '*schyzospora*']: on *Dichosporidium*, *Hypotrachyna* and *Lobariella* [does not belong to *Niesslia*, fide Gams et al. 2019]; **stictarum** (Nannf. & R.Sant.) R.Sant. & Tretiach subsp. **stictarum** [≡ *Nitschkiopsis stictarum* Nannf. & R.Sant.]: on *Sticta*, also on *Lobariella* and *Peltigera* [possibly belongs to *Valetoniella*, fide Gams et al. 2019]; **stictarum** subsp. **nuda** Etayo: on *Lobariella*; **tatjanae** (S.Y.Kondr.) Etayo: on *Pseudocyphellaria*, also on *Peltigera*; **tetrahedrospora** Etayo: on *Dichosporidium* [does not belong to *Niesslia*, fide Gams et al. 2019; possibly belongs to *Trichosphaerella*, fide Lendemer et al. 2016]; **yaganae** Etayo: on *Nephroma antarcticum*.
Lit.: Alstrup & Hansen 2001; Crous et al. 2023a; Etayo 2000, 2002a, 2017; Etayo & Diederich 1996b; Etayo & Sancho 2008; Etayo et al. 2013a; Gams et al. 2019; Hawksworth 1975, 1979a; Kondratyuk et al. 2016b, 2019a; Spribille et al. 2020; Tretiach 2002; van den Boom et al. 2017; Zhurbenko & Pino-Bodas 2017.

Pleiocarpon L. Lombard & D. Aiello; type: *P. strelitziae* L. Lombard & D. Aiello. Mol.: yes (T, L).
Species: 0-0-1 (2). **gardiennetii** Lechat & J. Fourn.: on dead corticolous *Astrothelium*, possibly lichenicolous.
Lit.: Lechat & Fournier 2019a.

Trichosphaerella E.Bommer, M.Rousseau & Sacc.; type: *T. decipiens* E.Bommer, M.Rousseau & Sacc. Mol.: yes.
Species: 1-0-0 (4). **buckii** R.C.Harris & Lendemer: on *Punctelia rudecta*.
Lit.: Lendemer et al. 2016.

Family **Paranectriaceae** Darmostuk, Etayo & Flakus

Ciliomyces Höhn.; type: *C. oropensis* (Ces.) Höhn. Mol.: yes (T, L). Two *Paranectria* species without molecular data probably belong here (Darmostuk et al. 2025a).
Species: 3-0-0. **Paranectria alstrupii** Zhurb.: on various lichens; **oropensis** (Ces.) Höhn. [≡ *Paranectria oropensis* (Ces.) D.Hawksw. & Piroz.]: on various lichens; **Paranectria superba** D.Hawksw.: on *Peltigera*.
Lit.: Darmostuk et al. 2025a; Diederich et al. 2024g; Hawksworth 1982a; Rossman et al. 1999; Zhurbenko 2009d.

Ovicuculispora Etayo; type: *O. parmeliae*. Mol.: yes (T, L).
Species: 2-0-0. **macrospora** Etayo: on sterile saxicolous crust (Gomphillaceae?); **parmeliae** (Berk. & M.A.Curt.) Etayo: on various lichens.
Lit.: Darmostuk et al. 2025a; Etayo 2010b.

Paranectria Sacc.; type: *P. affinis*. Mol.: yes (T, L).
Species: 1-0-0. **affinis** Sacc.: on *Ephebe pubescens*.
Lit.: Darmostuk et al. 2025a; Hawksworth 1982a.

Rossmaniella Darmostuk, Etayo & Flakus; type: R. filispora. Mol.: yes (T, L).
Species: 4-0-0. **coenogonii** Darmostuk, Kukwa & Flakus: on *Coenogonium*; **cryptica** Darmostuk, Etayo & Flakus: on *Hypotrachyna*; **filispora** Darmostuk, Etayo & Flakus: on various lichens; **tylophori** Darmostuk & Flakus: on *Tylophoron protrudens*.
Lit.: Darmostuk et al. 2025a.

Sphaeronectria Darmostuk, Etayo & Flakus; type: *S. lichenophila*. Mol.: yes (T, L).
Species: 1-0-0. **lichenophila** (Speg.) Darmostuk, Etayo & Flakus [≡ *Nectriopsis lichenophila* (Speg.) Etayo: on *Heterodermia*; = *Solenopezia tetraspora* Henn.]: on *Heterodermia* and *Leucodermia*.
Lit.: Darmostuk et al. 2025a.

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Family **Trichonectriaceae** Darmostuk, Etayo & Flakus

Reticulonectria Darmostuk, Etayo & Flakus; type: *R. setadpressa*. Mol.: yes (T, L).
Species: 1-0-0. **setadpressa** (Etayo) Darmostuk, Etayo & Flakus [= *Trichonectria setadpressa* Etayo]: on *Lobariella*.
Lit.: Darmostuk et al. 2025c.

Trichonectria Kirschst.; type: *T. aculeata* Kirschst., i.e., *T. hirta*. Mol.: yes (T, L). Four species described in *Trichonectria*, without molecular data, are provisionally kept here.
Species: 5-0-0 (13). **calopadiicola** Farkas & Flakus: on foliicolous *Calopadia* cf. *puiggari*; **furcatosetosa** Brackel: on necrosed *Melanelixia*, *Parmelia*, *Physcia* and *Candelariella*; **hirta** (A.Bloxam) Petch: on corticolous lichens; **leptogiicola** Etayo: on *Leptogium*; **parmeliellae** Etayo: on *Parmeliella testaceae*.
Lit.: Brackel 2014; Darmostuk et al. 2025c; Diederich et al. 2024g; Etayo 2001; Etayo & López de Silanes 2024; Farkas & Flakus 2016; Hawksworth 1978b.

Trichonectriella Darmostuk, Etayo & Flakus; type: *T. rubefaciens*. Mol.: yes (T, L).
Species: 27-0-1. **abortispora** (Etayo) Darmostuk: on *Usnea*; **anisospora** (Lowen) Darmostuk [= *Acremonium pedatum* Lowen]: on *Hypogymnia*; **apiculata** (Etayo) Etayo & Darmostuk: on *Usnea*; **australis** (Etayo) Etayo & Darmostuk: on *Usnea*; **biglobospora** (Etayo & Flakus) Etayo & Darmostuk: on *Usnea*; **boliviana** (Etayo & Flakus) Etayo & Darmostuk: on *Usnea*; **citrispora** (Etayo, Darmostuk & Flakus) Darmostuk: on *Usnea*; **coronatosetosa** Darmostuk, Etayo & Flakus: on *Hypotrachyna*; **crystallifera** Etayo, Darmostuk & Flakus: on *Pertusaria*; **cylindrospora** (Etayo & Flakus) Etayo & Darmostuk: on *Usnea*; **dirinariae** (Ohmaki & Okame) Darmostuk [≡ *Cylindromonium dirinariae* Ohmaki & Okane]: on *Dirinaria* and *Polyblastidium*; **epimegalosporae** (Darmostuk, Etayo & Flakus) Darmostuk: on *Megalospora sulphurata* s.str.; **everniae** (Crous & Boers) Darmostuk & Etayo [≡ *Cylindromonium everniae* Crous & Boers]: on *Evernia prunastri*; **fragmospora** (Etayo) Darmostuk: on *Usnea*; **gigaspora** (Etayo & Flakus) Etayo & Darmostuk: on *Usnea*; **hypotrachynae** (Etayo) Etayo & Darmostuk: on *Hypotrachyna*; **intermedia** (Etayo) Etayo & Darmostuk: on *Parmotrema*; **lichenicola** (W.Gams) Darmostuk: facultatively lichenicolous; **microsporusneae** (Etayo & Flakus) Etayo & Darmostuk: on *Usnea*; **pertusariae** (Etayo & van den Boom) Darmostuk: on *Lepra*; **polyblastidii** Darmostuk, Etayo & Flakus: on *Polyblastidium*; **puncteliae** (Darmostuk, Etayo & Flakus) Darmostuk: on *Punctelia*; **pyrenaica** (Gardiennet & Lechat) Darmostuk: on *Usnea*; **rhabdospora** (W. Gams) Darmostuk [= ? *Trichonectria cladoniicola* (Alstrup & Svane) Alstrup]: on *Cladonia*; **rubefaciens** (Ellis & Everh.) Darmostuk, Etayo & Flakus [= *Cylindromonium lichenophilum* Crous; incl. *Trichonectria rubefaciens* var. *cryptoramalinae* Etayo & López de Silanes]: on Parmeliaceae; **toensbergiana** (Flakus, Etayo, Darmostuk & Kukwa) Darmostuk: on *Usnea*; **usneicola** (Etayo) Darmostuk: on *Usnea*; **vinosa** (Etayo) Darmostuk: on *Usnea*.
Lit.: Alstrup & Svane 1998; Crous et al. 2021, 2023b; Darmostuk et al. 2025c; Diederich et al. 2024g; Etayo 2002a, 2017; Etayo & López de Silanes 2024; Etayo & Sancho 2008; Etayo & van den Boom 2005; Etayo et al. 2024b; Gardiennet & Lechat 2012; Haldeman & Darmostuk 2024; Ohmaki et al. 2023; Rossman et al. 1999; Sérusiaux et al. 1999.

Order Hypocreales genera incertae sedis

Chondronectria Etayo, Flakus & Kukwa; type: *C. eriodermaticola*. Mol.: no.
Species: 1-0-0. **eriodermaticola** Etayo, Flakus & Kukwa: on *Erioderma*.
Lit.: Etayo 2017.

Cylindronectria Etayo; type: *C. cyanobactericola*. Mol.: no.
Species: 0-0-1. **cyanobactericola** Etayo: on epilichenic cyanobacteria, doubtfully lichenicolous.
Lit.: Etayo 2017.

Galloea Alstrup & Søchting; type: *G. cladoniicola*. Mol.: no.
Species: 1-0-0. **cladoniicola** Alstrup & Søchting: on *Cladonia* cf. *chlorophaea*.
Lit.: Diederich et al. 2024g.

Illosporiopsis D.Hawksw.; type: *I. christiansenii*. Mol.: yes (T, L). Asexual, sporodochial. Phylogenetic position uncertain.

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Species: 1-0-0. **christiansenii** (B.L.Brady & D. Hawksw.) D.Hawksw.: on various corticolous lichens.
Lit.: Diederich 2024h; Lowen et al. 1986; Sikaroodi et al. 2001.

Leptobarya Etayo; type: *L. nigra*. Mol.: no.
Species: 2-0-0. **auranticarpa** Etayo: on *Leptogium*; **nigra** Etayo: on *Leptogium*.
Lit.: Etayo 2017.

Reconditella Matzer & Hafellner; type: *R. physconiarum*. Mol.: no.
Species: 1-0-0. **physconiarum** Hafellner & Matzer [= *physconiicola* Zhurb., U.Braun & Kobzeva]: on *Physconia distorta* and *P. venusta*.
Lit.: Diederich et al. 2024aa; Matzer & Hafellner 1990; Zhurbenko et al. 2015a.

Roselliniella Vain.; type: *R. nephromatis*. Mol.: yes (L).
Species: 21-0-0. **africana** Diederich: on *Usnea*; **atlantica** Matzer & Hafellner: on *Xanthoparmelia*, *Hypotrachyna* and *Platismatia*; **cladoniae** (Anzi) Matzer & Hafellner: on *Cladonia*; **coccocarpiae** (Pat.) Matzer & R.Sant.: on *Degelia*; **epiphylla** Matzer & Hafellner: on foliicolous *Sporopodium*; **eriodermicola** Matzer & R.Sant.: on *Erioderma*; **euparmeliicola** Millanes & D.Hawksw.: on *Parmelia* s.str.; **heterodeae** Matzer & Hafellner: on *Cladia muelleri*; **javkhlanae** Zhurb.: on *Rinodina turfacea* var. *ecrustacea*; **lecideae** Darmostuk, Khodos. & Naumovich: on *Lecidea fuscoatra*; **microthelia** (Wallr.) Nik.Hoffm. & Hafellner: on *Trapelia*; **muralis** van den Boom: on *Protoparmeliopsis muralis*; **nephromatis** (Crouan) Matzer & Hafellner: on *Nephroma*; **oxyspora** Matzer & R.Sant.: on *Coccocarpia*; **pannariae** Matzer & Hafellner: on *Protopannaria pezizoides*; **papuana** Diederich: on *Usnea*; **peltigericola** D.Hawksw. & Miądl.: on *Peltigera*; **ramirezii** Etayo: on *Lobariella*; **silvae-gabretae** Brackel: on *Lecanora polytropa*; **stereocaulorum** Zhurb., Kukwa & Oset: on *Stereocaulon*; **stictae** Etayo: on *Sticta*.
Lit.: Aptroot et al. 1997; Brackel 2021b; Darmostuk et al. 2018; Diederich et al. 2024aa; Etayo 2002a; Hawksworth & Miądlikowska 1997a; Hawksworth et al. 2010b; Hoffmann & Hafellner 2000; Matzer & Hafellner 1990; van den Boom 2015; Zhurbenko et al. 2009, 2019.

Roselliniopsis Matzer & Hafellner; type: *R. groedensis*. Mol.: no.
Species: 9-0-0. **falklandica** Zhurb., Tadome & Y. Ohmura: on *Psoroma cinnamomeum*; **gelidaria** (Mudd) Matzer: on *Placopsis gelida*; **groedensis** (Zopf) Matzer & Hafellner: on *Varicellaria lactea*; **palicei** Etayo: on *Placopsis gelida*; **phaeophysciae** S.Y.Kondr., L.Lőkös & Hur: on *Phaeophyscia*; **quaterpar** F.Berger & E.Zimm. ad int.: on *Thamnolia vermicularis*; **tartaricola** (Leight.) Matzer: on *Lepra*, *Ochrolechia*, *Pertusaria pupillaris* and *Varicellaria hemisphaerica*; **tropica** Matzer & R.Sant.: on ? *Ochrolechia*; **ventosa** (Rostr.) Alstrup: on *Placopsis gelida*.
Lit.: Alstrup et al. 1994; Diederich et al. 2024aa; Etayo 2003; Kondratyuk et al. 2013; Matzer 1993; Matzer & Hafellner 1990; Zhurbenko et al. 2025; Zimmermann & Berger 2021.

Sarocladium W.Gams & D.Hawksw.; type: *S. oryzae* (Sawada) W.Gams & D.Hawksw. Mol.: yes (T, L).
Species: 0-0-1 (22). **strictum** (W.Gams) Summerb.: facultatively lichenicolous.
Lit.: Diederich et al. 2024g.

Stilbella Lindau; type: *S. erythrocephala* (Ditmar) Lindau. Mol.: yes.
Species: 2-0-0 (60). **eichlerae** Brackel: on *Cetraria islandica*; **helmingeri** Diederich: on *Cladonia pocillum*.
Lit.: Brackel 2019; Diederich & Brackel 2024b.

Trichothecium Link; type: *T. roseum* (Pers.) Link. Mol.: yes (T, L). Asexual, hyphomycetous.
Species: 0-0-1 (9). **roseum** (Pers.) Link: facultatively lichenicolous.
Lit.: Diederich et al. 2024g; Hawksworth 1979a.

Order **Microascales** Benny & Kimbr.

Family **Graphiaceae** De Beer

Graphium Corda [a hemihomonym of *Graphium* Scopoli, Lepidoptera]; type: *G. penicillioides* Corda. Mol.: yes (T). Asexual, synnematous.
Species: 2-0-0 (31). **aphthosae** Alstrup & D.Hawksw.: on *Peltigera* and other terricolous lichens, occasionally algicolous; **samogiticum** Motiej. & Alstrup: over *Sarcosagium*, *Steinia* and *Verrucaria*, possibly algicolous.

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Lit.: Alstrup & Hawksworth 1990; Diederich 2024f; Motiejūnaitė & Alstrup 2006.

Family **Halosphaeriaceae** E.Müll. & Arx ex Kohlm.

Cirrenalia Meyers & R.T.Moore; type: *C. macrocephala* (Kohlm.) Meyers & R.T.Moore. Mol.: yes (T). Asexual, synnematous. The lichenicolous species are probably not related to the type.
Species: 2-0-0 (15). **lichenicola** Pérez-Ort.: on *Mycoblastus caesius*; **pertusariicola** Diederich & W.R.Buck: on *Pertusaria pustulata*.
Lit.: Diederich et al. 2024v; Spribille et al. 2020.

Order **Trichosphaeriales** M.E.Barr

Family **Trichosphaeriaceae** G.Winter

Trichosphaeria Fuckel; type: *T. pilosa* (Pers.) Fuckel. Mol.: yes (T).
Species: 1-0-0 (20). **lichenum** P.Karst. & Har.: on *Peltigera* [a poorly known species].
Lit.: Clauzade et al. 1989; Hawksworth 1980b.

Subclass SORDARIOMYCETIDAE O.E.Erikss. & Winka

Order **Chaetosphaeriales** Huhndorf, A.N.Mill. & F.A.Fernández

Family **Chaetosphaeriaceae** Réblová, M.E.Barr & Samuels

Dendrophoma Sacc.; type: *D. cytisporoides* (Sacc.) Sacc. Mol.: yes (T).
Species: 1-0-0 (100). **acarosporae** Alstrup & Olech, nom. inval. (ICN Art. F.5.2): on *Acarospora macrocyclos*.
Lit.: Alstrup et al. 2018.

Dinemasporium Lév.; type: *D. graminum*, i.e., *D. strigosum*. Mol.: yes (T, L). Asexual, pycnidial.
Species: 0-0-1 (35). **strigosum** (Fr.) Sacc. [= *D. gramineum* (Lib.) Lév.]: facultatively lichenicolous on *Peltigera*, more rarely other lichens.
Lit.: Etayo 2017; Miądlikowska & Alstrup 1995.

Order **Phyllachorales** M.E.Barr.

Family **Phyllachoraceae** Theiss. & P.Syd.

Lichenochora Hafellner; type: *L. thallina*, i.e., *L. obscuroides*. Mol.: no.
Species: 50-0-0. **acutispora** Etayo: on *Fuscopannaria magellanica*; **aipoliae** Etayo, Nav.-Ros. & Coppins: on *Physcia aipolia*; **ajaysinghii** Y.Joshi: on *Caloplaca saxicola*; **alaskana** Zhurb.: on *Fuscopannaria viridescens* and *Psoroma hypnorum*; **aprica** Hafellner & Nik. Hoffm.: on *Aspicilia* s.l.; **arctica** Zhurb.: on *Candelariella canadensis* and neighbouring *Rinodina terrestris*; **atrans** Halıcı, K.Knudsen & Candan: on *Psora decipiens*; **bacidiispora** Etayo: on *Parmotrema*; **bellemerei** Nav.-Ros., Cl.Roux & Diederich: on *Menegazzia*; **caloplacae** Zhurb.: on *Athallia*, *Blastenia*, *Bryoplaca* and *Caloplaca* s.str.; **chimaerica** Etayo: on *Pertusaria* [close to *Parapyrenis*, fide Etayo, pers. comm.]; **clauzadei** Nav.-Ros., Cl.Roux & Llimona: on *Squamarina*; **coarctatae** (B. de Lesd.) Hafellner & F. Berger: on *Trapelia*; **collematum** Nik.Hoffm. & Hafellner: on *Rostania ceranisca*; **constrictella** (Müll. Arg.) Hafellner: on *Gyalolechia bracteata*; **coppinsii** Etayo & Nav.-Ros.: on *Protopannaria pezizoides*; **elegantis** Hafellner: on *Rusavskia elegans*; **epidesertorum** Nav.-Ros.: on *Gyalolechia desertorum*; **epifulgens** Nav.-Ros. & Cl.Roux: on *Gyalolechia fulgens*; **epimarmorata** Nav.-Ros.: on *Bagliettoella marmorata*; **epinashii** Nav.-Ros. & Etayo: on *Polycauliona nashii*; **gahavisukae** Diederich: on ?*Graphis*; **galligena** R.Sant. & Hafellner: on *Physcia*; **haematommatum** R.C. Harris & Lendemer: on *Haematomma personii*; **heppiae** Cl.Roux: on *Heppia lutosa*; **hypanica** S.Y.Kondr., L.Lõkös & Hur: on *Endocarpon*; **hyperphysciae** Etayo: on *Hyperphyscia adglutinata*; **inconspicua** Hafellner: on *Lecidea berengeriana*; **lecidellae** Boqueras & Nav.-Ros.: on *Lecidella elaeochroma*; **lepidiotae** (Anzi) Etayo & Nav.-Ros.: on *Fuscopannaria praetermissa*; **makareviczae** S.Y.Kondr.: on *Lecanora* aff. *campestris*; **mediterraneae** Calat., Nav.-Ros. & E.Calvo: on *Fuscopannaria mediterranea*; **monegrina** Etayo: on terricolous *Polyblastia*; **obscuroides** (Linds.) Triebel & Rambold [= *L. thallina* (Cooke) Hafellner]: on *Phaeophyscia*, more rarely *Physcia*; **paucispora** Etayo & Nav.-Ros.: on *Bilimbia sabuletorum*; **physciicola** (Ihlen & R.Sant.) Hafellner: on *Physcia dubia*; **polycoccoides** Hafellner & R.Sant.: on *Physcia tribacia*; **pyrenodesmiae** Nav.-Ros. & Cl.Roux: on *Pyrenodesmia*; **rinodinae** Zhurb.: on *Rinodina*; **sedelnikoviorum** Zhurb.: on *Rostania ceranisca*; **silvae-ferae** F.Berger & E.Zimm.: on

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Hymenelia epulotica; **sinapispermae** Etayo & Nav.-Ros.: on *Bryoplaca sinapisperma*; **solenopsorae** Y.Joshi: on *Solenopsora candicans*; **tertia** Etayo, Flakus & Rodr. Flakus: on *Rusavskia elegans*; **thorii** Zhurb.: on *Aspicilia moenium*; **verrucariae** van der Kolk: on *Verrucaria viridula*; **verrucicola** (Wedd.) Nik.Hoffm. & Hafellner: on *Aspicilia cinerea*, *Circinaria calcarea* and *C. contorta*; **wasseri** S.Y.Kondr.: on *Flavoplaca*; **weillii** (Werner) Hafellner & R.Sant.: on *Physcia* and *Physconia*; **xanthoriae** Triebel & Rambold: on *Leproplaca proteus* and *Rusavskia elegans*.
Lit.: Aptroot et al. 1997; Berger & Zimmermann 2025; Calatayud et al. 2000; Etayo 2010c, 2011, 2017; Etayo & Navarro-Rosinés 2008; Etayo & Sancho 2008; Etayo et al. 2013c; Hafellner 1989; Hafellner & Berger 2000; Hafellner & Zimmermann 2012; Hoffmann & Hafellner 2000; Ihlen & Wedin 2005; Joshi et al. 2020, 2024b; Kondratyuk et al. 2014, 2015; Lendemer et al. 2016; Navarro-Rosinés & Etayo 2001; Navarro-Rosinés et al. 1994, 1998a, 1998c; Navrotskaya et al. 1996; Roux & Triebel 1994; Triebel et al. 1991; van der Kolk et al. 2024a; Zhurbenko 2008b, 2013a, 2021a, 2023a; Zhurbenko & Brackel 2013.

Order **Sordariales** D.Hawksw. & O.E.Erikss.

Family **Helminthosphaeriaceae** Samuels, Cand. & Magni

Endophragmiella B.Sutton; type: *E. pallescens* B.Sutton. Mol.: yes. Asexual, hyphomycetous.
Species: 3-0-1 (80). **boothii** M.B.Ellis ex P.M.Kirk: facultatively lichenicolous; **franconica** Brackel & Markovskaja: on various lichens; **hughesii** D. Hawksw.: on various lichens; **stordeuriana** U. Braun, Zhurb., Diederich, Tsurykau & Heuchert: on *Cladonia*.
Lit.: Brackel & Markovskaja 2009; Diederich et al. 2024x; Hawksworth 1979a; Zhurbenko et al. 2015a.

Order Sordariales genera incertae sedis

Globosphaeria D.Hawksw.; type: *G. jamesii*. Mol.: no.
Species: 1-0-0. **jamesii** D.Hawksw.: on *Normandina pulchella*.
Lit.: Hawksworth 1990b.

Roselliniomyces Matzer & Hafellner; type: *R. trichotheliorum*. Mol.: no.
Species: 2-0-0. **erinaceus** Etayo: on *Sticta*; **trichotheliorum** Matzer & Hafellner: on foliicolous *Trichothelium*.
Lit.: Etayo 2017; Matzer & Hafellner 1990.

Subclass XYLARIOMYCETIDAE O.E.Erikss. & Winka

Order **Xylariales** Nannf.

Family **Hyponectriaceae** Petr.

Charonectria Sacc.; type: *C. consolationis* Sacc. Mol.: no.
Species: 1-0-0 (3). **amabilis** Lowen & D.Hawksw.: on *Phaeorrhiza*.
Lit.: Rossman et al. 1999.

Physalospora Niessl; type: *P. alpestris* Niessl. Mol.: yes.
Species: 3-0-0 (37). **Geisleria alpina** Servít: on *Polyblastia albida* [a poorly known species]; **collematis** (Stein) G.Winter: on *Collema* [a poorly known species]; **jonaspidis** (Stein) Vouaux: on *Ionaspis chrysophana* [a poorly known species].
Lit.: Hoffmann & Hafellner 2000; Swinscow 1967.

Family **Hypoxylaceae** DC.

Hypoxylon Bull.; type: *H. fragiforme* (Pers.) J.Kickx f. [= *Sphaeria* Haller, nom. rejic.]. Mol.: yes (T).
Species: 1-0-0 (140). **Sphaeria sociella** Nyl.: on *Trapelia coarctata* [phylogenetic position uncertain].
Lit.: Triebel 1989.

Family **Requienellaceae** Boise

Distopyrenis Aptroot; type: *D. americana* Aptroot. Mol.: no.
Species: 2-0-0 (9). **epidiorygma** Etayo & van den Boom: on *Diorygma*; **japonica** Harada: on *Graphis proserpens*.
Lit.: Harada 2000; van den Boom et al. 2022.

Lacrymospora Aptroot; type: *L. parasitica*. Mol.: no.
Species: 1-0-0. **parasitica** Aptroot: probably lichenicolous on a sterile corticolous lichen (?*Myriotrema*).
Lit.: Aptroot 1991.

Parapyrenis Aptroot; type: *P. aurora* (Zahlbr.) Aptroot. Mol.: yes.
Species: 1-0-0 (8). **lichenicola** Aptroot & Diederich: on ?*Pertusaria*.
Lit.: Aptroot et al. 1997.

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Family **Xylariaceae** Tul. & C.Tul.

Anthostomella Sacc.; type: *A. limitata* Sacc. Mol.: yes. Currently heterogeneous.
Species: 1-0-0 (85). **apogyra** (Nyl.) Sacc. & D.Sacc.: on *Umbilicaria* [a poorly known species].
Lit.: Clauzade et al. 1989; Matzer & Hafellner 1990.

Xylaria Hill ex Schrank; type: *X. hypoxylon* (L.) Grev. Mol.: yes (T, L).
Species: 1-0-0 (350). **lichenicola** Flakus, Rodr. Flakus & Etayo: on *Lobariella*.
Lit.: Flakus et al. 2019a.

Class Sordariomycetes ordo incertae sedis

Order **Coniochaetales** Huhndorf, A.N.Mill. & F.A.Fernández

Family **Coniochaetaceae** Malloch & Cain

Coniochaeta (Sacc.) Cooke; type: *C. ligniaria*. Mol.: yes (T, L).
Species: 0-0-1 (80). **ligniaria** (Grev.) Massee: facultatively lichenicolous on *Diploschistes diacapsis*.
Lit.: Etayo 2008.

Class Sordariomycetes familia incertae sedis

Family **Junewangiaceae** J.W. Xia & X.G. Zhang

Sporidesmiella P.M.Kirk; type: *S. claviformis* P.M.Kirk. Mol.: yes. Asexual, hyphomycetous.
Species: 1-0-0 (32). **lichenophila** U.Braun & Heuchert: on *Ramalina*.
Lit.: Braun & Heuchert 2010; Diederich & Braun 2024b.

Subphylum Pezizomycotina ordo incertae sedis

Order **Thelocarpales** Lücking & Lumbsch

Family **Thelocarpaceae** Zukal

Thelocarpon Nyl.; type: *T. laureri* (Flot.) Nyl. (lichenized). Mol.: yes (T, L).
Species: 0-0-3[+1 var.] (25). **cyaneum** Olech & Alstrup: on '*Polyblastia* cf. *gothica*', probably facultatively lichenicolous; **epibolum** Nyl. var. **epibolum**: facultatively lichenicolous on *Arthrorhaphis*, *Baeomyces*, *Lichenomphalia hudsoniana*, *Peltigera*, *Pseudosolorina* and *Solorina*; **epibolum** var. **epithallinum** (Leight.) G. Salisb.: facultatively lichenicolous on *Arthrorhaphis*, *Baeomyces*, *Catapyrenium*, *Peltigera*, *Protopannaria* and *Pseudosolorina*; **lichenicola** (Fuckel) Poelt & Hafellner: facultatively lichenicolous on *Baeomyces*, *Peltigera*, *Solorina* and other terricolous lichens.
Lit.: Olech & Alstrup 1990; Rambold & Triebel 1992.

Subphylum Pezizomycotina familia incertae sedis

Family **Obryzaceae** O.E.Erikss.

Obryzum Wallr.; type: *O. corniculatum*. Mol.: no.
Species: 3-0-0. **corniculatum** Wallr.: on *Scytinium*; **friesii** (Keissl.) Nik.Hoffm. & Hafellner: on *Leptogium*; **striguloides** Aptroot & Sipman: on *Agonimia vouauxii*.
Lit.: Aptroot & Sipman 2001; Hoffmann & Hafellner 2000; Lücking et al. 2017.

Subphylum Pezizomycotina genera incertae sedis

Acaroconium Kocourk. & D.Hawksw.; type: *A. punctiforme*. Mol.: no. Asexual, pycnidial.
Species: 2-0-0. **lavrinenkoae** Zhurb.: on *Pseudosolorina saccata*; **punctiforme** Kocourk. & D.Hawksw.: on *Acarospora* and *Sarcogyne*.
Lit.: Kocourková & Hawksworth 2008; Zhurbenko 2021b.

Acremoniula G.Arnaud ex Cif.; type: *A. sarcinellae*. Mol.: yes (T). Asexual, hyphomycetous.
Species: 1-0-0 (8). **cladoniae** Boers, van der Kolk & Diederich: on *Cladonia furcata*.
Lit.: Boers et al. 2024.

Actinocladium Ehrenb.; type: *A. rhodosporum*. Mol.: yes. Asexual, hyphomycetous.
Species: 0-0-1 (7). **rhodosporum** Ehrenb.: facultatively lichenicolous.
Lit.: Brackel 2014; Diederich & Pinault 2024.

Amerosporiopsis Petr.; type: *A. gaubae* Petr. Mol.: no. Asexual, pycnidial.

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Species: 1-0-0 (2). **phaeographidis** Diederich & Common: on *Phaeographis brasiliensis*.
Lit.: Diederich et al. 2019.

Amylogalla Suija, Motiej. & Kantvilas; type: *A. fava*. Mol.: no.
Species: 1-0-0. **fava** Suija, Motiej. & Kantvilas: on *Parasiphula*.
Lit.: Motiejūnaitė et al. 2019.

Antarctosphaeria Alstrup & Olech, nom. inval. (ICN Art. F.5.2); type: *A. lichenicola*. Mol.: no.
Species: 2-0-0. **bireagens** Alstrup & Olech, nom. inval. (ICN Art. F.5.2): on *Amandinea petermannii*; **lichenicola** Alstrup & Olech, nom. inval. (ICN Art. F.5.2): on *Bacidia stipata*.
Lit.: Alstrup et al. 2018.

Arborillus Munt.-Cvetk. & Gómez-Bolea; type: *A. llimonae*. Mol.: no. Asexual, synnematous.
Species: 1-0-0. **llimonae** Munt.-Cvetk. & Gómez-Bolea: on *Diploschistes*.
Lit.: Diederich 2024a; Muntañola-Cvetkovic & Gómez-Bolea 1998.

Asterophoma D.Hawksw.; type: *A. mazaediicola*. Mol.: no. Asexual, pycnidial.
Species: 1-0-0. **mazaediicola** D.Hawksw.: on *Calicium* and *Chaenotheca*.
Lit.: Hawksworth 1981; Tibell 1991a.

Baliomyces Zhurb. & Diederich; type: *B. taimyricus*. Mol.: no.
Species: 1-0-0. **taimyricus** Zhurb. & Diederich: on *Amygdalaria elegantior*.
Lit.: Zhurbenko & Diederich 2024a,b.

Biciliopsis Diederich; type: *B. leptogiicola*. Mol.: no.
Species: 2-0-0. **cladoniae** Zhurb., Pino-Bodas & Diederich: on *Cladonia*; **leptogiicola** Diederich: on *Leptogium*.
Lit.: Aptroot el al.1997; Hoffmann & Hafellner 2000; Zhurbenko & Pino-Bodas 2017.

Bicoloromyces Heuchert, U.Braun & D.Hawksw.; type; *B. kyffinensis*. Mol.: no. Asexual, hyphomycetous.
Species: 1-0-0. **kyffinensis** Heuchert, U.Braun & D. Hawksw.: on an unidentified, sterile lichen.
Lit.: Heuchert et al. 2015, 2024a.

Calongeomyces D.Hawksw. & Etayo; type: *C. gibelluloides*. Mol.: no. Asexual, hyphomycetous.
Species: 1-0-0. **gibelluloides** (D.Hawksw. & Etayo) D. Hawksw. & Etayo: on *Cladonia*, *Flavoparmelia caperata* and *Lepra amara*.
Lit.: Hawksworth & Etayo 2010, 2011; Hawksworth et al. 2024b.

Caeruleoconidia Zhurb. & Diederich; type: *C. ochrolechiae*. Mol.: no. Asexual, sporodochial to pycnidial.
Species: 4-0-0. **ahtii** Zhurb.: on *Rhizoplaca chrysoleuca*; **biazrovii** Zhurb.: on *Cladonia*; **ochrolechiae** Zhurb. & Diederich: on *Lepra* and *Ochrolechia*; **roccellae** E.Zimm. & Diederich: on *Roccella*.
Lit.: Zhurbenko 2024; Zhurbenko & Pino-Bodas 2017; Zhurbenko et al. 2015d, 2024.

Carnegieispora Etayo & F.Berger; type: *C. rimeliae*. Mol.: no. Asexual, pycnidial.
Species: 1-0-0. **rimeliae** Etayo & F.Berger: on *Parmotrema*.
Lit.: Etayo & Berger 2009.

Cecidiomyces U.Braun & Zhurb.; type: *C. santessonii*. Mol.: no. Asexual, hyphomycetous.
Species: 1-0-0. **santessonii** U.Braun & Zhurb.: on *Stereocaulon*.
Lit.: Braun et al. 2024; Zhurbenko & Braun 2012.

Choreospora Constant. & R.Sant.; type: *C. tibellii*. Mol.: no. Asexual, sporodochial.
Species: 1-0-0. **tibellii** Constant. & R.Sant.: on foliicolous ?*Echinoplaca*.
Lit.: Constantinescu & Santesson 1987; Diederich 2024b.

Cladoniicola Diederich, van den Boom & Aptroot; type: *C. staurospora*. Mol.: no. Asexual, pycnidial.
Species: 2-0-0. **irregularis** Etayo: on *Diploschistes diacapsis*; **staurospora** Diederich, van den Boom & Aptroot: on *Cladonia*.
Lit.: Diederich et al. 2002a; Etayo 2010c.

Clauzadeomyces Diederich; type: *C. verrucosus*. Mol.: no. Asexual, sporodochial.
Species: 1-0-0. **verrucosus** Diederich: on *Placopsis*.
Lit.: Diederich 1994, 2024c.

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Codonmyces Calat. & Etayo; type: *C. lecanorae*. Mol.: no. Asexual, hyphomycetous.
Species: 3-0-0. **canoparmeliae** Diederich: on *Canoparmelia texana*; **lecanorae** Calat. & Etayo: on *Lecanora valesiaca* and *Protoparmeliopsis muralis*; **ochrolechiae** Zhurb. & Diederich: on *Ochrolechia yasudae*.
Lit.: Calatayud & Etayo 1999a; Diederich & Zhurbenko 2024; Zhurbenko & Diederich 2024b.

Coniambigua Etayo & Diederich; type: *C. phaeographidis*. Mol.: no. Asexual, pycnidial.
Species: 4-0-0. **aptrootii** (Diederich) Diederich: on *Fissurina dumastii*; **graphidis** Kukwa & Diederich: on *Graphis scripta*; **ochrolechiae** Diederich: on *Ochrolechia*; **phaeographidis** Etayo & Diederich: on *Phaeographis* s.l. (incl. *Leiorreuma*).
Lit.: Etayo & Diederich 1995; Diederich et al. 2024u.

Dahawkswia Alstrup & Olech, nom. inval. (ICN Art. F.5.2); type: *D. lichenicola*. Mol.: no.
Species: 1-0-0. **lichenicola** Alstrup & Olech, nom. inval. (ICN Art. F.5.2): on *Ochrolechia parella*.
Lit.: Alstrup et al. 2018.

Deichmannia Alstrup & D.Hawksw.; type: *D. verrucispora*. Mol.: no. Asexual, sporodochial.
Species: 1-0-0. **verrucispora** Alstrup & D.Hawksw.: on *Diploschistes muscorum*.
Lit.: Alstrup & Hawksworth 1990; Diederich & Hawksworth 2024b.

Dictyophrynella Bat. & Cavalc.; type: *D. bignoniacearum*. Mol.: no. Asexual, hyphomycetous.
Species: 1-0-0. **bignoniacearum** Bat. & Caval.: on foliicolous lichens.
Lit.: Hawksworth 1979a; Hawksworth & Diederich 2024a.

Epaphroconidia Calat. & V.Atienza; type: *E. hawksworthii*. Mol.: no. Asexual, pycnidial.
Species: 1-0-0. **hawksworthii** Calat. & V.Atienza: on *Pertusaria pertusa*.
Lit.: Calatayud & Atienza 1995.

Endosporoideus W.H.Ho, Yanna, K.D.Hyde & Goh; type: *E. pedicellatus*W.H.Ho, Yanna, K.D.Hyde & Goh. Mol.: no. Asexual, hyphomycetous.
Species: 1-0-0 (2). **leprae** Diederich: on *Lepra ventosa*.
Lit.: Diederich 2024d.

Everniicola D.Hawksw.; type: *E. flexispora*. Mol.: no. Asexual, pycnidial.
Species: 1-0-0. **flexispora** D.Hawksw.: on *Evernia* and *Nephroma arcticum*.
Lit.: Hawksworth 1982a.

Feltgeniomyces Diederich; type: *F. luxemburgensis*. Mol.: no. Asexual, sporodochial.
Species: 7-0-0. **dichotomus** Etayo & Calat.: on *Heterodermia* and *Physcia*; **lecanorae** Zhurb.: on *Lecanora chlarotera* s.l.; **luxemburgensis** Diederich: on *Lecidella*; **mongolicus** Zhurb.: on *Hypogymnia*; **ochrolechiae** Etayo: on *Ochrolechia* cf. *parella*; **physciae** Etayo & Breuss: on *Physcia*; **uniseptatus** Diederich: on *Hypotrachyna sinuosa*.
Lit.: Aptroot et al. 1997; Calatayud & Etayo 2001; Diederich 1990; Diederich et al. 2024r; Etayo & Breuss 1998; Etayo & Sancho 2023; Zhurbenko et al. 2019, 2020b.

Fenestroconidia Calat. & Etayo; type: *C. caloplacae*. Mol.: no. Asexual, sporodochial.
Species: 1-0-0. **caloplacae** Calat. & Etayo: on *Calogaya*.
Lit.: Calatayud & Etayo 1999b; Etayo & Diederich 2024a.

Gyalectiphila Diederich & C.Roux; type: *G. achromatica*. Mol.: no. Asexual, hyphomycetous.
Species: 3-0-0. **achromatica** (B.Sutton) Cl.Roux & Diederich [≡ *Refractohilum achromaticum* (B. Sutton) D.Hawksw.]: on *Gyalecta* and sterile lichens with *Trentepohlia*; **intermedia** (Cl.Roux & Etayo) Cl.Roux & Diederich [≡ *R. intermedium* Cl.Roux & Etayo]: on *Gyalecta* and sterile lichens with *Trentepohlia*; **pluriseptata** (Etayo & Cl.Roux) Cl.Roux & Diederich [≡ *R. pluriseptatum* Etayo & Cl.Roux]: on lichens with *Trentepohlia*.
Lit.: Etayo & Sancho 2008; Hawksworth 1977a; Roux & Diederich 2024; Roux et al. 1997.

Gyrophthorus Hafellner & Sancho; type: *G. perforans*. Mol.: no.
Species: 4-0-0. **crustulosae** (Creveld) Hafellner & Sancho: on *Umbilicaria*; **gracilis** Nik.Hoffm. &

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Hafellner: on *Umbilicaria*; **latisporus** Etayo: on *Umbilicaria hirsuta*; **perforans** Hafellner & Sancho: on *Umbilicaria*.
Lit.: Etayo & Sancho 2023; Hafellner & Sancho 1990; Hoffman & Hafellner 2000.

Hawksworthiana U.Braun; type: *H. peltigericola*. Mol.: no. Asexual, hyphomycetous.
Species: 1-0-0. **peltigerae** (Keissl.) Diederich [≡ *Refractohilum peltigerae* (Keissl.) D.Hawksw.; = *H. peltigericola* (D.Hawksw.) U.Braun]: on *Peltigera*.
Lit.: Braun 1988; Diederich 2024g; Hawksworth 1980a.

Henfellra Halıcı, D.Hawksw., Z.Kocak. & M.Kocak.; type: *H. muriformis*. Mol.: no. Asexual, pycnidial.
Species: 1-0-0. **muriformis** Halıcı, D.Hawksw., Z. Kocak. & M.Kocak.: on *Candelariella antennaria*.
Lit.: Hawksworth et al. 2016.

Hymenobia Nyl.; type: *H. insidiosa* [= *Hymenobiella* Triebel; type: *H. aporea*]. Mol.: no. A poorly known genus.
Species: 1-0-0. **insidiosa** Nyl. [= *Hymenobiella aporea* (Nyl.) Triebel]: on *Lecidea*.
Lit.: Eriksson & Hawksworth 1991; Triebel 1989.

Hypotrachynicola Etayo; type: *H. rubra*. Mol.: no. Sexual.
Species: 1-0-0. **rubra** Etayo: on *Hypotrachyna*.
Lit.: Etayo 2002a.

Intralichen D.Hawksw. & M.S.Cole; type: *I. christiansenii*. Mol.: no. Asexual, hyphomycetous. Probably polyphyletic.
Species: 3-0-0. **baccisporus** D.Hawksw. & M.S. Cole: on *Xanthomendoza* and probably other Teloschistaceae; **lichenicola** (M.S.Christ. & D. Hawksw.) D.Hawksw. & M.S.Cole [= *I. christiansenii* (D.Hawksw.) D.Hawksw. & M.S.Cole]: on *Candelariella*; **lichenum** (Diederich) D.Hawksw. & M.S.Cole: on *Arthonia atra*.
Lit.: Diederich 1990, 2021, 2024i; Hawksworth 1979a; Hawksworth & Cole 2002.

Isthmoconidium Etayo & F.Berger; type: *I. bacidiicola*. Mol.: no. Asexual, pycnidioid to pseudocupulate.
Species: 1-0-0. **bacidiicola** Etayo & F.Berger: on *Bacidia heterochroa*.
Lit.: Etayo & Berger 2013; Etayo et al. 2024a.

Kalchbrenneriella Diederich & M.S.Christ.; type: *K. cyanescens*. Mol.: no. Asexual, hyphomycetous.
Species: 1-0-0. **cyanescens** (Kalchbr.) Diederich & M.S.Christ.: on *Usnea*.
Lit.: Diederich 2002; Diederich & Etayo 2024b.

Katherinomyces Khodos.; type: *K. cetrariae*. Mol.: no. Asexual, sporodochioid to pycnidioid.
Species: 1-0-0. **cetrariae** Khodos: on various lichens.
Lit.: Diederich et al. 2024ac; Khodosovtsev et al. 2016, 2018.

Keissleriomyces D.Hawksw.; type: *K. sandstedeanus*. Mol.: no. Asexual, pycnidial.
Species: 1-0-0. **sandstedeanus** (Keissler) D.Hawksw.: on *Cladonia*.
Lit.: Hawksworth 1981.

Knudsenia Y.Joshi; type: *K. flavoparmeliarum*. Mol.: no.
Species: 1-0-0. **flavoparmeliarum** Y.Joshi: on *Flavoparmelia caperata* and *Flavopunctelia flaventior*.
Lit.: Joshi & Bansal 2023.

Lambinonia Sérus. & Diederich; type: *L. strigulae*. Mol.: no. Asexual, sporodochial.
Species: 1-0-0. **strigulae** (Elenkin & Woron.) Sérus. & Diederich: on foliicolous *Puiggariella* and *Strigula*.
Lit.: Diederich & Sérusiaux 2024; Sérusiaux & Diederich 2005.

Lawalreea Diederich; type: *L. lecanorae*. Mol.: no. Asexual, pycnidial. Resembles pycnidia of some *Lecanora* s.l.
Species: 2-0-0. **burgaziana** Etayo & López de Silanes: on *Platismatia glauca*; **lecanorae** Diederich: on *Polyozosia persimilis* and other *Polyozosia* species.
Lit.: Diederich 1990; Etayo & Lópes de Silanes 2024.

Leightoniomyces D.Hawksw. & B.Sutton; type: *L. phillipsii*. Mol.: no. Asexual, hyphomycetous.
Species: 0-0-2. **canariensis** Etayo & Pérez-Vargas: lichenicolous or algicolous over a sterile, crustose saxicolous lichen; **phillipsii** (Berk. & Leight.) D. Hawksw. & B.Sutton: terricolous, over biofilms overgrowing lichen thalli, bryophytes and plant roots, possibly algicolous.
Lit.: Diederich et al. 2024ab; Hawksworth 1977a, 1979a; Pérez-Vargas et al. 2013.

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Lichenobactridium Diederich & Etayo; type: *L. pertusariae*. Mol.: no. Asexual, sporodochial.
Species: 1-0-0. **pertusariae** Diederich & Etayo: on *Lepra multipuncta* and *Pertusaria pertusa*.
Lit.: Diederich & Etayo 2024c; Etayo & Diederich 1995.

Lichenodiplisiella S.Y.Kondr. & Kudratov; type: *L. makarevichiae*. Mol.: no. Asexual, pycnidial.
Species: 1-0-0. **makarevichiae** S.Y.Kondr. & Kudratov [as '*makarevichae*']: on *Teloschistes brevior*.
Lit.: Kondratyuk et al. 2002.

Lichenohostes Alstrup & Olech, nom. inval. (ICN Art. F.5.2); type: *L. citrinospora*. Mol.: no.
Species: 1-0-0. **citrinospora** Alstrup & Olech, nom. inval. (ICN Art. F.5.2): on *Placopsis contortuplicata*.
Lit.: Alstrup et al. 2018.

Lichenopenicillus Etayo; type: *L. versicolor*. Mol.: no. Asexual, synnematous.
Species: 1-0-0. **versicolor** Etayo: on *Leptogium* and *Sticta*.
Lit.: Etayo 2017; Etayo & Diederich 2024b.

Lichenophoma Keissl.; type: *L. haematommatis*. Mol.: no. Asexual, pycnidial. A poorly known genus.
Species: 1-0-0 (2). **haematommatis** Keissl.: on *Haematomma*.
Lit.: Hawksworth 1981.

Lichenopuccinia D.Hawksw. & Hafellner; type: *L. poeltii*. Mol.: no. Asexual, sporodochial.
Species: 1-0-0. **poeltii** D.Hawksw. & Hafellner: on *Parmelia*.
Lit.: Diederich & Hawksworth 2024c; Hawksworth 1984.

Lichenostella Etayo & Calat.; type: *L. hypotrachynae*. Mol.: no. Asexual, sporodochial.
Species: 2-0-0. **griseofusca** van der Kolk & Diederich: on *Lecanora chlarotera*; **hypotrachynae** Etayo & Calat.: on *Hypotrachyna*.
Lit.: Calatayud & Etayo 1999a; van der Kolk et al. 2024b.

Llanorella Diederich & Brackel; type: *L. ramalinae*. Mol.: no. Asexual, hyphomycetous.
Species: 1-0-0. **ramalinae** Diederich & Brackel: on *Ramalina*.
Lit.: Diederich & Brackel 2024a.

Minutophoma D.Hawksw.; type: *M. chrysophthalmae*. Mol.: no. Asexual, pycnidial.
Species: 1-0-0. **chrysophthalmae** D.Hawksw.: on *Chrysothrix chrysophthalmae*.
Lit.: Hawksworth 1981.

Neolamya Theiss. & Syd.; type: *N. peltigerae*. Mol.: no. Sexual.
Species: 3-0-0. **ahtii** Zhurb.: on *Cladonia*; **peltigerae** (Mont.) Theiss. & Syd.: on *Peltigera* (mainly *P. didactyla*); **xanthoparmeliae** Kocourk.: on *Xanthoparmelia conspersa*.
Lit.: Keissler 1930; Kocourková 2009; Zhurbenko & Pino-Bodas 2017.

Nigromacula Etayo; type: *N. hypotrachynae*. Mol.: no. Asexual, sporodochial.
Species: 1-0-0. **uniseptata** (D.Hawksw.) D.Hawksw.: on *Hypotrachyna*.
Lit.: Diederich & Hawksworth 2024d; Etayo 2002a.

Nigropuncta D.Hawksw.; type: *N. rugulosa*. Mol.: no. Asexual, pycnidioid to sporodochial.
Species: 1-0-0. **rugulosa** D.Hawksw. [= *N. groenlandica* Alstrup]: on *Bellemerea*.
Lit.: Alstrup 1993a; Diederich et al. 2024y; Hawksworth 1981; Hawksworth & Poelt 1986.

Patriciomyces D.Hawksw.; type: *P. valentinianus*. Mol.: no. Asexual, hyphomycetous.
Species: 1-0-0. **valentinianus** D.Hawksw.: on *Physcia*.
Lit.: Cole & Hawksworth 2001; Diederich et al. 2024g.

Phaeosporodendron Alstrup & Olech, nom. inval. (ICN Art. F.5.2); type: *P. badiae*. Mol.: no.
Species: 1-0-0. **badiae** Alstrup & Olech, nom. inval. (ICN Art. F.5.2): on *Protoparmelia badia*.
Lit.: Alstrup et al. 2018.

Prostratomyces Alstrup & Olech, nom. inval. (ICN Art. F.5.2); type: *P. leprariae*. Mol.: no.
Species: 3-0-0. **leprariae** Alstrup & Olech, nom. inval. (ICN Art. F.5.2): on *Lepraria*; **ochrolechiae** Alstrup & Olech, nom. inval. (ICN Art. F.5.2): on *Ochrolechia parella*; **rhizocarpicola** Alstrup & Olech [as '*rhizocarpicolae*'], nom. inval. (ICN Art. F.5.2): on *Rhizocarpon geographicum*.
Lit.: Alstrup et al. 2018.

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Pseudophaeoisaria Diederich & Giavarini; type: *P. cladoniae*. Mol.: no. Asexual, synnematous.
Species: 1-0-0. **cladoniae** Diederich & Giavarini: on *Cladonia polydactyla*.
Lit.: Diederich & Giavarini 2024.

Pycnopsammina Diederich & Etayo; type: *P. lobariae*. Mol.: no. Asexual, pycnidial.
Species: 1-0-0. **lobariae** Diederich & Etayo [≡ *Psammina lobariae* (Diederich & Etayo) Earl.-Benn. & D.Hawksw.]: on *Lobaria pulmonaria*.
Lit.: Etayo & Diederich 1995.

Pygmaeosphaera Etayo & Diederich; type: *P. coccocarpiae*. Mol.: no. Possibly related to Tubeufiales.
Species: 3-0-0. **coccocarpiae** (Diederich) Etayo & Diederich [≡ *Nectriopsis coccocarpiae* Diederich]: on *Coccocarpia*; **epigraphis** Etayo: on *Graphis*; **sipmaniana** Etayo: on *Parmeliella*.
Lit.: Etayo 2017.

Refractohilum D.Hawksw.; type: *R. galligenum*. Mol.: no. Asexual, hyphomycetous.
Species: 1-0-0. **galligenum** D.Hawksw.: on *Nephroma*.
Lit.: Diederich 2024j; Hawksworth 1977a.

Randlanea Zhurb., Diederich & U.Braun; type: *R. usneicola*. Mol.: no.
Species: 1-0-0. **usneicola** Zhurb., Diederich & U. Braun: on *Usnea longissima*.
Lit.: Zhurbenko et al. 2023.

Saania Zhurb.; type: *S. mobergii*. Mol.: no.
Species: 1-0-0. **mobergii** Zhurb.: on *Siphula*.
Lit.: Motiejūnaitė et al. 2019.

Sarcoexcipula Etayo; type: *S. pannariae*. Mol.: no. Sexual.
Species: 1-0-0. **pannariae** Etayo: on *Pannaria pallida*.
Lit.: Etayo & Sancho 2008.

Sessiliospora D.Hawksw.; type: *S. bicolor*. Mol.: no. Asexual, hyphomycetous.
Species: 1-0-0. **bicolor** D.Hawksw.: on foliicolous *Lasioloma arachnoideum* and other lichens.
Lit.: Hawksworth 1979a; Hawksworth & Diederich 2024b.

Stellifraga Alstrup & Olech; type: *S. cladoniicola*. Mol.: no. Sexual.
Species: 1-0-0. **cladoniicola** Alstrup & Olech: on *Cladonia*.
Lit.: Alstrup & Olech 1993.

Stipititheca Diederich & Ertz; type: *S. pyrenulae*. Mol.: no. Asexual, hyphomycetous.
Species: 1-0-0. **pyrenulae** Diederich & Ertz: on *Pyrenula*.
Lit.: Diederich 2024l.

Stromatoneolamya Zhurb.; type: *S. ugandensis*. Mol.: no. Sexual.
Species: 1-0-0. **ugandensis** Zhurb.: on *Canoparmelia nairobensis*.
Lit.: Zhurbenko 2021c.

Stygiomyces Coppins & S.Y.Kondr.; type: *S. galliformis*. Mol.: no. Asexual, pycnidial.
Species: 1-0-0. **galliformis** Coppins & S.Y.Kondr.: on *Pseudocyphellaria*.
Lit.: Coppins & Kondratyuk 1995.

Taeniolina M.B.Ellis; type: *T. centaurii* (Fuckel) M.B. Ellis. Mol.: no. Asexual, hyphomycetous.
Species: 0-0-1 (6). **scripta** (P.Karst) P.M.Kirk: facultatively lichenicolous on corticolous lichens.
Lit.: Diederich 1989; Hawksworth 1979a; Heuchert et al. 2018, 2024d.

Teratosperma Syd. & P.Syd.; type: *T. singulare* Syd. & P. Syd. Mol.: no. Asexual, hyphomycetous.
Species: 2-0-0 (14). **anacardii** Hansf.: on foliicolous lichens; **lichenicola** D.Hawksw.: on foliicolous lichens.
Lit.: Hawksworth 1979a; Hawksworth & Diederich 2024c.

Trichoconis Clem.; type: *T. caudata* (Appel & Strunk) Clem. Mol.: yes. Asexual, hyphomycetous.
Species: 2-0-0 (20). **lichenicola** D.Hawksw.: on *Peltigera*; **physciicola** Brackel [= *T. hafellneri* U. Braun, Khodos., Darmostuk & Diederich]: on *Athallia*, *Melanohalea*, *Physcia* and *Xanthoria*.
Lit.: Brackel 2014; Braun et al. 2016; Diederich et al. 2024b; Hawksworth 1980b.

Vagnia D.Hawksw. & Miądl.; type: *V. cirriformis*. Mol.: no. Asexual, coelomycetous.

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Species: 1-0-0. **cirriformis** D.Hawksw. & Miądl. [as '*cirriformia*']: on *Peltigera*.
Lit.: Hawksworth & Miądlikowska 1997b.

Viridiannula Etayo; type: *V. pertusariae*. Mol.: no. Asexual, pycnidial.
Species: 1-0-0. **pertusariae** Etayo: on *Pertusaria pertusa*.
Lit.: Etayo 2002b.

Vouauxiella Petr. & Syd.; type: *V. verrucosa*. Mol.: no. Asexual, pycnidial.
Species: 3-0-0. **lichenicola** (Linds.) Petrak & H.Sydow: on *Lecanora*; **pithospora** (Cavalc. & Silva) B.Sutton: on foliicolous lichens; **verrucosa** (Vouaux) Petrak & H.Sydow: on *Lecanora*.
Lit.: Hawksworth 1981.

Xylohyphopsis W.A.Baker & Partr.; type: *X. curta* (Corda) W.A.Baker & Partr. Mol.: no. Asexual, hyphomycetous.
Species: 1-0-0 (4). **xanthoriicola** P.Pinault & Diederich: on *Xanthoria parietina*.
Lit.: Pinault & Diederich 2024b.

Zevadia J.C.David & D.Hawksw.; type: *Z. peroccidentalis*. Mol.: no. Asexual, hyphomycetous.
Species: 1-0-0. **peroccidentalis** J.C.David & D. Hawksw.: on *Usnea*.
Lit.: David & Hawksworth 1995; Diederich 2024m.

Zwackhiomacromyces Etayo & van den Boom; type: *Z. constrictocarpus*. Mol.: no. Sexual.
Species: 2-0-0. **constrictocarpus** Etayo & van den Boom: on *Megalospora verrucosa*; **hyalosporus** (Alstrup, D.Hawksw. & R.Sant.) Etayo & F. Berger [≡ *Pyrenidium hyalosporum* Alstrup, D. Hawksw. & R.Sant.]: on *Placopsis*.
Lit.: Alstrup & Hawksworth 1990; van den Boom & Etayo 2014.

Phylum BASIDIOMYCOTA R.T.Moore

Subphylum AGARICOMYCOTINA Doweld [= Basidiomycotina Ainsw.]

Class AGARICOMYCETES Doweld

Order **Agaricales** Underw.

Family **Hygrophoraceae** Lotsy

Arrhenia Fr.; type: *A. auriscalpium* (Fr.) Fr. (bryophylous). Mol.: yes (T, L). Most species bryophylous, lichenicolous or phycophilous.
Species: 6-0-1 (63). **baltica** I.Saar & Voitk: on *Peltigera rufescens*; **cupulatoides** (Orton) I.Saar & Voitk: on *P. hymenina*; **fennoscandica** I.Saar & Voitk: on *Peltigera*; **mohniensis** Voitk, Burzynski & I. Saar: on *Peltigera*; **peltigerina** (Peck) Redhead, Lutzoni, Moncalvo & Vilgalys: on *Peltigera*; **similis** Gulden, Rian & I.Saar: facultatively lichenicolous on *Peltigera*; **talpoides** Voitk, I.Saar & Burzynski: on *Peltigera*.
Lit.: Barrasa & Rico 2010; Collin & Lauron 1994; Diederich et al. 2022a; Garnier-Delcourt 2008; Gulden et al. 2023; Orton 1977; Redhead et al. 2002; Santesson 1993a; Voitk et al. 2024.

Family **Tricholomataceae** R.Heim ex Pouzar

Gamundia Raitelh.; type: *G. pseudoclusilis* (Joss. & Konrad) Raitelh. (saprotrophic) [possibly a synomym of *G. striatula* (Kühner) Raitelh.]. Mol.: yes.
Species: 2-0-0 (10). **arctica** (Gulden) E.Ludw.: on moribund *Peltigera* cf. *leucophlebia*; **xerophila** (Luthi & Röllin) P.-A.Moreau & Courtec.: on moribund *Peltigera*, almost surely a species complex.
Lit.: Alstrup & Hawksworth 1990; Barrasa & Rico 2010; Diederich et al. 2022a; Moreau 2005.

Order **Atheliales** Jülich

Family **Atheliaceae** Jülich

Athelia Pers.; type: *A. epiphylla*. Mol.: yes (T, L). Sexual and asexual (sclerotia-forming).
Species: 2-0-1 (33). **abscondita** Goyette, Spirin & T.Sprib.: on *Bryoria* and other epiphytic macrolichens; **arachnoidea** (Berk.) Jülich: usually lichenicolous, on various lichens, also over bryophytes or bark; **epiphylla** Pers. s. lat. (incl. *alnicola* (Bourd. & Galz.) Jülich, *epiphylla* s.str. and *salicum* Pers.): facultatively lichenicolous.
Lit.: Arvidsson 1976, 1978; Diederich et al. 2022l;

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Goyette et al. 2023; Jülich 1972; Lawrey et al. 2007; Parmasto 1998.

Order **Boletales** E.-J.Gilbert

Family **Coniophoraceae** Ulbr.

Penttilamyces Zmitr., Kalinovskaya & Myasnikov; type: *P. romellii* (Ginns) Zmitr., Kalinovskaya & Myasnikov (saprotrophic). Mol.: yes (T, L). Sexual and asexual (sclerotia-forming).
Species: 1-0-0 (3). **lichenicola** (Thorn, Malloch & Ginns) Zmitr., Kalinovskaya & Myasnikov: on *Cladonia* and *Stereocaulon*.
Lit.: Diederich & Lawrey 2022; Lawrey et al. 2007; Thorn et al. 1998.

Order **Cantharellales** Gäum.

Family **Ceratobasidiaceae** G.W.Martin

Rhizoctonia DC; type: *R. solani* J.G.Kühn [≡ *Ceratobasidium* D.P.Rogers; type: *C. calosporum* D.P.Rogers]. Mol.: yes (T, L). Sexual and asexual (some sclerotia/bulbil-forming).
Species: 1-0-0 (18). **bulbillifaciens** (Diederich & Lawrey) R.P.O'Donnell, C.C.Linde & T.W.May [≡ *Ceratobasidium b.* Diederich & Lawrey]: on various lichens.
Lit.: Diederich et al. 2014a; Diederich et al. 2022k; O'Donnell et al. 2025.

Family **Hydnaceae** Chevall.

Bergerella Diederich & Lawrey; type: *B. atrofusca*. Mol.: yes (T, L). Asexual (bulbil-forming).
Species: 1-0-0. **atrofusca** Diederich & Lawrey: on *Physcia*, rarely on other corticolous lichens.
Lit.: Diederich et al. 2022k; Lawrey et al. 2020.

Bulbilla Diederich, Flakus & Etayo; type: *B. applanata*. Mol.: yes (T, L). Asexual (bulbil-forming).
Species: 1-0-0. **applanata** Diederich, Flakus & Etayo: on Peltigerales.
Lit.: Diederich et al. 2014a, 2022k; He et al. 2019; Lawrey et al. 2016.

Burgella Diederich & Lawrey; type: *B. flavoparmeliae*. Mol.: yes (T, L). Asexual (bulbil-forming).
Species: 1-0-1 (4). **flavoparmeliae** Diederich & Lawrey: on *Flavoparmelia baltimorensis* and *Parmotrema*; **lutea** Diederich, Capdet, A.I.Romero & Etayo: facultatively lichenicolous over various lichens.
Lit.: Diederich & Lawrey 2007; Diederich et al. 2014a, 2022k; Lawrey et al. 2007.

Burgellopsis Diederich & Lawrey; type: *B. nivea*. Mol.: yes (T, L). Asexual (bulbil-forming).
Species: 1-0-0. **nivea** Diederich & Lawrey: on sterile, crustose lichen.
Lit.: Diederich et al. 2014a, 2022k.

Burgoa Goid.; type: *B. verzuoliana* Goid. (saprotrophic). Mol.: yes (T, L). Asexual (bulbil-forming).
Species: 2-0-0 (9). **angulosa** Diederich, Lawrey & Etayo: on various lichens; **moriformis** Diederich, Ertz & Coppins: on corticolous *Physcia*, also invading neighboring lichens, bryophytes or bark.
Lit.: Diederich & Lawrey 2007; Diederich et al. 2022k; Lawrey et al. 2007.

Minimedusa Weresub & P.M.LeClair; type: *M. polyspora* (Hotson) Weresub & P.M.LeClair (saprotrophic). Mol.: yes (T, L). Asexual (bulbil-forming).
Species: 1-0-0 (3). **pubescens** Diederich, Lawrey & Heylen: on various lichens.
Lit.: Diederich & Lawrey 2007; Diederich et al. 2022k; Lawrey et al. 2007.

Neoburgoa Diederich, E.Zimm. & Lawrey; type: *N. freyi*. Mol.: yes (T, L). Asexual (bulbil-forming).
Species: 1-0-0. **freyi** Diederich, E.Zimm. & Lawrey: on *Cladonia rangiferina*, *C. stellaris* and *Nephromopsis nivalis*.
Lit.: Diederich et al. 2022k; Lawrey et al. 2016.

Parmeliicida Diederich, F.Berger, Etayo & Lawrey; type: *P. pandemica*. Mol.: yes (T, L). Asexual (bulbil-forming).
Species: 1-0-0. **pandemica** Diederich, F.Berger, Etayo & Lawrey: on *Parmelia saxatilis* and *P. sulcata*, more rarely other corticolous macrolichens such as *Cetrelia olivetorum* or *Menegazzia terebrata*.
Lit.: Diederich et al. 2022k.

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Order **Corticiales** K.-H.Larss.

Family **Corticiaceae** Herter

Corticium Pers.; type: *C. roseum* Pers. Mol.: yes (T, L). Sexual.
Species: 1-0-0 (14). **silviae** Diederich, E.Zimm. & Lawrey: on *Thamnolia vermicularis*.
Lit.: Diederich et al. 2018b, 2022b; Ghobad-Nejhad et al. 2021.

Erythricium J.Erikss. & Hjortstam; type: *E. laetum* (P. Karst.) J.Erikss. & Hjortstam (saprotrophic). Mol.: yes (T, L). Sexual and asexual (bulbil-forming).
Species: 1-0-0 (6). **aurantiacum** (Lasch) D.Hawksw. & A. Henrici: on *Physcia*, often invading neighboring lichens.
Lit.: Diederich 1990; Diederich & Lawrey 2007; Diederich et al. 2003, 2022b; Ghobad-Nejhad et al. 2021; Hawksworth & Henrici 2015; Lawrey et al. 2008.

Laetisaria Burds.; type: *L. fuciformis* (McAlpine) Burds. (graminicolous). Mol.: yes (T, L). Sexual or asexual (bulbil-forming).
Species: 3-0-0 (11). **buckii** (Diederich & Lawrey) Diederich, Lawrey & Ghobad-Mejhad: on various lichens; **lichenicola** Diederich, Lawrey & Van den Broeck: on *Physcia*; **macrospora** P. Pinault, Ertz & Diederich: on *Physcia*.
Lit.: Diederich & Lawrey 2007; Diederich et al. 2011a, 2018a, 2022b; Ertz et al. 2025; Ghobad-Nejhad et al. 2021.

Marchandiomyces Diederich & D.Hawksw.; type: *M. corallinus*. Mol.: yes (T, L). Asexual (bulbil-forming).
Species: 1-0-0 (3). **corallinus** (Roberge) Diederich & D.Hawksw.: on various lichens.
Lit.: Diederich & Lawrey 2007; Diederich et al. 2022b; Etayo & Diederich 1996a; Ghobad-Nejhad et al. 2021; Hawksworth 1979a; Lawrey et al. 2007; Sikaroodi et al. 2001.

Class TREMELLOMYCETES Doweld

Order **Filobasidiales** Jülich

Family **Filobasidiaceae** L.S.Olive

Zyzygomyces Diederich, Millanes & Wedin; type: *Z. bachmannii*. Mol.: yes (T, L).
Species: 8-0-0. **aipoliae** Diederich, Millanes, F. Berger & Ertz: on *Physcia aipolia*; **bachmannii** (Diederich & M.S.Christ.) Diederich, Millanes & Wedin: on *Cladonia*; **bunodophori** Diederich, Etayo & Palice: on *Bunodophoron*; **leucodermiae** Diederich, Millanes, Ertz, Etayo & Flakus: on *Leucodermia*; **mobergii** Diederich & Millanes: on *Polyblastium* cf. *japonicum*; **physciacearum** (Diederich) Diederich, Millanes & Wedin: on *Physcia*; **physconiae** Diederich, Millanes, P.Pinault & Brackel: on *Physconia*; **polyblastidii** Diederich, Flakus, Etayo & Rodr. Flakus: on *Polyblastidium japonicum*;
Lit.: Diederich 1996; Diederich et al. 2022g; Liu et al. 2016.

Order **Tremellales** Fr.

Order Tremellales genera incertae sedis

Biatoropsis Räsänen; type: *B. usnearum*. Mol.: yes (T, L).
Species: 11-0-0. **angulatae** Diederich & Millanes: on *Usnea angulata*; **antarcticae** Diederich, Etayo & Millanes: on *Usnea antarctica* and *U. aurantiaco-atra*; **hafellneri** Millanes, Diederich, M.Westb. & Wedin: on *Usnea cornuta* and other species in the *U. fragilescens* aggregate; **hirtae** Diederich & Millanes: on *Usnea hirta*; **macaronesica** Diederich & Millanes: on *Usnea esperantiana*, *U. flavocardia*, *U. fragilescens*, *U. glabrata*, *U.* cf. *krogiana* and *U. macaronesica*; **millanesiana** Diederich & Wedin: on *Usnea exasperata* s. lat.; **minuta** Millanes, Diederich, M.Westb. & Wedin: on *Usnea barbata* and *U. perplexans*; **nigrescens** Diederich, Millanes & F.Berger: on *Usnea capillacea*, *U. inermis*, *U. nidifica*, *U. subalpina*, *U. torulosa* and *Usnea* sp.; **protousneae** Millanes, Diederich, M.Westb. & Wedin: on *Protousnea dusenii*; **rubicundae** Diederich & Millanes: on *Usnea ceratina*, *U. erinacea* and *U. rubicunda*; **usnearum** Räsänen s.str.: on *Usnea barbata*, *U. cavernosa*, *U. florida*, *U. glabrescens*, *U. intermedia* and *U. subfloridana*, in Europe so far only on *U. florida* and *U. subfloridana*.
Lit.: Diederich 1996; Diederich & Christiansen 1994; Diederich & Ertz 2020; Diederich et al. 2022i; Millanes et al. 2014b, 2016b.

Heteroacanthella Oberw.; type: *H. variabilis* Oberw. & Langer. Mol.: yes (T).
Species: 1-0-0 (3). **ellipsospora** J.C.Zamora, Pérez-Ort. & V.J.Rico: on *Glaucomaria carpinea*.
Lit.: Diederich et al. 2022i; Zamora et al. 2014.

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Tremella Pers. s.l.; type: *T. mesenterica* (Schaeff.) Retz. Mol.: yes (T, L).
Species: 123[+1 subsp.]-0-0 (300). **abrothalli** Diederich & Goward: hyperparasitic on *Abrothallus* over *Nesolechia oxyspora* on *Parmelia saxatilis*; **acarosporae** Diederich & Hollinger: on *Acarospora*; **alectoriae** Diederich & Holien: on *Alectoria sarmentosa*; **altimontana** Brackel & Wirth: on *Caloplaca cerina*; **anaptychiae** J.C.Zamora & Diederich: on *Anaptychia ciliaris*; **aptrootii** Diederich & Common: on *Astrothelium*; **aspiciliae** Diederich, Coppins & A. Fletcher: on *Circinaria caesiocinerea*; **bretonica** Brackel: on *Ramalina fastigiata*; **brodoae** (P.Pinault & Cl.Roux) Diederich, Millanes & Hafellner [≡ *Epicladonia brodoae* P.Pinault & Cl.Roux]: on *Brodoa intestiniformis*; **caloplacae** (Zahlbr.) Diederich s.l.: on *Variospora*; **candelariellae** Diederich & Etayo: on *Candelariella*; **celata** J.C.Zamora, Millanes, V.J. Rico & Pérez-Ort.: on *Ramalina fraxinea*; **cephalodiicola** Diederich: on *Pannaria papuana*; **cervina** Diederich & Millanes: on *Cetraria ericetorum*; **cetraculeata** Diederich, Millanes & Hollinger: on *Cetraria aculeata*; **cetrariae** Diederich, Millanes, F.Berger & J.C.Zamora: on *Cetraria islandica*; **cetrariellae** Millanes, Diederich, M.Westb., Pippola & Wedin: on *Cetrariella delisei*; **cetrariicola** Diederich & Coppins: on *Nephromopsis*; **christiansenii** Diederich: on *Physcia*; **cladoniae** Diederich & M.S.Christ.: on *Cladonia*; **coccocarpiae** Diederich: on *Coccocarpia*; **confluens** Pippola, Diederich & Goward: on *Usnea longissima*; **conidioparmotrema** Diederich, Etayo & Millanes: on *Parmotrema*; **conidiopunctelia** Diederich, Millanes, Lendemer, D.P.Waters & Giavarini subsp. **conidiopunctelia**: on *Punctelia*; **conidiopunctelia** subsp. **parmelinellae** Diederich, Millanes, Common & Lawrey: on *Parmelinella amazonica*; **coniocarpi** Diederich & Common: on *Coniocarpon cinnabarinum*; **coppinsii** Diederich & G.Marson: on *Platismatia*; **dendrographae** Diederich & Tehler: on *Dendrographa*; **diederichiana** Pérez-Ort., Millanes, Wedin, V.J.Rico & J. C.Zamora: on *Lecidea* aff. *erythrophaea*; **diploschistina** Millanes, M.Westb., Wedin & Diederich: on *Diploschistes*; **dirinariae** Diederich, Millanes & Wedin: on *Dirinaria aegialita*; **elegantis** Freire-Rallo, Diederich, Millanes & Wedin: on *Rusavskia elegans*; **emmanueliae** Diederich & Aptroot: on cephalodia of *Emmanuelia*; **endosporogena** J.C. Zamora, Millanes, V.J.Rico & Pérez-Ort.: on *Glaucomaria carpinea* (apothecia); **ertzii** Diederich: on *Pertusaria*; **everniae** Diederich: on *Evernia mesomorpha*; **flakusii** Diederich, Millanes, Rodr. Flakus & Aptroot: on *Crocodia*; **flavoparmeliae** Diederich, Hodkinson & Millanes: on *Flavoparmelia caperata*; **graphidastrae** Diederich: on *Graphidastra multiformis*; **graphidicola** Diederich & Common: on *Graphis*; **graphidis** Diederich, Millanes, Wedin & Common: on *Graphis*; **haematommatis** Diederich: on *Haematomma persoonii*; **harrisii** Diederich: on *Polymeridium catapastum* s.l.; **herpothalli** Diederich, Flakus, Rodr. Flakus, Etayo & Palice: on *Herpothallon*; **huuskonenii** Diederich, Myllys, Goward & Lindgren: hyperparasitic on *Raesaenenia huuskonenii* over *Bryoria*; **hypocenomyces** Diederich: on *Hypocenomyce scalaris*; **hypogymniae** Diederich & M.S.Christ.: on *Hypogymnia physodes*; **imshaugiae** Diederich, Coppins, R.C.Harris, Millanes & Wedin: on *Imshaugia aleurites*; **lecidellae** Diederich & Brackel: on *Lecidella elaeochroma*; **leprae** Diederich & W.R.Buck: on *Lepra oahuensis*; **leprariae** Diederich: on *Lepraria finkii*; **leptogii** Diederich: on *Leptogium*; **lethariae**: on *Letharia vulpina*; **leucodermiae** Diederich, Etayo, Flakus & Millanes: on *Leucodermia*; **lichenicola** Diederich: on *Violella fucata*; **lobariacearum** Diederich & M.S. Christ.: on *Lobaria*; **macrobasidiata** J.C.Zamora, Pérez-Ort. & V.J.Rico: on *Lecanora*; **macroceratis** Diederich & Hafellner: on *Cladonia macroceras*; **mayrhoferi** J.C.Zamora, Millanes, Etayo & Wedin: on *Lecanora allophana*; **microcarpa** Diederich: on cf. *Megalospora*; **monospora** Diederich: on *Leptogium*; **montis-wilhelmii** Diederich: on *Normandina simodense*; **nashii** Diederich: on *Usnea*; **nephromatis** Diederich: on *Nephroma parile*; **nephromopsidis** Diederich: on *Nephromopsis orbata*; **nieblae** Diederich & van den Boom: on *Niebla*; **nimisiana** Freire-Rallo, Diederich, Millanes & Wedin: on *Xanthocarpia*; **normandinae** Diederich: on *Normandina pulchella*; **occultixanthoriae** Diederich, Geyselings & Millanes: on *Xanthoria parietina*; **octosporae** Diederich & Sérus.: on *Agonimia octospora*; **pacificae** Diederich & van den Boom: on *Agonimia pacifica*; **papuana** Diederich: on *Hypogymnia*; **parietinae** Freire-Rallo, Diederich, Millanes & Wedin: on *Xanthoria parietina*; **parmeliarum** Diederich: on *Parmotrema reticulatum*; **parmeliellae** Diederich & Sérus.: on *Parmeliella foliicola*; **parmogardneri** Diederich, Etayo & Millanes: on *Parmotrema gardneri*; **parmohypotropi** Diederich, Gockman & Millanes: on *Parmotrema hypotropum*; **parmoperforati** Diederich & Millanes: on *Parmotrema perforatum*; **pertuceracea** Diederich, Flakus & Rodr. Flakus: on *Pertusaria*; **pertusae** Diederich, Millanes, Brackel & Etayo: on *Pertusaria pertusa*; **pertusariae** Diederich: on *Pertusaria hymenea*; **pertusariicola** Diederich, Flakus, Etayo & Rodr. Flakus: on *Pertusaria* cf.

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rigida; **pertutexanae** Diederich, Millanes & Common: on *Pertusaria texana*; **pertuthalamiae** Diederich & Millanes: on *Pertusaria tetrathalamiae* and *P.* sp.; **phaeographidis** Diederich, Coppins & Bandoni: on *Phaeographis* s.l.; **phaeographinae** Diederich & Aptroot: on *Phaeographis* s.l.; **phaeophysciae** Diederich & M.S. Christ.: on *Phaeophyscia* and *Physciella*; **pinaultii** Diederich & Millanes: in *Hypogymnia physodes*; **pisutiellae** Diederich & W.R.Buck: on *Pisutiella conversa*; **placynthiellae** Diederich & W.R.Buck: on *Placynthiella icmalea*; **protoparmeliae** Diederich & Coppins: on *Protoparmelia badia*; **pseudocyphellariae** Diederich, Millanes & Ertz: on *Pseudocyphellaria*; **psoroglaenae** Diederich: on *Psoroglaena*; **psoromicola** Diederich: on *Psoroma*; **puncteliae** Diederich, Etayo & Millanes: on *Punctelia borreri* s.l.; **puncteliotegens** Diederich, Etayo & Millanes: on *Punctelia borreri*; **purpurascentis** Diederich, Common & Millanes: on *Dirinaria pupurascens*; **pusillae** Freire-Rallo, Diederich, Millanes & Wedin: on *Calogaya pusilla*; **pyrenaica** Diederich, Poumarat, Daval & Millanes: on *Lecanora* gr. *polytropa*; **pyrenulae** Diederich, Millanes, Wedin & Common: on *Pyrenula ochraceoflavens*; **ramalinae** Diederich s.l.: on *Ramalina*; **ramboldiae** Diederich & W.R.Buck: on *Ramboldia haematites*; **rhabdodisci** Diederich, Thor, Ertz & Millanes: on *Rhabdodiscus inalbescens*; **rhizocarpicola** Diederich, Millanes & Wedin: on *Rhizocarpon lavatum*; **rinodinae** Diederich & M.S.Christ.: on *Rinodina*; **robusta** Diederich, Ertz, van den Boom & Millanes: on *Dendrographa franciscana*; **santessonii** Diederich: on *Usnea*; **sarcographae** Diederich & Aptroot: on *Sarcographa medusulina*; **sorediatae** Freire-Rallo, Diederich, Millanes & Wedin: on *Rusavskia sorediata*; **stevensiana** Diederich: on *Usnea*; **stictae** Diederich: on *Sticta* (incl. *Dendriscocaulon*); **strigulae** Diederich: on *Swinscowia stigmatella*; **sulcariae** Diederich & M.S.Christ.: on *Sulcaria sulcata*; **synarthoniae** Diederich & Common: on *Synarthonia inconspicua*; **teloschistis** Diederich, Gockman, Walden & Millanes: on *Teloschistes exilis*; **tornabeae** Diederich, Etayo, Pérez-Ort. & Millanes: on *Tornabea scutellifera*; **tubulosae** Diederich, Coppins, J.C.Zamora, Millanes & Wedin: on *Hypogymnia tubulosa*; **tuckerae** Diederich: on *Ramalina*; **umbilicariae** Diederich & Millanes: on *Umbilicaria*; **variae** Pérez-Ort., Millanes, V.J.Rico & J.C.Zamora: on *Lecanora varia*; **wedinii** Diederich, Common & Millanes: on *Glyphis scyphulifera*; **wirthii** Diederich: on *Protoparmelia*; **xanthomendozae** Diederich, C.A.Morse & Brinker: on *Xanthomendoza weberi*; **zamorae** Diederich & Millanes: on *Lecanora louisianae*.

Lit.: Ariyawansa et al. 2015; Brackel 2024; Brackel & Wirth 2023; Diederich 1996, 2003, 2004d, 2007a, 2007b; Diederich et al. 2014b, 2019, 2020a, 2022i; Etayo 2018a; Freire-Rallo et al. 2023; Lindgren et al. 2015; Sérusiaux et al. 2003; Millanes et al. 2011, 2012, 2014a, 2015; Tuovinen 2019; Werth et al. 2013; Zamora et al. 2016, 2017.

Class Tremellomycetes genus incertae sedis

Heteromycophaga P.Roberts; type: *H. glandulosae* P. Roberts. Mol.: no.
Species: 1-0-0 (3). **cladoniae** Diederich, van den Boom & Kukwa: on *Cladonia cervicornis* and *C. subcervicornis*.
Lit.: Diederich et al. 2024w.

Subphylum PUCCINIOMYCOTINA R.Bauer, Begerow, J.P.Samp., M.Weiß & Oberw.

Class AGARICOSTILBOMYCETES R.Bauer, Begerow, J.P.Samp., M.Weiß & Oberw.

Order **Agaricostilbales** Oberw. & R.Bauer

Family **Crittendeniaceae** Millanes, Diederich & Wedin

Crittendenia Diederich, Millanes, M.Westb., Etayo, J.C. Zamora & Wedin; type: *C. coppinsii*. Mol.: yes (T, L).
Species: 18-0-0. **absistentis** Diederich, Coppins & Millanes: on *Bacidia absistens*; **bacidinae** Diederich, van den Boom & Millanes: on *Bacidina apiahica*; **bryostigmatis** Diederich & Tønsberg: on *Bryostigma lapidicola*; **byssolomatis** Diederich, van den Boom & Millanes: on *Byssoloma maderense*; **coppinsii** (P. Roberts) Diederich, M.Westb., Millanes & Wedin: on *Melanelixia* and *Melanohalea*; **crassitunicata** Diederich & Etayo: on *Melanohalea ushuaiensis*; **heterodermiae** Diederich, Etayo & Millanes: on *Heterodermia comosa*; **hypotrachynae** Diederich, Etayo, van den Boom & Millanes: on *Hypotrachyna*; **kakouettae** Diederich, van den Boom & Millanes: on *Byssoloma kakouettae*; **lecanorae** Diederich & Etayo: on *Lecanora*; **lecidellae** Diederich, Etayo & Millanes: on *Lecidella elaeochroma*; **lichenicola** (Alstrup, B.Sutton & Tønsberg) Diederich, Millanes & Wedin: on *Micarea* gr. *prasina*; **lopadii** Diederich, Holien & Tønsberg: on *Lopadium disciforme*; **parvispora** Diederich, van den Boom & Millanes: on *Bacidia*; **physciiphila** Diederich, P. Pinault, Etayo & Millanes: on *Phaeophyscia*, *Physcia*

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and *Physciella*; **physconiae** Diederich, J.C.Zamora & Millanes: on *Physconia distorta*; **stictae** Diederich, Etayo & Millanes: on *Sticta fuliginosa* s.l.; **teloschistis** Diederich, Etayo, F.Berger & Millanes: on *Teloschistes flavicans*.
Lit.: Diederich 1996; Diederich et al. 2022d,e; Kirschner et al. 2001; Millanes et al. 2021; Roberts 1997.

Class CYSTOBASIDIOMYCETES R.Bauer, Begerow, J.P.Samp., M.Weiß & Oberw.

Order **Cyphobasidiales** T.Sprib. & H.Mayrhofer

Family **Cyphobasidiaceae** T.Sprib. & H.Mayrhofer

Cyphobasidium Millanes, Diederich & Wedin; type: *C. hypogymniicola*. Mol.: yes (T, L). Sexual stage in galls, yeast stage asymptomatic in lichen cortex; DNA sequences of many unnamed species obtained from various lichens.
Species: 9-0-0. **buelliicola** Diederich & W.R.Buck: on *Buellia stillingiana*; **crocodiicola** Diederich & W.R. Buck: on *Crocodia rubella*; **enterographicola** Diederich, Ertz & Millanes: on *Enterographa pallidella*; **hypogymniicola** (Diederich & Ahti) Millanes, Diederich & Wedin: on *Hypogymnia*; **hypotrachynicola** Diederich, Flakus, Etayo & Rodr. Flakus: on *Hypotrachyna*; **lecaniicola** Diederich, Ertz & Millanes: on *Lecania naegelii*; **puncteliicola** Diederich & Millanes: on *Punctelia graminicola*; **ramalinicola** P.Pinault & Diederich: on *Ramalina fraxinea*; **usneicola** (Diederich & Alstrup) Millanes, Diederich & Wedin: on *Usnea* [a species complex].
Lit.: Diederich 1996; Diederich & Christiansen 1994; Diederich et al. 2022h; Lendemer et al. 2019; Millanes et al. 2016a; Spribille et al. 2016.

Class MICROBOTRYOMYCETES R.Bauer, Begerow, J.P.Samp., M.Weiß & Oberw.

Class Microbotryomycetes familia incertae sedis

Family **Kriegeriaceae** Toome & Aime

Kriegeriopsis Etayo, Diederich, Millanes & Etayo; type: *K. livingstonensis*. Mol.: yes (T, L).
Species: 1-0-0. **livingstonensis** Etayo, Diederich, Millanes & Wedin: on *Tetramelas* aff. *graminicola*.
Lit.: Diederich et al. 2022f.

Phylum Basidiomycota species incertae sedis

Species: 1-0-0. Mol.: no. **'Hormomyces' physciicola** P.Pinault & Diederich: on *Physcia aipolia*.
Lit.: Pinault & Diederich 2024a.
Species: 2-0-0. Mol.: no. **'Syzygospora' parmeliicola** Diederich: on *Hypotrachyna*; **'Syzygospora' septata** Diederich & Etayo: on *Hypotrachyna*.
Lit.: Diederich 1996; Diederich et al. 2022c.

Acknowledgments
We warmly thank F. Berger, W. von Brackel, B. J. Coppins, V. Darmostuk, J. Etayo, A. Flakus, K. Knudsen, J. Kocourková, P. Pinault, A. Suija, A. Tsurykau, P. P. G. van den Boom, M. P. Zhurbenko and E. Zimmermann for commenting on a draft version of the manuscript. We are also grateful to M. P. Zhurbenko and to an anonymous referee for valuable suggestions that greatly improved the final version.

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manuscript received August 2, 2025; accepted September 11, 2025.

Supplementary document online:

Supplementary Table S1. Summary statistics for all taxa listed in the 2025 classification and checklist of lichenicolous fungi in spreadsheet format.