

# Some lichenicolous fungi from Iceland

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ABSTRACT: 39 species of lichenicolous fungi are reported of which 18 are new to Iceland. *Rimbachia bryophila* is reported for the first time as being lichenicolous.

## INTRODUCTION

The lichenicolous fungi of Iceland have been relatively little studied. Only five papers (ORANGE 1990, KRISTINSSON 1999, BERGER 2000, EGILSSON et al. 2002 and HALLGRÍMSSON & EYJÓLFSDÓTTIR 2004) have so far been partly devoted to the subject, but a few other species have been included in revisions of groups of lichens or lichenicolous fungi from recent years. Species new to Iceland are marked by an \*. With the species reported here at least 83 species of lichenicolous fungi are now known from Iceland, but that number is supposed to be only a fragment of the species actually present. The flora shows a great similarity to other North Atlantic and arctic areas such as Scotland, the Faroe Islands, Greenland, and Svalbard, but also some relationship to the Macaronesian flora. The material treated here was collected by the first author on several occasions in the years 1948-1997, except one specimen collected by Ulrik Søchting and it is kept at C. The phytogeographical regions of Iceland are shown on Fig. 1.

## LIST OF SPECIES

***Arthonia epiphyscia*** Nyl. On *Physcia caesia*. I Au, N-Múlasýsla, Vopnafjörður, 10.07.1992, SS9199 B. This is a widespread and common species on *Physcia* spp. in temperate to arctic regions.

***Arthonia stereocaulina*** (Ohlert) R.Sant. On *Stereocaulon* sp. I Su, Rangárvallasýsla, Goðaland, Eyrar við Bása, 18.07.1972, SS1283 B. The species is also known from Scandinavia and France (Corse).

***Buellia pulverulenta*** (Anzi) Jatta. On *Physconia muscigena*. IMi, Veðivötn. By the hospice at Tjaldvatn, 13.07.1969, SS213-9. I Au, Vopnafjörður, on rocks by the harbour, 10.07.1992, SS9200. An endoparasitic, lichenicolous lichen of circumpolar, boreal to arctic-alpine distribution.

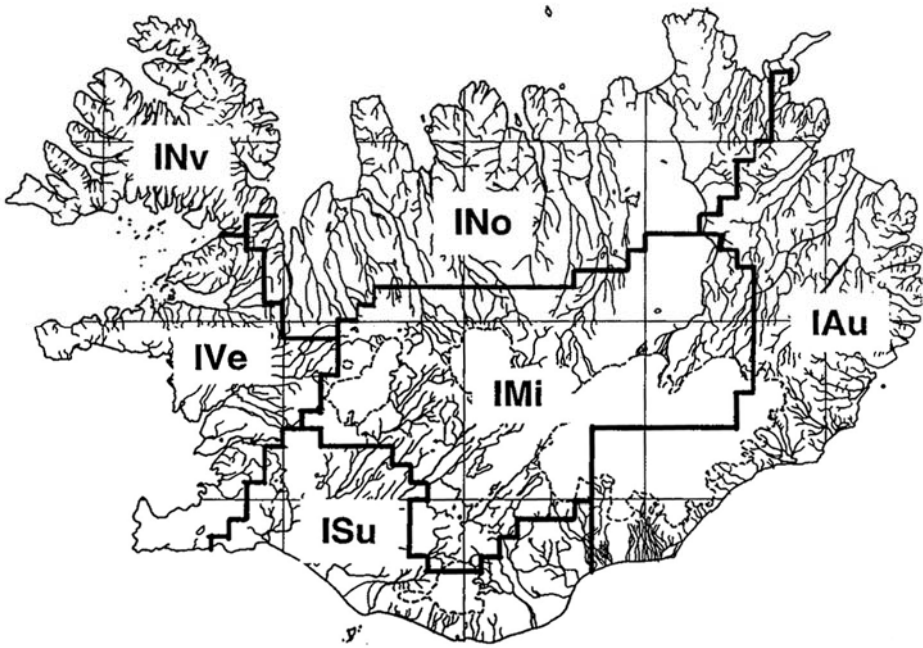


FIGURE 1. The phytogeographical regions of Iceland.

***Carbonea vitellinaria*** (Nyl.) Hertel. On *Candelariella* sp. I Au, Fellaheiði, Kílkrókur W of the farmhouse Hrafnsgærði, 24.07.1952, SS6831-3. ISu, Þjórsárdalur, by the waterfall Hjálp, 17.07.1990, SS8165 A. This is a common species on *Candelariella* spp. of circumpolar, boreal to arctic distribution.

***Cecidonia umbonella*** (Nyl.) Triebel & Rambold. On *Lecidea lapicida*. IMi, by Sigöldufoss in Tungná, 13.07.1969, SS203-11. I Au, Borgarfjörður, Hofströnd, 09.08.1997, SS9708. A gallforming species on *Lecidea lapicida* and related species of circumpolar, arctic-alpine distribution.

\****Cercidospora macrospora*** (Uloth) Hafellner & Nav.-Ros. On *Lecanora muralis*. I Au, S-Múlasýsla, Stöðvarfjörður, Hvalsnes, 10.08.1997, SS9744. This is a widespread species in the Northern hemisphere, found on members of the *Lecanora muralis* group.

\****Cercidospora stereocaulorum*** (Arnold) Hafellner. On *Stereocaulon alpinum*. I Au, Skeiðarársandur. 17.07.1992, SS9318 A. An arctic-alpine species also known from the Alps, Scotland, the Faroe Islands, Greenland and Svalbard.

\****Cercidospora trypetheliza*** (Nyl.) Hafellner & Obermayer. On *Arthro-rhaphis alpina*. IMi, at the waterfall Sigöldufoss in river Tungná, 13.07.1969, SS205a. I Ve, Mýrasýsla, Hvítársíða, Kalmanstunga, 03.08.1949, SS6722-8. A

commensalistic species on *Arthrorhaphis* spp. previously treated as a lichenized genus *Norrlinia*, of wide, arctic-alpine distribution including the Faroe Islands and Greenland.

\****Cercidospora verrucosaria*** (Linds.) Arnold. On *Megaspora verrucosa*. ISu, Þórsmörk, Valahnjúkur, 15.07.1972, SS1241-10. The species is also known from Scandinavia, the Canary Islands and Scotland, thus apparently of Atlantic distribution.

***Corticifraga peltigerae*** (Nyl.) D.Hawksw. & R.Sant. On *Peltigera didactyla*. IVe, Vatnsendi SE of Reykjavík, 24.06.1966, SS6826-4. On *P. rufescens*. ISu, Þórsmörk, Valahnjúkur, 15.07.1972, SS1245-7. On *P. lepidophora*. IAU, Fljótsdals-hérað, Fell, Hrafnsgærði, 11.07.1992, SS9230. It is a widely distributed, boreal-arctic species on *Peltigera* spp.

\****Dactylospora glaucomarioides*** (Willey ex Tuck.) Hafellner. On *Ochrolechia* sp. IMi, Central Highland, Jökuldalur, 29.07.1972, SS1303 C. A rare species also known from USA, Massachusetts.

\****Dactylospora parasitica*** (Flörke) Zopf. On *Lecidea lapicida* var. *pantherina*. IAU, Fljótsdals-hérað, Fell, Hrafnsgærði. 11.07.1992, SS9222 D. A boreal-alpine, probably circumpolar species also known from the Faroe Islands, Europe, N-Africa and Macaronesia.

\****Didymellopsis pulposi*** (Zopf) Grube & Hafellner. On *Collema* sp. ISu, at Gullfoss, alt. ca 200 m, 09.07.1969, SS185. This species occurs on species of *Collema*, *Leptogium* and *Lempholemma* in the British Isles, Belgium, France and Austria.

\****Endococcus fusiger*** Th.Fr. & Almq. On *Rhizocarpon geographicum*. INo, Bárðardalur at Aldeyjarfoss, 18.07.1990, SS8187 A. The species is found both on yellow-green and brown species of *Rhizocarpon* and maybe other crustose lichens. Probably widely distributed, including Greenland.

***Endococcus propinquus*** (Körb.) D.Hawksw. On *Porpidia macrocarpa*. IAU, Vopnafjörður, 09.07.1992, SS9188 C. On *Lecanora intricata*. IAU, Hamarsfjörður at Krossanes, 16.07.1992, SS9299 A. On *Aspicilia cinerea*. IVe, Viðey by Reykjavík, 26.07.1992, SS9322 F. On *Lecidea lapicida*. IAU, Borgarfjörður, Hofströnd, 09.08.1997, SS9707 B. Occurring on different crustose, epilithic lichens, the species has a wide distribution in temperate to arctic areas, also in the Faroe Islands and Greenland.

\****Endococcus rugulosus*** Nyl. On *Aspicilia* sp. IVe, Mýrasýsla, Norðurárdalur, 07.07.1992, SS9109 D. IAU, Vopnafjörður, rocks at the harbour, 19.07.1992, SS9197 A. Another species found on different epilithic host lichens, of bipolar, arctic-alpine distribution including the Faroe Islands, Greenland and Svalbard.

***Epilichen glauconigellus*** (Nyl.) Hafellner. On *Baeomyces placophyllus*. ISu, Þingvellir, Miðfellsland, 23.06.1966, SS7449-3. On *Baeomyces* spp., arctic-alpine including Greenland and Svalbard.

***Epilichen scabrosus*** (Ach.) Clem. On *Baeomyces placophyllus*. INv, Arnarfjörður. By Dynjandisá, 11.07.1985, SS6569-2. On *Baeomyces rufus*. ISu, Þórsmörk, Valahnjúkur, 15.07.1972, SS1248-7. INo, Búrfellshraun E of Reykjahlíð, 09.07.1992, SS9179 A. Forming a yellow-green thallus over *Baeomyces*, of temperate to arctic, circumpolar distribution, also in the Faroe Islands, Greenland, Baffin Island, Svalbard and Novaya Zemlya.

\****Geltingia associata*** (Th.Fr.) Alstrup & D.Hawksw. On *Ochrolechia upsaliensis*. INo, Öxnadalsheiði, 08.07.1992, SS9133 D. IAU, Borgarfjörður, Hofströnd, 09.08.1997, U. Søchting 7509 (C). On *Pertusaria* and *Ochrolechia* spp., boreal to arctic including Scandinavia, Scotland, Greenland, and Svalbard.

***Illosporium carneum*** Fr. On *Peltigera collina*. INo, Öxnadalsheiði, 08.07.1992, SS9143 C. A common hyphomycete forming pink sporodochia especially on *Peltigera didactyla*, circumpolar, arctic-alpine including Greenland, Jan Mayen, and Svalbard.

\****Lasiosphaeriopsis christiansenii*** Alstrup & D.Hawksw. On *Lecidea lapicida*. IMi, Sigöldufoss in Tungná, N of the waterfall, alt. ca 500 m. 13.07.1969, SS203-15. A rare or rarely reported species known from *Porpidia tuberculosa* in Greenland and *Lecanora polytropa* in Svalbard.

***Lasiosphaeriopsis sterocaulicola*** (Linds.) O.E.Eriksson & R.Sant. On *Stereocaulon alpinum*. ISu, Þjórsárdalur, Gjáin at Stöng, 10.07.1969, SS191-29. On *S. rivulorum*, INo, Öxnadalsheiði, 08.07.1992, SS9142 C. On *S. vesuvianum*, ISu, Þórsmörk, Valahnjúkur, 15.07.1972, SS1238-12. A widely distributed, bipolar, arctic-alpine species also known from Greenland and Svalbard.

\****Lichenodiplis lecanorae*** (Vouaux) Dyko & D.Hawksw. On *Lecanora varia* on lignum. IAU, N-Múlasýsla, Fljótsdalshérað, Fell, Hrafnsgerði. 11.07.1992, SS9220 E. A coelomycete found on different hosts, both thalli and apothecia, common and widely distributed in temperate to arctic areas. Also in Greenland.

***Lichenopeltella cetrariicola*** (Nyl.) R.Sant. On *Cetraria islandica*. INo, S-Þingeyjarsýsla, Búrfellshraun, 09.07.1992, SS9173 B. Known from *C. islandica* and *C. aculeata* in Europe, but probably more widespread.

***Muellerella pygmaea*** (Körb.) D.Hawksw. On *Tephromela atra*. IAU, Streitishvarf S of Breiðdalsvík, 16.07.1992, SS9288-3. On *Rhizocarpon geographicum*, INv, Vatnsfjörður, Flókalundur, 24.07.1969, SS250-9. Occurring on the thallus and apothecia of many host species and common; it has a worldwide distribution in arctic-alpine areas.

\***Opegrapha stereocaulicola** Alstrup & D.Hawksw. On old *Stereocaulon* sp. overgrown with *Pertusaria* sp. I Au, N.-Múlasýsla, Vopnafjörður, Selárdalur, 09.07.1992, SS9189 B. So far the species was known from Greenland only.

\***Polycoccum pulvinatum** (Eitner) R.Sant. On *Physcia adscendens*. IVe, Dalasýsla, Fellsströnd, Klofningur, 09.07.1985, SS6429-12. Widely distributed in arctic-alpine environments including Greenland.

**Pronectria robergei** (Mont. & Desm.) Lowen. On *Peltigera aphthosa*. IMi, Hveravellir on Kjölur, 11.08.1951, SS6786-8. Widely distributed on *Peltigera* spp., rarely on *Solorina bispora*, also in Greenland and Svalbard.

**Protothelenella croceae** (Bagl. & Carestia) Hafellner & H.Mayrhofer. On *Peltigera aphthosa*. INo, S-Þingeyjarsýsla, Búrfellshraun, 09.07.1992, SS9171 B. A species incompletely known, probably arctic-alpine.

**Pyrenidium actinellum** Nyl. On indet., crustose lichen. ISu, Mýrdalur, Dyrhólaey, 03.07.1965, SS6414-4. Occurring on many host species it has a wide distribution, especially in arctic-alpine areas, including the Faroe Islands and Greenland.

\***Pyrenidium hyalosporum** Alstrup, D.Hawksw. & R.Sant. On *Placopsis gelida*. ISu, Mýrdalur, Dyrhólaey, 03.07.1965, SS6414-4. This recently described species was known from Alaska, Greenland, Norway and Madeira.

\***Rhymbocarpus neglectus** (Vain.) Diederich & Etayo. On *Lepraria neglecta*. INv, Barðaströnd, Þingannaheiði, 27.07.1969, SS282 B. On *Lepraria* and *Leprocaulon* spp., arctic-alpine including Greenland.

\***Rimbachia bryophila** (Pers.: Fr.) Redhead. On *Collema undulatum* var. *granulosum*. IVe, Mýrasýsla, Norðurárdalur, 07.07.1992, SS9112-1. A tiny basidiomycete previously known from bryophytes in alpine areas of Scandinavia.

**Sclerococcum sphaerale** (Ach.) Fr. On *Pertusaria* sp. ISu, Árnessýsla, Ölfus, 24.07.1949, SS6719-3. Árnessýsla, Þjórsárdalur, 10.07.1969, SS191-30. Grímsnes, Kerið, 17.07. 1990, SS8161 A. IVe, Vatnsendi SE of Reykjavík, 24.06.1966, SS7444-6. I Au, Streitishvarf at Breiðdalsvík, 16.07.1992, SS9286 B. This species is parasitic on saxicolous and terricolous *Pertusaria* spp., boreal to arctic-alpine including the Faroe Islands and Greenland.

**Scutula stereocaulorum** (Anzi) Körb. On *Stereocaulon alpinum*. ISu, Þjórsárdalur, Goðaland, 18.07.1972, SS1281-2. IMi, Fagrafell, NW side of Tungnafellsjökull, 29.07.1972, SS1311-1. On *S. tornense*, INv, Barðaströnd, Bæjarnesfjall, 10.07. 1985, SS6440-5. On *S. vesuvianum*, IMi, Landmannalaugar, 11.07. 1990, SS8157 B. I Au, Fljótsdalshérað, Fell, Hrafnsgærði. 14.07.1992, SS9240 E. A common temperate to arctic-alpine species, also in Greenland and Svalbard.

**Sphaerellothecium araneosum** (Rehm) Zopf. On *Ochrolechia frigida*. IMi, Kjölur, Hveravellir, 20.07.1990, SS8221 B. I Au, S-Múlasýsla, Stöðvarfjörður, Bæjarstaðir, 10.08.1997, SS9740 D. On *O. parella*, ISu, Þjórsárdalur, Stöng, 17.07.1996, SS8167 B. A widely distributed and common species on *Ochrolechia* spp., especially *O. frigida*; also in Greenland and Svalbard.

\***Sphaerulina lepidiotae** (Anzi) Vainio. On *Pannaria praetermissa*. ISu, Þingvellir, Almannagjá, 08.07.1969, SS171-7. I Ve, NW of Kleifarvatn S of Hafnarfjörður, alt. ca 150 m, 22.06.1966, SS7436-6. Most of the perithecia contained only immature spores with 1 septum, however both 3- and 5-septate spores were seen. It is a rarely reported species only known from N Italy and the Asan-area in Russia.

**Stigmidium peltideae** (Vain.) R.Sant. On *Peltigera leucophlebia*. ISu, Árnesýsla, Þingvellir, Almannagjá, 21.07.1990, SS8237-4. Common species on *Peltigera*, widely distributed including the Faroe Islands, Greenland and Svalbard.

**Weddellomyces tartaricola** (Linds.) Alstrup & D.Hawksw. On *Ochrolechia frigida*. IMi, Kjölur, Hveravellir, 03.08.1951, SS6806-4. The species is also known from the British Isles, Greenland and Svalbard.

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