

A contribution to the mycoflora of Iceland

KERSTIN HOLM and LENNART HOLM

Institute of Systematic Botany, P.O. Box 541,
S-751 21 Uppsala, Sweden

ABSTRACT: Records are given for some 50 micromycetes, mainly Ascomycetes, new to Iceland.

In the summer of 1971 the authors had the privilege of taking part in a botanical excursion to Iceland, organized by Dr. Bengt Jonsell, then at the University of Uppsala. We seized the opportunity to collect microfungi which at long last have been worked up. Most of them are of course common and well known, but also a number of more interesting things have been encountered; some of them have already been published by us elsewhere (1977, 1979, 1980, 1981). Listed here are those finds which represent species not mentioned in LARSEN's comprehensive survey (1931). The material was collected in the period 20th of July to 2nd of August 1971 and is preserved in UPS. In addition are included some collections made by Professor J.A. Nannfeldt in July 1962 when participating in the Symposium on North Atlantic Biota. We also gratefully acknowledge his determinations of the *Hysteropezizellae*; our thanks are likewise due to Dr. H. Hein (Berlin) and Dr. S. Sivertsen (Trondheim) for expert advice.

The following abbreviations are used for the regional divisions in Iceland: Arn. = Árnessýsla, Barð. = Barðastrandasýsla, Eyf. = Eyjafjarðarsýsla, Mýr. = Mýrasýsla, N.-Þing. = Norður-Þingeyjarsýsla, Rang. = Rangárvallasýsla, S.-Þing. = Suður-Þingeyjarsýsla, Skag. = Skagafjarðarsýsla, V.-Hún. = Vestur-Húnavatnssýsla, V.-Skaft. = Vestur-Skaftafellssýsla.

DISCOMYCETES

Humariaceae

SCUTELLINIA CEJPII (Vél.) Svrček

Skag.: Fljót, Saurbær, sloping fence E of the road, 74-71, det. S. Sivertsen.

Sclerotiniaceae

RUTSTROEMIA JUNIPERI K. & L. Holm

Árn.: Grjóta, SW of Bláfell near the Kjölur Road. On needles of *Juniperus communis*, 6h-71.

Helotiaceae

CYATHICULA TURBINATA (Syd.) Dennis

On dead stems of *Ranunculus acris*. S.-Þing.: Mývatnssveit, Slúttnes in N part of Lake Mývatn, 50c-71.

GRAHAMIELLA DRYADIS (Nannf. ex L. Holm) Spooner

On *Dryas octopetala*. Árn.: Hrunamannahreppur, Brúarhlöð, eastern side of River Hvítá, 59c-71. S.-Þing.: Mývatnssveit, ca 500 m S of Haganes, 43f-71. Mýr.: Stafholtstungur, Varmaland, 57b-71. V.-Hún.: Vatnsnes, ca 3 km N of Hvammstangi, gravelly ground between the road and the beach, 58c-71.

ENCOELIOPSIS RHODODENDRI var. *HARRIMANELLAE* L. & K. Holm

On last year's capsules of *Cassiope hypnoides*. Rang.: Landmannalaugar, at lagoon lake of River Tungnaá just W of Litli Kýlingur, 75b-71.

STAMNARIA PERSONII (Mougeot) Fckl

On dead culms of *Equisetum variegatum* lying on the ground. N.-Þing.: Hólsfjöll, Grímsstaðir, 47b-71.

Hyaloscyphaceae

DASYSCYPHUS ELEGANTULUS (Karst.) Rehm

On dead stems of *Ranunculus acris*. S.-Þing.: Mývatnssveit, Slúttnes in N part of Lake Mývatn, 50f-71.

DASYSCYPHUS ERIOPHORI (Quél.) Sacc.

On *Eriophorum angustifolium*. Árn.: Hvitárnes at Hvitárvatn, meadows around River Tjarná, 37b-71.

DASYSCYPHUS INOPINATUS (Kirschst.) L. & K. Holm

On dead *Lycopodium annotinum*. Barð.: Vatnsfjörður, at the head of the bay, J. A. Nannfeldt 17576c.

DASYSCYPHUS MOLLISSIMUS (Lasch) Dennis

On dead stems of *Geranium silvaticum*. S.-Þing.: Mývatnssveit, Slúttnes in N part of Lake Mývatn, 66d-71.

UNGUICULARIA DIAPHANA (Rehm) Nannf.

On dead stems of *Angelica archangelica*. S.-Þing.: Mývatnssveit, ca 500 m S of Haganes (at western shore of Lake Mývatn), 63d-71;

Höfði at southeastern shore of Lake Mývatn, 64-71; Slúttnes in N part of Lake Mývatn, 68b-71.

UNGUICULARIA sp.

On dead stems of *Angelica archangelica*. S.-Þing.: Mývatnssveit, ca 500 m S of Haganes at western shore of Lake Mývatn, 63f-71.

This fungus is found intermixed with *U. diaphana*, coll. 63d-71, and is externally very similar to that species. It seems distinguishable, however, by smaller and darker apothecia. The spores are quite deviating; they are fusiform, of varying length but up to 20 x 3 µm, with 1 or 2 septa (perhaps more when fully mature).

Dermateaceae

MOLLISIA cfr. *PALUSTRIS* (Desm.) Karst.

On last year's culms of *Juncus arcticus*. Arn.: Þingvellir, meadows at the river Öxará, 20b-71, det. J.A. Nannfeldt.

HYSTEROPEZIZELLA OLIVACEA (Mouton) Nannf.

On *Carex bigelowii*. V.-Skaft.: Eldgjá, Ófarufossar, 29b-71.

On *Carex rostrata*. S.-Þing.: Mývatnssveit, ca 500 m S of Haganes (at western shore of Lake Mývatn), 42a-71. Slúttnes in N part of Lake Mývatn, 49a-71, det. J.A. Nannfeldt.

HYSTEROPEZIZELLA sp.

In dead leaves of *Elymus arenarius*. V.-Skaft.: Mýrdalur, Vík, 30b-71. Arn.: Þjórsárdalur, Stöng, 32e-71. According to Nannfeldt (personal communication) probably a new species, characterized by the minute, slightly clavate spores, 5-6 x 2 µm, thereby reminiscent of *Hysterostegiella* s. str. but differing from that group i.a. by the filiform paraphyses.

MEROSTICTIS PERPUSILLA (Rehm) Défago

On *Nardus stricta*. S.-Þing.: Mývatnssveit, Reykjahlíð, Stóragjá, 52d-71. Eyf.: Ólafsfjarðarmúli, northeastern slope of Mt. Kistufjall, 350-500 m s.m., 53d-71, det. J.A. Nannfeldt.

LAETINAEVIA MINUTISSIMA (Rostr.) Nannf. ex Hein

On last year's culms of *Equisetum variegatum*. N.-Þing.: Eastern bank of Jökulsá á Fjöllum at Dettifoss, 48d-71, det. B. Hein.

NAEVIOPSIS ARCTICA (All.) Hein

On last year's leaves of *Alchemilla alpina*. Rang.: Landmanna-laugar, S faced slope of Mt. Suðurnámur 1 km N of the hut, 28c-71.

NAEVIOPSIS cfr. *EPILOBI* (Karst.) Hein

On old leaves and stems of *Epilobium latifolium*. Ár.: Þjórsárdalur, Stöng, 33b-71. S.-Þing.: Fnjóskadalur, near Þverá between Draflastaðir and Laufás, 70b-71.

STEGOPEZIZA JUNIPERINA (E. Müll.) Dennis

On needles and twigs of *Juniperus nana*. Ár.: Þjórsárdalur, Stöng, Gjáin, 5e-71; Hólmavað S of Hvitárvatn, at the bridge across River Hvitá, 7a-71; Grjótá, SW of Bláfell, 6a-71; N.-Þing.: Kelduverfi, Ásbyrgi, birch wood in the southern part of an old canyon, 9a-71. N.-Þing.: Axarfjörður, Sauðafellsháls, ca 10 km N of Dettifoss, 8b-71. S.-Þing.: Bárðardalur, Goðafoss, 10-71.

SCUTOMOLLISIA PUNCTUM (Rehm) Nannf.

On *Nardus stricta*. Eyf.: Ólafsfjarðarmúli, north-eastern slope of Mt. Kistufjall, 350-500 m s.m., 53e-71.

NEOTAPESIA GRADDONII E. Müll. & Hütter

On twigs of *Betula nana*. S.-Þing.: Fnjóskadalur, near Þverá between Draflastaðir and Laufás, 73a-71.

NEOTAPESIA cfr. *SALICETI* (Rehm) E.Müll.

S.-Þing.: Vaglaskógur, on twigs of *Salix phylicifolia*, 69-71.

PYRENOPEZIZA sp.

On dead stems of *Angelica archangelica*. S.-Þing.: Mývatnssveit, Slúttnes in N part of Lake Mývatn, 68i-71. The apothecia are crowded in large darkened patches which seems a distinctive feature of this probably undescribed species. The spores are of ordinary *Pyrenopeziza* type, 12-15 x 2.5 µm, slightly clavate.

In UPS are several collections of this species, on the same host; they are all from the Abisko area in Swedish Lapland, made by Nannfeldt and labelled by him as "*Pyrenopeziza archangelicae* ad int."

Hypodermataceae

COLPOMA JUNIPERI (Karst.) Dennis

On twigs of *Juniperus communis*. Ár.: Grjótá SW of Bláfell, near the Kjölur Road, 6i-71.

Phacidiaceae

NAEMACYCLUS PHACIDIIOIDES (Fr.) B.Eriks.

On dead leaves of *Arctostaphylos uva-ursi*. Ár.: Biskupstungur, Haukadalur, forest reserve, 62a-71. S.-Þing.: Mývatnssveit, birchwood ca 1.5 km S of Reykjahlíð, near Kálfstjörn, 65b-71.

PYRENOMYCETES UNITUNICATI

Nectriaceae

NECTRIA ARENULA (Berk. & Br.) Berk.

On *Carex rostrata*. S.-Þing.: Mývatnssveit, Slúttnes in N part of Lake Mývatn, 49h-71.

Polystigmataceae

PHYSALOSPORA EMPETRI Rostr.

On *Empetrum hermaphroditum*. Árn.: Hrunamannahreppur, Brúarhlöð, eastern side of River Hvítá, 34b-71.

PHYLLACHORA JUNCI (Fr.) Fckl

On *Juncus arcticus* ssp. *intermedius*. Árn.: Þingvellir, meadows at River Öxará, 20d-71. V.-Skaft.: Mýrdalur, Hrossatungur, 35a-71.

Amphisphaeriaceae

PSEUDOMASSARIA ISLANDICA (Joh.) Barr

On *Dryas octopetala*. S.-Þing.: Mývatnssveit, ca 500 m S of Haganes at western shore of Lake Mývatn, 43b-71. Eyf.: Ólafsfjarðarmúli, northeastern slope of Mt. Kistufjall, 350-500 m s.m., 54a-71. V.-Hún.: Vatnsnes, ca 3 km N of Hvammstangi, gravelly ground between the road and the beach, 58b-71.

Diaporthaceae

ANISOGRAMMA VIRGULTORUM (Fr.) Theiss. & Syd.

On *Betula nana*, twigs. S.-Þing.: Fnjóskadalur, near Þverá between Draflastaðir and Laufás, 73a-71.

LINOSPORA CAUDATA Larsen

On leaves of *Salix callicarpaea*. Rang.: Landmannalaugar, at lagoon lake of River Tungnaá just W of Litli Kýlingur, 26a-71.

PYRENOMYCETES BITUNICATI

EUANTENNARIA RHODODENDRI (Woron.) Hughes

On *Juniperus communis*. Árn.: Grjótá, SW of Bláfell, near the road, 6f-71. N.-Þing.: Axarfjörður, Sauðafellsháls, ca 10 km N of Dettifoss, 8b-71; Kelðuhverfi, Ásbyrgi, birch-wood in the southern part of an old canyon, 9c-71.

Venturiaceae

GIBBERA LYCOPODII L. & K. Holm

On *Lycopodium alpinum*. Eyf.: Ólafsfjarðarmúli, along the brook leading to Migandifoss, 13b-71.

GIBBERA POLYSPORA B. Eriks.

On *Arctostaphylos uva-ursi*. Ár.: Biskupstungur, Haukadalur, forest reserve, 62d-71. On *Bartsia alpina*. Ibidem, 61b-71.

VENTURIA LYCOPODII L. & K. Holm

On *Lycopodium annotinum*. Barð.: Vatnsfjörður, at the head of the bay, J.A. Nannfeldt 17576e.

Lophiostomataceae

LOPHIOSTOMA SEMILIBERUM (Desm.) Ces. & De Not.

On *Nardus stricta*. Eyf.: Ólafsfjarðarmúli, northeastern slope of Mt. Kistufjall, 350-500 m s.m., 53b-71.

Pleosporaceae

DIDYMOSPHAERIA CONOIDEA Niessl.

In *Heterosphaeria patella* on *Angelica archangelica*. S.-Þing.: Mývatnssveit, Slúttnes in N part of Lake Mývatn, 68g-71.

DIDYMOSPHAERIA sp.

Ascocarps pyriform, about 150 µm diam., immersed, with a protruding rather coarse papilla, ca 60 µm broad and high. Asci cylindrico-clavate, 100-120 µm, 8-spored. Spores bicellular, constricted at the median septum, 15-18 x 8-10 µm, dark brown, smooth.

In the lower side of dead leaves of *Dryas octopetala*, mainly in the nerves. Mýr.: Stafholtstungur, Varmaland, 57-71d.

This collection apparently represents an undescribed species, but on account of the very scanty material at hand, we refrain from publishing a new name. The fungus may be rare, as we have found it in this sample only, in spite of having scrutinized many hundreds of *Dryas* leaves from different areas. It can obviously not be identical with the so called *Didymosphaeria dryadis* (Fckl) Berl. & Vogl. judging from Fuckel's description. The latter fungus is very doubtful but probably an aberrant *Wettsteinina dryadis*, cfr. L. HOLM 1979 p. 90.

KEISSLERIELLA CULMIFIDA (Karst.) Bose

On *Elymus arenarius*. V.-Skaft.: Mýrdalur, Vík, 30d-71.

METASPHAERIA SEPALORUM Vleug.

On flowers of *Juncus arcticus* ssp. *intermedius*: N.-Þing.: Hóls-

fjöll, Grímsstaðir, 46a-71. On flowers of *Juncus trifidus*: Rang.: Landmannalaugar, Námskraun, lava-field W of the hut, 21b-71.

PHAEOSPHERIA EQUISETI var. *LINDII* L. & K. Holm

On *Equisetum variegatum*. N.-Þing.: Eastern bank of Jökulsá á Fjöllum at Dettifoss, 48a-71.

NODULOSPHERIA ERYTHROSPORA (Riess) L. Holm

On *Erysimum hieracifolium*. S.-Þing.: Mývatnssveit, Slúttnes in N part of Lake Mývatn, 67c-71.

MELANOMMA DRYADIS Johans.

On *Dryas octopetala*. Mýr.: Stafholtstungur, Varmaland, 57c-71.

HERPOTRICHIA JUNIPERI (Duby.) Petr.

On dead *Juniperus communis*. Ár.: Grjóta SW of Bláfell, near the Kjölur Road, 6g-71.

CLATHROSPORA ELYNAE Rbh.

On last year's *Kobresia myosuroides*. Rang.: Landmannalaugar, Námskraun, lava-field W of the hut, 23a-71.

CLATHROSPORA HETEROSPOORA (De Not.) Wehm.

On last year's culms of *Juncus arcticus* ssp. *intermedius*. N.-Þing.: Hólsfjöll, Grímsstaðir, 46b-71.

CLATHROSPORA PENTAMERA (Karst.) Berl.

On dead leaves of *Carex rostrata*. S.-Þing.: Mývatnssveit, Slúttnes in N part of Lake Mývatn, 49f-71.

CLATHROSPORA sp.

On last year's leaves of *Carex maritima* Gunn. (= *C. incurva*). N.-Þing.: Hólsfjöll, Grímsstaðir, 47a-71.

This sample probably represents an undescribed species. Ascocarps scattered, sometimes rather densely, ca 0.1 mm diam., immersed with a somewhat protruding rather distinct papilla. Asci saccate, ca 125 x 60 µm, spores elliptico-fusiform, 45-55 x 19-23 µm, pale yellow brown, 5-septate. The spores remind one of *C. planispora* but are much larger.

Dothideaceae

MYCOSPHAERELLA JUNIPERINA (Ell.) Tomilin

In dead needles of *Juniperus communis*. Ár.: Hólmavað S of Hvítárvatn, at the bridge across River Hvítá, 7c-71.

MYCOSPHAERELLA LYCOPODII-ANNOTINI Petr.

In dead leaves of *Lycopodium annotinum*. Barð.: Vatnsfjörður,

at the head of the bay, J.A. Nannfeldt 17576d.

Herpotrichiellaceae

HERPOTRICHIELLA POLYSPORA Barr

On dead leaves of *Arctostaphylos uva-ursi*. Ár.: Biskupstungur, Haukadalur, forest reserve, 62b-71.

Trichothyriaceae

TRICHOYTHYRINA cfr. *NIGROANNULATA* (Webst.) J.P. Ellis

On partly still green shoots of *Lycopodium alpinum*. Eyf.: Ólafsfjarðarmúli, along the brook leading to Migandifoss, 13a-71. On dead *Nardus stricta*. Eyf.: Ólafsfjarðarmúli, northeastern slope of Mt. Kistufjall, 350-500 m s.m., 53a-71. On dead stems of *Angelella archangelica*. S.-Þing.: Mývatnssveit, Slúttnes in N part of Lake Mývatn, 68f-71.

Micropeltidaceae

STOMIOPELTIS DRYADIS (Rehm) L. Holm

On dry leaves of *Dryas octopetala*. Ár.: Hrunamannahreppur, Brúarhlöð, eastern side of River Hvítá, 59a-71. V.-Hún.: Vatnsnes, ca 3 km N of Hvammstangi, gravelly ground between the road and the beach, 58d-71.

Microthyriaceae

MORENOINA sp.

On dead *Polystichum lonchitis*. Eyf.: Ólafsfjarðarmúli, along the brook leading to Migandifoss, 17f-71.

LEMBOSINA GONTARDII E. Müll.

On dead twigs of *Arctostaphylos uva-ursi*. S.-Þing.: Mývatnssveit, birchwood, ca 1,5 km S of Reykjahlið, near Kálfstjörn, 65a-71.

Schizothyriaceae

SCHIZOTHYRIUM sp.

On last year's *Poa glauca*. S.-Þing.: Mývatnssveit, birchwood ca 1,5 km S of Reykjahlið, near Kálfstjörn, 44a-71.

Ascocarps scattered, superficial on a sparse mycelium, scutate, about 0,1 mm diam, opening by a central pore. Shield not radiate, in surface view composed of dark brown square cells, 2-3 µm, at margin with a tendency towards formation of a textura epidermoidea. Asci saccate, spores 9-10 x 3 µm, with a median septum, hyaline.

This Liliputian is in many respects a good *Schizothyrium* but differs by the presence of a central pore - the typical mode of dehiscence in that genus being by fissures from the centre. The fly-speck fungi are known to be polyphagous but we are inclined to believe that this one is truly graminicolous, as the infestation is heavy.

BASIDIOMYCETES

PISTILLINA HYALINA Qué1.

On *Elymus arenarius*. Árn.: Þjórsárdalur, Stöng, 32f-71. V.-
Skaft.: Mýrdalur, Vík, 30c-71.

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