Lichenicolous Biota (Nos 321–340)

Josef HAFELLNER*

HAFELLNER Josef 2020: Lichenicolous Biota (Nos 321–340). - Fritschiana (Graz) 96: 29–45. - ISSN 1024-0306.

Abstract: The 14th fascicle (20 numbers) of the exsiccata 'Lichenicolous Biota' is published. The issue contains material of 12 non-lichenized fungal taxa (10 teleomorphs of ascomycetes, 2 basidiomycetes) and 8 lichenized ascomycetes. Among others, collections of the type species of the following genera are distributed: *Arthrorhaphis* (*A. flavovirescens*, under its heterotypic synonym *A. citrinella*), *Biatoropsis* (*B. usnearum*), *Dacampia* (*D. hookeri*), *Nesolechia* (*N. oxyspora*), *Paralecanographa* (*P. grumulosa*), *Stigmidium* (*S. schaereri*), and *Telogalla* (*T. olivieri*).

* University of Graz, Institute of Biology, Division of Plant Sciences, NAWI Graz, Holteigasse 6, 8010 Graz, AUSTRIA.
e-mail: josef.hafellner@uni-graz.at

Introduction

The exsiccata 'Lichenicolous Biota' is continued with fascicle 14 containing 20 numbers.

The exsiccata covers all lichenicolous biota, i.e., it is open not only to non-lichenized and lichenized fungi, but also to myxomycetes, bacteria, and even animals, whenever they cause a characteristic symptom on their host (e.g., discoloration or galls). Consequently, the exsiccata contains both highly host-specific and plurivorous species, as long as the individuals clearly grow or fructifications develop upon a lichen and the collection is homogeneous, so that identical duplicates can be prepared.

The five complete sets are sent to herbaria of the following regions: Central Europe (Graz [GZU]), Northern Europe (Uppsala [UPS]), Western Europe (Bruxelles [BR]), North America (New York [NY]), Australasia (Canberra [CANB]). Incomplete sets will preferably be distributed to Barcelona [BCN], Edinburgh [E], Saint Petersburg [LE], Munich [M], and Prague [PRM] (herbarium acronyms sec. HOLMGREN et al. 1990, continued by the New York Botanical Garden as electronic database “Index Herbariorum”). Also in the future, it is planned to publish at least one fascicle per year, consisting of a variable number of decades.

The grid reference preceded by the abbreviation 'GF' refers to the grid used by the project 'Floristische Kartierung Mitteleuropas' (floristic mapping of Middle Europe, e.g., EHRENDORFER & HAMANN 1965).

For the 14th fascicle, I gratefully acknowledge the contribution of 1 collection each by Jana KOCOURKOVÁ and Franz BERGER.

In fieldwork I received support by Angela HAFELLNER (née A. OCHSENHOFER), Jolanta MIADLIKOWSKA, Lucia MUGGIA, Jose María EGEA, Helmut MAYRHOFER, and Walter OBERMAYER.

Jana KOCOURKOVÁ, Franz BERGER, and Walter OBERMAYER contributed to the scientific content of the fascicle by the identification of either lichenicolous fungi or hosts, or by personal communications.

Christian SCHEUER and Walter OBERMAYER are thanked for critically reading the manuscript.

I would be much obliged to colleagues who send material of lichenicolous biota for distribution in future fascicles. The collections should be divided up into at least 5 (up to 10) duplicates, preferably already prepared. Unprepared collections should be rich enough to obtain at least 5 duplicates.

Hafellner J. 2020: Lichenicolous Biota (Nos 321–340). - Fritschiana 96: 29–45.

321. ***Arthonia parietinaria*** Hafellner & A.Fleischhacker

in Fleischhacker et al., Fungal Biology 120(11): 1343 (2016).

Host: *Xanthoria parietina* (thallus, apothecia)

Europe, **Austria**: Steiermark (Styria), South-Eastern Alpine Foreland, Graz, NE of the city, Jakob-Dirnböck-Gasse 0.4 km SSW of the pond “Hilmteich”, 47°04’50’’N / 15°27’30’’E, *c*. 370 m alt., GF 8958/2, orchard, on branches of a recently felled *Juglans regia*.

Note 1: *Xanthoria parietina* is the type host of *Arthonia parietinaria*.

Note 2: *Telogalla olivieri* is present as admixture on the specimen in GZU and may also be detected on other duplicates. Material of that species has been distributed as Lichenicolous Biota no. 339.

Note 3: At the investigated site *Xanthoria parietina* grows intermingled with *Physcia adscendens* which is frequently infected by *Heterocephalacria physciacearum*. Material of that species has been distributed as Lichenicolous Biota no. 323.

14. II. 2014 leg. W. Obermayer & J. Hafellner (85835), det. J. Hafellner

distributed to: BCN, BR, CANB, E, GZU, LE, M, NY, PRM, UPS

Hafellner J. 2020: Lichenicolous Biota (Nos 321–340). - Fritschiana 96: 29–45.

322. ***Biatoropsis usnearum*** Räsänen

in Annales Botanici Societatis Zoologicae Botanicae Fennicae "Vanamo" 5: 8 (1934).

Host: *Usnea* spec. (thallus)

Africa, **Canary Islands**: Gran Canaria, by the road (GC 70) from Moya to Artenara, between Las Fontanales and the Mirador Los Pinos de Galdar, 28°02’35’’N / 15° 37’00’’W, *c*. 1350 m alt., open pine forest, on branches of *Pinus canariensis*.

Note 1: The type host of *Biatoropsis usnearum* has been named *Usnea comosa*, a taxon regarded as heterotypic synonym of *Usnea subfloridana*.

Note 2: The species has been thoroughly treated by Diederich & Christiansen (The Lichenologist 26(1): 49–55, 1994) who also reinvestigated the lectotype preserved in H.

21. II. 1994 leg. J. Hafellner (48083), det. J. Hafellner

distributed to: BCN, BR, CANB, E, GZU, LE, M, NY, PRM, UPS

Hafellner J. 2020: Lichenicolous Biota (Nos 321–340). - Fritschiana 96: 29–45.

323. ***Heterocephalacria physciacearum*** (Diederich) Millanes & Wedin

in Liu et al., Studies in Mycology 81: 120 (2015). – Bas.: *Syzygospora physciacearum* Diederich, Bibliotheca Lichenologica 61: 38 (1996).

Host: *Physcia adscendens* (thallus)

Europe, **Austria**: Steiermark (Styria), South-Eastern Alpine Foreland, Graz, NE of the city, Jakob-Dirnböck-Gasse 0.4 km SSW of the pond “Hilmteich”, 47°04’50’’N / 15°27’30’’E, *c*. 370 m alt., GF 8958/2, orchard, on branches of a recently felled *Juglans regia*.

Note 1: The type host of *Heterocephalacria physciacearum* is *Physcia dubia*.

Note 2: At the investigated site *Physcia adscendens* grows intermingled with *Xanthoria parietina* which is frequently infected by *Arthonia parietinaria*. Material of that species has been distributed as Lichenicolous Biota no. 321.

14. II. 2014 leg. W. Obermayer & J. Hafellner (85834), det. J. Hafellner

distributed to: BCN, BR, CANB, E, GZU, LE, M, NY, PRM, UPS

Hafellner J. 2020: Lichenicolous Biota (Nos 321–340). - Fritschiana 96: 29–45.

324. ***Paralecanographa grumulosa*** (Dufour) Ertz & Tehler

in Fungal Diversity 49(1): 57 (2011). – Bas.: *Opegrapha grumulosa* Dufour, Journal de Physique, de Chimie, d'Histoire Naturelle et des Arts 87: 214 (1818). – Syn.: *Lecanactis grumulosa* (Dufour) Fr., Lichenographia Europaea Reformata: 375 (1831). – *Lecanactis monstrosa* var. *grumulosa* (Dufour) Lettau, Feddes Repertorium Specierum Novarum Regni Vegetabilis, Beiheft 69(1): 47 (1932). – *Lecanographa grumulosa* (Dufour) Egea & Torrente, Bibliotheca Lichenolgica 54: 134 (1994).

Host: *Roccella phycopsis* (thallus)

Europe, **Spain**: Murcia prov., Cabo de Palos *c*. 25 km E of Cartagena, Cala Reona W of the village, Pico del Atalayón, 37°37’10’’N / 00°43’00’’W, *c*. 35 m alt.; large boulder of siliceous schist in stands of low shrubs, on vertical and overhanging rock faces exposed to the NE.

Note 1: Lichenicolous growth is not mentioned in the protologue.

Note 2: The infection of *Roccella* thalli with *Paralecanographa grumulosa* may induce changes in the set of secondary compounds in the parasitized portions of the host thallus (compare Feige et al., Cryptogamic Botany 3: 101–107, 1993).

27. IX. 1987 leg. J. Hafellner (41878) & J. M. Egea, det. J. Hafellner

distributed to: BCN, BR, CANB, E, GZU, LE, M, NY, PRM, UPS

Hafellner J. 2020: Lichenicolous Biota (Nos 321–340). - Fritschiana 96: 29–45.

325. ***Phaeospora parasitica*** (Lönnr.) Arnold

in Flora (Regensburg) 57: 151 (1874). – Bas.: *Thelidium parasiticum* Lönnr., Flora (Regensburg) 41: 632 (1858).

Host: *Rhizocarpon umbilicatum* (thallus)

Europe, **France**: Rhône-Alpes, dépt. Haute-Savoie, Western Alps, Chablais Alps, les Grandes Platières, hilltop W above Col de Plate, 45°59’39’’N / 06°43’40’’E, *c*. 2380 m alt., outcrops of layered limestone and patches of alpine vegetation, on inclined rock faces.

Note 1: *Rhizocarpon umbilicatum* (sub syn. *Diplotomma calcareum*) is the type host of *Phaeospora parasitica*.

Note 2: The long time hyaline ascospores provided with a perispore that becomes brownish with age are diagnostic (compare protologue: “…sporae…hyaline-flavellae…”; …”episporium senior paullulum fuscescens.”

19. VIII. 2011 leg. J. Hafellner (82930), det. J. Hafellner

distributed to: BCN, BR, CANB, E, GZU, LE, M, NY, PRM, UPS

Hafellner J. 2020: Lichenicolous Biota (Nos 321–340). - Fritschiana 96: 29–45.

326. ***Sphaerellothecium aipoliae*** (Vouaux) Nav.-Ros. & Cl.Roux

in Bulletin de la Société Linnéenne de Provence 68: 143 (2017) [sub *Sphaerellothecium aipolium*]. – Bas.: *Didymella aipoliae* Vouaux in Bulletin de la Société Mycologique de France 29: 85 (1913). – Syn.: *Stigmidium pumilum* (Lettau) Matzer & Hafellner, Bibliotheca Lichenologica 37: 115 (1990).

Host: *Physcia caesia* (thallus)

Europe, **Austria**: Steiermark (Styria), Eastern Alps, Central Alps, Steirisches Randgebirge, Gleinalpe, wooded mountains SW above the village Kirchdorf-Pernegg, Kirchkogel, W of the summit on the ridge towards Trafößberg, 47°21’04’’N / 15° 20’12’’E, *c*. 740 m alt., GF 8658/2, low outcrops of serpentinite on clearings in open mixed forest rich in *Pinus sylvestris*, on inclined rock faces.

Note 1: The type host of *Sphaerellothecium aipoliae* is *Physcia phaea* (see Navarro-Rosinés & Roux, Bulletin de la Société Linnéenne de Provence 68: 143 f., 2017).

Note 2: The pages with the full description of *Didymella aipoliae* got lost during the printing process. Therefore, the character states leading to *D. aipoliae* in the key to species constitute the protologue.

12. VI. 2020 leg. J. Hafellner (85833), det. J. Hafellner

distributed to: BCN, BR, CANB, E, GZU, LE, M, NY, PRM, UPS

Hafellner J. 2020: Lichenicolous Biota (Nos 321–340). - Fritschiana 96: 29–45.

327. ***Stigmidium leucophlebiae*** Cl.Roux & Triebel

in Bulletin de la Société Linnéenne de Provence 45: 495 (1994).

Host: *Peltigera leucophlebia* (thallus)

Europe, **Austria**: Steiermark (Styria), Eastern Alps, Northern Limestone Alps, Ennstaler Alpen, in the valley Hartelsgraben *c*. 5 km SW of the village Hieflau, near confluence of the creek coming down over a cascade from the Sulzkar, 47°34’ 25’’N / 14°42’20’’E, *c*. 1000 m alt., GF 8454/1, mixed forest, on the ground over mossy limestone boulders.

Note 1: *Peltigera leuophlebia* is the type host of *Stigmidium leucophlebiae*.

Note 2: The 14–16 x 4–6 µm large ascospores with metachromatic walls (cresyl blue+ violet) are diagnostic.

14. VII. 2007 leg. J. Hafellner (69040) & L. Muggia, det. J. Hafellner

distributed to: BCN, BR, CANB, E, GZU, LE, M, NY, PRM, UPS

Hafellner J. 2020: Lichenicolous Biota (Nos 321–340). - Fritschiana 96: 29–45.

328. ***Stigmidium schaereri*** (A.Massal.) Trevis.

in Conspectus Verrucarinarum: 17 (1860). – Bas.: *Sphaeria schaereri* A.Massal. in Sulla *Lecidea hookeri* di Schaerer nota: 8 "*schaererii*" (1853). – Sel. syn.: *Sphaerella schaereri* (A. Massal.) Anzi in Atti della Società Italiana di Scienze Naturali 11(4): 180 (1868). – *Pharcidia schaereri* (A.Massal.) Arnold in Verhandlungen der Kaiserlich-Königlichen Zoologisch-Botanischen Gesellschaft in Wien 19: 638 (1869). – *Epicymatia schaereri* (A.Massal.) Sacc. in Sylloge Fungorum 1: 571 (1882). – *Sphaerulina schaereri* (A.Massal.) Sacc. & D.Sacc. in Sylloge Fungorum 17: 695 (1905).

Host: *Dacampia hookeri* (thallus)

Europe, **Austria**: Kärnten (Carinthia), Southern Alps, Carnic Alps, Gartnerkofel ca. 8 km SW of the town Hermagor, western side peak, 46°34’20’’N / 13°18’15’’E, *c*. 2180 m alt., GF 9445/2, outcrops of Triassic limestone in alpine meadows, on soil.

Note 1: *Dacampia hookeri* is the type host of *Stigmidium schaereri*.

Note 2: *Dacampia hookeri* is lichenicolous itself, usually upon species of the *Solorina bispora* group (see Henssen, Cryptogamic Botany 5: 149–158, 1995), but often, as is the case in the material distributed here, the primary host is not recognizable anymore. A specimen of the primary host lichen *Solorina bispora* Nyl. growing intermingled at the investigated site has been deposited in GZU (Hafellner 75839).

1. IX. 2007 leg. J. Hafellner (75840), det. J. Hafellner

distributed to: BCN, BR, CANB, E, GZU, LE, M, NY, PRM, UPS

Hafellner J. 2020: Lichenicolous Biota (Nos 321–340). - Fritschiana 96: 29–45.

329. ***Stigmidium solorinarium*** (Vain.) D.Hawksw.

in Lichenologist 15(1): 14 (1983). – Bas.: *Pharcidia coniodes* var. *solorinaria* Vain., Acta Societatis pro Fauna et Flora Fennica 49(2): 135 (1921).

Host: *Solorina saccata* (thallus)

Europe, **Austria**: Steiermark (Styria), Eastern Alps, Steirisches Randgebirge, Stubalpe W of the town Köflach, *c*. 3 km S of the pass Gaberl, ridge between “Altes Almhaus” and the summit of Brandkogel, 47°05’10’’N / 14°56’00’’E, *c*. 1620 m alt., GF 8955/2, subalpine pasture over gneiss with lenses of marble, on soil over marble.

Note 1: *Solorina saccata* is the type host of *Stigmidium solorinarium*.

Note 2: The relatively slim, 10–13 x 3–4 µm large ascospores with non-metachromatic walls (cresyl blue–) are diagnostic.

19. V. 1997 leg. J. Hafellner (40676) & J. Miadlikowska, det. J. Hafellner

distributed to: BCN, BR, CANB, E, GZU, LE, M, NY, PRM, UPS

Hafellner J. 2020: Lichenicolous Biota (Nos 321–340). - Fritschiana 96: 29–45.

330. ***Thelocarpon epibolum*** Nyl.

in Flora (Regensburg) 49: 420 (1866).

Host: *Baeomyces rufus* (thallus)

Europe, **Czech Republic**: Northern Bohemia, distr. Jablonec n. Nisou, Jizerské hory Protected Landscape Area, Smědava, 1.5 km west of settlement, north slope of Jizera Mt., Bílá Smědá brook, 50°50’28.6’’N / 15°15’19.2’’E, *c*. 960 m alt., MTB 5157 D01; on granite stones in ditch at the path.

Note 1: The type host of *Thelocarpon epibolum* is *Solorina crocea*.

Note 2: In the distributed specimens *Baeomyces rufus* is additionally infested by *Arthrorhaphis grisea* Th.Fr. of which ascomata in various developmental stages may also be observed here and there.

19. VIII. 2000 leg. J. Kocourková (8231), det. J. Kocourková

distributed to: BCN, BR, CANB, E, GZU, LE, M, NY, PRM, UPS

Hafellner J. 2020: Lichenicolous Biota (Nos 321–340). - Fritschiana 96: 29–45.

331. ***Arthrorhaphis citrinella*** (Ach.) Poelt

in Bestimmungsschlüssel europäischer Flechten: 126 (1969). – Bas.: *Lichen citrinellus* Ach., Vetenskaps Academiens Nya Handlingar, [ser. 2], 16: 135 (1795). – Syn.: *Lecidea citrinella* (Ach.) Ach., Methodus qua omnes detectos Lichenes, sect. 1: 47 (1803). – *Bacidia citrinella* (Ach.) Branth & Rostr., Botanisk Tidsskrift 3: 235 (1869). – *Mycobacidia citrinella* (Ach.) Dalla Torre & Sarnth., Flechten (Lichenes) von Tirol, Vorarlberg und Liechtenstein: 601 (1902).

Host: *Baeomyces rufus* (thallus)

Europe, **Austria**: Steiermark (Styria), Eastern Alps, Central Alps, Steirisches Randgebirge, Stubalpe W of the town Köflach, on the mountain Peterer Riegel, along the trail crossing the E slopes ca. 0,5 km S of the Peterer Sattel, 47°02’35’’N / 14° 50’40’’E, *c*. 1750 m alt., GF 8955/3, dwarf shrub heath in the treeline ecotone, by the trail on acidic soil rich in humus.

Note 1: In the protologue a lichenicolous behaviour is not mentioned. The small piece choosen as lectotype by Obermayer (Nova Hedwigia 58(3-4): 301, 1994) does not include a host lichen (Obermayer, pers. comm.).

Note 2: *A*. *citrinella* is regularly found on the thallus of *Baeomyces rufus* strains (Obermayer, l. c., p. 303), in the European Alps usually from the montane to the alpine altitudinal belt.

26. X. 2018 leg. J. Hafellner (83855), det. J. Hafellner

distributed to: BR, CANB, GZU, NY, UPS

Hafellner J. 2020: Lichenicolous Biota (Nos 321–340). - Fritschiana 96: 29–45.

332. ***Dacampia hookeri*** (Borrer) A.Massal.

in Sulla *Lecidea Hookeri* di Schaerer nota: 7 (1853). – Bas.: *Verrucaria hookeri* Borrer in English Botany Suppl.: tab. 2622 (1831). – Selected syn.: *Catapyrenium hookeri* (Borrer) Flot. [sub “*Catopyrenium*”] in Jahresbericht der Schlesischen Gesellschaft für Vaterländische Cultur 27: 135, note (= reprint Lichenes florae Silesiae: 61, note) (both 1849). – *Lecidea hookeri* (Borrer) Schaer. in Enumeratio critica Lichenum Europaeorum quos ex nova methodo digerit: 102 (1850). – *Leptosphaeria hookeri* (Borrer) Sacc. & P.Syd. in Sylloge Fungorum 19: 1104 (1910). – *Xenosphaeria hookeri* (Borrer) Vain. in Acta Societatis pro Fauna et Flora Fennica 49(2): 141 (1921). – *Pleospora hookeri* (Borrer) Keissl. in Report of the Scientific Results of the Norwegian Expediton to Novaya Zemlya 1921, 38: 3 (1928).

Host: *Solorina bispora* (thallus)

Europe, **Slovenia**: Southern Alps, Julian Alps, massif of Kanin NW above the village Bovec, E slopes of mountain Pestreljenik, 46°21’45’’N / 13°28’45’’E, *c*. 2400 m alt., alpine vegetation fragments and rocks of limestone, on soil.

Note 1: Originally the species has not been recognized as being lichenicolous.

Note 2: Juvenile thalli of the host lichen are present on the duplicates stored in GZU and UPS.

Note 3: The biology of the species has been thoroughly investigated by Henssen (Cryptogamic Botany 5: 149–158, 1995).

6. VII. 2003 leg. J. Hafellner (75257) & H. Mayrhofer, det. J. Hafellner

distributed to: BCN, BR, CANB, GZU, LE, NY, UPS

Hafellner J. 2020: Lichenicolous Biota (Nos 321–340). - Fritschiana 96: 29–45.

333. ***Endohyalina insularis*** (Arnold) Giralt, P.Boom & Elix

in Mycological Progress 9(1): 44 (2010). – Bas.: *Buellia saxatilis* f. *insularis* Arnold, Verhandlungen der Zoologisch-Botanischen Gesellschaft Wien 46: 120 (1896). – Syn.: *Rinodina insularis* (Arnold) Hafellner, Beihefte zur Nova Hedwigia 62: 87 (1979).

Host: *Lecanora bicincta* (thallus)

Europe, **France**: Rhône-Alpes, dépt. Haute-Savoie, Western Alps, Mont Blanc group, slopes SE above Chamonix, SW of Refuge du Plan de l'Aiguille, 45°54' 18''N / 06°52'56''E, *c*. 2200 m alt., scree and scattered boulders of siliceous schist in dwarf shrub heath somewhat above the tree line, exposed to the NW, on inclined rock faces.

Note 1: The type host of *Endohyalina insularis* is *Lecanora rupicola* (sub *L*. *sordida*).

Note 2: The habitually similar lichenicolous fungus *Phacographa glaucomaria* (Nyl.) Hafellner with identical host spectrum has already been distributed (Lichenicolous Biota no. 96).

18. VIII. 2011 leg. J. Hafellner (82818), det. J. Hafellner

distributed to: BR, CANB, GZU, NY, UPS

Hafellner J. 2020: Lichenicolous Biota (Nos 321–340). - Fritschiana 96: 29–45.

334. ***Muellerella pygmaea*** (Körb.) D.Hawksw.

in Botaniska Notiser 132: 289 (1979). – Bas.: *Tichothecium pygmaeum* Körb., Denkschrift zur Feier ihres fünfzigjährigen Bestehens der Schlesischen Gesellschaft für Vaterländische Cultur: 236 (1853). – Syn.: *Microthelia pygmaea* (Körb.) Körb., Systema Lichenum Germaniae: 374 (1855). – *Endococcus pygmaeus* (Körb.) Th.Fr., Lichenes arctoi Europae Groenlandiaeque hactenus cogniti: 275 (1860). – *Sychnogonia pygmaea* (Körb.) Trevis., Conspectus Verrucarinarum: 18 (1860).

Host: *Lecidea lapicida* agg. (thallus)

Europe, **Norway**: Oppland, Lom kommune, Jotunheimen, E above of Spiterstulen, close to northern shore of the lake E below the mountain Skauthö, 61°37'40''N / 08°27'45''E, *c*. 1610 m alt., boulders of siliceous rocks, on rock.

Note 1: *Lecidea lapicida* is the type host of *Muellerella pygmaea*.

Note 2: *Muellerella pygmaea* is the most common lichenicolous fungus on *Lecidea* s. str. in Holarctic mountains above the tree line, at least in Europe.

26. VIII. 1984 leg. J. Hafellner (83930) & A. Ochsenhofer, det. J. Hafellner

distributed to: BR, CANB, GZU, NY, UPS

Hafellner J. 2020: Lichenicolous Biota (Nos 321–340). - Fritschiana 96: 29–45.

335. ***Nesolechia oxyspora*** (Tul.) A.Massal.

in Miscellanea Lichenologica: 43 (1856). – Bas.: *Abrothallus oxysporus* Tul., Annales des Sciences Naturelles, Botanique, sér. 3, 17: 116 (1852). – Syn.: *Lecidea oxyspora* (Tul.) Nyl., Mémoires de la Société Impériale des Sciences Naturelles de Cherbourg 3: 185 (1855). – *Epithallia oxyspora* (Tul.) Nyl., Öfversigt af Kongl. Vetenskaps-Akademiens Forhandlingar 12: 9 (1855). – *Biatora oxyspora* (Tul.) Tuck., A synopsis of the North American Lichens 2: 29 (1888). – *Phacopsis oxyspora* (Tul.) Triebel & Rambold, Nova Hedwigia 47: 300 (1988). – *Punctelia oxyspora* (Tul.) Divakar, Crespo & Lumbsch in Divakar et al., Fungal Diversity 84: 114 (2017).

Host: *Platismatia glauca* (thallus)

Africa, **Madeira**: Pico dos Estanquinhos at NE edge of the plateau Paul da Serra, uppermost N slopes somewhat below the summit, 32°46’20’’N / 17°04’35’’W, *c*. 1600 m alt., *Vaccinium padifolium* shrub among scattered volcanic outcrops and boulders, on twigs of *Vaccinium padifolium*.

Note 1: Two hosts are mentioned in the protologue: *Platismatia glauca* (sub *Cetraria glauca*) and *Parmelia saxatilis*. The host of the lectotype is *Parmelia saxatilis* (designated by Triebel et al., Bryologist 98: 78, 1995).

Note 2: A strain of *Abrothallus parmeliarum* has been occasionally observed on the galls induced by *Nesolechia oxyspora* (specimen in GZU). Material of that fungus will be distributed in a separate forthcoming number of Lichenicolous Biota.

17. II. 1990 leg. J. Hafellner (84254) & A. Hafellner, det. J. Hafellner

distributed to: BR, CANB, GZU, NY, UPS

Hafellner J. 2020: Lichenicolous Biota (Nos 321–340). - Fritschiana 96: 29–45.

336. ***Protoparmelia phaeonesos*** Poelt

in Poelt & Leuckert, Nova Hedwigia 52: 56 (1991).

Host: *Aspilidea myrinii* (thallus)

Europe, **Austria**: Steiermark (Styria), Eastern Alps, Central Alps, Seetaler Alpen range, Zirbitzkogel group W above the village Obdach, in the cirque „Linderkar” at the lowermost E slopes of the ridge connecting the mountains Scharfes Eck and Oberer Schlaferkogel, NE below the glacial lake „Lindersee“, 47°04’36’’N / 14°34’ 24’’E, *c*. 1970 m alt., GF 8953/1, relict rock glacier, boulders close to upper edge of the moderately steep front slope, paragneiss, on inclined rock faces.

Note 1: *Aspilidea myrinii* is the type host of *Protoparmelia phaeonesos*.

Note 2: Another lichenicolous taxon on *Aspilidea myrinii*, *Sagediopsis fissurisedens* Hafellner (specimen Hafellner 85244 in GZU), was also present at this locality. But that species preferably infects thalli growing under slightly moister conditions.

08. VII. 2020 leg. J. Hafellner (85230), det. J. Hafellner

distributed to: BR, CANB, GZU, NY, PRM, UPS

Hafellner J. 2020: Lichenicolous Biota (Nos 321–340). - Fritschiana 96: 29–45.

337. ***Ramboldia insidiosa*** (Th.Fr.) Hafellner

in Hafellner & Türk, Carinthia II 185/105: 624 (1995). – Bas.: *Lecidea insidiosa* Th.Fr. in Botaniska Notiser 1867: 153 (1867).

Host: *Lecanora varia* (thallus, apothecia)

Europe, **Austria**: Steiermark (Styria), Eastern Alps, Central Alps, Murberge, on the mountain Gstoder *c*. 13.5 km WNW of the town Murau, on the ridge descending towards the E, N above of Gstoderhütte, 47°08’45’’N / 14°00’05’’E, *c*. 1920 m alt., GF 8850/3, dwarf shrub heath with scattered coniferous trees in tree line ecotone, on stumps of *Larix decidua*, on wood.

Note 1: *Lecanora varia* is the type host of *Ramboldia insidiosa*. *Lecanora* “*subfusca*” is mentioned as further host in the protologue, but this needs confirmation.

Note 2: The biology of the species has been thoroughly investigated by Poelt (Plant Systematics and Evolution 123: 25–34, 1974).

26. VIII. 2000 leg. J. Hafellner (52481) & A. Hafellner, det. J. Hafellner

distributed to: BR, CANB, GZU, NY, UPS

Hafellner J. 2020: Lichenicolous Biota (Nos 321–340). - Fritschiana 96: 29–45.

338. ***Rhizocarpon furax*** Poelt & V.Wirth

in Poelt, Mitteilungen der Botanischen Staatssammlung München 8: 194 (1970).

Host: *Lecidea lapicida* (thallus)

Europe, **Austria**: Kärnten (Carinthia), Eastern Alps, Central Alps, Saualpe W above the town Wolfsberg, Kienberg NW above of Ladinger Alm, in the upper part of the ridge descending towards the E, 46°53’00’’N / 14°39’05’’E, *c*. 1980 m alt., GF 9153/2, slabs and pebbles of micaschist in patchy alpine vegetation, on small slabs of rock lying on the ground.

Note 1: The type host of *Rhizocarpon furax* was tentatively determined as *Lecidea swartzioidea*.

Note 2: The apothecial discs of *Rhizocarpon furax* are quite regularly provided with umbos of roundish to irregular shape, a character also visible on the type specimen (GZU) but not mentioned in the protologue.

11. IX. 2011 leg. J. Hafellner (79154), det. J. Hafellner

distributed to: BR, CANB, GZU, NY, UPS

Hafellner J. 2020: Lichenicolous Biota (Nos 321–340). - Fritschiana 96: 29–45.

339. ***Telogalla olivieri*** (Vouaux) Nik.Hoffm. & Hafellner

in Bibliotheca Lichenologica 77: 109 (2000). – Bas.: *Laestadia olivieri* Vouaux in Bulletin de la Société Mycologique de France 28: 216 (1912) nomen novum for *Verrucaria xanthoriae* Wedd. f. *megaspora* H.Olivier in Les principaux parasites de nos Lichens français. Premier supplément: 14 (1907).

Host: *Xanthoria parietina* (thallus)

Europe, **Austria**: Steiermark (Styria), South-Eastern Alpine Foreland, Graz, NE of the city, Jakob-Dirnböck-Gasse 0.4 km SSW of the pond “Hilmteich”, 47°04’50’’N / 15°27’30’’E, *c*. 370 m alt., GF 8958/2, orchard, on branches of a recently felled *Juglans regia*.

Note 1: *Xanthoria parietina* is the type host of *Telogalla olivieri*.

Note 2: *Arthonia parietinaria* is present as admixture on the specimen in GZU and may also be detected on other duplicates. Material of that species has been distributed as Lichenicolous Biota no. 321.

14. II. 2014 leg. W. Obermayer & J. Hafellner (85836), det. J. Hafellner

distributed to: BR, CANB, GZU, NY, UPS

Hafellner J. 2020: Lichenicolous Biota (Nos 321–340). - Fritschiana 96: 29–45.

340. ***Unguiculariopsis lettaui*** (Grummann) Coppins

in Notes from the Royal Botanical Garden Edinburgh 46: 387 (1990). – Bas.: *Pyrenopeziza lettaui* Grummann in Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie 80: 140 (1960). – *Skyttea lettaui* (Grummann) D.Hawksw., Notes from the Royal Botanical Garden Edinburgh 40: 396 (1982).

Host: *Evernia prunastri* (thallus)

Europe, **Austria**: Oberösterreich (Upper Austria), Eastern Alps, Northern Limestone Alps, Totes Gebirge, *c*. 5 km SW of the village Hinterstoder, *c*. 150 m SSW of the farm Dietlgut, 47°40’02’’N / 14°06’15’’E, *c*. 650 m alt., GF 8350, group of deciduous trees, on bark of *Acer pseudoplatanus*.

Note 1: *Evernia prunastri* is the type host of *Unguiculariopsis lettaui*.

Note 2: The genus *Unguiculariopsis* has been monographed by Zhuang (Mycotaxon 32: 1–83, 1988), but most of the about one dozen lichenicolous species have been described or combined into that genus in more recent years.

Note 3: Suija et al. (Fungal Diversity 70: 55–72, 2015) demonstrated in a phylogenetic study that *Skyttea* (e.g., Lichenicolous Biota 17, 265), *Unguiculariopsis*, (!) *Thamnogalla* (Lichenicolous Biota 190) and *Llimoniella* form a multi-branched clade in Helotiales-Encoelioideae.

22. IV. 2019 leg. F. Berger (34063), det. F. Berger

distributed to: BR, CANB, GZU, LE, NY, PRM, UPS

Taxon Synopsis:

Taxon **Exs. no.**

Host Index:

Geographic Index:

BIOGEOGRAPHIC UNITS (see BRUMMITT 2001)

References

BRUMMITT R.K. 2001: World geographical scheme for recording plant distributions. Edition 2. Plant Taxonomic Database Standards No. 2, Edition 2, August 2001. - Carnegie Mellon University (Pittsburgh). Published for the International Working Group on Taxonomic Databases For Plant Sciences (TDWG) by the Hunt Institute for Botanical Documentation. XV + 137 pp.

EHRENDORFER F. & HAMANN U. 1965: Vorschläge zu einer floristischen Kartierung von Mitteleuropa. - Berichte der Deutschen Botanischen Gesellschaft 78(1): 35–50.

HOLMGREN P.K., HOLMGREN N.H. & BARNETT L.C. (editors) 1990: Index Herbariorum. Part I. The herbaria of the world. 8th edition. - New York Botanical Garden for the International Association for Plant Taxonomy (Bronx, New York). - Regnum Vegetabile 120: 693 pp.

Electronic resources

Index Herbariorum: A worldwide index of 3,100 herbaria and 12,000 associated staff where a total of 390 million botanical specimens are permanently housed. - URL: http://sweetgum.nybg.org/science/ih/ [13. XII. 2020].

Bibliographic data of fascicles so far issued

HAFELLNER J. 2007: Lichenicolous Biota (Nos 1–20). - Fritschiana (Graz) 60: 35–49. URL: https://static.uni-graz.at/fileadmin/nawi-institute/Botanik/Fritschiana/fritschiana-60/lichenicolous-biota-nos-1-20.pdf

HAFELLNER J. 2008: Lichenicolous Biota (Nos 21–60). - Fritschiana (Graz) 61: 1–28. URL: http://static.uni-graz.at/fileadmin/nawi-institute/Botanik/Fritschiana/fritschiana-61/hafellner-2008-lichenicolous-biota-21-to-60.pdf

HAFELLNER J. 2009: Lichenicolous Biota (Nos 61–80). - Fritschiana (Graz) 65: 33–46. URL: https://static.uni-graz.at/fileadmin/nawi-institute/Botanik/Fritschiana/fritschia na-65/lichenicolous-biota-nos-61-80.pdf

HAFELLNER J. 2010: Lichenicolous Biota (Nos 81–100). – Fritschiana (Graz) 67: 11–26. URL: https://static.uni-graz.at/fileadmin/nawi-institute/Botanik/Fritschiana/fritschiana-67/hafellner-2010-lichenicolous-biota-nos-81-100.pdf

HAFELLNER J. 2012: Lichenicolous Biota (Nos 101–120). – Fritschiana (Graz) 74: 1–17. URL: https://static.uni-graz.at/fileadmin/nawi-institute/Botanik/Fritschiana/fritschiana-74/hafellner-2012-lichenicolous-biota-nos-101-120.pdf

HAFELLNER J. 2012: Lichenicolous Biota (Nos 121–150). – Fritschiana (Graz) 74: 19–41. URL: https://static.uni-graz.at/fileadmin/nawi-institute/Botanik/Fritschiana/fritschiana-74/hafellner-2012-lichenicolous-biota-nos-121-150.pdf

HAFELLNER J. 2013: Lichenicolous Biota (Nos 151–180). – Fritschiana (Graz) 76: 47–68. URL: https://static.uni-graz.at/fileadmin/nawi-institute/Botanik/Fritschiana/fritschiana-76/hafellner-2013-lichenicolous-biota-nos-151-180.pdf

HAFELLNER J. 2014: Lichenicolous Biota (Nos 181–200). – Fritschiana (Graz) 78: 9–24. URL: https://static.uni-graz.at/fileadmin/nawi-institute/Botanik/Fritschiana/fritschiana-78/hafellner-2014-lichenicolous-biota-nos-181-200.pdf

HAFELLNER J. 2015: Lichenicolous Biota (Nos 201–230). – Fritschiana (Graz) 80: 21–41. URL: https://static.uni-graz.at/fileadmin/nawi-institute/Botanik/Fritschiana/fritschiana-80/hafellner-2015-lichenicolous-biota-nos-201-230.pdf

HAFELLNER J. 2016: Lichenicolous Biota (Nos 231–250). – Fritschiana (Graz) 83: 31–46. URL: https://static.uni-graz.at/fileadmin/nawi-institute/Botanik/Fritschiana/fritschiana-83/hafellner-2016-lichenicolous-biota-nos-231-250.pdf

HAFELLNER J. 2017: Lichenicolous Biota (Nos 251–270). – Fritschiana (Graz) 86: 25–40. URL: https://static.uni-graz.at/fileadmin/nawi-institute/Botanik/Fritschiana/fritschiana-86/hafellner-2016-lichenicolous-biota-nos-251-270.pdf

HAFELLNER J. 2018: Lichenicolous Biota (Nos 271–300). – Fritschiana (Graz) 90: 1–22. URL: https://static.uni-graz.at/fileadmin/nawi-institute/Botanik/Fritschiana/fritschiana-90/hafellner-2018-lichenicolous-biota-nos-271-300.pdf

HAFELLNER J. 2019: Lichenicolous Biota (Nos 301–320). – Fritschiana (Graz) 94: 25–42. URL: https://static.uni-graz.at/fileadmin/nawi-institute/Botanik/Fritschiana/fritschiana-94/hafellner-2019-lichenicolous-biota-nos-301-320.pdf