

## Lichenicolous Biota (Nos 401–420)

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HAFELLNER Josef 2024: Lichenicolous Biota (Nos 401–420). - Fritschiana (Graz) 102: 17–33. - ISSN 1024-0306.

**Abstract:** The 18<sup>th</sup> fascicle (20 numbers) of the exsiccata 'Lichenicolous Biota' is published. The issue contains material of 16 non-lichenized fungal taxa (10 teleomorphs of ascomycetes, 2 anamorphic states of ascomycetes, 3 basidiomycetes) and 3 lichenized ascomycetes, including paratype material of *Biatoropsis hirtae* Diederich & Millanes (no 403) and *Stigmatidium epixanthum* Hafellner (no 416). Furthermore, collections of the type species of the following genera are distributed: *Marchandiomyces* (*M. corallinus*), *Phacopsis* (*P. vulpina*), *Phacothecium* (*P. varium*), *Xanthoriicola* (*X. physciae*), and *Sclerococcum* (*S. sphaerale*). The fascicle contains notable contributions to the fungus floras of Austria, Italy and South Africa.

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### Introduction

The exsiccata 'Lichenicolous Biota' is continued with fascicle 18 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 and even only facultatively lichen-inhabiting 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 18<sup>th</sup> fascicle, I gratefully acknowledge the contribution of 3 collections by Wolfgang v. BRACKEL, and 1 collection each by Walter OBERMAYER and J. WALDEN. In fieldwork I received support by Angela HAFELLNER, Lucia MUGGIA, Pier-Luigi NIMIS, and Mauro TRETACH. Wolfgang von BRACKEL, Walter OBERMAYER and Paul DIEDERICH contributed to the scientific content of the fascicle by the identification of either lichenicolous fungi or hosts. 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.

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401. ***Abrothallus tulasnei*** M.S.Cole & D.Hawksw.

in Mycotaxon 77: 310 (2001).

Host: *Xanthoparmelia conspersa* (thallus)

**Europe, Austria:** Steiermark (= Styria), Eastern Alps, Steirisches Randgebirge, Grazer Bergland, Kulmkogel SE above the village St. Jakob-Breitenau, Kerschbaumalm, 47°21'30"N / 015°31'25"E, c. 1350 m elev., GF 8659/1; low outcrops of metadiabas under some scattered *Picea abies* on slope exposed to the S, surrounded by a subalpine pasture, on inclined rock faces.

Note 1: The type host of *Abrothallus tulasnei* is *Xanthoparmelia stenophylla* (sub *X. somloensis*).

Note 2: The material has been assigned to *A. tulasnei* because the characters – I(Lugol)-reaction of the vegetative hyphae lacking, K-reaction of the epihymenial pigments giving an olive-greenish solution, host genus – fit the protologue of that species and at the same time distinguish it from *Abrothallus caerulescens* I.Kotte equally described from *Xanthoparmelia (conspersa)*. Material of *A. caerulescens* has been distributed as Lichenicolous Biota no. 411.

10. XI. 2012

leg. J. Hafellner (81034), det. J. Hafellner

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

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402. ***Arthonia molendoi*** (Heufl. ex Frauenf.) R.Sant.

in Thunbergia 3: 2 (1986). – Bas.: *Tichothecium molendoi* Heufl. ex Frauenf. [as note to] Arnold, Verhandlungen der K.-K. Zoologisch-Botanischen Gesellschaft in Wien 14: 462 (1864). – Syn.: *Bryostigma molendoi* (Heufl. ex Frauenf.) S.Y.Kondr. & Hur in Kondratyuk et al., Acta Botanica Hungarica 62 (1-2): 100 (2020).

Host: *Calogaya biatorina* (thallus, apothecia)

**Europe, Italy:** Piemonte, Prov. Cuneo, Western Alps, Alpi Cozie, on the ridge W above Colle del Vallonetto, 44°23'10"N / 007°07'00"E, c. 2500 m elev., calcareous cliffs and boulders in alpine vegetation, on cliffs exposed to SE.

Note 1: The type host of *Arthonia molendoi* is *Rusavskia elegans* (syn. *Xanthoria e.*, named *Physcia pusilla* in the protologue).

Note 2: The species appears to be restricted to hosts pertaining to the '*Xanthoria elegans*'-group and the '*Caloplaca saxicola*'-group.

23. VII. 2000

leg. J. Hafellner (88157), det. J. Hafellner  
(foray together with P. L. Nimis & M. Tretiach)

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

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403. ***Biatoropsis hirtae*** Diederich & Millanes Paratype

in Diederich et al., Flora of Lichenicolous Fungi, Vol. 1: 112 (2022).

Host: *Usnea hirta* coll. (thallus)

**Northern America, U.S.A.:** Arizona, Greenlee Co., Apache-Sitgreaves National Forest, c. 36.4 km S of the village Alpine and 10.1 km W of the border to New Mexico, 33.6104°N (33°36'37"N) / 109.1554°W (109°09'19"W), [c. 1800 m elev.], coniferous forest, on bark of *Pinus edulis* and *Juniperus deppeana*.

Note: The type host of *Biatoropsis hirtae* is *Usnea hirta*.

8. I. 2019

leg. J. Walden (9), det. P. Diederich

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

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404. ***Marchandiomyces corallinus*** (Roberge) Diederich & D.Hawksw.

in Diederich, Mycotaxon 37: 312 (1990). – Bas.: *Illosporium corallinum* Roberge in Desmazières, Plantes Cryptogames de France, ed. 1, fasc. 32, no. 1551 (1847) or in Desmazières, Annales des Sciences Naturelles, Botanique, sér. 3, 10: 342 (1848), resp.

Host: *Physcia stellaris* (thallus, apothecia)

**Europe, Austria:** Steiermark (= Styria), Eastern Alps, Seetaler Alpen, S-facing slopes of Kreuzeck, 1.3 km SE of the church of Mariahof, surroundings of the abandoned farmstead 'Moar am Berg', 47°05'34"N / 014°24'59"E, c. 1045 m elev., GF 8952/1, orchard meadow, on twigs of *Prunus avium*.

Note 1: The type host as seen on the type specimen is *Physcia tenella* (fide Hawksworth, Bulletin of the British Museum (Natural History), Botany series 6(3): 236, 1979).

Note 2: The material distributed here is predominantly in the sclerotial state.

Note 3: The fungus is infringing on neighbouring lichen thalli of e.g., *Physcia adscendens*, *Xanthoria parietina*, *Lecanora chlarotera*, and *Melanohalea exasperata* (specimen in GZU).

8. IX. 2024

leg. W. Obermayer (16399), det. J. Hafellner

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

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#### 405. *Muellerella rhizocarpicola* Brackel

in Archive for Lichenology 35: 10 (2023). – *Muellerella pygmaea* var. *ventosicola* sensu auct. non (Mudd) Triebel, non *Muellerella ventosicola* (Mudd) D.Hawksw.

Host: *Rhizocarpon geographicum* (thallus)

**Europe, Austria:** Kärnten (= Carinthia), Eastern Alps, Central Alps, Steirisches Randgebirge, Koralpe, on the mountain Weberkogel c. 2 km N of the pass Wein-ebene, near the conspicuous outcrop W of the gentle mountain top, 46°51'30"N / 015°00'30"E, c. 1800 m elev., GF 9156/1, boulder field surrounded by dwarf shrub heath and pasture, on boulders of gneiss.

Note 1: The recently described species replaces *Muellerella pygmaea* var. *ventosicola* sensu auct. non (Mudd) Triebel, a name often applied to a strain of the *Muellerella pygmaea*-group infecting thalli of *Rhizocarpon geographicum* agg.

Note 2: *Muellerella ventosicola* s.str. is restricted to the *Ophioparma ventosa*-group with ascomata showing a radially striate ostiolar region as diagnostic phenotypic character under the dissecting microscope.

25. XI. 2012 leg. J. Hafellner (81096), A. Hafellner & L. Muggia, det. J. Hafellner  
distributed to: BCN, BR, CANB, E, GZU, LE, M, NY, PRM, UPS

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#### 406. *Phacopsis vulpina* Tul.

in Annales des Sciences Naturelles, Botanique, sér. 3, 17: 126 (1852). – Syn.: *Agyrium vulpinum* (Tul.) H.Olivier in Bulletin de l'Académie Internationale de Géographie Botanique, sér. 3, 16: 196 (1906).

Host: *Letharia vulpina* (thallus)

**Europe, Italy:** Piemonte, Prov. Cuneo, Western Alps, Alpi Liguri, NE slopes of Monte Bertrand, W above the village Úpega, 44°07'40"N / 007°41'30"E, c. 1960 m elev., open *Larix* forest with *Rhododendron* understory, on bark of *Larix decidua*.

Note: *Letharia vulpina* is the type host of *Phacopsis vulpina*.

20. VII. 2000 leg. J. Hafellner (87605), det. J. Hafellner  
(foray together with P. L. Nimis & M. Tretiach)  
distributed to: BCN, BR, CANB, E, GZU, LE, M, NY, PRM, UPS

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**407. *Phacothecium varium* (Tul.) Trevis.**

in Linnaea 27: 298 (1856). – Bas.: *Phacopsis varia* Tul. in Annales des Sciences Naturelles, Botanique, sér. 3, 17: 125 (1852). – Syn.: *Celidium varium* (Tul.) A.Massal. in Miscellanea Lichenologica: 44 [15] (1856). – *Arthonia varia* (Tul.) Jatta in Sylloge lichenum Italicorum: 471 (1900) non (Ach.) Nyl. (1857). – *Lecidea physciaria* Nyl. in Supplément aux Lichens des Environs de Paris: 8 (1897). – *Leciographa physciaria* (Nyl.) H.Olivier in Bulletin de l'Académie Internationale de Géographie Botanique 16: 48 (1906). – *Opegrapha physciaria* (Nyl.) D.Hawksw. & Coppins in Coppins et al., Lichenologist 24: 367 (1992). – *Mycobilimbia xanthorica* Räsänen in Annales Botanici Societatis Zoologicae-Botanicae Fennicae „Vanamo“ 21, Notul. Bot. 16: 2 (1946).

Host: *Xanthoria parietina* (thallus)

**Europe, Greece:** Crete, distr. Heraklion (Iraklio), Festos, NW of the village Pombia, 35°01'09"N / 024°51'38"E, c. 80 m elev., olive grove near gravel road, on twigs of *Olea europaea*.

Note 1: *Xanthoria parietina* is the type host of *Phacothecium varium* as well as of the heterotypic synonyms *Opegrapha physciaria* and *Mycobilimbia xanthorica*.

Note 2: For a detailed treatment of the species see Hafellner, Bibliotheca Lichenologica 100: 94–99 (2009).

Note 3: The collection distributed here included also *Arthonia parietinaria* (GZU) and *Xanthoriicola physciae* (Lichenicolous Biota no. 410).

2. VI. 2024 leg. W. von Brackel (9109b), det. W. von Brackel  
distributed to: BCN, BR, CANB, E, GZU, LE, M, NY, PRM, UPS

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**408. *Sphaerellothecium coniodes* (Nyl.) Cl.Roux & Diederich**

in Roux & Triebel, Bulletin de la Société Linnéenne de Provence 45: 527 (1994). – Bas.: *Verrucaria coniodes* Nyl. in Flora (Regensburg) 58: 447 (1875). – Syn.: *Pharcidia coniodes* (Nyl.) Sacc. & D. Sacc. in Sylloge Fungorum 17: 647 (1905). – *Arthopyrenia coniodes* (Nyl.) Zopf in Hedwigia 35: 359 (1896).

Host: *Baeomyces rufus* agg. (thallus)

**Europe, Austria:** Steiermark (= Styria), Eastern Alps, Steirisches Randgebirge, Koralpe, southern slope of the mountain Gradischkogel N above of the artificial lake Soboth, a short distance E of the provincial border to Carinthia, close to the small abandoned quarry, 46°41'30"N / 015°02'00"E, c. 1250 m elev., GF 9356/1, clearing in a mixed forest with dominant *Picea abies*, on small boulders of eclogite.

Note 1: The type host of *Sphaerellothecium coniodes* is *Baeomyces carneus*.

Note 2: Note the greyish discoloration of infected areolae!

17. VII. 2010 leg. J. Hafellner (88186), det. J. Hafellner  
distributed to: BCN, BR, CANB, E, GZU, LE, M, NY, PRM, UPS

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409. ***Tremella parietinae*** Freire-Rallo, Diederich, Millanes & Wedin

in *The Lichenologist* 55(5): 232 (2023).

Host: *Xanthoria parietina* (apothecia)

**Europe, Germany:** Bayern (= Bavaria), Middle Franconia, Roth district, embankment of Rhine-Main-Danube Canal, SE of the lock Eckersmühlen, 49°12'00"N / 011°11'53"E, c. 370 m elev., GF 6733/3, edge of forest, on twigs of various shrubs.

Note 1: *Xanthoria parietina* is the type host of *Tremella parietinae*.

Note 2: *Teloggalla olivieri* (Vouaux) Nik.Hoffm. & Hafellner is present on all duplicates as admixture.

22. V. 2024

leg. W. von Brackel (9100), det. W. von Brackel

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

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410. ***Xanthoriicola physciae*** (Kalchbr.) D.Hawksw.

in Hawksworth & Punithalingam, *Transactions of the British Mycological Society* 61: 67 (1973). – Bas.: *Gymnosporium physciae* Kalchbr. in *Mathematikai és Természettudományi Közlemények* 3: 299 (1865). – Syn.: *Coniosporium physciae* (Kalchbr.) Sacc. in *Sylloge Fungorum* 4: 246 (1886).

Host: *Xanthoria parietina* (apothecia)

**Europe, Greece:** Crete, distr. Heraklion (Iraklio), Festos, NW of the village Pombia, 35°01'09"N / 024°51'38"E, c. 80 m elev., olive grove near gravel road, on twigs of *Olea europaea*.

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

Note 2: The collection distributed here included also *Arthonia parietinaria* (GZU) and *Phacothecium varium* (Lichenicolous Biota no. 407).

2. VI. 2024

leg. W. von Brackel (9109c), det. W. von Brackel

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

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**411. *Abrothallus caerulescens* I.Kotte**  
(anamorphic state of *Vouauxiomyces*-type)

in Centralblatt für Bakteriologie und Parasitenkunde, 2. Abt., 24: 86 (1909).

Host: *Xanthoparmelia stenophylla* (thallus)

**Europe, Austria:** Steiermark (= Styria), Eastern Alps, Steirisches Randgebirge, Joglland, c. 4,5 km E above of the town Birkfeld, mountain Zeiseleck N above of the pass Gschaid Sattel, SE ridge, 47°20'45"N / 015°45'20"E, c. 980 m elev., GF 8660/4, boulder field and cliffs on clearing with scattered *Pinus sylvestris* on slope exposed to the S, on inclined rock faces of gneissic boulders.

Note 1: The type host of *Abrothallus caerulescens* is *Xanthoparmelia conspersa*. No anamorphic state is present on the type material (Kotte, l.c.).

Note 2: The material distributed here has been assigned to *A. caerulescens* because the characters – amyloid I(Lugol)-reaction of the vegetative hyphae, host genus – fit the protologue of that species and at the same time distinguish it from *Abrothallus tulasnei* M.S.Cole & D.Hawksw. equally described from *Xanthoparmelia (stenophylla)*. Material of *A. tulasnei* has been distributed as Lichenicolous Biota no. 401.

19. X. 2003

leg. J. Hafellner (62095), det. J. Hafellner

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

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**412. *Amandinea deminuta* Hafellner**

in Bibliotheca Lichenologica 88: 177 (2004).

Host: *Teloschistopsis bonae-spei* (thallus, apothecia)

**Africa, South Africa:** coast of Atlantic Ocean c. 57 km W of Clanwilliam, Lambert's Bay (Lambertsbaai), just S of the village, 3218AB, 32°06'20"S / 018°18'15"E, c. 5 m elev., rocky seashore, quartzitic sandstone, on outcrops and boulders exposed to SW.

Note 1: The type host of *Amandinea deminuta* is *Caloplaca felipponei*.

Note 2: Duplicates of a paratype collection have been distributed by W. Obermayer as *Dupla Graecensia Lichenum* 334.

Note 3: Both *Caloplaca felipponei* and *Teloschistopsis bonae-spei* (syn. *Caloplaca b.*) are maritime species of the Southern Hemisphere, the first confined to Atlantic South America, the second to southern Africa.

14. II. 1992

leg. J. Hafellner (88185) & A. Hafellner, det. J. Hafellner

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



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### 413. *Cercidospora epipolytropica* (Mudd) Arnold

in Flora (Regensburg) 57: 154 (1874). – Bas.: *Thelidium epipolytropum* Mudd in Manual of British Lichens: 298 (1861). – Syn.: *Didymella epipolytropica* (Mudd) Berl. & Voglino in Sylloge Fungorum Additamentum I–IV: 89 (1886). – *Didymosphaeria epipolytropica* (Mudd) G.Winter in Rabenhorst's Kryptogamen-Flora, 2. Aufl., Pilze, 1(2): 432 (1885).

Host: *Lecanora polytropica* var. *polytropica* (apothecia)

**Europe, Austria:** Kärnten (= Carinthia), Eastern Alps, Saualpe W above the town Wolfsberg, on the mountain Kienberg NW above of Ladinger Alm, in the upper part of ridge descending towards the E, 46°53'00"N / 014°39'05"E, c. 1980 m elev., GF 9153/2, loose boulders and pebbles in open mosaic of alpine vegetation, on pebbles of micaschist.

Note: *Lecanora polytropica* is the type host of *Cercidospora epipolytropica*.

11. IX. 2011

leg. J. Hafellner (88187), det. J. Hafellner

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

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### 414. *Muellerella rhizocarpicola* Brackel

in Archive for Lichenology 35: 10 (2023). – *Muellerella pygmaea* var. *ventosicola* sensu auct. non (Mudd) Triebel, non *Muellerella ventosicola* (Mudd) D.Hawksw.

Host: *Rhizocarpon geographicum* (thallus)

**Europe, Austria:** Steiermark (= Styria), Eastern Alps, Central Alps, Niedere Tauern, Seckauer Tauern, N of the village Seckau, ridge connecting the mountains Hämmerkogel and Schwaigerhöhe, 47°20'25"N / 014°45'25"E, c. 2130 m elev., GF 8654/4, rocky wind-swept crest with open alpine vegetation, on pebbles of gneiss lying on the ground.

Note 1: The recently described species replaces *Muellerella pygmaea* var. *ventosicola* sensu auct. non (Mudd) Triebel, a name often applied to a strain of the *Muellerella pygmaea*-group infecting thalli of *Rhizocarpon geographicum* agg.

Note 2: *Muellerella ventosicola* s.str. is restricted to the *Ophioparma ventosa*-group with ascomata showing a radially striate ostiolar region as diagnostic phenotypic character under the dissecting microscope.

15. X. 2017

leg. J. Hafellner (84157), det. J. Hafellner

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

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415. ***Sclerococcum sphaerale*** (Ach.) Fr.

in Scleromyceti Suecici no 179 (1821). – Bas.: *Spiloma sphaerale* Ach. in Synopsis Methodica Lichenum: 2 (1814). – Syn.: *Acolium sphaerale* (Ach.) Rehm in Rabenhorst's Kryptogamen-Flora, 2. Aufl., Pilze, 1(3): 400 (1890). – *Coniothecium sphaerale* (Ach.) Keissl. in Rabenhorst's Kryptogamen-Flora, 2. Aufl., Pilze, 8: 616 (1930).

Host: *Lepra corallina* (thallus)

**Europe, Austria:** Steiermark (= Styria), Eastern Alps, Niedere Tauern, Schladminger Tauern, on the mountain H6chstein S of the village Haus/Ennstal, summit area, 47°20'50"N / 013°47'30"E, c. 2530 m elev., GF 8648/4, cliffs of siliceous rock exposed to the N, on steep rock faces.

Note 1: *Lepra corallina* is the type host of *Sclerococcum sphaerale*.

Note 2: It has been demonstrated (Diederich et al., Bryologist 121(3): 340–425, 2018) that the genera *Sclerococcum* and *Dactylospora* form a single clade within the class Eurotiomycetes.

8. X. 1977 leg. J. Hafellner (3883) & E. Wind, det. J. Hafellner  
distributed to: BR, CANB, GZU, NY, UPS

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416. ***Stigmidium epixanthum*** Hafellner Paratype

in Hafellner et al., Mycotaxon 84: 317 (2002).

Host: *Acarospora* spec. (thallus)

**Northern America, Mexico:** Sinaloa, ca. 30 km NW of Los Mochis, about 3 km NNE of Higuera de Zaragoza, W end of hill chain NW of Ahome, 26 01'N / 109°16'W, c. 50 m elev., semidesert scrub with volcanic outcrops on NW-facing hillside, on small boulders.

Note: The type host of *Stigmidium epixanthum* is an unnamed saxicolous *Acarospora* subgen. *Acarospora* (*Xanthothallia*) occurring at mid elevations in Baja California Sur.

12. II. 1993 leg. J. Hafellner (40211) & A. Hafellner, det. J. Hafellner  
distributed to: BR, CANB, GZU, NY, PRM, UPS

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**417. *Unguiculariopsis lettaui* (Grubmann) Coppins**

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

Host: *Evernia prunastri* (thallus)

**Europe, Austria:** Kärnten (= Carinthia), Eastern Alps, Hohe Tauern, Ankogel group, in the valley Gößgraben NW of the village Gmünd, E of the cascade Zwillingsfall, somewhat W opposite to Untere Thomanbauerhütte, 46°59'00"N / 013°22'35"E, c. 1150 m elev., GF 9046/1, edge of deciduous forest close to bank of stream, on bark of *Alnus incana*.

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

Note 2: In a phylogenetic study *Unguiculariopsis* has been confirmed as branch in the Helotiales-Encoelioidae clade (Suija et al., Fungal Diversity 70: 55–72, 2015).

30. VIII. 1994

leg. J. Hafellner (33063), det. J. Hafellner

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

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**418. *Heteroplacidium zamenhofianum* (Clauzade & Cl.Roux)  
Gueidan & Cl.Roux**

in Roux, Bulletin d'Information de l'Association Française de Lichénologie 32(2): 34 (2007). – Bas.: *Verrucaria zamenhofiana* Clauzade & Cl.Roux in Bulletin de la Société Botanique du Centre-Ouest 7: 823 (1985).

Host: *Staurothele areolata* (thallus)

**Europe, Italy:** Piemonte, Prov. Cuneo, Western Alps, Alpi Cozie, in the valley E below Colle Valcavera, 44°22'40"N / 007°07'30"E, c. 2140 m elev., large boulders of calcareous schist in subalpine pasture, on inclined rock faces.

Note: *Staurothele areolata* is the type host of *Heteroplacidium zamenhofianum*.

23. VII. 2000

leg. J. Hafellner (87652), det. J. Hafellner  
(foray together with P. L. Nimis & M. Tretiach)

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

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**419. *Pisutiella grimmiae* (Nyl.) S.Y.Kondr., Lőkös & Farkas**

in Kondratyuk et al., Acta Botanica Hungarica 62(1-2): 122 (2020). – Bas.: *Lecanora grimmiae* Nyl. in Flora (Regensburg) 69: 97 (1886). – Syn.: *Placodium grimmiae* (Nyl.) Vain. in Természettudományi Füzetek 22: 297 (1899). – *Caloplaca grimmiae* (Nyl.) H.Olivier in Mémoires de la Société Nationale des Sciences Naturelles et Mathématiques de Cherbourg 37: 119 (1909).

Host: *Candelariella vitellina* (thallus)

**Europe, Italy:** Piemonte, Prov. Cuneo, Western Alps, Alpi Cozie, Valle Varaita c. 4 km W of the village Sampeyre, slopes exposed to the S just W of Villar, 44° 34'55"N / 007°08'05"E, c. 1120 m elev., boulders of ophiolite in a pasture, on inclined rock faces.

Note 1: *Candelariella vitellina* is the type host of *Pisutiella grimmiae*.

Note 2: Lichenicolous growth is not mentioned in the protologue but has later been demonstrated for the holotype specimen (Poelt & Kalb, Flora (Jena) 176: 132, 1985).

25. VII. 2000 leg. A. Hafellner & J. Hafellner (87721), det. J. Hafellner  
(foray together with P. L. Nimis & M. Tretiach)

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

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

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

Host: *Lecidea lapicida* (thallus)

**Europe, Italy:** Piemonte, prov. Cuneo, Western Alps, Alpi Liguri, uppermost N ridge of Monte Saccarello, SW above the village Monesi, on the E side of the crest NW of Monumento al Redentore, 44°03'45"N / 007°42'50"E, c. 2150 m elev., outcrops of siliceous sandstone in alpine meadows, on inclined rock faces of low outcrops.

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 (entire appearance therefore somewhat similar to a '*Polysporina*' or even '*Opegrapha*'). The character is also visible on the type specimen (GZU) but not mentioned in the protologue.

18. VII. 2000 leg. A. Hafellner & J. Hafellner (87441), det. J. Hafellner  
(foray together with P. L. Nimis & M. Tretiach)

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

## Taxon Synopsis:

Taxon	Exs. no.
Ascomycota	
Arthoniomycetes	
<i>Arthonia molendoi</i> .....	402
<i>Phacothecium varium</i> .....	407
Lecanoromycetes (incl. Ostropomycetidae)	
<i>Amandinea deminuta</i> .....	412
<i>Phacopsis vulpina</i> .....	406
<i>Pisutiella grimmiae</i> .....	419
<i>Rhizocarpon furax</i> .....	420
Leotiomycetes (incl. Helotiales)	
<i>Unguiculariopsis lettaui</i> .....	417
Sordariomycetes (incl. Hypocreales)	
Eurotiomycetes (incl. Verrucariales, Chaetothyriales and Mycocaliciales)	
<i>Heteroplacidium zamenhofianum</i> .....	418
<i>Muellerella rhizocarpicola</i> .....	405, 414
<i>Sclerococcum sphaerale</i> .....	415
Dothideomycetes	
<i>Abrothallus caerulescens</i> .....	411
<i>Abrothallus tulasnei</i> .....	401
<i>Cercidospora epipolytropa</i> .....	413
<i>Sphaerellothecium coniodes</i> .....	408
<i>Stigmatidium epixanthum</i> .....	416
Anamorphic Fungi (unclassified)	
Hyphomycetes	
<i>Xanthoriicola physciae</i> .....	410
Coelomycetes	
Basidiomycota	
Agaricomycetes	
<i>Marchandiomyces corallinus</i> .....	404
Pucciniomycetes	
Tremellomycetes	
<i>Biatoropsis hirtae</i> .....	403
<i>Tremella parietinae</i> .....	409

## Host Index:

Host taxon	Lichenicolous taxon	Exs. no.
<i>Acarospora</i> spec.....	<i>Stigmatidium epixanthum</i> .....	416
<i>Baeomyces rufus</i> .....	<i>Sphaerellothecium coniodes</i> .....	408
<i>Calogaya biatorina</i> .....	<i>Arthonia molendoi</i> .....	402
<i>Candelariella vitellina</i> .....	<i>Pisutiella grimmiae</i> .....	419
<i>Evernia prunastri</i> .....	<i>Unguiculariopsis lettaui</i> .....	417
<i>Lecanora polytropa</i> .....	<i>Cercidospora epipolytropa</i> .....	413
<i>Lecidea lapicida</i> .....	<i>Rhizocarpon furax</i> .....	420
<i>Lepra corallina</i> .....	<i>Sclerococcum sphaerale</i> .....	415
<i>Letharia vulpina</i> .....	<i>Phacopsis vulpina</i> .....	406
<i>Physcia stellaris</i> .....	<i>Marchandiomyces corallinus</i> .....	404
<i>Rhizocarpon geographicum</i> .....	<i>Muellerella rhizocarpicola</i> .....	405, 414
<i>Staurothele areolata</i> .....	<i>Heteroplacidium zamenhofianum</i> .....	418
<i>Teloschistopsis bonae-spei</i> .....	<i>Amandinea deminuta</i> .....	412
<i>Usnea hirta</i> .....	<i>Biatoropsis hirtae</i> .....	403
<i>Xanthoparmelia conspersa</i> .....	<i>Abrothallus tulasnei</i> .....	401
<i>Xanthoparmelia stenophylla</i> .....	<i>Abrothallus caeruleus</i> .....	411
<i>Xanthoria parietina</i> .....	<i>Phacothecium varium</i> .....	407
	<i>Tremella parietinae</i> .....	409
	<i>Xanthoriicola physciae</i> .....	410

## Geographic Index:

### BIOGEOGRAPHIC UNITS (see BRUMMITT 2001)

<b>Country</b> (or Archipelago)	<b>Lichenicolous taxon</b>	<b>Exs. no.</b>
1. EUROPE		
Austria .....	<i>Abrothallus caerulescens</i> .....	411
	<i>Abrothallus tulasnei</i> .....	401
	<i>Cercidospora epipolytropa</i> .....	413
	<i>Unguiculariopsis lettaui</i> .....	417
	<i>Marchandiomyces corallinus</i> .....	404
	<i>Muellerella rhizocarpicola</i> .....	405, 414
	<i>Sclerococcum sphaerale</i> .....	415
	<i>Sphaerellothecium coniodes</i> .....	408
Crete (belonging to Greece)		
	<i>Phacothecium varium</i> .....	407
	<i>Xanthoriicola physciae</i> .....	410
Germany.....	<i>Tremella parietinae</i> .....	409
Italy .....	<i>Arthonia molendoi</i> .....	402
	<i>Heteroplacidium zamenhofianum</i> .....	418
	<i>Phacopsis vulpina</i> .....	406
	<i>Pisutiella grimmiae</i> .....	419
	<i>Rhizocarpon furax</i> .....	420
2. AFRICA		
South Africa .....	<i>Amandinea deminuta</i> .....	412
3. ASIA TEMPERATE		
4. ASIA TROPICAL		
5. AUSTRALASIA		
6. PACIFIC		
7. NORTHERN AMERICA		
Mexico .....	<i>Stigmidium epixanthum</i> .....	416
U.S.A. ....	<i>Biatoropsis hirtae</i> .....	403
8. SOUTHERN AMERICA (including CENTRAL AMERICA)		
9. ANTARCTIC		

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