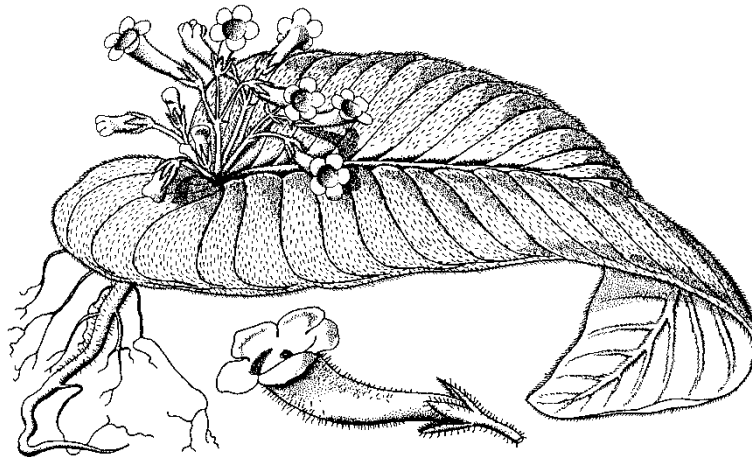


FRITSCHIANA

100



Veröffentlichungen aus dem
Institut für Biologie, Bereich Pflanzenwissenschaften
der Karl-Franzens-Universität Graz

Walter OBERMAYER

Dupla Graecensia Lichenum (numbers 1291–1330)

Josef HAFELLNER

Lichenicolous Biota (Nos 361–380)

Graz, 19. Dezember 2022

Hofrat Prof. Dr. Karl FRITSCH
(* 24.2.1864 in Wien, † 17.1.1934 in Graz)

Karl FRITSCH studierte nach einem Jahr in Innsbruck an der Universität Wien Botanik und wurde dort 1886 zum Dr.phil. promoviert; 1890 habilitierte er sich. Nach Anstellungen in Wien wurde FRITSCH 1900 als Professor für Systematische Botanik an die Universität Graz berufen, wo er aus bescheidenen Anfängen ein Institut aufbaute. 1910 wurde er Direktor des Botanischen Gartens, 1916 wurde das neu errichtete Institutsgebäude bezogen. Aus der sehr breiten wissenschaftlichen Tätigkeit sind vor allem drei Schwerpunkte hervorzuheben: Floristisch-systematische Studien, besonders zur Flora von Österreich, monographische Arbeiten (besonders über *Gesneriaceae*) und Arbeiten zur systematischen Stellung und Gliederung der Monocotylen. An Kryptogamen interessierten ihn besonders Pilze und Myxomyceten.

Nachrufe: KNOLL F. 1934: Karl Fritsch. - Berichte der Deutschen Botanischen Gesellschaft 51: (157)–(184) [mit Schriftenverzeichnis]. — KUBART B. 1935: Karl Fritsch. - Mitteilungen des Naturwissenschaftlichen Vereins für Steiermark 71: 5–15 [mit Porträt]. — TEPPNER H. 1997: Faszination versunkener Pflanzenwelten. Constantin von Ettingshausen - ein Forscherportrait. - Mitteilungen Geologie und Paläontologie am Landesmuseum Joanneum 55: 133–136. — Im übrigen vgl. STAFLEU F.A. & COWAN R.S. 1976, Taxonomic Literature 1: 892 und BARNHART J.H. 1965: Biographical Notes upon Botanists 2: 12.

Graz, November 1997

Herwig TEPPNER

Die Serie FRITSCHIANA wurde als Publikationsorgan für die zahlreichen Aktivitäten im Zusammenhang mit der botanischen Sammlung des Institutes für Biologie (vormals Institut für Pflanzenwissenschaften bzw. Institut für Botanik) der Karl-Franzens-Universität Graz (GZU) gegründet. Vor allem Schedae-Hefte der von den Mitarbeitern herausgegebenen Exsiccatenwerke sollten hier erscheinen, aber auch Exkursionsberichte sowie Listen und Indices besonders wertvoller Bestände in GZU. Das Spektrum wurde mittlerweile auf floristische und kleinere taxonomische Arbeiten (zwischenzeitlich auch auf das Samentauschverzeichnis des Botanischen Gartens) ausgeweitet. Die Schedae-Hefte des von Prof. Dr. Josef POELT begründeten, inzwischen abgeschlossenen Exsiccatenwerkes *Plantae Graecenses* sind die Vorläufer dieser Schriftenreihe.

Gesamtredaktion:

Dr. Christian SCHEUER, Dr. Walter OBERMAYER
Karl-Franzens-Universität Graz, Institut für Biologie, Bereich Pflanzenwissenschaften,
NAWI Graz, Holteigasse 6, 8010 Graz, Österreich/Austria

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**Veröffentlichungen aus dem
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Dupla Graecensia Lichenum (numbers 1291–1330)

Walter OBERMAYER*

OBERMAYER W. 2022: Dupla Graecensia Lichenum (numbers 1291–1330). - Fritschiana (Graz) 100: 1–12. - ISSN 1024-0306.

Abstract: The exsiccata 'Dupla Graecensia Lichenum (numbers 1291–1330)' comprises 40 collections (271 specimens) of lichen duplicates (including the two non-lichenised fungi *Mycocalicium subtile* and *Zythia resinae*) from the following 10 countries: Artsakh (= Nagorno-Karabakh Republic, Province Martakert), Australia (state of New South Wales), Austria (states of Carinthia, Salzburg, Styria, and Upper Austria), Czech Republic (Jihočeský kraj [=Southern Bohemia]), Greece (Karpathos Island), Italy (region of Friuli-Venezia Giulia), Portugal (Madeira Island), Slovenia (Primorska), Spain (Canary Islands), Switzerland (canton of Bern). TLC-investigations were carried out for 15 species. Apothecia of *Letharia vulpina* have been shown to contain relatively high amounts of **norstictic acid**. Apothecia of *Zythia resinae* contain - beside a reddish-orange pigment - several depside/depsidone like compounds in high concentration.

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

Introduction

The dwarf-exsiccata 'Dupla Graecensia Lichenum' is issued by the herbarium of the Institute of Biology (botany section) of the Karl-Franzens-University, Graz, Austria (international herbarium acronym: GZU). It includes lichens (and sometimes lichenicolous fungi or other non-lichenised fungi with a lichen-like habit) from all over the world with at least five duplicates of per collection. Each institution receiving a duplicate is cited (at the bottom line of each individual label) with its international herbarium acronym: The herbaria in Canberra (CANB), Graz (GZU), Munich (M), New York (NY), and Uppsala (UPS) are receiving specimens of all distributed numbers continuously. 'Dupla Graecensia Lichenum' is published as text version (with online corrections) under <https://static.uni-graz.at/fileadmin/nawi-institute/Botanik/Fritschiana/Dupla-Graecensia-Lichenum/dupla-graecensia-lichenum-text-version-only.htm>. A downloadable PDF-file can be found under <https://static.uni-graz.at/fileadmin/nawi-institute/Botanik/Fritschiana/fritschiana-100/fritschiana-100.pdf>.

Label texts originally drafted in a local language have been translated into English by the author. The names of nomenclatural authorities of lichenised fungi are given in a NOT abbreviated style and are (mostly) taken from <https://www.mycobank.org/>. The geographical classification system of the European Alps (using the terms 'Western Alps' and 'Eastern Alps') follows a classification used by Sergio MARAZZI (2005): Atlante orografico delle Alpi. SOIUSA. Suddivisione orografica internazionale unificata del Sistema Alpino. - Priuli & Verlucca (Scarmagno).

I wish to thank the following collectors for their contributions: Josef HAFELLNER, Helmut MAYRHOFER, Roman TÜRK, Ernst VITEK, and Jan VONDRÁK. Josef HAFELLNER and Christian SCHEUER have kindly checked the label texts.

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1291. *Anaptychia setifera* (Mereschkowsky) Räsänen

ARTSAKH (Nagorno-Karabakh Republic), Province Martakert, 30 km north-northeast of the centre of Stepanakert, 3 km east-southeast of the village Gandzasar (Vəngli), side road to Garnakar, 40°02'01"N, 046°34'33"E, elevation 945 m, dry slope with *Paliurus*, on twigs of *Paliurus*. – 8 June 2010, collected by Ernst Vitek (et al.), determined by Helmut Mayrhofer (2021).

distributed to: **CANB, E, GZU, M, NY, UPS, hb.Kalb**

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1292. *Bacidina neosquamulosa* (Aptroot & Herk) Stefan Ekman

CZECH REPUBLIC, Jihočeský kraj (Southern Bohemia), České Budějovice, urban area of the town, near the building of the Department of Botany (street name: Na Zlaté stoce), 48°58'28.145"N, 014°27'21.244"E, elevation 390 m, on bark of *Robinia pseudacacia*. – 9 December 2013, collected and determined by Jan Vondrák (JV 11541).

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1293. *Calicium viride* Persoon

AUSTRIA, Steiermark (=Styria), Eastern Alps, Northern Limestone Alps, Ennstal Alps, Gesäuseberge, 14 km east of the centre of Admont, path from Johnsbach to Hess-Hütte, just east above 'Untere Koderalm', 47°32'45"N, 014°38'35"E, (grid number 8453/4), elevation 1520 m, mixed forest with many conifers, on bark of *Picea abies*. – 25 September 2005, collected and determined by Josef Hafellner (67546).

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1294. *Chaenotheca brunneola* (Acharius) Müller Argoviensis

AUSTRIA, Steiermark (=Styria), Southeastern Alpine Foreland (=Südöstliches Alpenvorland), Oststeirisches Riedelland, 5.9 km northeast of the centre of Graz, forest area between Stifting and 'Auf der Ries', 47°05'39"N, 015°30'29"E, (grid number 8959/1), elevation 455 m, mixed forest with *Abies alba*, *Fagus sylvatica*, *Pinus sylvestris*, *Picea abies*, on wood of a rotten stump (1.5 m above ground). – 20 November 2022, collected and determined by Walter Obermayer (15956).

distributed to: **CANB, E, GZU, M, NY, UPS, hb.Kalb**

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1295. *Chaenotheca stemonea* (Acharius) Müller Argoviensis

AUSTRIA, Salzburg, Eastern Alps, Lungau, Lower Tauern, Schladming Tauern, 7 km north-east of the centre of Tamsweg, 12 km west of Krakaudorf, just southwest of the lakeshore of Prebersee, 47°11'00"N, 015°51'20"E, (grid number 8849/1), elevation 1520 m, subalpine spruce forest with single European larches, on bark of *Picea abies*. – 30 August 2019, collected and determined by Josef Hafellner (85884).

distributed to: **CANB, GZU, M, NY, UPS, hb.Kalb**

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**1296. *Dimelaena radiata* (Tuckerman) Hale
& William Lois Culberson**

PORTUGAL, Madeira, Ponta de São Lourenço, along the trail to Casa Sardinha, 32°44'50.8"N, 016°41'52.7"W, elevation 60 m, rocky ridge, on basaltic rock. – 2 April 2015, collected and determined by Helmut Mayrhofer (21963).

Note: TLC (Mayrhofer & Kosnik): 3-chlorodivariatic acid. Specimens partly with intermixed *Acarospora lavicola*.

distributed to: **CANB, E, GZU, M, NY, UPS, hb.Kalb**

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1297. *Evernia prunastri* (Linnaeus) Acharius
[specimen in GZU with about 10 apothecia]

AUSTRIA, Steiermark (=Styria), Eastern Alps, Steirisches Randgebirge, Grazer Bergland, 3.6 km south-southwest of the centre of St.Jakob-Breitenau, 800 m west-southwest of the summit of Hochlantsch, just southeast of the tavern 'Steirischer Joki', 47°21'39"N, 015°24'46"E, (grid number 8658/1), elevation 1395 m, mixed forest, on bark of *Acer pseudoplatanus*. – 3 October 2021, collected and determined by Walter Obermayer (15620).

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**1298. *Heterodermia borphyllidiata* (Kalb & Meesim) Maria
Fernanda de Souza & Aptroot**
[recently used synonym: *Leucodermia b.*]

SPAIN, Canary Islands, Tenerife, Macizo de Anaga, north above the road from Las Mercedes to El Bailadero, c. 4 km east of Las Casas de la Cumbre, 28°32'50"N, 016°12'45"W, elevation 700 m, cliff of volcanic conglomerate in a *Laurus* forest belt (fayal-brezal formation), on steep rock faces exposed to the north. – 19 February 1989, collected by Josef Hafellner (84406) & Angela Hafellner, determined by Josef Hafellner.

Note: TLC (611/01): Atranorin, chloroatranorin, zeorin. The phyllidiate *Heterodermia borphyllidiata* is partly intermixed with the sorediate *Heterodermia boryi*.

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**1299. *Hyperphyscia adglutinata* (Flörke) Helmut
Mayrhofer & Poelt**

AUSTRIA, Steiermark (=Styria), Southeastern Alpine Foreland (=Südöstliches Alpenvorland), Oststeirisches Riedelland, urban area of Graz, Schubertstraße, 500 m southwest of the pond 'Hilmteich', near the entrance to the Botanical Garden, 47°04'48"N, 15°27'22"E, (grid number 8958/2), elevation 374 m, avenue trees, on bark of *Aesculus hippocastanum* (near the tree base). – 10 March 2022, collected and determined by Walter Obermayer (15801).

Note: *Hyperphyscia adglutinata* is one of the many lichens that is a typical beneficiary of changing environmental conditions and currently shows a literally explosive spread in the urban area of Graz and its surroundings. - Associated fungus: *Hysterium angustatum* (4-celled, brown ascospores; terminal cells of the same colour as the inner spore cells).

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**1300. *Hyperphyscia adglutinata* (Flörke) Helmut
Mayrhofer & Poelt**

AUSTRIA, Oberösterreich (=Upper Austria), Upper Austrian Prealps, 3.4 km east of Molln, valley of 'Krumme Steyrling', area of the country inn 'Steiner Kraml', 47°53'32"N, 014°18'13"E, (grid number 8151/2), elevation 450 m, outdoor dining garden, on bark of *Aesculus hippocastanum*. – 3 August 2013, collected by Roman Türk (52171) & Wolfgang Mayer, determined by Roman Türk.

Note: All specimens show richly fruiting thalli (glued on the left side of the cardboard pads).

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1301. *Hypogymnia farinacea* Zopf

AUSTRIA, Salzburg, Eastern Alps, Flachgau, Northern Limestone Alps, Salzkammergut Mountains, 5.7 km east of the centre of St.Gilgen, Schafberg, east-northeast of the lake Suissensee, 47°46'39"N, 013°26'26"E, (grid number 8246/2), elevation 1404 m, mixed forest, on bark of *Larix decidua*. – 2 October 2021, collected and determined by Roman Türk (63564).

Note: TLC (611/04): Atranorin, chloroatranorin, physodic acid, oxyphysodic acid, 2'-O-methylphysodic acid (tr.), unknown fatty acid.

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1302. ***Hypotrachyna afrorevoluta*** (Krog & Swinscow)
Krog & Swinscow

AUSTRIA, Salzburg, Northern Alpine Foreland, Flachgau, 17 km northeast of the centre of Salzburg, 4.3 km southwest of the centre of 'Neumarkt am Wallersee', 900 m south of Weng, 'Wenger Moor', 47°55'43"N, 013°10'21"E, (grid number 8045/3), elevation 510 m, bog area, on twigs of *Alnus glutinosa*. – 2 March 2021, collected and determined by Roman Türk (62974).

Note: TLC (611/07): Atranorin, chloroatranorin, gyrophoric acid (maj.), lecanoric acid (tr.), 5-O-methylhiassic acids (min.)

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1303. ***Lecanactis abietina*** (Ehrhart ex Acharius) Körber

AUSTRIA, Salzburg, Northern Alpine Foreland, Flachgau, 11.5 km northeast of the centre of Salzburg, between 'Seekirchen am Wallersee' and Eugendorf, 500 m north of the hamlet Wazing-Eder, 47°52'48"N, 013°08'11"E, (grid number 8144/2), elevation 565 m, on bark of *Abies alba*. – 4 March 2021, collected and determined by Roman Türk (62971).

Note: All issued specimens with pycnidia but without apothecia. TLC (611/05): Schizopeltic acid [maj.], lecanoric acid [tr.], unknown UV-white substance, unknown terpenoids. *Lepraria incana* (TLC 611/06: Zeorin, divaricatic acid) associated in all specimens.

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1304. ***Lecanora cenisia*** Acharius

AUSTRIA, Kärnten (=Carinthia), Eastern Alps, Saualpe, 10.7 km west of the centre of Wolfsberg, Beilstein, 1.5 km northwest of Gießlhütte, short and flat ridge north of the summit, 46°50'55"N, 014°42'15"E, (grid number 9154/3), elevation 1400 m, eclogite outcrops with scattered *Larix decidua*, on inclined rock faces exposed to the south. – 16 October 2010, collected and determined by Josef Hafellner (76350).

Note: TLC (611/12): Atranorin, chloroatranorin, fatty acid (roccellic acid?)

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1305. ***Lecanora epanora*** (Acharius) Acharius

AUSTRIA, Salzburg, Eastern Alps, Lungau, Lower Tauern, Schladming Tauern, 10 km northwest of the centre of Mariapfarr, valley of the brook Weißpriach, just south of a bridge called 'Lahnbrücke', 47°13'05"N, 013°39'28"E, (grid number 8747/4), elevation 1280 m, cliffs of paragneiss (along the street), on overhanging rock faces. – 3 September 2019, collected and determined by Josef Hafellner (87013).

distributed to: **CANB, GZU, M, NY, UPS, hb.Kalb**

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1306. *Lecanora subaurea* Zahlbruckner

AUSTRIA, Salzburg, Eastern Alps, Lungau, Lower Tauern, Schladming Tauern, 13.2 km northwest of the centre of Mariapfarr, valley of the brook Weißpriach, at the foot of the southwest facing slopes of Schusterstuhl, just southeast of Ulnhütte, 47°14'15"N, 013°38'05"E, (grid number 8747/4), elevation 1320 m, scattered boulders in a pasture, on iron-rich rock faces. – 3 September 2019, collected and determined by Josef Hafellner (86254).

Note: Specimen in GZU with apothecia.

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1307. *Lecidea turgidula* Fries

AUSTRIA, Steiermark (=Styria), Eastern Alps, Steirisches Randgebirge, Grazer Bergland, 3.7 km south-southwest of the centre of St.Jakob-Breitenau, 800 m southwest of the summit of Hochlantsch, 270 m southeast of the tavern 'Steirischer Joki', 47°21'34"N, 015°24'52"E, (grid number 8658/1), elevation 1355 m, mixed forest, on vertical faces of a strongly rotten stump. – 3 October 2021, collected and determined by Walter Obermayer (15670).

Note: TLC (611/14; thallus with apothecia): Placodiolic acid.

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1308. *Letharia vulpina* (Linnaeus) Hue

AUSTRIA, Kärnten (=Carinthia), Eastern Alps, Gurktal Alps, Nockberge, 5 km east-south-east of the centre of Radenthein, 2.5 km northeast of the centre of 'Feld am See', south facing slopes of Kolmnock, 46°47'25"N, 013°46'16"E, (grid number 9248/2), elevation 1670 m, subalpine meadows with scattered coniferous trees, on wood of a very big dead branch of *Picea abies* (cut from the tree). – 2021, collected by local people for decoration purposes (gift from Lucy Asplin) (15594), determined by Lucy Asplin & Walter Obermayer.

Note: All issued specimens with fruiting bodies. TLC [a] **thallus** without apothecium]: atranorin (tr.), vulpinic acid (maj.; and 4 related substances), fatty acid (A: slightly below salazinic acid; B': slightly above salazinic acid; C: slightly below salazinic acid). TLC [b] **one big apothecium**]: additionally with **norstictic acid** as a major compound. Norstictic acid as an apothecial constituent has been reported for the first time from European specimens of *Letharia vulpina* by William Louis Culberson (see CULBERSON 1969: Norstictic Acid as a hymenial constituent of *Letharia*. - Mycologia 61(4): 731–736). The lichen substance was also found in the hymenia of *Letharia lupina*, but lacks in those of *L. columbiana* (see ALTERMANN, LEAVITT & GOWARD 2016: Tidying up the genus *Letharia*: introducing *L. lupina* sp. nov. and a new circumscription for *L. columbiana*. - The Lichenologist 48(5): 423–439).

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1309. ***Melanelia stygia*** (Linnaeus) Esslinger

AUSTRIA, Salzburg, Eastern Alps, Pinzgau, Salzburg Slate Alps (Salzburger Schieferalpen), Dientner Berge, Hundstein, summit area, 47°20'17"N, 012°54'44"E, (grid number 8643/3), elevation 2100 m, alpine vegetation, on siliceous outcrops. – 4 November 1975, collected and determined by Roman Türk (62663).

Note: TLC (611/08; without apothecia): Caperatic acid (maj.), unknown fatty acid (min., 2-3/5/4-5).
TLC (611/09; with apothecia): No substances detected.

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1310. ***Micarea lithinella*** (Nylander) Hedlund

AUSTRIA, Steiermark (=Styria), Eastern Alps, Steirisches Randgebirge, Koralpe, Reinischkogel-Massif, 7.7 km northwest of the centre of Stainz, Nausegg northwest above Sauerbrunn, northwest of the farmstead Steinbrecher, 46°55'35"N, 015°10'30"E, (grid number 9057/3), elevation 720 m, north exposed cut slope, on rubblestones (plate gneiss). – 18 June 2006, collected by Josef Hafellner (68469) & Lucia Muggia, determined by Josef Hafellner.

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1311. ***Miriquidica leucophaea*** (Flörke ex Rabenhorst)
Hertel & Rambold

AUSTRIA, Steiermark (=Styria), Eastern Alps, Steirisches Randgebirge, Koralpe, 16 km west of Deutschlandsberg, 3.8 km south of Weinebene, 600 m south of Grünangerhütte (ridge area), 46°48'25"N, 015°00'40"E, (grid number 9156/3), elevation 1720 m, pasture with scattered siliceous rocks and single trees at the tree line, on inclined faces of low mica slate outcrops. – 14 August 2004, collected and determined by Josef Hafellner (68381).

Note: TLC (611/11): Miriquidic acid (maj.), [traces of norstictic acid probably as contamination].

distributed to: **CANB, E, GZU, M, NY, UPS**

OBERMAYER W. 2022: **Dupla Graecensia Lichenum** (numbers 1291–1330). - Fritschiana 100: 1–12.
Distributed by the herbarium GZU, University of Graz, Austria.

1312. ***Mycocalicium subtile*** (Persoon) Szatala

[not a lichenised fungus, but morphologically similar to calicioid lichens]

ITALY, Friuli-Venezia Giulia, Prov. Udine, Southern Eastern Alps, Julian Alps, Laghi di Fusine east of Tarvisio, surroundings of the upper lake, 46°28'45"N, 013°40'20"E, elevation 930 m, montane *Picea-Fagus* forest over mesozoic limestone, on rotten snags. – 1 August 2003, collected and determined by Josef Hafellner (86964).

distributed to: **CANB, GZU, M, NY, UPS, hb.Kalb**

OBERMAYER W. 2022: **Dupla Graecensia Lichenum** (numbers 1291–1330). - Fritschiana 100: 1–12.
Distributed by the herbarium GZU, University of Graz, Austria.

1313. ***Myriolecis reuteri*** (Schaerer) Šliwa, Zhao Xin & Lumbsch
[recently used synonyms: *Lecanora r.*, *Polyozosia r.*]

AUSTRIA, Steiermark (=Styria), Eastern Alps, Northern Limestone Alps, Mürzsteg Alps, 6 km north-northeast of the centre of Turnau, ridge area between Rosskogel and Rauschkogel, Sattelmauer, 47°36'30"N, 015°21'55"E, (grid number 8358/3), elevation 1540 m, northeast facing base of cliffs, on vertical faces of limestone rock walls (shaded by *Picea abies*). – 19 August 2005, collected and determined by Josef Hafellner (69002).

distributed to: **CANB, E, GZU, M, NY, UPS**

OBERMAYER W. 2022: **Dupla Graecensia Lichenum** (numbers 1291–1330). - Fritschiana 100: 1–12.
Distributed by the herbarium GZU, University of Graz, Austria.

1314. ***Peltigera horizontalis*** (Hudson) Baumgarten

AUSTRIA, Steiermark (=Styria), Eastern Alps, Noric Alps, east facing slopes of the Seetal Alps ('Zirbitzkogel-Gebiet'), 11 km southwest of the centre of Judenburg, forest area between a parking site and the Winterleitenhütte, 47°05'38"N, 014°34'24"E, (grid number 8953/1), elevation 1760 m, in the shade of a mixed forest with *Picea abies*, *Pinus cembra*, and *Larix decidua*, on bryophytes (covering a siliceous boulder; east-exposed). – 9 July 2022, collected and determined by Walter Obermayer (15853).

Note: All specimens with many well developed apothecia.

distributed to: **CANB, E, GZU, M, NY, UPS, hb. Kalb**

OBERMAYER W. 2022: **Dupla Graecensia Lichenum** (numbers 1291–1330). - Fritschiana 100: 1–12.
Distributed by the herbarium GZU, University of Graz, Austria.

1315. ***Porina mammillosa*** (Theodor Fries) Vainio

AUSTRIA, Kärnten (=Carinthia), Eastern Alps, Steirisches Randgebirge, Koralpe, 12 km east-northeast of the centre of St. Andrä, Großer Speikkogel, 200 m southeast of the summit, along the path in direction to Weinebene, 46°47'09.5"N, 014°58'27"E, (grid number 9255/2), elevation 2100 m, north exposed slopes with siliceous outcrops in alpine vegetation, on plant remnants. – 1 October 2021, collected by Helmut Mayrhofer (21979), determined by Josef Hafellner & Walter Obermayer.

distributed to: **CANB, GZU, M, NY, UPS, hb.Kalb**

OBERMAYER W. 2022: **Dupla Graecensia Lichenum** (numbers 1291–1330). - Fritschiana 100: 1–12.
Distributed by the herbarium GZU, University of Graz, Austria.

1316. ***Protomicarea limosa*** (Acharius) Hafellner

AUSTRIA, Steiermark (=Styria), Eastern Alps, Noric Alps, east facing slopes of the Seetal Alps ('Zirbitzkogel-Gebiet'), 12 km southwest of the centre of Judenburg, 1.4 km southwest of Winterleitenhütte, Ochsenboden area, just northwest of a stone wall, 47°05'04"N, 014°33'39"E, (grid number 8953/1), elevation 1965 m, alpine vegetation along a small brook, on ground. – 3 July 2022, collected and determined by Walter Obermayer (15959).

Note: TLC (611/10; with apothecia): Pannarin (maj.), unknown substance (min., (4-)5/(4-)5/(4-)5)).

distributed to: **CANB, E, GZU, M, NY, UPS, hb.Kalb**

OBERMAYER W. 2022: **Dupla Graecensia Lichenum** (numbers 1291–1330). - Fritschiana 100: 1–12.
Distributed by the herbarium GZU, University of Graz, Austria.

1317. *Protopannaria pezizoides* (Gyelnik) Per Magnus Jørgensen & Stefan Ekman [agg.]

SLOVENIA, [Primorska], Goriška, Southern Eastern Alps, Julian Alps, Koritnica valley, 10.6 km north-northeast of Bovec, northeast of the village Log pod Mangartom, 46°24'50"N, 013°38'E, elevation 700 m, mixed forest along a river bed, on dead tree stump. – 2 July 2003, collected by Helmut Mayrhofer (20172) & Michael Jensen, determined by Helmut Mayrhofer, confirmed by Per Magnus Jørgensen (2015).

Note: A taxon with well developed tiny squamules and rather small spores (16–20[–22] x 8.5–9 µm, without epispore).

distributed to: **CANB, GZU, M, NY, UPS**

OBERMAYER W. 2022: **Dupla Graecensia Lichenum** (numbers 1291–1330). - Fritschiana 100: 1–12.
Distributed by the herbarium GZU, University of Graz, Austria.

1318. *Pyrenula nitidella* (Flörke) Müller Argoviensis

AUSTRIA, Steiermark (=Styria), Southeastern Alpine Foreland (=Südöstliches Alpenvorland), Oststeirisches Riedelland, urban area of Graz, 4.8 km east-northeast of the centre, between Haidegg and Fuchsriegel, 300 m north-northwest of the school buildings of Haidegg, 47°04'53"N, 015°29'53"E, (grid number 8958/2), elevation 405 m, mixed forest (along a small brook), on bark of *Carpinus betulus* (shaded side of the tree, facing the brook). – 15 June 2021, collected and determined by Walter Obermayer (15588).

Note: The specimen in GZU contains additionally one small thallus of *Pyrenula nitida*.

distributed to: **CANB, E, GZU, M, NY, UPS, hb.Kalb**

OBERMAYER W. 2022: **Dupla Graecensia Lichenum** (numbers 1291–1330). - Fritschiana 100: 1–12.
Distributed by the herbarium GZU, University of Graz, Austria.

1319. *Ramalina bourgaeana* Montagne ex Nylander
[recently used synonym: *Niebla b.*]

SPAIN, Canary Islands, Lanzarote, a short distance west of the village Ye, 29°11'45"N, 013°29'25"W, elevation 360 m, scattered basaltic boulders in abandoned cultivated land, on slightly inclined rock faces of boulders (30–50 cm in diam.). – 4 April 1999, collected by Josef Hafellner (84409) & Angela Hafellner, determined by Josef Hafellner.

distributed to: **CANB, E, GZU, HMAS, M, NY, UPS, hb.Kalb**

OBERMAYER W. 2022: **Dupla Graecensia Lichenum** (numbers 1291–1330). - Fritschiana 100: 1–12.
Distributed by the herbarium GZU, University of Graz, Austria.

1320. ***Rhizocarpon riparium*** Räsänen

[recently used synonym: *Rhizocarpon geographicum* subsp. *kittilense*]

AUSTRIA, Steiermark (=Styria), Eastern Alps, Schladming Tauern, 11.8 km south-south-east of the centre of Großsölk, 1.2 km southwest of 'St. Nikolai im Sölkta', 47°18'40"N, 014°02'00"E, (grid number 8650/3), elevation 1160 m, pasture ground (close to a transitional mire), on siliceous boulder (50 cm high; inclined rock faces). – 14 August 2020, collected and determined by Walter Obermayer (15470).

Note: This taxon, belonging to the *Rhizocarpon geographicum* species group (with a J+ violet medulla and submuriform ascospores), is characterized within the species cluster by the K- (not turning reddish) epithecium.

distributed to: **CANB, E, GZU, M, NY, UPS, hb.Kalb**

OBERMAYER W. 2022: **Dupla Graecensia Lichenum** (numbers 1291–1330). - Fritschiana 100: 1–12.
Distributed by the herbarium GZU, University of Graz, Austria.

1321. ***Roccella maderensis*** (Julius Steiner) Follmann

PORTUGAL, Madeira, Ponta de São Lourenço, 5 km east of the village Caniçal, north above Ponta do Buraco, 32°44'30"N, 016°41'55"W, elevation 50 m, volcanic outcrops and small cliffs, on overhanging rocks exposed to the southeast. – 13 February 1990, collected by Josef Hafellner (84402) & Angela Hafellner, determined by Josef Hafellner.

Note: TLC (611/02): Erythrin (maj.), lecanoric acid (tr.), unknown (1/1/1).

distributed to: **CANB, E, GZU, HMAS, M, NY, UPS, hb.Kalb**

OBERMAYER W. 2022: **Dupla Graecensia Lichenum** (numbers 1291–1330). - Fritschiana 100: 1–12.
Distributed by the herbarium GZU, University of Graz, Austria.

1322. ***Scytinium lichenoides*** (Linnaeus) Otálora,
Per Magnus Jørgensen & Wedin
[recently used synonym: *Leptogium l.*]

AUSTRIA, Salzburg, Northern Alpine Foreland, Flachgau, 15 km northeast of the centre of Salzburg, 3.1 km northeast of the centre of 'Seekirchen am Wallersee', 500 m southeast of the centre of Bayerham, 47°54'53"N, 013°09'10"E, (grid number 8044/4), elevation 510 m, railroad embankment, on concrete wall (amongst bryophytes). – 2 March 2021, collected and determined by Roman Türk (62973).

distributed to: **CANB, E, GZU, M, NY, UPS, hb.Kalb**

OBERMAYER W. 2022: **Dupla Graecensia Lichenum** (numbers 1291–1330). - Fritschiana 100: 1–12.
Distributed by the herbarium GZU, University of Graz, Austria.

1323. ***Solorina saccata*** (Linnaeus) Acharius

AUSTRIA, Steiermark (=Styria), Eastern Alps, Steirisches Randgebirge, Grazer Bergland, Teichalm, 1.8 km west of the tavern Teichwirt, road to the tavern 'Zum Guten Hirten', 47°21'16"N, 015°26'11"E, (grid number 8658/2), elevation 1150 m, cut-slope of a forestry road, on earthy crevices of vertical faces of limestone. – 3 October 2021, collected and determined by Walter Obermayer (15622).

distributed to: **CANB, GZU, M, NY, UPS**

OBERMAYER W. 2022: **Dupla Graecensia Lichenum** (numbers 1291–1330). - Fritschiana 100: 1–12.
Distributed by the herbarium GZU, University of Graz, Austria.

1324. *Sporopodium flavescens* (Rolf Santesson) Vězda

AUSTRALIA, New South Wales, Border Ranges National Park, northeast of Wiangaree, Brindle Creek, 28°23'S, 153°04'E, elevation 850 m, *Nothofagus moorei* forest, on leaves of *Helmholtzia* spec. – 30 August 1986, collected by Josef Hafellner (19979), P. Merrottsy & R. Rogers, determined by Antonin Vězda.

distributed to: **CANB, GZU, M, NY, UPS**

OBERMAYER W. 2022: **Dupla Graecensia Lichenum** (numbers 1291–1330). - Fritschiana 100: 1–12.
Distributed by the herbarium GZU, University of Graz, Austria.

1325. *Toninia candida* (Weber) Theodor Fries

AUSTRIA, Kärnten (=Carinthia), Eastern Alps, Saualpe, 9.1 km east of Hüttenberg, 900 m southwest of Klippitztörl, logging road from the head of the pass in the direction of Geierkogel, 46°55'50"N, 014°39'55"E, (grid number 9053/4), elevation 1600 m, south exposed marble outcrops with *Sesleria* meadows in a high montane spruce forest, on steep faces of marble rocks. – 14 August 2011, collected and determined by Josef Hafellner (78935).

distributed to: **CANB, E, GZU, M, NY, UPS, hb. Kalb**

OBERMAYER W. 2022: **Dupla Graecensia Lichenum** (numbers 1291–1330). - Fritschiana 100: 1–12.
Distributed by the herbarium GZU, University of Graz, Austria.

1326. *Trapelia placodioides* Coppins & Peter James

AUSTRIA, Steiermark (=Styria), Eastern Alps, Steirisches Randgebirge, Koralpe, Reinischkogel massif, 6.3 km west of 'St. Stefan ob Stainz', orographically right-hand slopes of the valley Mausegger Graben, Sporoaofen, 46°55'45"N, 015°10'20"E, (grid number 9057/3), elevation 780 m, gneissic outcrops (in a mixed forest), on inclined faces of partly shaded rocks. – 5 June 2006, collected by Josef Hafellner (68425) & Lucia Muggia, determined by Josef Hafellner.

distributed to: **CANB, E, GZU, M, NY, UPS, hb.Kalb**

OBERMAYER W. 2022: **Dupla Graecensia Lichenum** (numbers 1291–1330). - Fritschiana 100: 1–12.
Distributed by the herbarium GZU, University of Graz, Austria.

1327. *Trapeliopsis flexuosa* (Fries) Coppins & Peter James

AUSTRIA, Steiermark (=Styria), Eastern Alps, Noric Alps, east facing slopes of the Seetal Alps ('Zirbitzkogel-Gebiet'), 11.5 km southwest of the centre of Judenburg, 800 m southwest of Winterleitenhütte, cwm-area south of the lake 'Großer Winterleitensee', 47°05'34"N, 014°34'14"E, (grid number 8953/1), elevation 1850–1900 m, mixed forest (with dominant *Pinus cembra*) with siliceous boulders, on plant remnants between small boulders. – 30 October 2022, collected and determined by Walter Obermayer (15957).

Note: TLC (611/03): Gyrophoric acid (maj.), lecanoric acid (tr.).

distributed to: **CANB, GZU, M, NY, UPS, hb.Kalb**

OBERMAYER W. 2022: **Dupla Graecensia Lichenum** (numbers 1291–1330). - Fritschiana 100: 1–12.
Distributed by the herbarium GZU, University of Graz, Austria.

1328. **Variospora aurantia** (Persoon) Arup, Frödén & Söchting
[recently used synonyms: *Caloplaca a.*, *Klauderuiella a.*]

GREECE, Karpathos Island, 3 km south of the harbour of Pigadia (Karpathos town), seaside area northeast of Amooopi, 35°28'56"N, 027°12'29.3"E, elevation 5 m, dried-up creek bed (50 m away from the seashore), on small erratic calcareous boulders. – 9 August 2021, collected and determined by Walter Obermayer (15591).

distributed to: **CANB, E, GZU, HMAS, LE, M, NY, TNS, UPS, hb.Kalb**

OBERMAYER W. 2022: **Dupla Graecensia Lichenum** (numbers 1291–1330). - Fritschiana 100: 1–12.
Distributed by the herbarium GZU, University of Graz, Austria.

1329. **Xanthomendoza fulva** (Hoffmann) Söchting,
Kärnefelt & Sergey Kondratyuk

[recently used synonyms: *Gallowayella f.*, *Oxneria f.*, *Xanthoria f.*]

SWITZERLAND, canton of Bern, Western Alps, Bern Alps, 7 km southwest of Meiringen, near the hamlet Schwarzwaldalp, by the road to the saddle 'Große Scheidegg', 46°40'40"N, 008°08'15"E, elevation 1440 m, isolated trees and limestone boulders in a pasture, on bark of *Acer pseudoplatanus*. – 25 August 2006, collected and determined by Josef Hafellner (77216).

Note: All issued specimens with apothecia.

distributed to: **CANB, E, GZU, M, NY, UPS, hb.Kalb**

OBERMAYER W. 2022: **Dupla Graecensia Lichenum** (numbers 1291–1330). - Fritschiana 100: 1–12.
Distributed by the herbarium GZU, University of Graz, Austria.

1330. **Zythia resiniae** (Ehrenberg) Petter Karsten
[recently used synonyms: *Sarea r.*, *Tromera r.*]

AUSTRIA, Steiermark (=Styria), Southeastern Alpine Foreland (=Südöstliches Alpenvorland), Oststeirisches Riedelland, urban area of Graz, 5.6 km east-northeast of the centre, between Haidegg and Schweinberg, 730 m northeast of the school buildings of Haidegg, 47°04'55"N, 015°30'33"E, (grid number 8959/1), elevation 470 m, mixed forest, on old resin (covering the bark of *Larix decidua*). – 19 April 2021, collected and determined by Walter Obermayer (15578b).

Note: **Non-lichenised fungus**, but often listed in lichenological literature because of its lichen-like fruiting bodies. TLC (611/15, ten apothecia used): Orange-red pigment (maj., 2-3/3-4/3), several lecanoric/gyrophoric acid like substances in high concentration (in A: 3, in B': 4 and 4-5 and 5, in C: 3 and 3-4). Two stictic acid like substances (in A: 2, in B: 3-4, in C: 1-2 and 2). Unknown terpenoids and fatty acids. - The specimen in GZU also contains well-preserved white exoskeletons of *Cylindroiulus luridus*, a millipede from the order Julida (determined by Michaela BODNER & Hans REIP). The diplopods are semi-embedded in tree resin, which is also the substrate for *Zythia resiniae*.

distributed to: **CANB, E, GZU, M, NY, UPS, hb.Kalb**

Lichenicolous Biota (Nos 361–380)

Josef HAFELLNER*

HAFELLNER Josef 2022: Lichenicolous Biota (Nos 361–380). - Fritschiana (Graz) 100: 13–29. - ISSN 1024-0306.

Abstract: The 16th fascicle (20 numbers) of the exsiccata 'Lichenicolous Biota' is published. The issue contains material of 15 non-lichenized fungal taxa (10 teleomorphs of ascomycetes, 4 anamorphic states of ascomycetes, 1 basidiomycete) and 5 lichenized ascomycetes, including paratype material of *Lichenostigma supertegentis* Ihlen & R.Sant. (no 375) and *Verrucocum spribillei* V.Atienza et al. (no 380). Furthermore, collections of the type species of the following genera are distributed: *Dacampia* (*D. hookeri*), *Mixtoconidium* (*M. canariense*), and *Paralecanographa* (*P. grumulosa*).

* 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 16 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 16th fascicle, I gratefully acknowledge the contribution of 1 collection each by Bertil FRÖDIN, Rolf SANTESSON (†), and Toby SPRIBILLE.

In fieldwork I received support by Angela HAFELLNER, Lucia MUGGIA, and Mauro TRETACH.

Violeta ATIENZA, Paul DIEDERICH, Walter OBERMAYER, and Rolf SANTESSON (†) contributed to the scientific content of the fascicle by the identification of either lichenicolous fungi or hosts or by providing data on secondary chemistry.

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. 2022: Lichenicolous Biota (Nos 361–380). - Fritschiana 100: 13–29.

361. *Arthonia varians* (Davies) Nyl.

in Lichenes Scandinaviae: 260 (1861). – Bas.: *Lichen varians* Davies in Transactions of the Linnean Society, Botany 2: 284, tab. 28 (1794). – Syn.: *Celidium varians* (Davies) Arnold in Flora (Regensburg) 45: 313 (1862). – *Arthonia glaucomaria* Nyl. in Mémoires de la Société Imperiale des Sciences Naturelles de Cherbourg 4: 98 (1856), non *Lecidea glaucomaria* Nyl. (1852) quid est *Phacographa glaucomaria* (Nyl.) Hafellner.

Host: *Lecanora bicincta* (apothecia)

Europe, Austria: Kärnten (= Carinthia), Eastern Alps, Steirisches Randgebirge, Koralpe, Großes Kar, along the trail from the Grillitschhütte towards the uppermost cirque floor, near the base of the W slopes of the mountain Hühnerstütze, 46°48'05"N / 14°58'30"E, c. 1800 m elev., GF 9155/4, small solitary cliff surrounded by subalpine pastures, gneiss, on subvertical rock faces exposed to the W.

Note 1: The type host of *Arthonia varians* is *Lecanora rupicola* (see Hafellner, Fritschiana 76: 49, 2013).

30. X. 2022 leg. J. Hafellner (84397) & A. Hafellner, det. J. Hafellner
distributed to: BCN, BR, CANB, E, GZU, LE, M, NY, PRM, UPS

Hafellner J. 2022: Lichenicolous Biota (Nos 361–380). - Fritschiana 100: 13–29.

362. *Lichenodiplis pertusariicola* (Nyl.) Diederich

in Herzogia 16: 62 (2003). – Bas.: *Spilomium pertusariicola* Nyl. in Mémoires de la Société Impériale des Sciences Naturelles de Cherbourg 5: 91, foot note (1858) [as '*pertusariicola*']. – Syn.: *Coniothecium pertusariicola* (Nyl.) Keissl. in Arkiv for Botanik 18(16): 12 (1923). – *Lichenocodium pertusariicola* (Nyl.) D.Hawksw. in Transactions of the British Mycological Society 65(2): 233 (1975). – *Laeviomyces pertusariicola* (Nyl.) D.Hawksw. in Bulletin of the British Museum for Natural History 9(1): 29 (1981).

Host: *Pertusaria pertusa* agg. (thallus, fertile warts)

Africa, Canary Islands: El Hierro, gentle slopes c. 1.5 km N above the village Taibique, 27°42'30"N / 17°42'30"W, c. 880 m elev., extensively used cultured land with some dispersed fig trees on slope exposed to SE, on branches of *Ficus carica*.

Note 1: In the protologue no host is mentioned. When restudying the species, Hawksworth (Transactions of the British Mycological Society 65(2): 233–234, 1975) designated a lectotype originating from France and identified the host as *Pertusaria pertusa*.

Note 2: The congenerity of *Lichenodiplis lecanorae* (conidia 1-septate) and *Laeviomyces pertusariicola* (conidia unicellular), the type species of the two genera, has been formally established by Diederich (l.c.: 57 ff.), allowing herewith some variability in conidia-septation.

Note 3: The key provided by Chambers et al. (The lichens of Great Britain and Ireland, p. 673–687, 2009) has been used for the determination of the host, but the name is still tentative because of characters intermediate to *P. leioplaca* (apothecia per wart 1–4, most asci 4-spored).

8. II. 1995 leg. J. Hafellner (48357), det. J. Hafellner
distributed to: BCN, BR, CANB, E, GZU, LE, M, NY, PRM, UPS

Hafellner J. 2022: Lichenicolous Biota (Nos 361–380). - Fritschiana 100: 13–29.

363. *Mixtoconidium insidens* (Vouaux) Etayo & P.Boom

in Boom & Etayo, Ascomycete.org 9(4): 125 (2017). – Bas.: *Celidium insidens* Vouaux in Pitard & Harmand, Bulletin de la Société Botanique de France 58, Mémoires 22: 70 (1911). – Syn.: *Mixtoconidium canariense* Etayo in Mycotaxon 53: 426 (1995) [heterotypic synonym given to the anamorphic state].

Host: *Ramalina bourgaeana* s.l. (thallus, apothecia)

Africa, Canary Islands: Lanzarote, a short distance W of the village Ye, 29°11' 45"N / 13°29'25"W, c. 360 m elev., scattered basaltic boulders in abandoned cultivated land, on slightly inclined rock faces of boulders (30–50 cm in diam.).

Note 1: The type host of *Celidium insidens* is *Ramalina fraxinea*. As the holotype could not be located among the remnants of the Vouaux herbarium (see Rondon, Revue Bryologique et Lichénologique 36(3–4): 737–745, 1969), a neotype has been designated by Boom & Etayo (l.c.), the host of which is an undetermined corticolous *Ramalina* species. The type host of the heterotypic anamorphic state is *Ramalina canariensis*.

Note 2: The teleomorph-anamorph connection has been established by Boom & Etayo (l.c.). In the material distributed here only the anamorphic state is present.

Note 3: For the determination of the host the key offered by Aptroot & Schumm (Sauteria 15: 21–57, 2008) has been used.

4. IV. 1999 leg. J. Hafellner (47558) & A. Hafellner, det. J. Hafellner
distributed to: BCN, BR, CANB, E, GZU, LE, M, NY, PRM, UPS

Hafellner J. 2022: Lichenicolous Biota (Nos 361–380). - Fritschiana 100: 13–29.

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

in Fungal Diversity 49(1): 57 (2011). – Bas.: *Opegrapha grumulosa* Dufour in Journal de Physique, de Chimie, d'Histoire Naturelle et des Arts 87: 214 (1818). – Syn.: *Lecanactis grumulosa* (Dufour) Fr. in Lichenographia Europaea Reformata: 375 (1831). – *Lecanographa grumulosa* (Dufour) Egea & Torrente in Bibliotheca Lichenologica 54: 134 (1994).

Host: *Roccella maderensis* (thallus)

Africa, Madeira: Ponta de São Lourenço, 5 km E of the village Caniçal, N above of Ponta do Buraco, 32°44'30"N / 16°41'55"W, c. 50 m elev., volcanic outcrops and small cliffs, in overhangs exposed to the SE.

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

Note 2: In the distributed material the infections are restricted to the thallus tips of the host lichen and appears to be severely pathogenic causing a final split-off of the tips.

Note 3: For the determination of the host the key offered by Tehler et al. (Symbolae Botanicae Upsalienses 34(1): 405–428, 2004) has been used. At this locality *Roccella maderensis* (sorediate, TLC by W. Obermayer: erythrin, lecanoric acid) grew intermingled with a fertile *Roccella* which has been found equally infected (Hafellner 84404 in GZU). The distributed duplicates may therefore include some branches of the second *Roccella* species too.

13. II. 1990 leg. J. Hafellner (84401) & A. Hafellner, det. J. Hafellner
distributed to: BCN, BR, CANB, E, GZU, LE, M, NY, PRM, UPS

Hafellner J. 2022: Lichenicolous Biota (Nos 361–380). - Fritschiana 100: 13–29.

365. *Phacopsis usneae* C.W.Dodge

in British, Australian and New Zealand Antarctic Research Expedition 1929–1931, Scientific Reports, Series B (Zool. Bot.), 7: 264 (1948).

Host: *Usnea antarctica* (thallus)

Antarctica, South Shetland Islands: Robert Island, 62°24'S / 59°30'W, elev. not indicated but probably near the sea, on volcanic rock.

Note 1: The host indicated in the protologue is *Usnea trachycarpa* originating from the Kerguelen Islands. As the holotype could not be located in FH, a neotype has been designated, the host of which is *Usnea antarctica* (Hawksworth & Iturriaga, Antarctic Science 18(3): 298, 2006).

Note 2: The only geographic information given on the original label is the island's name (as "Roberts Island"). No coordinates are indicated. The given approximate lat. / long. values have been fixed by the use of Google Earth and are those of the center of the island (they point to a location on the inland ice sheet!). Material of the host lichen collected by B. Frödin on Robert Island has been distributed as Lichenes Selecti Exsiccati Upsalienses no. 22. However, the coordinates given there are definitely wrong as they point to a location in the sea well N of the island.

Note 3: Substrate information is that of rock fragments adhering to the base of some *Usnea* thalli (compare also Smellie et al., British Antarctic Survey Scientific Reports 87: 1–85, 1984).

I.–II. 1953

leg. B. Frödin (s.n.), det. R. Santesson

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

Hafellner J. 2022: Lichenicolous Biota (Nos 361–380). - Fritschiana 100: 13–29.

366. *Rhizocarpon effiguratum* (Anzi) Th.Fr.

in Lichenographia Scandinavica 2: 613 (1874). – Bas.: *Buellia effigurata* Anzi in Catalogus lichenum quos in Provincia Sondriensi et circa Novum-Comum collegit: 90 (1860). – Syn.: *Catocarpus effiguratus* (Anzi) Arnold in Flora (Regensburg) 54: 148 (1871).

Host: *Pleopsidium oxytonum* (thallus, apothecia)

Europe, Italy: Lombardia, prov. Brescia, Eastern Alps, Central Alps, Southern Rhaetian Alps, Adamello group, Passo Gallinera c. 7 km S above of the village Vezza d'Oglio, NW above the pass in the lowermost part of the ridge to Monte Aviolo, 46°10'55"N / 10°24'45"E, c. 2340 m elev., cliffs of siliceous schist on the crest, on vertical to slightly overhanging rock faces.

Note 1: The species has originally not been indicated to be lichenicolous. As shown by the distributed material, *R. effiguratum* is a (?facultative) juvenile parasite and thalli may become independent when getting older.

Note 2: Lichenicolous growth of *Rhizocarpon effiguratum* on *Pleopsidium oxytonum* has previously been reported, e.g., by Hertel, Herzogia 2: 60 (1970, sub *R. superficiale*) and by Poelt, Mitteilungen der Botanischen Staatssammlung München 29: 526 (1990).

25. VII. 2006

leg. J. Hafellner (87011), det. J. Hafellner

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

Hafellner J. 2022: Lichenicolous Biota (Nos 361–380). - Fritschiana 100: 13–29.

367. *Sagediopsis fissurisedens* Hafellner

in Herzogia 9(3–4): 757 (1993).

Host: *Aspilidea myrinii* (thallus)

Europe, Austria: Salzburg, Lungau, Eastern Alps, Niedere Tauern, Schladminger Tauern, Preber NE of the town Tamsweg, Preberkessel, at the orographically right (W) side of the cirque bottom, 47°12'44"N / 13°51'06"E, c. 2070 m elev., GF 8749/3, relict rock glacier overgrown with some juvenile *Larix decidua* and patches of *Pinus mugo*, large boulders at the base of the front slope, paragneiss, on inclined rock faces.

Note 1: *Aspilidea myrinii* is the type host of *Sagediopsis fissurisedens*.

1. IX. 2019

leg. J. Hafellner (86271), det. J. Hafellner

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

Hafellner J. 2022: Lichenicolous Biota (Nos 361–380). - Fritschiana 100: 13–29.

368. *Sclerococcum griseisporodochium* Etayo

in Nova Hedwigia 61(1–2): 193 (1995).

Host: *Opegrapha dolomitica* (thallus)

Europe, Italy: Friuli-Venezia Giulia, prov. Udine, Southern Alps, Julian Alps, Laghi di Fusine E of the town Tarvisio, surroundings of the upper lake, 46°28'45"N / 13°40'20"E, c. 930 m elev., montane *Picea-Fagus*-forest over mesozoic limestone, on ± vertical rock faces of large boulders in the shade.

Note 1: In the protologue the host of the type has been tentatively determined as *Opegrapha paraxanthodes*.

Note 2: As phenotypic characters of conidiophores and conidia indicate, the species is apparently not congeneric with the type species, *Sclerococcum sphaerale*. Compare, e.g., Lichenicolous Biota nos 43, 87, 189!

27. VII. 2003

leg. J. Hafellner (86875) & M. Tretiach, det. J. Hafellner

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

Hafellner J. 2022: Lichenicolous Biota (Nos 361–380). - Fritschiana 100: 13–29.

369. *Stigmidium heterodermiae* Etayo

in Bibliotheca Lichenologica 84: 124 (2002).

Host: *Heterodermia borphyllidiata* (thallus)

Africa, Canary Islands: Tenerife, Macizo de Anaga, N above the road from Las Mercedes to El Bailadero, c. 4 km E of Las Casas de la Cumbre, 28°32' 50"N / 16°12'45"W, c. 700 m elev., cliff of volcanic conglomerate in *Laurus*-forest belt (fayal-breza formation), on steep rock faces exposed to the N.

Note 1: The type host of *Stigmidium heterodermiae* is *Heterodermia boryi*, in the past often treated as an infraspecific taxon of *Heterodermia leucomelos*.

Note 2: The ascospores of the *Stigmidium* have been found to be broader than given (with lower length-width ratio) by Etayo (l.c.) but otherwise the material fits perfectly the protologue.

Note 3: For the *Heterodermia leucomelos* group the genus *Leucodermia* has been proposed (see Mongkolsuk et al., Phytotaxa 235(1): 33–38, 2015). However, recently this split has been questioned (Souza et al., The Lichenologist. 54(1):25–44, 2022). At the investigated locality *Heterodermia borphyllidiata* (lobes with marginal phyllidia) grows in a mixed population with *H. boryi* (lobes with soralia on lower side, Hafellner 84407 in GZU). Therefore, both species may be present in the distributed duplicates. Only *H. borphyllidiata* has been found infected.

19. II. 1989 leg. J. Hafellner (84405) & A. Hafellner, det. J. Hafellner
distributed to: BCN, BR, CANB, E, GZU, LE, M, NY, PRM, UPS

Hafellner J. 2022: Lichenicolous Biota (Nos 361–380). - Fritschiana 100: 13–29.

370. *Tremella brodoae* (P.Pinault & Cl.Roux) Diederich, Millanes & Hafellner

in Diederich et al., Flora of Lichenicolous Fungi 1: 140 (2022). – Bas.: *Epicladonia brodoae* P.Pinault & Cl.Roux in Bulletin de la Société Linnéenne de Provence 71: 67 (2020).

Host: *Brodoa intestiniformis* (thallus)

Europe, Austria: Tirol (= Tyrol), Osttirol, Eastern Alps, Hohe Tauern National Park, Venediger group, in the valley Innergschlöß NW of the town Matri, a short distance E of the Venedigerhaus, close to the orographically left bank of the creek "Gschlöß Bach", 47°07'35"N / 12°27'40"E, c. 1690 m elev., GF 8840/4, scattered boulders in a subalpine pasture, on inclined rock faces of boulders, mica schist.

Note 1: *Brodoa intestiniformis* is the type host of *Tremella brodoae*.

Note 2: In the distributed duplicates mature basidia may be rare but among other characters the partly brown irregular galls are diagnostic.

4. IX. 1998 leg. J. Hafellner (57108), det. P. Diederich & J. Hafellner
distributed to: BCN, BR, CANB, E, GZU, LE, M, NY, PRM, UPS

Hafellner J. 2022: Lichenicolous Biota (Nos 361–380). - Fritschiana 100: 13–29.

371. *Caloplaca epierodens* Cl.Roux & M.Bertrand

in Bulletin d'Informations de l'Association Francaise de Lichénologie 44(1): 2 (2019). – Syn.: *Variospora epierodens* (Cl.Roux & M.Bertrand) Cl.Roux & M.Bertrand in Bulletin de la Société Linnéenne de Provence 72: 74 (2021).

Host: *Pyrenodesmia erodens* (thallus)

Europe, Austria: Steiermark (= Styria), Eastern Alps, Steirisches Randgebirge, Grazer Bergland, on the mountain Hochlantsch c. 6 km NE of the village Mixnitz, a short distance S below the summit cross, 47°21'45"N / 15°25'28"E, c. 1715 m elev., GF 8658/2, large boulders and small cliffs of Paleozoic limestone, on rock faces inclined to the SW.

Note 1: *Pyrenodesmia erodens* (sub *Caloplaca* e.) is the type host of *Caloplaca epierodens*.

Note 2: The species has already been mentioned from the same locality as unidentified lichenicolous *Caloplaca* of the *C. velana* group (see Hafellner & Muggia, Mitteilungen des Naturwissenschaftlichen Vereines für Steiermark 135: 44, 45 Abb. 9, 2006).

Note 3: *Variospora* may well be treated as subgenus within a broader circumscribed genus *Caloplaca* (see, e.g., Arup et al., Nordic Journal of Botany 31: 16–83, 2013).

15. X. 2005

leg. J. Hafellner (64422), det. J. Hafellner

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

Hafellner J. 2022: Lichenicolous Biota (Nos 361–380). - Fritschiana 100: 13–29.

372. *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 "*Catapyrenium*"] in Jahresbericht der Schlesischen Gesellschaft für Vaterländische Cultur 27: 135, note (1849). – *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 Expedition to Novaya Zemlya 1921, 38: 3 (1928).

Host: no host left (see Note 2)

Europe, Austria: Salzburg, Lungau, Eastern Alps, Niedere Tauern, Radstädter Tauern, Speiereck massif W of the village Mauterndorf, on the mountain Kl. Lanschütz, uppermost slopes exposed to NE, 47°08'08"N / 13°37'32"E, c. 2300 m elev., GF 8847/4, low outcrops of calcareous schist surrounded by alpine meadows rich in dwarf shrubs, on soil.

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

Note 2: There are no thalli of a *Solorina* species present on the entire distributed material. The only *Solorina* detected in the field in the near neighbourhood (Hafellner 86060, GZU) shows an unusual combination of characters, with a reduced smooth thallus as in *S. bispora* and predominantly 4-spored asci as in *S. saccata* (but lacking a granular thallus as typical for *S. spongiosa*).

31. VIII. 2019

leg. J. Hafellner (86069), det. J. Hafellner

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

Hafellner J. 2022: Lichenicolous Biota (Nos 361–380). - Fritschiana 100: 13–29.

373. *Endococcus physciae* Y.Joshi

in Kavaka 51: 30 (2018).

Host: *Physcia aipolia* (thallus)

Europe, Austria: Steiermark (= Styria), Eastern Alps, Steirisches Randgebirge, Gleinalpe, 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, 740 m elev., 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 *Endococcus physciae* is *Physcia gomukhensis*.

Note 2: *Sphaerellothecium aipoliae* (Vouaux) Nav.-Ros. & Cl.Roux is present as admixture on the specimen in GZU and may also be detected on the other duplicates. Duplicates of the latter species have been distributed as Lichenicolous Biota no. 326.

12. VI. 2020

leg. J. Hafellner (85832), det. J. Hafellner

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

Hafellner J. 2022: Lichenicolous Biota (Nos 361–380). - Fritschiana 100: 13–29.

374. *Endococcus verrucosus* Hafellner

in Herzogia 10: 8 (1994).

Host: *Aspicilia simoensis* (thallus)

Europe, Austria: Salzburg, Lungau, Eastern Alps, Niedere Tauern, Schladminger Tauern, Preber NE of the town Tamsweg, Preberkessel, at the orographically right (W) side of the cirque bottom, 47°12'44"N / 13°51'06"E, c. 2070 m elev., GF 8749/3, relict rock glacier overgrown with some juvenile *Larix decidua* and patches of *Pinus mugo*, large boulders at the base of the front slope, paragneiss, on inclined rock faces.

Note 1: The type host of *Endococcus verrucosus* is a strain of the *Aspicilia caesiocinerea* agg.

Note 2: It should be noted that the formation of vegetative diaspores typical of the host species is suppressed on strongly infected areolae.

1. IX. 2019

leg. J. Hafellner (86332), det. J. Hafellner

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

Hafellner J. 2022: Lichenicolous Biota (Nos 361–380). - Fritschiana 100: 13–29.

375. *Lichenostigma supertegentis* Ihlen & R.Sant. Paratype

in Ihlen, The Lichenologist 36: 185 (2004).

Host: *Aspicilia supertegens* (thallus)

Europe, Sweden: Torne Lappmark [now Norrbottens län]: Kiruna kommun, Abisko National Park, [stream bank of] Kårsavaggejokk, near Abiskojokk [i.e., the river connecting the lakes Abiskojaure and Torneträsk], 68°19'50"N / 18°44'40"E, c. 420 m elev., stream bank, on boulders of siliceous schist temporarily submerged in running water.

Note 1: *Aspicilia supertegens* is the type host of *Lichenostigma supertegentis*.

Note 2: No coordinates are indicated on the original label. The given approximate lat. / long. values have been fixed by the use of Google Earth and are those of the indicated stream at the indicated elevation.

20. VIII. 1943

leg. R. Santesson (s.n.), det. R. Santesson

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

Hafellner J. 2022: Lichenicolous Biota (Nos 361–380). - Fritschiana 100: 13–29.

376. *Lopadium disciforme* (Flot.) Kullh.

in Notiser ur Sällskapet pro Fauna et Flora Fennica Förhandlingar 11: 275 (1871). – Bas.: *Heterothecium pezizoideum* var. *disciforme* ["disciformis"] Flot. in Botanische Zeitung 8: 553 (1850). – Syn.: *Lopadium pezizoideum* b. [var.] *disciforme* (Flot.) Körb. in Systema Lichenum Germaniae: 211 (1855). – *Sporopodium pezizoideum* var. *disciforme* (Flot.) Vain. in Acta Societatis pro Fauna et Flora Fennica 53(1): 269 (1922).

Host: *Parmelia saxatilis* (thallus)

Europe, Italy: Friuli-Venezia Giulia, prov. Udine, Southern Alps, Julian Alps, Laghi di Fusine E of the town Tarvisio, surroundings of the upper lake, 46°28'45"N / 13°40'20"E, c. 930 m elev., montane *Picea-Fagus*-forest over mesozoic limestone, on bark of *Fagus sylvatica*.

Note 1: According to the protologue the type of the species is corticolous ("var. β wächst an nackter Rinde von Fichten"), and indeed this is the substrate niche where the species is occasionally found. Sometimes a spreading to corticolous bryophytes can be observed but lichenicolous growth is apparently rare.

Note 2: In the distributed material the lichenicolous species is present by its thallus consisting of dark olive-brownish, mostly adpressed subsquamulose areoles, but at least a few black, sessile, cupulate apothecia are present in all duplicates.

1. VIII. 2003

leg. J. Hafellner (86941), det. J. Hafellner

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

Hafellner J. 2022: Lichenicolous Biota (Nos 361–380). - Fritschiana 100: 13–29.

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

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

Host: *Lecidea lapicida* var. *pantherina* (thallus)

Europe, Austria: Steiermark (= Styria), Eastern Alps, Niedere Tauern, Wölzer Tauern, summit of the mountain Großer Rotbühel, S above of Planneralpe, 47°23' 35"N / 14°12'30"E, c. 2000 m elev., GF 8651/1, boulders of mica schist in open meadows between patches of *Pinus mugo*, on inclined rock faces.

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

8. VII. 2012

leg. J. Hafellner (80057) & L. Muggia, det. J. Hafellner

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

Hafellner J. 2022: Lichenicolous Biota (Nos 361–380). - Fritschiana 100: 13–29.

378. *Refractohilum intermedium* Cl.Roux & Etayo

in Roux et al., Canadian Journal of Botany 75: 1597 (1997).

Host: *Gyalecta carneola* (thallus, apothecia)

Northern America, U.S.A.: Alaska, Matanuska-Susitna Borough, along Petersville Road, 2 km (air-line distance) WNW of Moose Creek, 62°19'15"N / 150°28'50"W, c. 200 m elev., mixed old-growth forest with codominant *Picea mariana*, *Picea glauca* and *Betula neoalaskana*, on old carpophores of a polypore developed on *Betula*.

Note 1: *Gyalecta carneola* (sub *Pachyphiale* c.) is the type host of *Refractohilum intermedium*.

Note 2: For determination the key offered by Roux et al. (l.c.) has been used. In the distributed material conidiophores exceeding 5 µm in width and predominantly 3-septate conidia partly exceeding 20 µm in length have been observed, characters which are diagnostic for the supposed Mediterranean *R. intermedium* rather than the temperate *R. pluriseptatum*, both described in the same publication.

Note 3: In the distributed material the species is easiest detected on infected apothecia. Conidiophores growing out of the exciple of decaying host apothecia give them a hairy appearance.

23. VIII. 2010

leg. J. Hafellner (87012), det. J. Hafellner

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

Hafellner J. 2022: Lichenicolous Biota (Nos 361–380). - Fritschiana 100: 13–29.

379. *Stigmidium microspilum* (Körb.) D.Hawksw.

in Kew Bulletin 30(1): 201 (1975). – Bas.: *Arthopyrenia microspila* Körb. in Parerga lichenologica: 392 (1865). – Syn.: *Pharcidia microspila* (Körb.) G.Winter in Rabenhorst's Kryptogamen-Flora von Deutschland, Österreich und der Schweiz, 2. Aufl., 1(2): 346 (1885). – *Verrucaria microspila* (Körb.) Harm. in Bulletin de la Société des Sciences de Nancy, 2. sér., 16: 90 (1900).

Host: *Graphis scripta* (thallus)

Europe, Austria: Steiermark (= Styria), Eastern Alps, Steirisches Randgebirge, Grazer Bergland, Raabklamm W of the town Weiz, N below the castle Gutenberg, 47°12'50"N / 15°34'00"E, c. 500 m elev., GF 8759/3, mixed forest on the bottom of the canyon with quartzitic cliffs along the river, on bark of *Fraxinus excelsior*.

Note 1: The type host of *Stigmidium microspilum* is *Graphis scripta* var. *serpentina*.

Note 2: As indicated by some ascomatal characters, the species does not belong to the core group of *Stigmidium*.

23. VIII. 2009

leg. J. Hafellner (73867), det. J. Hafellner

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

Hafellner J. 2022: Lichenicolous Biota (Nos 361–380). - Fritschiana 100: 13–29.

380. *Verrucocccum spribillei* V.Atienza, D.Hawksw. & Pérez-Ort.
Paratype

in Mycologia 113(6): 1244 (2021).

Host: *Lobaria linita* (apothecia)

Asia, Russia: Khabarovskiy Krai, Komsomolsk-De Kastri route, Khomi Mountains, about halfway between Chernyy Mys and Tsimmermannovka, highest pass (Dchigdoni Mountain), between Dchigdoni and Utonza streams; a short distance above the main road on a logging road, 51°05'25"N / 138°57'07"E, 529 m elev., mixed coniferous-broad-leaved forest (*Abies*, *Picea*, *Betula*), on bark of *Betula costata*.

Note 1: *Lobaria linita* is the type host of *Verrucocccum spribillei*.

Note 2: The species belongs to a group of closely related species, all lichenicolous on species of Lobariaceae (Atienza et al., l.c.).

12. VII. 2009

leg. T. Spribille (30584) with L. Yakovchenko, C. Printzen,
B. Kanz & E. Malashkina, dupl. det. V. Atienza

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

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