F. Schumm (2026):

Images of Lichens
Vezda Lichenes Selecti Exsiccati part 27

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With this volume, I continue the documentation of Vezda's works on exiccata, now with Lichenes Selecti as part 27. I have chosen the genus names that Vezda used, even though others are now more common. However, I also include the currently used names in the synonym list and the index. In addition, I have again made every effort to add species descriptions to the detailed information on the labels from the literature.

For the descriptions of europaean species I used mainly the excellent descriptions that are provided in Prof. Nimis ITALIC 8 under the URL:
https://italic.units.it/

and the Australian Lichenslist under the Url:
https://www.anbg.gov.au/abrs/lichenlist/lichenchecklist_e_o.html

F. Schumm, 2026

Lecidea crenata (Taylor) Stizenb., Ber. Tät. St Gall. naturw. Ges.: 149 (1891) [1889-90]
= *Endocarpon crenatum* Taylor 1847
= *Psora crenata* (Taylor) Reinke, Jb. wiss. Bot. 28: 97 (1895)

[VZ1250], USA., Utah. Box Elder County: Curlw Valley prope Snowville, 1350 m. Ad terram subsalinam in semidesertis. Leg. O. L. Lange, 5.1973, det. A. Vězda. EX A. VĚZDA LICHENES SELECTI EXSICCATI NR. 1250.

Squamules up to 10 mm wide, rounded, adnate and dispersed to adjacent or imbricate, usually weakly to strongly concave; upper surface orange to bright red or pink, more rarely reddish brown, dull, partly to entirely pruinose, sparingly fissured; margin concolorous with upper side or white, down-turned or more rarely straight, more or less entire; upper cortex up to 80-140 µm thick, composed of thin-walled hyphae with round lumina, containing crystals of calcium oxalate but no lichen substances; medulla containing crystals of lichen substances and calcium oxalate; lower cortex absent or poorly developed; lower surface white to pale brown. Apothecia up to 2 mm diam., marginal, immarginate even when young, black, epruinose or white pruinose; ascospores ellipsoid, 12-16 x 6-8 µm. Pycnidia: unknown. Spot tests: upper cortex K-, C-, KC-, P-; medulla K+ red, C-, KC-, P+ orange. Secondary metabolite norstictic acid. Substrate and ecology: on soil in open habitats, from deserts to juniper-pinyon pine woodlands, up to 1840 m. World distribution southern Africa, Australia and North America.

Lecidea crenata

Lecidea crenata

Lecidea deceptoria* var. *lojkana Servít, Hedwigia 74: 134 (1934)
= *Psora vallesiaca* (Schaer.) Timdal Nord. J. Bot., 4: 538, 1984.
= *Lecidea vallesiaca* Schaer. - Lich. Helv. Spicil., 12: 631, 1842.
= *Lecidea albilabra* auct.
= *Lecidea deceptoria* Nyl.
= *Psora albilabra* auct. non (Dufour) Körb.
= *Psora albilabra subsp. deceptoria* (Nyl.) Clauzade & Cl. Roux
= *Psora deceptoria* (Nyl.) Flagey
= *Psora subdecipiens* (Nyl.) Flagey
= *Squamaria deceptoria* (Nyl.) M. Choisy & Werner

[VZ1329}, Jugoslavia. Macedonia. Ohrid, Peštani, supra lacum Ohridsko ezero prope vicum Elsand, 980 m. In rupibus calcareis, supra terram et muscos emortuos. Leg. A. Vězda,10.12.1975. Ex A. Vězda Lichenes Selecti exsiccati Nr. 1329.

Thallus squamulose, of medium brown (olive-green when wet), dull to glossy, rarely partly white-pruinose, (2-)3-5(-6) mm wide, concave, contiguous to dispersed, rarely slightly imbricate squamules with upturned, mostly crenulate, prominent white margins; lower surface pale brown, attached by rhizohyphae. Upper cortex sleroplectenchymatous, 70-130 µm thick, of rather thin-walled hyphae with round, ellipsoid or angular lumina, sometimes containing calcium oxalate crystals; medulla containing norstictic acid and calcium oxalate crystals; lower cortex poorly developed or absent. Apothecia biatorine, sessile, mostly laminal, up to 1.5 mm across, with a black, convex disc and a thin, grey, soon excluded proper margin. Epithecium brownish, containing orange crystals dissolving in K, K+ purple, N-; hymenium colourless, amyloid; paraphyses coherent, simple or sparingly branched and anastomosing, the apical cell slightly swollen; hypothecium pale brown, with crystals of calcium oxalate. Asci 8-spored, elongate-clavate, with a thin, outer amyloid layer and a thickened tholus penetrated by a tube, the sides of which stain I/KI+ deep blue, without an ocular chamber, Porpidia-type. Ascospores 1-celled, hyaline, fusiform, thin-walled, 9-14(-17) x 5-7(-8) µm. Pycnidia immersed. Conidia bacilliform, 5-7 x c. 1 µm. Photobiont chlorococcoid. Spot tests: cortex K-, C-, KC-, P-; medulla K+ yellow turning red, P- or P+ yellow-orange. Chemistry: medulla with variable amounts of norstictic acid, epithecium with anthraquinones. - Note: on calciferous rocks and thin layers of soil in rock fissures.

Lecidea deceptoria* var. *lojkana

Lecidea deceptoria* var. *lojkana

Lecidea decipiens (Hedw.) Ach., Methodus qua omnes detectos Lichenes Secundum Organa Carpomorpha ad Genera, Species et Varietates Redigere atque Observationibus Illustrare Tentavit Erik Acharius: 80 (1803)

= *Lichen decipiens* Hedw. 1789

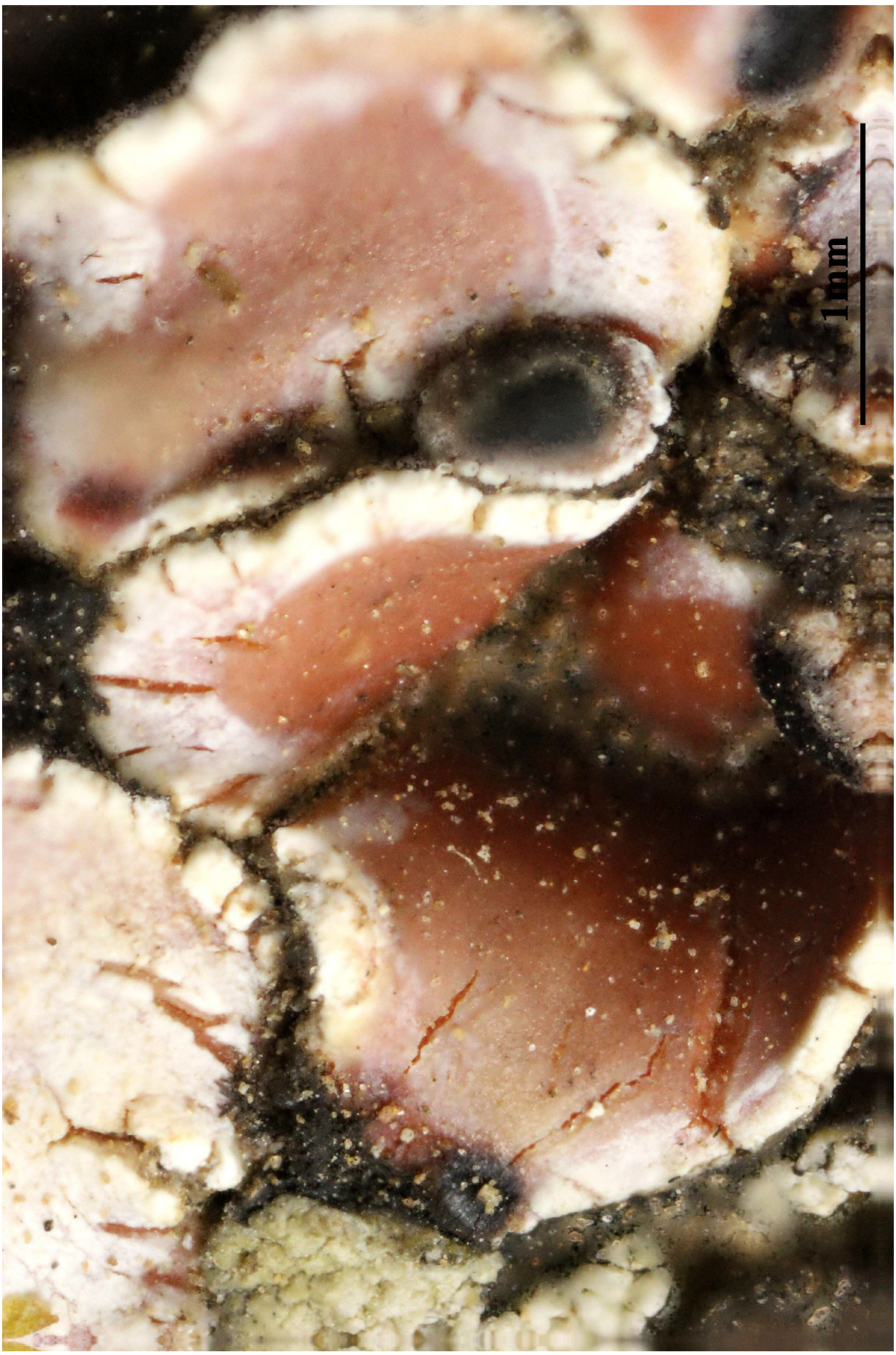
= *Psora decipiens* (Hedw.) Hoffm., Descr. Adumb. Plant. Lich. 2(4): 68 (1794)

[VZ1559], Persia, austro-occidentalis. Luristan: Pol-e-Tang, 60 km septentr. occid. ab urbe Andimeshk. Ad terram. Leg. J. Soják, 10.4.1977, det A. Vězda. EX A. VĚZDA LICHENES SELECTI EXSICCATI NR. 1559.

Thallus squamulose, red to bright brownish red, often coarsely white-pruinose especially at margins, the squamules (2-)3-5(-6) mm broad, more or less rounded, concave to convex, usually with upturned, often crenulate, whitish edges, contiguous to scattered, smooth to fissured; lower surface whitish, attached by rhizohyphae. Upper cortex up to 80-120 μm thick, of thin-walled hyphae with round lumina; lower cortex absent or poorly developed. Apothecia biatorine, sessile, mostly marginal, up to 1.5-2 mm across, with a dark brown to usually black, sometimes white- or yellowish-pruinose, convex, smooth disc and an indistinct proper margin. Epithecium reddish brown, containing orange crystals dissolving in K, K+ purple, N-; hymenium colourless, amyloid; paraphyses stout, strongly coherent, simple or sparingly branched and anastomosing, 4-6 μm thick, the apical cell slightly swollen; hypothecium brownish, with crystals of calcium oxalate. Asci 8-spored, elongate-clavate, with a thin, outer amyloid layer and a thickened tholus penetrated by a tube, the sides of which stain I/KI+ deep blue, without an ocular chamber, Porpidia-type. Ascospores 1-celled, hyaline, ellipsoid, 11-18(-20.5) x (4-)6-8 μm, thin-walled. Pycnidia dark, laminal, immersed. Conidia bacilliform, 6-7 x 1 μm. Photobiont chlorococcoid. Spot tests: cortex K-, C-, KC-, P-, UV-; medulla K- or K+ yellow turning red, P- or P+ orange. Chemistry: chemotype 1) without lichen substances (the most widespread in Cental and northern Europe), chemotype 2) medulla with norstictic acid (mainly Mediterranean), chemotype 3) medulla with hyposalazinic and hypostictic acid (rare, known from Austria, Hungary and Spain); epithecium with anthraquinones, mainly parietin. - Note: a widespread holarctic species with a broad altitudinal and latitudinal range, found on bare calciferous soil, especially in dry grasslands; rare only in areas with intensive grazing, high trampling, and intense disturbance. The wide ecological amplitude could be due to the capacity of this species to associate with several different species of

Trebouxia and Asterochloris (Ruprecht & al. 2016). *P. decipiens* is a complex of several lineages apparently deserving species recognition (Leavitt & al. 2018), one of which includes *P. saviczii*, which is nested within *P. decipiens*, hence the latter is paraphyletic in its current concept. The records of *P. crenata* from Sardinia and Sicily by Jatta (1909-1911) most probably refer to P. *decipiens*.

Lecidea decipiens

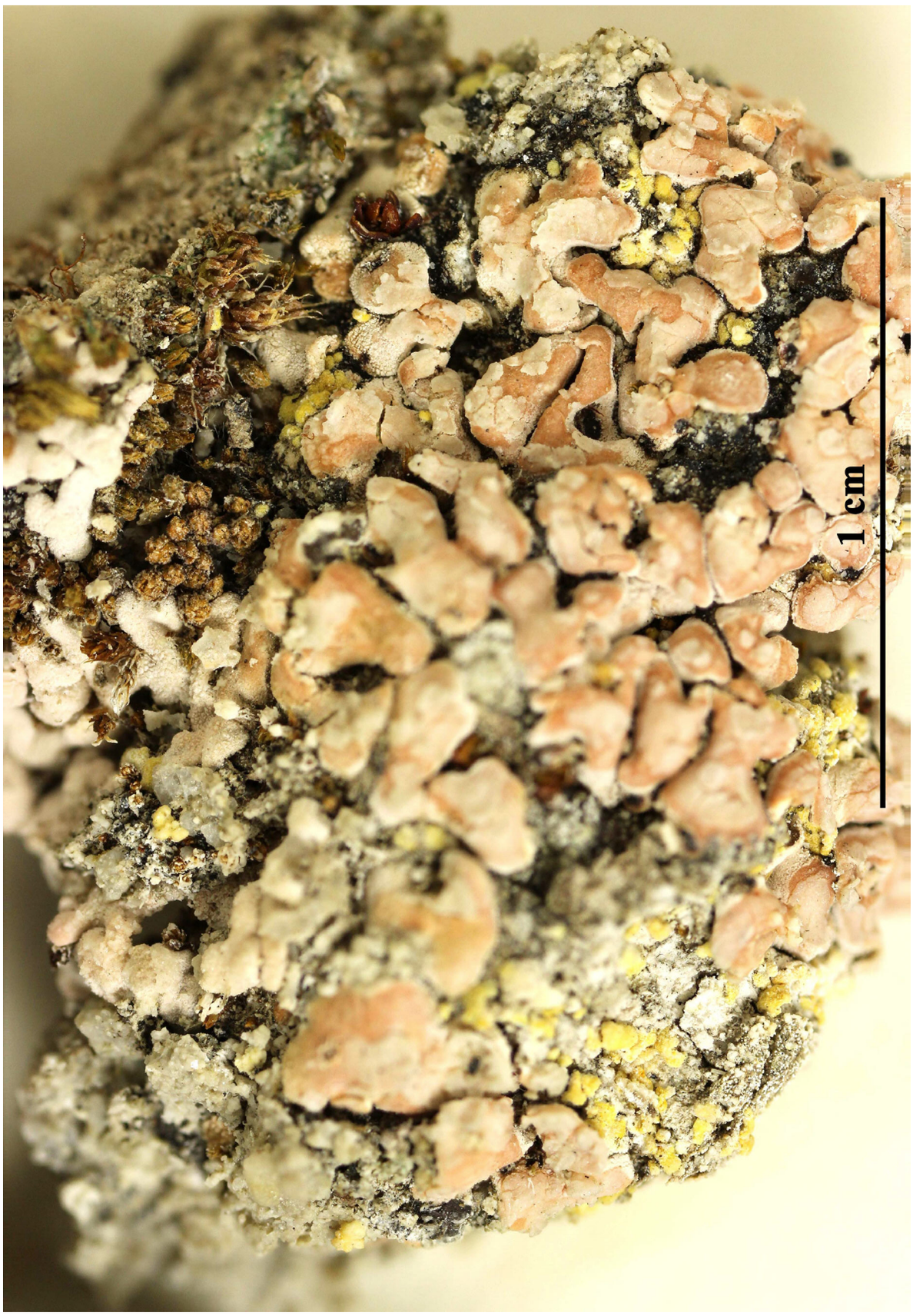


Lecidea decipiens

Lecidea saviczii Tomin, Prirod. i sel'skoe chozjajst. zasuch.-pustyun. oblast. S.S.S.R. (Woronesch): 47, 50 (1927)
= *Psora saviczii* (Tomin) Follmann & A. Crespo Philippia, 2: 283, 1975
= *Lecidea saviczii* Tomin - Nat. Agric. arid Reg. USSR: 47, 1927.

[VZ1309], Hispania. Distr. Madrid, Valdemoro, 620 m. Ad solum gypsaceum. Leg. E. Barreno et A. Crespo, 4.4.1975. Ex A. VěZDA Lichenes Selecti Exsiccati Nr. 1309.

Thallus squamulose, pale pink to pinkish white, often thinly white-pruinose, the squamules rounded, initially concave, then flattened, dispersed to contiguous, not imbricate, 2-4 mm wide, with down-turned, concolorous or more rarely whitish edges. Upper cortex of thin-walled hyphae with round lumina; lower cortex absent. Apothecia biatorine, sessile, 1-1.5 mm across, with a black, sometimes white-pruinose, convex, smooth disc and an indistinct proper margin. Epithecium reddish brown, containing orange crystals dissolving in K, K+ purple, N-; hymenium colourless, amyloid; paraphyses coherent, stout, simple or sparingly branched and anastomosing, the apical cell slightly swollen; hypothecium brownish, with crystals of calcium oxalate. Asci 8-spored, elongate-clavate, with a thin, outer amyloid layer and a thickened tholus penetrated by a tube, the sides of which stain I/KI+ deep blue, without an ocular chamber, Porpidia-type. Ascospores 1-celled, hyaline, ellipsoid, 11-18 x 6-8 µm, thin-walled. Pycnidia immersed. Conidia bacilliform. Photobiont chlorococcoid. Spot tests: cortex and medulla K-, C-, KC-, P-, UV-. Chemistry: thallus without lichen substances, epithecium with anthraquinones, mainly parietin. - Note: a mainly gypsicolous, southern species in Europe, to be looked for in other areas with gypsum outcrops (e.g. in Sicily).



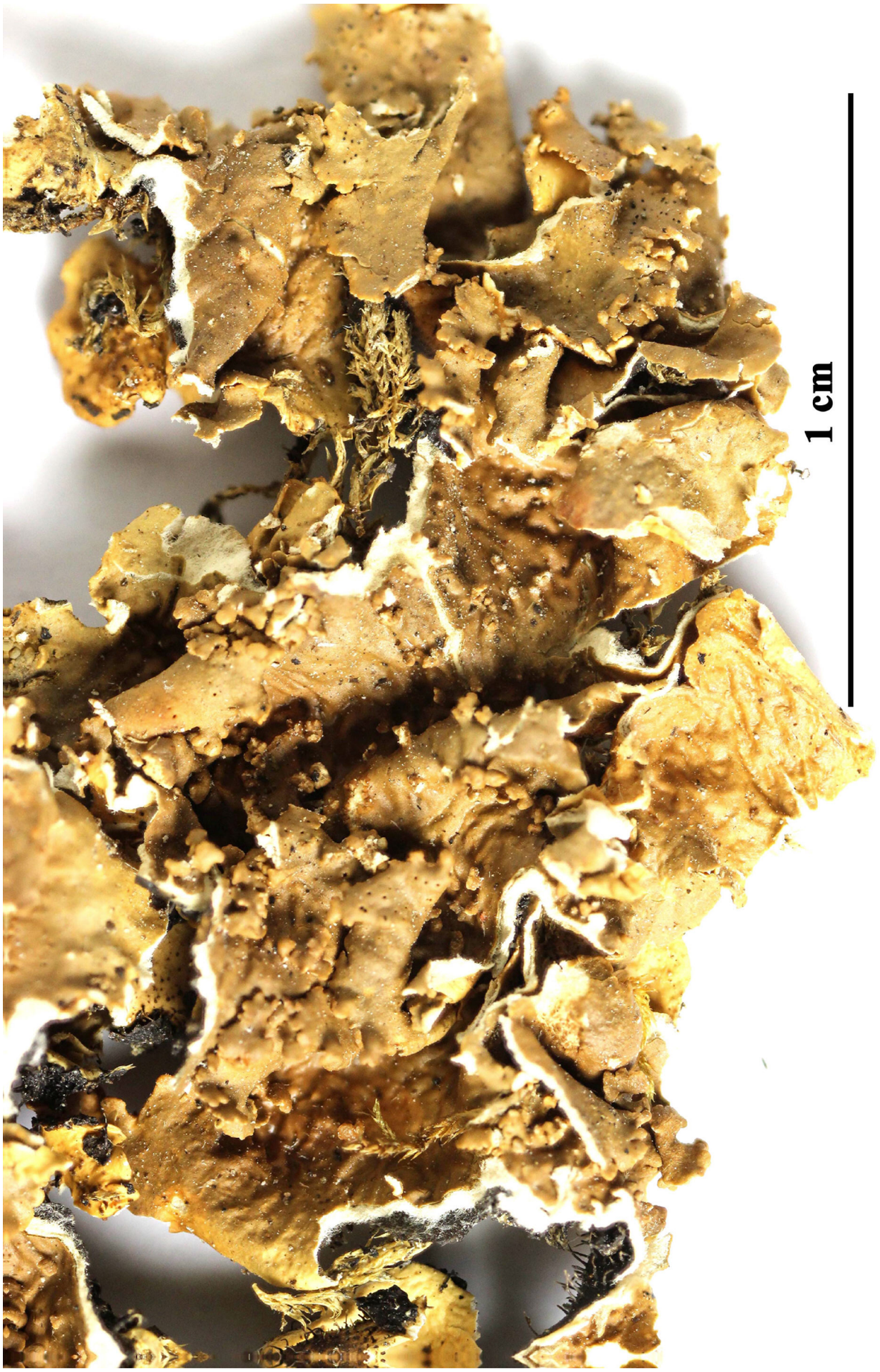
Lecidea saviczii

Lecidea saviczii

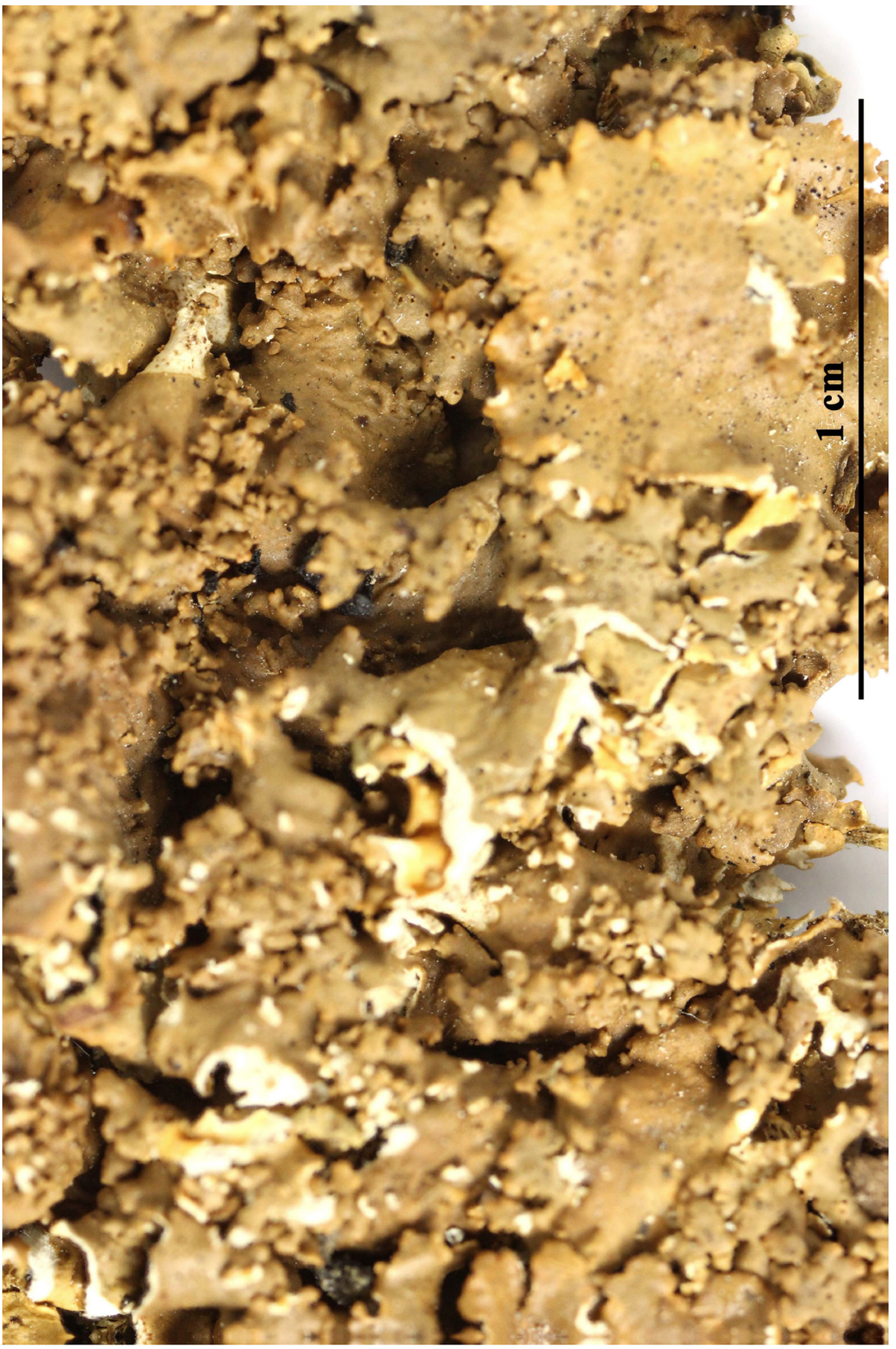
Parmelia appalachensis W.L. Culb., Nova Hedwigia 4: 571 (1962)

[VZ1604]USA. Virginia. Smyth County: In monte dicto Whitetop Mountain, 1480 m. Ad corticem *Fagi grandifoliae*. Leg. W. L. Culberson (no. 17378) et C. F. Culberson, 20.7.1977. - Annot.: three aliphatic cmmpounds like those in *Cetraria islandica*, pobably lichesterinic, protolichesterinic and allo-protolichesterinic acids by TLC, anal. C. F. Culberson et A. Johnson, - Ex A. VěZDA Lichenes Selecti Exsiccati Nr. 1604.

Thallus foliose, adnate, 4-8(-16) cm broad; lobes rounded, mostly 3-6 mm wide. Upper surface greenish gray, shiny, spotted with sparse maculae and white pseudocyphellae, lobulate; lobules finely divided and often branched, covering the surface and sometimes the margins. Lower surface black, at least in center, pale brown at the edges; rhizines sparse to abundant. Ascomata lecanorine apothecia, rare. Chemistry. Cortex K+ yellow (atronorin); medulla K-, KC-, C-, P-; protolichestrinic acid. Substrate and Habitat. On hardwood trees, occasionally rocks in deciduous forests. Distribution. Eastern North America; in North Carolina found throughout, primarily in Blue Ridge ecoregion.
Literature Brodo, I.M., S. Duran Sharnoff & S. Sharnoff. (2001) Lichens of North America. Yale University Press, New Haven & London. 795 pp.



Parmelia appalachensis



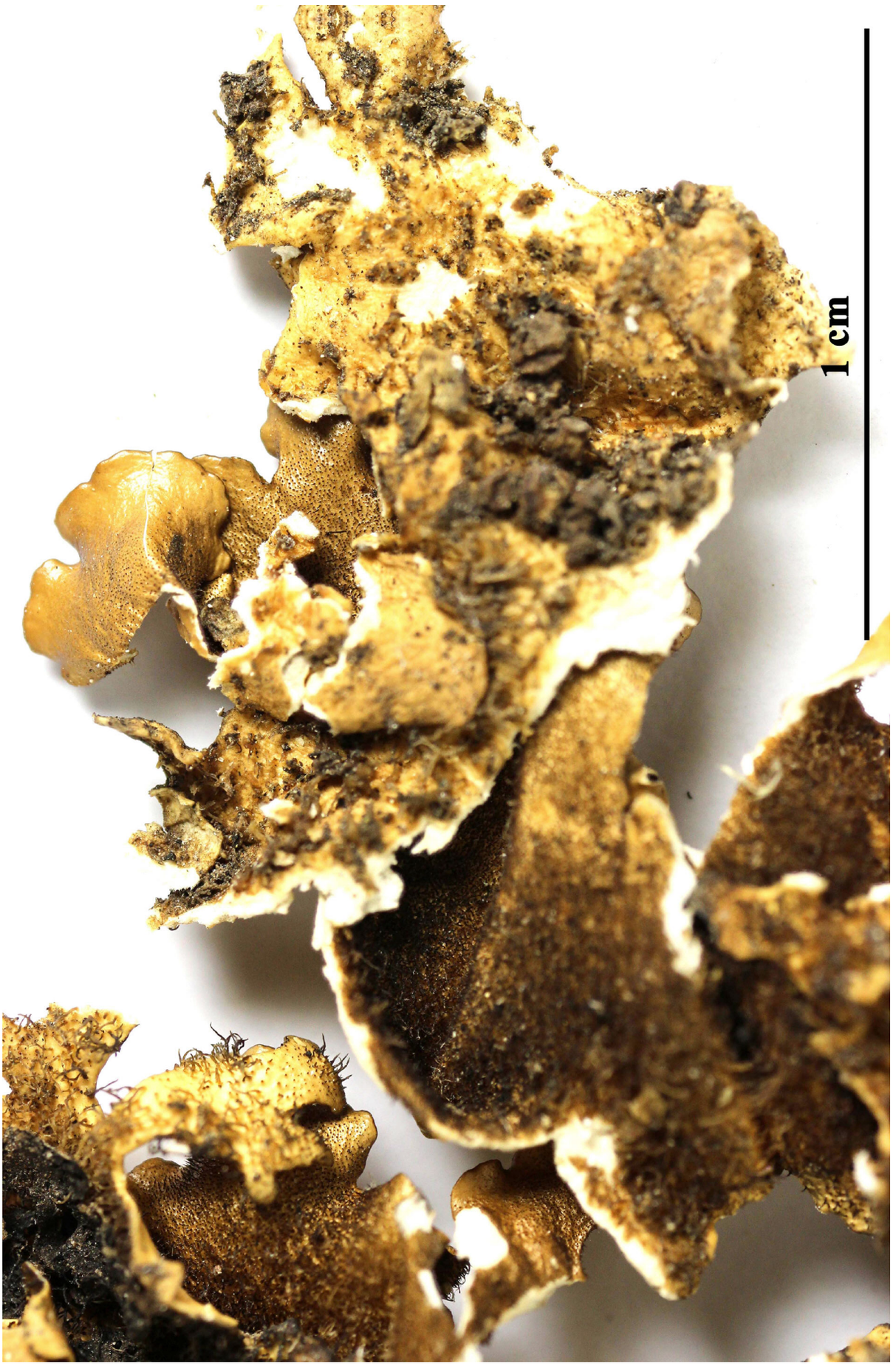
Parmelia appalachensis

Parmelia hypoleucites Nyl., Flora, Regensburg 41: 379 (1858)

[VZ1689], Mexico. San Luis Potosí: 35 km ad orientem ab urbe San Luis Potosí. Ad corticem *Quercus* sp. in silva humida. Leg. W. L. Culberson (no. 17789) et C. F. Culberson, 22.12.1978. - Annot.: Atranorin (trace) and lecanoric acid by TLC, anal. A. Johnson et C. F. Culberson, - EX A. VěZDA LICHENES SELECTI EXSICCATI NR. 1689.

Thallus foliose, medium to large, up to 12 cm, tightly adnate to loosely appressed, lobate; lobes subirregular, contiguous, seldom imbricate, plane, up to 5 (-10) mm wide, lobe tips rounded; rare specimens with occasional laciniae; upper surface bluish-gray to or light mineral gray, turning buff to medium brown in the herbarium with age, weakly wrinkled or ridged, rugulose with age; lobes sometimes with a shiny, narrow, brownish edge; pseudocyphellae white, rare to abundant, round to elongate, sometimes associated with cracks or elevated, up to 0.5 mm; asexual propagules none; lower surface whitish tan, pale tan to medium tan, sometimes darker toward the outer margins; rhizines abundant often to the margin, simple to forked, thin, stringy and white or concolorous with the lower surface or darkening. Apothecia usually common (although occasionally absent), up to 13 mm in diam., concave, sessile to substipitate; disc flesh-colored to dark red brown or rusty brown; exciple smooth to cracked and "chinky", concolorous with the thallus, often pseudocyphellate; asci Lecanora-type, 8-spored; ascospores simple, hyaline, ovoid to ellipsoid, 10-17 x 6-10 µm; Pycnidia usually common (very rarely absent), black, seldom raised; conidia long, filiform, straight to lightly bowed, (7-)10-13(-16) x 1 µm; Spot tests: cortex K+ yellow, C-; medulla K-, C+ red, KC+ red; Secondary metabolites: upper cortex with atranorin (minor or trace), medulla containing lecanoric acid (major). Substrate and ecology: primarily in oak-pine forests on bark of various hardwoods (*Acer, Alnus, Arbutus, Quercus, Fraxinus, Prosopis, Prunus, Salix, Willardia*) and conifers (*Cupressus, Juniperus, Pinus, Pseudotsuga*) between 700 and 2560 m World Distribution: North America and Mexico.

Parmelia hypoleucites



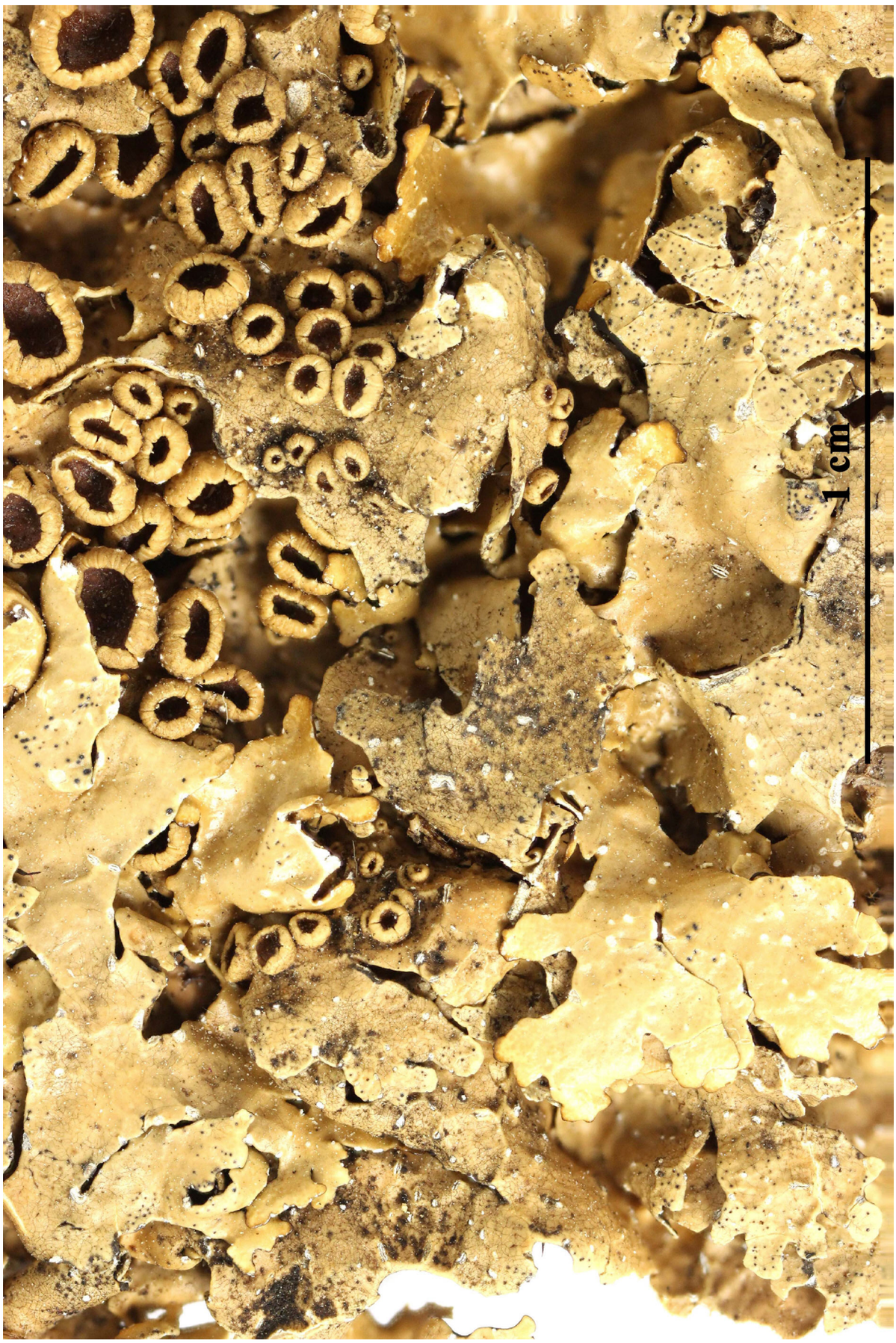
Parmelia hypoleucites

Parmelia hypoleucites

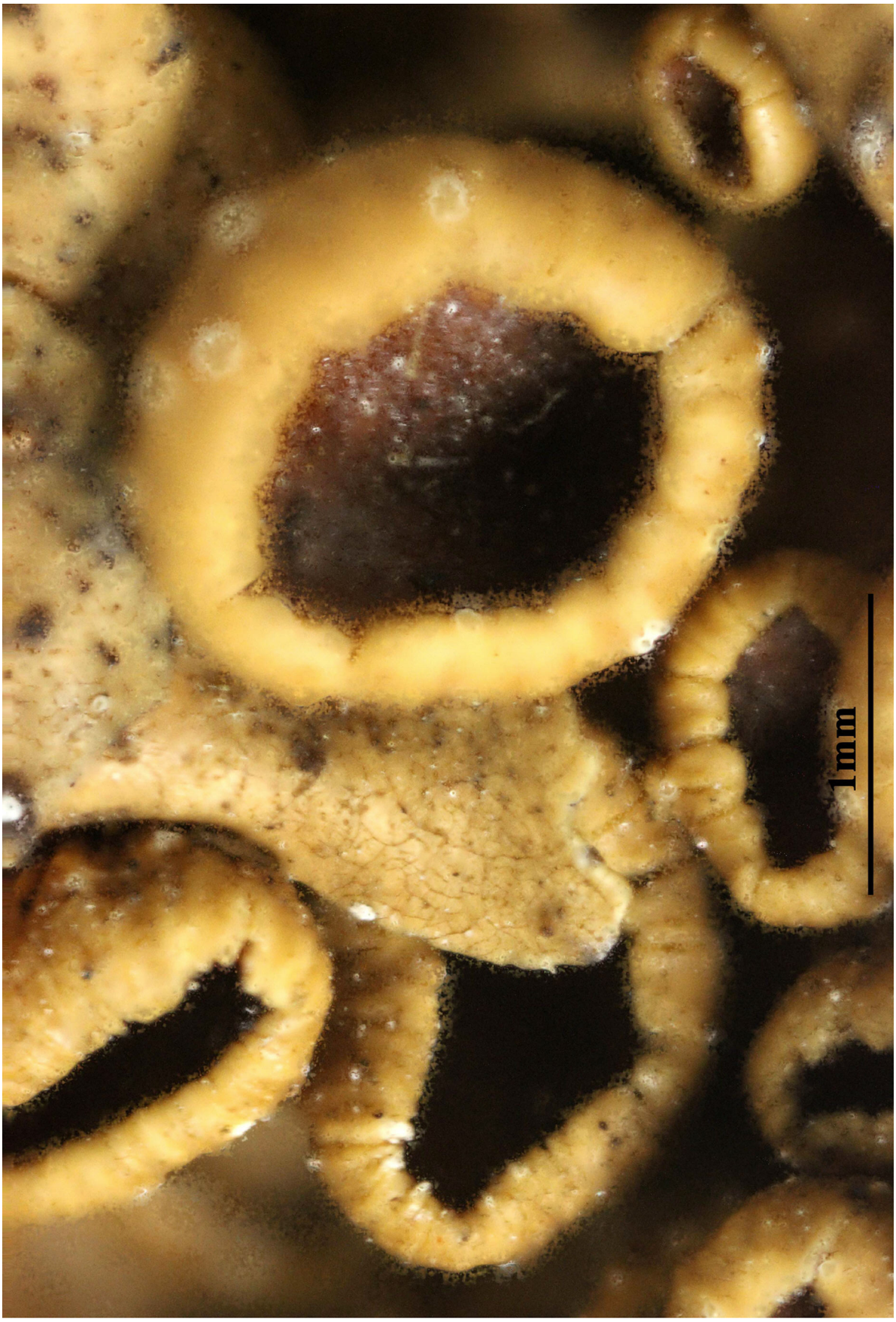
Parmelia semansiana W.L. Culb. & C.F. Culb., Mycologia 72(1): 128 (1980)

[VZ1737], USA. Arkansas. Polk County: 5 km ad septentriones versus a Mena, in loco dicto Blue Haze Vista prope viam dictam Talimena Skyline Drive. Ad saxa in silva. Leg. W. L. Culberson (no. 16074) et C. F. Culberson, 20.8.1972. Annot.: Atranorin (trace) and traces of unidentified substances by TLC, anal.: A. Johnson and C. F. Culberson. - Ex A. Vězda Lichenes Selecti Exsiccati Nr. 1737.

Thallus foliose, tightly adnate to weakly appressed and easily removed from the substrate with a knife, up to 8 (-13) cm in diam. lobate; rarely forming discrete convex mounds; lobes narrow, sublinear, (1-) 2-4 (-7) mm wide, contiguous, plane (occasionally with upturned margins) to wrinkled in older parts and frequently imbricate; sometimes with laciniae; upper surface light mineral gray or bluish gray, becoming buff in the herbarium with age, frequently with a narrow brownish or gray brown margin; smooth, rarely becoming weakly ridged; white maculae present in some specimens; pseudocyphellae white, occasional to abundant, up to 0.4 mm, round or becoming elongate; sometimes associated with ridges; asexual propagules none; lower surface pale, whitish tan to flesh-colored sometimes darkening toward the margin; rhizines simple to forked, thin, stringy, concolorous with the lower surface. Apothecia occasional (often absent or immature), up to 10 mm in diam., sessile to substipitate; disc light to dark rusty-brown; exciple concolorous with the thallus, smooth or becoming "chinky" as the cortex cracks with age; asci Lecanora-type, 8-spored; ascospores simple, hyaline, ovoid to ellipsoid, 7-14 x 6-9 µm; Pycnidia occasional to abundant (rarely absent), black; conidia filiform to rarely unciform, 3-7(-9) x 1 µm (mostly 5-6 µm); Spot tests: upper cortex K+ yellow, C-, medulla K-, C+ red , KC+ red; Secondary metabolites: upper cortex with atranorin (minor or more commonly in trace amounts), medulla containing lecanoric acid (major). Substrate and ecology: on rocks (basalt, conglomerate, granite, limestone, rhyolite, sandstone, schist, volcanic) or over mosses on rocks, very rarely on bark (*Fouquieria*, *Cupressus, Quercus*) or burned wood, in oak-pine forests. World Distribution: North America, Mexico and South America.



Parmelia semansiana

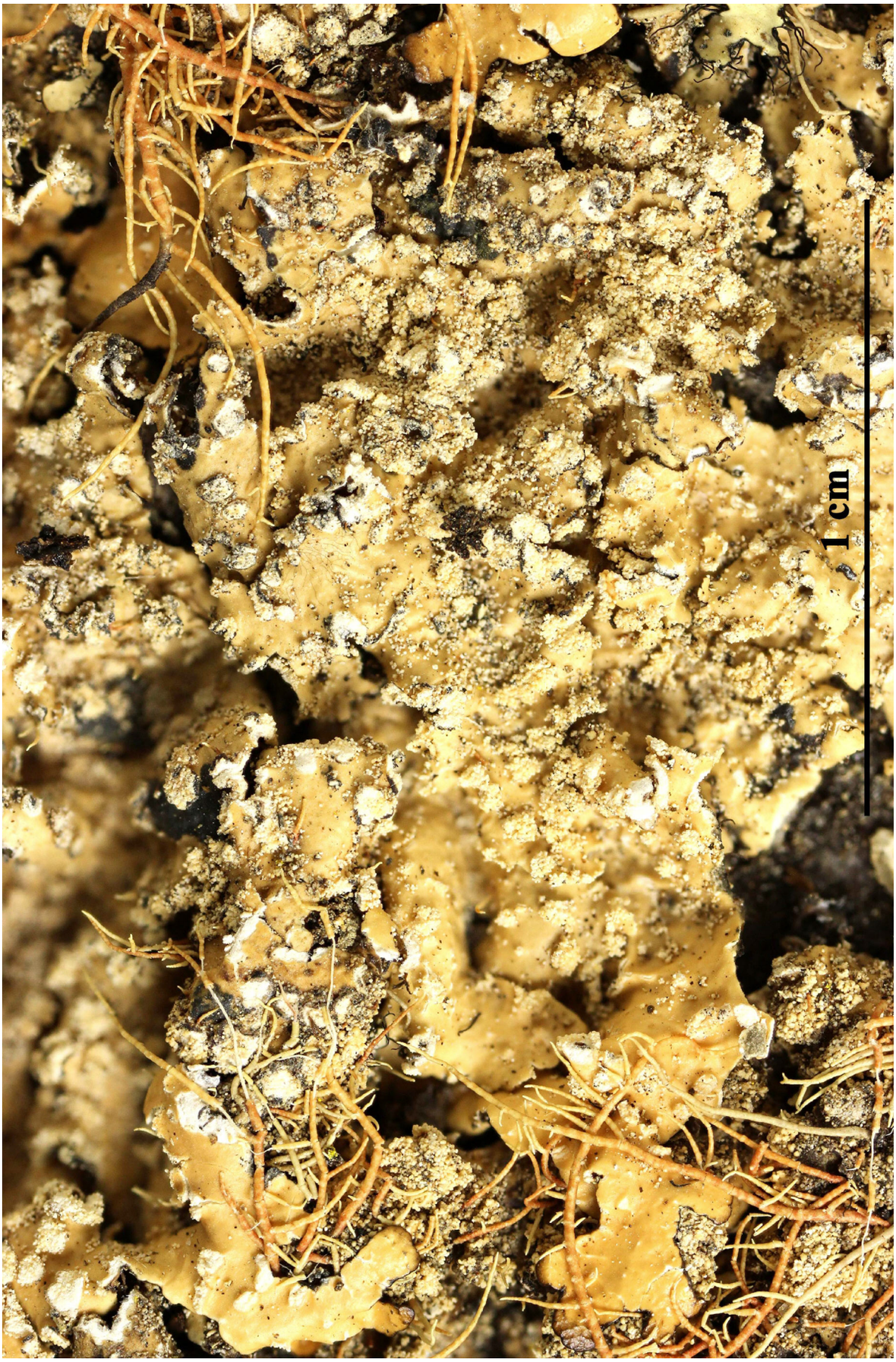


Parmelia semansiana

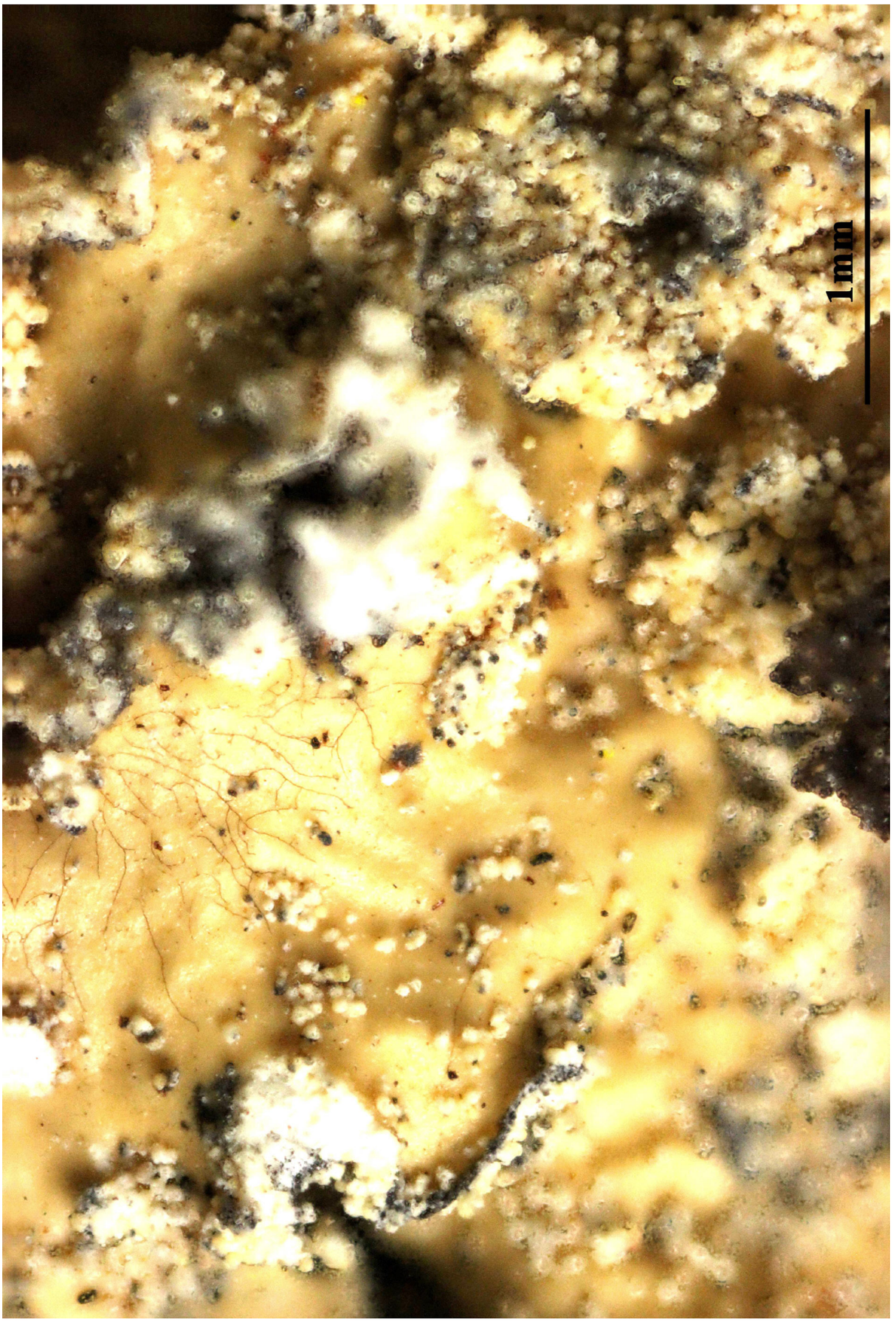
Parmelia subrudecta Nyl., Flora, Regensburg 69(20): 320 (1886)
= *Punctelia subrudecta* (Nyl.) Krog, Nordic J. Bot. 2(3): 291 (1982)

[VZ1855], Guatemala. Baja Verepáz: 71 km ad meridiem er orientem versus a Cobán, ultra Purhulá, secus viam dictam Rt, 15. Ad corticem *Pini* sp. in pascuo. Leg. W. L. Culberson (no. 18233) et C. F. Culberson, 15.12.1979.- Annot.: Atranorin and lecanoric acid by TLC, anal. A. Johnson and C. F. Culberson,. - Ex A. VěZDA Lichenes Selecti Exsoccati Nr. 1855.

Thallus foliose, heteromerous, dorsiventral, forming 5-10 cm wide. usually regular rosettes, sorediate. Lobes tightly adpressed, 5-10 mm wide, rounded and ascending at apices, eciliate, grey or grey-green, with white, punctiform pseudocyphellae giving rise to white, orbicular, laminal soralia. Lower surface whitish to dark brown towards margins, pale brown towards center, with simple rhizines. Upper cortex paraplectenchymatous, of 2-6 layers of densely packed cells, with a non-pored epicortex, the cell walls with isolichenan; medulla white; algal layer continuous; lower cortex paraplectenchymatous. Apothecia very rare, lecanorine, 3-5 mm across, with a brown disc and a raised, often sorediate thalline margin. Proper exciple thin, colourless; epithecium brownish; hymenium and hypothecium colourless. Asci 8-spored, clavate, Lecanora-type. Ascospores 1-celled, hyaline, broadly ellipsoid, 14-18 x (7-)10-13(-15) µm. Pycnidia black, laminal. Conidia hook-shaped, 4-5 x c. 1 µm. Photobiont chlorococcoid. Spot tests: upper cortex K+ yellow, C-, KC-, P- or P+ very faintly yellow; medulla and soralia K-, C+ red, KC+ red, P-, UV-. Chemistry: upper cortex with atranorin, medulla and soralia with lecanoric acid. - Note: a mainly temperate species (described, however, from the subantarctic Kerguelen Islands: the name in Europe may be misapplied!) found on bark of isolated deciduous trees, ecologically intermediate between Xanthorion and Parmelion.



Parmelia subrudecta



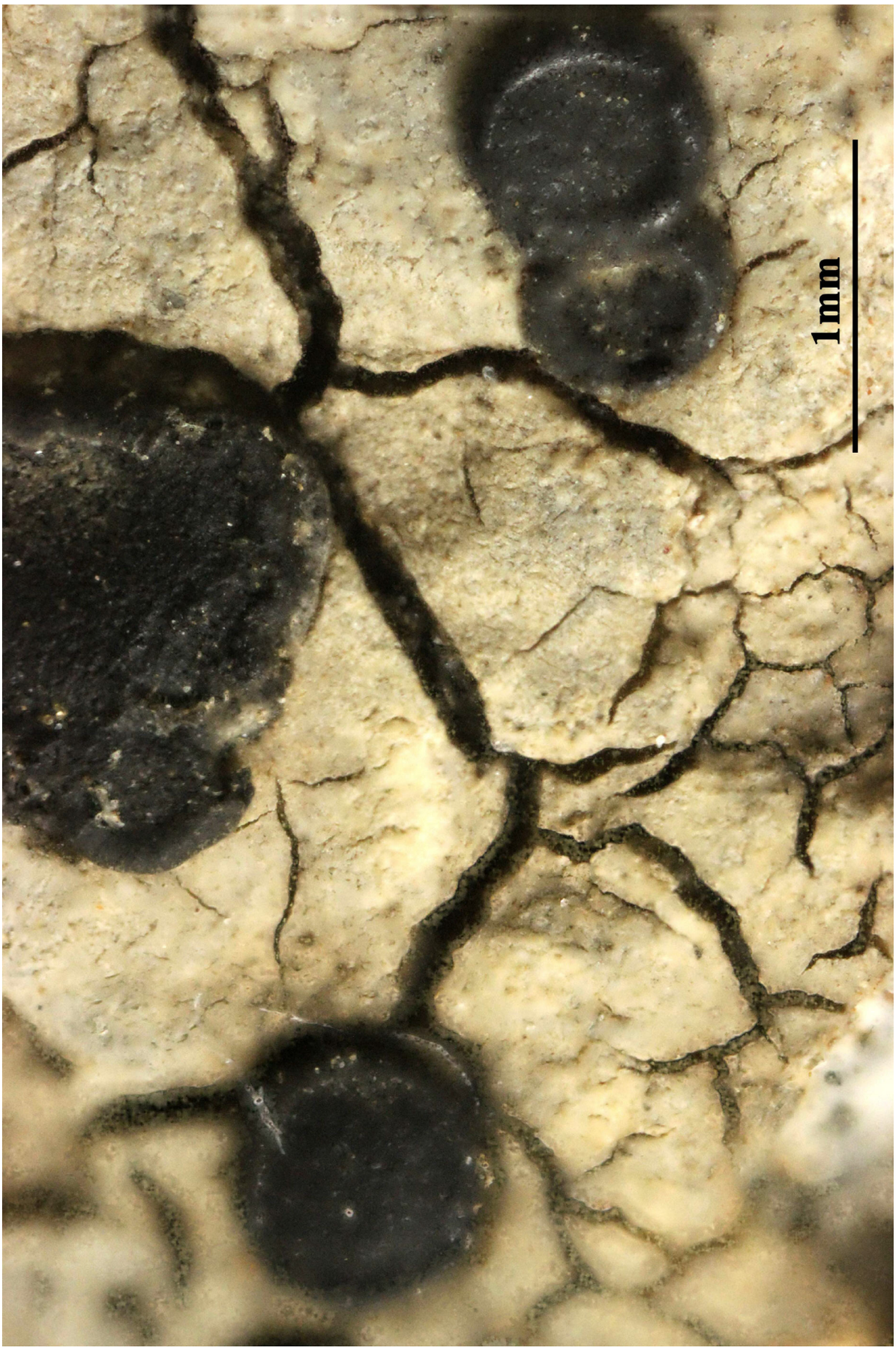
Parmelia subrudecta

Porpidia platycarpoides (Bagl.) Hertel, in Nimis & Poelt, Stud. Geobot. 7(suppl. 1): 187 (1987)
= *Lecidea platycarpoides* Bagl. 1879

[VZ2218], Italia. Sardinia. Prov. Cagliari: Giara de Gesturi, supra vicum Gesturi, 550 m. Ad saxa basaltica. Leg. I. Brodo et A. Vezda, 14.6.1987. EX A. VěZDA LICHENES SELECTI EXSICCATI NR. 2218.

Thallus crustose, episubstratic, usually rather thick, cracked to granular-areolate, rarely delimited by a thin dark prothallus, the areoles 0.5-1.5(-2) mm across, minutely papillate or verrucose, flat to convex, whitish to ash grey. Medulla white, I-. Apothecia lecideine, 0.5-2(-3) mm across, isolated or in small clusters and sometimes confluent, sessile or semi-immersed in the thallus, with a black, flat to convex, often thinly white-pruinose, sometimes umbonate disc and a prominent, swollen, often shiny, usually persistent proper margin. Proper exciple dark brown with a paler brown medulla, the excipular hyphae 4-8 µm thick, K+ yellow turning red; epithecium olive-brown to olive-green; hymenium colourless. 120-185 µm high; paraphyses coherent, richly branched and anastomosing, slightly swollen at apices; hypothecium dark. Asci 8-spored, elongate-clavate, with a thin, outer amyloid layer and a thickened tholus penetrated by a pore, the sides of which are strongly amyloid, Porpidia-type. Ascospores 1-celled, hyaline, ellipsoid, 15-23(-26) x 6-10(-12) µm, thin-walled, with a well-developed perispore. Photobiont chlorococcoid. Spot tests: medulla K+ yellow turning red (needle-like crystals), C-, KC-, P+ yellow. Chemistry: norstictic and connorstictic acids, plus 2 unidentified substances. - Note: a Mediterranean-Atlantic lichen found on siliceous rocks in rather sheltered situations; most frequent in Tyrrhenian Italy, where it is locally abundant (e.g. in parts of Sardinia).

Porpidia platycarpoides



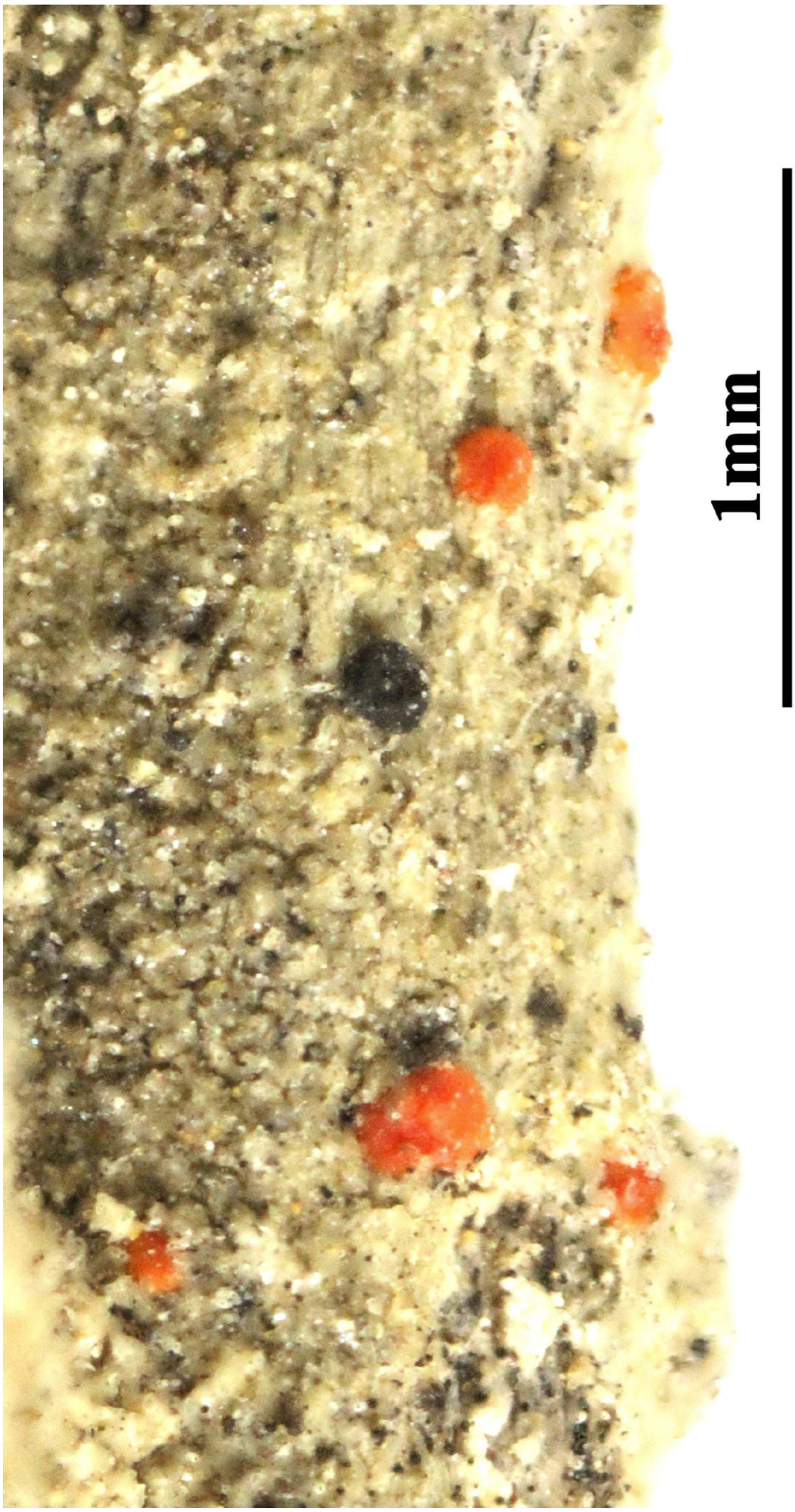
Porpidia platycarpoides

Protoblastenia lusitanica Räsänen, Arch. Soc. Zool. Bot. fenn. Vanamo 3: 81 (1949)
= *Ramboldia lusitanica* (Räsänen) Kalb, Lumbsch & Elix, Nova Hedwigia 86(1-2): 34 (2008)

[VZ1874], Hispania. Asturias, prov. Oviedo: prope San Antolin, secus viam ad Cangas de Narcea dictam, 300 m. In ramulis Ericae arboreae. Leg. et det. J. Hafellner (9705), 5.9.1980. EX VěZDA LICHENES SELECTI EXSICCATI NR. 1874.

Thallus crustose, episubstratic, whitish or pale whitish grey, dull, continuous to weakly rimose, forming small patches. Apothecia lecideine/biatorine, bright red to orange-red, 0.4-0.8(-1) mm across, soon convex and immarginate. Proper exciple thin, prosoplectenchymatous, of radiating hyphae, orange in outer part, colourless within, the pigmented parts K+ purple-red, granular-inspersed; epithecium orange-red, with an epipsamma of fine golden yellow granules reacting K+ purple-red; hymenium colourless; paraphyses coherent, simple or sparingly branched in upper part, not much swollen at tips; hypothecium thick, colourless or pale orange. Asci 8-spored, clavate, with an amyloid tholus and broadly diverging axial mass, approaching the Lecanora-type. Ascospores 1-celled, hyaline, ellipsoid-oblong, 9-12 x 2.5-3 µm. Pycnidia red. Conidia thread-like. Photobiont: chlorococcoid. Spot tests: thallus K-, C-, KC-, P-, UV-; apothecia K+ purple-red. Chemistry: thallus with lichesterinic acid (major), and protolichesterinic acid (minor); apothecia with russulone. - Note: a Mediterranean-Atlantic species found on *Pinus*, *Cistus* and *Erica* in humid, mostly coastal maquis vegetation.

Protoblastenia lusitanica



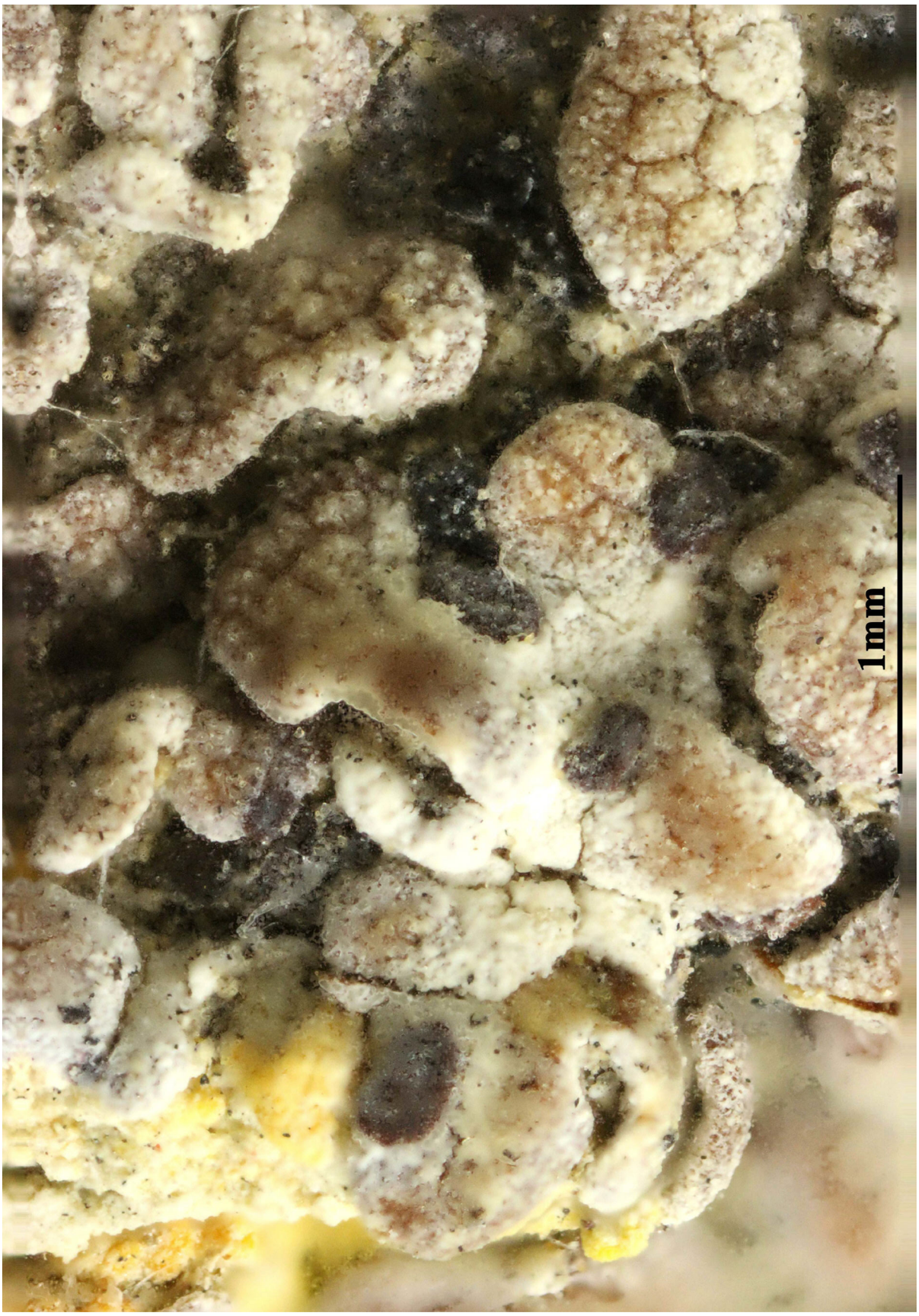
Protoblastenia lusitanica

Protoblastenia russellii (Tuck.) V. Wirth & Vězda, in Vězda, Lichenes Selecti Exsiccati, Fasc. (Průhonice) 50: 4 (no. 1238) (1974)
= *Lecidea russellii* Tuck. 1862

[VZ1238], USA. Utah. Box Elder County: Curlew Valley prope Snowville, 1350 m. Ad terram subsalinam in semidesertis. Leg. O. L. Lange, 5. 1973, det. A. Vězda. EX A. VĚZDA LICHENES SELECTI EXSICCATI NR. 1238.

[Ex: J. L. Lowe 1939 in Lloydia Vol2 No. 4]
Thallus squamulose, the squamules middle-sized to large, olivaceous-green or reddish-brown above, with entire or nearly entire, appressed or ascending, and white margins, white below, in KOH forming a very slight yellow stain, I-. Apothecia arising on the squamules, 0.5-1.5 mm. wide, adnate, the disk soon convex, bright reddish-brown, bare, or according to Tuckerman, often with a greenish bloom, the margin inconspicuous, soon disappearing. Hypothecium very pale yellow to nearly hyaline, with many air spaces below, the hyphae 4-5µm in diameter, with moderately thick walls, irregularly arranged, conglutinate and also immersed in a gelatinous matrix. Exciple subhyaline with reddish crystals scattered throughout, in K+ bright pinkish-red, otherwise unchanged, the hyphae 3—4 µm in diameter, with moderately wide lumina, conglutinate and also immersed in a gelatinous matrix. Hymenium intensely reddish-brown above, on account of much crystalline matter which becomes bright pinkish-red in K, otherwise unchanged, 65—70 µm thick, the paraphyses coherent, 2µm in diameter, sometimes enlarged to above. Spores hyaline, non-septate, ellipsoid, 11-13 x 5 µm. - On rocks, reported as widely distributed in North America on calcareous rocks.

Protoblastenia russellii

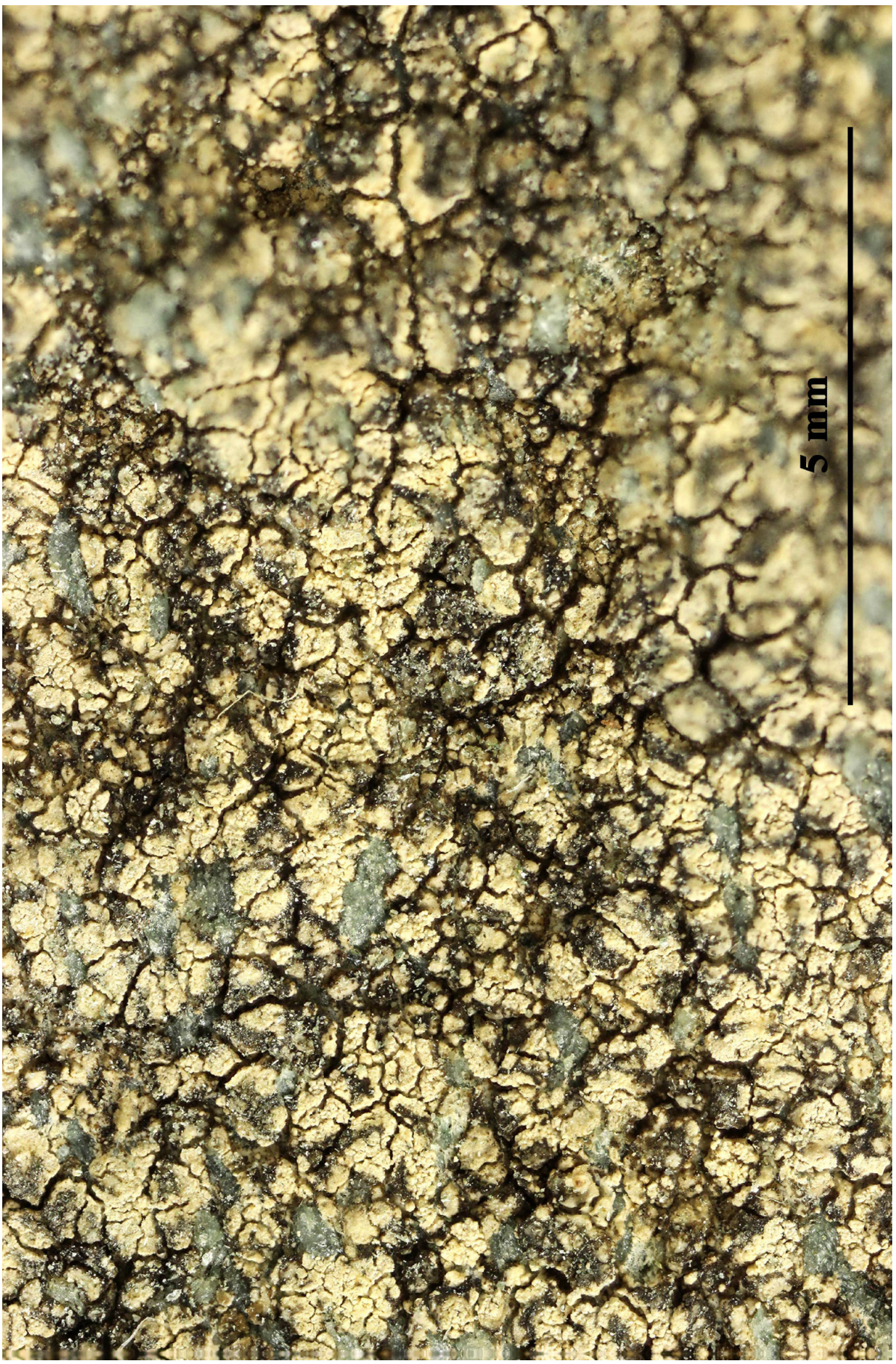


Protoblastenia russellii

Protoparmelia loricata Poelt & Vězda, in Vězda, Lichenes Selecti Exsiccati, Fascicle 92 (nos 2276-2300) (Průhonice): 5 (no. 2292) (1989)

[VZ2292], Austria. Tirolia orientalis, alpes dicti "Hohe Tauern", in valle "Umbatal", 1900-1950 m. In lateribus saxorum schistosorum australi-occidentem versus spectantibus. Leg. J. Poelt et R. Türk, 29.8.1988. EX. A. VĚZDA LICHENES SELECTI EXSICCATI NR. 2292.

Thallus crustose, episubstratic, pale brown, areolate, poorly delimited, 2-3 cm wide, without a distinct prothallus, parasitic on the thalli of *Lecanora umbrosa*. Areoles rounded to subangular, convex, 0.3-0.5(-1.2) mm wide, with a 30-60 µm thick phenocortex. Apothecia cryptolecanorine, dispersed to aggregate, adnate, 0.5-1 mm across, with a soon convex to globose, reddish brown, shiny disc and a very soon excluded thalline margin. Proper exciple of conglutinated, branched hyphae, not forming a cupula below the hypothecium; epithecium diffuse pale brown, 15-18 µm high; hymenium colourless, c. 70 µm high; paraphyses coherent, branched in upper part, rarely anastomosing; hypothecium colourless, 40-60 µm high. Asci 8-spored, clavate, approaching the Lecanora-type, with a well-developed amyloid tholus and a distinct, non-amyloid axial mass. Ascospores 1-celled (overmature spores rarely 1-septate), hyaline, oblong-ellipsoid to ovoid with rounded ends, 10-15 x 5-8 µm. Pycnidia dark, semi-immersed. Conidia straight, 7-12 x 1-1.5 µm. Photobiont chlorococcoid. Spot tests: cortex and medulla K-, C-, KC-, P-, UV-. Chemistry: thallus without lichen substances. - Note: extremely rare on shaded, steeply inclined to vertical faces of basic siliceous rocks with a low content in calcium (e.g. amphibolite); only known from the Eastern Alps (Austria) and the Karakorum.



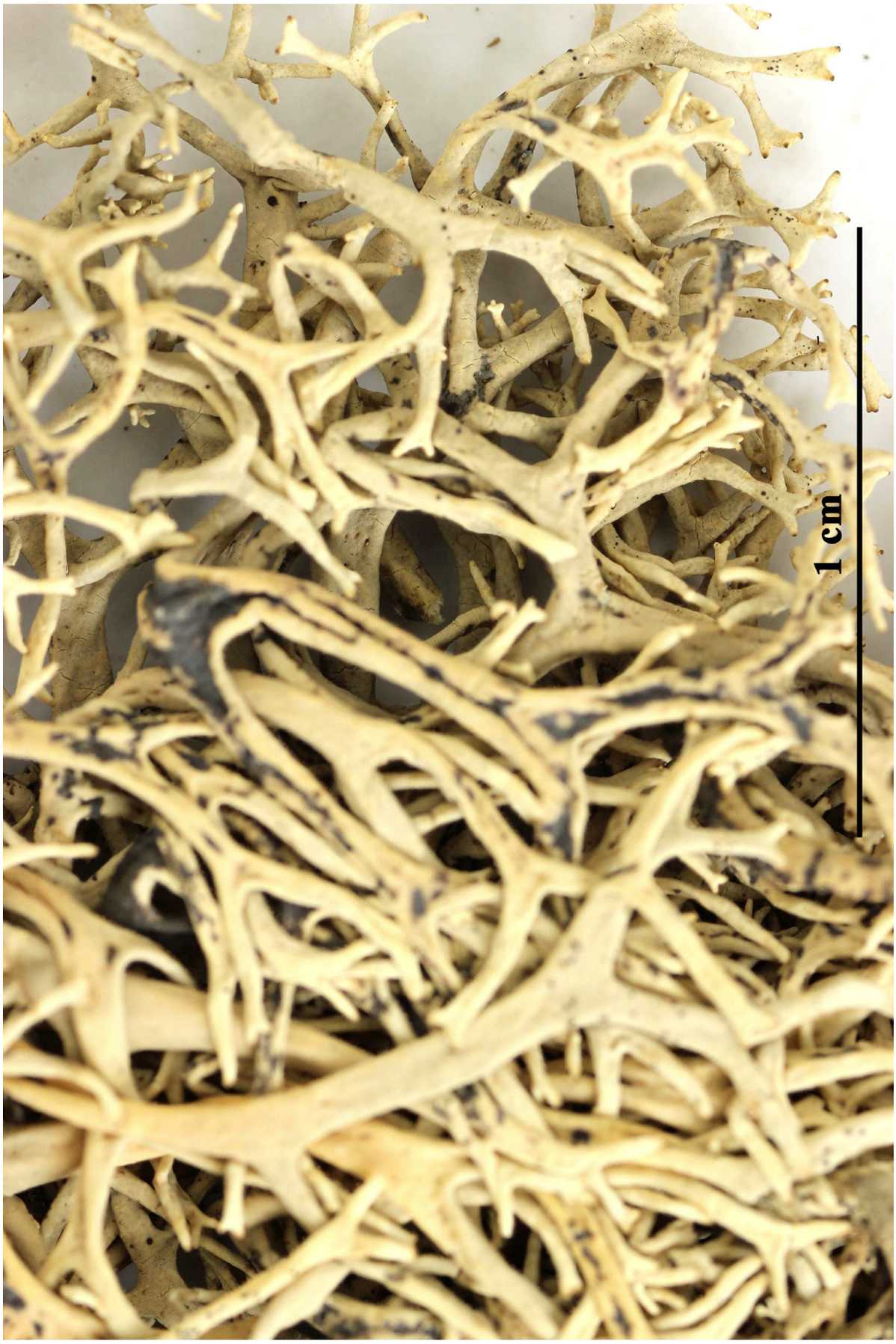
Protoparmelia loricata

Protoparmelia loricata

Pseudevernia cladonia (Tuck.) Hale & W.L. Culb., Bryologist 69: 165 (1966)
= *Evernia furfuracea* var. *cladonia* Tuck. 1848

[VZ1068], USA. Carolina Septentrionalis. Avery County, in monte Grandfather. In ramulis truncisque *Abietis fraseri*, Leg. W. L. Culberson (no. 15775) et Th. E. Esslinger. Ex A. VěZDA Lichenes Selecti Exsiccati Nr. 1068.

[Modified from Brodo et al. (2001)] Thallus fruticose, erect, growing from a single point; yet foliose, branches flattened with distinct upper and lower surfaces. Branches in regular dichotomies, mostly < 1 mm diam., almost round in cross section near tips, flattening in older parts. Upper surface whitish, sometimes slightly pruinose at lobe tips; lower surface whitish to patchy gray, blackening at base. Vegetative diaspores absent. Photobiont chlorococcoid (Trebouxia?) alga. Ascomata lecanorine apothecia, rare; disk brown. Asci 8-spored; ascospores simple, hyaline. Chemistry. Cortex K+ yellow, KC-, P- or P+ pale yellow; medulla K-, KC+ red, C+ pink to red, P-; atronorin and lecanoric acid detected by TLC. Substrate and Habitat. Corticolous on twigs and bark of conifers in high elevation Appalachian forests.Distribution. Eastern North America; in North Carolina found in the Blue Ridge ecoregion.



Pseudevernia cladonia

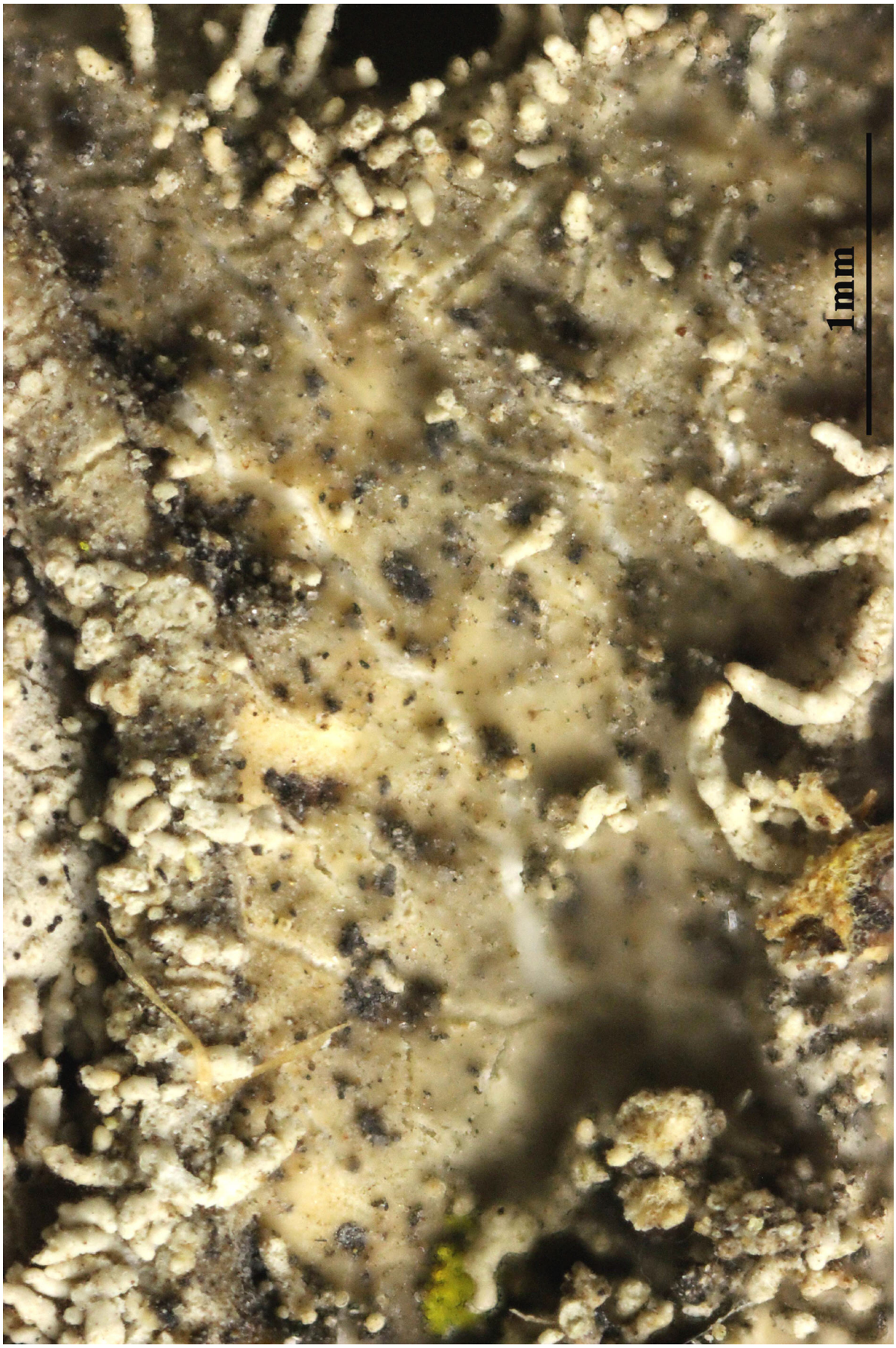
Pseudevernia cladonia

Pseudevernia consocians (Vain.) Hale & W.L. Culb., Bryologist 69: 165 (1966)
= *Parmelia consocians* Vain. 1926

[VZ1537], Guatemala. Huehuetenango: 11 km ad meridiem versus ab oppido dicto Huehuetenango. Ad corticem *Pini* sp.. Leg. W. L. Culberson (nr. 16984) et C. F. Culberson, 17.12.1976. - Annot.: Atranorin, lecanoric acid and an unidentified substance by TLC; anal C. F. Culberson and A. Johnson. - Ex A. VěZDA Lichenes Selecti Exsiccati Nr. 1537.

Thallus foliose to subfruticose to caespitose, 4-10 cm across, separate, lobate; lobes linear, 0.5-1.5 mm wide, subdichotomously branched, loosely imbricate; apices usually subtruncate, eciliate; upper surface light gray to gray, smooth, plane to rugulose, shiny or dull, weakly maculate, usually epruinose; isidia abundant, cylindrical; tips darker than the thallus, sometimes abrading, but not sorediate; soredia absent; medulla white, loosely packed; lower surface tan to black, sometimes mottled white, naked, channeled, erhizinate, attached by basal holdfasts Apothecia not seen; Pycnidia laminal or marginal, immersed or emergent to sessile; conidia not seen; Spot tests: upper cortex K+ yellow, C-, KC-, P+ yellow; medulla K-, C+ red, KC+ red, P-. Secondary metabolites: upper cortex with atranorin and chloroatranorin; medulla with lecanoric acid (major). Substrate and ecology: usually on conifers (especially pines) in open pine-oak forests. World distribution neotropics from northern Mexico to Central America. - Notes: In comparison with the European *P. furfuracea*, which can also be isidiate, *P. consocians* is a less robust species with narrower lobes. Although both may have a C+ medulla, in P. furfuracea it is due to olivetoric acid; in P. consocians, due to lecanoric acid.

Pseudevernia consocians



Pseudevernia consocians

Pseudevernia furfuracea (L.) Zopf, Beih. Botan. Centralbl., Abt. B 14: 124 (1903)
= *Lichen furfuraceus* L. 1753

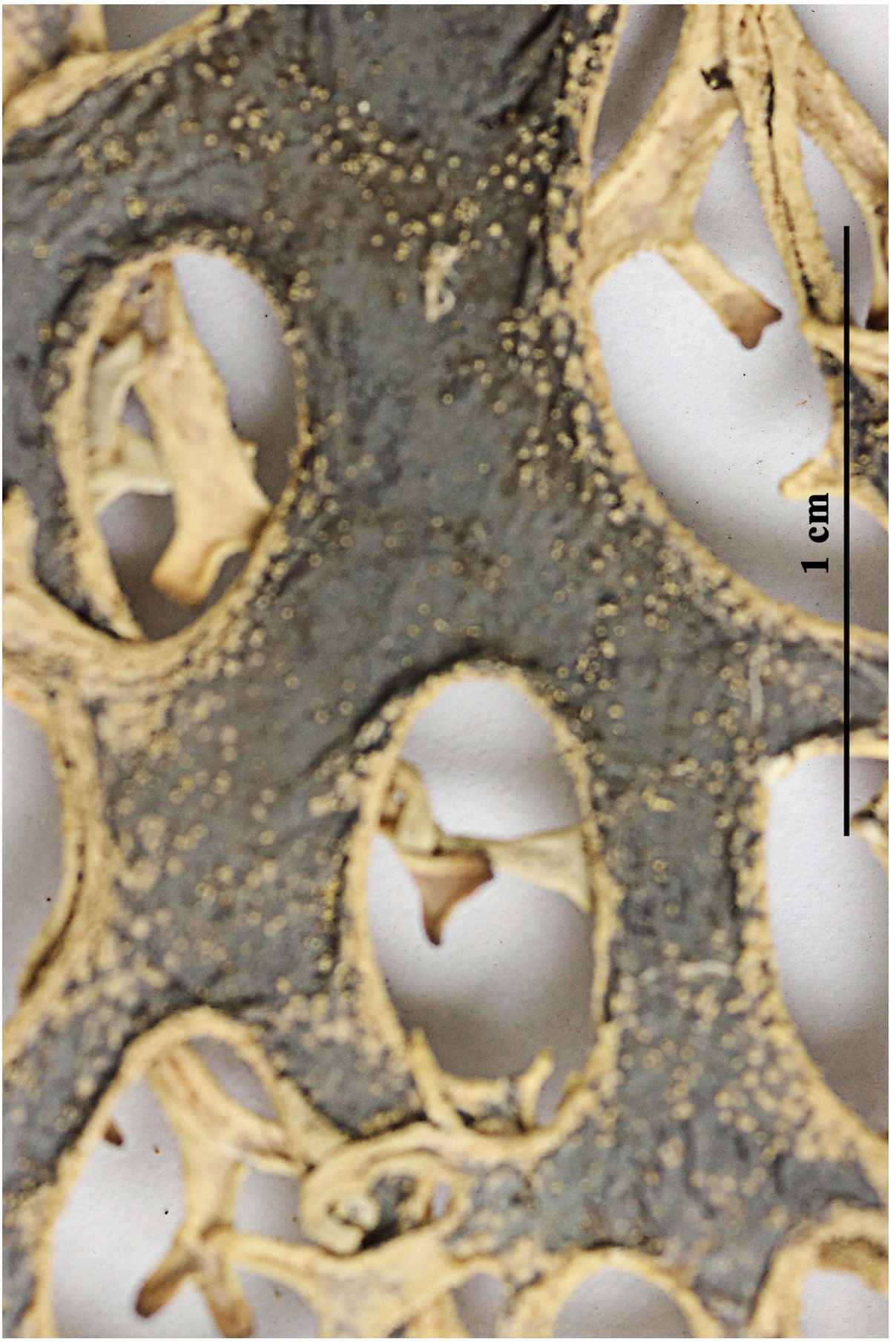
[VZ1067], Maroccanum Regnum. Atlas Medium. Mischliffen, prope oppidum Azrou, 2000 m. Ad corticem *Cedri atlanticae*. Leg. W. L. Culberson (no. 15979) et C. F. Culberson, 28.5.1971. EX A. VěZDA LICHENES SELECTI EXSICCATI NR. 1067.

Thallus foliose to subfruticose, of prostrate to ascending, flattened, strap-shaped 1-10(-20) mm wide, several cm long, dichotomously branched lobes which are very variable in size and shape. Upper surface grey to brown in exposed situations, matt, with cylindrical, simple to branched isidia, rarely also with whitish, orbicular, convex soralia; lower surface usually channelled, black in older parts, white near the tips, without rhizines. Upper cortex with a pored epicortex, palisade paraplectenchymatous; medulla white, rather loose, the cell walls containing Cetraria-type lichenan. Apothecia very rare, lecanorine, up to 15 mm across, more or less stalked, often irregular in form and sometimes with split margins, with a brown disc. Epithecium brown; hymenium and hypothecium colourless. Asci 8-spored, elongate-clavate, very thin-walled, with a K/I+ blue, tall tholus penetrated by a faintly amyloid apical cushion, the wall K/I-, surrounded by a K/I+ blue outer layer, Lecanora-type. Ascospores 1-celled, hyaline, ellipsoid, 7-10 x 4-6 µm. Pycnidia rare, immersed, black. Conidia sublageniform, 5-7 x c. 1 µm. Photobiont: chlorococcoid. Spot tests: cortex K+ yellow, C-, KC-, P-; medulla K-, C-, KC+ faintly pink, P-, UV-. Chemistry: cortex with atranorin and chloroatranorin, medulla with physodic acid. - Note: a cool-temperate to boreal-montane lichen found on acid bark and lignum, occasionally also on siliceous rocks, with optimum in the montane and subalpine belts; abundant only in the Alps, rarer in the Apennines.

Pseudevernia furfuracea

Pseudevernia furfuracea

Pseudevernia furfuracea



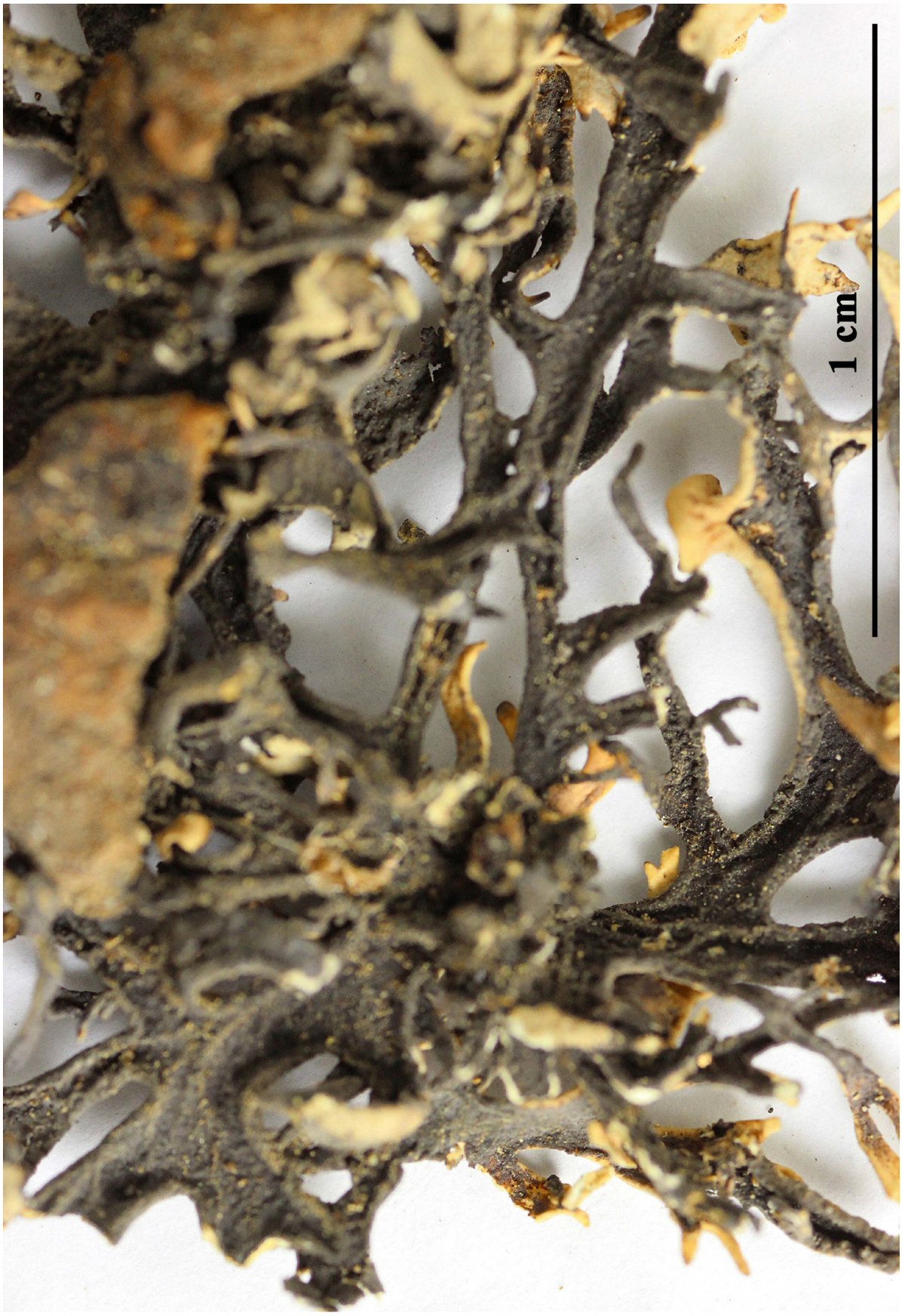
Pseudevernia furfuracea

Pseudevernia intensa (Nyl.) Hale & W.L. Culb., Bryologist 69: 165 (1966)
= *Evernia intensa* Nyl. 1873

[VZ1557], Mexico. México, 18 km ad meridiem et occidentem versus a Toluca, 3110 m. Ad corticem *Pini* sp. Leg. W. L. Culberson (no.17068) et C. F. Culberson, 22.12.1976. - Annot.: Atranorin, lecanoric acid, and a possible trace of an unidentified aliphatic substance; anal by TLC from A. Johnsson et C. F. Culberson. - Ex A. VěZDA Lichenes Selecti Exsiccati Nr. 1667.

Thallus foliose to subfruticose to caespitose, 5-20 cm across, lobate; lobes linear, 1-3 (-5) mm wide, separate, subdichotomously branched, loosely imbricate; apices subtruncate, eciliate: upper surface light gray to gray, smooth, plane to rugulose, shiny or dull, maculate or not, usually epruinose; soredia and isidia absent; medulla white, loosely packed; lower surface tan to black, sometimes mottled white, naked, channeled, erhizinate, attached by basal holdfasts; Apothecia: usually present, laminal on thallus, orbicular, cup-shaped, subpedicellate or pedicellate, 2-10 mm in diam.; margin: prominent, with a thalloid rim; disc: dark brown; asci lecanoral, c. 8-spored; ascospores simple, ellipsoid, 7-10 x 4-6 µm; walls thin, hyaline, not amyloid. Pycnidia: laminal or marginal, immersed or emergent and sessile; conidia not seen. Spot tests: upper cortex K+ yellow, C-, KC-, P+ yellow; medulla K-, C+ red, KC+ red, P- ; Secondary metabolites: upper cortex with atranorin and chloroatranorin; medulla with lecanoric acid (major). Substrate and ecology: usually on confers (especially *Pseudotsuga* and *Abies*) in mixed conifer forests World distribution: neotropics from Central America through Mexico to southwestern U.S.A.- Notes: *Pseudevernia intensa* is one the most common montane lichens on confers from eastern Arizona southwards and exhibits considerable morphological plasticity from narrow to wide lobed individuals and from clearly foliose to robustly subfruticose.

Pseudevernia intensa

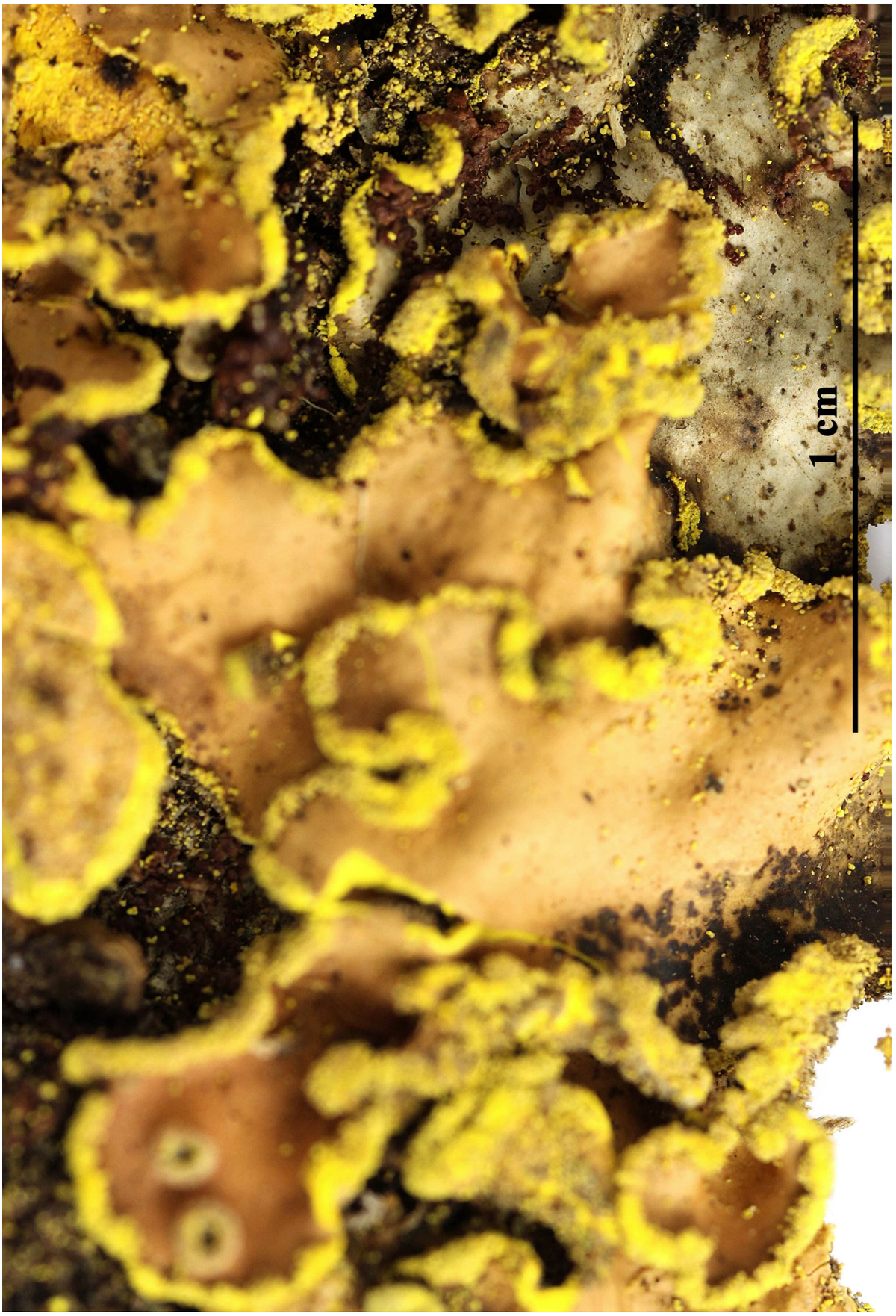


Pseudevernia intensa

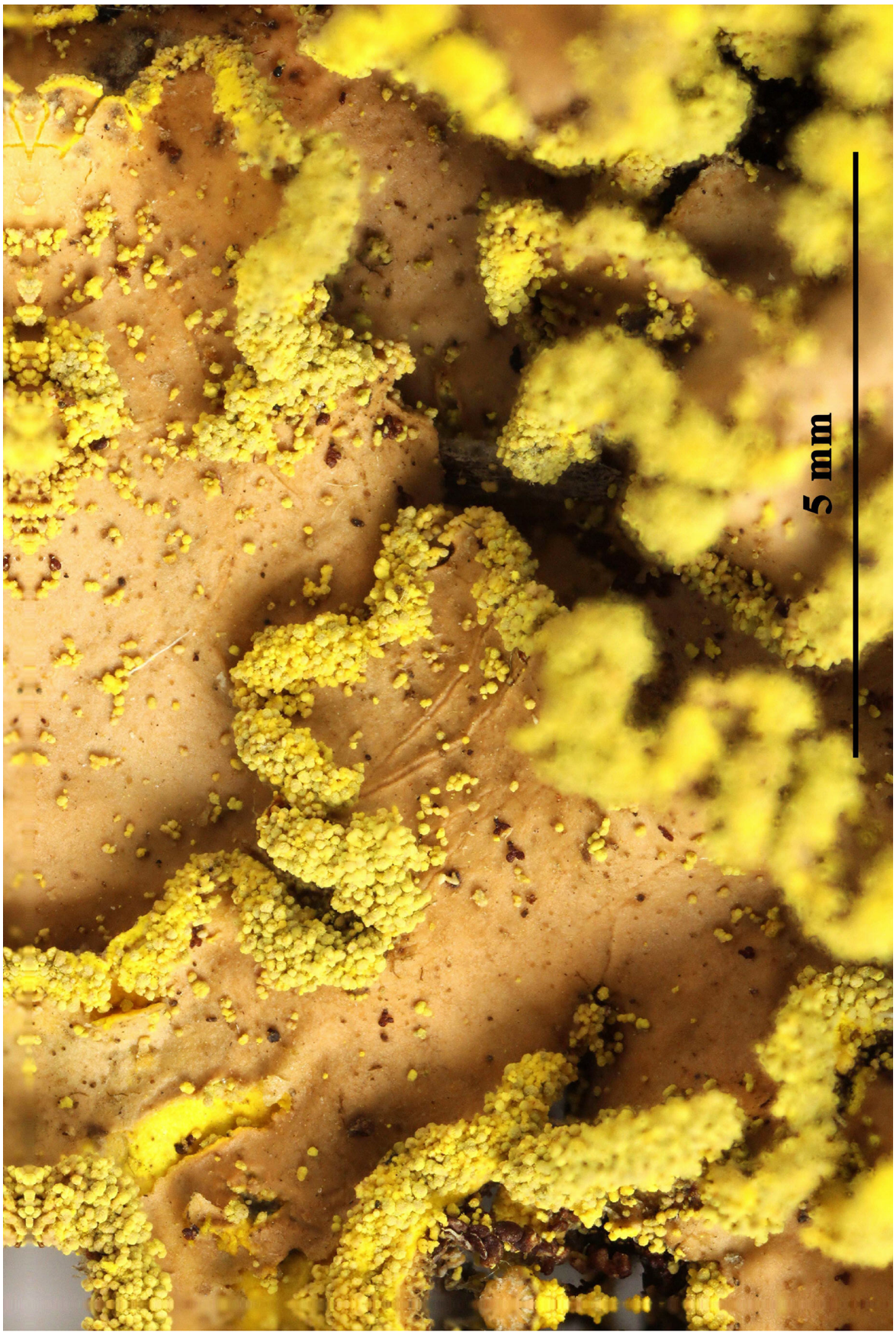
Pseudocyphellaria aurata (Ach.) Vain., Acta Soc. Fauna Flora fenn. 7(no. 1): 183 (1890)
= *Sticta aurata* Ach. 1803

[VZ2267], Australia. Queensland. Mt. Mee State Forest, prope stationem forestalem, 500 m. Ad truncum arboris emortuum, in pluviisilva. Leg. J. Hafellner (no. 16867) et N. Stevens, 13.8.1986, det. D. I. Galloway. EX A. VěZDA LICHENES SELECTI EXSICCATI NR. 2267.

Thallus orbicular to irregularly spreading, loosely to closely attached, 5-10(-15) cm diam., corticolous. Lobes 3-12 mm wide and to 30 mm long, branching irregular, lobes often discrete from margins to centre, broadly rounded or indented, ± discrete at margins ± imbricate centrally, margins slightly thickened below, entire, sinuous, with pseudocyphellae, or with erose to ± linear wavy soralia. Upper surface bright lettuce-green when wet, pale olive-brown or buff when dry becoming reddish on storage, smooth, coriaceous, ± scabrid-areolate towards margins, undulate to shallowly pitted or wrinkled, occasionally cracked and then with small, granular regenerating lobules along margins of cracks. Soredia yellow, coarsely granular in mainly marginal, linear, elongate, sinuous soralia, eroding lower margin of lobes, often ± revolute, convolute or subascending, rarely spreading over upper surface. Medulla yellow. Photobiont green. Lower surface pale buff or yellowish-pink, wrinkled-uneven, tomentose to margins, tomentum thin, silky, pinkish-buff or whitish at margins, thicker and darker to ± chocolate-brown centrally. Pseudocyphellae yellow, numerous, ± rounded 0.05-0.3 mm diam., ± elevated, decorticate area plane, level with or slightly sunk in tomentum. Apothecia not seen. Chemistry: Pulvinic acid, pulvinic dilactone, calycin, unidentified (?)neutral compounds possibly triterpenes and/or sterols.



Pseudocyphellaria aurata



Pseudocyphellaria aurata

Pseudocyphellaria billardierei (Delise) Räsänen [as 'Billardieri'], Ann. bot. Soc. Zool.-Bot. fenn. Vanamo 2(no. 1): 39 (1932)

= *Crocodia richardii* (Mont.) Trevis., Lichenoth. Veneta 1-2: no. 75 (1869)

= *Lobaria billardierei* (Delise) Hellb., Bih. K. svenska VetenskAkad. Handl., Afd. 3 21(no. 13): 41 (1896)

= *Lobaria fossulata* var. *linearis* (Hook. f. & Taylor) Hellb., Bih. K. svenska VetenskAkad. Handl., Afd. 3 21(no. 13): 38 (1896)

= *Lobaria fossulata* var. *richardii* (Mont.) Hellb. [as 'richardi'], Bih. K. svenska VetenskAkad. Handl., Afd. 3 21(no. 13): 38 (1896)

= *Pseudocyphellaria flotowiana* (Laurer) Malme, Bih. K. svenska VetenskAkad. Handl., Afd. 3 25(no. 5): 22 (1899)

= *Pseudocyphellaria linearis* (Hook. f. & Taylor) C.W. Dodge, Nova Hedwigia 19(3-4): 489 (1971) [1970]

= *Pseudocyphellaria richardii* (Mont.) Räsänen [as 'Richardi'], Ann. bot. Soc. Zool.-Bot. fenn. Vanamo 2(no. 1): 39 (1932)

= *Sticta billardierei* Delise, Hist. Lich. Sticta: 99 (1822)

= *Sticta billardierei* var. *lacinulata* (Kremp.) Müll. Arg., Bull. Herb. Boissier 2(app. 1): 36 (1894)

= *Sticta cellulifera* f. *billardierei* (Delise) Nyl. [as 'billardieri'], in Hue, Nouv. Arch. Mus. Hist. Nat., Paris, 3 sér. 2: 306 (1890)

= *Sticta cellulifera* f. *lacinulata* (Kremp.) Stizenb., Flora, Regensburg 81(1): 114 (1895)

= *Sticta faveolata* var. *billardierei* (Delise) C. Bab. [as 'billardieri'], in Hooker, Bot. Antarct. Voy. Erebus Terror 1839-1843, II, Fl. Nov.-Zeal.: 278 (1855)

= *Sticta faveolata* var. *richardii* (Mont.) Linds. [as 'richardi'], Trans. R. Soc. Edinb. 22(1): 197 (1859) [1861]

= *Sticta flotowiana* Laurer, Linnaea 2: 40 (1827)

= *Sticta fossulata* f. *lacinulata* Kremp., in Fenzl, Reise Österr. Novara Bot. 2: 120 (1870)

= *Sticta fossulata* f. *linearis* (Hook. f. & Taylor) Stizenb., Flora, Regensburg 81(1): 114 (1895)

= *Sticta fossulata* f. *richardii* (Mont.) Nyl., Bull. Soc. linn. Normandie, sér. 2 2: 503 (1868)

= *Sticta fossulata* var. *linearis* (Hook. f. & Taylor) Linds., Trans. Linn. Soc. London 25: 499, tab. LX, fig. 5 (1866)

= *Sticta fossulata* var. *richardii* (Mont.) Nyl. [as 'richardi'], Syn. meth. lich. (Parisiis) 1(2): 364 (1860)

= *Sticta foveolata* var. *richardii* (Mont.) Linds. [as 'richardi'], Trans. R. Soc. Edinb. 22(1): 197 (1859) [1861]

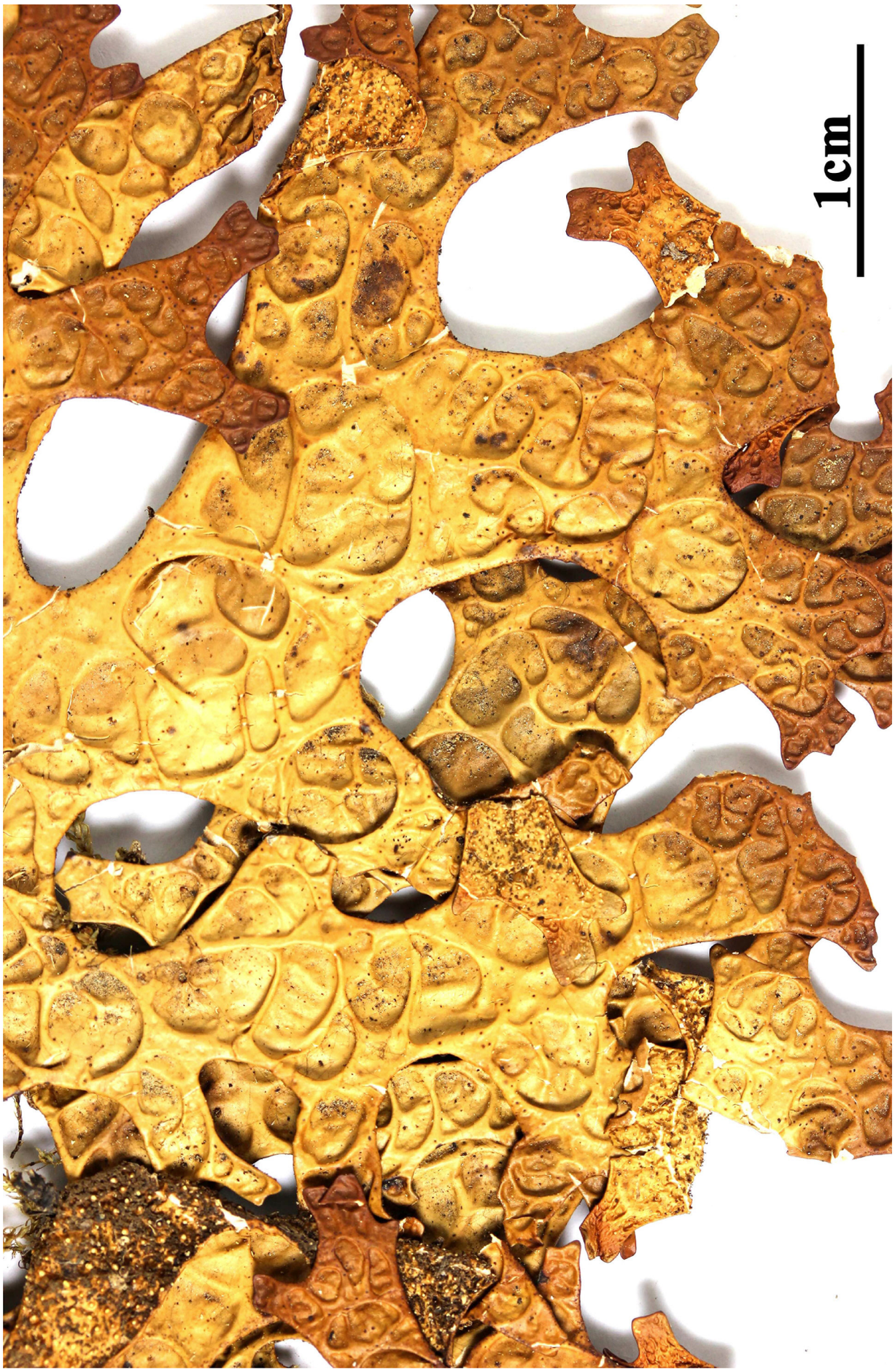
= *Sticta linearis* Hook. f. & Taylor, London J. Bot. 3: 647 (1844)

= *Sticta richardii* Mont. [as 'richardi'], Annls Sci. Nat., Bot., sér. 2 4: 89 (1835)

[VZ2342], Australia. Tasmania: via "Lake Dobson Road", prope Bushy Park, 400 m. Ad truncum et in ramulis arborum. Leg. H. Streimann (39956),7.12.1988, det. J. A. Elix. Ex A. VěZDA LICHENES SELECTI EXSICCATI NR. 2342.

Thallus irregularly spreading, loosely attached, apices ± free and subascending, 5-15(-25) cm diam., corticolous. Lobes regularly dichotomously to subdichotomously branching, 1-8(-12) mm wide, 1-10 cm long, well separated, discrete at margins, complex and often entangled centrally, rather flat, apices acute or truncate, rounded or bifurcating, margins entire, often thickened, smoothly rounded, without projecting pseudocyphellae. Upper surface matt or glossy, bright lettuce-green when wet, pale green or olive-brownish when dry, shallowly to deeply faveolate, interconnecting ridges smooth and rounded or sharp. Lower surface white or pale buff, conspicuously wrinkled to ± bullate, margins conspicuously thickened, ± glabrous in a narrow to broad marginal zone, thinly to densely tomentose often to margins, tomentum pale, whitish, silky near margins, entangled, brown-black centrally. Pseudocyphellae scattered to ± frequent, white, raised, verruciform, 0.05-0.2 mm diam., on interconnecting ridges, decorticate area small, depressed-punctate or indented below surrounding margins, rarely flat, margins thin ± puckered. Medulla white. Photobiont green. Apothecia marginal or submarginal, rather scattered, often developed towards lobe apices, subpedicellate, 0.5-2.5 mm diam., disc dark red-brown to black, roughened, epruinose, subconcave to plane and ± undulate, margins persistent or excluded in mature fruits, minutely crenate or verrucose, pale-red-brown to flesh-coloured, exciple pale red-brown, concolorous with margins, minutely verrucose-areolate, rarely pubescent or tomentose. Ascospores brown, ellipsoid-fusiform, simple at first, polaribilocular at maturity, 22-30 × 6.8-10.2 µm. Chemistry: Methyl evernate, tenuiorin, methyl lecanorate, methyl gyrophorate, hopane-6α,22-diol, (zeorin), 6α-16βdiacetoxyhopan-22-ol, 6α-acetoxyhopane-16β,22-diol, 6α-acetoxy-22-hydroxyhopan-23-oic acid, 6α-22dihydroxyhopan-23-oic acid, norstictic and stictic acids.

Pseudocyphellaria billardierei



Pseudocyphellaria billardierei

Pseudocyphellaria billardierei

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Pseudocyphellaria billardierei (Delise) Räsänen [as 'Billardieri'], Ann. bot. Soc. Zool.-Bot. fenn. Vanamo 2(no. 1): 39 (1932)
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= *Lobaria billardierei* (Delise) Hellb., Bih. K. svenska VetenskAkad. Handl., Afd. 3 21(no. 13): 41 (1896)
= *Lobaria fossulata* var. *linearis* (Hook. f. & Taylor) Hellb., Bih. K. svenska VetenskAkad. Handl., Afd. 3 21(no. 13): 38 (1896)
= *Lobaria fossulata* var. *richardii* (Mont.) Hellb. [as 'richardi'], Bih. K. svenska VetenskAkad. Handl., Afd. 3 21(no. 13): 38 (1896)
= *Pseudocyphellaria flotowiana* (Laurer) Malme, Bih. K. svenska VetenskAkad. Handl., Afd. 3 25(no. 5): 22 (1899)
= *Pseudocyphellaria linearis* (Hook. f. & Taylor) C.W. Dodge, Nova Hedwigia 19(3-4): 489 (1971) [1970]
= *Pseudocyphellaria richardii* (Mont.) Räsänen [as 'Richardi'], Ann. bot. Soc. Zool.-Bot. fenn. Vanamo 2(no. 1): 39 (1932)
= *Sticta billardierei* Delise, Hist. Lich. Sticta: 99 (1822)
= *Sticta billardierei* var. *lacinulata* (Kremp.) Müll. Arg., Bull. Herb. Boissier 2(app. 1): 36 (1894)
= *Sticta cellulifera* f. *billardierei* (Delise) Nyl. [as 'billardieri'], in Hue, Nouv. Arch. Mus. Hist. Nat., Paris, 3 sér. 2: 306 (1890)
= *Sticta cellulifera* f. *lacinulata* (Kremp.) Stizenb., Flora, Regensburg 81(1): 114 (1895)
= *Sticta faveolata* var. *billardierei* (Delise) C. Bab. [as 'billardieri'], in Hooker, Bot. Antarct. Voy. Erebus Terror 1839-1843, II, Fl. Nov.-Zeal.: 278 (1855)
= *Sticta faveolata* var. *richardii* (Mont.) Linds. [as 'richardi'], Trans. R. Soc. Edinb. 22(1): 197 (1859) [1861]
= *Sticta flotowiana* Laurer, Linnaea 2: 40 (1827)
= *Sticta fossulata* f. *lacinulata* Kremp., in Fenzl, Reise Österr. Novara Bot. 2: 120 (1870)
= *Sticta fossulata* f. *linearis* (Hook. f. & Taylor) Stizenb., Flora, Regensburg 81(1): 114 (1895)
= *Sticta fossulata* f. *richardii* (Mont.) Nyl., Bull. Soc. linn. Normandie, sér. 2 2: 503 (1868)
= *Sticta fossulata* var. *linearis* (Hook. f. & Taylor) Linds., Trans. Linn. Soc. London 25: 499, tab. LX, fig. 5 (1866)
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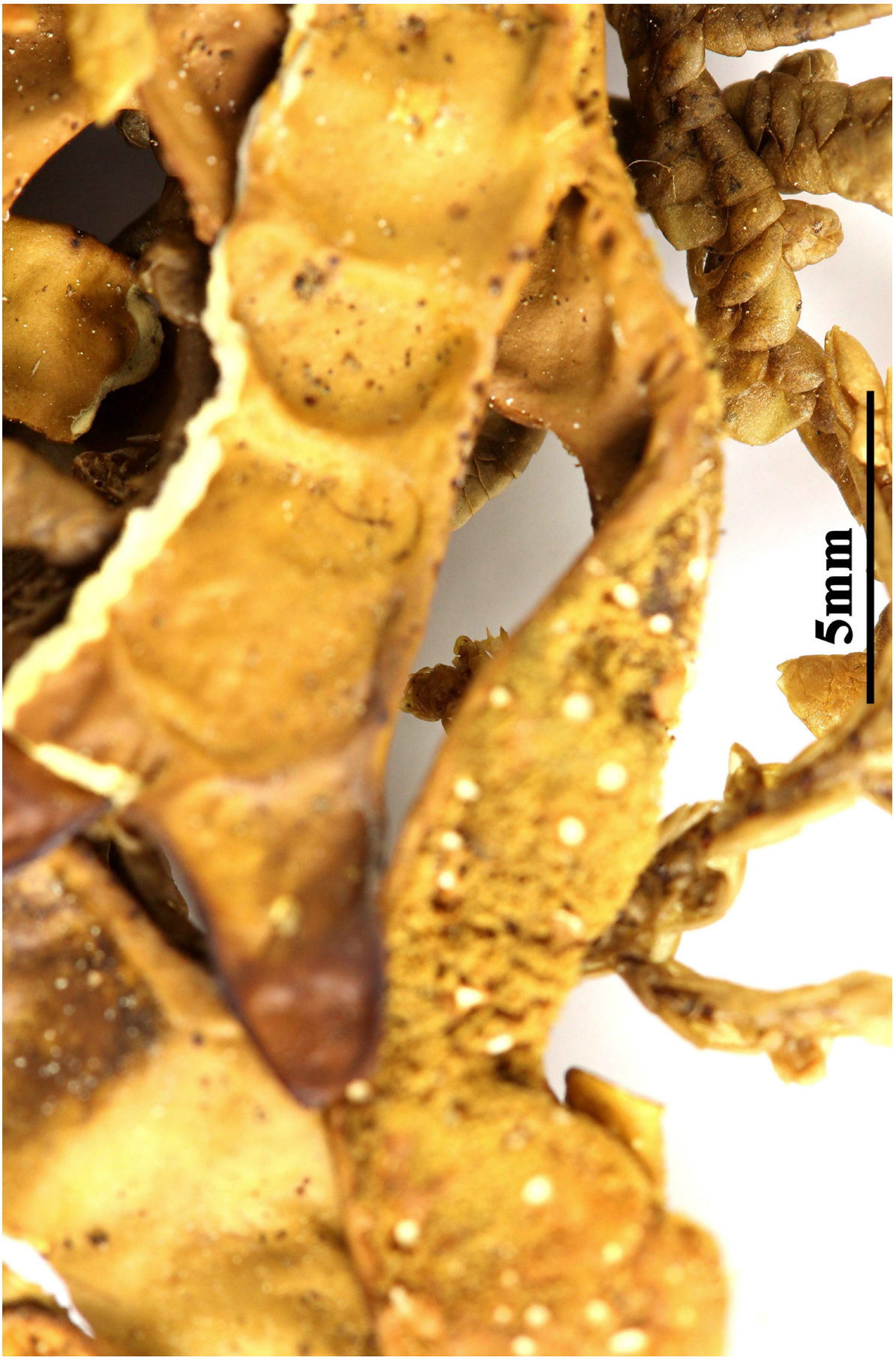
= *Sticta linearis* Hook. f. & Taylor, London J. Bot. 3: 647 (1844)
= *Sticta richardii* Mont. [as 'richardi'], Annls Sci. Nat., Bot., sér. 2 4: 89 (1835)

[VZ2166], Nova Zelandia, North Island, in monte Tarapounamu. Ad truncum et in ramos arborum in silva humida. Leg, I. et O. Degener (36692, det. A. Vězda. EX A. VĚZDA LICHENES SELECTI EXSICCATI NR.2166.

Thallus irregularly spreading, loosely attached, apices ± free and subascending, 5-15(-25) cm diam., corticolous. Lobes regularly dichotomously to subdichotomously branching, 1-8(-12) mm wide, 1-10 cm long, well separated, discrete at margins, complex and often entangled centrally, rather flat, apices acute or truncate, rounded or bifurcating, margins entire, often thickened, smoothly rounded, without projecting pseudocyphellae. Upper surface matt or glossy, bright lettuce-green when wet, pale green or olive-brownish when dry, shallowly to deeply faveolate, interconnecting ridges smooth and rounded or sharp. Lower surface white or pale buff, conspicuously wrinkled to ± bullate, margins conspicuously thickened, ± glabrous in a narrow to broad marginal zone, thinly to densely tomentose often to margins, tomentum pale, whitish, silky near margins, entangled, brown-black centrally. Pseudocyphellae scattered to ± frequent, white, raised, verruciform, 0.05-0.2 mm diam., on interconnecting ridges, decorticate area small, depressed-punctate or indented below surrounding margins, rarely flat, margins thin ± puckered. Medulla white. Photobiont green. Apothecia marginal or submarginal, rather scattered, often developed towards lobe apices, subpedicellate, 0.5-2.5 mm diam., disc dark red-brown to black, roughened, epruinose, subconcave to plane and ± undulate, margins persistent or excluded in mature fruits, minutely crenate or verrucose, pale-red-brown to flesh-coloured, exciple pale red-brown, concolorous with margins, minutely verrucose-areolate, rarely pubescent or tomentose. Ascospores brown, ellipsoid-fusiform, simple at first, polaribilocular at maturity, 22-30 × 6.8-10.2 µm. Chemistry: Methyl evernate, tenuiorin, methyl lecanorate, methyl gyrophorate, hopane-6α,22-diol, (zeorin), 6α-16βdiacetoxyhopan-22-ol, 6α-acetoxyhopane-16β,22-diol, 6α-acetoxy-22-hydroxyhopan-23-oic acid, 6α-22dihydroxyhopan-23-oic acid, norstictic and stictic acids.

Pseudocyphellaria billardierei



Pseudocyphellaria billardierei

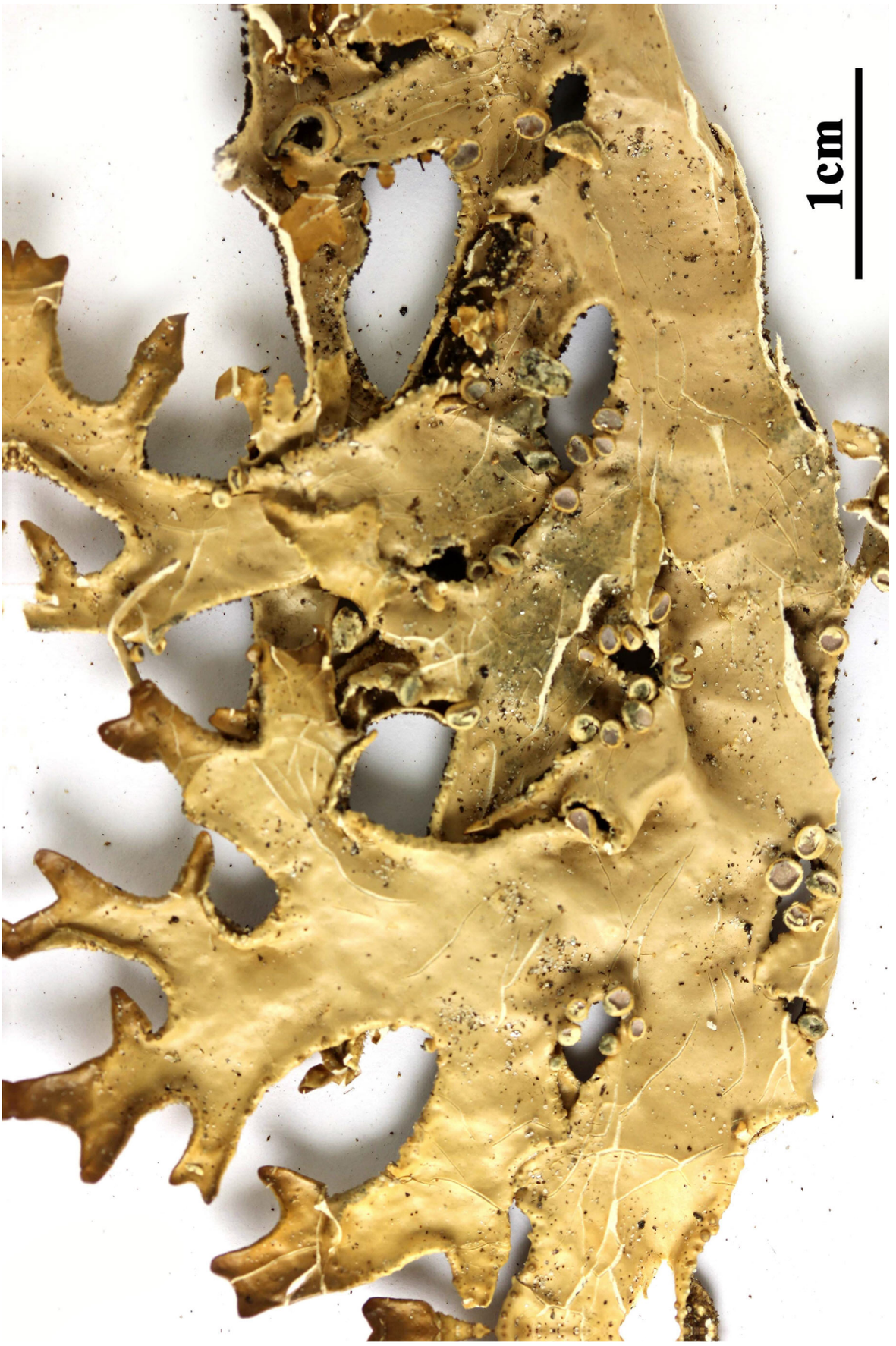
Pseudocyphellaria billardierei

Pseudocyphellaria billardierei (Delise) Räsänen [as 'Billardieri'], Ann. bot. Soc. Zool.-Bot. fenn. Vanamo 2(no. 1): 39 (1932)
= *Crocodia richardii* (Mont.) Trevis., Lichenoth. Veneta 1-2: no. 75 (1869)
= *Lobaria billardierei* (Delise) Hellb., Bih. K. svenska VetenskAkad. Handl., Afd. 3 21(no. 13): 41 (1896)
= *Lobaria fossulata* var. *linearis* (Hook. f. & Taylor) Hellb., Bih. K. svenska VetenskAkad. Handl., Afd. 3 21(no. 13): 38 (1896)
= *Lobaria fossulata* var. *richardii* (Mont.) Hellb. [as 'richardi'], Bih. K. svenska VetenskAkad. Handl., Afd. 3 21(no. 13): 38 (1896)
= *Pseudocyphellaria flotowiana* (Laurer) Malme, Bih. K. svenska VetenskAkad. Handl., Afd. 3 25(no. 5): 22 (1899)
= *Pseudocyphellaria linearis* (Hook. f. & Taylor) C.W. Dodge, Nova Hedwigia 19(3-4): 489 (1971) [1970]
= *Pseudocyphellaria richardii* (Mont.) Räsänen [as 'Richardi'], Ann. bot. Soc. Zool.-Bot. fenn. Vanamo 2(no. 1): 39 (1932)
= *Sticta billardierei* Delise, Hist. Lich. Sticta: 99 (1822)
= *Sticta billardierei* var. *lacinulata* (Kremp.) Müll. Arg., Bull. Herb. Boissier 2(app. 1): 36 (1894)
= *Sticta cellulifera* f. *billardierei* (Delise) Nyl. [as 'billardieri'], in Hue, Nouv. Arch. Mus. Hist. Nat., Paris, 3 sér. 2: 306 (1890)
= *Sticta cellulifera* f. *lacinulata* (Kremp.) Stizenb., Flora, Regensburg 81(1): 114 (1895)
= *Sticta faveolata* var. *billardierei* (Delise) C. Bab. [as 'billardieri'], in Hooker, Bot. Antarct. Voy. Erebus Terror 1839-1843, II, Fl. Nov.-Zeal.: 278 (1855)
= *Sticta faveolata* var. *richardii* (Mont.) Linds. [as 'richardi'], Trans. R. Soc. Edinb. 22(1): 197 (1859) [1861]
= *Sticta flotowiana* Laurer, Linnaea 2: 40 (1827)
= *Sticta fossulata* f. *lacinulata* Kremp., in Fenzl, Reise Österr. Novara Bot. 2: 120 (1870)
= *Sticta fossulata* f. *linearis* (Hook. f. & Taylor) Stizenb., Flora, Regensburg 81(1): 114 (1895)
= *Sticta fossulata* f. *richardii* (Mont.) Nyl., Bull. Soc. linn. Normandie, sér. 2 2: 503 (1868)
= *Sticta fossulata* var. *linearis* (Hook. f. & Taylor) Linds., Trans. Linn. Soc. London 25: 499, tab. LX, fig. 5 (1866)
= *Sticta fossulata* var. *richardii* (Mont.) Nyl. [as 'richardi'], Syn. meth. lich. (Parisiis) 1(2): 364 (1860)
= *Sticta foveolata* var. *richardii* (Mont.) Linds. [as 'richardi'], Trans. R. Soc. Edinb. 22(1): 197 (1859) [1861]
= *Sticta linearis* Hook. f. & Taylor, London J. Bot. 3: 647 (1844)
= *Sticta richardii* Mont. [as 'richardi'], Annls Sci. Nat., Bot., sér. 2 4: 89 (1835)

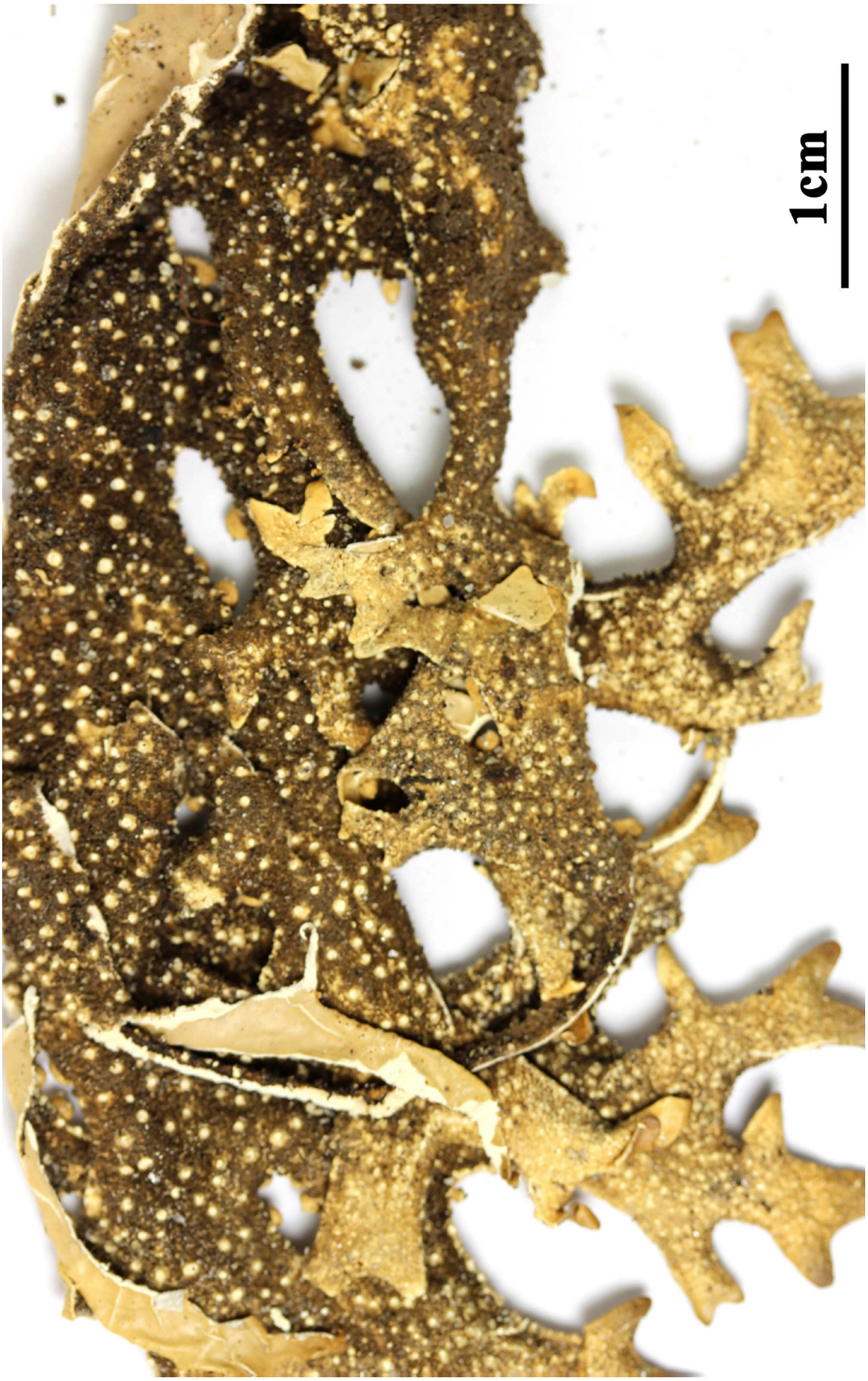
[VZ2071], Nova Zelandia. Westland: Boulder Creek, 38 km ad septentriones versus Haast River Bridge, 30 m. Ad corticem *Nothofagi*. Leg. M. E. Hale, 1.2.1984, det. D. Galloway. Ex A. Vězda Lichenes Selecti Exsiccati Nr. 2071.

Thallus irregularly spreading, loosely attached, apices ± free and subascending, 5-15(-25) cm diam., corticolous. Lobes regularly dichotomously to subdichotomously branching, 1-8(-12) mm wide, 1-10 cm long, well separated, discrete at margins, complex and often entangled centrally, rather flat, apices acute or truncate, rounded or bifurcating, margins entire, often thickened, smoothly rounded, without projecting pseudocyphellae. Upper surface matt or glossy, bright lettuce-green when wet, pale green or olive-brownish when dry, shallowly to deeply faveolate, interconnecting ridges smooth and rounded or sharp. Lower surface white or pale buff, conspicuously wrinkled to ± bullate, margins conspicuously thickened, ± glabrous in a narrow to broad marginal zone, thinly to densely tomentose often to margins, tomentum pale, whitish, silky near margins, entangled, brown-black centrally. Pseudocyphellae scattered to ± frequent, white, raised, verruciform, 0.05-0.2 mm diam., on interconnecting ridges, decorticate area small, depressed-punctate or indented below surrounding margins, rarely flat, margins thin ± puckered. Medulla white. Photobiont green. Apothecia marginal or submarginal, rather scattered, often developed towards lobe apices, subpedicellate, 0.5-2.5 mm diam., disc dark red-brown to black, roughened, epruinose, subconcave to plane and ± undulate, margins persistent or excluded in mature fruits, minutely crenate or verrucose, pale-red-brown to flesh-coloured, exciple pale red-brown, concolorous with margins, minutely verrucose-areolate, rarely pubescent or tomentose. Ascospores brown, ellipsoid-fusiform, simple at first, polaribilocular at maturity, 22-30 × 6.8-10.2 µm. Chemistry: Methyl evernate, tenuiorin, methyl lecanorate, methyl gyrophorate, hopane-6α,22-diol, (zeorin), 6α-16βdiacetoxyhopan-22-ol, 6α-acetoxyhopane-16β,22-diol, 6α-acetoxy-22-hydroxyhopan-23-oic acid, 6α-22dihydroxyhopan-23-oic acid, norstictic and stictic acids.

Pseudocyphellaria billardierei



Pseudocyphellaria billardierei

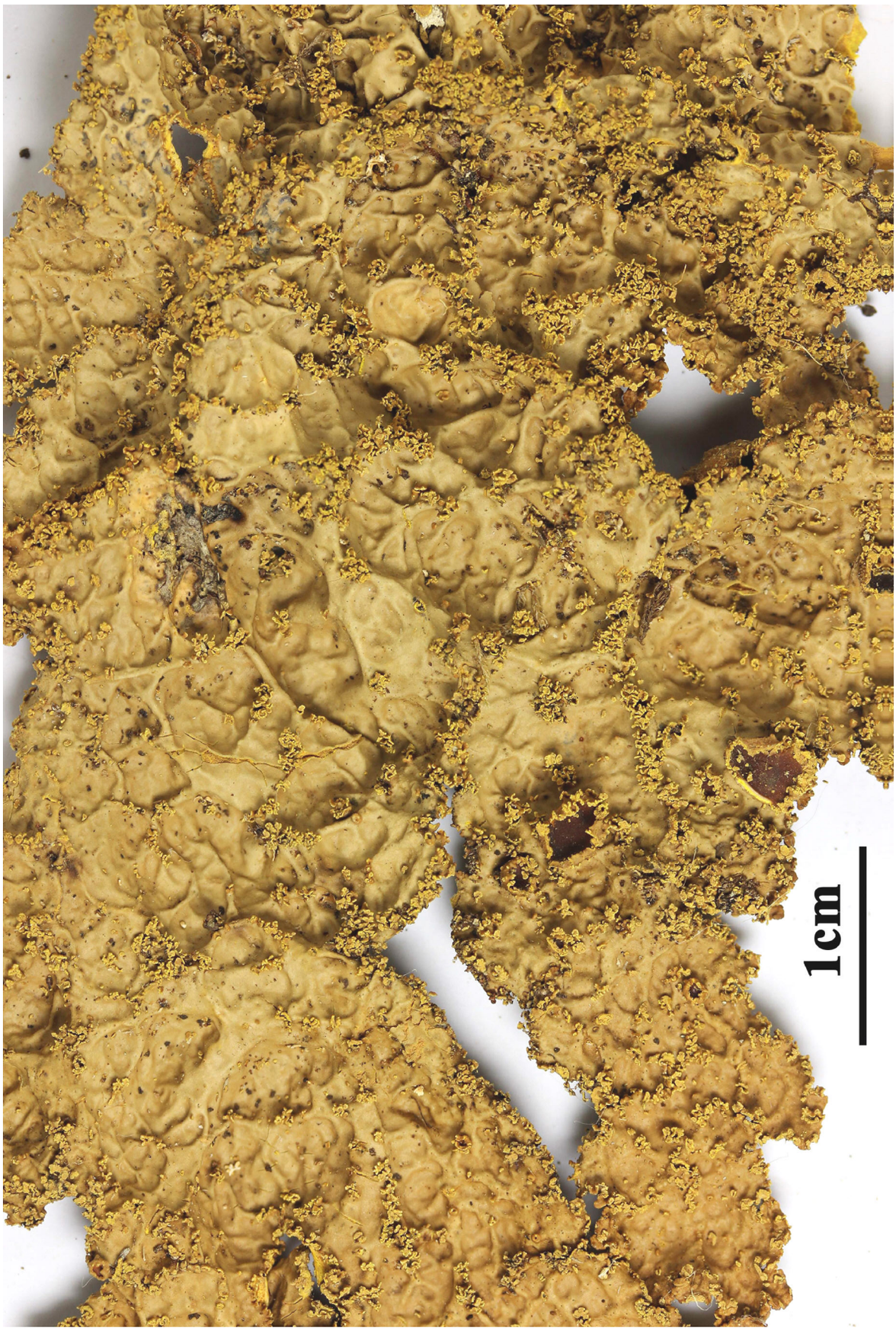


Pseudocyphellaria billardierei

Pseudocyphellaria colensoi (C. Bab.) Vain., Résult. Voy. Belgica, Lich.: 28 (1903)
= *Yarrumia colensoi* (C. Bab.) D.J. Galloway, Phytotaxa 198(1): 55 (2015)
= *Lobaria colensoi* (C. Bab.) Trevis., Lichenoth. Veneta 1-2: no. 75 (1869)
= *Sticta colensoi* C. Bab., in Hooker, Bot. Antarct. Voy. Erebus Terror 1839-1843, II, Fl. Nov.-Zeal.: 274 (1855)
= *Sticta urvillei var. colensoi* (C. Bab.) Nyl., Syn. meth. lich. (Parisiis) 1(2): 360 (1860)

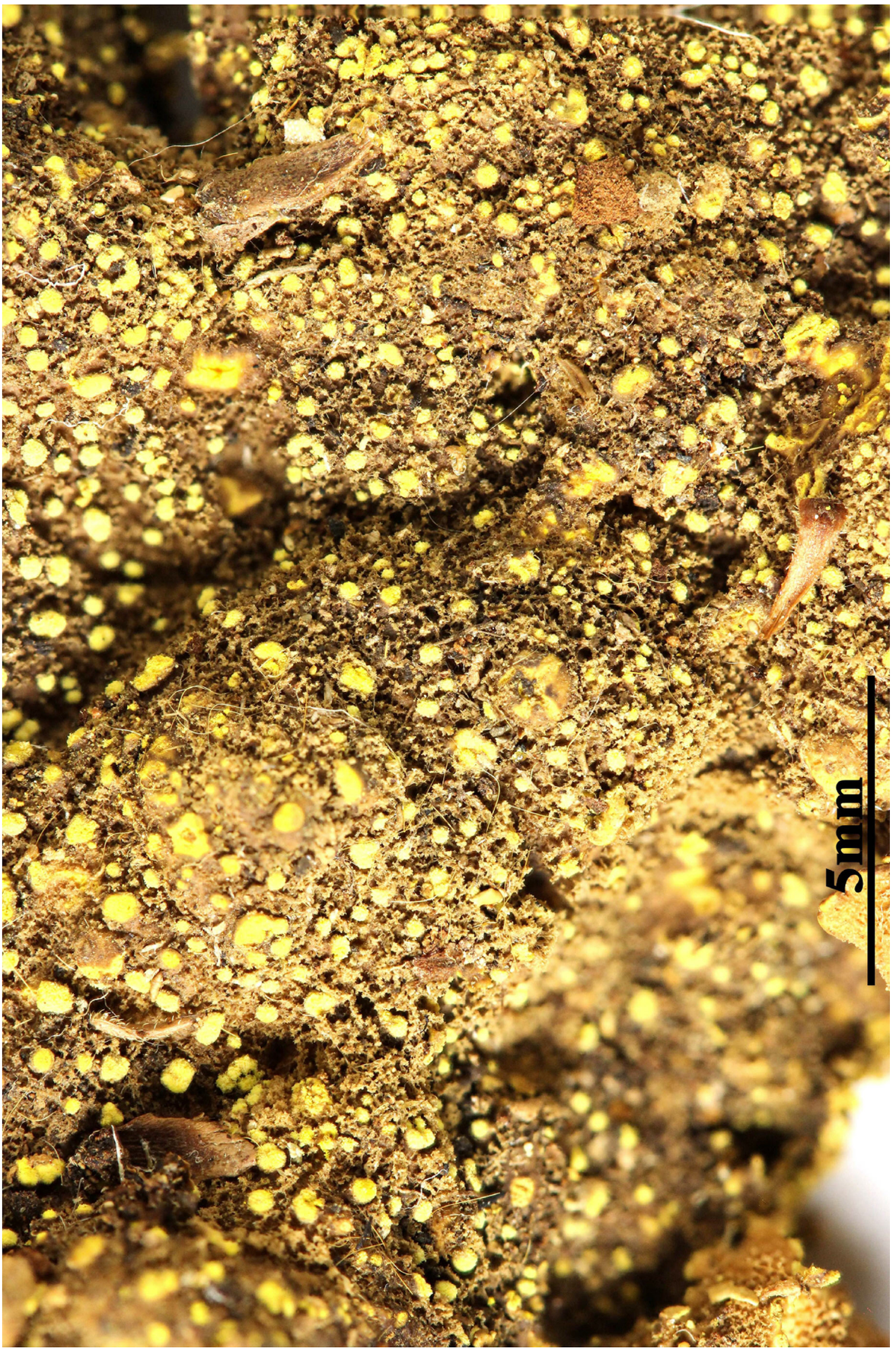
[VZ2491] Australia. Tasmania, Meander Forest Reserve, 680 m. Ad truncum *Nothofagi cunninghannii* in pluviisilva. Leg. G. Kantvilas (235/90), 13.5.1990. Ex A. Vězda Lichenes Selecti Exsiccati Nr. 2491.

Thallus orbicular to spreading often ± pendulous, 8-20(-30) cm diam. Lobes rounded to linear-enlongate, 10-25 mm wide, to 12 cm long, ± irregularly incised, margins often notched or crenulate, ± ragged or with coarse to verruciform-granular to flattened isidia. Upper surface bright green or yellowish-green or tinged pale bluish-green when wet, pale greenish-grey when dry, slightly undulate to very shallowly faveolate, matt or glossy, minutely scabrid-areolate (×10 lens), occasionally cracked, lacerate, isidiate. Isidia coarse, verruciform-granular or subcoralloid, abraded at apices and exposing yellow, medulla, appearing ± sorediate, marginal and laminal. Medulla yellow. Photobiont green. Lower surface thinly white-tomentose, ± bullate, pale yellowish-buff. Cephalodia in prominent rounded warts. Pseudocyphellae numerous, yellow, crowded, raised in verrucae, 0.1-0.2 mm diam. Apothecia sparse to frequent, 2-10 mm diam., pedicellate, laminal, rarely marginal, disc red-brown, concave to plane, matt, often fissured, with eroded, verruciform-isidiate margins, thalline exciple prominent, pale, verruculose-areolate. Ascospores 1-3-septate, colourless, fusiform-ellipsoid (30-)34-40 × 8-11 µm. Chemistry: Pulvinic dilactone, pulvinic acid, calycin, polyporic acid, 2α,3β,22α-triacetoxystictane, 22α,hydroxystictane-3-one (±), 2α-3β-diacetoxystictane-22α-ol, stictane-3β,22αdiol (±), 2α-acetoxystictane-3β,22,α-diol, 3β-acetoxystictane-2α,22α-diol (±), stictane-2α,3β,22α,-triol (±).



Pseudocyphellaria colensoi

Pseudocyphellaria colensoi



Erioderma barbellatum

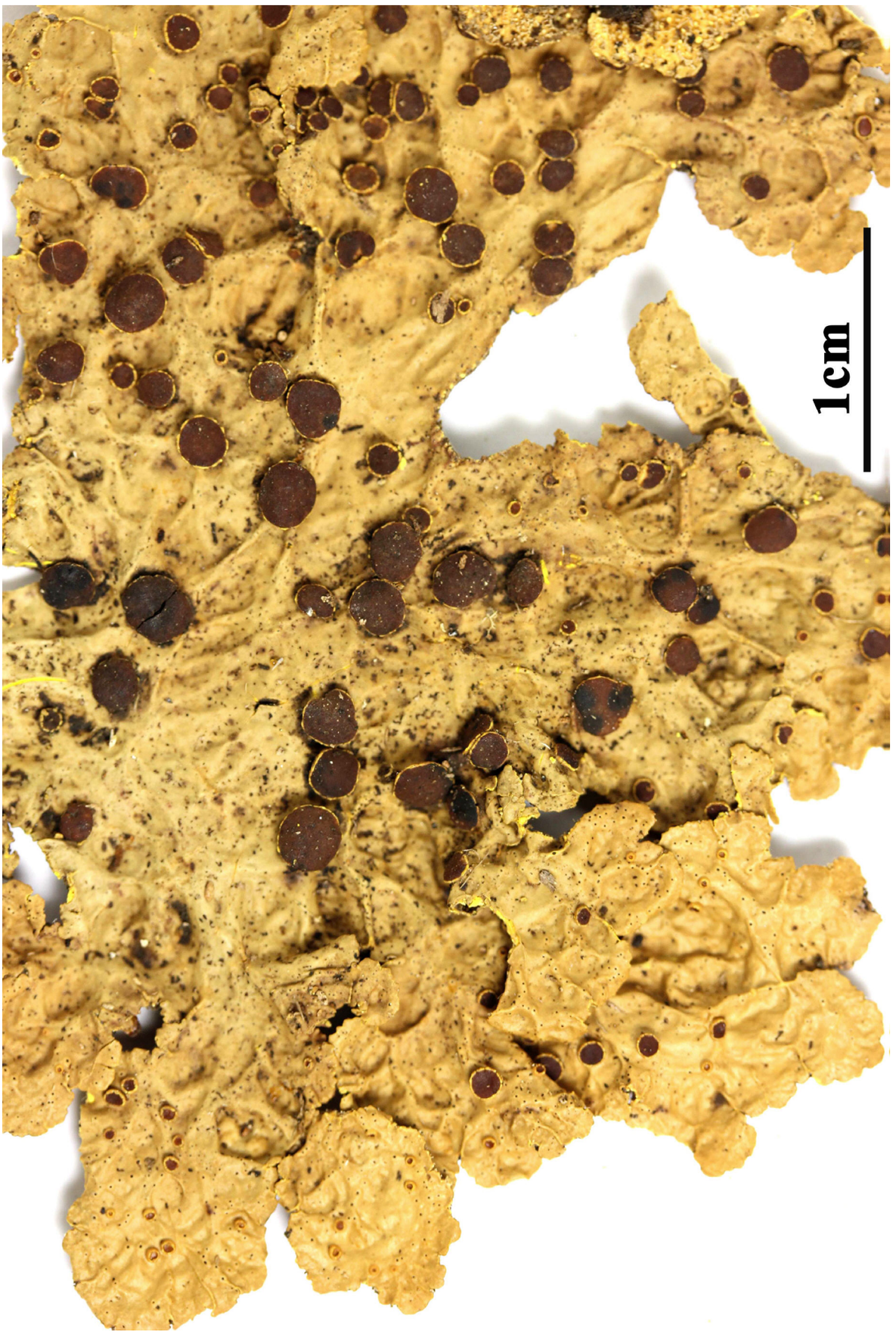
Pseudocyphellaria coronata (Müll. Arg.) Malme, Bih. K. svenska VetenskAkad. Handl., Afd. 3 25(no. 5): 29 (1899)
= *Yarrumia coronata* (Müll. Arg.) D.J. Galloway, Phytotaxa 198(1): 55 (2015)
= *Lichen filix * orygmaea* (Ach.) Lam., Encycl. Méth., Bot. Suppl. (Paris) 3(2): 421 (1813)
= *Lobaria hirta* Hellb., Bih. K. svenska VetenskAkad. Handl., Afd. 3 21(no. 13): 40 (1896)
= *Lobaria orygmaea* (Ach.) Trevis., Lichenoth. Veneta 1-2: no. 75 (1869)
= *Lobaria urvillei* (C. Bab.) Trevis., Lichenoth. Veneta 1-2: no. 75 (1869)
= *Pseudocyphellaria durvillei* (Delise) Vain., Hedwigia 38(Beibl.): (187) (1899)
= *Pseudocyphellaria hirta* (Hellb.) D.J. Galloway & P. James, Lichenologist 9(2): 95 (1977)
= *Pseudocyphellaria orygmaea* (Ach.) Malme, Bih. K. svenska VetenskAkad. Handl., Afd. 3 25(no. 5): 28 (1899)
= *Pseudocyphellaria orygmaea* var. *urvillei* (C. Bab.) Malme, Bih. K. svenska VetenskAkad. Handl., Afd. 3 25(no. 5): 28 (1899)
= *Sticta coronata* Müll. Arg., Flora, Regensburg 62: 163 (1879)
= *Sticta durvillei* Delise, Hist. Lich. Sticta: 170 (1825) [1822]
= *Sticta endochrysa* var. *urvillei* (C. Bab.) Müll. Arg., Miss. Sci. Cap Horn, Lich. (Paris) 5: 157 (1889)
= *Sticta hirta* Stirt., Trans. Glasgow Soc. Fld Nat. 1: 23 (1873)
= *Sticta orygmaea* Ach., Methodus, Sectio post. (Stockholmiæ): 278 (1803)
= *Sticta urvillei* C. Bab., in Hooker, Bot. Antarct. Voy. Erebus Terror 1839-1843, II, Fl. Nov.-Zeal.: 298 (1855)

[VZ2482], Australia. Tasmania. Belmont Road, lat. 41°23.5' austr., long. 145°32' orient., 460 m. Ad Ramos arboris (*Nothofagus cunninghamii*) in pluviisilva. Leg. G. Kantvilas (no. 277/89), 8.10.1989. Ex A. VěZDA Lichenes Selecti Exsiccati Nr. 2482.

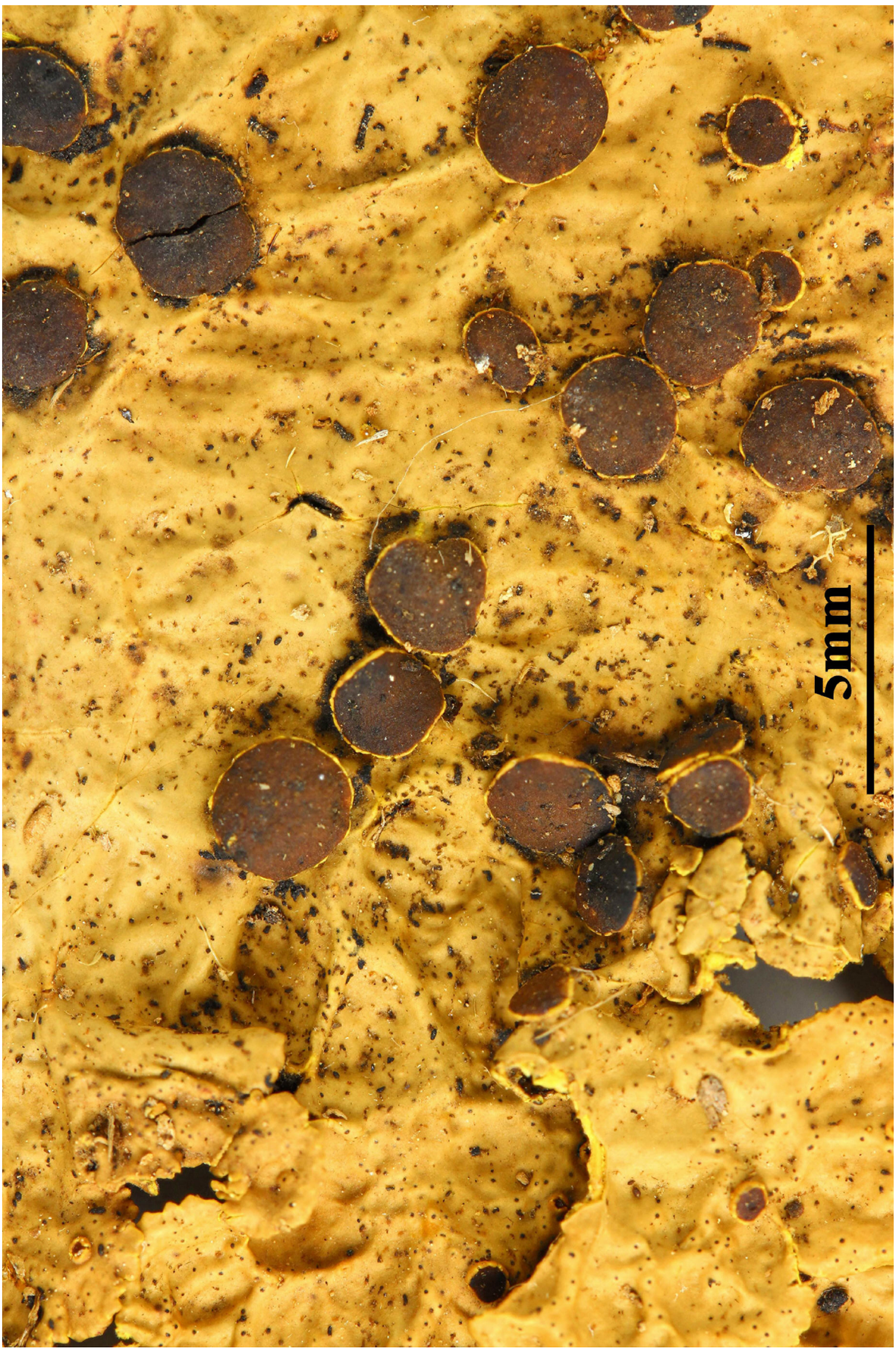
Thallus ± orbicular, attached centrally, margins ± free, 5-12(-30) cm diam. Lobes large, rounded, 1.5-5.0 cm wide, margins minutely indented-incised, not sorediate or isidiate. Upper surface bright lettuce-green or glaucous-green or pale yellowish-green when wet, pale greyish-green when dry, cinnamon-brown or suffused purplish on storage, matt to rather waxy, glossy and often tinged brown marginally, uneven, ± deeply faveolate-reticulate, especially towards margins. Medulla yellow. Photobiont green. Lower surface complexly wrinkledverrucose, not or sparingly tomentose, pale yellowish or buff, blackish centrally. Pseudocyphellae yellow to reddish-yellow, to 0.6 mm diam., round to irregular, crowded, papillate, ± bursting at apices.Apothecia small 1-2

mm diam., abundant, contiguous or scattered, often crowded, disc matt, red-brown to blackish, convex to plane, concave when young, margins thin, crenate or denticulate-coronate, irregular, not isidiate, thalline exciple smooth, glossy. Ascospores fusiform, 1-3-septate, colourless, 25-36 × 7-11 µm. Chemistry: Pulvinic dilactone, pulvinic acid, calycin, polyporic acid, and unidentified pigment (red in acetone) 2α,3β,22α-triacetoxystictane, 22α,hydroxystictane-3-one (±), 2α3β-diacetoxystictane-22α-ol, stictane-3β,22α-diol (±), 2αacetoxystictane-3β,22αdiol, 3β-acetoxystictane-2α,22α-diol (±) and stictane-2α,3β,22α-triol (±).

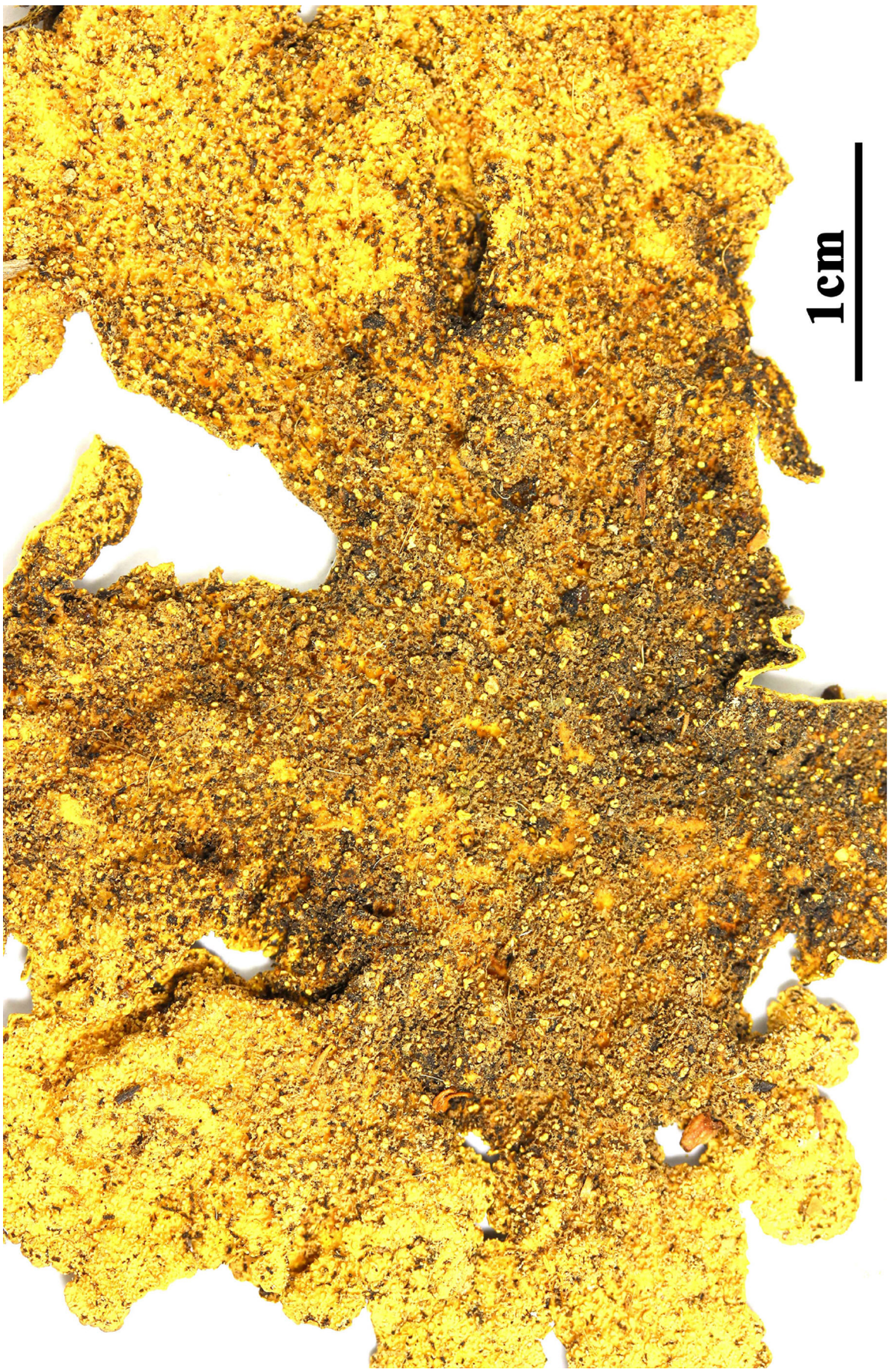
Pseudocyphellaria coronata



Pseudocyphellaria coronata



Pseudocyphellaria coronata



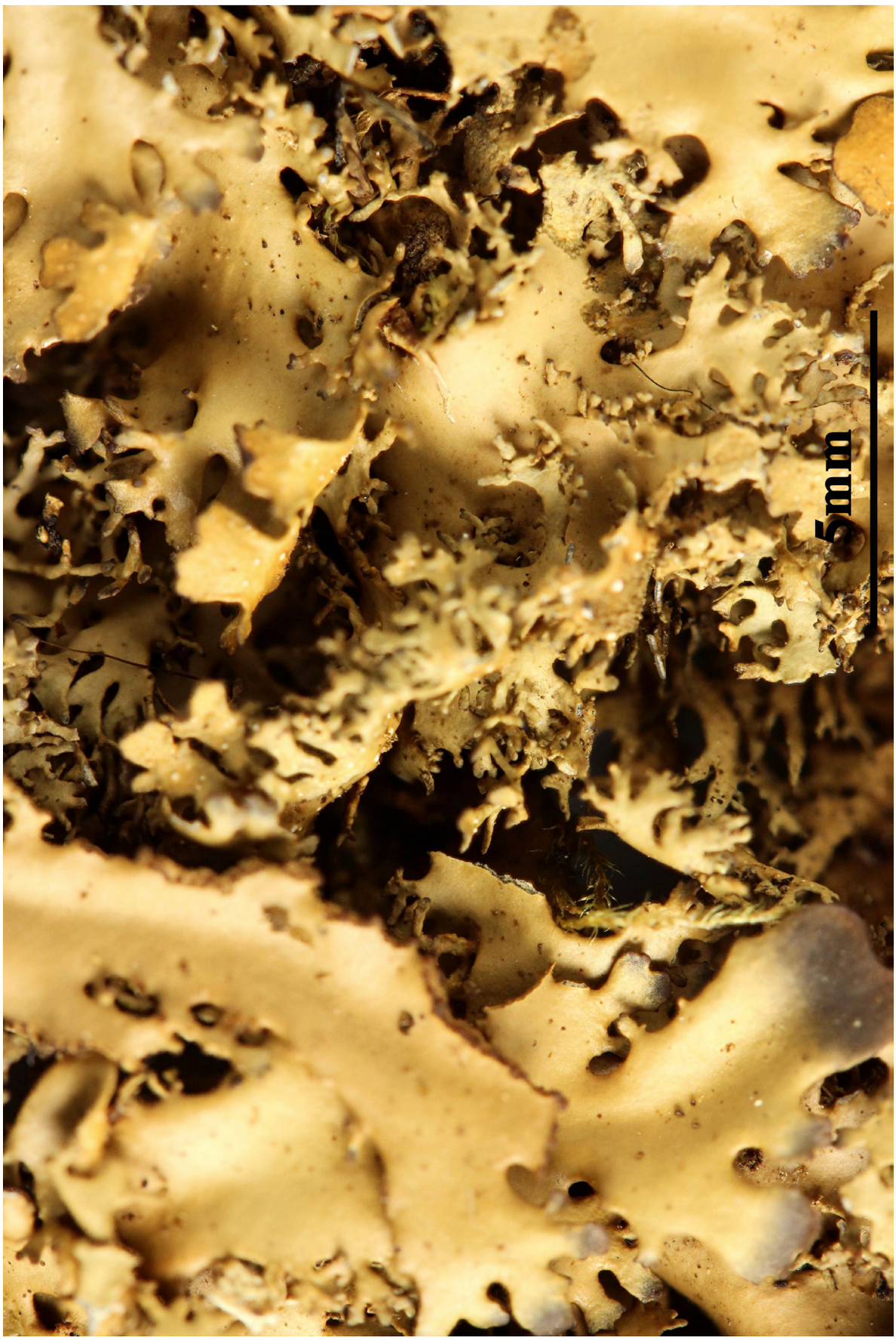
Pseudocyphellaria coronata

Pseudocyphellaria dissimilis (Nyl.) D.J. Galloway & P. James, Lichenologist 12(3): 297 (1980)
= *Stictina fragillima* var. *dissimilis* Nyl. 1860

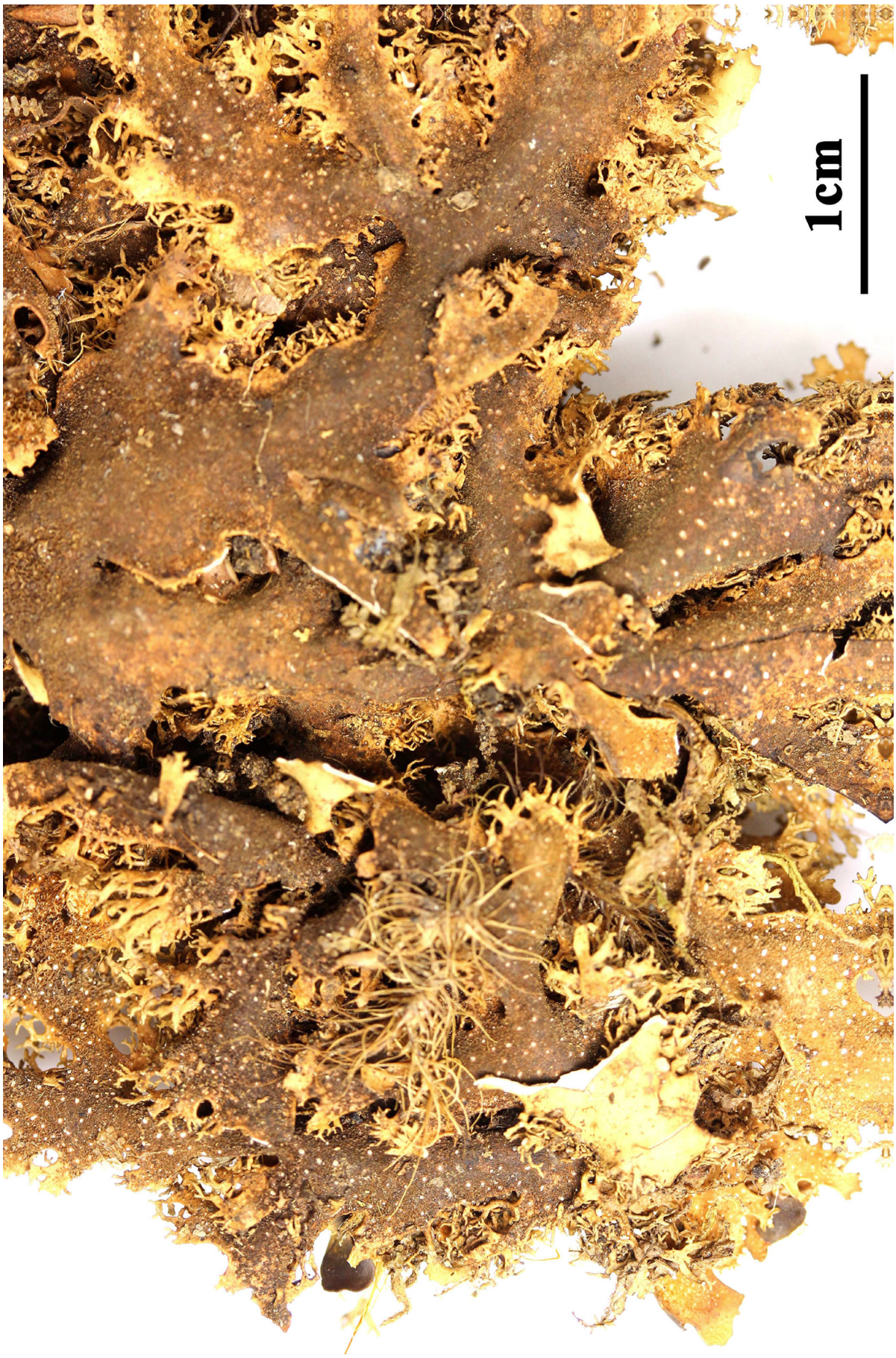
[VZ1845] Australia. New South Wales, Reservatum naturae "New England National Park", inter Banksia Point et Wright's Lookout, 30°30' austr., 152°24' orient., 1250 - 1450 m. Supra rupem subumbrosam, in silva mixta (*Eucalyptus* - *Nothofagus* moore) Leg. et det. L. Tibell (no. 12453), 18.4.1981. Ex A. VěZDA Lichenes Selecti Exsiccati Nr. 1845.

Thallus very variable, irregularly spreading, loosely to closely attached centrally, 5–12 (–15) cm wide; margins ±free. Lobes linear-elongate to shallowly rounded, (1–) 2–5 (–8) cm long, (1–) 3–8 (–10) mm wide, subdichotomously to irregularly branching, ±discrete at apices, complex-imbricate centrally, often canaliculate and divided into numerous phyllidia; lobe margins entire, sinuous, ridged above, thickened below, isidiate-phyllidiate. Upper surface pale grey-blue to glaucous brownish when dry, dark grey-blue to blue-black when wet, smooth to shallowly wrinkled, maculate. Maculae white, minute, laminal, scattered, irregular, pale buff or brown photobiont-free areas often present as ±extensive patches. Isidia marginal and laminal, simple, terete, to 3 mm tall and 0.1 mm diam., becoming densely crowded-coralloid and eventually flattened-phyllidiate. Medulla white. Photobiont Nostoc. Lower surface white or pale buff, glabrous at margins, costate and brownish-tomentose centrally. Pseudocyphellae white, punctate. Apothecia sessile, marginal and laminal; disc yellow-brown to red-brown, epruinose; exciple scabrid-areolate; epithecium yellow-brown to pale red-brown, K–; hymenium colourless; hypothecium yellow-brown to pale straw-yellow, K–. Ascospores fusiform-ellipsoidal, 1–3-septate, 20.5–29.5 × 7–9 µm, pale yellow-brown. CHEMISTRY: 7β-acetoxyhopane-22-ol, hopane-7β,22-diol (trace), hopane-15α,22-diol, gyrophoric acid and methyl gyrophorate. - Occurs in Australia, Tasmania, common in wet-sclerophyll forest and callidendrous rainforest in Tas. where it occurs on rocks, soil, peat, logs, tree buttresses and tree fern trunks. Also in New Zealand and the Palaeotropics.

seudocyphellaria dissimilis



seudocyphellaria dissimilis



seudocyphellaria dissimilis

seudocyphellaria dissimilis

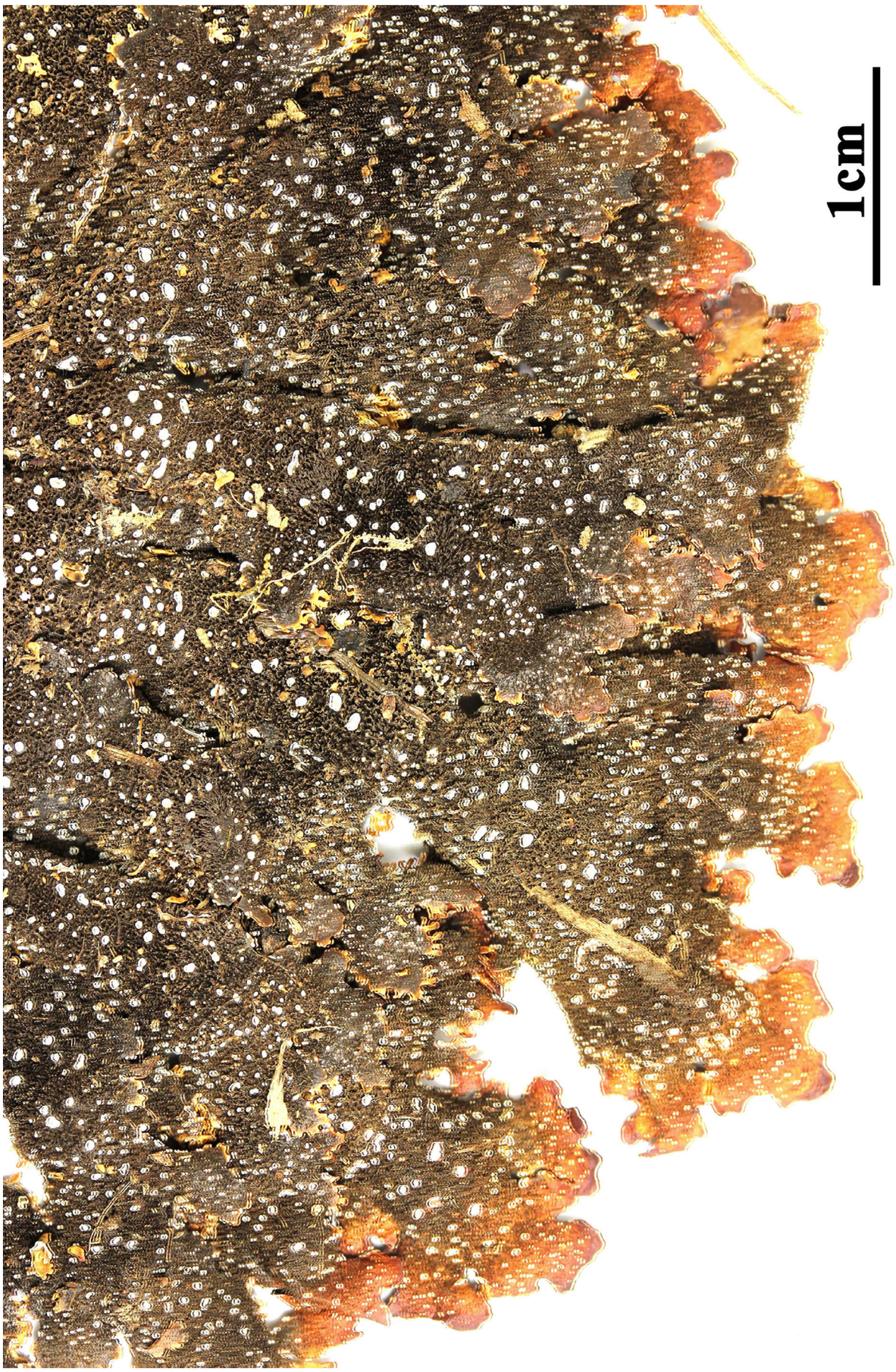
Pseudocyphellaria glabra (Hook.f. & Taylor) C.W.Dodge

[VZ2419], Australia. Tasmania: Lake Dobson Road, 16 km ad septetriones et occidentem a Bushy Park, 400 m, Ad saxa umbrosa. Leg. H. Streimann (no. 39955), 7.7.1988, det. D. J. Galloway. EX A. VĚZDA LICHENES SELECTI EXSICCATI NR. 2418.

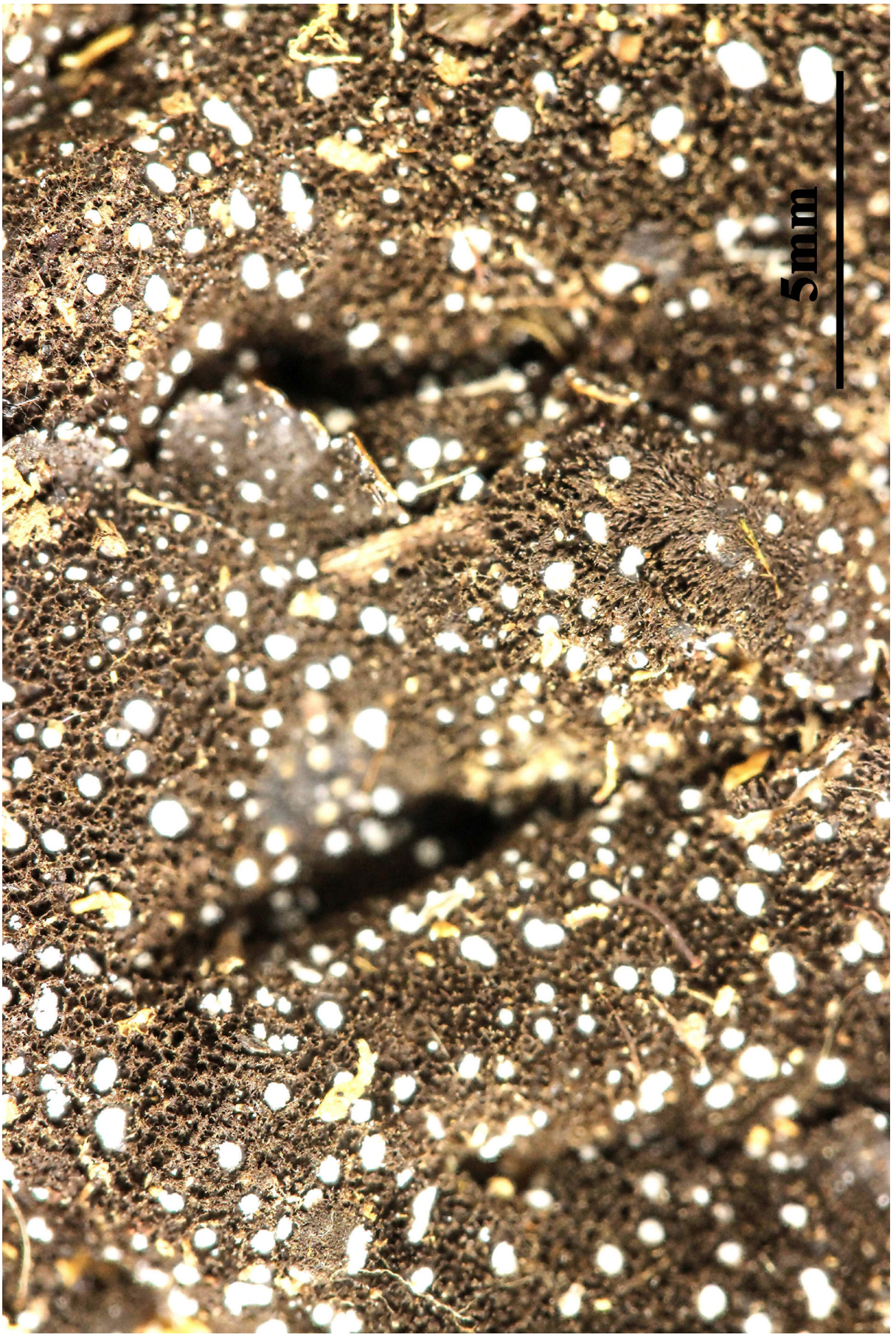
Thallus loosely attached centrally, 5-10(-30) cm wide. Lobes broadly rounded (10-17 mm wide) to narrowly laciniate (2-6 mm wide), discrete from apices to centre; lobe margins becoming isidiate or eroding with age. Upper surface pale greenish to yellow-fawn when dry, lettuce-green to greenish yellow when wet, never faveolate, often deeply cracked. Isidia marginal or arising from laminal cracks, simple, terete, 0.5-1 mm tall. Medulla white. Photobiont green. Lower surface dark brown centrally, tomentose throughout. Pseudocyphellae prominent, white. Apothecia rare, 0.5-7 mm diam., Ascospores fusiform, 1-3 septate, 13.5-22.5 x 4.5-7 µm, pale yellow-brown. Chemistry: 7β-acetoxyhopane-22-ol (major), 7β,15α-diacetoxyhopane-22-ol (trace), hopane-15α,22-diol (major), norstictic acid (trace), stictic acid (major), cryptostictic acid (trace), constictic acid (major), methyl stictic acid (minor), 9α-acetoxyconstictic acid (minor), usnic acid.

Pseudocyphellaria glabra

Pseudocyphellaria glabra



Pseudocyphellaria glabra

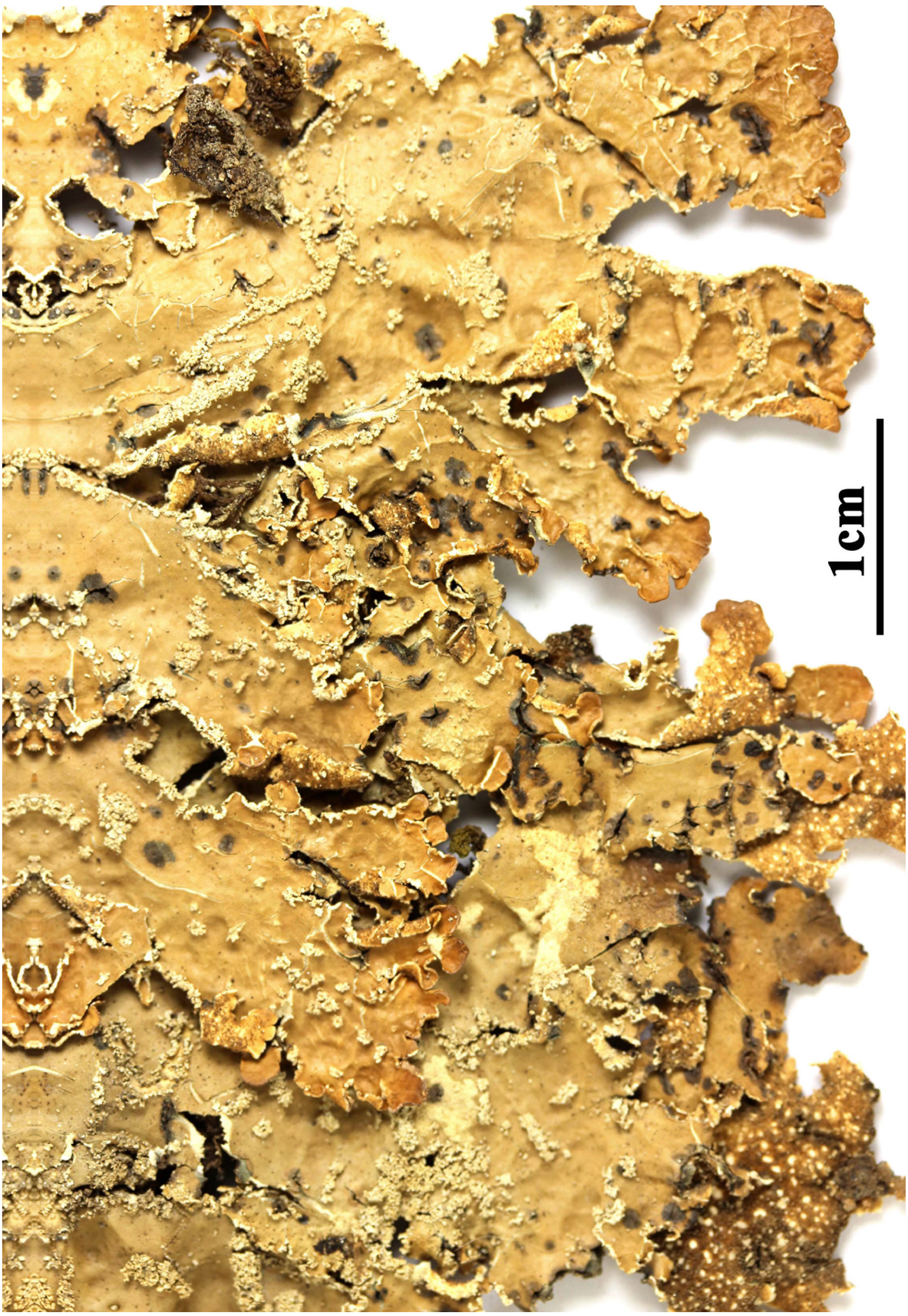


Pseudocyphellaria glabra

Pseudocyphellaria granulata (C.Bab.) Malme

[VZ2069], Nova Zelandia. Fjordland: Mt. Aspring National Park, secus viam dictam Routeburn Track, 350 m. Ad corticem *Nothofagi*. Leg. M. E. Hale, 30.1.1984, det. D. Galloway. EX A. VĚZDA LICHENES SELECTI EXSICCATI NR. 2069.

Lobes deeply incised, linear-elongate to broadly rounded, 1-5 cm long, 5-25 mm wide. Margins densely sorediate, often eroding, white. Upper surface grey-fawn or glaucous yellow when dry, olivaceous when wet, faveolate in parts. Soredia in erose laminal or marginal soralia, coarsely granular, whitish to greenish black. Medulla white. Photobiont green. Lower surface pale at margins, black centrally. Pseudocyphellae conspicuous, white. Apothecia marginal and laminal, to 1.5 mm diam. Ascospores 1-septate, ellipsoidal, 22.5-32 x 9-11.5 µm, grey to olive-brown. Chemistry: hopane-6α,7β,22-triol (major), 6α-acetoxyhopane-7β,22-diol (minor), hopane-15α,22-diol (trace), 7β-acetoxyhopane-6α,22-diol (trace), hopane-7β,22-diol (minor), 7β-acetoxyhopane-22-ol (trace), methyl virensate (trace), physciosporin (major), norstictic acid (trace), stictic acid (major), cryptostictic acid (trace), constictic acid.



Pseudocyphellaria granulata

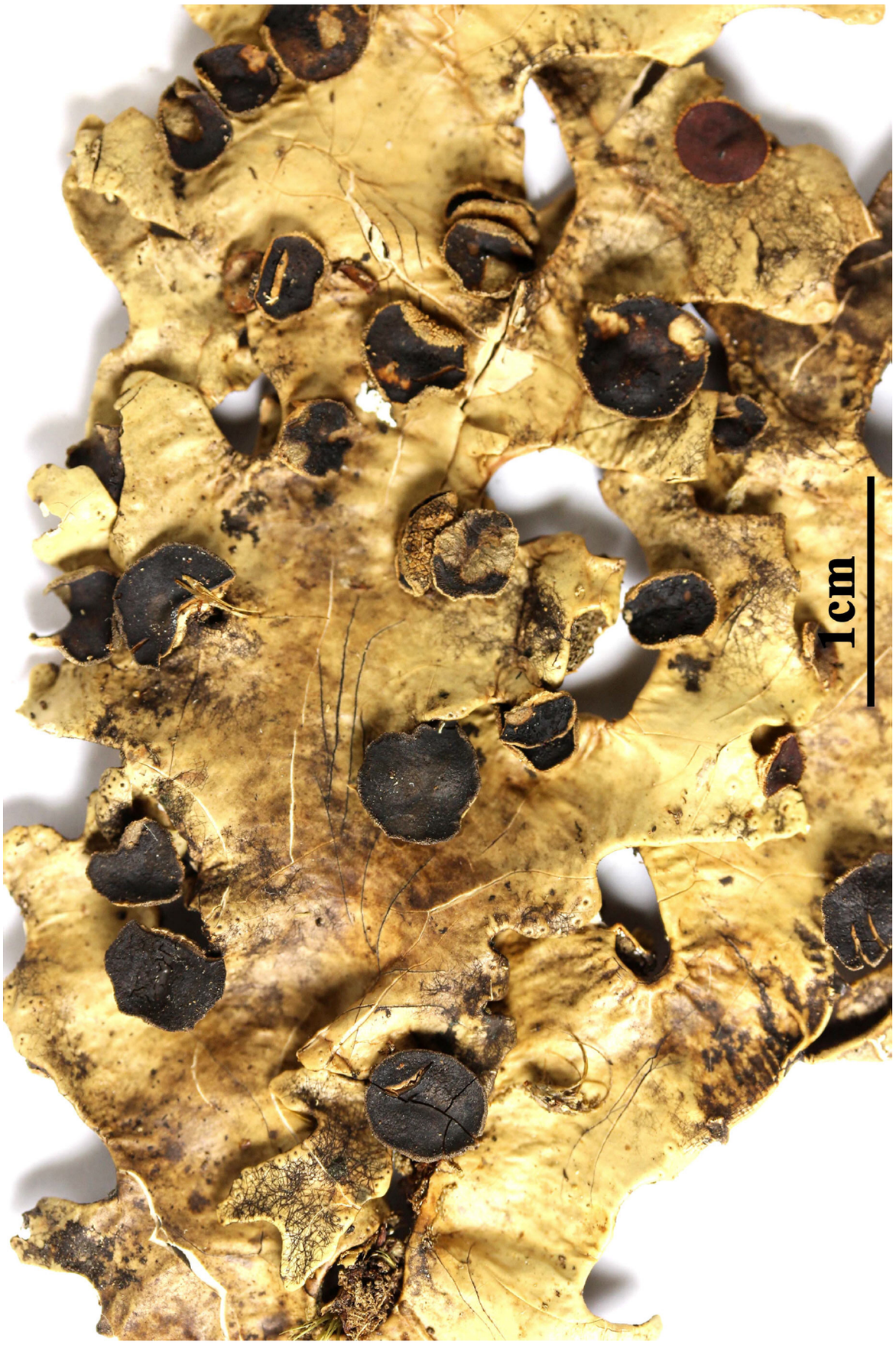
Pseudocyphellaria granulata

Pseudocyphellaria granulata

Pseudocyphellaria homoeophylla (Nyl.) C.W.Dodge

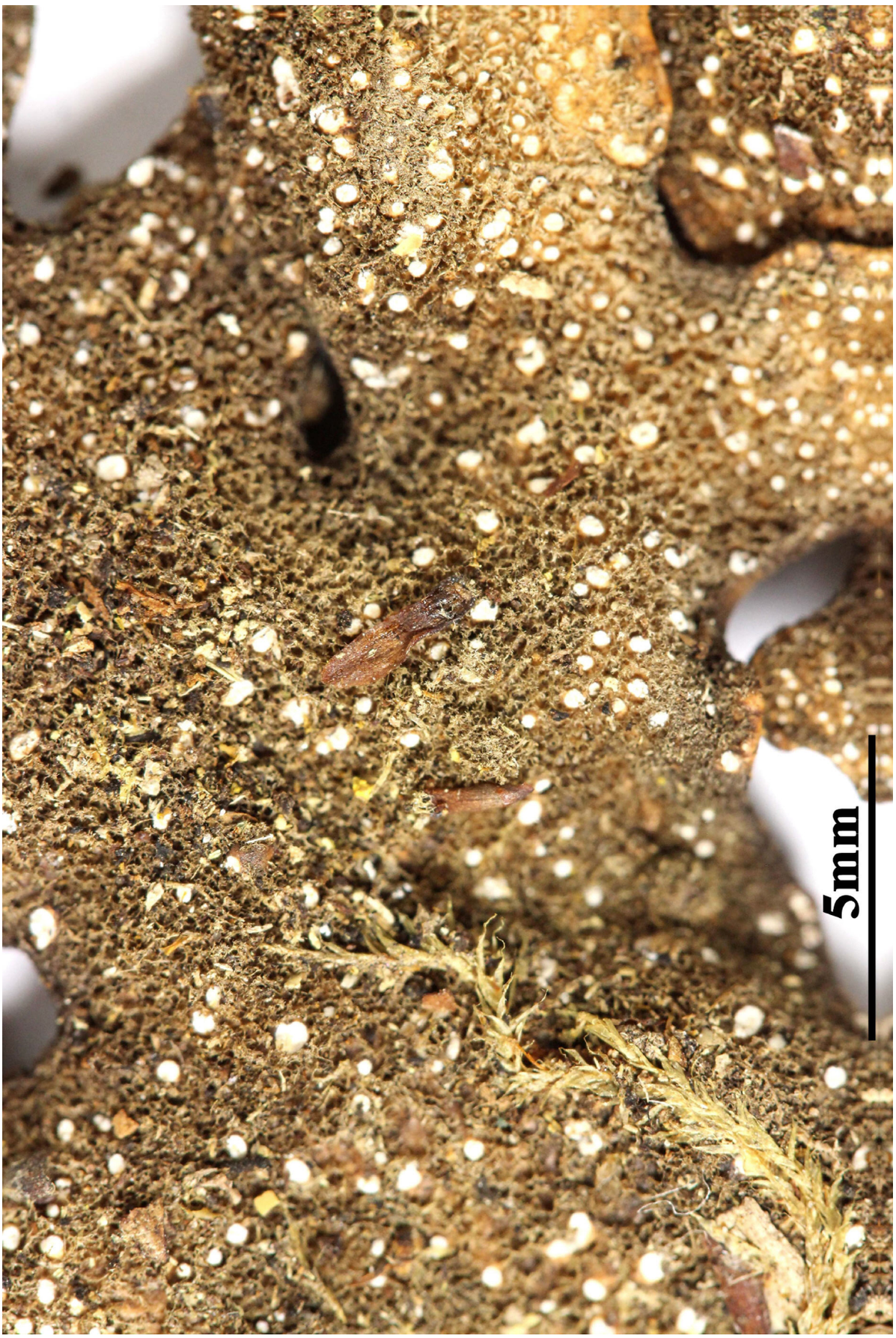
[VZ2268], Nova Zelandia. South Island: The Boyle, 20 km ad australem et orientalem versus a transitu Lewis Pass, 625 m. Ad rupes siliceas. Leg. T. H. Nash (no. 24223), 14.7.1985. EX A. VĚZDA LICHENES SELECTI EXSICCATI NR. 2268.

Thallus loosely attached. Lobes di- or trichotomously branching, linear laciniate lobes with entire, sinuous margins. Upper surface plane to undulate, not faveolate impressed, lacking isidia, maculae, phyllidia, pseudocyphellae and soredia. Medulla white. Photobiont green. Lower surface red-brown to black, with patchy tomentum and numerous, conspicuous white pseudocyphellae, 0.1-1 mm diam., crateriform with raised margins. Apothecia 1-6 mm diam. Ascospores 1-3 septate, fusiform-ellipsoid, 25-32 x 7-9 µm, pale straw-cloured. Chemistry: 7β-acetoxyhopan-22-ol, 7β,14α-diacetoxyhopane-22-ol (trace), hopane-15α,22-diol, norstictic acid, stictic acid, cryptostictic acid, constictic acid, methylstictic acid, hypostictic acid (trace), hyposalazinic acid (trace), usnic acid.



Pseudocyphellaria homoeophylla

Pseudocyphellaria homoeophylla



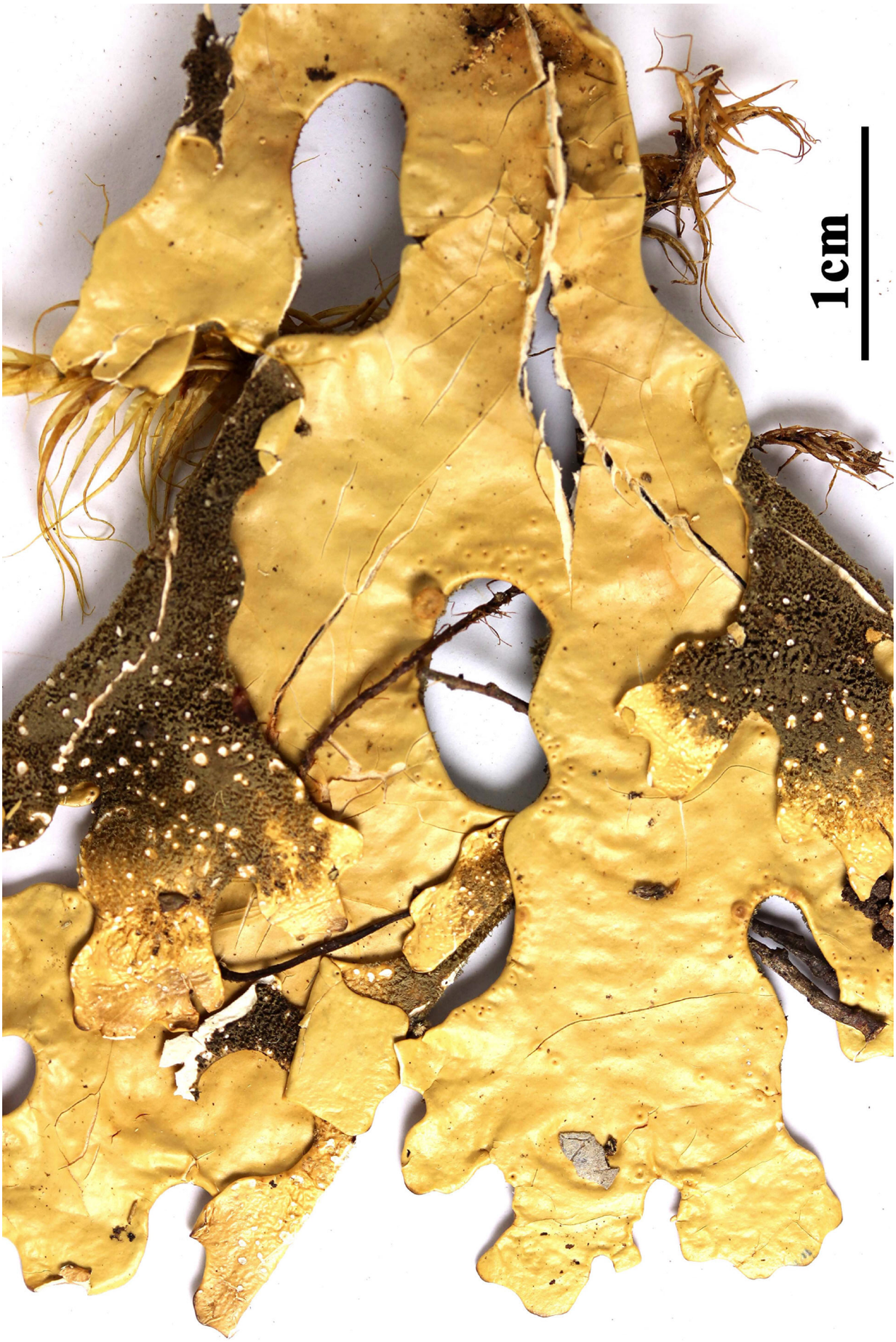
Pseudocyphellaria homoeophylla

Pseudocyphellaria homoeophylla

Pseudocyphellaria homoeophylla (Nyl.) C.W.Dodge

[VZ2070], Nova Zelandia. Lawis Pass, secus viam dictam Tarn Nature Walk, 850 m. Ad terram in silva. Leg. M. E. Hale, 4.2.1984, det. D. Galloway. EX A. VěZDA LICHENES SELECTI EXSICCATI NR. 2070.

Thallus loosely attached. Lobes di- or trichotomously branching, linear laciniate lobes with entire, sinuous margins. Upper surface plane to undulate, not faveolate impressed, lacking isidia, maculae, phyllidia, pseudocyphellae and soredia. Medulla white. Photobiont green. Lower surface red-brown to black, with patchy tomentum and numerous, conspicuous white pseudocyphellae, 0.1-1 mm diam., crateriform with raised margins. Apothecia 1-6 mm diam. Ascospores 1-3 septate, fusiform-ellipsoid, 25-32 x 7-9 µm, pale straw-cloured. Chemistry: 7β-acetoxyhopan-22-ol, 7β,14α-diacetoxyhopane-22-ol (trace), hopane-15α,22-diol, norstictic acid, stictic acid, cryptostictic acid, constictic acid, methylstictic acid, hypostictic acid (trace), hyposalazinic acid (trace), usnic acid.



Pseudocyphellaria homoeophylla

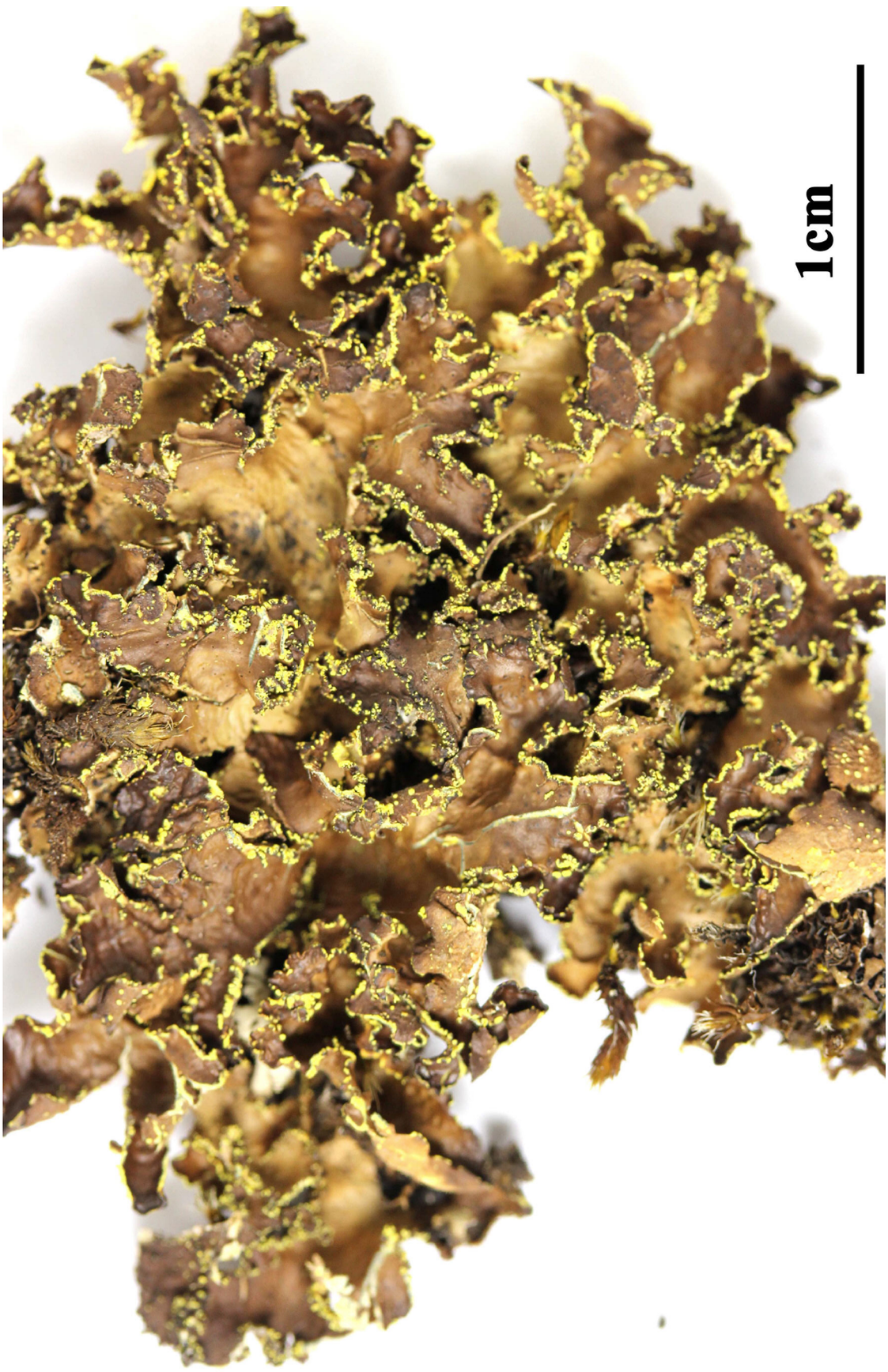
Pseudocyphellaria homoeophylla

Pseudocyphellaria neglecta (Müll. Arg.) H. Magn., Acta horti gothoburgensis 14: 30 (1940)
= *Stictina neglecta* Müll. Arg. 1887

[VZ2493], Australia occidentalis: Albany, in margine occidentali urbi, secus viam ad oppidum Denmark ductam. Ad petram laevem noncalcaream. Leg. W. L. Culberson (no. 21287) et C. F. Culberson,15.11.1990, det. D. Galloway.- Annot.: Calycin, pulvinic dilactone, pulvinic acid (trace), tenuiorin, and triterpenes probaly including retigeranic acid (trace) by TLC; anal. A. Johnson and C. F. Culberson. EX A. VěZDA LICHENES SELECTI EXSICCATI NR, 2493.

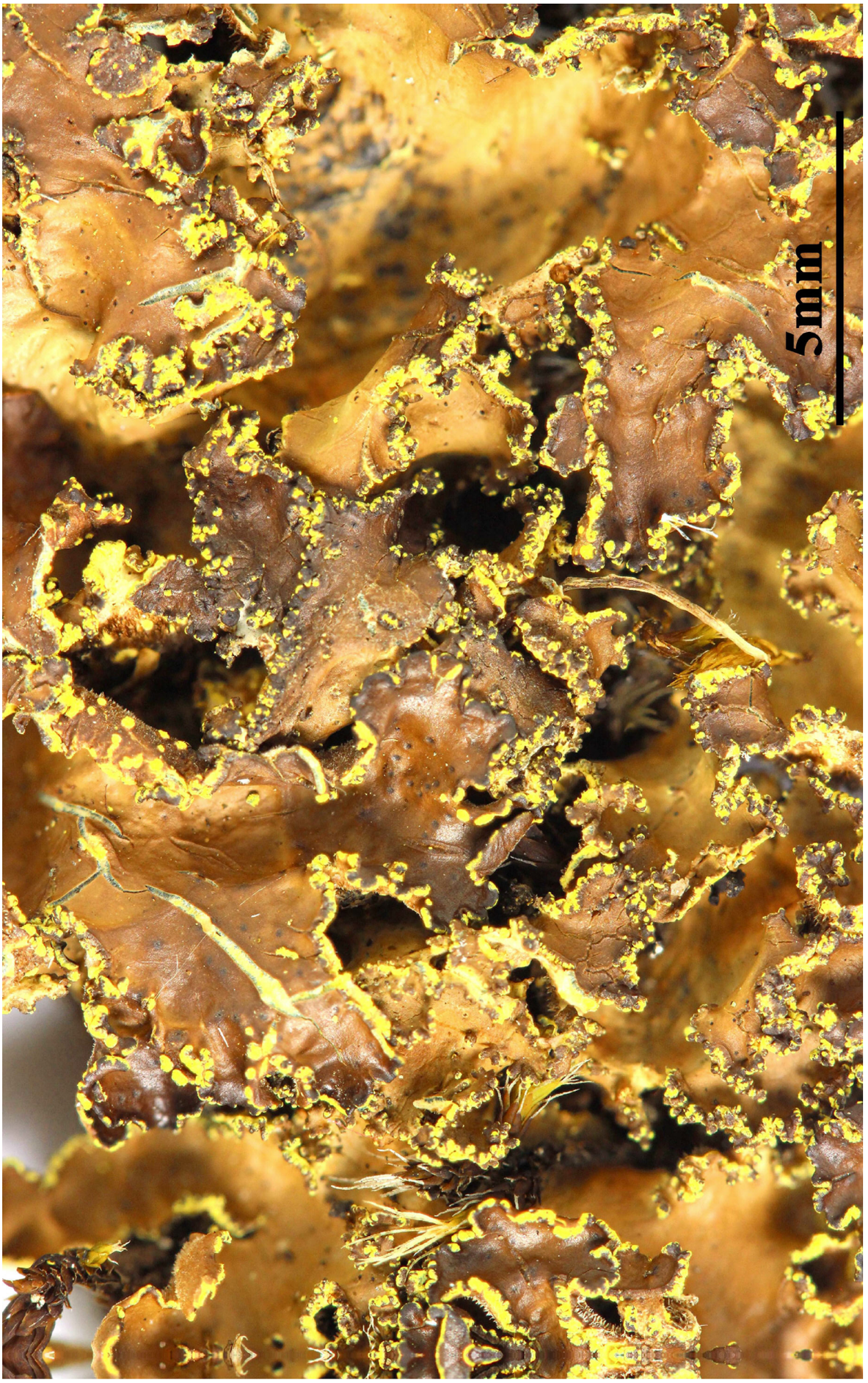
Thallus rosette-forming to irregularly spreading, loosely attached centrally, 3–10 (–20) cm wide. Lobes very variable, shortly linear-laciniate to broadly rounded, 1–5 (–10) cm long, 2–25 mm wide, discrete to imbricate, concave to plane; lobe margins entire, incised, crenate-dentate, often densely phyllidiate, sinuous, ascending at apices, slightly thickened below, occasionally with minute yellow pseudocyphellae. Upper surface olive-brown, red-brown to glaucous brown (reddish or ±blackened in exposed habitats) when dry, blue-grey suffused red-brown when wet, wrinkled to faveolate, rather coriaceous; without isidia, maculae, pseudocyphellae or soredia, moderately to densely phyllidiate. Phyllidia mainly marginal, also laminal on ridges and regenerating from cracks in upper surface, simple to coralloid, to 1.5 mm tall, often eroding apically and exposing medulla. Medulla yellow-white. Photobiont Nostoc. Lower surface pale buff to brown and glabrous at margins, black and tomentose centrally. Pseudocyphellae scattered, sparse to frequent, round to irregular, slightly sunk in tomentum, yellow. Apothecia uncommon, marginal and laminal, 0.5–3.5 mm diam.; disc dark red-brown to black, matt, epruinose; exciple pale red-brown, corrugate-scabrid; epithecium pale to dark yellow-brown or olive-brown, dissolving in K; hymenium pale straw-yellow; hypothecium pale yellow-brown, dissolving in K. Ascospores broadly ellipsoidal, 1–3-septate, 20–25 × 7–9 µm, yellow-brown to dark red-brown. CHEMISTRY: Retigeranic acid, pulvinic dilactone, calycin, tenuiorin, pulvinic acid, 2-O-acetyltenuiorin, methyl gyrophorate, hopane-6α,7β,22-triol (major), 6α-acetoxyhopane-7β,22-diol (minor), 7β-acetoxyhopane-6α,22-diol (trace), hopane-7β,22-diol (minor), 7β-acetoxyhopane-22-ol (trace), 15α-acetoxyhopane-22-ol (trace), norstictic acid (trace), stictic acid, salazinic acid (trace) and constictic acid. Occurs in Australi, most common in south-eastern Australia; grows on

rock, bark and dead wood from sea level to 1500 m. Also in New Zealand, southern South America and the Palaeotropics.



Pseudocyphellaria neglecta

Pseudocyphellaria neglecta



Pseudocyphellaria neglecta

Pseudocyphellaria neglecta

Pseudocyphellaria neglecta (Müll. Arg.) H. Magn., Acta horti gothoburgensis 14: 30 (1940)
= *Stictina neglecta* Müll. Arg. 1887

[VZ2343], Australia. Victoria: Trentham Falls, 18 km ad orientem a Daylesford, 660 m. Ad rupes unbrosas. Leg. H. Streimann (28988), 16.11.1987, det. A. Elix. Ex A. Vězda Lichenes Selecti Exsiccati Nr. 2343.

Thallus rosette-forming to irregularly spreading, loosely attached centrally, 3–10 (–20) cm wide. Lobes very variable, shortly linear-laciniate to broadly rounded, 1–5 (–10) cm long, 2–25 mm wide, discrete to imbricate, concave to plane; lobe margins entire, incised, crenate-dentate, often densely phyllidiate, sinuous, ascending at apices, slightly thickened below, occasionally with minute yellow pseudocyphellae. Upper surface olive-brown, red-brown to glaucous brown (reddish or ±blackened in exposed habitats) when dry, blue-grey suffused red-brown when wet, wrinkled to faveolate, rather coriaceous; without isidia, maculae, pseudocyphellae or soredia, moderately to densely phyllidiate. Phyllidia mainly marginal, also laminal on ridges and regenerating from cracks in upper surface, simple to coralloid, to 1.5 mm tall, often eroding apically and exposing medulla. Medulla yellow-white. Photobiont Nostoc. Lower surface pale buff to brown and glabrous at margins, black and tomentose centrally. Pseudocyphellae scattered, sparse to frequent, round to irregular, slightly sunk in tomentum, yellow. Apothecia uncommon, marginal and laminal, 0.5–3.5 mm diam.; disc dark red-brown to black, matt, epruinose; exciple pale red-brown, corrugate-scabrid; epithecium pale to dark yellow-brown or olive-brown, dissolving in K; hymenium pale straw-yellow; hypothecium pale yellow-brown, dissolving in K. Ascospores broadly ellipsoidal, 1–3-septate, 20–25 × 7–9 µm, yellow-brown to dark red-brown. CHEMISTRY: Retigeranic acid, pulvinic dilactone, calycin, tenuiorin, pulvinic acid, 2-O-acetyltenuiorin, methyl gyrophorate, hopane-6α,7β,22-triol (major), 6α-acetoxyhopane-7β,22-diol (minor), 7β-acetoxyhopane-6α,22-diol (trace), hopane-7β,22-diol (minor), 7β-acetoxyhopane-22-ol (trace), 15α-acetoxyhopane-22-ol (trace), norstictic acid (trace), stictic acid, salazinic acid (trace) and constictic acid. Occurs in Australi, most common in south-eastern Australia; grows on rock, bark and dead wood from sea level to 1500 m. Also in New Zealand, southern South America and the Palaeotropics.

Pseudocyphellaria neglecta

Pseudocyphellaria neglecta

Pseudocyphellaria subvariabilis (Nyl.) Vain., Philipp. J. Sci., C, Bot. 8(2): 116 (1913)
= *Sticta subvariabilis* Nyl. 1867
= *Pseudocyphellaria multifida* (Laurer ex Nyl.) D.J. Galloway & P. James, Lichenologist 12(3): 301 (1980)

[VZ2167], Australia, Tasmania. Montes Harts, 500 m. Ad truncum *Eucryphiae lucidae* in pluviisilva. Leg. G. Kantvilas (50/87), 2.5.1987. Ex A. Vězda Lichenes Selecti Exsiccati Nr. 2167.

Thallus small, delicate, entangled-complicate, spreading, 5(-10) cm diam. Lobes complexly branched, entangled-imbricate, narrow, 1-3 mm wide and 4-10 mm long, di- or trichotomously branching at centre, becoming narrower and ± lobulate-phyllidiate at margins, sinuses semi-circular. Upper surface bright lettuce-green when wet, pale yellowish-green or fawn when dry, shining, smooth, very slightly faveolate or wrinkled, uneven, without soredia, isidia, maculae or pseudocyphellae. Medulla white. Photobiont green. Lower surface glabrous, white, shining at margins, yellowish-brown, ± costate centrally, thinly tomentose centrally, tomentum pale buff, thin, rather ragged. Pseudocyphellae minute, fleck-like, white, punctiform, conspicuous at or near lobe margins, flat, immarginate. Apothecia submarginal or laminal, sparse to frequent, sessile to subpedicellate, disc pale yellowish-red or brownish, 2-4 mm diam., smooth, matt, plane or subconcave, margins pale flesh-coloured, inflexed at first, becoming crenulate-dentate, thalline exciple pale, verrucose-areolate. Ascospores colourless to pale brown, oblong-fusiform, 1-3-septate, 22-30 × 7-9 µm. Chemistry: 7β-Acetoxyhopan-22-ol, hopane-15α,22-diol, and hopane-7β-22- diol (tr.).

Pseudocyphellaria subvariabilis

Pseudocyphellaria subvariabilis

Pseudocyphellaria subvariabilis (Nyl.) Vain., Philipp. J. Sci., C, Bot. 8(2): 116 (1913)
= *Sticta subvariabilis* Nyl. 1867
= *Pseudocyphellaria multifida* (Laurer ex Nyl.) D.J. Galloway & P. James, Lichenologist 12(3): 301 (1980)

[VZ1996], Tasmania. Boyd Lookout. Ad truncum et ramulos arboris. Leg. O. et I. Degener (no. 36003), det. P. W. James. - Annot.: TLC: 7β-acetoxyhopan-22-ol. hopane 15α,22-diol, and trace of hopane 7β,22-diol; no depsides or pigments are present; anal. P. W. James. - Ex A. Vězda Lichenes Selecti Exsiccati Nr. 1996.

Thallus small, delicate, entangled-complicate, spreading, 5(-10) cm diam. Lobes complexly branched, entangled-imbricate, narrow, 1-3 mm wide and 4-10 mm long, di- or trichotomously branching at centre, becoming narrower and ± lobulate-phyllidiate at margins, sinuses semi-circular. Upper surface bright lettuce-green when wet, pale yellowish-green or fawn when dry, shining, smooth, very slightly faveolate or wrinkled, uneven, without soredia, isidia, maculae or pseudocyphellae. Medulla white. Photobiont green. Lower surface glabrous, white, shining at margins, yellowish-brown, ± costate centrally, thinly tomentose centrally, tomentum pale buff, thin, rather ragged. Pseudocyphellae minute, fleck-like, white, punctiform, conspicuous at or near lobe margins, flat, immarginate. Apothecia submarginal or laminal, sparse to frequent, sessile to subpedicellate, disc pale yellowish-red or brownish, 2-4 mm diam., smooth, matt, plane or subconcave, margins pale flesh-coloured, inflexed at first, becoming crenulate-dentate, thalline exciple pale, verrucose-areolate. Ascospores colourless to pale brown, oblong-fusiform, 1-3-septate, 22-30 × 7-9 µm. Chemistry: 7β-Acetoxyhopan-22-ol, hopane-15α,22-diol, and hopane-7β-22- diol (tr.).

Pseudocyphellaria subvariabilis

Pseudocyphellaria subvariabilis

Pseudoparmelia ecaperata (Müll. Arg.) Hale, Phytologia 29(3): 190 (1974)
= *Parmelia ecaperata* Müll. Arg. 1891

[VZ1391], India. Tamil Nadu. Montes Palni, Kodatkanal, prope lacum, 2200 m. Ad corticem arborum expositarum. Leg. M.E. Hale (no. 43866), 23.1.1975. Ex A. Vězda Lichenes Selecti Exsiccati Nr. 1391.

Thallus closely adnate to the substratu, 4-10 cm across, irregularly sinuate lobate. Lobes sublinear, 1-5 mm wide.110-195 µm thick; margins eciliate, apices truncate to crenate. Uper surface greenish yellow to yellow grey, smooth, plane, sometimes cracked in older parts, emaculate or faintly maculate at lobe tips, isidiate. Isidia laminal, dense or sparse, cylindrical, simple or coralloid branched, dark brown to lack tiped, up to 1 mm long. Medulla white, 50-125 µm thick. Lower surface black, with 1-2 mm wide, brown black, erhizinate or with rhizinal papillate marginal zone. Rhizines short, 0.5-1.5 mm long. Apozjecia rare, adnate, constricted at base, disc brown; amphithecium densely isdiate. Epihymenium c. 28 µm thick; hymenium 45-60 µm high. Asci clavate,37 x 12 µm, 8-spored. Spores colourless,oval to ovoid, 8-10 x 6-8 µm. Pycnidia not seen. Chemistry Cortex K+ yellow; medulla K-, C- KC+ faint wine red or KC-, P-. TLC usnic and divaricatic acid. Occurs in India, Africa, Nepal, Thailand.

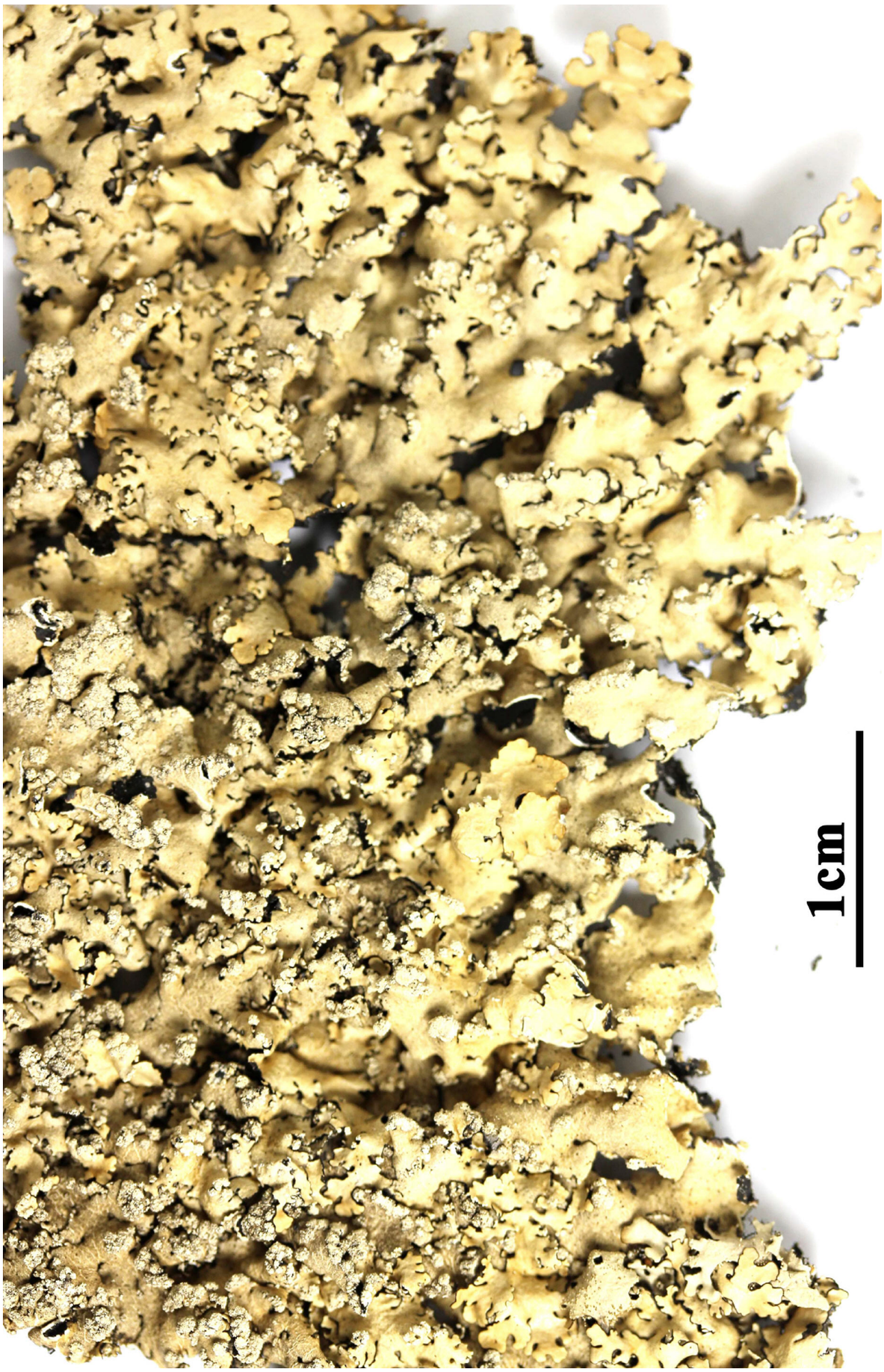
Pseudoparmelia ecaperata

Pseudoparmelia ecaperata

Pseudoparmelia texana (Tuck.) Hale, Phytologia 29(3): 191 (1974)
= *Canoparmelia texana* (Tuck.) Elix & Hale, in Elix, Johnston & Verdon, Mycotaxon 27: 279 (1986)
= *Parmelia sublaevigata var. texana* (Tuck.) Nyl., Annls Sci. Nat., Bot., sér. 5 7: 307 (1867)
= *Parmelia texana* Tuck., Amer. J. Sci. Arts, Ser. 2 25: 424 (1858)

[VZ2141], Panama. Chiriqui: in pede montis ignivomi dicti Volcán Barú, prope oppidum Bambito, 1500 m. Ad saxa magna loco aprico. Leg. W. L. Culberson (no.19424) et C. G. Culberson, 15.7.1983. - Annot.: Atranorin, divaricatic acid and a trace of nordivaricatic acid by TLC; anal. C. F. Culberson and A. Johnson. - EX A. VěZDA LICHENES SELECTI EXSICCATI NR. 2141.

Thallus adnate, foliose, 4-12 cm in diam., irregularly lobate; lobes sublinear to subirregular, elongate, plane to subconvex, separate, 3-5 mm wide; apices rotund, crenate to deeply incised, eciliate; upper surface pale gray to ashy white, smooth to rugose, dull, maculate, sorediate; soredia coarse, granular, whitish, laminal, initially in pustulae that develop into orbicular, capitate soralia; soralia usually not confluent; isidia absent; medulla white with continuous algal layer; lower surface black with a brown bare zone marginally; rhizines sparse to moderately dense (except margin), black, simple ;Apothecia rare, laminal on thallus, 2-5 mm wide; disc red-brown to dark brown; margin usually sorediate; ascospores ellipsoid, 8-11 x 5-7 µm; Pycnidia rare, immersed; conidia weakly bifusiform 6-8 x 1 µm; Spot tests upper cortex K+ yellow, C-, KC-, P+ yellow; medulla K-, C-, KC- [or + pale pink], P-; Secondary metabolites upper cortex with atranorin and chloroatranorin; medulla with divaricatic acid (major), nordivaricatic and stenosporic acids (trace). - Substrate and ecology: on pines and hardwoods in dry open woods or along roads in lower to mid-elevation montane areas. World distribution: pantropical and some adjacent temperate areas of North and South America, Asia and Australasia.



Pseudoparmelia texana

Pseudoparmelia texana

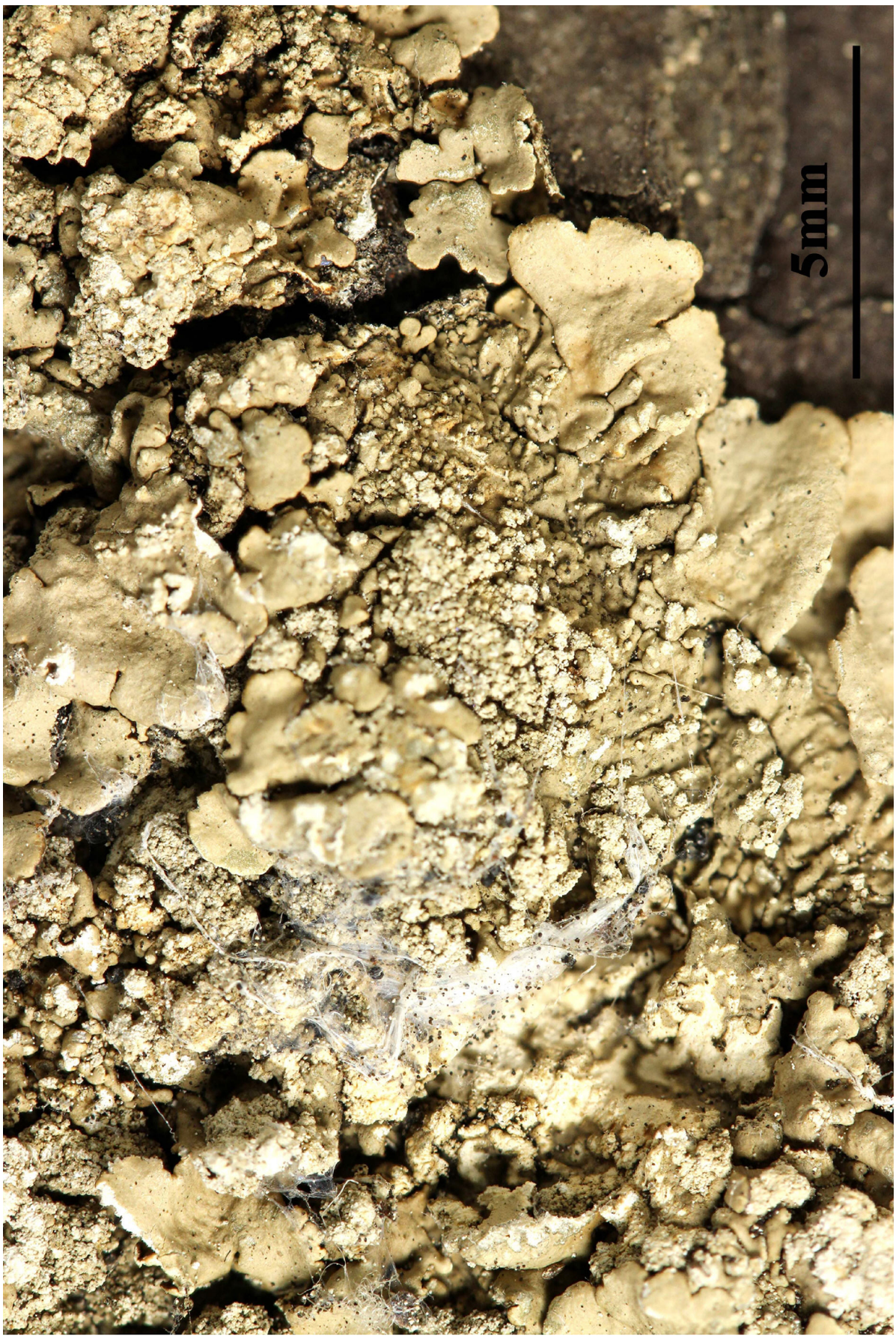
Pseudoparmelia texana

Pseudoparmelia texana (Tuck.) Hale, Phytologia 29(3): 191 (1974)
= *Canoparmelia texana* (Tuck.) Elix & Hale, in Elix, Johnston & Verdon, Mycotaxon 27: 279 (1986)
= *Parmelia sublaevigata var. texana* (Tuck.) Nyl., Annls Sci. Nat., Bot., sér. 5 7: 307 (1867)
= *Parmelia texana* Tuck., Amer. J. Sci. Arts, Ser. 2 25: 424 (1858)

[VZ2017], Uruguay. Dept. Montevideo, Punta Carretas. Ad truncum *Pini* sp. Leg. H. S. Osorio (no. 7051). Ex A. VěZDA Lichenes Selecti Exsiccati Nr. 2017.

Thallus adnate, foliose, 4-12 cm in diam., irregularly lobate; lobes sublinear to subirregular, elongate, plane to subconvex, separate, 3-5 mm wide; apices rotund, crenate to deeply incised, eciliate; upper surface pale gray to ashy white, smooth to rugose, dull, maculate, sorediate; soredia coarse, granular, whitish, laminal, initially in pustulae that develop into orbicular, capitate soralia; soralia usually not confluent; isidia absent; medulla white with continuous algal layer; lower surface black with a brown bare zone marginally; rhizines sparse to moderately dense (except margin), black, simple ;Apothecia rare, laminal on thallus, 2-5 mm wide; disc red-brown to dark brown; margin usually sorediate; ascospores ellipsoid, 8-11 x 5-7 µm; Pycnidia rare, immersed; conidia weakly bifusiform 6-8 x 1 µm; Spot tests upper cortex K+ yellow, C-, KC-, P+ yellow; medulla K-, C-, KC- [or + pale pink], P-; Secondary metabolites upper cortex with atranorin and chloroatranorin; medulla with divaricatic acid (major), nordivaricatic and stenosporic acids (trace). - Substrate and ecology: on pines and hardwoods in dry open woods or along roads in lower to mid-elevation montane areas. World distribution: pantropical and some adjacent temperate areas of North and South America, Asia and Australasia.

Pseudoparmelia texana



Pseudoparmelia texana

Pseudoparmelia texana (Tuck.) Hale, Phytologia 29(3): 191 (1974)
= *Canoparmelia texana* (Tuck.) Elix & Hale, in Elix, Johnston & Verdon, Mycotaxon 27: 279 (1986)
= *Parmelia sublaevigata var. texana* (Tuck.) Nyl., Annls Sci. Nat., Bot., sér. 5 7: 307 (1867)
= *Parmelia texana* Tuck., Amer. J. Sci. Arts, Ser. 2 25: 424 (1858)

[VZ1693], USA. Georgia, De Kalb County: in monte dicto Stone Mountain, 48 m. Ad corticem *Pini taedae*. Leg. W. L. Culberson (no. 17389), 21.8.1978, - Annot.: Atranorin, divaricatic acid, 4-O demethyl-divaricatic acid (trace) and traces of unidentified compounds by TLC; anal. C. F. Culberson and A. Johnson. - EX A.VěZDA LICHENES SELECTI EXSICCATI NR. 1603.

Thallus adnate, foliose, 4-12 cm in diam., irregularly lobate; lobes sublinear to subirregular, elongate, plane to subconvex, separate, 3-5 mm wide; apices rotund, crenate to deeply incised, eciliate; upper surface pale gray to ashy white, smooth to rugose, dull, maculate, sorediate; soredia coarse, granular, whitish, laminal, initially in pustulae that develop into orbicular, capitate soralia; soralia usually not confluent; isidia absent; medulla white with continuous algal layer; lower surface black with a brown bare zone marginally; rhizines sparse to moderately dense (except margin), black, simple ;Apothecia rare, laminal on thallus, 2-5 mm wide; disc red-brown to dark brown; margin usually sorediate; ascospores ellipsoid, 8-11 x 5-7 µm; Pycnidia rare, immersed; conidia weakly bifusiform 6-8 x 1 µm; Spot tests upper cortex K+ yellow, C-, KC-, P+ yellow; medulla K-, C-, KC- [or + pale pink], P-; Secondary metabolites upper cortex with atranorin and chloroatranorin; medulla with divaricatic acid (major), nordivaricatic and stenosporic acids (trace). - Substrate and ecology: on pines and hardwoods in dry open woods or along roads in lower to mid-elevation montane areas. World distribution: pantropical and some adjacent temperate areas of North and South America, Asia and Australasia.

Pseudoparmelia texana

Pseudoparmelia texana

Psilolechia lucida (Ach.) M. Choisy, Bull. mens. Soc. linn. Soc. Bot. Lyon 18(7): 142 (1949)
= *Lichen lucidus* Ach. 1799
=*Biatora lucida* (Ach.) Fr.
= *Lecidea lucida* (Ach.) Ach.

[VZ1708}, Suecia. Värmland, Gräsmark, Blabärskullen, 270 m. Ad saepimenta lignea. Leg. S. W. Sundell (no. 13610), 24.9.1979. Ex A. Vězda Lichenes Selecti Exsiccati Nr. 1708.

Thallus leprose-granular, episubstratic, ecorticate, continuous to cracked, effuse, bright sulphur yellow to yellow-green in shade-forms, entirely consisting of mainly farinose, more or less globose, 10-35(-60) µm wide goniocysts surrounded by irregularly arranged hyphae and interspersed with numerous, large, colourless crystals insoluble in K, visible in squash preparations. Apothecia rather rare, biatorine, convex to subglobose, immersed in the thallus, 0.1-0.3 mm across, sometimes confluent, tuberculate and up to 0.8 mm across, with a yellow-green to pale or lemon yellow or yellow-orange to olivaceous or brownish yellow disc, without a distinct margin. Proper exciple very poorly developed; epithecium intensely yellow-green, with small yellow crystals not dissolving in K, K-, N-; hymenium colourless, 25-35 µm high, I+ blue; paraphyses simple or forked, the apices hardly swollen; hypothecium colourless. Asci 8-spored, cylindrical-clavate, the apical dome K/I+ pale blue, with a dark blue apical tube diverging towards the apex, the wall with a K/I+ dark blue outer layer. Ascospores 1-celled, hyaline, oblong-ovoid, 4-5(-7) x 1-2(-2.5) µm. Photobiont chlorococcoid, the cells rounded, up to 10 µm wide. Spot tests: thallus and apothecia K-, P-, KC-, P-, UV+ dull orange. Chemistry: rhizocarpic acid (major) and an unidentified pigment (trace). - Note: on surfaces of siliceous rocks protected from rain in humid areas, but also on a wide range of substrata (soil, exposed roots, bases of ancient trees), with a correspondingly wide altitudinal range; in Italy it is restricted to natural habitats and is most frequent in the Alps and the in the most humid parts of the Mediterranean belt.

Psilolechia lucida

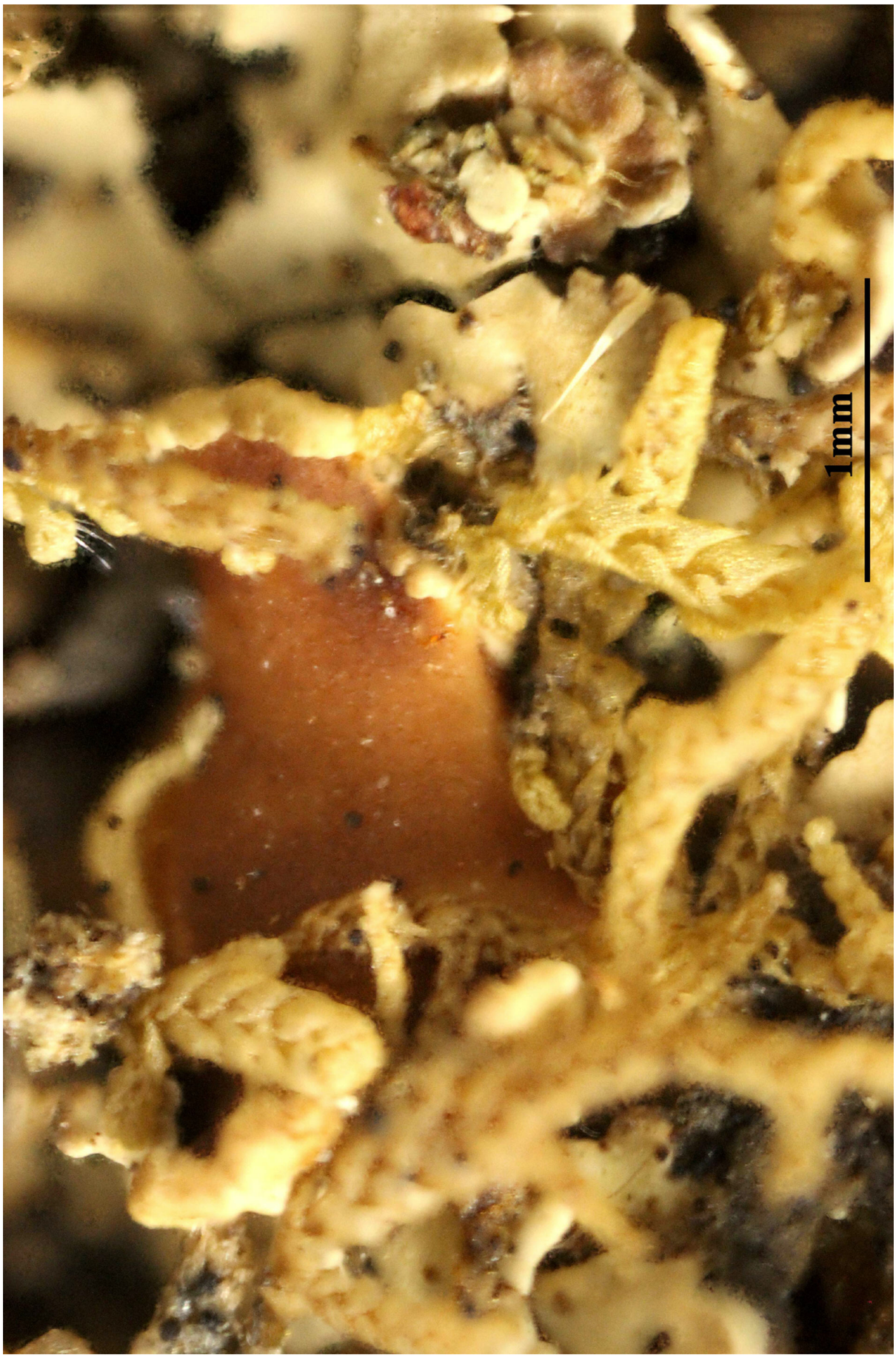
Psilolechia lucida

Psoroma asperellum Nyl., Syn. meth. lich. (Parisiis) 2: 24 (1869)

[VZ2367], Australia. Tasmania, Yarlington Tier, 620 m. Ad corticem *Oleariae argophyllae* in silva humida (*Eucalyptus obliqua*). Leg. G. Kantvilas (525/88), 30.11.1988. Ex A. Vězda Lichenes Selecti Exsiccati Nr. 2367.

Thallus small-squamulose, in colonies to 3 cm wide, or on bark to 5 cm wide. Squamules ascending from a fine, black prothallus, delicate, 0.3–0.8 mm wide, rounded, incised, minutely lobulate, rather loose, pale greenish grey to bright lettuce green when wet, pale whitish grey on storage; upper surface smooth, matt, epruinose at margins, the squamules crowded to dispersed. Lower surface ±corticate, white; rhizohyphae few or absent. Cephalodia ±frequent, laminal and marginal, flattened, placodioid or minutely lobed, squamulose, pale grey-blue. Apothecia sessile, ±frequent, round; disc conspicuous, 0.5–1.5 mm wide, flat to subconvex, matt, continuous, pale yellow-orange to pale red-brown; thalline exciple crenulate to minutely subsquamulose, overlying a thin, entire, pale proper exciple. Ascospores ellipsoidal-fusiform, 12–25 × 8–10 µm. Occurs Australia among mosses on trees in humid rainforest habitats, still rarely collected. Also known from New Zealand.

Psoroma asperellum



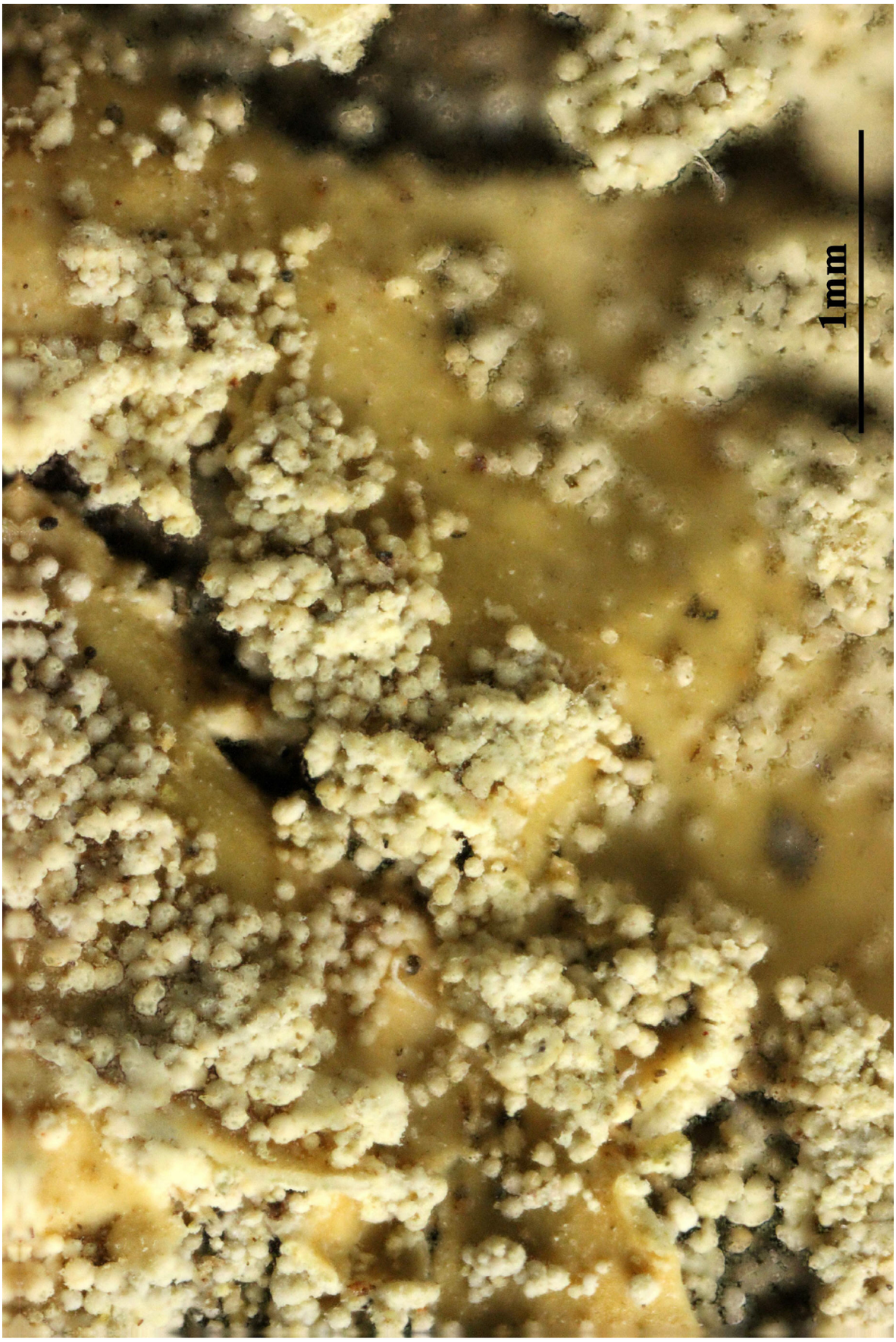
Psoroma asperellum

Psoroma leprolomum (Nyl.) Räsänen, Ann. bot. Soc. Zool.-Bot. fenn. Vanamo 2(no. 1): 45 (1932)
= *Lecanora sphinctrina var. leproloma* Nyl. 1876
= *Pannaria leproloma* (Nyl.) P.M. Jørg., Biblioth. Lichenol. 78: 119 (2001)

[VZ1847], Australia. New South Wales. Reservatum naturae "New England National Park" dictum, 5 km ad orient.-occid. versus a Point Lookout, secundus rivult "Little Styx River§, 31°31' austr., 152°32' orient., 1340 m. Ad truncum *Eucalypti* sp. in regione subalpina. Leg. et det. L. Tibell (no. 12458), 18.4.1981. Ex A. Vězda Lichenes Selecti Exsiccati Nr. 1847.

Thallus ± closely attached, ± free at margins, rosette-forming or irregularly spreading, 3-7(-10) cm diam. Lobes laciniate, 3-7(-10) mm wide, 10-25(-40) mm long, ± raised at margins, concave, margins entire, thickened below, slightly incised or notched, sinuous, ± ascending towards centre, sometimes lobulate. Upper surface sorediate, rather fibrous, scabrid-areolate in parts, ± tomentose at apices, smooth, shining in parts, undulate to very shallowly faveolate, bright green to pale yellow-glaucous when wet, pale yellow-brown to dark chestnut- brown or red-brown when dry, soredia whitish or greenish-white, granular not erose-farinose, mainly in long, sinuous, marginal, labriform soralia, often developed on lower surface of lobe margins and spreading to upper surface, rarely completely invading entire upper surface. Cephalodia on upper and lower surface, simple, small, globose, pale purplish-grey or purplish-black, often clustered in groups on upper surface or at margins, smooth or scabrid, to 1.5 mm diam., ± convolute. Lower surface white, ± tomentose at margins becoming buff or dark brown centrally, with long, simple, buff rhizines from centre to margins, margins glabrous, often granular-sorediate. Apothecia sessile or subpedicellate, 1-3 mm diam., scattered, rarely crowded, round to irregular, disc plane to subconvex, pale orange-red to dark brown or black, smooth, matt, occasionally centrally perforate or with central, sterile thalline tissue, sometimes gyrose-etched, margins thick, crenate-striate, rarely granular-sorediate, thalline exciple sometimes sorediate. Ascospores subglobose to oval-ellipsoid, occasionally apiculate at one end, 12-18 × 9-12 mm.

Psoroma leprolomum



Psoroma leprolomum

Ptychographa flexella (Ach.) Coppins, in Hawksworth, James & Coppins, Lichenologist 12(1): 107 (1980)
= *Limboria flexella* Ach. 1815
= *Elixia flexella* (Ach.) Lumbsch, J. Hattori bot. Lab. 83: 62 (1997)

[2191], Austria. Salisburgia. Hohe Tauern, in valle Habachtal, 960 m. Ad truncum putridum (*Picea abies*). Leg. R. Türk, 14.11.1986. Ex A. Vězda Lichenes Selecti Exsiccati Nr. 2101.

Thallus crustose, mostly endosubstratic and poorly evident, consisting of more or less scattered goniocysts provided with a cortex of isodiametrical, brown-capped cells. Apothecia black, epruinose, sessile, constricted at base, 0.3-0.8 x 0.2-0.4 mm, from narrowly elongate to angular or more or less rounded, with a initially slit-like, later expanded and sometimes gyrose-umbonate disc, and a prominent, more or less inrolled proper margin. Proper exciple cupulate, dark brown to brown-black, up to 65 µm wide; epithecium brown; hymenium colourless to pale yellow, 30-55 µm high, I+ weakly blue; paraphyses coherent, 1-1.5 µm thick at mid level, simple or sparingly branched and anastomosing in upper part, the apical cells only slightly thickened (< 3 µm); hypothecium dark brown, in continuation with the exciple. Asci 8-spored, cylindrical to clavate, K/I+ blue, with a light amyloid tissue throughout, but with darker staining regions around the apex and in a narrow zone below the inner upper wall of tholus. Ascospores 1-celled, hyaline, broadly ellipsoid, 4-6(-8) x 2-4.5 µm, not halonate. Photobiont chlorococcoid. Spot tests: K-, C-, KC-, P-, UV-. Chemistry: thallus without lichen substances. - Note: on lignum, especially on vertical sides of stumps, with optimum in the subalpine belt; certainly more widespread in the Alps.

Ptychographa flexella

Ptychographa flexella

Ptychographa xylographoides Nyl., Flora, Regensburg 57(20): 315 (1874)

[VZ1529], Magna Britannia. Caledonia Inverness shire. Glen Affric, Pollan Buidhe, 260 m. Ad lignum *Pini sylvestris*. Leg. B. J. Coppins (3173) et L. Tibell, 26.5.1976. Ex A. VěZDA Lichenes Selecti Exsiccai Nr. 1528.

Thall us granules with cortex of uniformly brown, angular cells 4-7 µm wide; photobiont cells 6- 1 4 µm diam. Apothecia 0.3- 1 .4 x 0. 1 -0.3 mm, narrowly elongate, usually unbranched, running parallel with the grain of the wood; with (1 -)2 (rarely more) longitudinal slits each indicating a parallel hymenium below, which are separated by dark brown tissue; hymenium 45-60 µm tall, colourless or tinged greenish along the edge of the exciple and epithecium, I+ yellowish, K/I+ blue; paraphyses 1 -2 µm wide. Ascospores 8.5- 1 3 x 4.5-6.5 µm, ellipsoid. Pycnidia 40-50 µm diam., frequent, immersed to superficial, blackish, the wall dark brown; conidia 4-7 x 0.8 µm. On wood of ± horizontal surfaces of fallen trees; local. S.W England (S. Somerset), C. Wales, N. Scotland (Highlands). Europe, N. America. Most likely to be confused with Xylographa parallea, which has a pale true exciple.

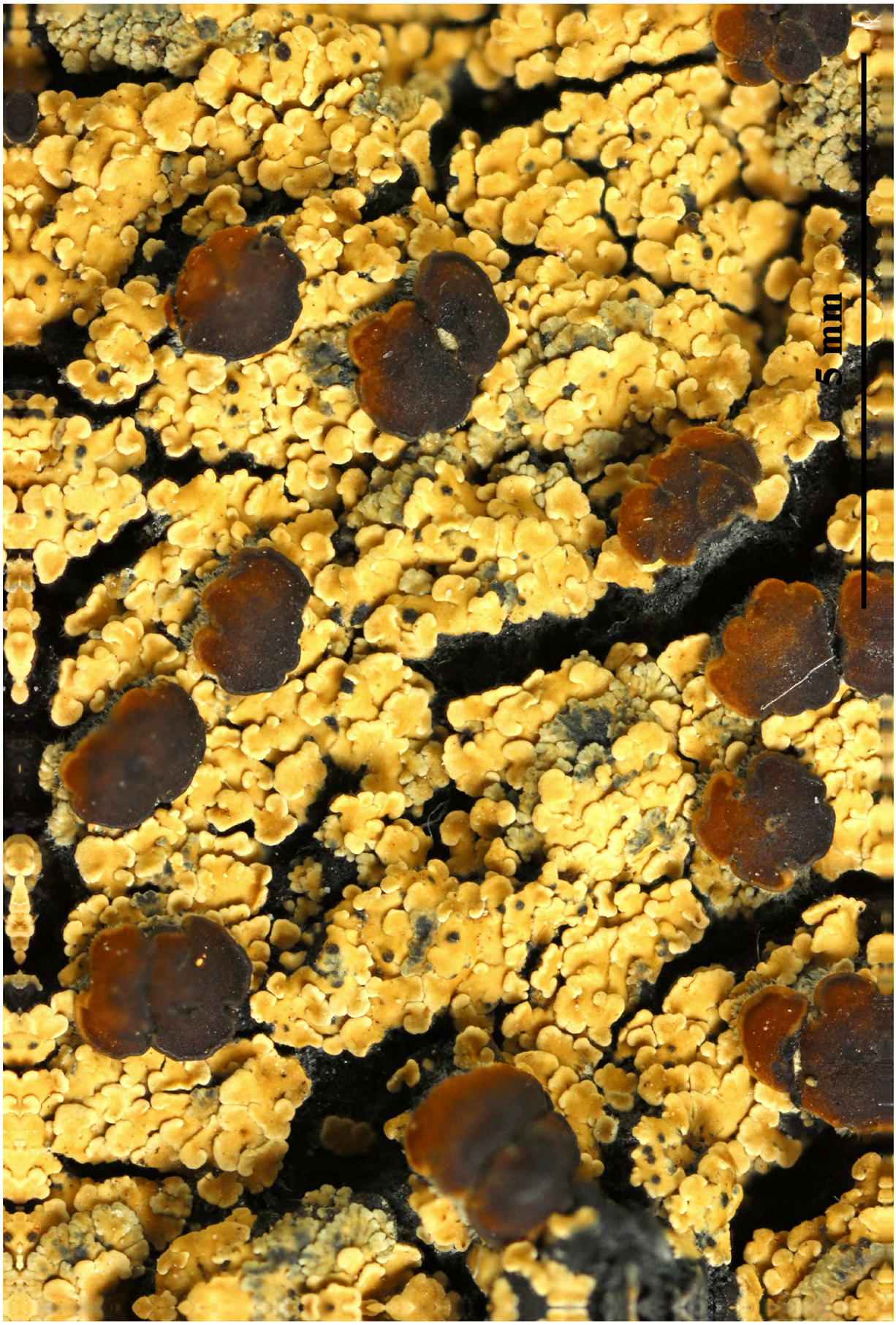
Ptychographa xylographoides

Ptychographa xylographoides

Psoromidium aleuroides (Stirt.) D.J. Galloway, New Zealand J. Bot. 21(2): 196 (1983)
= *Lecidea aleuroides* Stirt. 1875

[VZ2168], Australia, Tasmania. Middlsex Plains, 5 km ad meridiem a lacu Lake Lea, 880 m. Ad truncum *Eucalypti gunnii* in pluviisilva. Leg. G. Kantvilas (50/87), 16.5.1987. EX A. VĚZDA LICHENES SELECTI EXSICCATI NR. 2168.

Thallus small-squamulose, to 10 cm diam. Squamules small, rounded, 0.5-2.0 mm diam., crowded, imbricate to ± suberect, margins shallowly to deeply crenate, bright lettuce-green to pale greenish-grey, turning brownish-buff on storage, matt, with paler margins, forming an areolate crust on a thick, black, byssoid prothallus, discrete and scattered near margins. Cephalodia rosette- shaped, placodioid, flattened, pale blue-grey, 1-3 mm diam., at margins of squamules or on prothallus. Apothecia numerous, sessile, often aggregated and ± confluent, 0.4-1.0 mm diam., dark red-brown, matt, with a thin, pale margin, at first, soon becoming convex and immarginate. Asci clavate to ellipsoid, 70-75 µm long. Paraphyses slender, apices not thickened, simple, sometimes dichotomously branching above asci. Ascospores ellipsoid or elongate-ellipsoid to broadly fusiform, rounded or bluntly apiculate at ends, 10-13.5(-15) × 4-6 µm, wall slightly scabrid, c. 1 µm thick.



Psoromidium aleuroides

Psoromidium aleuroides

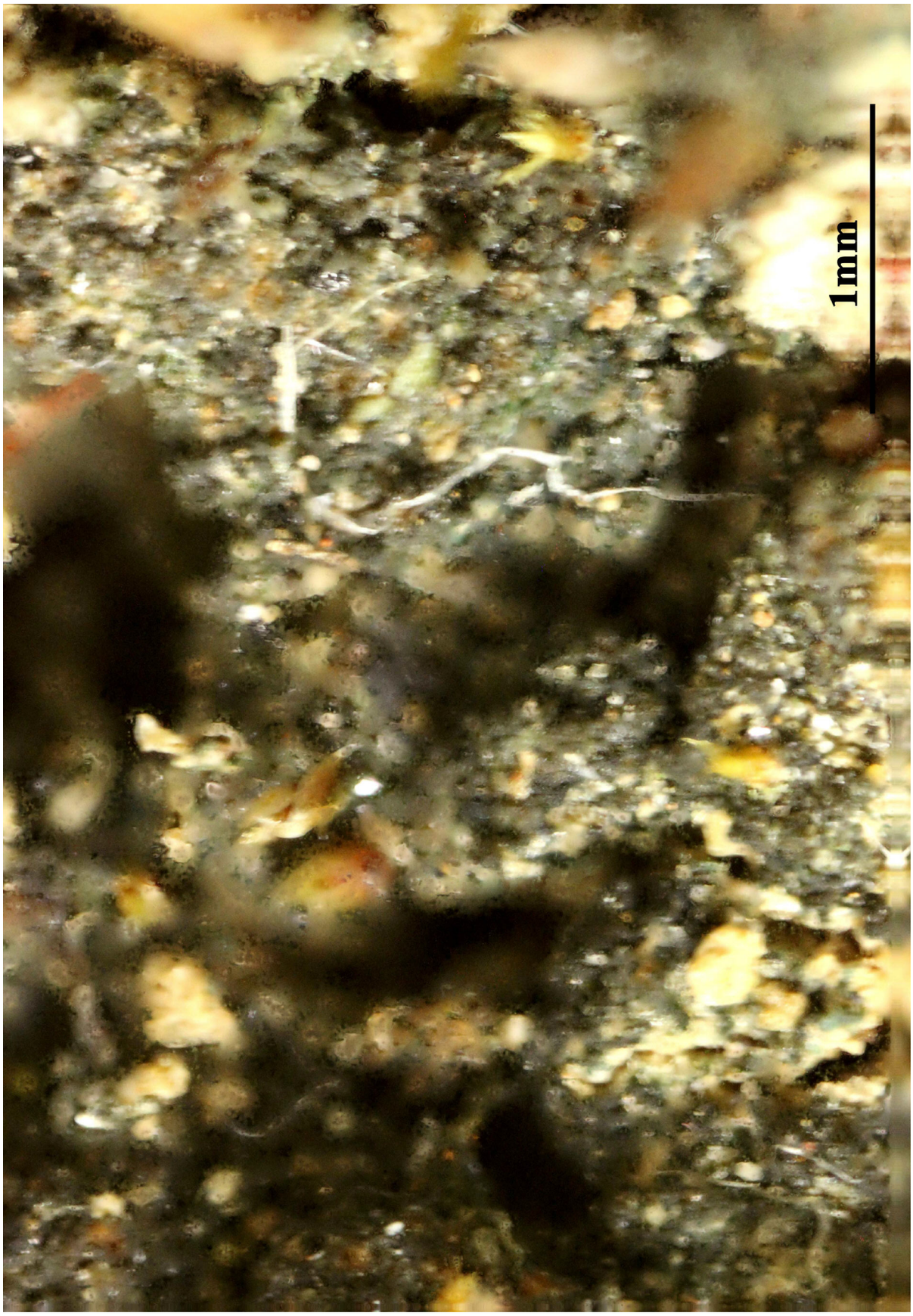
Psorotichia lutophila Arnold, Ber. bayer. bot. Ges. 1(Anhang): 129 (1891)

= *Lemmopsis lutophila* (Arnold) M. Schultz & M. Prieto, in Prieto, Wedin & Schultz, Stud. Mycol. 109: 614 (2024)

[VZ1007], Bohemoslovakia. Moravia, distr. Brno, supra pagum Bosonohy, 300 m, Terricola in parietibus loesaceis. Leg. A. Vězda, 25.4.1972. Ex A. Vězda Lichenes Selecti Exsiccati Nr. 1007.

Thallus crustose, gelatinous when wet, dark grey-brown, dark blue-green or almost black, thin, granulose, paraplectenchymatous throughout. Apothecia at first half immersed, then sessile, 0.2-0.5 mm across, with an initially punctiform and urceolate, later expanded and flat, reddish brown disc, a usually evident parathecial ring, and a thin, smooth, finally often almost excluded thalline margin. Epithecium orange-brown; hymenium colourless, I+ blue; hypothecium colourless. Asci 8-spored, cylindrical-clavate, with a rather thick, not amyloid wall, without apical amyloid thickenings. Ascospores 1-celled (rarely 1-septate), hyaline, ellipsoid, (11.5-)13-20(-25) x 7.5-12.5 µm. Photobiont cyanobacterial, with entangled chains of globose cells surrounded by a yellowish brown gelatinous sheath. Spot tests: all negative. Chemistry: without lichen substances. -Note: an ephemeral pioneer species colonizing disturbed sandy-loamy soil, described from the surroundings of Munich in Bavaria, and known from several localities in Central Europe.

Psorotichia lutophila



Psorotichia lutophila

Pycnothelia papillaria Dufour, Bull. Dept. Agr. Govt. Rest. Inst. Formosa 8: 46 (1821)

[VZ203], Hungaria. Lacus Balaton, in monte Alsó- hegy prope Alsóörs. 250 m. Ad terram in rupibus arenaceis. Leg. E. Farkas et L. Lökös, 1.3.1988. EX A. VěZDA LICHENES SELECTI EXSICCATI NR. 2263.

Primary thallus crustose, persistent (rarely disappearing in exceptionally well-developed specimens), of ecorticate, greenish grey or whtish granules grouped into 20-40 mm wide rosettes. Podetia wart-like to short-cylindrical, cream-coloured, grey to brownish, hollow inside, 2-5(-10) mm tall, constricted at base, smooth, esquamulose, with rounded, darkened apices, mostly simple, but sometimes sparingly branched in upper part, with frequent, dark pycnidial ostioles at the tips, the internal surface cartilaginous and striate, <0.5 mm thick. Apothecia very rare, terminal, brown, convex, emarginate, 0.3-1 mm across. Asci 8-spored, clavate, thickened at apex, with a K/I+ blue tholus and a K/I+ strongly blue outer gelatinous sheath, Cladonia-type. Ascospores simple or 1(-3)-septate, colourless, fusiform, thin-walled, (7-)9-15 x 2-4(-5) µm. Pycnidia dark, more or less immersed, with a colourless slime. Conidia filiform, curved, 8–15 × c. 0.5 µm. Photobiont chlorococcoid. Spot tests: thallus K+ yellow, C-, KC-, P-; medulla UV+ blue-white. Chemistry: atranorin, and variable amounts of chloratranorin and lichesterinic, protolichesterinic and squamatic acids. - Note: an arctic-alpine to cool-temperate lichen found on clay soil, often in Calluna-heaths; most frequent in the Alps, becoming much rarer southwards.

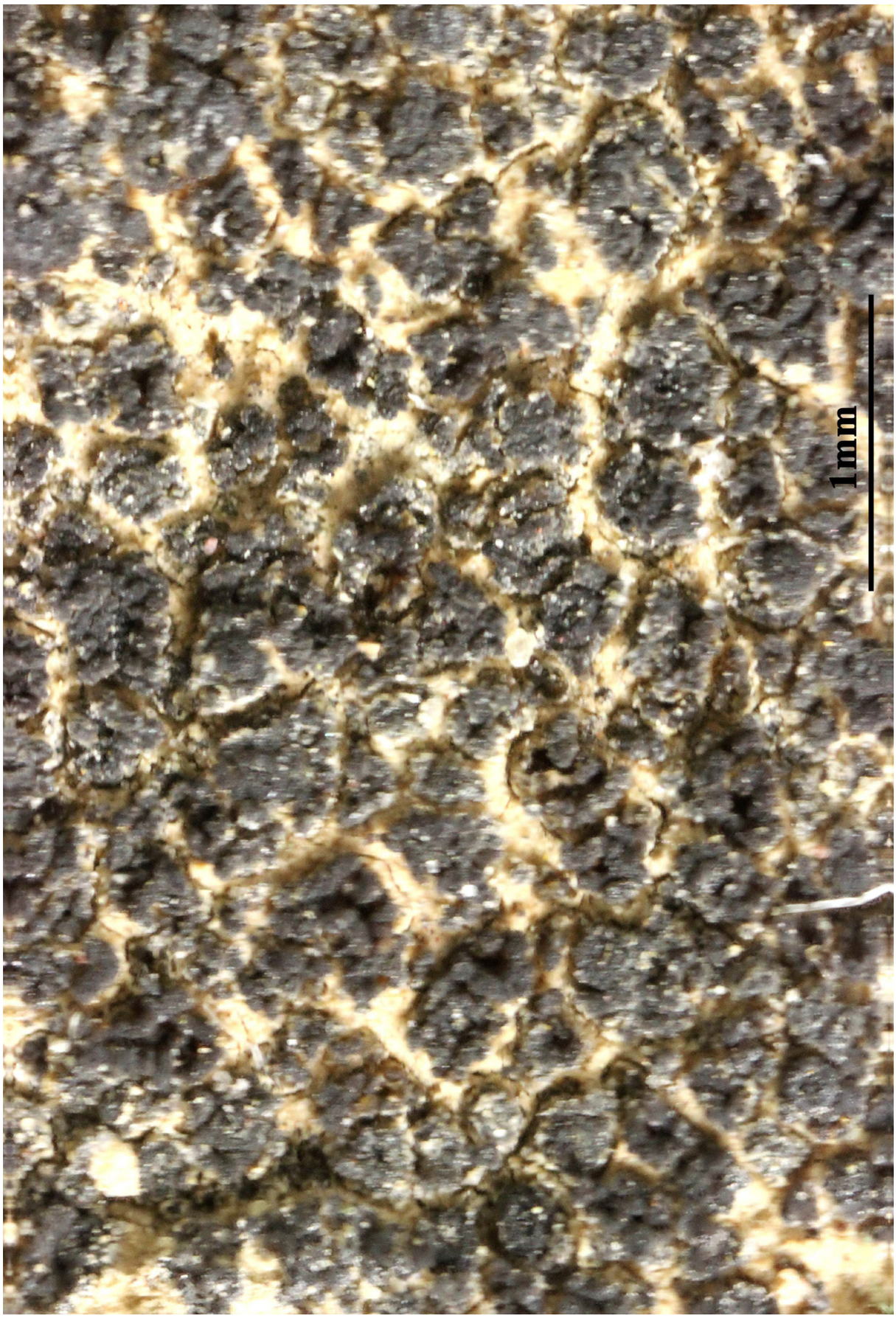
Pycnothelia papillaria

Pycnothelia papillaria

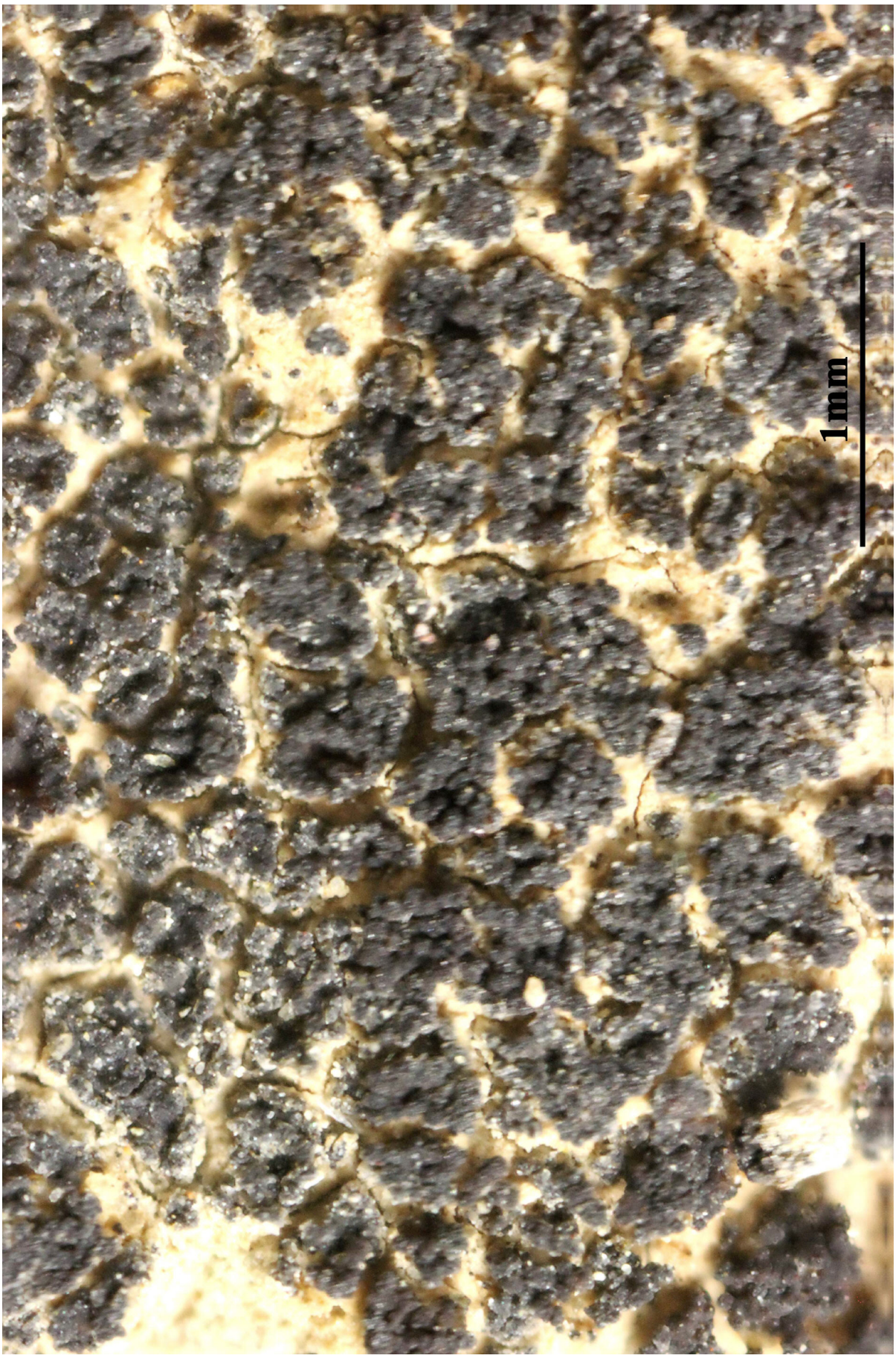
Pyrenopsis sojakii Vězda, Folia geobot. phytotax. 14(2): 205 (1979)
= *Phloeopeccania pulvinulina* J. Steiner, Denkschr. Kaiserl. Akad. Wiss., Math.-Naturwiss. Kl. 71: [93] (1907)

[VZ1654], Persia australis. Bandar Lengeh, in collibus ad septentriones-orientem versus ab urbe Bandar Lengeh, Ad lapides calcareos locis apricis. Leg. J. Soják, 25.4.1977. - ISOTYPUS-. Ex A. Vězda Lichenes Selecti Exsiccati Nr. 1654.

Thallus epilithicus, niger, e rosulis minutissimis (0.3—0.8 mm latis) compositus, rosulis in statu sicco distincte separatis, in statu madido crustam dilatatam, compactam, caeruleo-nigricantem formantibus; rosulae umbilico parvo ad substratum affixae, granulis coralloideis subisidiosisque dense tectae. Apothecia (tantun in statu madido distincta) in centro rolulae singula sita, globosa, 0.2—0.3 mm lata, disco profundo punctiformi demum paulum dilatato. Hymenium circ. 100—110 µm altum, hyalinum, J- caerulescens. Paraphyses simplices vel furcatae, 2—2.5 µm crassae, ascos valde superantes, septatae, apicibus haud incrassatis. Asci cylindrico-saccati, long. 80—80 µm, crass. 18—25 mm, membrana ubique tenui (1 µm), in apice haud incrassata. Sporae 16: nae, globosae, hyalinae, 6—7 µm in diametro, membranis tenuibus. - Hab.: Ad lapides schistosos, arenaceos, locis apricis. Species praesertim sporis globosis, senis denis in asco sitis praedita. Persia australis. Bandar Lengeh, in colle ad sept.-orientem versus ab urbe Bandar Lengeh.



Pyrenopsis sojakii

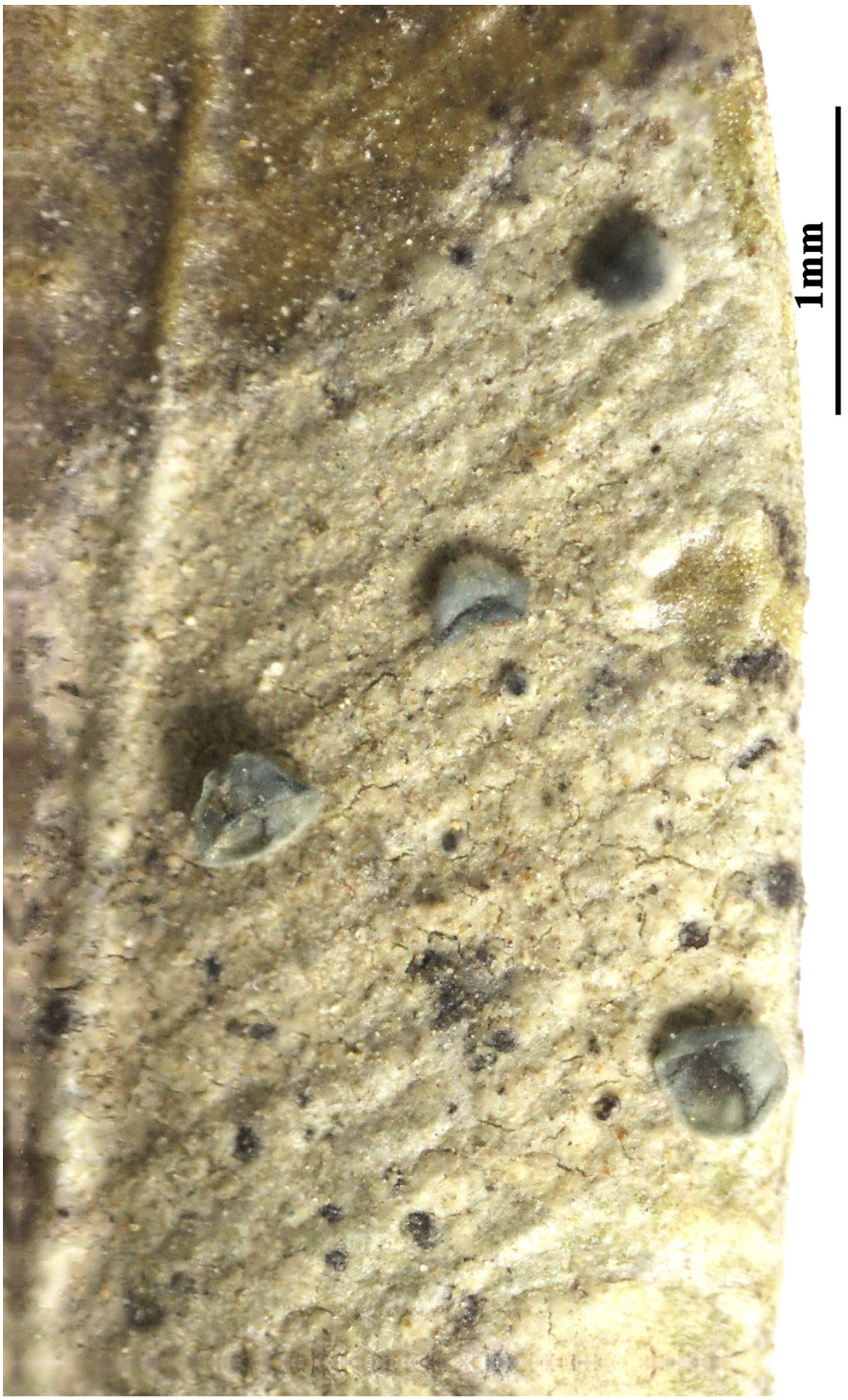


Pyrenopsis sojakii

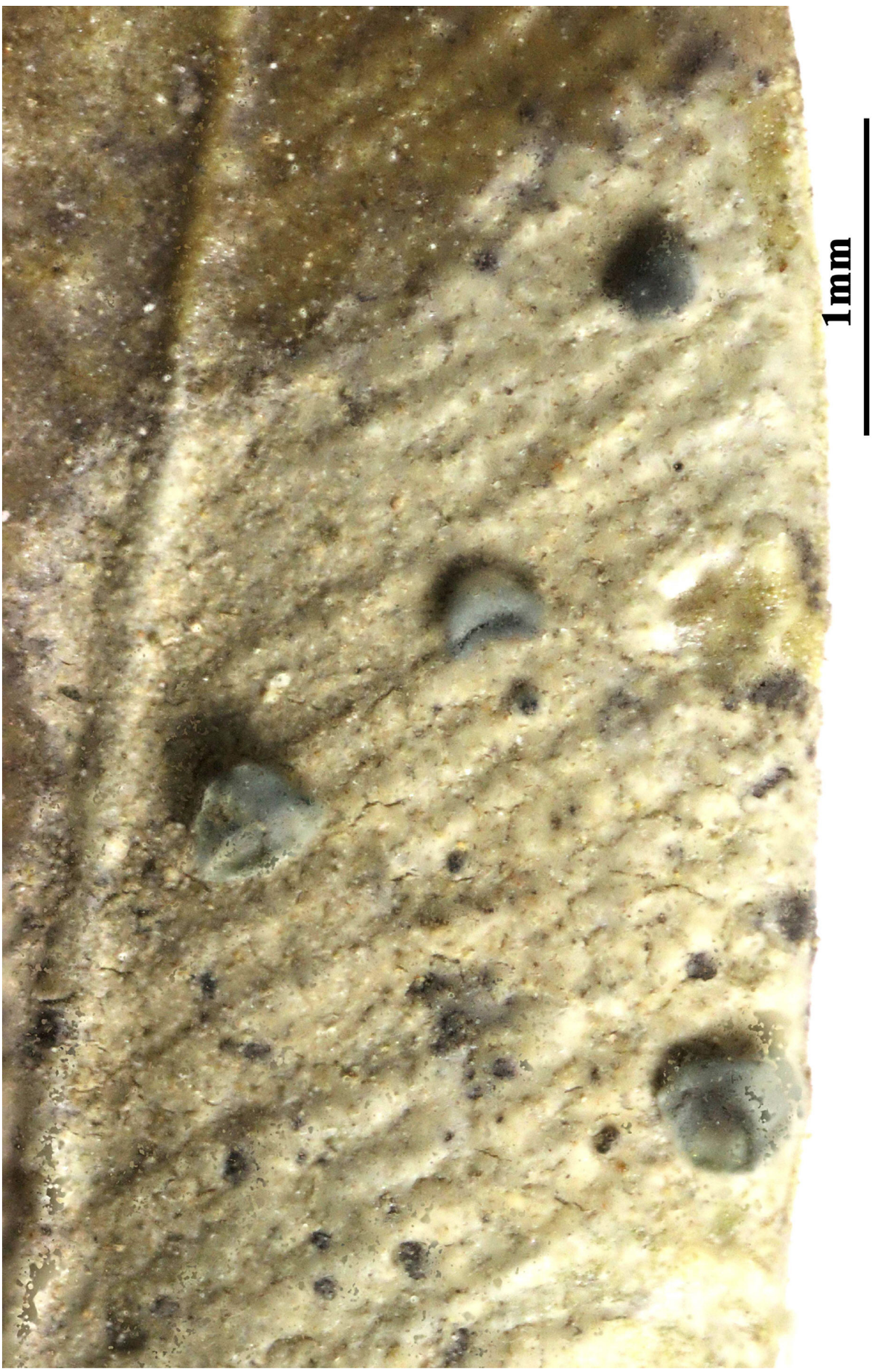
Pyrenotrichum splitgerberi Mont., Annls Sci. Nat., Bot., sér. 2 20: 377 (1843)

[VZ1525], URSS. Caucasus, Georgia: Colchis, distr. Sukhumi, in valle fluminis Besleti prope pagum Odishi, 30 m. Ad folia *Buxi colchicae*, in thallo *Tapellariae* sp. vigens. Leg. A. Vězda, 18.6.1877. Ex A. Vězda Lichenes Selecti Exsiccati Nr. 1525.

Pyrenotrichum is the oldest name available for a group of species sharing a particular type of campylidia. The thallus morphology of the type collection indicates that *Pyrenotrichum* could be identical with either *Tapellaria* or *Calopadia*, which differ in their apothecial characters. Although there are some differences in the campylidia as well, a certain identification as either genus is impossible at present. Therefore, *Pyrenotrichum* was proposed to be rejected (Lücking et al., 2000; not yet decided upon by the Committee).



Pyrenotrichum splitgerberi

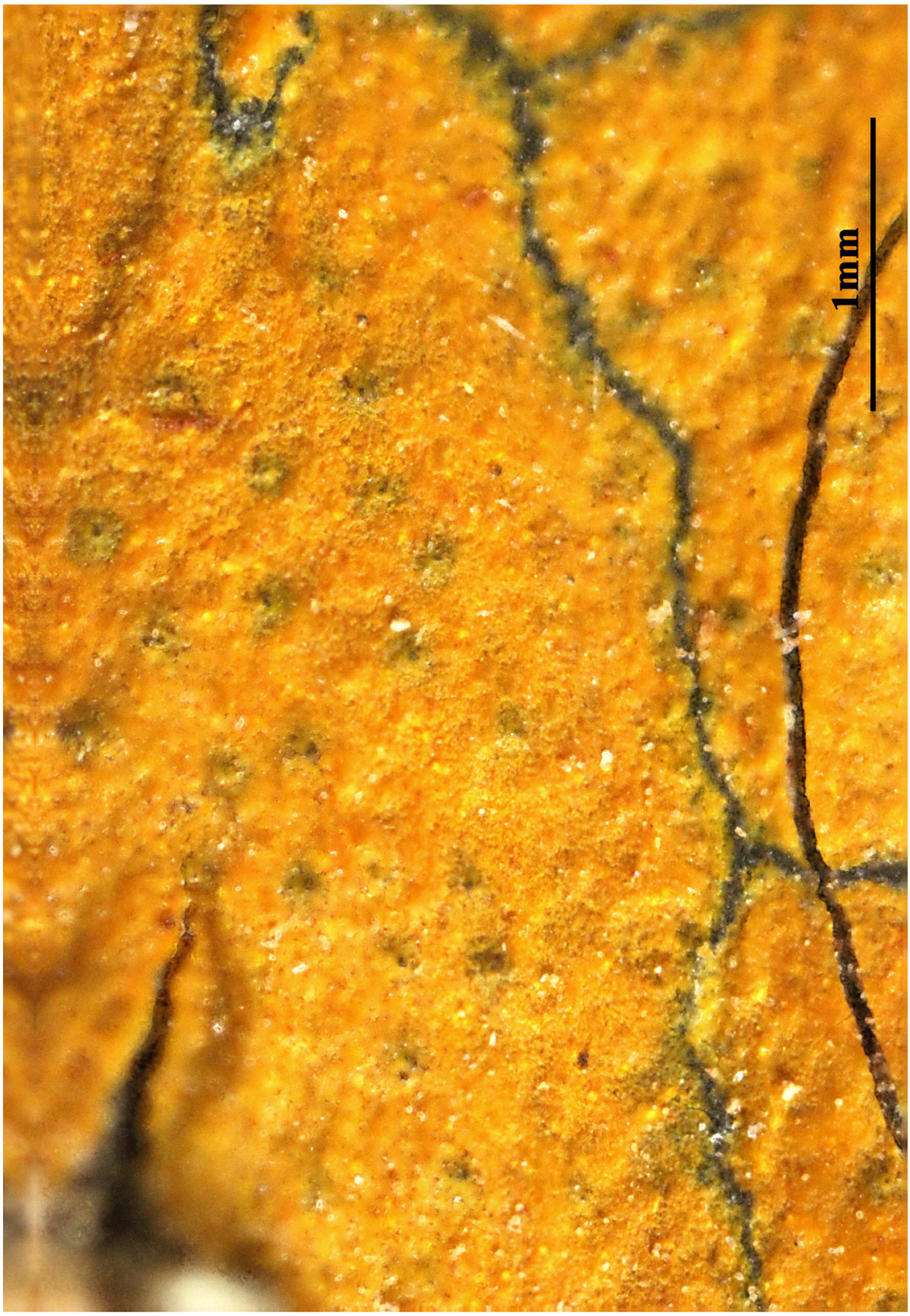


Pyrenotrichum splitgerberi

Pyrenula cerina Eschw., Syst. Lich.: 25 (1824)

[VZ1644], U.S.A., Florida, Monroe County: in insula dicta Big Pine Key. Ad radices aerias *Rhizophorae* in palude maritima. Leg. W. L. Culberson (no. 11000) et C. F. Culberson, 12.1962, det. A. Aptroot 2010 first distributed as *Trypethelium aeneum*. Annot.: Parietin and traces of assoziated unidentified substances by TLC; anal. A. Johnson and C. F. Culberson, - Ex A. VěZDA LICHENES SELECTI EXSICCATI NR. 16443.

Thallus yellow to orange, K+ purplish, UV+ red, with pseudocyphellae; ascomata immersed, subglobose, c. 0.3 mm diam.; hamathecium gel IKI+ orangish. Ascospores 4-loculate, 26-42 x 12-15 µm.



Pyrenula cerina

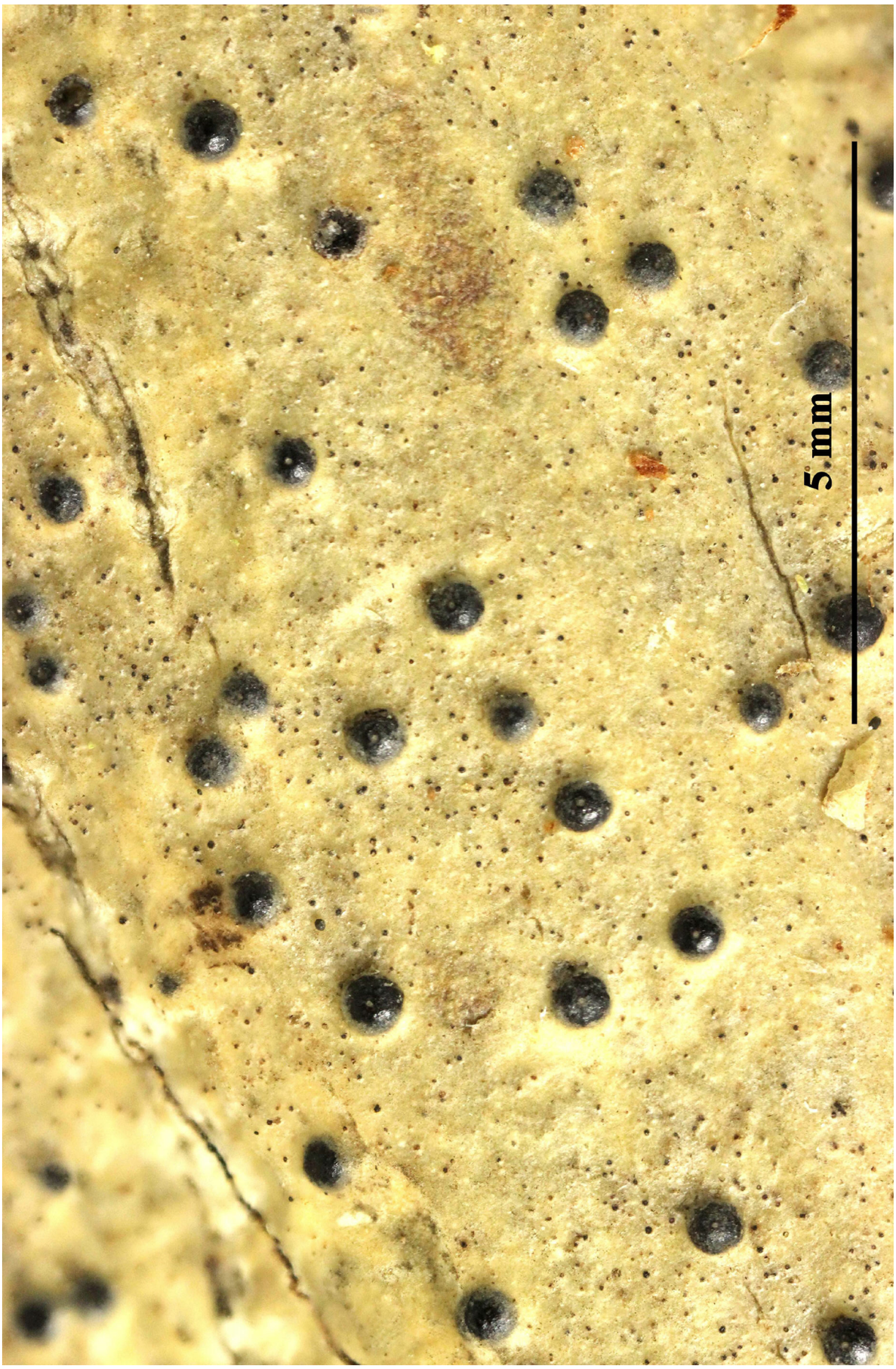
Pyrenula cerina

Pyrenula imperfecta (Ellis & Everh.) R.C. Harris, Michigan Bot. 12(1): 43 (1973)
= *Pyrenula subelliptica*(Tuck.) R.C. Harris
= *Clypeosphaeria imperfecta* Ellis & Everh. 1892

[VZ1552], Persia borealis. Mazandaran: Shari, 6 km ad orientem versus a vico Ziarab. Ad corticem Diopyros lotus. Leg. J. Soják, 25.6.1977, det. A. Vězda. EX A. VĚZDA LICHENES SELECTI EXSICCATI NR. 1552.

Thallus crustose, continuous, corticate, often with pseudocyphellae; photobiont Trentepohlia; vegetative diaspores absent. Ascomata perithecia globose or somewhat flattened, almost completely immersed, 0.4-0.8 mm diam. Ostiole usually flush; hamathecium inspersed with oil droplets; gel K/I+ orangish. Ascospores brown, broadly elliptical, 4-celled, locules round, median locules elongate, 25-35(-45) x 10-15(-17) µm. Chemistry. UV-, secondary metabolites unknown. Substrate and Habitat. On smooth bark of hardwood trunks, in hardwood and mixed forests. Distribution. Eastern North America; in North Carolina throughout.

Literature: Harris, R.C. (1989). A sketch of the family Pyrenulaceae (Melanommatales) in eastern North America. Memoirs of the New York Botanical Garden 49: 74-107.



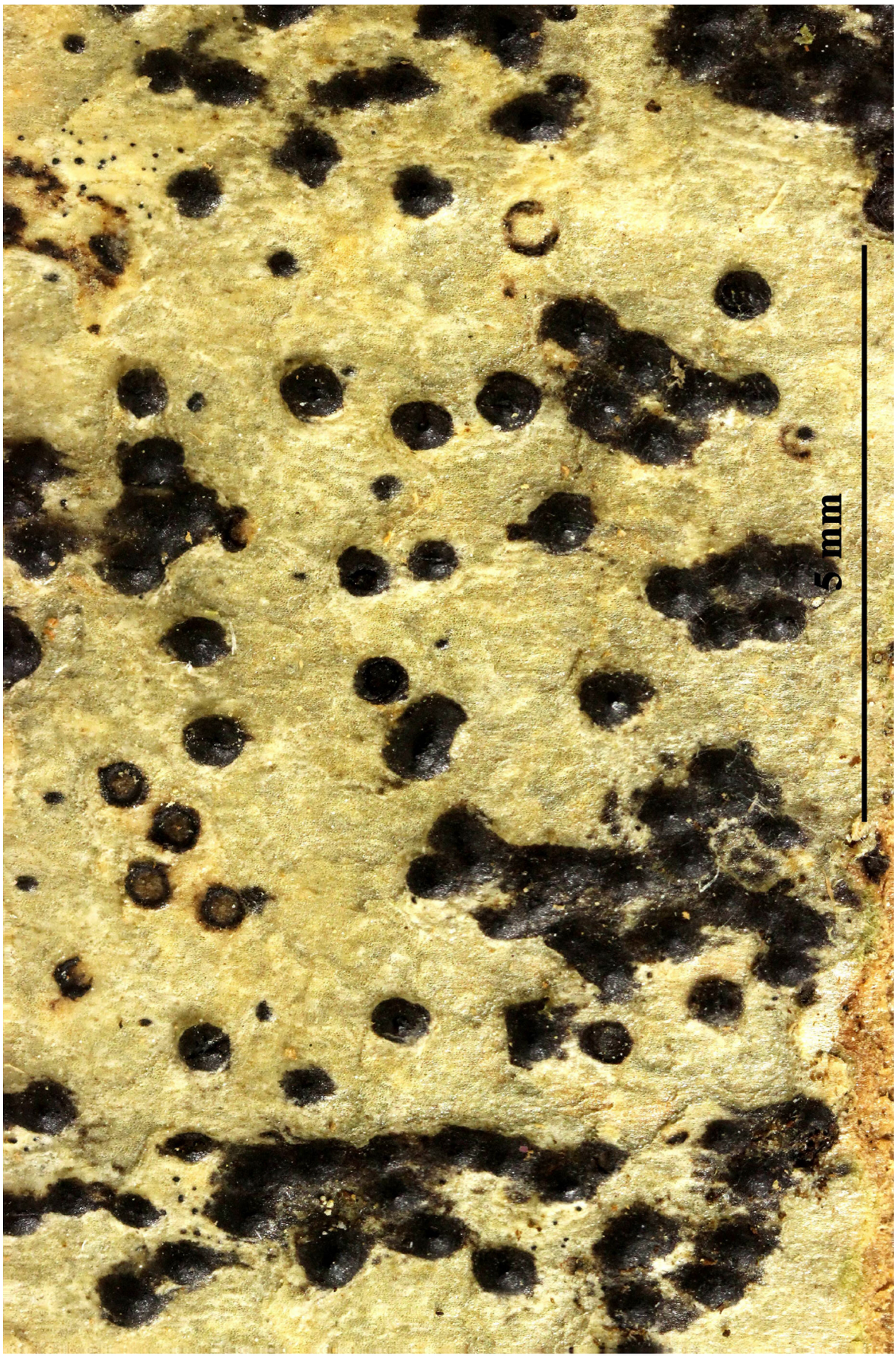
Pyrenula imperfecta

Pyrenula imperfecta

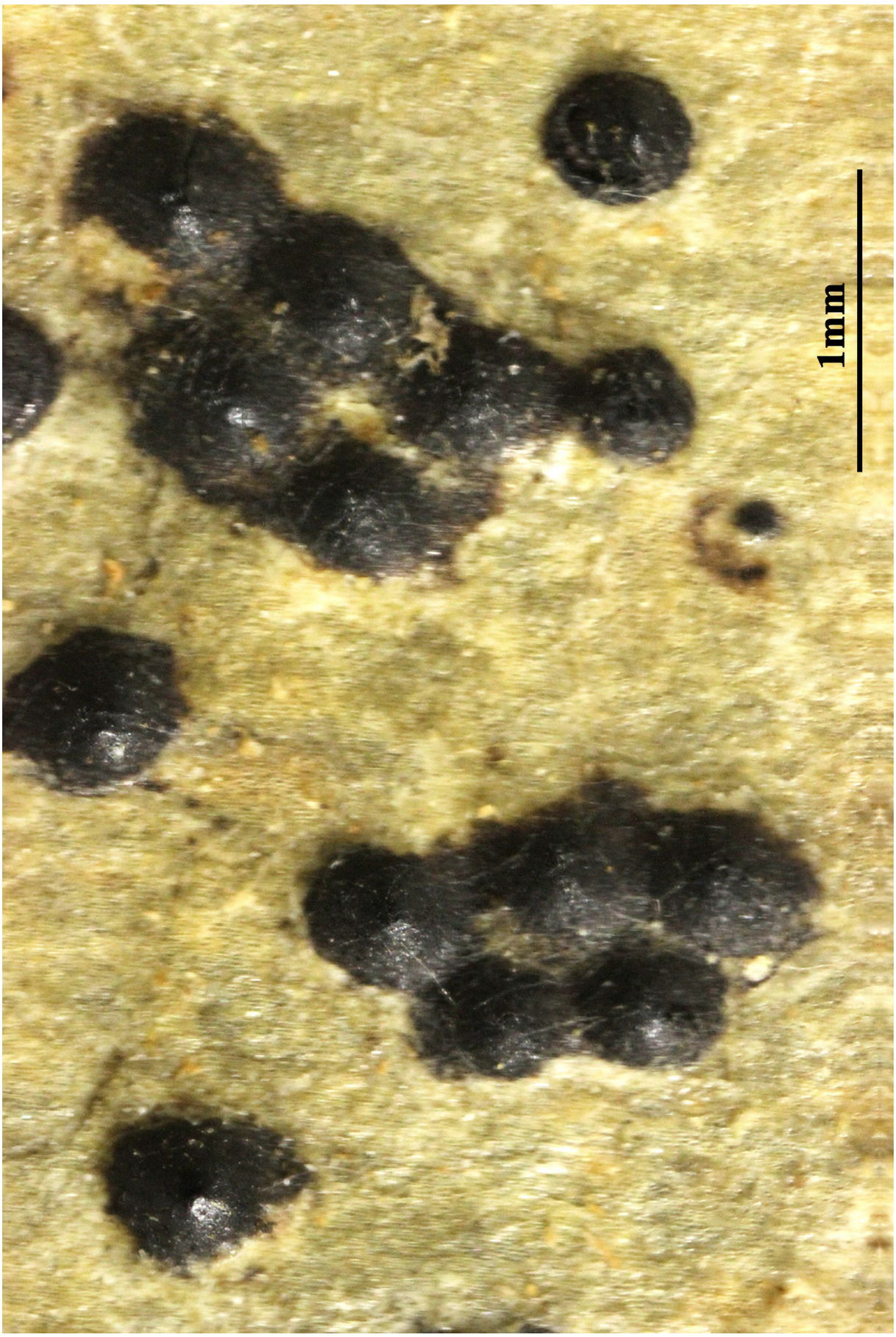
Pyrenula laevigata (Pers.) Arnold, Flora, Regensburg 68: 158 (1885)
= *Verrucaria laevigata* Pers. 1810

[VZ1704], Magna Britannia. Caledonia. Argyll, Inver, Glasdrum, Loch Creran. Ad corticem *Coryli*. Leg. P. W. James, 23.6.1976, det. B. J. Coppins. Ex A. Vězda Lichenes Selecti Exsiccati Nr. 1704.

Thallus crustose, more or less immersed in the bark, continuous, smooth, mostly silvery white to rarely very pale yellow-brown, without pseudocyphellae. Perithecia black, (0.3-)0.4-0.5(-0.7) mm across, slightly flattened in section, forming projections on the thallus, with a black involucrellum which is separable from the exciple and slightly spreading in lower part. Exciple brown throughout; hamathecium of branched and anastomosed periphysoids, later substituted by more or less unbranched paraphyses; ostiole with periphyses; hymenium colourless, not containing anthraquinones, K-. Asci 8-spored, narrowly cylindrical, long-stalked, bitunicate, with tholus, thickened at apex with an internal apical beak, non-amyloid. Ascospores 3(-5)-septate, brown, thick-walled, narrowly ellipsoid to subfusiform, (9-)17-25(-30) x (5-)6-8(-11) µm. Pycnidia black. Conidia thread-like, curved, 10-20 x 0.5-0.8 µm. Photobiont trentepohlioid. Spot tests: thallus K+ yellow, C-, KC-, P-, UV-. Chemistry: thallus with unidentified substances. - Note: a temperate species of smooth bark, most frequent on *Carpinus* and *Fagus* in open, humid woodlands.



Pyrenula laevigata

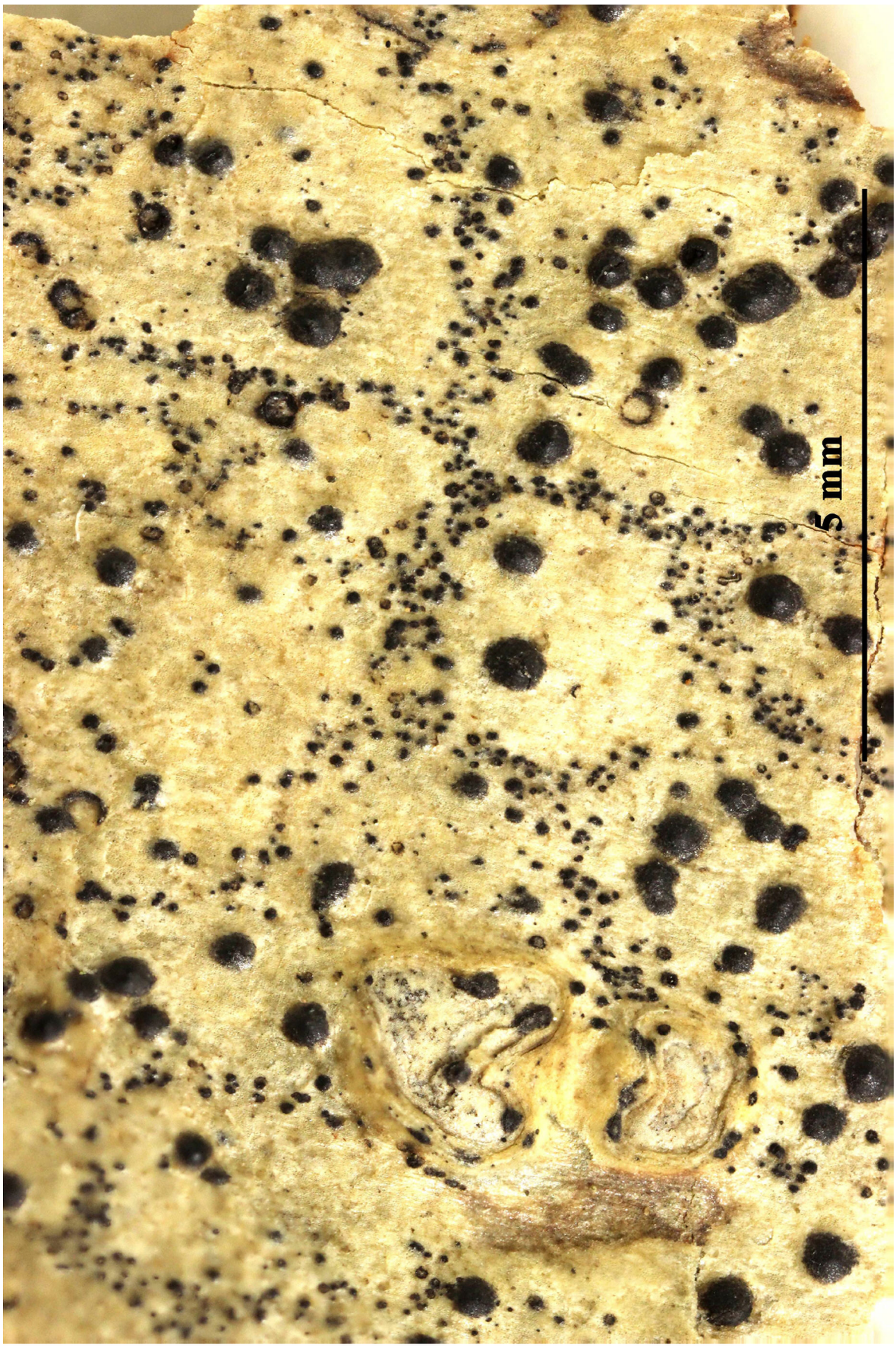


Pyrenula laevigata

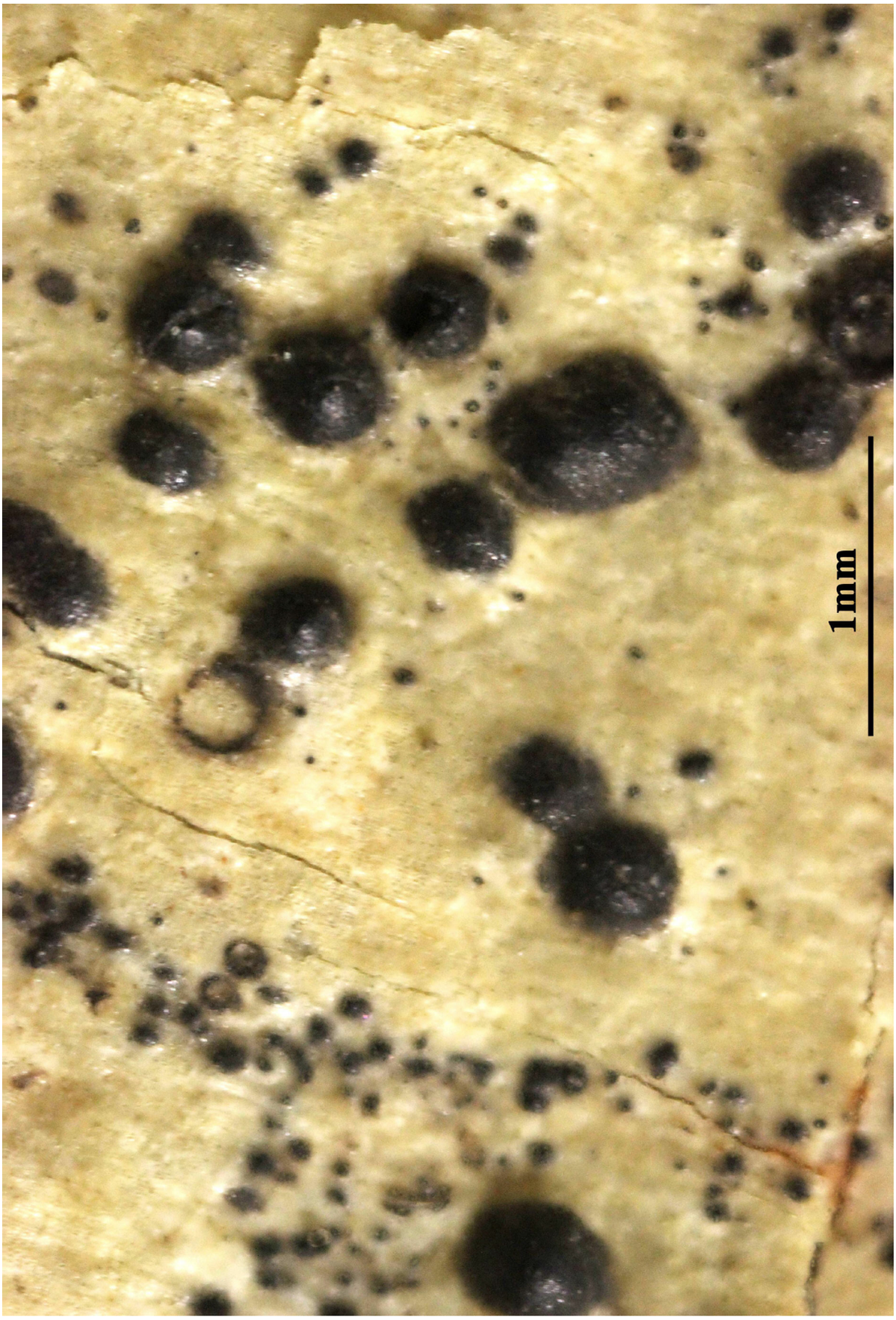
Pyrenula laevigata (Pers.) Arnold, Flora, Regensburg 68: 158 (1885)
= *Verrucaria laevigata* Pers. 1810

[VZ1873], Magna Britannia. Caledonia. Argyll, Seil, Ballachuan. Ad corticem *Coryli*. Leg. B. J. Coppins (no. 8130). Ex A. Vězda Lichenes Selecti Exsiccati nNr. 1873.

Thallus crustose, more or less immersed in the bark, continuous, smooth, mostly silvery white to rarely very pale yellow-brown, without pseudocyphellae. Perithecia black, (0.3-)0.4-0.5(-0.7) mm across, slightly flattened in section, forming projections on the thallus, with a black involucrellum which is separable from the exciple and slightly spreading in lower part. Exciple brown throughout; hamathecium of branched and anastomosed periphysoids, later substituted by more or less unbranched paraphyses; ostiole with periphyses; hymenium colourless, not containing anthraquinones, K-. Asci 8-spored, narrowly cylindrical, long-stalked, bitunicate, with tholus, thickened at apex with an internal apical beak, non-amyloid. Ascospores 3(-5)-septate, brown, thick-walled, narrowly ellipsoid to subfusiform, (9-)17-25(-30) x (5-)6-8(-11) µm. Pycnidia black. Conidia thread-like, curved, 10-20 x 0.5-0.8 µm. Photobiont trentepohlioid. Spot tests: thallus K+ yellow, C-, KC-, P-, UV-. Chemistry: thallus with unidentified substances. - Note: a temperate species of smooth bark, most frequent on *Carpinus* and *Fagus* in open, humid woodlands.



Pyrenula laevigata

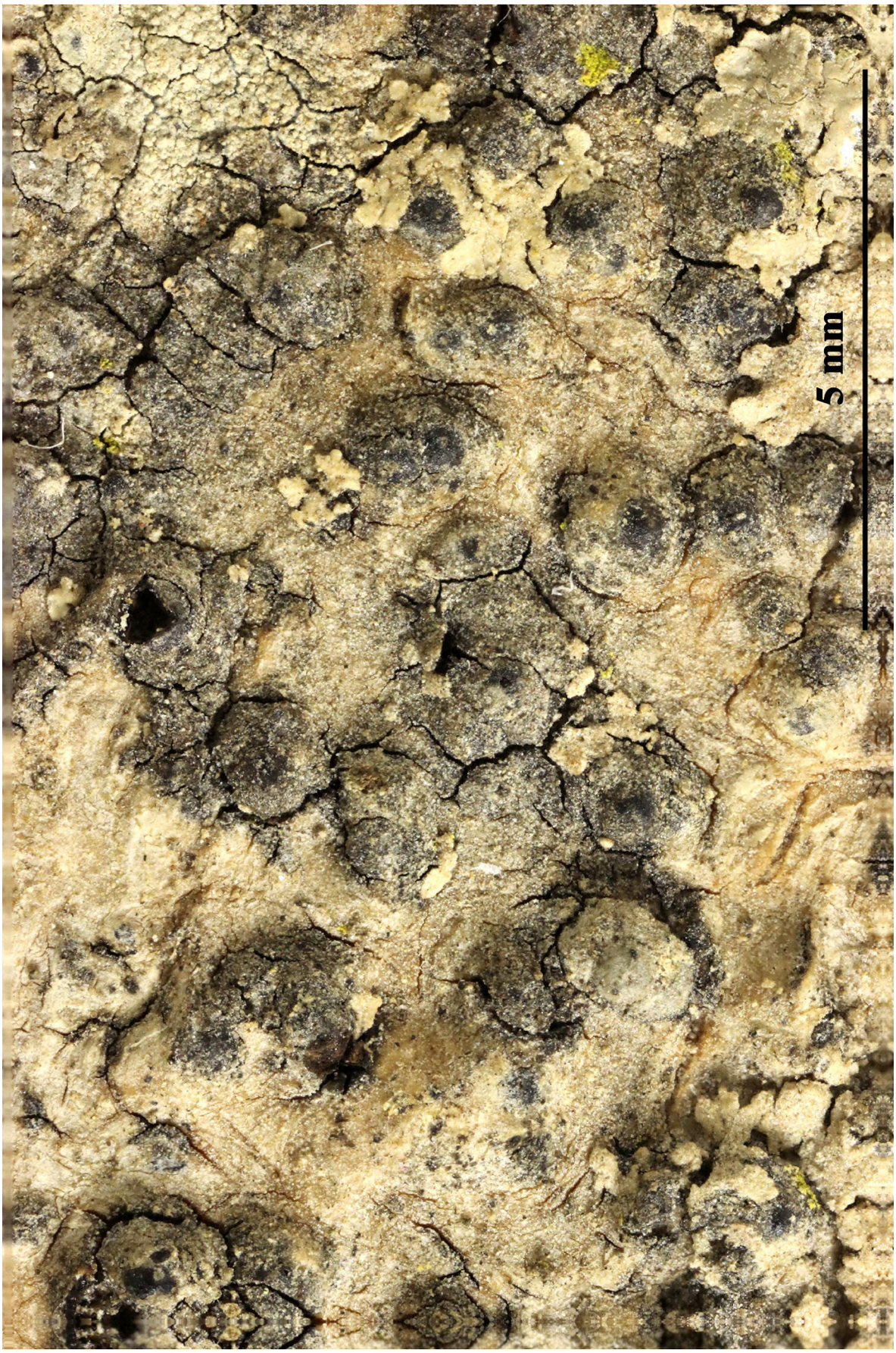


Pyrenula laevigata

Pyrenula macounii R.C. Harris, Michigan Bot. 12(1): 45 (1973)

[VZ1983] USA., Lousiana, East Baton Rouge paroecia, Essen Lane, Baton Rouge, Burden Research Plantation. Ad corticem *Celtis laevigata*. Leg. S. C. Tucker (no. 14313), 31.5.1975, det. A. Vězda. Ex A. Vězda Lichenes Selecti Exsiccati Nr. 1983.

Thallus olivaceous, UV-, shiny, without pseudocyphellae, translucent in section, composed of compacted hyphae and remnants of bark cells, c. 75 µm thick. Ascomata quite crowded, brown-black, globose or subglobose, occasionally somewhat flattened at the base, immersed, 0.5–0.7 mm in diam.,0.35–0.5 mm in height. Involucrellum entire, brownblack, including bark cells, colorless crystals absent, 40–100 µm thick, thinner below. Exciple brownish, not distinct. Hamathecium IKI-, not inspersed. Interthecial hyphae c. 1–2 µm, septate, not branched and anastomosed. Asci cylindrical, not much thickened at the tip, c. 110–
115 × 15–18 µm. Spores eight in the ascus, uniseriate, light brown, fusiform-elliptical, 3-septate, commonly with true septa continuous-with the outer wall, terminal lumina separated from outer spore wall by a layer of endospore, 22–30 × 8-12 µm.



Pyrenula macounii

Pyrenula macounii

Pyrenula neglecta R.C. Harris, Michigan Bot. 12(1): 45 (1973)

[VZ1677], Magna Britannia. Caledonia. West Inverbess-shire, Loch Lochy, Clunes Forest, 40 m. Ad corticem *Coryli*. Leg. B. J. Coppins (no. 3424), 27.6.1978, det R. C. Harris. Ex A. Vězda Lichenes Selecti Exsiccati Nr. 1677.

Ex R. C. Harris 1973:
Thallus yellowish-olivaceous or grayish-green, UV+ yellow (lichexanthone), often shiny, upper layer ca. 100 µm thick, composed of compacted hyphae and bark cell remnants, somewhat cortex-like. Trentepohlia abundant, very well-developed, forming a definite layer below the cortex-like layer. Ascocarp dark brown to black, dull to shiny, scattered or occasionally clustered and fused, hemispherical to subglobose, initially covered by bark and thallus but usually finally one-half to three-fourths emergent, 0.4-0.6 mm in diameter. Ostiole usually evident, flush with the ascocarp surface or often raised in a small papilla. Involucrellum dark brown, mostly lacking below or at least very thin below, containing bark cells, without colorless crystals, 50-60 µm thick. Exciple brownish, indistinct. Hymenium IKI+ greenish-blue at the base, heavily inspersed with oil droplets. Interthecial hyphae ca. 1 µm thick, septate, not branched. Asci cylindrical to somewhat clavate, tip not thickened, 70-85 X 15-18 µm. Spores eight in the ascus, mostly uniseriate, pale yellowish-brown, 3-septate, not constricted at the septa, terminal lumina smaller and pressed directly against the outer spore wall, often projecting and forming a small papilla at either end of the spore, 13-22(24) x (7)8-11(12) µm. - Pyrenula neglecta is one of the most widely distributed pyrenolichens in eastern North America. Its local abundance and conspicuousness make it the most frequently collected. It has been most often misidentified as *P. nitida* (Weig.) Ach. but also as *P. laevigata* (or P. glabrata). - *Pyrenula neglecta* is characterized by the presence of lichexanthone in the thallus (verified by thin layer chromatography) although some specimens with badly eroded thalli do not fluoresce or fluoresce only toward the margins. Also diagnostic are the IKI+ greenish-blue hymenium which is heavily inspersed and the spores which have the terminal lumina directly against the outer spore wall. The thallus is never white-dotted and the ostiole is often raised in a small papilla. *Pyrenula neglecta* is found in eastern North America from Newfoundland to northern Florida, west to Texas and Iowa.

Pyrenula neglecta

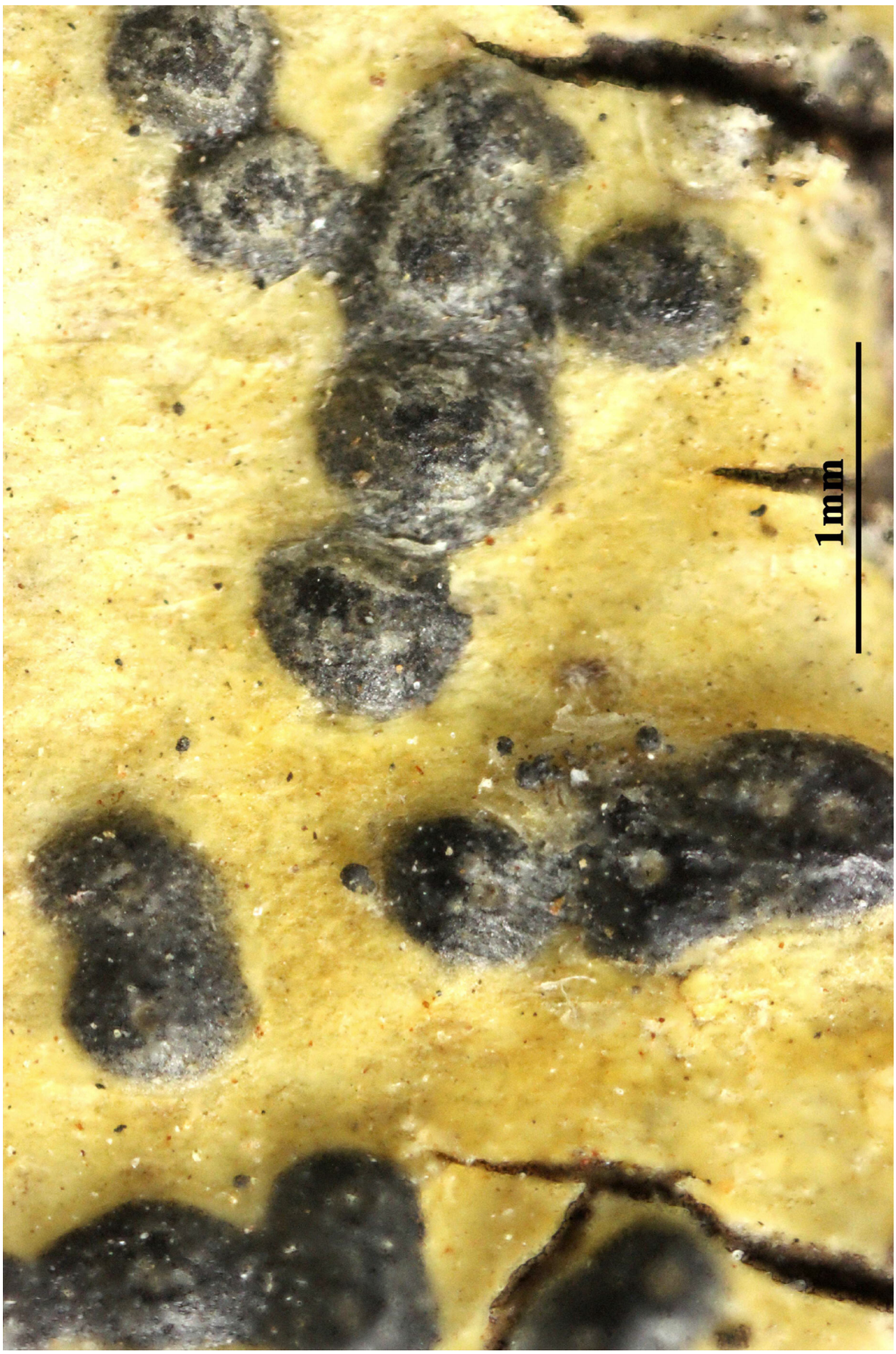
Pyrenula neglecta

Pyrenula sandwicensis Zahlbr., Annls mycol. 10(4): 360 (1912)
= *Pyrenula citriformis* R.C. Harris
= *Pyrenula subcongruens* Müll.Arg.
= *Verrucaria fetivica* Kremp.

[VZ2128], Hawaii Insulae. Hilo, secus viam in urbe. Ad truncum *Casuarinae* sp. cultae. Leg. O. et I. Degener (36662), 2.1986, det A. Vězda. EX A. VěZDA LICHENES SELECTI EXSICCATI NR. 2128.

Thallus thin, smooth, corticate, not pseudocyphellate, UV—. Ascomata hemispherical to subglobose, 0.3-0.6 mm diam.; crystals lacking. Hymenium heavily inspersed, hymenial gel IKI+ blue-green becoming dirty orangish. Ascospores mostly uniseriate, 4-celled, 14-18 x 8-10 um. *Pyrenula citriformis* belongs in the same group as *P. pseudobufonia, P. cocoes*, and *P. plittii*. The variation in ascospores between them is very slight and distinctions are based on characters of the thallus, ascoma, and hymenium. *Pyrenula cocoes* and *P. pseudobufonia* have a UV + yellow thallus and *P. plittii* has an uninspersed hymenium. Their recognition as species is supported by differences in distribution.

Pyrenula sandwicensis



Pyrenula sandwicensis

Pyxine chrysantha Vain., in Hiern, Cat. Afr. Pl. 2(2): 412 (1901)
= *Pyxine subcinerea* Stirt. Trans. Proc. N. Z. Inst., 30: 397, 1898.
= *Pyxine chrysanthoides* Vain.

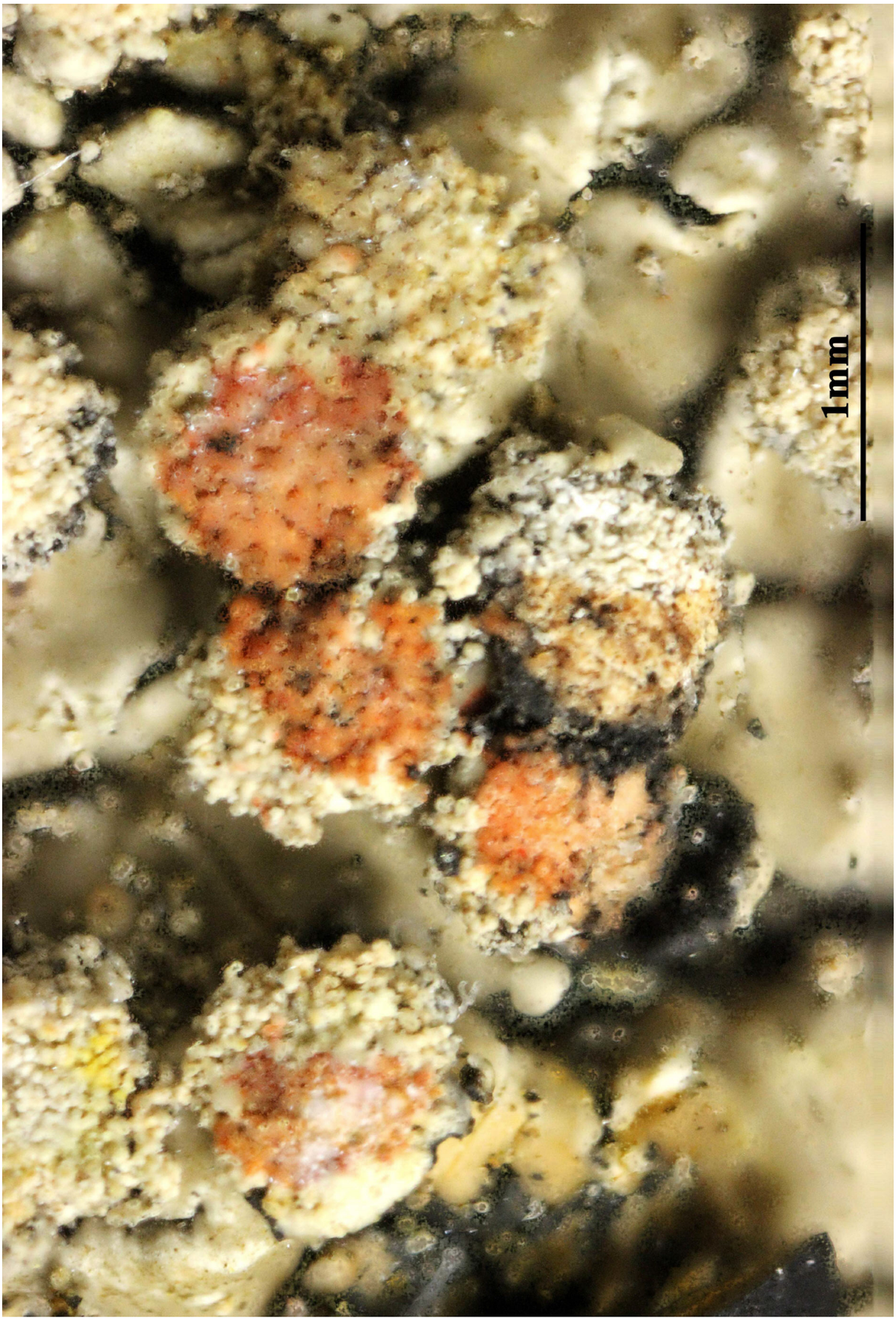
[VZ1742], Philippines Insulae. Luzon, Laguna Province, Calauan, in pede montis Ubabis, 100 m. Ad truncum vetustum *Coccos nucifera*, Leg. W. S. Gruezo (no. 6392), 1.7.1979 et R. S. Acantara, det. A. Vězda. Ex A. Vězda Lichenes Selecti Exsiccati Nr. 1742.

Thallus foliose, heteromerous, dorsiventral, rather firmly attached, sorediate, forming orbicular, 3-5(-8) cm wide rosettes. Lobes flat to slightly concave, 0.3-0.6 mm wide, grey to brownish grey, sometimes pruinose (the pruina forming distinct patches), rarely with a faint network of laminal, linear pseudocyphellae, with initially marginal, fissural, later laminal, orbicular, convex soralia; soredia farinose. Lower surface black in central parts, paler at margins, with black, furcate rhizines. Upper cortex paraplectenchymatous; medulla lemon-yellow to creamy yellow in upper part, white in lower part; lower cortex prosoplectenchymatous. Apothecia lecideine, very rare (not seen in Italian material), laminal, 0.3-1.5 mm wide, with a black, epruinose disc, without a distinct thalline margin. Internal stipe poorly developed, brownish-red and K+ purple in upper part, paler and K- in lower part; proper exciple blackened; epithecium bluish black, K+ purple; hymenium colourless; paraphyses capitate; hypothecium brown. Asci 8-spored, clavate, Bacidia-type. Ascospores 1-septate, brown, ellipsoid, 13-19 x 6-8 µm. Pycnidia black, immersed. Conidia bacilliform, 3-4 x c. 1 µm. Photobiont chlorococcoid. Spot tests: upper cortex and medulla K-, C-, KC-, P-, UV+ yellow. Chemistry: upper cortex with lichexanthone; medulla with terpenes and an unknown pigment. - Note: a subtropical species.

Pyxine chrysantha

Pyxine chrysantha

Pyxine chrysantha



Pyxine chrysantha

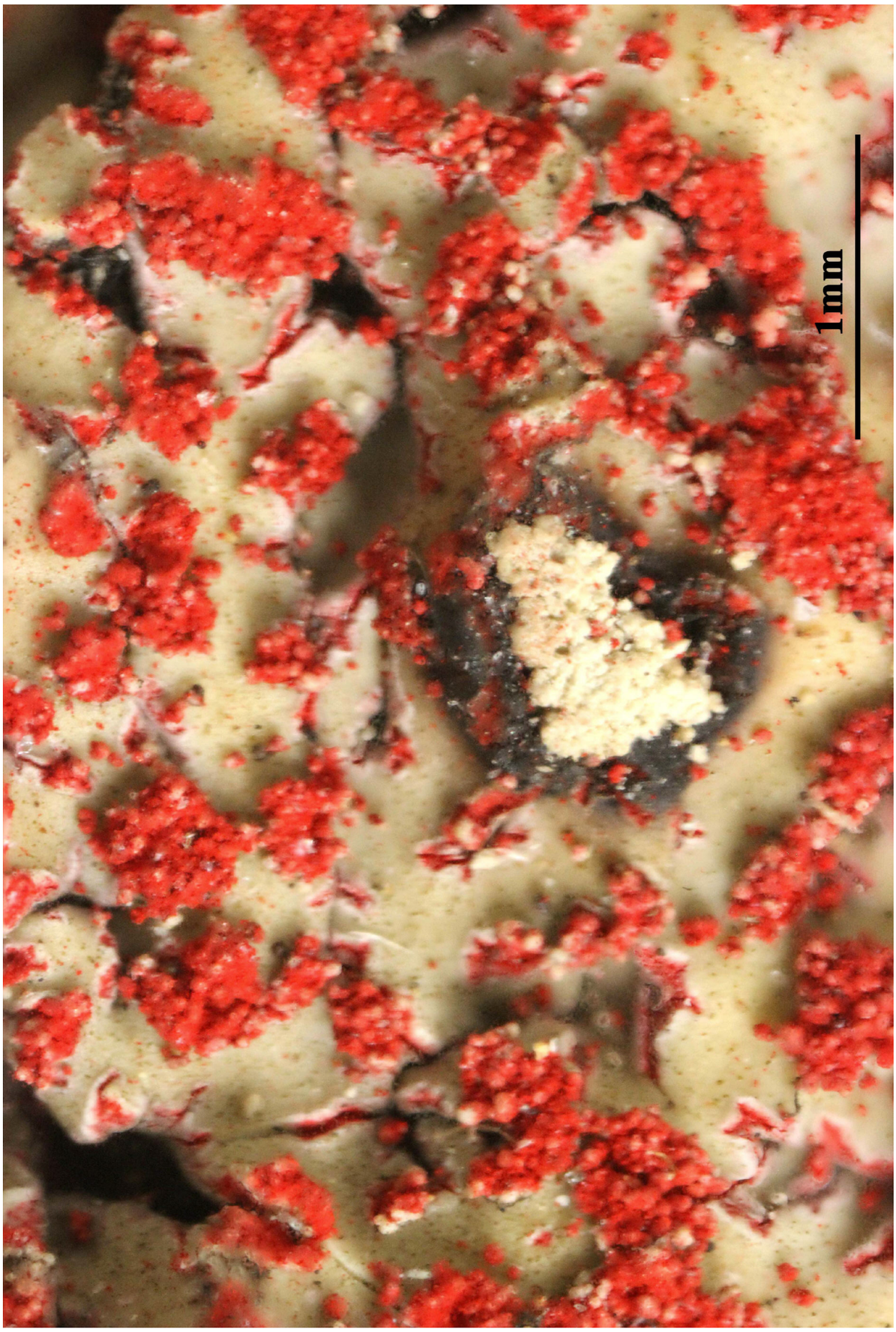
Pyxine coccifera (Fée) Nyl., Mém. Soc. Imp. Sci. Nat. Cherbourg 5: 108 (1858) [1857]

[VZ1271], Tanzania. Morogoro distr., in monte Nguru Ya Ndege, 815-850 m. Ad corticem arborum Leg. T. Pócs (no. 6706), 4.6.1972. Ex A. Vězda Lichenes Selecti Exsiccati Nr. 1271.

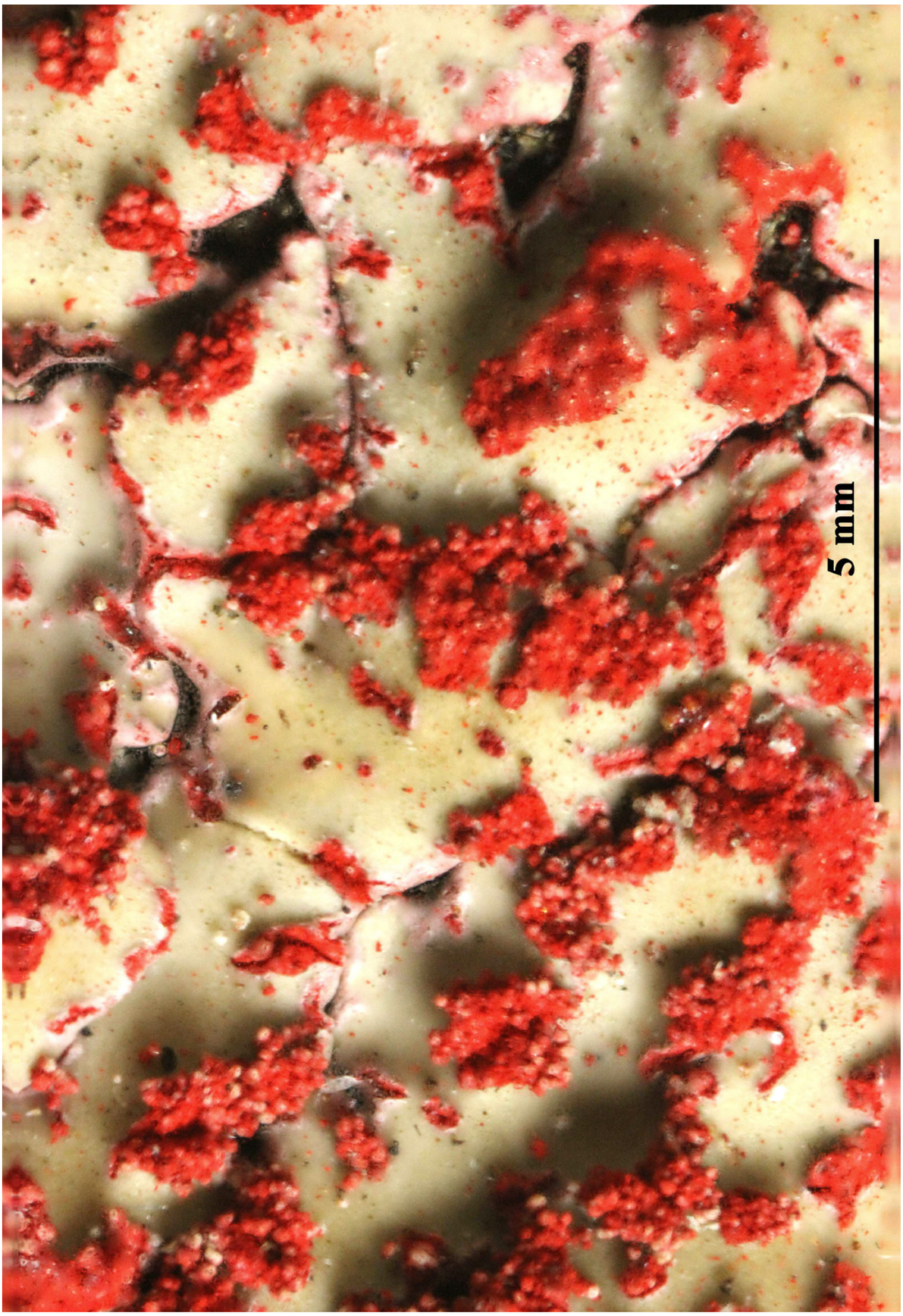
Thallus 2–6 cm wide, adnate to loosely adnate, subdichotomously lobate. Lobes radiating, discrete to ±weakly contiguous, plane to convex, but often slightly concave towards the tips, 0.4–1.2 mm wide, subrotund at the apices. Upper surface grey to yellowish grey or dull yellow, sparsely pruinose at the lobe tips or epruinose; dactyls and isidia absent. Pseudocyphellae bright red, marginal and laminal, subreticulate, often developing into soralia. Soralia marginal and laminal, orbicular to linear, ±becoming excavate, producing bright red and grey granular soredia. Medulla pale yellow in upper part; lower medulla white. Lower surface black in the centre, paler towards the margin; rhizines ±dense, furcate. Apothecia very rare, obscurascens-type, 0.5–1.5 mm wide; disc epruinose or weakly pale grey-pruinose. Internal stipe distinct, pale yellow in the upper part, white below, K–, P–. Ascospores 14–18 × 6–8 μm. Pycnidia not seen. CHEMISTRY: Cortex K+ yellow, UV–; medulla K–, C–, KC–, P–; red-pigmented medulla K+ purple, C+ purple-brown, KC+ violet, P–; containing atranorin, chloroatranorin, chiodectonic acid, methyl pyxinate, methyl 3-O-methylpyxinate, 25-acetoxy-20,24-epoxydammerane-3-one, 25-acetoxy-20,24-epoxydammerane-3β-ol, ±unknown terpenes (trace). Occurs on rocks and dead wood in coastal and hinterland areas of the Kimberley region of northern Australia, also in South America and Africa.

Pyxine coccifera

Pyxine coccifera



Pyxine coccifera



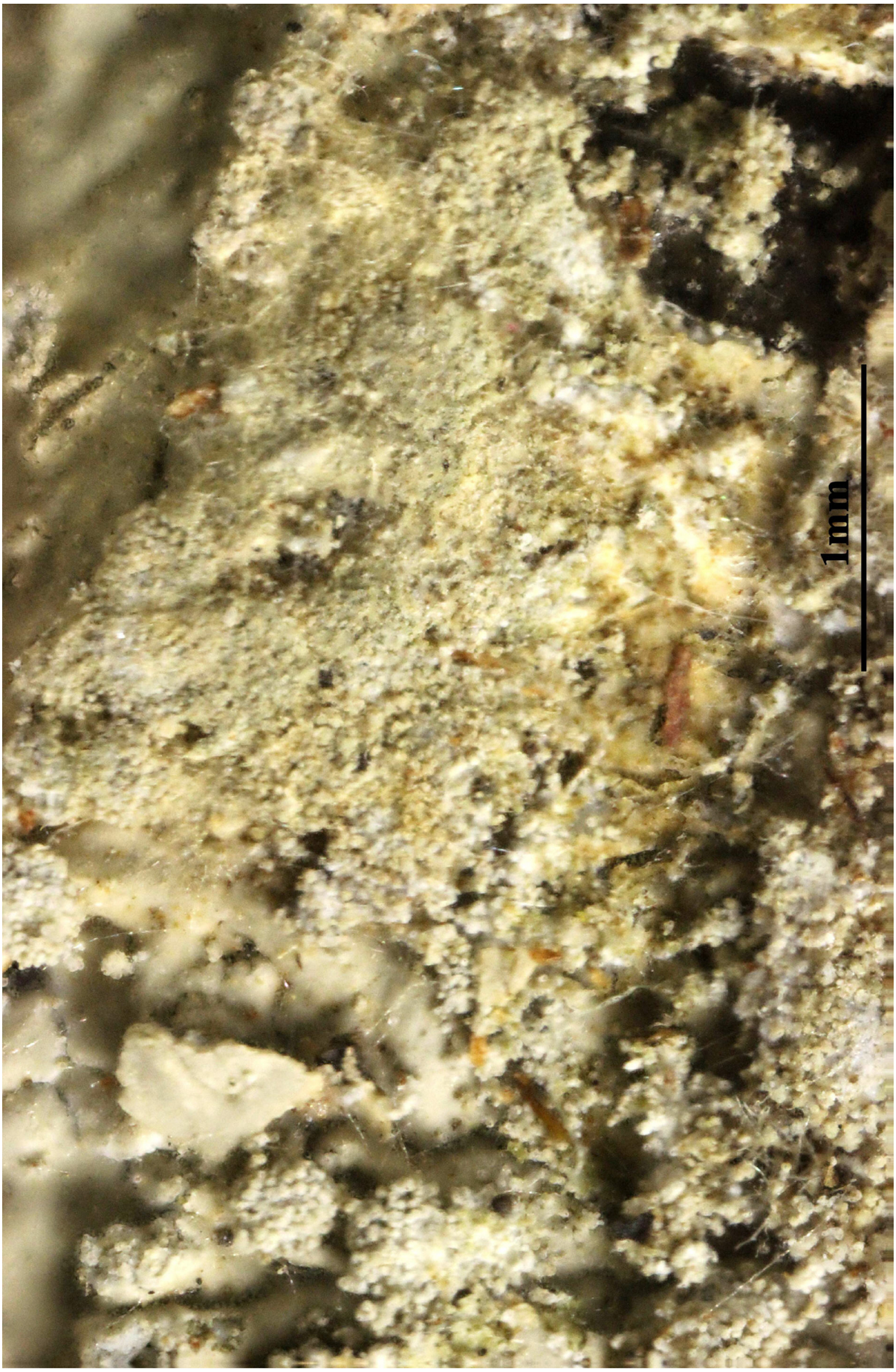
Pyxine coccifera

Pyxine eschweileri (Tuck.) Vain., Acta Soc. Fauna Flora fenn. 7(no. 1): 156 (1890)
= *Pyxine cocoes var. eschweileri* Tuck. 1877

[VZ1623],USA. Lousiana. East Baton Rouge Paroecia. Baton Rouge, Baird Drive, 30°22'45" septentr., 91°07'30" occid. Ad corticem *Carpini carolinianae* et *Quercus nigrae*. Leg. S. C. Tucker (no. 14257), 15.4.1876. Ex A. Vězda Lichenes Selecti Exsiccati Nr. 1623.

Thallus foliose, orbicular up to 2-14 cm diam., smooth, pale to brownish gray with white maculae. Lobes linear, appressed with rounded tips without pruina. Vegetative diaspores small polysidiangia (schizidia), starting as small groups of short isidia-like structures that can burst, exposing the medulla and liberating soredioid granules and fragments, sometimes producing farinaceous soredia, simple becoming coralloid, erect, marginal. Photobiont trebouxioid alga. Medulla pale sulfur yellow. Lower surface dark brown to black; rhizines black, mostly simple, frequent. Ascomata lecideine apothecia, rare, up to 1.0 mm diam.; disk black, epruinose, flat to concave. Epithecium dark, K+ violet; hymenium 120-140 µm, I+ bluish; paraphyses confluent, unbranched, tips swollen; hypothecium yellow-brown. Asci clavate, 8-spored; ascospores brown, 3-4-celled, ellipsoid, 14-24 x 4-10 µm. Pycnidia absent. Chemistry. Thallus UV-, K+ yellow; medulla UV-, K+ reddish orange, KC-, C-, PD-; atronorin, triterpenes. Substrate and Habitat. Corticolous on trees.Distribution: Africa, South, Central and North America.

Pyxine eschweileri

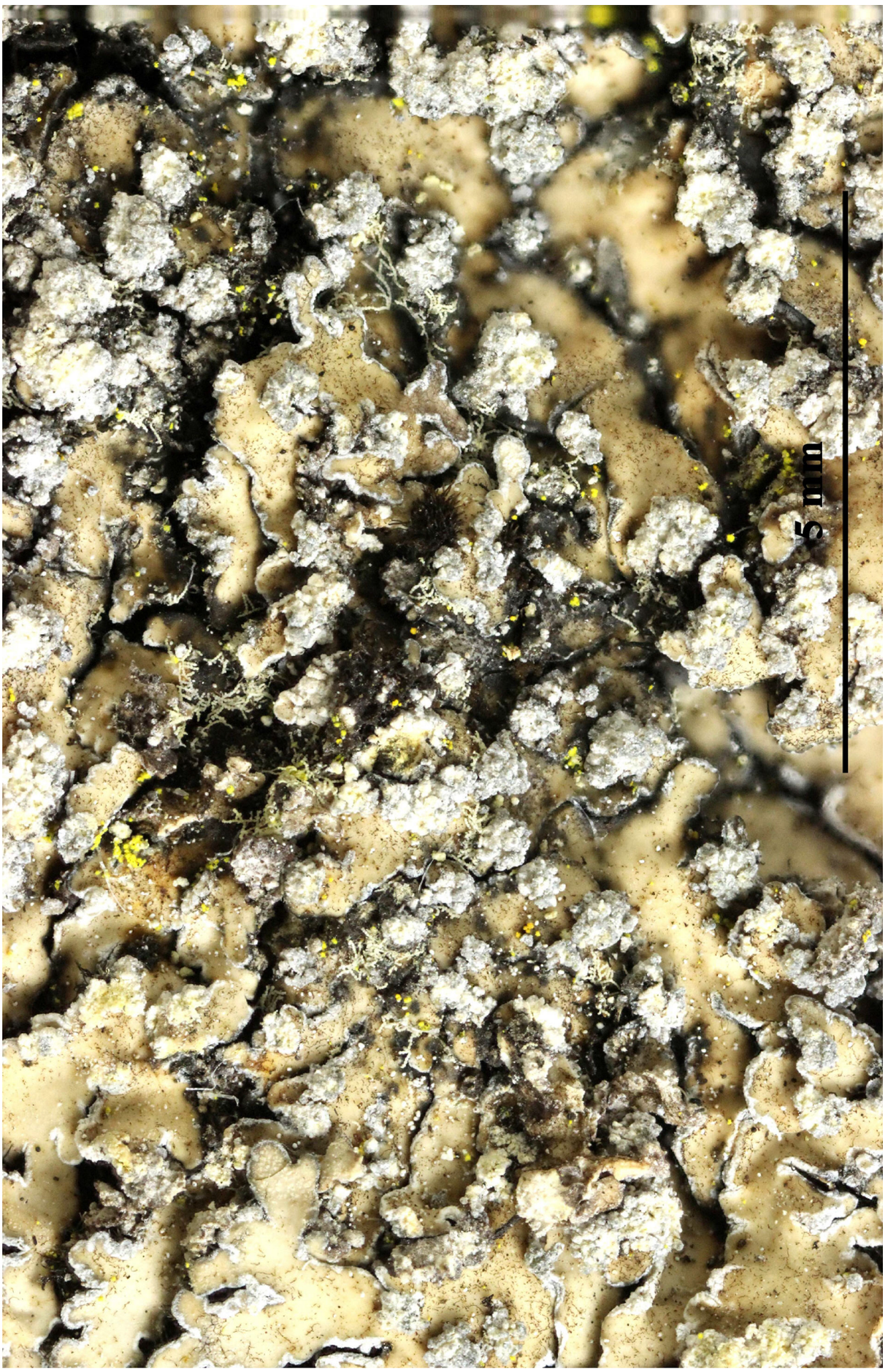


Pyxine eschweileri

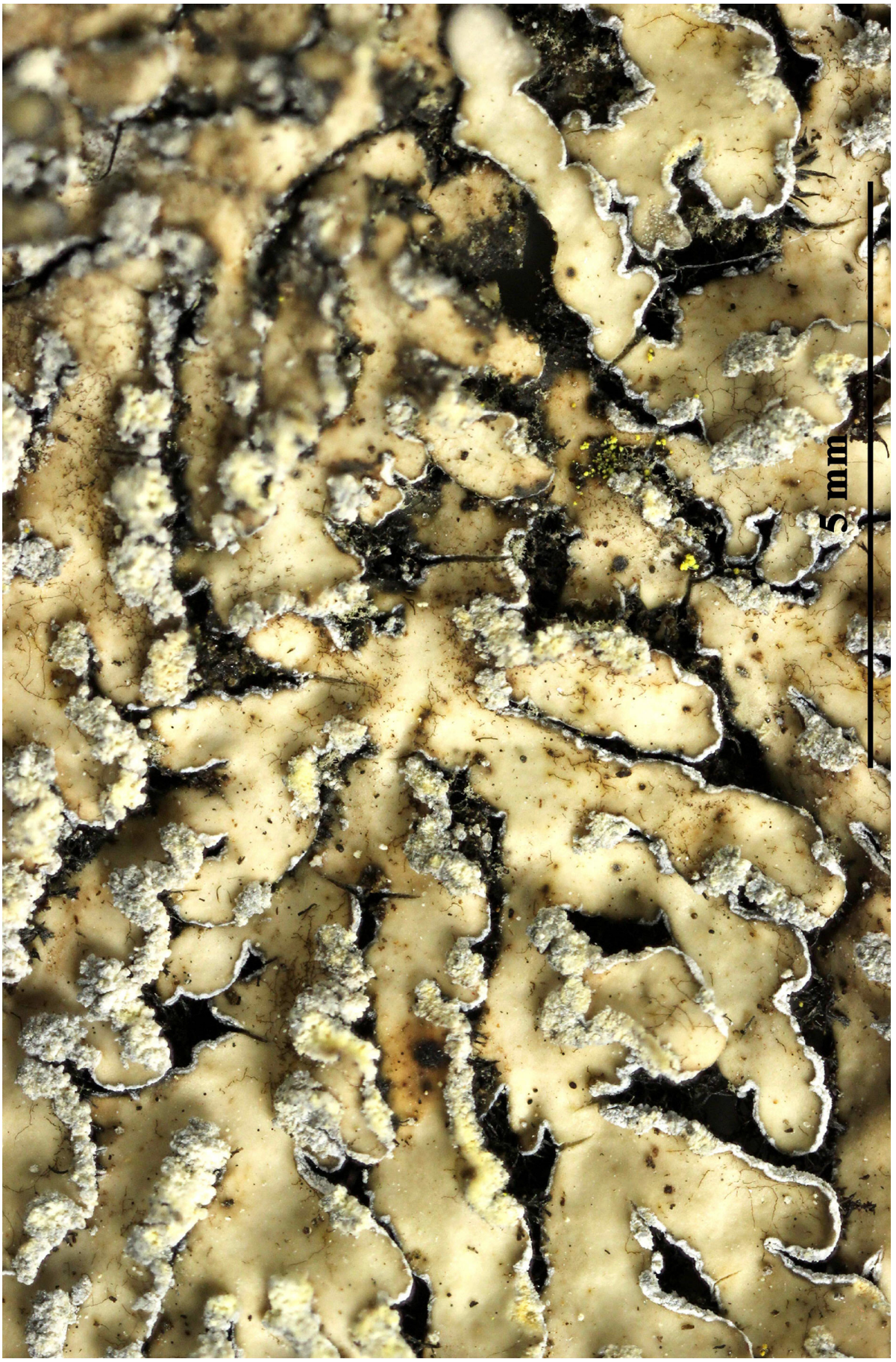
Pyxine sorediata (Ach.) Mont., in Sagra, Hist. phys. Cuba, Bot. Pl. Cell. 9: 124 (1845)
= *Lecidea sorediata* Ach., Syn. meth. lich. (Lund): 54 (1814)
= *Lichen daedaleus* Sm., in Smith & Sowerby, Engl. Bot. 30: tab. 2129 (1810)
= *Parmelia sorediata* (Ach.) Tuck., Proc. Amer. Acad. Arts & Sci. 1: 227 (1848)
= *Placodium daedaleum* (Sm.) Hook., Engl. Fl., Mosses, Hepaticae, Lichens, Characeae and Algae (London) 5(1): 202 (1833)
= *Pyxine cocoes* subsp. *sorediata* (Ach.) Tuck., Syn. N. Amer. Lich. (Boston) 1: 80 (1882)
= *Pyxine cocoes* var. *sorediata* (Ach.) Nyl. [as 'cocoës'], Annls Sci. Nat., Bot., sér. 4 11: 218 (1859)

[VZ2488}, Tanzania. Morogoro distr., montes Uluguru, 1 km ad orientem a vico Chenzema, in valle Nyambutwa, 1700 m. Ad saxa prope cataracta. Leg. T. Pócs (88650), 27.10.1988, det. L. Lökös. Ex A. VěZDA Lichenes Selecti Exsiccati Nr. 2488.

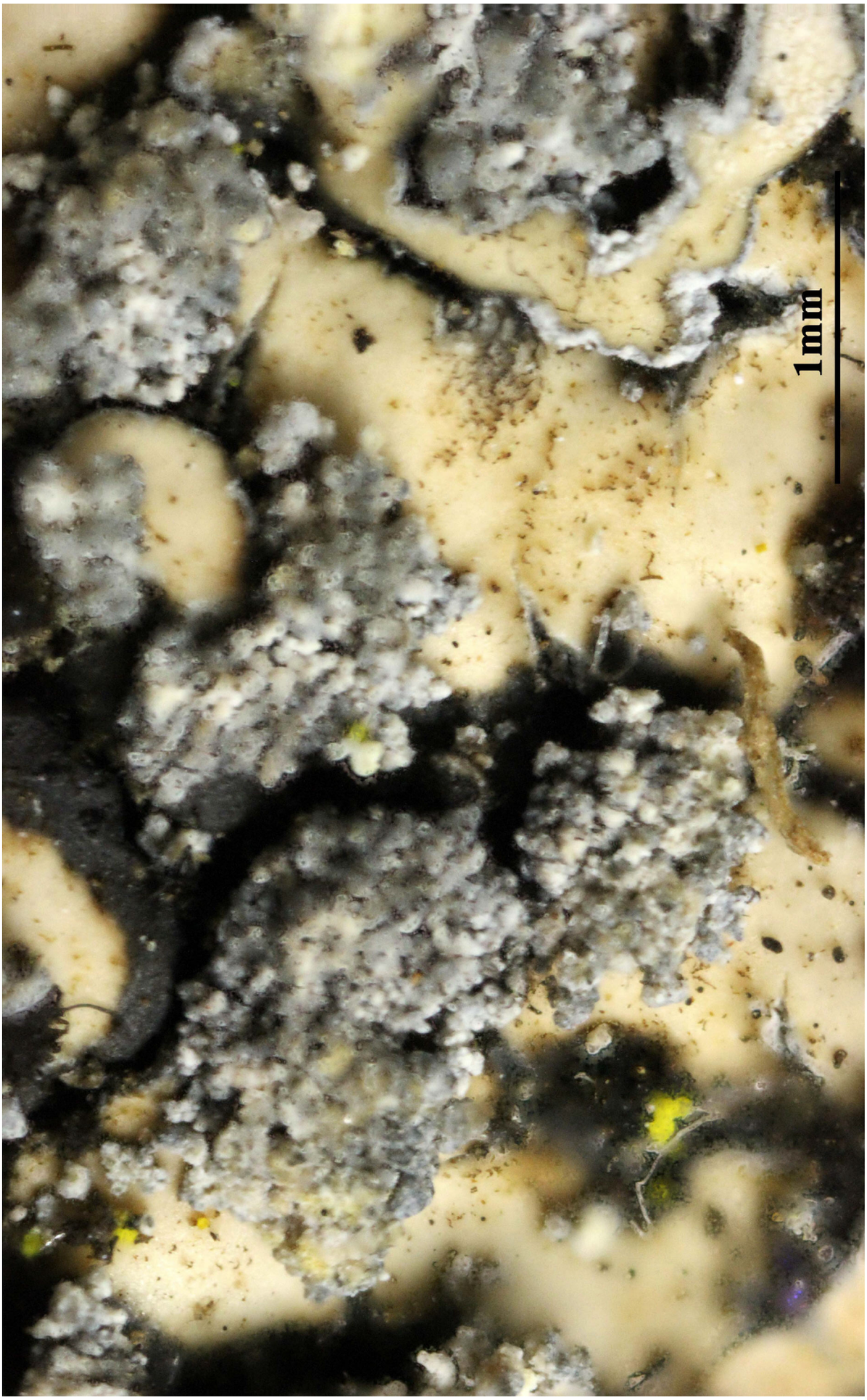
Thallus foliose, loosely appressed, up to 8 cm in diam; lobes flat or slightly concave, 0.6-1.3 mm wide; upper surface beige gray, brownish gray, leaden or bluish gray; pseudocyphellae very distinct along the lobe margins, sometimes gray pruinose and reticulately confluent; pruina punctiform on the peripheral parts of the lobes; soredia always present, granular, rarely farinose, initially in marginal, fissural, then in laminal, in orbicular soralia, sometimes secondarily with a cortex and then simulating polysidiangia; isidia and true polysidiangia lacking; medulla upper part lemon yellow, ochraceous to orange yellow; lower surface black in center, paler towards lobe tips; rhizines ± dense, blackish to blackish blue, furcately divided. Apothecia obscurascens-type, rare, laminal, 0.5-1.4 mm wide; disc black, not pruinose; internal stipe distinct, upper part dark orange, lower part white; ascospores one-septate, brown, 14-19 x 6-8 µm. Pycnidia immersed; conidia bacilliform, 3-4 x 1 µm. Spot tests: upper cortex K+ yellow or K-, C-, KC-, P- or P+ pale yellow; medulla upper and lower part K-, C-, KC-, P-; internal stipe upper part K+ red, C-, KC+ purple, P-; lower part K-, C-, KC-, P-. Secondary metabolites: upper cortex atranorin (sometimes in very low concentration); medulla with terpenes of a characteristic pattern on TLC plates, and an unknown pigment. - On bark, acidic rocks and over mosses from sea level to subalpine areas. North America, Europe, Africa, Nepal, India, Japan, Australasia and insular Laurimacaronesia.



Pyxine sorediata



Pyxine sorediata

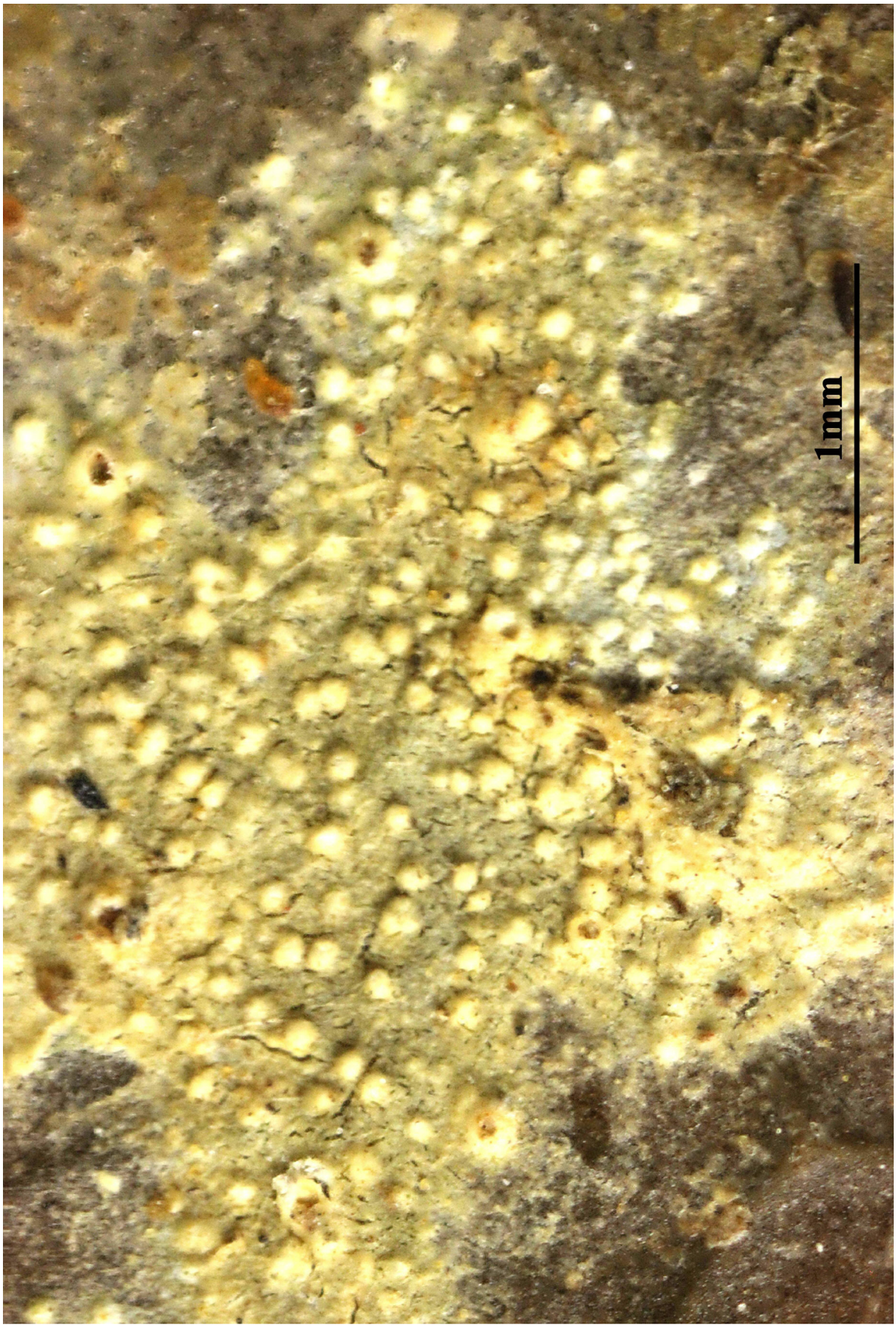


Pyxine sorediata

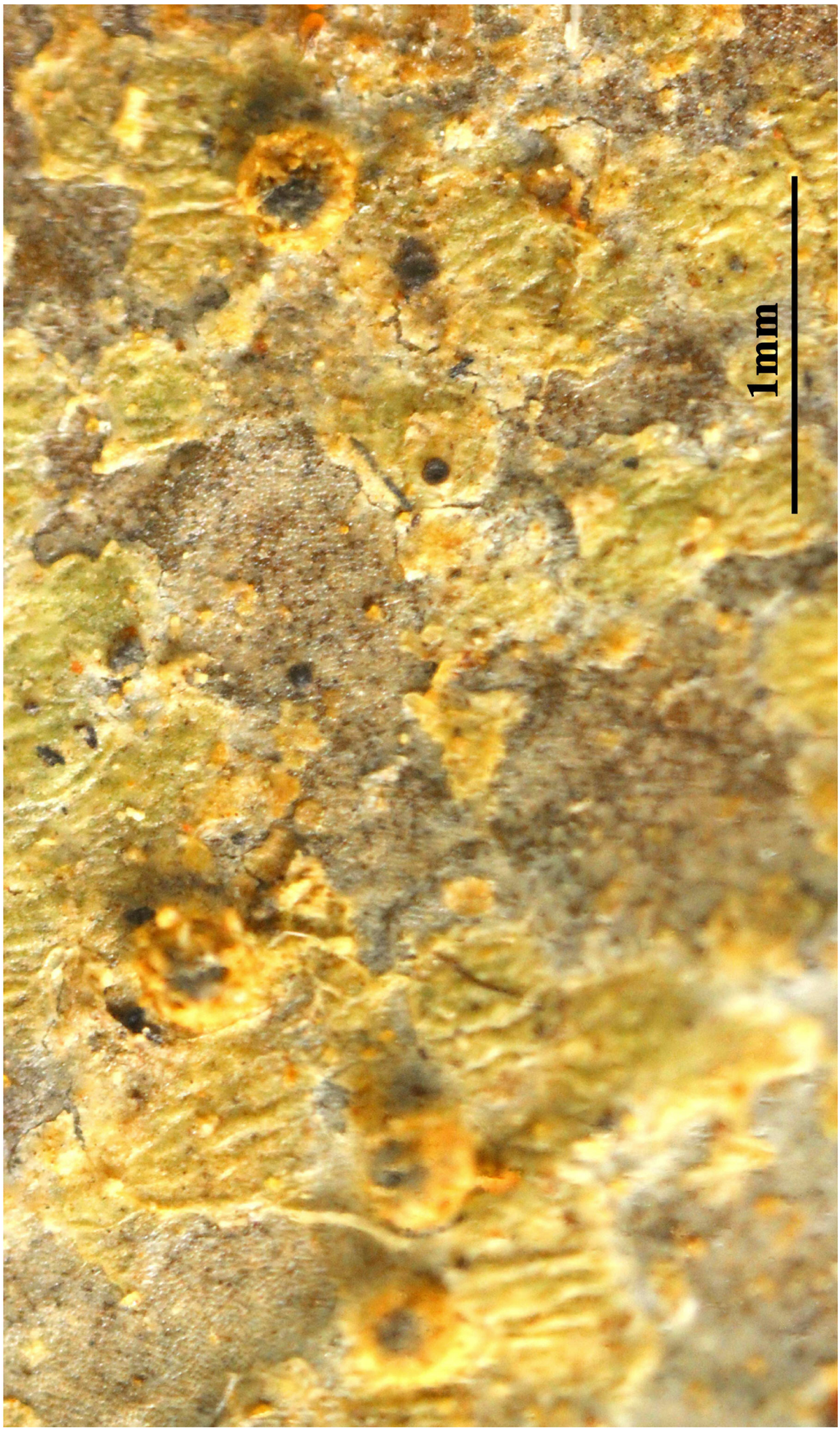
Raciborskiella janeirensis (Müll. Arg.) R. Sant., Symb. bot. upsal. 12(no. 1): 196 (1952)
= *Strigula janeirensis* (Müll. Arg.) Lücking, Trop. Bryol. 15: 65 (1998)
= *Phylloporina janeirensis* Müll. Arg., Flora, Regensburg 73: 198 (1890)

[VZ1228], Tanzania. Montes Uluguru, reservatum silvestre in clivo septentrionali montis Bondwa, 1400 m. In pluviisilva submontana, in pagina inferiori folii *Zenkerllae egregiae*. Leg. T. Pócs (no. 6855) et M. & Crosby, 15.11.1072, det. A. Vězda. EX A. VěZDA LICHENES SELECTI EXSICCATI NR. 1228.

Thallus hypophyllous, subcuticular, dispersed into rounded to irregular, partly confluent patches, 15–50(–100) mm across and 7–12 µm thick, with entire margins, aeruginous-grey, with distinct blue tinge. Photobiont a species of *Cephaleuros*, cells angularrounded, 7–12 x 5–10 µm, in irregular plates forming single layer. Perithecia completely exposed, conical, 0.4–0.7 mm diam. and 140–200 µm high, black. Excipulum prosoplectenchymatous, 7–15 µm thick, colorless. Involucrellum carbonaceous, 20–30 µm thick, black. Paraphyses partly branched and anastomosing. Asci cylindrical, 80–100 x 8–15 µm. Ascospores irregularly arranged, oblong, 1-septate (but each cell often with up to 3 secondary septa), with distinct constriction at septum and usually broken into parts within asci, 40–70 x 5–7 µm, 8–10 times as long as broad. Pycnidia exposed, wart-shaped, those producing macroconidia 0.15–0.2 mm, those producing microconidia 0.05–0.1 mm diam., black.



Raciborskiella janeirensis



Raciborskiella janeirensis

Raciborskiella prasina (Müll. Arg.) R. Sant., Symb. bot. upsal. 12(no. 1): 197 (1952)
= *Strigula prasina* Müll. Arg., Flora, Regensburg 68(18): 343 (1885)

[VZ1527], Kenya. Karura silva, 1750 m. In silva xerophila prope ruvulum, epiphylla (ad folia *Tecleae simplicifoliae*). Leg. J. Lambinon (75/264), 12.4.1975, det. E. Sérisiaux. Ex A. Vězda Lichenes Selecti Exsiccati Nr.1527.

Thallus usually hypophyllous, occasionally epiphyllous, subcuticular, rounded to irregular, 5–20 mm wide, 20–40 µm thick, pale greenish grey, becoming dull pale bluish grey, smooth to radially furrowed; margin crenulate to shallowly lobate; photobiont Cephaleuros; prothallus not apparent. Perithecia almost superficial, convex to hemispherical, 0.25–0.45 (–0.50) mm diam., not overgrown by the thallus, glossy black, the base sometimes spreading laterally. Perithecial apex rounded; ostiole inconspicuous or in a shallow depression. Involucrellum black, carbonaceous, extending to exciple base level, 20–30 µm thick. Exciple hyaline to pale brown, 8–15 µm thick. Centrum depressed-ovate, 0.15–0.25 mm diam. Paraphyses richly branched and anastomosing, especially near their apices. Asci elongate-cylindrical, 60–80 × 7–9 µm. Ascospores uniseriate or irregularly biseriate in the ascus, 1-septate, elongate-ellipsoidal to short-fusiform, scarcely constricted at the septum, 12–18 × 4–6 µm; cells not separating. Conidiomata: 1) hemispherical, black, 0.08–0.15 mm diam., containing simple bacilliform macroconidia 10–15 × 3–4 µm; 2) convex, black and very numerous, 0.05–0.08 mm diam., containing simple fusiform microconidia 4–5 × 1–2 µm. Occurs on the leaves of rainforest trees, pantropical.

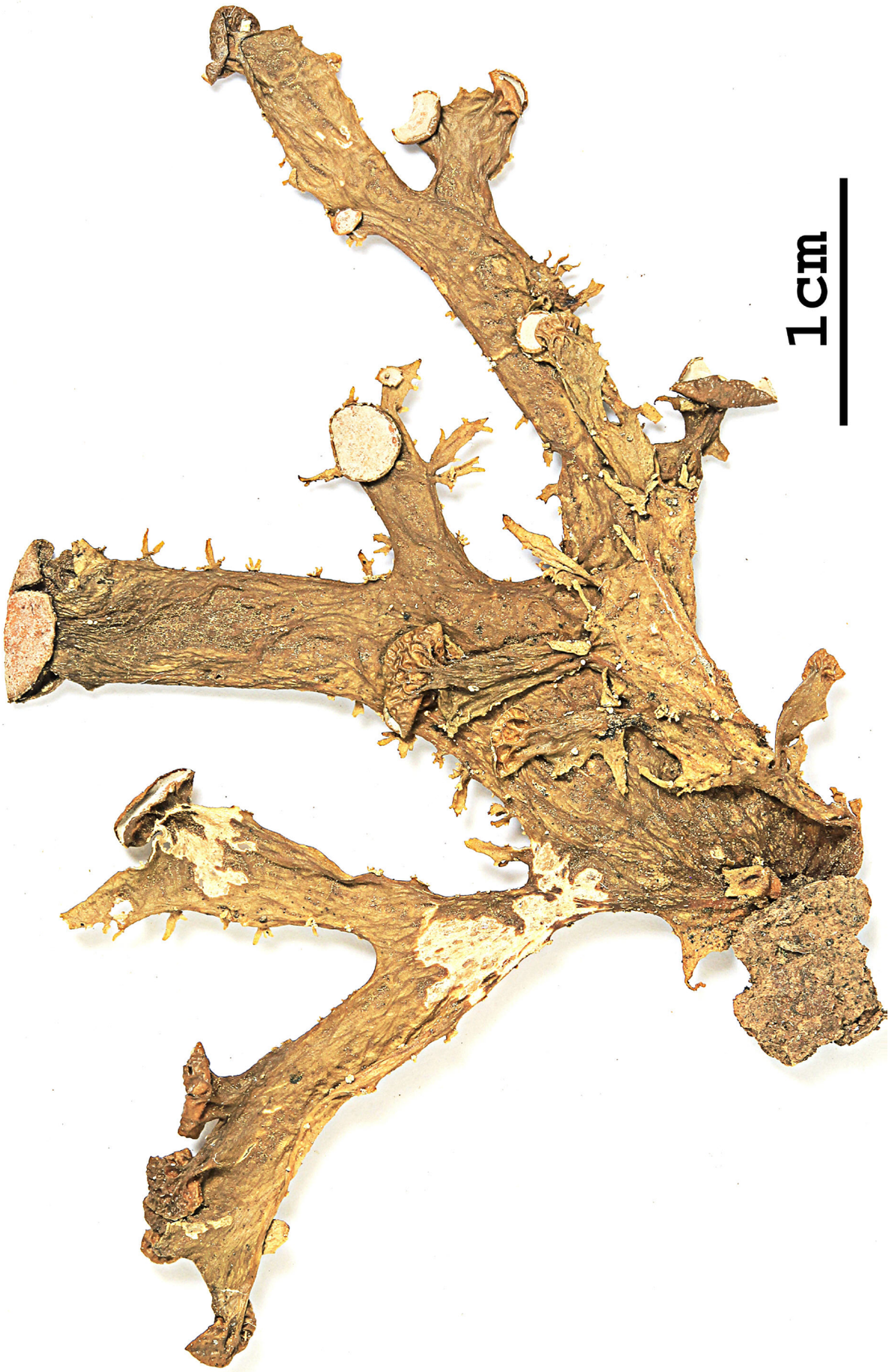
Raciborskiella prasina

Raciborskiella prasina

Ramalina africana (Stein) C.W. Dodge, Beih. Nova Hedwigia 38: 56 (1971)
= *Ramalina rigida* var. *africana* Stein 1888

[VZ1757], Rwanda. Butare, prope deversorium INRS., 1700 m. Ad truncum *Casuarinae* cult. Leg. J. Lambinon (no. 71/1033), det. E. Sérusiaux. - TLC: atranorine et substances le gr. sekikaique (anal.Sérusiaux). EX A. VěZDA LICHENES SELECTI EXSICCATI NR. 1757.

Thallus 3-5(8) cm high, moderately to densely branched, often with short secondary branchlets. Branches stramineous or greenish grey, solid, 2-4(8) mm wide, bilateral, flat or canaliculate, more or less rugose and ridged from strands of cartilaginous tissue. Pseudocyphellae punctiform, raised on tubercles, abundant on under side of branch, sparse or absent on upper side. Soredia absent. Apothecia lateral, or subapical, or apical and spurred, mainly marginal, disc flat or concave, thalline exciple usually pseudocyphellate, often laciniate. Spores broadly ellipsoid, 13-15(17) x 5-7 µm,straight or curved, some of the larger spores with pseudosepta. CHEMISTRY: Substances in the sekikaic acid agg., with salazinic acid accessory. Corticolous on shrubs and trees in natural and artificial habitats, often in dry, exposed sunny places, common from 800 to 2700 m.



Ramalina africana

Ramalina africana

Ramalina africana

Ramalina africana

Ramalina africana (Stein) C.W. Dodge, Beih. Nova Hedwigia 38: 56 (1971)
= *Ramalina rigida* var. *africana* Stein 1888

[VZ2486], Tanzania. Regio Ngorongoro: in cratera montis ignivomi Ngorongoro, secus viam Seneto dictam, 1900-2100 m. Ad corticem fruticum, Leg. T. Pócs et S. Chuwa (89034), 21-22.1.1989, det. H. Krog. EX A. VĚZDA: LICHENES SELECTI EXSICCATI NR. 2486.

Thallus 3-5(8) cm high, moderately to densely branched, often with short secondary branchlets. Branches stramineous or greenish grey, solid, 2-4(8) mm wide, bilateral, flat or canaliculate, more or less rugose and ridged from strands of cartilaginous tissue. Pseudocyphellae punctiform, raised on tubercles, abundant on under side of branch, sparse or absent on upper side. Soredia absent. Apothecia lateral, or subapical, or apical and spurred, mainly marginal, disc flat or concave, thalline exciple usually pseudocyphellate, often laciniate. Spores broadly ellipsoid, 13-15(17) x 5-7 µm,straight or curved, some of the larger spores with pseudosepta. CHEMISTRY: Substances in the seki-kaic acid agg., with salazinic acid accessory. Corticolous on shrubs and trees in natural and artificial habitats, often in dry, exposed sunny places, common from 800 to 2700 m.

Ramalina africana

Ramalina africana

Ramalina angulosa Laurer ex Th. Fr., Flora, Regensburg 44: 411 (1861)
= *Ramalina australiensis* Nyl. 1870
= *Desmaziera angulosa* (Laur.) Dodge

[VZ1349], Africa Austro-Orientalis. Lüderitz, in regione desertorum Namib, in valle sicca inter Grosse Bucht und Halifax, 1 km a litore maris. Ad ramulos fruticum. Leg. O. Volk, 07.02.1974, det. A. Vězda. Ex A. Vězda: Lichenes Selecti Exsiccati Nr. 1349.

Thallus 5 cm tall, subrigid, terete, angulo-costate, pale, apical branches very long, slender, concolor. Apothecia terminal and lateral, small, margin entire, disc subplane, white pruinose; ascospores hyaline to yellowish, bilocular, ellipsoid, often slightly curved, 13-16 x 3.5-4.5 µm

Ramalina angulosa

Ramalina angulosa

Ramalina angulosa

Ramalina angulosa

Ramalina arabum (Dill. ex Ach.) Meyen & Flot., Nova Acta Phys.-Med. Acad. Caes. Leop.-Carol. Nat. Cur., Suppl. 1 19: 212 (1843)
= *Alectoria arabum* Dill. ex Ach. 1810

[VZ221], Italia. Sardinia. Prov. Sassari: Nurra, scopulum Punta (Capo) Falcone dictum, 150 m. Ad saxa schistosa. Leg. A. Vězda, 19.07.1987. Ex A. Vězda: Lichenes Selecti Exsiccati Nr. 2221.

Thallus saxicolous, densely tufted, with numerous branches arising from closely adjacent holdfasts. Branching irregular. Branches up to 6 cm long, irregularly recurved and tangled, in basal parts sometimes flattened into ribbons up to 3 mm wide, but more commonly ca. 1 mm wide and irregularly thickened, foveate, or ridged, here and there with short, thin lateral branchlets, distal parts subterete, tapering, often forming recurved, hookshaped apices. Soredia and isidia absent. Paraplectenchymatous cortex absent, peripheral chondroid tissue well developed, forming a continuous cylinder of uneven thickness, medulla dense, somewhat compressed, without chondroid strands. Apothecia not seen. TLC: Salazinic acid. According to Nimis (1993) the species is found on siliceous rocks, very rarely on limestone, near the coast, in sites with frequent fog and exposed to humid maritime winds.

Ramalina arabum

Ramalina arabum

Ramalina asahinae W.L. Culb. & C.F. Culb., J. Jap. Bot. 51(12): 374 (1976)

[VZ1976], Mexica. México, c. 26 km ad meridiem versus ab urbe Toluca, 3100 m. Ad truncos *Abietis* sp.. Leg. W. L. Culberson (no. 17103) et C. F. Culberson, 22.12.1076. _ Usnic, boninic, 2-O-methylsekikaic, 4'-O-methylpaludosic, 4,4'-di-methylcryptochlorophaeic (trace), 2.4'-di-O-methylnorsekikaic (faint trace) acids and an unidentified substance, by TLC from A. Johnson et F. C. Culberson.- Ex A. Vězda: Lichenes Selecti Exsiccati Nr. 1756.

Thallus fruticose, shrubby to subpendulous, up to 8 cm long, dichotomously or irregularly branched, growing from a narrow holdfast; branches solid, main branches flat to ±canaliculate, distal branches flat, often dissected, 1-3 mm wide; surface greenish yellow, smooth, shiny, sorediate; soredia present, granular, usually with short isidia-like branchlets, in marginal or laminal soralia; pseudocyphellae common on main branches, orbicular, semi-globose or tuberculate, often turning into soredia; cortex thin; chondroid strands continuous, smooth. Apothecia rare, stipitate; disc flat to convex, without white margins; margin: concolorous with the thallus; asci elongate-clavate, 8-spored; ascospores hyaline, 1septate, broadly fusiform, 12-15 x 4.5-5 µm. Pycnidia not observed. Spot tests: cortex K-, C-, KC+ yellow, P- medulla: K-, C-, KC-, P-. Secondary metabolites: cortex with usnic acid (major); medulla with boninic (major), 2'O-methylsekikaic and 4'-O-methylpaludosic acids (both minor). - On branches Distribution: throughout upper elevations of Mexico Sonoran distribution: rare in Sinaloa in mountainous regions above 1700 - *Ramalina asahinae* is characterized by having flat or ±canaliculate branches, round or ellipsoid and prominent pseudocyphellae, granular soralia often on branchlets, smooth chondroid strands in the branches, broadly fusiform ascospores and the presence of boninic acid aggregates. It might be confused with *R. farinacea*, a cosmopolitan species growing on branches, that differs in having farinose soredia without branchlets and in producing protocetraric, salazinic and/or norstictic acids. Ramalina asahinae also resembles *R. shinanoana* Kashiw., an Asian species, that differs in having cracked chondroid strands and in producing homosekikaic and sekikaic acids.

Ramalina asahinae

Ramalina asahinae

Ramalina atlantica W.L. Culb., Brittonia 19: 350 (1967)
= *Ramalina cuspidata* (Ach.) Nyl. 1870

[VZ1168], Hispania. Distr. Guipuzcoa, Fuenterrabia, in pede montis Jaizquibel. Ad saxa arenacea calcarea, in litore maris. Leg. J. Vivant, 08.03.1973. EX A. VěZDA: ÖICHENES SELECTI EXSICCATI NR. 1168.

Thallus 40-70 (-110) mm altus, ramis angustis 0.4-2 mm (vulgo ca. 1 mm) latis, vulgo piceis, apicibus ramorum concoloribus vel raro nigrescentibus. Apothecia rara, 1-3 mm lata, excipulo thallino plerumque concolori, raro nigrescente; sporae 5-8 x 13-18 µm, 1-septatae (raro 2-septatae), rectae vel aliquantum arcuatae. Medulla KOH-, PD-, sine materia chemica lichenosa.

Ramalina atlantica

Ramalina atlantica

Ramalina canariensis J. Steiner, Öst. bot. Z. 54(10): 355 (1904)
= *Ramalina evernioides var. canariensis* (J. Steiner) Mereschk., Bull. Soc. bot. Fr. 67: 67 (1920)

[VZ2222], Italia. Sardinia. Prov. Sassari: Nurra, scopulum Punta (Capo) Falcone dictum, 150 m. Ad ramulos siccos *Juniperi*. Leg. A. Vězda. EX A. VĚZDA: LICHENES SELECTI EXSICCATI NR. 2222.

Thallus fruticose, pale yellowish green to pale green, up to 3(-6) cm long, growing from a narrow basal holdfast. Laciniae flattened, simple or irregularly and sparingly branched, (2-)3-5(-15) mm wide, markedly broadening from base, the surface smooth to irregularly uneven, the apices marginally lacerate, showing the soredia which develop inside the perforations, in the hollow medulla; soredia farinose. Cortex thin, the subcortex with radially arranged chondroid strands, best developed in basal parts; medulla lax and cottony in lower part of laciniae, hollow in upper part. Apothecia very rare, lecanorine, concolorous with thallus, with a concave disc and a distinct thalline margin. Epithecium poorly differentiated, pale green; hymenium and hypothecium colourless; paraphyses thick-walled, richly branched in upper part. Asci 8-spored, clavate to cylindrical-clavate, the apical dome K/I+ dark blue with a pale, conical-pointed apical cushion (axial mass) never penetrating through the entire d-layer, the wall K/I-, but the thin outer gel K/I+ blue, Bacidia-type. Ascospores 1-septate, hyaline, slightly to strongly curved, (14-)16-19(-21) x (4-)5-6(-7) µm. Photobiont chlorococcoid. Spot tests: K-, C-, KC- (medulla) or KC+ pale yellow (cortex), P-; medulla UV+ white. Chemistry: cortex with usnic acid; medulla with divaricatic acid. - A Mediterranean-Atlantic species found on the branches of littoral shrubs and small trees in maquis vegetation subject to humid maritime winds.

Ramalina canariensis

Ramalina canariensis

Ramalina capitata (Ach.) Nyl., Flora, Regensburg 55: 426 (1872)
= *Lichen polymorphus * capitata* (Ach.) Lam., Encycl. Méth. Bot., Suppl. (Paris) 3(2): 418 (1813)
= *Ramalina polymorpha subsp. capitata* (Ach.) Clauzade & Cl. Roux, Bull. Soc. bot. Centre-Ouest, Nouv. sér., num. spec. 7: 828 (1985)
= *Ramalina polymorpha subvar. capitata* (Ach.) Boistel, Nouv. Fl. Lich. (Paris) 2: 43 (1903)
= *Ramalina polymorpha var. capitata* Ach., Lich. Univ.: 601 (1810)
= *Ramalina strepsilis f. capitata* (Ach.) Szatala, Diss. Inst. Bot. Syst. Univ. Budapestiensis 1: 12 (1948)
= *Ramalina tinctoria f. capitata* (Ach.) Arnold, Flora, Regensburg 65: 408 (1882)

[VZ1725], Suecia. Härjedalen: Tännäs Paroecia, Lilla Mittåkläppen, 1000 m. Ad saxa silicea. Leg. R. Santesson (no. 27035). EX A. VĚZDA: LICHENES SELECTI EXSICCATI NR. 1725.

Thallus fruticose, greenish to greenish grey, 1-2(-3) cm tall, erect to ascending, rigid, abundantly branched, firmly attached by a basal holdfast, several thalli often forming dense carpets on the rock. Branches more or less flattened, especially at base, 1-3 mm wide, longitudinally striate, with capitiform terminal soralia, the soredia granulose, concolorous to thallus. Subcortex cartilaginous; medulla white, compact. Apothecia estremely rare, lecanorine, mostly terminal. Asci 8-spored, clavate, Bacidia-type. Ascospores 1-septate, hyaline, often poorly developed. Photobiont: chlorococcoid. Spot tests: K-, C-, KC- or KC+ pale yellow in the cortex, P-, UV-. Chemistry: cortex with usnic acid. Note: on the top of exposed siliceous boulders frequently visited by birds.

Ramalina capitata

Ramalina capitata

Ramalina celastri (Spreng.) A. Massal., Mem. Imp. Reale Ist. Veneto 10: 36 (1861)
= *Evernia flavicans* f. *tenuissima* Meyen & Flot., Nova Acta Phys.-Med. Acad. Caes. Leop.-Carol. Nat. Cur., Suppl. 1 19: 220 (1843)
= *Lichen linearis* Sw., Method. Muscor. Illustr. (Upsaliae): 36 (1781)
= *Parmelia celastri* Spreng., Syst. veg., Edn 16 4(1): 328 (1827)
= *Parmelia linearis* (Sw.) Ach., Methodus, Sectio post. (Stockholmiæ): 257 (1803)
= *Ramalina linearis* (Sw.) Ach., Lich. Univ.: 598 (1810)
= *Ramalina ovalis* Hook. f. & Taylor, London J. Bot. 3: 655 (1844)
= *Ramalina yemensis* subsp. *ovalis* (Hook. f. & Taylor) Nyl., Bull. Soc. linn. Normandie, sér. 2 4(2): 145 (1870)
= *Ramalina yemensis* var. *membranacea* (Laurer) Nyl., Bull. Soc. linn. Normandie, sér. 2 4(2): 145 (1870)
= *Ramalina yemensis* var. *ovalis* (Hook. f. & Taylor) Zahlbr., Cat. Lich. Univers. 6: 529 (1930)
= *Ramalina yemensis* var. *tenuissima* (Meyen & Flot.) Zahlbr., Cat. Lich. Univers. 6: 529 (1930)

[VZ2271], Australia. Queensland. Sellin's Road, 1 km ad occidentem a Mt. Mee State Forest station, 500 m. In ramulis fruticum. Leg. J. Hafellner (no. 18866) et N. Stevens. EX A. VĚZDA: LICHENES SELECTI EXSICCATI NR. 2271.

Thallus rigid, erect or subpendulous, to 15 cm long, sparingly to moderately branched from an often broad base. Branches stramineous or pale green grey, solid, flattened, lanceolate, plane or somewhat canaliculate, width variable, 1-20 mm, commonly 3-5 mm, young branches thin, more or less smooth, older branches longitudinally or reticulately ridged from strands of cartilaginous tissue, often with holes or cracks. Shortly linear or irregular laminal pseudocyphellae common. Soredia absent. Apothecia numerous, lateral, mainly laminal, stipitate, disc flat or convex, thalline exciple smooth. Spores 11-16 x 4-7 µm. CHEMISTRY: No medullary substances. - Corticolous and lignicolous on trees, shrubs, and posts in natural and artificial habitats in sunny to moderately shady places, common and widespread between 800 and 3400 m. Worldwide in the tropics.

Ramalina celastri

Ramalina celastri

Ramalina celastri (Spreng.) A. Massal., Mem. Imp. Reale Ist. Veneto 10: 36 (1861)
= *Evernia flavicans* f. *tenuissima* Meyen & Flot., Nova Acta Phys.-Med. Acad. Caes. Leop.-Carol. Nat. Cur., Suppl. 1 19: 220 (1843)
= *Lichen linearis* Sw., Method. Muscor. Illustr. (Upsaliae): 36 (1781)
= *Parmelia celastri* Spreng., Syst. veg., Edn 16 4(1): 328 (1827)
= *Parmelia linearis* (Sw.) Ach., Methodus, Sectio post. (Stockholmiæ): 257 (1803)
= *Ramalina linearis* (Sw.) Ach., Lich. Univ.: 598 (1810)
= *Ramalina ovalis* Hook. f. & Taylor, London J. Bot. 3: 655 (1844)
= *Ramalina yemensis* subsp. *ovalis* (Hook. f. & Taylor) Nyl., Bull. Soc. linn. Normandie, sér. 2 4(2): 145 (1870)
= *Ramalina yemensis* var. *membranacea* (Laurer) Nyl., Bull. Soc. linn. Normandie, sér. 2 4(2): 145 (1870)
= *Ramalina yemensis* var. *ovalis* (Hook. f. & Taylor) Zahlbr., Cat. Lich. Univers. 6: 529 (1930)
= *Ramalina yemensis* var. *tenuissima* (Meyen & Flot.) Zahlbr., Cat. Lich. Univers. 6: 529 (1930)

[VZ1759], Zaire. Tshibati. Secus viam ad stationes "Centre de Zoologie appliquée", 1950 m. Ad truncum *Jacaranda* so.. Leg. J. Lambinon (nr. 71/Z/1266), 27.12.1971, det E. Sérusiaux. EX VěZDA: LICHENES SELECTI EXSICCATI NR. 1759.

Thallus rigid, erect or subpendulous, to 15 cm long, sparingly to moderately branched from an often broad base. Branches stramineous or pale green grey, solid, flattened, lanceolate, plane or somewhat canaliculate, width variable, 1-20 mm, commonly 3-5 mm, young branches thin, more or less smooth, older branches longitudinally or reticulately ridged from strands of cartilaginous tissue, often with holes or cracks. Shortly linear or irregular laminal pseudocyphellae common. Soredia absent. Apothecia numerous, lateral, mainly laminal, stipitate, disc flat or convex, thalline exciple smooth. Spores 11-16 x 4-7 µm. CHEMISTRY: No medullary substances. - Corticolous and lignicolous on trees, shrubs, and posts in natural and artificial habitats in sunny to moderately shady places, common and widespread between 800 and 3400 m. Worldwide in the tropics.

Ramalina celastri

Ramalina celastri

Ramalina celastri (Spreng.) A. Massal., Mem. Imp. Reale Ist. Veneto 10: 36 (1861)
= *Evernia flavicans* f. *tenuissima* Meyen & Flot., Nova Acta Phys.-Med. Acad. Caes. Leop.-Carol. Nat. Cur., Suppl. 1 19: 220 (1843)
= *Lichen linearis* Sw., Method. Muscor. Illustr. (Upsaliae): 36 (1781)
= *Parmelia celastri* Spreng., Syst. veg., Edn 16 4(1): 328 (1827)
= *Parmelia linearis* (Sw.) Ach., Methodus, Sectio post. (Stockholmiæ): 257 (1803)
= *Ramalina linearis* (Sw.) Ach., Lich. Univ.: 598 (1810)
= *Ramalina ovalis* Hook. f. & Taylor, London J. Bot. 3: 655 (1844)
= *Ramalina yemensis* subsp. *ovalis* (Hook. f. & Taylor) Nyl., Bull. Soc. linn. Normandie, sér. 2 4(2): 145 (1870)
= *Ramalina yemensis* var. *membranacea* (Laurer) Nyl., Bull. Soc. linn. Normandie, sér. 2 4(2): 145 (1870)
= *Ramalina yemensis* var. *ovalis* (Hook. f. & Taylor) Zahlbr., Cat. Lich. Univers. 6: 529 (1930)
= *Ramalina yemensis* var. *tenuissima* (Meyen & Flot.) Zahlbr., Cat. Lich. Univers. 6: 529 (1930)

[VZ1893], Nova Zelandia. North Island, Karatiro, prope Cambridge. In ramulis arborum (*Liquidanbar*). Leg. O. et I. Degener (35671), 22.9.1981, det A. Vězda. EX A. VĚZDA LICHENES SELECTI EXSICCATI NR. 1893.

Thallus rigid, erect or subpendulous, to 15 cm long, sparingly to moderately branched from an often broad base. Branches stramineous or pale green grey, solid, flattened, lanceolate, plane or somewhat canaliculate, width variable, 1-20 mm, commonly 3-5 mm, young branches thin, more or less smooth, older branches longitudinally or reticulately ridged from strands of cartilaginous tissue, often with holes or cracks. Shortly linear or irregular laminal pseudocyphellae common. Soredia absent. Apothecia numerous, lateral, mainly laminal, stipitate, disc flat or convex, thalline exciple smooth. Spores 11-16 x 4-7 µm. CHEMISTRY: No medullary substances. - Corticolous and lignicolous on trees, shrubs, and posts in natural and artificial habitats in sunny to moderately shady places, common and widespread between 800 and 3400 m. Worldwide in the tropics.

Ramalina celastri

Ramalina celastri

Ramalina clementeana Llimona & Werner, Acta Phytotax. Barcinon. 16: 9 (1975)

[VZ1323], Hispania. Almería, Sierra del Cabo de Gata: El Fraile, 400 m. Ad parietes rupium andesiticarum septentrionem versus spectanes. Leg. X. Llimona, 23.03.1972. - Isotypus - Ex A. Vězda: Lichenes Selecti Exsiccati Nr. 1323.

Thallus fruticose, yellowish green to grey-green, forming dense orbicular pillows, consisting of subcylindrical, rigid, swollen, mostly simple, up to 4(-5) cm long and to 6(-8) mm wide laciniae originating from a common holdfast; upper surface smooth, with a few, punctiform to ellipsoid, whitish pseudocyphellae, often becoming longitudinally cracked-fenestrate in old samples. Cortex 2-layered, the outer part paraplectenchymatous, the inner part with chondroid strands; medulla white, hollow. Apothecia lecanorine, subterminal, short-stalked, to 6(-8) mm wide, with a cream-coloured, pruinose disc and a thin, raised, smooth, often undulate thalline margin. Epithecium pale brownish-olive; hymenium and hypothecium colourless; paraphyses thick-walled, richly branched in upper part. Asci 8-spored, clavate to cylindrical-clavate, the apical dome K/I+ dark blue with a pale, conical-pointed apical cushion (axial mass) never penetrating through the entire d-layer, the wall K/I-, but the thin outer gel K/I+ blue, Bacidia-type. Ascospores 1-septate, hyaline, ellipsoid, straight to slightly curved, 10-15 x 4-6 µm. Pycnidia black, immersed, mainly apical. Conidia bacilliform. Photobiont chlorococcoid. Spot tests: cortex K-, C-, KC-+ pale yellow, P-, UV-; medulla KC-. Chemistry: cortex with usnic acid, medulla with sekikaic acid. - A Mediterranean-Macaronesian lichen found on coastal siliceous rocks, only in areas with frequent humid, maritime winds; related to *R. pusilla*, differing in the ecology and in some minor morphological characters, but also in the absence of salazinic acid.

Ramalina clementeana

Ramalina clementeana

Ramalina clementeana

Ramalina cribrosa De Not., G. bot. ital. 2(1.1): 213 (1846)

[VZ2224], Italia. Sardinia. Prov. Sassari: Nurra, scopulum Punta (Capo) Falcone dictum, 150 m. Ad saxa schistosa. Leg. P. L. Nimis, 18.07.1987. EX A. VĚZDA: LICHENES SELECTI EXSICCATI NR. 2224.

Thallus fruticose, pale yellowish green to greenish grey, matt, tufted, 5-15 cm tall, highly variable in shape (usually erect) consisting of inflated, 2-10 mm wide, simple or very sparingly branched, pointed, more or less regular laciniae originating from a common holdfast, the surface usually richly fenestrate, exposing the hollow interior. Cortex 2-layered, the outer part paraplectenchymatous, the inner part with chondroid strands; medulla white, hollow, arachnoid near the cortex. Apothecia not observed. Photobiont chlorococcoid. Spot tests: cortex K-, C-, KC+ yellowish, P-; medulla K-, C-, KC-, P+ yellow to orange-red. Chemistry: cortex with usnic acid, medulla with protocetraric acid. - A Mediterranean species of coastal siliceous rocks.

Ramalina cribrosa

Ramalina cribrosa

Ramalina elegans (Bagl. & Carestia) Jatta, Fl. ital. crypt. (Florence) 3: 166 (1909)
= *Ramalina calicaris* var. *elegans* Bagl. & Carestia 1879

[VZ1446], Jugoslavia. Montenegro: Durmitor montes, ad marginem sylvae in ripa lacus Crno jezero prope Žabljak, 1500 m. Ad corticem Abies. Leg. A. Vězda & V. Wirth. EX A. VěZDA: LICHENES SELECTI EXSICCATI NR. 1446.

Thallus fruticose, pale yellowish green, to 5 cm tall, erect to ascending, firmly attached by a basal holdfast, richly dichotomously branched, forming shrubby, markedly rigid (also when wet) tufts. Branches usually compressed and partly fistulose-inflated, 1-2(-3) mm wide at base, the sterile ones often pointed and sometimes blackened at apex, with scattered perforations and rarely with a few linear pseudocyphellae. Cortex 2-layered, the outer part paraplectenchymatous, moderately thick, the inner part with chondroid strands; medulla white, very lax, especially below the apothecia. Apothecia frequent, lecanorine, with a greenish disc and a thin, smooth thalline margin, mostly terminal or subterminal on smaller branches, subtended by a short, pointed spur. Epithecium pale olive; hymenium and hypothecium colourless; paraphyses thick-walled, richly branched in upper part. Asci 8-spored, clavate to cylindrical-clavate, the apical dome K/I+ dark blue with a pale, conical-pointed apical cushion (axial mass) never penetrating through the entire d-layer, the wall K/I-, but the thin outer gel K/I+ blue, Bacidia-type. Ascospores 1-septate, hyaline, straight or curved, 11-16(-17) x (4-)5-7 µm. Photobiont: chlorococcoid. Spot tests: thallus and medulla K-, C-, KC-, P-. Chemistry: cortex with usnic acid; medulla with homosekikaic and sekikaic acids. - On bark of old deciduous trees, more rarely on conifers, in very humid, open montane forests.

Ramalina elegans

Ramalina elegans

Ramalina euxini Vězda, Folia geobot. phytotax. 14(2): 205 (1979)

[VZ1668], Bulgaria. Distr. Burgas, in litore Euxini Ponti, 5 km ad meridinem versus ab oppido Sozopol, 3-10 m. Ad scopulos andesiticos. Leg. A. Vězda, 20.09.1979. - Isotypus. -. EX A. VĚZDA: LICHENES SELECTI EXSICCATI NR. 1668.

Planta epilithica. Thallus caespitoso-fruticulosus, subpendulus, 3-8 cm longus, crebre laciniatus, laciniis 2-3 mm latis, dichotome ramosis, planis, longe attenuatis, griseo- viridibus, subrigidis. Soralia numerosa, ad laminas et margines laciniarum parte mediali et apicali sita. Soredia distincte granulosa, nonnulla in isidia vel lacinulas parvas transformata. Apothecia ignota. Soralia et medulla KOH-, PD+ aurantiaca. Hab.: Ad parietes altos scopuli maritimi andesiticicum Species autonoma proxima *Ramalinae polymorphae* (LILJEBL.) ACH., diversa ab ea iam laciniis angustis, sorediis pro parte inisidia vel lacinulas transformatis et praecipue medulla sorediisque. P+ cito aurantiacis. Primo aspectu Ramalinae subarinaceae NYL. simillima, huic autem haud affinis.

Ramalina euxini

Ramalina euxini

Ramalina farinacea (L.) Ach., Lich. Univ.: 606 (1810)
= *Evernia calicaris* var. *farinacea* (L.) Link, Grundr. Krauterk. 3: 180 (1833)
= *Lichen farinaceus* L., Sp. pl. 2: 1146 (1753)
= *Lobaria farinacea* (L.) Hoffm., Deutschl. Fl., Zweiter Theil (Erlangen): 139 (1796) [1795]
= *Parmelia farinacea* (L.) Ach., Methodus, Sectio post. (Stockholmiæ): 263 (1803)
= *Physcia farinacea* (L.) DC., in Lamarck & de Candolle, Fl. franç., Edn 3 (Paris) 2: 397 (1805)
= *Platisma farinaceum* (L.) Frege, Deutsch. Botan. Taschenb. 2: 158 (1812)
= *Platysma farinaceum* (L.) Frege, Deutsch. Botan. Taschenb. 2: 158 (1812)
= *Ramalina calicaris* * *farinacea* (L.) Torss., Enum. Lich. Byssac. Scandin. (Upsaliae): 6 (1843)
= *Ramalina calicaris* f. *farinacea* (L.) Nyl., Act. Soc. linn. Bordeaux 21(4): 293 (1857) [1856]
= *Ramalina calicaris* subsp. *farinacea* (L.) Fink, Contr. U.S. natnl. Herb. 14(1): 205 (1910)
= *Ramalina multifida* (Ach.) Röhl., Deutschl. Fl. (Frankfurt) 3(2): 140 (1813)
= *Ramalina pendulina* (Ach.) Röhl., Deutschl. Fl. (Frankfurt) 3(2): 140 (1813)
= *Ramalina phalerata* (Ach.) Röhl., Deutschl. Fl. (Frankfurt) 3(2): 140 (1813)
= *Ramalina polymorpha* var. *farinacea* (L.) A. Massal., Memor. Lich.: 66 (1853)

[VZ1357], Bulgaria. Distr. Burgas, in silvis prope pagum Kondolova, 350 m. Ad truncos Quercuum. Leg. A. Kiszely & A. Vězda. Ex A. Vězda: Lichenes Selecti Exsiccati Nr. 1357.

Thallus fruticose, greenish, shrubby or tufted, pendulous in very well-developed specimens, to 7(-15) cm long, irregularly or dichotomously branched from a narrow basal holdfast. Branches solid, flattened but not dorsiventral, 1-3(-5) mm wide, smooth, with well-delimited, elliptical to round, marginal soralia; soredia farinose, 20-30 µm. Cortex 2-layered, the outer part paraplectenchymatous, the inner part cartilaginous; medulla compact. Apothecia very rare, mostly laminal, lecanorine, to 6 mm in diam. Asci elongate-clavate, 8-spored, Bacidia-type. Ascospores 1-septate, hyaline, broadly fusiform, (8-)10-15 x 5-7 µm. Photobiont chlorococcoid. Spot tests and chemistry: cortex K-, C-, KC- or KC+ pale yellow, P-, with usnic acid; medulla and soralia: four chemotypes: a) K- or K+ orange-brown, P+ orange-red, UV- (protocetraric acid), b) K+ yellow then red, P+ yellow-orange, UV- (salazinic acid and traces of norstictic acid), c) K-, P-, UV+ blue-white

(hypoprotocetraric acid), and, d) K-, P-, UV- (no lichen substances). A widespread, Mediterranean-Atlantic to southern boreal lichen found on bark in humid situations; the species is chemically and morphologically very polymorphic. The molecular study by Spjut & al. (2020) showed that the R. farinacea-complex includes two clades, both with corticolous and saxicolous samples.

Ramalina farinacea

Ramalina farinacea

Ramalina fastigiata (Pers.) Ach., Lich. Univ.: 603 (1810)
= *Lichen calicaris* var. *fastigiatus* (Pers.) Lilj., Utkast Sv. Fl., Edn 2 (Upsala): 426 (1798)
= *Lichen fastigiatus* Pers., Ann. Bot. (Usteri) 7: 156 (1794)
= *Lobaria populina* Hoffm., Deutschl. Fl., Zweiter Theil (Erlangen): 140 (1796) [1795]
= *Parmelia fastigiata* (Pers.) Ach., Methodus, Sectio post. (Stockholmiæ): 260 (1803)
= *Parmelia populina* (Hoffm.) Wallr., Fl. crypt. Germ. (Norimbergae) 1: 537 (1831)
= *Physcia fastigiata* (Pers.) DC., in Lamarck & de Candolle, Fl. franç., Edn 3 (Paris) 2: 398 (1805)
= *Physcia sepeacea* Pers., in Gaudichaud-Beaupré in Freycinet, Voy. Uranie., Bot. (Paris) 4: 209 (1827) [1826-1830]
= *Platisma populinum* (Hoffm.) Frege, Deutsch. Botan. Taschenb. 2: 158 (1812)
= *Platysma populinum* (Hoffm.) Frege, Deutsch. Botan. Taschenb. 2: 158 (1812)
= *Ramalina calicaris* f. *fastigiata* (Pers.) Fr., Lich. eur. reform. (Lund): 30 (1831)
= *Ramalina calicaris* f. *minutula* (Ach.) Boistel, Nouv. Fl. Lich. (Paris) 2: 34 (1903)
= *Ramalina calicaris* var. *fastigiata* (Pers.) Fr., Lich. eur. reform. (Lund): 30 (1831)
= *Ramalina farinacea* f. *minutula* (Ach.) Anders, Strauch- und Laubflechten Mitteleur.: 186 (1928)
= *Ramalina farinacea* var. *minutula* Ach., Lich. Univ.: 606 (1810)
= *Ramalina fastigiata* f. *conglobata* Laurer ex Nyl., Bull. Soc. linn. Normandie, sér. 2 4(2): 138 (1870)
= *Ramalina fastigiata* f. *minutula* (Ach.) Cromb., Monogr. Lich. Brit.(1): 193 (1894)
= *Ramalina fastigiata* f. *torulosa* A. Massal. ex Jatta, Syll. Lich. Ital. (Trano): 64 (1900)
= *Ramalina fastigiata* var. *conglobata* (Laurer ex Nyl.) Motyka, Fragm. flor. geobot. (Kraków) 6(no. 4): 660 (1961) [1960]
= *Ramalina fastigiata* var. *minutula* (Ach.) Th. Fr., Lich. Scand. (Upsaliae)(1): 37 (1871)
= *Ramalina fenestrata* Motyka, Fragm. flor. geobot. (Kraków) 6(4): 639 (1961)
= *Ramalina fraxinea* f. *fastigiata* (Pers.) Bosch, Prodr. fl. Batav., Fungi: 119 (1853)
= *Ramalina fraxinea* subsp. *fastigiata* (Pers.) Ach., Syn. meth. lich. (Lund): 296 (1814)
= *Ramalina fraxinea* var. *pellucida* A.E. Wade, Lichenologist 1: 233 (1961)

[VZ2073], Magna Britannia. Channel Islands: Alderney, St. Anne. Ad truncum *Ulmi*. Leg. P. W. James, 04.1975. Ex A. Vězda: Lichenes Selecti Exsiccati Nr. 2073.

Thallus fruticose, green, forming up to c. 4 cm wide tufts, richly branched from a basal holdfast. Branches erect, to 6 cm long and 8 mm wide, distinctly flattened at least at the base, sometimes hollow (especially below the apothecia), longitudinally wrinkled (rarely weakly fenestrate). Cortex 2-layered, the outer part paraplectenchymatous, the inner part cartilaginous; medulla white, of loosely interwoven hyphae, especially in the central part of branches. Apothecia always present, lecanorine, terminal, to 7 mm across (usually less), often appearing at one level and sometimes totally obscuring the lobes, short-stalked, with a greenish to pale brown, often pruinose disc, and a thin thalline margin. Epithecium pale brownish-olive; hymenium and hypothecium colourless; paraphyses thick-walled, richly branched in upper part. Asci 8-spored, clavate to cylindrical-clavate, the apical dome K/I+ dark blue with a pale, conical-pointed apical cushion (axial mass) never penetrating through the entire d-layer, the wall K/I-, but the thin outer gel K/I+ blue, Bacidia-type. Ascospores 1-septate, hyaline, often curved and kidney-shaped, 12-18 x 5-8 µm. Photobiont: chlorococcoid. Spot tests: cortex and medulla K-, C-, KC-, P-, UV-. Chemistry: cortex with usnic acid; medulla with substances of the evernic acid complex. - A widespread, mainly temperate lichen found on broad-leaved, more rarely coniferous trees in open stands.

Ramalina fastigiata

Ramalina fastigiata

Ramalina fastigiata

Images of Lichens (Vezda Exsiccat Lichenes Selecti Part 27)

A
Alectoria arabum Dill. ex Ach..... 214
B
Biatora lucida (Ach.) Fr..... 127
C
Canoparmelia texana (Tuck.) Elix & Hale..... 117, 121, 124
Clypeosphaeria imperfecta Ellis & Everh..... 160
Crocodia richardii (Mont.) Trevis..... 56, 61, 65
D
Desmaziera angulosa (Laur.) Dodge..... 209
E
Elixia flexella (Ach.) Lumbsch..... 136
Endocarpon crenatum Taylor..... 2
Evernia calicaris var. farinacea (L.) Link..... 251
Evernia flavicans f. tenuissima Meyen & Flot..... 229, 232, 235
Evernia furfuracea var. cladonia Tuck..... 39
Evernia intensa Nyl..... 50
L
Lecanora sphinctrina var. leproloma Nyl..... 133
Lecidea albilabra auct..... 5
Lecidea aleuroides Stirt..... 142
Lecidea crenata (Taylor) Stizenb..... 2
Lecidea deceptoria Nyl..... 5
Lecidea deceptoria var. lojkana Servít..... 5
Lecidea decipiens (Hedw.) Ach..... 8
Lecidea lucida (Ach.) Ach..... 127
Lecidea platycarpoides Bagl..... 27
Lecidea russellii Tuck..... 33
Lecidea saviczii Tomin..... 11
Lecidea sorediata Ach..... 191
Lecidea vallesiaca Schaer..... 5
Lemmopsis lutophila (Arnold) M. Schultz & M. Prieto..... 145
Lichen calicaris var. fastigiatus (Pers.) Lilj..... 254
Lichen daedaleus Sm..... 191
Lichen decipiens Hedw..... 8
Lichen farinaceus L..... 251
Lichen fastigiatus Pers..... 254
Lichen filix * orygmaea (Ach.) Lam..... 73
Lichen furfuraceus L..... 45
Lichen linearis Sw..... 229, 232, 235

Lichen lucidus Ach..... 127
Lichen polymorphus * capitata (Ach.) Lam..... 226
Limboria flexella Ach..... 136
Lobaria billardierei (Delise) Hellb..... 56, 61, 65
Lobaria colensoi (C. Bab.) Trevis..... 69
Lobaria farinacea (L.) Hoffm..... 251
Lobaria fossulata var. linearis (Hook. f. & Taylor) Hellb..... 56, 61, 65
Lobaria fossulata var. richardii (Mont.) Hellb..... 56, 61, 65
Lobaria hirta Hellb..... 73
Lobaria orygmaea (Ach.) Trevis..... 73
Lobaria populina Hoffm..... 254
Lobaria urvillei (C. Bab.) Trevis..... 73
P
Pannaria leproloma (Nyl.) P.M. Jørg..... 133
Parmelia appalachensis W.L. Culb..... 14
Parmelia celastri Spreng..... 229, 232, 235
Parmelia consocians Vain..... 42
Parmelia ecaperata Müll. Arg..... 114
Parmelia farinacea (L.) Ach..... 251
Parmelia fastigiata (Pers.) Ach..... 254
Parmelia hypoleucites Nyl..... 17
Parmelia linearis (Sw.) Ach..... 229, 232, 235
Parmelia populina (Hoffm.) Wallr..... 254
Parmelia semansiana W.L. Culb. & C.F. Culb..... 21
Parmelia sorediata (Ach.) Tuck..... 191
Parmelia sublaevigata var. texana (Tuck.) Nyl..... 117, 121, 124
Parmelia subrudecta Nyl..... 24
Parmelia texana Tuck..... 117, 121, 124
Phloeopeccania pulvinulina J. Steiner..... 151
Phylloporina janeirensis Müll. Arg..... 195
Physcia farinacea (L.) DC..... 251
Physcia fastigiata (Pers.) DC..... 254
Physcia sepeacea Pers..... 254
Placodium daedaleum (Sm.) Hook..... 191
Platisma farinaceum (L.) Frege..... 251
Platisma populinum (Hoffm.) Frege..... 254
Platysma farinaceum (L.) Frege..... 251
Platysma populinum (Hoffm.) Frege..... 254
Porpidia platycarpoides (Bagl.) Hertel..... 27
Protoblastenia lusitanica Räsänen..... 30
Protoblastenia russellii (Tuck.) V. Wirth & Vězda..... 33

Protoparmelia loricata Poelt & Vězda..... 36
Pseudevernia cladonia (Tuck.) Hale & W.L. Culb..... 39
Pseudevernia consocians (Vain.) Hale & W.L. Culb..... 42
Pseudevernia furfuracea (L.) Zopf..... 45
Pseudevernia intensa (Nyl.) Hale & W.L. Culb..... 50
Pseudocyphellaria aurata (Ach.) Vain..... 53
Pseudocyphellaria billardierei (Delise) Räsänen..... 56, 61, 65
Pseudocyphellaria colensoi (C. Bab.) Vain..... 69
Pseudocyphellaria coronata (Müll. Arg.) Malme..... 73
Pseudocyphellaria dissimilis (Nyl.) D.J. Galloway & P. James..... 78
Pseudocyphellaria durvillei (Delise) Vain..... 73
Pseudocyphellaria flotowiana (Laurer) Malme..... 56, 61, 65
Pseudocyphellaria glabra (Hook.f. & Taylor) C.W.Dodge..... 83
Pseudocyphellaria granulata (C.Bab.) Malme..... 88
Pseudocyphellaria hirta (Hellb.) D.J. Galloway & P. James..... 73
Pseudocyphellaria homoephylla (Nyl.) C.W.Dodge..... 92, 97
Pseudocyphellaria linearis (Hook. f. & Taylor) C.W. Dodge. 56, 61, 65
Pseudocyphellaria multifida (Laurer ex Nyl.) D.J. Galloway & P. James..... 108, 111
Pseudocyphellaria neglecta (Müll. Arg.) H. Magn..... 100, 105
Pseudocyphellaria orygmaea (Ach.) Malme..... 73
Pseudocyphellaria orygmaea var. urvillei (C. Bab.) Malme..... 73
Pseudocyphellaria richardii (Mont.) Räsänen..... 56, 61, 65
Pseudocyphellaria subvariabilis (Nyl.) Vain..... 108, 111
Pseudoparmelia ecaperata (Müll. Arg.) Hale..... 114
Pseudoparmelia texana (Tuck.) Hale..... 117, 121, 124
Psilolechia lucida (Ach.) M. Choisy..... 127
Psora albilabra auct. non (Dufour) Körb..... 5
Psora albilabra subsp. deceptoria (Nyl.) Clauzade & Cl. Roux..... 5
Psora crenata (Taylor) Reinke..... 2
Psora deceptoria (Nyl.) Flagey..... 5
Psora decipiens (Hedw.) Hoffm..... 8
Psora saviczii (Tomin) Follmann & A. Crespo..... 11
Psora subdecipiens (Nyl.) Flagey..... 5
Psora vallesiaca (Schaer.) Timdal..... 5
Psoroma asperellum Nyl..... 130
Psoroma leprolomum (Nyl.) Räsänen..... 133
Psoromidium aleuroides (Stirt.) D.J. Galloway..... 142
Psorotichia lutophila Arnold..... 145
Ptychographa flexella (Ach.) Coppins..... 136
Ptychographa xylographoides Nyl..... 139

Punctelia subrudecta (Nyl.) Krog..... 24
Pycnothelia papillaria Dufour..... 148
Pyrenopsis sojakii Vězda..... 151
Pyrenotrichum splitgerberi Mont..... 154
Pyrenula cerina Eschw..... 157
Pyrenula citriformis R.C. Harris..... 175
Pyrenula imperfecta (Ellis & Everh.) R.C. Harris..... 160
Pyrenula laevigata (Pers.) Arnold..... 163, 166
Pyrenula macounii R.C. Harris..... 169
Pyrenula neglecta R.C. Harris..... 172
Pyrenula sandwicensis Zahlbr..... 175
Pyrenula subcongruens Müll.Arg..... 175
Pyrenula subelliptica(Tuck.) R.C. Harris..... 160
Pyxine chrysantha Vain..... 178
Pyxine chrysanthoides Vain..... 178
Pyxine coccifera (Fée) Nyl..... 183
Pyxine cocoes subsp. sorediata (Ach.) Tuck..... 191
Pyxine cocoes var. eschweileri Tuck..... 188
Pyxine cocoes var. sorediata (Ach.) Nyl..... 191
Pyxine eschweileri (Tuck.) Vain..... 188
Pyxine sorediata (Ach.) Mont..... 191
Pyxine subcinerea Stirt..... 178
R
Raciborskiella janeirensis (Müll. Arg.) R. Sant..... 195
Raciborskiella prasina (Müll. Arg.) R. Sant..... 198
Ramalina africana (Stein) C.W. Dodge..... 201, 206
Ramalina angulosa Laurer ex Th. Fr..... 209
Ramalina arabum (Dill. ex Ach.) Meyen & Flot..... 214
Ramalina asahinae W.L. Culb. & C.F. Culb..... 217
Ramalina atlantica W.L. Culb..... 220
Ramalina australiensis Nyl..... 209
Ramalina calicaris * farinacea (L.) Torss..... 251
Ramalina calicaris f. farinacea (L.) Nyl..... 251
Ramalina calicaris f. fastigiata (Pers.) Fr..... 254
Ramalina calicaris f. minutula (Ach.) Boistel..... 254
Ramalina calicaris subsp. farinacea (L.) Fink..... 251
Ramalina calicaris var. elegans Bagl. & Carestia..... 245
Ramalina calicaris var. fastigiata (Pers.) Fr..... 254
Ramalina canariensis J. Steiner..... 223
Ramalina capitata (Ach.) Nyl..... 226
Ramalina celastri (Spreng.) A. Massal..... 229, 232, 235

Ramalina clementeana Llimona & Werner..... 238
Ramalina cribrosa De Not..... 242
Ramalina cuspidata (Ach.) Nyl..... 220
Ramalina elegans (Bagl. & Carestia) Jatta..... 245
Ramalina euxini Vězda..... 248
Ramalina evernioides var. canariensis (J. Steiner) Mereschk..... 223
Ramalina farinacea (L.) Ach..... 251
Ramalina farinacea f. minutula (Ach.) Anders..... 254
Ramalina farinacea var. minutula Ach..... 254
Ramalina fastigiata (Pers.) Ach..... 254
Ramalina fastigiata f. conglobata Laurer ex Nyl..... 254
Ramalina fastigiata f. minutula (Ach.) Cromb..... 254
Ramalina fastigiata f. torulosa A. Massal. ex Jatta..... 254
Ramalina fastigiata var. conglobata (Laurer ex Nyl.) Motyka..... 254
Ramalina fastigiata var. minutula (Ach.) Th. Fr..... 254
Ramalina fenestrata Motyka..... 254
Ramalina fraxinea f. fastigiata (Pers.) Bosch..... 254
Ramalina fraxinea subsp. fastigiata (Pers.) Ach..... 254
Ramalina fraxinea var. pellucida A.E. Wade..... 254
Ramalina linearis (Sw.) Ach..... 229, 232, 235
Ramalina multifida (Ach.) Röhl..... 251
Ramalina ovalis Hook. f. & Taylor..... 229, 232, 235
Ramalina pendulina (Ach.) Röhl..... 251
Ramalina phalerata (Ach.) Röhl..... 251
Ramalina polymorpha subsp. capitata (Ach.) Clauzade & Cl. Roux 226
Ramalina polymorpha subvar. capitata (Ach.) Boistel..... 226
Ramalina polymorpha var. capitata Ach..... 226
Ramalina polymorpha var. farinacea (L.) A. Massal..... 251
Ramalina rigida var. africana Stein..... 201, 206
Ramalina strepsilis f. capitata (Ach.) Szatala..... 226
Ramalina tinctoria f. capitata (Ach.) Arnold..... 226
Ramalina yemensis subsp. ovalis (Hook. f. & Taylor) Nyl. 229, 232, 235
Ramalina yemensis var. membranacea (Laurer) Nyl..... 229, 232, 235
Ramalina yemensis var. ovalis (Hook. f. & Taylor) Zahlbr. 229, 232, 235
Ramalina yemensis var. tenuissima (Meyen & Flot.) Zahlbr. 229, 232, 235
Ramboldia lusitanica (Räsänen) Kalb, Lumbsch & Elix..... 30
S

Squamaria deceptoria (Nyl.) M. Choisy & Werner..... 5
Sticta aurata Ach..... 53
Sticta billardierei Delise..... 56, 61, 65
Sticta billardierei var. lacinulata (Kremp.) Müll. Arg..... 56, 61, 65
Sticta cellulifera f. billardierei (Delise) Nyl..... 56, 61, 65
Sticta cellulifera f. lacinulata (Kremp.) Stizenb..... 56, 61, 65
Sticta colensoi C. Bab..... 69
Sticta coronata Müll. Arg..... 73
Sticta durvillei Delise..... 73
Sticta endochrysa var. urvillei (C. Bab.) Müll. Arg..... 73
Sticta faveolata var. billardierei (Delise) C. Bab..... 56, 61, 65
Sticta faveolata var. richardii (Mont.) Linds..... 56, 61, 65
Sticta flotowiana Laurer..... 56, 61, 65
Sticta fossulata f. lacinulata Kremp..... 56, 61, 65
Sticta fossulata f. linearis (Hook. f. & Taylor) Stizenb..... 56, 61, 65
Sticta fossulata f. richardii (Mont.) Nyl..... 56, 61, 65
Sticta fossulata var. linearis (Hook. f. & Taylor) Linds..... 56, 61, 65
Sticta fossulata var. richardii (Mont.) Nyl..... 56, 61, 65
Sticta foveolata var. richardii (Mont.) Linds..... 56, 61, 65
Sticta hirta Stirt..... 73
Sticta linearis Hook. f. & Taylor..... 56, 61, 65
Sticta orygmaea Ach..... 73
Sticta richardii Mont..... 56, 61, 65
Sticta subvariabilis Nyl..... 108, 111
Sticta urvillei C. Bab..... 73
Sticta urvillei var. colensoi (C. Bab.) Nyl..... 69
Stictina fragillima var. dissimilis Nyl..... 78
Stictina neglecta Müll. Arg..... 100, 105
Strigula janeirensis (Müll. Arg.) Lücking..... 195
Strigula prasina Müll. Arg..... 198
V
Verrucaria fetivica Kremp..... 175
Verrucaria laevigata Pers..... 163, 166
Y
Yarrumia colensoi (C. Bab.) D.J. Galloway..... 69
Yarrumia coronata (Müll. Arg.) D.J. Galloway..... 73