

F. Schumm (2026):

Images of Lichens

Vezda Lichenes Selecti Exsiccati
part 33

With this volume, I continue the documentation of Vezda's works on exiccata, now with Lichenes Selecti as part 33. 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/>**

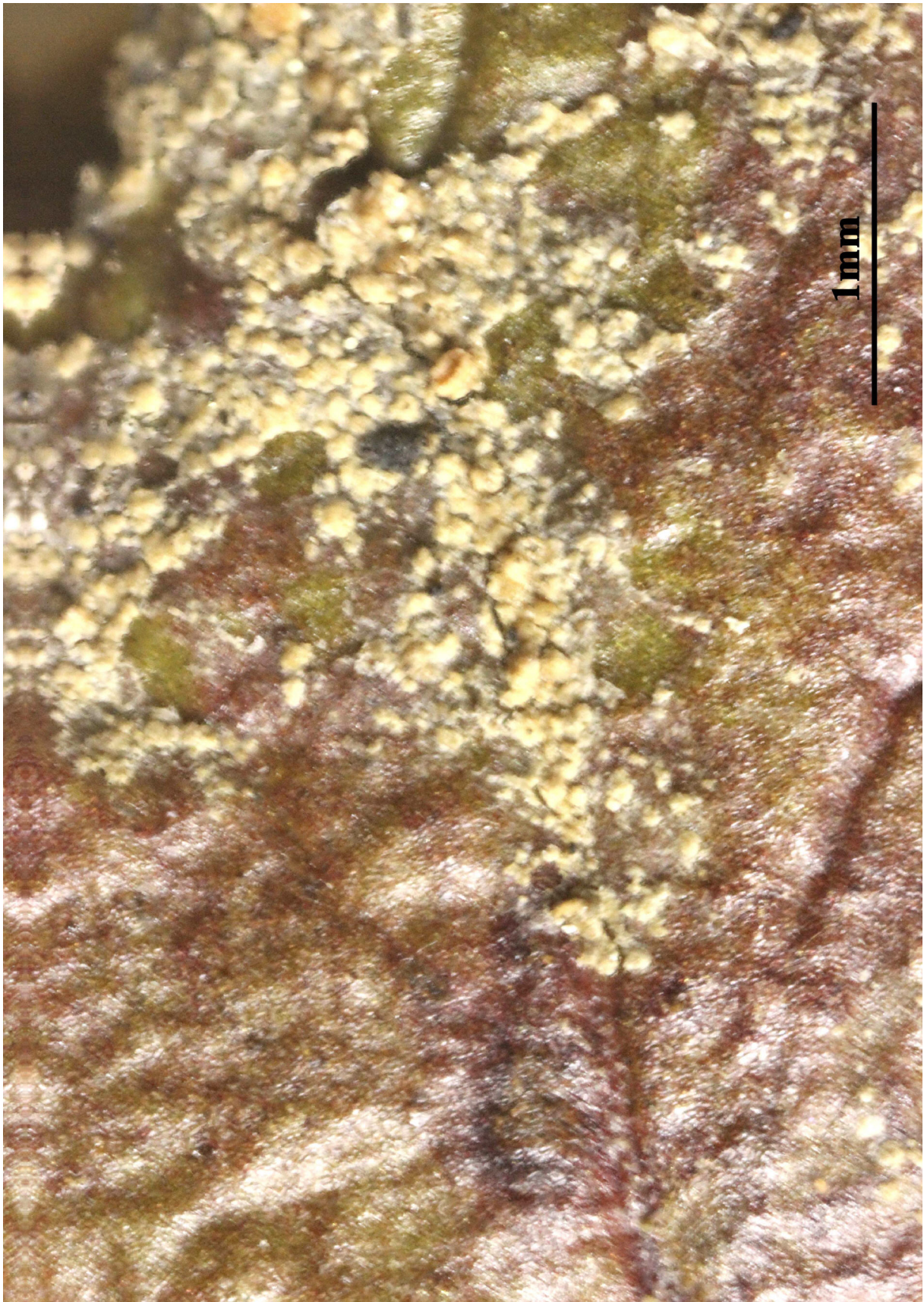
and the Australian Lichenslist under the Url: **https://www.anbg.gov.au/abrs/lichenlist/lichenchecklist_e_o.html**

F. Schumm, 2026

Fellhanera myrtillicola (Erichsen) Hafellner, in Vězda, Lichenes Selecti Exsiccati, Fascicle 95 (nos 2351-2375) (Průhonice): 3 (no. 2358) (1989)
=*Fellhaneropsis myrtillicola* (Erichsen) Sérus. & Coppins, in Sérusiaux, Lichenologist 28(3): 199 (1996)
=*Bacidia myrtillicola* Erichsen, Mitt. Inst. Allg. Bot. Hamburg 10: 414 (1939)

[VZ2359], Bohemoslovacia. Bohemia merid., distr. Klatovy: Horská Kvilda, in silva "Vborovém" dicta, 1090 m. Ad folia viva *V. vitis-idaea*. Leg. J. Horáková et A. Vězda. EX A. VĚZDA LICHENES SELKECTI EXSICCATI NR. 2358.

Thallus crustose, thin and smooth to rarely granulose or slightly verrucose, greenish grey to bluish grey, somehow glossy, forming small, suborbicular patches which eventually merge to cover larger areas, usually delimited by a bluish prothallus. Apothecia biatorine, constricted at base, 0.1-0.2(-0.3) mm across, with a flat to convex, pale brown to bluish grey or bluish black disc and a thin, whitish, soon excluded proper margin. Proper exciple of vertically arranged hyphae with elliptical to polyhedral cells, up to 15 µm wide laterally, colourless throughout or very pale brown in innermost part; epithecium scarcely differentiated from the hymenium; hymenium colourless, I+ blue; paraphyses branched and anastomosing, 1-1.5 µm thick, forming a densely interwoven network around the ascus tips; hypothecium very thin, dark brown, K+ greenish brown to green in central parts. Asci 8-spored, clavate, with a K/I+ blue apical dome containing a darker blue, tubular ring-structure, and an amyloid coat, Byssoloma-type. Ascospores 3(-5)-septate, hyaline, oblong-fusiform, straight or slightly curved, 16-28(-34) x 3-4 µm. Pycnidia dark grey to blue-black, immersed in the apothecia or sessile on the thallus, with palisadic hyphae on rim of ostiole (enclosing the conidial mass at least when young), producing (12-)20-45 µm long, thread-like macroconidia, or 4-8 µm long, bacilliform microconidia, respectively. Photobiont chlorococcoid. Spot tests: thallus K-, C-, KC-, P-, UV-. Chemistry: without lichen substances. - Note: a mild-temperate to southern boreal-montane lichen found on needles of *Abies* in very humid montane forests, but also on leaves of *Buxus* and *Laurus* in warm-humid gorges near the coast, to be looked for further in the most humid parts of the Alps.



Fellhanera myrtillicola

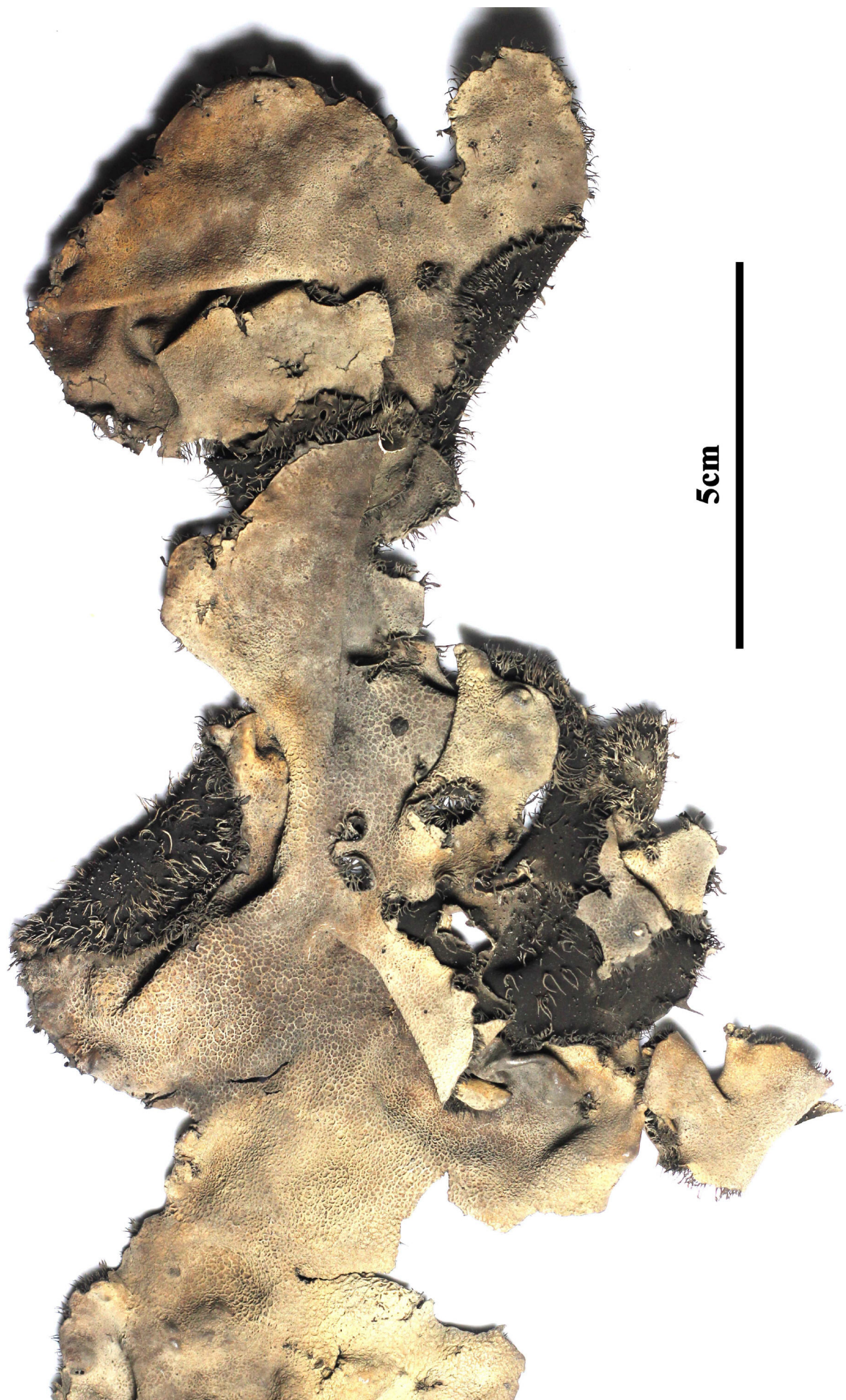
Omphalodiscus africanus (Jatta) Llano, Monograph of the Lichen Family
Umbilicariaceae in the Western Hemisphere: 99 (1950)
= *Umbilicaria haplocarpa* var. *africana* Jatta 1908

[VZ1371], Zaire (Africa centralis). Prov. Kivu: ad latera septentrionalia montis ignivomi Karisimbi, 4450 m. Ad lapides parvos vulcanicos in regione subnivali. Leg. J. Lambinon (no. 72/452). EX A. VěZDA LICHE-
NES SELECTI EXSICCATI NR. 1371.

Thallus up to 15 cm. in diameter, rigid, monophyllous, surface undulating, somewhat depressed around the umbo with an indistinct costate reticulate pattern fading quickly into an obscure rippling- vermiform pattern, costae over umbo consists of not more than 3-4 sharp ridges, margins irregular deeply incised or incised torn forming 3-4 cm. long lobes, margins scalloped, sinuate, with projecting dentate rhizinae, occasionally subtumid and reflexed, upper surface smooth slightly cracked, dull, dusky drab, Benzo brown, to fuscous; below undulating umbilicus small and compact with the thallus creased and folded about it, lower cortex smooth, dimpled by dorsally appressed apothecia, covered with abundant, but not thickset, coarse rhizinae, about 5 mm. long, cylindrical of flat and divided, tips tapering, darker tipped, arising straight from lower surface or prostrate near margins and extending over margin, or developing from margins, thallus irregularly perforated, margins of perforations rhizinose, with ventral rhizinae also extruding through to upper surface. Necral zone evanescent, about 9.9 μm thick, upper cortex palisadeplectenchymatous, about 33 μm thick, brown, algal layer protococcoid, continuous, about 50 μm thick, medulla loose, about 66 μm thick, hyphae pachydermate about 6.6 μm in diameter, lower cortex scleroplectenchymatous with light brown lower zone, about 70 μm thick, the whole thallus strongly parasitized with *Torula lichenuwn* Keissl. Apothecia 1-1.5 mm. in diameter, numerous, almost to umbo, crowded to scattered, adnate, orbicular to irregular, disk flat to subconvex, black, exciple thin, parathecium about 100 μm , outer zone brown, of isodiametric cells, hypothecium light brown, irregular, about 140 μm thick, thecium about 115 μm thick, paraphyses loose, simple or branched, slightly swollen apicis 1.7-2.8 μm in diameter, asci 42.5-59.5 x 12.6-23.8 μm , with a well defined hyaline wall, spores hyaline, ellipsoidal, thin walled, highly granular, 11.2-16 x 5.6-7.7 μm . The apothecia of this lichen has a pronounced central sterile column; thallus morphology is not comparable to *U. haplocarpa* Nyl. Neither *O. africanus* nor

A. haplocarpa have a pustulate thallus and therefore do not belong in *Lasallia* Merat. According to our present knowledge of the distribution of *A. haplocarpa*, it is endemic to South America. The diagnosis of Jatta is extremely brief. A specimen from the Farlow Herb- (ex Herb. C. Sbarbaro) labeled *Gyrophora haplocarpa* Nyl. var. *africana* Jatta. "Versante ovest Duroni 4000-4500 m.s.m. Ruwenzori" is probably a cotype specimen. *Omphalodiscus corsicus*(Frey) Llano, comb. nov. *Umbilicaria* (Sect. *Gyrophora*) *corsica* Frey, Hedwigia 71: 114, 1931. (ex A. Llano: Monograph of th Umbilicriaceae)

Omphalodiscus africanus

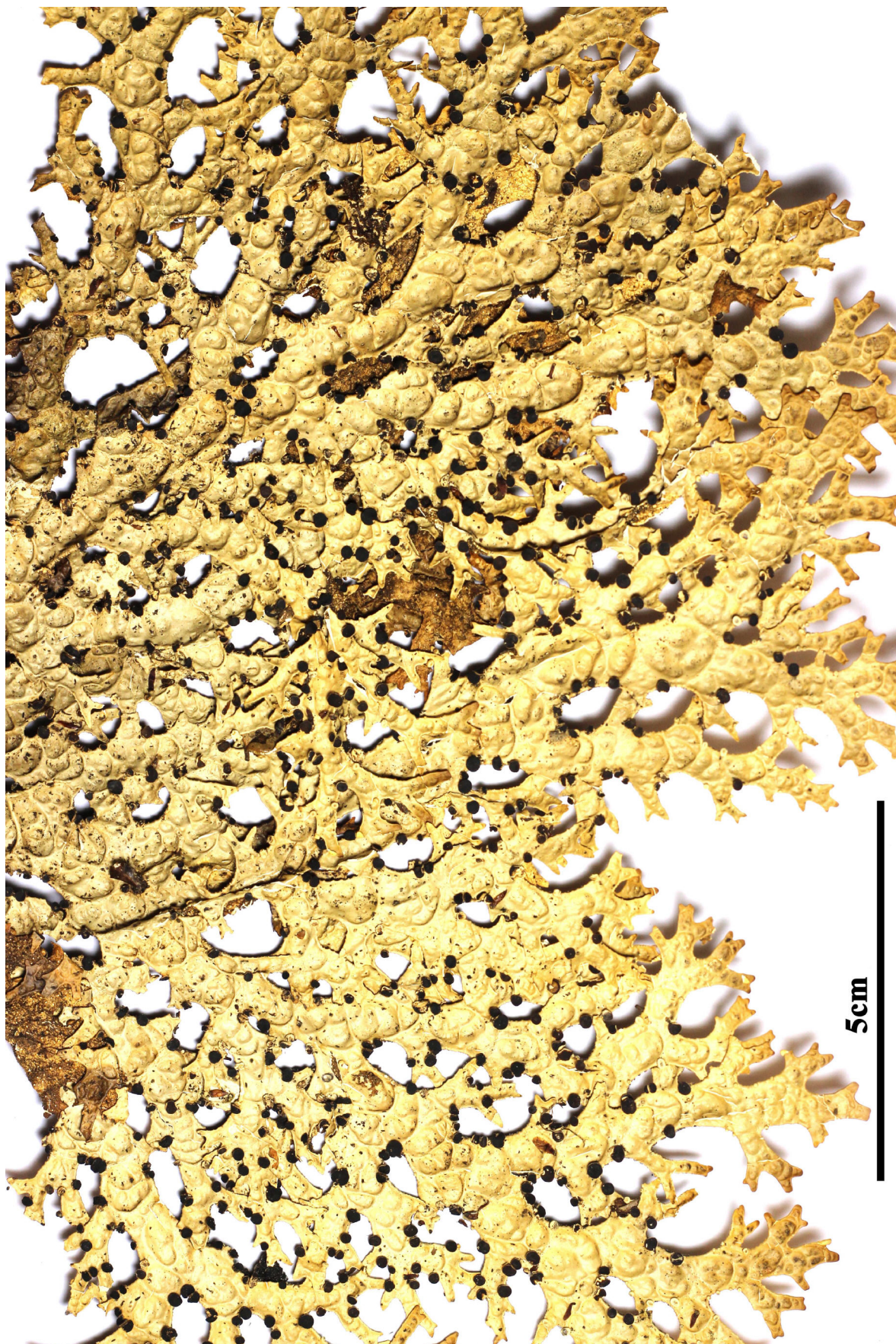


Omphalodiscus africanus

Pseudocyphellaria faveolata (Delise) Malme, Bih. K. svenska VetenskA-
kad. Handl., Afd. 3 25(no. 5): 23 (1899)
= *Sticta faveolata* Delise 1822

[VZ1846], Nova Zelandia. South Island: Southland 20 km ad occi-
dentem versus a Clifden, in limite reservati "Fiordland National Park",
46°00' austr., 167°27' orient., 130 m. Ad truncum *Nothofagi solanderi*
in silva mixta (*Nothofagus solanderi*- *Noth. menziesii*), Leg. et det. L.
Tibell (no. 10495), 18.1.1981. EX A. VěZDA LICHENES SELECTI EXSIC-
CATI NR. 1846.

Thallus ± orbicular to spreading, often forming extensive, entangled
clones, loosely attached, to 25 cm diam., or larger. Lobes very variable
± rounded, irregular or linear-laciniate and ± subdichotomously bran-
ched, margins entire, often with raised, verruciform, white pseudocy-
phellae, apices blunt, notched or furcate, often complex-imbricate
centrally, ± discrete at margins. Upper surface bright lettuce-green,
olive-green to greenish- or yellowish-brown, sometimes superficially
blackened, distinctly and regularly reticulate-faveolate, smooth, waxy,
without soredia, isidia, phyllidia or pseudocyphellae. Photobiont green.
Medulla white. Lower surface bullate, ridged, with a narrow, glabrous
marginal zone at apices, ± densely and uniformly tomentose to margins
in older lobes, tomentum felted, brown or black, rarely pale buff or
whitish. Pseudocyphellae verruciform, raised above tomentum, with a
conspicuous, inflated, smooth, fawn or buff, waxy margin, decorticate
area flat, small, white or occasionally yellowish. Apothecia marginal
and laminal, most commonly developed towards lobe apices, 2-5 mm
diam., disc matt, black or dark reddish-brown, concave to convex, often
white-pruinose when young, margins pale, whitish or greyish, promi-
nent, inflexed at first, becoming denticulate and excluded with age,
thalline exciple pale to red-brown, minutely verrucose-areolate, to
white- or brown-tomentose. Ascospores brown, polaribilocular, fusi-
form-ellipsoid, (20-) 24-33 × 10-14 µm. Chemistry: Hopane-6α,7β,22-
triol, methyl virensate, physciosporin, norstictic, constictic and stictic
acids.



Pseudocyphellaria faveolata

Ramalina hoehneliana Müll. Arg., Flora, Regensburg 73(4): 337 (1890)

[VZ1758], Rwanda. Silva Gishwati, km 39 in via inter Gisenyi et Kibye, 2150 m. ad ramos fruticum (*Croton megalocarpus* etc.) Leg. J. Lambinon (72/Rw/513), 6.2.1972, det. E. Sérusiaux. EX A. VěZDA LICHENES SELECTI EXSICCATI NR. 1758.

Thallus pendulous, to 60 cm long, main branches subparallel with short side branches diverging at wide angles. Branches stramineous or greenish grey, solid, bilateral, flat, 4-6(10) mm wide, longitudinally ribbed, with laminal, linear or irregular pseudocyphellae, often perforate or with longitudinal cracks. Soredia absent. Apothecia lateral, marginal or lamina!. Spores one-septate, some with pseudosepta, straight to strongly curved, 13-15(17) x 5-6 μ m. CHEMISTRY: No medullary substances. ECOLOGY: Corticolous on trees in open woodland and grassland at 1800 to 2400 m. fairly common. DISTRIBUTION: Ethiopia, Kenya, Tanzania, Uganda. (Ex Swincow & Krog: Macrolichens of East Afrca).



Ramalina hoehneliana

Ramalina myrioclada Müll. Arg., Flora, Regensburg 66(2): 20 (1883)
= *Ramalina australiensis* Nyl., Bull. Soc. linn. Normandie, sér. 2 4(2): 120
(1870)

[VZ1995], Nova Zelandia. North Island: North Auckland, 6 km ad septentriones versus a Rawene. One Creek, prope fluminem Ohi, 35°27' Sept., 173°30' Orient.) in ramzulis *Avicenniae resiniferae* in virgulto "mangrove" dicto, Leg. L. Tibell (no. 13429), 28.5.1981. EX A. VěZDA LICHENES SELECTI EXSICCATI NR. 1995.

Thallus erect to pendulous, to 12 cm rarely to 20 cm long, corticolous. Branches rigid, yellowish-green to greyish, angular-terete to slightly flattened, longitudinally striate-nervose, exposing white medulla, or cracked, shortly branched, narrow, 1.5 mm wide at base tapering to 0.5 mm wide at apices, lateral branches narrower, numerous, irregularly divided, subterete, apices finely flexed or bent, without pseudocyphellae or soredia, longitudinally ridged or grooved near base. Apothecia rare, lateral, sessile, plane, 0.9 mm diam., disc pale yellowish-pink, epruinose, margins thin, entire, concolorous with thallus, thalline exciple smooth. Ascospores oblong, 12-15 × 4-6 µm. Chemistry: No medullary substances.

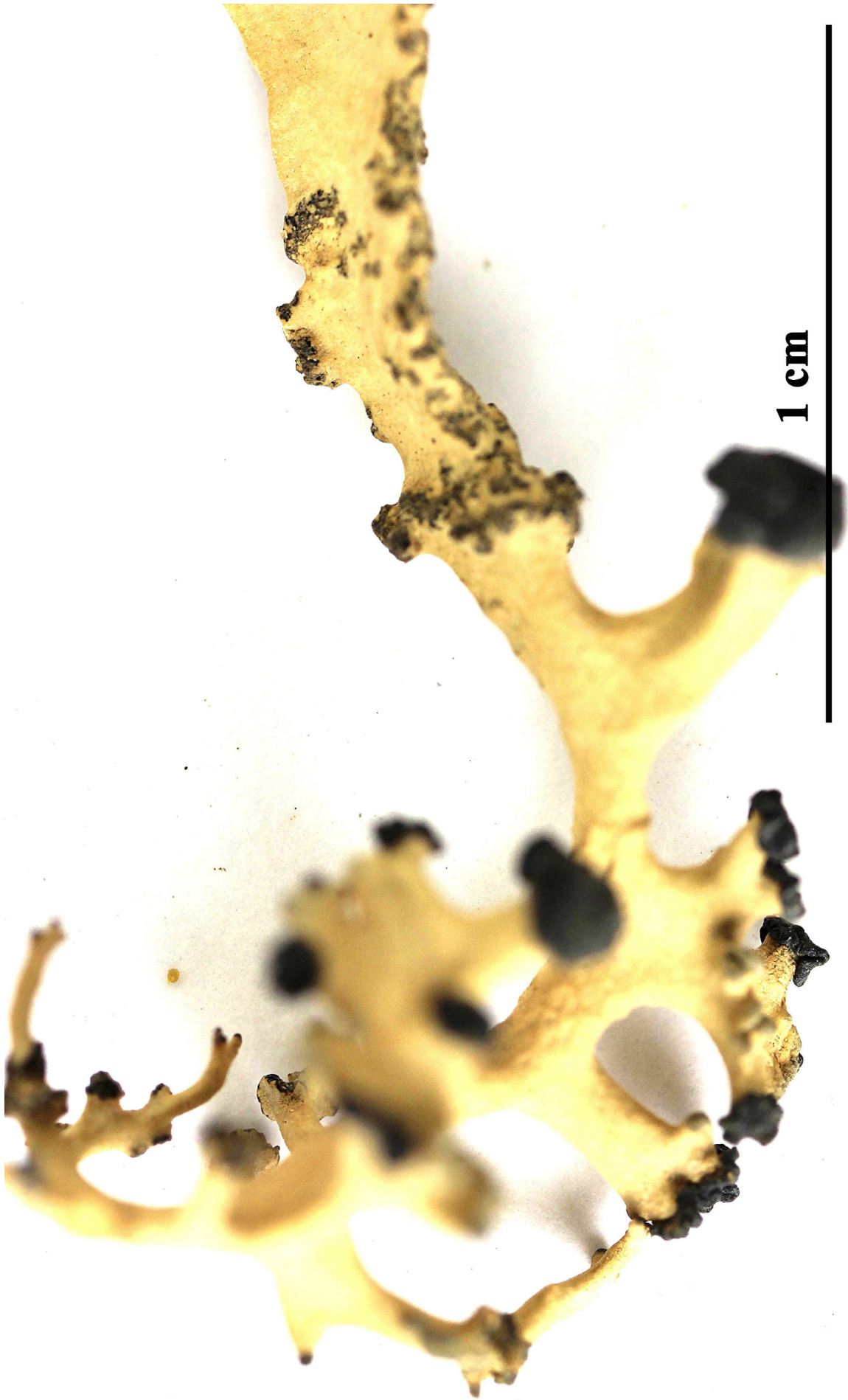


Ramalina myrioclada

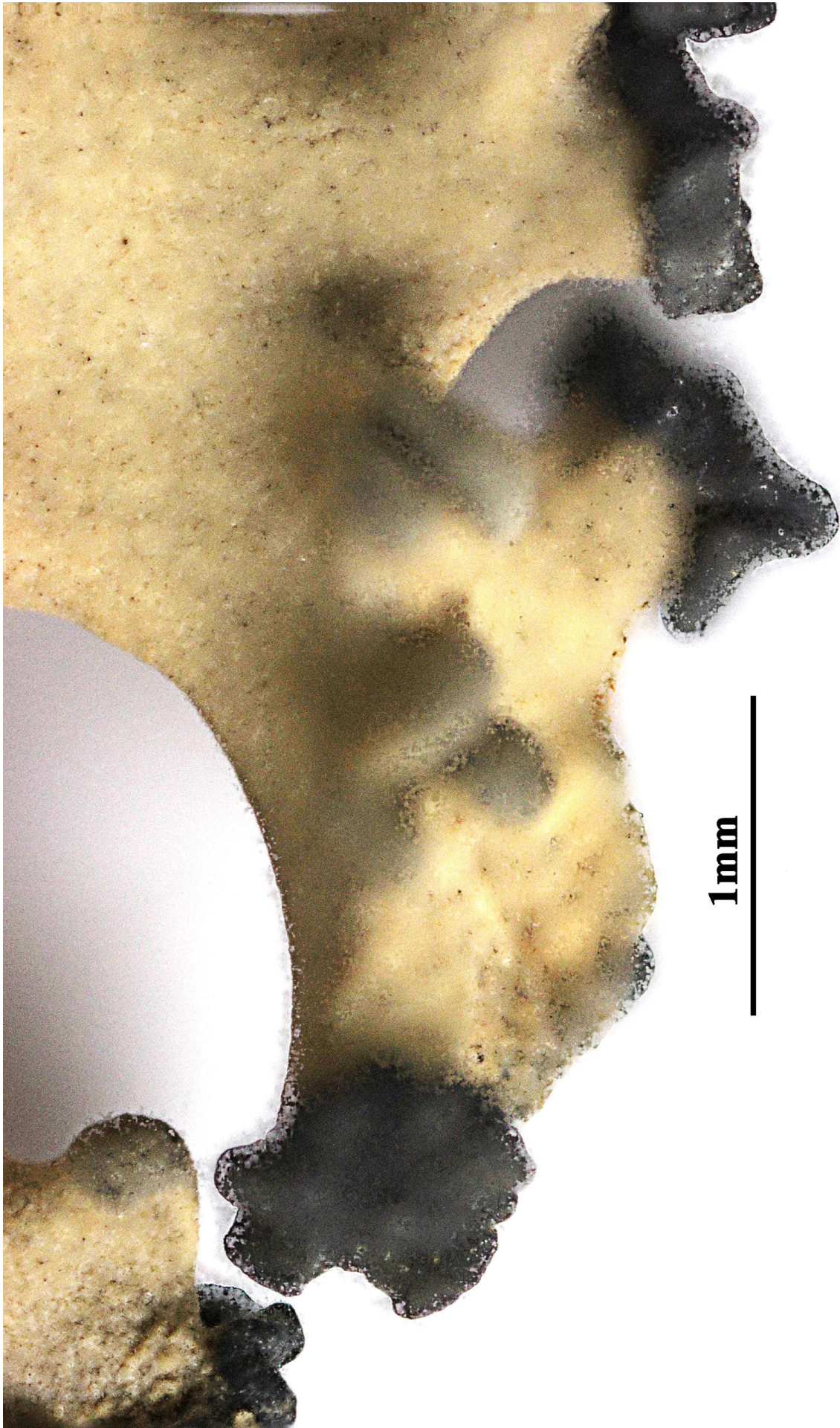
Santessonia namibensis Hale & Vobis, Bot. Notiser 131(1): 1 (1978)

[VZ2048], Africa Austro-Occidentalis, Namibia: Skeleton coast Park, 11 km ad septentriones versus ab Ugabmond, in collibus marmoraceis in proximitate maris, 30 m. Ad saxum in desertis. Leg. E. Sérusiaux (no. 5219) et D. Wessels, 2.1983. EX A. VĚZDA LICHENES SELECTI EXSICCATI NR. 2048.

Thallus saxicolous or corticolous, with *Trebouxia* algae, grey, not soresiate, texture firm, applanate, surface smooth, holdfast internally white to brown. Cortex hyphae densely intricate branched, with thick epinecral layer. Apothecia round. Hypothecium black. Ascospores brown, 1-septate, $12\text{--}13 \times 5.5\text{--}6.5 \mu\text{m}$. Cortex C –, K + yellow > red, Pd + orange, medulla C –, major substances norstictic, connorstictic, cryptostictic. – Namibia.



Santessonia namibensis

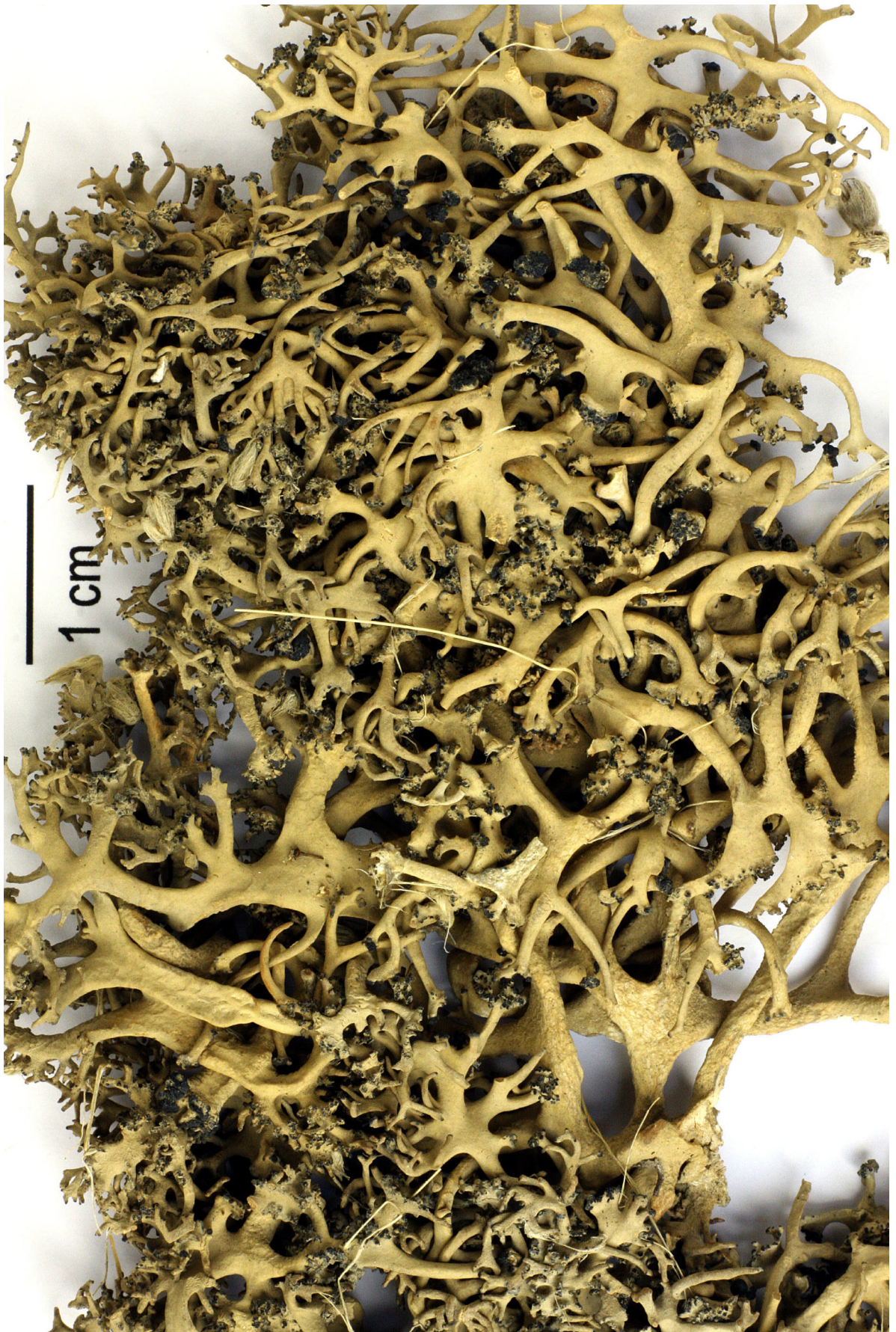


Santessonia namibensis

Santessonina namibensis Hale & Vobis, Bot. Notiser 131(1): 1 (1978)

Namibia, outjo district, Skeleton Coast Park, marble ridge, ca. 20 km N of boundary at Ugabmond, on rock, 21°4'0" S, 13°40'0" E, ca. 50 m. Leg. T.H. Nash III, 9. Jun. 1986 nr. 23308, det. T.H. Nash III. [9481].

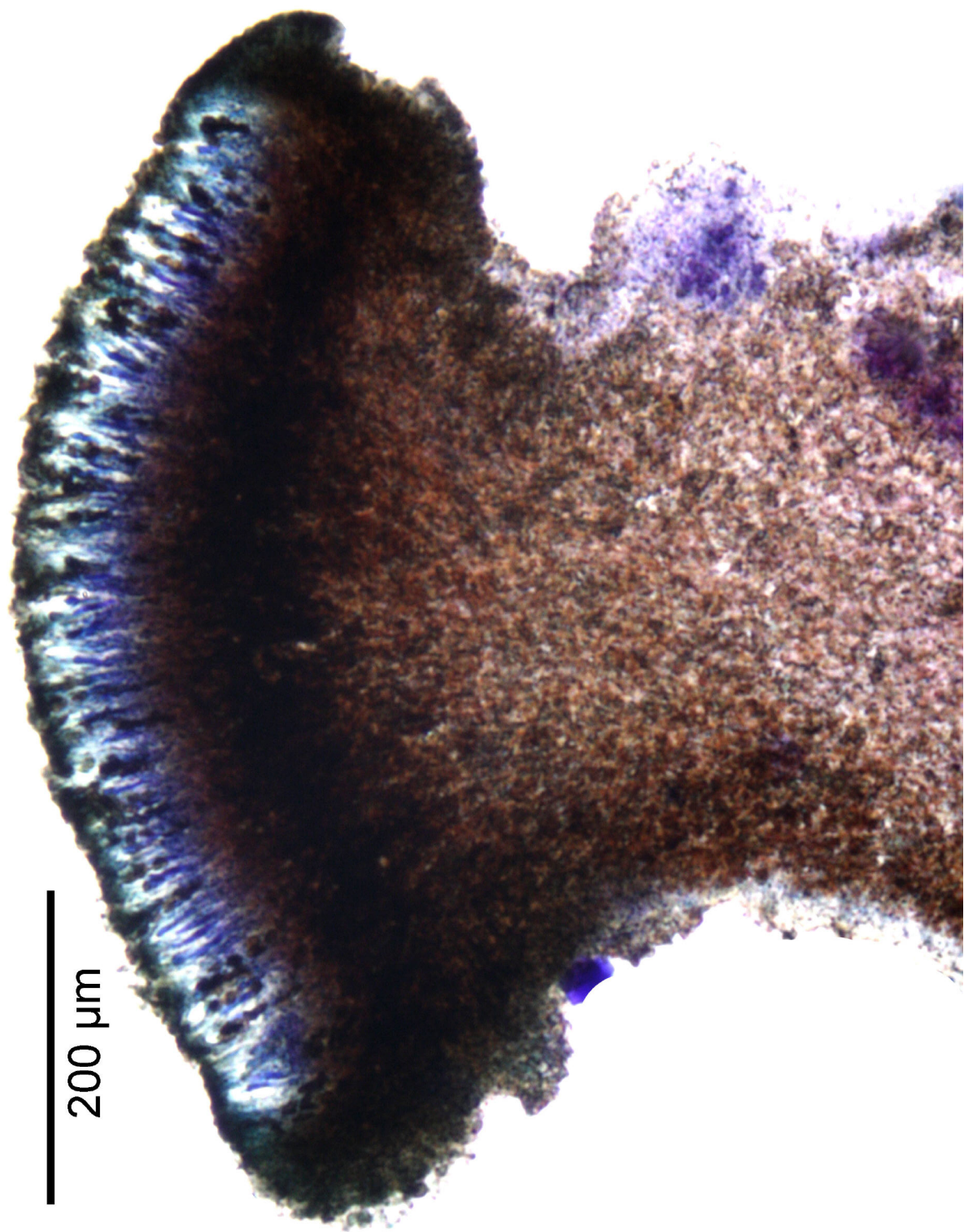
Thallus saxicolous or corticolous, with *Trebouxia* algae, grey, not soresiate, texture firm, applanate, surface smooth, holdfast internally white to brown. Cortex hyphae densely intricate branched, with thick epinecral layer. Apothecia round. Hypothecium black. Ascospores brown, 1-septate, $12-13 \times 5.5-6.5 \mu\text{m}$. Cortex C –, K + yellow > red, Pd + orange, medulla C –, major substances norstictic, connorstictic, cryptostictic. – Namibia.



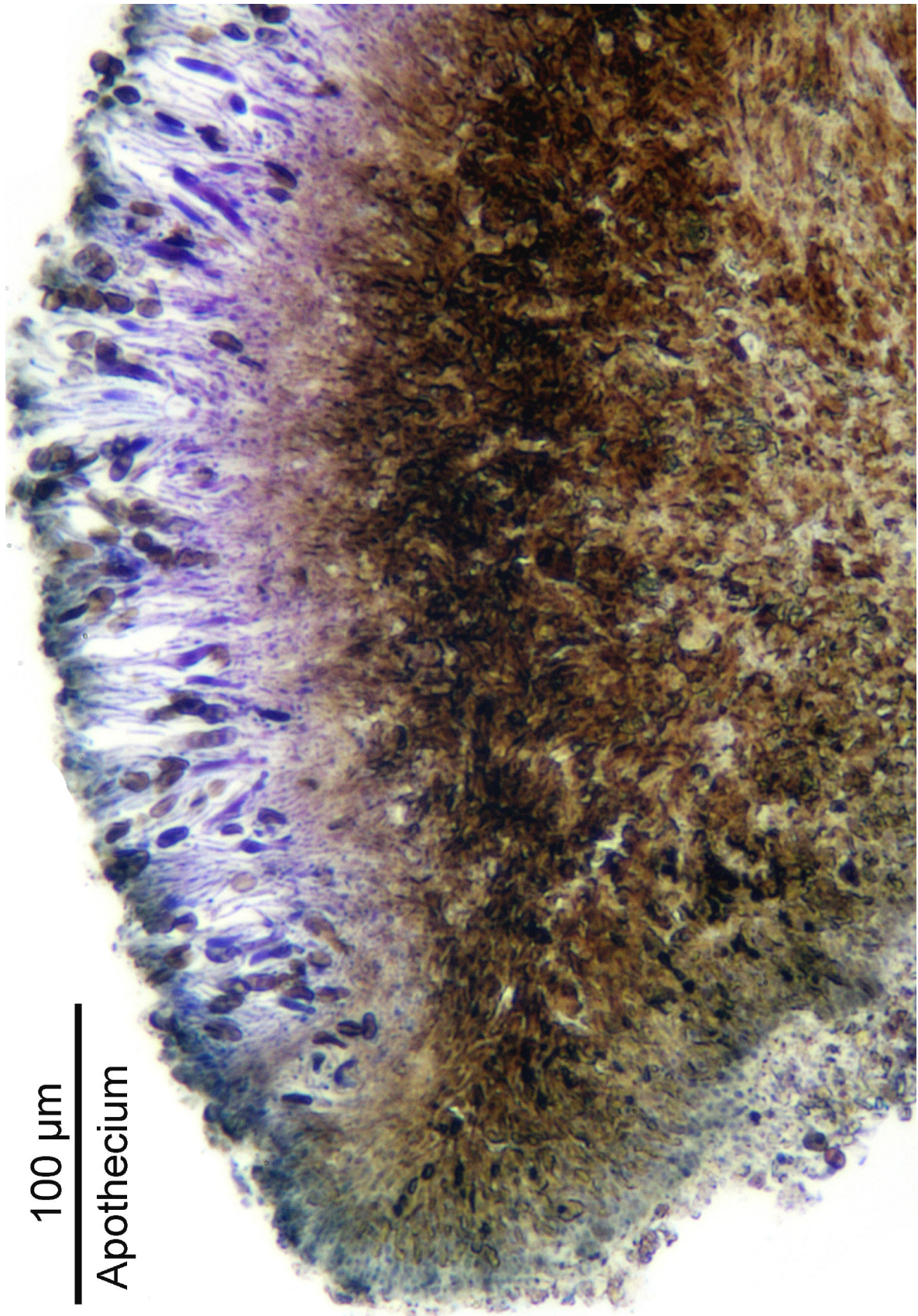
Santessonia namibensis



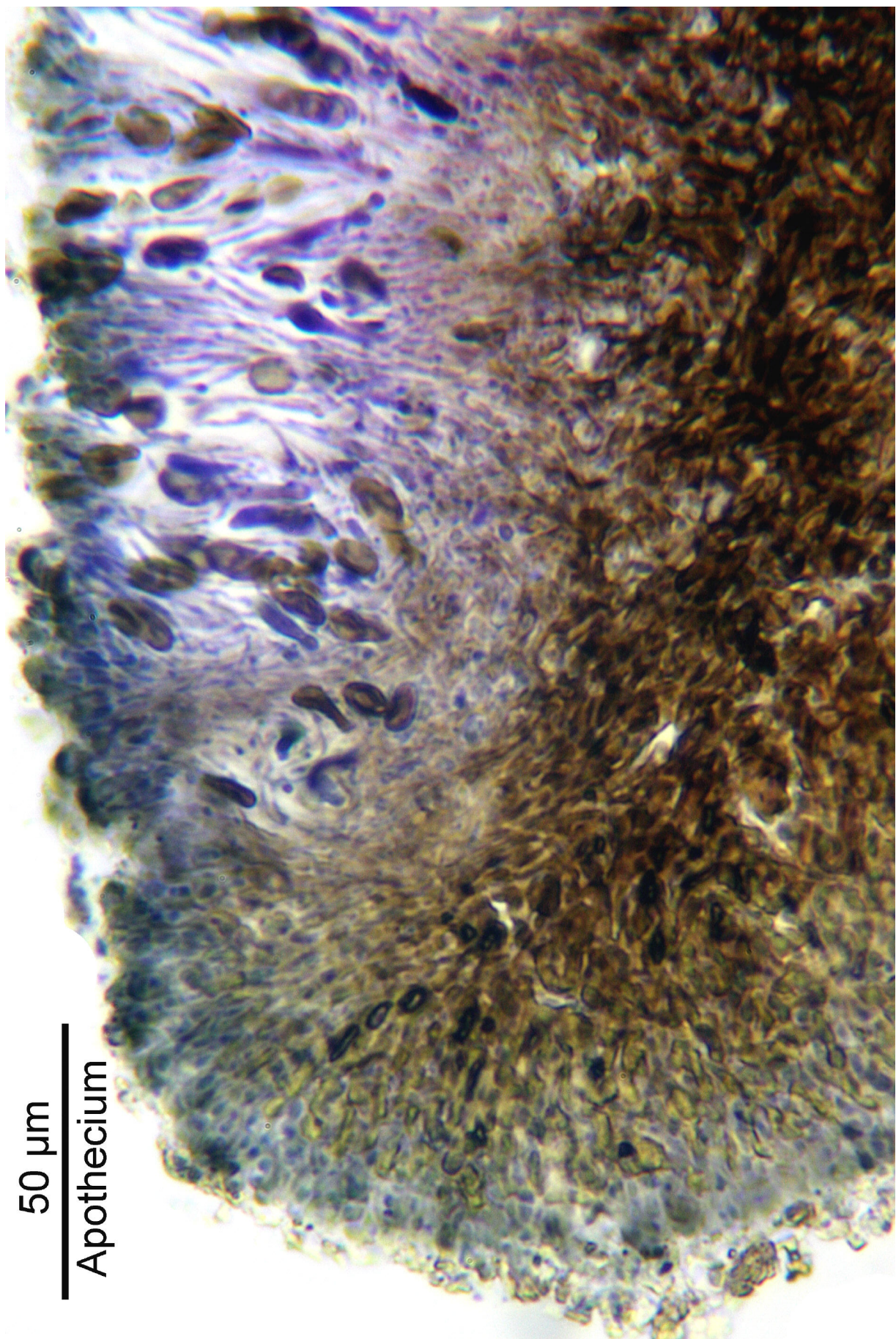
Santessonia namibensis



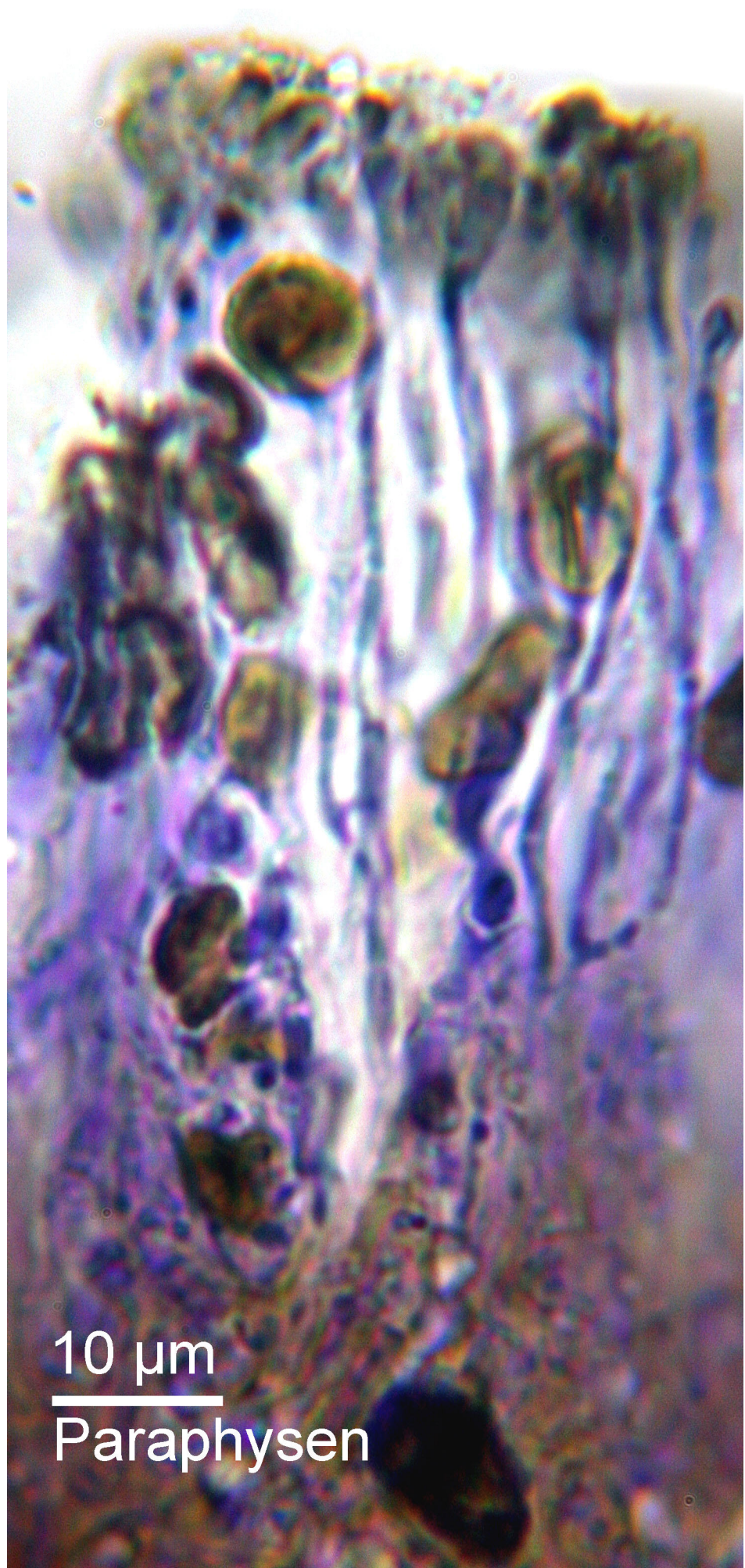
Santessonia namibensis



Santessonia namibensis

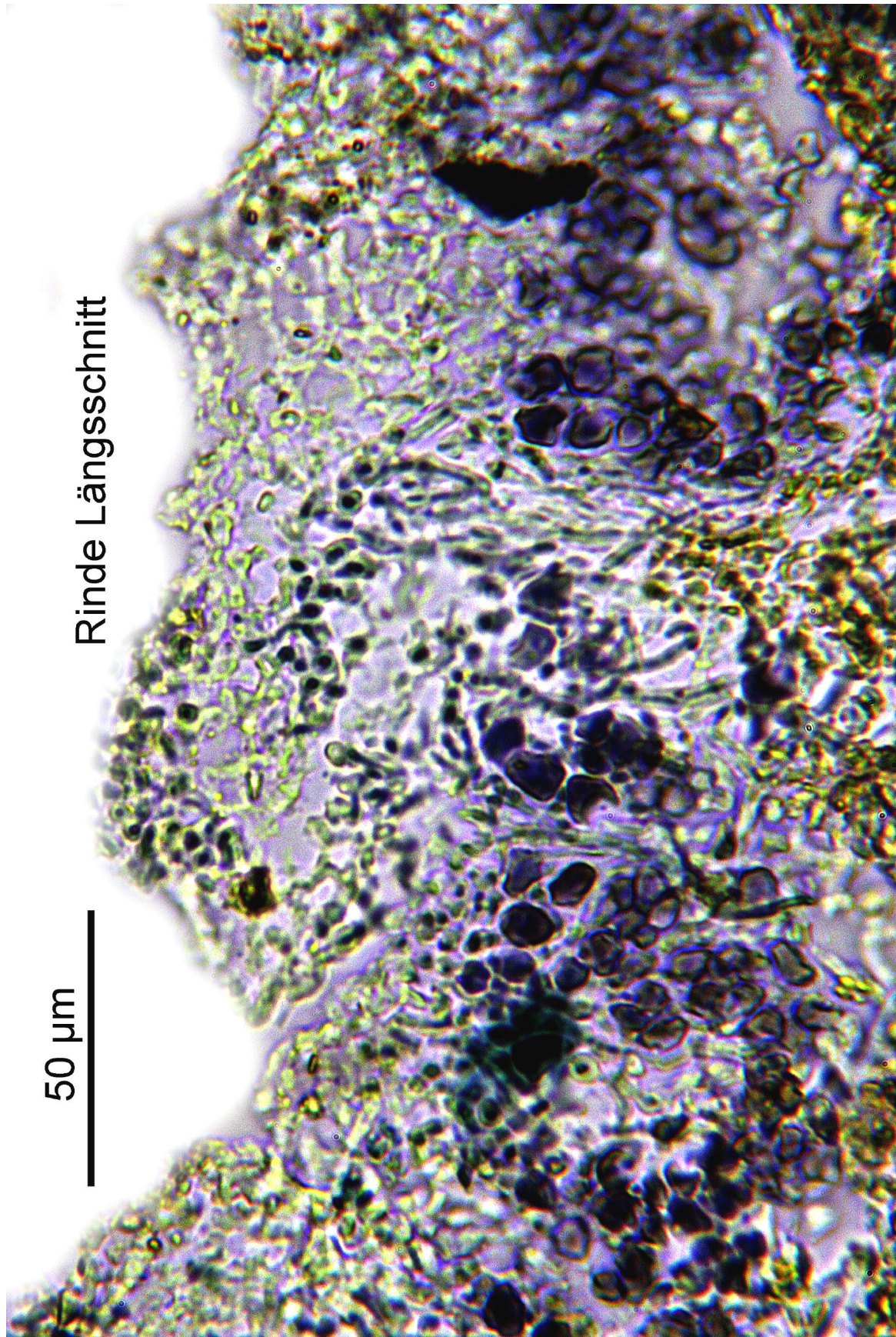


Santessonia namibensis



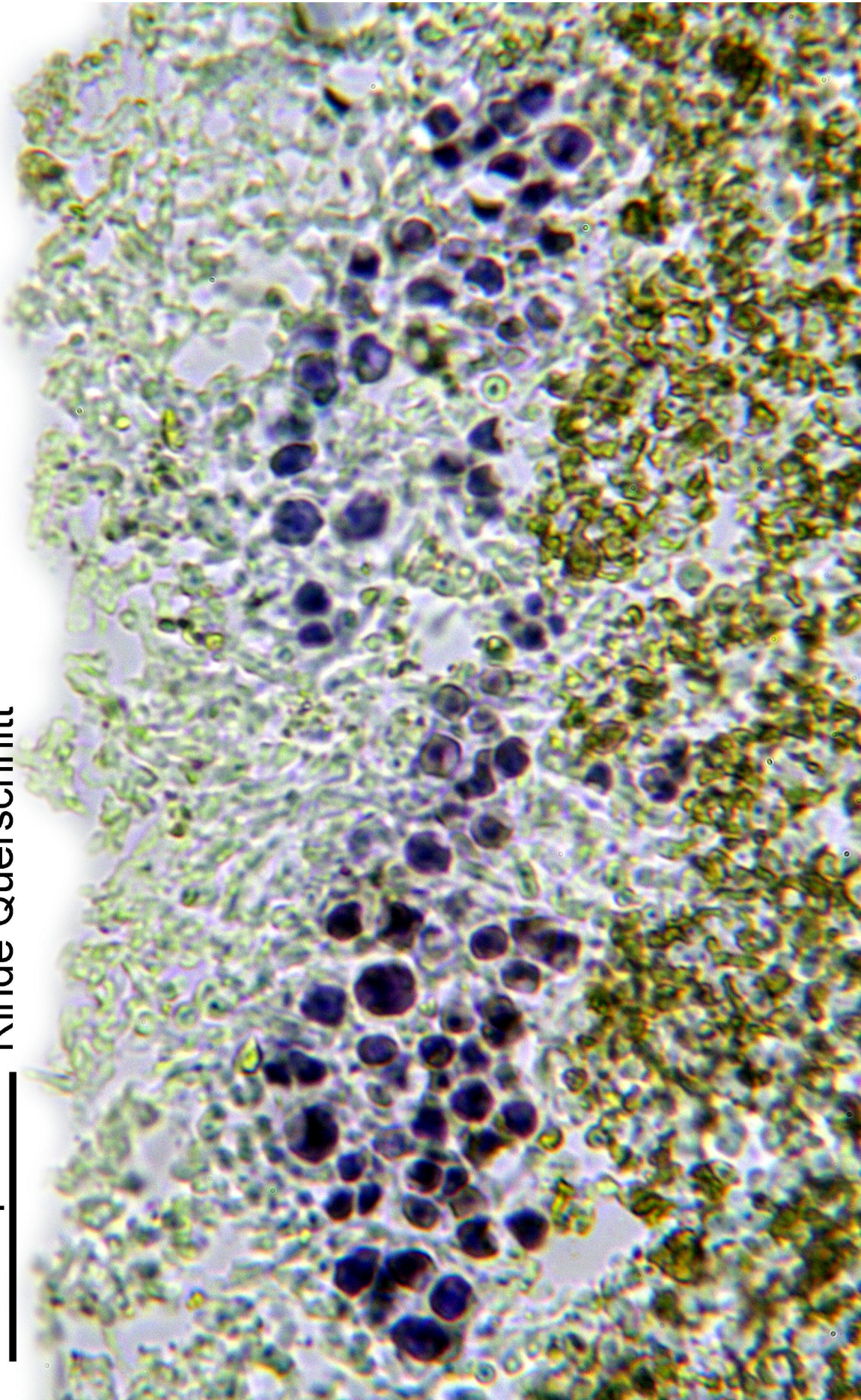
10 μm
Paraphysen

Santessonia namibensis

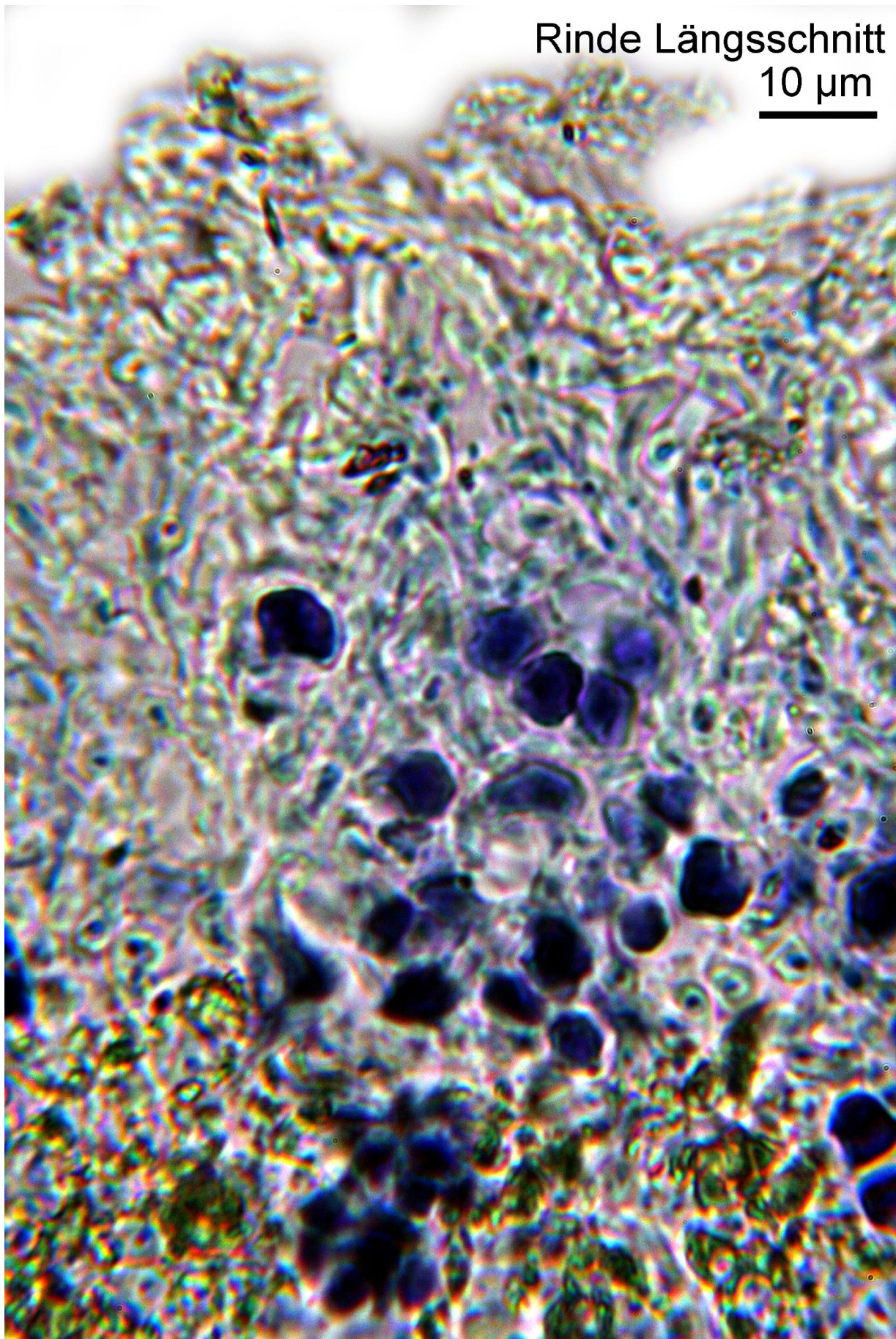


Santessonia namibensis

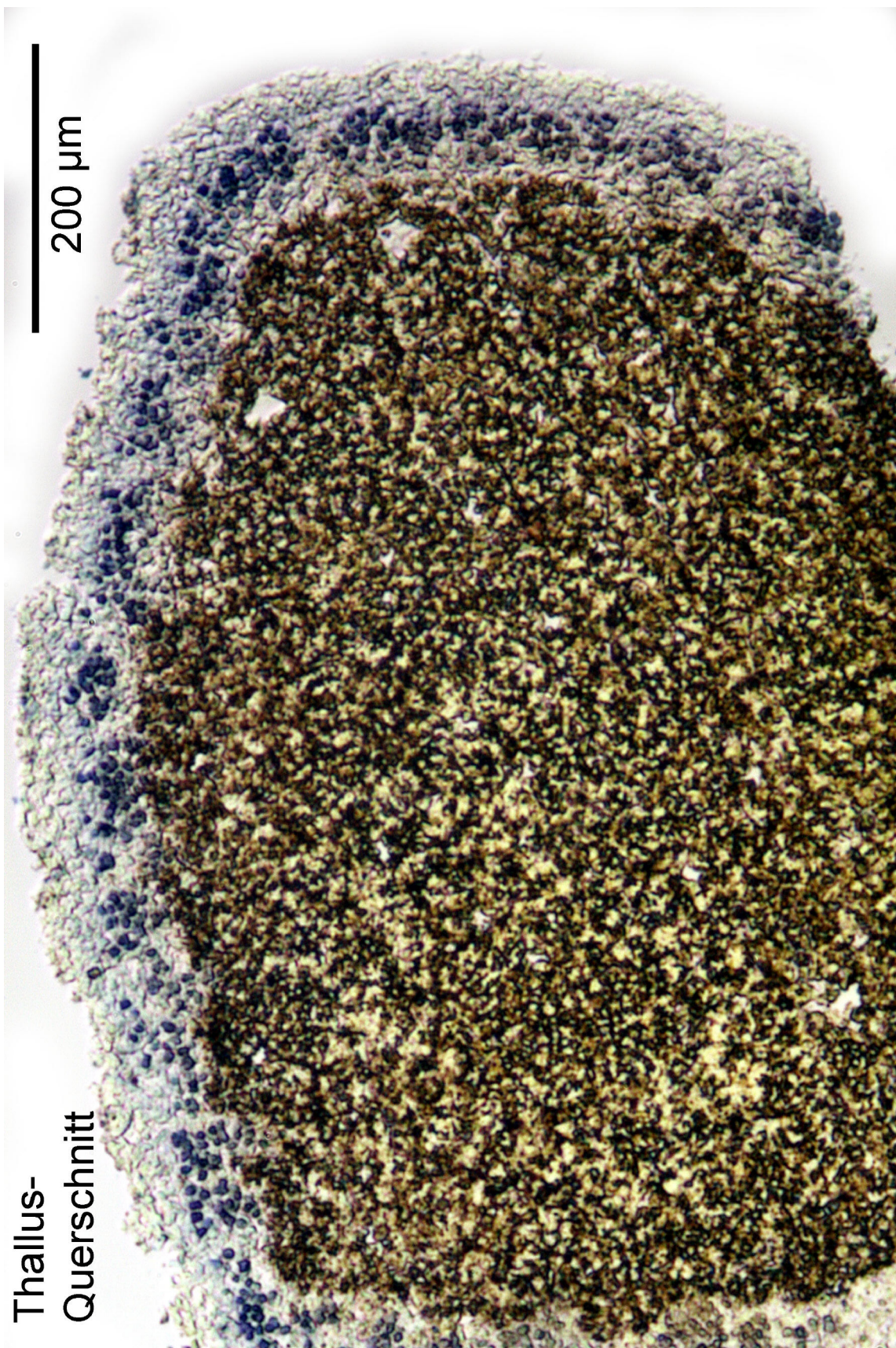
50 µm Rinde Querschnitt



Santessonia namibensis

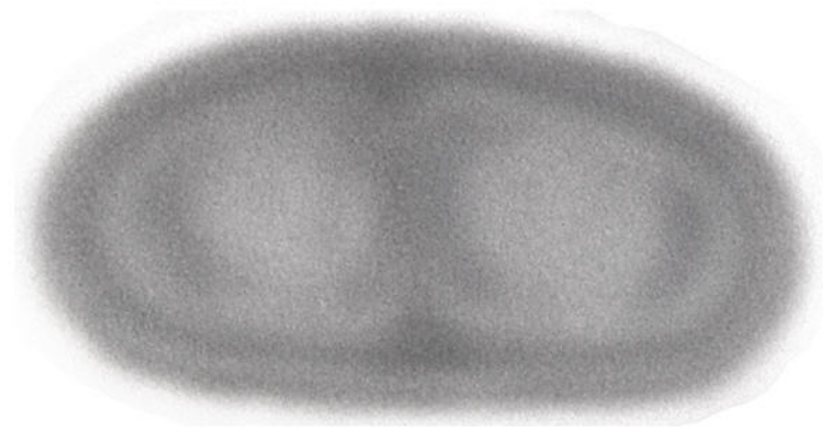
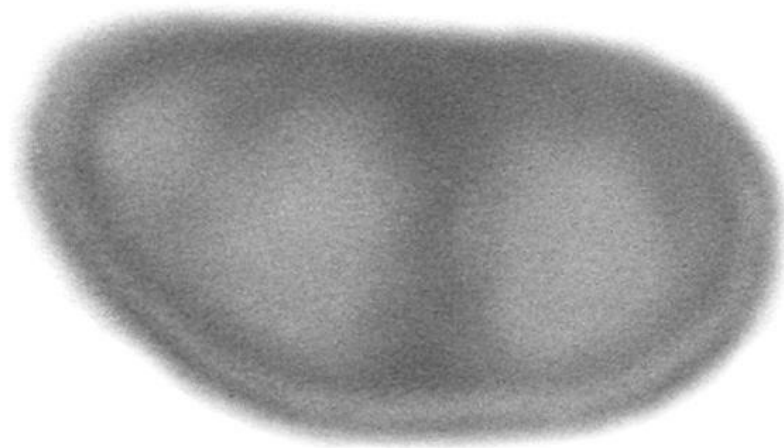
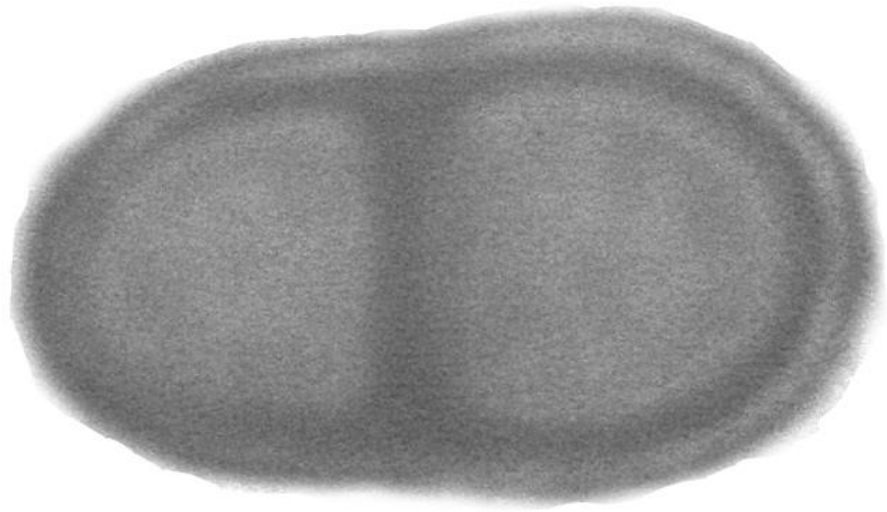


Santessonia namibensis



Santessonia namibensis

10 μm



Santessonia nannocensis

Usnea africana Motyka, *Usnea* 2(1): 388 (1937)

= *Usnea gigas* Mot., *Lich. Gen. Usnea Stud. Monogr., Pars Syst.* 2: 400 (1937).

[VZ1240}, Republica Guinea (Africa occid.). Regio Macenta, montes Ziamá, prope montem Sérédou, 900 m. Arboricola. Leg. S. Lisowski, 29.4.1962, det. J. Motyka. EX A, VěZDA LICHENES SELECTI EXSICCATI NR. 1240.

Thallus pendulous to 2 m long, often rather stiff. Main branches greenish grey, terete to strongly ridged longitudinally, with up to about 8 ridges, segments about 5-15 per cm. Fibrils generally numerous and regular, giving 'fish-bone' appearance to branches. Conical tubercles often abundant, more or less regularly disposed along ridges: Pseudocyphellae uncommon except at apices of tubercles, rarely sorediate. Axis ochraceous orange to dusky red or reddish brown, usually fissured, sometimes with a more hyaline periphery giving a tubular appearance. Isidia frequent on cortex of main branches. Apothecia commonly produced on fibrils as well as on side branches. CHEMISTRY: (1) Salazinic acid, (2) protocetraric acid, ± related substances, ± diffractaic or barbatic acid, (3) constictic acid, ± diffractaic acid, (4) diffractaic acid, ± barbatic acid. ECOLOGY: Widespread and locally common on trunks and large branches of trees in open woodland and by wayside at 1000 to 2000 m alt. DISTRIBUTION: Kenya, Tanzania, Uganda. Zaire, Madagascar. NOTE: Plants included in this species range from those with a thick, unbranched thallus more than a metre long bearing short fibrils to those with a shorter thallus, longer fibrils, and 'fish-bone' appearance.



Usnea africana

Usnea articulata subsp. mediterranea Motyka, Lich. Gen. *Usnea*, Stud. Monogr. (Leopoli) 1: 121 (1936)
= *Usnea articulata* (L.) Hoffm., Deutschl. Fl., Zweiter Theil (Erlangen): 133 (1796) [1795]
= *Usnea articulata subsp. intestiniformis* (Ach.) Motyka
= *Usnea barbata* var. *articulata* (L.) Ach.

[VZ1474] Insulae Canarienses. Tenerife, Las Fuentes, 1100 m. In ramulis Pini canariensis. Leg. K. Gebhardt, 30.3.1974, det. K. Kalb. EX VěZDA LICHENES SELECTI EXSICCATI NR. 1474.

Thallus fruticose-filamentous, pale green, long-pendulous, to >1 m long, sparingly branched at base, more richly branched towards apices, with a few flexuose lateral branches. Main branches up to 4(-5) mm thick, cylindrical, smooth, the older parts constricted and inflated between constrictions (sausage-like), the surface usually smooth to sparsely papillose, sometimes with scattered comma-like pseudocyphellae. Cortex relatively thin, (5-7 % of the branch diameter); medulla white, very lax and cottony-arachnoid, especially in the inflated parts; central axis white, sometimes visible in the constrictions of old branches. Apothecia usually absent. Photobiont chlorococcoid. Spot tests: cortex K-, C-, KC-, P-; medulla K- or K+ yellowish slowly turning brown, C-, KC-, P+ red. Chemistry: cortex with usnic acid; medulla with fumarprotocetraric (main) and protocetraric acid (accessory); other chemotypes are present outside Europe. Note: a Mediterranean-Macaronesian lichen with subtropical affinities, found on the branches of ancient trees in humid forests of Southern Italy, more frequent in Sardinia and Calabria.



Usnea articulata subsp. *mediterranea*

Usnea chloreoides (Vain.) Motyka, Lich. Gen. Usnea, Stud. Monogr. (Leopoli) 2: 388 (1937)
= *Usnea angulata* f. *chloreoides* Vain. 1898

[VZ1218], Tanzania. Morogoro Distr.. in monte Nguru ya Ndege, 815-850 m. In reamulis arbotum. Leg. T. Pócs (no. 6706/0), et Bjørnstad, 4.6.1073. EX A. VĚZDA LICHENES SELECTI EXSICCATI NR. 1218.

Thallus pendulous to 50 cm. Main branches greenish grey, slender to moderately robust, with 5-8 regular parallel, longitudinal ridges; segments c. 7-13 per cm. Spinules and fibrils variable from sparse to abundant. Tubercles usually abundant on the ridges. Axis medium to deep salmon pink. Apothecia on side branches. CHEMISTRY: (1) Salazinic acid, diffractaic acid, (2) diffractaic acid (in one specimen). ECOLOGY: Uncommon on branches of shrubs in hot, dry, sheltered localities from sealevel to about 1500 m.



Usnea chloreoides

Usnea exasperata (Müll. Arg.) Motyka, in Zahlbruckner & Hauman, Nat. Hist. Danish Lich. 5(no. 2): 24 (1936)
= *Usnea dasypogoides* var. *exasperata* Müll. Arg. 1890

[VZ1241], Republica Guinea (Africa occident.). Regio Macenta, montes Ziama, prope montem Sérédou, 800 m. Arboricola. Leg. S. Lisowski, 29.4.1962, det. J. Motyka. EX A. VĚZDEA LICHENES SELECTI EXSICCATI NR. 1241.

Thallus pendulous to 1 m long. Main branches greenish grey to stramineous, terete to strongly ridged longitudinally, with up to about five ridges, and occasionally alate; segments from less than one to about five per cm. Fibrils sparse to numerous, but usually not giving a fish-bone appearance to the main branches. Tubercles generally absent; if present, rather sparse. Pseudocyphellae frequent, punctate, linear, or of irregular shape, plane or at the apex of papillae and ridges, occasionally soresediate. Axis white to pale pink, usually not fistulose. Isidia absent from cortex of main branches or occasional. Apothecia common, on side branches. CHEMISTRY: (1) Fumarprotocetraric acid, $\pm$ protocetraric acid and related substances, $\pm$ diffractaic and/or barbatic acid (common), (2) psoromic acid, $\pm$ consporomic acid, $\pm$ diffractaic and/or barbatic acid, (3) diffractaic acid, $\pm$ barbatic acid, (4) salazinic acid, $\pm$ diffractaic acid, (5) echinocarpic acid, (6) alectorialic acid. ECOLOGY: Abundant on branches and twigs of trees and shrubs in montane forest, mist-affected woodland, and at the wayside at 1000 to 3000 m. DISTRIBUTION: Ethiopia, Kenya, Tanzania, Uganda. Rwanda, Zaire, South Africa. NOTE: In this highly variable species the main branches may vary from smoothly terete to strongly alate, and they may be slightly swollen as in *U. articulata*. But in the latter species the medulla in the swellings is usually sparser and the hyphae are more clearly radial in arrangement. The frequency of segmentation of the main branches, at c. 1-5 per cm, is usually lower than in the other pendulous species.



Usnea exasperata

Usnea flavescens Motyka, Lich. Gen. Usnea, Stud. Monogr. (Leopoli) 1: 112, 125 (1936)
= *Usnea articulata* (L.) Hoffm., Dtsch. Fl. 2: 133 (1796).
= *Lichen articulatus* L., Sp. Pl: 1156 (1753).

[VZ1448], Tanzania. Kilimanjaro: prope casam alpinam Barranco dictam, 3900 m, Ad ramulos *Philippiae*. Leg. T. Pócs (no. 6934), 3.7.1976. EX A. VĚZDA LICHENES SELECTI EXSICCATI NR. 1448.

Thallus pendulous, several decimetres long, usually concolorous at base but occasionally black. Branches dark greenish grey to pale stramineous, often pink to reddish brown at high altitudes, flaccid, terete, with swollen segments. Cortex thin. Fibrils numerous, but often absent from swollen segments. Pseudocyphellae usually present, generally punctiform, sometimes broadly orbicular, less often linear or of irregular shape, raised or plane. Papillae sometimes present on swollen segments. Foveolae occasional. Perforations frequent in swollen segments. Spinules occasional. Medulla mainly in a thin layer below cortex, connected to axis by radial hyphae, somewhat denser in small branches. Axis narrow, white to pale pink. Isidia abundant to absent, when present generally on pseudocyphellae, sometimes on cortex also, pale or dark tipped. Soralia absent, but soredia sometimes produced by large pseudocyphellae. Apothecia frequent. CHEMISTRY: (1) Fumarprotocetraric acid, $\pm$ protocetraric acid, sometimes accompanied by accessory substances in small amounts (diffractaic acid, barbatic acid, salazinic acid, or fatty acids), (2) salazinic acid, $\pm$ norstictic and/or galbinic acid, $\pm$ fatty acids, $\pm$ barbatic acid (+), (3) psoromic acid, $\pm$ barbatic or diffractaic acid, (4) stictic acid aggregate, with a fatty acid, (5) no diagnostic substances, at most traces of diffractaic and/or barbatic acids. ECOLOGY: Common on branches and trunks of trees, especially in open montane woodland and forest glades, on branches in the ericaceous zone, and on rocks and twigs in alpine moorland, at 1000 to 4000 m, but mainly at 2000 to 3200 m alt. DISTRIBUTION: Throughout the tropics and extending into cool temperate regions



Usnea flavescens

Usnea flavescens Motyka, Lich. Gen. Usnea, Stud. Monogr. (Leopoli) 1: 112, 125 (1936)
= *Usnea articulata* (L.) Hoffm., Dtsch. Fl. 2: 133 (1796).
= *Lichen articulatus* L., Sp. PI: 1156 (1753).

[VZ1472], Tanzania (Africa orientalis), Prov. Arusha: in monte ignivomo Ngorongoro dicto, 2000-2500 m. In ramulis arborum. Leg. R. Schütz, 1.1959, det. J. Motyka. EX A. VěZDA LICHENES SELECTI EXSICCATI NR. 1472.

Thallus pendulous, several decimetres long, usually concolorous at base but occasionally black. Branches dark greenish grey to pale stramineous, often pink to reddish brown at high altitudes, flaccid, terete, with swollen segments. Cortex thin. Fibrils numerous, but often absent from swollen segments. Pseudocyphellae usually present, generally punctiform, sometimes broadly orbicular, less often linear or of irregular shape, raised or plane. Papillae sometimes present on swollen segments. Foveolae occasional. Perforations frequent in swollen segments. Spinules occasional. Medulla mainly in a thin layer below cortex, connected to axis by radial hyphae, somewhat denser in small branches. Axis narrow, white to pale pink. Isidia abundant to absent, when present generally on pseudocyphellae, sometimes on cortex also, pale or dark tipped. Soralia absent, but soredia sometimes produced by large pseudocyphellae. Apothecia frequent. CHEMISTRY: (1) Fumarprotocetraric acid, $\pm$ protocetraric acid, sometimes accompanied by accessory substances in small amounts (diffractaic acid, barbatic acid, salazinic acid, or fatty acids), (2) salazinic acid, $\pm$ norstictic and/or galbinic acid, $\pm$ fatty acids, $\pm$ barbatic acid (+), (3) psoromic acid, $\pm$ barbatic or diffractaic acid, (4) stictic acid aggregate, with a fatty acid, (5) no diagnostic substances, at most traces of diffractaic and/or barbatic acids. ECOLOGY: Common on branches and trunks of trees, especially in open montane woodland and forest glades, on branches in the ericaceous zone, and on rocks and twigs in alpine moorland, at 1000 to 4000 m, but mainly at 2000 to 3200 malt. DISTRIBUTION: Throughout the tropics and extending into cool temperate regions



Usnea flavescens

Usnea gigas Motyka, Lich. Gen. Usnea, Stud. Monogr. (Leopoli) 2: 388, 400 (1937)

[VZ1772], Zaire. Prov. Haut-Zaire, Yangambi. Ad ramos arborum. Leg. J. Louis (no. 6007), 10.8.1937, det P. Dovigneaud, 1042. EX A. V&ZDA EX LICHENES SELECTI EXSICCATI NR. 1772.

Thallus pendulous to 2 m long, often rather stiff. Main branches greenish grey, terete to strongly ridged longitudinally, with up to about 8 ridges, segments about 5-15 per cm. Fibrils generally numerous and regular, giving 'fish-bone' appearance to branches. Conical tubercles often abundant, more or less regularly disposed along ridges: Pseudocyphellae uncommon except at apices of tubercles, rarely sorediate. Axis ochraceous orange to dusky red or reddish brown, usually fissured, sometimes with a more hyaline periphery giving a tubular appearance. Isidia frequent on cortex of main branches. Apothecia commonly produced on fibrils as well as on side branches. CHEMISTRY: (1) Salazinic acid, (2) protocetraric acid, $\pm$ related substances, $\pm$ diffractaic or barbatic acid, (3) constictic acid, $\pm$ diffractaic acid, (4) diffractaic acid, $\pm$ barbatic acid. ECOLOGY: Widespread and locally common on trunks and large branches of trees in open woodland and by wayside at 1000 to 2000 m alt. DISTRIBUTION: Zaire, Madagascar. NOTE: Plants included in this species range from those with a thick", unbranched thallus more than a metre long bearing short fibrils to those with a shorter thallus, longer fibrils, and 'fish-bone' appearance.



Usnea gigas

Usnea gigas Motyka, Lich. Gen. Usnea, Stud. Monogr. (Leopoli) 2: 388, 400 (1937)

[VZ1895], Zaire. Eala, inhorto. In ramulis arborum (*Funtumia* sp.). Leg. Léonard (no. 805), 8.10.1946, det E. Sérusiaux. Ex A. Vězda Lichenes Selecti Exsiccati Nr. 1895.

Thallus pendulous to 2 m long, often rather stiff. Main branches greenish grey, terete to strongly ridged longitudinally, with up to about 8 ridges, segments about 5-15 per cm. Fibrils generally numerous and regular, giving 'fish-bone' appearance to branches. Conical tubercles often abundant, more or less regularly disposed along ridges: Pseudocyphellae uncommon except at apices of tubercles, rarely sorediate. Axis ochraceous orange to dusky red or reddish brown, usually fissured, sometimes with a more hyaline periphery giving a tubular appearance. Isidia frequent on cortex of main branches. Apothecia commonly produced on fibrils as well as on side branches. CHEMISTRY: (1) Salazinic acid, (2) protocetraric acid, $\pm$ related substances, $\pm$ diffractaic or barbatic acid, (3) constictic acid, $\pm$ diffractaic acid, (4) diffractaic acid, $\pm$ barbatic acid. ECOLOGY: Widespread and locally common on trunks and large branches of trees in open woodland and by wayside at 1000 to 2000 m alt. DISTRIBUTION: Zaire, Madagascar. NOTE: Plants included in this species range from those with a thick", unbranched thallus more than a metre long bearing short fibrils to those with a shorter thallus, longer fibrils, and 'fish-bone' appearance.



Usnea gigas

Usnea os-elephantis Motyka, Annls Univ. Mariae Curie-Skłodowska, Sect. C, Biol. 11: 130 (1959) [1956]
= *Usnea exasperata* (Mull. Arg.) Mot., Lich. Gen. Usnea Stud. Monogr., Pars Syst. 2:440 (1937).

[VZ1449], Tanzania. Kilimanjaro: Marangu, 2000-2700 m. Leg. R. Schütz, 1.1959, det. J. Motyka. EX A. VěZDA LICHENES SELECTI EXSICCATI NR. 1449.

Thallus pendulous to 1 m long. Main branches greenish grey to stramineous, terete to strongly ridged longitudinally, with uptoablmt five ridges, and occasionally alate; segments from less than one to about five per cm. Fibrils sparse to numerous, but usually not giving a fish-bone appearance to the main branches. Tubercles generally absent; if present, rather sparse. Pseudocyphellae frequent, punctate, linear, or of irregular shape, plane or at the apex of papillae and ridges, occasionally soresidate. Axis white to pale pink, usually not fistulose. Isidia absent from cortex of main branches or occasional. Apothecia common, on side branches. CHEMISTRY: (1) Fumarprotocetraric acid, $\pm$ protocetraric acid and related substances, $\pm$ diffractaic and/or barbatic acid (common), (2) psoromic acid, $\pm$ conpsoromic acid, $\pm$ diffractaic and/or barbatic acid, (3) diffractaic acid, $\pm$ barbatic acid, (4) salazinic acid, $\pm$ diffractaic acid, (5) echinocarpic acid, (6) alectorialic acid. ECOLOGY: Abundant on branches and twigs of trees and shrubs in montane forest, mist-affected woodland, and at the wayside at 1000 to 3000 m. DISTRIBUTION: Rwanda, Zaire, South Africa.



Usnea os-elephantis

Usnea pseudoceratina Motyka, Folia geobot. phytotax. 10(3): 326 (1975)
= *Usnea exasperata* (Mull. Arg.) Mot., Lich. Gen. Usnea Stud. Monogr.,
Pars Syst. 2:440 (1937).

[VZ1321], Tanzania. Prov. Mbeya. Montes Poroto, in margine septentr.-occid. planitiae Kitulo dictae, 2630-2680 m. Ad arbores in regione alpina. Leg. T. Pócs (no. 6750), 10.0.1972. EX A. VĚZDA LICHENES SELECTI EXSICCATI NR. 1321.

Thallus pendulous to 1 m long. Main branches greenish grey to stramineous, terete to strongly ridged longitudinally, with up to about five ridges, and occasionally alate; segments from less than one to about five per cm. Fibrils sparse to numerous, but usually not giving a fish-bone appearance to the main branches. Tubercles generally absent; if present, rather sparse. Pseudocyphellae frequent, punctate, linear, or of irregular shape, plane or at the apex of papillae and ridges, occasionally soresediate. Axis white to pale pink, usually not fistulose. Isidia absent from cortex of main branches or occasional. Apothecia common, on side branches. CHEMISTRY: (1) Fumarprotocetraric acid, $\pm$ protocetraric acid and related substances, $\pm$ diffractaic and/or barbatic acid (common), (2) psoromic acid, $\pm$ conpsoromic acid, $\pm$ diffractaic and/or barbatic acid, (3) diffractaic acid, $\pm$ barbatic acid, (4) salazinic acid, $\pm$ diffractaic acid, (5) echinocarpic acid, (6) alectorialic acid. ECOLOGY: Abundant on branches and twigs of trees and shrubs in montane forest, mist-affected woodland, and at the wayside at 1000 to 3000 m. DISTRIBUTION: Rwanda, Zaire, South Africa. NOTE: In this highly variable species the main branches may vary from smoothly terete to strongly alate, and they may be slightly swollen as in *U. articulata*. But in the latter species the medulla in the swellings is usually sparser and the hyphae are more clearly radial in arrangement. The frequency of segmentation of the main branches, at c. 1-5 per cm, is usually lower than in the other pendulous species.



6cm

Usnea pseudoceratina

Usnea regnellii Motyka, Lich. Gen. Usnea, Stud. Monogr. (Leopoli) 2: 354, 374 (1937)

[VZ1239], Cuba. Oriente, Sierra Maestra, Pico Suecia, 1200-1650 m. In ramulis arborum. Leg. V. Samek, 4.1966, det. J. Motyka. EX A. VěZDA LICHENES SELECTI EXSICCATI NR. 1239.

Thallus pendulus, in typo ca. 40 cm longus, sat mollis in herbario olivaceo fuscescente viridis, fuscidulo maculatus, opacus basi brevi, fere indistincta, fere statim supra basin sat dense subdichotome aut fere dsichotomr, iterum sat rare ramosus, axillis fere rectis. Rami arcuato patentes, usque ad 1.8 mm crassi, parte soprabasali leviter tenuiores, supra sensissime incrassati, usque ad apices crassuli, laterales apotheciiferi vulgo valde erassi, stricti aut tantum leviter curvati, crebre annuliformiter fracti, annulis semper contiguis, valgo ca. 2-5 mm longis, exacte cylindricis, apice irregulariter ruptis, nec constrictis neque marginalis, laeves, opaci, epapilloosi, interdum tamen, etsi rare, foveolatim impressi et etiam rugulosuli. Cilia lateralialia crebra, vulgo ca. 1—2 cm longa, rarius longiora, patentia, leviter flexuosa, basi infundibuliformiter incrassata, ad apices sensim attenuata, acutiuscula, laevia, teretia, saepius annulatim fracta. Summitates indistinctae. Apothecia haud rara, apice ramorum lateralium, sat brevium sed firmorum sita, plana, usque ad 1 cm lata. Excipulum laeve aut paulo lacanosulum, opacum, glabrum, thallo concolor. Cilia marginalia valde, ca. 2 cm longa, radiantia, ciliis thallinis similia, flexuosa, saepius ransversim fracta. Discus fere planus, marginatus, caesio glaucus, crebre caesio albo suffusus. Epithecium fusco fuligineum. Hymenium ca. 60 μ m altum. Sporae ca. x 12 μ m, memorabile pulchre evolutae, in ascis sat angustis, valde numerosis. Cortex ea 70 μ m crassus, rufo fuscidulus, mollis. Medulla ca. 220 μ m crassa, sublaxa, leviter rosea, I- , K lutescens, mox rufo rubescens. Axis ea 480 μ m in diametro, albidus aut fusco nigratus, teres, solidus (EX Motyka: Usnea Monogr, 1947, p. 374).



Usnea regnellii

Usnea speciosa Motyka, Lich. Gen. Usnea, Stud. Monogr. (Leopoli) 1: 112, 124 (1936)

[VZ1144], Respublica Guinea (Africa occidentalis). Distr. Macenta, montes Zياما, prope stationem 5, 1250 m. in ramulis et ad truncos arborum. Leg. S. Lisowski, 35.3.1962, det A. Vězda. EX A. Vězda LUCHENES SELECTI EXSICCATI NR. 1144.

Thallus ca. 30 cm longus, pendulus, increbre ramosus, fere eramulosus, longe articulatus, distincte pseudocyphellatus, sat rigidus in herbario pallide cinereo fuscidulus, opaco nitidiusculus, opaco irregulariter nigro maculatus (semper ?). Basis thalli brevis, attenuata. Rami primarii sat numerosi, parce iterum subdichotome ramosi, parte suprabasali ca. 2.5 mm crassi, maxima sua parte crassuli et ad apices sensim attenuati, distincte articulati, articulis comparate valde — usque ad 7 cm — longis, vulgo notabile falciformiter curvatis aut fere semilunariibus, vulgo contiguis, medio inflatis, ad suas apices longe sensim attenuatis et $\pm$ constrictis, rarius apice abrupte fractis, leviter (in herbario?) compressuli et passim foveolati, epapillo-si, pseudocyphellis oblongis, vulgo oblique appositis, rarius punctiformibus aut deformibus, nec immersis nec distincte elatis, distincte ecorticatis, acute limitatis, albidis sat rare sed regulariter sparsi. Ramuli laterales fere nulli. Summitates indistinctae. Apothecium tantum unum visum iuvenile et non evolutum, parvum, subterminale, excipulo laevi, thallo concolore, ciliis marginalibus paucis. Cortex tenuis, crassitudine inaequali, ca. 40—80 μ m crassus, sat durus et elasticus, Medulla ca. 1000 μ m crassa, laxissima et tantum sub cortice magis crebra, hyphis radiantibus, K—. Axis ca. 340 μ m in diametro. (Ex Motyka 1936, p. 124).



Usnea speciosa

Usnea squarrosa Vain., Philipp. J. Sci., C, Bot. 4(5): 654 (1909)

[VZ2075], Indonesia. Java orient., regio montis Ciremai c. Cirebon, 1250 m. Ad ramos arboris. Leg. M. Kainama, 1975, det. H. Sipman. EX A. VĚZDA LICHENES SELECTI EXSICCATI NR. 2075.

Thallus pendulus, demum elongatus, sat llexilis aut leviter fragilis, stramineus aut glaucescenti-stramineus, teres. sympodialiter et increbre dichotome ramosus, ramis priniariis 1-0.4 mm crassis. partim laevigatus, partim plus minusve increbre verruculosus, verruculis parvis et saepe parum prominentibus, circ. 0.00 mm latis, stramineis. in ramis priniariis. Cortice vulgo anniilato-dilífacto, soled i is destititius. ramis adventitiis circ. 22 mm longis. circ. 0.2 -0.15 mm crassis. squarrosis abundanter instructiis. Stratum myelohyphicum ex hyphis crebre contextis formatum, sat tenue, K⁺ lutescens. dein rubescens, jodo non reagens. Axis chondroideus sat crassus (pachynus), solidus aut interdum demum poro tenui medullam laxam continente instructus, jodo caeruleacea. Apothecia lateralia aut subterminalia, circ. 3-4 mm lata, disco livido-caesio aut carneo-pallido, vulgo bene pruinoso, margine spinulis uumerosis aut paucis aut nullis ornato, excipulo subíus laevigato. Sporae 8-nae, ellipsoideae aut subgloboso-ellipsoideae, simplices, decolores, long. 0.008-0.009 x 0.005-0.008 mm. Ilabitu similis est *U. trichodeae* Ach., cujus thallus jodo non reagens et stratum myelohyphicum K haud distincte reagens secumdem specimen orig.o Nova Scotia in herb. Ach. - Mindanao. (Ex Vainio 1909: Lichens Insularum Philippinarum).



Usnea squarrosa

Usnea torquescens Stirt., Trans. Proc. N.Z. Inst. 30: 391 (1898)
[1897]

= *Usnea angulata* Ach., Syn. meth. lich. (Lund): 307 (1814)

[VZ2197], Australia. Tasmania. Three Thumbs, 6 km ad meridiem ab Oxford, 350 m. Ad ramos *Noteaeae ligustrinae* in silva humida. Leg. G. Kantvilas (73/87), 4.7.1987. EX A. VěZDA LICHENES SELECTI EX-SICCATI NR. 2197.

Thallus pendulous, to 100 cm long, grey-green, moss-green or pale green; branching subdichotomous; trunk pale; branches 5-sided, 0.5–1.0 mm wide, ridged, alate, with surfaces cracked into uneven plates; secondary branches subparallel, elongate; apices tapered; branchlets sometimes arising from secondary branches, to 2 cm long; fibrils dense on all branches, perpendicular, pectinate, to 10 mm long; papillae absent. Isidia usually absent; pseudocyphellae absent or present on fibrils; soralia absent. Cortex thin, uneven, matt. Medulla thin, dense; axis 3/4 width of branch, hyaline. Apothecia uncommon, lateral or terminal on lateral branches, 2–5 mm diam.; disc concave; margin with few fibrils; lower surface smooth. Ascospores 6–8 (–9) × 5 µm. CHEMISTRY: Cortex containing usnic acid. Medulla K⁺ yellow → orange or red; containing norstictic acid (major), salazinic acid (minor), consalazinic acid (trace) and connorstictic acid (trace). Occurs in moist, open forest and in rainforest canopies in subtropical to temperate Australia, also in Norfolk Is., New Zealand, North, Central and South America and Japan.

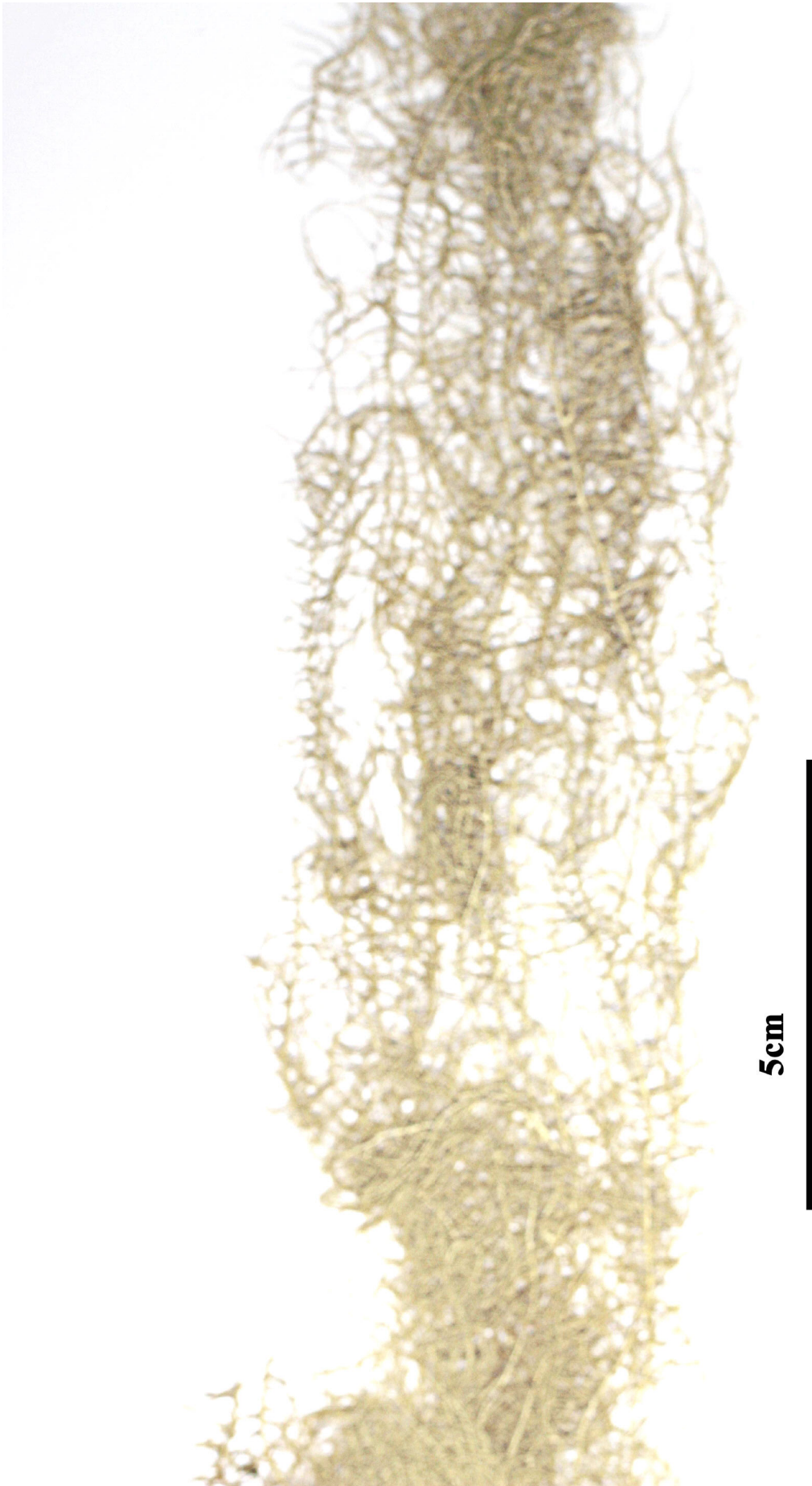


Usnea torquescens

Usnea trichodeoides Vain., Ann. Acad. Sci. Fenn., Ser. A 6(no. 7): 8 (1915)

[VZ1896], Zaire. Reservatum naturae Upemba, Kukana, 1810 m. Ad arbores. Leg. de Witte (no. 2510), 13.4.1947, det. E. Sérusiaux. EX A. VĚZDA LICHENES SELECTI EXSICCATI NR. 1896.

Thallus pendulous to 1 m. Main branches greenish grey to stramineous, slender, generally terete but often here and there broadened and flattened. to ribbon-like, sometimes with low longitudinal ridges; segments c. 15-25 per cm. Cortex erose. Fibrils and spinules numerous on main branches. Axis white to pink. Isidia abundant on cortex. Apothecia frequent. CHEMISTRY: (1) Norstictic and/or salazinic acid, (2) protocetraric acid and/or constictic acid, (3) barbatic acid. Minor accessory substances common. ECOLOGY: After *U. articulata* this is the next commonest pendulous species, on trees at 1000 to 3000 m. DISTRIBUTION: . South and west Africa. NOTE: This species is readily recognised by its main branches with erose cortex and relatively thick axis.



Usnea trichodeoides

Usnea trichodeoides Vain., Ann. Acad. Sci. Fenn., Ser. A 6(no. 7): 8 (1915)

[VZ1197], Tanzania. Montes Nguru ya Ndege, prope urbem Morogoro, 815-850 m. In ramulis arborum. Leg. T. Pócs (no,6706/N) et Bjørnstad, 4.6.1972., det. A. Vězda. EX A. VĚZDA LICHENES SELECTI EXSICCATI NR. 1197.

Thallus pendulous to 1 m. Main branches greenish grey to stramineous, slender, generally terete but often here and there broadened and flattened. to ribbon-like, sometimes with low longitudinal ridges; segments c. 15-25 per cm. Cortex erose. Fibrils and spinules numerous on main branches. Axis white to pink. Isidia abundant on cortex. Apothecia frequent. CHEMISTRY: (1) Norstictic and/or salazinic acid, (2) protocetraric acid and/or constictic acid, (3) barbatic acid. Minor accessory substances common. ECOLOGY: After *U. articulata* this is the next commonest pendulous species, on trees at 1000 to 3000 m. DISTRIBUTION: . South and west Africa. NOTE: This species is readily recognised by its main branches with erose cortex and relatively thick axis.



Usnea trichodeoides

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