

F. Schumm (2026):

Images of Lichens

***Ramalina ex Herbario F. Schumm
det from H. Sipman***

With this volume I document a collection of my Ramalinae which are determined by H. Sipman. I omitted the search for description from the literature.

For the descriptions of european species I recommend 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

Images of *Ramalina* det Sipman

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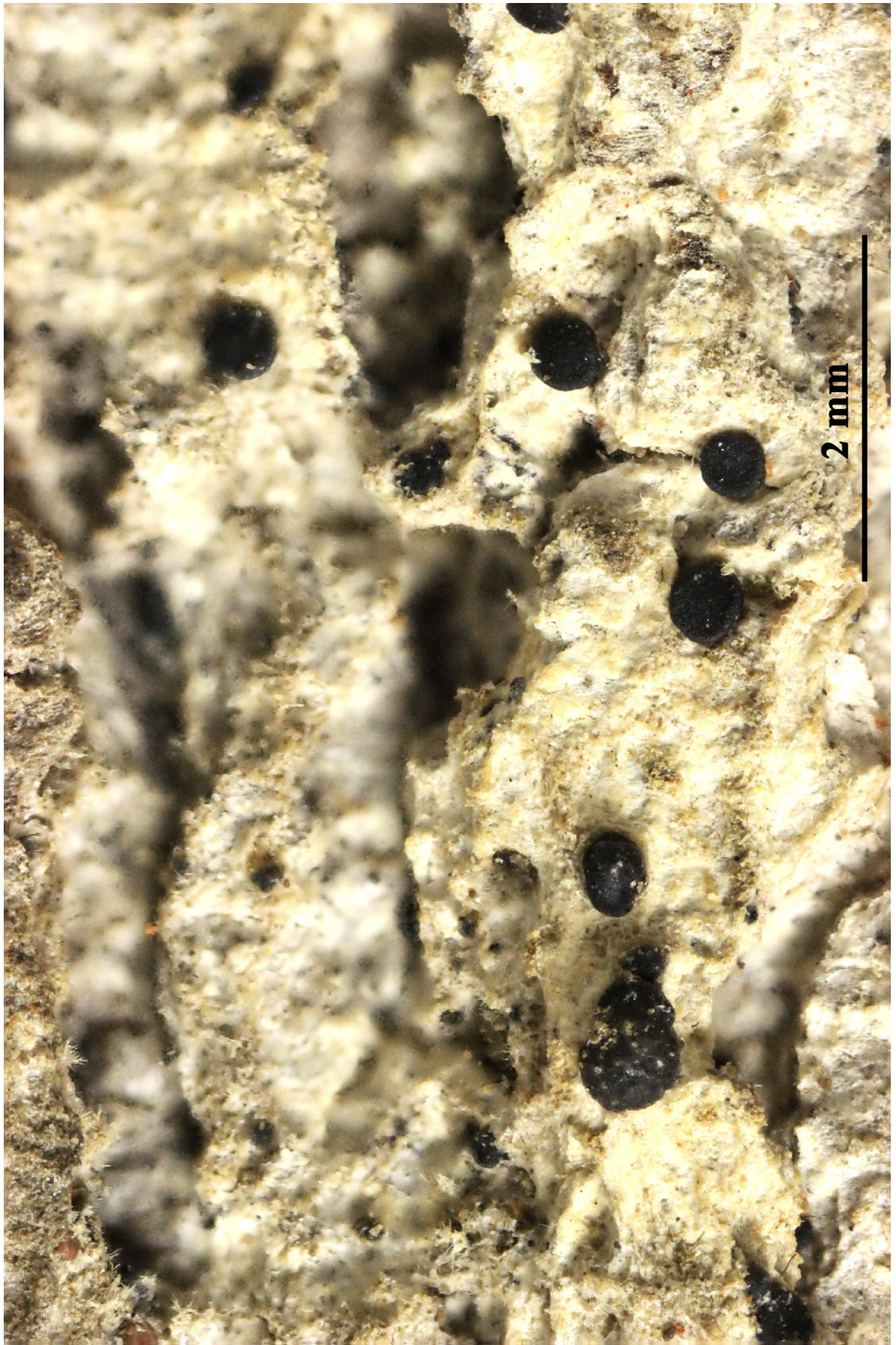
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Bacidia laurocerasi (Delise ex Duby) Zahlbr., Cat. Lich. Univers. 4: 213
(1926) [1927]
= *Patellaria laurocerasi* Delise ex Duby 1830

[14251], Portugal, Azoren, Terceira, Mirodauro do Raminho, 38°46.820' N, 27°21.422' W, ca. 164 m. Leg. F. Schumm 18.07.2008, det. H. Sipman, 1.2026 (Spores 47 x 2.5 µm, acicular, 8-loc., colourless; Hymenium 60 µm, clear, colourless; Hypothecium brown; Epithecium darkbrown, K+purple). EX HERBARIO F. SCHUMM NR. 14251.

Thallus crustose, episubstratic, continuous to rimose-areolate, grey to grey-green, sometimes delimited by a dark prothallus. Apothecia lecidine, (0.5-)0.5-0.8(-1.2) mm across, with a flat to finally convex, usually epruinose, dark purple-brown to black, often mottled disc, and a concolorous or slightly paler, smooth, persistent or rarely excluded proper margin. Proper exciple 45-120 µm wide, without crystals or rarely with radiating clusters of crystals, brown or red-brown in upper and outer parts, pale yellow to colourless within, the pigmented parts K+ purplish; epithecium brown to black-brown, K+ purplish N+ orange-red, the pigment dissolved in the gelatinous matrix or as granules between apices of paraphyses; hymenium colourless or with brown vertical streaks, 75-115 µm high; paraphyses 0.8-1.6 µm thick at mid-level, the apical cells slightly swollen to clavate, (1.2-)2-3(-4) µm wide; hypothecium colourless or pale yellow. Asci 8-spored, clavate to cylindrical-clavate, the apical dome K/I+ dark blue with a pale, conical-pointed apical cushion (axial mass), the wall K/I-, but the thin outer gel K/I+ blue, *Bacidia*-type. Ascospores (2-)6-16-septate, hyaline, needle-like, straight to slightly curved, (32-)36-75(-86) x (2.5-)3-4(-4.3) µm. Pycnidia partly or entirely immersed, dark in uppermost part. Conidia simple, thread-like, curved, (5-)10-15(-17) x c. 1 µm. Photobiont chlorococcoid. Spot tests: thallus K- or rarely K+ yellowish, C-, KC-, P-. Chemistry: thallus without lichen substances or with traces of atranorin; epithecium, rim of proper exciple, and pycnidial wall with the *Laurocerasi*-brown pigment; hypothecium and inner part of proper exciple with the *Rubella*-orange pigment. - Note: a humid subtropical to Mediterranean-Atlantic lichen found on smooth bark of broad-leaved trees in open humid forests.



Bacidia laurocerasi



Bacidia laurocerasi

Bacidia laurocerasi (Delise ex Duby) Zahlbr., Cat. Lich. Univers. 4: 213
(1926) [1927]
= *Patellaria laurocerasi* Delise ex Duby 1830

[11503], PORTUGAL, MADEIRA: Südlich von Porto da Cruz bei Portela, im Lorbeerwald am Anfang der Levada zwischen Portela und Laceimeiros; 32°45' N, 16°50' W, 630 m. Leg. F. Schumm, 28.12.2003, det. F. Schumm 01'..2004 (Sporen nadelfg. 42,5-51,2 x 2,7-4 µm, ca 15 zellig; Apoth. 0.28-0.34 mm; Pigmente von Epith und Excip.rand K+ violett; Hypoth. hell, 33 µ; Epi braun, 5 µ, Paraph.enden geschwollen; Hym. 76 µm.

Thallus crustose, episubstratic, continuous to rimose-areolate, grey to grey-green, sometimes delimited by a dark prothallus. Apothecia lecidine, (0.5-)0.5-0.8(-1.2) mm across, with a flat to finally convex, usually epruinose, dark purple-brown to black, often mottled disc, and a concolorous or slightly paler, smooth, persistent or rarely excluded proper margin. Proper exciple 45-120 µm wide, without crystals or rarely with radiating clusters of crystals, brown or red-brown in upper and outer parts, pale yellow to colourless within, the pigmented parts K+ purplish; epithecium brown to black-brown, K+ purplish N+ orange-red, the pigment dissolved in the gelatinous matrix or as granules between apices of paraphyses; hymenium colourless or with brown vertical streaks, 75-115 µm high; paraphyses 0.8-1.6 µm thick at mid-level, the apical cells slightly swollen to clavate, (1.2-)2-3(-4) µm wide; hypothecium colourless or pale yellow. Asci 8-spored, clavate to cylindrical-clavate, the apical dome K/I+ dark blue with a pale, conical-pointed apical cushion (axial mass), the wall K/I-, but the thin outer gel K/I+ blue, *Bacidia*-type. Ascospores (2-)6-16-septate, hyaline, needle-like, straight to slightly curved, (32-)36-75(-86) x (2.5-)3-4(-4.3) µm. Pycnidia partly or entirely immersed, dark in uppermost part. Conidia simple, thread-like, curved, (5-)10-15(-17) x c. 1 µm. Photobiont chlorococcoid. Spot tests: thallus K- or rarely K+ yellowish, C-, KC-, P-. Chemistry: thallus without lichen substances or with traces of atranorin; epithecium, rim of proper exciple, and pycnidial wall with the *Laurocerasi*-brown pigment; hypothecium and inner part of proper exciple with the *Rubella*-orange pigment. - Note: a humid subtropical to Mediterranean-Atlantic lichen found on smooth bark of broad-leaved trees in open humid forests.



Bacidia laurocerasi



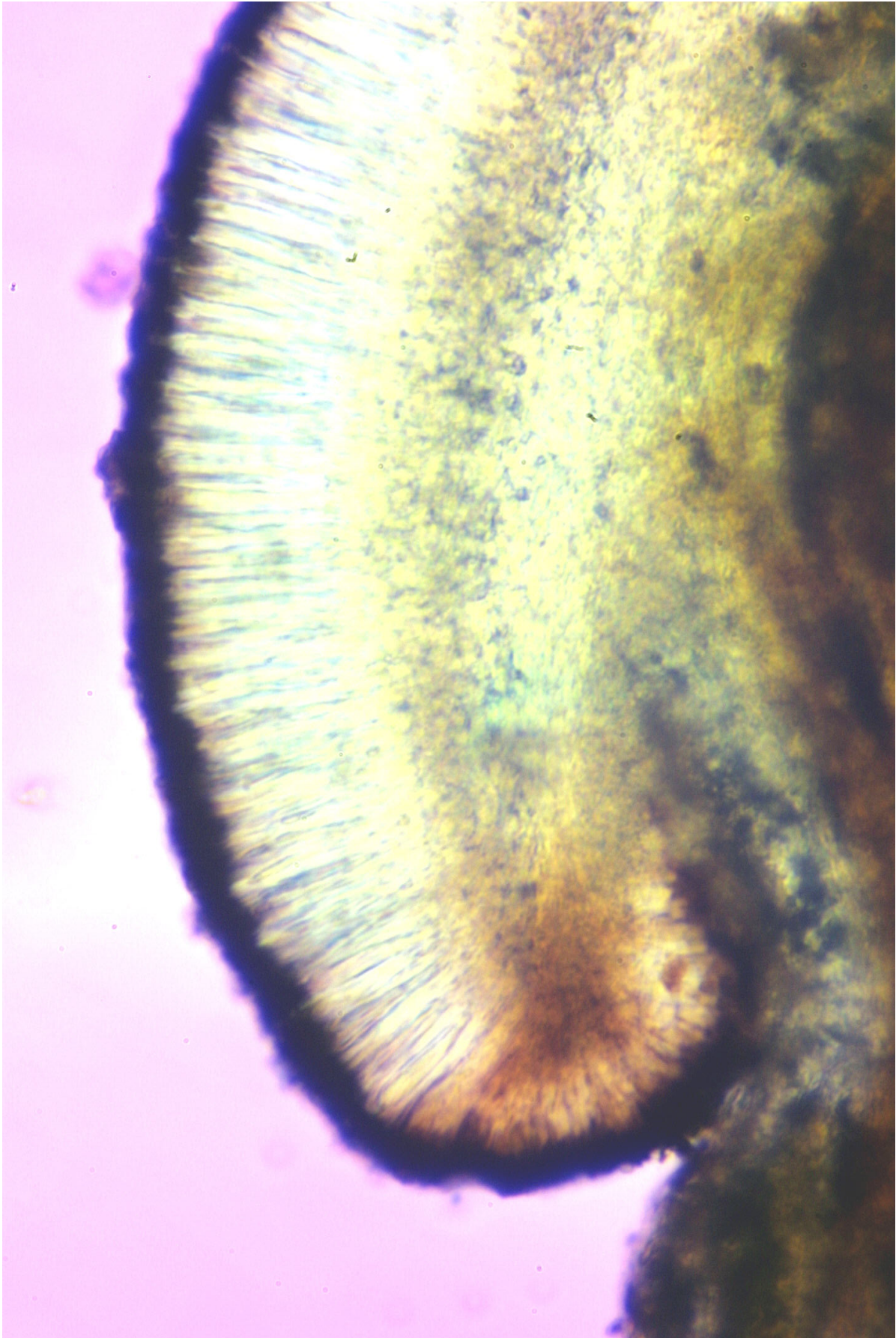
Bacidia laurocerasi



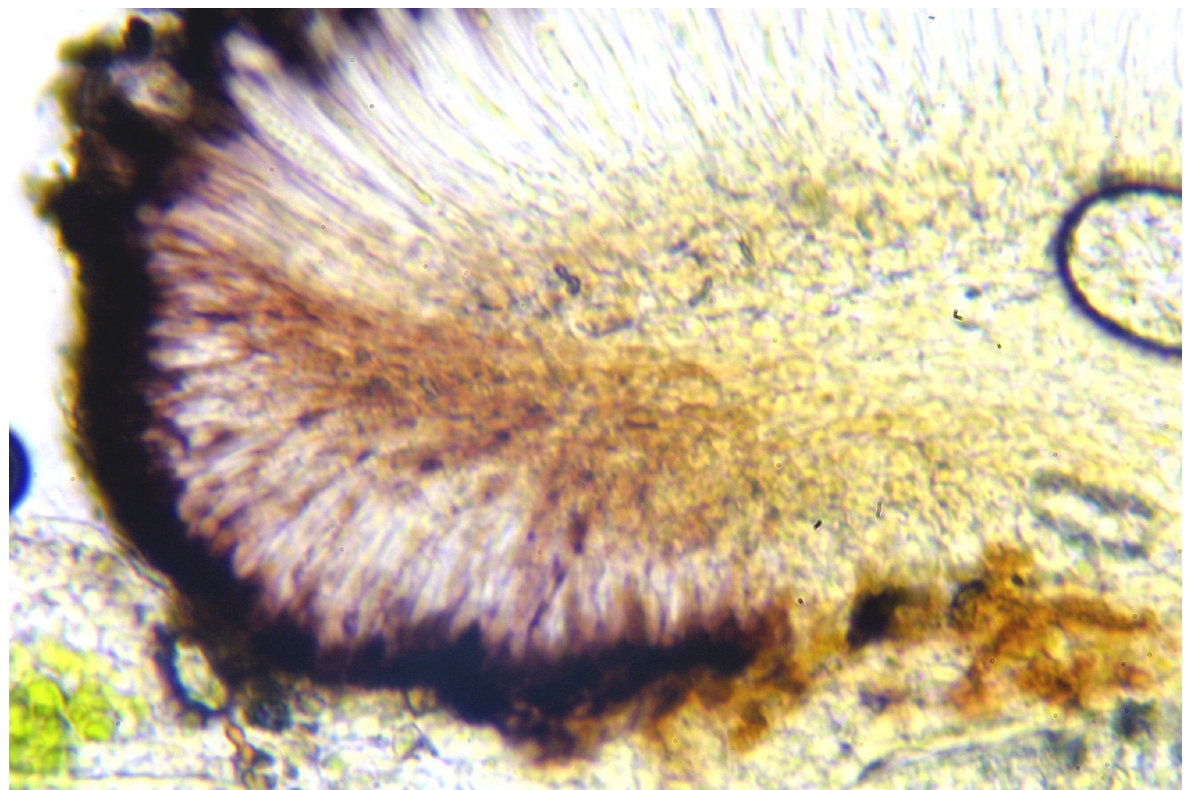
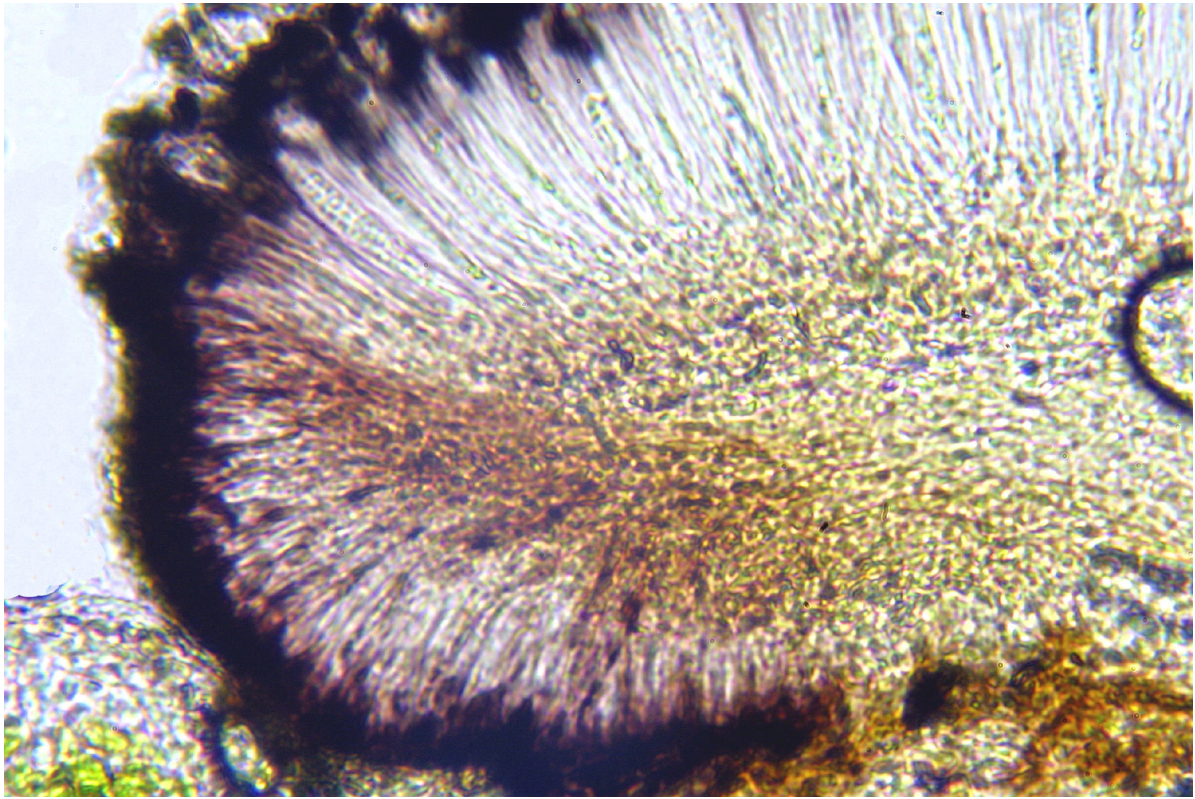
Bacidia laurocerasi



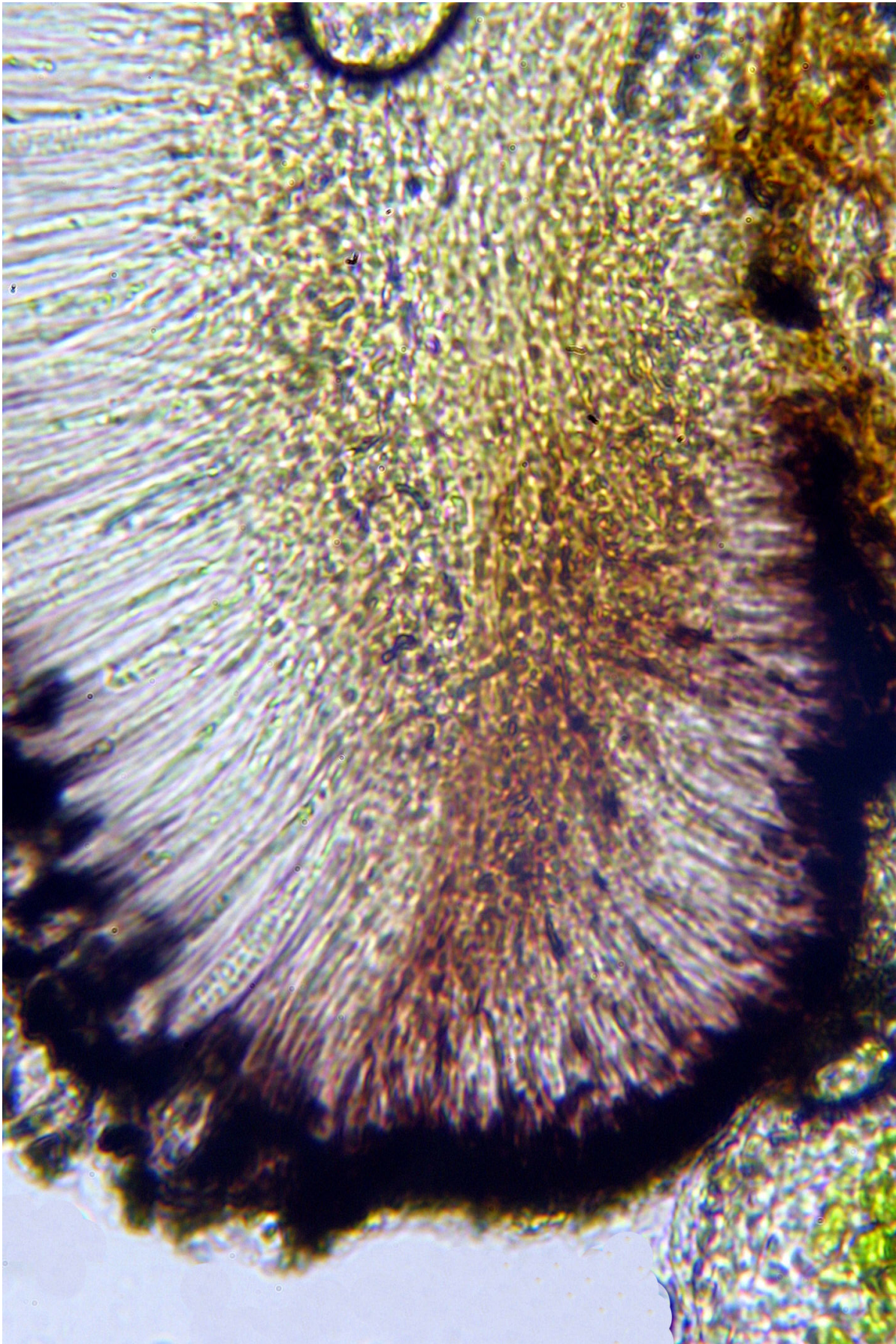
Bacidia laurocerasi



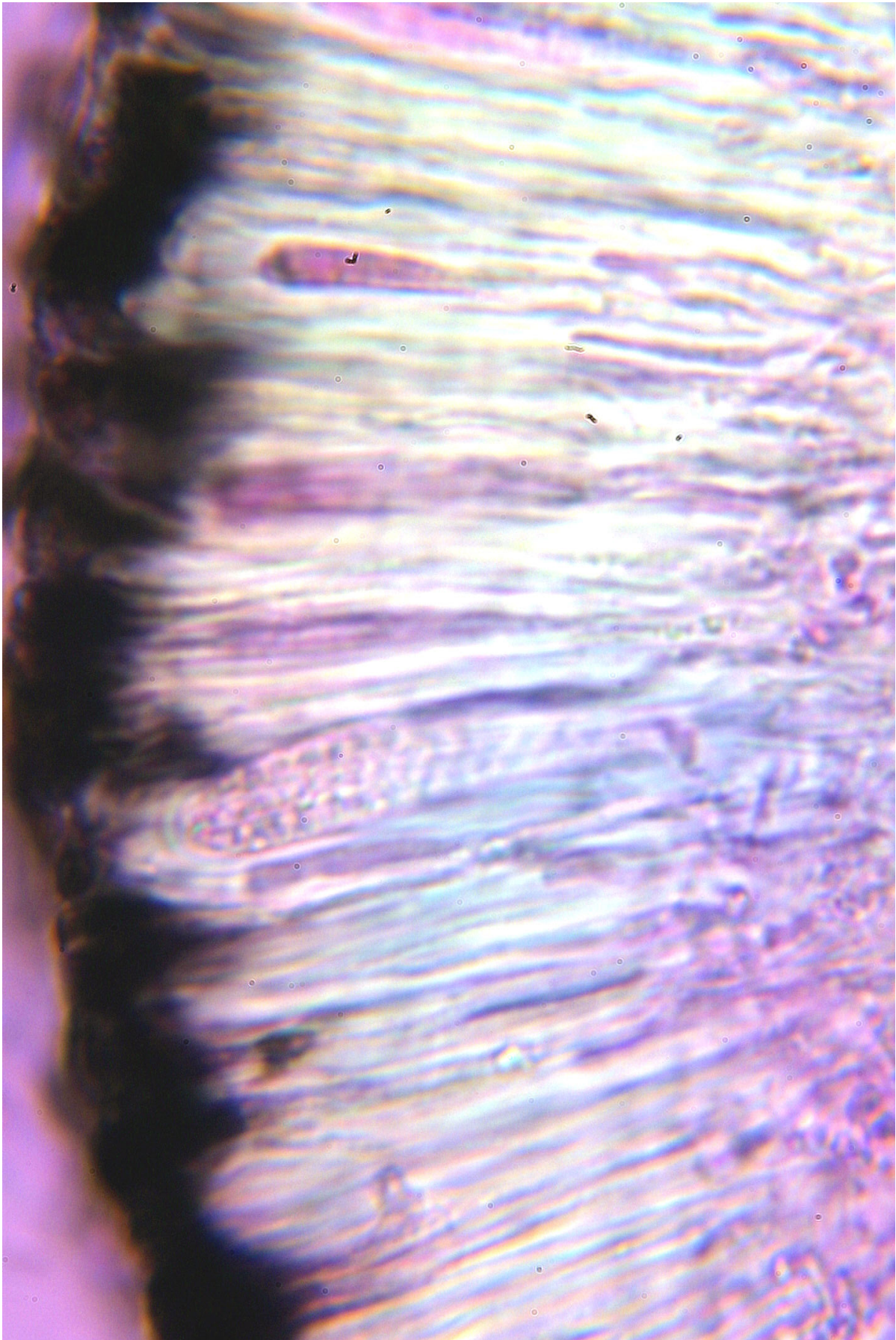
Bacidia laurocerasi



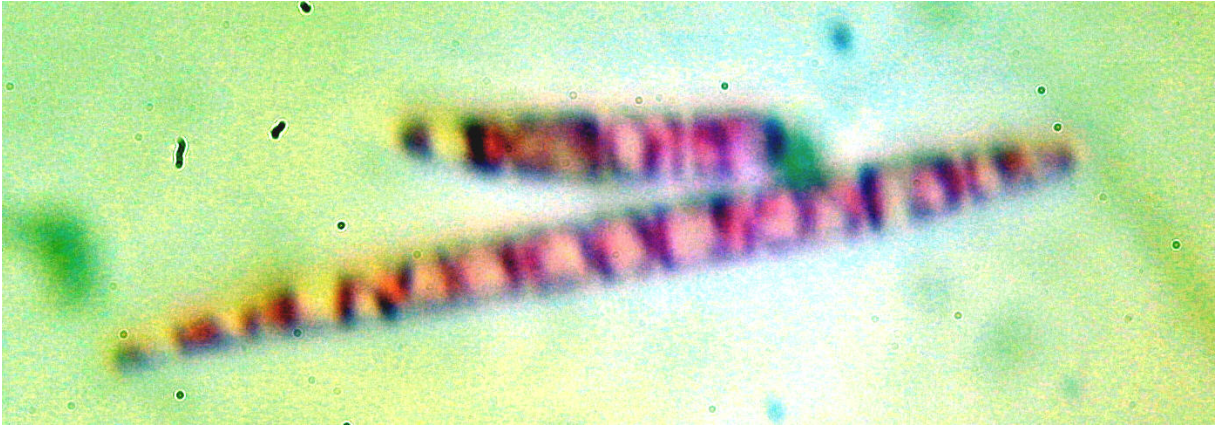
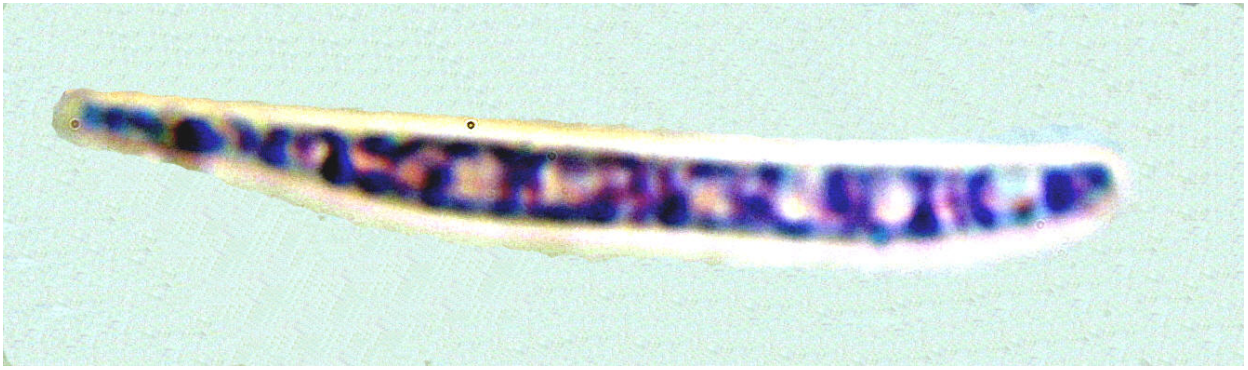
Bacidia laurocerasi



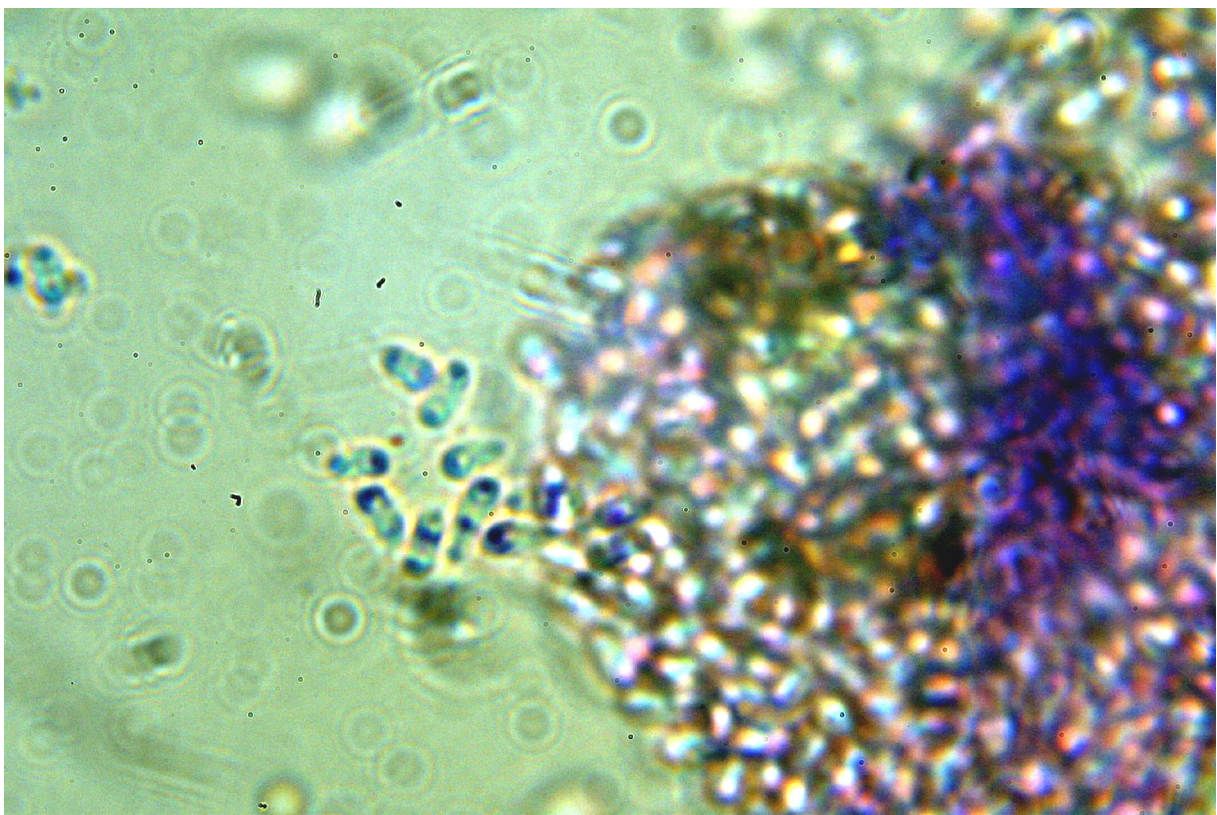
Bacidia laurocerasi



Bacidia laurocerasi



Bacidia laurocerasi



Bacidia laurocerasi

Ramalina cf. anceps Nyl., Syn. meth. lich. (Parisiis) 1(2): 290 (1860)

[17863], Dominikanische Republik, Prov. Puerto Plata, zwischen Puerto Plata und Santiago, bei den Bersteingruben nahe La Toca, an Weidepfosten, 19.54335° N, 70.61430° W, 839 m. Leg. F. Schumm & J.-P. Frahm 23.02.2012, det. H. Sipman, 1.2026 (Usnic acid, divaricatic acid). EX HERBARIO F. SCHUMM NR. 17863.



Ramalina cf. anceps



Ramalina cf. *anceps*

Ramalina celastri (Spreng.) A. Massal., Mem. Imp. Reale Ist. Veneto 10:
36 (1861)
= *Parmelia celastri* Spreng. 1827

[15767], Australien (West). Zwischen Manjimup und Mt. Baker. Lake
Muir; 34,44142° S, 116,64809° E, 186 m. Leg. F. Schumm & E.
Stocker, 23.10.2009, det. H. Sipman, 1.2026 (5)



Ramalina celastri



Ramalina celastri

Ramalina celastri (Spreng.) A. Massal., Mem. Imp. Reale Ist. Veneto 10:
36 (1861)
= *Parmelia celastri* Spreng. 1827

[16150], SE-Australien: Burrewarra Area bei Tomakin, Guerilla Bay,
Banksia walk. 35,83056° S, 150,22897° E, 36 m. Leg. F. Schumm & E.
Stocker, 10.11.2009, det. H. Sipman. 1.2026 (Terpenoid traces). EX
HERBARIO F. SCHUMM NR. 16150.



Ramalina celastri



Ramalina celastri

Ramalina celastri (Spreng.) A. Massal., Mem. Imp. Reale Ist. Veneto 10:
36 (1861)
= *Parmelia celastri* Spreng. 1827

[17724], Dominikanische Republik, Prov. La Vega, zwischen Jarabacoa und Constanza, an der Straße, 19.07917° N, 70.60319° W, 1052 m. Leg. F. Schumm & J.-P. Frahm 25.02.2012, det. H. Sipman, 1.2026 (usnic acid). EX HERBARIO F. SCHUMM NR. 17724.



Ramalina celastri



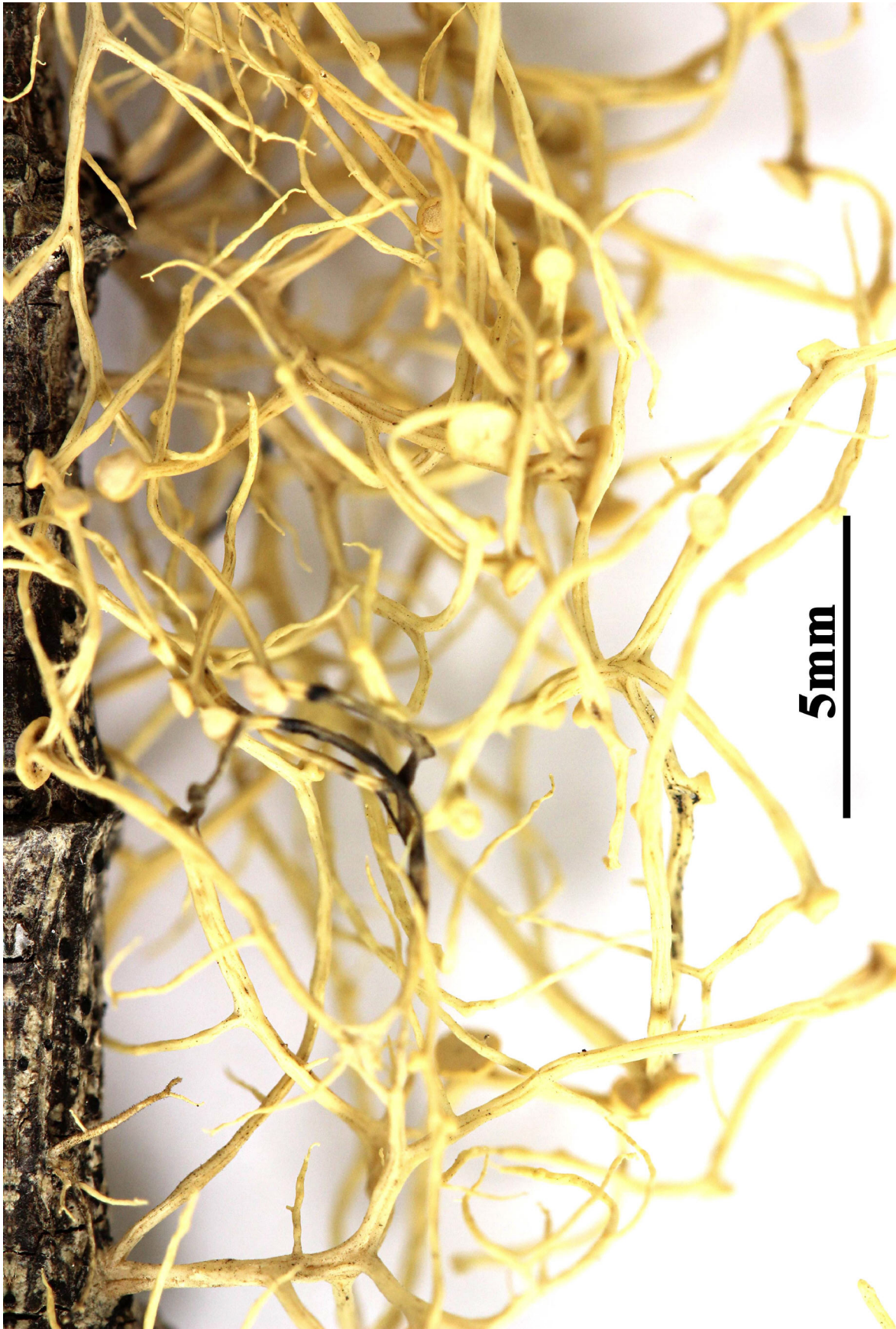
Ramalina celastri

Ramalina exiguella Stirt., Trans. & Proc. Roy. Soc. Victoria 17: 68 (1881)

[16873] USA, Hawaii, Oahu, südlich von Hanuula, entlang der des Rundweges Hanuula Loop (Maakua Gulch), 21,60070° N, 157,92466° W, 204 m. Leg. F. Schumm & J.-P. Frahm 11.02.2011, det H. Sipman (Sores 16 x 7 µm, 8/ ascus, hymenium 60 µm, TLC: usnic acid). EX HERBARIO F. SCHUMM NR. 16873.



Ramalina exiguella



Ramalina exiguella

Ramalina exiguella Stirt., Trans. & Proc. Roy. Soc. Victoria 17: 68 (1881)

[16149], SE-Australien: Burrewarra Area bei Tomakin, Guerilla Bay, Banksia walk. 35,83056° S, 150,22897° E, 36 m. Leg. F. Schumm & E. Stocker, 10.11.2009, det. H. Sipman, 1.2026 (usnic acid). EX HERBARIUM F. SCHUMM NR.16149.



Ramalina exiguella



Ramalina exiguella

Ramalina glaucescens Kremp., Verh. Kaiserl.-Königl. zool.-bot. Ges. Wien
30: 333 (1881) [1880]

[15761], Australien (West). Zwischen Manjimup und Mt. Baker. Lake Muir; 34,44142° S, 116,64809° E, 186 m. Leg. F. Schumm & E. Stocker 23.10.2009, det. H. Sipman, 1.2026 (TLC: Usnic acid.). EX HERBARIO F. SCHUMM NR. 15761.



Ramalina glaucescens



Ramalina glaucescens

Ramalina glaucescens Kremp., Verh. Kaiserl.-Königl. zool.-bot. Ges. Wien
30: 333 (1881) [1880]

[15889], Australien (West). Donnelly Well südlich von Yornup along SW Hwy. Wetland Assoc. with *Eucalyptus rudis* and *Melaleuca preissiana*. 34,07346° S, 116,17999° E, 260 m. Leg. F. Schumm & E. Stocker 25.10.2009, det H. Sipman, 1.2026 (usnic acid, sekikaic acid agg.). EX HERBARIO F. SCHUMM NR. 15889.



Ramalina glaucescens



Ramalina glaucescens

Ramalina glaucescens Kremp., Verh. Kaiserl.-Königl. zool.-bot. Ges. Wien
30: 333 (1881) [1880]

[15742], Australien (West). Zwischen Manjimup und Mt. Baker. Lake Muir; 34,44142° S, 116,64809° E, 186 m. Leg. F. Schumm & E. Stocker, 23.10.2009, det. H. Sipman (usnic acid). EX HERBARIO F. SCHUMM NR. 15742.



Ramalina glaucescens



Ramalina glaucescens

Ramalina glaucescens Kremp., Verh. Kaiserl.-Königl. zool.-bot. Ges. Wien
30: 333 (1881) [1880]

[15773], Australien (West). Zwischen Manjimup und Mt. Baker. Lake Muir; 34,44142° S, 116,64809° E, 186 m. Legt. F. Schumm & E. Stocker, 23.10.2009, det H. Sipman, 1.2026 (usnic acid). EX HERBARIO F. SCHUMM NR. 15773.



Ramalina glaucescens



Ramalina glaucescens

Ramalina glaucescens Kremp., Verh. Kaiserl.-Königl. zool.-bot. Ges. Wien
30: 333 (1881) [1880]

[15879], Australien (West). Donelly Well südlich von Yornup along SW Hwy. Wetland Assoc. with *Eucalyptus rudis* and *Melaleuca preissiana*. 34,07346° S, 116,17999° E, 260 m. Leg. F. Schumm & E. Stocker, 25.10.2009., det. H. Sipman, 1.2026 (usnic acid, sekikaic acid agg.; Spores 13 x 3.5 µm, 1-septate, Hymenium 45 µm)



Ramalina glaucescens



Ramalina glaucescens

Ramalina glaucescens Kremp., Verh. Kaiserl.-Königl. zool.-bot. Ges. Wien
30: 333 (1881) [1880]

[162359, SE-Australien (New South Wales): zwischen Bermagui und Tathra. Weg Aragunnu Beach zu den Mimosa Rocks. 36,58529° S, 150,05618° E, 10 m. Leg. F. Schumm & E. Stocker, 12.11.2009, det. H. Sipman, 1.2026 (usnic acid). EX HERBARIO F. SCHUMM NR.16235.



Ramalina glaucescens



Ramalina glaucescens

Ramalina glaucescens Kremp., Verh. Kaiserl.-Königl. zool.-bot. Ges. Wien
30: 333 (1881) [1880]

[15992], Australien (SE). Canberra, Hackett, Mt. Majura Nature Park,
Casuarina trail, 35,24560° S, 149,17621° E, 790 m. Leg. F. Schumm &
E. Stocker, 03.11.2009, det. H. Sipman, 1.2026, (Usnic acid). Ex
Herbario F. Schumm Nr. 15992.



Ramalina glaucescens

Ramalina glaucescens Kremp., Verh. Kaiserl.-Königl. zool.-bot. Ges. Wien
30: 333 (1881) [1880]

[16104], SE-Australien: Nördlich von Batemans Bay, Cullendulla Creek Nature Reserve (Mangroven), 35,70092° S, 150,19882° E, 3 m. Leg. F. Schumm & E. Stocker 10.11.2009, det. H. Sipman, 1.2026 ((Terpenoid traces). Ex Herbario F. Schumm Nr.16104.



Ramalina glaucescens



Ramalina glaucescens

Ramalina glaucescens Kremp., Verh. Kaiserl.-Königl. zool.-bot. Ges. Wien
30: 333 (1881) [1880]

[16243], SE-Australien (New South Wales): zwischen Bermagui und Tathra. Weg Aragunnu Beach zu den Mimosa Rocks. 36,58529° S, 150,05618° E, 10 m. Leg. F. Schumm & E. Stocker 12.11.2009, det. H. Sipman, 1.2026 (Terpenoid traces). EX HERBARIO F. SCHUMM NR.16243.



Ramalina glaucescens



Ramalina glaucescens

Ramalina glaucescens Kremp., Verh. Kaiserl.-Königl. zool.-bot. Ges. Wien
30: 333 (1881) [1880]

[15769], Australien (West). Zwischen Manjimup und Mt. Baker. Lake Muir; 34,44142° S, 116,64809° E, 186 m. Leg. F. Schumm & E. Stocker, 23.10.2009, det. H. Sipman, 1.2.2026 (TLC: usnic acid.). Ex Herbario F. Schumm Nr. 15769.



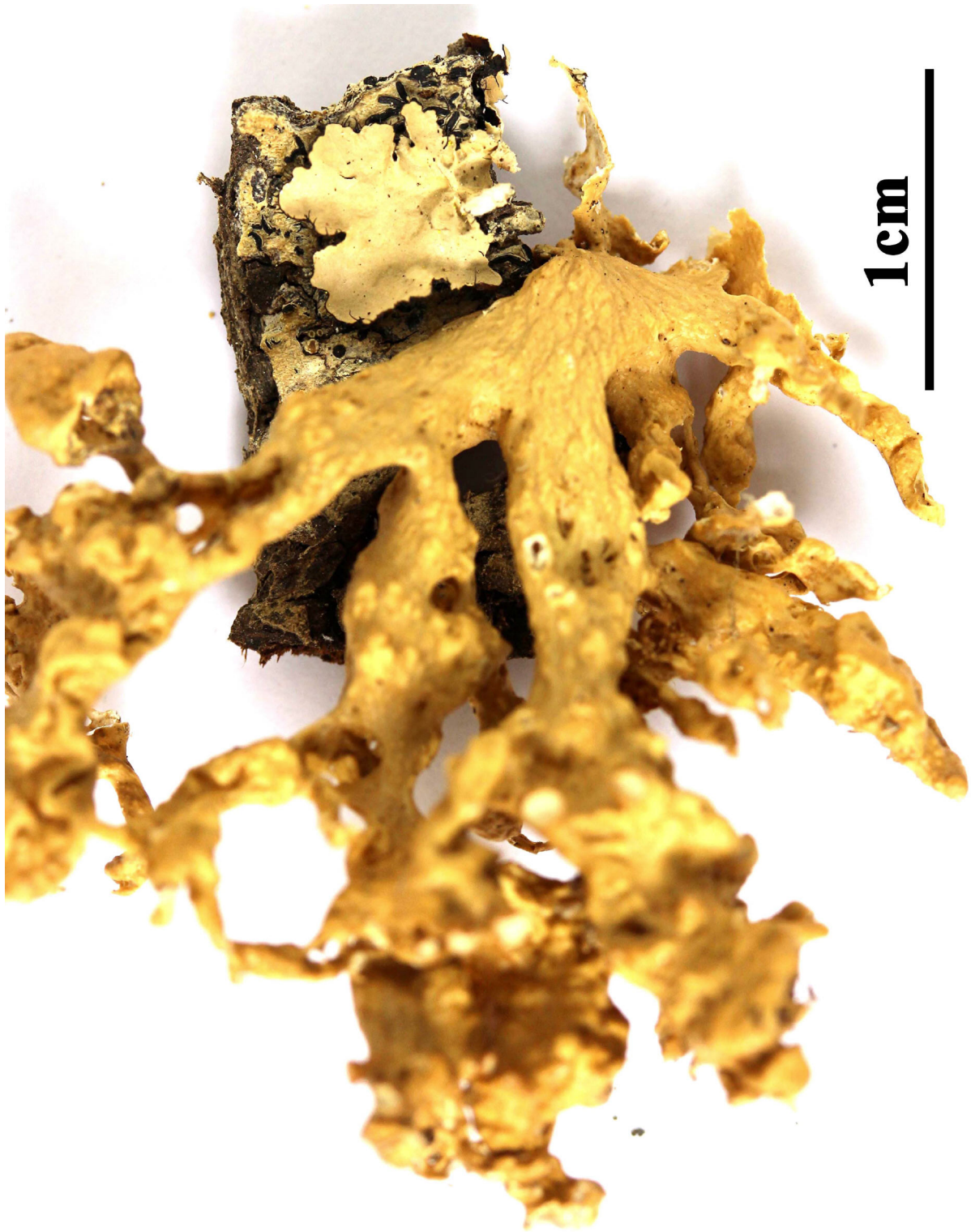
Ramalina glaucescens



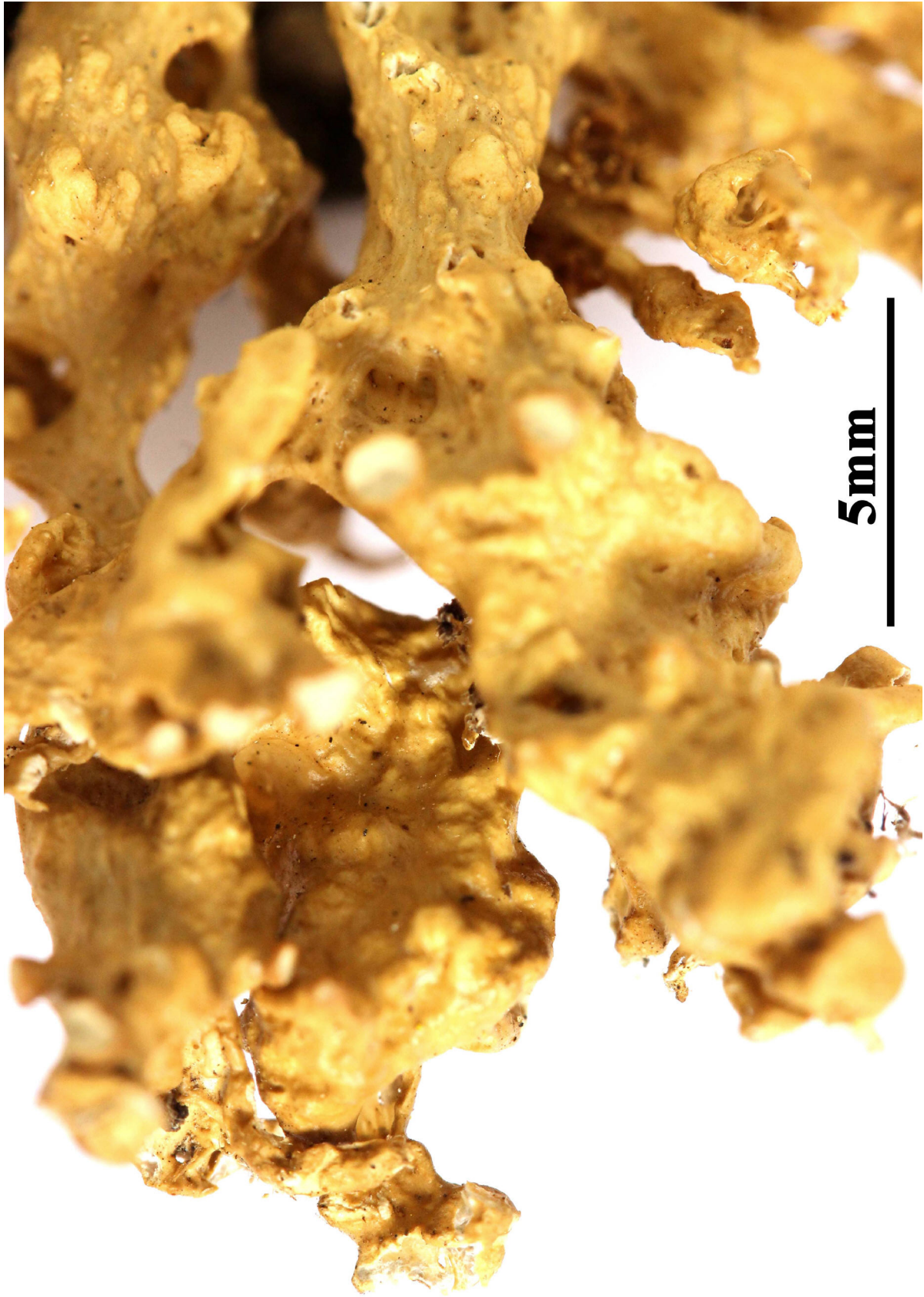
Ramalina glaucescens

Ramalina inflata (Hook. f. & Taylor) Hook. f. & Taylor, in Hooker, Bot.
Antarct. Voy. Erebus Terror 1839-1843 1: 194 (1845)
= *Cetraria inflata* Hook. f. & Taylor 1844

[16147], SE-Australien: Burrewarra Area bei Tomakin, Guerilla Bay,
Banksia walk. 35,83056° S, 150,22897° E, 36 m. Leg. F. Schumm & E.
Stocker, 10.11.2009, det. H. Sipman, 1.2.2026 (TLC by Sipman: usnic
acid, divaricatic acid, terpenoids). EX HERBARIO F. SCHUMM NR. 16147.



Ramalina inflata



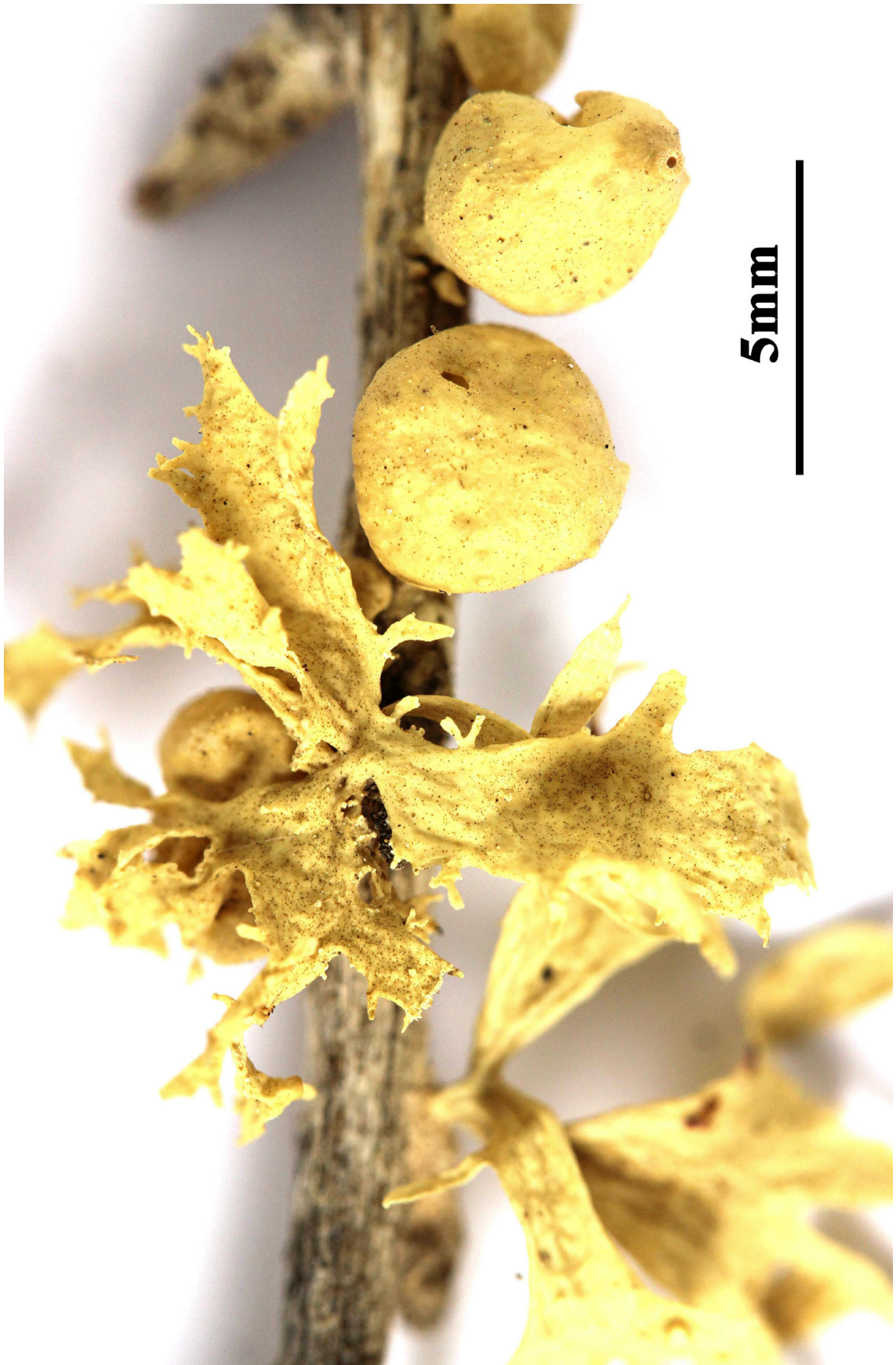
Ramalina inflata

Ramalina inflata* subsp. *australis G.N. Stevens, Bull. Br. Mus. nat. Hist.,
Bot. 16(2): 191 (1987)
= *Ramalina inflata* (Hook. f. & Taylor) Hook. f. & Taylor, in Hooker, Bot.
Antarct. Voy. Erebus Terror 1839-1843 1: 194 (1845)

[15739], Australien (West). Zwischen Manjimup und Mt. Baker. Lake
Muir; 34,44142° S, 116,64809° E, 186 m. Leg. F. Schumm & E.
Stocker 23.10.2009, det. H. Sipman1.2026, (TLC by Sipman: usnic
acid, sekikaic acid). EX HERBARIO F. SCHUMM NR. 15739.



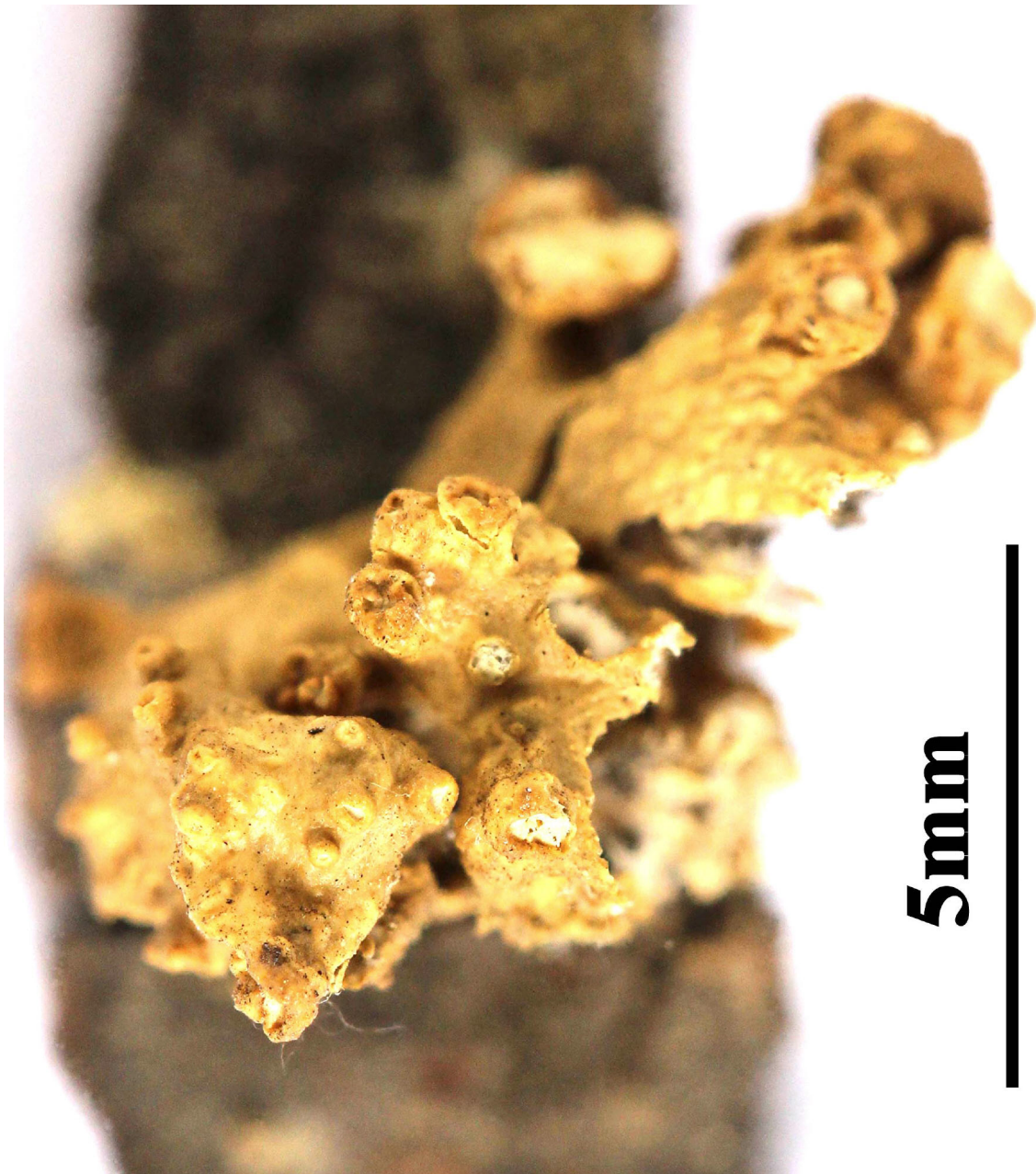
Ramalina inflata subsp. *australis*



Ramalina inflata subsp. *australis*

Ramalina inflata (Hook. f. & Taylor) Hook. f. & Taylor, in Hooker, Bot.
Antarct. Voy. Erebus Terror 1839-1843 1: 194 (1845)
= *Cetraria inflata* Hook. f. & Taylor 1844

[15673], Australien (West). Zwischen Narrogin und Williams, Mallee
am Straßenrand; 32,98172°S, 117,06689° E, 336 m. Leg. F. Schumm
& E. Stocker, 22.10.2009, det. H. Sipman (usnic acid, divaricatic acid,
Spores 20 x 5 µm, 16 x 4 µm, 1-septate). Ex Herbario F. Schumm Nr.
15673.



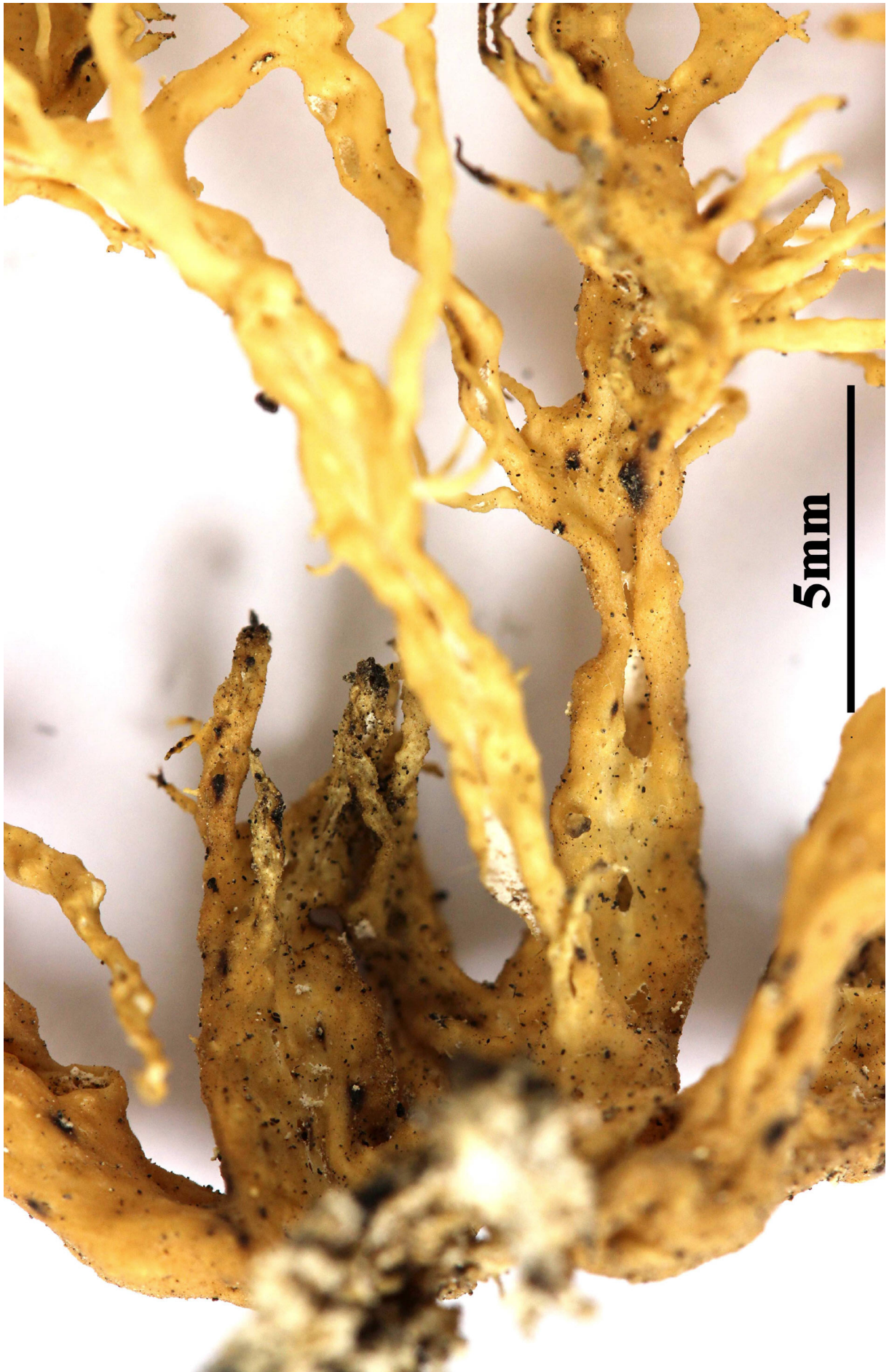
Ramalina inflata

Ramalina inflata (Hook. f. & Taylor) Hook. f. & Taylor, in Hooker, Bot.
Antarct. Voy. Erebus Terror 1839-1843 1: 194 (1845)
= *Cetraria inflata* Hook. f. & Taylor 1844

[17766], Dominikanische Republik, Prov. La Vega, SE von Constanza
am Weg nach Valle Nuevo, 18.85323° N, 70.70049° W, 1650 m. Leg,
F. Schumm & J.-P. Frahm 2.03.02.2012, det. H. Sipman, 1.2026 (Usnic
acid, divaricatic acid). EX HERBARIO F. SCHUMM NR. 17766.



Ramalina inflata



Ramalina inflata

Ramalina inflata (Hook. f. & Taylor) Hook. f. & Taylor, in Hooker, Bot.
Antarct. Voy. Erebus Terror 1839-1843 1: 194 (1845)
= *Cetraria inflata* Hook. f. & Taylor 1844

[16128], SE-Australien: Nördlich von Batemans Bay, Cullendulla
Creek Nature Reserve (Mangroven), 35,70092° S, 150,19882° E, 3 m.
Leg. F. Schumm & E. Stocker, 10.11.2009, det. H. Sipman, 1.2.2026,
(usnic acid, divaricatic acid, terpenoids). Ex Herbario F. Schumm Nr.
16128.



Ramalina inflata

Ramalina krogiae Guissard & Sérus., in Spjut, Simon, Guissard, Magain & Sérusiaux, MycoKeys 73: 36 (2020)

[14127], Portugal, Azoren, Terceira, beim Hotel Terceira Mar, 38°39.347' N, 27°13.924' W, ca. 8 m. Leg. A.Aptroot & F. Schumm, 14.07.2008, det. H. Sipman, 1.2026 (usnic acid, divaricati acid, terpenoids), EX HERBARIO F. SCHUMM NR.14127.



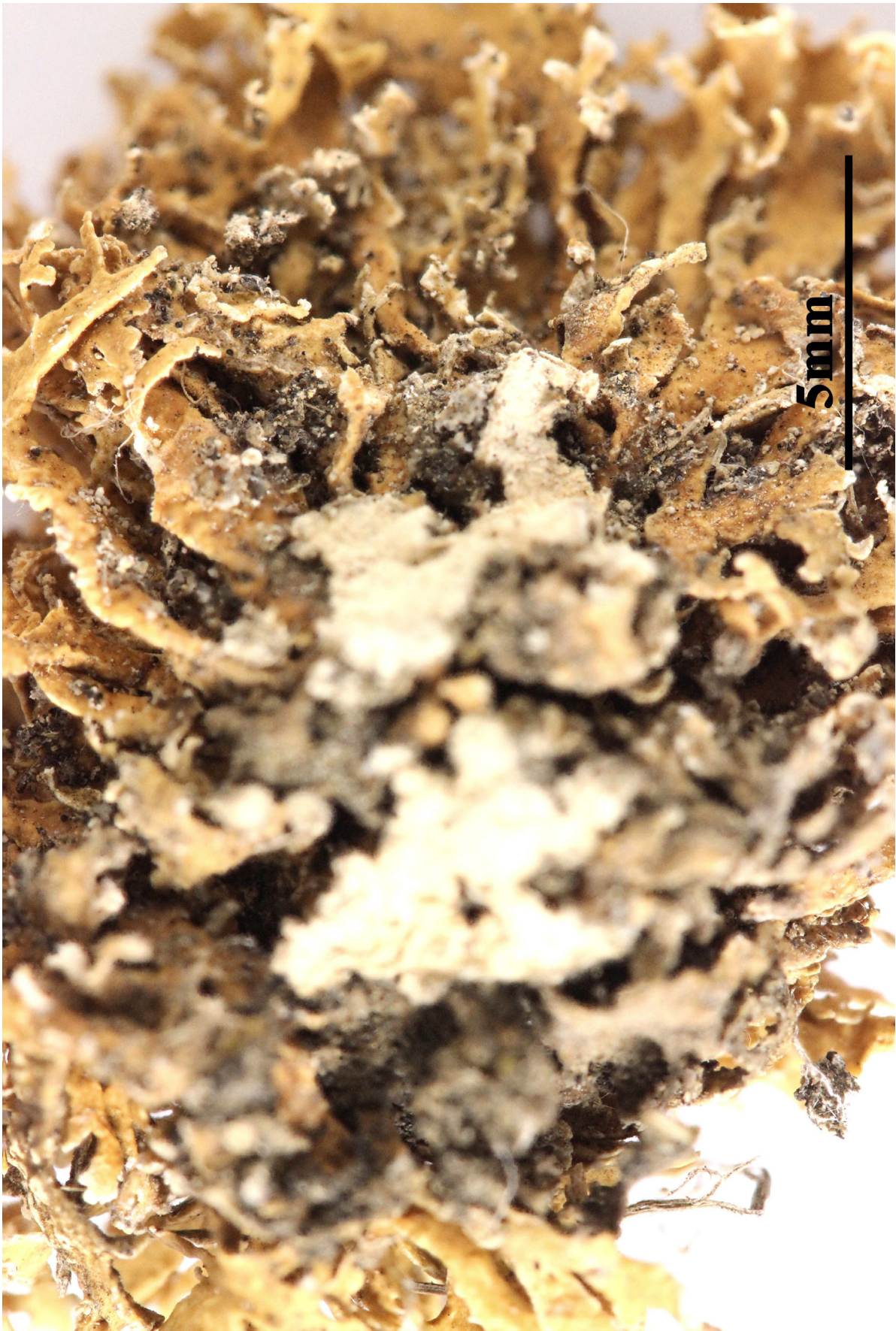
Ramalina krogiae



Ramalina krogiae

Ramalina krogiae Guissard & Sérus., in Spjut, Simon, Guissard, Magain & Sérusiaux, MycoKeys 73: 36 (2020)

[17467], Portugal, Azoren, Sao Miguel, Calhetas, Küste, 37.82090° N, 25.60475° W, 24 m, an Mauern. Leg. F. Schumm & J.-P. Frahm 23.09.2011, det H. Sipman, 1.2026 (usnic acid,divaricatic acid). EX HERBARIO F. SCHUMM NR. 17467.



Ramalina krogiae



Ramalina krogiae

Ramalina leiodea (Nyl.) Müll. Arg., Flora, Regensburg 66(2): 21 (1883)
= *Ramalina subfraxinea subsp. leiodea* Nyl. 1870

[16885], Hawaii, Oahu, südlich von Hanuula, entlang des Rundweges Hanuula Loop (Maakua Gulch), 21,60070° N, 157,92466° W, 204 m. Leg. F.Schumm & J.-P. Frahm 11.02.2011, det H. Sipman, 1.2026, (TLC: boninic acid, usnic acid, fertil ohne Sorale). Ex Herbario F. Schumm Nr. 16885.



Ramalina leiodea



Ramalina leiodea

Ramalina leiodea (Nyl.) Müll. Arg., Flora, Regensburg 66(2): 21 (1883)
= *Ramalina subfraxinea* subsp. *leiodea* Nyl. 1870

[17016], USA, Hawaii, Oahu, südlich von Hanuula, entlang der des Rundweges Hanuula Loop (Maakua Gulch), 21,60070° N, 157,92466° W, 204 m. Leg. F. Schumm & J.-P. Frahm 11.02.2011, det H. Sipman, 1.2.2026 (TLC: usnic acid, boninic acid; fertl). EX HERBARIO F. SCHUMM NR. 17016.



Ramalina leiodea



Ramalina leiodea

Ramalina lusitanica H. Magn., Bot. Notiser 109: 149 (1956)

[14174], Portugal, Azoren, Terceira, Lagoa da Falca, 38°43.097' N, 27°17.222' W, ca. 520 m. Leg. A. Aptroot & F. Schumm, 16.07.2008, det H. Sipman, 1.2026 (usnic acid, duvaricatic acid). EX HERBARIO F. SCHUMM NR.14174.



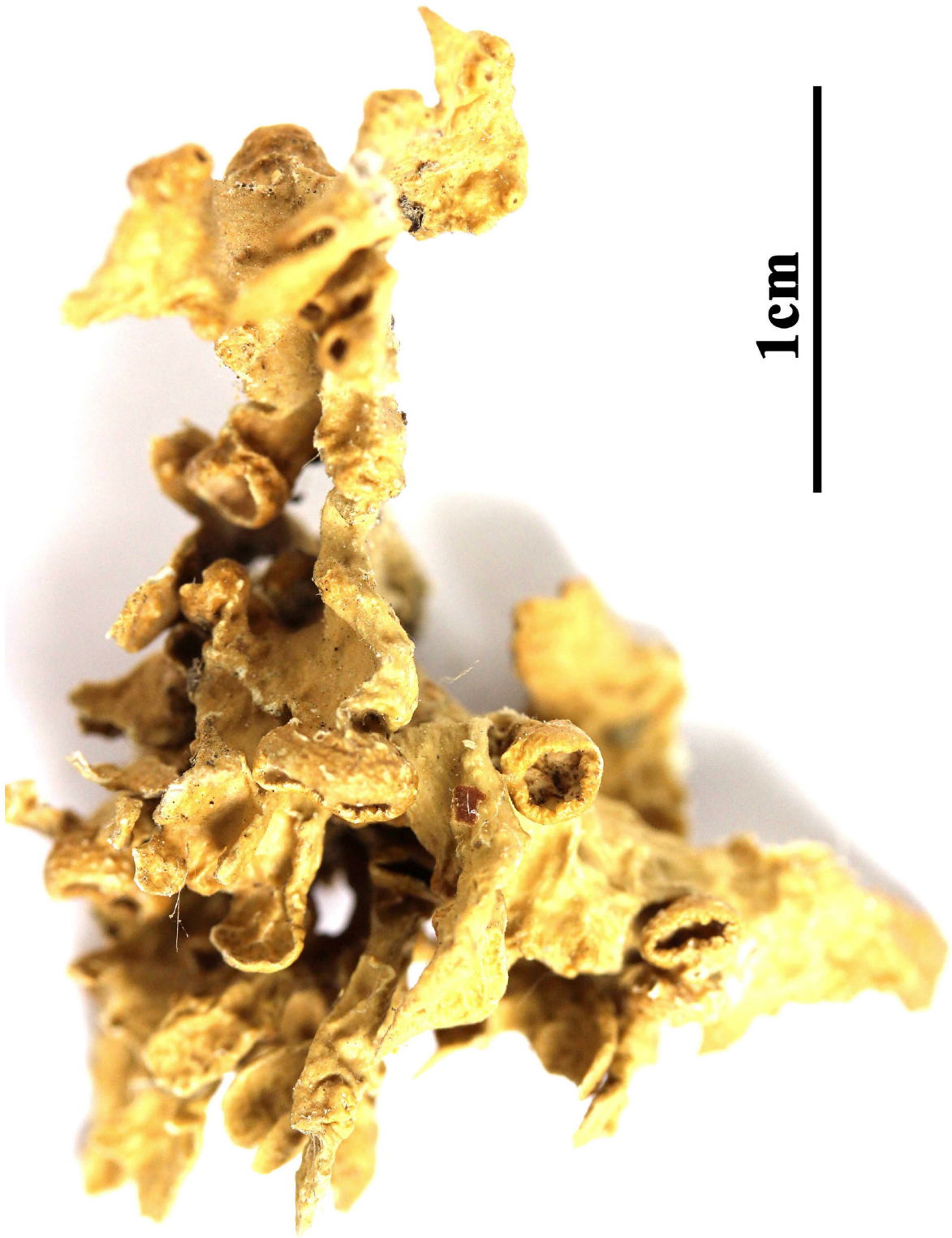
Ramalina lusitanica



Ramalina lusitanica

Ramalina lusitanica H. Magn., Bot. Notiser 109: 149 (1956)

[14276], Portugal, Azoren, W-Terceira, an Silos mitten in Angra do Heroismo. Leg. A.Aptroot & F. Schumm 13.07.2008, det. H. Sipman, 1.2026 (divaricatic acid). EX HERBARIO F. SCHUMM NR.14276.



Ramalina lusitanica



Ramalina lusitanica

Ramalina lusitanica H. Magn., Bot. Notiser 109: 149 (1956)

[14181], Portugal, Azoren, Terceira, Lagoa da Falca, 38°43.097' N, 27°17.222' W, ca. 520 m. Leg. A. Aptroot & F. Schumm 16.07.2008, det. H. Sipman, 1.2026 (usnic acid, divaricatic acid). EX HERBARIO F. SCHUMM NR.14181.



Ramalina lusitanica



Ramalina lusitanica

Ramalina lusitanica H. Magn., Bot. Notiser 109: 149 (1956)

[14186], Portugal, Azoren, Terceira, Angra Do Heroismo, Fortaleza de Dao Joao Baptista, 38°39.171' N, 27°13.457' W, ca. 44 m. Leg. A. Aptroot & F. Schumm, 17.07.2008, det. H. Sipman, 1.2026 (usnic acid, divaricatic acid). EX HERBARIO F. SCHUMM NR.14186.



Ramalina lusitanica



Ramalina lusitanica

Ramalina lusitanica H. Magn., Bot. Notiser 109: 149 (1956)

[14099], Portugal, Azoren, Terceira, bei Sao Bartholomeu 38°40.482' N, 27°17.586' W, 125 m; an *Populus alba*. Det.A. Aptroot & F. Schumm, 13.07.2008, det. H. Sipman, 1.2026 (usnic acid, divaricatic acid). EX ERBARIO F. SCHUMM NR. 14099.



Ramalina lusitanica



Ramalina lusitanica

Ramalina peruviana Ach., Lich. Univ.: 599 (1810)

[14182], Portugal, Azoren, Terceira, Lagoa da Falca, 38°43.097' N, 27°17.222' W, ca. 520 m. Leg. A. Aptroot & F. Schumm, 16.07.2008, det. H. Sipman, 1.2026 (Sekikaic acid agg.). EX HERBARIO F. SCHUMM NR. 14182.



Ramalina peruviana



Ramalina peruviana

Ramalina peruviana Ach., Lich. Univ.: 599 (1810)

[17309], Portugal, Azoren, Sao Miguel, Ufer des Lagoa Azul, 37.87493° N, 25.79012° W, 260 m. Leg. F. Schumm & J.-P. Frahm 19.09.2011, det. H. Sipman, 1.2026 (skikaic acid agg.). EX HERBARIO F. SCHUMM NR.17309.



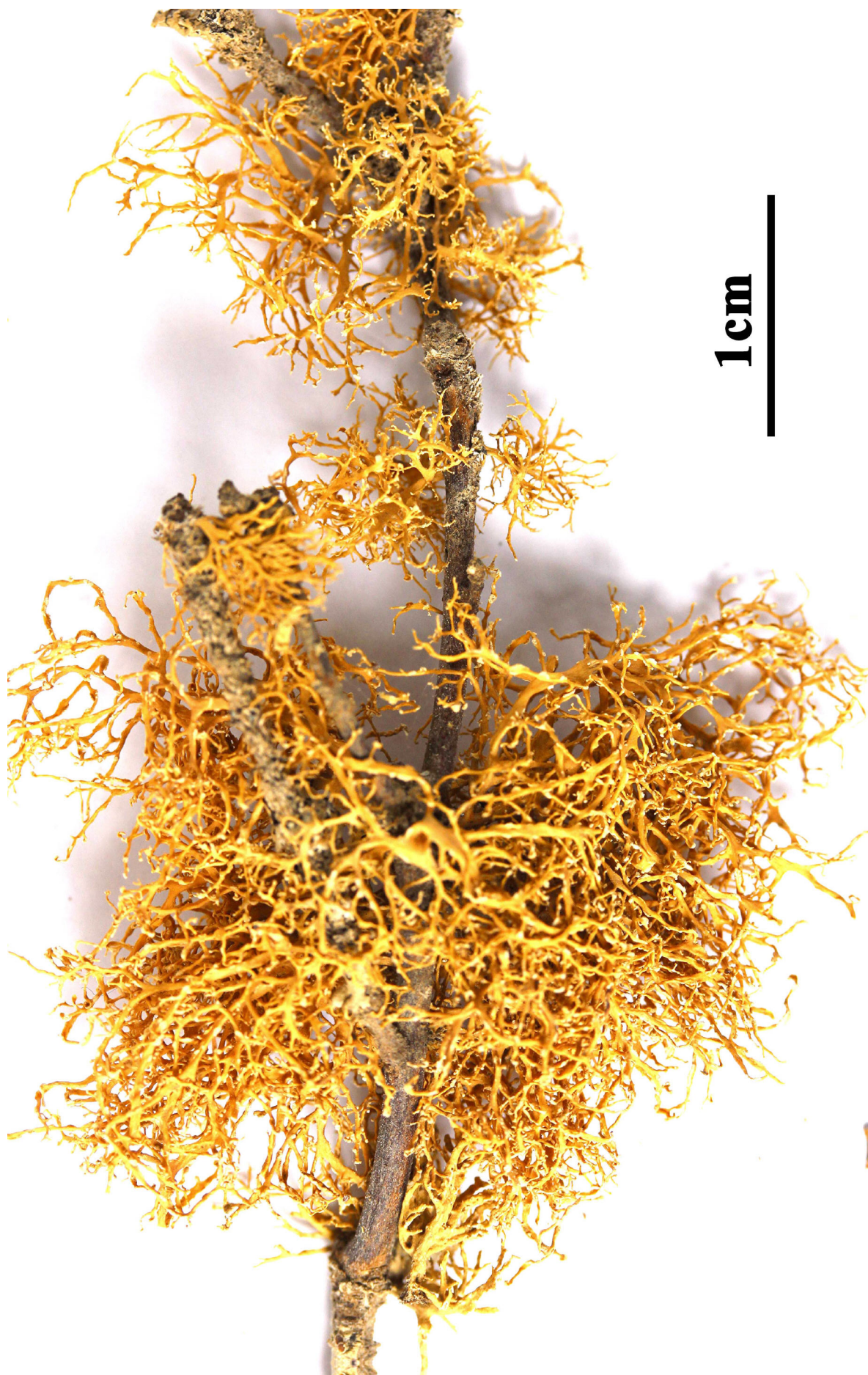
Ramalina peruviana



Ramalina peruviana

Ramalina peruviana Ach., Lich. Univ.: 599 (1810)

]17336}, Portugal, Azoren, Sao Miguel, Ufer des Lagoa Azul, 37.87493° N, 25.79012° W, 260 m. Leg. F. Schumm & J.-P. Frahm, 19.09.2011, det. H. Sipman, 1.2026 (Sikikaic acid agg.). EX HERBARIO F. SCHUMM NR. 17336.



Ramalina peruviana



Ramalina peruviana

Ramalina peruviana Ach., Lich. Univ.: 599 (1810)

[14175], Portugal, Azoren, Terceira, Lagoa da Falca, 38°43.097' N, 27°17.222' W, ca. 520 m. Leg. A. Aptroot & F. Schumm 16.07.2008, det. H. Sipman, 1.2026 (Sekikaic acid agg.). EX HERBARIO F. SCHUMM NR.14175.



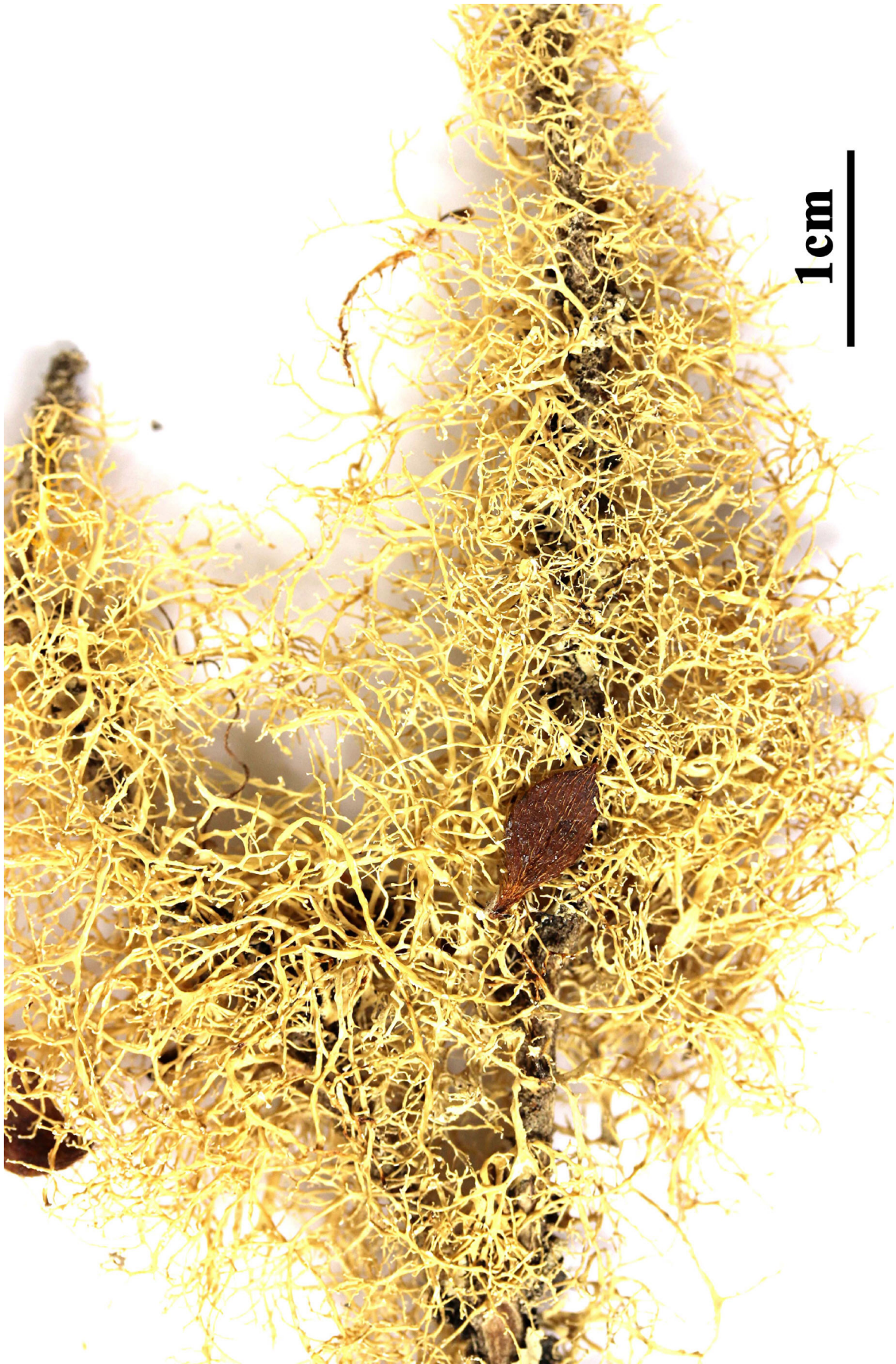
Ramalina peruviana



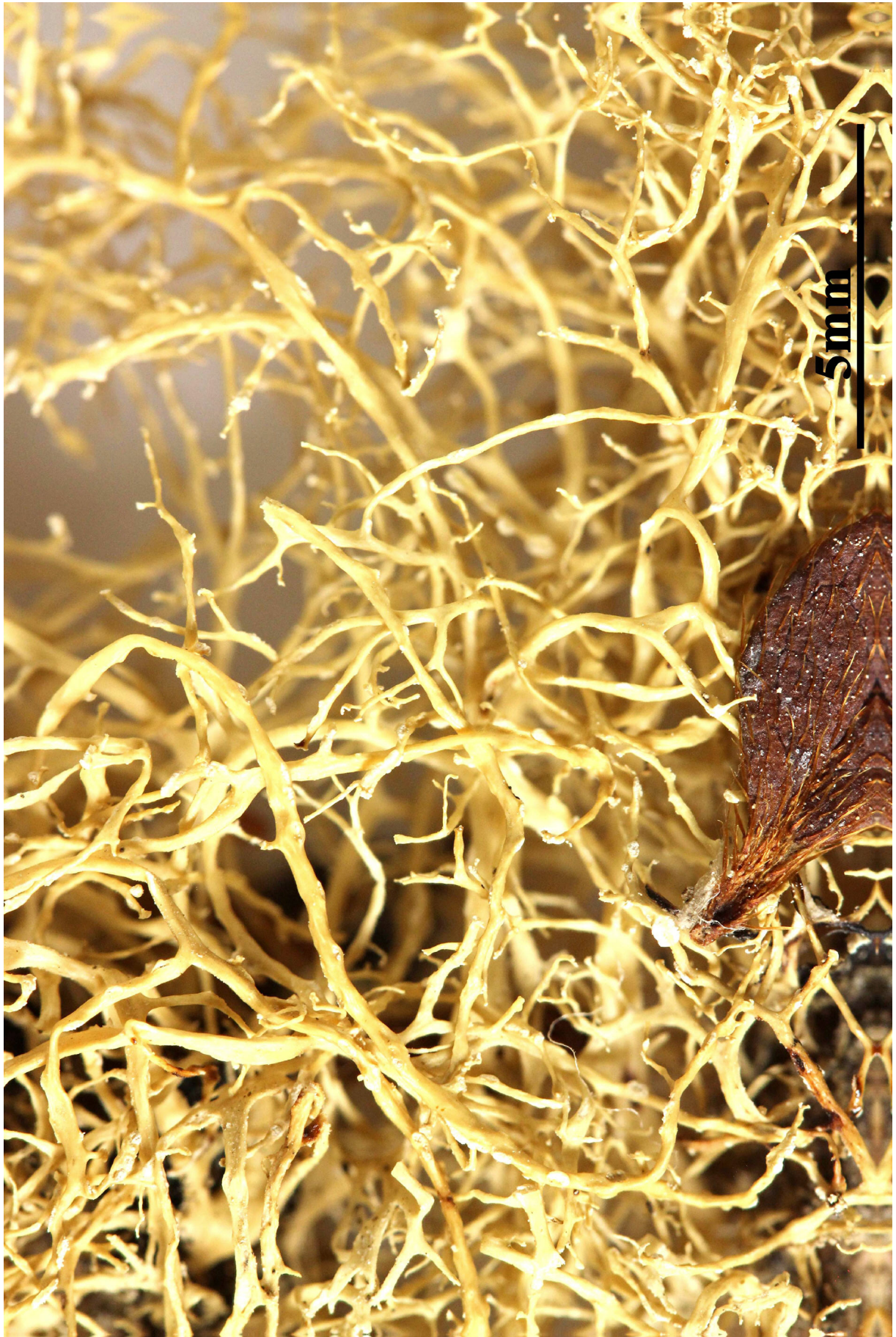
Ramalina peruviana

Ramalina peruviana Ach., Lich. Univ.: 599 (1810)

[17318], Portugal, Azoren, Sao Miguel, Ufer des Lagoa Azul, 37.87493° N, 25.79012° W, 260 m, an *Cryptomeria japonica* . Leg. F. Schumm & J.-P. Frahm 19.09.2011, det. H. Sipman, 1.2026 (Sekikaic acid agg.). EX HERBARIO F. SCHUMM NR.17318.



Ramalina peruviana



Ramalina peruviana

Ramalina peruviana Ach., Lich. Univ.: 599 (1810)

[17310], Portugal, Azoren, Sao Miguel, Ufer des Lagoa Azul, 37.87493° N, 25.79012° W, 260 m. Leg. F. Schumm & J.-P. Frahm 19.09.2011, det. H. Sipman, 1.2026 (Sekikaic acid agg.). EX HERBARIO F. SCHUMM NR. 17310.



Ramalina peruviana



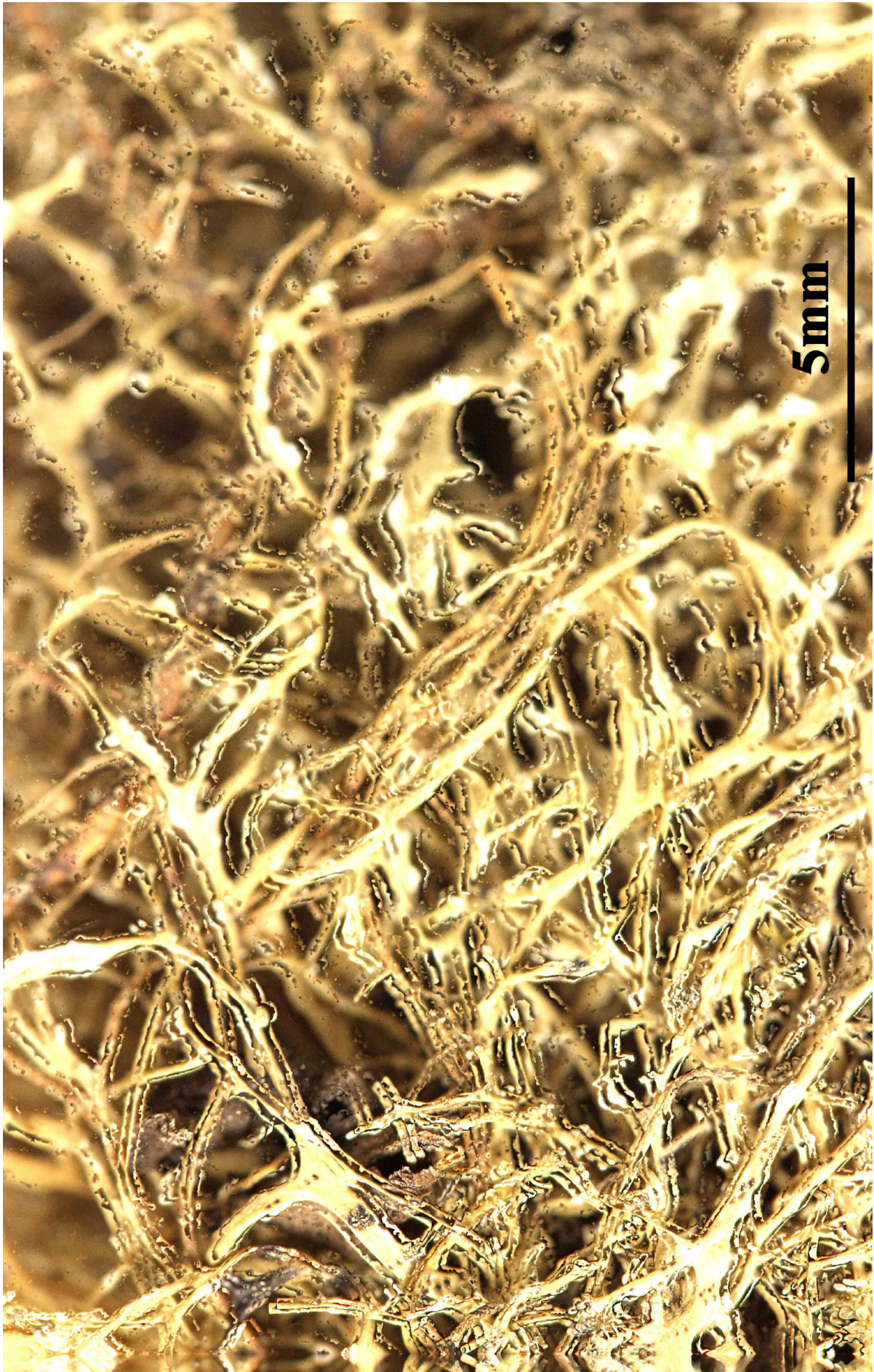
Ramalina peruviana

Ramalina peruviana Ach., Lich. Univ.: 599 (1810)

[17661], Dominikanische Republik, Prov. Santiago, nördlich von Santiago am Fuß des Pico de Ocampo, 19.58467° N, 70.73889° W, 1000 m. Leg. F. Schumm & J.-P. Frahm, 05.03.2012, det. H. Sipman, 1.2026 (Sekikaic acid agg.). EX HERBARIO F. SCHUMM NR.17661.



Ramalina peruviana



Ramalina peruviana

Ramalina pusilla Duby, Bot. Gall., Edn 2 (Paris) 2: 614 (1830)

[17342], Portugal, Azoren, Sao Miguel, Ufer des Lagoa Azul, 37.87493° N, 25.79012° W, 260 m, an *Cryptomeria japonica*, F. Schumm & J.-P. Frahm 19.09.2011, det. H. Sipman, 1.2026 (usnic acid, sekikaic acid). EX HERBARIO F. SCHUMM NR.17342.



Ramalina pusilla



Ramalina pusilla

Ramalina similis H. Magn., in Magnusson & Zahlbruckner, Ark. Bot.
32A(no. 2): 9 (1945)

[17008], USA, Hawaii, Oahu, zwischen Honolulu und Kailua, Pali
Look Out, 21,36152° N, 157,79493° W, 370 m. Leg. F. Schumm & J.-P.
Frahm, 11.02.2011, det. H. Sipman, 1.2026 (TLC: salazinic acid). Ex
Herbario F. Schumm, Nr. 17008.



Ramalina similis



Ramalina similis

Ramalina sorediantha Nyl., Bull. Soc. linn. Normandie, sér. 2 4(2): 143 (1870)

[17674], Dominikanische Republik, Prov. Santiago, nördlich von Santiago an der Straße zum Pico de Ocampo bei Aguacate de Jacagua, 19.55942° N, 70.71673° W, 780 m. Leg. F. Schumm & J.-P. Frahm 05.03.2012, det. H. Sipman, 1.2026 (Salazinic acid; Thallus schmallappig mit Soralen und Apothecien). EX HERBARIO F. SCHUMM NR. 17674.



Ramalina solediantha



Ramalina solediantha

Ramalina subasperata Nyl., Flora, Regensburg 59: 411 (1876)

[17690], Dominikanische Republik, Prov. Santiago, zwischen Palo Quemado und La Cumbre, 19.54562° N, 70.62501° W, 726 m. Leg. F. Schumm & J.-P. Frahm 04.03.2012. det H. Sipman, 2026 (TLC: Protocetraric acid)1926. EX HERBARIO F. SCHUMM, NR. 17690.



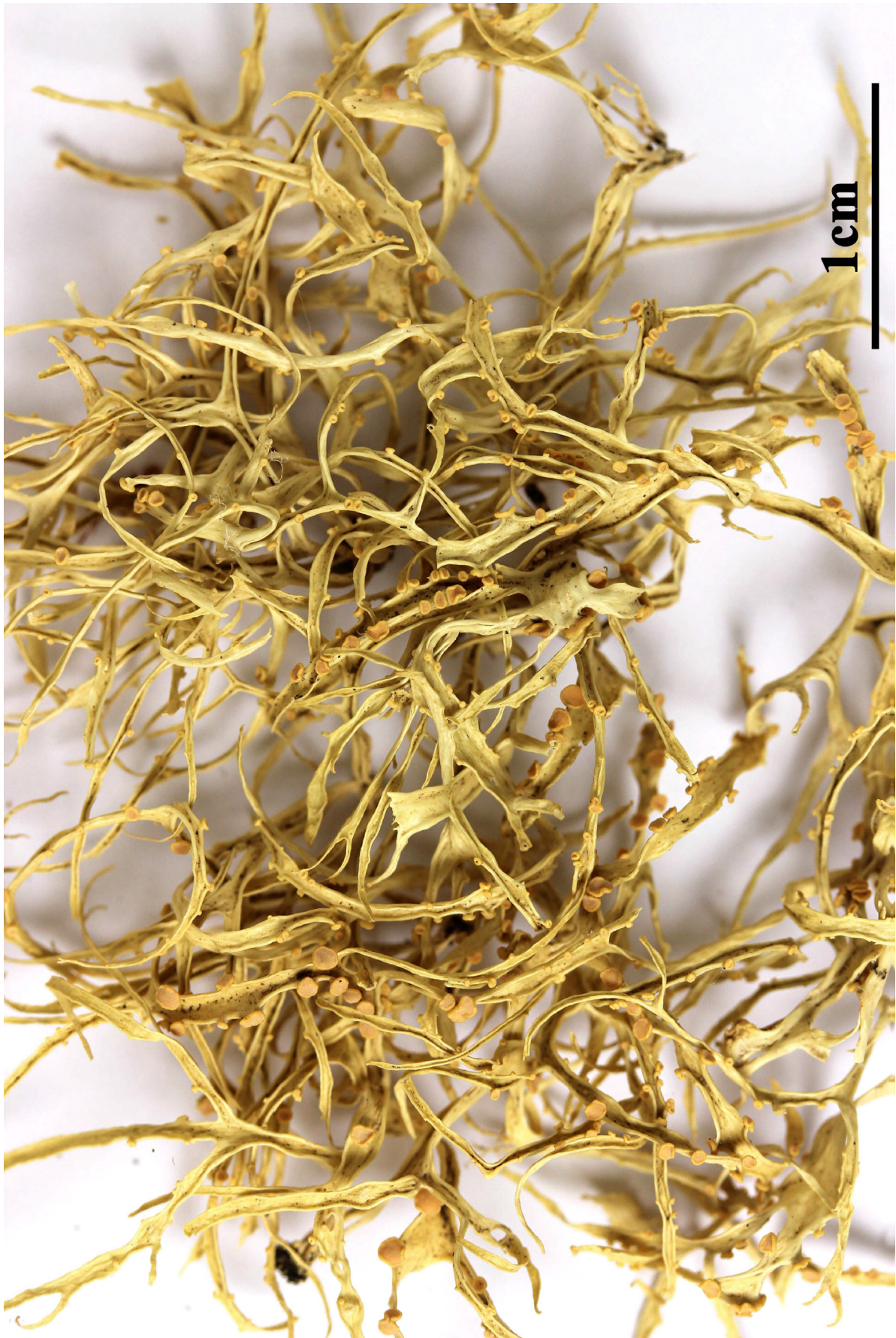
Ramalina subasperata



Ramalina subasperata

Ramalina cf. subfraxinea Nyl., Bull. Soc. linn. Normandie, sér. 2 4(2): 139
(1870)

[16923], USA, Hawaii, Big Island, Nordost-Teil, zwischen Waimea und Kamuela, an Zaunpfosten, 20,02290° N, 155,65937° W, 860 m. Leg. F. Schumm & J.-P. Frahm 20.02.2011, det. H. Sipman 1.2026 (usnic acid.).
EX HERBARIO F. SCHUMM NR. 16923.



Ramalina cf. subfraxinea



Ramalina cf. *subfraxinea*

Ramalina cf. umbilicata H. Magn., in Magnusson & Zahlbruckner, Ark.
Bot. 32A(no. 2): 15 (1945)

[16965], USA, Hawaii, Maui, Haleakala Kraterrand und Zufahrtsstraße, 20,72833° N, 156,24061° W, 2300 m. Leg. F. Schumm & J.-P. Frahm, 13.02.2011, det. H. Sipman, 1.2026 (TLC: Usnic acid, divaricatic acid). EX HERBARIO F. SCHUMM NR.16965.



Ramalina cf. umbilicata



Ramalina cf. umbilicata

Ramalina subgeniculata Nyl., Bull. Soc. linn. Normandie, sér. 2 4(2): 167 (1870)

[17339}, Portugal, Azoren, Sao Miguel, Ufer des Lagoa Azul, 37.87493° N, 25.79012° W, 260 m, an *Cryptomeria japonica*, F. Schumm & J.-P. Frahm 19.09.2011, det. H. Sipman, 1.2026 (usnic acid, divaricatic acid, salazinic acid). EX HERBARIO F. SCHUMM NR. 17339.



Ramalina subgeniculata



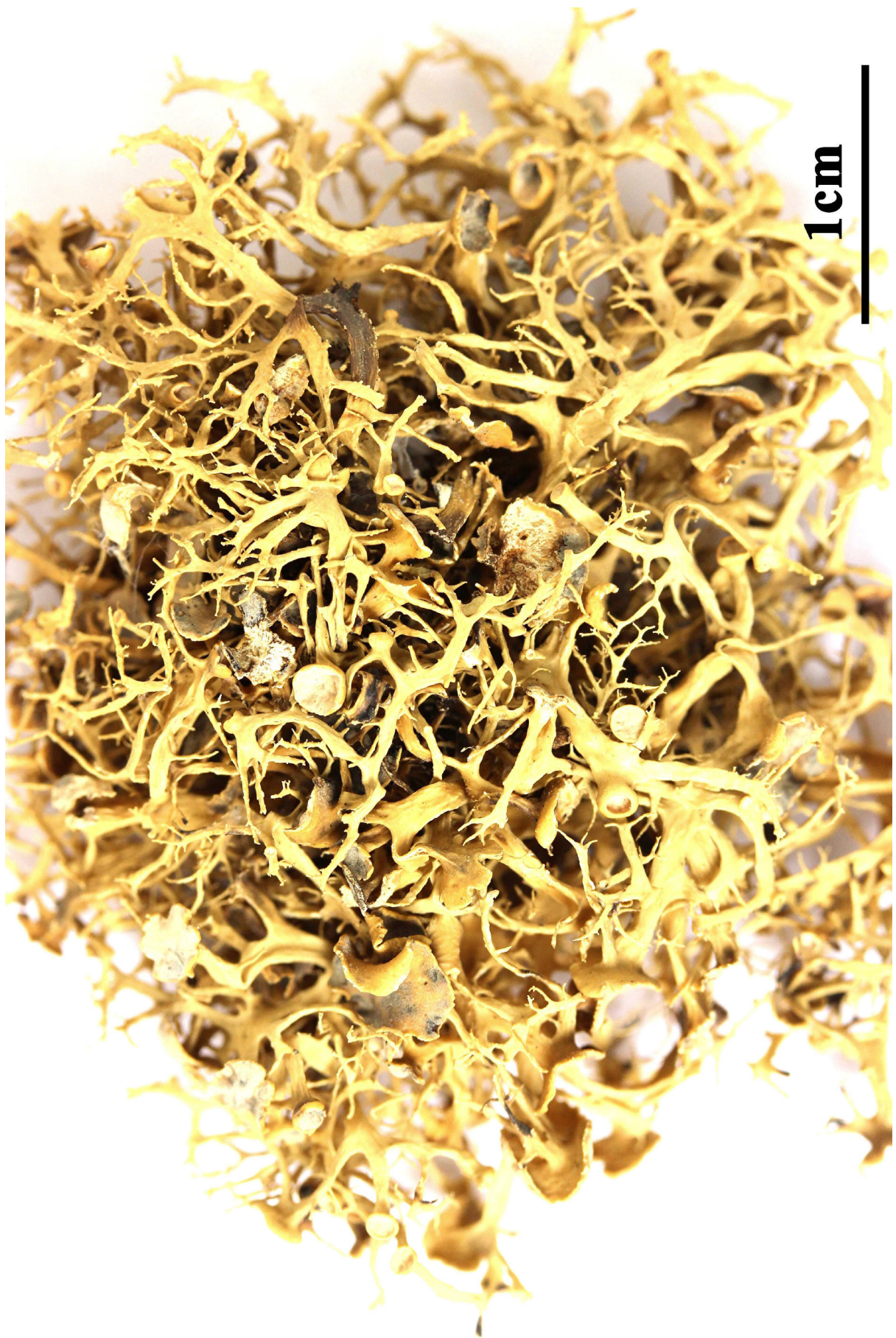
Ramalina subgeniculata

Ramalina subpusilla (Nyl.) Pit. & Harm., Bull. Soc. bot. Fr., Mém. 22: 23 (1911)

= *Ramalina geniculata* subsp. *subpusilla* Nyl. 1870

= *Ramalina inflata* (Hook. f. & Taylor) Hook. f. & Taylor, in Hooker, Bot. Antarct. Voy. Erebus Terror 1839-1843 1: 194 (1845)

[17343], Portugal, Azoren, Sao Miguel, Ufer des Lagoa Azul, 37.87493° N, 25.79012° W, 260 m, an *Cryptomeria japonica*. Leg. F. Schumm & J.-P. Frahm, 19.9.2011, det. H. Sipman, 1.2.2026 (Usnic acid, salazinic acid). EX HERBARIO F. SCHUMM NR.17343.



Ramalina subpusilla



Ramalina subpusilla

Ramalina subpusilla (Nyl.) Pit. & Harm., Bull. Soc. bot. Fr., Mém. 22: 23 (1911)

= *Ramalina geniculata* subsp. *subpusilla* Nyl. 1870

= *Ramalina inflata* (Hook. f. & Taylor) Hook. f. & Taylor, in Hooker, Bot. Antarct. Voy. Erebus Terror 1839-1843 1: 194 (1845)

[14250], Portugal, Azoren, Terceira, Mirodauro do Raminho, 38°46.820' N, 27°21.422' W, ca. 164 m. Leg. F. Schumm 18.07.2008, det. H. Sipman, 1.2026 (Usnic acid, salazinic acid). EX HERBARIO F. SCHUMM NR. 14250.



Ramalina subpusilla



Ramalina subpusilla

Ramalina umbilicata H. Magn., in Magnusson & Zahlbruckner, Ark. Bot.
32A(no. 2): 15 (1945)

[17009], USA, Hawaii, Oahu, zwischen Honolulu und Kailua, Pali Look Out, 21,36152° N, 157,79493° W, 370 m. Leg. F. Schumm & J.-P. Frahm, 11.02.2011, det. H. Sipman, 1.2026 (Salazinic acid). EX HERBARIO F. SCHUMM NR. 17009.



Ramalina umbilicata



Ramalina umbilicata