Felix Schumm & André Aptroot

Brazilian Lichens collected by Dr. André Aptroot

Vol II - Alagoas

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Introduction

In this second volume on Brazilian lichens we illustrate material from the state Alagoas. Species that we illustrated already in the first volume are generally not repeated.
Of most specimens, we present a habitus picture and one or more detailed pictures, all with scale bars.
We list all synonyms, also in the index, to facilitate cross referencing. This has become more and more relevant now that generic names are changing quite regularly.
Regarding further issues, see the more elaborate introduction of volume 1.

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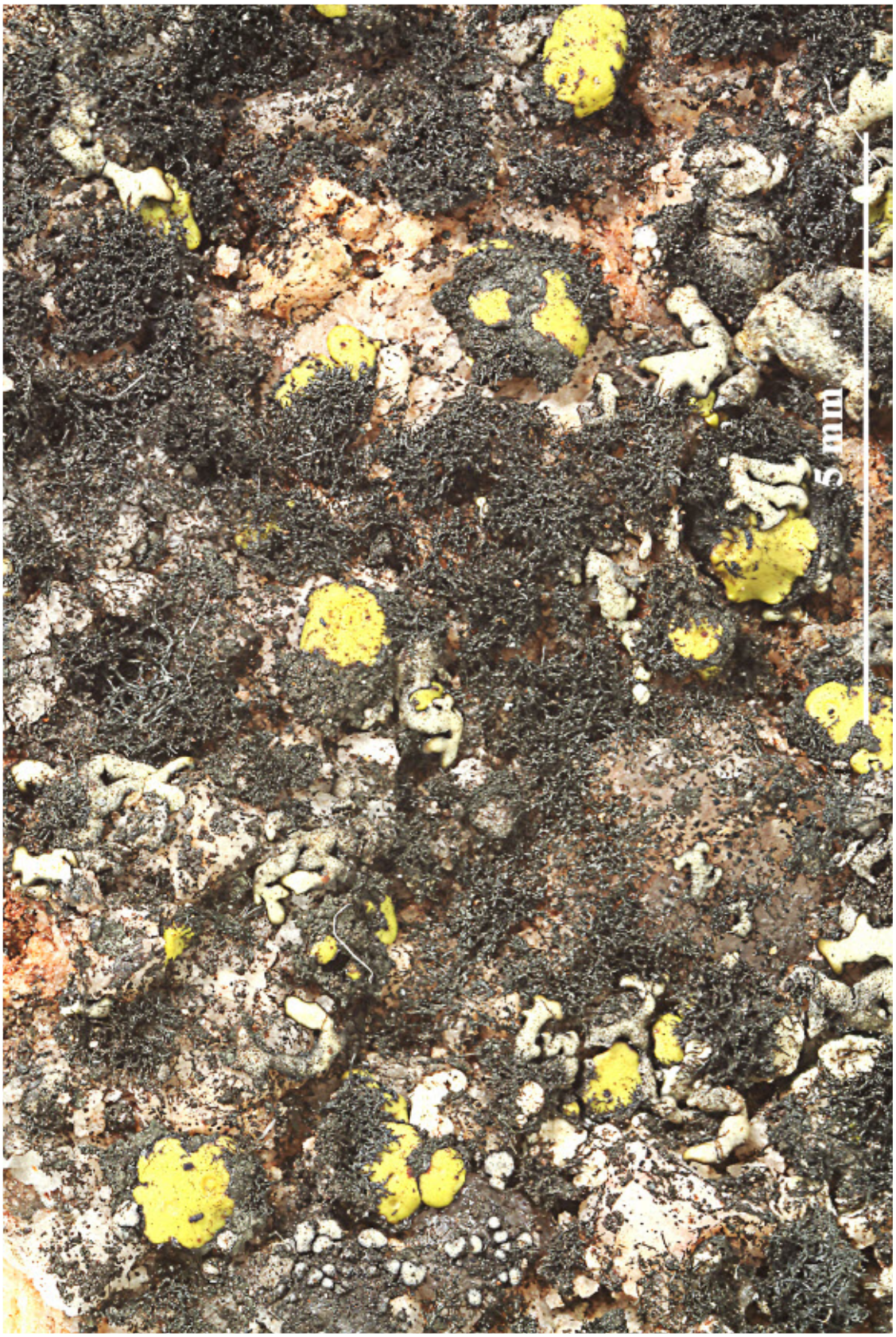
New species

Staurolemma lineare Aptroot & Schumm

Acarospora dissipata H. Magn., K. svenska Vetensk-Akad. Handl., Ser. III 7(no. 4): 55 (1929)

[ABL42568], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In in Atlantic rain forest on granite. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42568), 21-23.10.2017. . Det. A. Aptroot, 2017.



Acarospora dissipata

Acarospora oligyrophorica Aptroot, Fungal Diversity 9: 17 (2002)

[ABL42514], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on granite. 9°15' S, 36°25'35" W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42514), 21-23.10.2017. . Det. A. Aptroot, 2017. - Thallus C-, spores 16/ascus, 17 x 6 µm

Acarospora oligyrophorica

Agonimia opuntiella (Buschardt & Poelt) Vězda, Lichenes Rariores Exsiccati 33(nos 321-330): 4, no. 330 (1997)

= *Phaeophyscia opuntiella* (Buschardt & Poelt) Hafellner, Mitt. naturw. Ver. Steierm. 122: 116 (1992)

= *Phaeophyscia opuntiella* (Buschardt & Poelt) Clauzade & Cl. Roux, Bull. Soc. bot. Centre-Ouest, Nouv. sér., num. spec. 7: 598 (1985)

= *Physcia opuntiella* Buschardt & Poelt, in Poelt, Flora, Regensburg 169: 24 (1980)

[ABL50927], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On twig in Atlantic rain forest. 9°14’28’’ S, 36°25’11’’ W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50927) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot, 2019.

Agonimia opuntiella (Buschardt & Poelt) Vězda, Lichenes Rariores Exsiccati 33(nos 321-330): 4, no. 330 (1997)

= *Phaeophyscia opuntiella* (Buschardt & Poelt) Hafellner, Mitt. naturw. Ver. Steierm. 122: 116 (1992)

= *Phaeophyscia opuntiella* (Buschardt & Poelt) Clauzade & Cl. Roux, Bull. Soc. bot. Centre-Ouest, Nouv. sér., num. spec. 7: 598 (1985)

= *Physcia opuntiella* Buschardt & Poelt, in Poelt, Flora, Regensburg 169: 24 (1980)

[ABL42718A], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42718A), 21-23.10.2017. Det. A. Aptroot, 2017.

Allographa cerradensis (Marcelli, Benatti & Lücking) Lücking & Kalb, Herzogia 31(1, Teil 2): 548 (2018)

= *Graphis cerradensis* Marcelli, Benatti & Lücking, in Lumbsch et al., Phytotaxa 18: 59 (2011)

[ABL42504], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42504), 21-23.10.2017. Det. A. Aptroot, 2017. - Thallus K+ yellow, hymenium inspersed, > 19-septate, 100 x 15 µm.

Allographa cerradensis

Allographa longula (Kremp.) Lücking & Kalb, Herzogia 31(1, Teil 2): 552 (2018)

= *Graphis longula* Kremp., Flora, Regensburg 59: 414 (1876)

= *Phaeographis longula* (Kremp.) Zahlbr., Denkschr. Kaiserl. Akad. Wiss. Wien, Math.-Naturwiss. Kl. 83: 109 (1909)

[ABL42501], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42501), 21-23.10.2017. Det. A. Aptroot, 2017.

Allographa longula

Alyxoria varia (Pers.) Ertz & Tehler, Fungal Diversity 49(1): 53 (2011)
= *Alyxoria diaphora* Gray, Nat. Arr. Brit. Pl. (London) 1: 504 (1821)
= *Graphis signata* (Ach.) Wallr., Fl. crypt. Germ. (Norimbergae) 1: 335 (1831)
= *Graphis varia* (Pers.) Branth & Rostr., Bot. Tidsskr. 3: 243 (1869)
= *Graphis varia* f. *diaphora* Branth & Rostrup, Bot. Tidsskr. 3: 243 (1869)
= *Graphis varia* f. *signata* (Ach.) Branth & Rostrup, Bot. Tidsskr. 3: 243 (1869)
= *Lichen diaphorus* Ach., Lich. suec. prodr. (Linköping): 20 (1799) [1798]
= *Lichen signatus* Ach., Lich. suec. prodr. (Linköping): 23 (1799) [1798]
= *Opegrapha atra* var. *rimalis* (Ach.) A. Massal., Memor. Lich.: 106 (1853)
= *Opegrapha chlorina* Pers., Ann. Wetter. Gesellsch. Ges. Naturk. 2(1): 15 (1810)
= *Opegrapha cymbiformis* [unranked] *chlorina* (Pers.) D. Dietr., Deutschl. Kryptog. Gewächse, 4 Abth.: 99, tab. 329 (1846)
= *Opegrapha cymbiformis* var. *rimalis* (Ach.) Schaer., Lich. helv. spicil. 7: 329 (1836)
= *Opegrapha diaphora* Ach., Methodus, Sectio prior (Stockholmiæ): 19 (1803)
= *Opegrapha diaphora* f. *chlorina* (Pers.) H. Olivier, Expos. Lich. Ouest France, Suppl. 2: 192 (1902)
= *Opegrapha diaphora* f. *herbicola* Nyl., Flora, Regensburg 60: 463 (1877)
= *Opegrapha diaphora* f. *signata* (Ach.) J. Nowak, Flora Polska, Porosty (Lichenes) (Warszawa-Kraków) 1(1): 165 (1983)
= *Opegrapha diaphora* f. *tigrina* (Ach.) J. Nowak, Flora Polska, Porosty (Lichenes) (Warszawa-Kraków) 1(1): 165 (1983)
= *Opegrapha diaphora* var. *chlorina* (Pers.) H. Olivier, Les Opegraph. Flor. Europ.: 9 (1914)
= *Opegrapha diaphora* var. *rimalis* (Ach.) H. Olivier, Expos. Lich. Ouest France, Suppl. 2: 192 (1901)
= *Opegrapha diaphora* var. *signata* (Ach.) Ach., Methodus, Sectio prior (Stockholmiæ): 19 (1803)
= *Opegrapha diaphora* var. *tigrina* (Ach.) H. Olivier, Expos. Lich. Ouest France, Suppl. 2: 192 (1902)
= *Opegrapha diaphora* var. *tridens* (Ach.) H. Olivier, Expos. Lich. Ouest France, Suppl. 2: 192 (1902)
= *Opegrapha hebraica* var. *rimalis* (Ach.) L. Marchand, in Hall, Vrolik & Mulder, Bijdr. Natuurk. Wetensch. 4: 279 (1829)
= *Opegrapha hebraica* var. *signata* (Ach.) L. Marchand, in Hall, Vrolik & Mulder, Bijdr. Natuurk. Wetensch. 4: 279 (1829)
= *Opegrapha hysterimorpha* var. *diaphora* (Ach.) L. Marchand, in Hall, Vrolik & Mulder, Bijdr. Natuurk. Wetensch. 4: 279 (1829)
= *Opegrapha lichenoides* f. *chlorina* (Pers.) Erichsen, Flechtenfl. Nordwestdeutschl.: 78 (1957)

= *Opegrapha lichenoides* var. *chlorina* (Pers.) Redinger, Rabenh. Krypt.-Fl., Edn 2 (Leipzig) 9.1(2): 396 (1938)
= *Opegrapha notha var. chlorina* (Pers.) Mong., Bull. Géogr. Bot. 9: 248 (1900)
= *Opegrapha notha* var. *diaphora* (Ach.) Ach., Syn. meth. lich. (Lund): 77 (1814)
= *Opegrapha notha* var. *signata* (Ach.) Ach., Methodus, Sectio prior (Stockholmiæ): 19 (1803)
= *Opegrapha notha* var. *tigrina* (Ach.) Ach., Syn. meth. lich. (Lund): 77 (1814)
= *Opegrapha pulicaris* f. *diaphora* Nyl., in Norrlin, Meddn Soc. Fauna Flora fenn. 1: 37 (1876)
= *Opegrapha pulicaris* f. *signata* (Ach.) Nyl., in Norrlin, Meddn Soc. Fauna Flora fenn. 1: 37 (1876)
= *Opegrapha rimalis* Ach., K. Vetensk-Acad. Nya Handl. 30: 101 (1809)
= *Opegrapha signata* (Ach.) Ach., K. Vetensk-Acad. Nya Handl. 30: 102 (1809)
= *Opegrapha signata* var. *tigrina* Ach., Lich. Univ.: 262 (1810)
= *Opegrapha tridens* Ach., Lich. Univ.: 263 (1810)
= *Opegrapha varia* Pers., Ann. Bot. (Usteri) 7: 30 (1794)
= *Opegrapha varia* f. *chlorina* (Pers.) Schaer., Enum. critic. lich. europ. (Bern): 157 (1850)
= *Opegrapha varia* f. *diaphora* (Ach.) Fr., Lich. eur. reform. (Lund): 365 (1831)
= *Opegrapha varia* f. *rimalis* (Ach.) Leight., Lich.-Fl. Great Brit.: 383 (1871)
= *Opegrapha varia* f. *signata* (Ach.) Schaer., Enum. critic. lich. europ. (Bern): 157 (1850)
= *Opegrapha varia* f. *tigrina* (Ach.) Mudd, Man. Brit. Lich.: 230 (1861)
= *Opegrapha varia* f. *tridens* (Ach.) Mudd, Man. Brit. Lich.: 230 (1861)
= *Opegrapha varia* subsp. *diaphora* (Ach.) Harm., Cat. Descript. Lich. Lorraine IV: 446 (1900)
= *Opegrapha varia* var. *chlorina* (Pers.) A. Massal., Memor. Lich.: 104 (1853)
= *Opegrapha varia* var. *diaphora* (Ach.) Fr., Lich. eur. reform. (Lund): 365 (1831)
= *Opegrapha varia* var. *rimalis* (Ach.) Fr., Lich. eur. reform. (Lund): 81 (1831)
= *Opegrapha varia* var. *signata* (Ach.) Fr., Lich. eur. reform. (Lund): 365 (1831)
= *Opegrapha varia* var. *tigrina* (Ach.) Schaer., Enum. critic. lich. europ. (Bern): 157 (1850)
= *Opegrapha varia* var. *tridens* (Ach.) Schaer., Enum. critic. lich. europ. (Bern): 158 (1850)

[ABL42207], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15’ S, 36°25’35’’ W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42207), 21-23.10.2017. Det. A. Aptroot, 2017. - Spores 4-septate, 25 x 5 µm with 3µm gel.

Alyxoria varia

Amandinea melaxanthella (Nyl.) Marbach, Biblthca Lichenol. 74: 87 (2000)

= *Buellia melaxanthella* (Nyl.) Müll. Arg., Bull. Herb. Boissier 2(app. 1): 71 (1894)

= *Lecidea melaxanthella* Nyl., Lich. Nov. Zeland. (Paris): 112 (1888)

[ABL42547], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In in Atlantic rain forest on wooden pole. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42676), 21-23.10.2017. Det. A. Aptroot, 2017.

Amandinea melaxanthella

Anisomeridium subprostans (Nyl.) R.C. Harris, in Tucker & Harris, Bryologist 83(1): 4 (1980)

= *Arthopyrenia subprostans* (Nyl.) Müll. Arg., Flora, Regensburg 66(20): 317 (1883)

= *Ditremis subprostans* (Nyl.) R.C. Harris, Some Florida Lichens (New York): 34 (1990)

= *Leiophloea subprostans* (Nyl.) Trevis., Conspect. Verruc.: 10 (1860)

= *Pyrenula subprostans* (Nyl.) Tuck., Gen. lich. (Amherst): 273 (1872)

= *Verrucaria subprostans* Nyl., Expos. Synopt. Pyrenocarp.: 56 (1858)

[ABL42766], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42766), 21-23.10.2017. Det. A. Aptroot, 2017. - Spores, 1-septate, 15 x 4 µm.

Arthonia parantillarum Aptroot, in Aptroot & Sparrius, Fungal Diversity 14: 3 (2003)

[ABL42745], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In in Atlantic rain forest on wooden pole. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42745), 21-23.10.2017. Det. A. Aptroot, 2017.

Arthonia parantillarum

Aspidothelium cinerascens Vain., Acta Soc. Fauna Flora fenn. 7(no. 2): 189 (1890)

= *Thelenella cinerascens* (Vain.) R.C. Harris, More Florida Lichens, Incl. 10 Cent Tour Pyrenol. (New York): 165 (1995)

[ABL42315], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42315), 21-23.10.2017. Det. A. Aptroot, 2017.

Aspidothelium cinerascens

Astrothelium ceratinum (Fée) Aptroot & Lücking, Lichenologist 48(6): 852 (2016)

= *Pseudopyrenula ceratina* (Fée) Müll. Arg., Mém. Soc. Phys. Hist. nat. Genève 30(no. 3): 29 (1888)

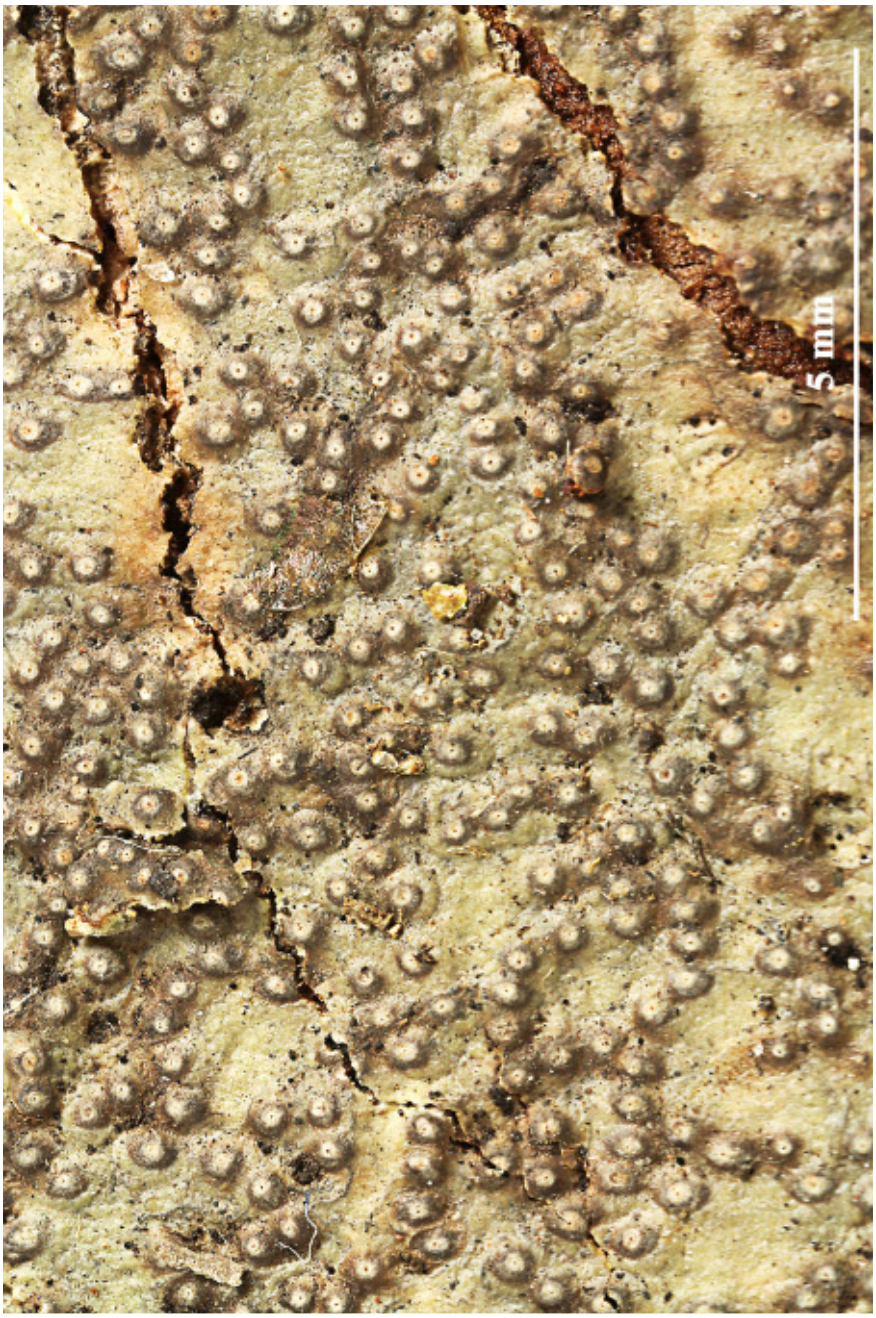
= *Pyrenula ceratina* Fée, Essai Crypt. Exot., Suppl. Révis. (Paris): 77 (1837)

= *Segestria pupula var. ceratina* (Fée) Trevis., Conspect. Verruc.: 6 (1860)

= *Trypethelium ceratinum* (Fée) R.C. Harris, Lichenogr. Thomsoniana, North American Lichenology in Honor of John W. Thomson (Ithaca): 141 (1998)

= *Verrucaria ceratina* (Fée) Nyl., Acta Soc. Sci. fenn. 7(2): 491 (1863)

[ABL50889], Brazil, Alagoas, Quebrangulo, Pedra Talhada plot N1.3. On tree bark in Atlantic rain forest. 9°15' S, 36°25'39'' W, 740 m. Leg. M. Cáceres, A. Aptroot (no 50889) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot,2019.



Astrothelium ceratinum

Astrothelium flavoduplex Aptroot & M. Cáceres, Lichenologist 48(6): 699 (2016)

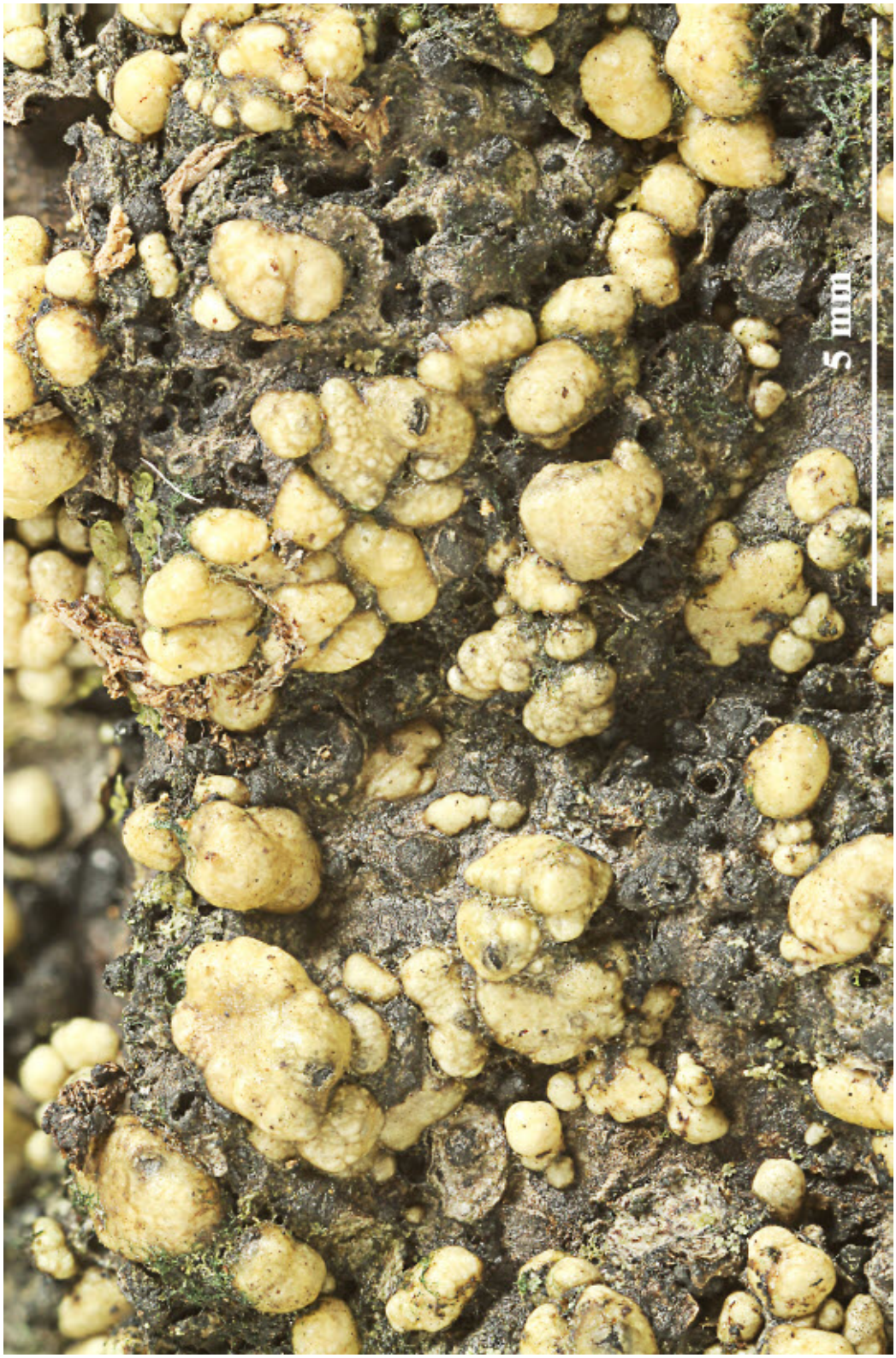
[ABL42558], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In in Atlantic rain forest on tree bark. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42558), 21-23.10.2017. . Det. A. Aptroot, 2017. - All UV+ yellow,Spore 110 x 20 µm.

Astrothelium flavoduplex

Astrothelium puiggarii (Müll. Arg.) Aptroot & Lücking, Lichenologist 48(6): 880 (2016)

= *Campylothelium puiggarii* Müll. Arg., Flora, Regensburg 66(16): 245 (1883)

[ABL50885], Brazil, Alagoas, Quebrangulo, Pedra Talhada plot N1.3. On tree bark in Atlantic rain forest. 9°15' S, 36°25'39" W, 740 m. Leg. M. Cáceres, A. Aptroot (no 50885) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot,2019.



Astrothelium puiggarii

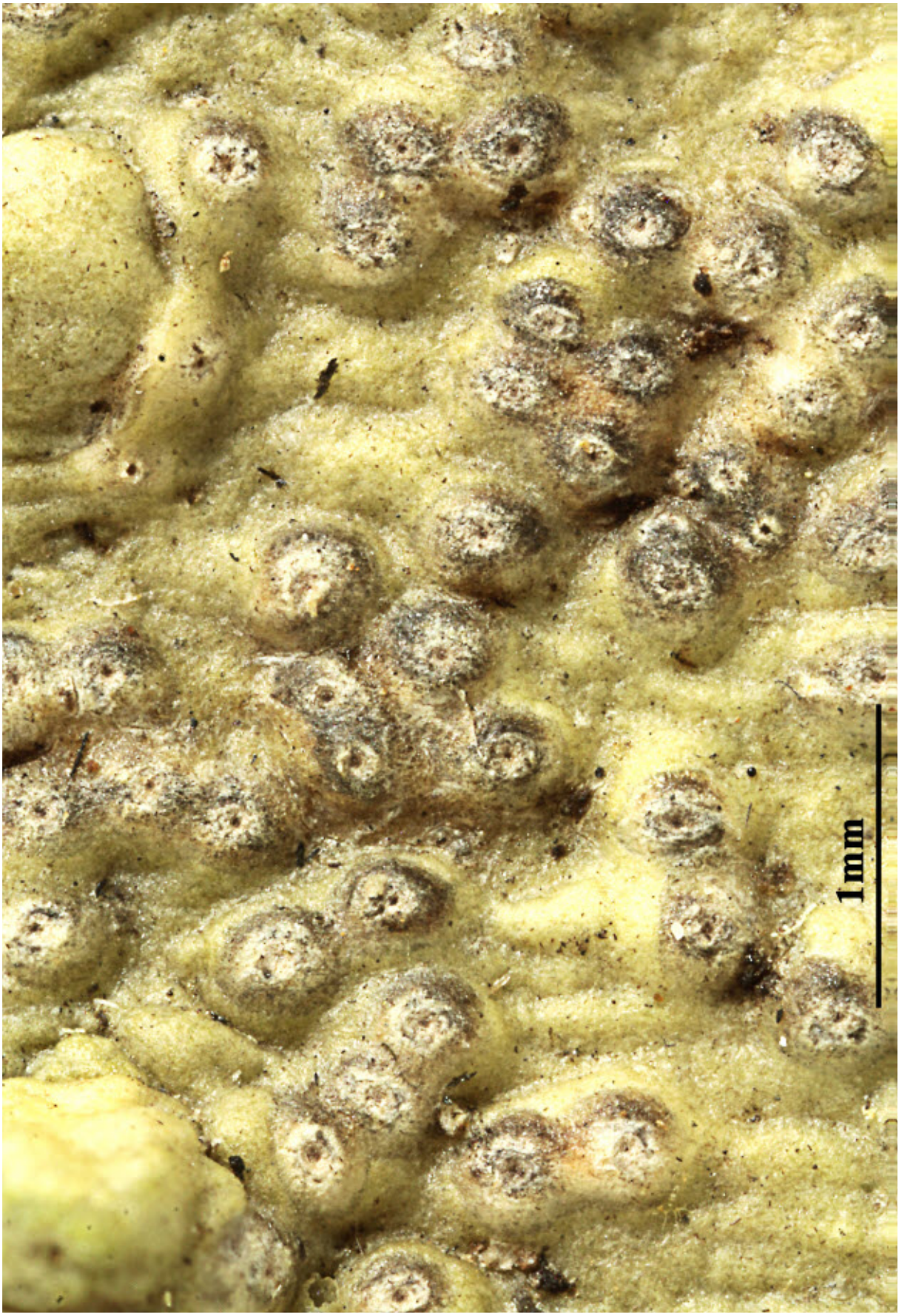
Astrothelium nitidiusculum (Nyl.) Aptroot & Lücking, Lichenologist 48(6): 873 (2016)

= *Pseudopyrenula nitidiuscula* (Nyl.) Müll. Arg., Flora, Regensburg 66(16): 248 (1883)

= *Trypethelium nitidiusculum* (Nyl.) R.C. Harris, Acta Amazon., Supl. 14(1-2): 75 (1986) [1984]

= *Verrucaria nitidiuscula* Nyl., Acta Soc. Sci. fenn. 7(2): 491 (1863)

[ABL42337], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42337), 21-23.10.2017. Det. A. Aptroot, 2017. -Thhallus UV-, hymenium not inspersed, spores 7-septate, 23 x 6 µm.



Astrothelium nitidiusculum

Astrothelium porosum (Ach.) Aptroot & Lücking, Lichenologist 48(6): 879 (2016)

= *Astrothelium erubescens* (Kunze ex Fée) Aptroot & Lücking, Atlas of Pyrenulaceae and Trypetheliaceae - Volume 1: Lichenized Ascomycota: 408 (2021)

= *Bathelium porosum* (Ach.) C.W. Dodge, Ann. Mo. bot. Gdn 40: 290 (1953)

= *Leightonia porosa* (Ach.) Trevis., Flora, Regensburg 44: 19 (1861)

= Trypethelium erubescens Kunze ex Fée, Annls Sci. Nat., sér. 1 23: 441 (1831)

= *Trypethelium porosum* Ach., Syn. meth. lich. (Lund): 106 (1814)

= *Trypethelium sprengelii* var. *porosum* (Ach.) Zahlbr., Cat. Lich. Univers. 1: 497 (1922)

= *Verrucaria porosa* (Ach.) Eschw., in Martius, Fl. bras. enum. pl. 1(1): 135 (1833)

[ABL50869], Brazil, Alagoas, Quebrangulo, Pedra Talhada plot A2. On tree bark in Atlantic rain forest. 9°15’ S, 36°25’35’’ W, 500 m. Leg. M. Cáceres, A. Aptroot (no 50869) & J.G. Cavalcante, 24.07.2019. Det. A. Aptroot,2019.

Astrothelium porosum

Astrothelium porosum (Ach.) Aptroot & Lücking, Lichenologist 48(6): 879 (2016)

= *Astrothelium erubescens* (Kunze ex Fée) Aptroot & Lücking, Atlas of Pyrenulaceae and Trypetheliaceae - Volume 1: Lichenized Ascomycota: 408 (2021)

= *Bathelium porosum* (Ach.) C.W. Dodge, Ann. Mo. bot. Gdn 40: 290 (1953)

= *Leightonia porosa* (Ach.) Trevis., Flora, Regensburg 44: 19 (1861)

= *Trypethelium erubescens* Kunze ex Fée, Annls Sci. Nat., sér. 1 23: 441 (1831)

= *Trypethelium porosum* Ach., Syn. meth. lich. (Lund): 106 (1814)

= *Trypethelium sprengelii* var. *porosum* (Ach.) Zahlbr., Cat. Lich. Univers. 1: 497 (1922)

= *Verrucaria porosa* (Ach.) Eschw., in Martius, Fl. bras. enum. pl. 1(1): 135 (1833)

[ABL42632], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42632), 21-23.10.2017. Det. A. Aptroot, 2017. - UV+ yellow.

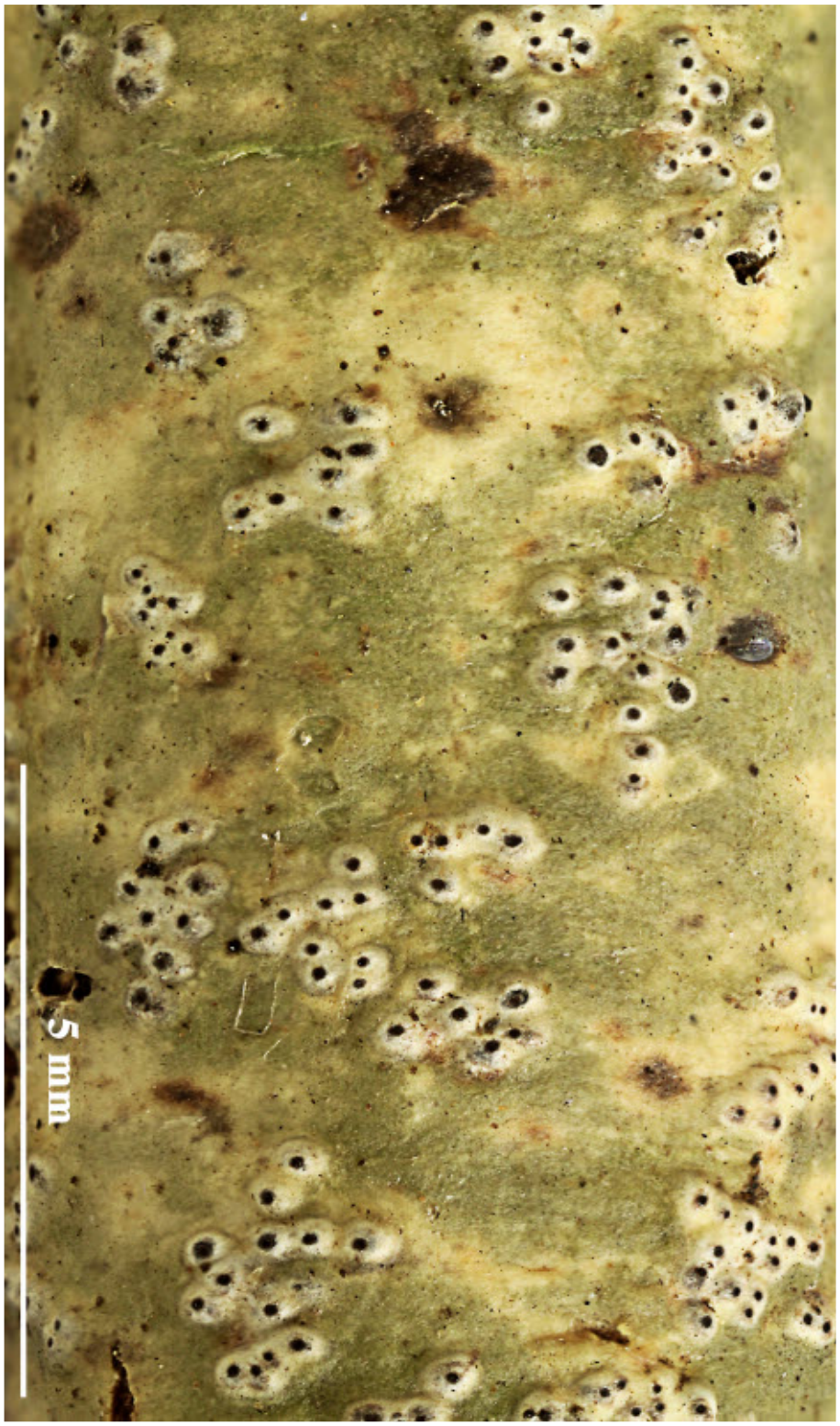
Astrothelium porosum

Astrothelium scoria (Fée) Aptroot & Lücking, Lichenologist 48(6): 885 (2016)

= *Pseudopyrenula scoria* (Fée) Vain. [as 'scoriae'], Bolm Soc. broteriana, Coimbra, sér. 2 6: 178 (1930) [1929-30]

= *Trypethelium scoria* Fée, Essai Crypt. Exot. (Paris): 69 (1825) [1824]

[ABL50843], Brazil, Alagoas, Quebrangulo, Pedra Talhada plot A2. On tree bark in Atlantic rain forest. 9°15’ S, 36°25’35’’ W, 590 m. Leg. M. Cáceres, A. Aptroot (no 50843) & J.G. Cavalcante, 24.07.2019. Det. A. Aptroot,2019.



Astrothelium scoria

Auriculora byssomorpha (Nyl.) Kalb, Lichenes Neotropici, Fascicle X (nos 401-450) (Neumarkt): 2 (1988)

= *Bacidia byssomorpha* (Nyl.) Zahlbr., Cat. Lich. Univers. 4: 102 (1926) [1927]

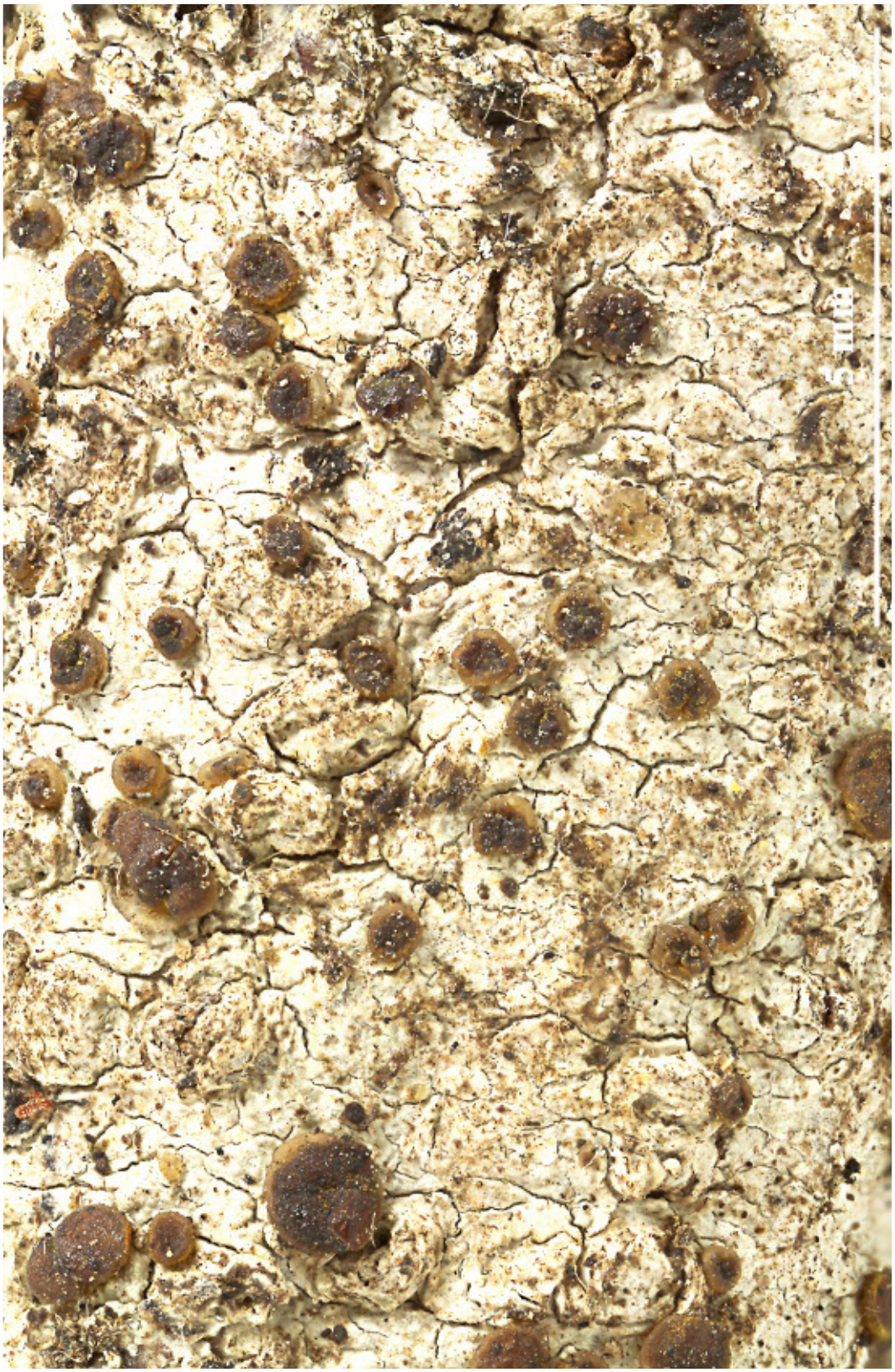
= *Lecidea byssomorpha* Nyl., Acta Soc. Sci. fenn. 7(2): 458 (1863)

[ABL50941], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On tree in Atlantic rain forest. 9°14'28" S, 36°25'11" W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50941) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot, 2019.

Auriculora byssomorpha

Bacidia heterochroa (Müll. Arg.) Zahlbr., Cat. Lich. Univers. 4: 204 (1926) [1927]
= *Patellaria heterochroa* Müll. Arg. 1880

[ABL42620], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In in Atlantic rain forest on tree bark. 9°15’ S, 36°25’35’’ W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42620), 21-23.10.2017. Det. A. Aptroot, 2017.



Bacidia heterochroa

Bacidina medialis (Tuck ex Nyl.) Kistenich, Timdal, Bendiksby & S. Ekman, Taxon 67(5): 890 (2018)

= *Bacidia medialis* (Tuck ex Nyl.) Zahlbr., Denkschr. Kaiserl. Akad. Wiss. Wien, Math.-Naturwiss. Kl. 83: 127 (1909)

= *Biatora medialis* (Tuck ex Nyl.) Tuck., Syn. N. Amer. Lich. (Boston) 2: 132 (1888)

= *Lecidea medialis* Tuck ex Nyl., Annls Sci. Nat., Bot., sér. 4 19: 346 (1863)

= *Patellaria medialis* (Tuck ex Nyl.) Müll. Arg., Flora, Regensburg 67(24): 467 (1884)

[ABL50841], Brazil, Alagoas, Quebrangulo, Pedra Talhada plot A2. On siliceous rock in Atlantic rain forest. 9°15' S, 36°25'35'' W, 590 m. Leg. M. Cáceres, A. Aptroot (no 50841) & J.G. Cavalcante, 24.07.2019. Det. A. Aptroot,2019.

Bacidina medialis

Bacidina neotropica Lücking, Fl. Neotrop., Monogr. 103: 608 (2008)

[ABL50891], Brazil, Alagoas, Quebrangulo, Pedra Talhada plot N1.3. On tree bark in Atlantic rain forest. 9°15’ S, 36°25’39” W, 740 m. Leg. M. Cáceres, A. Aptroot (no 50891) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot,2019.

Bacidina neotropica

Bacidiopsora silvicola (Malme) Kalb, Biblthca Lichenol. 88: 305 (2004)
= *Bacidia silvicola* Malme, Ark. Bot. 27A(no. 5): 15, 28 (1935)

[ABL42725], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In in Atlantic rain forest on tree bark. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42725), 21-23.10.2017. Det. A. Aptroot, 2017. Exciple hyaline, spores c. 50 x 2 µm, multi-septate.

Bacidiopsora silvicola

Bactrospora denticulata (Vain.) Egea & Torrente, Lichenologist 25(3): 229 (1993)
= *Lecanactis denticulata* Vain. 1915

[ABL42742], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42742), 21-23.10.2017. Det. A. Aptroot, 2017.

Bactrospora denticulata

Bactrospora denticulata

Bapalmuia confusa Kalb & Lücking, in Kalb, Lücking & Sérusiaux, Mycotaxon 75: 289 (2000)

[ABL42385], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42385), 21-23.10.2017. Det. A. Aptroot, 2017. - Spores 16-21 septate, 60-65 x 4-5 µm.

Bapalmuia confusa

Bathelium madreporiforme (Eschw.) Trevis., Spighe Paglie: 20 (1852)
= *Laurera madreporiformis* (Eschw.) Riddle, in Howe, Torreya 16: 50 (1916)
= *Thelenella madreporiformis* (Eschw.) Vain., Bolm Soc. broteriana, Coimbra, sér. 2 6: 175 (1930) [1929-30]
= *Trypethelium madreporiforme* Eschw., Syst. Lich.: 26 (1824)

[ABL42742], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42742), 21-23.10.2017. Det. A. Aptroot, 2017.

Bathelium madreporiforme

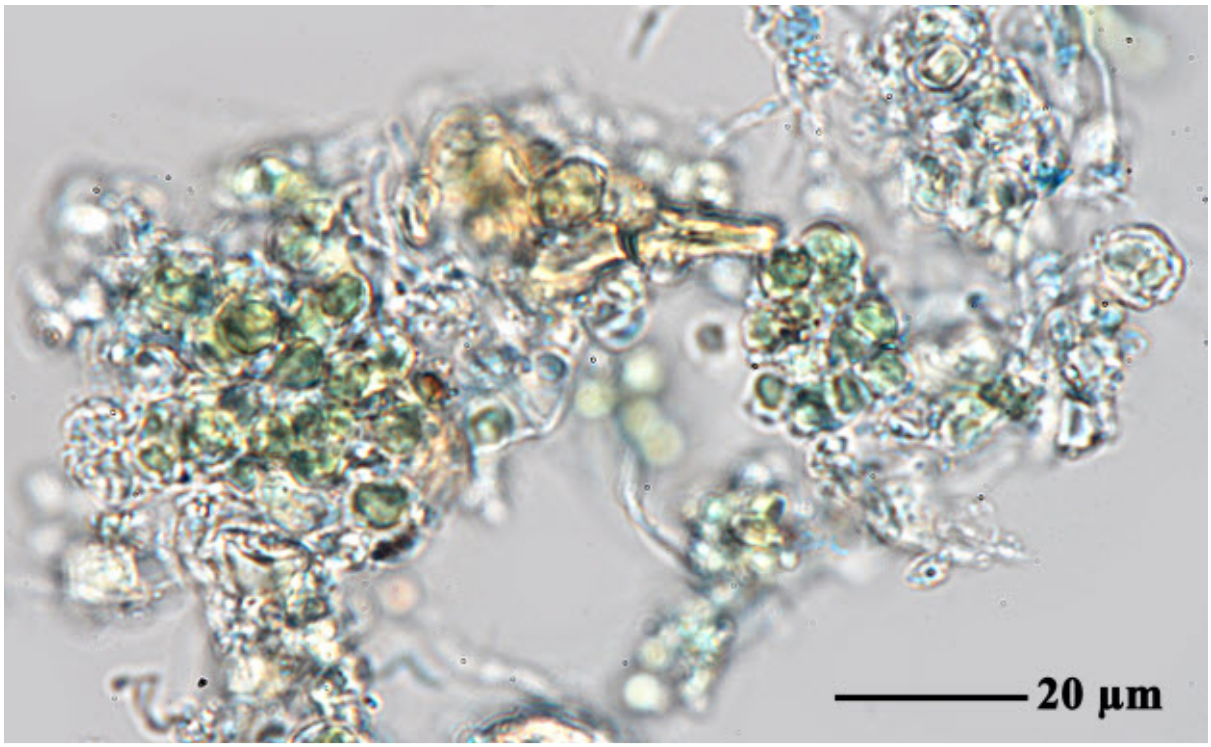
Bathelium mastoideum Afzel. ex Ach., Methodus, Sectio prior (Stockholmiæ): 111 (1803)
= *Trypethelium mastoideum* (Afzel. ex Ach.) Ach., Lich. Univ.: 307 (1810)

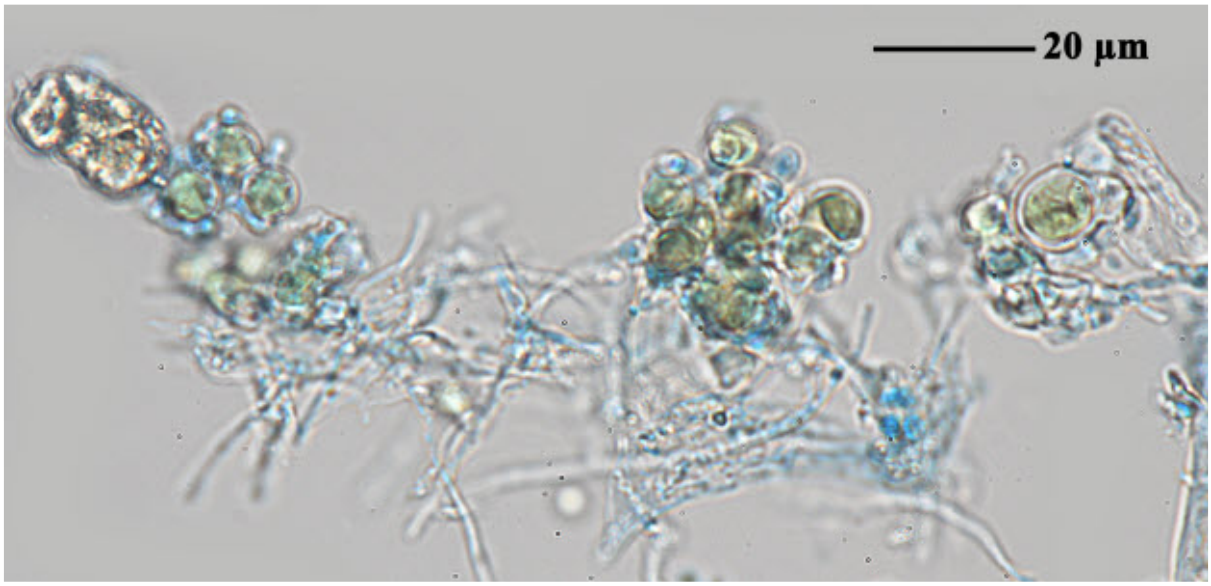
[ABL42235], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42235), 21-23.10.2017. Det. A. Aptroot, 2017. Hymenium mostly not inspersed, spores hyaline, muriform, 59-60 x 13 µm.

Bathelium mastoideum

Botryolepraria neotropica Kukwa & Pérez-Ort., Mycol. Progr. 9(3): 347 (2010)

[ABL42607], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In in Atlantic rain forest on tree bark. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42607), 21-23.10.2017. Det. A. Aptroot, 2017.





Botryolepraria neotropica

Brigantiaea leucoxantha (Spreng.) R. Sant. & Hafellner, in Hafellner & Bellemère, Nova Hedwigia 35(2 & 3): 246 (1982) [1981]

= *Biatora leucoxantha* (Spreng.) Bél., Voy. Indes Or., Bot. 2(Cryptog.): 128 (1834)

= *Heterothecium leucoxanthum* (Spreng.) A. Massal., Miscell. Lichenol.: 39 (1856)

= *Lecanora leucoxantha* (Spreng.) Cromb., J. Linn. Soc., Bot. 15: 437 (1876) [1877]

= *Lecidea leucoxantha* Spreng., K. svenska Vetensk-Akad. Handl., ser. 3 41: 46 (1820)

= *Lopadium leucoxanthum* (Spreng.) Zahlbr., Sber. Akad. Wiss. Wien, Math.-naturw. Kl., Abt. 1 111: 398 (1902)

= *Miltidea leucoxantha* (Spreng.) Stirt., Trans. Proc. N.Z. Inst. 30: 387 (1898) [1897]

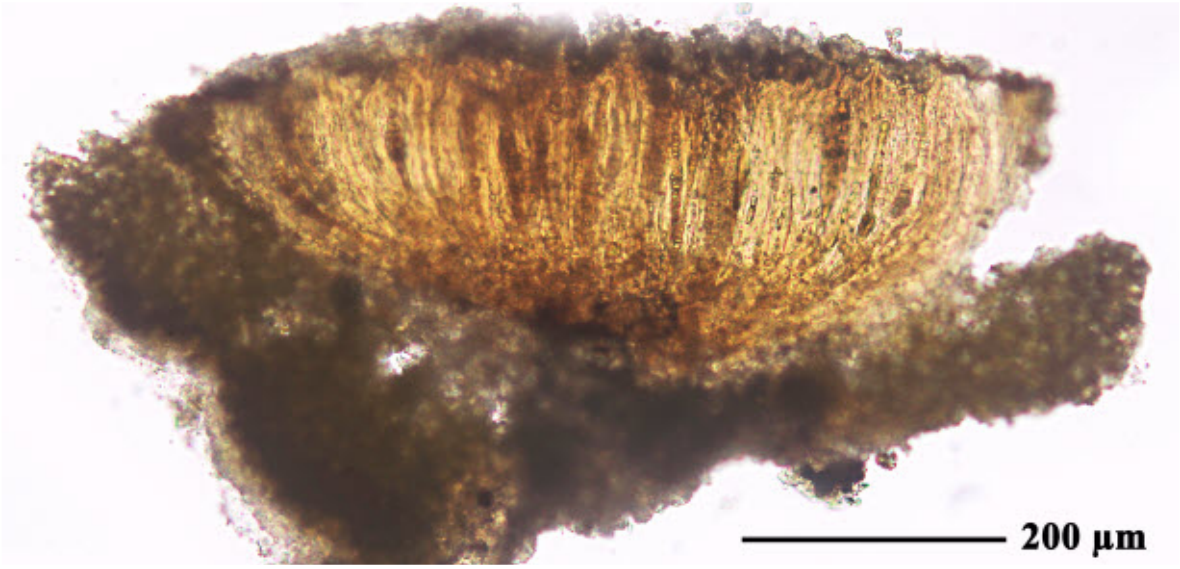
= *Patellaria leucoxantha* (Spreng.) Spreng., Syst. veg., Edn 16 4(1): 267 (1827)

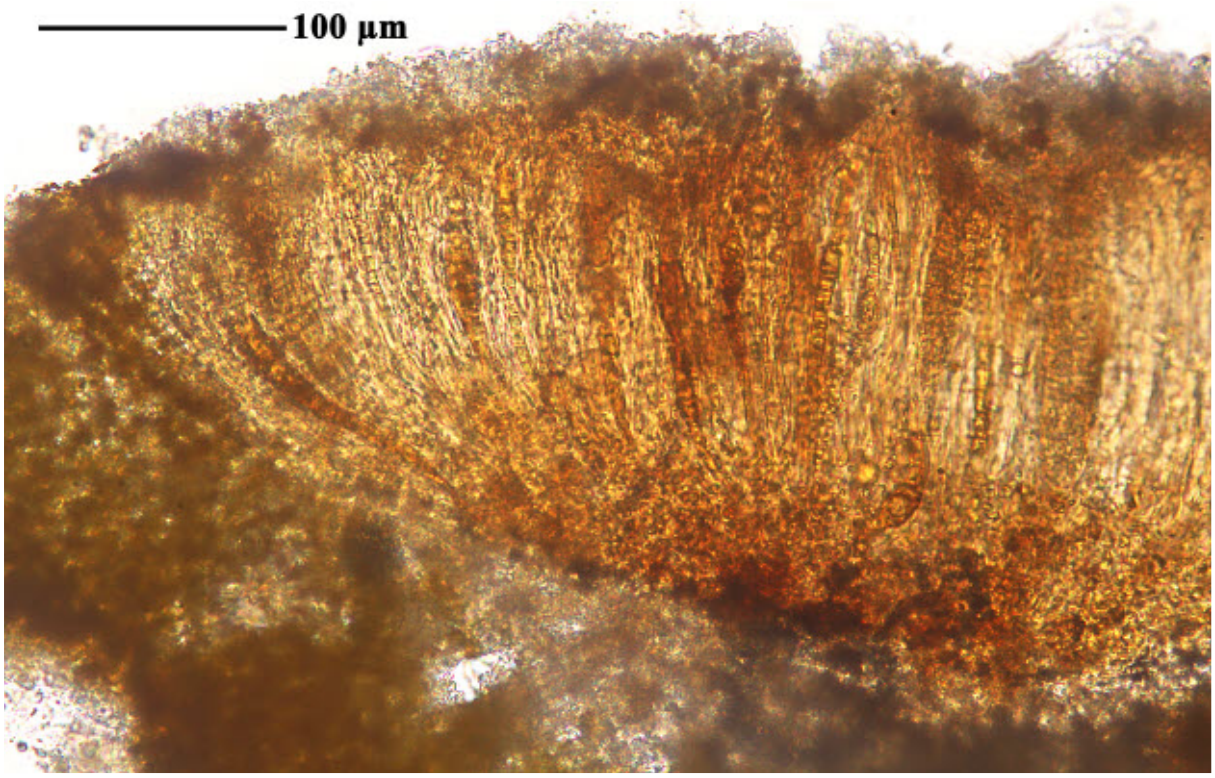
= *Sporopodium leucoxanthum* (Spreng.) Vain., Ann. Acad. Sci. fenn., Ser. A 15(no. 6): 88 (1921)

= *Xanthocarpia leucoxantha* (Spreng.) Hampe, in Müller, Bot. Ztg. 15: 386 (1857)

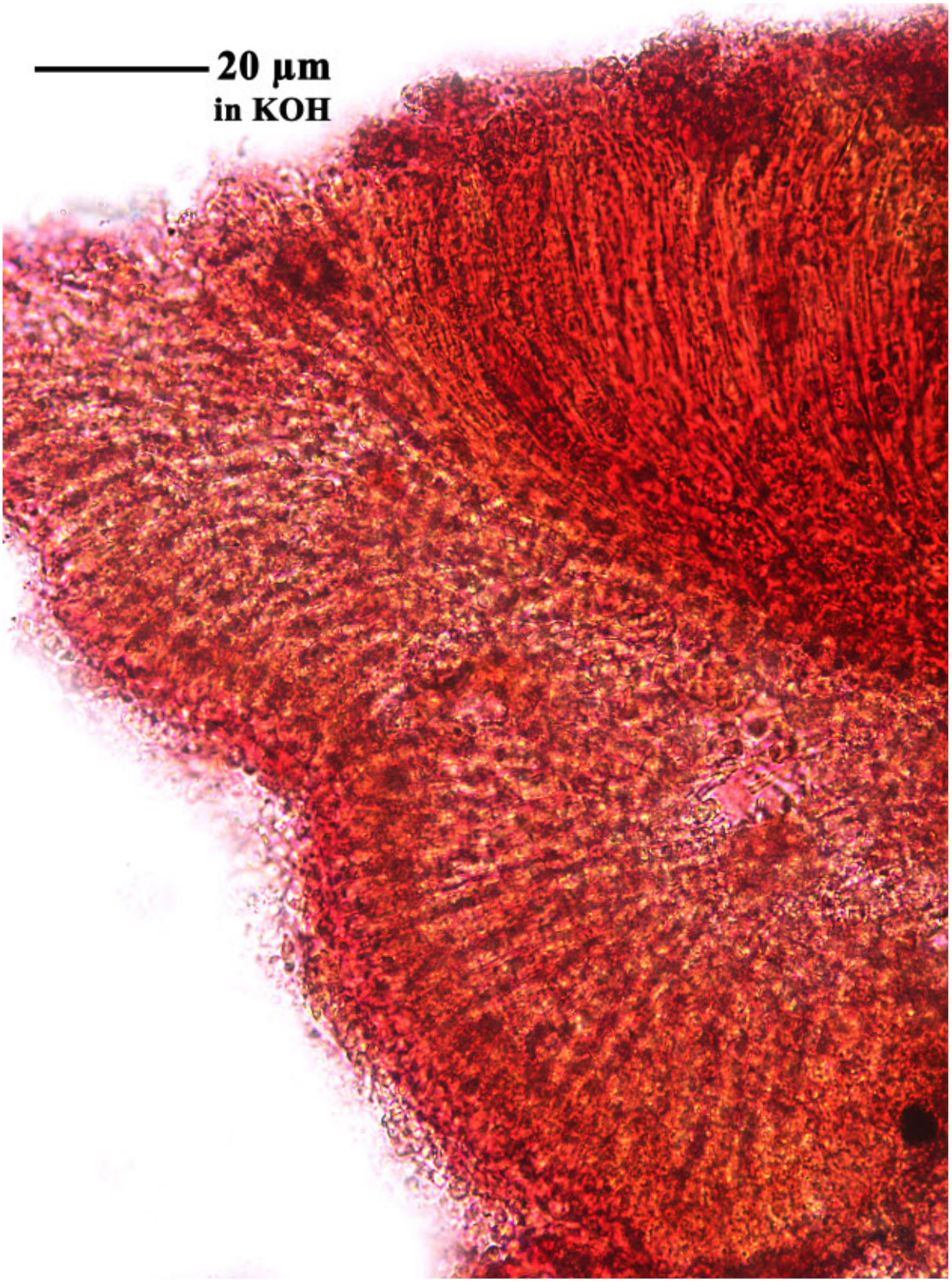
[ABL42552], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In in Atlantic rain forest on tree bark. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42552), 21-23.10.2017. Det. A. Aptroot, 2017.

Brigantiaea leucoxantha

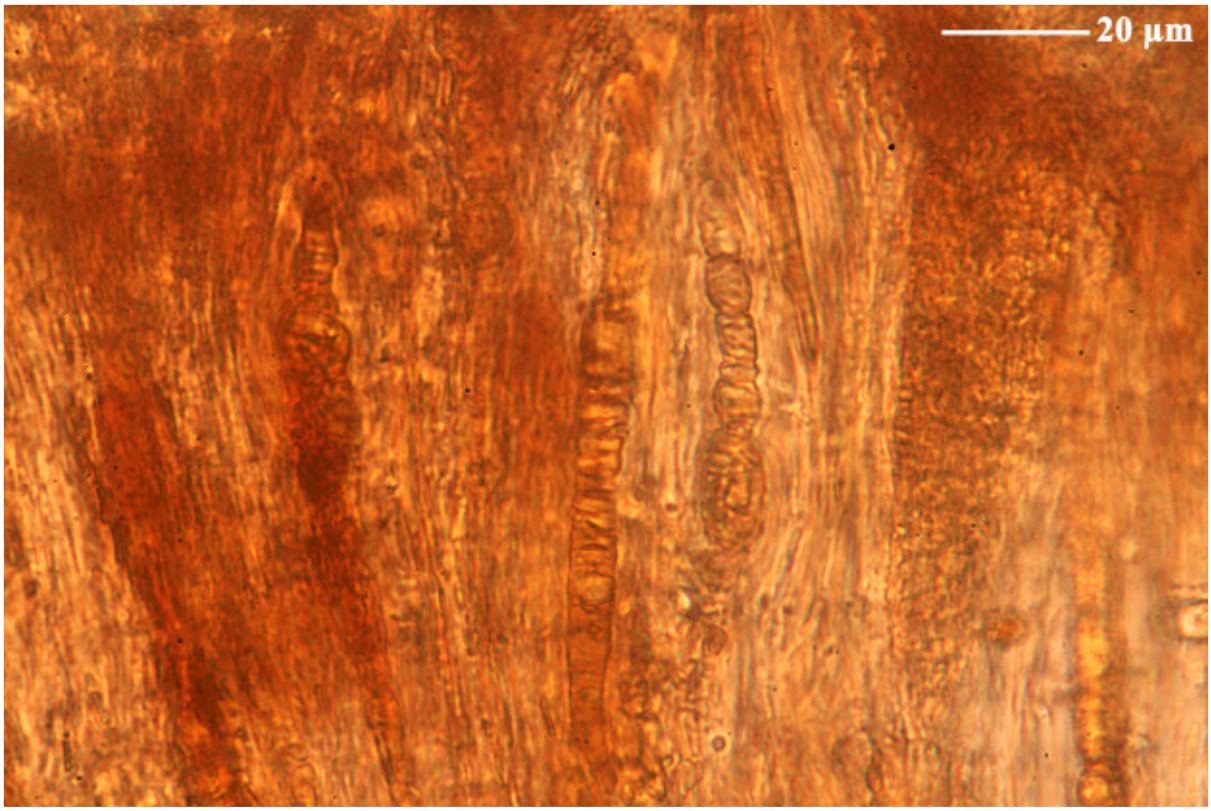


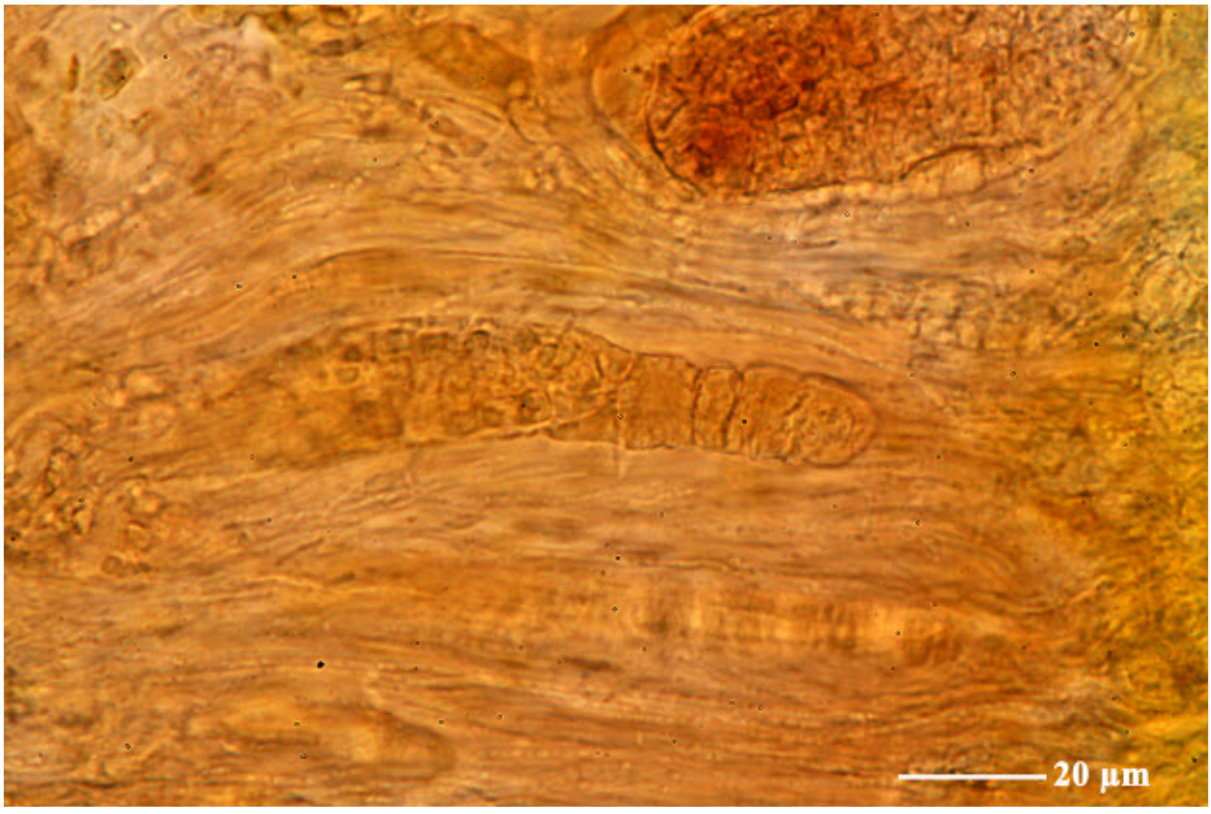


Brigantiaea leucoxantha



Brigantiaea leucoxantha





Brigantiaea leucoxantha

Buellia aethalea (Ach.) Th. Fr., Lich. Scand. (Upsaliae)(2): 604 (1874)
= *Buellia aethalea* f. *aethaleoides* (Nyl.) Grummann, in Müller, Decheniana 111: 195 (1958)
= *Buellia aethalea* f. *baltica* (Erichsen) Grummann, in Hillmann & Grummann, Krypt.-Fl. Brandenburg (Leipzig): 776 (1957)
= *Buellia aethalea* f. *sororioides* (Erichsen) Grummann, in Hillmann & Grummann, Krypt.-Fl. Brandenburg (Leipzig): 777 (1957)
= *Buellia aethaleoides* (Nyl.) H. Olivier, Bull. Acad. Intern. Géogr. Bot. 12: 176 (1903)
= *Buellia atroalba* subvar. *aethalea* (Ach.) Boistel, Nouv. Fl. Lich. (Paris) 2: 238 (1903)
= *Buellia atroalba* var. *aethaleoides* (Nyl.) Boistel, Nouv. Fl. Lich. (Paris) 2: 238 (1903)
= *Buellia atroalbella* var. *aethalea* (Ach.) Mong., Bull. Géogr. Bot. 9: 241 (1900)
= *Buellia baltica* Erichsen, Verh. bot. Ver. Prov. Brandenb. 72: 46 (1930)
= *Buellia impressula* (Leight.) A.L. Sm., Monogr. Brit. Lich. 2: 134 (1911)
= *Buellia sororia* Th. Fr., Lich. Scand. (Upsaliae)(2): 603 (1874)
= *Buellia sororia* var. *sororioides* (Erichsen) Riehm., Sber. Abhandl. Naturwiss. Ges. Isis: 70 (1935) [1933-34]
= *Buellia sororioides* Erichsen, Verh. bot. Ver. Prov. Brandenb. 72: 49 (1930)
= *Caloplaca umbrinofusca* (Nyl.) H. Olivier, Mém. Soc. natn. Sci. nat. Cherbourg 37: 31 (1909)
= *Gyalecta aethalea* Ach., Lich. Univ.: 669 (1810)
= *Lecanora umbrinofusca* Nyl. [as 'umbrino-fusca'], Flora, Regensburg 63: 389 (1880)
= *Lecidea aethalea* (Ach.) Nyl., in Lamy, Bull. Soc. bot. Fr. 30(6): 421 (1884) [1883]
= *Lecidea aethaleoides* Nyl., Flora, Regensburg 68: 42 (1885)
= *Lecidea atroalbella* var. *aethalea* (Ach.) Nyl., in Lamy, Bull. Soc. bot. Fr. 25(5): 469 (1880) [1878]
= *Lecidea impressula* Leight., Trans. Linn. Soc. London, Bot., Ser. 2 1(5): 237 (1878)
= *Lecidea sororia* (Th. Fr.) Stizenb., Ber. Tät. St Gall. naturw. Ges.: 236 (1876) [1874-75]
= *Lecidea verruculosa* Borrer, in Hooker in Smith, Engl. Fl., Mosses, Hepaticae, Lichens, Characeae and Algae (London) 5(1): 178 (1833)
= *Lichen opegraphus* * *aethalea* (Ach.) Lam., Encycl. Méth. Bot., Suppl. (Paris) 3(2): 409 (1813)
= *Melanaspicilia aethalea* (Ach.) Vain., Ark. Bot. 8(no. 4): 79 (1909)
= *Rinodina umbrinofusca* (Nyl.) H. Olivier, Mém. Soc. natn. Sci. nat. Cherbourg 37: 187 (1909)

[ABL42567], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In in Atlantic rain forest on granite. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42567), 21-23.10.2017. . Det. A. Aptroot, 2017.

Buellia aethalea

Buellia mamillana (Tuck.) W.A. Weber, Mycotaxon 27: 493 (1986)
= *Buellia australica* Räsänen, Ann. bot. Soc. Zool.-Bot. fenn. Vanamo 20(no. 3): 14 (1944)
= *Rinodina mamillana* Tuck., Proc. Amer. Acad. Arts & Sci. 7: 226 (1868) [1866]

[ABL50836], Brazil, Alagoas, Quebrangulo, Pedra Talhada plot A2.3. On siliceous rock in Atlantic rain forest. 9°15' S, 36°25'35" W, 508 m. Leg. M. Cáceres, A. Aptroot (no 50836) & J.G. Cavalcante, 24.07.2019. Det. A. Aptroot,2019.

Buellia mamillana

Buellia mamillana (Tuck.) W.A. Weber, Mycotaxon 27: 493 (1986)
= *Buellia australica* Räsänen, Ann. bot. Soc. Zool.-Bot. fenn. Vanamo 20(no. 3): 14 (1944)
= *Rinodina mamillana* Tuck., Proc. Amer. Acad. Arts & Sci. 7: 226 (1868) [1866]

[ABL50859], Brazil, Alagoas, Quebrangulo, Pedra Talhada plot A2.3. On siliceous rock in Atlantic rain forest. 9°15' S, 36°25'35" W, 508 m. Leg. M. Cáceres, A. Aptroot (no 50859) & J.G. Cavalcante, 24.07.2019. Det. A. Aptroot,2019.

Buellia mamillana

Buellia sororia Th. Fr., Lich. Scand. (Upsaliae)(2): 603 (1874)

[ABL51017], Brazil, Alagoas, Quebrangulo, Pedra Talhada rock. On exposed siliceous rock in Atlantic rain forest. 9°15’ S, 36°25’35” W, 700 m. Leg. M. Cáceres, A. Aptroot (no 51017) & J.G. Cavalcante, 26.07.2019. Det. A. Aptroot, 2019.

Buellia sororia

Buellia trachyspora Vain., Ann. Acad. Sci. fenn., Ser. A 6(no. 7): 84 (1915)

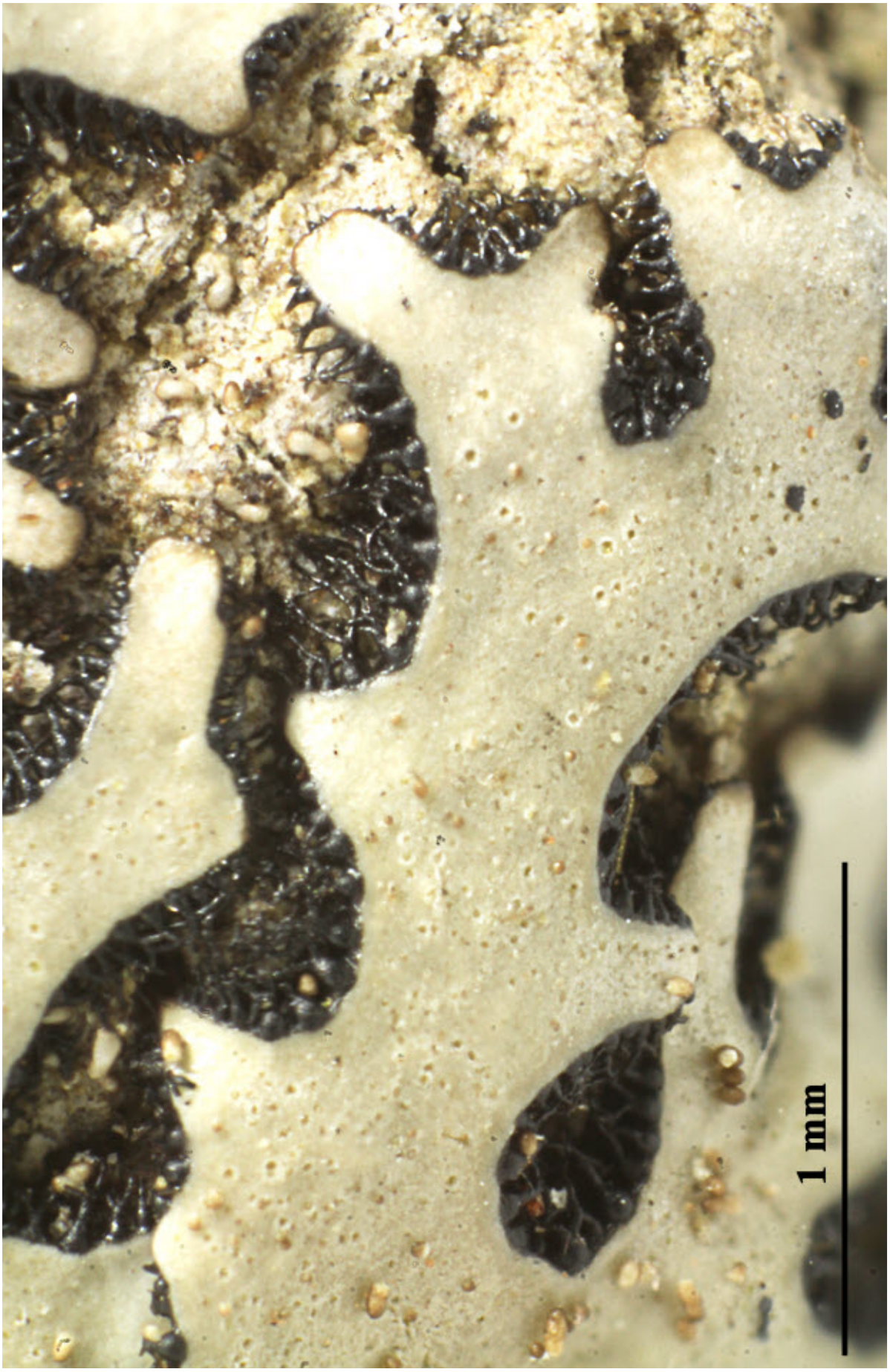
[ABL50951], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On exposed siliceous rock in Atlantic rain forest. 9°14’28” S, 36°25’11” W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50951) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot, 2019.

Buellia trachyspora

Bulbothrix laevigatula (Nyl.) Hale, Phytologia 28(5): 480 (1974)
= *Parmelia laevigatula* Nyl. 1885

[ABL42716], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42716), 21-23.10.2017. Det. A. Aptroot, 2017. - C+ red.

Bulbothrix laevigatula



Bulbothrix laevigatula

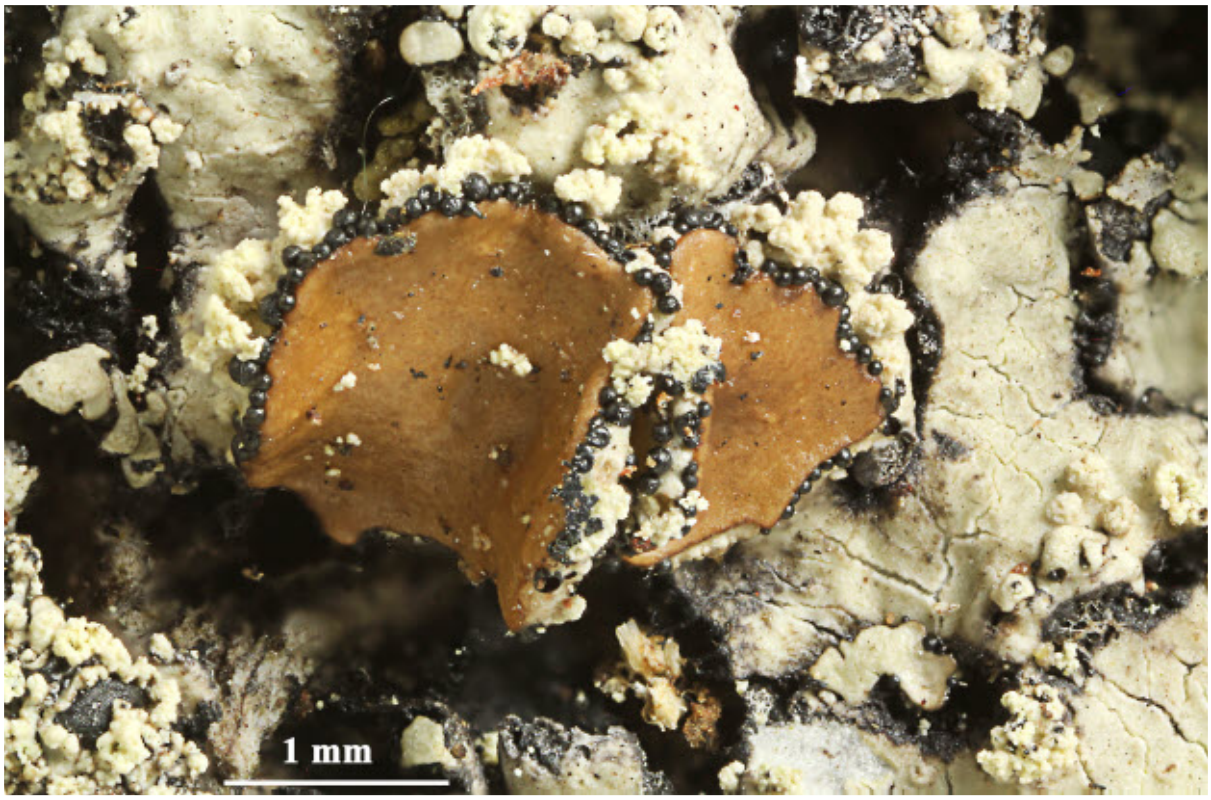
Bulbothrix lyngei Benatti & Marcelli, in Benatti, Fungal Diversity 2(4): 257 (2011)

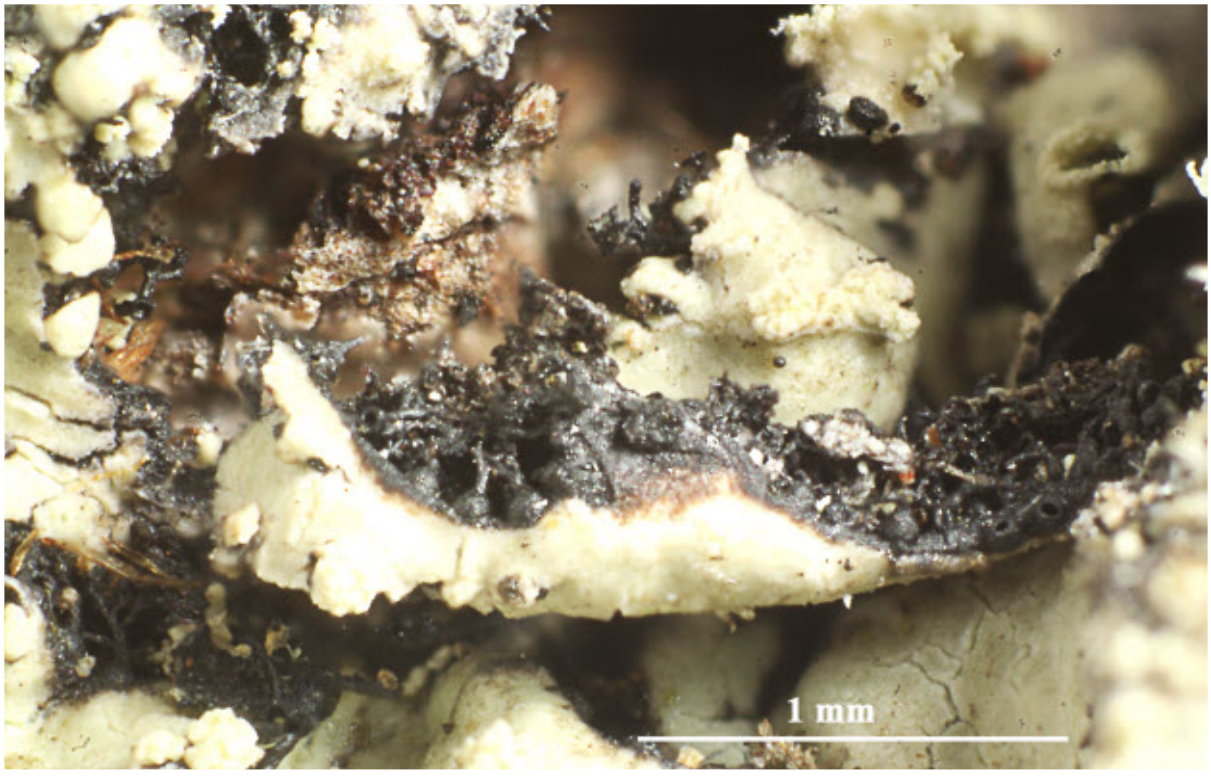
[ABL50942u], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On twigs of shrub in exposed area in Atlantic rain forest. 9°14’28’’ S, 36°25’11’’ W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50942u) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot, 2019.

Bulbothrix lyngei

Bulbothrix oliveirae A. Fletcher [as 'oliveirai'], in Hale, Mycotaxon 25(1): 86 (1986)

[ABL42692], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15’ S, 36°25’35’’ W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42692), 21-23.10.2017. Det. A. Aptroot, 2017. - Thallus C+ pink, medulla C+ red.





Bulbothrix oliveirae

Bulbothrix pigmentacea (Hale) Hale, Phytologia 28(5): 480 (1974)
= *Parmelia pigmentacea* Hale 1968

[ABL42691], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15’ S, 36°25’35’’ W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42691), 21-23.10.2017. Det. A. Aptroot, 2017. - Thallus K-, C-, KC-, UV-.

Bulbothrix pigmentacea

Bulbothrix subdissecta (Nyl.) Hale, Phytologia 28(5): 481 (1974)
= *Parmelia subdissecta* Nyl. 1882

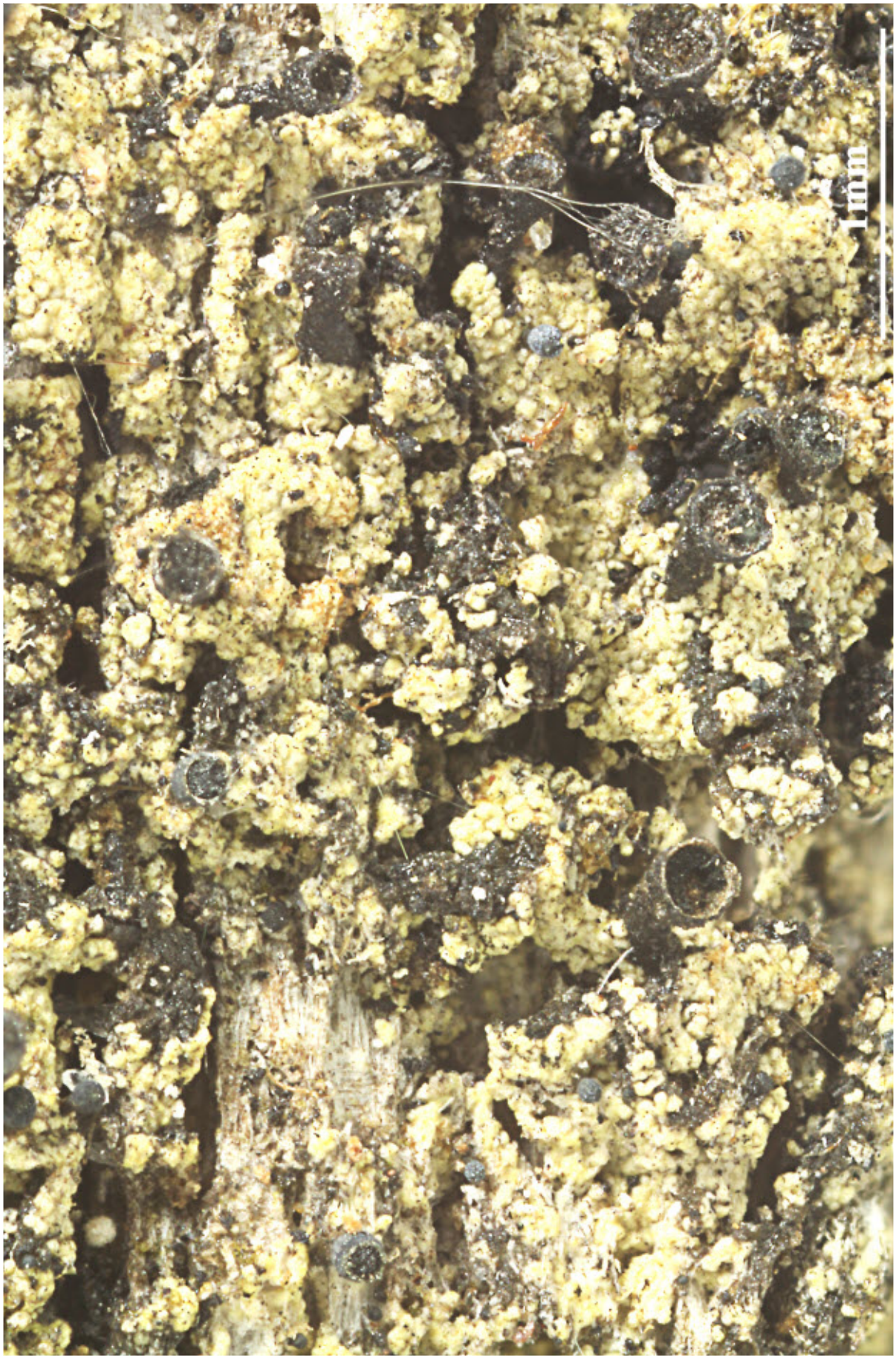
[ABL42821], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42821), 21-23.10.2017. Det. A. Aptroot, 2017. - Medulla C-, K-, KC+ pink.

Bulbothrix subdissecta

Bulbothrix subdissecta

Calicium hyperelloides Nyl., Syn. meth. lich. (Parisiis) 1(2): 153 (1860)
= *Chaenothecopsis hyperelloides* (Nyl.) Clauzade & Cl. Roux, Likenoj de Okcidenta Europo: 223 (1985)

[ABL42746], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on wooden pole. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42746), 21-23.10.2017. Det. A. Aptroot, 2017.



Calicium hyperelloides

Calopadia subcoerulescens (Zahlbr.) Vězda, Lichenes Selecti Exsiccati, Fascicle 88 (nos 2176-2200) (Průhonice): 3 (no. 2185) (1988)
= *Lopadium subcoerulescens* Zahlbr., in Zahlbruckner, Keissler & Allen, Trans. Proc. N.Z. Inst. 59: 312 (1928)

[ABL42296], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42296), 21-23.10.2017. Det. A. Aptroot, 2017. - Spores muriform, 1/ascus, 35 x 25 µm.

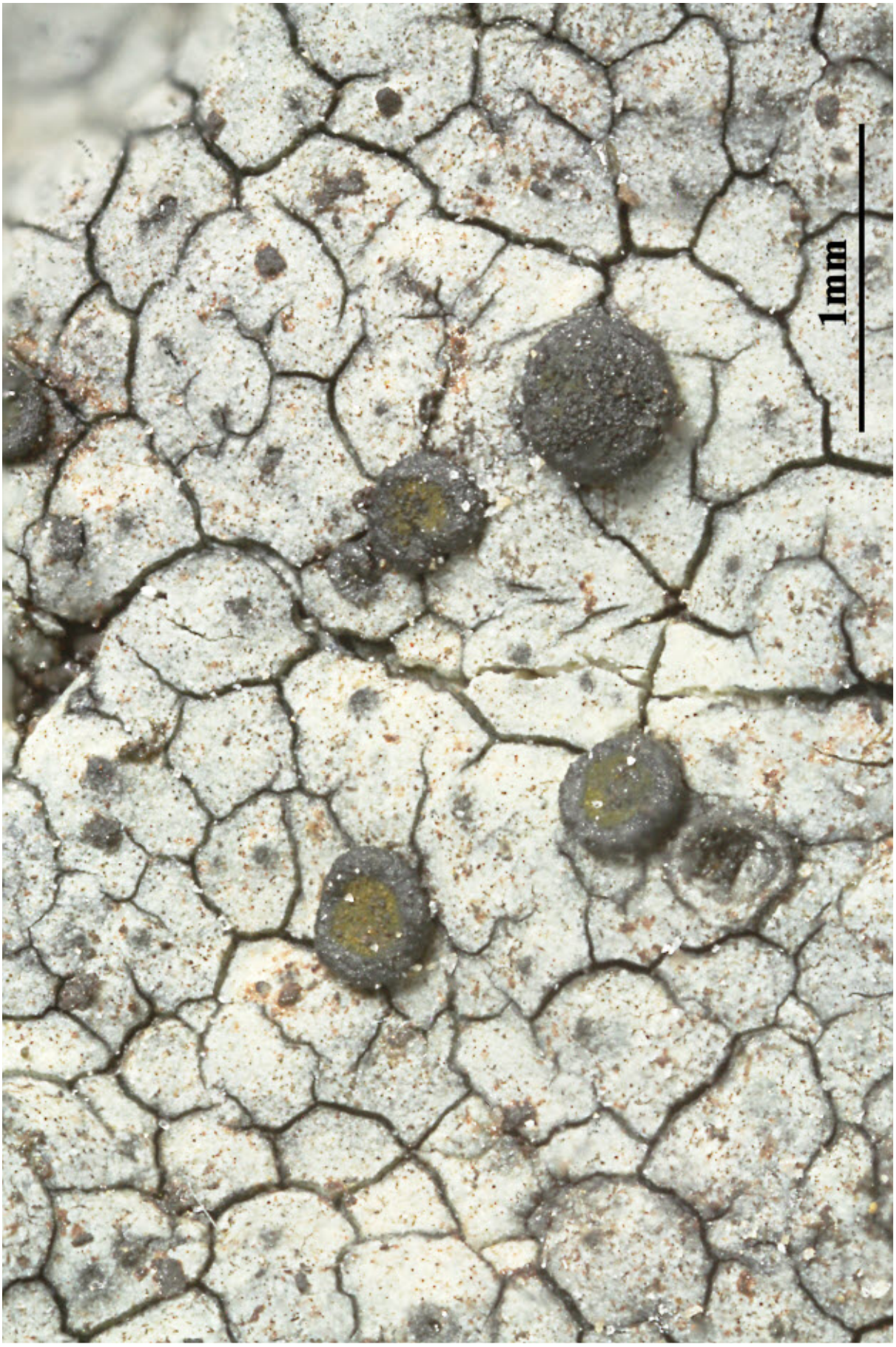
Calopadia subcoerulescens

Caloplaca diplacia (Ach.) Riddle, Memoirs of the Brooklyn botanical Garden 1: 113 (1918)

= *Lecanora diplacia* Ach. 1814

= *Sucioplaca diplacia* (Ach.) Bungartz, Søchting & Arup, in Bungartz, Søchting & Arup 2020

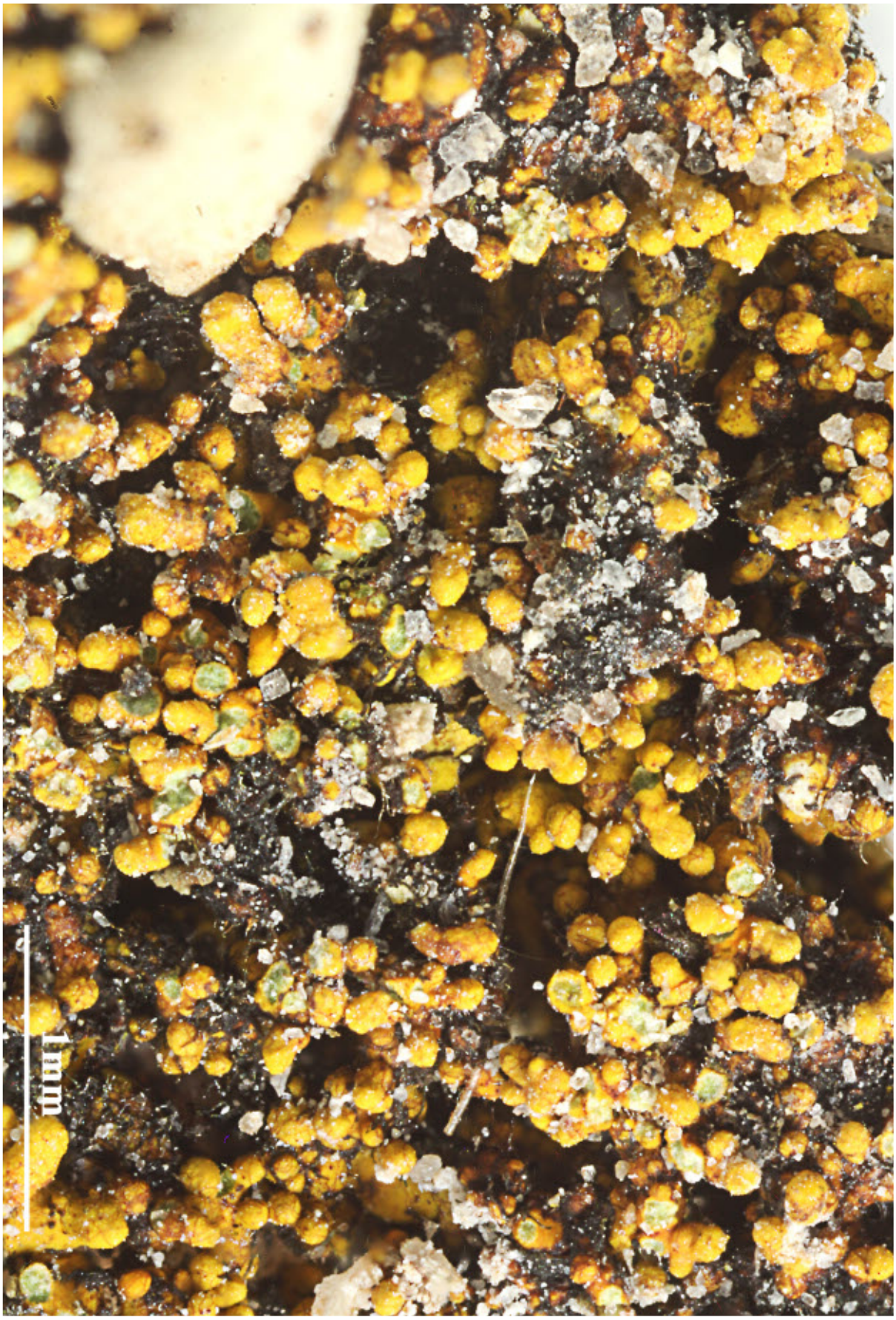
[ABL42576], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In in Atlantic rain forest on granite. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42576), 21-23.10.2017. . Det. A. Aptroot, 2017. - Epihymenium brown, Spores hyaline, polarilocular,10 x 5 µm.



Caloplaca diplacia

Caloplaca isidiosa (Vain.) Zahlbr., Cat. Lich. Univers. 7: 241 (1931)
= *Oceanoplaca isidiosa* (Vain.) Bungartz, Søchting & Arup, in Bungartz, Søchting & Arup, Plant and Fungal Systematics 65(2): 541 (2020)
= *Placodium isidiosum* Vain., Acta Soc. Fauna Flora fenn. 7(no. 1): 118 (1890)

[ABL51007], Brazil, Alagoas, Quebrangulo, Pedra Talhada rock. On exposed siliceous rock in Atlantic rain forest. 9°15' S, 36°25'35" W, 700 m. Leg. M. Cáceres, A. Aptroot (no 51007) & J.G. Cavalcante, 26.07.2019. Det. A. Aptroot, 2019.



Caloplaca isidiosa

Canoparmelia caroliniana (Nyl.) Elix & Hale, in Elix, Johnston & Verdon, Mycotaxon 27: 278 (1986)
= *Parmelia caroliniana* Nyl. 1885

[ABL42724], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42724), 21-23.10.2017. Det. A. Aptroot, 2017.

Canoparmelia caroliniana

Canoparmelia cryptochlorophaea (Hale) Elix & Hale, in Elix, Johnston & Verdon, Mycotaxon 27: 278 (1986)
= *Parmelia cryptochlorophaea* Hale 1959

[ABL42874], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42874), 21-23.10.2017. Det. A. Aptroot, 2017.

Canoparmelia cryptochlorophaea

Cladia aggregata (Sw.) Nyl., Bull. Soc. linn. Normandie, sér. 2 4(2): 167 (1870)
= *Baeomyces aggregatus* (Sw.) Ach., Methodus, Sectio post. (Stockholmiæ): 355 (1803)
= *Cenomyce aggregata* (Sw.) Ach., Lich. Univ.: 563 (1810)
= *Cenomyce diatrypa* Taylor, London J. Bot. 6: 186 (1847)
= *Cladia collodes* (Hook. f. & Taylor) C.W. Dodge, Nova Hedwigia 19(3-4): 490 (1971) [1970]
= *Cladina aggregata* (Sw.) Nyl., Flora, Regensburg 49(12): 179 (1866)
= *Cladina gorgonea* var. *subrangiferina* (Nyl.) Stizenb., Ber. Tät. St Gall. naturw. Ges.: 134 (1890) [1888-89]
= *Cladonia aggregata* (Sw.) Spreng., Syst. veg., Edn 16 4(1): 270 (1827)
= *Cladonia aggregata* f. *subdivergens* Hellb., Bih. K. svenska VetenskA-kad. Handl., Afd. 3 21(no. 13): 89 (1896)
= *Cladonia aggregata* var. *straminea* Müll. Arg., in Vainio, Revue mycol., Toulouse 1(4): 162 (1879)
= Cladonia aggregata *var*. subdivergens (Hellb.) Räsänen, Ann. bot. Soc. Zool.-Bot. fenn. Vanamo 2(no. 1): 51 (1932)
= *Cladonia aggregata* var. *tenera* F. Wilson, Pap. Proc. R. Soc. Tasm.: 153 (1893) [1892]
= *Cladonia cornicularia* Flörke, De Cladoniis, Commentatio secunda: 180 (1828)
= *Cladonia gorgonea* var. *subrangiferina* Nyl., Syn. meth. lich. (Parisiis) 1(2): 214 (1860)
= *Cladonia gorgonina* (Bory) Vain., Acta Soc. Fauna Flora fenn. 4(no. 1): 306 (1887)
= *Cladonia gorgonina* var. *subrangiferina* (Nyl.) Vain., Acta Soc. Fauna Flora fenn. 4(no. 1): 309 (1887)
= *Clathrina aggregata* (Sw.) Müll. Arg., Flora, Regensburg 71(2): 18 (1888)
= *Coralloides gorgonina* Bory, in Flörke, Mag. Gesell. naturf. Freunde, Berlin 3(1-2): 125 (1809)
= *Dufourea collodes* Hook. f. & Taylor, London J. Bot. 3: 650 (1844)
= *Lichen aggregatus* Sw., Prodr.: 147 (1788)
= *Stereocaulon aggregatum* (Sw.) Raeusch., Nomencl. bot., Edn 3: 328 (1797)

[ABL50985], Brazil, Alagoas, Quebrangulo, Pedra Talhada rock. On exposed siliceous rock in Atlantic rain forest. 9°15’ S, 36°25’35” W, 700 m. Leg. M. Cáceres, A. Aptroot (no 50985) & J.G. Cavalcante, 26.07.2019. Det. A. Aptroot, 2019.

Cladia aggregata

Cladia aggregata

Cladonia anaemica (Nyl.) Ahti, Fl. Neotrop., Monogr. 78: 180 (2000)
= *Cladonia miniata f. anaemica* (Nyl.) Vain., Hedwigia 38(Beibl.): (189) (1899)
= *Cladonia miniata var. anaemica* (Nyl.) Vain., Acta Soc. Fauna Flora fenn. 4(no. 1): 64 (1887)
= *Cladonia sanguinea f. anaemica* Nyl., Syn. meth. lich. (Parisiis) 1(2): 219 (1860)
= *Cladonia sanguinea var. anaemica* (Nyl.) Nyl., Syn. meth. lich. (Parisiis) 1(2): 219 (1860)

[ABL50979], Brazil, Alagoas, Quebrangulo, Pedra Talhada rock. On exposed siliceous rock in Atlantic rain forest. 9°15' S, 36°25'35" W, 700 m. Leg. M. Cáceres, A. Aptroot (no 50979) & J.G. Cavalcante, 26.07.2019. Det. A. Aptroot, 2019.

Cladonia anaemica

Cladonia anaemica

Cladonia ceratophylla (Sw.) Spreng., Syst. veg., Edn 16 4(1): 271 (1827)
= *Baeomyces ceratophyllus* (Sw.) Ach., Methodus, Sectio post. (Stockholmiæ): 352 (1803)
= *Cenomyce ceratophylla* (Sw.) Ach., Lich. Univ.: 533 (1810)
= *Imbricaria ceratophylla* (Sw.) Hepp, Flecht. Europ.: no. 52 (1853)
= *Lichen ceratophyllus* Sw. [as 'cerotophyllus'], Prodr.: 147 (1788)

[ABL50961], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On exposed siliceous rock in Atlantic rain forest. 9°14’28’’ S, 36°25’11’’ W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50961) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot, 2019.

Cladonia ceratophylla

Cladonia ceratophylla

Cladonia didyma (Fée) Vain., Acta Soc. Fauna Flora fenn. 4(no. 1): 137 (1887)
= *Scyphophorus didymus* Fée 1825

[ABL50958], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On Bromelia stem in Atlantic rain forest. 9°14'28" S, 36°25'11" W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50958) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot, 2019.

Cladonia didyma

Cladonia polyscypha Ahti & L. Xavier, Trop. Bryol. 7: 61 (1993)

[ABL50911], Brazil, Alagoas, Quebrangulo, Pedra Talhada, do Boi. On exposed siliceous rock in Atlantic rain forest. 9°14'28" S, 36°25'11" W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50911) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot,2019.

Cladonia polyscypha

Cladonia robbinsii A. Evans, Trans. Conn. Acad. Arts & Sci 35: 611 (1944)

[ABL50986], Brazil, Alagoas, Quebrangulo, Pedra Talhada rock. On exposed siliceous rock in Atlantic rain forest. 9°15’ S, 36°25’35” W, 700 m. Leg. M. Cáceres, A. Aptroot (no 50986) & J.G. Cavalcante, 26.07.2019. Det. A. Aptroot, 2019.

Cladonia robbinsii

Cladonia rugicaulis Ahti, Trop. Bryol. 7: 63 (1993)

[ABL50965], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On exposed siliceous rock in Atlantic rain forest. 9°14’28” S, 36°25’11” W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50965) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot, 2019.

Cladonia rugicaulis

Cladonia rugicaulis

Coccocarpia filiformis Arv., Op. bot. 67: 62 (1983) [1982]

[ABL42323], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42323), 21-23.10.2017. Det. A. Aptroot, 2017.

Coccocarpia filiformis

Coccocarpia palmicola (Spreng.) Arv. & D.J. Galloway, Bot. Notiser 132(2): 242 (1979)
= *Coccocarpia cronia* (Tuck.) Vain., Ann. Acad. Sci. fenn., Ser. A 6(no. 7): 103 (1915)
= *Coccocarpia cronia* var. *isidiophylla* (Müll. Arg.) Vain., Ann. Acad. Sci. fenn., Ser. A 6(no. 7): 103 (1915)
= *Coccocarpia cronia* var. *isidiosa* (Müll. Arg.) Vain., Ann. Acad. Sci. fenn., Ser. A 6(no. 7): 104 (1915)
= *Coccocarpia molybdaea* f. *cronia* (Tuck.) Nyl., Flora, Regensburg 59(5): 75 (1876)
= *Coccocarpia molybdaea* var. *cronia* (Tuck.) Nyl., Annls Sci. Nat., Bot., sér. 4 19: 312 (1863)
= *Coccocarpia pellita* f. *isidiosa* Müll. Arg., Bot. Jb. 20: 263 (1894)
= *Coccocarpia pellita* subvar. *isidiophylla* (Müll. Arg.) Vain., Acta Soc. Fauna Flora fenn. 7(no. 1): 210 (1890)
= *Coccocarpia pellita* var. *cronia* (Tuck.) Müll. Arg., Flora, Regensburg 65: 320 (1882)
= *Coccocarpia pellita var. isidiophylla* Müll. Arg., Flora, Regensburg 65: 321 (1882)
= *Coccocarpia pellita* var. *isidiosa* (Müll. Arg.) Malme, Ark. Bot. 20A(no. 3): 20 (1925)
= *Lecidea palmicola* Spreng., K. svenska Vetensk-Akad. Handl., ser. 3 41: 46 (1820)
= *Pannaria molybdaea* f. *cronia* (Tuck.) Tuck., Syn. N. Amer. Lich. (Boston) 1: 125 (1882)
= *Pannaria molybdaea* var. *cronia* (Tuck.) C.W. Harris, Bryologist 9(3): 50 (1906)
= *Pannaria parmelioides* f. *cronia* (Tuck.) Hue, Bull. Soc. bot. Fr. 48: LX (1902) [1901]
= *Pannaria parmelioides* f. *isidiophylla* (Müll. Arg.) Hue, Bull. Soc. bot. Fr. 48: LX (1902) [1901]
= *Pannaria parmelioides* var. *cronia* (Tuck.) Hue, Bull. Soc. bot. Fr. 48: LX (1902) [1901]
= *Pannaria parmelioides* var. *isidiophylla* (Müll. Arg.) Hue, Bull. Soc. bot. Fr. 48: LX (1902) [1901]
= *Parmelia cronia* Tuck., Proc. Amer. Acad. Arts & Sci. 1: 228 (1848)
= *Parmeliella cronia* (Tuck.) D.C. Linds., British Antarctic Survey, Scientific Reports 89: 38 (1975)

[ABL42659], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15’ S, 36°25’35’’ W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42659), 21-23.10.2017. Det. A. Aptroot, 2017.

Coccocarpia palmicola

Coccocarpia palmicola

Coccocarpia pellita (Ach.) Müll. Arg., Flora, Regensburg 65: 320 (1882)
= *Coccocarpia molybdaea f. pellita* (Ach.) Nyl., *Annls Sci. Nat., Bot., sér. 4 19: 312 (1863)*
= *Coccocarpia molybdaea var. pellita* (Ach.) Nyl., Annls Sci. Nat., Bot., sér. 4 19: 312 (1863)
= *Coccocarpia parmelioides var. pellita* (Ach.) Trevis., Lichenoth. Veneta 3-4: no. 98 (1869)
= *Coccocarpia portoricensis* (Spreng.) C.W. Dodge, Ann. Mo. bot. Gdn 20: 458 (1933)
= *Lecidea pellita* (Ach.) Spreng., Syst. veg., Edn 16 4(1): 264 (1827)
= *Lecidea portoricensis* Spreng., K. svenska Vetensk-Akad. Handl., ser. 3 41: 48 (1820)
= *Lichen diatrypus* * *pellita* (Ach.) Lam., Encycl. Méth. Bot., Suppl. (Paris) 3(2): 405 (1813)
= *Parmelia pellita* Ach., Lich. Univ.: 468 (1810)
= *Patellaria portoricensis* (Spreng.) Spreng., Syst. veg., Edn 16 4(1): 269 (1827)

[ABL42545], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In in Atlantic rain forest on tree bark. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42545), 21-23.10.2017. Det. A. Aptroot, 2017.

Coccocarpia pellita

Coccocarpia prostrata Lücking, Aptroot & Sipman, in Lücking, Aptroot, Chaves, Sipman & Umaña, Biblthca Lichenol. 95: 449 (2007)

[ABL42322], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42322), 21-23.10.2017. Det. A. Aptroot, 2017.

Coccocarpia prostrata

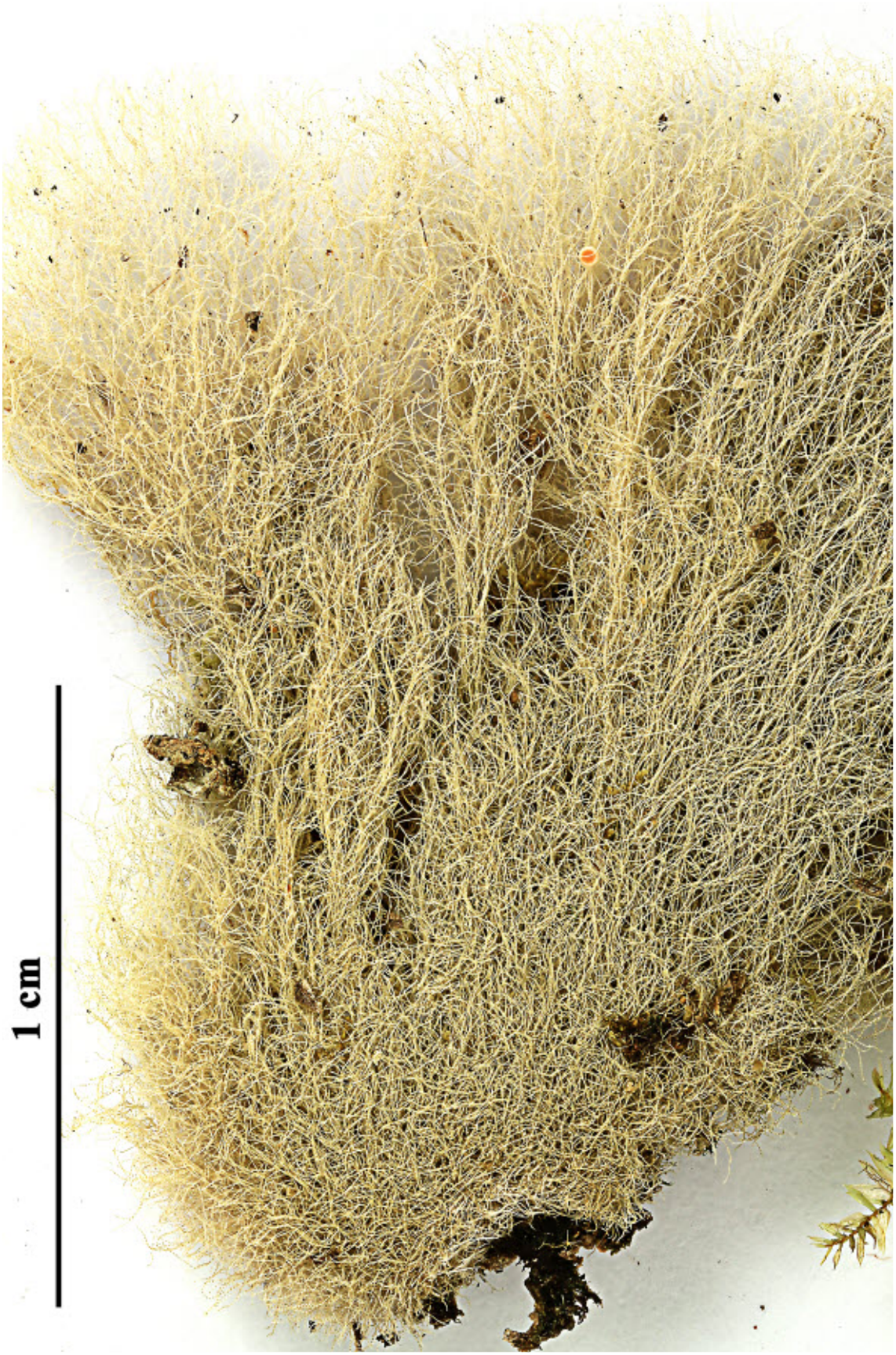
Coenogonium chloroticum Xavier-Leite, M. Cáceres & Aptroot, Nova Hedwigia 98(1-2): 198 (2013) [2014]

[ABL42449], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42449), 21-23.10.2017. Det. A. Aptroot, 2017. Spores 1-septate, 5 x 1.5 µm, ± lineare.

Coenogonium chloroticum

Coenogonium interplexum Nyl., Annls Sci. Nat., Bot., sér. 4 16: 92 (1862)

[ABL42540], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In in Atlantic rain forest on tree bark. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42540), 21-23.10.2017. Det. A. Aptroot, 2017.



Coenogonium interplexum

Coenogonium pineti (Ach.) Lücking & Lumbsch, in Lücking, Stuart & Lumbsch, Mycologia 96(2): 290 (2004)
= *Belonidium piceae* (Henn.) Boud., Hist. Class. Discom. Eur. (Paris): 117 (1907)
= *Belonium piceae* Henn., Hedwigia 43(2): 71 (1904)
= *Biatora pineti* (Ach.) Fr., K. svenska Vetensk-Akad. Handl., ser. 3: 271 (1822)
= *Biatora vernalis* f. *pineti* (Ach.) Fr., Lich. eur. reform. (Lund): 261 (1831)
= *Biatora vernalis* var. *pineti* (Ach.) Tuck., Enum. N. America Lich.: 53 (1845)
= *Biatorina diluta* (Pers.) Th. Fr., Lich. arct. (Uppsala): 185 (1860)
= *Biatorina pineti* (Ach.) A. Massal., Ric. auton. lich. crost. (Verona): 135 (1852)
= *Biatorinopsis diluta* (Pers.) Müll. Arg., Flora, Regensburg 64(7): 102 (1881)
= *Bilimbia pineti* (Ach.) Branth & Rostr., Bot. Tidsskr. 3: 225 (1869)
= *Cistella piceae* (Henn.) Dennis, British Ascomycetes: 157 (1968)
= *Dimerella diluta* (Pers.) Trevis., Rc. Ist. Lomb., Milano, ser. 2 13: 66 (1880)
= *Dimerella pineti* (Ach.) Vězda, Lichenes Selecti Exsiccati, Fasc. (Průhonice) 52: 5 (no. 1279) (1975)
= *Gyalecta diluta* (Pers.) Blomb. & Forssell, Enum. Pl. Scand.: 101 (1880)
= *Gyalecta pineti* (Ach.) Tuck., Gen. lich. (Amherst): 131 (1872)
= *Lecidea diluta* (Pers.) Leight., Lich.-Fl. Great Brit., Edn 3: 343 (1879)
= Lecidea pineti Ach., Lich. Univ.: 195 (1810)
= *Lecidea vernalis* var. *pineti* (Ach.) Link, Grundr. Krauterk. 3: 201 (1832)
= *Lichen peltatus* * *pineti* (Ach.) Lam., Encycl. Méth. Bot., Suppl. (Paris) 3(2): 389 (1813)
= *Lichen pineti* Schrad. ex Ach., Lich. Univ.: 195 (1810)
= *Microphiale diluta* (Pers.) Zahlbr., Annln K. K. naturh. Hofmus. Wien 19: 413 (1904)
= *Niptera taxi* Rea, Trans. Br. mycol. Soc. 7(1-2): 60 (1921)
= *Patellaria pineti* (Ach.) Spreng., Syst. veg., Edn 16 4(1): 267 (1827)
= *Peziza diluta* Pers., Syn. meth. fung. (Göttingen) 2: 668 (1801)
= *Secoliga diluta* (Pers.) Arnold, Flora, Regensburg 67: 414 (1884)
= *Sporoblastia diluta* (Pers.) Trevis., Linnaea 28: 291 (1856)

[ABL42281], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on wooden pole. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42281), 21-23.10.2017. Det. A. Aptroot, 2017. - Spores hyaline, 1-septate, 11 x 4.5 µm.

Coenogonium pineti

Coenogonium pineti

Coenogonium strigosum Rivas Plata, Lücking & Chaves, in Rivas Plata, Lücking, Aptroot, Sipman, Chaves, Umaña & Lizano, Fungal Diversity 23: 290 (2006)

[ABL42708], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42708), 21-23.10.2017. Det. A. Aptroot, 2017.

Coenogonium subdentatum (Vězda & G. Thor) Rivas Plata, Lücking, L. Umaña & Chaves, in Rivas Plata, Lücking, Aptroot, Sipman, Chaves, Umaña & Lizano, Fungal Diversity 23: 298 (2006)
= *Dimerella subdentata* Vězda & G. Thor, in Vězda 1989

[ABL42633], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42633), 21-23.10.2017. Det. A. Aptroot, 2017.

Coenogonium subdentatum

Constrictolumina cinchonae (Ach.) Lücking, M.P. Nelsen & Aptroot, in Lücking et al., Lichenologist 48(6): 756 (2016)

= *Arthopyrenia cinchonae* (Ach.) Müll. Arg., Flora, Regensburg 66(18): 289 (1883)

= *Didymella cinchonae* (Ach.) Vain., Bot. Tidsskr. 29: 150 (1909)

= *Leiophloea cinchonae* (Ach.) Riedl, in Riedl & Schiman, Sydowia 17(1-6): 82 (1964) [1963]

= *Pyrenula cinchonae* (Ach.) Tuck., Proc. Amer. Acad. Arts & Sci. 7: 233 (1868) [1866]

= *Spermatodium cinchonae* (Ach.) Trevis., Conspect. Verruc.: 11 (1860)

= *Verrucaria cinchonae* Ach., Syn. meth. lich. (Lund): 90 (1814)

[ABL42764], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on wooden pole. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42764), 21-23.10.2017. Det. A. Aptroot, 2017. - Thallus UV-, spores 1-septate, 20 x 6 µm.

Constrictolumina cinchonae

Cratiria obscurior (Stirt.) Marbach & Kalb, in Marbach, Biblthca Lichenol. 74: 186 (2000)

= *Buellia obscurior* (Stirt.) Aptroot, in Aptroot & Sparrius, Fungal Diversity 14: 10 (2003)

= *Pyxine obscurior* Stirt., Trans. & Proc. Roy. Soc. Victoria 17: 70 (1881)

[ABL42722], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42722), 21-23.10.2017. Det. A. Aptroot, 2017. - Hymenium not inspersed, spores 1-septate, 16 x 7 µm.

Cratiria obscurior

Cratiria vioxanthina (Elix) Kalb & Elix, in Kalb, Buaruang, Mongkolsuk & Boonpragob, Phytotaxa 42: 38 (2012)
= *Buellia vioxanthina* Elix, Australas. Lichenol. 64: 32 (2009)

[ABL50860], Brazil, Alagoas, Quebrangulo, Pedra Talhada plot A2.3. On siliceous rock in Atlantic rain forest. 9°15' S, 36°25'35'' W, 592 m. Leg. M. Cáceres, A. Aptroot (no 50860) & J.G. Cavalcante, 24.07.2019. Det. A. Aptroot,2019.

Cratiria violanthina

Crocodia aurata (Ach.) Link, Handb. Erk. Gew. 3: 177 (1833)
= *Sticta aurata* Ach. 1803
= *Pseudocyphellaria aurata* (Ach.) Vain. 1890

[ABL42480], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42480), 21-23.10.2017. Det. A. Aptroot, 2017.

Crocodia aurata

***Crocodia aurata*, lower surface**

Cruentotrema cruentatum (Mont.) Rivas Plata, Lumbsch & Lücking, in Rivas Plata, Lücking & Lumbsch, Fungal Diversity 52(1): 119 (2012)

= *Mellitiosporium cruentatum* (Mont.) Sacc. [as 'Melittosporium'], Syll. fung. (Abellini) 8: 704 (1889)

= *Ocellularia cruentata* (Mont.) Hafellner & Magnes, Biblthca Mycol. 165: 119 (1997)

= *Stictis cruentata* Mont., Annls Sci. Nat., Bot., sér. 4 3: 96 (1855)

= *Triblidium cruentatum* (Mont.) Sherwood [as 'Tryblidium'], Mycotaxon 5(1): 169 (1977)

[ABL42762], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15’ S, 36°25’35’’ W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42762), 21-23.10.2017. Det. A. Aptroot, 2017.

Cruentotrema cruentatum

Cruentotrema cruentatum (Mont.) Rivas Plata, Lumbsch & Lücking, in Rivas Plata, Lücking & Lumbsch, Fungal Diversity 52(1): 119 (2012)

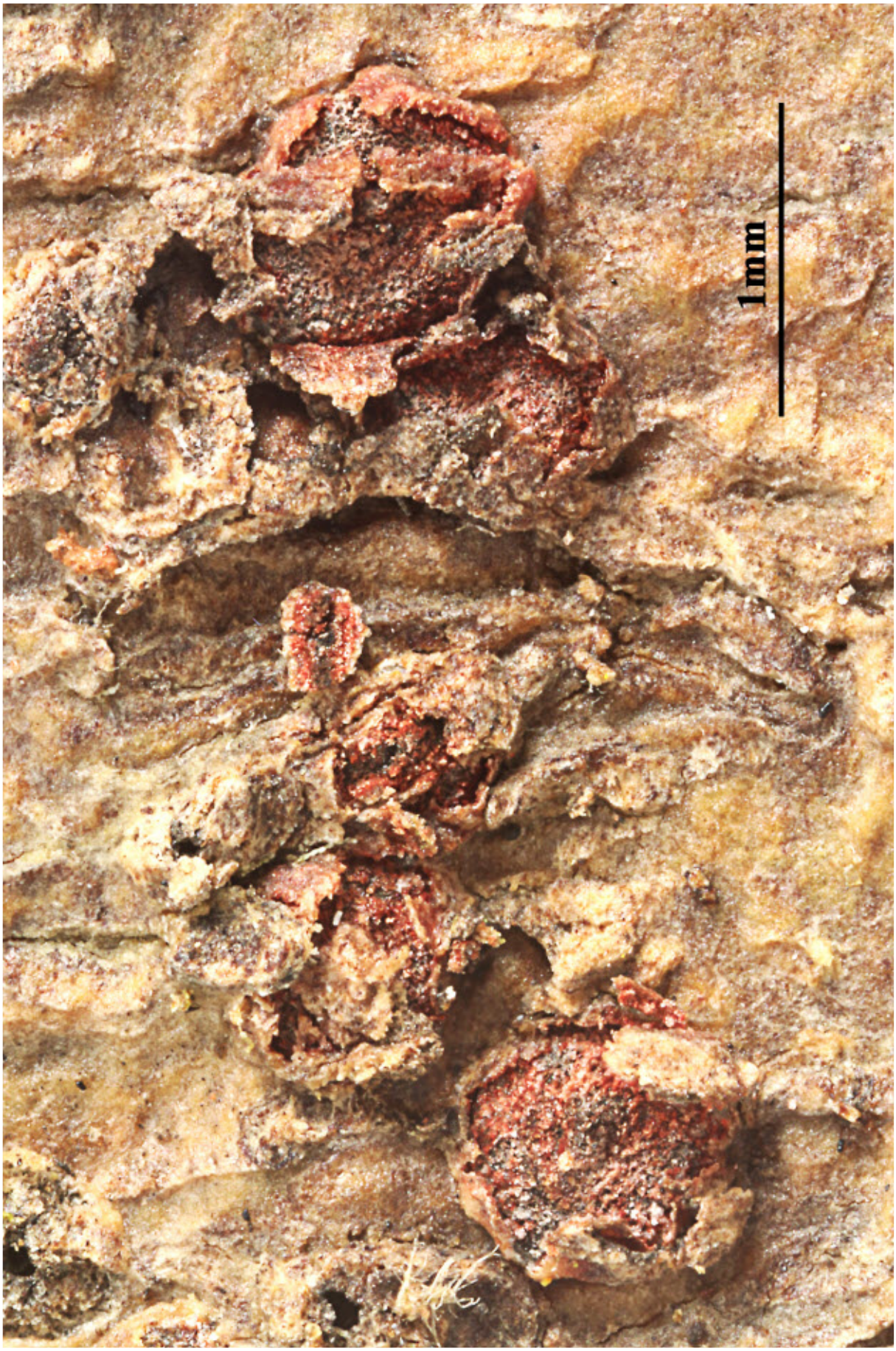
= *Mellitiosporium cruentatum* (Mont.) Sacc. [as 'Melittosporium'], Syll. fung. (Abellini) 8: 704 (1889)

= *Ocellularia cruentata* (Mont.) Hafellner & Magnes, Biblthca Mycol. 165: 119 (1997)

= *Stictis cruentata* Mont., Annls Sci. Nat., Bot., sér. 4 3: 96 (1855)

= *Triblidium cruentatum* (Mont.) Sherwood [as 'Tryblidium'], Mycotaxon 5(1): 169 (1977)

[ABL42534], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15’ S, 36°25’35’’ W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42534), 21-23.10.2017. Det. A. Aptroot, 2017.



Cruentotrema cruentatum

Crypthonia albida (Fée) Frisch & G. Thor, Mycol. Progr. 9(2): 290 (2010)
= *Herpothallon albidum* (Fée) Aptroot, Lücking & G. Thor, in Aptroot, Thor, Lücking, Elix & Chaves, Biblthca Lichenol. 99: 29 (2009)
= *Hypochnus albidus* Fée, Essai Crypt. Exot., Suppl. Révis. (Paris): 13 (1837)

[ABL42300], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42300), 21-23.10.2017. Det. A. Aptroot, 2017.

Crypthonia albida

Cryptothecia punctosorediata Sparrius, in Sparrius & Saipunkaew, Lichenologist 37(6): [507] (2005)

[ABL42744], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15’ S, 36°25’35’’ W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42744), 21-23.10.2017. Det. A. Aptroot, 2017.

Cryptothecia punctosorediata

Cryptothecia striata G. Thor, Bryologist 94: 278 (1991)

[ABL42805], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42805), 21-23.10.2017. Det. A. Aptroot, 2017.

Cryptothecia striata

Dibaeis sorediata Kalb & Gierl, in Gierl & Kalb, Herzogia 9(3-4): 615 (1993)

[ABL50967], Brazil, Alagoas, Quebrangulo, Pedra Talhada plot N1. On soil in Atlantic rain forest. 9°15’ S, 36°25’35” W, 600 m. Leg. M. Cáceres, A. Aptroot (no 50967) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot, 2019.

Dibaeis sorediata

Dimelaena tenuis (Müll. Arg.) H. Mayrhofer & Wippel, in Mayrhofer, Matzer, Wippel & Elix, Mycotaxon 58: 304 (1996)
= *Catolechia tenuis* Müll. Arg., Flora, Regensburg 44: 510 (1861)
= *Dimelaena diffractella* (Müll. Arg.) Sheard, Bryologist 77: 139 (1974)
= *Rinodina diffractella* Müll. Arg., Bull. Herb. Boissier 3: 634 (1895)

[ABL51014], Brazil, Alagoas, Quebrangulo, Pedra Talhada rock. On exposed siliceous rock in Atlantic rain forest. 9°15' S, 36°25'35" W, 700 m. Leg. M. Cáceres, A. Aptroot (no 51014) & J.G. Cavalcante, 26.07.2019. Det. A. Aptroot, 2019.

Dimelaena tenuis

Diorygma antillarum (Vain.) Nelsen, Lücking & Rivas Plata, Bryologist 115(2): 318 (2012)

= *Chiodecton antillarum* Vain., Ann. Acad. Sci. fenn., Ser. A 6(no. 7): 169 (1915)

= *Herpothallon antillarum* (Vain.) Aptroot, Lücking & G. Thor, in Aptroot, Thor, Lücking, Elix & Chaves, Biblthca Lichenol. 99: 30 (2009)

[ABL42410], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42410), 21-23.10.2017. Det. A. Aptroot, 2017.

Diorygma antillarum

Diorygma erythrellum (Mont. & Bosch) Kalb, Staiger & Elix, Symb. bot. upsal. 34(no. 1): 150 (2004)

= *Graphina atramontana* A.W. Archer, Mycotaxon 77: 161 (2001)

= *Graphina erythrella* (Mont. & Bosch) Zahlbr., Cat. Lich. Univers. 2: 405 (1923) [1924]

= *Graphina incisa* A.W. Archer, Mycotaxon 77: 166 (2001)

= *Graphis erythrella* (Mont. & Bosch) Overeem, Bull. Jard. bot. Buitenz, 3 Sér. 4: 116 (1922)

= *Thalloloma erythrella* (Mont. & Bosch) A. Massal., Atti Inst. Veneto Sci. lett., ed Arti, Sér. 3 5: 318 (1860) [1859-1860]

= *Thalloloma erythrellum* (Mont. & Bosch) A. Massal. [as 'erythrella'], Atti Inst. Veneto Sci. lett., ed Arti, Sér. 3 5: 318 (1860) [1859-1860]

= *Ustalia erythrella* Mont. & Bosch, in Junghuhn, Pl. Jungh. 4: 478 (1856)

[ABL42644], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15’ S, 36°25’35’’ W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42644), 21-23.10.2017. Det. A. Aptroot, 2017.

Diorygma erythrellum

Diorygma poitaei (Fée) Kalb, Staiger & Elix, Symb. bot. upsal. 34(no. 1): 164 (2004)
= *Ectographis poitaei* (Fée) Trevis. [as 'poitiaei'], Spighe Paglie: 12 (1853)
= *Glaucinaria poitaei* (Fée) A. Massal. [as 'poitiaei'], Atti Inst. Veneto Sci. lett., ed Arti, Sér. 3 5: 319 (1860) [1859-1860]
= *Graphina collosporella* (Vain.) Zahlbr., Cat. Lich. Univers. 8: 212 (1932)
= *Graphina homographa* (Nyl. ex Vain.) Zahlbr., Cat. Lich. Univers. 2: 409 (1923) [1924]
= *Graphina melaleuca* Müll. Arg., Hedwigia 34: 144 (1895)
= *Graphina obtectula* Müll. Arg., Bull. Soc. R. Bot. Belg. 32(2): 153 (1894) [1893]
= *Graphina palmeri* Zahlbr., Annls mycol. 19(3-4): 231 (1921)
= *Graphina poitaei* (Fée) Müll. Arg. [as 'poitiaei'], Mém. Soc. Phys. Hist. nat. Genève 29(no. 8): 45 (1887)
= *Graphina triangularis* Zahlbr., Annls mycol. 19(3-4): 232 (1921)
= *Graphina virginea* (Eschw.) Müll. Arg., in Martius, Flora, Regensburg 63(3): 41 (1880)
= *Graphis collosporella* Vain., Proc. Amer. Acad. Arts & Sci. 58(3): 141 (1923)
= *Graphis homographa* Nyl., Mém. Soc. Imp. Sci. Nat. Cherbourg 5: 129 (1858)
= *Graphis homographa* Nyl., Bull. Soc. linn. Normandie, sér. 2 2: 115 (1868)
= *Graphis homographa* Nyl. ex Vain., Ann. Acad. Sci. fenn., Ser. A 6(no. 7): 151 (1915)
= *Graphis poitaei* Fée [as 'Poitæi'], Essai Crypt. Exot. (Paris): 46 (1825) [1824]
= *Graphis virginea* (Eschw.) Mont., in Sagra, Histoire física, politica y naturál de la islea de Cuba 9: 116 (1845)
= *Leiogramma virgineum* Eschw., in Martius, Fl. bras. enum. pl. 1(1): 98 (1833)
= *Opegrapha poitaei* (Fée) Bél. [as 'poitiaei'], Voy. Indes Or., Bot. 2(Cryptog.): 136 (1834)
= *Ustalia poitaei* (Fée) Stizenb. [as 'poitiaei'], Ber. Tät. St Gall. naturw. Ges.: 155 (1862) [1861-62]

[ABL42721], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15’ S, 36°25’35’’ W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42721), 21-23.10.2017. Det. A. Aptroot, 2017. - Spores hyaline, muriforme, 70 x 15 µm, J+ amyloid,

Diorygma poitaei

Diorygma reniforme (Fée) Kalb, Staiger & Elix, Symb. bot. upsal. 34(no. 1): 167 (2004)

= *Graphina reniformis* (Fée) Müll. Arg., Mém. Soc. Phys. Hist. nat. Genève 29(no. 8): 43 (1887)

= *Graphis reniformis* Fée, Essai Crypt. Exot. (Paris): 46 (1825) [1824]

[ABL50942l], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On twigs of shrub in exposed area in Atlantic rain forest. 9°14’28” S, 36°25’11” W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50942l) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot, 2019.

Diorygma reniforme

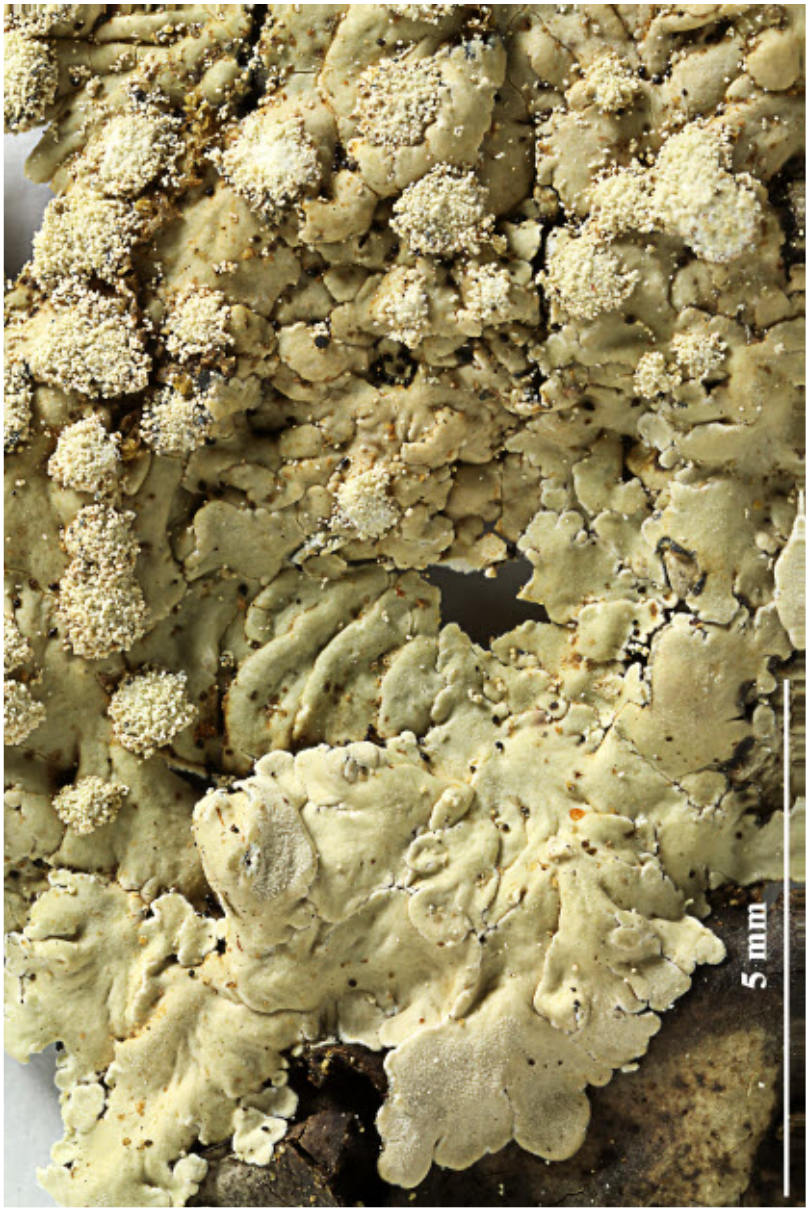
Diploschistes actinostomus (Ach.) Zahlbr., Hedwigia 31: 34 (1892)
= *Acrorixis actinostoma* (Ach.) Trevis., Conspect. Verruc.: 15 (1860)
= *Aspicilia aperta* (Schaer.) Motyka, Porosty (Lichenes). 1, Rodzina Lecanoraceae. Hymenelia, Aspicilia, Lecanorella, Protoplacodium, Manzonia (Lublin): 277 (1995)
= *Diploschistes actinostomus f. apertus* (Schaer.) Zahlbr., Cat. Lich. Univers. 2: 653 (1924)
= *Lagerheimina actinostoma* (Ach.) Kuntze, Revis. gen. pl. (Leipzig) 2: 478 (1891)
= *Lecanora actinostoma* (Ach.) Nyl., Bot. Notiser(10-11): 155 (1853)
= *Limboria actinostoma* (Ach.) A. Massal., Ric. auton. lich. crost. (Verona): 155 (1852)
= *Urceolaria actinostoma* Pers. ex Schaer., Enum. critic. lich. europ. (Bern): 87 (1850)
= *Urceolaria actinostoma* Pers. ex Ach., Lich. Univ.: 288 (1810)
= *Urceolaria actinostoma b aperta* Schaer., Enum. critic. lich. europ. (Bern): 88 (1850)
= *Urceolaria scruposa var. actinostoma* (Ach.) Grognot, Pl. crypt.-cellul. Saône-et-Loire: 64 (1863)
= *Verrucaria actinostoma* Ach., Lich. Univ.: 288 (1810)

[ABL51004], Brazil, Alagoas, Quebrangulo, Pedra Talhada rock. On exposed siliceous rock in Atlantic rain forest. 9°15’ S, 36°25’35” W, 700 m. Leg. M. Cáceres, A. Aptroot (no 51004) & J.G. Cavalcante, 26.07.2019. Det. A. Aptroot, 2019.

Diploschistes actinostomus

Dirinaria applanata (Fée) D.D. Awasthi, J. Indian bot. Soc. 49: 135 (1970)
= *Anaptychia applanata* (Fée) A. Massal., Memor. Lich.: 40 (1853)
= *Dirinaria consimilis* var. *ochracea* D.D. Awasthi, Biblthca Lichenol. 2: 94 (1975)
= *Lecanora flavostraminea* (Müll. Arg.) Zahlbr., Cat. Lich. Univers. 5: 621 (1928)
= *Parmelia applanata* Fée, Essai Crypt. Exot. (Paris): 126 (1825) [1824]
= *Parmelia redacta* Stirt., Trans. Proc. N.Z. Inst. 32: 76 (1900) [1899]
= *Physcia applanata* (Fée) Nyl., Mém. Soc. Imp. Sci. Nat. Cherbourg 5: 107 (1858)
= *Physcia flavostramineum* Müll. Arg., Hedwigia 34: 29 (1895)
= *Placodium flavostramineum* Müll. Arg., Hedwigia 34: 29 (1895)

[ABL42642], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15’ S, 36°25’35’’ W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42642), 21-23.10.2017. Det. A. Aptroot, 2017.



Dirinaria applanata

Dirinaria applanata

Dirinaria leopoldii (Stein) D.D. Awasthi, Bull. Soc. bot. Fr., Let. bot. 121(7-8): 89 (1975)
= *Crocynia leopoldii* Stein [as 'leopoldi'] 1888

[ABL42735], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42735), 21-23.10.2017. Det. A. Aptroot, 2017.

Dirinaria leopoldii

Dirinaria picta (Sw.) Clem. & Shear, in Clements & Shear, Gen. fung., Edn 2 (Minneapolis): 323 (1931)
= *Dimelaena picta* (Sw.) Trevis., Atti Soc. ital. Sci. nat. 11: 623 (1868)
= *Hagenia picta* (Sw.) Bagl., Fl. bog. (Firenze): 116 (1886)
= *Lichen pictus* Sw., Prodr.: 146 (1788)
= *Lobaria picta* (Sw.) Raeusch., Nomencl. bot., Edn 3: 331 (1797)
= *Parmelia picta* (Sw.) Ach., Methodus, Sectio post. (Stockholmiæ): 211 (1803)
= *Parmelia plumosa* Taylor, London J. Bot. 6: 173 (1847)
= *Physcia erythrocardia* (Tuck.) Vain., in Hiern, Cat. Afr. Pl. 2(2): 411 (1901)
= *Physcia picta* (Sw.) Nyl., Mém. Soc. Imp. Sci. Nat. Cherbourg 3: 175 (1855)
= *Physcia picta* f. *erythrocardia* (Tuck.) J.W. Thomson, Beih. Nova Hedwigia 7: 164 (1963)
= *Physcia picta* var. *erythrocardia* (Tuck.) Zahlb., Cat. Lich. Univers. 7: 581 (1931)
= *Physcia plumosa* (Taylor) Nyl., Mém. Soc. Imp. Sci. Nat. Cherbourg 5: 106 (1858)
= *Pyxine picta* (Sw.) Tuck., Proc. Amer. Acad. Arts & Sci. 12: 166 (1877)
= *Pyxine picta* var. *erythrocardia* Tuck., Proc. Amer. Acad. Arts & Sci. 12: 166 (1877)
= *Squamaria picta* (Sw.) Ach., Methodus, Sectio post. (Stockholmiæ): 211 (1803)

[ABL42752], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on wooden pole. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42752), 21-23.10.2017. Det. A. Aptroot, 2017.

Dirinaria picta

Echinoplaca leucomuralis Lücking, Fl. Neotrop., Monogr. 103: 485 (2008)

[ABL42774], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on wooden pole. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42774), 21-23.10.2017. Det. A. Aptroot, 2017. - Spores 1/ascus, muriform, 35 x 25 µm, hypothecium hyaline.

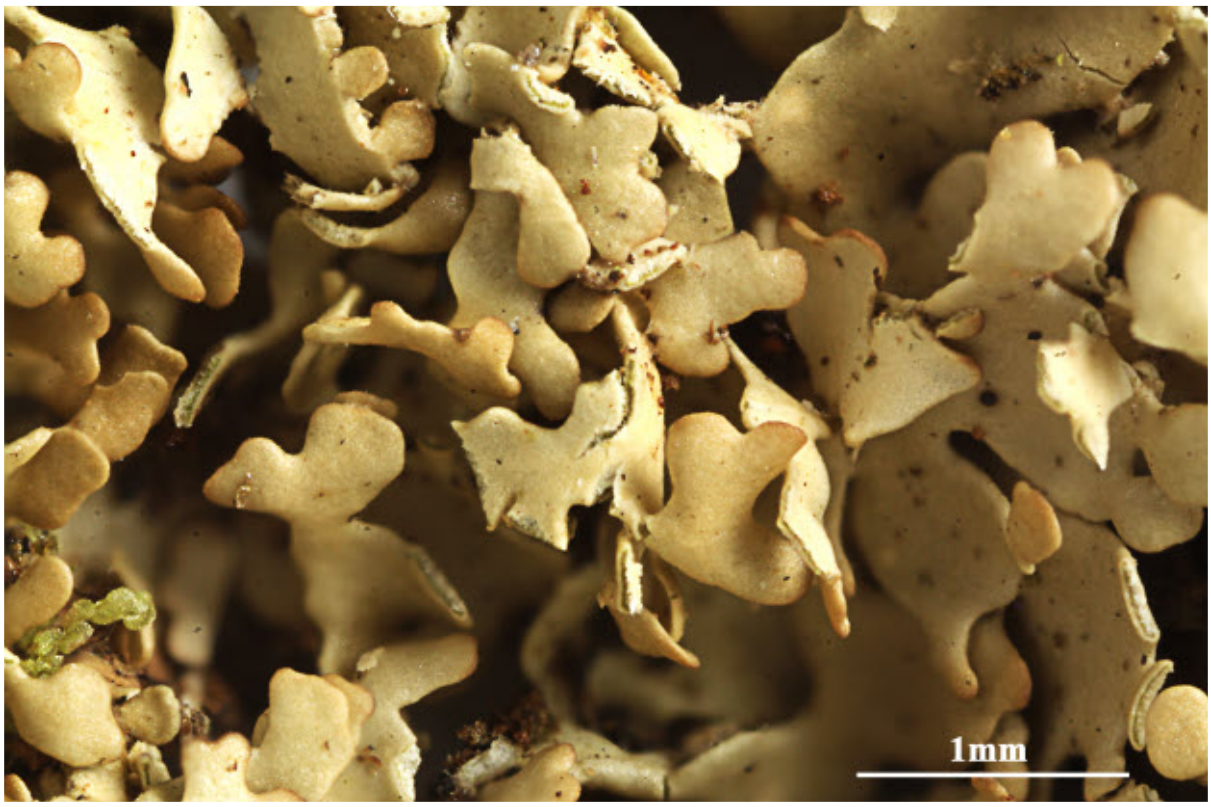
Echinoplaca leucomuralis

Emmanuelia tenuis (Vain.) Lücking, B. Moncada & Gumboski, in Simon, Lücking, Moncada, Mercado-Díaz, Bungartz, Cáceres, Gumboski, Martins, Spielmann, Parker & Goffinet 2020

= *Ricasolia tenuis* (Vain.) Stizenb., Flora, Regensburg 81: 111 (1895)

= *Lobaria tenuis* Vain. 1890

[ABL50939], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On bark of tree in Atlantic rain forest. 9°14'28" S, 36°25'11" W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50939) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot, 2019.



Emmanuelia tenuis

Emmanuelia tenuis

Endocarpon pallidulum (Nyl.) Nyl., in Hue, Nouv. Arch. Mus. Hist. Nat., Paris, 3 sér. 4: 106 (1892)

= *Paracarpidium pallidulum* (Nyl.) Müll. Arg., Flora, Regensburg 66(22): 346 (1883)

= *Verrucaria pallidula* Nyl., Flora, Regensburg 57(5): 73 (1874)

[ABL50866], Brazil, Alagoas, Quebrangulo, Pedra Talhada plot A2.3. On siliceous rock in Atlantic rain forest. 9°15’ S, 36°25’35” W, 592 m. Leg. M. Cáceres, A. Aptroot (no 50866) & J.G. Cavalcante, 24.07.2019. Det. A. Aptroot,2019.

Endocarpon pallidulum

Enterographa lichexanthonica M. Cáceres & Aptroot, Bryologist 120(2): 177 (2017)

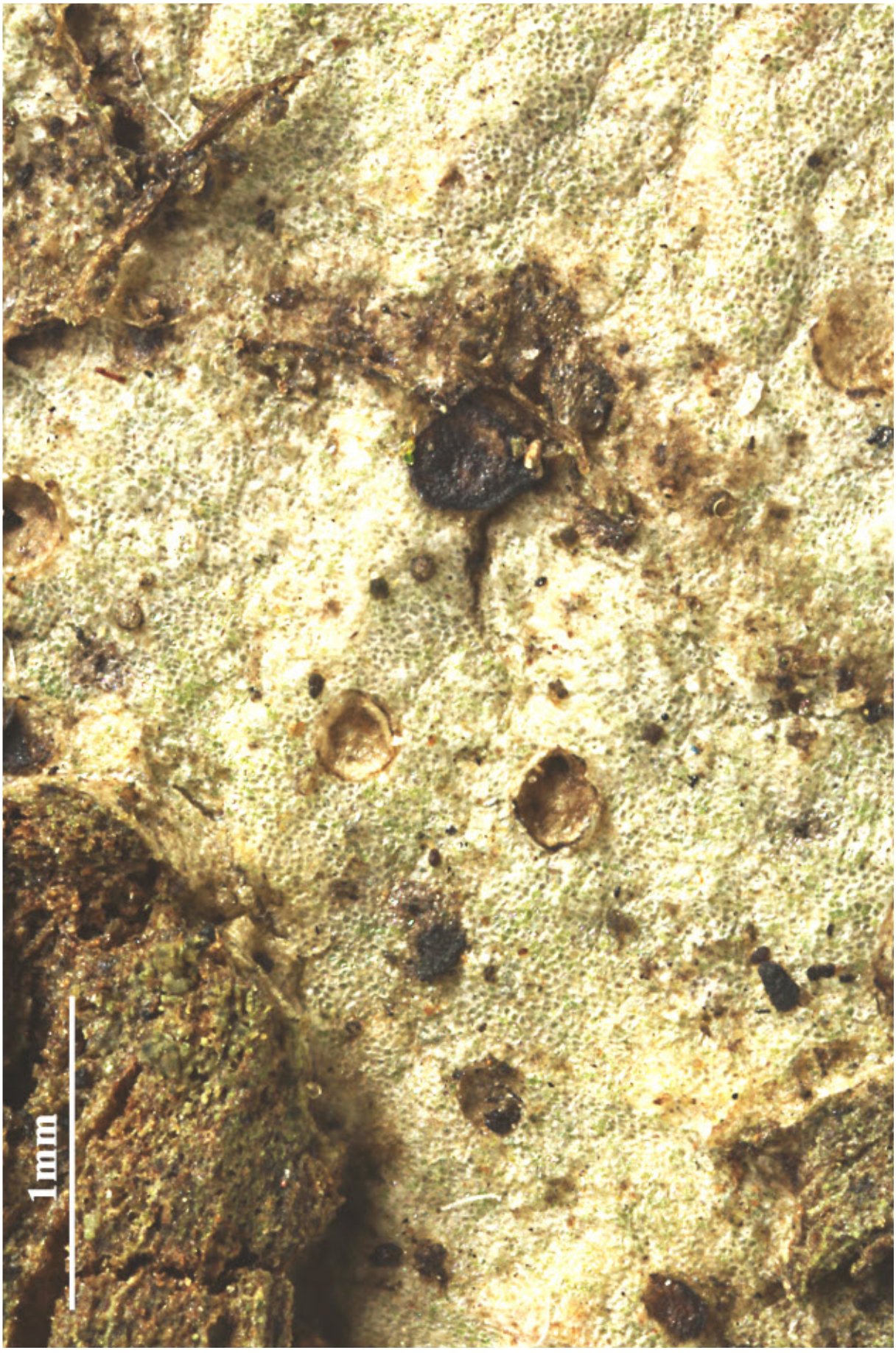
[ABL42776], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42776), 21-23.10.2017. Det. A. Aptroot, 2017. - Thallus UV+ yellow, spores 30-35 x 5-5.5 µm, 5-7-septate.

Enterographa lichexanthonica

Eremithallus costaricensis Lücking, Lizano & Chaves, in Lücking, Lumbsch, Di Stéfano, Lizano, Carranza, Bernecker, Chaves & Umaña, Symbiosis 46(3): 163 (2008)

= *Melaspilea costaricensis* (Lücking, Lizano & Chaves) Ertz & Diederich, Fungal Diversity 71: 150 (2015)

[ABL50837], Brazil, Alagoas, Quebrangulo, Pedra Talhada plot A2.1. On tree bark in Atlantic rain forest. 9°15' S, 36°25'35'' W, 500 m. Leg. M. Cáceres, A. Aptroot (no 50837) & J.G. Cavalcante, 24.07.2019. Det. A. Aptroot,2019.



Eremithallus costaricensis

Eschatogonia dissecta Timdal & R. Sant., in Timdal, Lichenologist 40(1): 34 (2008)

[ABL42461], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42461), 21-23.10.2017. Det. A. Aptroot, 2017.

Eschatogonia dissecta

Fissurina amazonica M. Cáceres, Aptroot & Lücking, in Cáceres, Aptroot, Parnmen & Lücking, Phytotaxa 189(1): 93 (2014)

[ABL42858], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42858), 21-23.10.2017. Det. A. Aptroot, 2017.

Fissurina amazonica

Fissurina nigrolabiata Rivas Plata, Bawingan & Lücking, in Lumbsch et al., Phytotaxa 18: 57 (2011)

[ABL42468], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42468), 21-23.10.2017. Det. A. Aptroot, 2017.

Fissurina nigrolabiata

Gassicurtia catasema (Tuck.) Marbach, Biblthca Lichenol. 74: 218 (2000)
= *Buellia catasema* (Tuck.) Tuck., Syn. N. Amer. Lich. (Boston) 2: 161 (1888)
= *Lecidea catasema* Tuck., Proc. Amer. Acad. Arts & Sci. 6: 283 (1866) [1864]

[ABL42678], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42678), 21-23.10.2017. Det. A. Aptroot, 2017. - Thallus UV+ yellow, spores 8/ascus, 1-septate, 10x 4.5 µm.

Gassicurtia catasema

Gassicurtia ferruginascens (Malme) Marbach & Kalb, in Marbach, Biblthca Lichenol. 74: 235 (2000)

= *Buellia sanguinariella* var. *ferruginascens* Malme, Ark. Bot. 21A(no. 14): 16 (1927)

[ABL42673], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on woodn pole. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42673), 21-23.10.2017. Det. A. Aptroot, 2017.

Gassicurtia ferruginascens

Gassicurtia rufofuscescens (Vain.) Marbach, Biblthca Lichenol. 74: 242 (2000)

= *Lecanora rufofuscescens* Vain., in Almquist, Kolemann. tutkim. Länsi-Siperiassa 4: 76 (1928)

[ABL42604], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In in Atlantic rain forest on wood. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42604), 21-23.10.2017. Det. A. Aptroot, 2017. - Thallus UV+ orange, spores 1-septate, 10 x 4 µm.

Gassicurtia rufofuscescens

Gassicurtia vernicoma Marbach, Biblthca Lichenol. 74: 339 (2000)
= *Lecidea vernicoma* Leight., Lich.-Fl. Great Brit., Edn 3: 321 (1879)

[ABL42589A], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In in Atlantic rain forest on granite. 9°15' S, 36°25'35" W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42589A), 21-23.10.2017. . Det. A. Aptroot, 2017. - Thallus yellowish, spores brown, 3-septate, 16 x 6 µm.

Gassicurtia vernicoma

Geisleria sychnogonioides Nitschke, in Rabenhorst, Lich. Europ. Exsicc. 21: no. 574 (1861)

= *Strigula sychnogonioides* (Nitschke) R.C. Harris, in Egan, Bryologist 90(2): 164 (1987)

= *Verrucaria sychnogonioides* (Nitschke) Stizenb., Ber. Tät. St Gall. naturw. Ges.: 502 (1882) [1880-81]

[ABL42397], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on soil. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42397), 21-23.10.2017. . Det. A. Aptroot, 2017.

Geisleria sychnogonioides

Graphis brahmanensis Aptroot, in Lücking, Archer & Aptroot, Lichenologist 41(4): 434 (2009)

[ABL42298], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42298), 21-23.10.2017. Det. A. Aptroot, 2017. Thallus K+yellow, UV-, spores c. 6-septate, 20 x 6 µm

Graphis brahmanensis

Graphis cincta (Pers.) Aptroot, in Archer, in McCarthy (Ed.), Flora of Australia, Vol. 57. Lichens 5 (Melbourne): 651 (2009)

= *Opegrapha cincta* Pers., Ann. Wetter. Gesellsch. Ges. Naturk. 2(1): 15, tab. X, fig. 4 (1810)

[ABL42703], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42703), 21-23.10.2017. Det. A. Aptroot, 2017. - Thallus K+ yellow, hymenium not inspersed.

Graphis cincta

Graphis crebra Vain., Hedwigia 38: 256 (1899)

[ABL42866], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42866), 21-23.10.2017. Det. A. Aptroot, 2017. - Thallus K+ yellow > red.

Graphis crebra

Graphis desquamescens (Fée) Zahlbr., Denkschr. Kaiserl. Akad. Wiss. Wien, Math.-Naturwiss. Kl. 83: 108 (1909)

[ABL50942s], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On twigs of shrub in exposed area in Atlantic rain forest. 9°14’28” S, 36°25’11” W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50942s) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot, 2019.

Graphis desquamescens

Graphis duplicata Ach., Syn. meth. lich. (Lund): 81 (1814)
= *Graphis duplicata* var. *peruviana* (Fée) Zahlbr., Cat. Lich. Univers. 2: 303 (1923) [1924]
= *Graphis peruviana* (Fée) Spreng., Syst. veg., Edn 16 4(1): 257 (1827)
= *Opegrapha peruviana* Fée, Essai Crypt. Exot. (Paris): 27 (1825) [1824]

[ABL42525], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42525), 21-23.10.2017. Det. A. Aptroot, 2017. - Thallus UV-, K+ yellow; hymenium not inspersed, spores c. 7-septate, 17 x 6 µm.

Graphis duplicata

Graphis furcata Fée, Essai Crypt. Exot. (Paris): 40 (1825) [1824]

[ABL42823], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on wooden pole. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42823), 21-23.10.2017. Det. A. Aptroot, 2017. - Thallus UV-; hymenium not inspersed, spores 5-septate, 17 x 7 µm.

Graphis furcata

Graphis haleana R.C. Harris, Some Florida Lichens (New York): 20 (1990)

[ABL42626], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42626), 21-23.10.2017. Det. A. Aptroot, 2017. - UV+ yellow, hymenium not inspersed.

Graphis haleana

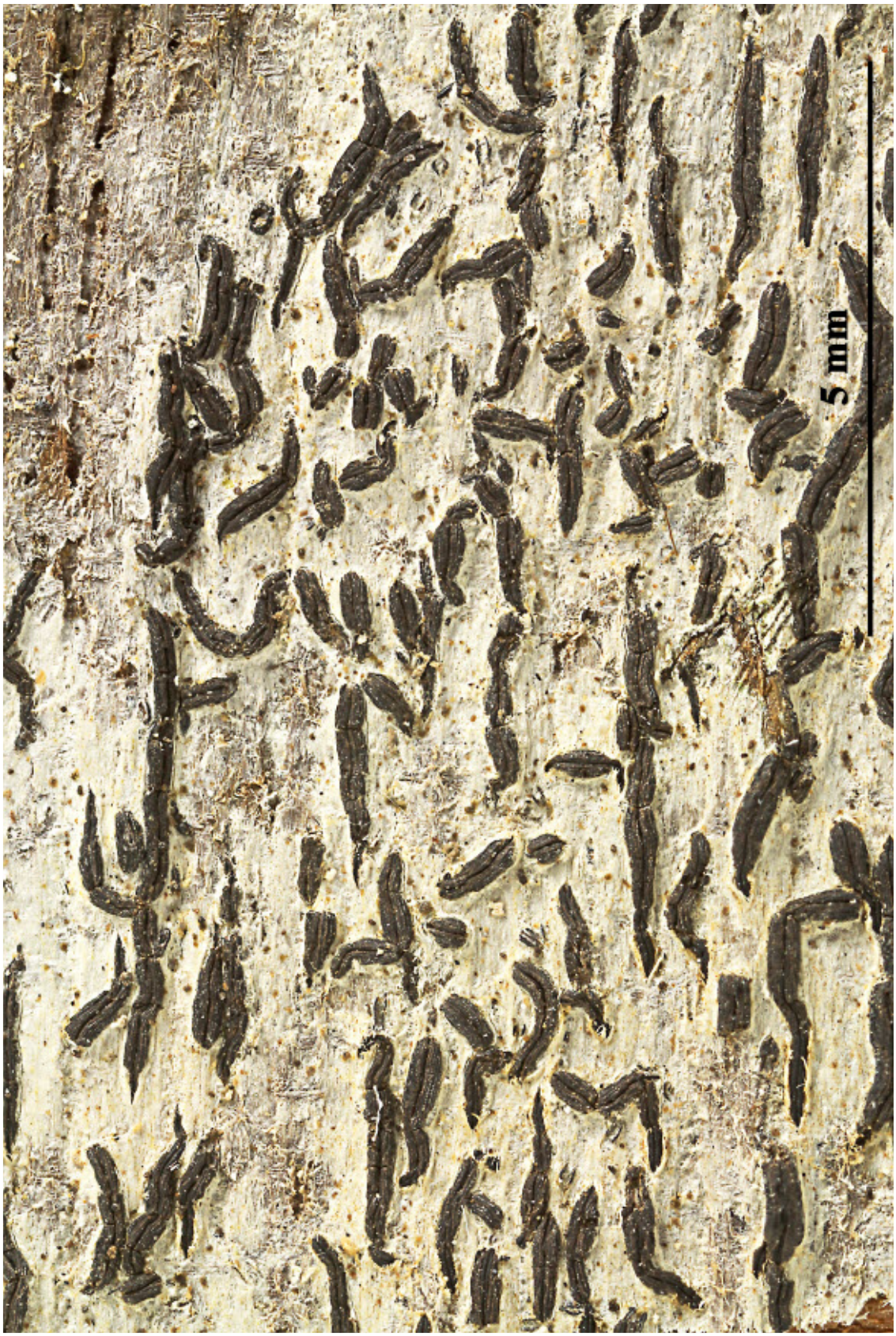
Graphis handelii Zahlbr., in Handel-Mazzetti, Symb. Sinic. 3: 44 (1930)

[ABL42666], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42666), 21-23.10.2017. Det. A. Aptroot, 2017. -Spores 9-septate, 40 x 7 µm.

Graphis handelii

Graphis lucifica R.C. Harris, Some Florida Lichens (New York): 22 (1990)

[ABL42754], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on wooden pole. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42754), 21-23.10.2017. Det. A. Aptroot, 2017. Thallus UV+ yellow, hymenium not inspersed, spores 20 x 7 µm.



Graphis lucifica

Graphis pernambucoradians M. Cáceres & Lücking, in Cáceres, Libri Botanici 22: 86 (2007)

[ABL42757], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42757), 21-23.10.2017. Det. A. Aptroot, 2017. - Thallus K-, C-, P-; hymenium not inspersed, spores 8/ascus, 7-septate, 25-5 x 5-8 µm, IKI+ violet-blue

Graphis pernambucoradians

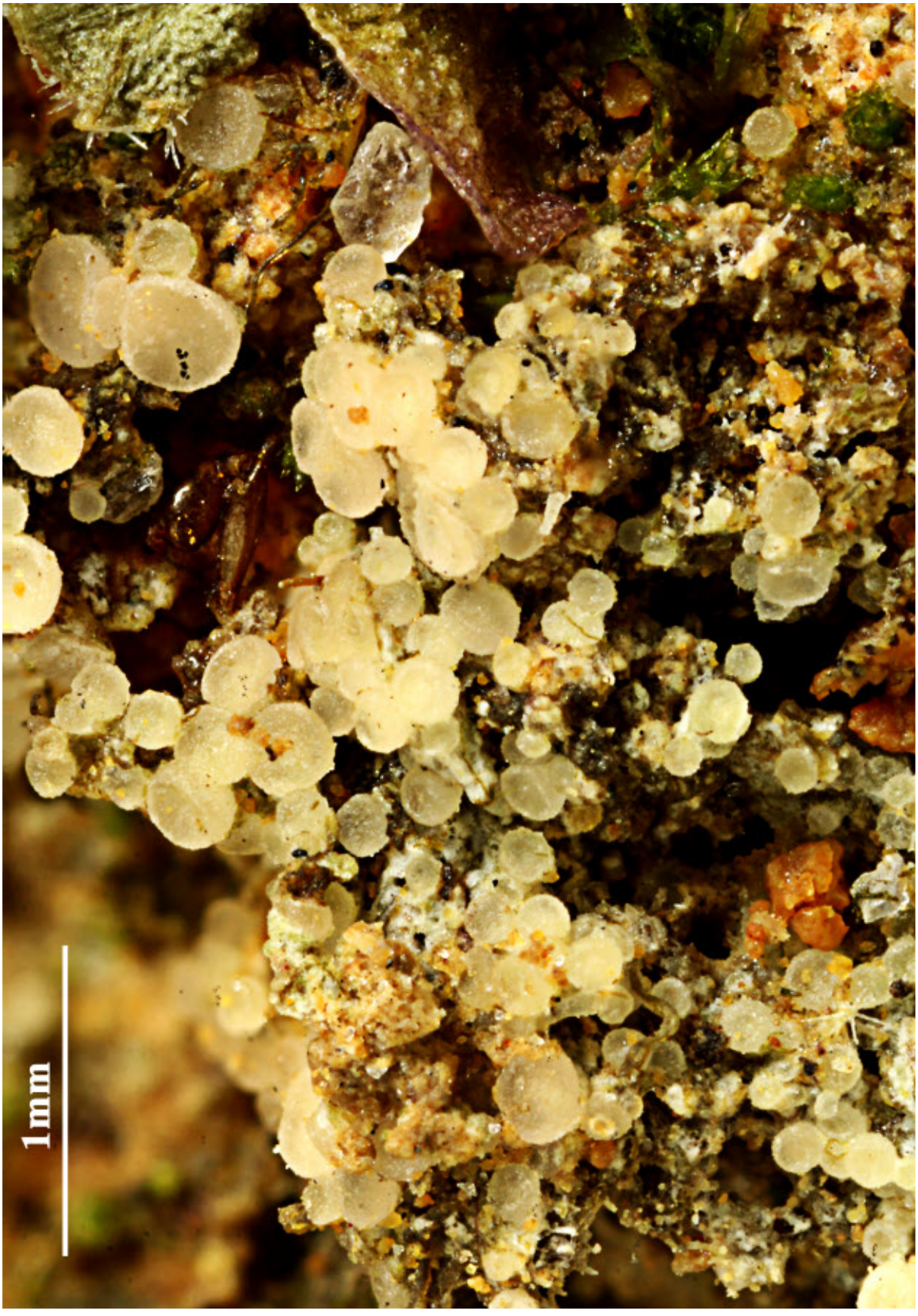
Graphis pinicola Zahlbr., in Handel-Mazzetti, Symb. Sinic. 3: 43 (1930)

[ABL42616], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In in Atlantic rain forest on tree bark. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42616), 21-23.10.2017. Det. A. Aptroot, 2017.

Graphis pinicola

Gyalidea mexicana (B. de Lesd.) Vězda, Folia geobot. phytotax. bohemoslov. 1: 325 (1966)
= *Gyalecta mexicana* B. de Lesd. 1929

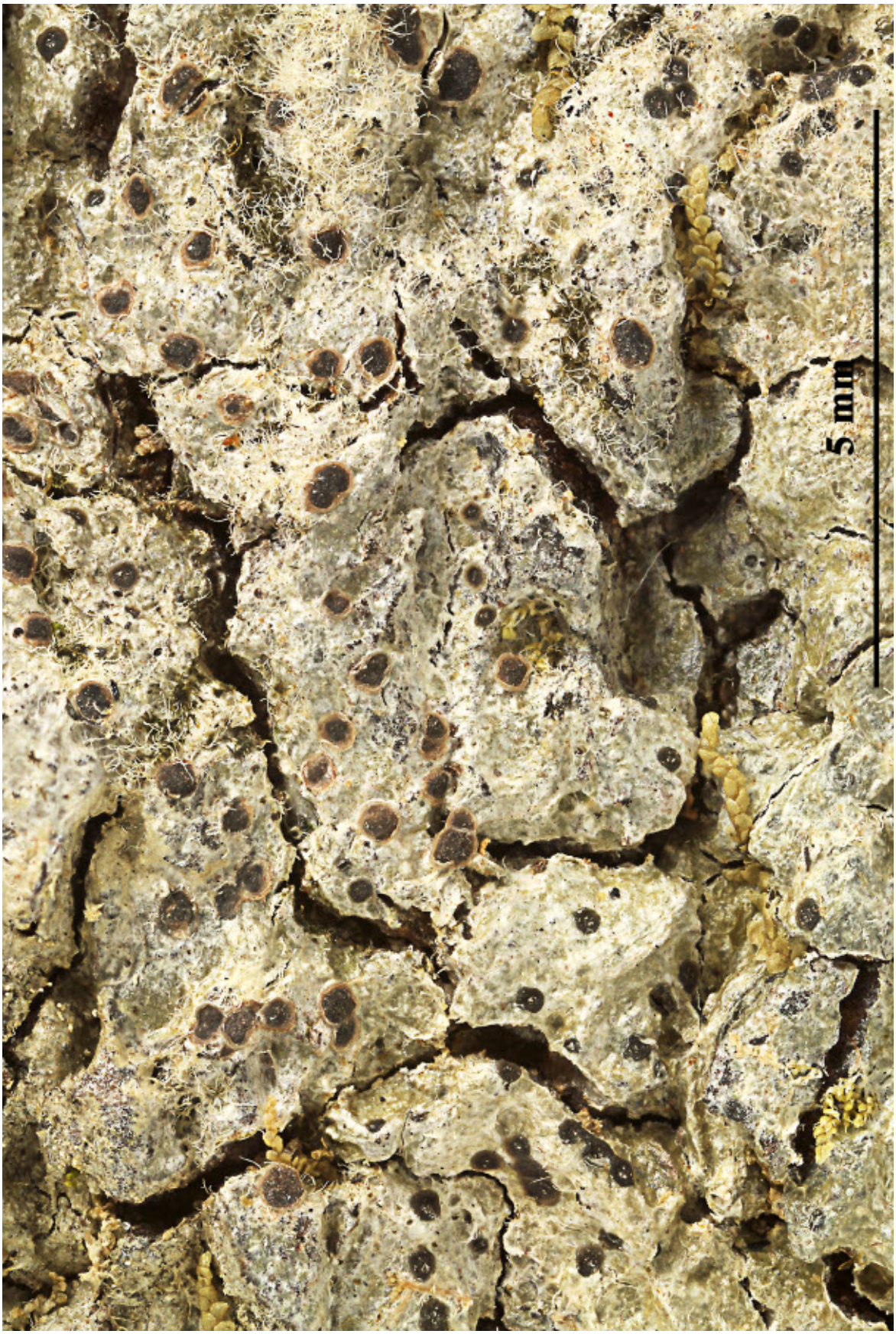
[ABL50823], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. On soil in Atlantic rain forest. 9°15’ S, 36°25’35” W, 500 m. Leg. M. Cáceres, A. Aptroot (no 50823) & J.G. Cavalcante, 24.07.2019. Det. A. Aptroot,2019.



Gyalidea mexicana

Gyalideopsis lambinonii Vězda, Folia geobot. phytotax. 14(1): 64 (1979)

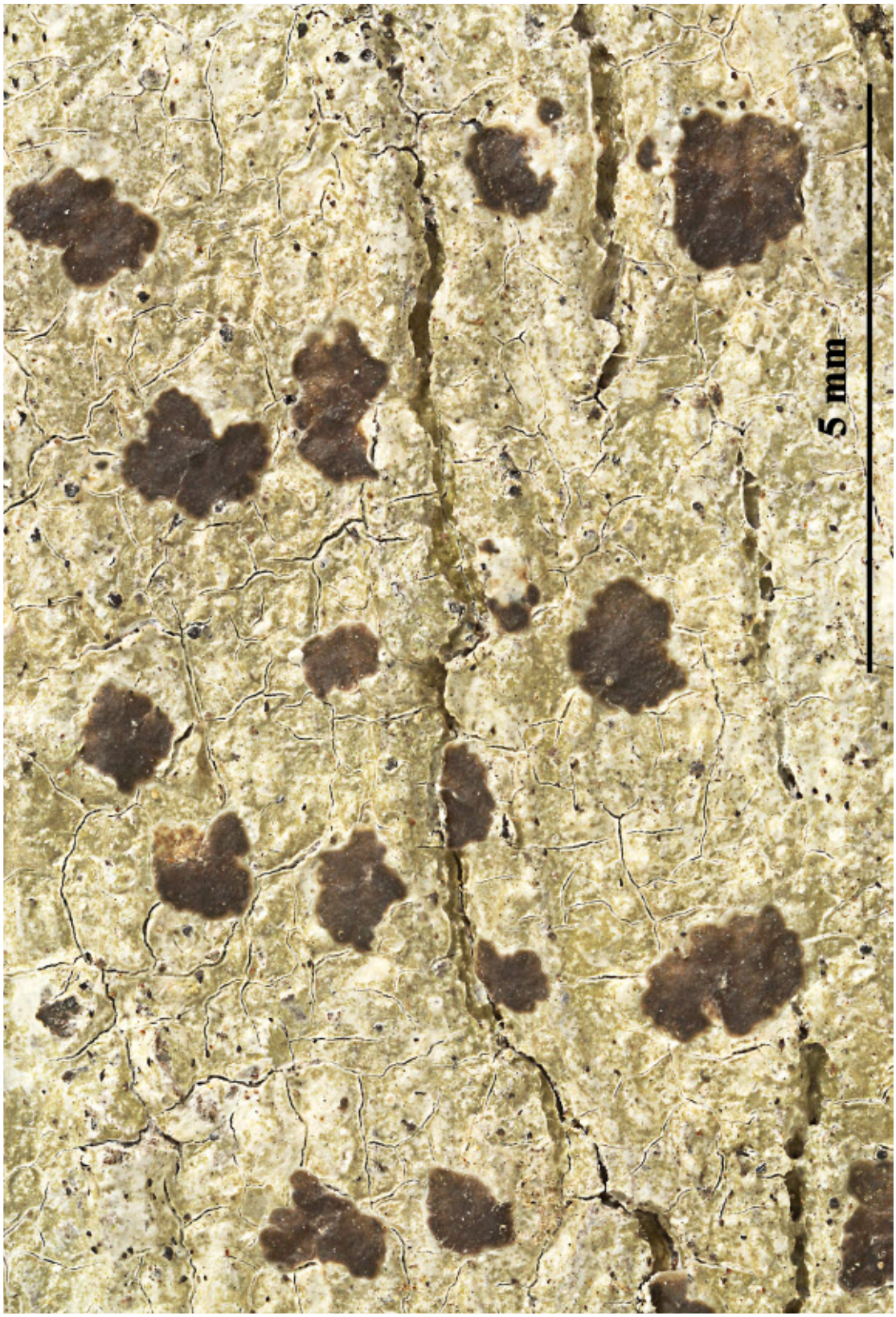
[ABL42827], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42827), 21-23.10.2017. Det. A. Aptroot, 2017. - Spores 1/ascus, muriform, 60-73 x 30 µm.

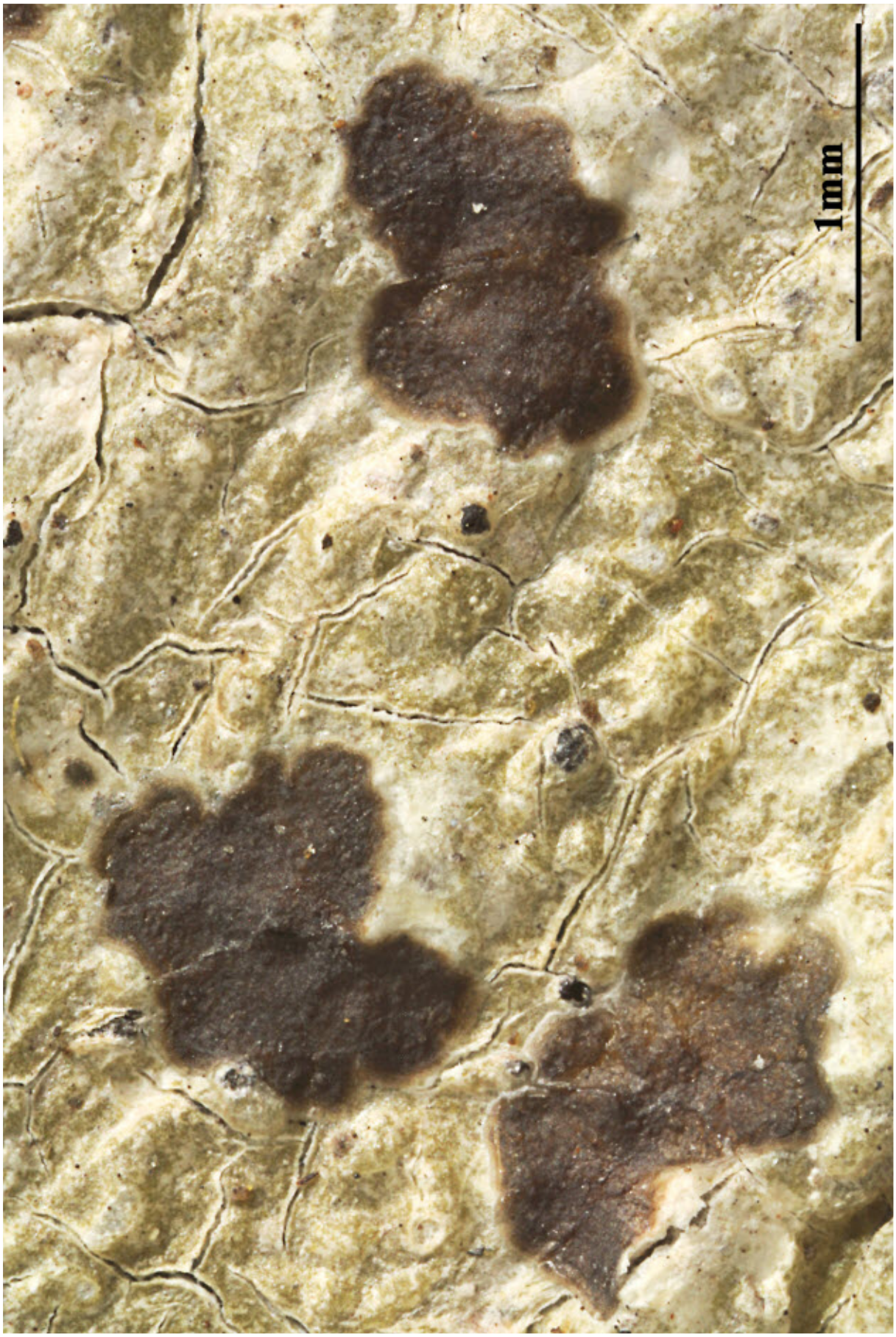


Gyalideopsis lambinonii

Gyalideopsis vainioi Kalb & Vězda, Biblthca Lichenol. 29: 51 (1988)
= *Gyalideopsis vainioi var. semicirculata* Lücking & W.R. Buck, Bryologist 110(4): 661 (2007)

[ABL42500], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42500) 21-23.10.2017. Det. A. Aptroot, 2017. - Spores muriform, 35 x 22 µm





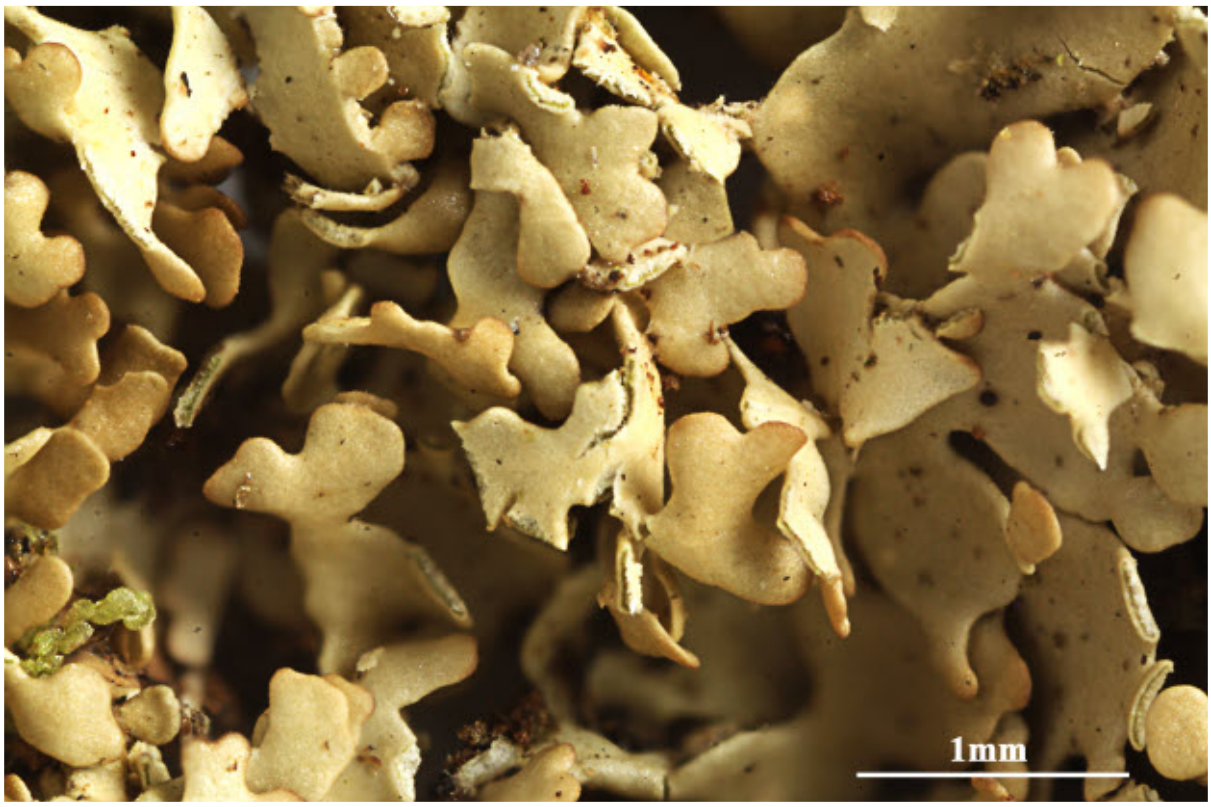
Gyalideopsis vainioi

Emmanuelia tenuis (Vain.) Lücking, B. Moncada & Gumboski, in Simon, Lücking, Moncada, Mercado-Díaz, Bungartz, Cáceres, Gumboski, Martins, Spielmann, Parker & Goffinet 2020

= *Ricasolia tenuis* (Vain.) Stizenb., Flora, Regensburg 81: 111 (1895)

= *Lobaria tenuis* Vain. 1890

[ABL50939], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On bark of tree in Atlantic rain forest. 9°14'28" S, 36°25'11" W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50939) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot, 2019.

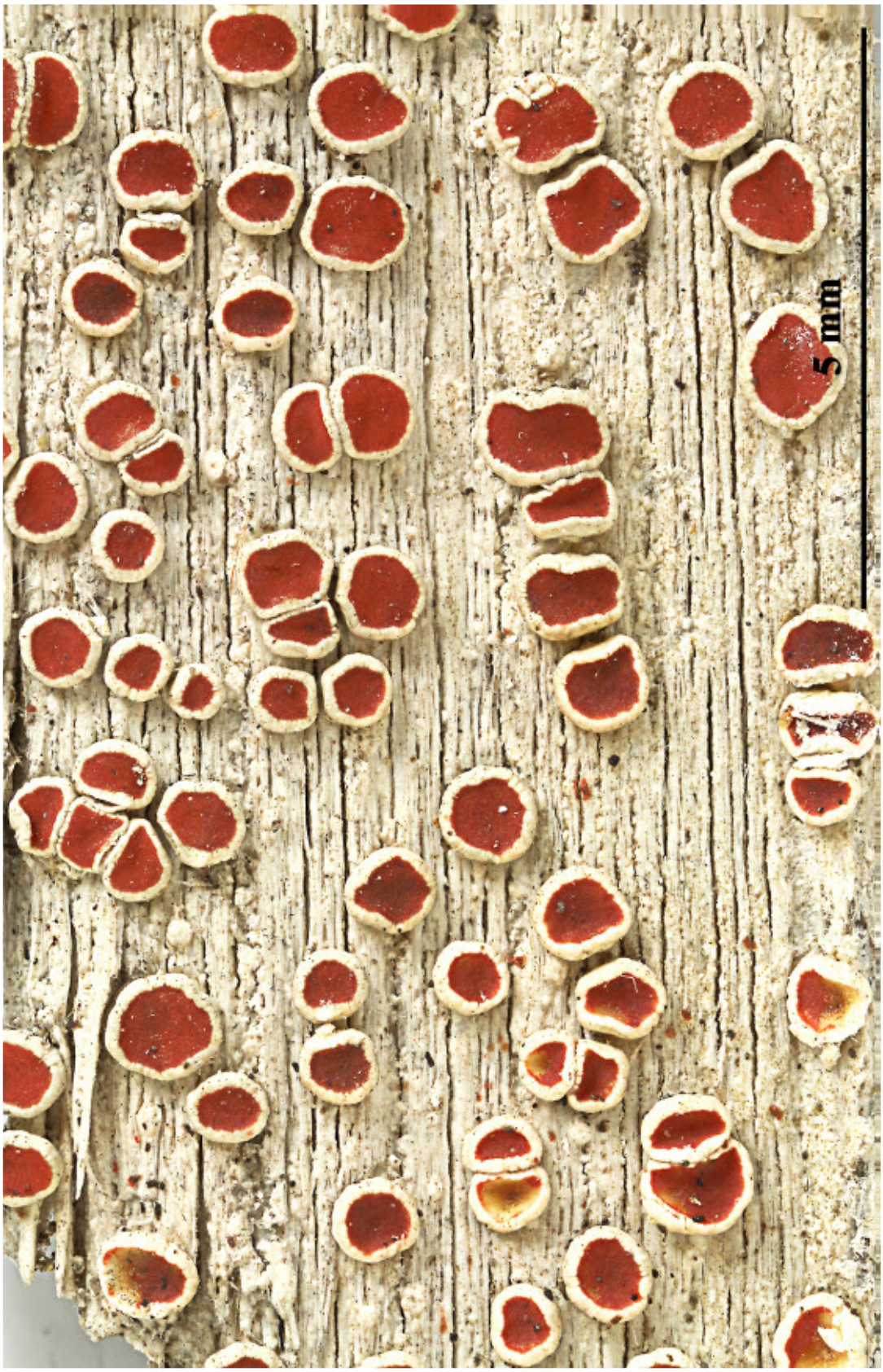


Emmanuelia tenuis

Emmanuelia tenuis

Haematomma flexuosum Hillmann, Reprium nov. Spec. Regni veg. 49: 35 (1938)

[ABL42612], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In in Atlantic rain forest on wood. 9°15' S, 36°25'35" W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42612), 21-23.10.2017. Det. A. Aptroot, 2017. - Thallus UV-, spores hyaline, c. 7-septate, 35 x 3.5 µm.



Haematomma flexuosum

Hafellia curatellae (Malme) Marbach, Biblthca Lichenol. 74: 255 (2000)
= *Buellia curatellae* Malme 1927

[ABL42731], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on wooden pole. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42731), 21-23.10.2017. Det. A. Aptroot, 2017. - Thallus K+ yellow, hymenium inspersed, spores 1-3 septate, 30 x 6 µm.

Hafellia pleiotera (Malme) Marbach, Biblthca Lichenol. 74: 274 (2000)
= *Buellia pleiotera* Malme 1927

[ABL42801], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on wooden pole. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42801), 21-23.10.2017. Det. A. Aptroot, 2017. - Thallus K+ yellow, hymenium inspere, epihymenium K+ violet, spores brown, 1-septate, 13-15 x 5 µm.

Hafellia pleiotera

Helminthocarpon leprevostii Fée, Essai Crypt. Exot., Suppl. Révis. (Paris): 156, pl. 35, fig. 11 (1837)

= *Graphis leprovostii* (Fée) Mont., in Sagra, Hist. phys. Cuba, Bot. Pl. Cell. 9: 117 (1845)

[ABL42217], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42217), 21-23.10.2017. Det. A. Aptroot, 2017.

Helminthocarpon leprevostii

Herpothallon roseocinctum (Fr.) Aptroot, Lücking & G. Thor, in Aptroot, Thor, Lücking, Elix & Chaves, Biblthca Lichenol. 99: 59 (2009)

= *Chiodecton sanguineum f. roseocincta* (Fr.) Vain., Acta Soc. Fauna Flora fenn. 7(no. 2): 143 (1890)

= *Chiodecton sanguineum f. roseocinctum* (Fr.) Vain. [as 'roseo-cincta'], Acta Soc. Fauna Flora fenn. 7(no. 2): 143 (1890)

= *Herpothallon sanguineum f. roseocinctum* (Fr.) Tomas., Atti Ist. bot. Univ. Lab. crittog. Pavia, sér. 5 10: 321 (1954)

= *Hypochnus roseocinctus* (Fr.) Sacc., in Fries, Epicr. syst. mycol. (Upsaliae): 569 (1838) [1836-1838]

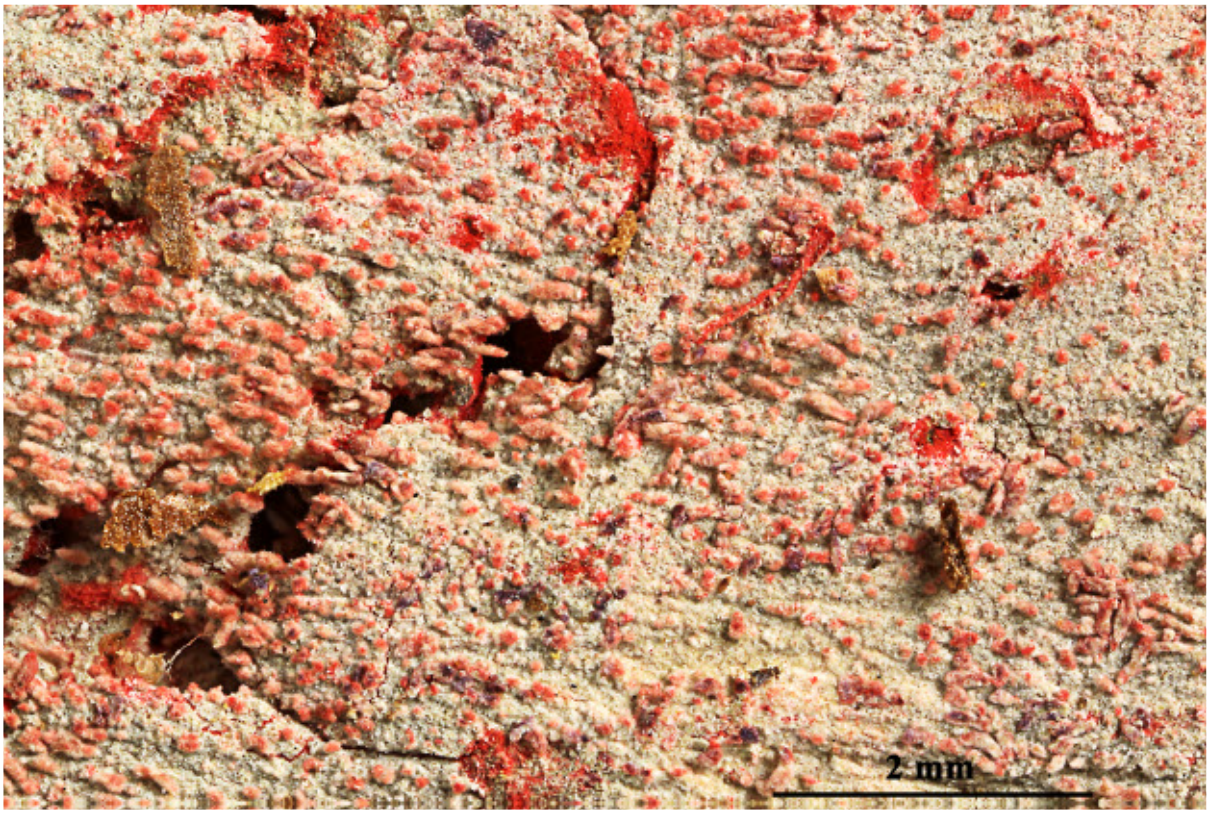
= *Thelephora roseocincta* Fr., Linnaea 5: 530 (1830)

[ABL42529], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15’ S, 36°25’35’’ W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42529), 21-23.10.2017. Det. A. Aptroot, 2017.

Herpothallon roseocinctum

Herpothallon rubrocinctum (Ehrenb.) Aptroot, Lücking & G. Thor, in Aptroot, Thor, Lücking, Elix & Chaves, Biblthca Lichenol. 99: 61 (2009)
= *Byssus sanguinea* Sw., Prodr.: 148 (1788)
= *Chiodecton rubrocinctum* (Ehrenb.) Nyl., Bot. Ztg. 20: 278 (1862)
= *Chiodecton sanguineum* (Sw.) Vain., Acta Soc. Fauna Flora fenn. 7(no. 2): 143 (1890)
= *Corticium rubrocinctum* (Ehrenb.) Bres., Annls mycol. 9(3): 272 (1911)
= *Cryptothecia rubrocincta* (Ehrenb.) G. Thor, Bryologist 94: 280 (1991)
= *Herpothallon sanguineum* (Sw.) Tobler, Flora, Regensburg 131: 447 (1937)
= *Hypochnus rubrocinctus* Ehrenb., in Nees von Esenbeck (Ed.), Horae Phys. Berol.: 84, tab. 17, fig. 3 (1820)
= *Hypochnus sanguineus* (Sw.) Kuntze, Revis. gen. pl. (Leipzig) 3(3): 486 (1898)
= *Thelephora sanguinea* (Sw.) Sw., Fl. Ind. Occid. 3: 1937 (1806)

[ABL42491], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42491), 21-23.10.2017. Det. A. Aptroot, 2017.



Herpothallon rubrocinctum

Heterodermia lutescens (Kurok.) Follmann, Philippia 2(2): 3 (1974)
= *Leucodermia lutescens* (Kurok.) Kalb, in Mongkolsuk, Meesim, Poengsungnoen, Buaruang, Schumm & Kalb, Phytotaxa 235(1): 38 (2015)
= *Anaptychia lutescens* Kurok., Beitr. Kenntn. Pilze Mitteleur. 36: 54 (1961)

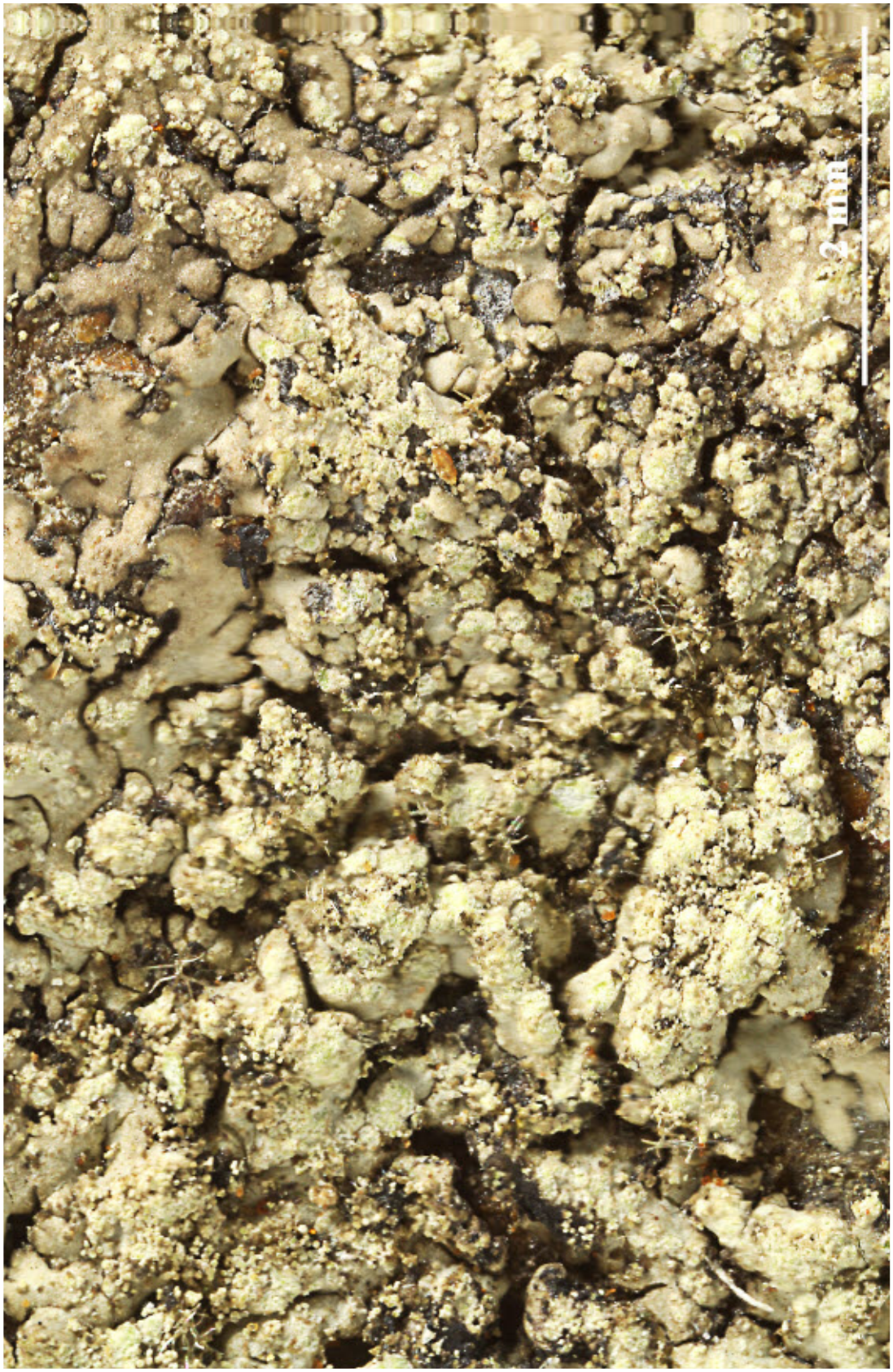
[ABL50943a], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On twigs of shrub in exposed area in Atlantic rain forest. 9°14'28" S, 36°25'11" W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50943a) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot, 2019. - With lichenicolous fungus.

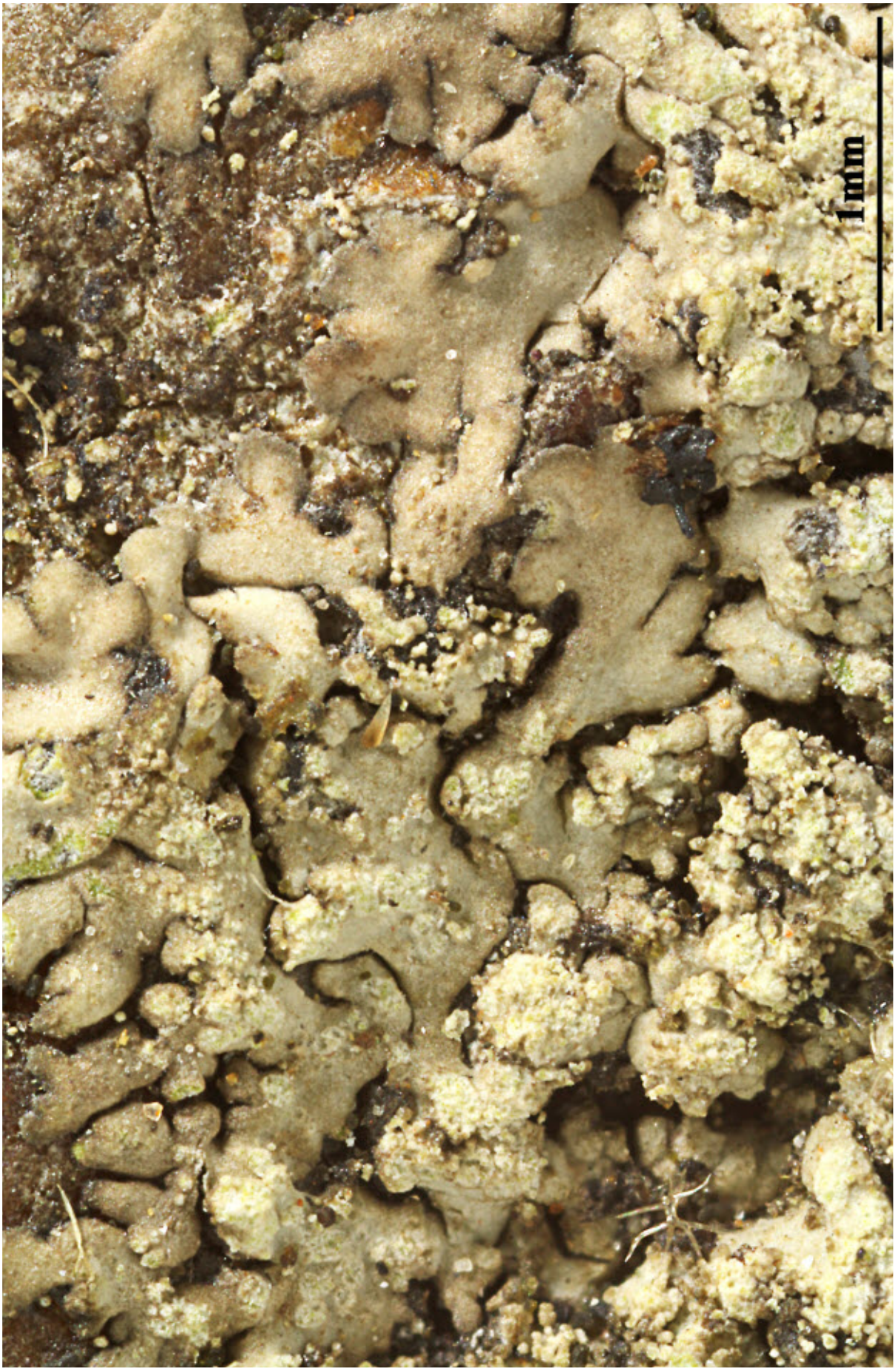
Heterodermia lutescens

Heterodermia lutescens

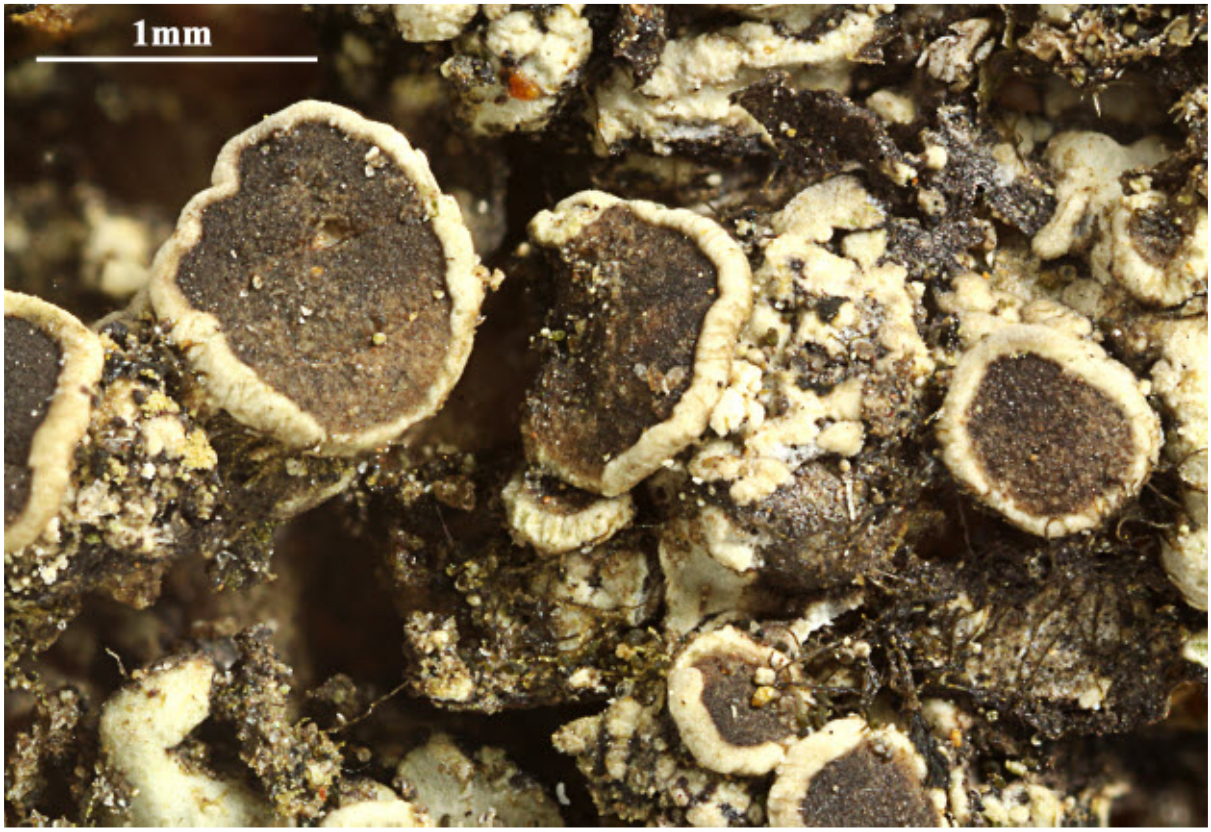
Hyperphyscia granulata (Poelt) Moberg, Nordic Jl Bot. 7(6): 721 (1987)
= *Physciopsis granulata* Poelt 1974

[ABL50955], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. On tree bark in Atlantic rain forest. 9°15' S, 36°25'35" W, 500 m. Leg. M. Cáceres, A. Aptroot (no 50955) & J.G. Cavalcante, 24.07.2019. Det. A. Aptroot, 2019.





Hyperphyscia granulata



Hyperphyscia granulata

Hypotrachyna flavida (Zahlbr.) Hale, Smithson. Contr. bot. 25: 37 (1975)
= *Parmelia flavida* Zahlbr. 1929

[ABL51001], Brazil, Alagoas, Quebrangulo, Pedra Talhada rock. On exposed siliceous rock in Atlantic rain forest. 9°15' S, 36°25'35" W, 700 m. Leg. M. Cáceres, A. Aptroot (no 51001) & J.G. Cavalcante, 26.07.2019. Det. A. Aptroot, 2019.

Hypotrachyna flavida

Hypotrachyna kalbii Elix, T.H. Nash & Sipman, in Sipman, Elix & Nash, Fl. Neotrop., Monogr. 104: 85 (2009)

[ABL42537], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on granite. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42537), 21-23.10.2017. . Det. A. Aptroot, 2017. - Medulla K-, C-, KC+ pink

Hypotrachyna kalbii

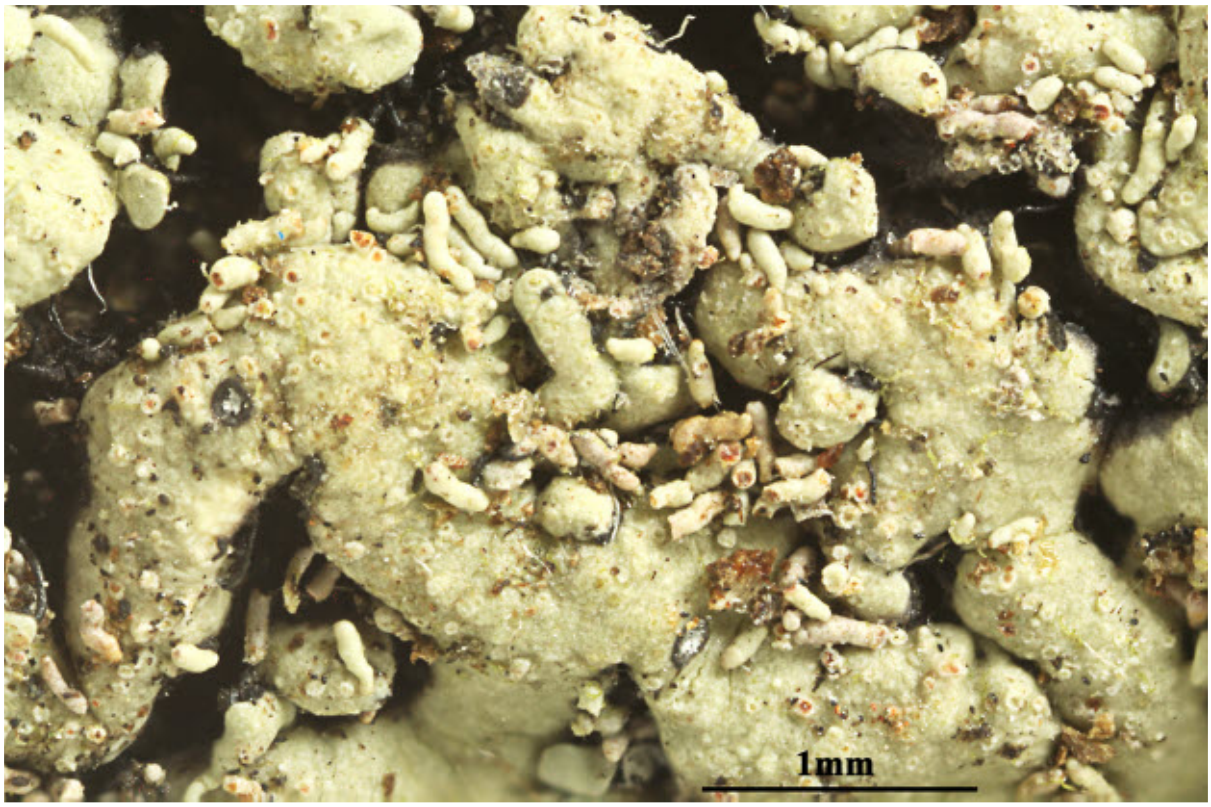
Hypotrachyna kalbii, lower surface

Hypotrachyna imbricatula (Zahlbr.) Hale, Smithson. Contr. bot. 25: 41 (1975)

= *Parmelia imbricatula* Zahlbr., Denkschr. Kaiserl. Akad. Wiss. Wien, Math.-Naturwiss. Kl. 83: 165 (1909)

[ABL50861], Brazil, Alagoas, Quebrangulo, Pedra Talhada plot A2.3. On tree bark in Atlantic rain forest. 9°15' S, 36°25'35" W, 592 m. Leg. M. Cáceres, A. Aptroot (no 50861) & J.G. Cavalcante, 24.07.2019. Det. A. Aptroot,2019.

Hypotrachyna imbricatula



Hypotrachyna imbricatula

Hypotrachyna osseoalba (Vain.) Y.S. Park & Hale, Taxon 38(1): 88 (1989)
= *Parmelia osseoalba* Vain., Ann. bot. Soc. Zool.-Bot. fenn. Vanamo 1(no. 3): 39 (1921)

[ABL42713], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42713), 21-23.10.2017. Det. A. Aptroot, 2017. - P-, UV+ yellow

Hypotrachyna osseoalba

Hypotrachyna protoformosana Elix, T.H. Nash & Sipman, in Sipman, Elix & Nash, Fl. Neotrop., Monogr. 104: 128 (2009)

[ABL50973], Brazil, Alagoas, Quebrangulo, Pedra Talhada rock. On tree bark in Atlantic rain forest. 9°15’ S, 36°25’35’’ W, 700 m. Leg. M. Cáceres, A. Aptroot (no 50973) & J.G. Cavalcante, 26.07.2019. Det. A. Aptroot, 2019.

Hypotrachyna protoformosana

Hypotrachyna protoformosana

Jenmania osorioi Henssen, Lichenologist 5(5-6): 447 (1973)

[ABL42554], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In in Atlantic rain forest on wet granite. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42554), 21-23.10.2017. . Det. A. Aptroot, 2017.

Jenmania osorioi

Lecanactis epileuca (Nyl.) Tehler, Willdenowia 22(1-2): 205 (1992)
= *Platygrapha epileuca* Nyl. 1859

[ABL42320], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42320), 21-23.10.2017. Det. A. Aptroot, 2017.

Lecanactis epileuca

Lecanora achroa Nyl., in Crombie, J. Bot., Lond. 14: 263 (1876)

[ABL42786], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on wooden pole. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42786), 21-23.10.2017. Det. A. Aptroot, 2017.

Lecanora achroa

Lecanora concilianda Vain., Acta Soc. Fauna Flora fenn. 7(no. 1): 85 (1890)

[ABL42233], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42233), 21-23.10.2017. Det. A. Aptroot, 2017. Hypothecium brown, spores simple, 12 x 7 µm.

Lecanora concilianda

Lecanora concilians Nyl., Acta Soc. Sci. fenn. 7(2): 445 (1863)

[ABL42857], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42857), 21-23.10.2017. Det. A. Aptroot, 2017. Thallus UV-, spores hyaline, simple, 11-14 x 7-8 µm.

Lecanora concilians

Lecanora helva Stizenb., Ber. Tät. St Gall. naturw. Ges.: 218 (1890) [1888-89]
= *Lecanora albellaria* Müll. Arg., Bull. Herb. Boissier 3: 632 (1895)
= *Lecanora alligata* Stirt., in Bailey, Queensland Agric. J. 5: 38 (1899)

[ABL42660], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42660), 21-23.10.2017. Det. A. Aptroot, 2017.

Lecanora hypocrocea Vain., Acta Soc. Fauna Flora fenn. 7(no. 1): 87 (1890)

[ABL42608], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In in Atlantic rain forest on wood. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42608), 21-23.10.2017. Det. A. Aptroot, 2017.

Lecanora hypocrocea

Lecanora hypocrocina Nyl., Flora, Regensburg 59: 509 (1876)

[ABL42772], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42772), 21-23.10.2017. Det. A. Aptroot, 2017.

Lecanora hypocrocina

Lecanora kalbiana Lumbsch, in Lumbsch, Guderley & Elix, Bryologist 99(3): 283 (1996)

[ABL51020], Brazil, Alagoas, Quebrangulo, Pedra Talhada rock. On exposed siliceous rock in Atlantic rain forest. 9°15’ S, 36°25’35” W, 700 m. Leg. M. Cáceres, A. Aptroot (no 51020) & J.G. Cavalcante, 26.07.2019. Det. A. Aptroot, 2019.

Lecanora kalbiana

Lecanora leprosa Fée, Essai Crypt. Exot. (Paris): 118 (1825) [1824]

[ABL42232], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42232), 21-23.10.2017. Det. A. Aptroot, 2017.

Lecanora leprosa

Lecanora oreinoides (Körb.) Hertel & Rambold, in Rambold, Biblthca Lichenol. 34: 100 (1989)

= *Aspicilia oreinoides* Körb., Abh. Schles. Ges. Vaterl. Kult., Abth. Naturw. Med. 2: 32 (1862)

= *Carbonea oreinoides* (Körb.) Brusse, Mycotaxon 52(2): 505 (1994)

= *Lecidea angolensis* Müll. Arg., Linnaea 43(9): 35 (1880)

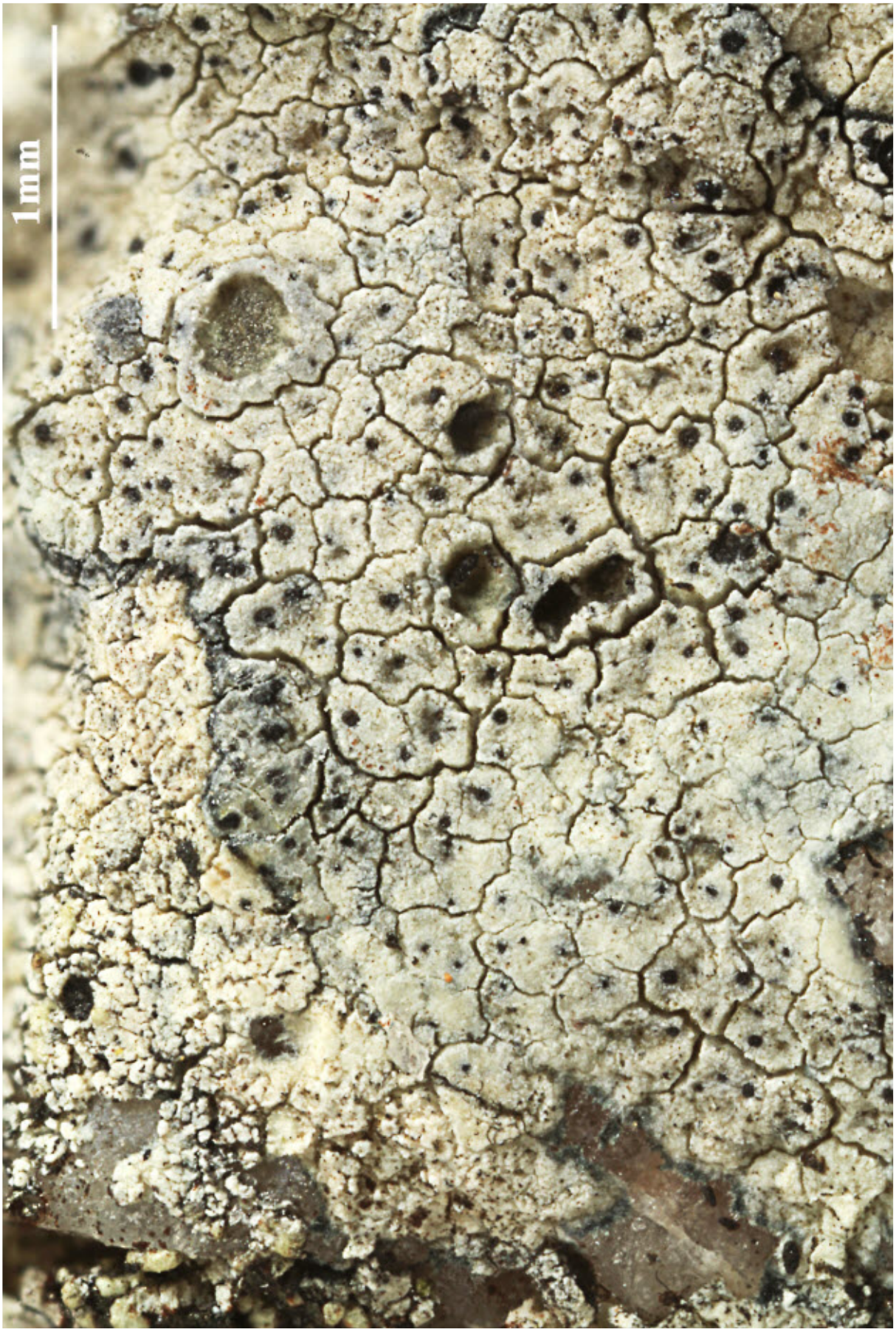
= *Lecidea lactea* f. *oreinoides* (Körb.) Nyl., Flora, Regensburg 47: 267 (1864)

= *Lecidea mundula* Müll. Arg., Flora, Regensburg 70: 336 (1887)

= *Lecidea oreinoides* (Körb.) Hochst., Flora, Regensburg 47: 267 (1864)

= *Lecidea pantherina* f. *oreinoides* (Körb.) Zahlbr., Cat. Lich. Univers. 3: 650 (1925)

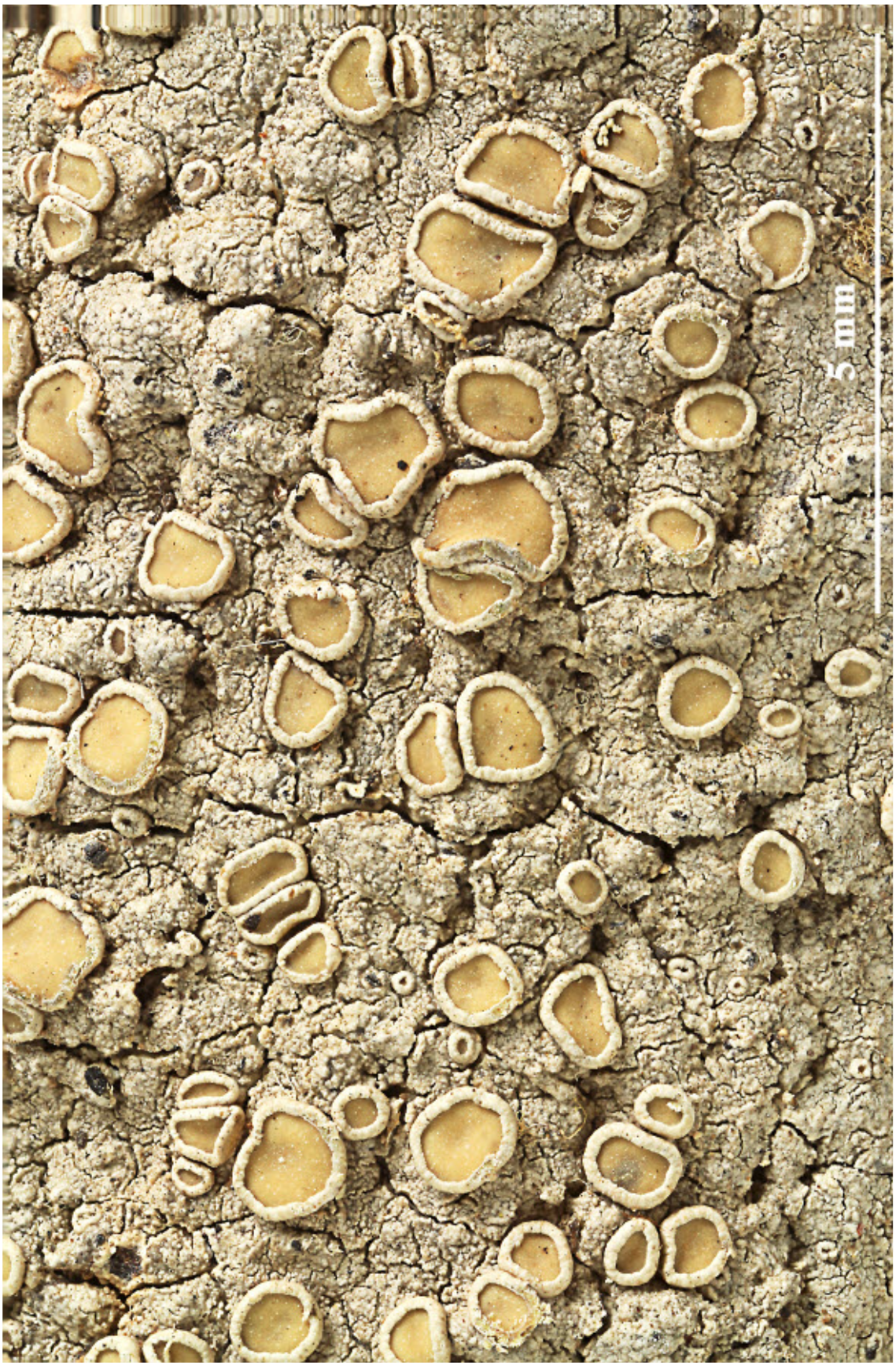
[ABL50895], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On exposed siliceous rock in Atlantic rain forest. 9°14’28’’ S, 36°25’11’’ W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50895) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot,2019.



Lecanora oreinoides

Lecanora stramineoalbida Vain., J. Bot., Lond. 34: 35 (1896)

[ABL42601], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In in Atlantic rain forest on tree bark. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42601), 21-23.10.2017. Det. A. Aptroot, 2017.



Lecanora stramineoalbida

Lecanora subimmersa (Fée) Vain., Acta Soc. Fauna Flora fenn. 7(no. 1): 98 (1890)

= *Aspicilia subimmersa* (Fée) Hue, Nouv. Arch. Mus. Hist. Nat., Paris, 5 sér. 2(1): 25 (1912) [1910]

= *Lecanora laevissima* C. Knight ex Shirley, Proc. R. Soc. Qd. 6: 133 (1889)

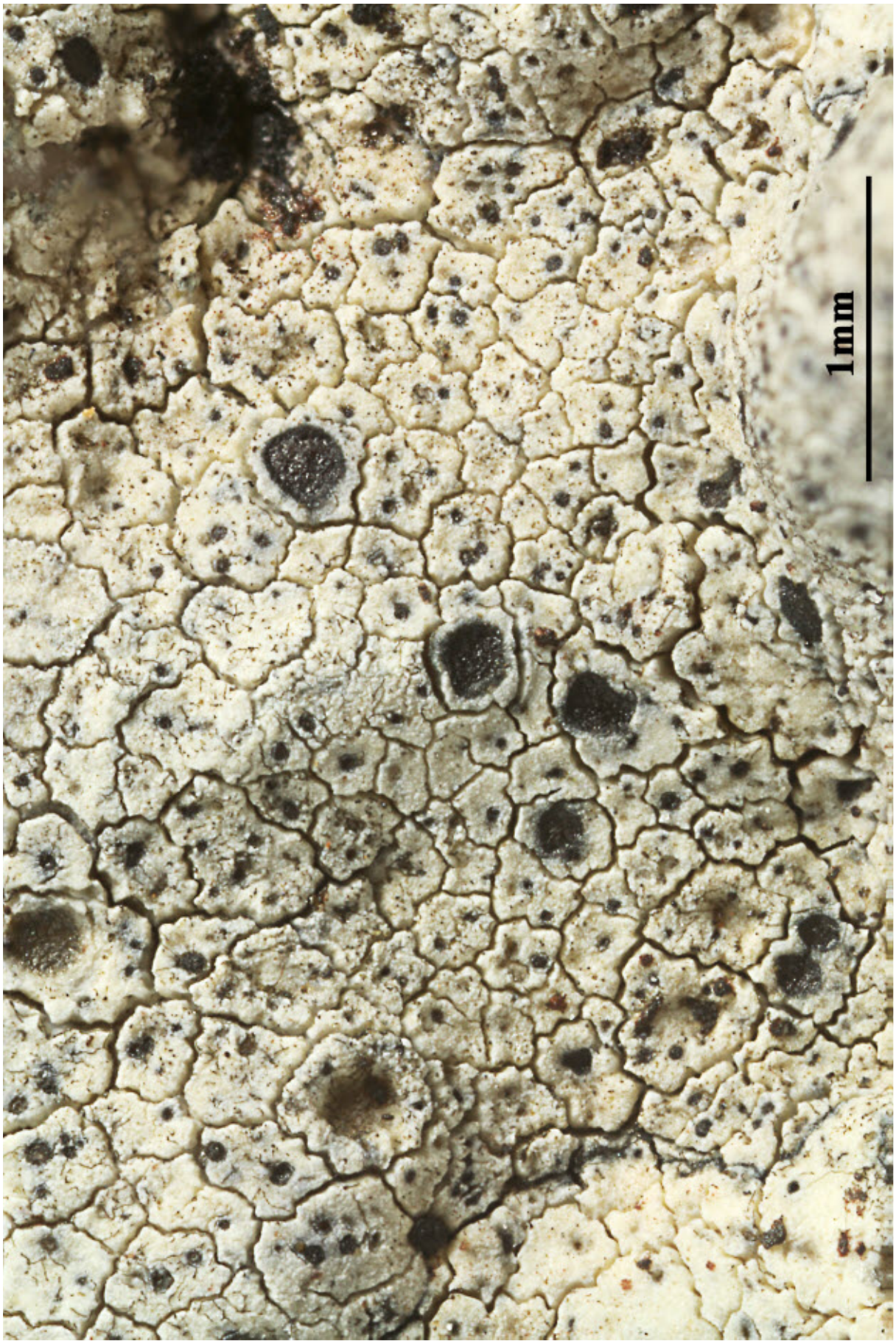
= *Lecanora subimmersa subsp. ramboldii* Lumbsch & Elix, in Lumbsch, Feige & Elix, Pl. Syst. Evol. 191(3-4): 233 (1994)

= *Lecidea leioplaca* Müll. Arg., Flora, Regensburg 70: 61 (1887)

= *Lecidea subimmersa* Fée, Bull. Soc. bot. Fr. 20: 315 (1873)

= *Lecidea wilsonii* Räsänen, Arch. Soc. Zool. Bot. fenn. Vanamo 3: 183 (1949)

[ABL50896], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On exposed siliceous rock in Atlantic rain forest. 9°14’28’’ S, 36°25’11’’ W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50896) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot,2019.



Lecanora subimmersa

Lecanora vainioi Vänskä, Ann. bot. fenn. 23(2): 123 (1986)

[ABL42425], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on granite. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42425), 21-23.10.2017. . Det. A. Aptroot, 2017.

Lecanora vainioi

Lecidella buelliastrum (Müll. Arg.) Rambold, Biblthca Lichenol. 34: 107 (1989)
= *Lecidea buelliastrum* Müll. Arg., Flora, Regensburg 70: 322 (1887)

[ABL50906], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On exposed siliceous rock in Atlantic rain forest. 9°14’28’’ S, 36°25’11’’ W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50906) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot,2019.

Lecidella buelliastrum

Lecidella chodatii (Samp.) Knoph & Leuckert [as 'chodati'], in Knoph, Biblthca Lichenol. 36: 88 (1990)

= *Lecidea chodatii* Samp. [as 'chodati'], Liquen Inédit.: 3 (1920)

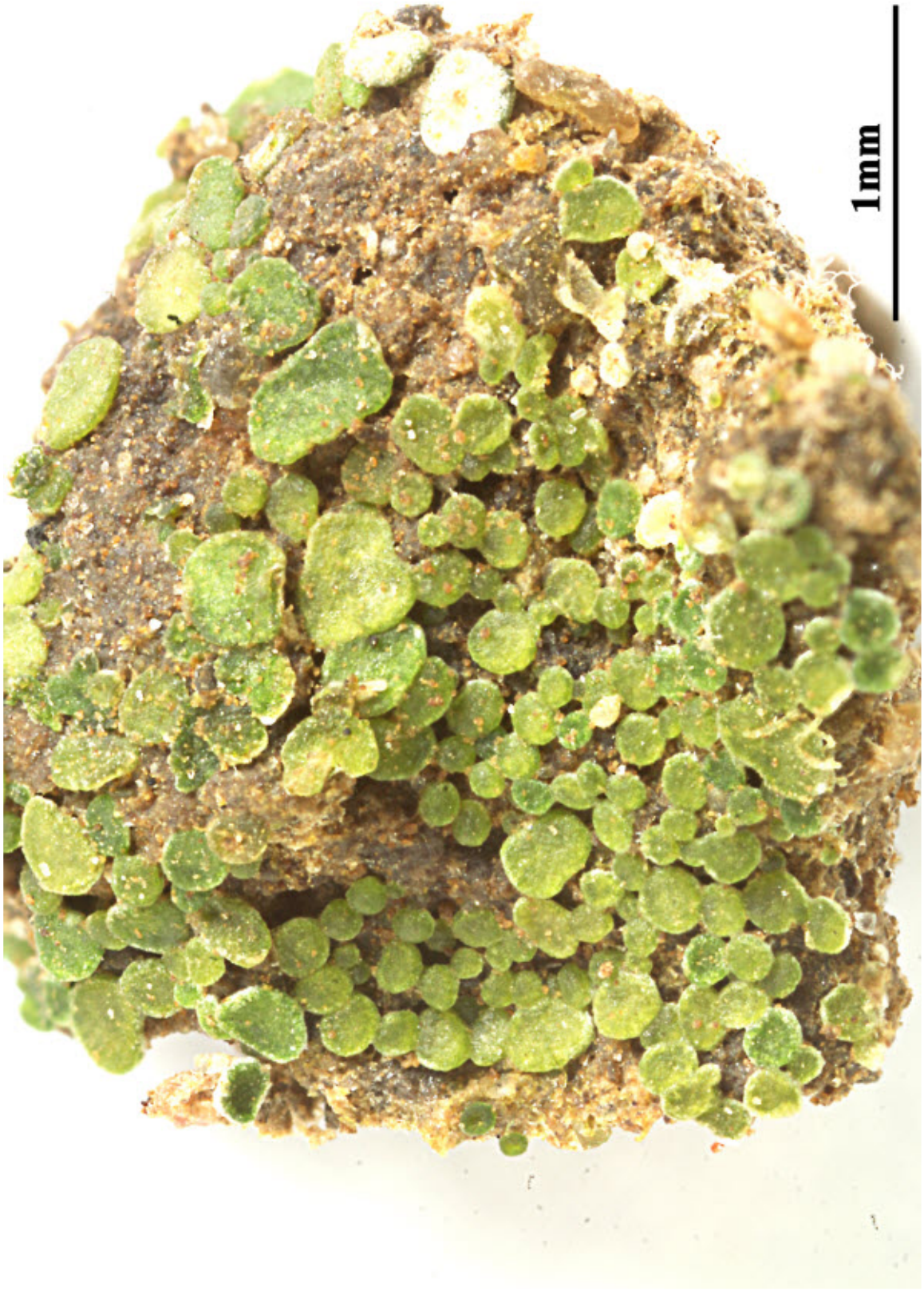
= *Lecidella viridans var. chodatii* (Samp.) Hertel & Leuckert [as 'chodati'], Willdenowia 5: 376 (1969)

[ABL51015], Brazil, Alagoas, Quebrangulo, Pedra Talhada rock. On exposed siliceous rock in Atlantic rain forest. 9°15’ S, 36°25’35” W, 700 m. Leg. M. Cáceres, A. Aptroot (no 51015) & J.G. Cavalcante, 26.07.2019. Det. A. Aptroot, 2019.

Lecidella chodatii

Lepidostroma winklerianum B.P. Hodk. & Lücking, Fungal Diversity 64(1): 176 (2013) [2014]

[ABL50855], Brazil, Alagoas, Quebrangulo, Pedra Talhada plot A2.2. On soil in Atlantic rain forest. 9°15’ S, 36°25’35” W, 559 m. Leg. M. Cáceres, A. Aptroot (no 50855) & J.G. Cavalcante, 24.07.2019. Det. A. Aptroot,2019.



Lepidostroma winklerianum

Lepidostroma winklerianum

Lepra subventosa (Malme) I. Schmitt & Lumbsch, in Buaruang et al., MycoKeys 23: 82 (2017)

= *Lepra subventosa* var. *deficiens* (A.W. Archer & Elix) A.W. Archer & Elix, Australas. Lichenol. 82: 133 (2018)

= *Marfloraea subventosa* (Malme) S.Y. Kondr., Lőkös & Hur, in Kondratyuk, Lőkös, Kim, Kondratiuk, Jeong, Jang, Oh & Hur, Stud. Bot. Hungar. 46(2): 106 (2015)

= *Pertusaria paeminosa* A.W. Archer, Nova Hedwigia 50(3-4): 396 (1990)

= *Pertusaria sorediata* C. Knight ex Shirley, Proc. R. Soc. Qd. 6: 141 (1889)

= *Pertusaria subventosa* Malme, Ark. Bot. 28A(no. 9): 7 (1936)

= *Pertusaria subventosa* var. *deficiens* A.W. Archer & Elix, Mycotaxon 49: 146 (1993)

[ABL50999], Brazil, Alagoas, Quebrangulo, Pedra Talhada rock. On exposed siliceous rock in Atlantic rain forest. 9°15’ S, 36°25’35” W, 700 m. Leg. M. Cáceres, A. Aptroot (no 50999) & J.G. Cavalcante, 26.07.2019. Det. A. Aptroot, 2019.

Lepra subventosa

Lepra tropica (Vain.) Lendemer & R.C. Harris 2017
= *Pertusaria tropica* Vain., in Hiern, Cat. Afr. Pl. 2(2): 404 (1901)

[ABL42614], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In in Atlantic rain forest on wooden pale. 9°15' S, 36°25'35" W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42614), 21-23.10.2017. Det. A. Aptroot, 2017. - UV+ yellow.

Lepra tropica

Lepra ventosa (Malme) Lendemer & R.C. Harris, Bryologist 120(2): 187 (2017)
= *Pertusaria ventosa* Malme, Ark. Bot. 28A(no. 9): 7 (1936)

[ABL50901], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On exposed siliceous rock in Atlantic rain forest. 9°14’28’’ S, 36°25’11’’ W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50901) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot,2019.

Lepra ventosa

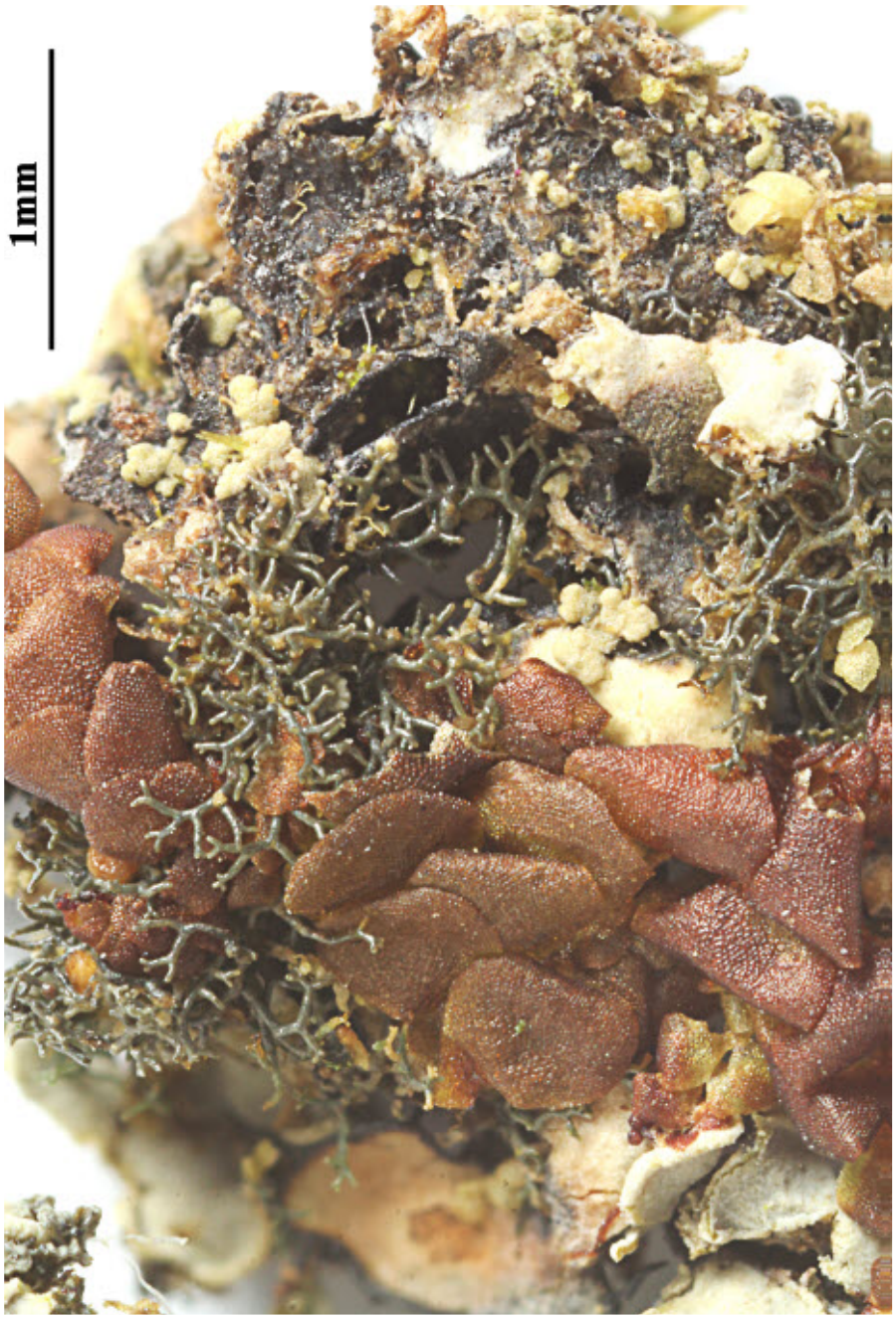
Lepra ventosa (Malme) Lendemer & R.C. Harris, Bryologist 120(2): 187 (2017)
= *Pertusaria ventosa* Malme, Ark. Bot. 28A(no. 9): 7 (1936)

[ABL42577], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In in Atlantic rain forest on granite. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42577), 21-23.10.2017. . Det. A. Aptroot, 2017.

Lepra ventosa

Leptogidium dendriscum (Nyl.) Nyl., Flora, Regensburg 56(13): 195 (1873)
= *Leptodendriscum moorei* (Hepp ex Leight.) Vain., Ann. Acad. Sci. fenn., Ser. A 15(no. 6): 34 (1921)
= *Leptogidiomyces dendrisci* Cif. & Tomas., Atti Ist. bot. Univ. Lab. crittog. Pavia, sér. 5 10(2): 268 (1953)
= *Leptogium dendriscum* Nyl., Syn. meth. lich. (Parisiis) 1(1): 135 (1858)
= *Leptogium moorei* Hepp ex Leight., Lich.-Fl. Great Brit.: 27 (1871)
= *Leptogium moorei* Hepp, in Carroll, J. Bot., Lond. 3: 287 (1865)
= *Polychidium dendriscum* (Nyl.) Henssen, Symb. bot. upsal. 18(no. 1): 107 (1963)

[ABL42598A], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In in Atlantic rain forest on tree bark. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42598A), 21-23.10.2017. Det. A. Aptroot, 2017.



Leptogidium dendriscum

Leptogium cochleatum (Dicks.) P.M. Jørg. & P. James, Lichenologist 15(2): 113 (1983)

= *Lichen cochleatus* Dicks., Fasc. pl. crypt. Brit. (London) 1: 13 (1785)

= *Parmelia membranacea* var. *cochleata* (Dicks.) Schaer., Lich. helv. spicil. 11: 524 (1842)

[ABL42826], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42826), 21-23.10.2017. Det. A. Aptroot, 2017.

Leptogium cochleatum

Leptogium coralloideum (Meyen & Flot.) Vain., Ann. Acad. Sci. fenn., Ser. A 6(no. 7): 110 (1915)

= *Leptogium diaphanum f. coralloideum* Meyen & Flot. [as 'coralloidea'], Nova Acta Phys.-Med. Acad. Caes. Leop.-Carol. Nat. Cur., Suppl. 1 19: 226 (1843)

= *Leptogium diaphanum var. coralloideum* (Meyen & Flot.) P.M. Jørg. , Lichenologist 26(1): 1-29 (1994)

= *Leptogium phyllocarpum var. coralloideum* (Meyen & Flot.) Hue, Nouv. Arch. Mus. Hist. Nat., Paris, 3 sér. 10: 228 (1898)

[ABL42850], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15’ S, 36°25’35’’ W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42850), 21-23.10.2017. Det. A. Aptroot, 2017.

Leptogium coralloideum

Leptogium denticulatum Nyl., Annls Sci. Nat., Bot., sér. 5 7: 302 (1867)

[ABL42356], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42356), 21-23.10.2017. Det. A. Aptroot, 2017.

Leptogium denticulatum

Leptogium isidiosellum (Riddle) Sierk, Bryologist 67: 282 (1964)
= *Leptogium marginellum var. isidiosellum* Riddle 1918

[ABL42811], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42811), 21-23.10.2017. Det. A. Aptroot, 2017.

Leptogium isidiosellum

Leptogium marginellum (Sw.) Gray, Nat. Arr. Brit. Pl. (London) 1: 401 (1821)

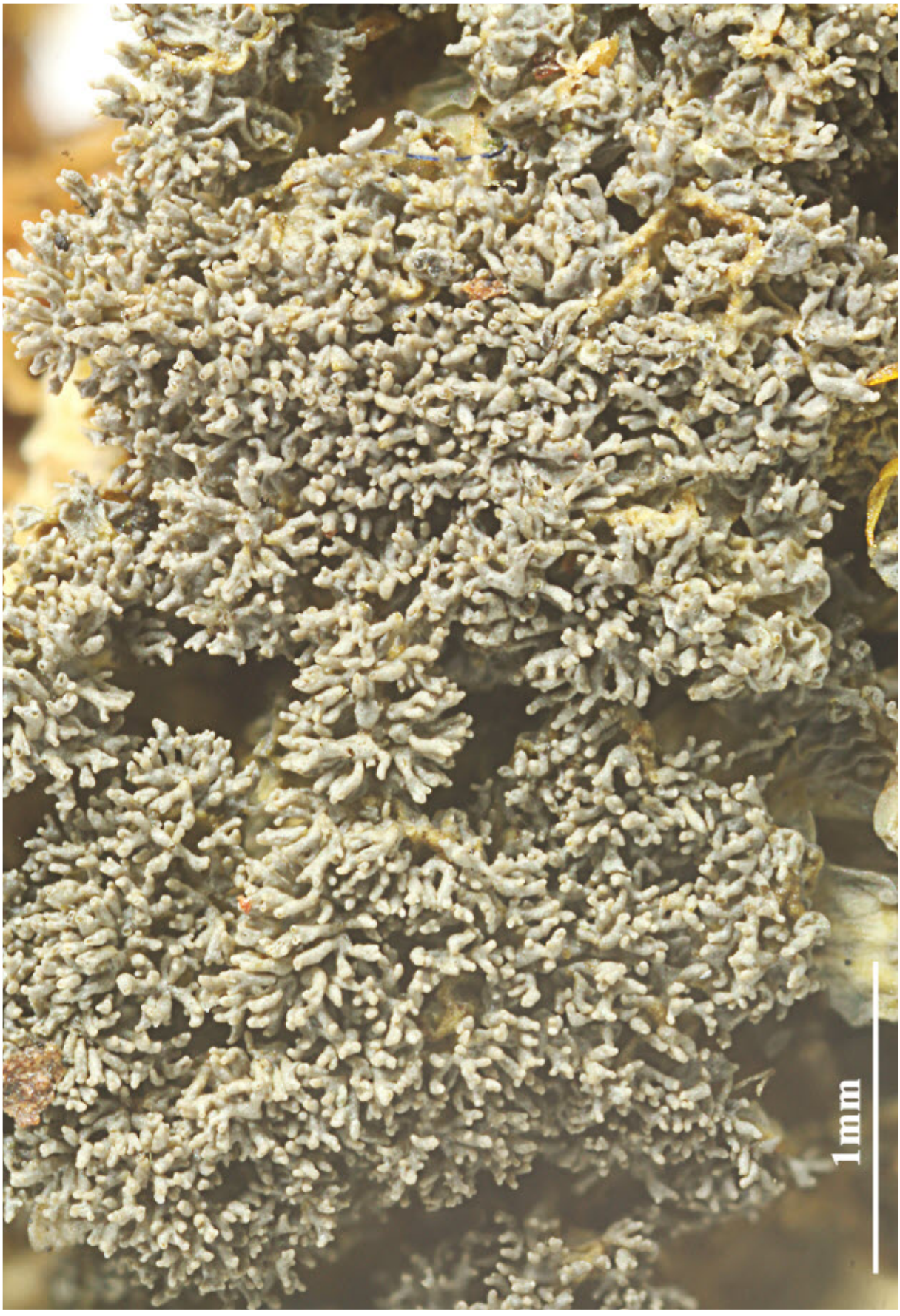
= *Collema marginellum* (Sw.) Raeusch., Nomencl. bot., Edn 3: 326 (1797)

= *Leptogium tremelloides var. marginellum* (Sw.) Nyl., Syn. meth. lich. (Parisiis) 1(1): 125 (1858)

= *Lichen marginellus* Sw., Prodr.: 147 (1788)

= *Parmelia marginella* (Sw.) Ach., Methodus, Sectio post. (Stockholmiæ): 225 (1803)

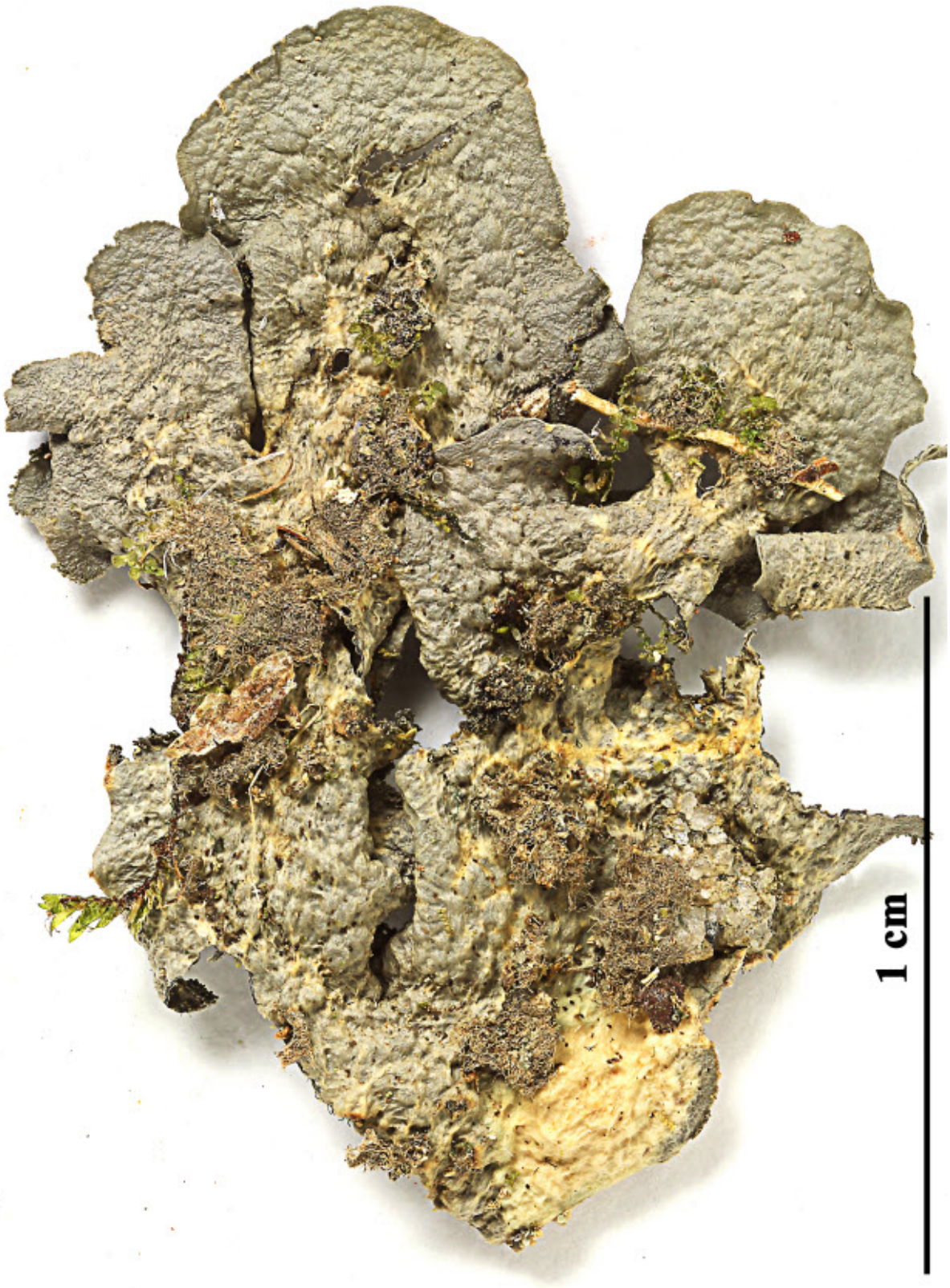
[ABL42357], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42357), 21-23.10.2017. Det. A. Aptroot, 2017.

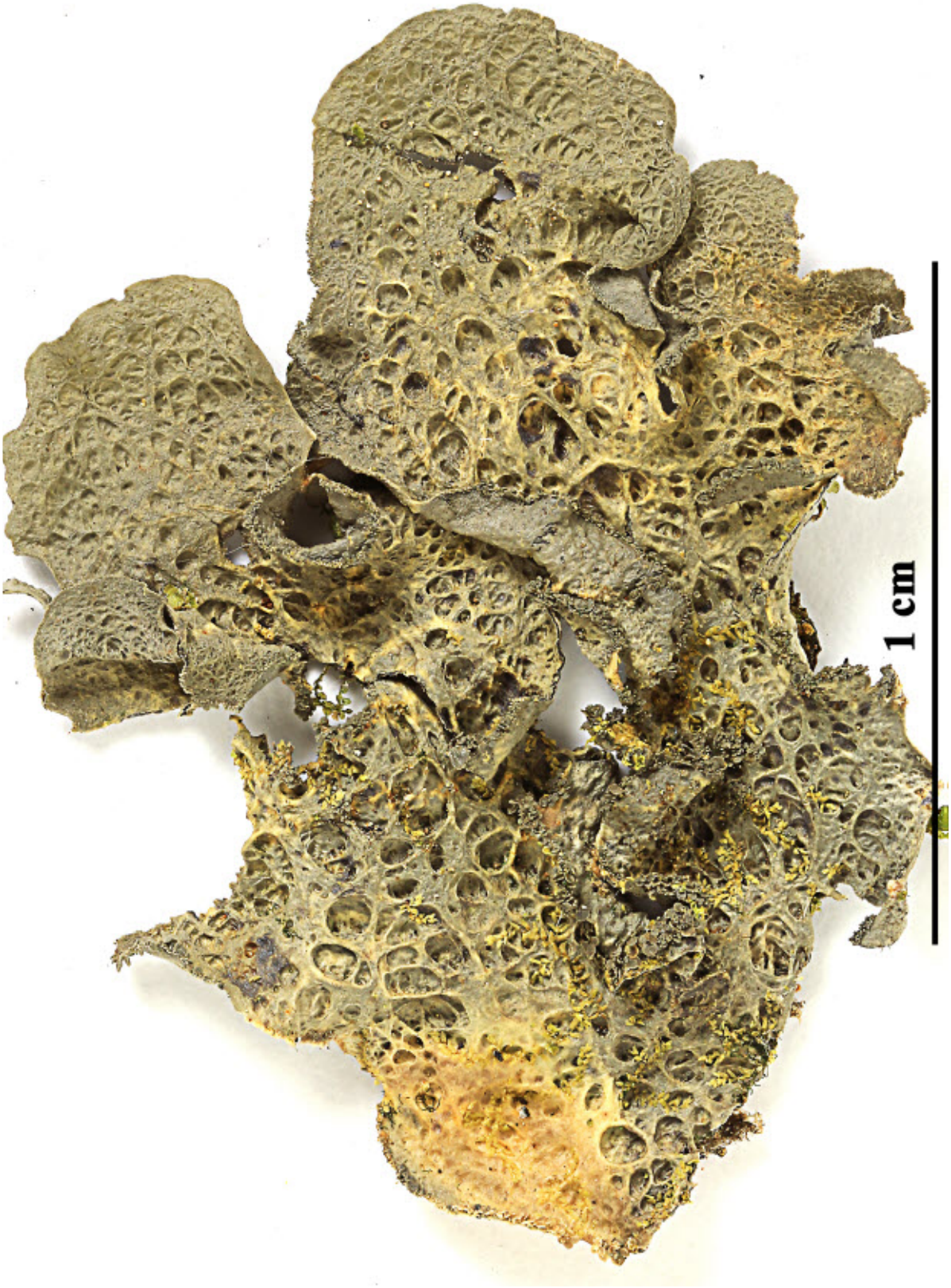


Leptogium marginellum

Leptogium reticulatum Mont., Annls Sci. Nat., Bot., sér. 2 16: 113 (1841)

[ABL42459], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on granite. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42459), 21-23.10.2017. . Det. A. Aptroot, 2017.





Leptogium reticulatum

Malmidea atlantica (M. Cáceres & Lücking) M. Cáceres & Kalb sensu lato, in Kalb, Rivas Plata, Lücking & Lumbsch, Biblthca Lichenol. 106: 164 (2011)

= *Malcolmiella atlantica* M. Cáceres & Lücking, in Cáceres, Libri Botanici 22: 101 (2007)

[ABL42506], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42506), 21-23.10.2017. Det. A. Aptroot, 2017.

Malmidea atlantica

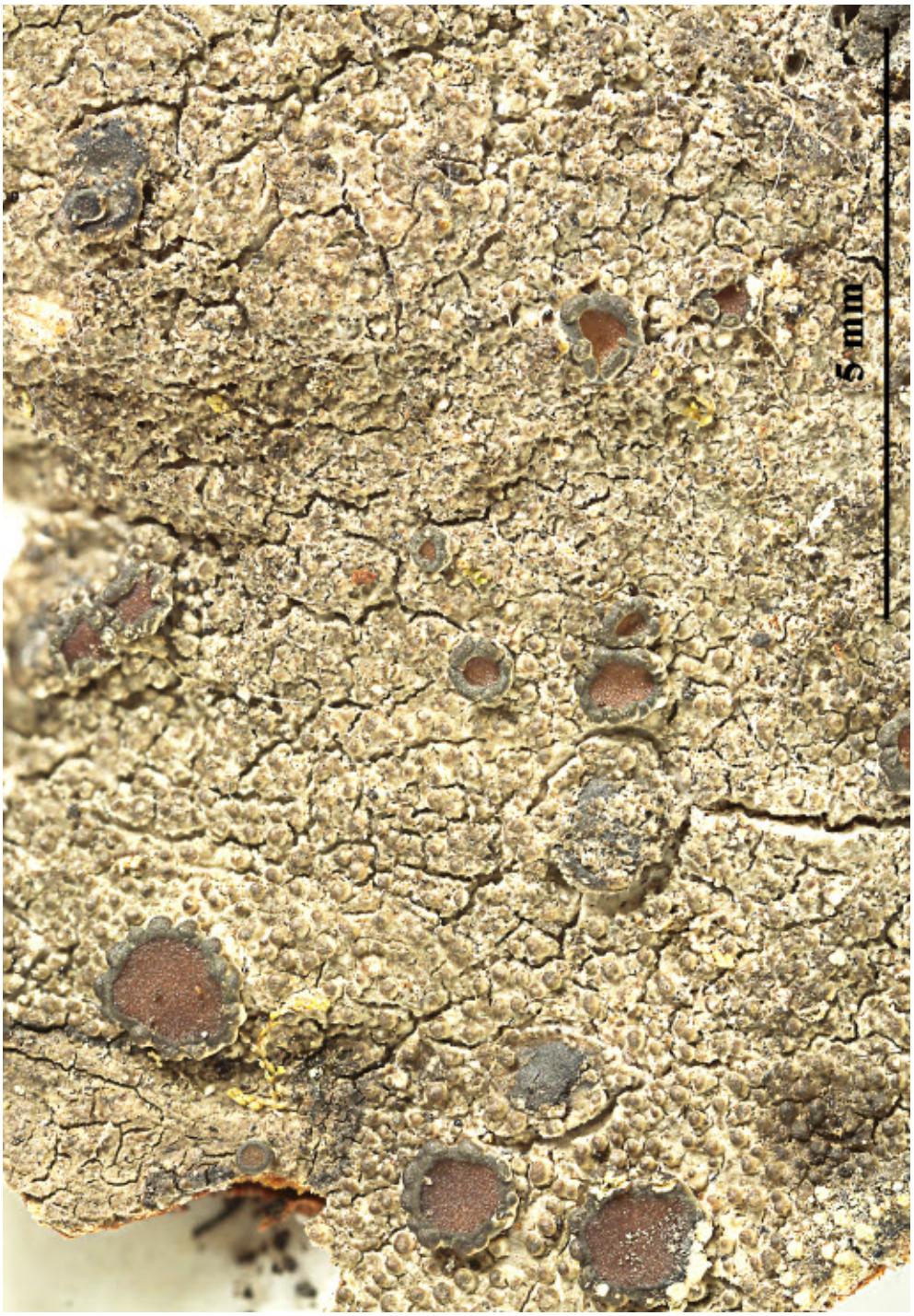
Malmidea fuscella (Müll. Arg.) Kalb & Lücking, in Kalb, Rivas Plata, Lücking & Lumbsch, Biblthca Lichenol. 106: 165 (2011)
= *Lecidea fuscella* Müll. Arg., Flora, Regensburg 64(32): 519 (1881)
= *Malcolmiella fuscella* (Müll. Arg.) M. Cáceres & Lücking, in Cáceres, Libri Botanici 22: 105 (2007)

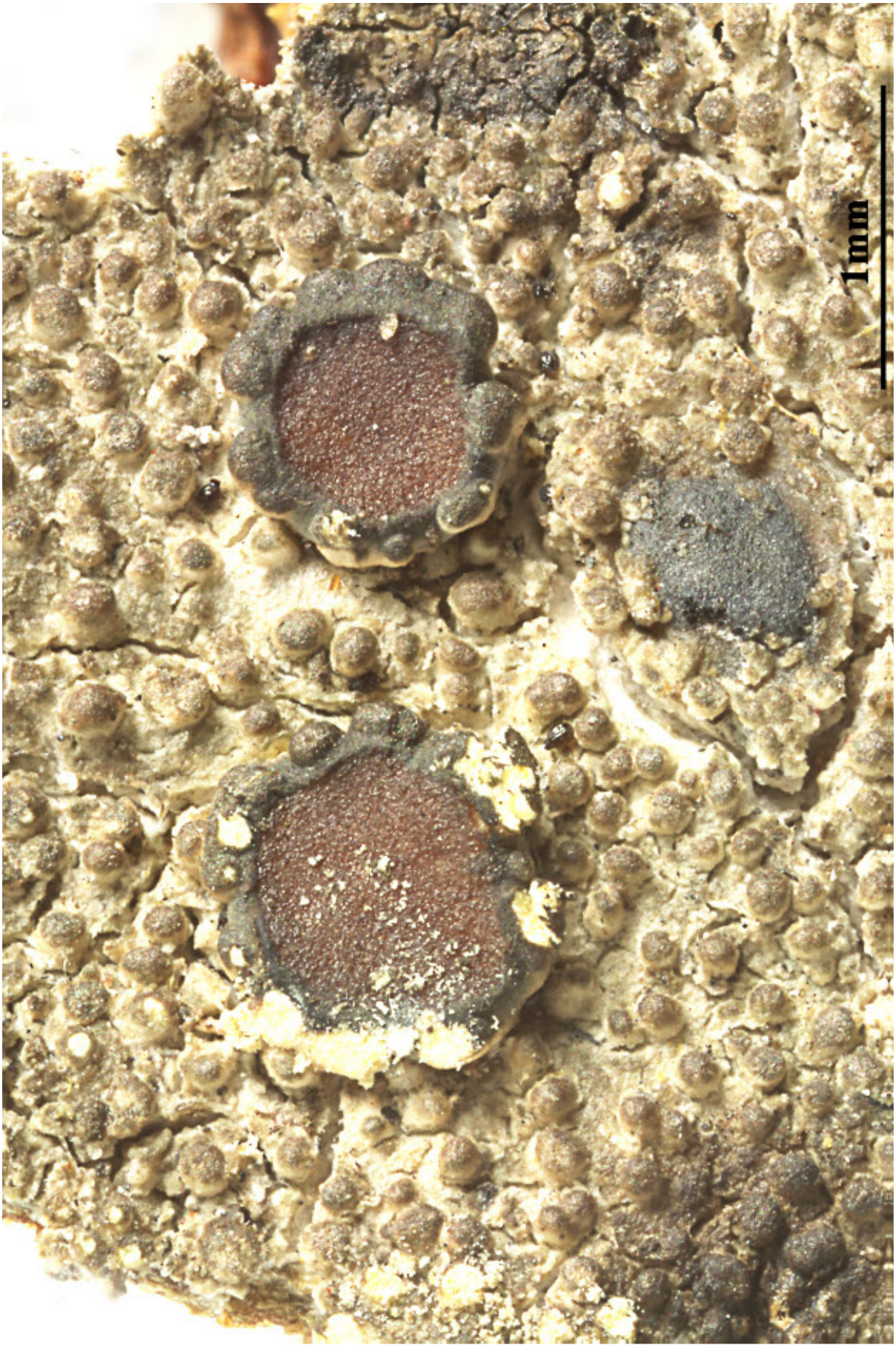
[ABL42701], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42701), 21-23.10.2017. Det. A. Aptroot, 2017. - Spores hyaline, simple, 12 x 7 µm.

Malmidea fuscella

Malmidea granifera (Ach.) Kalb, Rivas Plata & Lumbsch, in Kalb, Rivas Plata, Lücking & Lumbsch, Biblthca Lichenol. 106: 165 (2011)
= *Huilia granifera* (Ach.) Kr.P. Singh [as 'Huelia'], Geophytology 11(2): 249 (1981)
= *Lecanora granifera* Ach., Syn. meth. lich. (Lund): 163 (1814)
= *Lecidea granifera* (Ach.) Vain., in Hiern, Cat. Afr. Pl. 2(2): 424 (1901)
= *Malcolmiella granifera* (Ach.) Kalb & Lücking, in Lücking & Kalb, Bot. Jb. 122(1): 41 (2000)

[ABL42342], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42342), 21-23.10.2017. Det. A. Aptroot, 2017. - Spores 8/ascus, 16 x 10 µm.





Malmidea granifera

Malmidea gyalectoides (Vain.) Kalb & Lücking, in Kalb, Rivas Plata, Lücking & Lumbsch, Biblthca Lichenol. 106: 165 (2011)
= *Lecidea gyalectoides* Vain., in Hiern, Cat. Afr. Pl. 2(2): 423 (1901)
= *Malcolmiella gyalectoides* (Vain.) M. Cáceres & Lücking, in Cáceres, Libri Botanici 22: 105 (2007)

[ABL42715], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42715), 21-23.10.2017. Det. A. Aptroot, 2017. Spores 10 x 5 µm, simple

Malmidea gyalectoides

Malmidea papillosa Weerakoon & Aptroot, Cryptog. Mycol. 35(1): 60 (2014)

[ABL42339], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42339), 21-23.10.2017. Det. A. Aptroot, 2017.

Malmidea papillosa

Malmidea polycampia (Tuck.) Kalb & Lücking, in Kalb, Rivas Plata, Lücking & Lumbsch, Biblthca Lichenol. 106: 165 (2011)

= *Biatora polycampia* (Tuck.) Tuck., Gen. lich. (Amherst): 160 (1872)

= *Lecidea polycampia* Tuck., Proc. Amer. Acad. Arts & Sci. 6: 274 (1866) [1864]

= *Malcolmiella polycampia* (Tuck.) M. Cáceres & Lücking, in Cáceres, Libri Botanici 22: 107 (2007)

[ABL42652], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42652), 21-23.10.2017. Det. A. Aptroot, 2017.

Malmidea polycampia

Malmidea psychotrioides (Kalb & Lücking) Kalb, Rivas Plata & Lumbsch, in Kalb, Rivas Plata, Lücking & Lumbsch, Biblthca Lichenol. 106: 165 (2011)

= *Malcolmiella psychotrioides* Kalb & Lücking, in Lücking & Kalb, Bot. Jb. 122(1): 42 (2000)

[ABL42779], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42779), 21-23.10.2017. Det. A. Aptroot, 2017.

Malmidea psychotrioides

Malmidea sulphureosorediata M. Cáceres, D. A. Mota & Aptroot. Lichenologist 45 (5): 620 (2013).

[ABL50873], Brazil, Alagoas, Quebrangulo, Pedra Talhada plot A2. On tree bark in Atlantic rain forest. 9°15’ S, 36°25’35’’ W, 600 m. Leg. M. Cáceres, A. Aptroot (no 50873) & J.G. Cavalcante, 24.07.2019. Det. K. Kalb.

Malmidea sulphureosorediata

Mazosia carnea (Eckfeldt) Aptroot & M. Cáceres, Lichenologist 46(4): 564 (2014)

= *Enterographa carnea* (Eckfeldt) R.C. Harris, in Egan, Bryologist 90(2): 163 (1987)

= *Ocellularia carnea* (Eckfeldt) Zahlbr., Cat. Lich. Univers. 2: 585 (1923) [1924]

= *Thelotrema carneum* Eckfeldt [as 'carnea'], Bull. Torrey bot. Club 21: 394 (1894)

[ABL42680], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42680), 21-23.10.2017. Det. A. Aptroot, 2017.

Mazosia carnea

Megalospora tuberculosa (Fée) Sipman, Biblthca Lichenol. 18: 156 (1983)
= *Bacidia pachycarpa* (Delise ex Duby) Trevis., Spighe Paglie: 7 (1853)
= *Bacidia tuberculosa* (Fée) Trevis., Spighe Paglie: 7 (1853)
= *Biatora pachycarpa* (Delise ex Duby) Fr., Lich. eur. reform. (Lund): 259 (1831)
= *Biatora tuberculosa* (Fée) Mont., Annls Sci. Nat., Bot., sér. 3 10: 126 (1848)
= *Bilimbia pachycarpa* (Delise ex Duby) Boistel, Nouv. Fl. Lich. (Paris) 2: 191 (1903)
= *Bombyliospora pachycarpa* (Delise ex Duby) A. Massal., Ric. auton. lich. crost. (Verona): 114 (1852)
= *Bombyliospora sinensis* Zahlbr., in Handel-Mazzetti, Symb. Sinic. 3: 212 (1930)
= *Bombyliospora tuberculosa* (Fée) A. Massal., Ric. auton. lich. crost. (Verona): 116 (1852)
= *Heterothecium pachycarpum* (Delise ex Duby) Flot., Bot. Ztg. 8(18): 369 (1850)
= *Heterothecium tuberculosum* (Fée) Tuck., Gen. lich. (Amherst): 175 (1872)
= *Heterothecium tuberculosum* var. *pachycarpum* (Delise ex Duby) Tuck., Gen. lich. (Amherst): 174 (1872)
= *Heterothecium tuberculosum* var. *pachycarpum* (Delise ex Duby) Flot., Bot. Ztg. 8(18): 369 (1850)
= *Lecidea incana* var. *pachycarpa* (Delise ex Duby) Schaer., Enum. critic. lich. europ. (Bern): 143 (1850)
= *Lecidea pachycarpa* (Delise ex Duby) Nyl., Act. Soc. linn. Bordeaux 21(4): 364 (1857) [1856]
= *Lecidea pachycarpa* (Delise ex Duby) Delise ex Fr., Lich. eur. reform. (Lund): 259 (1831)
= *Lecidea tuberculosa* Fée, Essai Crypt. Exot. (Paris): 107 (1825) [1824]
= *Megalospora pachycarpa* (Delise ex Duby) Bellem. & Hafellner, in Hafellner & Bellemère, Nova Hedwigia 35(2 & 3): 216 (1982) [1981]
= *Megalospora pachycarpa* (Delise ex Duby) H. Olivier, Expos. Lich. Ouest France, Suppl. 2: 41 (1900)
= *Patellaria pachycarpa* Delise ex Duby, Bot. Gall., Edn 2 (Paris) 2: 655 (1830)
= *Patellaria tuberculosa* (Fée) Spreng., Syst. veg., Edn 16 4(1): 264 (1827)
= *Psorothecium tuberculosum* (Fée) Stizenb., Ber. Tät. St Gall. naturw. Ges.: 160 (1862) [1861-62]

[ABL50834], Brazil, Alagoas, Quebrangulo, Pedra Talhada plot A2.1. On tree bark in Atlantic rain forest. 9°15’ S, 36°25’35’’ W, 590 m. Leg. M. Cáceres, A. Aptroot (no 50834) & J.G. Cavalcante, 24.07.2019. Det. A. Aptroot,2019.

Megalospora tuberculosa

Megalospora tuberculosa

Megalotremis flavovulcana (Komposch) Aptroot [as 'flavovulcanus'], in Aptroot, Lücking, Sipman, Umaña & Chaves, Biblthca Lichenol. 97: 69 (2008)

= *Anisomeridium flavovulcanum* Komposch [as 'flavovulcanus'], (2005)

[ABL50889], Brazil, Alagoas, Quebrangulo, Pedra Talhada plot N1.3. On tree bark in Atlantic rain forest. 9°15’ S, 36°25’39’’ W, 740 m. Leg. M. Cáceres, A. Aptroot (no 50888) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot,2019.

Megalotremis flavovulcana

Megalotremis flavovulcana

Melanophloea pacifica P. James & Vězda, Lichenologist 5(1-2): 90 (1971)

[ABL42464], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on granite. 9°15’ S, 36°25’35’’ W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42464), 21-23.10.2017. . Det. A. Aptroot, 2017. -Spores mehr als 100/ascus, 2 µ.

Melanotrema platystomum (Mont.) Frisch, in Frisch & Kalb, Biblthca Lichenol. 92: 397 (2006)

= *Ocellularia platystoma* (Mont.) Zahlbr., Cat. Lich. Univers. 2: 598 (1923) [1924]

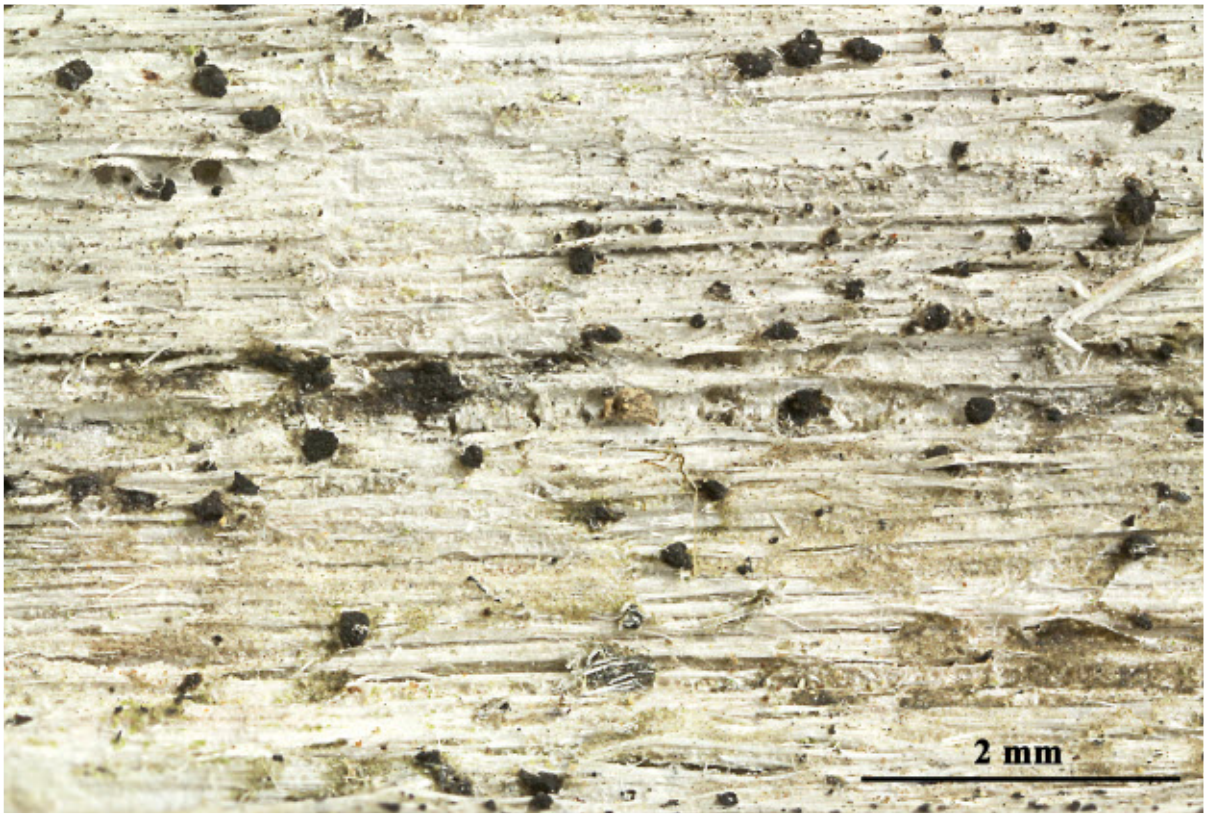
= *Thelotrema platystomum* Mont., Annls Sci. Nat., Bot., sér. 2 19: 79 (1843)

[ABL42374], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42274), 21-23.10.2017. Det. A. Aptroot, 2017. Thallus UV-, hymenium not inspersed, spores 8/ascus, 5-septate, 15 x 7 µm.

Melanotrema platystomum

Micarea misella (Nyl.) Hedl., Bih. K. svenska VetenskAkad. Handl., Afd. 3 18(no. 3): 78 (1892)
= *Biatora misella* (Nyl.) H.G. Falk, Oestra Blek. Lafflora: 15 (1874)
= *Biatorina misella* (Nyl.) M. Choisy, Bull. mens. Soc. linn. Soc. Bot. Lyon 18: 149 (1949)
= *Catillaria denigrata* var. *misella* (Nyl.) Boistel, Nouv. Fl. Lich. (Paris) 2: 199 (1903)
= *Catillaria synothea* f. *misella* (Nyl.) Sandst., Abh. naturw. Ver. Bremen 21(1): 105 (1912)
= *Lecidea anomala* f. *misella* Nyl., Lich. Scand. (Helsinki): 202 (1861)
= *Lecidea anomala var. misella* (Nyl.) Zahlbr., Cat. Lich. Univers. 3: 800 (1925)
= *Lecidea denigrata* subsp. *misella* (Nyl.) Nyl., Lich. Envir. Paris: 81 (1896)
= *Lecidea globularis* f. *misella* (Nyl.) Vain., Lichenogr. Fenn. 4: 227 (1934)
= *Lecidea melanochroza* Leight. ex Cromb., J. Bot., Lond. 9: 178 (1871)
= *Lecidea misella* (Nyl.) Nyl., Not. Sällsk. Fauna et Fl. Fenn. Förh., Ny Ser. 8: 179 (1866)

[ABL42624], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In in Atlantic rain forest on wooden pole. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42624), 21-23.10.2017. Det. A. Aptroot, 2017. -Hypothecium dark brown.



Micarea misella

Mycoporum compositum (A. Massal.) R.C. Harris, in Egan, Bryologist 90(2): 164 (1987)
= *Bottaria composita* A. Massal., Miscell. Lichenol.: 43 (1856)
= *Dermatina pyrenocarpa* (Nyl.) Zahlbr., Cat. Lich. Univers. 1: 550 (1922)
= *Mycoporum pycnocarpum* Nyl., Flora, Regensburg 41: 381 (1858)
= *Pyrenastrum compositum* Hepp, in Massal, Miscell. Lichenol.: 43 (1856)

[ABL42694], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42694), 21-23.10.2017. Det. A. Aptroot, 2017.

Mycoporum compositum

Mycoporum eschweileri (Müll. Arg.) R.C. Harris, More Florida Lichens, Incl. 10 Cent Tour Pyrenol. (New York): 69 (1995)

= *Arthonia punctiformis* Eschw., in Martius, Fl. bras. enum. pl. 1(1): 110 (1833)

= *Mycoporellum eschweileri* Müll. Arg., Flora, Regensburg 72: 526 (1889)

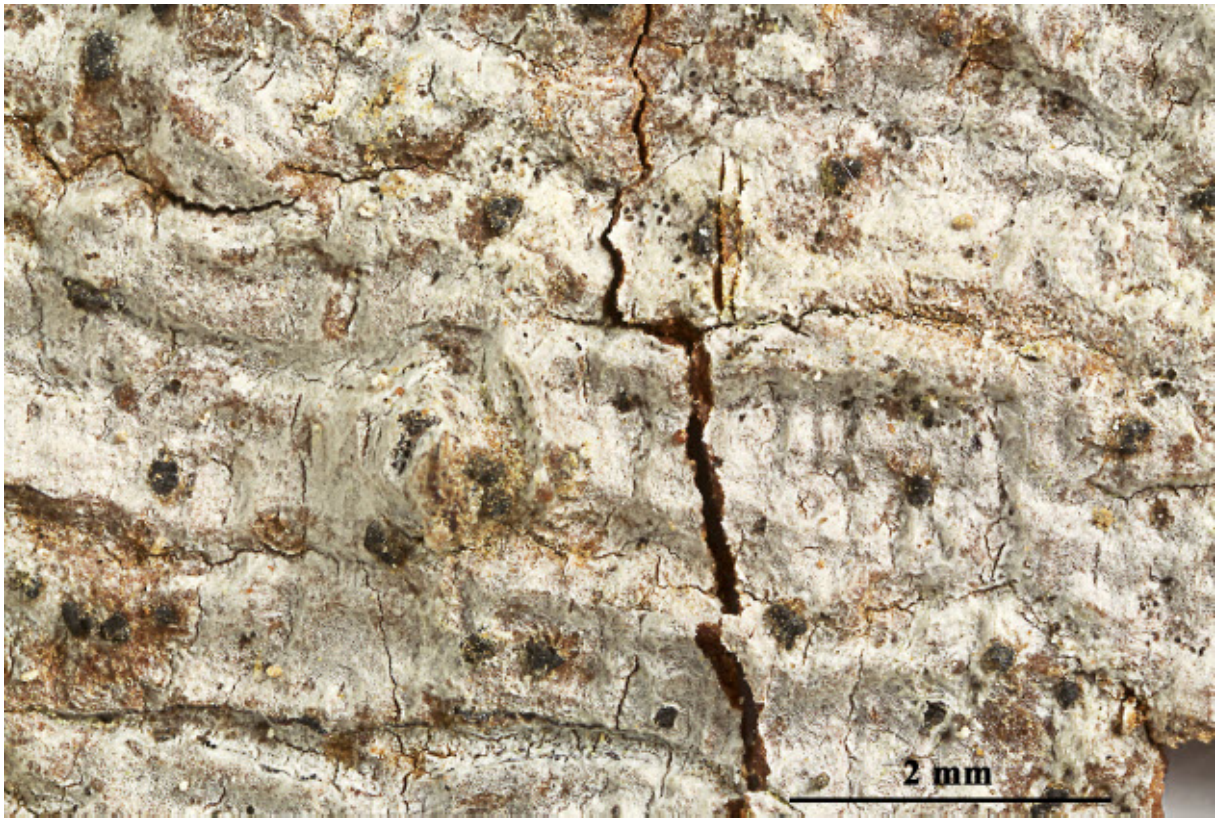
= *Tomasellia eschweileri* (Müll. Arg.) R.C. Harris, in Tucker & Harris, Bryologist 83(1): 19 (1980)

[ABL42702], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42702), 21-23.10.2017. Det. A. Aptroot, 2017.

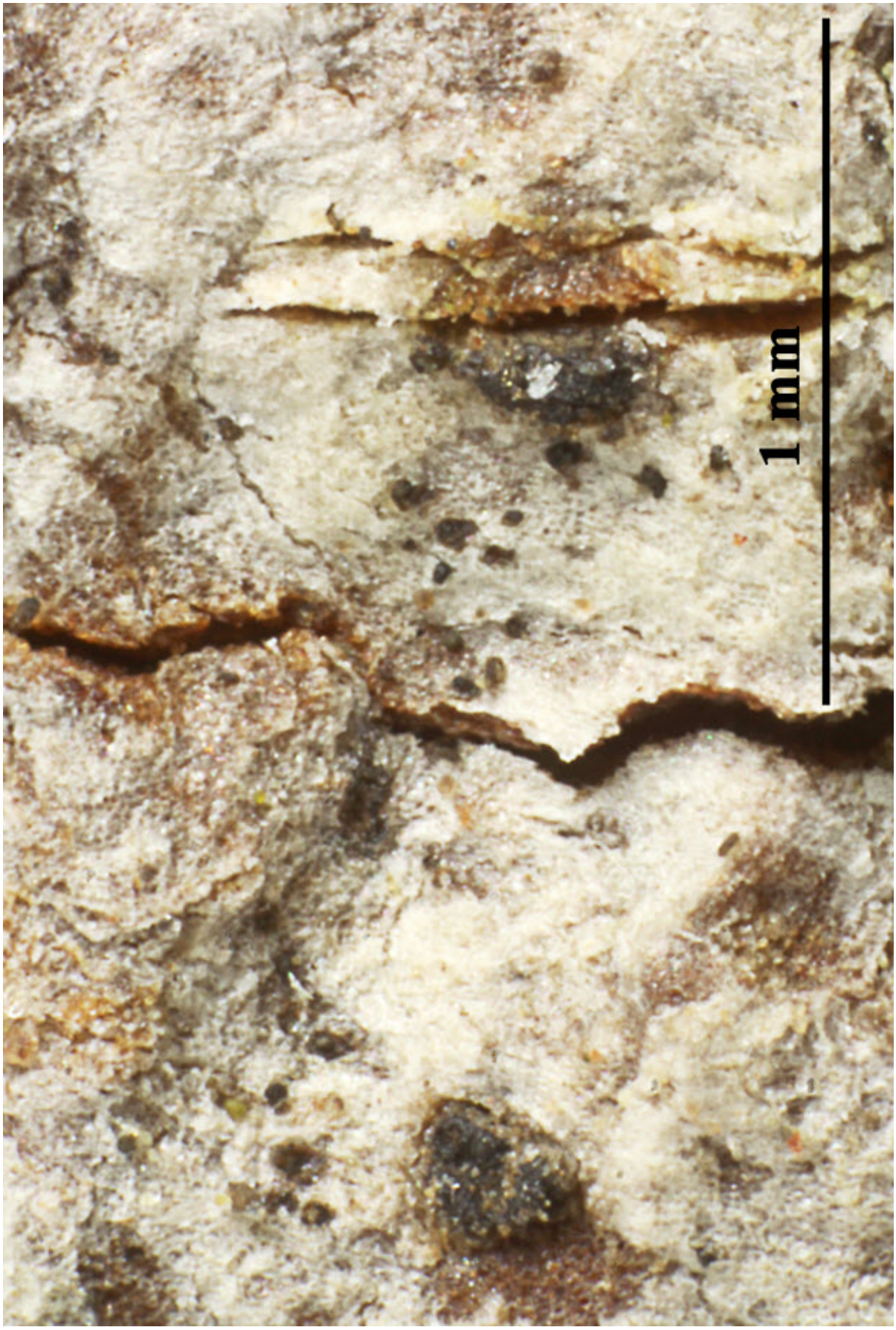
Mycoporum eschweileri

Mycoporum lacteum (Ach.) R.C. Harris, More Florida Lichens, Incl. 10 Cent Tour Pyrenol. (New York): 69 (1995)
= *Arthopyrenia epidermidis* var. *lactea* (Ach.) A.L. Sm., Monogr. Brit. Lich. 1: 316 (1911)
= *Mycoporellum lacteum* (Ach.) Zahlbr., Cat. Lich. Univers. 1: 554 (1922)
= *Mycoporellum sparsellum* (Nyl.) Müll. Arg., Revue mycol., Toulouse 6(no. 21): 14 (1884)
= *Mycoporum sparsellum* Nyl., Annls Sci. Nat., Bot., sér. 5 7: 343 (1867)
= *Tomasellia lactea* (Ach.) R.C. Harris, in Hawksworth, James & Coppins, Lichenologist 12(1): 108 (1980)
= *Tomasellia sparsella* (Nyl.) R.C. Harris, in Egan, Bryologist 90(2): 164 (1987)
= *Verrucaria cinerea* var. *lactea* (Ach.) Duby, Bot. Gall., Edn 2 (Paris) 2: 644 (1830)
= *Verrucaria lactea* (Ach.) Eschw., in Martius, Fl. bras. enum. pl. 1(1): 125 (1833)
= *Verrucaria stigmatella* var. *lactea* Ach., Lich. Univ.: 277 (1810)

[ABL42863], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15’ S, 36°25’35’’ W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42863), 21-23.10.2017. Det. A. Aptroot, 2017. - Spores hyaline, 1-septate, 23-27 x 7-8 µm.



Mycoporum lacteum



Mycoporum lacteum

Nadvornikia hawaiensis (Tuck.) Tibell, Beih. Nova Hedwigia 79: 672 (1984)
= *Acolium hawaiense* Tuck., Proc. Amer. Acad. Arts & Sci. 7: 232 (1868) [1866]
= *Cyphelium hawaiense* (Tuck.) Zahlbr., Cat. Lich. Univers. 1: 664 (1922)
= *Stephanophoron hawaiense* (Tuck.) Nádv., Annls mycol. 40(1/2): 136 (1942)
= *Tylophoron hawaiense* (Tuck.) H. Magn., in Magnusson & Zahlbruckner, Ark. Bot. 31A(no. 1): 23 (1944)

[ABL42734], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42734), 21-23.10.2017. Det. A. Aptroot, 2017. - Spores simple, 3 x 4.5 µm.

Nadvornikia hawaiensis

Nigrovothelium inspersotropicum Aptroot & Diederich, in Diederich, Lücking, Aptroot, Sipman, Braun, Ahti & Ertz, Herzogia 30(1): 206 (2017)

[ABL50942m], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On twigs of shrub in exposed area in Atlantic rain forest. 9°14'28'' S, 36°25'11'' W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50942m) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot, 2019.

Nigrovothelium inspersotropicum

Nigrovothelium tropicum (Ach.) Lücking, M.P. Nelsen & Aptroot, in Lücking et al., Lichenologist 48(6): 757 (2016)

= *Pseudopyrenula tropica* (Ach.) Müll. Arg., Flora, Regensburg 66(16): 248 (1883)

= *Pyrenula gaudichaudii* (Fée) Pers., in Gaudichaud-Beaupré in Freycinet, Voy. Uranie., Bot. (Paris) 4: 182 (1827) [1826-1830]

= *Pyrenula gaudichaudii* (Fée) Pers. [as 'gaudichaldii'], in Gaudichaud, Voy. Uranie., Bot. (Paris) 5: 182 (1827)

= *Pyrenula tropica* (Ach.) Trevis., Spighe Paglie: 17 (1853)

= *Sagedia tropica* (Ach.) A. Massal., Ric. auton. lich. crost. (Verona): 162 (1852)

= *Spermatodium tropicum* (Ach.) Trevis., Conspect. Verruc.: 11 (1860)

= *Trypethelium tropicum* (Ach.) Müll. Arg., Bot. Jb. 6: 393 (1885)

= *Trypethelium tropicum var. nigratum* Müll. Arg., Rep. Meetings Australs. Assoc. Advancem. Sci.: 460 (1895)

= *Verrucaria gaudichaudii* Fée [as 'gaudichaldii'], Essai Crypt. Exot. (Paris): 87 (1825) [1824]

= *Verrucaria tropica* Ach., Lich. Univ.: 278 (1810)

[ABL50865], Brazil, Alagoas, Quebrangulo, Pedra Talhada plot A2.3. On tree bark in Atlantic rain forest. 9°15’ S, 36°25’35’’ W, 592 m. Leg. M. Cáceres, A. Aptroot (no 50865) & J.G. Cavalcante, 24.07.2019. Det. A. Aptroot,2019.

Nigrovothelium tropicum

Normandina pulchella (Borrer) Nyl., Annls Sci. Nat., Bot., sér. 4 15: 382 (1861)

= *Coccocarpia pulchella* (Borrer) C. Bab., in Hooker, Bot. Antarct. Voy. Erebus Terror 1839-1843, II, Fl. Nov.-Zeal.: 273 (1855)

= *Endocarpon pulchellum* Borrer, in Hooker & Sowerby, Suppl. Engl. Bot. 1: tab. 2602 (1831)

= *Lenormandia jungermanniae* Nyl., Annls Sci. Nat., Bot., sér. 4 3: 151 (1855)

= *Lenormandia pulchella* (Borrer) A. Massal., Sched. Crit. Lich. Exsicc. (Veronae) 10: 178 (1856)

= *Normandina jungermanniae* (Nyl.) Nyl., Mém. Soc. Imp. Sci. Nat. Cherbourg 3: 191 (1855)

= *Verrucaria pulchella* Borrer, in Hooker & Sowerby, Suppl. Engl. Bot. 1: tab. 2602, fig. 1 (1831)

[ABL42221], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15’ S, 36°25’35’’ W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42221), 21-23.10.2017. Det. A. Aptroot, 2017.

Ochrolechia africana Zahlbr., Bot. Jb. 60: 504 (1926)

[ABL42831], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on wooden pole. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42831), 21-23.10.2017. Det. A. Aptroot, 2017.

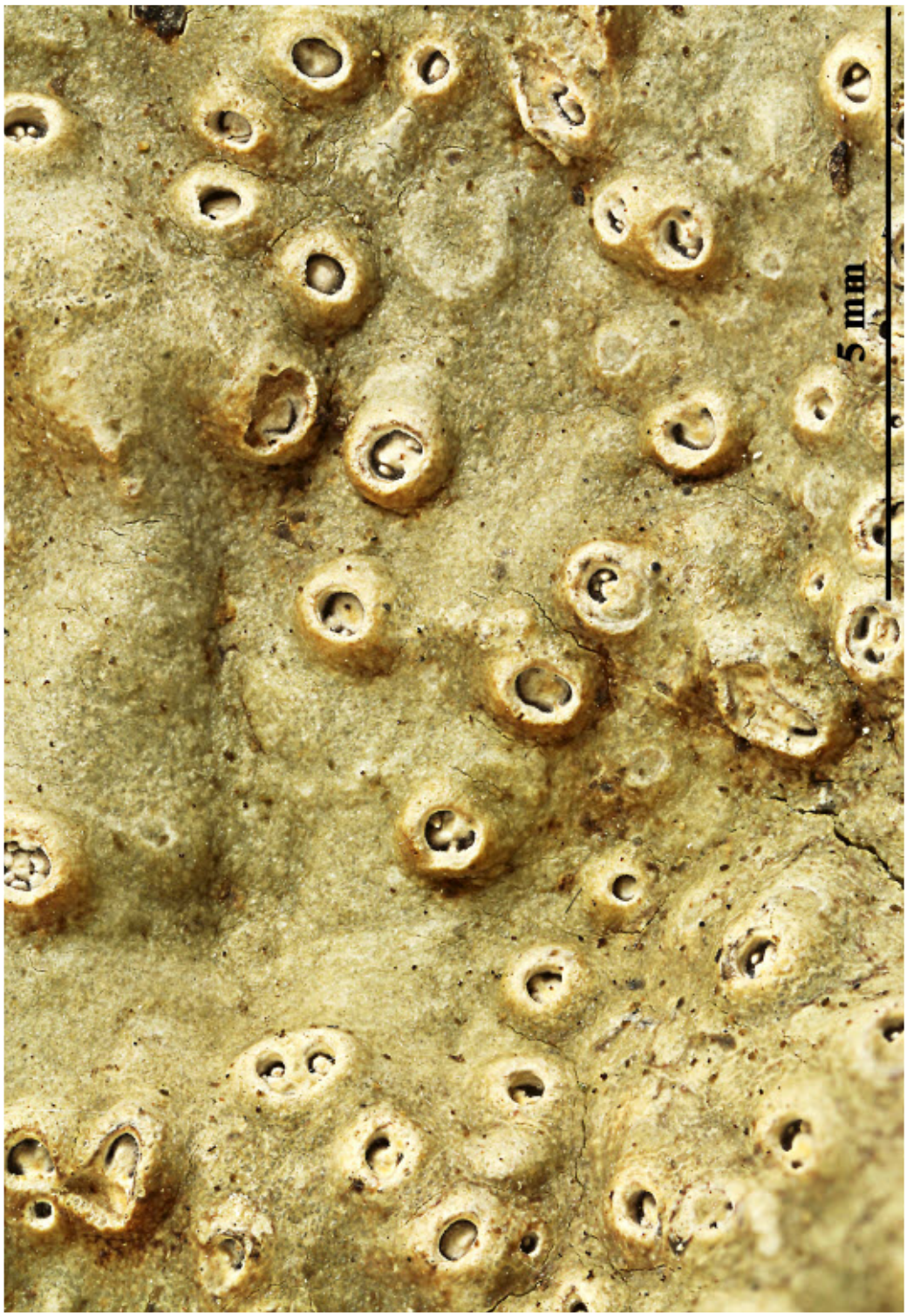
Ochrolechia africana

Ocellularia auberianoides (Nyl.) Müll. Arg., Nuovo G. bot. ital. 23(3): 395 (1891)

= *Rhabdodiscus auberianoides* (Nyl.) Vain., Ann. Acad. Sci. fenn., Ser. A 15(no. 6): 184 (1921)

= *Thelotrema auberianoides* Nyl., Acta Soc. Sci. fenn. 7(2): 451 (1863)

[ABL42470], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42470), 21-23.10.2017. Det. A. Aptroot, 2017. - P-. Hymenium not inspersed, spores hyaline, 6-septate, 17 x 7 µm.



Ocellularia auberianoides

Ocellularia bahiana (Ach.) Frisch, in Frisch & Kalb, Biblthca Lichenol. 92: 503 (2006)

= *Leptotrema bahianum* (Ach.) Müll. Arg., Mém. Soc. Phys. Hist. nat. Genève 29(no. 8): 12 (1887)

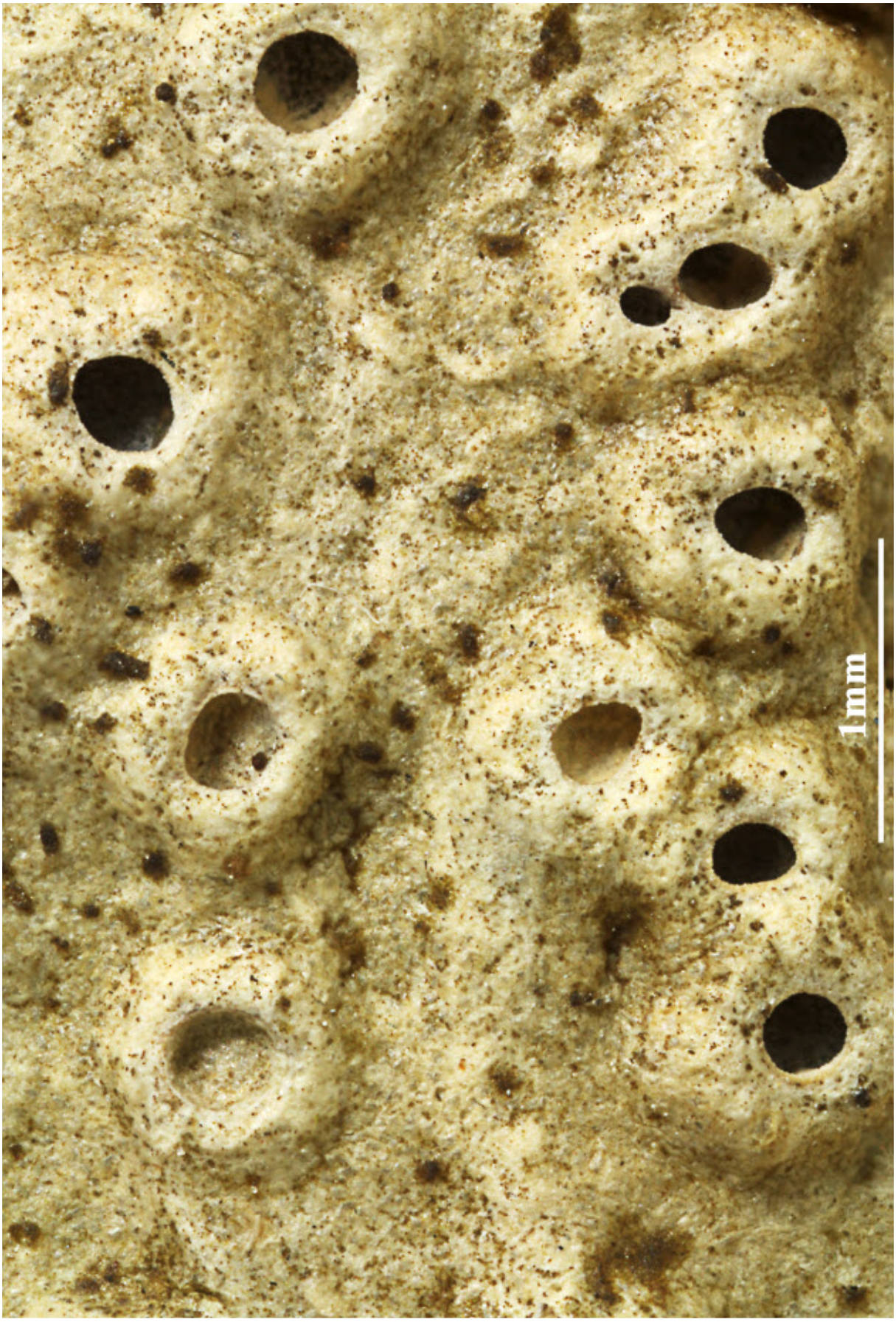
= *Lichen opegraphus* var. *bahianum* (Ach.) Lam., Encycl. Méth. Bot., Suppl. (Paris) 3(2): 409 (1813)

= *Myriotrema bahianum* (Ach.) Hale, Mycotaxon 11(1): 132 (1980)

= *Thelotrema bahianum* (Ach.) Ach., K. Vetensk-Acad. Nya Handl. 33: 87 (1812)

= *Thelotrema lepadinum* var. *bahianum* Ach., Methodus, Sectio prior (Stockholmiæ): 132 (1803)

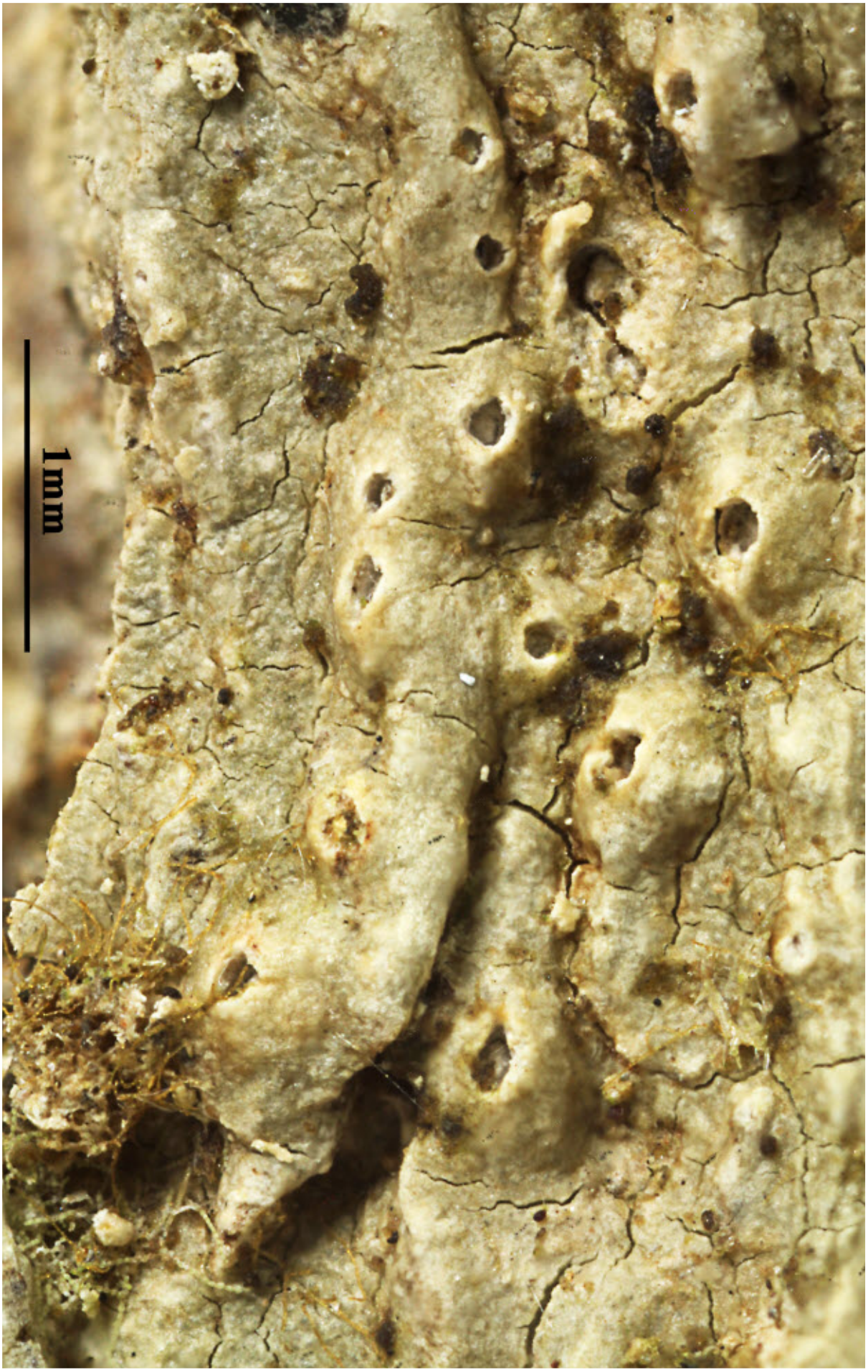
[ABL42466], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42466), 21-23.10.2017. Det. A. Aptroot, 2017.



Ocellularia bahiana

Ocellularia usnicolor R.N. Peláez, B. Moncada & Lücking, Phytotaxa 189(1): 250 (2014)

[ABL50970], Brazil, Alagoas, Quebrangulo, Pedra Talhada rock. On tree bark in Atlantic rain forest. 9°15’ S, 36°25’35’’ W, 700 m. Leg. M. Cáceres, A. Aptroot (no 50970) & J.G. Cavalcante, 26.07.2019. Det. A. Aptroot, 2019.



Ocellularia unicolor ????

Ocellularia usnicolor R.N. Peláez, B. Moncada & Lücking, Phytotaxa 189(1): 250 (2014)

[ABL42454], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15’ S, 36°25’35’’ W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42454), 21-23.10.2017. Det. A. Aptroot, 2017.

Ocellularia usnicolor

Opegrapha astraea Tuck., Lichens of California (Berkeley): 33 (1866)

[ABL50871], Brazil, Alagoas, Quebrangulo, Pedra Talhada plot A2. On tree bark in Atlantic rain forest. 9°15’ S, 36°25’35” W, 600 m. Leg. M. Cáceres, A. Aptroot (no 50871) & J.G. Cavalcante, 24.07.2019. Det. A. Aptroot,2019.

Opegrapha astraea

Opegrapha contracta Vain., Acta Soc. Fauna Flora fenn. 7(no. 2): 131 (1890)

[ABL42822], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15’ S, 36°25’35’’ W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42822), 21-23.10.2017. Det. A. Aptroot, 2017.

Opegrapha contracta

Pallidogramme chlorocarpoides (Nyl.) Staiger, Kalb & Lücking, in Lücking, Chaves, Sipman, Umaña & Aptroot, Fieldiana, Bot. 46(no. 1549): 14 (2008)

= *Graphis chlorocarpoides* Nyl., Flora, Regensburg 49(9): 133 (1866)

= *Hemithecium chlorocarpoides* (Nyl.) Staiger, Biblthca Lichenol. 85: 283 (2002)

= *Phaeographina chlorocarpoides* (Nyl.) Zahlbr., Cat. Lich. Univers. 2: 435 (1923) [1924]

[ABL42223], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42223), 21-23.10.2017. Det. A. Aptroot, 2017. Hymenium inspersed, spores moriform, 4/ascus, 65 x 15 µm.

Pallidogramme chlorocarpoides

Parallopsora leucophyllina (Nyl.) Kistenich, Timdal & Bendiksby, in Kistenich, Timdal, Bendiksby & Ekman, Taxon 67(5): 894 (2018)

= *Bacidia leucophyllina* (Nyl.) Fink, Lich. Fl. U.S.: 227 (1935)

= *Biatora leucophyllina* (Nyl.) Tuck., Syn. N. Amer. Lich. (Boston) 2: 40 (1888)

= *Biatora microphyllina subsp. leucophyllina* (Nyl.) Tuck., Syn. N. Amer. Lich. (Boston) 2: 40 (1888)

= *Lecidea leucophyllina* Nyl., Annls Sci. Nat., Bot., sér. 4 19: 347 (1863)

= *Phyllopsora leucophyllina* (Nyl.) Timdal, Lichenologist 40(4): 352 (2008)

= *Psorella leucophyllina* (Nyl.) Zahlbr., Cat. Lich. Univers. 4: 402 (1926) [1927]

= *Thalloidima leucophyllinum* (Nyl.) Müll. Arg., Revue mycol., Toulouse 10(no. 38): 60 (1888)

[ABL50858], Brazil, Alagoas, Quebrangulo, Pedra Talhada plot A2.3. On tree bark in Atlantic rain forest. 9°15’ S, 36°25’35’’ W, 592 m. Leg. M. Cáceres, A. Aptroot (no 50858) & J.G. Cavalcante, 24.07.2019. Det. A. Aptroot,2019.

Parallopsora leucophyllina

Parmeliella nigrocincta (Mont.) Müll. Arg., Flora, Regensburg 64(6): 86 (1881)

= *Lecidea nigrocincta* (Mont.) Stizenb., Ber. Tät. St Gall. naturw. Ges.: 247 (1895) [1893-94]

= *Pannaria nigrocincta* (Mont.) Nyl., Annls Sci. Nat., Bot., sér. 4 3: 182 (1855)

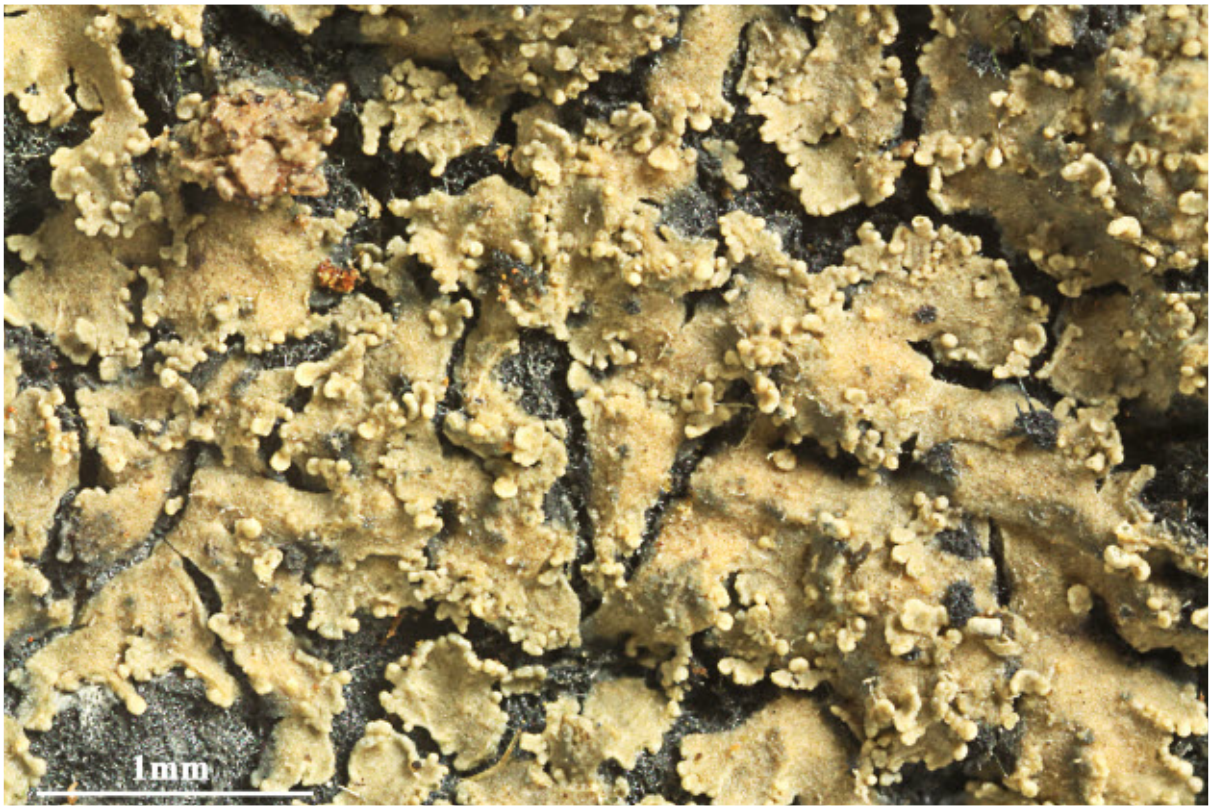
= *Pannularia nigrocincta* (Mont.) Nyl., Lich. Ins. Guin.: 13 (1889)

= *Parmelia nigrocincta* Mont. [as 'nigro-cincta'], Annls Sci. Nat., Bot., sér. 2 4: 91 (1835)

= *Trachyderma nigrocinctum* (Mont.) Trevis., Lichenoth. Veneta 3-4: no. 98 (1869)

[ABL50890], Brazil, Alagoas, Quebrangulo, Pedra Talhada plot N1.3. On tree bark in Atlantic rain forest. 9°15’ S, 36°25’39” W, 740 m. Leg. M. Cáceres, A. Aptroot (no 50890) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot,2019.

Parmeliella nigrocincta



Parmeliella nigrocincta

Parmeliella stylophora (Vain.) P.M. Jørg., Bryologist 103(4): 698 (2000)
= *Pannaria stylophora* Vain. 1915

[ABL50954], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On tree trunk in Atlantic rain forest. 9°14'28'' S, 36°25'11'' W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50954) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot, 2019.

Parmeliella stylophora

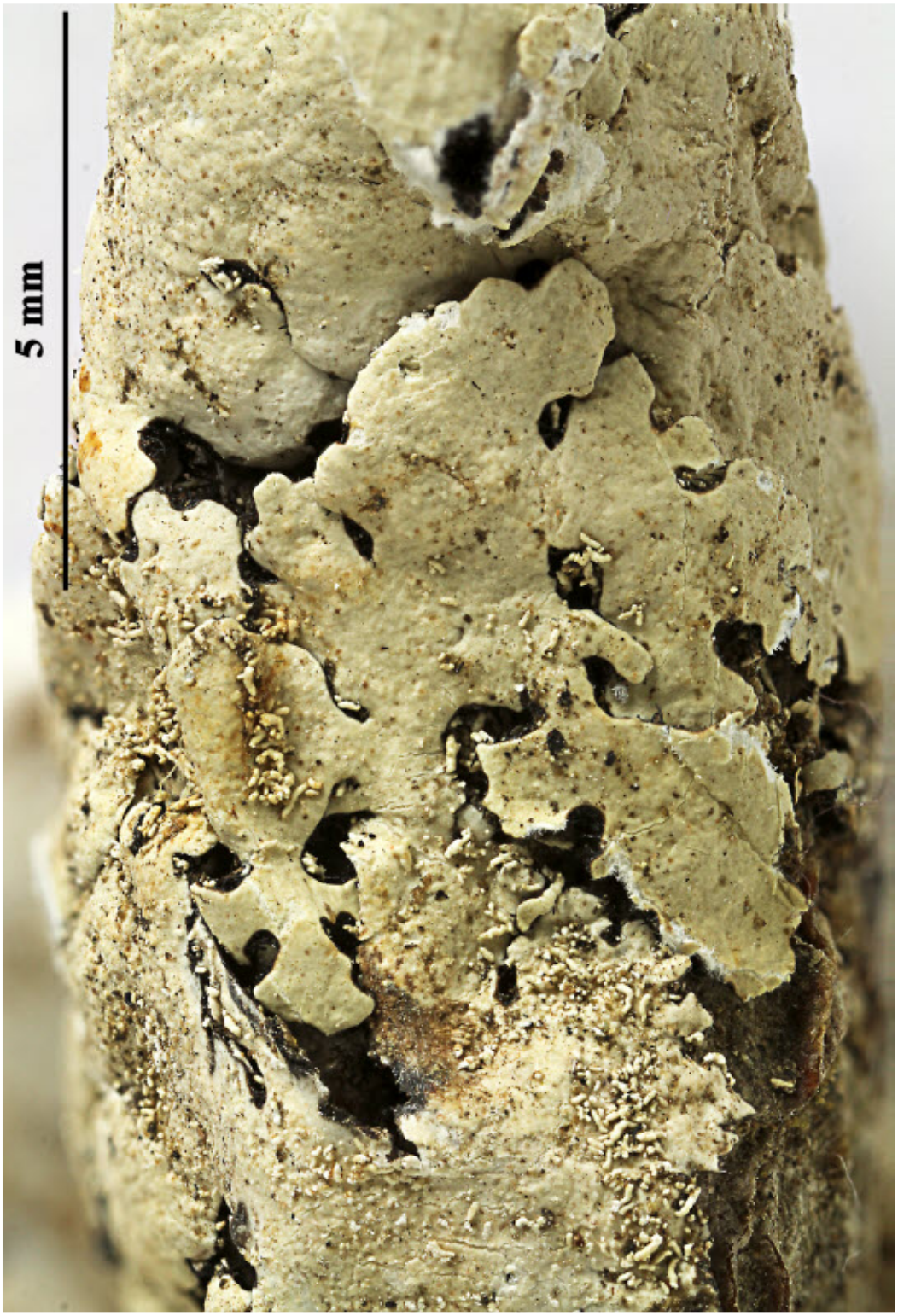
Parmelinopsis minarum (Vain.) Elix & Hale, Mycotaxon 29: 243 (1987)
= *Hypotrachyna minarum* (Vain.) Krog & Swinscow, Lichenologist 19(4): 420 (1987)
= *Parmelia minarum* Vain., Acta Soc. Fauna Flora fenn. 7(no. 1): 48 (1890)
= *Parmelina minarum* (Vain.) Skorepa, Phytologia 53(6): 445 (1983)

[ABL42292], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42292), 21-23.10.2017. Det. A. Aptroot, 2017.

Parmelinopsis minarum

Parmelinopsis spumosa (Asahina) Elix & Hale, Mycotaxon 29: 243 (1987)
= *Hypotrachyna spumosa* (Asahina) Krog & Swinscow, Lichenologist 19(4): 420 (1987)
= *Parmelia spumosa* Asahina, J. Jap. Bot. 24: 259 (1951)
= *Parmelina spumosa* (Asahina) Hale, Phytologia 28(5): 483 (1974)

[ABL50942d], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On twigs of shrub in exposed area in Atlantic rain forest. 9°14'28" S, 36°25'11" W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50942d) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot, 2019.



Parmelinopsis spumosa

Parmelinopsis subfatiscens (Kurok.) Elix & Hale, Mycotaxon 29: 243 (1987)
= *Parmelia subfatiscens* Kurok., in Hale & Kurokawa 1964
= *Hypotrachyna subfatiscens* (Kurok.) Swinscow & Krog 1988

[ABL50942q], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On twigs of shrub in exposed area in Atlantic rain forest. 9°14'28'' S, 36°25'11'' W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50942q) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot, 2019.

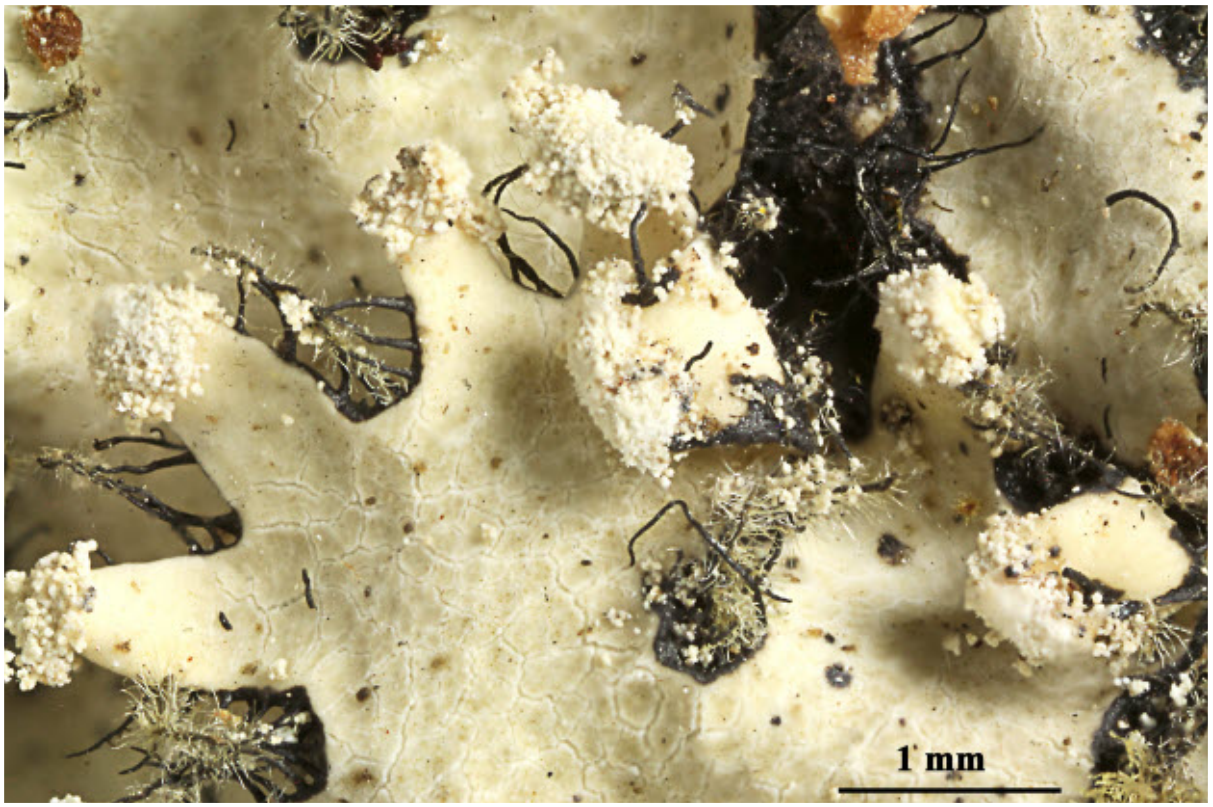
Parmelinopsis subfatiscens

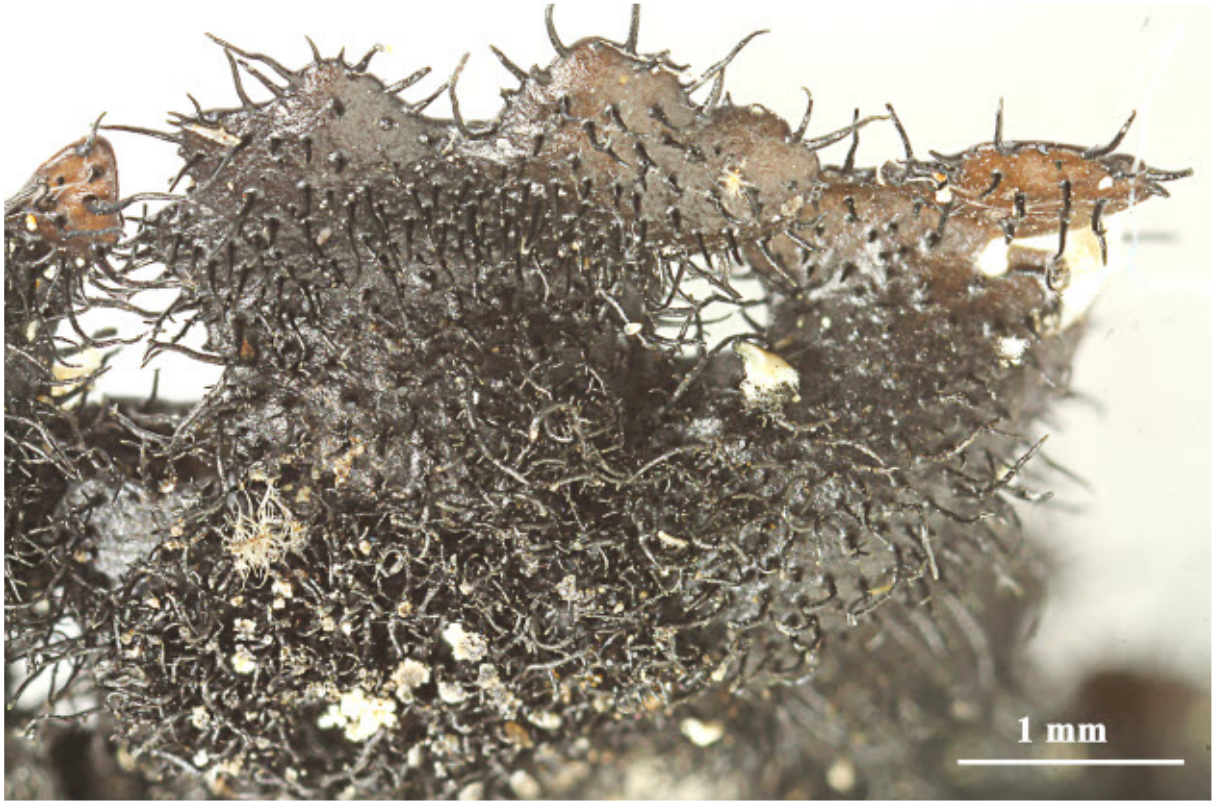
Parmotrema clavuliferum (Räsänen) Streimann, Biblthca Lichenol. 22: 93 (1986)

= *Parmelia clavulifera* Räsänen, Ann. bot. Soc. Zool.-Bot. fenn. Vanamo 20(no. 3): 4 (1944)

= *Rimelia clavulifera* (Räsänen) Kurok., J. Jap. Bot. 66(3): 158 (1991)

[ABL42701], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42701), 21-23.10.2017. Det. A. Aptroot, 2017.

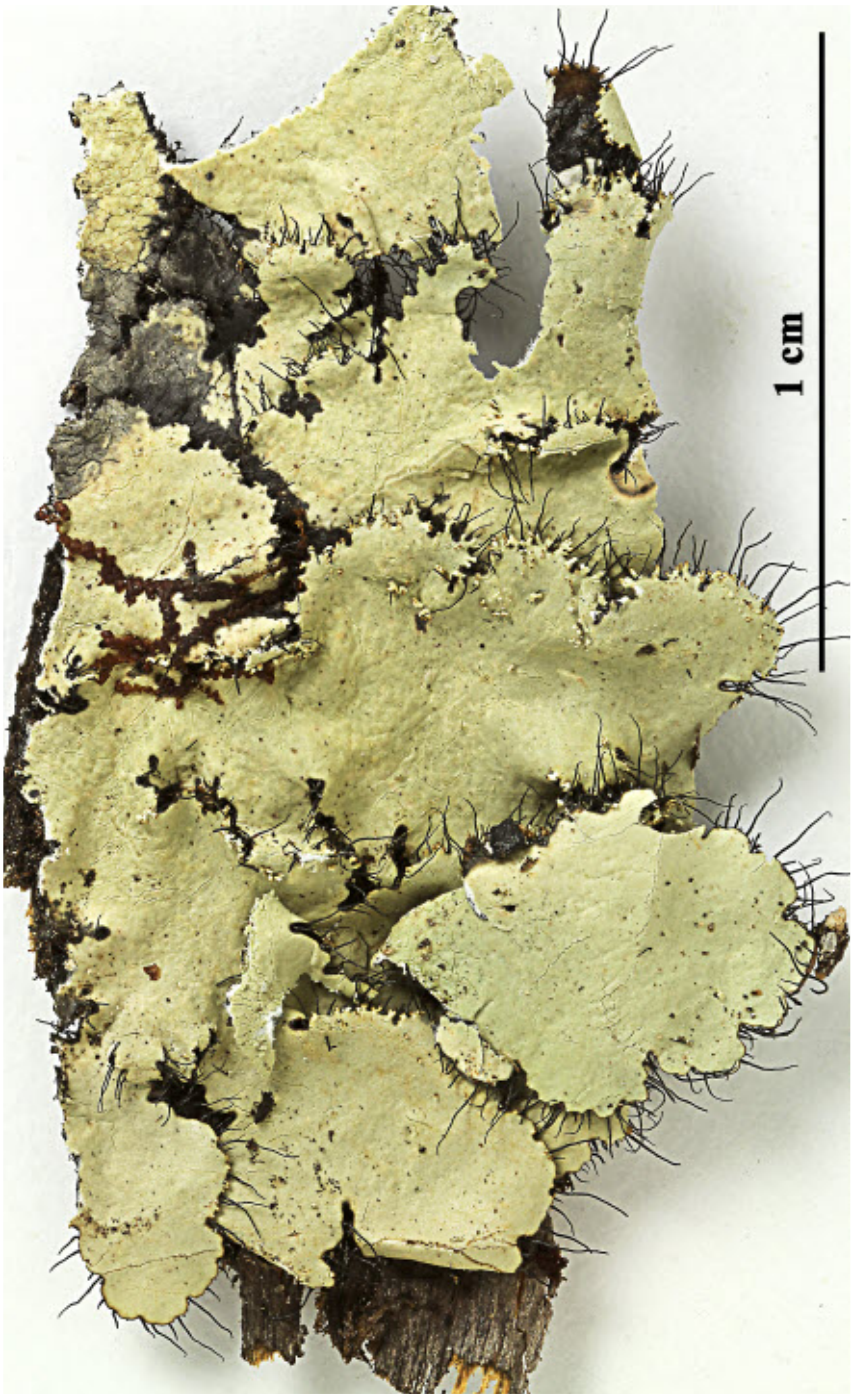




Parmotrema clavuliferum

Parmotrema crinitum (Ach.) M. Choisy [as 'crinita'], Bull. mens. Soc. linn. Soc. Bot. Lyon 21: 175 (1952)
= *Imbricaria crinita* (Ach.) Arnold, Flora, Regensburg 67: 159 (1884)
= *Imbricaria proboscidea* (Taylor) Jatta, Nuovo G. bot. ital. 22(1): 50 (1890)
= *Parmelia crinita* Ach., Syn. meth. lich. (Lund): 196 (1814)
= *Parmelia perforata* subsp. *crinita* (Ach.) Tuck., Syn. N. Amer. Lich. (Boston) 1: 55 (1882)
= *Parmelia proboscidea* Taylor, in Mackay, Fl. Hibern. 2: 143 (1836)

[ABL50862], Brazil, Alagoas, Quebrangulo, Pedra Talhada plot A2.3. On tree bark in Atlantic rain forest. 9°15’ S, 36°25’35” W, 592 m. Leg. M. Cáceres, A. Aptroot (no 50862) & J.G. Cavalcante, 24.07.2019. Det. A. Aptroot,2019.

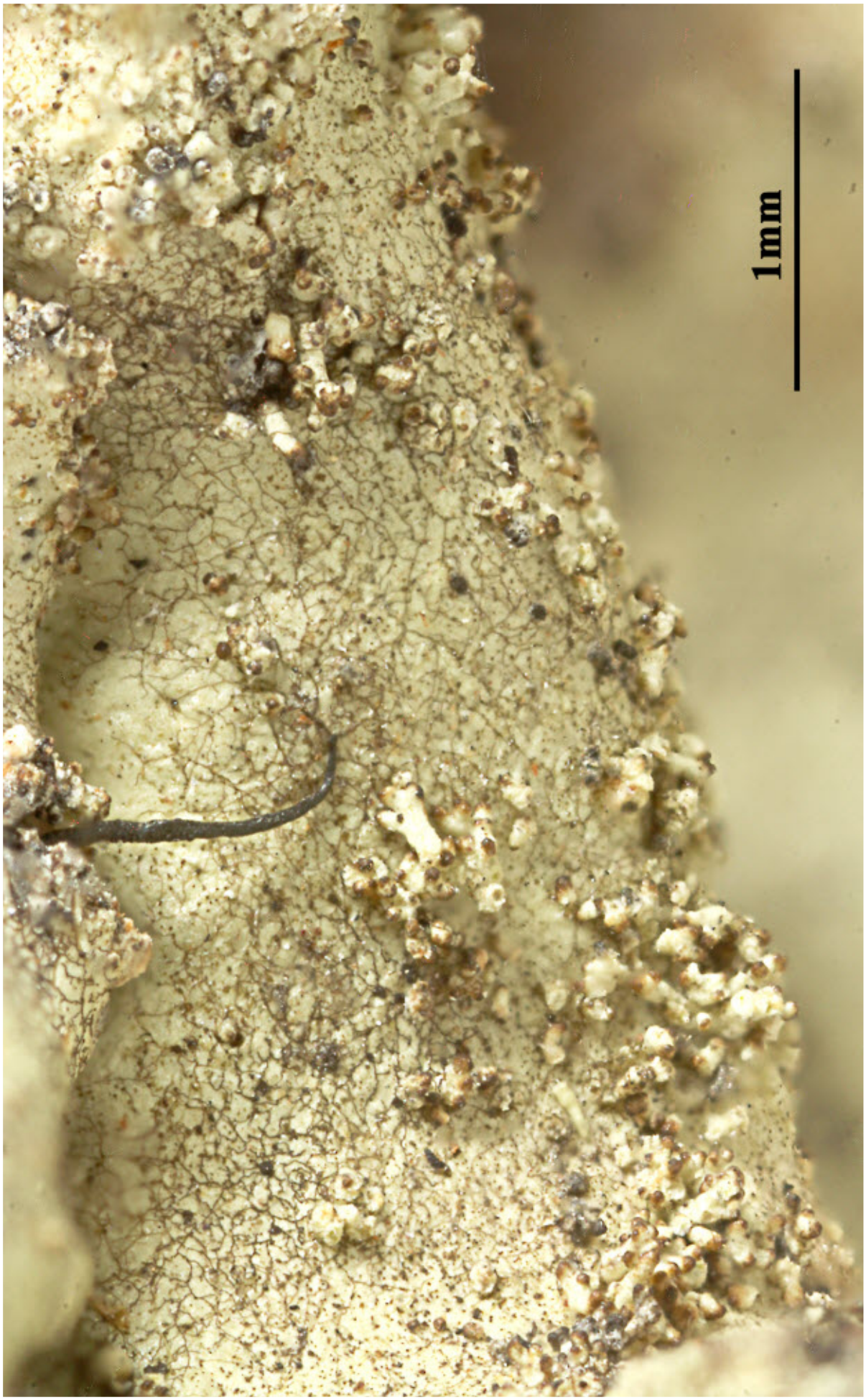


Parmotrema crinitum

Parmotrema crinitum

Parmotrema flavescens (Kremp.) Hale, Phytologia 28(4): 336 (1974)
= *Parmelia glaberrima* var. *flavescens* Kremp. 1869

[ABL50950], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On exposed siliceous rock in Atlantic rain forest. 9°14’28’’ S, 36°25’11’’ W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50950) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot, 2019.



Parmotrema flavescens

Parmotrema flavescens

Parmotrema maclayanum (Müll. Arg.) Hale, Phytologia 28(4): 337 (1974)
= *Parmelia maclayana* Müll. Arg., Flora, Regensburg 74(3): 376 (1891)

[ABL50945], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On exposed siliceous rock in Atlantic rain forest. 9°14’28’’ S, 36°25’11’’ W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50945) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot, 2019.

Parmotrema maclayanum

Parmotrema mellissii (C.W. Dodge) Hale, Phytologia 28(4): 337 (1974)
= *Parmelia mellissii* C.W. Dodge, Ann. Mo. bot. Gdn 46(1-2): 134 (1959)

[ABL50942a], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On twigs of shrub in exposed area in Atlantic rain forest. 9°14'28" S, 36°25'11" W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50942a) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot, 2019.

Parmotrema mellissii

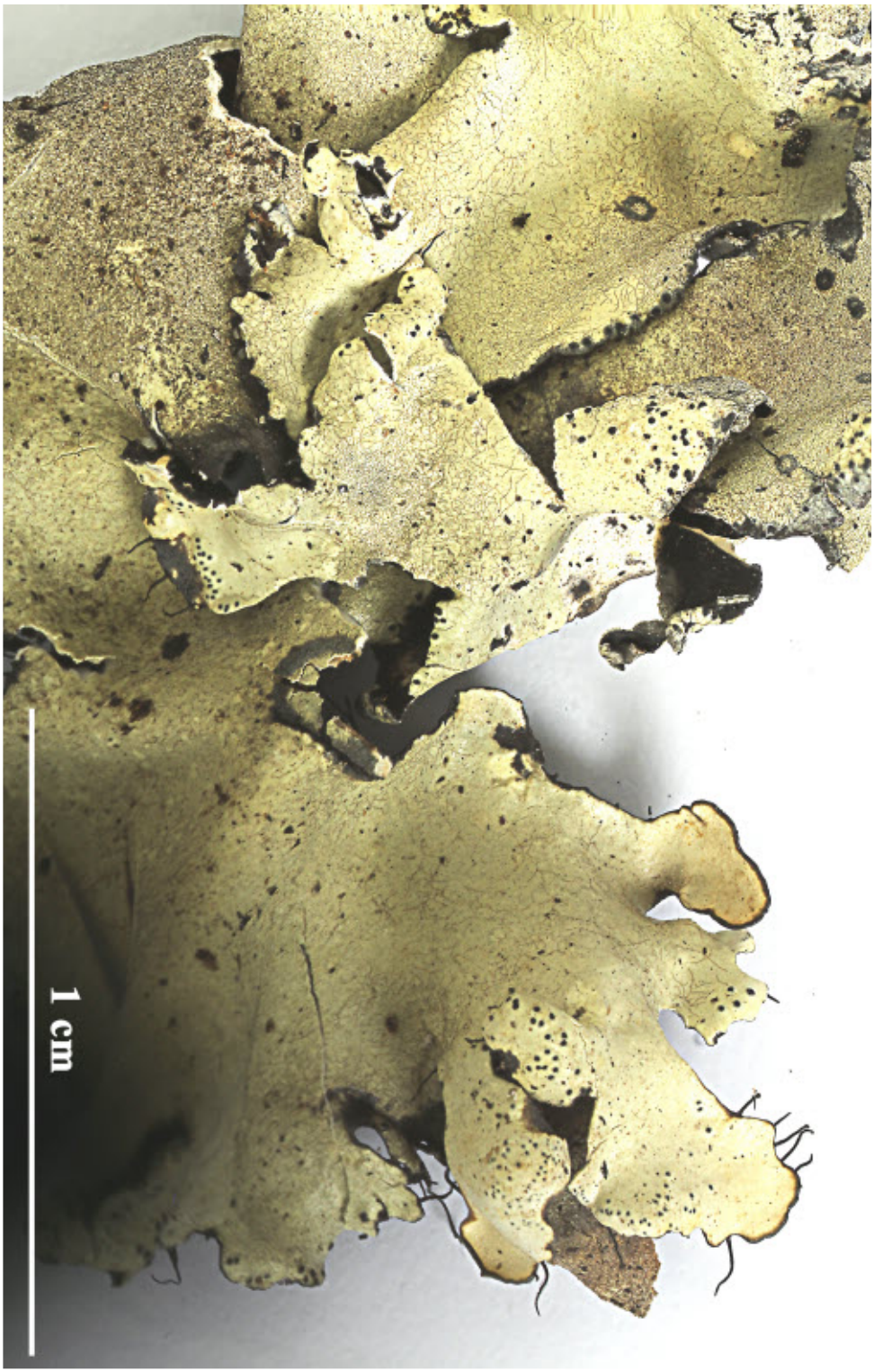
Parmotrema mellissii

Parmotrema magnum (Lynge) A.A. Spielm. & Marcelli, Plant and Fungal Systematics 65(2): 454 (2020)

= *Parmelia magna* Lynge, Ark. Bot. 13(no. 13): 83 (1914)

= *Parmotrema magnum* (Lynge) A.A. Spielm. & Marcelli, in Spielmann, Estudos taxonômicos em Parmotrema s.l. (Parmeliaceae, Ascomycota liquenizados) com ácido salazínico: 51 (2009)

[ABL50984], Brazil, Alagoas, Quebrangulo, Pedra Talhada rock. On exposed siliceous rock in Atlantic rain forest. 9°15' S, 36°25'35" W, 700 m. Leg. M. Cáceres, A. Aptroot (no 50984) & J.G. Cavalcante, 26.07.2019. Det. A. Aptroot, 2019.



Parmotrema magnum

Parmotrema magnum

Parmotrema margaritatum (Hue) Hale, Phytologia 28(4): 337 (1974)
= *Parmelia margaritata* Hue 1899

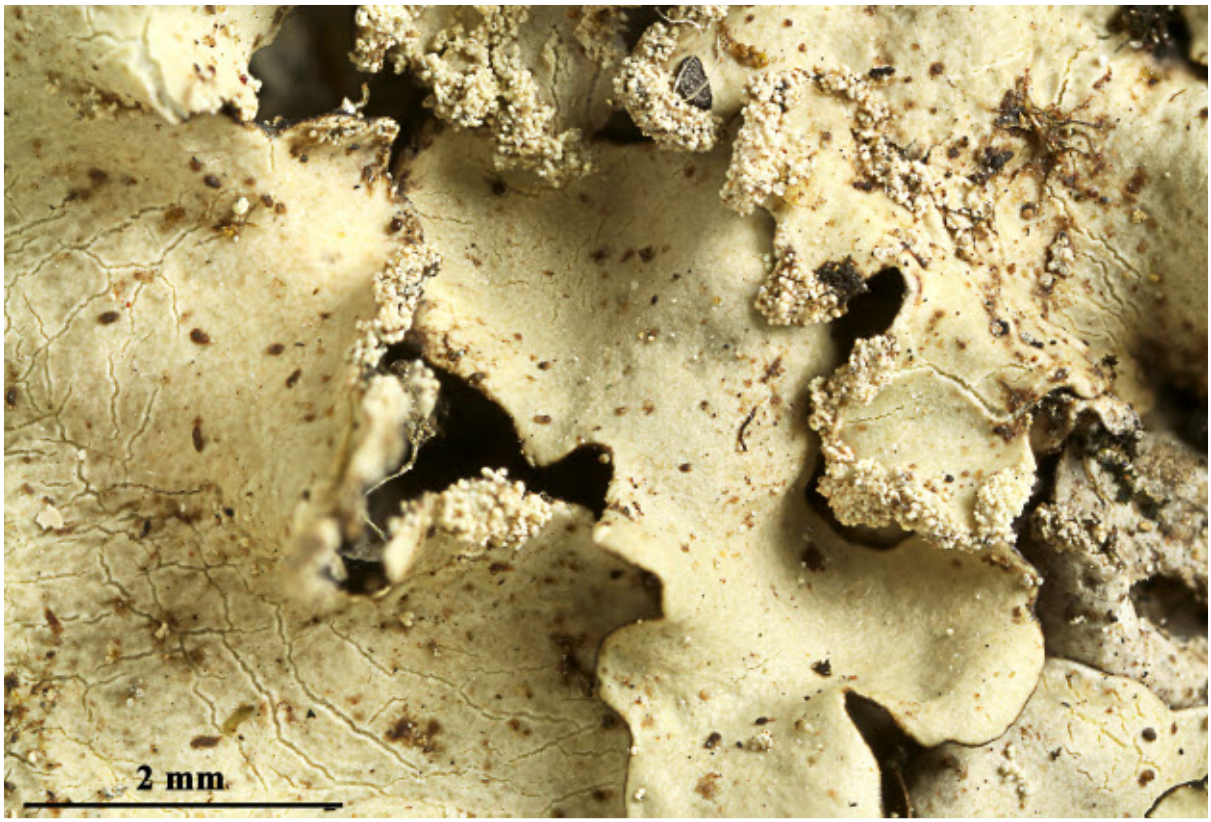
[ABL50980], Brazil, Alagoas, Quebrangulo, Pedra Talhada rock. On exposed siliceous rock in Atlantic rain forest. 9°15’ S, 36°25’35” W, 700 m. Leg. M. Cáceres, A. Aptroot (no 50980) & J.G. Cavalcante, 26.07.2019. Det. A. Aptroot, 2019.

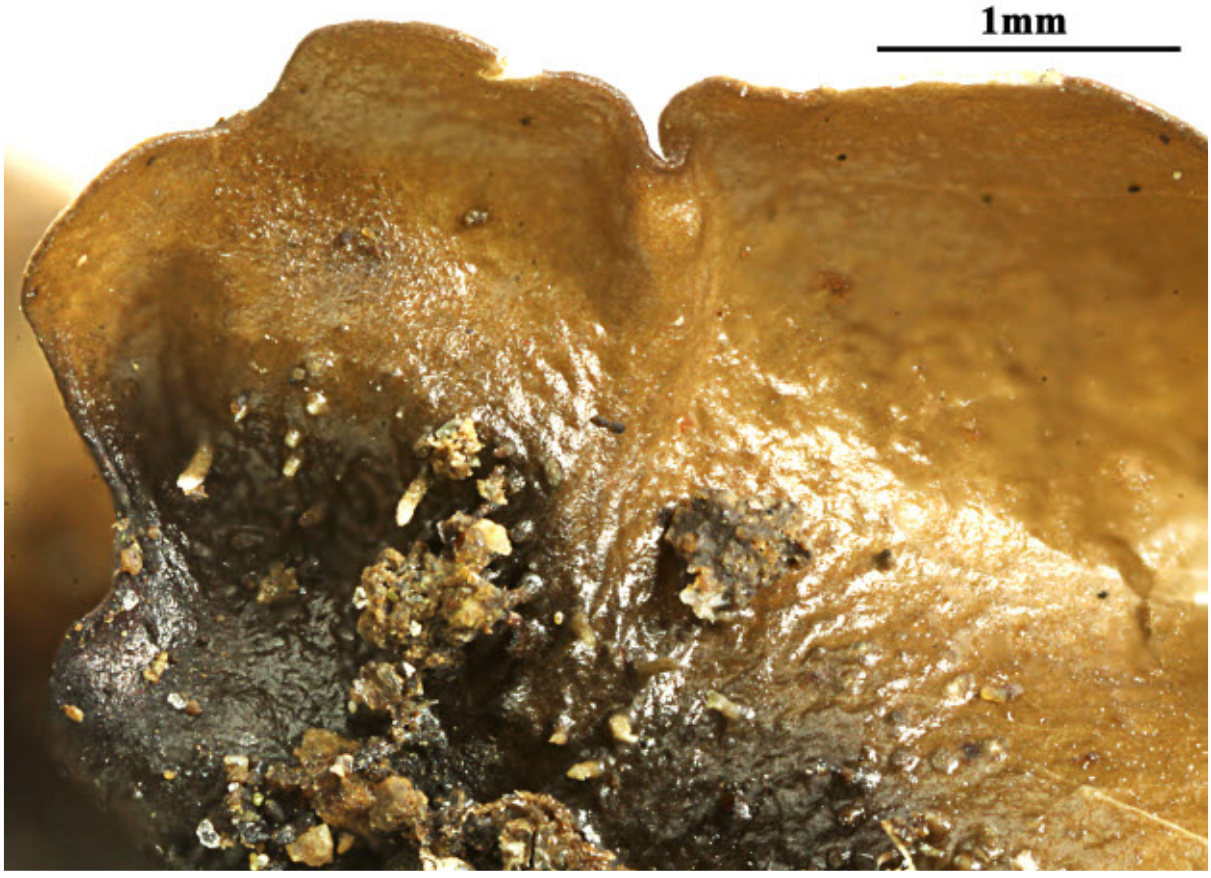
Parmotrema margaritatum

Parmotrema margaritatum

Parmotrema mordenii (Hale) Hale, Phytologia 28(4): 337 (1974)
= *Parmelia mordenii* Hale 1971

[ABL42426], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on granite. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42426), 21-23.10.2017. . Det. A. Aptroot, 2017. - Thallus K-, C-, KC-, P-.

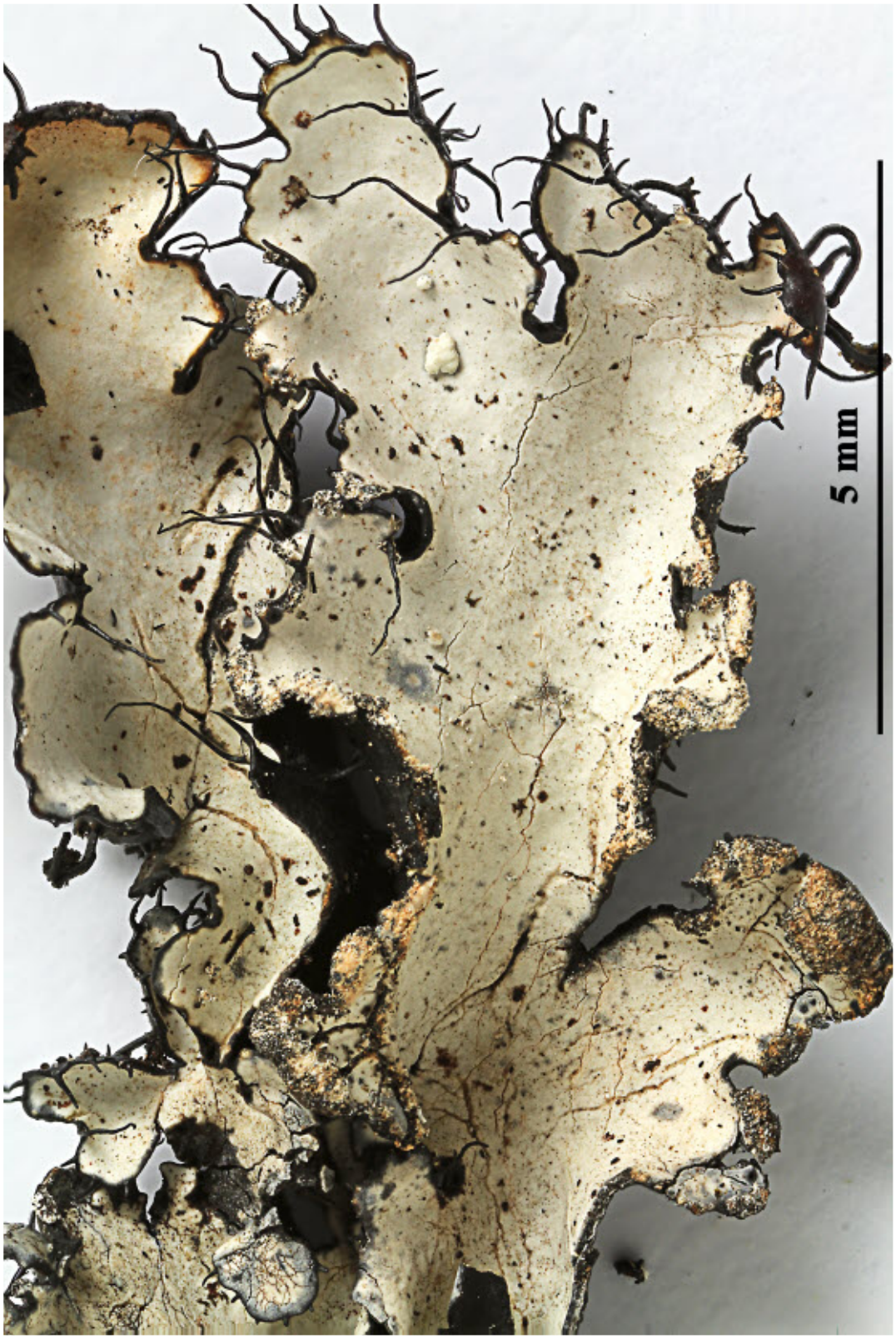




Parmotrema mordenii

Parmotrema neotropicum Kurok., in Hale, Mycotaxon 5(2): 437 (1977)
= *Canomaculina neotropica* (Kurok.) Elix, Mycotaxon 65: 477 (1997)
= *Rimeliella neotropica* (Kurok.) Kurok., Annals of the Tsukuba Botanical Garden 10: 6 (1991)

[ABL51019], Brazil, Alagoas, Quebrangulo, Pedra Talhada rock. On exposed siliceous rock in Atlantic rain forest. 9°15' S, 36°25'35" W, 700 m. Leg. M. Cáceres, A. Aptroot (no 51019) & J.G. Cavalcante, 26.07.2019. Det. A. Aptroot, 2019.



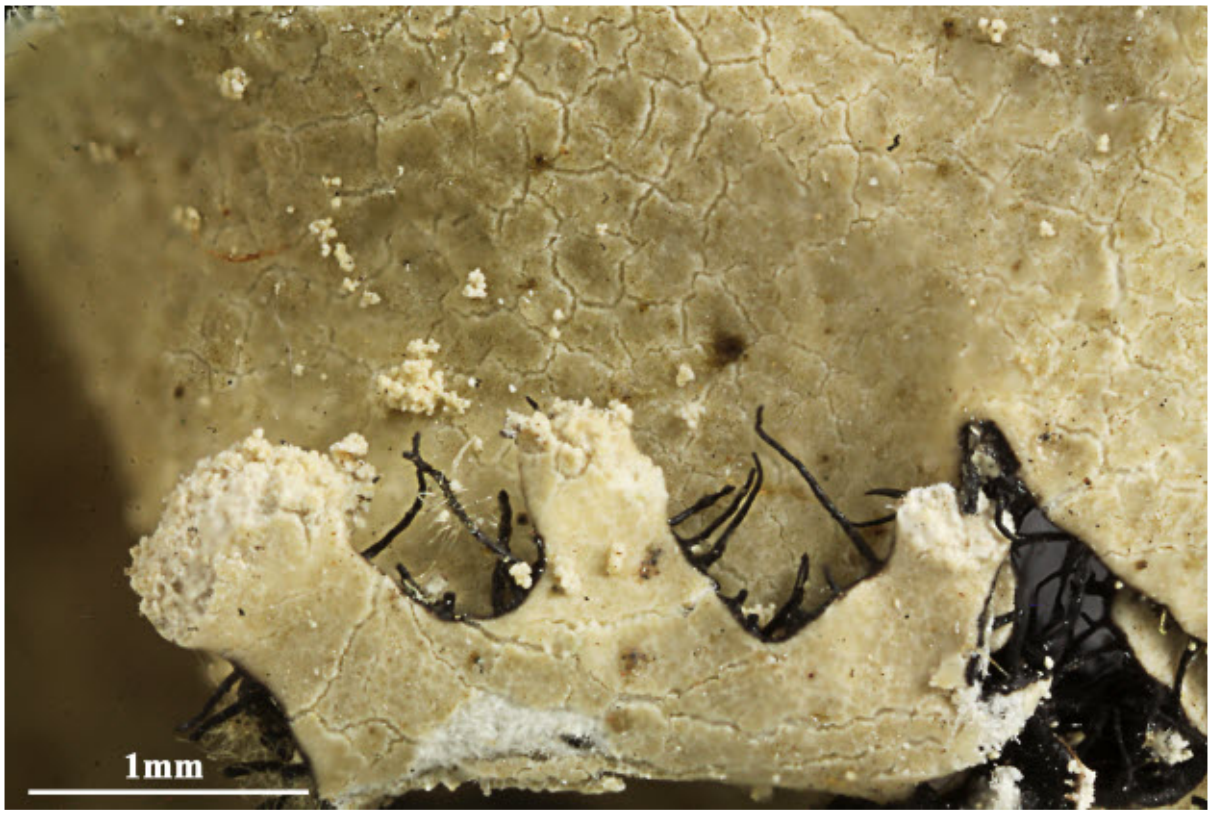
Parmotrema neotropicum

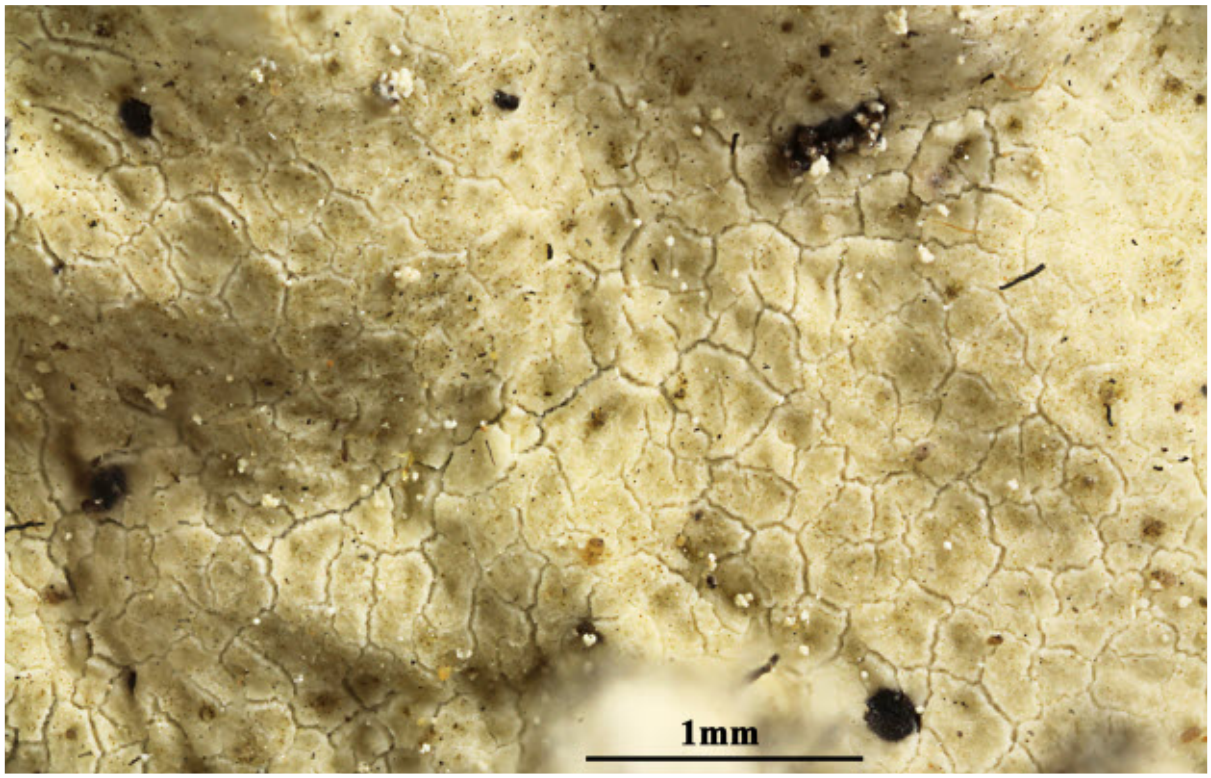
Parmotrema neotropicum

Parmotrema reticulatum (Taylor) M. Choisy, Bull. mens. Soc. linn. Soc. Bot. Lyon 21: 148 (1952)
= *Canomaculina leucosemotheta* (Hue) Elix, Mycotaxon 65: 477 (1997)
= *Parmelia ciliata* (Nyl.) Gyeln., Feddes Repert. Spec. Nov. Regni veg. 30: 225 (1932)
= *Parmelia laevigata* var. *reticulata* (Taylor) Linds., Trans. Linn. Soc. London 25: 514 (1866)
= *Parmelia leucosemotheta* Hue, Nouv. Arch. Mus. Hist. Nat., Paris, 4 sér. 1: 192 (1899)
= *Parmelia macquariensis* C.W. Dodge, Nova Hedwigia 19: 450 (1970)
= *Parmelia perforata* f. *ciliata* (Nyl.) Leight., Lich.-Fl. Great Brit., Edn 3: 124 (1879)
= *Parmelia perforata* var. *ciliata* Nyl., Syn. meth. lich. (Parisiis) 1(2): 378 (1860)
= *Parmelia perlata* var. *reticulata* (Taylor) Linds., Trans. R. Soc. Edinb. 22: 210 (1859) [1861]
= *Parmelia pseudovirens* Gyeln., Feddes Repert. Spec. Nov. Regni veg. 29: 288 (1931)
= *Parmelia reticulata* Taylor, in Mackay, Fl. Hibern. 2: 148 (1836)
= *Parmelia urceolata* f. *sorediifera* (Müll. Arg.) Stizenb., Ber. Tät. St Gall. naturw. Ges.: 158 (1890) [1888-89]
= *Parmelia urceolata* var. *sorediifera* Müll. Arg., Flora, Regensburg 63: 266 (1880)
= *Parmelia urceolata* var. *subcetrata* Müll. Arg., Flora, Regensburg 66(3): 46 (1883)
= *Parmelia virens* var. *sorediata* Müll. Arg., Flora, Regensburg 69: 256 (1886)
= *Parmotrema leucosemothetum* (Hue) Hale, Phytologia 28(4): 337 (1974)
= *Parmotrema pseudovirens* (Gyeln.) Elix, Mycotaxon 47: 127 (1993)
= *Rimelia reticulata* (Taylor) Hale & A. Fletcher, Bryologist 93(1): 28 (1990)

[ABL42849], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15’ S, 36°25’35’’ W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42849), 21-23.10.2017. Det. A. Aptroot, 2017.

Parmotrema reticulatum





Parmotrema reticulatum

Parmotrema reticulatum

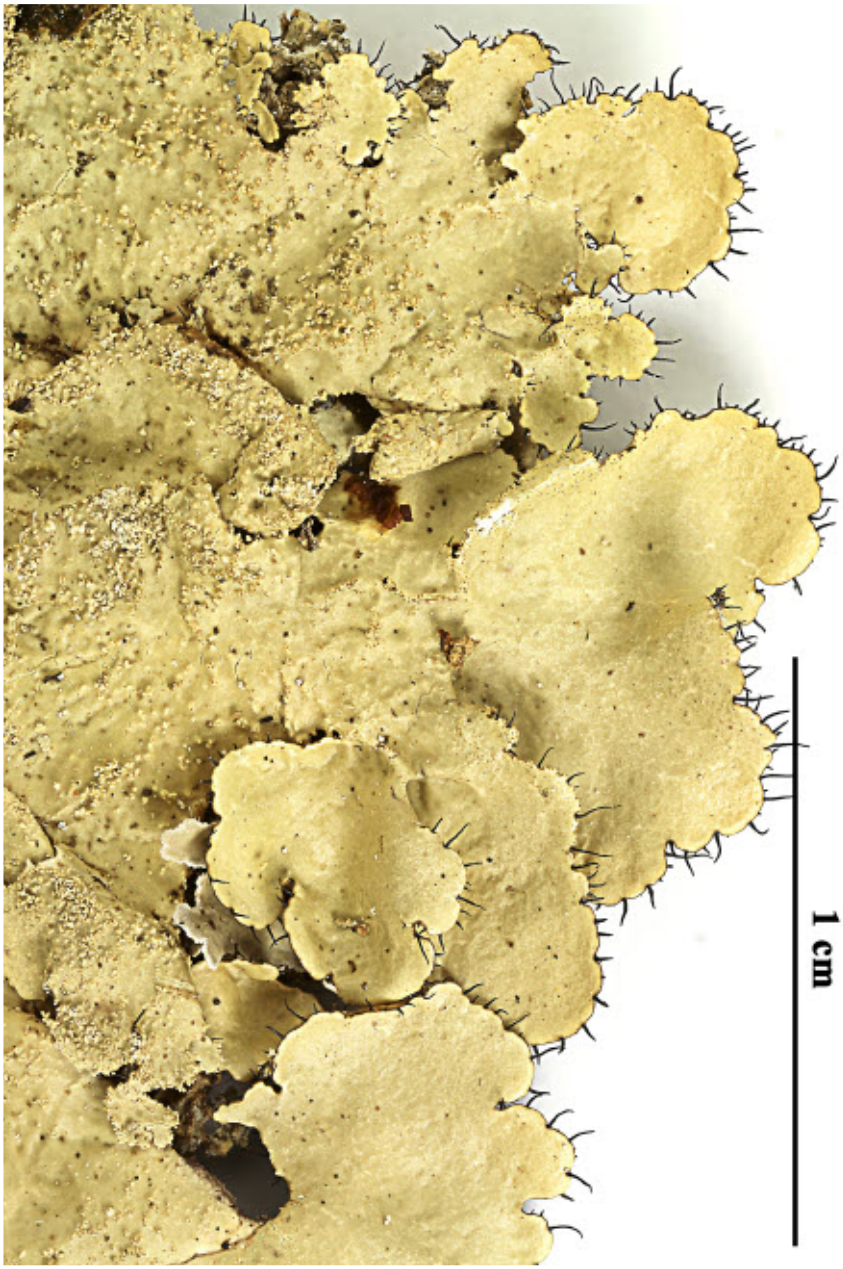
Parmotrema robustum (Degel.) Hale, Phytologia 28(4): 338 (1974)
= *Parmelia robusta* Degel., Göteborgs Kungl. Vetensk. Samhälles Handl., Ser. B, Math. Naturvensk. Skr. 1(no. 7): 33 (1941)

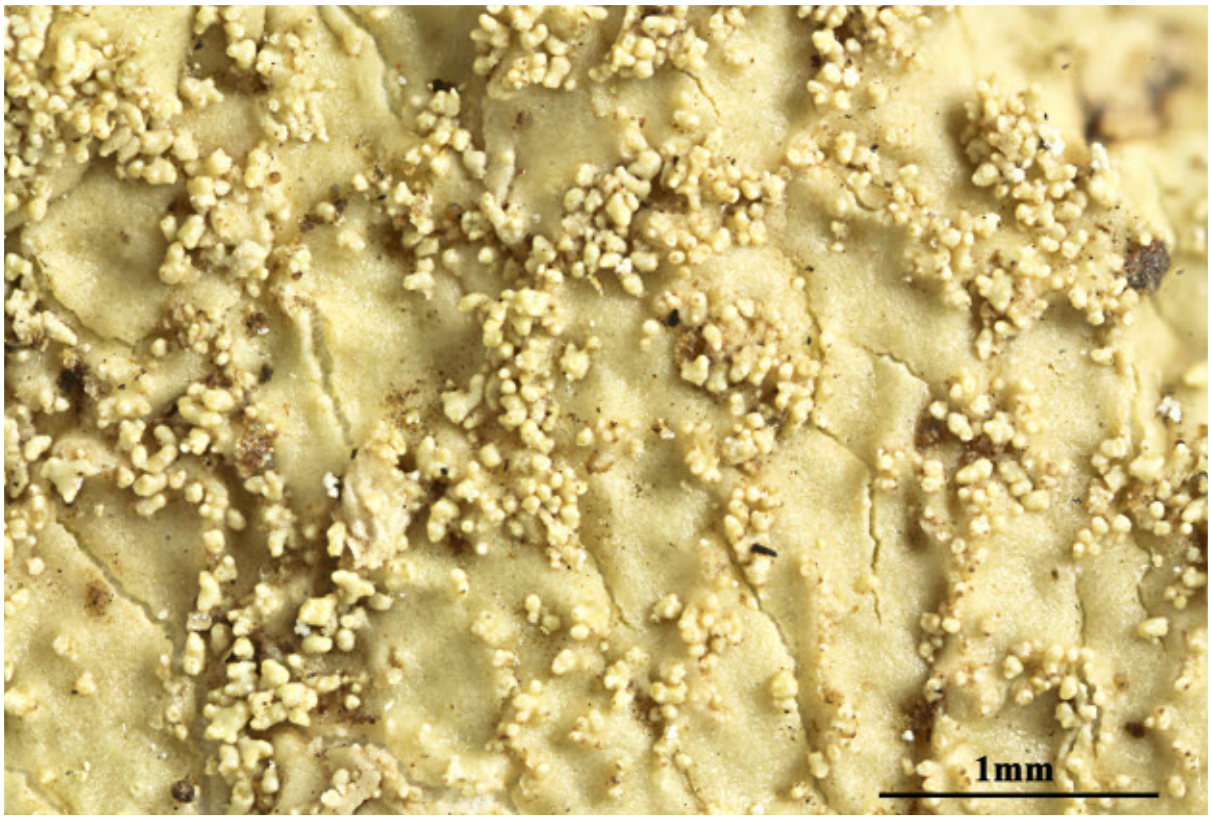
[ABL42768], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42768), 21-23.10.2017. Det. A. Aptroot, 2017. - Medulla UV-, K-, KC-, C-.

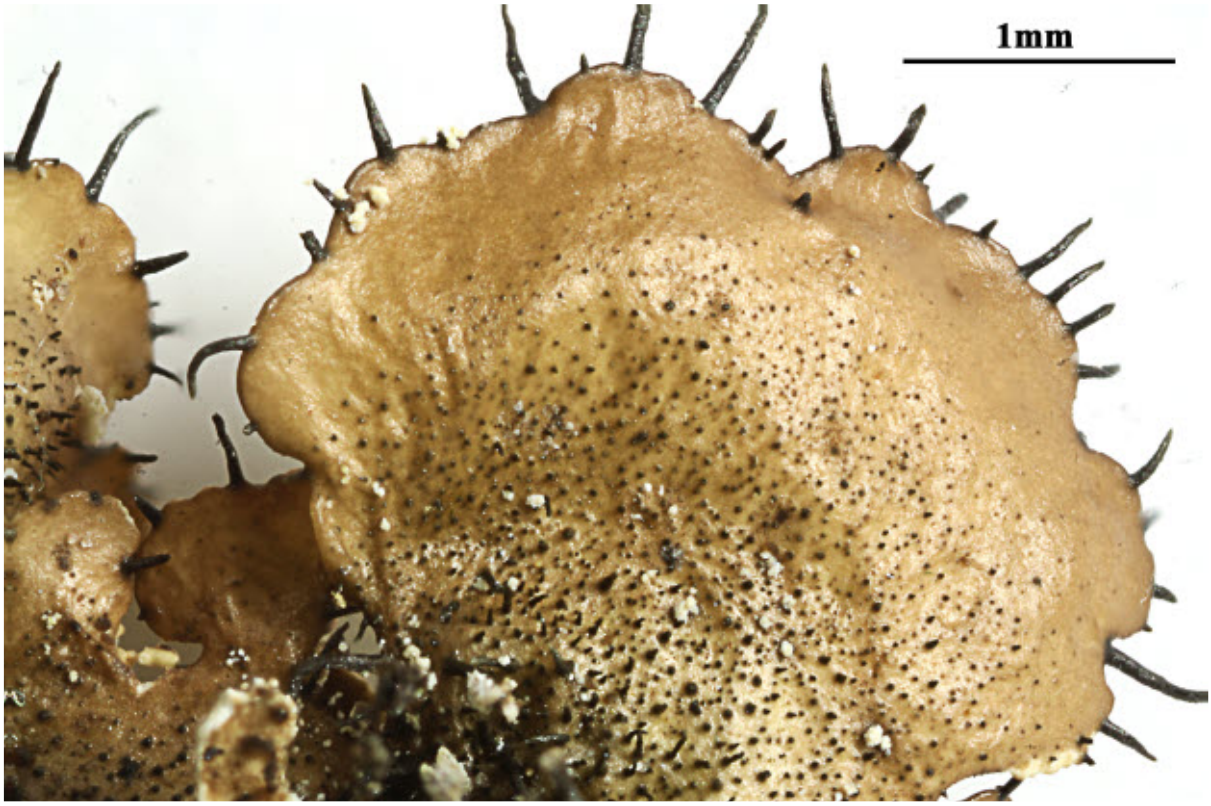
Parmotrema robustum

Parmotrema subtinctorium (Zahlbr.) Hale, Phytologia 28(4): 339 (1974)
= *Canomaculina subtinctoria* (Zahlbr.) Elix, Mycotaxon 65: 477 (1997)
= *Parmelia subtinctoria* Zahlbr., in Handel-Mazzetti, Symb. Sinic. 3: 193 (1930)
= *Parmelia virens f. isidiosa* Müll. Arg., Annln K. K. naturh. Hofmus. Wien 7: 303 (1892)
= *Rimelia subtinctoria* (Zahlbr.) Udeni Jayalal, Pradeep K. Divakar, Santosh Joshi, Soon-Ok Oh, Young Jin Koh & Jae-Seoun Hur, Mycobiology 41(1): 34 (2013)
= *Rimeliella subtinctoria* (Zahlbr.) Kurok., Annals of the Tsukuba Botanical Garden 10: 10 (1991)

[ABL42213], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42213), 21-23.10.2017. Det. A. Aptroot, 2017. - Medulla K-, C-, P-.



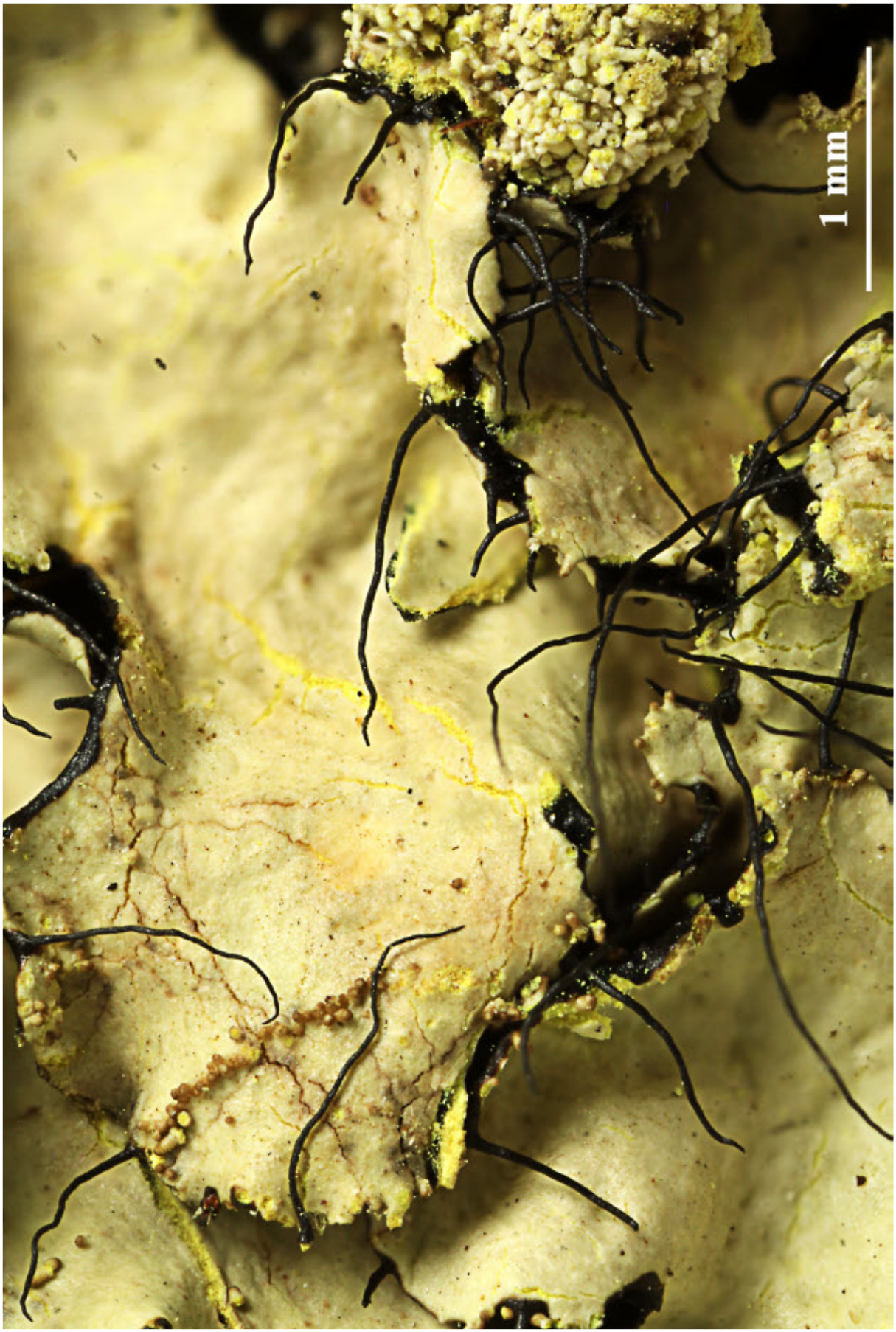




Parmotrema subtinctorium

Parmotrema sulphuratum (Nees & Flot.) Hale, Phytologia 28(4): 339 (1974)
= *Parmelia brisbanensis* Stirt., Trans. & Proc. Roy. Soc. Victoria 17: 69 (1881)
= *Parmelia perforata* subsp. *sulphurata* (Nees & Flot.) Tuck., Syn. N. Amer. Lich. (Boston) 1: 55 (1882)
= *Parmelia sulphurata* Nees & Flot., Linnaea 9: 501 (1835) [1834]

[ABL50886], Brazil, Alagoas, Quebrangulo, Pedra Talhada plot N1.3. On tree bark in Atlantic rain forest. 9°15' S, 36°25'39" W, 740 m. Leg. M. Cáceres, A. Aptroot (no 50886) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot,2019.



Parmotrema sulphuratum

Parmotrema sulphuratum

Parmotrema tinctorum (Despr. ex Nyl.) Hale, Phytologia 28(4): 339 (1974)
= *Lichen chinensis* Osbeck, Dagbok öfwer en Ostindisk resa aren 1750, 1751, 1752: 221 (1757)
= *Parmelia tinctorum* Despr. ex Nyl., Flora, Regensburg 55: 547 (1872)
= *Parmotrema chinense* (Osbeck) Hale & Ahti, Taxon 35(1): 133 (1986)

[ABL51036], Brazil, Alagoas, 3 km E of Viçosa. On palm tree along road. 9°22’ S, 36°12’15’’ W, 300 m. Leg. M. Cáceres, A. Aptroot (no 51036) & J.G. Cavalcante, 27.07.2019. Det. A. Aptroot, 2019.

Parmotrema tinctorum

Parmotrema tinctorum

Parmotrema warmingii (Vain.) A.A. Spielm. & Marcelli, Plant and Fungal Systematics 65(2): 496 (2020)

= *Parmelia angustata* Kremp., Vidensk. Meddel. Dansk Naturhist. Foren. Kjøbenhavn [35]: 13 (1873) [1873-74]

= *Parmelia warmingii* Vain. [as 'warmingi'], Acta Soc. Fauna Flora fenn. 7(no. 1): 41 (1890)

= *Parmotrema warmingii* (Vain.) A.A. Spielm. & Marcelli, in Spielmann, Estudos taxonômicos em Parmotrema s.l. (Parmeliaceae, Ascomycota liquenizados) com ácido salazínico: 90 (2009)

[ABL50991], Brazil, Alagoas, Quebrangulo, Pedra Talhada rock. On exposed siliceous rock in Atlantic rain forest. 9°15’ S, 36°25’35” W, 700 m. Leg. M. Cáceres, A. Aptroot (no 50901) & J.G. Cavalcante, 26.07.2019. Det. A. Aptroot, 2019.

Parmotrema warmingii

Peltula clavata (Kremp.) Wetmore, Ann. Mo. bot. Gdn 57(2): 181 (1971) [1970]

= *Heppia clavata* (Kremp.) Vain., Acta Soc. Fauna Flora fenn. 7(no. 1): 214 (1890)

= *Heterina clavata* Kremp., Flora, Regensburg 59: 56 (1876)

[ABL51010], Brazil, Alagoas, Quebrangulo, Pedra Talhada rock. On exposed siliceous rock in Atlantic rain forest. 9°15' S, 36°25'35" W, 700 m. Leg. M. Cáceres, A. Aptroot (no 51010) & J.G. Cavalcante, 26.07.2019. Det. A. Aptroot, 2019.

Peltula clavata

Peltula euploca (Ach.) Poelt ex Pišút, Zbor. Slov. nár. Múz., Prír. Vědy 13(2): 8 (1967)

= *Endocarpon euplocum* (Ach.) Ach., Methodus, Sectio prior (Stockholmiæ): 127 (1803)

= *Endocarpon fluviatile* var. *euplocum* (Ach.) Rabenh., Deutschl. Krypt.-Fl. (Leipzig) 2(1): 29 (1845)

= *Endocarpon miniatum* f. *euplocum* (Ach.) Wahlenb., Fl. Suec. 2: 875 (1826)

= *Endocarpon miniatum* var. *euplocum* (Ach.) Wahlenb., Fl. Suec. 2: 875 (1826)

= *Lichen euplocus* Ach., Lich. suec. prodr. (Linköping): 141 (1799) [1798]

= *Lichen hepaticus* * *euplocum* (Ach.) Lam., Encycl. Méth. Bot., Suppl. (Paris) 3(2): 426 (1813)

= *Peltula euploca* (Ach.) Poelt, Mitt. bot. StSamml., Münch. 4: 470 (1962)

= *Verrucaria euploca* (Ach.) Borrer, in Hooker & Sowerby, Suppl. Engl. Bot. 1: tab. 2602, fig. 2 (1831)

[ABL42599], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on granite. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42599), 21-23.10.2017. . Det. A. Aptroot, 2017.

Peltula euploca

Pertusaria dehiscens Müll. Arg., Flora, Regensburg 67(18): 349 (1884)
= *Pertusaria dehiscens* var. *sekikaica* A.W. Archer & Elix, in Archer, Biblthca Lichenol. 69: 57 (1997)

[ABL42741], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42741), 21-23.10.2017. Det. A. Aptroot, 2017. - UV + yellow, spores 60 x 20 µm

Pertusaria dehiscens

Pertusaria flavens Nyl., Bull. Soc. linn. Normandie, sér. 2 3: 268 (1869)

[ABL42476], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42476), 21-23.10.2017. Det. A. Aptroot, 2017.

Pertusaria flavens

Pertusaria flavens Nyl., Bull. Soc. linn. Normandie, sér. 2 3: 268 (1869)

[ABL42835], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42835), 21-23.10.2017. Det. A. Aptroot, 2017.

Pertusaria flavens

Pertusaria quassiae (Fée) Nyl., Annls Sci. Nat., Bot., sér. 4 15: 45 (1861)
= *Porina quassiae* Fée 1825

[ABL42730], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15’ S, 36°25’35’’ W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42730), 21-23.10.2017. Det. A. Aptroot, 2017.

Pertusaria quassiae

Pertusaria tetrathalamia (Fée) Nyl., Acta Soc. Sci. fenn. 7(2): 448 (1863)
= *Pertusaria leioplacoides* var. *plicatula* Müll. Arg., Flora, Regensburg 67(15): 302 (1884)
= *Pertusaria tetrathalamia* var. *plicatula* (Müll. Arg.) Müll. Arg., Revue mycol., Toulouse 9(no. 34): 84 (1887)
= *Porina tetrathalamia* (Fée) Fée, Essai Crypt. Exot., Suppl. Révis. (Paris): 73 (1837)
= *Trypethelium tetrathalamium* Fée, Essai Crypt. Exot. (Paris): 69 (1825) [1824]

[ABL42683], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15’ S, 36°25’35’’ W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42683
), 21-23.10.2017. Det. A. Aptroot, 2017.

Pertusaria tetrathalamia

Phaeographis brasiliensis (A. Massal.) Kalb & Matthes-Leicht, Biblthca Lichenol. 78: 148 (2001)

= *Creographa brasiliensis* A. Massal., Atti Inst. Veneto Sci. lett., ed Arti, Sér. 3 5: 322 (1860) [1859-1860]

= *Phaeographina brasiliensis* (A. Massal.) Zahlbr., Cat. Lich. Univers. 2: 434 (1923) [1924]

= *Ustalia brasiliensis* (A. Massal.) Stizenb., Ber. Tät. St Gall. naturw. Ges.: 155 (1862) [1861-62]

[ABL50875], Brazil, Alagoas, Quebrangulo, Pedra Talhada plot A2. On tree bark in Atlantic rain forest. 9°15’ S, 36°25’35’’ W, 600 m. Leg. M. Cáceres, A. Aptroot (no 50875) & J.G. Cavalcante, 24.07.2019. Det. A. Aptroot,2019.

Phaeographis brasiliensis

Phaeographis fusca Staiger, Biblthca Lichenol. 85: 324 (2002)

[ABL50942j], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On twigs of shrub in exposed area in Atlantic rain forest. 9°14’28’’ S, 36°25’11’’ W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50942j) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot, 2019.

Phaeographis lobata (Eschw.) Müll. Arg., Flora, Regensburg 65(24): 383 (1882)
= *Graphis lobata* (Eschw.) Reinke, in Pringsheim, Jb. wiss. Bot. 28: 142 (1895)
= *Lecanactis lobata* Eschw., Syst. Lich.: 25 (1824)
= *Leiogramma lobatum* (Eschw.) Eschw., in Martius, Fl. bras. enum. pl. 1(1): 100 (1833)
= *Pachnolepia lobata* (Eschw.) Körb., Syst. lich. germ. (Breslau): 296 (1855)

[ABL42760], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42760), 21-23.10.2017. Det. A. Aptroot, 2017.

Phaeographis lobata

Phaeographis punctiformis (Eschw.) Müll. Arg., Flora, Regensburg 65(24): 383 (1882)
= *Leiogramma punctiforme* Eschw., in Martius 1833

[ABL42672], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42672), 21-23.10.2017. Det. A. Aptroot, 2017.

Phaeographis punctiformis

Phaeographis epruinosa (Redinger) Staiger, Biblthca Lichenol. 85: 323 (2002)
= *Phaeographina epruinosa* Redinger, Ark. Bot. 26A(no. 1): 81 (1934)

[ABL42645], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42645), 21-23.10.2017. Det. A. Aptroot, 2017. - Hymenium not inspersed, spores 8/ascus, muriform, 7 x 1-2 septa, 85 x 12 µm.

Phaeographis epruinosa

Physcia atrostriata Moberg, Nordic Jl Bot. 6(6): 853 (1986)

[ABL42705], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42705), 21-23.10.2017. Det. A. Aptroot, 2017.

Physcia atrostriata

Physcia krogiae Moberg, Nordic Jl Bot. 6(6): 858 (1986)

[ABL42807], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42807), 21-23.10.2017. Det. A. Aptroot, 2017.

Physcia krogiae

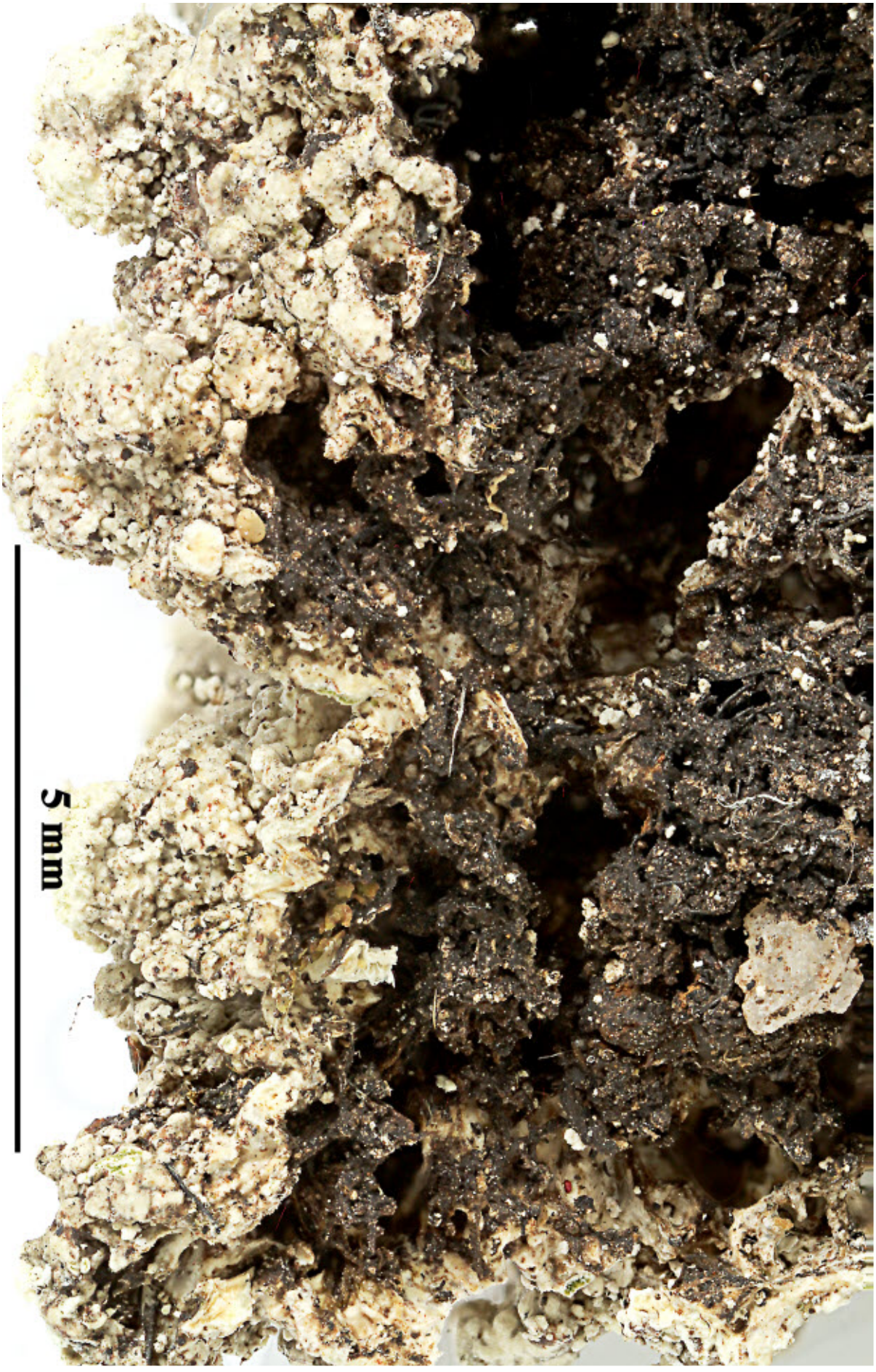
Platygramme colubrosa (Nyl.) Staiger, Biblthca Lichenol. 85: 361 (2002)
= *Graphis colubrosa* Nyl., Annls Sci. Nat., Bot., sér. 5 7: 332 (1867)
= *Phaeographina colubrosa* (Nyl.) Müll. Arg., Flora, Regensburg 65: 400 (1882)

[ABL42237], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42237), 21-23.10.2017. Det. A. Aptroot, 2017. - Hymenium inspersed, spores densely muriform, brown, 2/ascus, 70 x 22 µm.

Platygramme colubrosa

[ABL51000], Brazil, Alagoas, Quebrangulo, Pedra Talhada rock. On exposed siliceous rock in Atlantic rain forest. 9°15’ S, 36°25’35” W, 700 m. Leg. M. Cáceres, A. Aptroot (no 51000) & J.G. Cavalcante, 26.07.2019. Det. A. Aptroot, 2019.

Physcia sorediiconvexa



Physcia sorediiconvexa

Polymeridium catapastum (Nyl.) R.C. Harris, Acta Amazon., Supl. 14(1-2): 70 (1986) [1984]

= *Arthopyrenia catapasta* (Nyl.) Müll. Arg., Flora, Regensburg 66(20): 318 (1883)

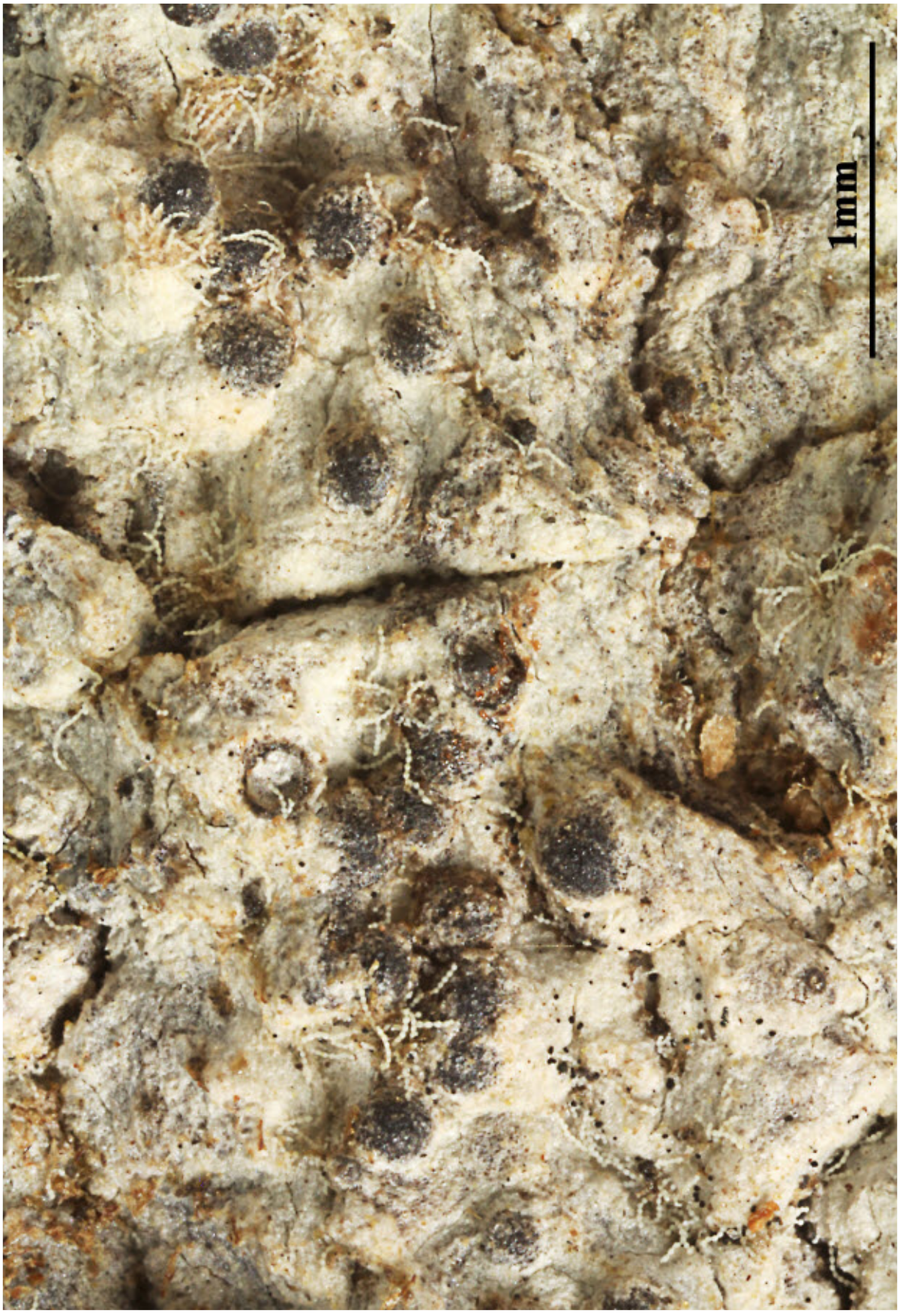
= *Verrucaria catapasta* Nyl., Annls Sci. Nat., Bot., sér. 4 20: 246 (1863)

[ABL50942], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On twigs of shrub in exposed area in Atlantic rain forest. 9°14'28" S, 36°25'11" W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50942) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot, 2019.

Polymeridium catapastum

Polymeridium subcinereum (Nyl.) R.C. Harris, in Tucker & Harris, Bryologist 83(1): 12 (1980)
= *Verrucaria subcinerea* Nyl. 1858

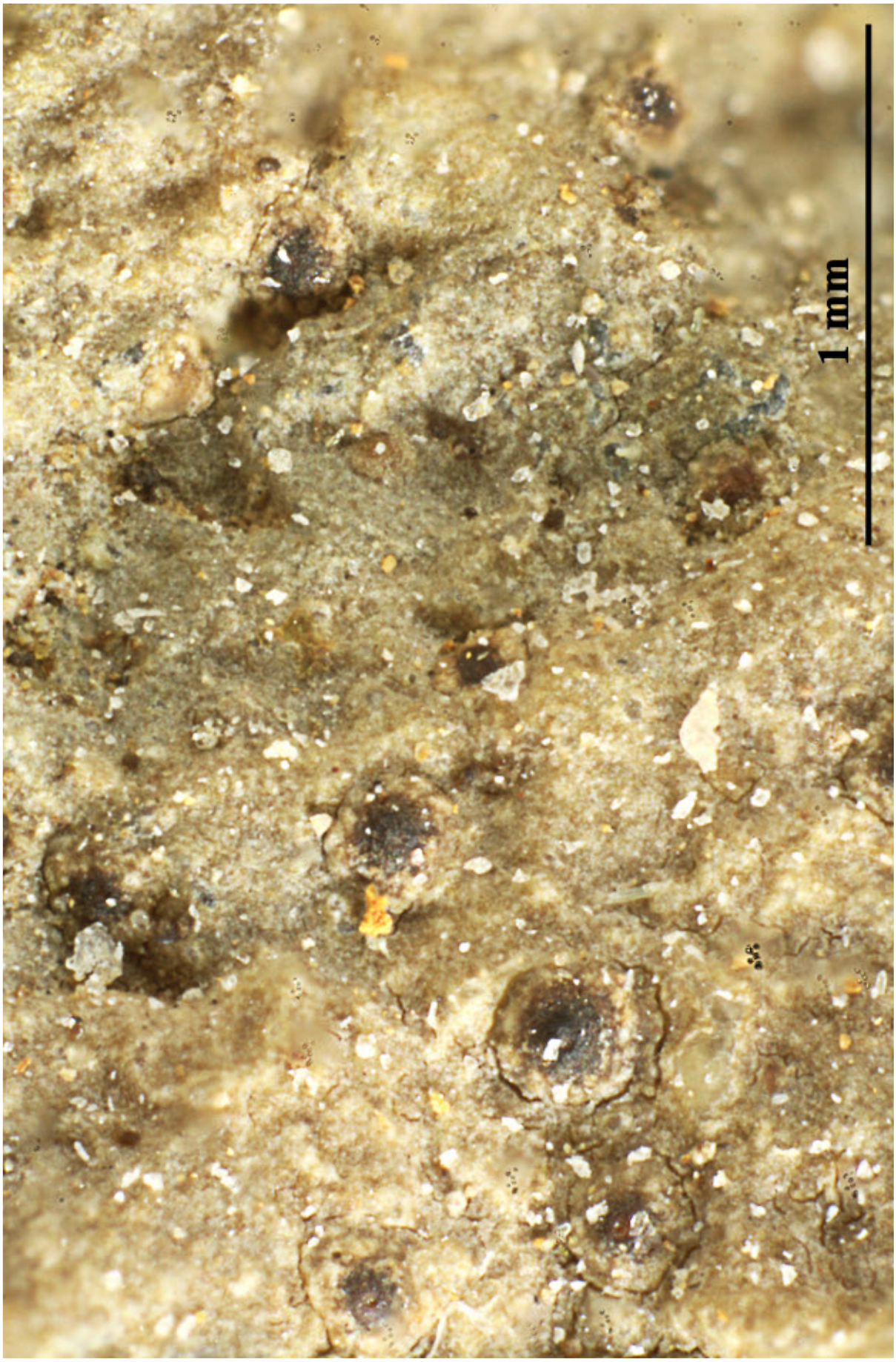
[ABL42815], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42815), 21-23.10.2017. Det. A. Aptroot, 2017. - UV-, hymenium not inspersed, spores 8/ascus, hyaline, 3-septate, 18-20 x 6 µm.



Polymeridium subcinereum

Porina adflata Müll. Arg., Flora, Regensburg 66(21): 338 (1883)

[ABL42427], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on granite. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42427), 21-23.10.2017. . Det. A. Aptroot, 2017.- Spores 7-septate, 25 x 5 µm.



Porina adflata

Porina cestrensis (Tuck. ex E. Michener) Müll. Arg., Flora, Regensburg 66(21): 338 (1883)

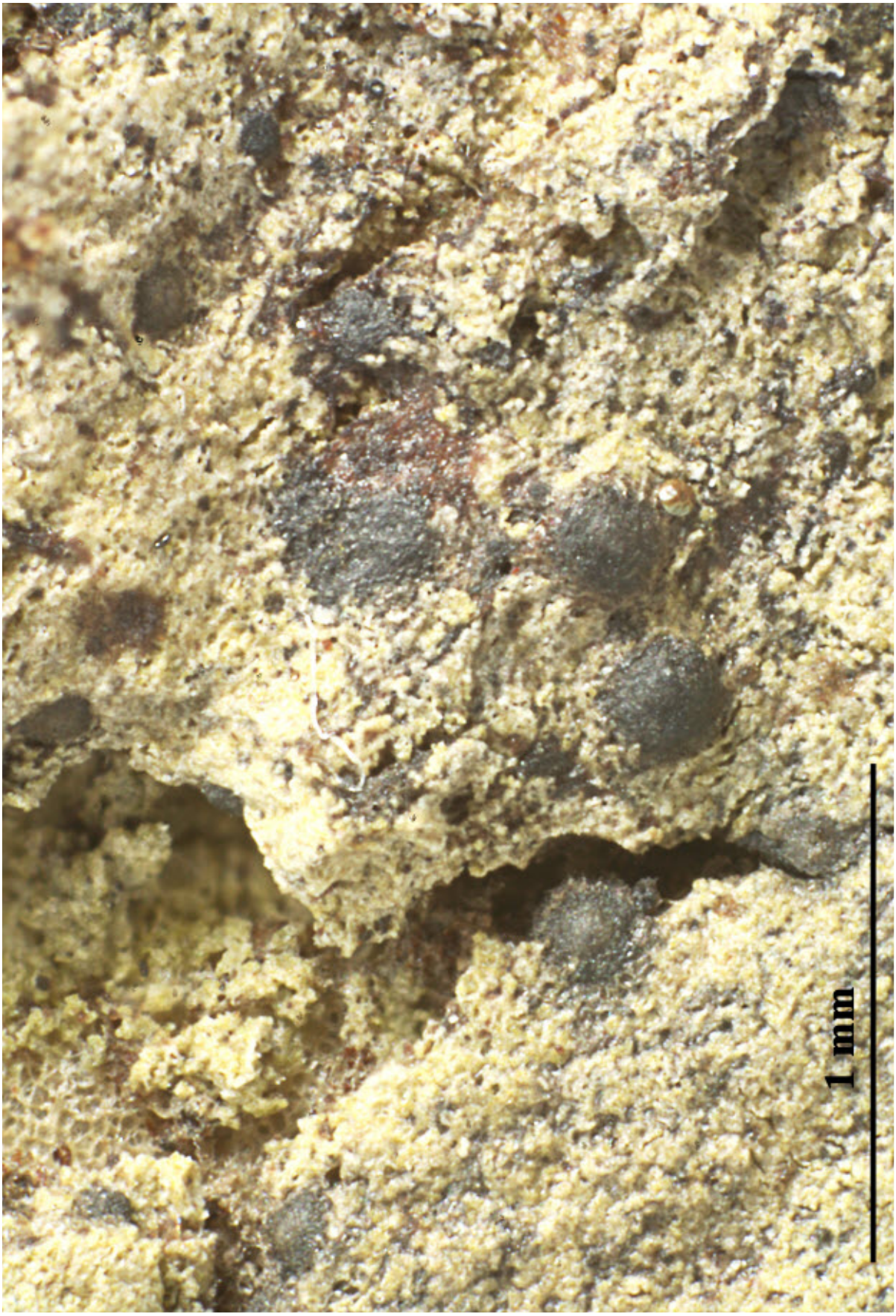
= *Pseudosagedia cestrensis* (Tuck. ex E. Michener) R.C. Harris, Opuscula Philolichenum 2: 15 (2005)

= *Sagedia cestrensis* (Tuck. ex E. Michener) Tuck., Gen. lich. (Amherst): 265 (1872)

= *Trichothelium cestrense* (Tuck. ex E. Michener) R.C. Harris, More Florida Lichens, Incl. 10 Cent Tour Pyrenol. (New York): 178 (1995)

= *Verrucaria cestrensis* Tuck. ex E. Michener, in Darlington, Fl. Cestrica, Edn 3 (Philadelphia): 452 (1853)

[ABL42384], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42384), 21-23.10.2017. Det. A. Aptroot, 2017. - Spores 19-25-septate, 30-36 x 2.5 µm.

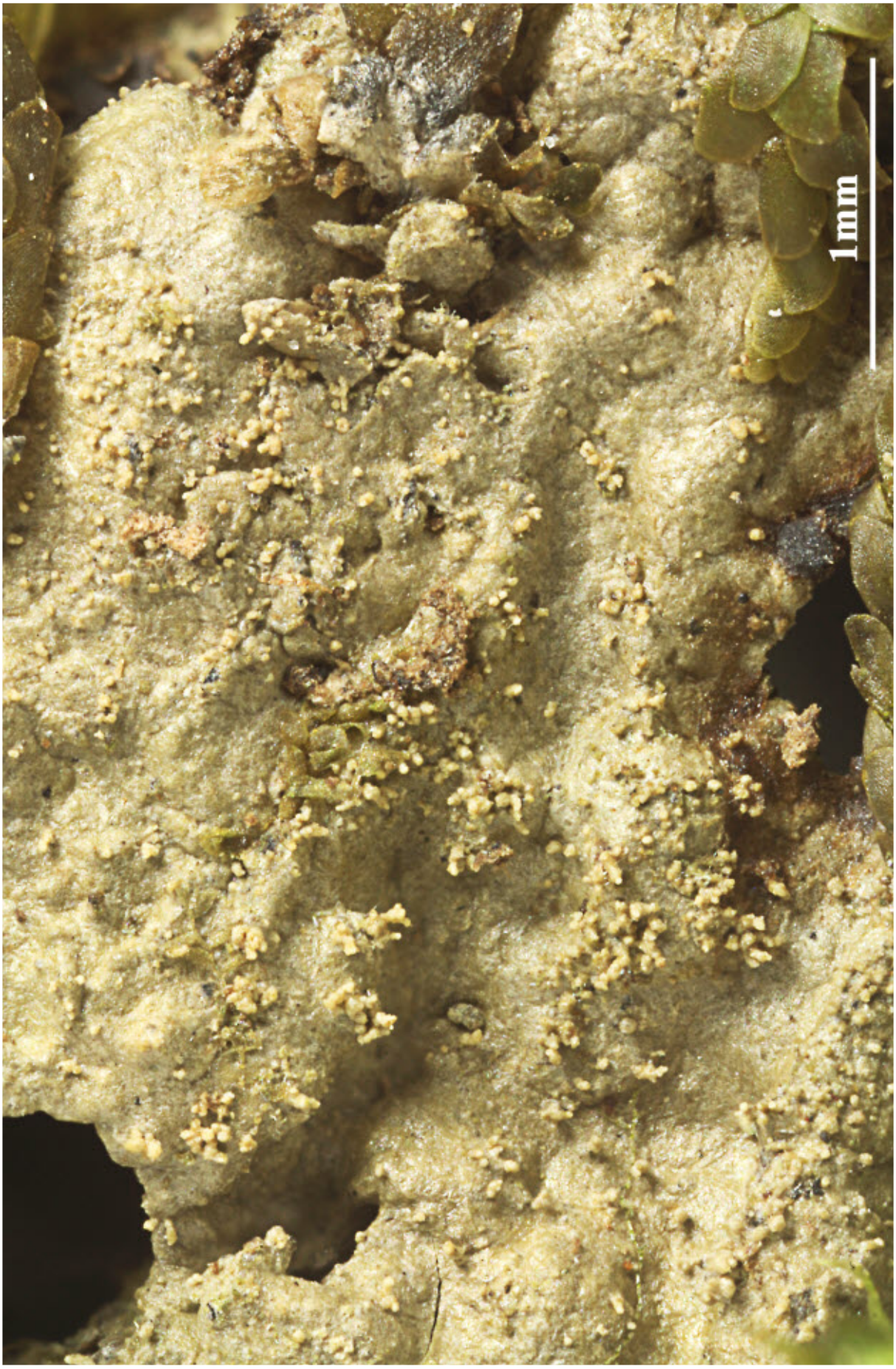


Porina cestrensis

Porina distans Vězda & Vivant, in Vězda, Nova Hedwigia 58(1-2): 136 (1994)

[ABL50872, Brazil, Alagoas, Quebrangulo, Pedra Talhada plot A2. On tree bark in Atlantic rain forest. 9°15’ S, 36°25’35’’ W, 600 m. Leg. M. Cáceres, A. Aptroot (no 50872) & J.G. Cavalcante, 24.07.2019. Det. A. Aptroot,2019.

Porina distans



Porina distans

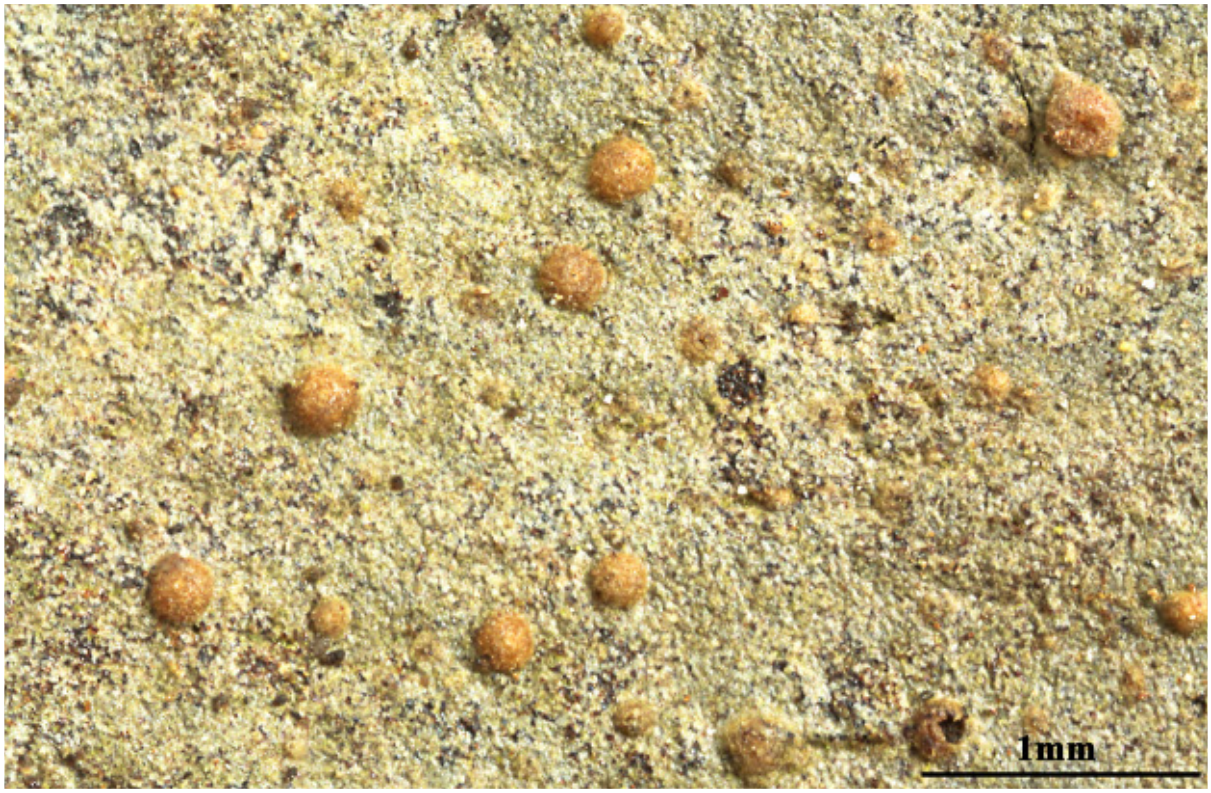
Porina internigrans (Nyl.) Müll. Arg., Rep. Meetings Australs. Assoc. Advancem. Sci.: 452 (1895)
= *Porina araucariae* Müll. Arg., Nuovo G. bot. ital. 23(3): 402 (1891)
= *Porina brisbanensis* Müll. Arg., Nuovo G. bot. ital. 23(3): 402 (1891)
= *Porina glauca* Müll. Arg., Bot. Jb. 6: 399 (1885)
= *Porina phaeophthalma* Shirley, Lich. Fl. Queensland 4: 170 (1890)
= *Porina praestantior* Müll. Arg., Flora, Regensburg 65(25): 400 (1882)
= *Verrucaria internigrans* (Nyl.) Nyl., Bull. Soc. linn. Normandie, sér. 2 7: 177 (1873)
= *Verrucaria mastoidea* var. *internigrans* Nyl., Bull. Soc. linn. Normandie, sér. 2 2: 123 (1868)

[ABL42299], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42299), 21-23.10.2017. Det. A. Aptroot, 2017. - Spores 9-13-septate, 80 x 17 µm.

Porina internigrans

Porina leptalea (Durieu & Mont.) A.L. Sm., Monogr. Brit. Lich. 2: 333 (1911)
= *Segestria leptalea* (Durieu & Mont.) R.C. Harris, More Florida Lichens, Incl. 10 Cent Tour Pyrenol. (New York): 175 (1995)
= *Arthopyrenia lectissima* var. *leptalea* (Durieu & Mont.) Boistel, Nouv. Fl. Lich. (Paris) 2: 275 (1903)
= *Arthopyrenia leptalea* (Durieu & Mont.) H. Olivier, Expos. Lich. Ouest France, Suppl. 2: 254 (1902)
= *Biatora leptalea* Durieu & Mont., in Durieu, Expl. Sci. Alg., Fl. Algér. 1(livr. 7): 268 (1848) [1846-49]
= *Bilimbia leptalea* (Durieu & Mont.) Trevis., Linnaea 28: 293 (1856)
= *Lecidea vernalis* var. *leptalea* (Durieu & Mont.) Nyl., Mém. Soc. Sci. nat. Cherbourg 2: 313 (1854)
= *Porina leptaleella* (Nyl.) Lettau, Hedwigia 52(3-4): 105 (1912)
= *Porinula leptalea* (Durieu & Mont.) Flagey, Catal. Lich. Algérie: 98 (1896)
= *Segestrella lectissima* f. *leptalea* (Durieu & Mont.) P. Syd., Flecht. Deutschl.: 297 (1887)
= *Segestria lectissima* f. *leptalea* (Durieu & Mont.) Blomb. & Forssell, Enum. Pl. Scand.: 104 (1880)
= *Verrucaria lectissima* f. *leptalea* (Durieu & Mont.) Nyl., Mém. Soc. Acad. Maine Loire 4: 38 (1858)
= *Verrucaria lectissima* var. *leptalea* (Durieu & Mont.) Nyl., Mém. Soc. Imp. Sci. Nat. Cherbourg 5: 138 (1858)
= *Verrucaria leptalea* (Durieu & Mont.) Nyl. ex P. Crouan & H. Crouan , Florule Finistère (Paris): 86 (1867)
= *Verrucaria leptalea* var. *obscuriuscula* Nyl. ex P. Crouan & H. Crouan, Florule Finistère (Paris): 86 (1867)
= *Verrucaria leptaleella* Nyl., Flora, Regensburg 59: 237 (1876)

[ABL42452], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15’ S, 36°25’35’’ W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42452), 21-23.10.2017. Det. A. Aptroot, 2017.



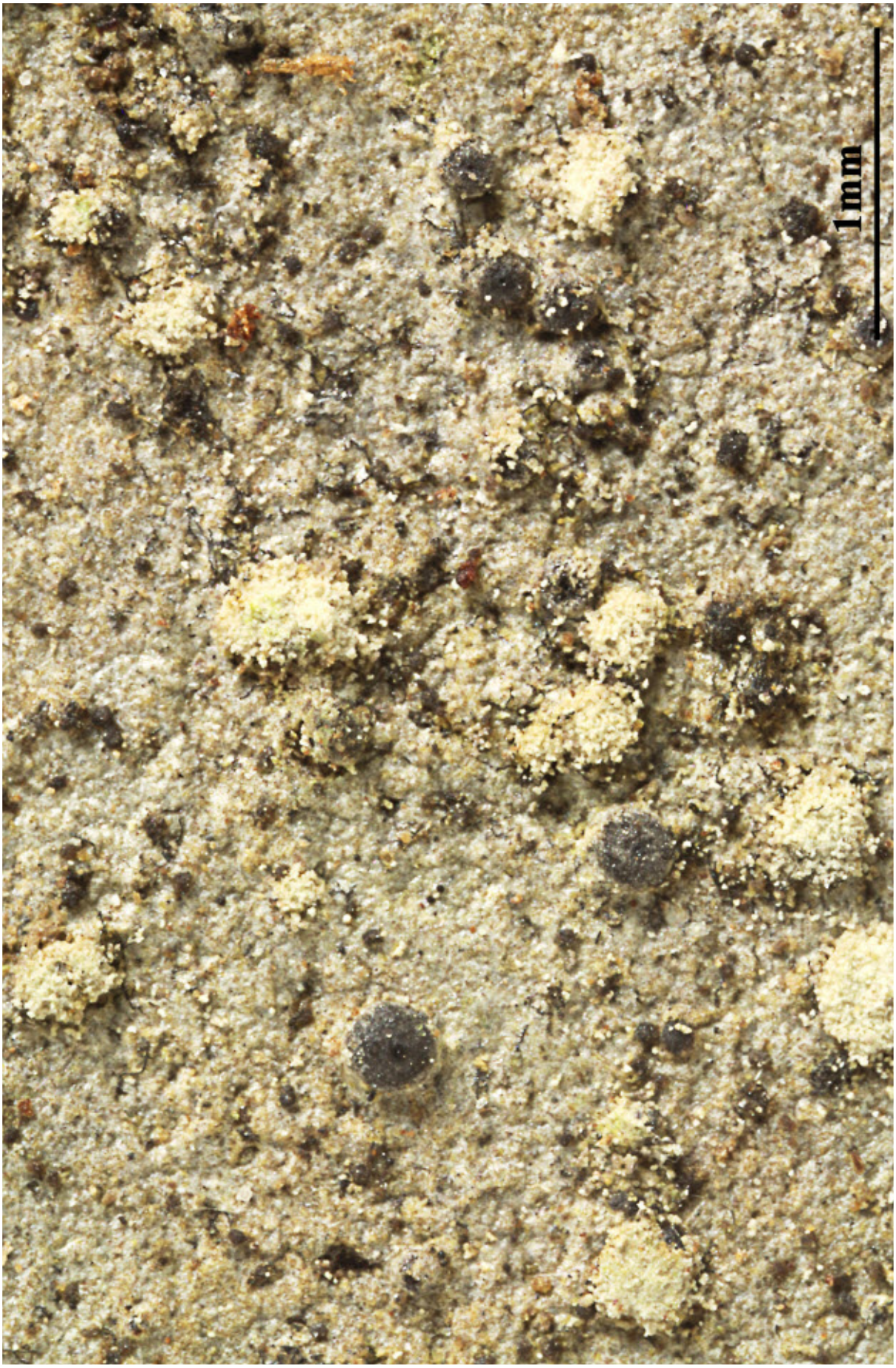
Porina leptalea

Porina melanops Malme, Ark. Bot. 23A(no. 1): 25 (1929)

[ABL42628A], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42628A), 21-23.10.2017. Det. A. Aptroot, 2017.

Porina sorediata Aptroot, Lücking & M. Cáceres, in Hyde et al., Fungal Diversity 10: 10.1007/s13225-019-00429-2, [127] (2019)

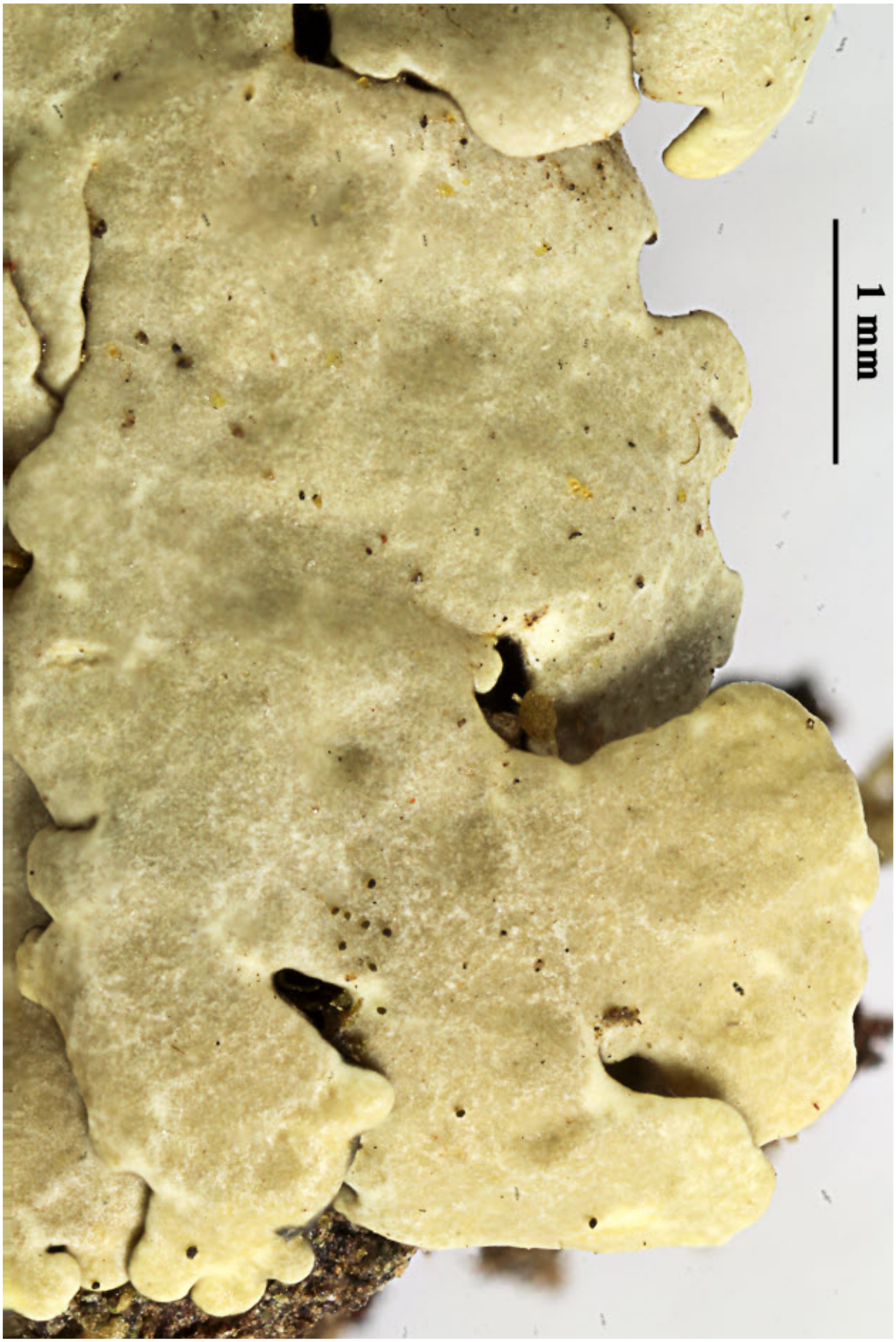
[ABL42451], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42451), 21-23.10.2017. Det. A. Aptroot, 2017. Spores 1-3-septate, 15-16 x 4 µm; ISOTYPE.



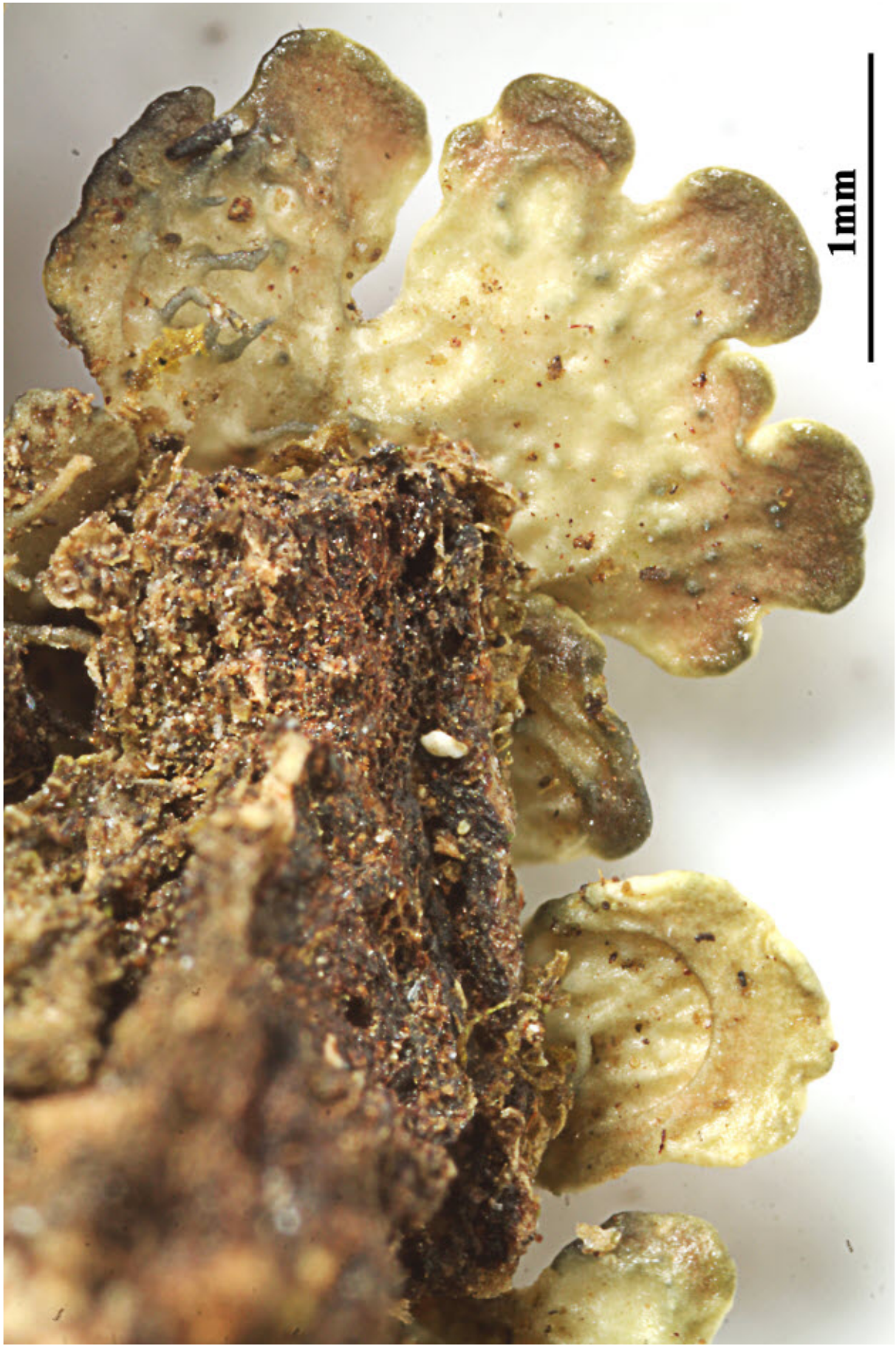
Porina sorediata

Pseudoparmelia hypomilta (Fée) Hale, Phytologia 29(3): 190 (1974)
= *Parmelia hypomilta* Fée 1837

[ABL42685], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42685), 21-23.10.2017. Det. A. Aptroot, 2017. - Thallus lacking soredia, isidia, pseudocyphellae and cilia, lower medulla pigmented orange (K+ violet) at least in part, spores to 8 µm long.



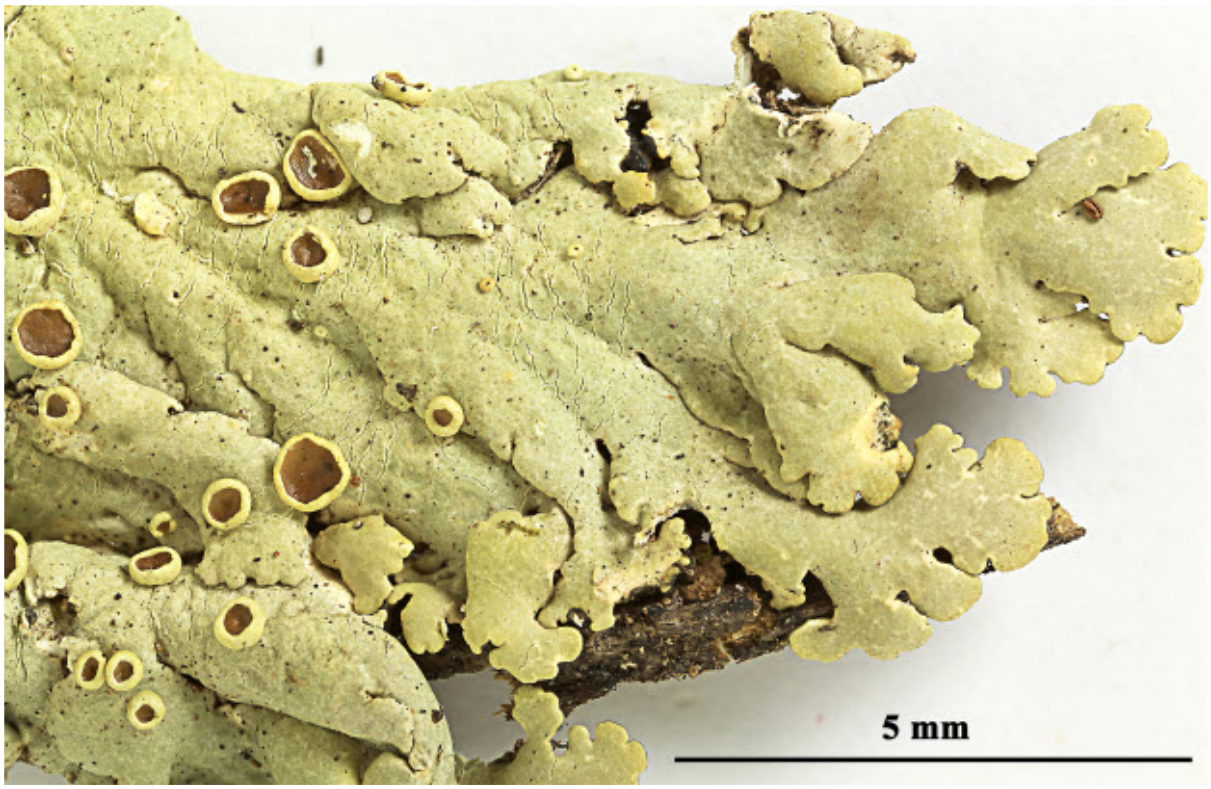
Pseudoparmelia hypomilta

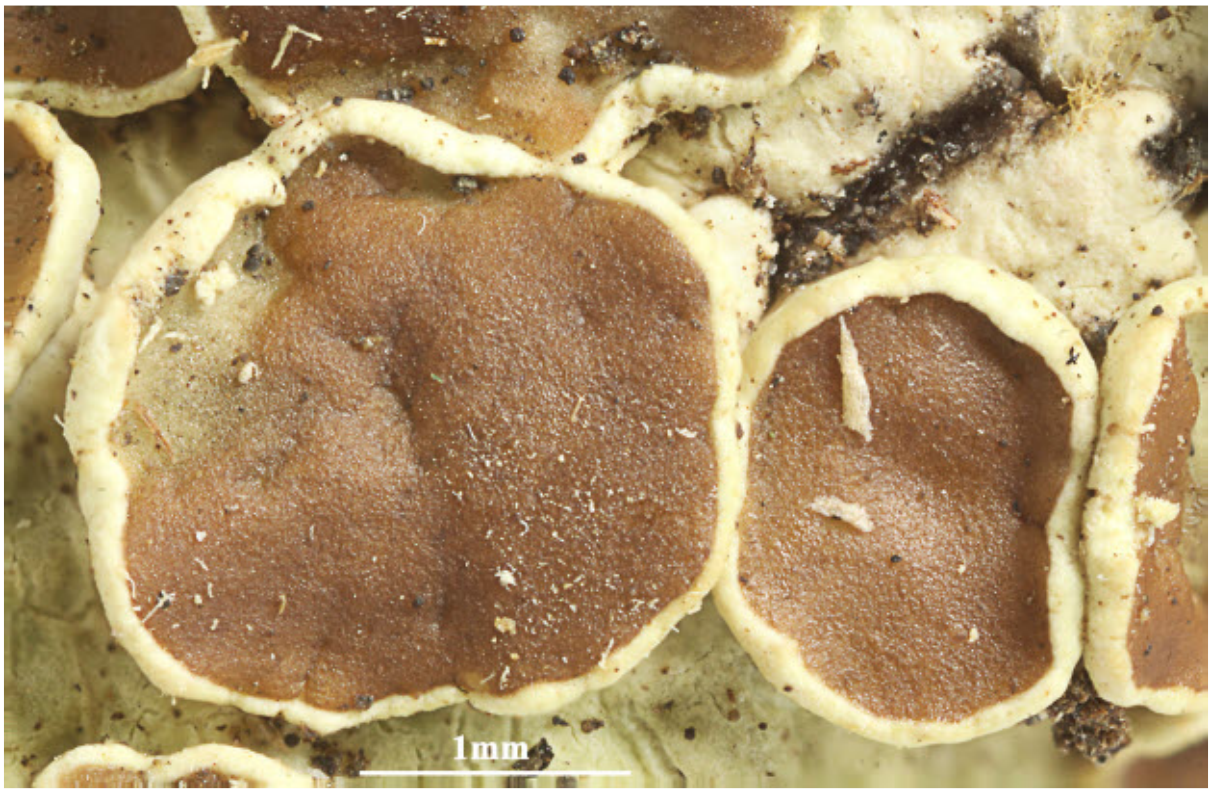


Pseudoparmelia hypomilta

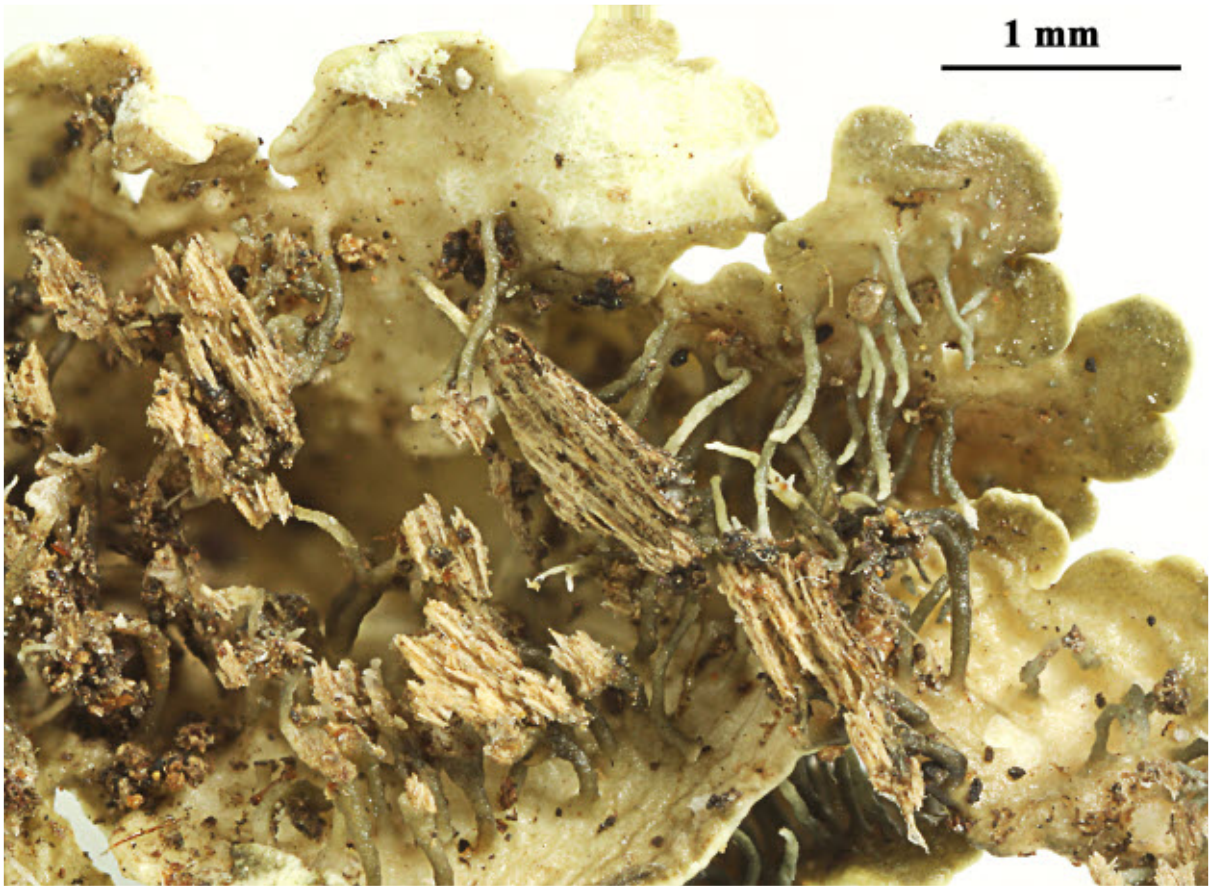
Pseudoparmelia uleana (Müll. Arg.) Elix & T.H. Nash, Bryologist 100(4): 496 (1998) [1997]
= *Parmelia uleana* Müll. Arg. 1889

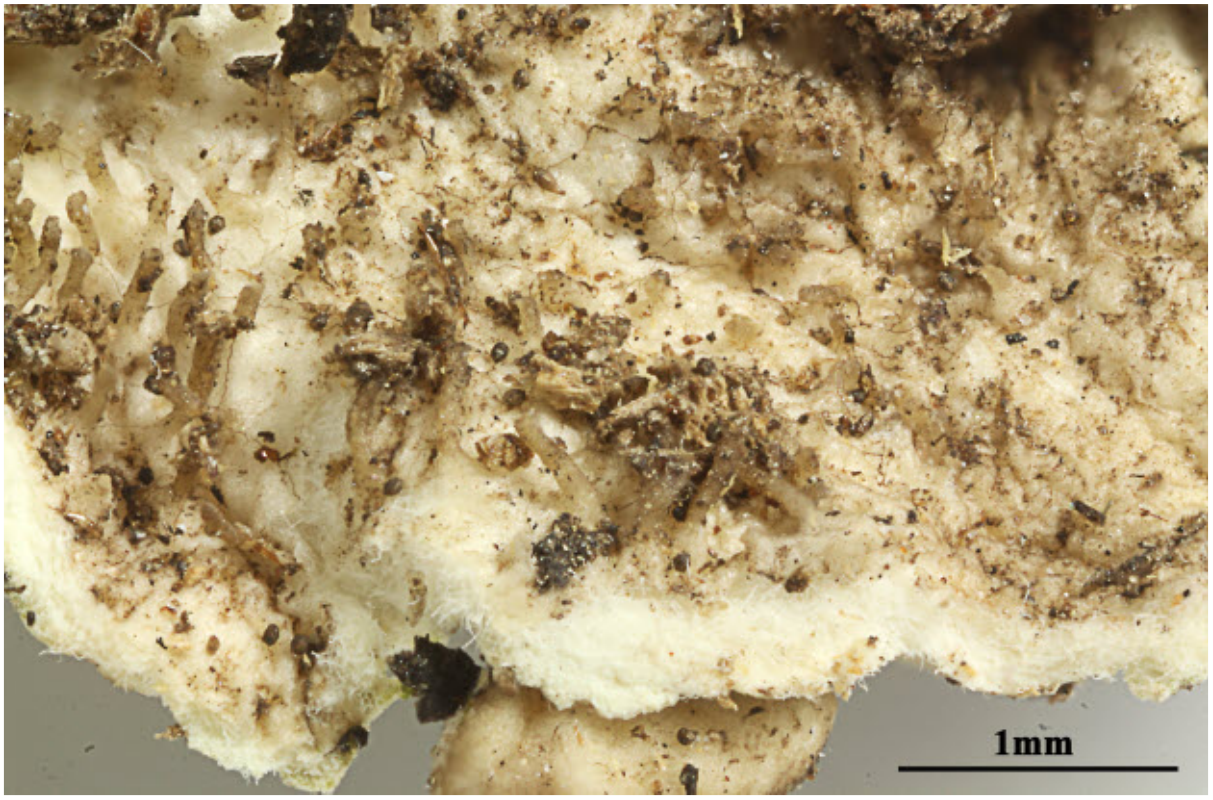
[ABL50848], Brazil, Alagoas, Quebrangulo, Pedra Talhada plot A2.2. On tree bark in Atlantic rain forest. 9°15’ S, 36°25’35’’ W, 599 m. Leg. M. Cáceres, A. Aptroot (no 50848) & J.G. Cavalcante, 24.07.2019. Det. A. Aptroot,2019.





Pseudoparmelia uleana





Pseudoparmelia uleana

Pseudopyrenula media Aptroot & Diederich, in Diederich, Lücking, Aptroot, Sipman, Braun, Ahti & Ertz, Herzogia 30(1): 213 (2017)

[ABL42445], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42445), 21-23.10.2017. Det. A. Aptroot, 2017. Thallus UV-, hymenium yellow inpers, spores 27 x 7.5 µm, 3-septate, hyalin.

Pseudopyrenula media

Pseudopyrenula subnudata Müll. Arg., Flora, Regensburg 66(16): 249, 272 (1883)

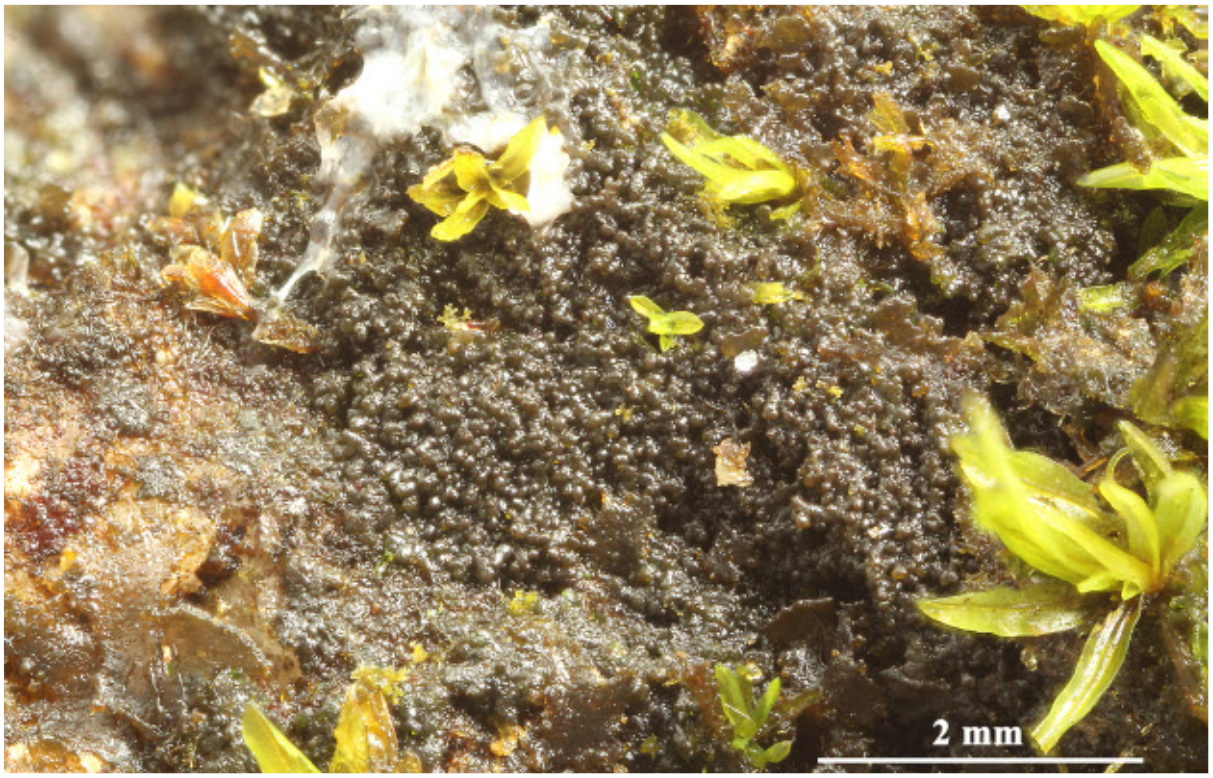
[ABL50942c], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On twigs of shrub in exposed area in Atlantic rain forest. 9°14’28” S, 36°25’11” W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50942c) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot, 2019.

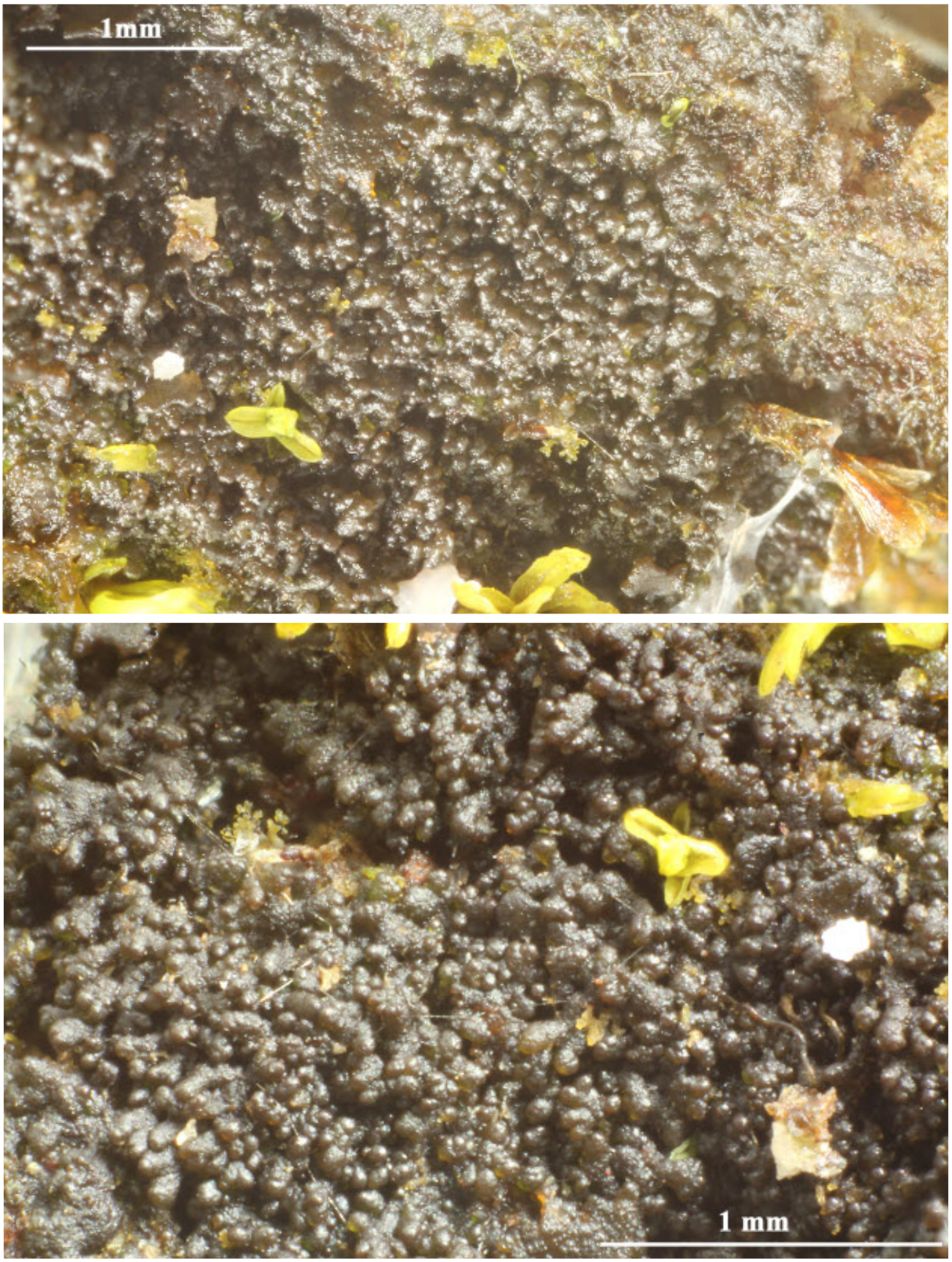
Pseudopyrenula subnudata

Pterygiopsis densisidiata Aptroot, Oliveira Junior & M. Cáceres, in Oliveira Junior, Aptroot, Santos, Cavalcante, Kosůthová & Cáceres, Bryologist 123(4): 628 (2020)

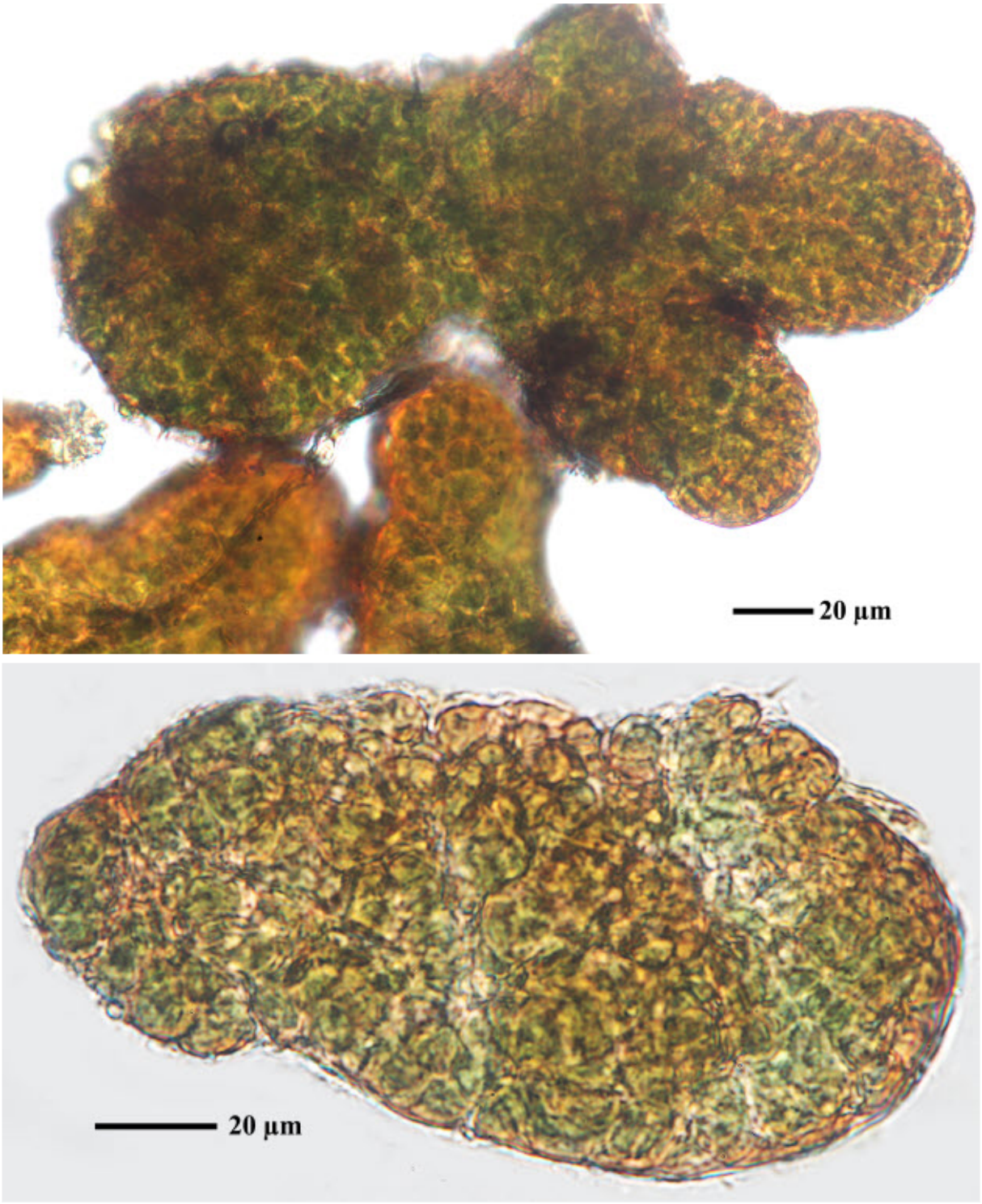
[ABL42415], Brazil, Algoas, Quebrangulo, Pedra Talhda private area, in Atlantic rain forrest on granite. 9°15' S, 36°25'35'' W, 500-700 m. Leg. A. Aptroot (no 42415) & M. Cáceres, 21-23.10.2017, det. A. Aptroot, 2017. ISOTYPE

Thallus placodioid, closely appressed to the substratum, corticate on upper and lower surface, smooth or with some faint lines, individual thalli ca. 1 cm diam., combined thalli covering areas up to 25 cm diam., ca. 75–95 µm thick, greyish brown, internal parts densly covered with isidia. Lobes relatively indistinct, partly much dissceted, marginally effigurate, mostly 0.5–1.0 mm wide and long. Upper and lower cortex ca. 5–7 µm thick, brown, lumina flattened. Medulla quasihomiomerous, with cyanobacteria distinctly more abundant in upper half, cells 7–17 3 7–13 µm. Cyanobacteria in the thallus copious, single, 10–17 x 7–14 µm, in the isidia grouped in groups of 1–8, groups measuring 7–17 µm diam., individual cells 5–8 µm diam. Isidia densely covering most of the thallus, cylindrical, irregularly but densely branched, somewhat moniliform, up to 0.7 mm high, at the base ca. 100–150 µm thick, at the tips rather regularly 40–60 µm thick. Ascomata unknown. Chemistry. Thallus UV–, K–. TLC: no substances detected.

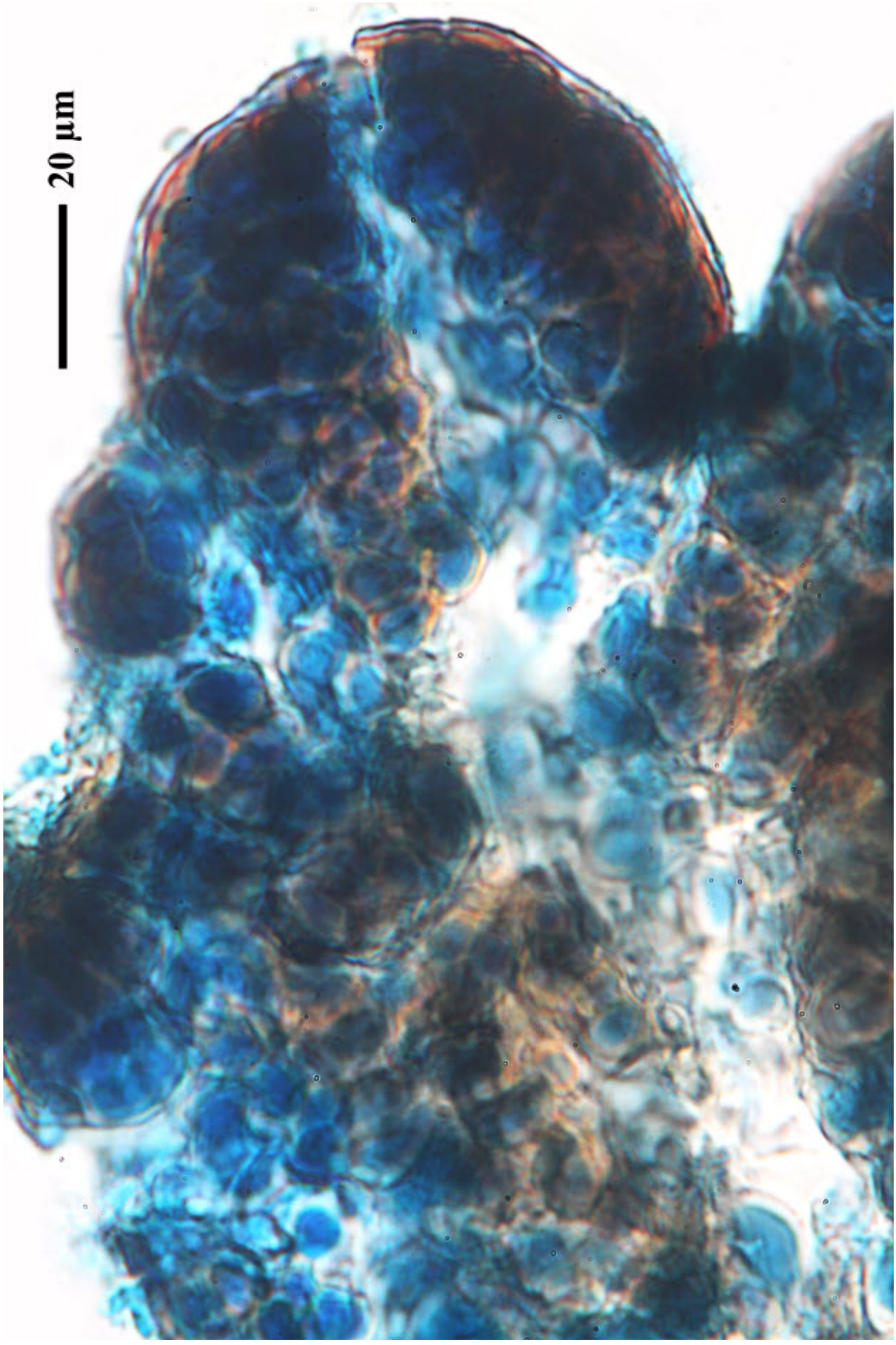




Pterygiopsis densisidiata



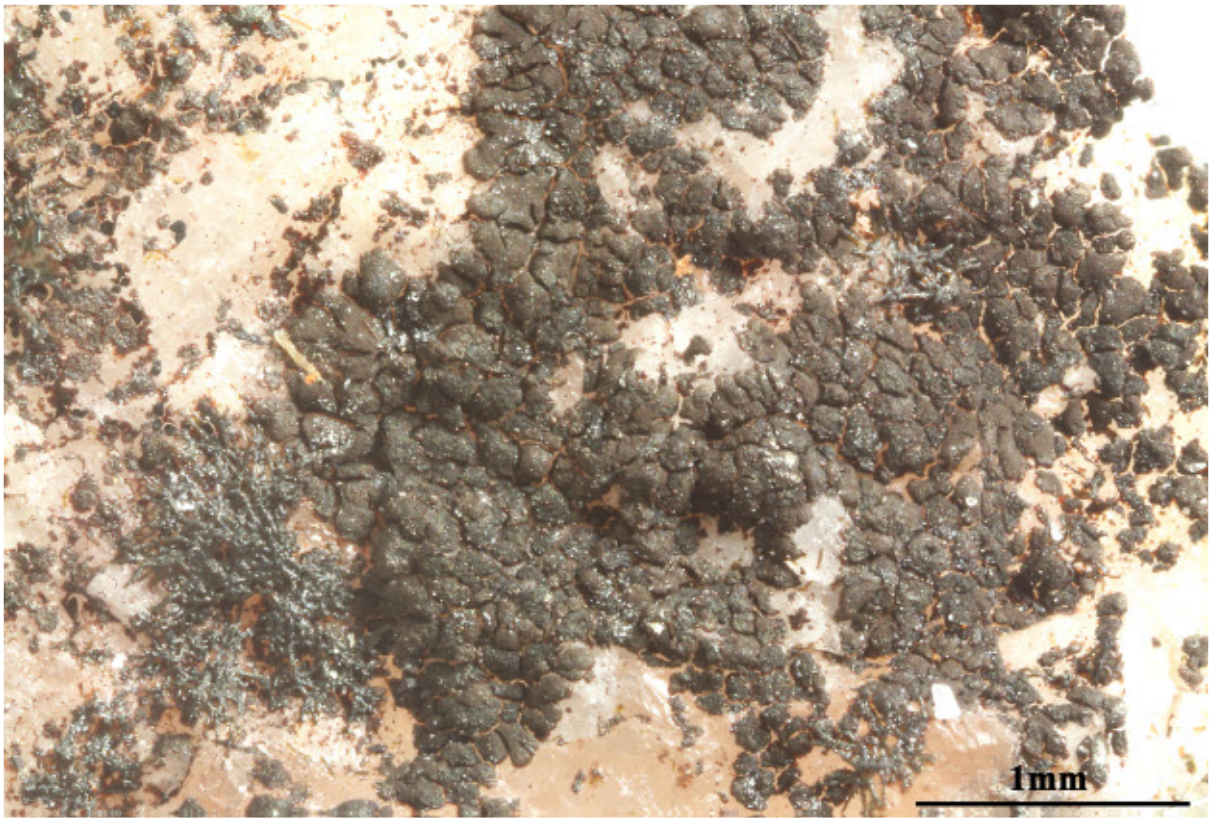
Pterygiopsis densisidiata

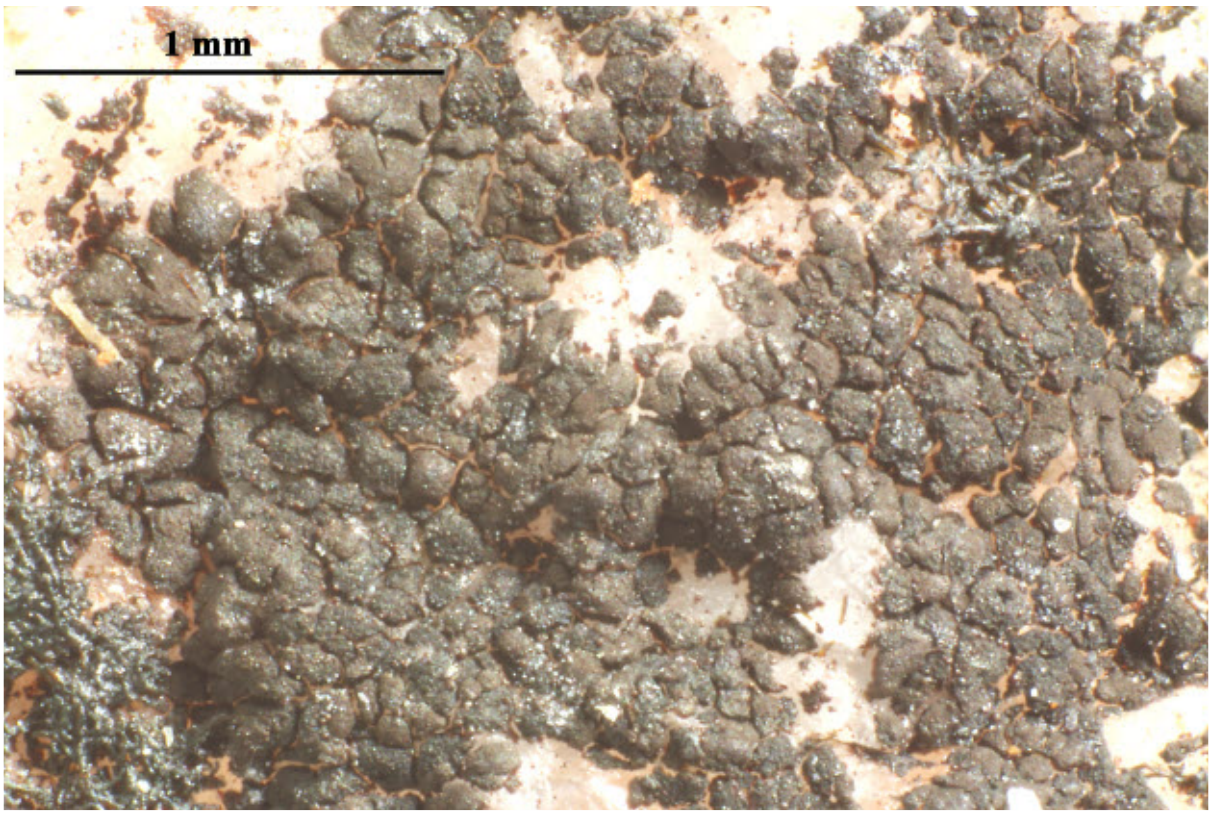


Pterygiopsis densisidiata

Pterygiopsis guyanensis M. Schultz, Porembski & Büdel, Pl. Biol. 2(4): 489 (2000)

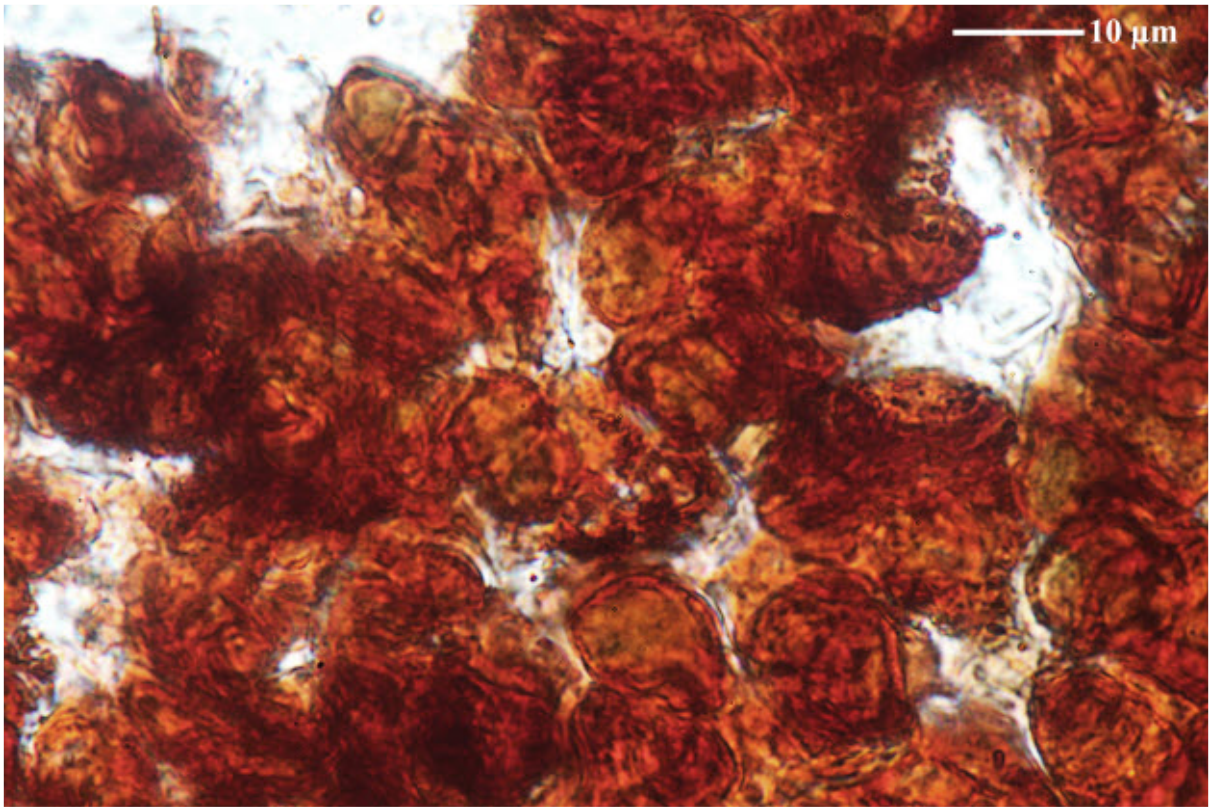
[ABL50938], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On exposed siliceous rock in Atlantic rain forest. 9°14’28’’ S, 36°25’11’’ W, 800 m. Leg. A. Aptroot (no 50938) & M. Cáceres & J.G. Cavalcante, 25.97.2019, det. A. Aptroot, 2019.

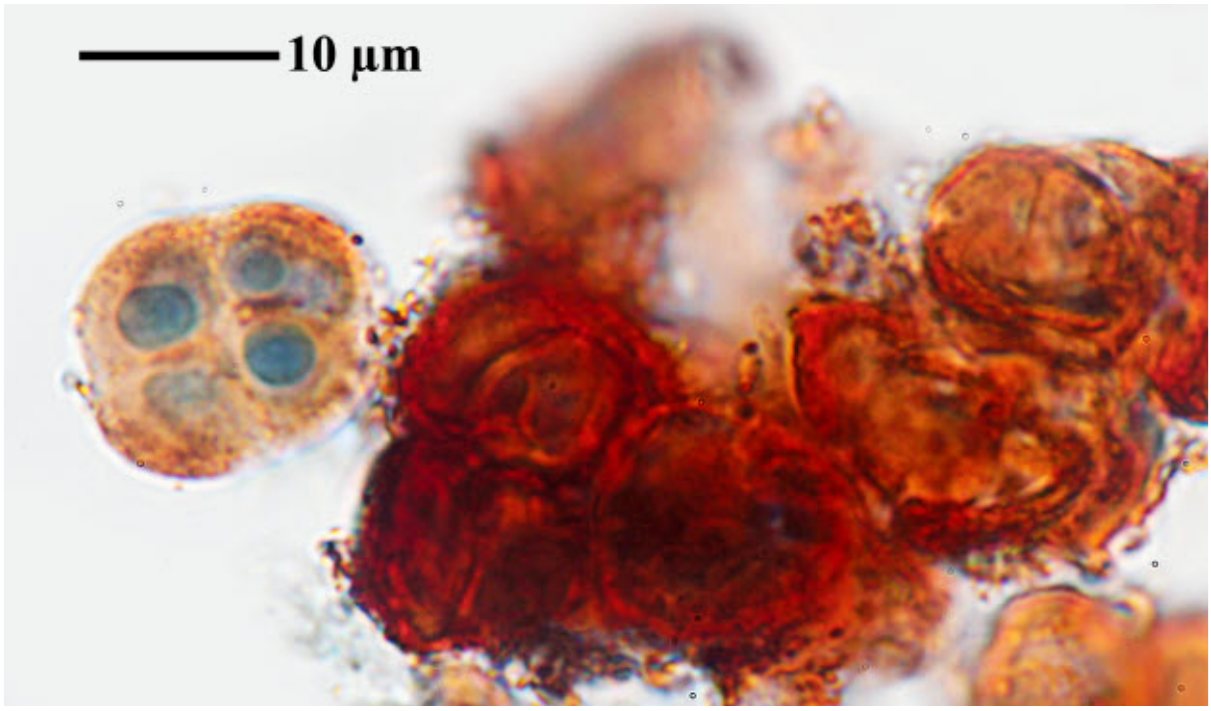




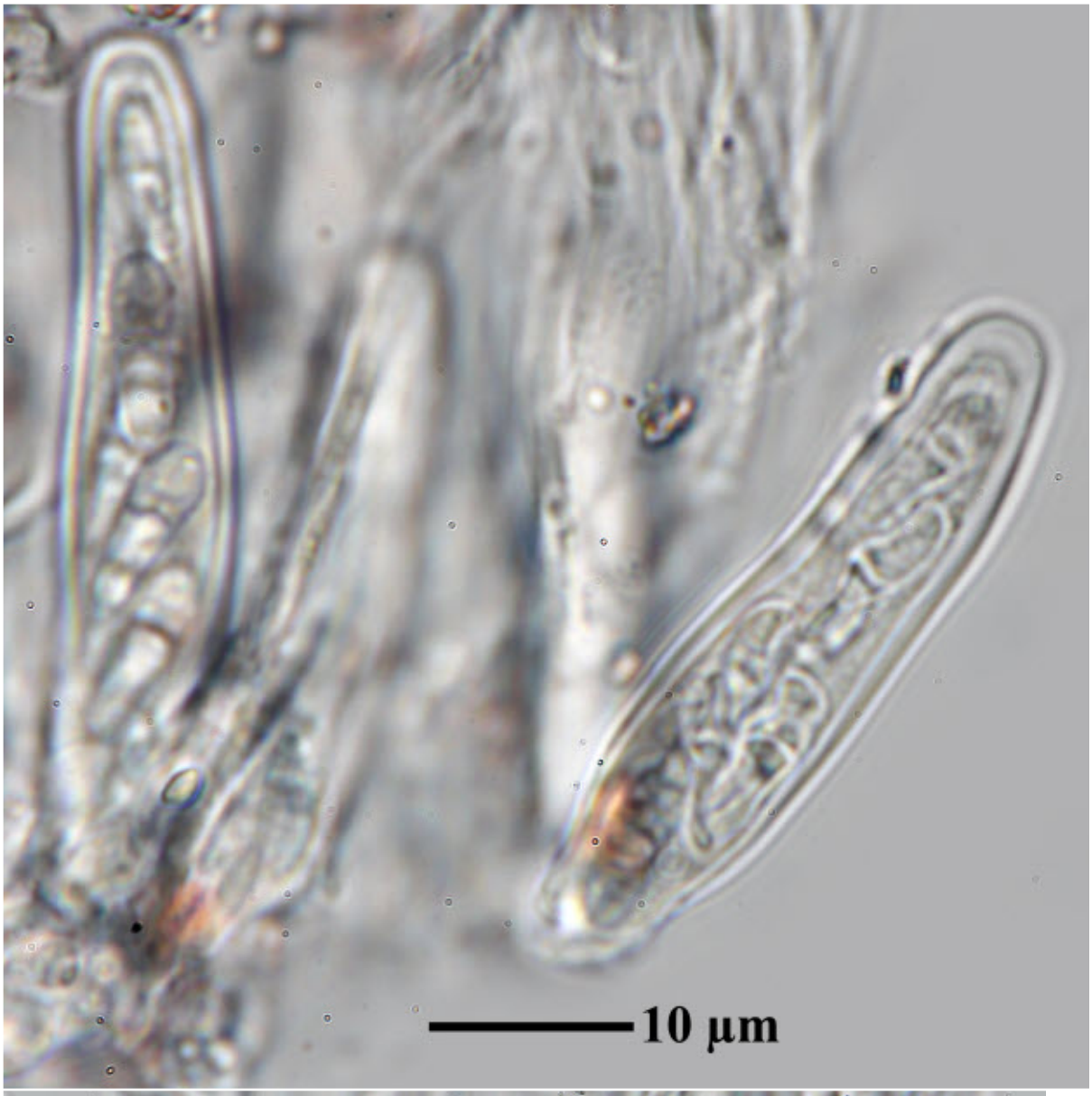
Pterygiopsis guyanensis

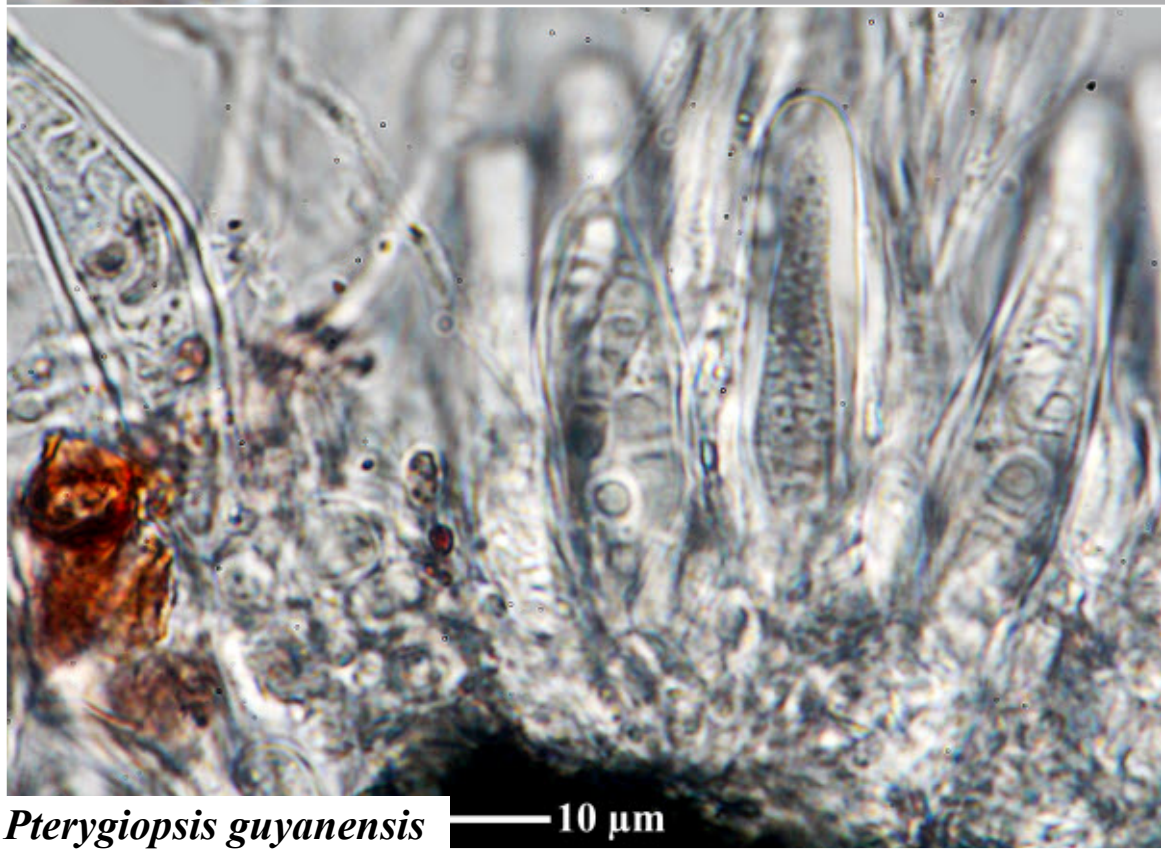
Pterygiopsis guyanensis



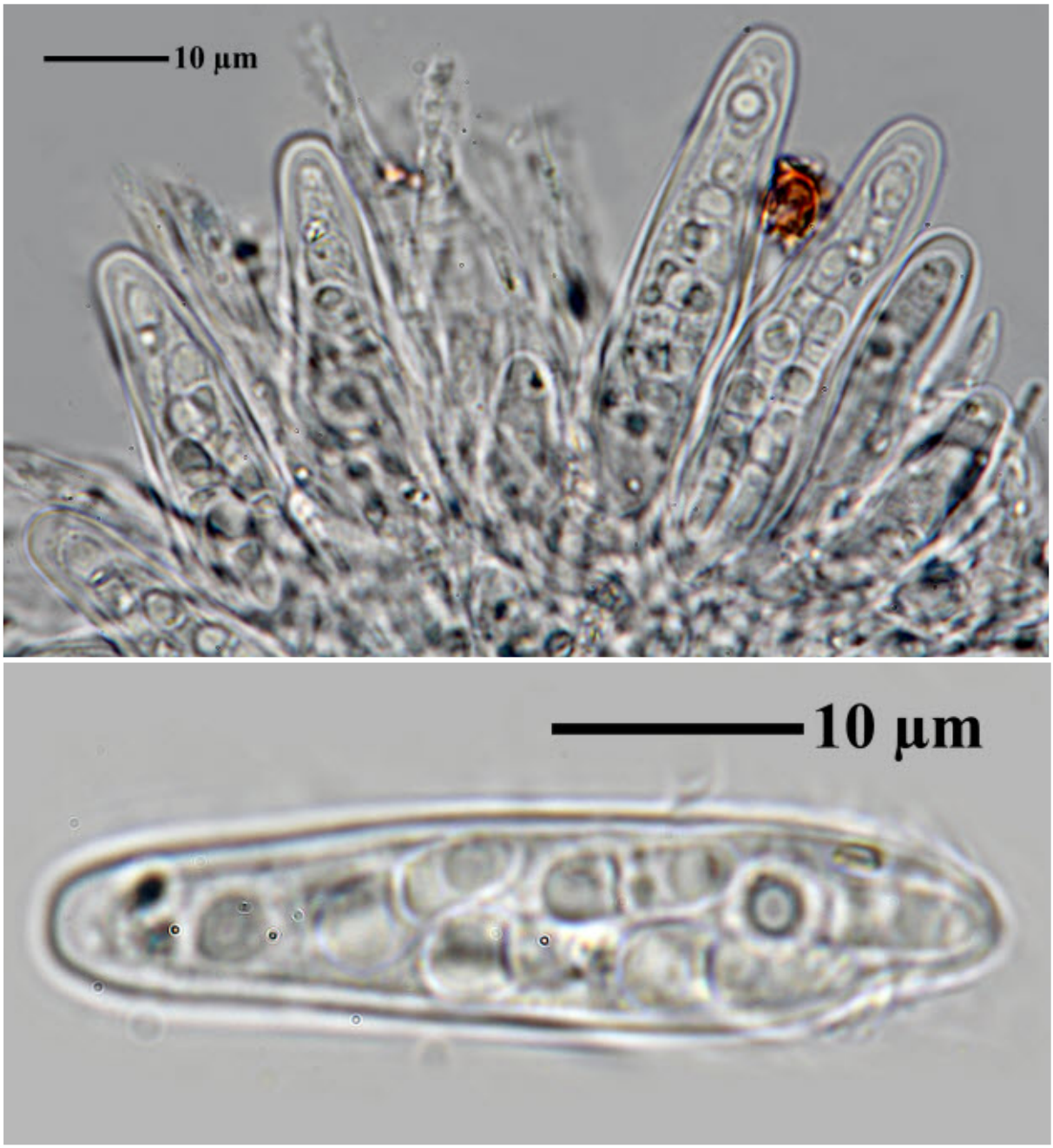


Pterygiopsis guyanensis

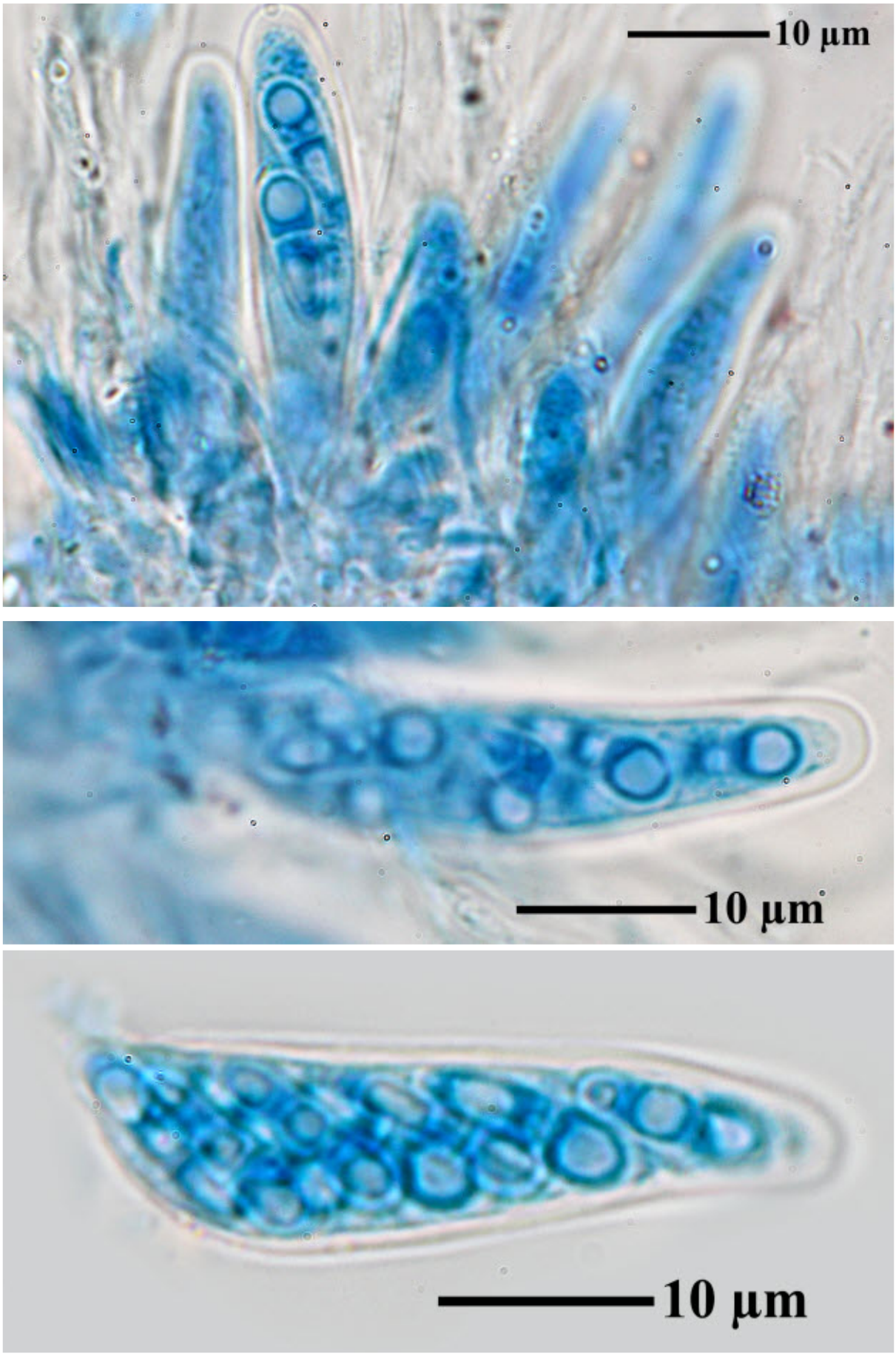




Pterygiopsis guyanensis



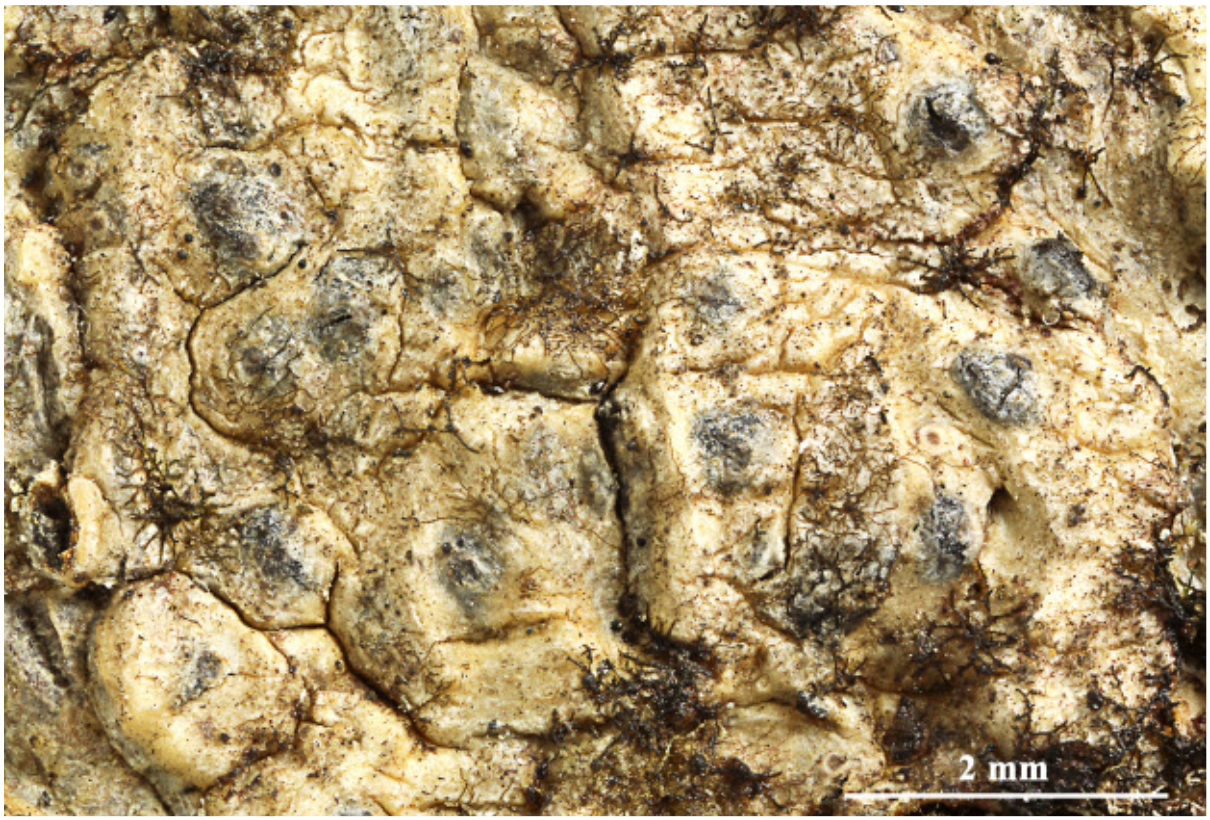
Pterygiopsis guyanensis



Pterygiopsis guyanensis

Pyrenula dermatodes (Borrer) Schaer., Enum. critic. lich. europ. (Bern): 213 (1850)
= *Pyrenula achroopora* (Nyl.) Arnold, Flora, Regensburg 53(30–31): 486 (1871) [1870]
= *Pyrenula glabratula* (Nyl.) Arnold, Flora, Regensburg 53(30–31): 486 (1871) [1870]
= *Pyrenula nitida* var. *dermatodes* (Borrer) Trevis., Conspect. Verruc.: 13 (1860)
= *Verrucaria achroopora* Nyl., Flora, Regensburg 50: 179 (1867)
= *Verrucaria dermatodes* Borrer, in Hooker & Sowerby, Suppl. Engl. Bot. 1: tab. 2607, fig. 2 (1831)
= *Verrucaria glabrata* var. *dermatodes* (Borrer) Leight., Lich.-Fl. Great Brit.: 449 (1871)
= *Verrucaria glabratula* Nyl., Flora, Regensburg 50: 330 (1867)
=*Verrucaria nitida* var. *dermatodes* (Borrer) Leight., Brit. Sp. Ang. Lich.: 36, 74, tab. XV, fig. 4 (1851)

[ABL42559], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In in Atlantic rain forest on tree bark. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42559), 21-23.10.2017. Det. A. Aptroot, 2017. - Thallus UV-, hymenium not inspersed, spores 3-septate, 19x6 µm.



Pyrenula dermatodes

Pyrenula infraleucotrypa Aptroot & M. Cáceres, Lichenologist 45(2): 175 (2013)

[ABL42475], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42475), 21-23.10.2017. Det. A. Aptroot, 2017. - Spores 3-septate, 20 x 8 µm.

Pyrenula infraleucotrypa

Pyrenula mamillana (Ach.) Trevis., Conspect. Verruc.: 13 (1860)

= *Arthonia aspersa c marginata* (Hook.) Arnold, Flora, Regensburg 44(43): 675 (1861)

= *Pyrenula kunthii* (Fée) Fée, Essai Crypt. Exot., Suppl. Révis. (Paris): 80 (1837)

= *Pyrenula marginata* Hook., in Kunth, Syn. pl. (Paris) 1: 20 (1822)

= *Verrucaria kunthii* Fée, Essai Crypt. Exot. (Paris): 88 (1825) [1824]

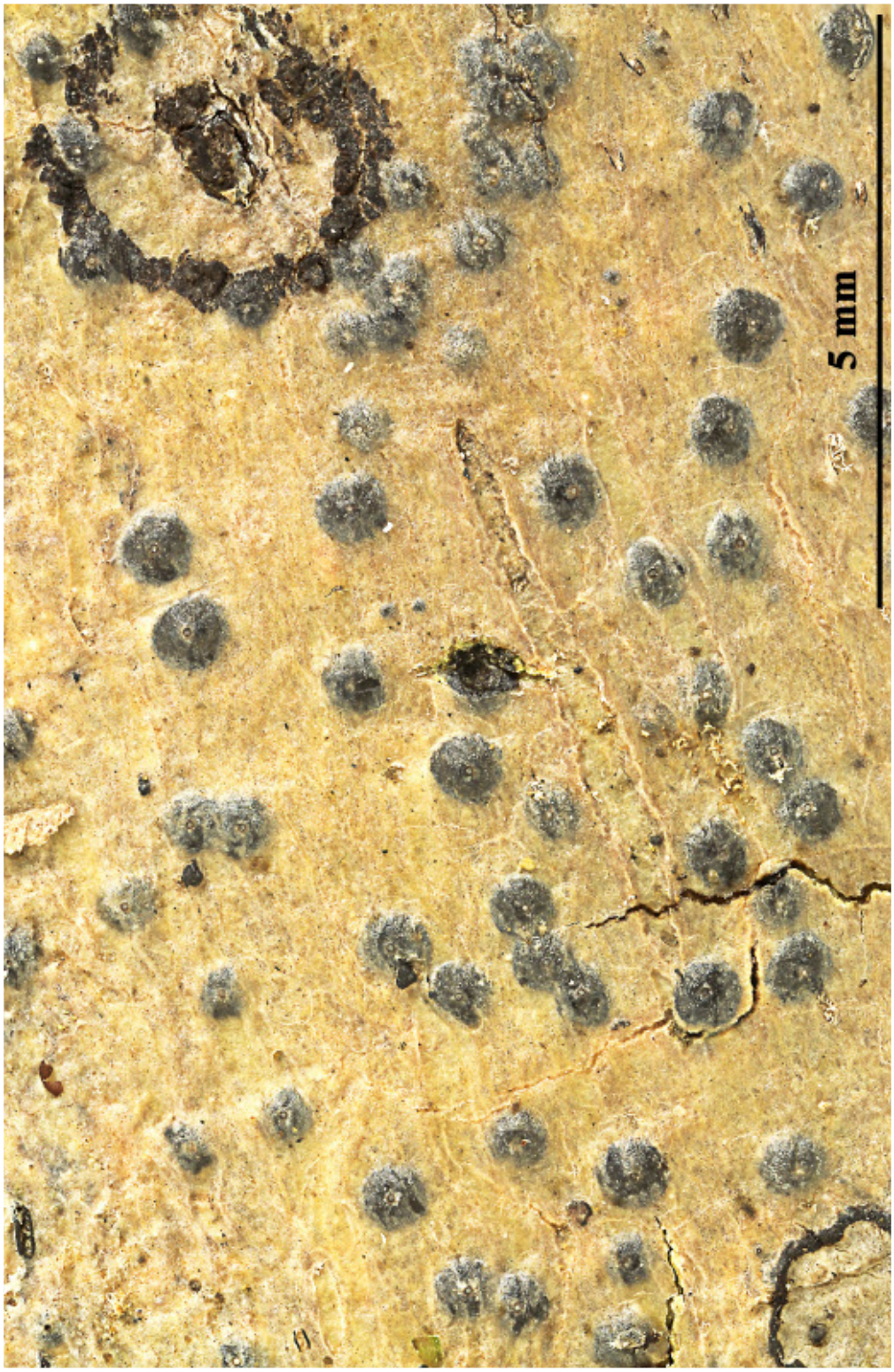
= *Verrucaria mamillana* Ach., Methodus, Sectio prior (Stockholmiæ): 120

Porina mamillana

Pyrenula nitidula (Bres.) R.C. Harris, in Aptroot, Diederich, Sérusiaux & Sipman, Biblthca Lichenol. 64: 164 (1997)

= *Melanomma nitidulum* Bres., in Bresadola, Hennings & Magnus, Bot. Jb. 17: 500 (1893)

[ABL42277], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42277), 21-23.10.2017. Det. A. Aptroot, 2017. Thallus UV-, hymenium not inspersed, spores brown, 4-septate with small cells at the ends, 17 x 12 µm.



Pyrenula nitidula

Pyrenula ochraceoflava (Nyl.) R.C. Harris, Mem. N. Y. bot. Gdn 49: 96 (1989)

= *Pyrenula ochraceoflava var. pacifica* P.M. McCarthy, Lichenologist 32(1): 32 (2000)

= *Sporodictyon ochraceoflavum* (Nyl.) Trevis. [as 'ochraceo-flavum'], Conspect. Verruc.: 13 (1860)

= *Verrucaria ochraceoflava* Nyl., Expos. Synopt. Pyrenocarp.: 50 (1858)

= *Verrucaria ochraceoflavens* Nyl., Acta Soc. Sci. fenn. 7(2): 491 (1863)

[ABL42723A], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42723A), 21-23.10.2017. Det. A. Aptroot, 2017. With yellow pigment, K+ red; Hymenium not inspersed, spores muriform, 8/ascus, 20 x 12 µm.

Pyrenula pyrenuloides (Mont.) R.C. Harris, Mem. N. Y. bot. Gdn 49: 99 (1989)
= *Anthracothecium pyrenuloides* (Mont.) Müll. Arg., Linnaea 43(9): 44 (1880)
= *Bathelium pyrenuloides* (Mont.) Trevis., Spighe Paglie: 20 (1853)
= *Bottaria pyrenuloides* (Mont.) Trevis., Flora, Regensburg 44: 21 (1861)
= *Pyrenastrum pyrenuloides* (Mont.) Nyl., Acta Soc. Sci. fenn. 7(2): 488 (1863)
= *Trypethelium pyrenuloides* Mont., Annls Sci. Nat., Bot., sér. 2 19: 69 (1843)
= *Verrucaria pyrenuloides* (Mont.) Nyl., Mém. Soc. Imp. Sci. Nat. Cherbourg 5: 138 (1858)

[ABL42201], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42201), 21-23.10.2017. Det. A. Aptroot, 2017. Spores muriform, 40 x 12 µm.

Pyrenula pyrenuloides

Pyrenula rubromamillana E.L. Lima, Aptroot & M. Cáceres, Lichenologist 45(2): 200 (2013)

[ABL42526], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42526), 21-23.10.2017. Det. A. Aptroot, 2017. - Hymenium inspersed, spores 3-septate, 18 x 6 µm.

Pyrenula rubromamillana

Pyxine albovirens (G. Mey.) Aptroot, in Aptroot, Flora of the Guianas, Series E: Fungi and Lichens. Fascicle 1. Pyxinaceae (Koenigstein): 42 (1987)
= *Lecidea albovirens* G. Mey., Prim. fl. esseq.: 295 (1818)

[ABL42833], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42833), 21-23.10.2017. Det. A. Aptroot, 2017. - UV-, medulla yellow.

Pyxine albovirens

Pyxine cocoes (Sw.) Nyl. [as 'cocoës'], Belarra (Bilbao) 5: 108 (1857)
= *Circinaria cocoes* (Sw.) Fée, Essai Crypt. Exot. (Paris): 127 (1825) [1824]
= *Coccocarpia pellita var. cocoes* (Sw.) Zahlbr. [as 'cocoës'], Cat. Lich. Univers. 3: 286 (1925)
= *Lecidea cocoes* (Sw.) Ach. [as 'cocoës'], Methodus, Sectio prior (Stockholmiæ): 84 (1803)
= *Lichen cocoes* Sw. [as 'cocoës'], Prodr.: 146 (1788)
= *Lobaria cocoes* (Sw.) Raeusch. [as 'cocoës'], Nomencl. bot., Edn 3: 331 (1797)

[ABL51037], Brazil, Alagoas, 3 km E of Viçosa. On palm tree along road. 9°22’ S, 36°12’15” W, 300 m. Leg. M. Cáceres, A. Aptroot (no 51037) & J.G. Cavalcante, 27.07.2019. Det. A. Aptroot, 2019.

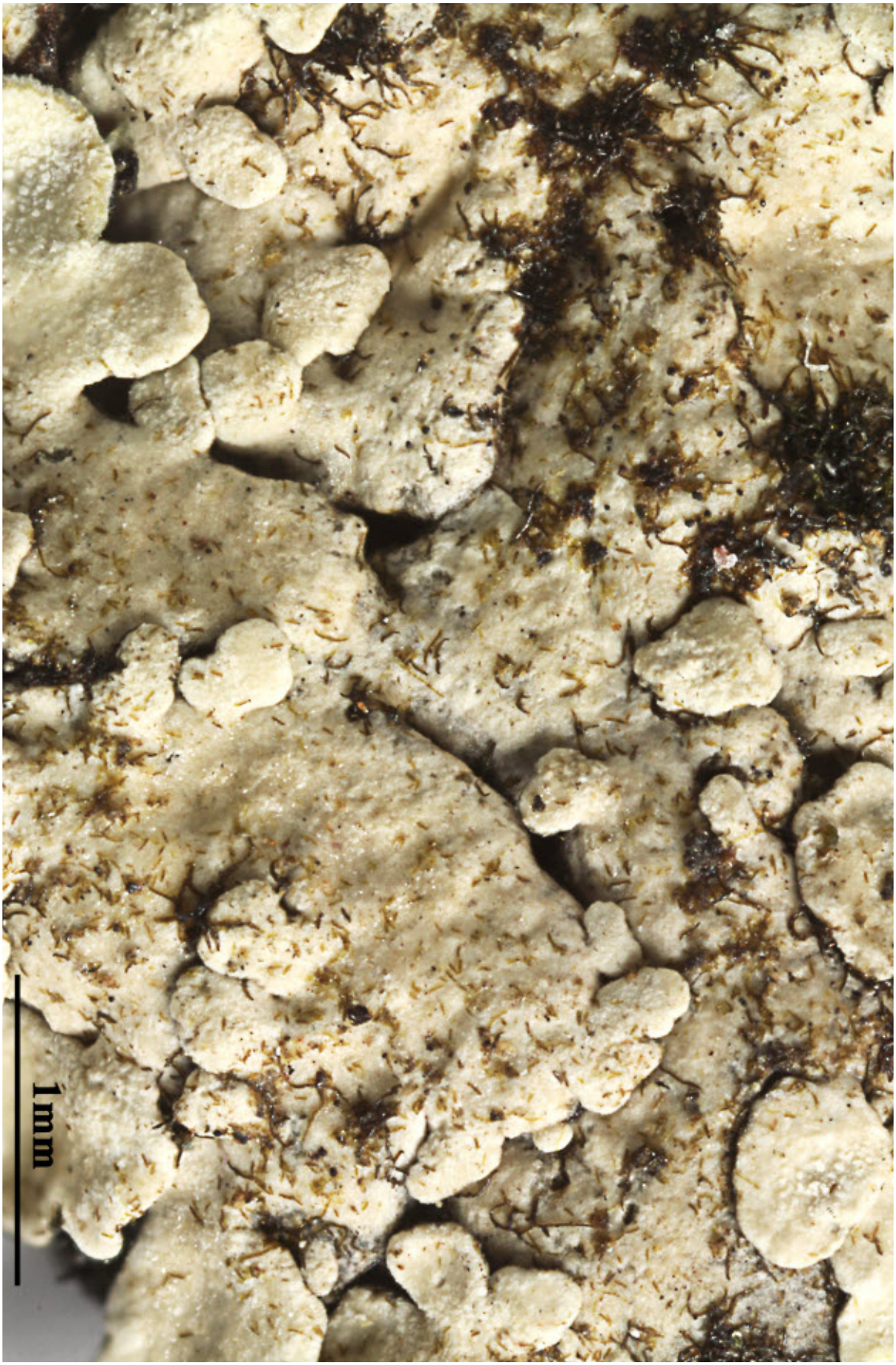
Pyxine cocoes

Pyxine cocoes

Pyxine berteroana (Fée) Imshaug [as 'berteriana'], Trans. Am. microsc. Soc. 76: 254 (1957)
= *Circinaria berteroana* Fée [as 'berteriana'] 1825

[ABL42635], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on wooden pole. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42635), 21-23.10.2017. Det. A. Aptroot, 2017. - Thallus UV+ yellow, medulla yellow.

Pyxine berteroana



Pyxine berteroana

Pyxine berteroana

Pyxine subcinerea Stirt., Trans. Proc. N.Z. Inst. 30: 397 (1898) [1897]
= *Physcia melanenta* C. Knight, Trans. Linn. Soc. London, Bot., Ser. 2 2(2): 48 (1882)
= *Pyxine chrysanthoides* Vain., Ann. Acad. Sci. fenn., Ser. A 6(no. 7): 71 (1915)
= *Pyxine meissneri f. sorediosa* (Müll. Arg.) Müll. Arg., Bot. Jb. 20(1-2): 262 (1894)
= *Pyxine meissneri var. sorediosa* Müll. Arg., Flora, Regensburg 62: 290 (1879)

[ABL42662], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on wooden pole. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42662), 21-23.10.2017. Det. A. Aptroot, 2017. - UV + yellow, medulla yellow.

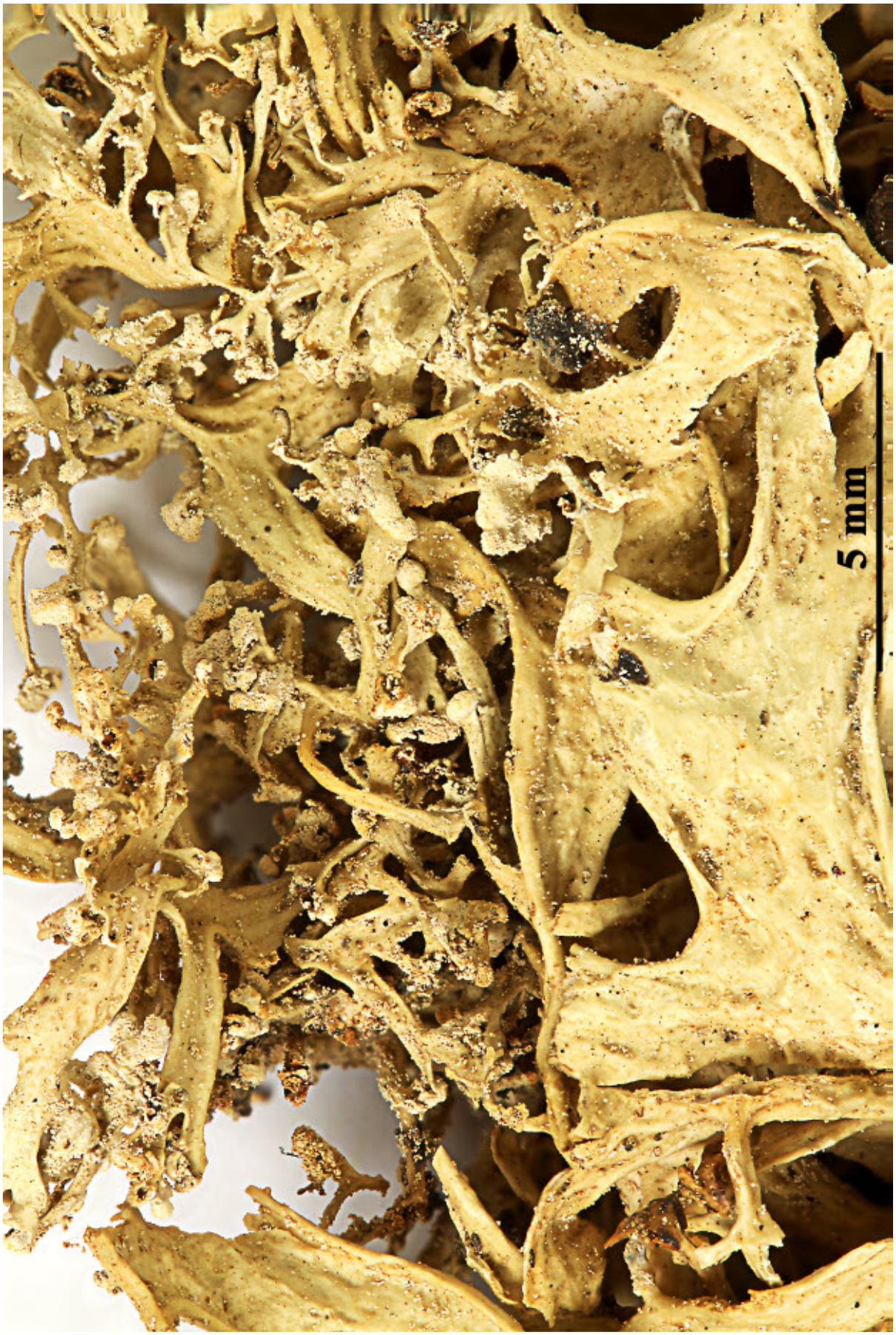
Ramalina aspera Räsänen, Ann. bot. Soc. Zool.-Bot. fenn. Vanamo 20(no. 3): 5 (1944)

[ABL50827], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. On tree bark in Atlantic rain forest. 9°15’ S, 36°25’35” W, 500 m. Leg. M. Cáceres, A. Aptroot (no 50827) & J.G. Cavalcante, 24.07.2019. Det. A. Aptroot, 2019.

Ramalina aspera

Ramalina cochlearis Zahlbr., Bull. Herb. Boissier, 2 sér. 5: 542 (1905)

[ABL50830], Brazil, Alagoas, Quebrangulo, Pedra Talhada plot private area. On tree bark in Atlantic rain forest. 9°15’ S, 36°25’35” W, 500 m. Leg. M. Cáceres, A. Aptroot (no 50830) & J.G. Cavalcante, 24.07.2019. Det. A. Aptroot, 2019.



Ramalina cochlearis

Ramalina dendriscoides Nyl., Flora, Regensburg 59: 412 (1876)

[ABL50902], Brazil, Alagoas, Quebrangulo, Pedra Talhada rock. On tree bark in Atlantic rain forest. 9°15’ S, 36°25’35’’ W, 700 m. Leg. M. Cáceres, A. Aptroot (no 50902) & J.G. Cavalcante, 26.07.2019. Det. A. Aptroot, 2019.

Ramalina dendriscoides

Ramalina denticulata (Eschw.) Nyl., Acta Soc. Sci. fenn. 7(2): 434 (1863)
= *Parmelia denticulata* Eschw., in Martius 1833

[ABL42625], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42625), 21-23.10.2017. Det. A. Aptroot, 2017.

Ramalina denticulata

Ramalina peruviana Ach., Lich. Univ.: 599 (1810)
= *Desmazieria peruviana* (Ach.) Follmann & Huneck, Willdenowia 5: 208 (1969)
= *Fistulariella javanica* (Nyl.) Bowler & Rundel, Mycotaxon 6(1): 198 (1977)
= *Lichen squarrosus* * *peruviana* (Ach.) Lam., Encycl. Méth. Bot., Suppl. (Paris) 3(2): 419 (1813)
= *Ramalina farinacea* f. *squarrosa* (Müll. Arg.) Stizenb., Ber. Tät. St Gall. naturw. Ges.: 138 (1890) [1888-89]
= *Ramalina farinacea* var. *dendroides* Müll. Arg., Flora, Regensburg 66: 21 (1883)
= *Ramalina farinacea* var. *squarrosa* Müll. Arg., Flora, Regensburg 66: 21 (1883)
= *Ramalina javanica* Nyl., Bull. Soc. linn. Normandie, sér. 2 4(2): 167 (1870)
= *Ramalina roesleri* var. *isidiotyla* Vain., Univ. Calif. Publ. Bot. 12(no. 1): 4 (1924)

[ABL50826], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. On tree bark in Atlantic rain forest. 9°15' S, 36°25'35" W, 500 m. Leg. M. Cáceres, A. Aptroot (no 50826) & J.G. Cavalcante, 24.07.2019. Det. A. Aptroot, 2019.

Ramalina peruviana

Ramalina sorediosa (B. de Lesd.) Landrón, Lichenologist 25(1): 25 (1993)
= *Ramalina dasypoga* var. *sorediosa* B. de Lesd. 1934

[ABL42771], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on wooden pole. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42771), 21-23.10.2017. Det. A. Aptroot, 2017.

Ramalina sorediosa

Ramboldia haematites (Fée) Kalb, Lumbsch & Elix, Nova Hedwigia 86(1-2): 33 (2008)

= *Lecidea haematites* Fée, Bull. Soc. bot. Fr. 20: 317 (1873)

= *Pyrrhospora queenslandica* Elix & Kantvilas, Australas. Lichenol. 57: 6 (2005)

[ABL42605], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on wooden pole. 9°15' S, 36°25'35" W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42505), 21-23.10.2017. Det. A. Aptroot, 2017.

Ramboldia haematites

Ramboldia russula (Ach.) Kalb, Lumbsch & Elix, Nova Hedwigia 86(1-2): 37 (2008)

= *Biatora russula* (Ach.) Mont., Annls Sci. Nat., Bot., sér. 2 16: 121 (1841)

= *Lecidea ferruginea var. russula* (Ach.) Eschw., in Martius, Fl. bras. enum. pl. 1(1): 244 (1833)

= *Lecidea russula* Ach., Methodus, Sectio prior (Stockholmiæ): 61 (1803)

= *Lepadolemma russulum* (Ach.) Trevis., Revta Period. Lav. Imp. Reale Acad., Padova 1(3): 268 (1852) [1851-52]

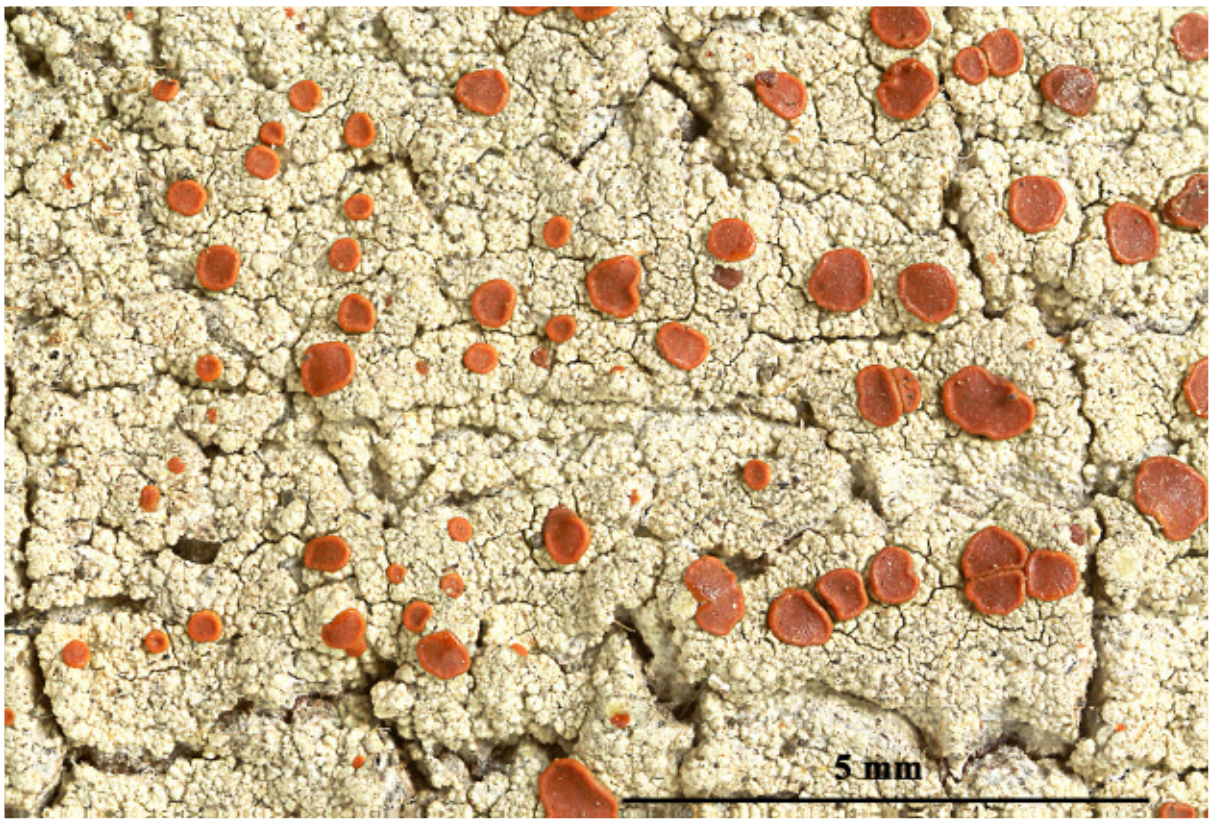
= *Lichen peltatus* * *russula* (Ach.) Lam., Encycl. Méth. Bot., Suppl. (Paris) 3(2): 390 (1813)

= *Patellaria russula* (Ach.) Spreng., Syst. veg., Edn 16 4(1): 267 (1827)

= Protoblastenia russula (Ach.) Räsänen, Rev. Sudamer. Bot. 5: 67 (1938)

= *Pyrrhospora russula* (Ach.) Hafellner, in Kalb & Hafellner, Herzogia 9(1-2): 86 (1992)

[ABL42230], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42230), 21-23.10.2017. Det. A. Aptroot, 2017. - Spores 9-13-septate, 80 x 17 µm.



Ramboldia russula

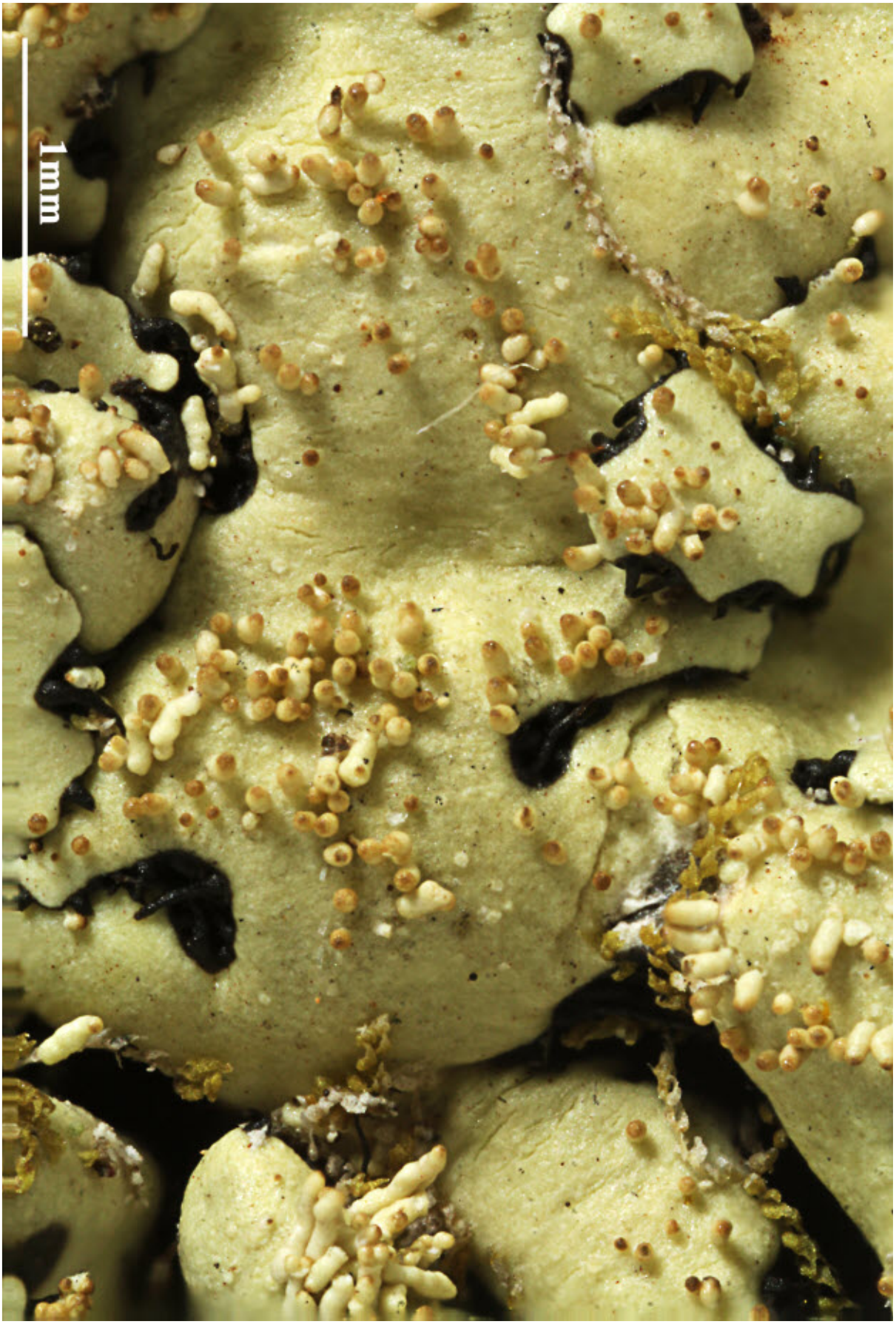
Reimnitzia santensis (Tuck.) Kalb, Mycotaxon 79: 325 (2001)
= *Leptotrema heterosporum* (C. Knight) Zahlbr., Cat. Lich. Univers. 2: 635 (1923) [1924]
= *Leptotrema mastoideum* Müll. Arg., Flora, Regensburg 70: 400 (1887)
= *Leptotrema santense* (Tuck.) Zahlbr., Cat. Lich. Univers. 2: 639 (1923) [1924]
= *Thelotrema heterosporum* C. Knight, in Bailey, Syn. Queensl. Fl. 1(Suppl.): 72 (1886)
= *Thelotrema santense* Tuck., Proc. Amer. Acad. Arts & Sci. 5: 406 (1862) [1860]

[ABL42435], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42435), 21-23.10.2017. Det. A. Aptroot, 2017. Thallus UV-, P-, hymenium not inspersed, spores 8/ascus, muriforme, brown, 12 x 8 µm.

Reimnitzia santensis

Relicina abstrusa (Vain.) Hale, Phytologia 28(5): 484 (1974)
= *Parmelia abstrusa* Vain., Acta Soc. Fauna Flora fenn. 7(no. 1): 64 (1890)

[ABL51031], Brazil, Alagoas, Quebrangulo, Pedra Talhada rock. On exposed siliceous rock in Atlantic rain forest. 9°15' S, 36°25'35" W, 700 m. Leg. M. Cáceres, A. Aptroot (no 51031) & J.G. Cavalcante, 26.07.2019. Det. A. Aptroot, 2019.

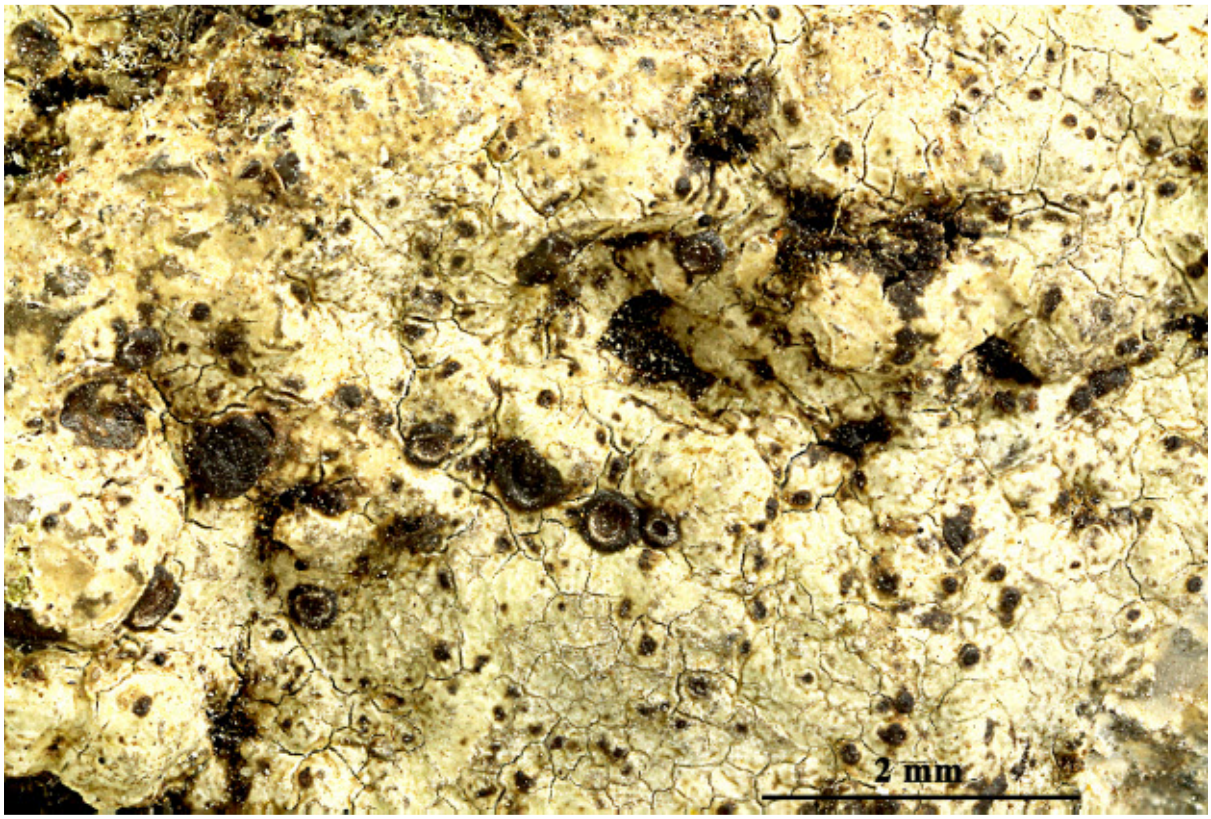


Relicina abstrusa

Relicina abstrusa

Rinodina oxydata (A. Massal.) A. Massal. aggr, Geneac. lich. (Verona): 19 (1854)
= *Mischoblastia oxydata* A. Massal., Ric. auton. lich. crost. (Verona): 42, fig. 73 (1852)
= *Berengeria oxydata* (A. Massal.) Trevis., Spighe Paglie: 6 (1853)
= *Buellia discolor* (Hepp) Anzi, Cat. Lich. Sondr.: 87 (1860)
= *Lecanora discolorans* Nyl., in Weddel, Bull. Soc. bot. Fr. 20: 150 (1873)
= *Lecidea discolor* Hepp, Flecht. Europ.: no. 319 (1857)
= *Rinodina biatorina* Körb., Parerga lichenol. (Breslau) 1: 76 (1859) [1865]
= *Rinodina confragosa var. discolor* (Hepp) Boistel, Nouv. Fl. Lich. (Paris) 2: 151 (1903)
= *Rinodina discolor* (Hepp) Arnold, Flora, Regensburg 55: 36 (1872)
= *Rinodina subarenaria* A.L. Sm., Monogr. Brit. Lich., Edn 2 1: 255 (1918)

[ABL42412], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on granite. 9°15' S, 36°25'35" W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42412), 21-23.10.2017. . Det. A. Aptroot, 2017. - Hymenium not inspersed, spores 8/ascus, 1-septate, 20 x 12 µm



Rinodina oxydata

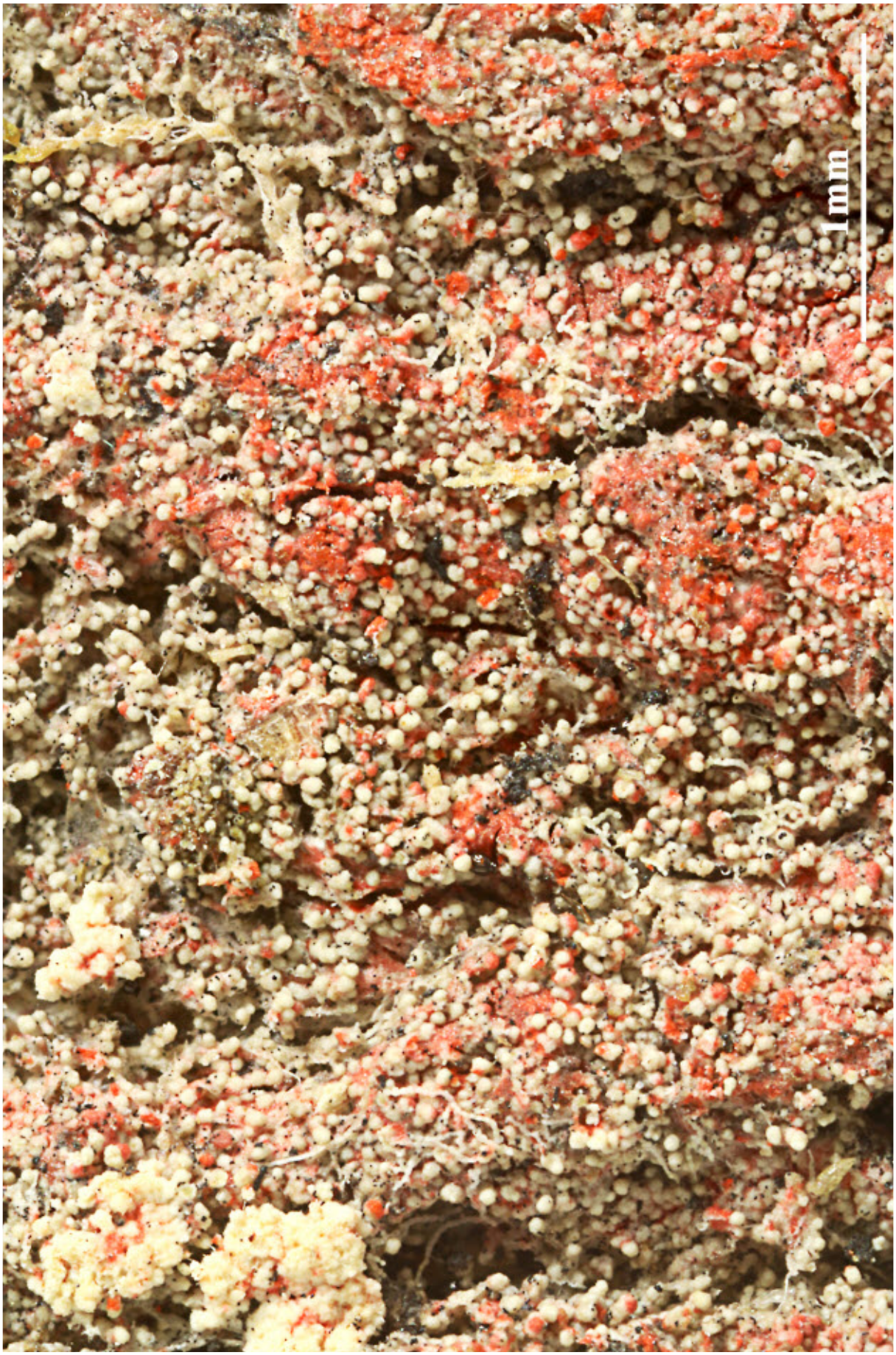
Sagenidiopsis undulata (Fée) Egea, Tehler, Torrente & Sipman [as 'undulatum'], Lichenologist 27(5): 358 (1995)
= *Lecanora undulata* Fée 1825

[ABL42376], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42376), 21-23.10.2017. Det. A. Aptroot, 2017.

Sagenidiopsis undulata

Sprucidea granulosa M. Cáceres, Aptroot & Lücking, in Cáceres, Aptroot & Lücking, Bryologist 120(2): 206 (2017)

[ABL50845], Brazil, Alagoas, Quebrangulo, Pedra Talhada plot A2.2. On tree bark in Atlantic rain forest. 9°15' S, 36°25'35" W, 599 m. Leg. M. Cáceres, A. Aptroot (no 50845) & J.G. Cavalcante, 24.07.2019. Det. A. Aptroot, 2019.



Sprucidea granulosa

Sprucidea gymnopiperis (Kalb) M. Cáceres, Aptroot & Lücking, in Cáceres, Aptroot & Lücking, Bryologist 120(2): 207 (2017)

= *Malmidea gymnopiperis* Kalb, Lichenes Neotropici, Fascicle 14(nos 576-600): 8 (2011)

[ABL42664], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42664), 21-23.10.2017. Det. A. Aptroot, 2017.

Sprucidea gymnopiperis

Staurolemma lineare Aptroot & Schumm sp. nov. **ISOTYPE**

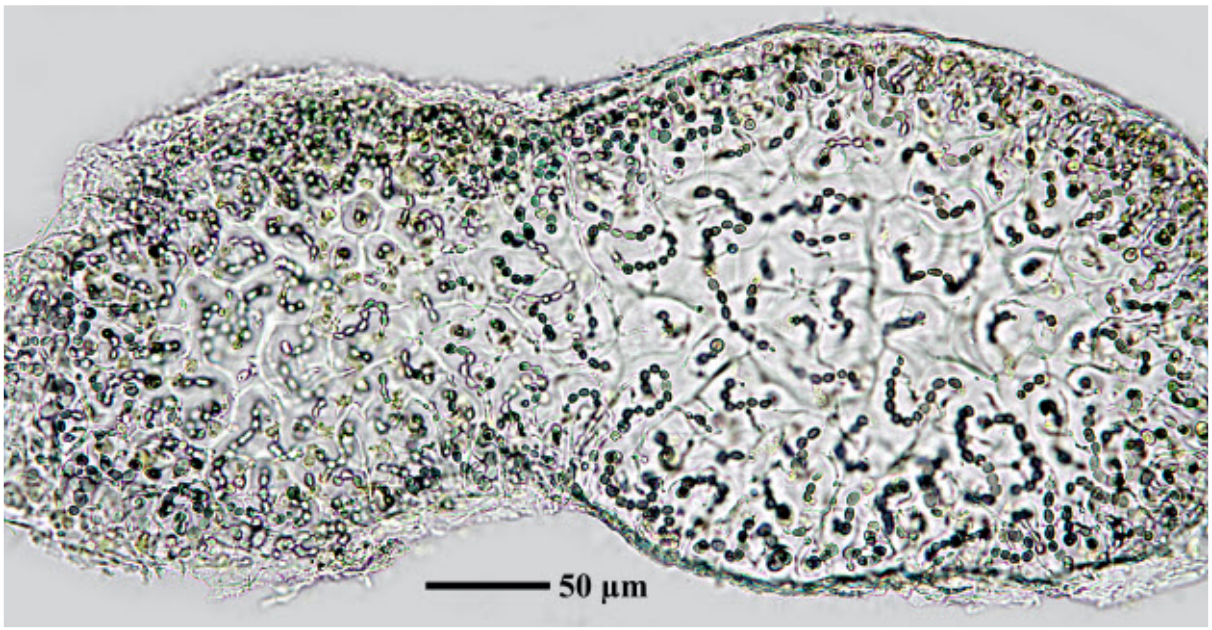
Diagnosis: microfruticose saxicolous *Staurolemma* with ascospores 12-16 x 6-9 µm, with 2 µm thick roughly warted epispore.

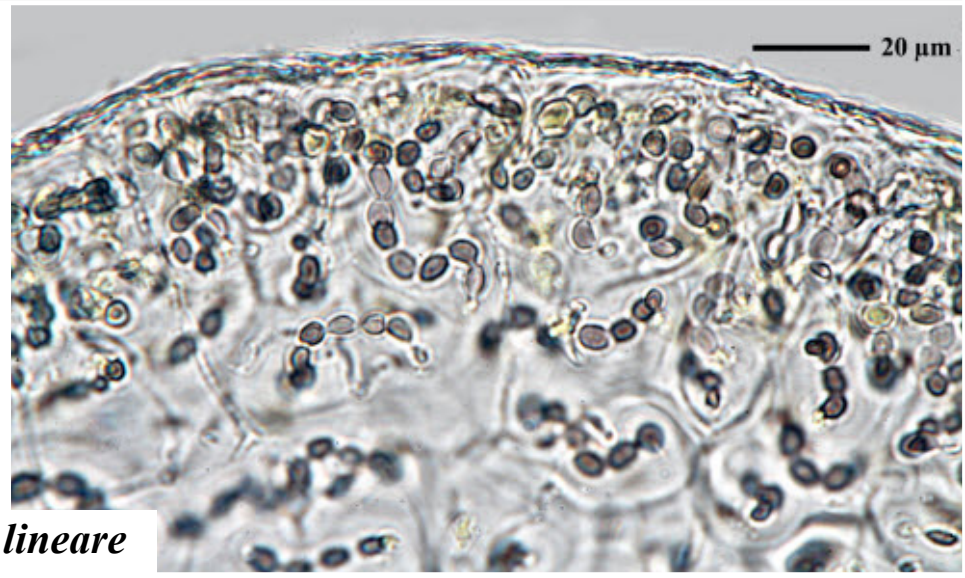
Thallus microfruticose, saxicolous, up to 10 mm diam. Surface brown, rough when dry, lobes c. 0.2-0.3 mm wide, wider than thick, most branchings dichotomous. Cortex prosenplectenchymatous, thallus homeomerous, with *Nostoc* in chains. Apothecia terminal, c. 0.3-0.5 mm diam.; disc beige, flat; margin of thallus structure, lobulate. In section, margin very distinct from generative tissue. Hypothecium c. 200 µm thick, hyaline. Ascospores 6-8 per ascus, hyaline, citriform, ascospores 12-16 x 6-9 µm, wall c. 1 µm thick, with 2 µm thick roughly warted epispore.- ISE 42462-holotype, Mycobank 847502

Discussion: A very characteristic species; sequencing failed, but there is little doubt that this belongs to small genus *Staurolemma*.

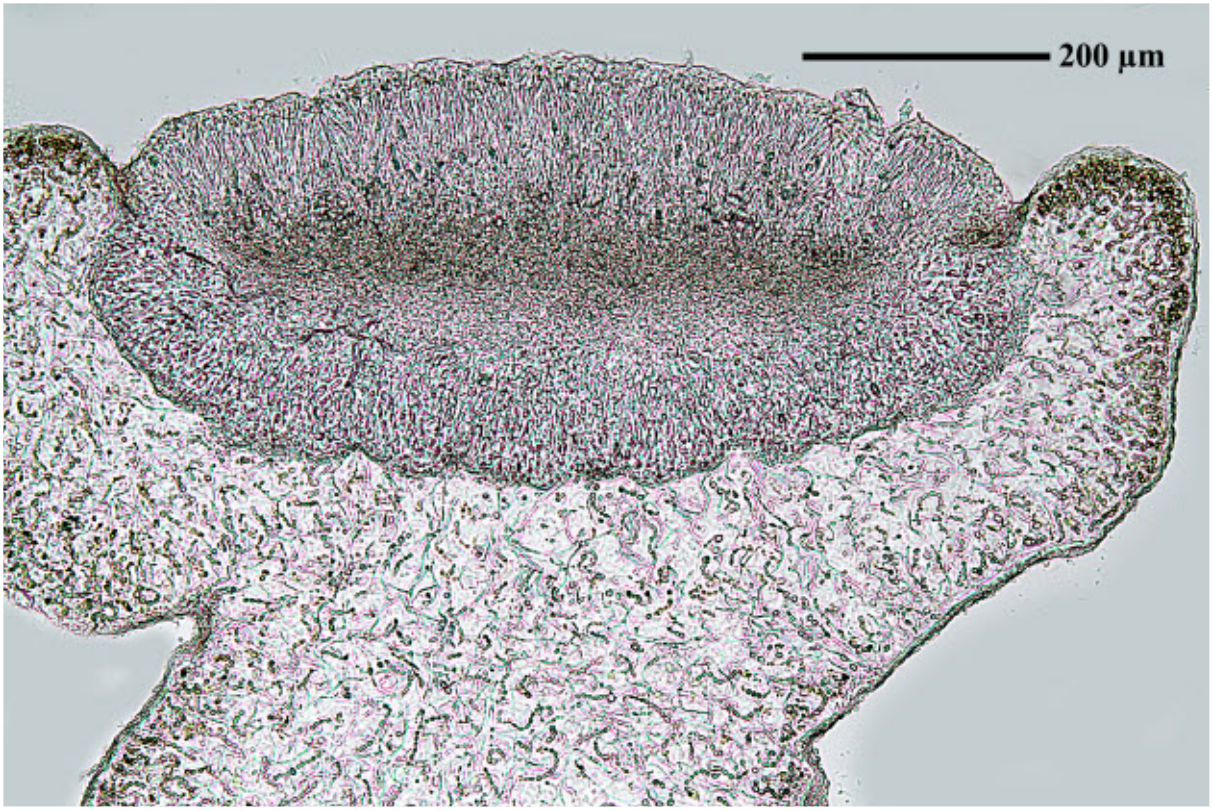
[ABL42462], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on granite. 9°15' S, 36°25'35" W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42462), 21-23.10.2017, det. A. Aptroot, 2017.

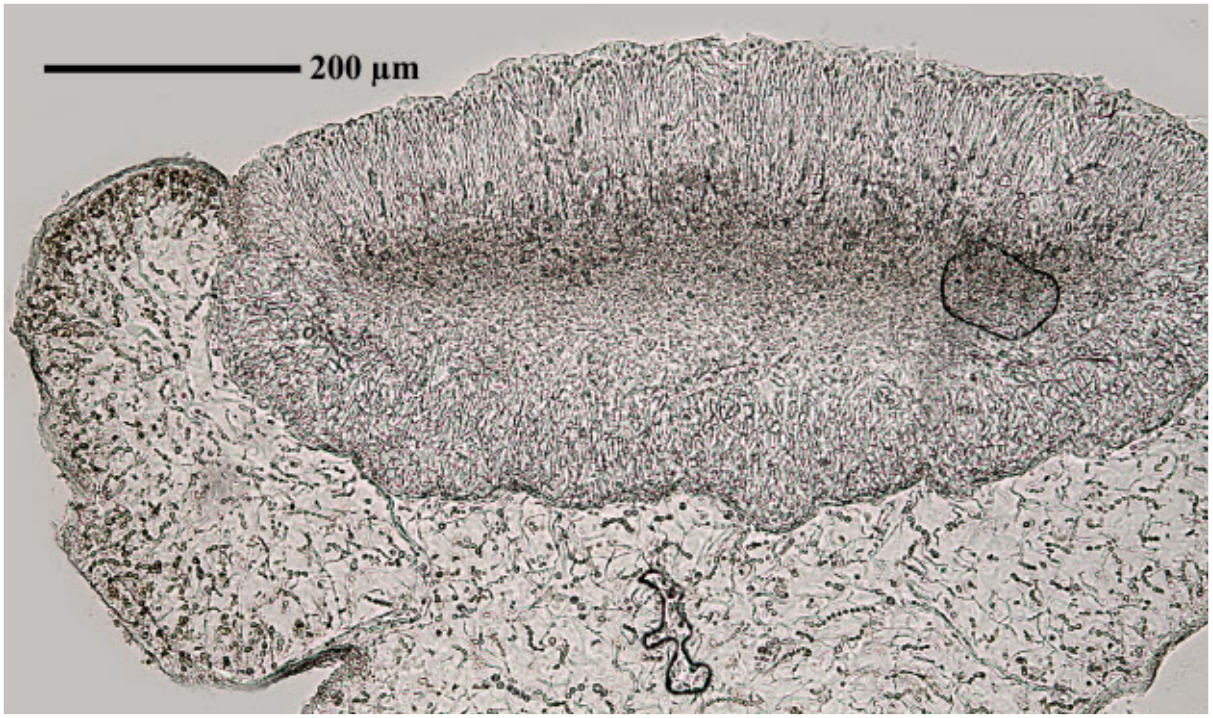
Staurolemma lineare



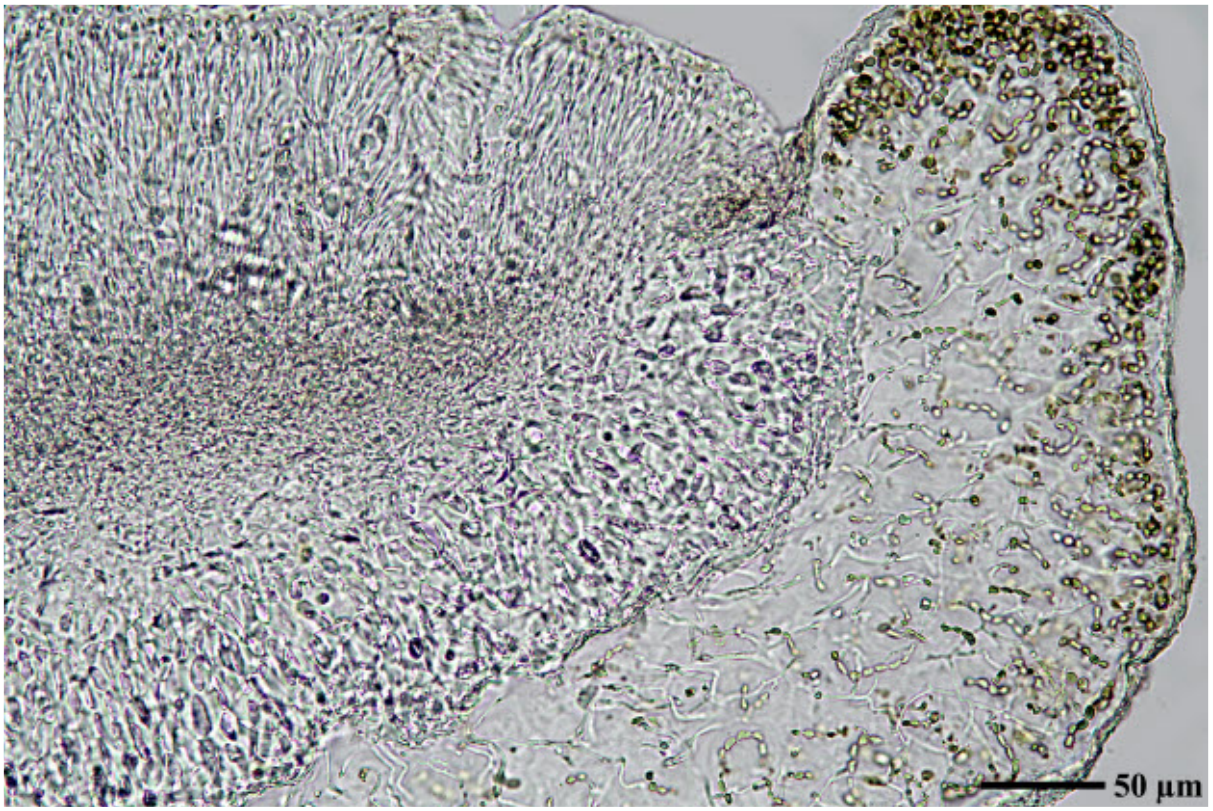


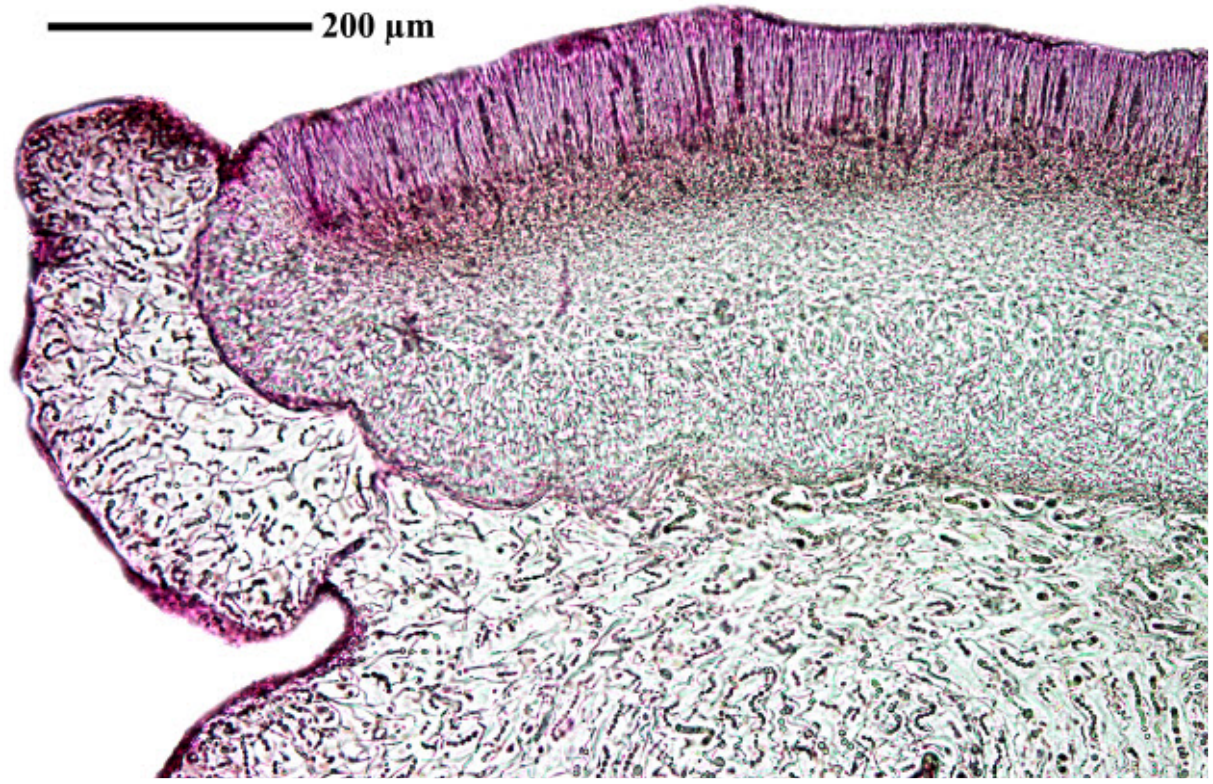
Staurolemma lineare

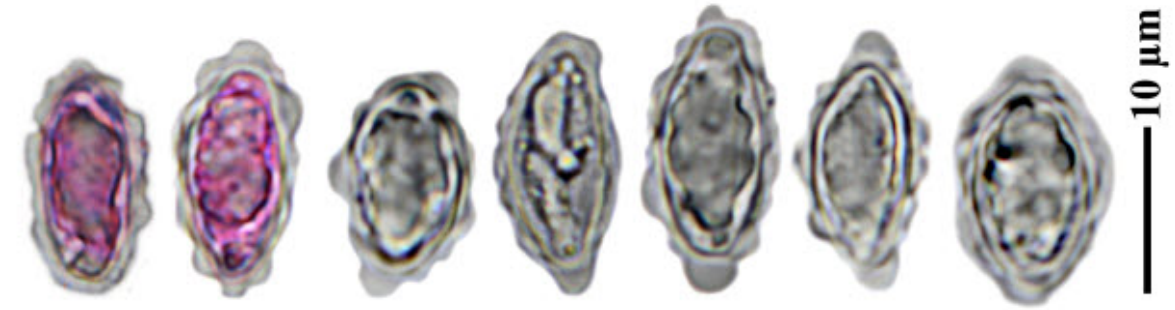




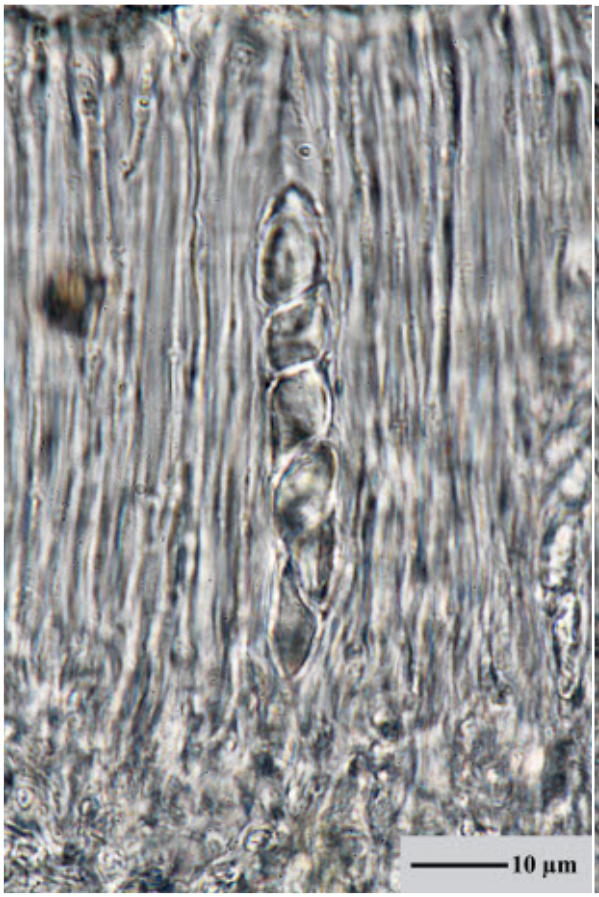
Staurolemma lineare

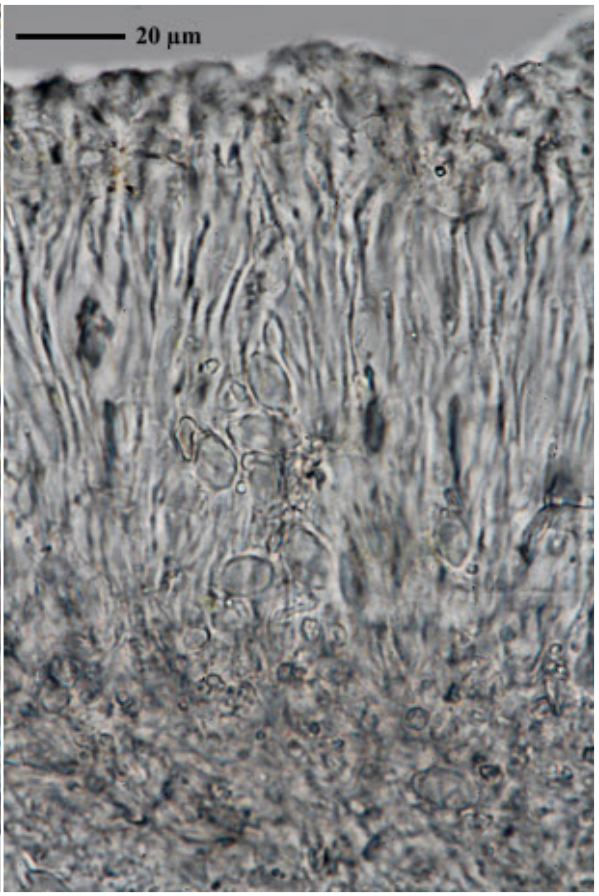






Staurolemma lineare

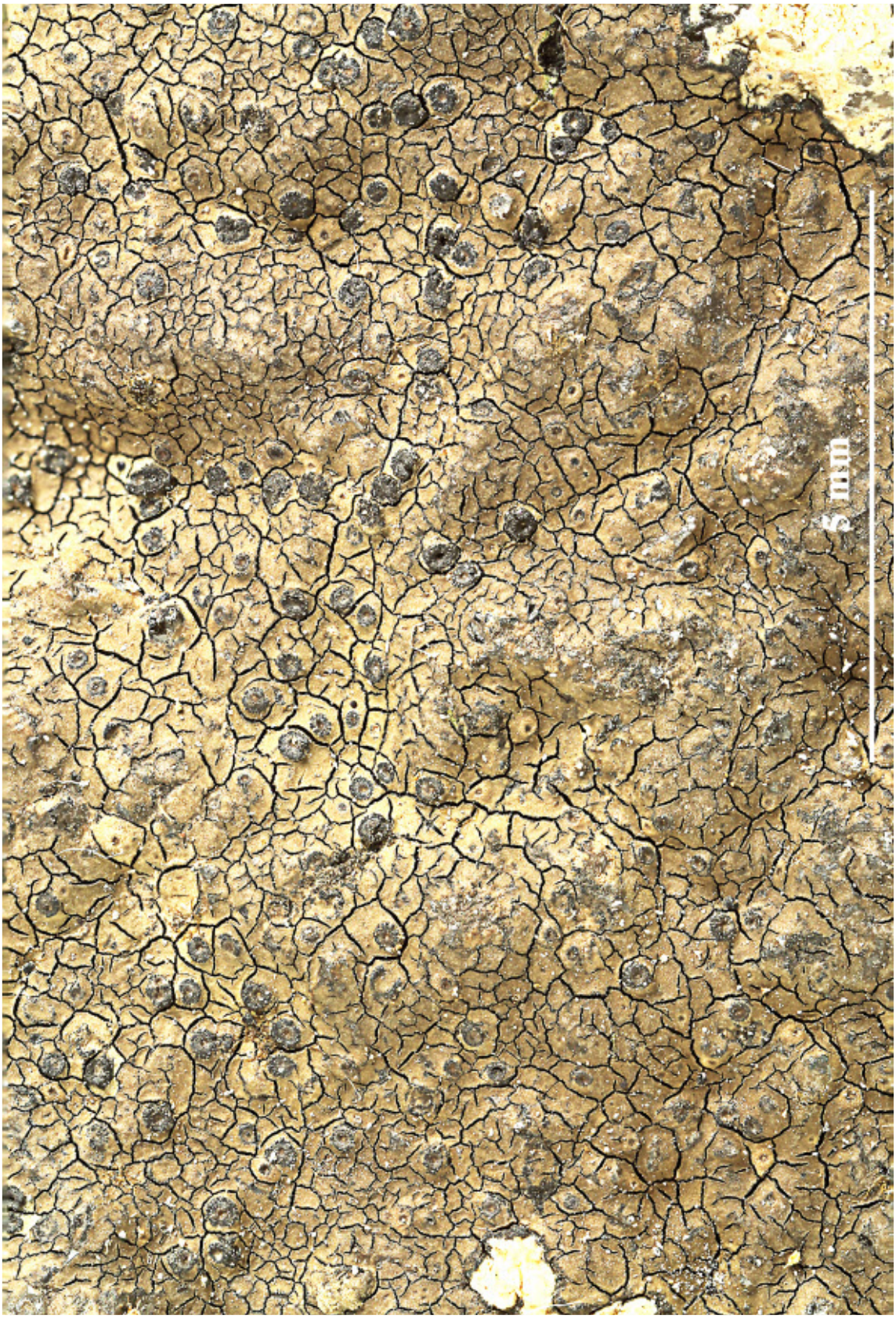




Staurolemma lineare

Staurothele arenaria Malme, Ark. Bot. 29A(no. 6): 7 (1937)

[ABL42411], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on granite. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42411), 21-23.10.2017. . Det. A. Aptroot, 2017. - Spores hyline, densely muriform, 2/ascus, 7-9 x 3-5 µm.

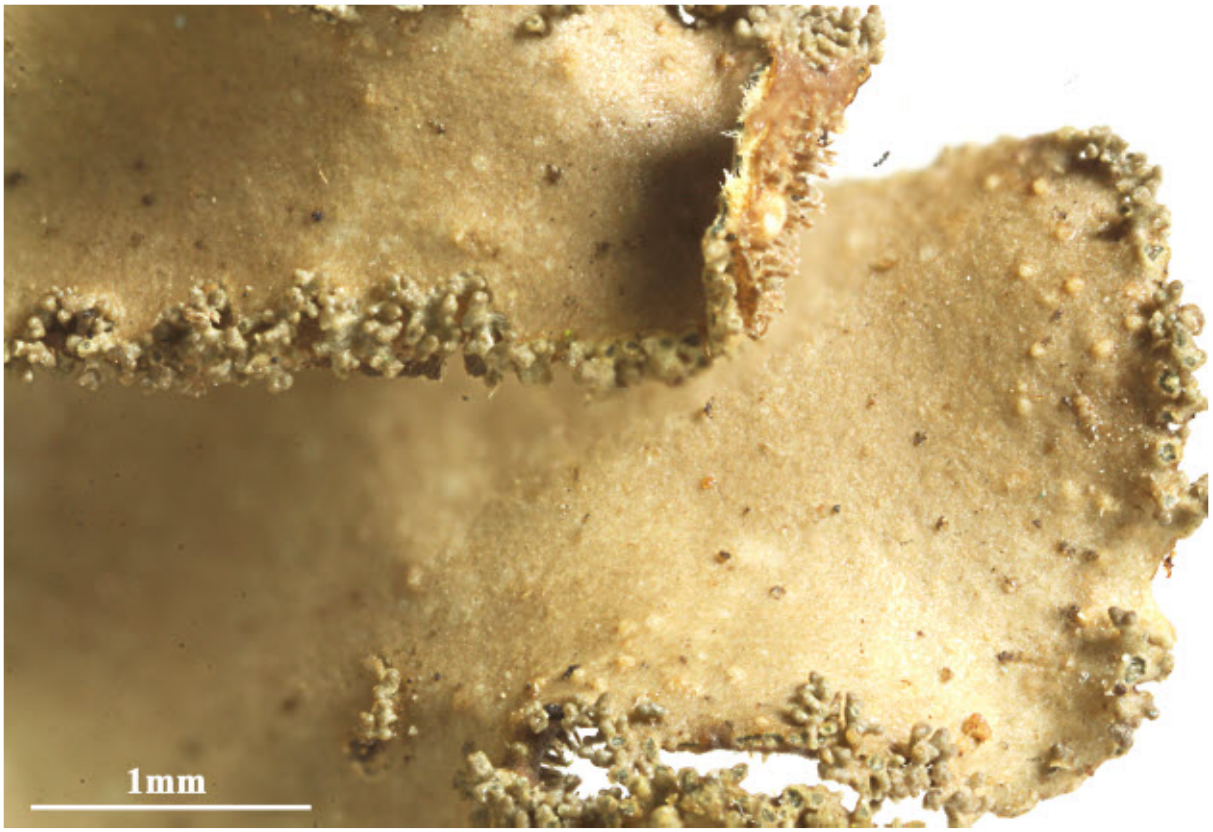


Staurothele arenaria

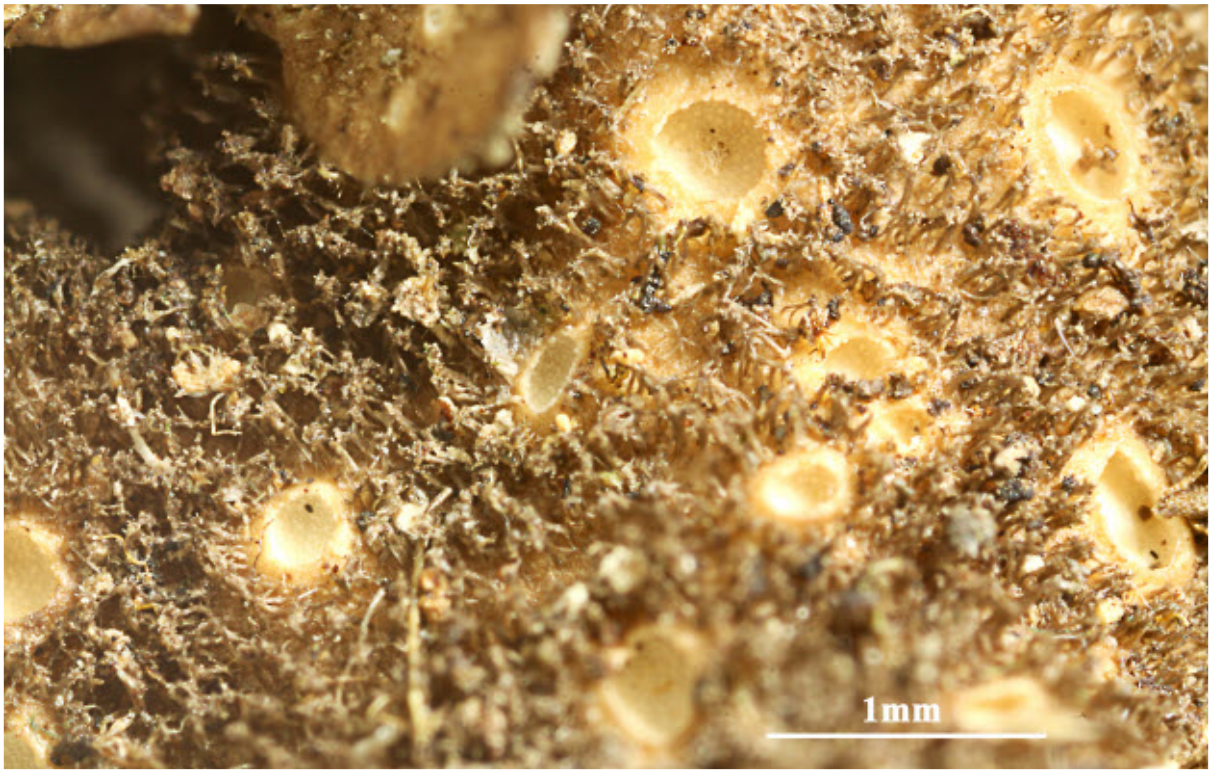
Sticta scabrosa B. Moncada, Merc.-Díaz & Bungartz, in Moncada, Mercado-Díaz, Smith, Bungartz, Sérusiaux, Lumbsch & Lücking, Willdenowia 51(1): 41 (2021)

= *Sticta scabrosa subsp. hawaiiensis* B. Moncada, Lücking & C.W. Sm. , in Moncada, Mercado-Díaz, Smith, Bungartz, Sérusiaux, Lumbsch & Lücking, Willdenowia 51(1): 43 (2021)

[ABL50887], Brazil, Alagoas, Quebrangulo, Pedra Talhada plot N1.3. On tree bark in Atlantic rain forest. 9°15’ S, 36°25’39’’ W, 740 m. Leg. M. Cáceres, A. Aptroot (no 50887) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot, 2019.



Sticta scabrosa



Sticta scabrosa

Stigmatochroma epimartum (Nyl.) Marbach [as 'epimarta'], Biblthca Lichenol. 74: 311 (2000)

= *Buellia parasema* var. *epimarta* (Nyl.) Müll. Arg., Flora, Regensburg 71: 207 (1888)

= *Lecidea disciformis* f. *epimarta* (Nyl.) Nyl., Flora, Regensburg 50(13): 195 (1867)

= *Lecidea disciformis* var. *epimarta* Nyl., Annls Sci. Nat., Bot., sér. 4 15: 48 (1861)

[ABL42793], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on wooden pole. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42793), 21-23.10.2017. Det. A. Aptroot, 2017.

Stigmatochroma epimartum

Stigmatochroma gerontoides (Stirt.) Marbach, Biblthca Lichenol. 74: 314 (2000)
= *Lecidea gerontoides* Stirt. 1876
= *Buellia gerontoides* (Stirt.) Imshaug 1955

[ABL42643], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on wooden pole. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42643), 21-23.10.2017. Det. A. Aptroot, 2017. - UV+ orange; spores grey, 13-15 x 6-7 µm, 1-septate

Stigmatochroma gerontoides

Stigmatochroma metaleptodes (Nyl.) Marbach, Biblthca Lichenol. 74: 319 (2000)

= *Buellia metaleptodes* (Nyl.) G. Pant & D.D. Awasthi, Proc. Indian Acad. Sci., Pl. Sci. 99(4): 383 (1989)

= *Catillaria metaleptodes* (Nyl.) Zahlbr., Cat. Lich. Univers. 4: 57 (1926) [1927]

= *Lecidea metaleptodes* Nyl., Acta Soc. Sci. fenn. 26(no. 10): 15 (1900)

[ABL42610], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In in Atlantic rain forest on wooden pole. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42610), 21-23.10.2017. Det. A. Aptroot, 2017. - Thallus UV+ orange, hymenium not inspersed, spores 1-septate, 17-20 x 7 µm.

Stigmatochroma metaleptodes

Sulzbacheromyces caatingae (Sulzbacher & Lücking) B.P. Hodk. & Lücking, Fungal Diversity 64(1): 176 (2013) [2014]

= *Lepidostroma caatingae* Sulzbacher & Lücking, in Sulzbacher, Baseia, Lücking, Parnmen & Moncada, Bryologist 115(4): 605 (2012)

[ABL50868], Brazil, Alagoas, Quebrangulo, Pedra Talhada plot A2. On soil in Atlantic rain forest. 9°15' S, 36°25'35" W, 500 m. Leg. M. Cáceres, A. Aptroot (no 50868) & J.G. Cavalcante, 24.07.2019. Det. A. Aptroot, 2019.

Sulzbacheromyces caatingae

Syncesia rhizomorpha Tehler, Fl. Neotrop., Monogr. 74: 32 (1997)

[ABL50828], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. On tree bark in Atlantic rain forest. 9°15’ S, 36°25’35” W, 500 m. Leg. M. Cáceres, A. Aptroot (no 50828) & J.G. Cavalcante, 24.07.2019. Det. A. Aptroot, 2019.

Syncesia rhizomorpha

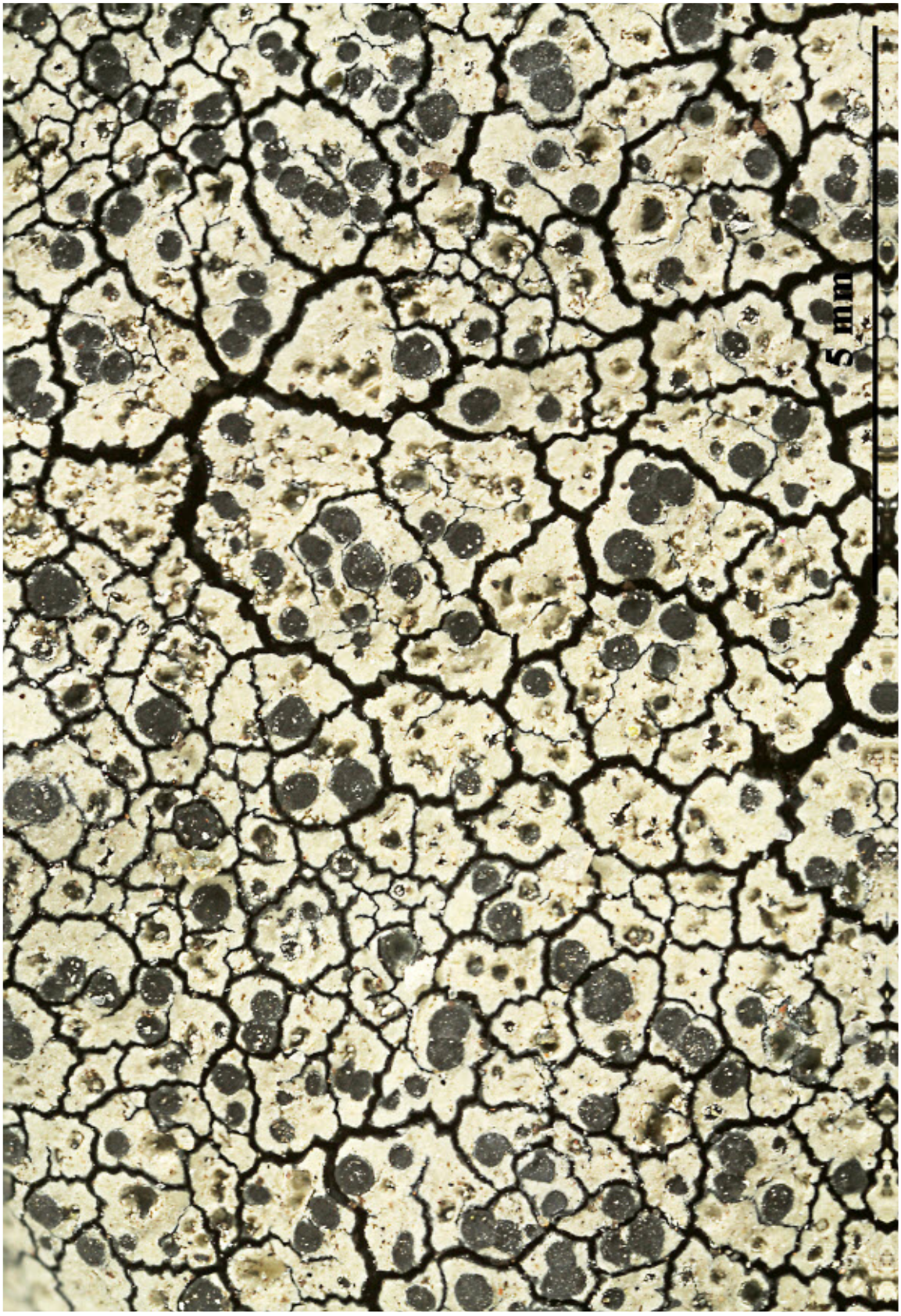
Teloschistes flavicans (Sw.) Norman, Conat. Praem. Gen. Lich.: 18 (1852)
= *Anaptychia flavicans* (Sw.) A. Massal., Mem. Imp. Reale Ist. Veneto 10: 48 (1861)
= *Borrera flavicans* (Sw.) Ach., Lich. Univ.: 504 (1810)
= *Cornicularia flavicans* (Sw.) Schaer., Enum. critic. lich. europ. (Bern): 6 (1850)
= *Evernia flavicans* (Sw.) Fr., Lich. eur. reform. (Lund): 28 (1831)
= *Lichen flavicans* Sw., Prodr.: 147 (1788)
= *Lobaria flavicans* (Sw.) Trevis., Lichenoth. Veneta 1-2: no. 75 (1869)
= *Parmelia chrysophthalma* var. *flavicans* (Sw.) Eschw., in Martius, Fl. bras. enum. pl. 1(1): 224 (1833)
= *Parmelia flavicans* (Sw.) Ach., Methodus, Sectio post. (Stockholmiæ): 268 (1803)
= *Physcia chrysophthalma* var. *flavicans* (Sw.) Tuck., Proc. Amer. Acad. Arts & Sci. 4: 385 (1860)
= *Physcia flavicans* (Sw.) DC., in Lamarck & de Candolle, Fl. franç., Edn 3 (Paris) 2: 189 (1805)
= *Teloschistes chrysophthalmus* var. *flavicans* (Sw.) Tuck., Syn. N. Amer. Lich. (Boston) 1: 49 (1882)
= *Tornabenia flavicans* (Sw.) A. Massal., Memor. Lich.: 42 (1853)
= *Xanthoria flavicans* (Sw.) H. Olivier, Flora Lich. Orne 1: 81 (1882)

[ABL42588], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In in Atlantic rain forest on tree bark. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42588), 21-23.10.2017. Det. A. Aptroot, 2017.

Teloschistes flavicans

Tephromela matogrossensis Kalb & Elix, in Kalb, Biblthca Lichenol. 88: 322 (2004)

[ABL50902], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On exposed siliceous rock in Atlantic rain forest. 9°14’28’’ S, 36°25’11’’ W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50902) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot, 2019.



Tephromela matogrossensis

Thalloloma astroideum (Müll. Arg.) Staiger, Biblthca Lichenol. 85: 431 (2002)

= *Phaeographis astroidea* Müll. Arg., Bull. Soc. R. Bot. Belg. 32(no. 1): 156 (1893)

[ABL42638], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42638), 21-23.10.2017. Det. A. Aptroot, 2017.

Thalloloma astroideum

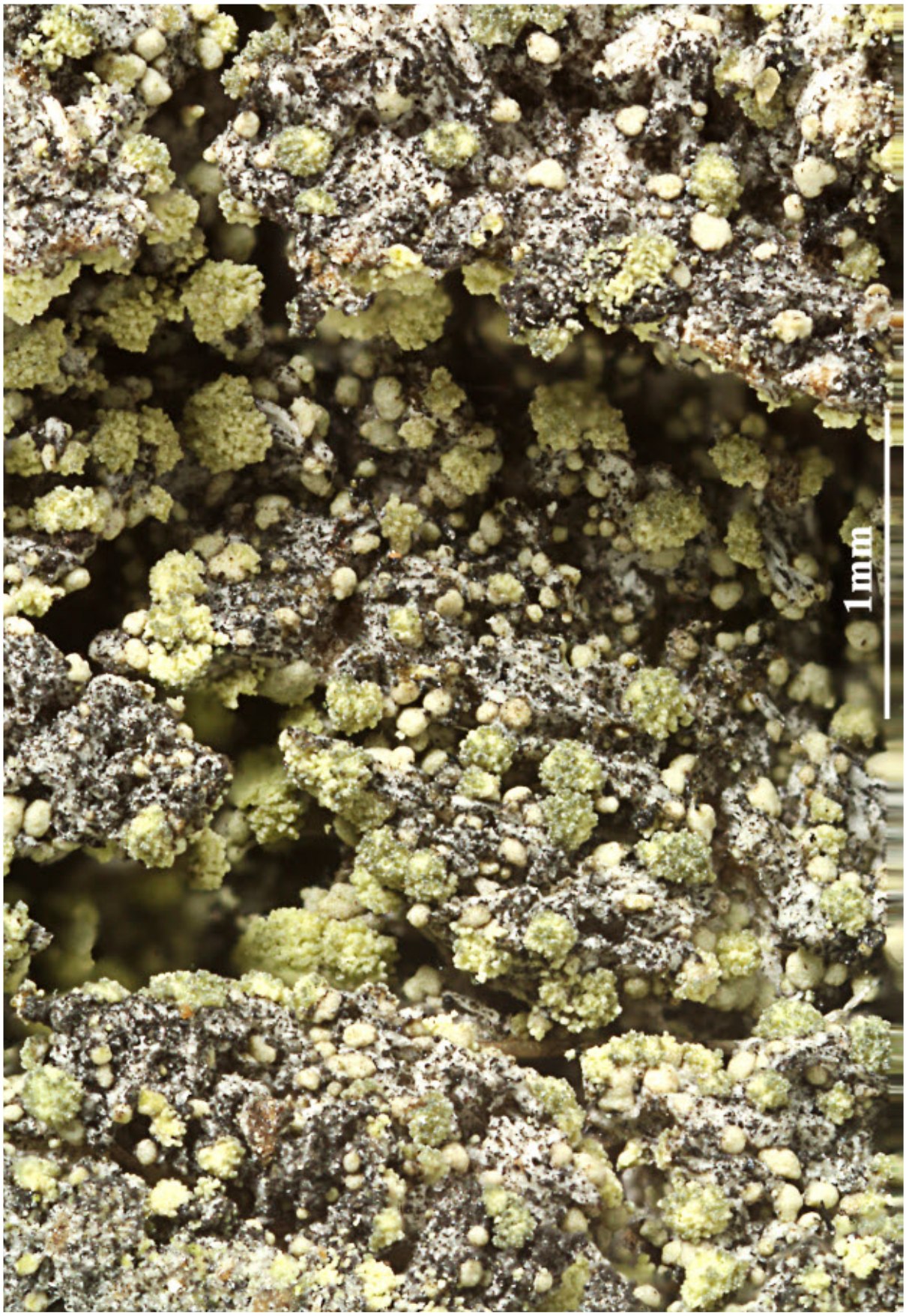
Thelenella luridella (Nyl.) H. Mayrhofer, Biblthca Lichenol. 26: 45 (1987)
= *Luykenia luridella* (Nyl.) Trevis., Conspect. Verruc.: 20 (1860)
= *Microglaena luridella* (Nyl.) Zahlbr., Cat. Lich. Univers. 1: 192 (1921) [1922]
= *Verrucaria luridella* Nyl., Expos. Synopt. Pyrenocarp.: 41 (1858)

[ABL42455], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on granite. 9°15' S, 36°25'35" W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42455), 21-23.10.2017. . Det. A. Aptroot, 2017.

Thelenella luridella

Trapeliopsis flexuosa (Fr.) Coppins & P. James, Lichenologist 16(3): 258 (1984)
= *Biatora decolorans* subvar. *flexuosa* (Fr.) Amo, Fl. Crypt. Penins. Ibér.: 331 (1870)
= *Biatora decolorans* var. *flexuosa* (Fr.) Fr., Lich. eur. reform. (Lund): 267 (1831)
= *Biatora flexuosa* Fr., Nov. Sched. Critic. Lich.: 11 (1826)
= *Biatora granulosa* var. *flexuosa* (Fr.) Flot., Flechten Hirschberg-Warmbrunn: 14 (1839)
= *Lecidea aeruginosa* Borrer, in Hooker & Sowerby, Suppl. Engl. Bot. 1: tab. 2682 (1831)
= *Lecidea decolorans* var. *flexuosa* (Fr.) Link, Grundr. Krauterk. 3: 202 (1833)
= *Lecidea flexuosa* Fr., Bull. Soc. linn. Bordeaux 21: 356 (1825)
= *Lecidea flexuosa* f. *aeruginosa* (Mudd) Leight., Lich.-Fl. Great Brit.: 260 (1871)
= *Lecidea flexuosa* var. *aeruginosa* Mudd, Man. Brit. Lich.: 197 (1861)
= *Lecidea granulosa* var. *flexuosa* (Fr.) Schaer., Enum. critic. lich. europ. (Bern): 138 (1850)
= *Lecidea sapinea* f. *aeruginosa* (Mudd) Zahlbr., Cat. Lich. Univers. 3: 828 (1925)
= *Lecidea sporadiza* Stirt., Grevillea 3(no. 25): 33 (1874)
= *Lecidea wallrothii* subsp. *flexuosa* (Fr.) Lamy, Bull. Soc. bot. Fr. 25(5): 434 (1880) [1878]
= *Trapelia flexuosa* (Fr.) Neuwirth & Türk, Beitr. Naturk. Oberösterreichs 1: 142 (1993)

[ABL50928], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On tree in Atlantic rain forest. 9°14'28" S, 36°25'11" W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50928) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot, 2019.



Trapeliopsis flexuosa

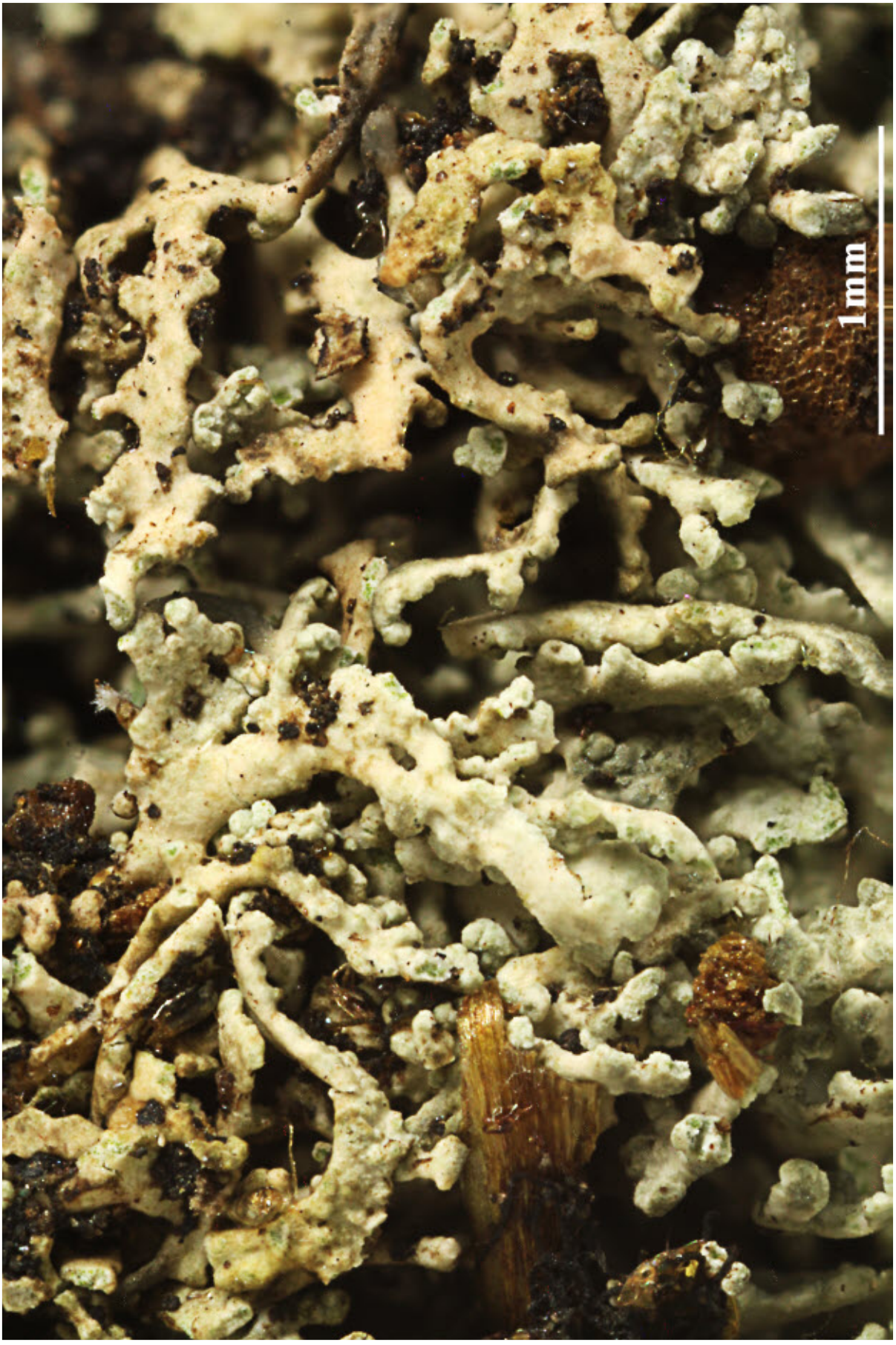
Trapeliopsis studerae Aptroot & M. Cáceres, in Aptroot, Barreto, Peña & Cáceres, Bryologist 121(4): 532 (2018)

[ABL423996], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on granite. 9°15' S, 36°25'35'' W, 700 m. Leg. M. Cáceres & A. Aptroot (no 42399), 21-23.10.2017. . Det. A. Aptroot, 2017. - ISOTYPE

Trapeliopsis studerae

Trapeliopsis studerae Aptroot & M. Cáceres, in Aptroot, Barreto, Peña & Cáceres, Bryologist 121(4): 532 (2018)

[ABL50919], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On exposed siliceous rock in Atlantic rain forest. 9°14'28'' S, 36°25'11'' W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50919) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot, 2019. - TOPOTYPE.

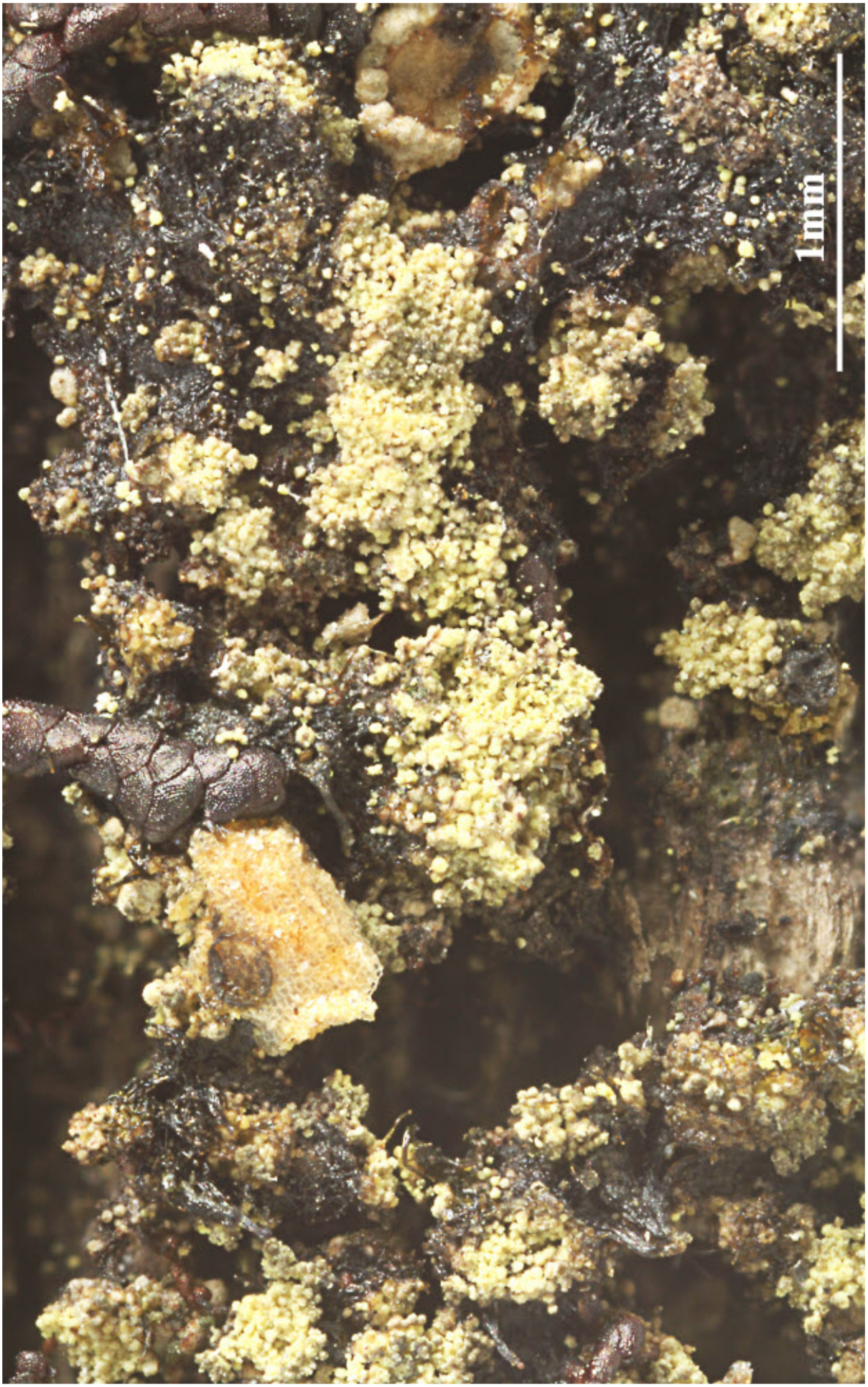


Trapeliopsis studerae

Trapeliopsis studerae

Trapeliopsis viridescens (J.F. Gmel.) Coppins & P. James, Lichenologist 16(3): 263 (1984)
= *Biatora decolorans* f. *viridescens* (J.F. Gmel.) Torss., Enum. Lich. Byssac. Scandin. (Upsaliae): 31 (1843)
= *Biatora sphaeroides* f. *viridescens* (J.F. Gmel.) Rabenh., Deutschl. Krypt.-Fl. (Leipzig) 2(1): 94 (1845)
= *Biatora sphaeroides* var. *viridescens* (J.F. Gmel.) Rabenh., Deutschl. Krypt.-Fl. (Leipzig) 2(1): 94 (1845)
= *Biatora viridescens* (J.F. Gmel.) W. Mann, Lich. Bohem. Observ. Dispos.: 49 (1825)
= *Helocarpon viridescens* (J.F. Gmel.) M. Choisy, Bull. mens. Soc. linn. Soc. Bot. Lyon 19: 12 (1950)
= *Lecidea sphaeroides* var. *viridescens* (J.F. Gmel.) Schaer., Lich. helv. spicil. 4-5: 165 (1833)
= *Lecidea viridescens* (J.F. Gmel.) Ach., Methodus, Sectio prior (Stockholmiæ): 62 (1803)
= *Lichen viridescens* J.F. Gmel., Syst. Nat., Edn 13 2(2): 1361 (1792)
= *Micarea viridescens* (J.F. Gmel.) Brodo, Bryologist 70: 216 (1968)
= *Patellaria viridescens* (J.F. Gmel.) DC., in Lamarck & de Candolle, Fl. franç., Edn 3 (Paris) 2: 350 (1805)
= *Trapelia viridescens* (J.F. Gmel.) V. Wirth, Die Flecht. Baden-Württembergs. Verbreitungsatlas (Stuttgart): 511 (1987)

[ABL42802], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on wooden pole. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42802), 21-23.10.2017. Det. A. Aptroot, 2017. - C+ red.



Trapeliopsis viridescens

Tylophoron hibernicum (D. Hawksw., Coppins & P. James) Ertz, Diederich, Bungartz & Tibell, in Ertz, Bungartz, Diederich & Tibell, Lichenologist 43(4): 354 (2011)

Blarneya hibernica D. Hawksw., Coppins & P. James, Bot. J. Linn. Soc. 79(4): 358 (1980) [1979]

[ABL42636], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42636), 21-23.10.2017. Det. A. Aptroot, 2017. Thallus C+ red

Tylophoron hibernicum

Usnea angulata Ach., Syn. meth. lich. (Lund): 307 (1814)
= *Usnea torquescens* Stirt., Trans. Proc. N.Z. Inst. 30: 391 (1898) [1897]
= *Usnea undulata* Stirt., Scott. Natural., N.S. 1 ('7'): 75 (1883) [1883-1884]

[ABL50989], Brazil, Alagoas, Quebrangulo, Pedra Talhada rock. On tree bark in Atlantic rain forest. 9°15’ S, 36°25’35’’ W, 700 m. Leg. M. Cáceres, A. Aptroot (no 50989) & J.G. Cavalcante, 26.07.2019. Det. A. Aptroot, 2019.

Usnea angulata

Usnea aspera (Eschw.) Vain., Acta Soc. Fauna Flora fenn. 7(no. 1): 71 (1890)

[ABL51006], Brazil, Alagoas, Quebrangulo, Pedra Talhada rock. On exposed siliceous rock in Atlantic rain forest. 9°15’ S, 36°25’35” W, 700 m. Leg. M. Cáceres, A. Aptroot (no 51006) & J.G. Cavalcante, 26.07.2019. Det. A. Aptroot, 2019.

Usnea aspera

Usnea complecta Motyka, Lich. Gen. Usnea, Stud. Monogr. (Leopoli) 2: 404, 407 (1937)

[ABL50987], Brazil, Alagoas, Quebrangulo, Pedra Talhada rock. On exposed siliceous rock in Atlantic rain forest. 9°15’ S, 36°25’35” W, 700 m. Leg. M. Cáceres, A. Aptroot (no 50987) & J.G. Cavalcante, 26.07.2019. Det. A. Aptroot, 2019.

Usnea complecta

Usnea dasaea Stirt., Scott. Natural. 6(3): 104 (1881) [1881-1882]
= *Usnea cornuta* Körb., Parerga lichenol. (Breslau) 1: 2 (1859) [1865]
= *Usnea bornmuelleri* var. *brasiliensis* Zahlbr., Cat. Lich. Univers. 6: 543 (1930)
= *Usnea brasiliensis* (Zahlbr.) Motyka, Lich. Gen. Usnea, Stud. Monogr. (Leopoli) 2: 486 (1937)
= *Usnea ceratina* f. *inflata* Duby, Bot. Gall., Edn 2 (Paris) 2: 615 (1830)
= *Usnea constrictula* Stirt., Scott. Natural. 6(3): 109 (1881) [1881-1882]
= *Usnea cornuta* subsp. *brasiliensis* (Zahlbr.) P. Clerc, Biblthca Lichenol. 88: 81 (2004)
= *Usnea inflata* Delise, in Duby, Bot. Gall., Edn 2 (Paris) 2: 615 (1830)
= *Usnea inflata* var. *cornuta* (Körb.) Clauzade & Cl. Roux, Bull. Soc. bot. Centre-Ouest, Nouv. sér., num. spec. 7: 829 (1985)
= *Usnea intexta* Stirt., Scott. Natural. 6(3): 102 (1881) [1881-1882]
= *Usnea intexta* var. *constrictula* (Stirt.) D. Hawksw. & D. Chapm., Fld Stud. 3(4): 571 (1972)
= *Usnea subpectinata* Stirt., Scott. Natural. 6(3): 108 (1881) [1881-1882]

[ABL50829], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. On tree bark in Atlantic rain forest. 9°15’ S, 36°25’35’’ W, 500 m. Leg. M. Cáceres, A. Aptroot (no 50829) & J.G. Cavalcante, 24.07.2019. Det. A. Aptroot, 2019.

Usnea dasaea

Usnea dasaea

Usnea densirostra Taylor, London J. Bot. 6: 192 (1847)

[ABL50947], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On exposed siliceous rock in Atlantic rain forest. 9°14’28” S, 36°25’11” W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50947) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot, 2019.

Usnea densirostra

Usnea perhispidella J. Steiner, Sber. Akad. Wiss. Wien, Math.-naturw. Kl., Abt. 1 106: 210 (1897)

[ABL50971], Brazil, Alagoas, Quebrangulo, Pedra Talhada rock. On tree bark in Atlantic rain forest. 9°15’ S, 36°25’35’’ W, 700 m. Leg. M. Cáceres, A. Aptroot (no 50971) & J.G. Cavalcante, 26.07.2019. Det. A. Aptroot, 2019.

Usnea perhispidella

Usnea rubiginea (Michx.) A. Massal., Mem. Imp. Reale Ist. Veneto 10: 45 (1861)
= *Usnea florida* var. *rubiginea* Michx. 1803

[ABL50922a], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On rock in exposed area in Atlantic rain forest. 9°14’28’’ S, 36°25’11’’ W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50922a) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot, 2019.

Usnea rubiginea

Xanthoparmelia brasiliensis T.H. Nash & Elix [as 'braziliensis'], in Nash, Gries & Elix, Biblthca Lichenol. 56: 36 (1995)

[ABL51003], Brazil, Alagoas, Quebrangulo, Pedra Talhada rock. On exposed siliceous rock in Atlantic rain forest. 9°15’ S, 36°25’35” W, 700 m. Leg. M. Cáceres, A. Aptroot (no 51003) & J.G. Cavalcante, 26.07.2019. Det. A. Aptroot, 2019.

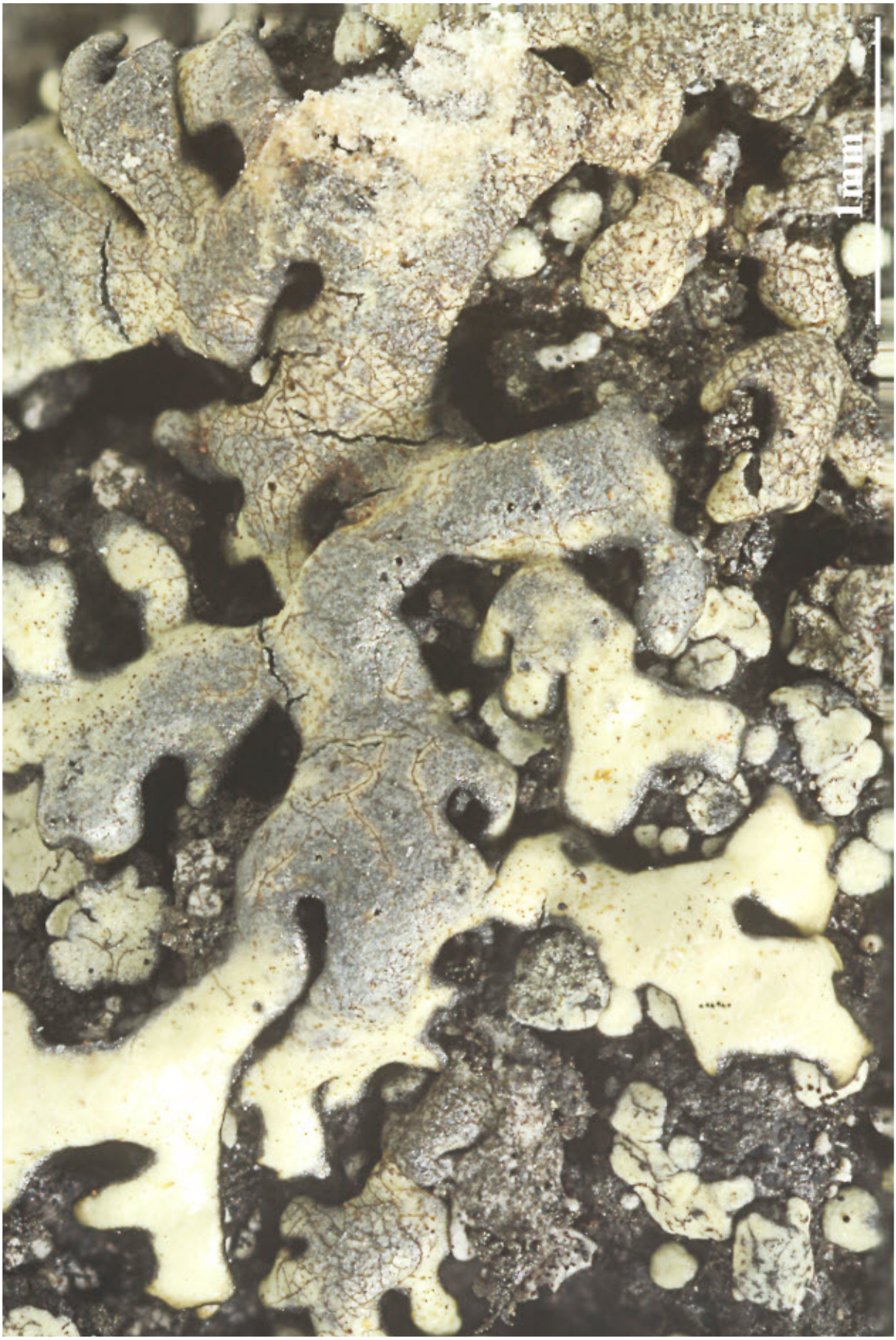
Xanthoparmelia brasiliensis

Arthonia antillarum (Fée) Nyl., Flora, Regensburg 50: 7 (1867)
= *Coniocarpon antillarum* Fée 1837

[ABL42216], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In Atlantic rain forest on tree bark. 9°15' S, 36°25'35'' W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42216), 21-23.10.2017. Det. A. Aptroot, 2017. - Thallus UV+ yellow

Xanthoparmelia monastica T.H. Nash & Elix, in Nash, Gries & Elix, Biblthca Lichenol. 56: 76 (1995)

[ABL42572], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In in Atlantic rain forest on granite. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42572), 21-23.10.2017. . Det. A. Aptroot, 2017.



Xanthoparmelia monastica

Xanthoparmelia neopropaguloides Hale, Smithson. Contr. bot. 74: 157 (1990)

= *Xanthoparmelia masonii* Elix, Mycotaxon 47: 124 (1993)

= *Parmelia neopropagulifera* Gyeln., Annls hist.-nat. Mus. natn. hung. 31: 39 (1938)

= *Parmelia propagulifera* (Vain.) Zahlbr., Cat. Lich. Univers. 6: 74 (1929) [1930]

= *Parmelia stenophylloides* var. *propagulifera* Vain., Acta Soc. Fauna Flora fenn. 7(no. 1): 62 (1890)

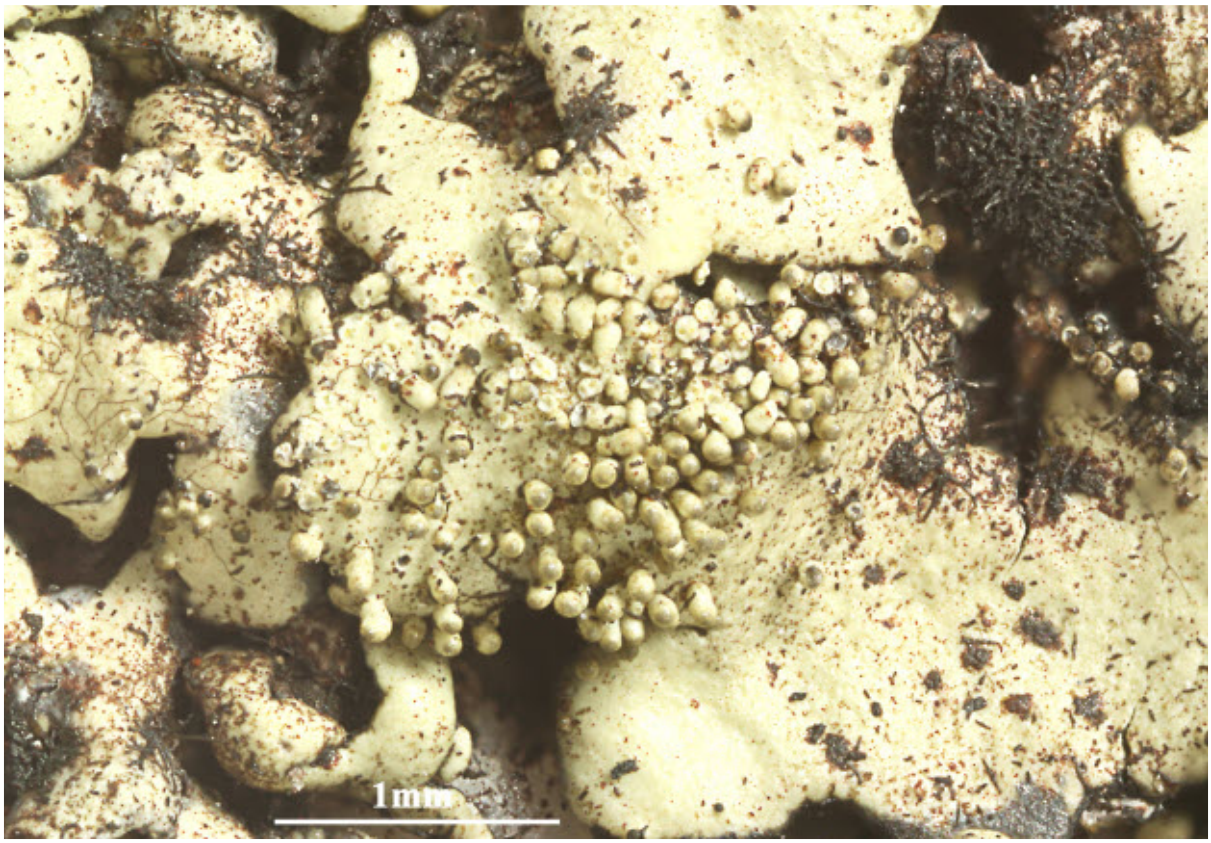
= *Xanthoparmelia neopropagulifera* (Gyeln.) Hale, Mycotaxon 30: 324 (1987)

[ABL42566], Brazil, Alagoas, Quebrangulo, Pedra Talhada private area. In in Atlantic rain forest on granite. 9°15’ S, 36°25’35” W, 500-700 m. Leg. M. Cáceres & A. Aptroot (no 42566), 21-23.10.2017. . Det. A. Aptroot, 2017.

Xanthoparmelia neopropaguloides

Xanthoparmelia plittii (Gyeln.) Hale, Phytologia 28(5): 488 (1974)
= *Parmelia plittii* Gyeln., Feddes Repert. Spec. Nov. Regni veg. 29: 287 (1931)

[ABL50909], Brazil, Alagoas, Quebrangulo, Pedra Talhada, Serra do Boi. On exposed siliceous rock in Atlantic rain forest. 9°14’28’’ S, 36°25’11’’ W, 800 m. Leg. M. Cáceres, A. Aptroot (no 50909) & J.G. Cavalcante, 25.07.2019. Det. A. Aptroot, 2019.



Xanthoparmelia plittii

Brazil Band II - region Alagoas with all synonyms

A

Acarospora dissipata H. Magn..... 2
Acarospora oligyrophorica Aptroot..... 4
Acolium hawaiense Tuck..... 354
Acrorixis actinostoma (Ach.) Trevis..... 165
Agonimia opuntiella (Buschardt & Poelt) Vězda..... 6, 7
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Alyxoria diaphora Gray..... 12
Alyxoria varia (Pers.) Ertz & Tehler..... 12
Amandinea melaxanthella (Nyl.) Marbach..... 15
Anaptychia applanata (Fée) A. Massal..... 167
Anaptychia flavicans (Sw.) A. Massal..... 574
Anaptychia lutescens Kurok..... 243
Anisomeridium flavovulcanum Komposch..... 339
Anisomeridium subprostans (Nyl.) R.C. Harris..... 17
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Arthonia antillarum (Fée) Nyl..... 610
Arthonia aspersa c marginata (Hook.) Arnold..... 505
Arthonia parantillarum Aptroot..... 18
Arthonia punctiformis Eschw..... 349
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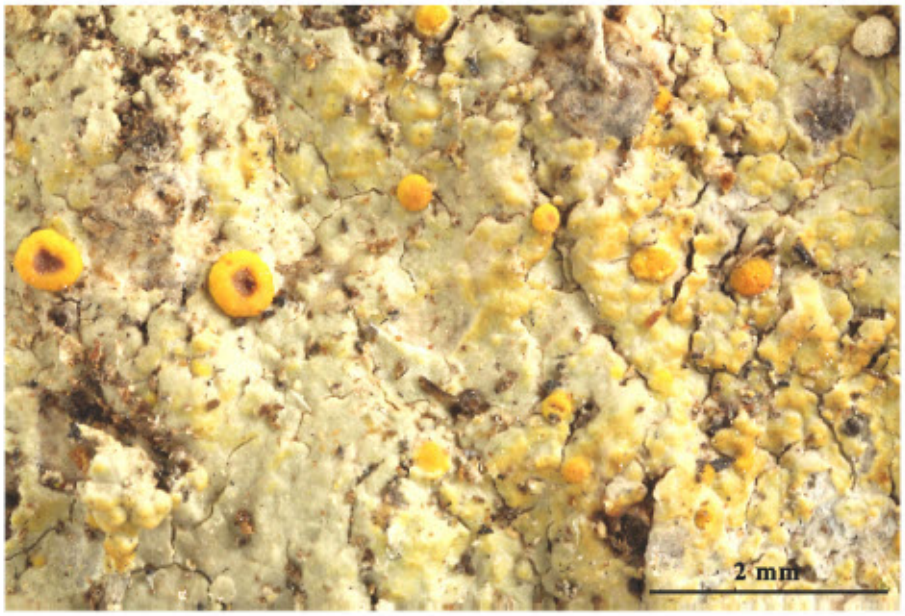

Felix Schumm & André Aptroot

Brazilian Lichens
collected by Dr. Andre Aptroot

Vol. 1 Acre

This book illustrates lichens that were recently collected in Alagoas state in Brazil. For many species, this is the first time that colour pictures are published. Full references to the descriptive literature and to synonyms are given.

New species
Staurolemma lineare Aptroot & Schumm