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## New lichen records from Brazil

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**Abstract:** Based on recent records, 89 lichen species are reported as new to Brazil. For the genera *Ancistrosporella*, *Jamesiella*, *Lambiella*, *Paulia*, *Polyblastia*, *Porocyphus*, and *Trimmatothele*, it is the first time they are reported from Brazil. Many more, in total 523 species, are newly reported from individual states.

### Introduction

In the years 2012-2021, the first author made many collecting trips all over Brazil, always together with Brazilian colleagues, often with one or more of the other authors. Trips included organized expeditions, small day trips, and trips associated to organized meetings like EGBL, and congresses. Although many species were published already, in over 100 recent publications by the authors (e.g. Aptroot & Cáceres 2016 & 2018, Aptroot & Souza 2021a & 2021b, Aptroot & Spielmann 2020, Aptroot et al. 2016, 2017a, 2017b, 2021a, 2021b & 2021c, Cáceres & Aptroot 2016 & Cáceres et al. 2017), many records were not yet published. As we are planning a checklist of the lichens of Brazil with indication from which states a species have been published, after our checklist of lichenicolous fungi from Brazil (Etayo et al. 2020) was published, we felt that it would be better to publish additional records separately, so as not to combine literature reports with new records based on specimen. This way the checklist will better reflect the current state of knowledge of Brazilian lichens. The average size of the 26 states, which is roughly the size of an average European country, warrants this distinction. Here

we report records of species that we are not aware of being published before from the respective states (other than may be implicitly, without any details in a list, or with a different species concept; our apologies if we overlooked some published records), all based on identifications by the first author, also including some duplicates of specimens collected by Cléverton Mendonça.

### Material and methods

Specimens were observed with an Olympus SZX7 with an attached Nikon Coolpix 995. Hand-made sections of ascomata and thallus were studied in water, 5% KOH and/or Lugol's reagent (1% I<sub>2</sub>) after pre-treatment with KOH. Microscopic observations were made using an Olympus BX50 with Nomarski interference contrast and an attached Nikon Coolpix 995. Chemical spot reactions were applied where needed, and thin-layer chromatography (Orange et al. 2001) has been undertaken using solvent TDA. All specimens are preserved in CGMS.

Names are those that are currently accepted by the authors and as they will appear in the checklist. Details given for each record are State, locality (generally community), substratum, collector(s) and number, either Aptroot collecting number or ISE herbarium number. Aptroot collections are preserved in CGMS, with some duplicates in ABL; ISE collections are preserved in ISE, usually with duplicates in ABL. For each new record only one representative specimen is cited, even when more specimens of the same species were identified. All collections are recent, from 2012 or later. Most collections (e.g. all from Paraná and Minas Geraes, and many from Mato Grosso do Sul) are made as recent as in 2021.

Species new to Brazil are marked with a !

### Results

We report here 89 lichen species new to Brazil plus 523 species new to one or more individual states. Most records are not unexpected, but it also includes records way outside the previously known distribution inside Brazil or worldwide. Examples are e.g. some species of *Bacidina*, *Fellhanera* and *Lecidea* s.s., *Trapeliopsis studerae*, and *Veizdaea stipitata*. For the genera *Ancistrosporella*, *Jamesiella*, *Lambiella*, *Paulia*, *Polyblastia*, *Porocyphus*, and *Trimmatothele*, it is the first time they are reported from Brazil. In the latter case, this usually are species which are well familiar to the first author, including some that he actually described as new species from Europe. Not all identifications are equally certain. But there is no doubt that there exist species with a wide world distribution, and there are cases where ITS sequences from Brazilian specimens are identical to European specimens. Several of the specimens below have been sequenced or in

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the process of being sequenced, as they are all recent and identified. Future work might show different opinions on some specimens, but we prefer to publish all records here also to attract attention to the vast lichen diversity of Brazil.

*Acanthothecis hololeuroides* (Nyl.) Staiger & Kalb  
Sergipe: São Cristovão, bark, Cáceres & Aptroot, ISE 42909

*Acanthothecis leucoxantha* (Müll. Arg.) Staiger & Kalb  
Mato Grosso do Sul: Campo Grande, bark, Aptroot 79059

*Acanthothecis rosea* (Vain.) Staiger & Kalb  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27813

*Acarospora chrysops* (Tuck.) H. Magn.  
Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51817

! *Acarospora scotica* Hue  
Santa Catarina: Quiriri, granite, Aptroot 78626

*Acarospora smaragdula* (Wahlenb.) Massal.  
Santa Catarina: São Francisco do Sul, granite, Cáceres & Aptroot, ISE 27983

*Acarospora terrigena* K. Knudsen, Elix & Reeb  
Minas Gerais: Catas Altas, termitarium, Aptroot & Santos, ISE 51522

! *Acarospora veronensis* A. Massal.  
Paraná: Quatro Barras, granite, Aptroot 84587pp

*Agonimia opuntiella* (Poelt & Buschardt) Vězda  
Rio Grande do Sul: Porto Alegre, bark, Cáceres & Aptroot, ISE 22079

*Agonimia pacifica* (Harada) Diederich  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27830

*Agonimia tristicula* (Nyl.) Zahlbr.  
Mato Grosso do Sul: Campo Grande, bark, Aptroot 78392

*Allographa anguilliradians* Lücking ex Lücking  
Mato Grosso do Sul: Bonito, bark, Aptroot 77558

*Allographa calcea* (Fée) Lücking & Kalb

Mato Grosso: Chapada dos Guimarães, sandstone, Aptroot & Souza 81690  
Paraná: Quatro Barras, bark, Aptroot 84582

*Allographa dealbata* (Nyl.) Lücking & Kalb  
Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 21924

*Allographa elongata* (Zenker) Lücking & Kalb  
Santa Catarina: São Francisco do Sul, cactus, Cáceres & Aptroot, ISE 27733

*Allographa laubertiana* (Fée) Lücking & Kalb  
Mato Grosso do Sul: Salobra, bark, Aptroot 81324  
Sergipe: Serra da Guia, bark, Mendonça, ISE 24308

! *Allographa macella* (Kremp.) Lücking & Kalb  
Bahia: Santa Terezinha, bark, Mendonça, ISE 24152

*Allographa pavoniana* (Fée) Lücking & Kalb  
Mato Grosso do Sul: Campo Grande, bark, Aptroot 80420

*Allographa rhizicola* (Fée) Lücking & Kalb  
Mato Grosso do Sul: Corumbá, bark, Aptroot 80645

! *Allographa verminosa* (Müll. Arg.) Lücking & Kalb  
Mato Grosso do Sul: Ladário, bark, Aptroot 80605

*Allographa vestitoides* (Fink) Lücking & Kalb  
Sergipe: São Cristovão, bark, Cáceres & Aptroot, ISE 42928

*Alyxoria varia* (Ach.) Ertz & Tehler  
Ceará: Quixadá, bark, Cáceres & Aptroot, ISE 21321  
Rio Grande do Norte: Mossoró, bark, Cáceres & Aptroot, ISE 21553

*Amandinea efflorescens* (Müll. Arg.) Marbach  
Amazonas: Manaus, bark, Cáceres & Aptroot, ISE 50630pp  
Rio Grande do Sul: Viamão, bark, Cáceres & Aptroot, ISE 22162  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27667a  
Sergipe: Poço Redondo, twig, Cáceres & Aptroot, ISE 48005c

*Amandinea extenuata* (Müll. Arg.) Marbach  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27705

! *Amandinea pelidna* (Ach.) Fryday & Arcadia

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Santa Catarina: São Francisco do Sul, granite, Cáceres & Aptroot, ISE 27728

*Amandinea subduplicata* (Vain.) Marbach  
Mato Grosso do Sul: Campo Grande, bark, Aptroot 78296

*Amandinea xylographella* (Nyl.) Marbach  
Mato Grosso do Sul: Campo Grande, bark, Aptroot 78092

*Ampliotrema dactylizum* (Hale) Sipman, Lücking & Grube  
Rondônia: Porto Velho, bark, Cáceres & Aptroot, ISE 15790

! *Ancistrosporella psoromica* Komposch, Aptroot & Hafellner  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27711a

*Anisomeridium anisolobum* (Müll. Arg.) Aptroot  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27684  
Mato Grosso do Sul: Corumbá, on dead petioles of *Anthurium*, Aptroot 81087

*Anisomeridium foliicola* R. Sant. & Tibell  
Santa Catarina: São Francisco do Sul, living leaves, Cáceres & Aptroot, ISE 28050

*Anisomeridium globosum* Aptroot, D.S. Andrade & M. Cáceres  
Mato Grosso do Sul: Corumbá, bark, Aptroot 81120

! *Anisomeridium guttuliferum* Lücking  
Mato Grosso do Sul: Pantanal, palm rhachis, Aptroot 78255

*Anisomeridium polycarpum* (Müll. Arg.) R.C. Harris  
Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 21915

*Anisomeridium subnectendum* (Nyl.) R.C. Harris  
Rio Grande do Sul: Viamão, bark, Cáceres & Aptroot, ISE 22187

*Anisomeridium subprostans* (Nyl.) R.C. Harris  
Rio Grande do Sul: Porto Alegre, bark, Cáceres & Aptroot, ISE 22071

*Arthonia biseptata* Vain.  
Mato Grosso do Sul: Pantanal, bark, Aptroot 78132

*Arthonia cyanea* Müll. Arg.

Santa Catarina: São Francisco do Sul, living leaves, Cáceres & Aptroot, ISE 28040p

*Arthonia meissneri* Müll. Arg.

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51683

Rondônia: Porto Velho, bark, Cáceres & Aptroot, ISE 15582

*Arthonia parantillarum* Aptroot

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27716

! *Arthrorhaphis alpina* (Schaer.) R. Sant.

Rio Grande do Sul: Viamão, granite, Cáceres & Aptroot, ISE 22140

*Aspicilia cinerea* (L.) Körb.

Santa Catarina: São Francisco do Sul, granite, Cáceres & Aptroot, ISE 27940

*Aspidothelium cinerascens* Vain.

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27660

*Aspidothelium geminiparum* (Malme) R. Sant.

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27706

*Aspidothelium glabrum* Lücking, Aptroot & Sipman

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27674

Sergipe: São Cristovão, bark, Cáceres & Aptroot, ISE 42975

! *Aspidothelium ornatum* Lücking

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27980

*Asterothyrium monosporum* Müll. Arg.

Mato Grosso do Sul: Morraria do Sul, living leaves, Aptroot 77677

*Astrochapsa astroidea* (Berk. & Broome) Parmen, Lücking & Lumbsch

Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 21859

*Astrothelium aenascens* Aptroot

Mato Grosso do Sul: Morraria do Sul, bark, Aptroot 77642

*Astrothelium aeneoides* Aptroot

Bahia: Chapada da Diamantina, bark, Mendonça, ISE 23858

*Astrothelium aeneum* (Eschw.) Aptroot & Lücking

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Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27773

*Astrothelium bicolor* (Taylor) Aptroot & Lücking

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27775

*Astrothelium cartilagineum* (Fée) Aptroot & Lücking

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27803

*Astrothelium ceratinum* (Fée) Aptroot & Lücking

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51899

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27814a

*Astrothelium cinnamomeum* (Eschw.) Müll. Arg.

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27782

*Astrothelium crassum* (Fée) Aptroot & Lücking

Bahia: Santa Terezinha, bark, Mendonça, ISE 24131

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51651

*Astrothelium croceum* Malme

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51923

*Astrothelium eustomum* (Mont.) Müll. Arg.

Paraná: Quatro Barras, bark, Aptroot 84584

*Astrothelium floridanum* Zahlbr. ex M. Choisy

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27794

*Astrothelium globosum* Aptroot & M. Cáceres

Bahia: Chapada da Diamantina, bark, Mendonça, ISE 23920

*Astrothelium kunzei* (Fée) Aptroot & Lücking

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51123

Sergipe: São Cristovão, bark, Cáceres & Aptroot, ISE 42892

*Astrothelium leioplacum* (Müll. Arg.) Aptroot & Lücking

Bahia: Chapada da Diamantina, bark, Mendonça, ISE 23922

*Astrothelium leucosessile* Lücking, M.P. Nelsen & Aptroot

Mato Grosso do Sul: Pantanal, bark, Aptroot 78160

*Astrothelium megalophthalmum* (Müll. Arg.) Aptroot & Lücking

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Bahia: Chapada da Diamantina, bark, Mendonça, ISE 23892

*Astrothelium megaspermum* (Mont.) Aptroot & Lücking  
Paraná: Lapa, bark, Aptroot 84681

*Astrothelium nigratum* (Müll. Arg.) Aptroot & Lücking  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51531

*Astrothelium nitidiusculum* (Nyl.) Aptroot & Lücking  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 52096  
Mato Grosso do Sul: Rochedo, bark, Aptroot 80735  
Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 21994  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27814

*Astrothelium obscurum* Müll. Arg.  
Paraná: Quatro Barras, bark, Aptroot 84579

*Astrothelium ochrothelium* (Nyl.) Müll. Arg.  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51263

*Astrothelium octosporum* (Vain.) Aptroot & Lücking  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27871

*Astrothelium papulosum* (Nyl.) Aptroot & Lücking  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27763

*Astrothelium phlyctaena* (Fée) Aptroot & Lücking  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51681  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27666

*Astrothelium pulcherrimum* (Fée) Aptroot & Lücking  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51530

*Astrothelium robustosporum* Aptroot & M. Cáceres  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51502

*Astrothelium rufescens* (Müll. Arg.) Aptroot & Lücking  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51528

*Astrothelium sanguinarium* (Malme) Aptroot & Lücking  
Bahia: Chapada da Diamantina, bark, Mendonça, ISE 23940



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*Astrothelium scoria* (Fée) Aptroot & Lücking  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27793

! *Astrothelium subfuscum* Kremp.  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51583

*Astrothelium subscoria* Flakus & Aptroot  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51896  
Sergipe: São Cristovão, bark, Cáceres & Aptroot, ISE 42888

! *Astrothelium subvariolosum* Makhija & Patw.  
Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 21956

*Astrothelium variolosum* (Ach.) Müll. Arg.  
Bahia: Mata de São João, bark, Cáceres & Aptroot, ISE 48776

! *Astrothelium vulcanum* Aptroot  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 52083

*Aulaxina quadrangula* (Stirt.) R. Sant.  
Minas Gerais: Catas Altas, living leaves, Aptroot & Santos, ISE 51790

*Auriculora byssomorpha* (Nyl.) Kalb  
Bahia: Santa Terezinha, bark, Mendonça, ISE 24123

*Bacidia fluminensis* (Malme) M. Cáceres & Lücking  
Bahia: Chapada da Diamantina, bark, Mendonça, ISE 23886

! *Bacidia fuscoviridis* (Anzi) Lettau  
Mato Grosso do Sul: Bonito, shaded limestone, Aptroot 77534

*Bacidia heterochroa* (Müll. Arg.) Zahlbr.  
Santa Catarina: São Francisco do Sul, twig, Cáceres & Aptroot, ISE 27731

*Bacidia igniarum* (Ny.) Oxner  
Mato Grosso do Sul: Pantanal, bark, Aptroot 78257

! *Bacidia laurocerasi* (Delise ex Duby) Zahlbr.  
Mato Grosso do Sul: Campo Grande, bark, Aptroot 79025

*Bacidia russeola* (Kremp.) Zahlbr.  
Bahia: Chapada da Diamantina, bark, Mendonça, ISE 23817

! *Bacidina adastrata* (Sparrus & Aptroot) M. Hauck & V. Wirth  
Mato Grosso do Sul: Campo Grande, living leaves, Aptroot 78069

*Bacidina defecta* Vězda  
Mato Grosso do Sul: Campo Grande, living leaves, Aptroot 78065

! *Bacidina lacerata* (Timdal) Kistenich, Timdal, Bendiksby & S. Ekman  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27770

*Bacidina medialis* (Tuck. ex Nyl.) Kistenich, Timdal, Bendiksby & S. Ekman  
Rio Grande do Norte: Mossoró, bark, Cáceres & Aptroot, ISE 21546

! *Bacidina squamellosa* S. Ekman  
Mato Grosso do Sul: Campo Grande, bark, Aptroot 80401

*Bacidiopsora microphyllina* Kalb  
Santa Catarina: São Francisco do Sul, granite, Cáceres & Aptroot, ISE 28022

*Bacidiopsora silvicola* (Malme) Kalb  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27761

*Bactrospora angularis* Sobreira, Aptroot & M. Cáceres  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27797

*Bactrospora jenikii* (Vězda) Egea & Torrente  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27676

*Bactrospora lamprospora* (Nyl.) Lendemmer  
Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 21962

*Baculifera cinereocincta* (Müll. Arg.) Marbach  
Bahia: Mata de São João, bark, Cáceres & Aptroot, ISE 48814

*Bapalmuia confusa* Kalb & Lücking  
Bahia: Santa Terezinha, bark, Mendonça, ISE 24063  
Bahia: Chapada da Diamantina, bark, Mendonça, ISE 23933  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51130  
Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 21863  
Sergipe: São Cristovão, bark, Cáceres & Aptroot, ISE 42967

*Biatora kalbii* (Brako) S.Y. Kondr.

Rondônia: Porto Velho, bark, Cáceres & Aptroot, ISE 15351

*Bogoriella megaspora* (Aptroot & M. Cáceres) Aptroot & Lücking  
Sergipe: São Cristovão, bark, Cáceres & Aptroot, ISE 42942

*Bogoriella oleosa* (Aptroot) Aptroot & Lücking  
Mato Grosso do Sul: Campo Grande, bark, Aptroot 80423

! *Bogoriella pachythea* (Sacc., Syd. & P. Syd.) Aptroot & Lücking  
Mato Grosso do Sul: Corumbá, bark, Aptroot 81100  
Rio Grande do Sul: Porto Alegre, bark, Cáceres & Aptroot, ISE 22275

*Bryostigma lapidicola* (Taylor) S.Y. Kondr. & J.-S. Hur  
Mato Grosso do Sul: Campo Grande, living leaves, Aptroot 78054a  
Santa Catarina: São Bento do Sul, bark, Aptroot 78830

*Buellia dejungens* (Nyl.) Vain.  
Minas Gerais: Catas Altas, pebble, Aptroot & Santos, ISE 51193

! *Buellia dispersa* A. Massal.  
Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51813

! *Buellia fraudans* (Starbäck) Elix  
Rio Grande do Sul: Viamão, bark, Cáceres & Aptroot, ISE 22121

*Buellia griseovirens* (Turner & Borrer ex Sm.) Almb.  
Rio Grande do Sul: Porto Alegre, bark, Cáceres & Aptroot, ISE 22269  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27877

*Buellia halonia* (Ach.) Tuck.  
Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51399

*Buellia lichexanthonica* Aptroot & M. Cáceres  
Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51412

*Buellia mamillana* (Tuck.) W.A. Weber  
Paraná: Quatro Barras, granite, Aptroot 84633

*Buellia ocellata* (Flörke ex Flot.) Körb.  
Santa Catarina: São Francisco do Sul, granite, Cáceres & Aptroot, ISE 27907

*Buellia sequax* (Nyl.) Zahlbr.

Ceará: Quixadá, schist, Cáceres & Aptroot, ISE 21418

*Buellia subtabacina* Malme

Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51671

Paraná: Quatro Barras, granite, Aptroot 84589

*Buellia xanthinula* (Müll. Arg.) Malme

Mato Grosso do Sul: Morraria do Sul, exposed gneiss, Aptroot 77787

*Bulbothrix laevigatula* (Nyl.) Hale

Sergipe: São Cristovão, bark, Cáceres & Aptroot, ISE 42932

*Bulbothrix lyngei* Benatti & Marcelli

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51284

*Bulbothrix subdissecta* (Nyl.) Hale

Mato Grosso do Sul: Aquidauana, bark, Aptroot 80921

*Byssoloma subdiscordans* (Nyl.) P. James

Rondônia: Porto Velho, painted wood, Cáceres & Aptroot, ISE 15445g

*Calopadia phyllogena* (Müll. Arg.) Vězda

Paraná: Quatro Barras, living leaves, twigs and granite, Aptroot 84641

*Calopadia puiggarii* (Müll. Arg.) Vězda

Rondônia: Porto Velho, painted wood, Cáceres & Aptroot, ISE 15445l

*Calopadia subfusca* Kalb & Vězda

Santa Catarina: São Francisco do Sul, living leaves, Cáceres & Aptroot, ISE 28040s

! *Caloplaca arenaria* (Pers.) Müll. Arg.

Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51456

*Caloplaca bassiae* (Ach.) Zahlbr.

Pernambuco: Recife, bark, Cáceres & Aptroot, ISE 21817

! *Caloplaca chlorina* (Flot.) Sandst.

Mato Grosso do Sul: Rochedo, sandstone, Aptroot 81464

*Caloplaca cinnabarina* (Ach.) Zahlbr.

Ceará: Quixadá, schist, Cáceres & Aptroot, ISE 21427

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Mato Grosso do Sul: Morraria do Sul, granite, Aptroot 77789

*Caloplaca crenularia* (With.) J.R. Laundon

Santa Catarina: São Francisco do Sul, granite, Cáceres & Aptroot, ISE 27915

*Caloplaca crocea* (Kremp.) Hafellner & Poelt

Mato Grosso do Sul: Corumbá, bark, Aptroot 81140

*Caloplaca crocina* (Kremp.) Wilk & P. Vargas

Rio Grande do Sul: Porto Alegre, bark, Cáceres & Aptroot, ISE 22046

! *Caloplaca decipiooides* Arup

Mato Grosso do Sul: Corumbá, exposed limestone, Aptroot 80626

*Caloplaca diplacia* (Ach.) Riddle

Santa Catarina: São Francisco do Sul, granite, Cáceres & Aptroot, ISE 27922

*Caloplaca erythrantha* (Tuck.) Zahlbr.

Minas Gerais: Catas Altas, palm bark, Aptroot & Santos, ISE 51513

Paraná: Quatro Barras, granite, Aptroot 84616

*Caloplaca granularis* (Müll. Arg.) Zahlbr.

Minas Gerais: Catas Altas, palm bark, Aptroot & Santos, ISE 52164

*Caloplaca isidiosa* (Vain.) Zahlbr.

Ceará: Quixadá, gneiss, Cáceres & Aptroot, ISE 21366

*Caloplaca subsoluta* (Nyl.) Zahlbr.

Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51405

Sergipe: Assentamento, schist, Cáceres & Aptroot, ISE 18309

*Caloplaca subvitellina* (Müll. Arg.) Zahlbr.

Sergipe: Assentamento, schist, Cáceres & Aptroot, ISE 18304

*Canoparmelia caroliniana* (Nyl.) Elix & Hale

Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 21966

*Canoparmelia martinicana* (Nyl.) Elix & Hale

Mato Grosso do Sul: Bonito, bark, Aptroot 77008

Sergipe: São Cristovão, bark, Cáceres & Aptroot, ISE 42902

*Carbacanthographis crassa* (Müll. Arg.) Staiger & Kalb

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51911

*Chapsa discoides* (Stirt.) Lücking

Bahia: Mata de São João, bark, Cáceres & Aptroot, ISE 48764

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27781

*Chapsa patens* (Nyl.) Frisch

Bahia: Mata de São João, bark, Cáceres & Aptroot, ISE 48839

*Chiodecton lichexanthonicum* M. Cáceres & Aptroot

Mato Grosso do Sul: Morraria do Sul, bark, Aptroot 77667

*Chiodecton malmei* G. Thor

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27757

*Chrysothrix occidentalis* Elix & Kantvilas

Mato Grosso do Sul: Pantanal, bark, Aptroot 78218

*Chrysothrix xanthina* (Vain.) Kalb

Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51822

*Cladonia farinophylla* Ahti

Minas Gerais: Catas Altas, soil of roadbank, Aptroot & Santos, ISE 51082

*Cladonia gumboskii* Aptroot, M.F. Souza & Spielmann

Minas Gerais: Catas Altas, soil of roadbank, Aptroot & Santos, ISE 51084

*Cladonia lichexanthonica* Aptroot & M. Cáceres

Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51271

Paraná: Quatro Barras, granite, Aptroot 84576

Note: Although this was described as a sterile squamulose species, the populations in Carassa are richly fertile, with stalked red apothecia.

*Cladonia macilenta* Hoffm.

Mato Grosso do Sul: Campo Grande, bark, Aptroot 80862

*Cladonia nana* Vain.

Minas Gerais: Catas Altas, soil, Aptroot & Santos, ISE 51324

*Cladonia strepsilis* (Ach.) Grognot

Minas Gerais: Catas Altas, soil, Aptroot & Santos, ISE 51571

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! *Clandestinotrema pauperius* (Nyl.) Rivas Plata, Lücking & Lumbsch  
Sergipe: Itabaiana, bark, Cáceres & Aptroot, ISE 13513

*Coccocarpia epiphylla* (Fée) Müll. Arg.  
Bahia: Mata de São João, bark, Cáceres & Aptroot, ISE 48816  
Mato Grosso do Sul: Campo Grande, bark, Aptroot 78395

*Coccocarpia microphyllina* Lücking & Aptroot  
Paraná: Quatro Barras, bark, Aptroot 84607

*Coenogonium chloroticum* Xavier-Leite, M. Cáceres & Aptroot  
Sergipe: Santa Luzia do Itanhy, bark, Cáceres & Aptroot, ISE 18785

*Coenogonium confervoides* Nyl.  
Bahia: Santa Terezinha, bark, Mendonça, ISE 24080  
Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 21964

! *Coenogonium congense* C.W. Dodge  
Paraná: Quatro Barras, bark, Aptroot 84596

*Coenogonium disjunctum* Nyl.  
Sergipe: São Cristovão, bark, Cáceres & Aptroot, ISE 42954

*Coenogonium geralense* (P. Henn.) Lücking  
Mato Grosso do Sul: Pantanal, bark, Aptroot 82799

*Coenogonium nepalense* (G. Thor & Vězda) Lücking, Aptroot & Sipman  
Bahia: Chapada da Diamantina, bark, Mendonça, ISE 23888

*Coenogonium strigosum* Rivas Plata, Lücking & Chaves  
Bahia: Santa Terezinha, bark, Mendonça, ISE 24103

*Coenogonium subdentatum* (Vězda & G. Thor) Rivas Plata, Lücking, Umaña & Chaves  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27975

*Coenogonium upretianum* M. Cáceres & Aptroot  
Mato Grosso do Sul: Campo Grande, bark, Aptroot 78861

*Collema leptaleum* Tuck.  
Sergipe: Poço Redondo, bark, Cáceres & Aptroot, ISE 48026

*Collema pulchellum* var. *subnigrescens* (Müll. Arg.) Degel.  
Bahia: Chapada da Diamantina, bark, Mendonça, ISE 23901

*Collema texanum* Tuck.  
Mato Grosso do Sul: Corumbá, bark, Aptroot 81266

! *Collemopsidium atlanticum* Vain.  
Mato Grosso do Sul: Bodoquena, exposed limestone, Aptroot 77826

*Coniarthonia aurata* E.L. Lima, Aptroot & M. Cáceres  
Mato Grosso do Sul: Campo Grande, bark, Aptroot 78325

! *Coniarthonia gregarina* (Willey) Grube  
Mato Grosso do Sul: Campo Grande, bark, Aptroot 80448

*Coniocarpon cinnabarinum* DC.  
Rio Grande do Sul: Porto Alegre, bark, Cáceres & Aptroot, ISE 22044

! *Constrictolumina porospora* (Vain.) Lücking, M.P. Nelsen & Aptroot  
Sergipe: São Cristovão, bark, Cáceres & Aptroot, ISE 42916

*Corella brasiliensis* Vain.  
Paraná: Quatro Barras, bark, Aptroot 84613

*Cresponea flava* (Vain.) Egea & Torrente  
Mato Grosso do Sul: Pantanal, bark, Aptroot 78207

*Cresponea melanocheiloides* (Vain.) Egea & Torrente  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27747

*Cryptoschizotrema cryptotrema* (Nyl.) Aptroot, Lücking & M. Cáceres  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51149

*Cryptothecia isidioxantha* Aptroot & M. Cáceres  
Mato Grosso do Sul: Pantanal, bark, Aptroot 84813

*Cryptothecia lichexanthonica* E.L. Lima, Aptroot & M. Cáceres  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27685  
Sergipe: Itabaiana, bark, Cáceres & Aptroot, ISE 15061

*Cryptothecia malmei* Redinger  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 52368



*Cryptothecia striata* G. Thor

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27651

*Cyphellostereum phyllogenum* (Müll. Arg.) Lücking, Dal-Forno & Lawrey

Santa Catarina: São Francisco do Sul, living leaves, Cáceres & Aptroot, ISE 28048

*Cyphellostereum pusiolum* (Berkeley & Curtis) Reid

Paraná: Quatro Barras, soil, Aptroot 84668

*Dendrographa austrosoediata* Aptroot & Gumboski

Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51986

! *Dichoporis viridiseda* (Nyl.) S.H. Jiang, Lücking & Sérus.

Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 21934

! *Dichoporis ziziphi* (A. Massal.) S.H. Jiang, Lücking & Sérus.

Sergipe: Aracaju, bark, Cáceres & Aptroot, ISE 21567

*Dictyomeridium amylosporium* (Vain.) Aptroot, M.P. Nelsen & Lücking

Bahia: Mata de São João, bark, Cáceres & Aptroot, ISE 48785

*Dictyomeridium isohypocrellinum* (Xavier-Leite, M. Cáceres & Aptroot) Aptroot,  
M.P. Nelsen & Lücking

Sergipe: Poço Redondo, bark, Cáceres & Aptroot, ISE 48015

*Dictyomeridium parapropionens* (Aptroot, M. Cáceres & E.L. Lima) Aptroot,  
M.P. Nelsen & Lücking

Sergipe: Itabaiana, bark, Cáceres & Aptroot, ISE 15006

*Dictyonema sericeum* (Sw.) Berk.

Sergipe: São Cristovão, bark, Cáceres & Aptroot, ISE 42939

*Dimelaena tenuis* (Müll. Arg.) H. Mayrhofer & Wippel

Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51558

*Diorygma africanum* Kalb, Staiger & Elix

Mato Grosso do Sul: Campo Grande, bark, Aptroot 78858

*Diorygma antillarum* (Vain.) Nelsen, Lücking & Rivas Plata

Santa Catarina: São Francisco do Sul, granite, Cáceres & Aptroot, ISE 27972

*Diorygma circumfusum* (Stirt.) Kalb, Staiger & Elix

Mato Grosso do Sul: Pantanal, bark, Aptroot 78149

*Diorygma erythrellum* (Mont. & Bosch) Kalb, Staiger & Elix

Sergipe: Itabaiana, bark, Cáceres & Aptroot, ISE 15034

*Diorygma hieroglyphicum* (Pers.) Staiger & Kalb

Mato Grosso do Sul: Pantanal, bark, Aptroot 78105

Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 21980

*Diorygma incantatum* Feuerstein & Eliasaro

Bahia: Mata de São João, bark, Cáceres & Aptroot, ISE 48852

*Diorygma junghuhnii* (Mont. & Bosch) Kalb, Staiger & Elix

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27865

*Diorygma pruinatum* (Eschw.) Kalb, Staiger & Elix

Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 22034

*Diploschistes actinostomus* (Pers.) Zahlbr.

Paraná: Quatro Barras, granite, Aptroot 84587pp

*Diploschistes diacapsis* (Ach.) Lumbsch

Santa Catarina: São Francisco do Sul, soil, Cáceres & Aptroot, ISE 27952

*Echinoplaca diffluens* (Müll. Arg.) R. Sant.

Rondônia: Porto Velho, painted wood, Cáceres & Aptroot, ISE 15445a

! *Emmanuelia ravenelii* (Tuck.) Ant. Simon & Goffinet

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51163

Paraná: Quatro Barras, bark, Aptroot 84585

*Encephalographa anthracothecii* Diederich

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27816

*Endocarpon pallidulum* (Nyl.) Nyl.

Minas Gerais: Catas Altas, termitarium, Aptroot & Santos, ISE 51534

Pernambuco: Recife, bark, Cáceres & Aptroot, ISE 21832

*Endohyalina circumpallida* (H. Magn.) Marbach

Mato Grosso do Sul: Campo Grande, bark, Aptroot 78096

*Enterographa leucolyta* (Nyl.) Redinger  
Santa Catarina: São Francisco do Sul, granite, Cáceres & Aptroot, ISE 27942

*Enterographa multilocularis* (Müll. Arg.) Sparrius  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27711

! *Enterographa perez-higaredae* Herrera-Camp. & Lücking  
Sergipe: Itabaiana, leaves, Cáceres & Aptroot, ISE 15004

*Enterographa subserialis* (Nyl.) Redinger  
Rio Grande do Sul: Viamão, bark, Cáceres & Aptroot, ISE 22179

*Erioderma leylandii* ssp. *leylandii* (Taylor) Müll. Arg.  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27853

*Erythrodictyon granulatum* (Mont.) G. Thor  
Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 22022

*Eschatogonia dissecta* Timdal & R. Sant.  
Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 21976

*Eschatogonia minuta* Timdal & R. Sant.  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27867

*Eugeniella atrichoides* (Malme) Lücking, Sérus. & Kalb  
Rondônia: Porto Velho, painted wood, Cáceres & Aptroot, ISE 15445

*Eugeniella leucocheila* (Tuck.) Lücking, Sérus. & Kalb  
Mato Grosso do Sul: Jateí, Cecropia bark, Aptroot 80215  
Sergipe: São Cristovão, bark, Cáceres & Aptroot, ISE 42900

! *Fellhanera carnea* (Vězda) Vězda  
Rondônia: Porto Velho, painted wood, Cáceres & Aptroot, ISE 15445q

*Fellhanera muhleii* Lücking  
Minas Gerais: Catas Altas, living leaves, Aptroot & Santos, ISE 51807

! *Fellhanera ochracea* Sparrius & Aptroot  
Mato Grosso do Sul: Pantanal, bark, Aptroot 78147

*Fellhanera termitophila* Aptroot & M. Cáceres

Minas Gerais: Catas Altas, soil, Aptroot & Santos, ISE 51520

! *Fellhanera viridis* Lücking

Mato Grosso do Sul: Bonito, living leaves, Aptroot 77230

! *Fellhanera viridisorediata* Aptroot, M. Brand & Spier

Mato Grosso do Sul: Campo Grande, living leaves, Aptroot 78074

Rondônia: Porto Velho, painted wood, Cáceres & Aptroot, ISE 15445e

*Fissurina dumastii* Fée

Mato Grosso do Sul: Jateí, bark, Aptroot 80147

*Fissurina nigrolabiata* Rivas Plata, Bawingan & Lücking

Rio Grande do Norte: Mossoró, bark, Cáceres & Aptroot, ISE 21538

*Fissurina pseudostromatica* Lücking & Rivas Plata

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 52371

Rio Grande do Norte: Mossoró, bark, Cáceres & Aptroot, ISE 21541

Rio Grande do Sul: Viamão, bark, Cáceres & Aptroot, ISE 22195

*Fissurina radiata* Mont.

Mato Grosso do Sul: Campo Grande, bark, Aptroot 79075

*Flagellostrigula laureriformis* (Aptroot & Lücking) Lücking, S.H. Jiang & Sérus.

Rio Grande do Norte: Mossoró, bark, Cáceres & Aptroot, ISE 21549

*Flakea papillata* O.E. Erikss.

Amazonas: Manaus, bark, Cáceres & Aptroot, ISE 50630pp

*Fuscidea umbricolor* (Nyl.) Hertel

Paraná: Quatro Barras, granite, Aptroot 84650

*Glyphis substriatula* (Nyl.) Staiger

Rio Grande do Norte: Mossoró, bark, Cáceres & Aptroot, ISE 21539

*Graphis analoga* Nyl.

Mato Grosso do Sul: Aquidauana, bark, Aptroot 80521

*Graphis caesiocarpa* Redinger

Pernambuco: Recife, bark, Cáceres & Aptroot, ISE 21850a

*Graphis cincta* (Pers.) Aptroot

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Mato Grosso do Sul: Pantanal, bark, Aptroot 78114  
Rio Grande do Norte: Mossoró, bark, Cáceres & Aptroot, ISE 21551

*Graphis componens* Nyl.

Mato Grosso do Sul: Pantanal, bark, Aptroot 84746

*Graphis cremicolor* (H.Magn.) Lücking & A.W. Archer

Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51247

*Graphis dendrogramma* Nyl.

Mato Grosso do Sul: Pantanal, bark, Aptroot 78196

*Graphis duplicata* Ach.

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51355

*Graphis intricata* Fée

Mato Grosso do Sul: Corumbá, bark, Aptroot 81064

*Graphis leptocarpa* Fée

Mato Grosso do Sul: Pantanal, bark, Aptroot 84714

*Graphis librata* C. Knight

Bahia: Mata de São João, bark, Cáceres & Aptroot, ISE 48753

! *Graphis novopalmiticola* A.W. Archer & Lücking

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51127

*Graphis paralleloides* M. Cáceres & Lücking

Mato Grosso do Sul: Pantanal, bark, Aptroot 78152

! *Graphis seminuda* Müll. Arg.

Mato Grosso do Sul: Pantanal, bark, Aptroot 84504

! *Graphis subhiascens* (Müll. Arg.) Lücking

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51147

Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 21923

! *Graphis tenoriensis* Chaves & Lücking

Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 21982

*Gyalideopsis aequatoriana* Kalb & Vězda

Sergipe: Capela, bark, Cáceres & Aptroot, ISE 18953

! *Gyalideopsis brevopilosa* (Kalb & Vězda) Lücking, Sérus. & Vězda  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27986

*Gyalideopsis confluens* Kalb & Vězda  
Rio Grande do Sul: Porto Alegre, bark, Cáceres & Aptroot, ISE 22084  
Sergipe: São Cristovão, bark, Cáceres & Aptroot, ISE 42899

*Gyalideopsis lambinonii* Vězda  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51926

*Haematomma africanum* (J. Steiner) C.W. Dodge  
Sergipe: Poço Redondo, twig, Cáceres & Aptroot, ISE 48005f

*Haematomma fluorescens* Kalb & Staiger  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 52193

*Haematomma matogrossense* Kalb & Staiger  
Bahia: Mata de São João, bark, Cáceres & Aptroot, ISE 48779

*Haematomma rufidulum* (Fée) A. Massal.  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 52188

*Herpothallon echinatum* Aptroot, Lücking & Will-Wolf  
Mato Grosso do Sul: Corumbá, bark, Aptroot 81225

*Herpothallon fertile* Aptroot & Lücking  
Mato Grosso do Sul: Pantanal, bark, Aptroot 81173

*Herpothallon pustulatum* G. Thor  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27742

*Herpothallon roseocinctum* (Fr.) Aptroot, Lücking & G. Thor  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27746

*Heterodermia albicans* (Pers.) Swinscow & Krog  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51406

*Heterodermia circinalis* (Zahlbr.) W.A. Weber  
Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51593

*Heterodermia flavosquamosa* Aptroot & Sipman

Paraná: Piraquara, bark, Aptroot 84573

*Heterodermia hypocaesia* (Yasuda ex Räsänen) D.D. Awasthi  
Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51543

*Heterodermia microphylla* (Kurok.) Skorepa  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51879

! *Hymenelia prevostii* (Duby) Kremp.  
Mato Grosso do Sul: Corumbá, exposed limestone, Aptroot 81274

*Hyperphyscia cochlearis* Scutari  
Mato Grosso do Sul: Corumbá, bark, Aptroot 84511  
Paraná: Piraquara, bark, Aptroot 74574a

*Hyperphyscia pandani* (H. Magn.) Moberg  
Mato Grosso do Sul: Rochedinho, bark, Aptroot 82729

*Hyperphyscia pseudocoralloides* Scutari  
Paraná: Piraquara, bark, Aptroot 84572

*Hyperphyscia tuckermanii* (Lynge) Moberg  
Mato Grosso do Sul: Corumbá, bark, Aptroot 81165

*Hypotrachyna damaziana* (Zahlbr.) Krog & Swinscow  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51419

*Hypotrachyna degelii* (Hale) Hale  
Mato Grosso do Sul: Campo Grande, bark, Aptroot 78358

*Hypotrachyna fletcheri* Elix, Nash & Sipman  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51578

*Hypotrachyna mattickiana* Sipman, Elix & Nash  
Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51372

*Hypotrachyna minarum* (Vain.) Krog & Swinscow  
Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 21879

*Hypotrachyna physcioides* (Nyl.) Hale  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51132

*Hypotrachyna pustulifera* (Hale) Skorepa  
Mato Grosso do Sul: Bonito, bark, Aptroot 77090

! *Hypotrachyna rhabdiformis* (Kurok.) Hale  
Sergipe: Capela, bark, Cáceres & Aptroot, ISE 18920

*Hypotrachyna rockii* (Zahlbr.) Hale  
Paraná: Quatro Barras, granite, Aptroot 84638

*Hypotrachyna schindleri* (Hale) Divakar, A. Crespo, Sipman, Elix & Lumbsch  
Paraná: Lapa, bark, Aptroot 84525

*Hypotrachyna spumosa* (Asahina) Krog & Swinscow  
Mato Grosso do Sul: Jateí, bark, Aptroot 80128  
Paraná: Lapa, bark, Aptroot 84566

! *Hypotrachyna steyermarkii* (Hale) Hale  
Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51737

! *Jamesiella chaverriae* Chaves, L. Umaña & Lücking  
Mato Grosso do Sul: Campo Grande, bark, Aptroot 80867  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27841

! *Julella geminella* (Nyl.) R.C. Harris  
Mato Grosso do Sul: Pantanal, bark, Aptroot 78109

*Julella vitrispora* (Cooke & Harkn.) M.E. Barr  
Mato Grosso do Sul: Campo Grande, bark, Aptroot 79055

! *Lambiella insularis* (Nyl.) T. Sprib.  
Minas Gerais: Catas Altas, on lichen on granite, Aptroot & Santos, ISE 51616

*Lasioloma arachnoideum* (Kremp.) R. Sant.  
Minas Gerais: Catas Altas, living leaves, Aptroot & Santos, ISE 51802

*Lasioloma stephanellum* (Nyl.) Lücking & Sérus.  
Sergipe: São Cristovão, bark, Cáceres & Aptroot, ISE 42940

*Lecanactis elaeocarpa* (Nyl.) Tehler  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27657

*Lecanora achroa* Nyl.



Paraná: Quatro Barras, bark, Aptroot 84644

*Lecanora argentata* (Ach.) Malme

Bahia: Chapada da Diamantina, bark, Mendonça, ISE 23781

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 52052

*Lecanora galactiniza* Nyl.

Sergipe: Assentamento, schist, Cáceres & Aptroot, ISE 18313

*Lecanora helva* Stizenb.

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 52269

*Lecanora hypocrocea* Vain.

Mato Grosso do Sul: Corumbá, bark, Aptroot 81125

*Lecanora leproplaca* Zahlbr.

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27953

*Lecanora leprosa* Fée

Rio Grande do Norte: Mossoró, bark, Cáceres & Aptroot, ISE 21543

! *Lecanora orostea*

Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51653

*Lecanora plumosa* Müll. Arg.

Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 52055

Sergipe: Assentamento, schist, Cáceres & Aptroot, ISE 18320

*Lecanora pseudistera* Nyl.

Rio Grande do Sul: Viamão, granite, Cáceres & Aptroot, ISE 22103

! *Lecanora subaureoides* Aptroot & Bungartz

Paraná: Quatro Barras, granite, Aptroot 84618

*Lecanora subcarnea* (Liljebl.) Ach.

Paraná: Quatro Barras, granite, Aptroot 84628

*Lecanora sulfurescens* Fée

Mato Grosso do Sul: Jaraguari, siliceous rock, Aptroot 82617

! *Lecidea lithophila* Sommerf.

Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51720

ARCHIVE FOR LICHENOLOGY VOL 31 (8.2.2022)

! *Lecidea promiscua* Nyl.

Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51457

*Lecidella asema* (Nyl.) Knoph & Hertel

Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51112

*Lecidella carpathica* Körb.

Mato Grosso do Sul: Morraria do Sul, exposed gneiss, Aptroot 77977

Paraná: Lapa, sandstone, Aptroot 84513

*Lecidella chodati* (Samp.) Knoph & Hertel

Paraná: Quatro Barras, granite, Aptroot 84652

*Lecidella enteroleucella* (Nyl.) Hertel

Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51454

*Lecidella punctuliformis* (Nyl.) Kalb

Bahia: Chapada da Diamantina, bark, Mendonça, ISE 23833

! *Lecidella stigmatea* (Ach.) Hertel & Leuckert

Minas Gerais: Catas Altas, termitarium, Aptroot & Santos, ISE 51535

*Lepra subventosa* (Malme) I. Schmitt & Lumbsch

Paraná: Lapa, sandstone, Aptroot 84514

*Lepra tropica* (Vain.) Lendemer & R.C. Harris

Paraná: Piraquara, bark, Aptroot 84571a

*Lepra ventosa* (Malme) Lendemer & R.C. Harris

Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51205

*Lepraria arbuscula* (Nyl.) Lendemer & B.P. Hodk.

Paraná: Lapa, sandstone, Aptroot 84676

*Lepraria finkii* (Hue) R.C. Harris

Mato Grosso do Sul: Campo Grande, bark, Aptroot 80444

*Lepraria pallida* Sipman

Mato Grosso do Sul: Bonito, shaded limestone, Aptroot 77326

*Leprocollema americanum* Vain.

Mato Grosso do Sul: Pantanal, concrete, Aptroot 78241

*Leptogium coralloideum* (Meyen & Flotow) Vain.  
Pernambuco: Recife, bark, Cáceres & Aptroot, ISE 21843

*Leptogium corticola* (Taylor) Tuck.  
Ceará: Quixadá, gneiss, Cáceres & Aptroot, ISE 21386

*Leptogium cyanescens* (Rabenh.) Körb.  
Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 21887

*Leptogium diaphanum* (Mont.) Nyl.  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27739

*Leptogium isidiosellum* (Riddle) Sierk  
Sergipe: São Cristovão, bark, Cáceres & Aptroot, ISE 42922

*Leptogium marginellum* (Sw.) S. Gray  
Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 21890

*Letrouitia leprolyta* (Nyl.) Hafellner  
Pernambuco: Recife, bark, Cáceres & Aptroot, ISE 21820

*Leucodecton occultum* (Eschw.) Frisch  
Rio Grande do Norte: Mossoró, bark, Cáceres & Aptroot, ISE 21560

*Lithogyalideopsis aterrima* (Vězda & Poelt) Lücking, Sérus. & Vězda  
Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51982

*Lobariella crenulata* (Hook.) Yoshimura  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51088

*Macroconstrictolumina lyrata* (R.C. Harris) Lücking, R. Miranda & Aptroot  
Mato Grosso do Sul: Campo Grande, bark, Aptroot 78329

*Malmidea amazonica* (Redinger) Kalb, Rivas Plata & Lumbsch  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27673

! *Malmidea cinereonigrella* (Vain.) Kalb  
Sergipe: Serra da Guia, bark, Mendonça, ISE 24267

*Malmidea furfurosa* (Tuck. ex Nyl.) Kalb & Lücking

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27851

*Malmidea incrassata* Kalb

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27777

*Malmidea leucopiperis* Kalb

Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 21877

Sergipe: Santa Luzia do Itanhy, bark, Cáceres & Aptroot, ISE 18981

*Malmidea polycampia* (Tuck.) Kalb & Lücking

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27779

*Malmidea rhodopsis* (Tuck.) Kalb, Rivas Plata & Lumbsch

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 52288

*Malmidea vinosa* (Eschw.) Kalb, Rivas Plata & Lumbsch

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51362

*Mazosia carnea* (Eckfeldt) Aptroot & M. Cáceres

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51142

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27700

*Mazosia melanophthalma* (Müll. Arg.) R. Sant.

Santa Catarina: São Francisco do Sul, living leaves, Cáceres & Aptroot, ISE 28040f

*Mazosia rotula* (Mont.) Massal.

Santa Catarina: São Francisco do Sul, living leaves, Cáceres & Aptroot, ISE 28039

*Mazosia tenuissima* Lücking & Matzer

Rondônia: Porto Velho, painted wood, Cáceres & Aptroot, ISE 15445m

*Mazosia tumidula* (Stirt.) Müll. Arg.

Santa Catarina: São Francisco do Sul, living leaves, Cáceres & Aptroot, ISE 28040a

*Megalaria flavosorediata* Aptroot

Minas Gerais: Catas Altas, Vellozia, Aptroot & Santos, ISE 51222

*Megalospora tuberculosa* (Fée) Sipman

Sergipe: São Cristovão, bark, Cáceres & Aptroot, ISE 42926

*Melaspilea diffracta* (Fée) Redinger

Rio Grande do Norte: Mossoró, limestone, Cáceres & Aptroot, ISE 21534

*Micarea corallothallina* M. Cáceres, D.A. Mota & Aptroot

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51313

*Micarea denigrata* (Fr.) Hedl.

Santa Catarina: São Francisco do Sul, wood, Cáceres & Aptroot, ISE 27850

! *Micarea leprosula* (Th. Fr.) Coppins & A. Fletcher

Paraná: Quatro Barras, granite, Aptroot 84658

*Micarea misella* (Nyl.) Hedl.

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27859

*Micarea peliocarpa* (Anzi) Coppins & R. Sant.

Paraná: Quatro Barras, moss on soil, Aptroot 84615

*Micarea prasina* Fr.

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 28017pp

*Micarea squamulosa* Aptroot, Lücking & M. Cáceres

Mato Grosso do Sul: Jaraguari, siliceous rock, Aptroot 82644

*Micarea stipitata* Coppins & P. James

Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 21881

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27799

*Micarea termitophila* Aptroot & M. Cáceres

Sergipe: Ribeirópolis, soil, Cáceres & Aptroot, ISE 21582

*Monerolechia badia* (Fr.) Kalb

Mato Grosso do Sul: Pantanal, roof tile, Aptroot 78288

*Mycoporum eschweileri* (Müll. Arg.) R.C. Harris

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51999

Mato Grosso do Sul: Campo Grande, bark, Aptroot 78094

Rio Grande do Sul: Porto Alegre, bark, Cáceres & Aptroot, ISE 22275a

*Mycoporum lacteum* (Ach.) R.C. Harris

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27846

*Myriostigma subcandidum* (M. Cáceres & Lücking) Frisch & G. Thor  
Sergipe: São Cristovão, bark, Cáceres & Aptroot, ISE 42948

*Myriotrema album* Fée  
Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 21901

*Myriotrema foliaceum* M. Cáceres, Aptroot & Lücking  
Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51410

*Myriotrema hartii* (Müll. Arg.) Hale  
Sergipe: Itabaiana, bark, Cáceres & Aptroot, ISE 21778

*Myriotrema myrioporoides* (Müll. Arg.) Hale  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51533

! *Naetrocymbe quassiicola* (Fée) R.C. Harris  
Mato Grosso do Sul: Pantanal, bark, Aptroot 78130

*Neoprotoparmelia brasilioidata* Garima Singh, M. Cáceres & Aptroot  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27848

*Neoprotoparmelia capitata* (Lendemer) Garima Singh, Lumbsch & I. Schmitt  
Minas Gerais: Catas Altas, bark and sandstone, Aptroot & Santos, ISE 51433

*Neoprotoparmelia nigra* L.A. Santos, Lücking & Aptroot  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 52187

*Neoprotoparmelia pseudomultifera* L.A. Santos, Lücking & Aptroot  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51438

*Neoprotoparmelia saxicola* (Aptroot & M. Cáceres) L.A. Santos, M. Cáceres & Aptroot  
Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51621  
Paraná: Lapa, sandstone, Aptroot 84563

*Nitidochapsa aggregata* (Hale) Poengs., Lücking & Lumbsch  
Sergipe: Aracaju, bark, Cáceres & Aptroot, ISE 21569

*Nyungwea anguinella* (Nyl.) Aptroot  
Mato Grosso do Sul: Pantanal, bark, Aptroot 84825  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27710a

*Ocellularia croceosidiata* Sipman

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51156

! *Ocellularia ecorticata* Mangold

Bahia: Santa Terezinha, bark, Mendonça, ISE 24088

Pará: Dom Eliseu, Cáceres & Aptroot, ISE 40409

*Ocellularia fecunda* (Vain.) Hale

Paraná: Lapa, sandstone, Aptroot 84678

*Ocellularia interposita* (Nyl.) Hale

Paraná: Lapa, bark, Aptroot 84522

! *Ocellularia laeviusculoides* Sipman & Lücking

Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 21900

*Ocellularia papillata* (Leighton) Zahlbr.

Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 21897

*Ocellularia percolumnellata* Sipman

Mato Grosso do Sul: Jateí, bark, Aptroot 80031

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27765

*Ocellularia rondoniana* M. Cáceres, Aptroot & Lücking

Bahia: Mata de São João, bark, Cáceres & Aptroot, ISE 48875

*Ochrolechia africana* Vain.

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27880

! *Opegrapha agelaeotera* Vain.

Sergipe: Aracaju, bark, Cáceres & Aptroot, ISE 18219

*Opegrapha chionoplaca* Redinger

Maranhão: Riachão, sandstone, Cáceres & Aptroot, ISE 40092

*Opegrapha cylindrica* Raddi

Amapá: Flona, bark, Cáceres & Aptroot, ISE 27321

Amazonas: Manaus, bark, Cáceres & Aptroot, ISE 28430

Bahia: Santa Terezinha, bark, Mendonça, ISE 24166

Maranhão: Imperatriz, bark, Cáceres & Aptroot, ISE 28723

Rondônia: Porto Velho, bark, Cáceres & Aptroot, ISE 11758

Tocantins: Itaguatins, bark, Cáceres & Aptroot, ISE 28855

! *Opegrapha dekeselii* Ertz

Rondônia: Porto Velho, bark, Cáceres & Aptroot, ISE 11671

! *Opegrapha heliobravoa* Herrero-Camp. & Lücking

Mato Grosso do Sul: Campo Grande, living leaves, Aptroot 78054

*Opegrapha lithyrgiza* Vain.

Santa Catarina: São Francisco do Sul, granite, Cáceres & Aptroot, ISE 27948

! *Opegrapha malmei* Reinger

Amazonas: Manaus, bark, Cáceres & Aptroot, ISE 28601

*Opegrapha multiseptata* Müll. Arg.

Amazonas: Manaus, bark, Cáceres & Aptroot, ISE 28100

Tocantins: Itaguatins, bark, Cáceres & Aptroot, ISE 28906

*Opegrapha ramisorediata* Aptroot & M. Cáceres

Mato Grosso do Sul: Pantanal, bark, Aptroot 78283

*Opegrapha regnellii* Redinger

Amapá: Macapá, bark, Cáceres & Aptroot, ISE 27606

*Opegrapha riograndensis* Redingr

Tocantins: Itaguatins, bark, Cáceres & Aptroot, ISE 28991

*Opegrapha subdictyospora* Aptroot & M. Cáceres

Sergipe: Itabaiana, bark, Cáceres & Aptroot, ISE 15003

*Opegrapha subrimulosa* Nyl.

Amapá: Macapá, bark, Cáceres & Aptroot, ISE 27179

! *Opegrapha subvulgata* Nyl.

Bahia: Santa Terezinha, bark, Mendonça, ISE 24176

*Opegrapha trilocularis* Müll. Arg.

Amapá: Macapá, bark, Cáceres & Aptroot, ISE 27214

Amazonas: Manaus, bark, Cáceres & Aptroot, ISE 28418

*Opegrapha urosperma* Fée

Amapá: Macapá, bark, Cáceres & Aptroot, ISE 27597



- Amazonas: Manaus, bark, Cáceres & Aptroot, ISE 28151  
Rondônia: Porto Velho, bark, Cáceres & Aptroot, ISE 11337  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27668  
Sergipe: Santa Luzia do Itanhy, bark, Cáceres & Aptroot, ISE 18766
- ! *Opegrapha vulgata* (Ach.) Ach.  
Pará: Dom Eliseu, bark, Cáceres & Aptroot, ISE 40223
- Orcularia insperata* (Nyl.) Kalb & Giralte  
Mato Grosso do Sul: Ladário, bark, Aptroot 80553  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51600
- Orcularia placodiomorpha* (Vain.) Kalb & Giralte  
Mato Grosso do Sul: Pantanal, bark, Aptroot 78146
- Pallidogramme chrysenteron* (Mont.) Lücking  
Rio Grande do Sul: Viamão, bark, Cáceres & Aptroot, ISE 22139
- Pannaria lurida* (Mont.) Nyl.  
Sergipe: São Cristovão, bark, Cáceres & Aptroot, ISE 42937
- Parallopsora labriiformis* (Timdal) Kistenich, Timdal, Bendiksby & S. Ekman  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51254pp
- Parmeliella nigrocincta* (Mont.) Müll. Arg.  
Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 21941
- Parmeliella pannosa* (Sw.) Müll. Arg.  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51916
- Parmelinella amazonica* (Nyl.) A.S. Rodrigues, A.P. Lorenz & Canêz  
Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 21856
- Parmotrema clavuliferum* (Räs.) Streimann  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27864
- Parmotrema magnum* (Lyngby) Spielmann & Marcelli  
Alagoas: Quebrangulo, granite, Cáceres & Aptroot, ISE 42573
- Parmotrema neotropicum* (Kurok.) Hale  
Alagoas: Quebrangulo, granite, Cáceres & Aptroot, ISE 42551  
Bahia: Chapada Diamantina, Palmeiras, granite, Cáceres & Aptroot, ISE 42099

*Parmotrema pontagrossense* (Eliasaro & Adler) O. Blanco, A. Crespo, Divakar, Elix & Lumbsch  
Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51068

*Parmotrema praesorediosum* (Nyl.) Hale  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27857

*Parmotrema reticulatum* (Taylor) M. Choisy  
Mato Grosso do Sul: Campo Grande, bark, Aptroot 78365

*Parmotrema wainii* (Sm.) Hale  
Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 21954

*Parmotrema warmingii* (Vain.) Spielmann & Marcelli  
Alagoas: Quebrangulo, granite, Cáceres & Aptroot, ISE 42522  
Bahia: Chapada Diamantina, Palmeiras, granite, Cáceres & Aptroot, ISE 40907

! *Paulia cubana* (Tuck.) Henssen  
Mato Grosso do Sul: Corumbá, exposed limestone, Aptroot 81276

! *Paulia gibbosa* Henssen  
Mato Grosso do Sul: Bodoquena, exposed limestone, Aptroot 77813

! *Paulia stipitata* Henssen  
Mato Grosso do Sul: Bodoquena, exposed limestone, Aptroot 77818

! *Paulia tessellata* Henssen  
Mato Grosso do Sul: Corumbá, exposed limestone, Aptroot 80676

*Peltigera laciniata* (G. Merr. ex Riddle) Gyelnik  
Paraná: Quatro Barras, soil, Aptroot 84645

*Peltigera ulcerata* Müll. Arg.  
Paraná: Quatro Barras, soil, Aptroot 84647

*Peltula brasiliensis* (Zahlbr.) Büdel, Kauff & Bachran  
Amapá: Flona, submerged sandstone, Cáceres & Aptroot, ISE 27322  
Minas Gerais: Catas Altas, wet sandstone, Aptroot & Santos, ISE 51994

*Peltula corticola* Büdel & R. Sant.  
Ceará: Quixadá, bark, Cáceres & Aptroot, ISE 21480a

- Mato Grosso do Sul: Corumbá, bark, Aptroot 80643  
Sergipe: Assentamento, schist, Cáceres & Aptroot, ISE 18327
- Peltula euploca* (Ach.) Poelt ex Ozenda & Clauzade  
Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 52300
- Peltula placodizans* (Zahlbr.) Wetm.  
Mato Grosso do Sul: Ladário, iron-rich rock, Aptroot 80560
- Peltula rodriguesii* (Cromb.) Büdel  
Sergipe: Assentamento, schist, Cáceres & Aptroot, ISE 18318
- Pertusaria flavens* Nyl.  
Minas Gerais: Catas Altas, palm bark, Aptroot & Santos, ISE 51495  
Rio Grande do Norte: Mossoró, bark, Cáceres & Aptroot, ISE 21556
- Pertusaria lichexanthofarinosa* Aptroot & M. Cáceres  
Minas Gerais: Catas Altas, wood, Aptroot & Santos, ISE 51430
- Pertusaria lichexanthoimmersa* Aptroot & M. Cáceres  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51441
- Pertusaria muricata* J.C. David  
Minas Gerais: Catas Altas, soil, Aptroot & Santos, ISE 51231
- Phaeographis brasiliensis* (A. Massal.) Kalb & Matthes-Leicht  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 52359
- Phaeographis dendritica* (Ach.) Müll. Arg.  
Sergipe: Aracaju, bark, Cáceres & Aptroot, ISE 21562
- Phaeographis diversula* (Nyl.) Zahlbr.  
Amapá: Macapá, bark, Cáceres & Aptroot, ISE 27032
- Phaeographis inconspicua* (Fée) Müll. Arg.  
Rondônia: Porto Velho, bark, Cáceres & Aptroot, ISE 11351
- Phaeographis kalbii* Staiger  
Bahia: Chapada da Diamantina, bark, Mendonça, ISE 24002
- Phaeographis leucocheila* (Fée) Müll. Arg.  
Rondônia: Porto Velho, bark, Cáceres & Aptroot, ISE 11068

*Phaeographis lindigiana* Müll. Arg.

Sergipe: São Cristovão, bark, Cáceres & Aptroot, ISE 42913

*Phaeographis spondaica* (Nyl.) Lücking

Rio Grande do Sul: Viamão, bark, Cáceres & Aptroot, ISE 22116

! *Phaeographis subbifida* (Zenker) Müll. Arg.

Amapá: Flona, bark, Cáceres & Aptroot, ISE 27418

Amazonas: Manaus, bark, Cáceres & Aptroot, ISE 28583

*Phlyctis brasiliensis* Nyl.

Paraná: Quatro Barras, bark, Aptroot 84603

! *Phylliscum vermiformis* M. Schultz & Büdel

Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51474

*Phylloporis phyllogena* (Müll. Arg.) Clem.

Mato Grosso do Sul: Bonito, living leaves, Aptroot 77362

*Phyllopsora breviscula* (Nyl.) Müll. Arg.

Amapá: Flona, bark, Cáceres & Aptroot, ISE 27291

Bahia: Chapada Diamantina, Lençóis, bark, Cáceres & Aptroot, ISE 40700

Sergipe: Itabaiana, bark, Cáceres & Aptroot, ISE 18476

*Phyllopsora buettneri* (Müll. Arg.) Zahlbr.

Amapá: Flona, bark, Cáceres & Aptroot, ISE 27221

Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 21876

*Phyllopsora chlorophaea* (Müll. Arg.) Zahlbr.

Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 22012

*Phyllopsora chodatunica* Elix

Amapá: Macapá, bark, Cáceres & Aptroot, ISE 27616

*Phyllopsora cinchonarum* (Fée) Timdal

Sergipe: Serra da Guia, bark, Mendonça, ISE 24219

*Phyllopsora confusa* Swinscow & Krog

Maranhão: Carolina, bark, Cáceres & Aptroot, ISE 40125

*Phyllopsora cuyabensis* (Malme) Zahlbr.

Mato Grosso do Sul: Campo Grande, bark, Aptroot 79037

*Phyllopsora gossypina* (Sw.) Kistenich, Timdal, Bendiksby & S.  
Mato Grosso do Sul: Campo Grande, bark, Aptroot 79067

*Phyllopsora isidiotyla* (Vain.) Riddle  
Rondônia: Porto Velho, bark, Cáceres & Aptroot, ISE 11114  
Sergipe: Itabaiana, bark, Cáceres & Aptroot, ISE 18107

*Phyllopsora longiuscula* (Nyl.) Zahlbr.  
Mato Grosso do Sul: Pantanal, bark, Aptroot 81185

*Phyllopsora ochroxantha* (Nyl.) Zahlbr.  
Amapá: Flona, bark, Cáceres & Aptroot, ISE 27365

*Phyllopsora pyxinoides* (Nyl.) Kistenich, Timdal, Bendiksby & S. Ekman  
Rio Grande do Sul: Viamão, bark, Cáceres & Aptroot, ISE 22221  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27891pp

*Phyllopsora santensis* (Tuck.) Swinscow & Krog  
Maranhão: Imperatriz, bark, Cáceres & Aptroot, ISE 28765  
Rondônia: Porto Velho, bark, Cáceres & Aptroot, ISE 15078  
Tocantins: Itaguatins, bark, Cáceres & Aptroot, ISE 28848

! *Phyllopsora subcrustacea* (Malme) Brako  
Bahia: Santa Terezinha, bark, Mendonça, ISE 24051  
Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 21992

*Phyllopsora swinscowii* Timdal & Krog  
Amapá: Flona, bark, Cáceres & Aptroot, ISE 27407  
Rondônia: Itapuã do Oeste, bark, Mendonça, ISE 23429

*Physcia alba* (Fée) Müll. Arg.  
Ceará: Quixadá, bark, Cáceres & Aptroot, ISE 21478

*Physcia atrostriata* Moberg  
Pernambuco: Recife, bark, Cáceres & Aptroot, ISE 21822

*Physcia caesia* Hoffm.  
Rio Grande do Sul: Viamão, granite, Cáceres & Aptroot, ISE 22113

*Physcia convexa* Müll. Arg.

Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51930

*Phycia erumpens* Moberg

Rio Grande do Sul: Porto Alegre, bark, Cáceres & Aptroot, ISE 22270

*Phycia kalbii* Moberg

Mato Grosso do Sul: Morraria do Sul, bark, Aptroot 77735

*Phycia lacinulata* Müll. Arg.

Mato Grosso do Sul: Ladário, bark, Aptroot 80594

*Phycia pachyphylla* Müll. Arg.

Mato Grosso do Sul: Jaraguari, bark, Aptroot 82722

Paraná: Quatro Barras, bark, Aptroot 84642

*Phycia poncinsii* Hue

Paraná: Quatro Barras, bark, Aptroot 84662

*Phycia rolfi* Moberg

Mato Grosso do Sul: Bonito, limestone, Aptroot 78000

Pernambuco: Recife, bark, Cáceres & Aptroot, ISE 21826

*Phycia solediosa* (Vain.) Lynge

Pernambuco: Recife, bark, Cáceres & Aptroot, ISE 21827

*Phyciella neotropica* M.F. Souza & Aptroot

Paraná: Piraquara, bark, Aptroot 84571

*Placidium corticola* (Räs.) Breuss

Mato Grosso do Sul: Rochedinho, bark, Aptroot 82744

Sergipe: Poço Redondo, bark, Cáceres & Aptroot, ISE 48026a

*Platythecium leiogramma* (Nyl.) Staiger

Bahia: Mata de São João, bark, Cáceres & Aptroot, ISE 48857

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51965

Paraná: Lapa, sandstone, Aptroot 84679

! *Polyblastia philaea* Zschacke

Sergipe: Assentamento, soil, Cáceres & Aptroot, ISE 18329

*Polymeridium albocinereum* (Kremp.) R.C. Harris

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27708

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- Polymeridium cinereonigricans* (Vain.) R.C. Harris  
Mato Grosso do Sul: Corumbá, bark, Aptroot 81077
- Polymeridium jordanii* (C.W. Dodge) Aptroot  
Bahia: Mata de São João, bark, Cáceres & Aptroot, ISE 48769
- Polymeridium stramineoatrum* (Vain.) Aptroot  
Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 21974
- Polymeridium subcinereum* (Nyl.) R.C. Harris  
Bahia: Chapada da Diamantina, bark, Mendonça, ISE 23948
- Porina americana* Fée  
Rio Grande do Sul: Viamão, bark, Cáceres & Aptroot, ISE 22214
- Porina cestrensis* (Tuck.) Müll. Arg.  
Mato Grosso do Sul: Corumbá, bark, Aptroot 81194
- Porina chlorotica* (Ach.) Müll. Arg.  
Ceará: Quixadá, gneiss, Cáceres & Aptroot, ISE 21373  
Minas Gerais: Catas Altas, wet sandstone, Aptroot & Santos, ISE 51856
- Porina conspersa* Malme  
Paraná: Lapa, sandstone, Aptroot 84682
- Porina coralloidea* P. James  
Mato Grosso do Sul: Corumbá, bark, Aptroot 81146
- Porina distans* Vězda & Vivant  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 52351
- Porina farinosa* C. Knight  
Bahia: Santa Terezinha, bark, Mendonça, ISE 24077  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27767
- Porina guentheri* (Flot.) Zahlbr  
Minas Gerais: Catas Altas, wet sandstone, Aptroot & Santos, ISE 51404
- Porina isidioambigua* M. Cáceres, M.W.O. Santos & Aptroot  
Mato Grosso do Sul: Pantanal, bark, Aptroot 78206

*Porina papillifera* (Stirt.) F. Schill.

Mato Grosso do Sul: Campo Grande, living leaves, Aptroot 78064

*Porina repanda* (Stirt.) Lücking & R. Sant.

Rondônia: Porto Velho, painted wood, Cáceres & Aptroot, ISE 15445n

*Porina rudiuscula* (Nyl.) Müll. Arg.

Bahia: Chapada da Diamantina, bark, Mendonça, ISE 23885

*Porina simulans* Müll. Arg.

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27884

*Porina sorediata* Aptroot, Lücking & M. Cáceres

Mato Grosso do Sul: Ladário, bark, Aptroot 80592

! *Porocyphus dimorphus* Henssen

Santa Catarina: São Francisco do Sul, granite, Cáceres & Aptroot, ISE 27901

Sergipe: Poço Redondo, siliceous rock, Cáceres & Aptroot, ISE 48053

*Protoparmelia badia* (Hoffm.) Hafellner

Rio Grande do Sul: Viamão, granite, Cáceres & Aptroot, ISE 22130

*Pseudobogoriella hemisphaerica* (Müll. Arg.) Lücking, R. Miranda & Aptroot

Bahia: Mata de São João, bark, Cáceres & Aptroot, ISE 48813

Mato Grosso do Sul: Corumbá, bark, Aptroot 80648

*Pseudobogoriella punctata* (Aptroot) Lücking, R. Miranda & Aptroot

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51637

*Pseudochapsa dilatata* (Müll. Arg.) Parmen, Lücking & Lumbsch

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51729

Rio Grande do Sul: Porto Alegre, bark, Cáceres & Aptroot, ISE 22041

*Pseudoparmelia cubensis* (Nyl.) Elix & Nash

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51623

*Pseudoparmelia hypomilta* (Fée) Hale

Mato Grosso do Sul: Bonito, bark, Aptroot 77519

! *Pseudopyrenula endoxanthoides*

Sergipe: São Cristovão, bark, Cáceres & Aptroot, ISE 42897



*Pseudopyrenula media* Aptroot & Diederich

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51148

*Psoroglaena cubensis* Müll. Arg.

Rio Grande do Sul: Viamão, bark, Cáceres & Aptroot, ISE 22232

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27768

*Psoroglaena stigonemoides* (Orange) Henssen

Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 22025

*Psorotichia americana* Vain.

Mato Grosso do Sul: Bodoquena, shale along river, Aptroot 77845

Rio Grande do Norte: Mossoró, limestone, Cáceres & Aptroot, ISE 21533

Sergipe: Poço Redondo, siliceous rock, Cáceres & Aptroot, ISE 48068

! *Psorotichia murorum* A. Massal.

Mato Grosso do Sul: Pantanal, roof tile, Aptroot 78294

Pernambuco: Recife, concrete, Cáceres & Aptroot, ISE 21814

Santa Catarina: São Francisco do Sul, concrete, Cáceres & Aptroot, ISE 27845

*Pterygiopsis atra* Vain.

Mato Grosso do Sul: Ladário, iron-rich rock, Aptroot 80561

*Pterygiopsis densisidiata* Aptroot, Oliveiro Junior & M. Cáceres

Maranhão: Riachão, sandstone, Cáceres & Aptroot, ISE 40049

*Pterygiopsis guyanensis* M. Schultz, Porembski & Büdel

Alagoas: Quebrangulo, granite, Cáceres & Aptroot, ISE 50913

*Puiggariella nemathora* (Mont.) S.H. Jiang, Lücking & J.C. Wei

Minas Gerais: Catas Altas, living leaves, Aptroot & Santos, ISE 51805

*Pyrenopsis carassensis* Vain.

Alagoas: Quebrangulo, granite, Cáceres & Aptroot, ISE 50934

Rio Grande do Sul: Viamão, granite, Cáceres & Aptroot, ISE 22124

Santa Catarina: São Francisco do Sul, granite, Cáceres & Aptroot, ISE 27935

*Pyrenopsis cylindrophora* Vain.

Maranhão: Riachão, sandstone, Cáceres & Aptroot, ISE 40043

*Pyrenopsis monilifera* Vain.

Maranhão: Riachão, sandstone, Cáceres & Aptroot, ISE 40050pp

*Pyrenopsis olivacea* Vain.

Maranhão: Riachão, sandstone, Cáceres & Aptroot, ISE 40088

*Pyrenula adacta* Fée

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51724

*Pyrenula aggregata* (Fée) Fée

Mato Grosso do Sul: Pantanal, bark, Aptroot 84501

Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 21868

*Pyrenula anomala* (Ach.) A. Massal.

Rio Grande do Norte: Mossoró, bark, Cáceres & Aptroot, ISE 21536

*Pyrenula bahiana* Malme

Sergipe: São Cristovão, bark, Cáceres & Aptroot, ISE 42978

*Pyrenula confinis* (Nyl.) R.C. Harris

Bahia: Mata de São João, bark, Cáceres & Aptroot, ISE 48775c

*Pyrenula cruenta* (Mont.) Vain.

Bahia: Mata de São João, bark, Cáceres & Aptroot, ISE 48765

*Pyrenula cubana* (Müll. Arg.) R.C. Harris

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27824

*Pyrenula cuyabensis* (Malme) R.C. Harris

Mato Grosso do Sul: Pantanal, bark, Aptroot 84768

*Pyrenula laetior* Müll. Arg.

Mato Grosso do Sul: Jateí, bark, Aptroot 80165

*Pyrenula leucostoma* Ach.

Paraná: Piraquara, bark, Aptroot 84574

*Pyrenula mastophora* (Nyl.) Müll. Arg.

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51871

*Pyrenula micheneri* R.C. Harris

Mato Grosso do Sul: Pantanal, bark, Aptroot 82803

*Pyrenula microcarpa* Müll. Arg.

Mato Grosso do Sul: Pantanal, bark, Aptroot 82796

! *Pyrenula monospora* Aptroot & Sipman  
Paraná: Quatro Barras, bark, Aptroot 84580

*Pyrenula nitidula* (Bres.) R.C. Harris  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27868

*Pyrenula papillifera* (Nyl.) Aptroot  
Bahia: Mata de São João, bark, Cáceres & Aptroot, ISE 48800

*Pyrenula platystoma* (Müll. Arg.) Aptroot  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51870

*Pyrenula psoriformis* Zahlbr.  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27778

*Pyrenula pyrenuloides* (Mont.) R.C. Harris  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27696

*Pyrenula schiffneri* (Zahlbr.) Aptroot  
Mato Grosso do Sul: Rio Brilhante, bark, Aptroot 79876

*Pyrenula septicollaris* (Eschw.) R.C. Harris  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 52360  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27808

*Pyrenula subgregantula* Müll. Arg.  
Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51294

*Pyrenula violaceastroidea* Mendonça, Aptroot & M. Cáceres  
Bahia: Mata de São João, bark, Cáceres & Aptroot, ISE 48802

*Pyrrhospora varians* (Ach.) R.C. Harris  
Mato Grosso do Sul: Campo Grande, bark, Aptroot 79039  
Rio Grande do Sul: Viamão, bark, Cáceres & Aptroot, ISE 22115

*Pyxine cocoes* (Sw.) Nyl.  
Amazonas: Manaus, bark, Cáceres & Aptroot, ISE 50630pp  
Pernambuco: Recife, bark, Cáceres & Aptroot, ISE 21818

! *Pyxine convexior* (Müll. Arg.) Swinscow & Krog

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27805

*Pyxine fallax* (Zahlbr.) Kalb

Mato Grosso do Sul: Jateí, bark, Aptroot 80188

*Pyxine jolyana* Jungbluth, Kalb & Marcelli

Minas Gerais: Catas Altas, palm bark, Aptroot & Santos, ISE 51494

*Pyxine retirugella* Nyl.

Acre: Sena Madureira, bark, Cáceres & Aptroot, ISE 50161

*Pyxine schechingeri* Kalb

Minas Gerais: Catas Altas, palm bark, Aptroot & Santos, ISE 51492

*Ramalina peruviana* Ach.

Minas Gerais: Catas Altas, twigs, Aptroot & Santos, ISE 51995

*Ramalina rigida* Pers. ex Ach.

Paraná: Quatro Barros granite, Aptroot 84631

*Ramboldia heterocarpa* (Fée) Kalb, Lumbsch & Elix

Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51111

*Reimnitzia santensis* (Tuck.) Kalb

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51377

*Rhizocarpon megapotamicum* (Malme) Räsänen

Paraná: Quatro Barras, granite, Aptroot 84588

*Rinodina guianensis* Aptroot

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51645

Pernambuco: Recife, bark, Cáceres & Aptroot, ISE 21838

*Rinodina maculans* (Kremp.) Müll. Arg.

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27881

! *Rinodina parasitica* H. Mayrhofer & Poelt

Minas Gerais: Catas Altas, rock, on *Buellia anatolioides*, Aptroot & Santos, ISE 51560pp

! *Rinodina saulensis* Aptroot

Mato Grosso do Sul: Campo Grande, bark, Aptroot 80390

*Rinodina sipmanii* Aptroot

Mato Grosso do Sul: Campo Grande, bark, Aptroot 78099

*Sarcographa medusulina* (Nyl.) Redinger

Sergipe: Aracaju, bark, Cáceres & Aptroot, ISE 21570

*Sarcographa tricola* (Ach.) Müll. Arg.

Bahia: Mata de São João, bark, Cáceres & Aptroot, ISE 48786

Mato Grosso do Sul: Jaraguari, bark, Aptroot 82669

*Sclerophyton seriale* (Ach.) Sparrius

Bahia: Mata de São João, bark, Cáceres & Aptroot, ISE 48858

*Septotrapelia glauca* Aptroot & Chaves

Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51932

Mato Grosso do Sul: Jaraguari, siliceous rock, Aptroot 82680

*Septotrapelia usnica* (Sipman) Kalb & Bungartz

Minas Gerais: Catas Altas, brick, Aptroot & Santos, ISE 51192

! *Siphula pteruloides* Nyl.

Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51713

*Sprucidea granulosa* M. Cáceres, Aptroot & Lücking

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51964

*Sprucidea gymnopiperis* (Kalb) M. Cáceres, Aptroot & Lücking

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 52363

*Sticta scabrosa* B. Moncada, Merc.-Díaz & Bungartz

Mato Grosso do Sul: Jateí, bark, Aptroot 80176

Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 21858

*Stirtonia macrocarpa* Makhija & Patw.

Ceará: Quixadá, bark, Cáceres & Aptroot, ISE 21440

Mato Grosso do Sul: Pantanal, bark, Aptroot 84769

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27785

*Stirtonia microspora* Xavier-Leite, M. Cáceres & Aptroot

Mato Grosso do Sul: Pantanal, bark, Aptroot 78172

*Stirtonia nivea* Xavier-Leite, M. Cáceres & Aptroot  
Mato Grosso do Sul: Corumbá, bark, Aptroot 81063

*Stirtonia psoromica* Aptroot & Wolseley  
Mato Grosso do Sul: Bonito, bark of twig, Aptroot 77341

*Swinscowia muriconidiata* (Aptroot, L.I. Ferraro & M. Cáceres) S.H. Jiang,  
Lücking & Sérus.  
Mato Grosso do Sul: Pantanal, bark, Aptroot 78221

*Swinscowia obtecta* (Vain.) S.H. Jiang, Lücking & Sérus.  
Rio Grande do Sul: Viamão, bark, Cáceres & Aptroot, ISE 22228

*Synalissa matogrossensis* (Malme) Henssen  
Ceará: Quixadá, gneiss, Cáceres & Aptroot, ISE 21365

*Synarthonia inconspicua* (Stirt.) Van den Broeck & Ertz  
Rondônia: Porto Velho, palm bark, Cáceres & Aptroot, ISE 11206

! *Synarthonia lopingensis* (Zahlbr.) Van den Broeck, Frisch & Ertz  
Alagoas: Quebrangulo, bark, on *Graphis*, Cáceres & Aptroot, ISE 42818  
Mato Grosso do Sul: Pantanal, bark, on *Graphis*, Aptroot 78126

*Synarthonia sarcographoides* Aptroot, A.A. Menezes, E.L. Lima & M. Cáceres  
Mato Grosso do Sul: Rochedo, bark, Aptroot 80728

*Syncesia byssolomoides* A.A. Menezes, M. Cáceres & Aptroot  
Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 21948  
Sergipe: Serra da Guia, bark, Mendonça, ISE 24241

! *Syncesia depressa* (Fée) Tehler  
Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27707

*Syncesia rhizomorpha* Tehler  
Pernambuco: Caruaru, bark, Cáceres & Aptroot, ISE 22026

*Tapellaria malmei* R. Sant.  
Sergipe: São Cristovão, bark, Cáceres & Aptroot, ISE 42904

*Tapellaria puiggarii* (Müll. Arg.) R. Sant.  
Rondônia: Porto Velho, painted wood, Cáceres & Aptroot, ISE 15445s

! *Tapellaria saxicola* Vězda & Poelt

Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51460

*Teloschistes chrysophthalmus* (L.) Th. Fr.

Paraná: Quatro Barras, twig, Aptroot 84639

*Tephromela atra* (Huds.) Hafellner ex Kalb

Bahia: Chapada da Diamantina, bark, Mendonça, ISE 23990a

Paraná: Quatro Barras, granite, Aptroot 84594

*Tephromela matogrossensis* Kalb & Elix

Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51607

*Thalloloma janeirensis* Staiger

Bahia: Mata de São João, bark, Cáceres & Aptroot, ISE 48845

*Thalloloma rhodastrum* (Redinger) Staiger

Santa Catarina: São Francisco do Sul, bark, Cáceres & Aptroot, ISE 27780

*Thelenella luridella* (Nyl.) H. Mayrhofer

Sergipe: Assentamento, schist, Cáceres & Aptroot, ISE 18312

*Thelidium brasiliense* (Müll. Arg.) Servít

Mato Grosso do Sul: Jaraguari, siliceous rock, Aptroot 82609

! *Thelidium methorium* (Nyl.) Hellb.

Minas Gerais: Catas Altas, wet sandstone, Aptroot & Santos, ISE 51854

*Thelidium minutulum* Körb.

Santa Catarina: São Francisco do Sul, concrete, Cáceres & Aptroot, ISE 27847

*Thyrea confusa* Henssen

Mato Grosso do Sul: Bodoquena, exposed limestone, Aptroot 77823

*Toninia cinereovirens* (Schaer.) A. Massal.

Rio Grande do Sul: Viamão, granite, Cáceres & Aptroot, ISE 22146

! *Toninia tristis* (Th. Fr.) Th. Fr.

Rio Grande do Sul: Viamão, soil, Cáceres & Aptroot, ISE 22151

! *Trapeliopsis granulosa* (Hoffm.) Lumbsch

Minas Gerais: Catas Altas, burnt wood, Aptroot & Santos, ISE 51385

Mato Grosso: Chapada dos Guimarães, bark, Aptroot 81773  
Rio Grande do Sul: Porto Alegre, wood, Cáceres & Aptroot, ISE 22066  
Santa Catarina: São Francisco do Sul, wood, Cáceres & Aptroot, ISE 27849

*Trapeliopsis studerae* Aptroot & M. Cáceres  
Minas Gerais: Catas Altas, wet sandstone, Aptroot & Santos, ISE 51997

*Traponora globosa* Aptroot  
Mato Grosso do Sul: Campo Grande, bark, Aptroot 80436

*Trichothelium alboatrum* Vain.  
Rondônia: Porto Velho, painted wood, Cáceres & Aptroot, ISE 154450

*Trichothelium horridulum* (Müll. Arg.) R. Sant.  
Bahia: Santa Terezinha, bark, Mendonça, ISE 24062

*Trichothelium sipmanii* Lücking  
Mato Grosso do Sul: Campo Grande, living leaves, Aptroot 80830

! *Trimmatothele perquisita* (Norman) Norman ex Zahlbr.  
Mato Grosso do Sul: Rochedinho, pebbles, Aptroot 82726

*Trypethelium eluteriae* Spreng.  
Rio Grande do Norte: Mossoró, bark, Cáceres & Aptroot, ISE 21558

*Trypethelium regnellii* Malme  
Sergipe: Itabaiana, bark, Cáceres & Aptroot, ISE 18426

*Trypethelium tolimense* Lücking, B. Moncada & M.C. Gut.  
Mato Grosso do Sul: Campo Grande, bark, Aptroot 78338

! *Trypethelium xanthoplatystomum* Flakus & Aptroot  
Mato Grosso do Sul: Pantanal, bark, Aptroot 84503

*Tylophoron hibernicum* (D. Hawksw., Coppins & P. James) Ertz, Diederich,  
Bungartz & Tibell  
Bahia: Santa Terezinha, bark, Mendonça, ISE 24183

*Tylophoron moderatum* Nyl.  
Paraná: Lapa, bark, Aptroot 84521

*Usnea amblyoclada* (Müll. Arg.) Motyka



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Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51761

*Usnea dasaea* Stirt.

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51446

! *Usnea flavocardia* Räsänen

Mato Grosso do Sul: Jateí, bark, Aptroot 80129

*Usnea perhispidella* Steiner

Minas Gerais: Catas Altas, bark, Aptroot & Santos, ISE 51712

*Verrucaria dolosa* Hepp

Mato Grosso do Sul: Bonito, calcareous soil, Aptroot 77538

Rio Grande do Sul: Porto Alegre, concrete, Cáceres & Aptroot, ISE 22036

*Verrucaria margacea* (Wahlenb.) Wahlenb.

Mato Grosso do Sul: Jaraguari, wet siliceous rock, Aptroot 82685

*Verrucaria muralis* Ach.

Pernambuco: Recife, concrete, Cáceres & Aptroot, ISE 21846

*Verrucaria nigrescens* Pers.

Pernambuco: Recife, concrete, Cáceres & Aptroot, ISE 21847

*Verrucaria pachyderma* Arnold

Minas Gerais: Catas Altas, wet sandstone, Aptroot & Santos, ISE 51564

! *Veizdaea stipitata* Poelt & Döbbeler

Minas Gerais: Catas Altas, roots and soil, Aptroot & Santos, ISE 51861

Santa Catarina: São Francisco do Sul, sand, Cáceres & Aptroot, ISE 27734

*Willeya protrudens* Gueidan

Mato Grosso do Sul: Bonito, shaded limestone, Aptroot 77130

*Xanthoparmelia echinocarpica* Nash & Elix

Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51840

*Xanthoparmelia marcellii* Nash & Elix

Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 52380

*Xanthoparmelia monastica* Nash & Elix

Rio Grande do Sul: Viamão, granite, Cáceres & Aptroot, ISE 22168

*Xanthoparmelia neokalbii* Nash & Elix

Minas Gerais: Catas Altas, sandstone, Aptroot & Santos, ISE 51614

*Xanthoparmelia neopropaguloides* Hale

Rio Grande do Sul: Viamão, granite, Cáceres & Aptroot, ISE 22099

*Xanthoparmelia saxeti* (Stizenb.) G. Amo, A. Crespo, Elix & Lumbsch

Minas Gerais: Catas Altas, pebbles, Aptroot & Santos, ISE 51786

*Zwackhia prosodea* (Ach.) Ertz

Rondônia: Porto Velho, sapling, Cáceres & Aptroot, ISE 11181

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### Literature

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