

A checklist of the fungi recorded from Serra da Jibóia, Bahia state, Brazil

Part 1—quick overview

FLÁVIA R. BARBOSA^{1*}, MONIQUE MACHINER¹,
GLEYSO CRISTIANO K. BARBOSA¹ & LUÍS F. P. GUSMÃO²

¹ Universidade Federal de Mato Grosso, Instituto de Ciências Naturais, Humanas e Sociais
Av. Alexandre Ferronato, 1200, Setor Industrial, Sinop, Mato Grosso, 78557-267, Brazil

² Universidade Estadual de Feira de Santana, Departamento de Ciências Biológicas
BR116, Km03, Feira de Santana, Bahia, 44.031-460, Brazil

* CORRESPONDENCE TO: faurb10@yahoo.com.br

ABSTRACT — Serra da Jibóia is one of the priority areas for the conservation of biodiversity located in the semiarid Caatinga biome of Northeast Brazil. Two hundred and fifty-nine species of fungi (mitosporic and meiosporic ascomycetes and basidiomycetes) were reported from Serra da Jibóia and are presented here. These species are distributed in 155 genera among which *Dictyochoaeta* was the most highly represented genus with nine species. Inventory of the Serra da Jibóia region has thus far contributed to the description of one new genus and seven new species to science; six species are considered rare while 121 are new records of fungi. These data were based on literature records.

KEY WORDS — Fungal diversity, inventory, taxonomy

Introduction

The Kingdom Fungi groups organisms with various morphological forms that play a major role in terrestrial and aquatic ecosystems as saprobes, symbionts and parasites of plants, animals and other fungi (Webster & Weber 2007). Recently, members of the fungal kingdom were restructured through molecular phylogenetic analyses into eight major phyla: Blastocladiomycota, Chytridiomycota, Glomeromycota, Microsporidia, Neocallimastigomycota, Zygomycota, Ascomycota and Basidiomycota (Hibbett et al. 2007). More recently, Gryganskyi et al. (2012) described the new phylum Entomophthoromycota, which includes pathogenic species of invertebrates, algae, reptiles and others.

Fungi comprise the second largest kingdom of life with insects being the most hyperdiverse. Some studies estimate that fungi comprise of 1.5 to 5.1 million species (Hawksworth 1991, 2001, Blackwell 2011) but more recent research has shown that there are, probably, 3 million of species worldwide (Hawksworth 2012). In a recent study, cataloging species data on fungi, Maia & Carvalho-Junior (2010) recorded 3.608 species of fungi in Brazil, with 584 species for Bahia state, a relatively low number compared to the richness of ecosystems in the country and estimates of existing species.

Serra da Jibóia (12°51'S, 39°28'W) is a remnant of rainforest inserted in the Caatinga Biome and is located in the Bahia state, Northeast Brazil. It is among the 147 areas that were selected as priorities for biodiversity conservation being considered of extreme biological importance (Ministério do Meio Ambiente 2000). By being an enclave of forest, it represents an interesting area to be investigated in view of the great potential for the occurrence of endemism and species still unknown to science (Ministério do Meio Ambiente 2000). Researches involving different biological groups have already been undertaken at this site (Bravo & Chagas 2004, Juncá & Borges 2002, Ramos et al. 2011, Silva 2013). However, only a few studies have provided a list of species found. Existing checklists include phanerogamic (Queiroz et al. 1996, Carvalho-Sobrinho & Queiroz 2005), liverworts (Valente & Porto 2006), mosses (Valente et al. 2009), birds (Freitas & Morais 2009), butterflies (Zacca et al. 2011) and fern and lycophytes (Macedo

MYCOTAXON link page 129: #

Expert reviewers: José Luiz Bezerra, Julio Mena-Portales, Huzefa Raja

Uploaded — January 2015

et al. 2011). Until now, there has been no effort to compile a list of all fungal species collected in this region so that it could be made available for future biodiversity and conservation studies.

This study aimed to present a list of fungal species occurring in Serra da Jibóia, based on literature data and field sampling, and contributes to the knowledge of fungi in Bahia state.

Materials & methods

A checklist of fungal species recorded in the Serra da Jibóia, Bahia state was based on a compilation of literature data.

The databases Index Fungorum (<http://www.indexfungorum.org/Names/Names.asp>) and Mycobank (<http://www.mycobank.org/>) were consulted for current nomenclature and correct author names.

Species names are listed alphabetically and data as, substrate, habitat, and reference are provided. The geographical record of each species is provided only when these data were available in the literature consulted. Unidentified fungi to the species level were not considered.

Results & discussion

Based on the compilation of literature data and species collected in field sampling, a total of 259 species of decomposing fungi, belonging to 155 genera were recorded in Serra da Jibóia region. The most representative group consisted of 221 species of mitosporic ascomycetes (coelomycetes and hyphomycetes), followed by 26 species of basidiomycetes and 14 species of meiosporic ascomycetes.

The genus with the highest number of recorded species was *Dictyochaeta* Speg. with nine species followed by *Dactylaria* Sacc. with seven species, *Stachybotrys* Corda and *Thozetella* Kuntze with six species, *Vermiculariopsiella* Bender with five species and *Gyrothrix* (Corda) Corda with four species. Previous studies have shown that these genera are reported in inventory works (Polishook et al. 1996, Silva et al. 2014, Tsui et al. 2000).

Among the catalogued species to the Serra da Jibóia, more than half of species (51,7% or 135 species) represented important discovery: one new genus (*Longicolum*), seven new species to science (*Annulatascus apiculatus* F.R. Barbosa & Gusmão, *Cubasina microspora* M.F.O. Marques, Gusmão & R.F. Castañeda, *Dactylaria saccardoana* F.R. Barbosa & Gusmão, *Deightoniella rugosa* F.R. Barbosa, Gusmão & R.F. Castañeda, *Diplocladiella cornitumida* F.R. Barbosa, Gusmão & R.F. Castañeda, *Quadracaea stauroconidia* F.R. Barbosa & Gusmão and *Thozetella submersa* F.R. Barbosa & Gusmão), six rare species (*Brachydesmiella anthostomelloidea* Goh & K.D. Hyde, *Camposporidium cristatum* Nawawi & Kuthub., *Dactylaria hyalotunicata* K.M. Tsui, Goh & K.D. Hyde, *Lauriomyces sakaeratensis* Somrith., Kosol & E.B.G. Jones, *Pleurophragmium malaysianum* Matsush. and *Pyricularia rabaulensis* Matsush.) and 121 new records. In the latter case, 15 species were new records for the Americas, 22 for the Neotropics, 32 for South America, 25 for Brazil, 26 for Bahia state, and 1 for Serra da Jibóia. The others species did not have any kind of geographical record reported in the examined references.

Regarding the substrate and habitat distribution patterns, it was found that most species were recorded on terrestrial substrates. The first studies involving fungi in the Sierra da Jibóia were published by Góes-Neto et al. (2003) that described basidiomycetes on twigs in terrestrial habitat. A few studies involved fungi occurring mainly on leaves in terrestrial habitats (Marques et al. 2007a, Cruz et al. 2008a, Barbosa et al. 2009a). Only two papers deal specifically with fungi found on lignicolous substrate (twig and bark) (Góes-Neto et al. 2003, Marques et al. 2007b). Research on fungi occurring on submerged substrates in freshwater environments started later, which may explain the low number of listed species from habitat type (Almeida et al. 2012, Barbosa et al. 2008, 2011, 2013b, Barbosa & Gusmão 2011).

Checklist for the fungi species cataloged in the Serra da Jibóia, Bahia state, Brazil:**Meiosporic ascomycetes records**

Aniptodera chesapeakensis Shearer & M.A. Mill., Mycologia 69(5): 894 (1977)

Substrate: submerged twig

Habitat: fresh water

Reference: Barbosa et al. 2013a, Barbosa et al. 2013b

Geographical record: new record for South America

Annulatascus apiculatus F.R. Barbosa & Gusmão, Mycotaxon 106: 405 (2008)

Substrate: submerged twig

Habitat: fresh water

Reference: Barbosa et al. 2008; Barbosa et al. 2013b

Geographical record: new species

Annulatascus velatispora K.D. Hyde, Aust. Syst. Bot. 5(1): 118 (1992)

Substrate: submerged twig and petiole

Habitat: fresh water

Reference: Barbosa et al. 2013a; Barbosa et al. 2013b

Geographical record: new record for Brazil

Anthostomella aquatica K.D. Hyde & Goh, Nova Hedwigia 67(1-2): 227 (1998)

Substrate: submerged twig, petiole and bark

Habitat: fresh water

Reference: Barbosa et al. 2013a; Barbosa et al. 2013b

Geographical record: new record for America

Chaetomium homopilatum Omvik, Mycologia 47(5): 749 (1955)

Substrate: submerged twig

Habitat: fresh water

Reference: Barbosa et al. 2012; Barbosa et al. 2013b

Geographical record: new record for Bahia

Chaetomium longicolleum Krzemien. & Badura, Acta Soc. Bot. Pol. 23: 748 (1954)

Substrate: submerged bark

Habitat: fresh water

Reference: Barbosa et al. 2012; Barbosa et al. 2013b

Geographical record: new record for Bahia

Chaetosphaeria lignomollis F.A. Fernández & Huhndorf, Fungal Diversity 18: 27 (2005)

Substrate: submerged twig

Habitat: fresh water

Reference: Barbosa et al. 2013a; Barbosa et al. 2013b

Geographical record: new record for South America

Jahnula seychellensis K.D. Hyde & S.W. Wong, Nova Hedwigia 68(3-4): 504 (1999)

Substrate: submerged twig

Habitat: fresh water

Reference: Barbosa et al. 2013a; Barbosa et al. 2013b

Geographical record: new record for South America

Longicollum biappendiculatum Zelski, F.R. Barbosa, Raja, A.N. Mill. & Shearer, in Zelski, Raja, Miller, Barbosa, Gusmão & Shearer, Mycosphere 2(5): 540 (2011)

Substrate: submerged bark

Habitat: fresh water

Reference: Zelski et al. 2011

Geographical record: New genus and species

Ophioceras venezuelense Shearer, J.L. Crane & W. Chen, Mycologia 91(1): 151 (1999)

Substrate: submerged twig and bark

Habitat: fresh water

Reference: Barbosa et al. 2013a; Barbosa et al. 2013b

Geographical record: new record for Brazil

Ostreichnion curtisii (Duby) M.E. Barr, Mycotaxon 3(1): 86 (1975)

Substrate: decaying bark

Habitat: terrestrial

Reference: Almeida et al. 2014

Geographical record: unknown

Rhytidhysteron rufulum (Spreng.) Speg., Anal. Soc. C ient. Argent. 90(1-6): 177 (1921)

Substrate: decaying twig

Habitat: terrestrial

Reference: Almeida et al. 2014

Geographical record: unknown

Tamsiniella labiosa S.W. Wong, K.D. Hyde, W.H. Ho & S.J. Stanley, Can. J. Bot. 76(2): 334 (1998)

Substrate: submerged twig

Habitat: fresh water

Reference: Barbosa et al. 2013a; Barbosa et al. 2013b

Geographical record: new record for America

Torrentispora crassiparietis Fryar & K.D. Hyde, Cryptog. Mycol. 25(3): 255 (2004)

Substrate: submerged bark

Habitat: fresh water

Reference: Barbosa et al. 2013a; Barbosa et al. 2013b

Geographical record: new record for America

Basidiomycota records

Amauroderma omphalodes (Berk.) Torrend, Brotéria, sér. bot. 18: 131 (1920)

Substrate: twig

Habitat: terrestrial

Reference: Góes-Neto et al. 2003

Geographical record: unknown

Cymatoderma caperatum (Berk. & Mont.) D.A. Reid, Kew Bull. 10: 635 (1956)

Substrate: twig

Habitat: terrestrial

Reference: Góes-Neto et al. 2003

Geographical record: unknown

Earliella scabrosa (Pers.) Gilb. & Ryvarden, Mycotaxon 22(2): 364 (1985)

Substrate: twig

Habitat: terrestrial

Reference: Góes-Neto et al. 2003

Geographical record: unknown

Favolus tenuiculus P. Beauv., Fl. Oware 1(8): 74 (1806)

Substrate: twig

Habitat: terrestrial

Reference: Góes-Neto et al. 2003 (as *Polyporus tenuiculus* (P. Beauv.) Fr.)

Geographical record: unknown

Fomitiporella piptadeniae (Teixeira) Teixeira, Revista Brasileira de Botânica 15(2): 126 (1992)

Substrate: twig

Habitat: terrestrial

Reference: Góes-Neto et al. 2003 (as *Phellinus piptadeniae* Teixeira)

Geographical record: unknown

Fomitella supina (Sw.) Murrill, Bull. Torrey bot. Club 32(7): 365 (1905)

Substrate: twig

Habitat: terrestrial

Reference: Góes-Neto et al. 2003

Geographical record: unknown

Fulvifomes melleoporus (Murrill) Baltazar & Gibertoni, Mycotaxon 111: 205 (2010)

Substrate: twig

Habitat: terrestrial

Reference: Góes-Neto et al. 2003 (as *Phellinus melleoporus* (Murrill) Ryvarden)

Geographical record: unknown

Funalia caperata (Berk.) Zmitr. & V. Malysheva, Mikol. Fitopatol. 47(6): 375 (2013)

Substrate: twig

Habitat: terrestrial

Reference: Góes-Neto et al. 2003 (as *Datronia caperata* (Berk.) Ryvarden)

Geographical record: unknown

Ganoderma australe (Fr.) Pat., Bull. Soc. Mycol. Fr. 5 (2,3): 65 (1889)

Substrate: twig

Habitat: terrestrial

Reference: Góes-Neto et al. 2003

Geographical record: unknown

Gloeophyllum trabeum (Pers.) Murrill, N. Amer. Fl. (New York) 9(2): 129 (1908)

Substrate: twig

Habitat: terrestrial

Reference: Góes-Neto et al. 2003

Geographical record: unknown

Hexagonia hydnoides (Sw.) M. Fidalgo, Mem. N. Y. bot. Gdn 17: 64 (1968)

Substrate: twig

Habitat: terrestrial

Reference: Góes-Neto et al. 2003

Geographical record: unknown

Inonotus portoricensis (Overh.) Baltazar & Gibertoni, Mycotaxon 111: 206 (2010)

Substrate: twig

Habitat: terrestrial

Reference: Góes-Neto et al. 2003 (as *Phellinus portoricensis* (Overh.) M. Fidalgo)

Geographical record: unknown

Lentinus crinitus (L.) Fr., Syst. orb. veg. (Lundae) 1: 77 (1851)

Substrate: twig

Habitat: terrestrial

Reference: Góes-Neto et al. 2003

Geographical record: unknown

Lenzites elegans (Spreng.) Pat., Essai Tax. Hyménomyc. (Lons-le-Saunier): 89 (1900)

Substrate: twig

Habitat: terrestrial

Reference: Góes-Neto et al. 2003 (as *Trametes elegans* (Spreng.) Fr.)

Geographical record: unknown

Phellinus gilvus (Schwein.) Pat., Essai Tax. Hyménomyc. (Lons-le-Saunier): 82 (1900)

Substrate: twig

Habitat: terrestrial

Reference: Góes-Neto et al. 2003

Geographical record: unknown

Phellinus rimosus (Berk.) Pilát, Anns Mycol. 38(1): 80 (1940)

Substrate: twig

Habitat: terrestrial

Reference: Góes-Neto et al. 2003

Geographical record: unknown

Polyporus dictyopus Mont., Anns Sci. Nat., Bot., sér. 2 3: 349 (1835)

Substrate: twig

Habitat: terrestrial

Reference: Góes-Neto et al. 2003

Geographical record: unknown

Polyporus grammocephalus Berk., London J. Bot. 1: 148 (1842)

Substrate: twig

Habitat: terrestrial

Reference: Góes-Neto et al. 2003

Geographical record: unknown

Pycnoporus sanguineus (L.) Murrill, Bull. Torrey bot. Club 31(8): 421 (1904)

Substrate: twig

Habitat: terrestrial

Reference: Góes-Neto et al. 2003

Geographical record: unknown

Rigidoporus microporus (Sw.) Overeem, Icon. Fung. Malay. 5: 1 (1924)

Substrate: twig

Habitat: terrestrial

Reference: Góes-Neto et al. 2003

Geographical record: unknown

Schizophyllum commune Fr., Observ. Mycol. (Havniae) 1: 103 (1815)

Substrate: twig

Habitat: terrestrial

Reference: Góes-Neto et al. 2003

Geographical record: unknown

Stereum ostrea (Blume & T. Nees) Fr., Epicr. syst. Mycol. (Upsaliae): 547 (1838)

Substrate: twig

Habitat: terrestrial

Reference: Góes-Neto et al. 2003

Geographical record: unknown

Trametes versicolor (L.) Lloyd, Mycol. Notes (Cincinnati) 65: 1045 (1921)

Substrate: twig

Habitat: terrestrial

Reference: Góes-Neto et al. 2003

Geographical record: unknown

Trametes villosa (Sw.) Kreisel, Monografias, Ciencias, Univ. Habana, Ser. 4 16: 83 (1971)

Substrate: twig

Habitat: terrestrial

Reference: Góes-Neto et al. 2003

Geographical record: unknown

Tyromyces duracinus (Pat.) Murrill, N. Amer. Fl. (New York) 9(1): 37 (1907)

Substrate: twig

Habitat: terrestrial

Reference: Góes-Neto et al. 2003

Geographical record: unknown

Tyromyces leucomallus (Berk. & M.A. Curtis) Murrill, N. Amer. Fl. (New York) 9(1): 36 (1907)

Substrate: twig

Habitat: terrestrial

Reference: Góes-Neto et al. 2003

Geographical record: unknown

Coelomycetes records

Dinemasporium lanatum Nag Raj & R.F. Castañeda, Can. J. Bot. 67(8): 2527 (1989)

Substrate: submerged leaf and petiole

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013

Geographical record: new record for South America

Satchmopsis brasiliensis B. Sutton & Hodges, in Sutton, Nova Hedwigia 26(1): 3 (1975)

Substrate: leaf

Habitat: terrestrial and fresh water

Reference: Barbosa et al. 2009a; Barbosa et al. 2013b

Geographical record: unknown

Hyphomycetes records

Acrogenospora gigantospora S. Hughes, N.Z. J. Bot. 16(3): 314 (1978)

Substrate: bark

Habitat: terrestrial

Reference: Barbosa et al. 2007b; Marques et al. 2007b; Marques et al. 2008b

Geographical record: new record for Brazil and Neotropic

Acrogenospora sphaerocephala (Berk. & Broome) M.B. Ellis, Dematiaceous Hyphomycetes (Kew): 114 (1971)

Substrate: decaying bark and submerged leaf, twig and bark

Habitat: terrestrial and fresh water

Reference: Marques et al. 2007b; Marques et al. 2008b; Barbosa et al. 2013b

Geographical record: new record for Brazil

Actinocladium rhodosporum Ehrenb., Jb. Gewächsk. 1(2): 52 (1819)

Substrate: decaying bark and submerged twig

Habitat: terrestrial and fresh water

Reference: Marques et al. 2008b; Barbosa et al. 2013b

Geographical record: unknown

Actinocladium verruculosum W.P. Wu, in Wu & Zhuang, Fungal Diversity Res. Ser. (Hong Kong) 15: 228 (2005)

Substrate: submerged twig

Habitat: fresh water

Reference: Almeida et al. 2012; Barbosa et al. 2013b

Geographical record: new record for America

Anungitea globosa B. Sutton & Hodges, Nova Hedwigia 29(3-4): 594 (1978)

Substrate: leaf

Habitat: terrestrial

Reference: Barbosa et al. 2007b; Barbosa et al. 2009a

Geographical record: new record for neotropic

Ardhachandra cristaspora (Matsush.) Subram. & Sudha [as 'cristaspora'], Can. J. Bot. 56(7): 73 (1978)

Substrate: leaf and petiole

Habitat: terrestrial

Reference: Marques et al. 2008b; Barbosa et al. 2009a

Geographical record: unknown

Ardhachandra selenoides (de Hoog) Subram. & Sudha, Can. J. Bot. 56(7): 731 (1978)

Substrate: leaf

Habitat: terrestrial

Reference: Barbosa et al. 2009a

Geographical record: unknown

Arthrobotrys oligospora Fresen., Beitr. Mykol. 1: 18 (1850)

Substrate: submerged leaf

Habitat: fresh water

Reference: Barbosa et al. 2013b

Geographical record: unknown

Atrosetaphiale flagelliformis Matsush., Matsush. Mycol. Mem. 8: 14 (1995)

Substrate: leaf and petiole

Habitat: terrestrial

Reference: Marques et al. 2008b ; Barbosa et al. 2009a

Geographical record: unknown

Bactrodesmium longisporum M.B. Ellis, More Dematiaceous Hyphomycetes (Kew): 68 (1976)

Substrate: submerged twig and bark

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: new record for South America

Beltrania africana S. Hughes, Mycol. Pap. 47: 4 (1951)

Substrate: petiole

Habitat: terrestrial

Reference: Marques et al. 2008b

Geographical record: unknown

Beltrania querna Harkn., Bull. Calif. Acad. Sci. 1(1): 39 (1884)

Substrate: leaf and petiole

Habitat: terrestrial

Reference: Marques et al. 2008b; Barbosa et al. 2009a; Barbosa et al. 2009b

Geographical record: new record for Bahia

Beltrania rhombica Penz., Michelia 2(no. 8): 474 (1882)

Substrate: decaying and submerged leaf and petiole

Habitat: terrestrial and fresh water

Reference: Marques et al. 2008b; Barbosa et al. 2009a; Barbosa et al. 2013b

Geographical record: unknown

Beltraniella amoena R.F. Castañeda, Cano & Guarro, Mycotaxon 58: 244 (1996)

Substrate: leaf

Habitat: terrestrial

Reference: Marques et al. 2007a; Barbosa et al. 2009a

Geographical record: new record for South America

Beltraniella portoricensis (F. Stevens) Piroz. & S.D. Patil, Can. J. Bot. 48(3): 575 (1970)

Substrate: decaying leaf and petiole and submerged leaf

Habitat: terrestrial and fresh water

Reference: Marques et al. 2008b; Barbosa et al. 2009a; Barbosa et al. 2013b

Geographical record: unknown

Beltraniopsis esenbeckiae Bat. & J.L. Bezerra, Publicações Inst. Micol. Recife 296: 7 (1960)

Substrate: leaf

Habitat: terrestrial

Reference: Marques et al. 2008b

Geographical record: unknown

Beltraniopsis ramosa R.F. Castañeda, in Castañeda Ruiz & Arnold, Rev. Jard. bot. nac., Univ.

Habana 6(1): 53 (1985)

Substrate: leaf and petiole

Habitat: terrestrial

Reference: Marques et al. 2008b

Geographical record: unknown

Berkleasmiium corticola (P. Karst.) R.T. Moore, Mycologia 51(5): 735 (1961)

Substrate: submerged bark

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: new record for Brazil

Brachiosphaera tropicalis Nawawi, in Descals, Newawi & Webster, Trans. Br. Mycol. Soc. 67(2): 213 (1976)

Substrate: submerged bark

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: new record for Brazil

Brachydesmiella anthostomelloidea Goh & K.D. Hyde, Mycol. Res. 100(11): 1365 (1996)

Substrate: submerged petiole and bark

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: rare species

Brachydesmiella caudata V. Rao & de Hoog, Stud. Mycol. 28: 5 (1986)

Substrate: submerged petiole

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: new record for America

Brachysporiella gayana Bat., in Batista & Vital, Boln Agric. Pernambuco 19(1-2): 109 (1952)

Substrate: decaying and submerged twig and bark

Habitat: terrestrial and fresh water

Reference: Marques et al. 2007b; Marques et al. 2008b; Barbosa et al. 2013b

Geographical record: new record for Bahia

Brachysporiella pulchra (Subram.) S. Hughes, N.Z. J. Bot. 17(2): 184 (1979)

Substrate: submerged twig

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: new record for Brazil

Cacumisporium pleuroconidiophorum (Davydkina & Melnik) R.F. Castañeda, Heredia & Iturr., Mycotaxon 100: 332 (2007)

Substrate: submerged twig and bark

Habitat: fresh water

Reference: Almeida et al. 2012; Barbosa et al. 2013b

Geographical record: new record for Brazil

Cacumisporium sigmoideum Mercado & R.F. Castañeda, Acta Bot. Cubana 50: 1 (1987)

Substrate: decaying bark and submerged twig

Habitat: terrestrial and fresh water

Reference: Marques et al. 2008b; Barbosa et al. 2013b

Geographical record: unknown

Camposporidium cristatum Nawawi & Kuthub., Mycotaxon 32(1): 161 (1988)

Substrate: submerged leaf and petiole

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: rare species

Canalisporium caribense (Hol.-Jech. & Mercado) Nawawi & Kuthub., Mycotaxon 34(2): 479 (1989)

Substrate: bark

Habitat: terrestrial and fresh water

Reference: Marques et al. 2008b; Barbosa et al. 2013b

Geographical record: unknown

Canalisporium exiguum Goh & K.D. Hyde, in Goh, Ho, Hyde, Whitton & Umali, Can. J. Bot. 76(1): 145 (1998)

Substrate: submerged leaf

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: new record for America

Cancellidium applanatum Tubaki, Trans. Mycol. Soc. Japan 16(4): 358 (1975)

Substrate: submerged twig

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: new record for America

Candelabrum brocchiatum Tubaki, Trans. Mycol. Soc. Japan 16(2): 134 (1975)

Substrate: submerged twig and bark

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: new record for Brazil

Ceratosporella compacta R.F. Castañeda, Guarro & Cano, Mycotaxon 60: 276 (1996)

Substrate: leaf and petiole

Habitat: terrestrial

Reference: Marques et al. 2008b; Marques et al. 2007a

Geographical record: new record for South America

Chaetendophragma triangularis Matsush. [as 'triangularia'], Microfungi of the Solomon Islands and Papua-New Guinea (Osaka): 12 (1971)

Substrate: leaf

Habitat: terrestrial

Reference: Barbosa et al. 2009a

Geographical record: unknown

Chaetopsina fulva Rambelli, Diagn. IV 3: 5 (1956)

Substrate: leaf and petiole

Habitat: fresh water and terrestrial

Reference: Marques et al. 2008b; Barbosa et al. 2009a; Barbosa et al. 2013b

Geographical record: unknown

Chaetopsina splendida B. Sutton & Hodges, Nova Hedwigia 27(1-2): 346 (1976)

Substrate: submerged petiole

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: new record for Bahia

Chalara alabamensis Morgan-Jones & E.G. Ingram, Mycotaxon 4(2): 489 (1976)

Substrate: leaf and petiole

Habitat: fresh water and terrestrial

Reference: Barbosa et al. 2009a; Marques et al. 2007b; Marques et al. 2008b; Barbosa et al. 2013b

Geographical record: unknown

Chloridium lignicola (F. Mangenot) W. Gams & Hol.-Jech., Stud. Mycol. 13: 37 (1976)

Substrate: twig and bark

Habitat: terrestrial

Reference: Marques et al. 2007b; Marques et al. 2008b

Geographical record: new record for Bahia

Chloridium obclaviforme J. Mena & Mercado, Acta Bot., Szeged 33(1-2): 76 (1987)

Substrate: submerged bark

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: new record for South America

Chloridium virescens (Pers.) W. Gams & Hol.-Jech., Stud. Mycol. 13: 17 (1976)

Substrate: submerged leaf and twig

Habitat: fresh water

Reference: Barbosa et al. 2013b

Geographical record: unknown

Circinotrichum falcatisporum Piroz., Mycol. Pap. 84: 7 (1962)

Substrate: leaf

Habitat: terrestrial

Reference: Marques et al. 2008b; Barbosa et al. 2009a

Geographical record: unknown

Circinotrichum olivaceum (Speg.) Piroz., Mycol. Pap. 84: 6 (1962)

Substrate: leaf

Habitat: terrestrial

Reference: Marques et al. 2008b; Barbosa et al. 2009a

Geographical record: unknown

Circinotrichum papakurae S. Hughes & Piroz., N.Z. J Bot. 9(1): 40 (1971)

Substrate: leaf

Habitat: terrestrial and fresh water

Reference: Barbosa et al. 2009a; Barbosa et al. 2013b

Geographical record: unknown

Cladosporium cladosporioides (Fresen.) G.A. de Vries, Contrib. Knowledge of the Genus *Cladosporium*

Link ex Fries: 57 (1942)

Substrate: leaf

Habitat: terrestrial

Reference: Barbosa et al. 2009a

Geographical record: unknown

Cladosporium oxysporum Berk. & M.A. Curtis, in Berkeley, J. Linn. Soc., Bot. 10(no. 46): 362 (1868)

Substrate: leaf

Habitat: terrestrial

Reference: Barbosa et al. 2009a

Geographical record: unknown

Clonostachys compactiuscula (Sacc.) D. Hawksworth & W. Gams, in Hawksworth &

Punithalingam, Trans. Br. Mycol. Soc. 64(1): 90 (1975)

Substrate: leaf

Habitat: terrestrial

Reference: Barbosa et al. 2009a; Barbosa et al. 2009b

Geographical record: new record for Bahia

Craspedodidymum abigianense Lunghini & Onofri, Trans. Br. Mycol. Soc. 74(1): 208 (1980)

Substrate: bark

Habitat: terrestrial

Reference: Marques et al. 2007b

Geographical record: new record for Brazil

Craspedodidymum cubense J. Mena & Mercado, in Mercado Sierra & Mena Portales, Acta bot.

hung. 37(1-4): 65 (1992)

Substrate: bark

Habitat: terrestrial and fresh water

Reference: Marques et al. 2007b; Barbosa et al. 2013b

Geographical record: new record for Brazil

Craspedodidymum fimbriatum Bhat & W.B. Kendr., Mycotaxon 49: 33 (1993)

Substrate: twig

Habitat: terrestrial

Reference: Marques et al. 2007b

Geographical record: unknown

Craspedodidymum proliferans V. Rao & de Hoog, Stud. Mycol. 28: 64 (1986)

Substrate: twig and bark

Habitat: terrestrial

Reference: Marques et al. 2007b

Geographical record: new record for Brazil

Cryptophiale guadalcanalensis Matsush. [as 'guadalcanalense'], Microfungi of the Solomon Islands and Papua-New Guinea (Osaka): 15 (1971)

Substrate: leaf

Habitat: terrestrial

Reference: Marques et al. 2008a, Barbosa et al. 2009a; Marques et al. 2008b

Geographical record: new record for America and Neotropic

Cryptophiale kakombensis Piroz., Can. J. Bot. 46: 1124 (1968)

Substrate: decaying leaf and petiole and submerged leaf

Habitat: terrestrial and fresh water

Reference: Marques et al. 2008a, Marques et al. 2008b; Marques et al. 2007b; Barbosa et al. 2009a; Barbosa et al. 2013b

Geographical record: new record for Bahia

Cryptophiale udagawae Piroz. & Ichinoe, in Pirozynski, Can. J. Bot. 46: 1126 (1968)

Substrate: decaying leaf and submerged leaf and twig

Habitat: terrestrial and fresh water

Reference: Marques et al. 2008a, Marques et al. 2008b; Barbosa et al. 2009a; Barbosa et al. 2013b

Geographical record: unknown

Cryptophialoidea fasciculata Kuthub. & Nawawi, Mycol. Res. 98(6): 686 (1994)

Substrate: decaying leaf and bark and submerged petiole and twig

Habitat: terrestrial and fresh water

Reference: Barbosa et al. 2009a; Marques et al. 2007b; Marques et al. 2008b; Barbosa et al. 2013b

Geographical record: new record for Brazil

Cryptophialoidea ramosa G. Delgado, J. Mena & Gené, Fungal Diversity 20: 31 (2005)

Substrate: leaf and bark

Habitat: terrestrial

Reference: Marques et al. 2008a

Geographical record: new record for South America

Cryptophialoidea secunda (Kuthub. & B. Sutton) Kuthub. & Nawawi, Trans. Br. Mycol. Soc. 89(4): 583(1987)

Substrate: submerged twig

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: new record for South America

Cubasina albofusca R.F. Castañeda, Deuteromycotina de Cuba, Hyphomycetes IV (La Habana): 6 (1986)

Substrate: petiole

Habitat: terrestrial

Reference: Marques et al. 2008b

Geographical record: unknown

Cubasina microspora M.F.O. Marques, Gusmão & R.F. Castañeda, Mycotaxon 102: 18 (2007)

Substrate: petiole

Habitat: terrestrial

Reference: Marques et al. 2007a

Geographical record: new species

Curvularia senegalensis (Speg.) Subram., J. Indian bot. Soc. 35(4): 467 (1956)

Substrate: leaf

Habitat: terrestrial

Reference: Barbosa et al. 2009a

Geographical record: unknown

Cylindrocladium candelabrum Viégas, Bragantia 6: 370 (1946)

Substrate: leaf

Habitat: terrestrial

Reference: Barbosa et al. 2009a

Geographical record: unknown

Cylindrocladium naviculatum Crous & M.J. Wingf., Mycotaxon 50: 443 (1994)

Substrate: leaf

Habitat: terrestrial

Reference: Barbosa et al. 2009a

Geographical record: unknown

Dactylaria belliana B.C. Paulus, Gadek & K.D. Hyde, Fungal Diversity 14: 146 (2003)

Substrate: leaf

Habitat: terrestrial

Reference: Barbosa et al. 2007b; Barbosa et al. 2009a

Geographical record: new record for Neotropic

Dactylaria botulispora R.F. Castañeda & W.B. Kendr., Univ. Waterloo Biol. Ser. 32: 13 (1990)

Substrate: decaying twig and bark and submerged twig

Habitat: terrestrial and fresh water

Reference: Marques et al. 2008b; Barbosa et al. 2013b

Geographical record: unknown

Dactylaria candidula (Höhn.) G.C. Bhatt & W.B. Kendr., in Stolk & Hennebert, Can. J. Bot. 46: 1256 (1968)

Substrate: submerged twig

Habitat: fresh water

Reference: Barbosa et al. 2013b

Geographical record: unknown

Dactylaria ficusicola B.C. Paulus, Gadek & K.D. Hyde, Fungal Diversity 14: 149 (2003)

Substrate: leaf

Habitat: terrestrial

Reference: Barbosa et al. 2007b; Barbosa et al. 2009a

Geographical record: new record for Neotropic

Dactylaria fusiformis Shearer & J.L. Crane, Mycologia 63(2): 243 (1971)

Substrate: decaying leaf and submerged leaf and petiole

Habitat: terrestrial and fresh water

Reference: Barbosa et al. 2009a; Barbosa et al. 2013b

Geographical record: unknown

Dactylaria hyalotunicata K.M. Tsui, Goh & K.D. Hyde, Sydowia 49(2): 182 (1997)

Substrate: submerged twig and bark

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: rare species

Dactylaria saccardoana F.R. Barbosa & Gusmão, Cryptog. Mycol. 34: 245 (2013)

Substrate: submerged leaf

Habitat: fresh water

Reference: Barbosa et al. 2013b

Geographical record: new species

Dactylellina ellipsospora (Preuss) M. Scholler, Hagedorn & A. Rubner, Sydowia 51(1): 110 (1999)

Substrate: twig

Habitat: terrestrial and fresh water

Reference: Marques et al. 2008b; Barbosa et al. 2013b (as *Dactylella ellipsospora* (Preuss) Grove)

Geographical record: unknown

Deightoniella rugosa F.R. Barbosa, Gusmão & R.F. Castañeda, Mycotaxon 102: 40 (2007)

Substrate: leaf

Habitat: terrestrial

Reference: Barbosa et al. 2007b

Geographical record: new species

Dendryphiopsis atra (Corda) S. Hughes, Can. J. Bot. 31: 655 (1953)

Substrate: twig

Habitat: terrestrial and fresh water

Reference: Barbosa et al. 2007b; Barbosa et al. 2013b; Marques et al. 2008b

Geographical record: new record for Neotropic

Dictyochaeta anam. *Chaetosphaeria pulchriseta* S. Hughes, W.B. Kendr. & Shoemaker, in Hughes & Kendrick, N.Z. J. Bot. 6: 356 (1968)

Substrate: submerged twig and bark

Habitat: fresh water

Reference: Barbosa et al. 2013b

Geographical record: unknown

Dictyochaeta britannica (M.B. Ellis) Whitton, McKenzie & K.D. Hyde, Fungal Diversity 4: 137 (2000)

Substrate: submerged petiole

Habitat: fresh water

Reference: Barbosa et al. 2013b

Geographical record: unknown

Dictyochaeta fertilis (S. Hughes & W.B. Kendr.) Hol.-Jech., Folia geobot. phytotax. 19(4): 426 (1984)

Substrate: decaying leaf and submerged leaf, petiole, twig and bark

Habitat: terrestrial and fresh water

Reference: Marques et al. 2008b; Barbosa et al. 2013b

Geographical record: unknown

Dictyochaeta heteroderae (Morgan-Jones) Carris & Glawe, Mycotaxon 33: 23 (1988)

Substrate: twig

Habitat: terrestrial and fresh water

Reference: Cruz et al. 2008b; Barbosa et al. 2013b

Geographical record: new record for Neotropic

Dictyochaeta microcylindrospora Whitton, McKenzie & K.D. Hyde, Fungal Diversity 4: 141 (2000)

Substrate: decaying leaf and submerged leaf, petiole and twig

Habitat: terrestrial and fresh water

Reference: Cruz et al. 2008b; Barbosa et al. 2013b

Geographical record: new record for America

Dictyochaeta novae-guineensis (Matsush.) A.I. Romero, Boln. Soc. argent. Bot. 22(1-4): 76 (1983)

Substrate: twig

Habitat: terrestrial

Reference: Marques et al. 2008b

Geographical record: unknown

Dictyochaeta pluriguttulata Kuthub. & Nawawi, Mycol. Res. 95(10): 1212 (1991)

Substrate: twig

Habitat: terrestrial and fresh water

Reference: Marques et al. 2008b; Barbosa et al. 2007b; Barbosa et al. 2013b

Geographical record: new record for Neotropic

Dictyochaeta setosa (S. Hughes & W.B. Kendr.) Whitton, McKenzie & K.D. Hyde, Fungal Diversity 4: 148 (2000)

Substrate: leaf

Habitat: terrestrial

Reference: Cruz et al. 2008b

Geographical record: new record for America

Dictyochaeta simplex (S. Hughes & W.B. Kendr.) Hol.-Jech., Folia geobot. phytotax. 19(4): 434 (1984)

Substrate: decaying leaf and petiole and submerged leaf, petiole, twig and bark

Habitat: terrestrial and fresh water

Reference: Marques et al. 2008b; Barbosa et al. 2013b

Geographical record: unknown

Dictyochaetopsis gonytrichodes (Shearer & J.L. Crane) Whitton, McKenzie & K.D. Hyde [as 'gonytrichoides'], Fungal Diversity 4: 156 (2000)

Substrate: submerged leaf and twig

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: new record for Bahia

Dictyochaetopsis polysetosa R.F. Castañeda, Gusmão, Guarro & Saikawa, Mycotaxon 103: 2 (2008)

Substrate: submerged leaf and petiole

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: new record for Bahia

Dictyosporium bulbosum Tzean & J.L. Chen, Mycol. Res. 92(4): 500 (1989)

Substrate: leaf

Habitat: terrestrial

Reference: Barbosa et al. 2007b; Barbosa et al. 2009a

Geographical record: new record for Neotropic

Dictyosporium digitatum J.L. Chen, C.H. Hwang & Tzean, Mycol. Res. 95(9): 1145 (1991)

Substrate: decaying leaf and bark and submerged leaf and petiole,

Habitat: terrestrial and fresh water

Reference: Barbosa et al. 2007b; Marques et al. 2007b; Marques et al. 2008b; Barbosa et al. 2009a;

Barbosa et al. 2013b

Geographical record: new record for Neotropic

Dictyosporium elegans Corda, Weitenweber's Beitr. Nat.: 87 (1836)

Substrate: decaying leaf and bark and submerged leaf, petiole and twig

Habitat: terrestrial and fresh water

Reference: Marques et al. 2008b; Barbosa et al. 2009a; Barbosa et al. 2009b; Barbosa et al. 2013b

Geographical record: new record for Bahia

Diplocladiella cornitumida F.R. Barbosa, Gusmão & R.F. Castañeda, Mycotaxon 102: 43 (2007)

Substrate: leaf

Habitat: terrestrial

Reference: Barbosa et al. 2007b; Barbosa et al. 2009a

Geographical record: new species

Dischloridium inaequiseptatum (Matsush.) Hol.-Jech., Česká Mykol. 41(2): 111 (1987)

Substrate: submerged bark

Habitat: fresh water

Reference: Barbosa et al. 2013b

Geographical record: unknown

Ellisembia adscendens (Berk.) Subram., Proc. Indian natn Sci. Acad., Part B. Biol. Sci. 58(4): 183 (1992)

Substrate: decaying and submerged twig and bark

Habitat: terrestrial and fresh water

Reference: Marques et al. 2007b; Marques et al. 2008b; Barbosa et al. 2013b

Geographical record: new record for Brazil

Ellisembia bambusicola (M.B. Ellis) J. Mena & G. Delgado, in Mena-Portales, Delgado-Rodríguez & Heredia-Abarca, Boln Soc. micol. Madrid 25: 266 (2000)

Substrate: submerged twig

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: new record for South America

Endophragmiella boothii (M.B. Ellis) S. Hughes, N.Z. JI Bot. 17(2): 147 (1979)

Substrate: submerged bark

Habitat: fresh water

Reference: Barbosa et al. 2013b

Geographical record: unknown

Endophragmiella rigidiuscula R.F. Castañeda, Fungi Cubenses III (La Habana): 9 (1988)

Substrate: leaf

Habitat: terrestrial

Reference: Leão-Ferreira et al. 2009

Geographical record: new record for South America

Endophragmiella rostrata P.M. Kirk, Mycotaxon 23: 325 (1985)

Substrate: submerged twig

Habitat: fresh water

Reference: Barbosa et al. 2013b

Geographical record: unknown

Exserticlava triseptata (Matsush.) S. Hughes, N.Z. JI Bot. 16(3): 333 (1978)

Substrate: decaying leaf and bark and submerged twig and bark

Habitat: terrestrial and fresh water

Reference: Cruz et al. 2008a; Marques et al. 2007b; Marques et al. 2008b; Barbosa et al. 2013b

Geographical record: new record for Brazil

Exserticlava vasiformis (Matsush.) S. Hughes, N.Z. JI Bot. 16(3): 332 (1978)

Substrate: decaying leaf, petiole, twig and bark and submerged bark

Habitat: terrestrial and fresh water

Reference: Cruz et al. 2008a; Marques et al. 2007b; Marques et al. 2008b; Barbosa et al. 2013b

Geographical record: new record for Brazil

Flosculomyces floridaensis B. Sutton, Mycologia 70(4): 789 (1978)

Substrate: leaf

Habitat: terrestrial

Reference: Marques et al. 2007a; Barbosa et al. 2009a

Geographical record: new record for South America

Gangliostilbe costaricensis Mercado, Gené & Guarro, Nova Hedwigia 64(3-4): 456 (1997)

Substrate: bark

Habitat: terrestrial

Reference: Marques et al. 2007b; Marques et al. 2008b

Geographical record: new record for Brazil

Gonytrichum chlamydosporium G.L. Barron & G.C. Bhatt, Mycopath. Mycol. appl. 32: 126 (1967)

Substrate: submerged leaf, bark and twig

Habitat: fresh water

Reference: Barbosa et al. 2013b

Geographical record: unknown

Gonytrichum macrocladum (Sacc.) S. Hughes, Trans. Br. Mycol. Soc. 34(4): 565 (1952)

Substrate: twig and bark

Habitat: terrestrial

Reference: Marques et al. 2008b

Geographical record: unknown

Gyothrix circinata (Berk. & M.A. Curtis) S. Hughes, Can. J. Bot. 36: 771 (1958)

Substrate: decaying leaf and submerged petiole and twig

Habitat: terrestrial and fresh water

Reference: Barbosa et al. 2009a; Barbosa et al. 2013b

Geographical record: unknown

Gyothrix magica Lunghini & Onofri, in Rambelli, Onofri & Lunghini, Trans. Br. Mycol. Soc. 76(1): 53 (1981)

Substrate: leaf

Habitat: terrestrial and fresh water

Reference: Marques et al. 2008b; Barbosa et al. 2009a; Barbosa et al. 2013b

Geographical record: unknown

Gyothrix podosperma (Corda) Rabenh., Deutschl. Krypt.-Fl. (Leipzig) 1: 72 (1844)

Substrate: submerged leaf

Habitat: fresh water

Reference: Barbosa et al. 2013b

Geographical record: unknown

Gyothrix verticiclada (Goid.) S. Hughes & Piroz., N.Z. J. Bot. 9(1): 42 (1971)

Substrate: leaf

Habitat: terrestrial and fresh water

Reference: Marques et al. 2008b; Barbosa et al. 2009a; Barbosa et al. 2009b

Geographical record: new record for Bahia

Guedea novae-zelandiae S. Hughes, N.Z. J. Bot. 18(1): 65 (1980)

Substrate: leaf

Habitat: terrestrial

Reference: Marques et al. 2007a; Barbosa et al. 2009a

Geographical record: new record for South America

Helicomycetes roseus Link, Mag. Gesell. naturf. Freunde, Berlin 3(1-2): 21 (1809)

Substrate: submerged leaf and bark

Habitat: fresh water

Reference: Barbosa et al. 2013b

Geographical record: unknown

Heliocephala elegans (R.F. Castañeda) R.F. Castañeda & Unter., Mycologia 103(3): 636 (2011)

Substrate: submerged leaf

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: new record for Bahia

Henicospora coronata B. Sutton & P.M. Kirk, in Kirk & Sutton, Trans. Br. Mycol. Soc. 75(2): 249 (1980)

Substrate: leaf

Habitat: terrestrial

Reference: Barbosa et al. 2009a

Geographical record: unknown

Henicospora minor P.M. Kirk & B. Sutton, Trans. Br. Mycol. Soc. 75(2): 249 (1980)

Substrate: leaf

Habitat: terrestrial

Reference: Barbosa et al. 2009a

Geographical record: unknown

Hermatomyces sphaericus (Sacc.) S. Hughes, Mycol. Pap. 50: 100 (1953)

Substrate: submerged twig

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: new record for South America

Idriella cagnizarii R.F. Castañeda & W.B. Kendr., Univ. Waterloo Biol. Ser. 35: 63 (1991)

Substrate: submerged leaf

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: new record for Bahia

Idriella ramosa Matsush., in Kabayasi et al., Bull. natn. Sci. Mus., Tokyo 14(3): 466 (1971)

Substrate: decaying leaf and submerged leaf and petiole

Habitat: terrestrial and fresh water

Reference: Marques et al. 2008b; Marques et al. 2007a; Barbosa et al. 2009a; Barbosa et al. 2013b

Geographical record: new record for South America

Idriella setiformis R.F. Castañeda & G.R.W. Arnold, Rev. Jard. bot. nac., Univ. Habana 6(1): 50 (1985)

Substrate: leaf

Habitat: terrestrial

Reference: Marques et al. 2007a; Barbosa et al. 2009a

Geographical record: new record for South America

Inesiosporium longispirale (R.F. Castañeda) R.F. Castañeda & W. Gams, Nova Hedwigia 64(3-4): 486 (1997)

Substrate: submerged leaf and bark

Habitat: fresh water

Reference: Barbosa et al. 2013b

Geographical record: unknown

Ingoldiella hamata D.E. Shaw, Trans. Br. Mycol. Soc. 59(2): 258 (1972)

Substrate: submerged petiole and bark

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: new record for Bahia

Ityorhoptrum verruculosum (M.B. Ellis) P.M. Kirk, Trans. Br. Mycol. Soc. 86(3): 419 (1986)

Substrate: submerged bark

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: new record for Brazil

Junewangia globulosa (Tóth) W.A. Baker & Morgan-Jones, Mycotaxon 81: 308 (2002)

Substrate: bark

Habitat: terrestrial

Reference: Marques et al. 2007b; Marques et al. 2008b

Geographical record: new record for Brazil

Junewangia martinii (J.L. Crane & Dumont) W.A. Baker & Morgan-Jones, Mycotaxon 81: 310 (2002)

Substrate: submerged bark

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: new record for South America

Kionochaeta nanophora Kuthub. & Nawawi, Trans. Br. Mycol. Soc. 90(3): 440 (1988)

Substrate: twig and bark

Habitat: terrestrial

Reference: Marques et al. 2008b; Barbosa et al. 2007b

Geographical record: new record for Neotropic

Kionochaeta pughii Kuthub. & Nawawi, Trans. Br. Mycol. Soc. 90(3): 437 (1988)

Substrate: twig and bark

Habitat: terrestrial

Reference: Marques et al. 2008b; Barbosa et al. 2007b

Geographical record: new record for Neotropic

Kionochaeta ramifera (Matsush.) P.M. Kirk & B. Sutton, Trans. Br. Mycol. Soc. 85(4): 715 (1986)

Substrate: decaying leaf, twig and bark and submerged leaf

Habitat: terrestrial and fresh water

Reference: Marques et al. 2007b; Marques et al. 2008b; Barbosa et al. 2009a; Barbosa et al. 2013b

Geographical record: new record for Bahia

Kionochaeta spissa P.M. Kirk & B. Sutton, Trans. Br. Mycol. Soc. 85(4): 715 (1986)

Substrate: leaf and bark

Habitat: terrestrial

Reference: Marques et al. 2007b; Marques et al. 2008b; Barbosa et al. 2007b

Geographical record: new record for Neotropic

Kylindria pluriseptata R.F. Castañeda, Fungi Cubenses II (La Habana): 7 (1987)

Substrate: leaf and petiole

Habitat: terrestrial

Reference: Marques et al. 2007a; Marques et al. 2008b; Barbosa et al. 2009a

Geographical record: new record for South America

Lauriomyces heliocephalus (V. Rao & de Hoog) R.F. Castañeda & W.B. Kendr., Univ. Waterloo Biol. Ser. 32: 26 (1990)

Substrate: petiole
 Habitat: terrestrial
 Reference: Marques et al. 2008b
 Geographical record: unknown

Lauriomyces sakaeratensis Somrith., Kosol & E.B.G. Jones, Nova Hedwigia 82(1-2): 210 (2006)
 Substrate: submerged leaf, petiole and bark
 Habitat: fresh water
 Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b
 Geographical record: rare species

Linkosia ponapensis (Matsush.) R.F. Castañeda, Saikawa & Gené, Cryptog. Mycol. 21(4): 219 (2000)
 Substrate: submerged leaf
 Habitat: fresh water
 Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b
 Geographical record: new record for South America

Melanocephala australiensis (G.W. Beaton & M.B. Ellis) S. Hughes, N.Z. J. Bot. 17(2): 169 (1979)
 Substrate: decaying bark and submerged twig and bark
 Habitat: terrestrial and fresh water
 Reference: Marques et al. 2008b; Barbosa et al. 2013b
 Geographical record: unknown

Menisporopsis novae-zelandiae S. Hughes & W.B. Kendr., N.Z. J. Bot. 6: 369 (1968)
 Substrate: submerged leaf, petiole and twig
 Habitat: fresh water
 Reference: Barbosa et al. 2013b
 Geographical record: unknown

Menisporopsis pirozynskii Varghese & V.G. Rao, Bot. Notiser 131(2): 215 (1978)
 Substrate: submerged leaf
 Habitat: fresh water
 Reference: Barbosa et al. 2013b
 Geographical record: unknown

Menisporopsis profusa Piroz. & Hodges, Can. J. Bot. 51(1): 164 (1973)
 Substrate: twig and bark
 Habitat: terrestrial
 Reference: Marques et al. 2007b
 Geographical record: new record for Brazil

Menisporopsis theobromae S. Hughes, Mycol. Pap. 48: 59 (1952)
 Substrate: submerged leaf, petiole and twig
 Habitat: fresh water
 Reference: Barbosa et al. 2013b
 Geographical record: unknown

Mirandina corticola G. Arnaud ex Matsush., Icon. microfung. Matsush. lect. (Kobe): 96 (1975)
 Substrate: submerged leaf and twig
 Habitat: fresh water
 Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b
 Geographical record: new record for Brazil

Monodictys putredinis (Wallr.) S. Hughes, Can. J. Bot. 36: 785 (1958)

Substrate: submerged twig

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: new record for Bahia

Monotosporella setosa (Berk. & M.A. Curtis) S. Hughes, Can. J. Bot. 36: 787 (1958)

Substrate: twig and bark

Habitat: terrestrial

Reference: Marques et al. 2008b

Geographical record: unknown

Murogenella lampadiformis R.F. Castañeda & W.B. Kendr., Univ. Waterloo Biol. Ser. 33: 26 (1990)

Substrate: leaf

Habitat: terrestrial

Reference: Leão-Ferreira et al. 2009

Geographical record: new record for South America

Muscillium theobromae (Turconi) Zare & W. Gams, Nova Hedwigia 85(3-4): 482 (2007)

Substrate: leaf

Habitat: terrestrial

Reference: Barbosa et al. 2009a (as *Verticillium theobromae* (Turconi) E.W. Mason & S. Hughes)

Geographical record: unknown

Mycoenterolobium platysporum Goos, Mycologia 62(1): 172 (1970)

Substrate: decaying leaf and submerged bark

Habitat: terrestrial and fresh water

Reference: Barbosa et al. 2013b; Leão-Ferreira et al. 2009

Geographical record: new record for South America

Nakataea fusispora (Matsush.) Matsush., Icon. microfung. Matsush. lect. (Kobe): 100 (1975)

Substrate: twig

Habitat: terrestrial and fresh water

Reference: Marques et al. 2008b; Barbosa et al. 2013b

Geographical record: unknown

Oidiodendron cereale (Thüm.) G.L. Barron [as 'cerealis'], Can. J. Bot. 40: 594 (1962)

Substrate: twig

Habitat: terrestrial

Reference: Marques et al. 2008b

Geographical record: unknown

Paliphora intermedia Alcorn, Mycotaxon 59: 145 (1996)

Substrate: leaf

Habitat: terrestrial

Reference: Barbosa et al. 2009a

Geographical record: unknown

Paraceratocladium polysetosum R.F. Castañeda, Fungi Cubenses II (La Habana): 9 (1987)

Substrate: leaf, petiole and twig

Habitat: terrestrial

Reference: Marques et al. 2007b; Marques et al. 2008b; Barbosa et al. 2009a

Geographical record: unknown

Paraceratocladium silvestre R.F. Castañeda, Fungi Cubenses II (La Habana): 9 (1987)

Substrate: leaf

Habitat: terrestrial

Reference: Marques et al. 2008b; Barbosa et al. 2009a

Geographical record: unknown

Parapleurotheciopsis inaequisepata (Matsush.) P.M. Kirk, Trans. Br. Mycol. Soc. 78(1): 65 (1982)

Substrate: leaf and petiole

Habitat: terrestrial

Reference: Marques et al. 2008b

Geographical record: unknown

Parasymodiella laxa (Subram. & Vittal) Ponnappa, Trans. Br. Mycol. Soc. 64(2): 344 (1975)

Substrate: decaying leaf and petiole and submerged leaf

Habitat: terrestrial and fresh water

Reference: Marques et al. 2008b; Barbosa et al. 2009a; Barbosa et al. 2013b

Geographical record: unknown

Periconia minutissima Corda, Icon. fung. (Prague) 1: 19 (1837)

Substrate: submerged twig

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: new record for Bahia

Phaeoisaria clematidis (Fuckel) S. Hughes, Can. J. Bot. 36: 794 (1958)

Substrate: twig

Habitat: terrestrial and fresh water

Reference: Marques et al. 2007b; Marques et al. 2008b; Barbosa et al. 2013b

Geographical record: unknown

Phaeoisaria infrafertilis B. Sutton & Hodges, Nova Hedwigia 27(1-2): 219 (1976)

Substrate: leaf and petiole

Habitat: terrestrial

Reference: Marques et al. 2008b

Geographical record: unknown

Phialocephala humicola S.C. Jong & E.E. Davis, Mycologia 64(6): 1352 (1973)

Substrate: twig and bark

Habitat: terrestrial

Reference: Marques et al. 2007b; Marques et al. 2008b

Geographical record: new record for Bahia

Phragmocephala elegans R.F. Castañeda, Deuteromycotina de Cuba, Hyphomycetes (La Habana) 3: 26 (1985)

Substrate: leaf and petiole

Habitat: terrestrial

Reference: Marques et al. 2007a; Marques et al. 2008b

Geographical record: new record for South America

Phragmocephala stemphylioides (Corda) S. Hughes, Can. J. Bot. 36: 796 (1958)

Substrate: petiole

Habitat: terrestrial

Reference: Barbosa et al. 2007b; Marques et al. 2007a; Marques et al. 2008b

Geographical record: new record for Neotropic

Pithomyces elaeidicola M.B. Ellis, Mycol. Pap. 76: 10 (1960)

Substrate: submerged bark

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: new record for America

Pithomyces niger Mercado & J. Mena, in Mercado Sierra & Mena Portales, Acta bot., Szeged 32(1-4): 201 (1986)

Substrate: submerged bark

Habitat: fresh water

Reference: Barbosa et al. 2013b

Geographical record: unknown

Pleurophragmium malaysianum Matsush., Matsush. Mycol. Mem. 9: 20 (1996)

Substrate: submerged twig

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: rare species

Pleurophragmium varieseptatum Matsush., Icon. microfung. Matsush. lect. (Kobe): 117 (1975)

Substrate: leaf

Habitat: terrestrial

Reference: Barbosa et al. 2007b; Barbosa et al. 2009a

Geographical record: new record for Neotropic

Pleurothecium recurvatum (Morgan) Höhn., Zentbl. Bakt. ParasitKde, Abt. II 60: 26 (1923)

Substrate: twig and bark

Habitat: terrestrial

Reference: Marques et al. 2007b; Marques et al. 2008b

Geographical record: new record for Brazil

Pseudoacrodictys deightonii (M.B. Ellis) W.A. Baker & Morgan-Jones, Mycotaxon 85: 380 (2003)

Substrate: leaf

Habitat: terrestrial

Reference: Marques et al. 2007a; Marques et al. 2008b

Geographical record: new record for South America

Pseudoacrodictys viridescens (B. Sutton & Alcorn) W.A. Baker & Morgan-Jones, Mycotaxon 85: 388 (2003)

Substrate: twig

Habitat: terrestrial

Reference: Leão-Ferreira et al. 2009

Geographical record: new record for Neotropic

Pseudobotrytis terrestris (Timonin) Subram., Proc. Indian natn Sci. Acad., Part B. Biol. Sci. 43: 277 (1956)

Substrate: decaying leaf, petiole and twig and submerged twig

Habitat: terrestrial and fresh water

Reference: Marques et al. 2007b; Marques et al. 2008b; Barbosa et al. 2009a; Barbosa et al. 2009b; Barbosa et al. 2013b

Geographical record: new record for Bahia

Pseudotracylla dentata B. Sutton & Hodges, Nova Hedwigia 27(3-4): 699 (1976)

Substrate: submerged leaf, petiole and twig

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: new record for Bahia

Pyricularia rabaulensis Matsush., in Kabayasi et al., Bull. natn. Sci. Mus., Tokyo 14(3): 47 (1971)

Substrate: submerged leaf

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: rare species

Quadracaea stauroconidia F.R. Barbosa & Gusmão, Cryptog. Mycol. 34: 251 (2013)

Substrate: submerged leaf and twig

Habitat: fresh water

Reference: Barbosa et al. 2013b

Geographical record: new species

Repetophragma fasciatum (R.F. Castañeda) R.F. Castañeda, Gusmão & Saikawa, Mycotaxon 95: 269 (2006)

Substrate: submerged and decaying leaf

Habitat: fresh water and terrestrial

Reference: Marques et al. 2008b; Barbosa et al. 2013b (as *Endophragmiella fasciata*)

Geographical record: unknown

Repetophragma filiferum (Piroz.) R.F. Castañeda, Gusmão & Heredia, Mycotaxon 95: 269 (2006)

Substrate: petiole

Habitat: terrestrial

Reference: Marques et al. 2008b

Geographical record: unknown

Repetophragma quadriloculare (Matsush.) R.F. Castañeda, McKenzie & K.D. Hyde, Mycosphere 2(3): 277 (2011)

Substrate: petiole

Habitat: terrestrial

Reference: Marques et al. 2008b (as *Endophragmiella quadrilocularis* Matsush., Matsush.)

Geographical record: unknown

Rhexoacrodictys erecta W.A. Baker & Morgan-Jones, Mycotaxon 82: 99 (2002)

Substrate: submerged petiole, twig and bark

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: new record for Bahia

Satchmopsis brasiliensis B. Sutton & Hodges, in Sutton, Nova Hedwigia 26(1): 3 (1975)

Substrate: leaf

Habitat: terrestrial

Reference: Barbosa et al. 2013b

Geographical record: unknown

Scutisporus brunneus K. Ando & Tubaki, Trans. Mycol. Soc. Japan 26(2): 153 (1985)

Substrate: submerged petiole

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: new record for Brazil

Selenodriella fertilis (Piroz. & Hodges) R.F. Castañeda & W.B. Kendr., Univ. Waterloo Biol. Ser. 33: 34 (1990)

Substrate: leaf

Habitat: terrestrial and fresh water

Reference: Marques et al. 2007a; Barbosa et al. 2009a; Barbosa et al. 2013b

Geographical record: new record for South America

Selenodriella perramosa W.B. Kendr. & R.F. Castañeda, Univ. Waterloo Biol. Ser. 33: 36 (1990)

Substrate: decaying leaf and submerged twig

Habitat: terrestrial and fresh water

Reference: Barbosa et al. 2009a; Barbosa et al. 2013b

Geographical record: unknown

Selenosporella curvispora G. Arnaud *ex* MacGarvie, Scientific Proc. R. Dublin Soc., Ser. B 2(no. 16): 153 (1969)

Substrate: leaf and petiole

Habitat: terrestrial

Reference: Marques et al. 2008b; Barbosa et al. 2009a

Geographical record: unknown

Spadicoides stoveri M.B. Ellis, Mycol. Pap. 131: 22 (1972)

Substrate: petiole

Habitat: terrestrial

Reference: Marques et al. 2008b (as *Diplococcium stoveri* (M.B. Ellis) R.C. Sinclair, Eicker & Bhat)

Geographical record: unknown

Spegazzinia deightonii (S. Hughes) Subram., J. Indian bot. Soc. 35: 78 (1956)

Substrate: leaf

Habitat: terrestrial

Reference: Leão-Ferreira et al. 2009

Geographical record: new record for South America

Speiropsis scopiformis Kuthub. & Nawawi, Trans. Br. Mycol. Soc. 89(4): 584 (1987)

Substrate: decaying leaf and petiole and submerged leaf

Habitat: terrestrial and fresh water

Reference: Marques et al. 2008b; Barbosa et al. 2009a; Barbosa et al. 2013b

Geographical record: unknown

Sporendocladia bactrospora (W.B. Kendr.) M.J. Wingf., Trans. Br. Mycol. Soc. 89(4): 515 (1987)

Substrate: decaying leaf and submerged twig

Habitat: terrestrial and fresh water

Reference: Barbosa et al. 2009a; Barbosa et al. 2009b; Barbosa et al. 2013b

Geographical record: unknown

Sporidesmiella ciliaspera W.P. Wu, in Wu & Zhuang, Fungal Diversity Res. Ser. (Hong Kong) 15: 160 (2005)

Substrate: submerged bark

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: new record for America

Sporidesmiella hyalosperma (Corda) P.M. Kirk, Trans. Br. Mycol. Soc. 79(3): 481 (1982)

Substrate: decaying petiole, twig and bark and submerged twig

Habitat: terrestrial and fresh water

Reference: Marques et al. 2007b; Marques et al. 2008b; Barbosa et al. 2013b

Geographical record: new record for Bahia

Sporidesmiella parva (M.B. Ellis) P.M. Kirk, Trans. Br. Mycol. Soc. 79(3): 486 (1982)

Substrate: twig

Habitat: terrestrial and fresh water

Reference: Barbosa et al. 2007b; Marques et al. 2007b; Marques et al. 2008b; Barbosa et al. 2013b

Geographical record: new record for Neotropic

Sporidesmiella vignalensis W.B. Kendr. & R.F. Castañeda, Univ. Waterloo Biol. Ser. 33: 43 (1990)

Substrate: leaf

Habitat: terrestrial and fresh water

Reference: Marques et al. 2007a; Marques et al. 2008b; Barbosa et al. 2013b

Geographical record: new record for South America

Sporidesmium tropicale M.B. Ellis, Mycol. Pap. 70: 58 (1958)

Substrate: twig

Habitat: terrestrial and fresh water

Reference: Marques et al. 2008b; Barbosa et al. 2013b

Geographical record: unknown

Sporoschisma juvenile Boud., Icon. Mycol. (Paris) 1: 12 (1904)

Substrate: submerged twig

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: new record for Neotropic

Sporoschisma saccardoii E.W. Mason & S. Hughes, in Hughes, Mycol. Pap. 31: 20 (1949)

Substrate: submerged twig

Habitat: fresh water

Reference: Barbosa et al. 2013b

Geographical record: unknown

Stachybotrys bisbyi (Sriniv.) G.L. Barron, Mycologia 56(2): 315 (1964)

Substrate: petiole and twig

Habitat: terrestrial

Reference: Marques et al. 2007b; Marques et al. 2007a; Marques et al. 2008b

Geographical record: new record for South America

Stachybotrys chartarum (Ehrenb.) S. Hughes, Can. J. Bot. 36: 812 (1958)

Substrate: leaf, twig and petiole

Habitat: terrestrial

Reference: Marques et al. 2008b

Geographical record: unknown

Stachybotrys kampalensis Hansf., Proc. Linn. Soc. London 155: 45 (1943)

Substrate: leaf

Habitat: terrestrial

Reference: Marques et al. 2007a; Marques et al. 2008b; Barbosa et al. 2009a

Geographical record: new record for South America

Stachybotrys longispora Matsush., Icon. microfung. Matsush. lect. (Kobe): 145 (1975)

Substrate: leaf and petiole

Habitat: terrestrial

Reference: Marques et al. 2008b; Barbosa et al. 2009a

Geographical record: unknown

Stachybotrys parvispora S. Hughes, Mycol. Pap. 48: 74 (1952)

Substrate: leaf and petiole

Habitat: terrestrial

Reference: Marques et al. 2008b; Barbosa et al. 2009a; Barbosa et al. 2009b

Geographical record: new record for Bahia

Stachybotrys sphaerospora Morgan-Jones & R.C. Sinclair, Mycotaxon 10(2): 372 (1980)

Substrate: submerged petiole

Habitat: fresh water

Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b

Geographical record: new record for America

Stylaspergillus laxis B. Sutton, Alcorn & P.J. Fisher, Trans. Br. Mycol. Soc. 79(2): 340 (1982)

Substrate: petiole

Habitat: terrestrial

Reference: Marques et al. 2008b

Geographical record: unknown

Subulispora longirostrata Nawawi & Kuthub., Mycotaxon 30: 459 (1987)

Substrate: decaying leaf and submerged petiole

Habitat: terrestrial and fresh water

Reference: Marques et al. 2008b; Barbosa et al. 2009a; Barbosa et al. 2013b

Geographical record: unknown

Subulispora procurvata Tubaki, Trans. Mycol. Soc. Japan 12(1): 20 (1971)

Substrate: submerged leaf and twig

Habitat: fresh water

Reference: Barbosa et al. 2013b

Geographical record: unknown

Tetraploa aristata Berk. & Broome, Ann. Mag. nat. Hist., Ser. 2 5: 459 (1850)

Substrate: submerged leaf

Habitat: fresh water

Reference: Barbosa et al. 2013b

Geographical record: unknown

Thozetella boonjiensis B.C. Paulus, Gadek & K.D. Hyde, Mycologia 96(5): 1076 (2004)

Substrate: leaf and twig

Habitat: terrestrial

Reference: Barbosa et al. 2011

Geographical record: new record for America

Thozetella cristata Piroz. & Hodges, Can. J. Bot. 51(1): 168 (1973)

Substrate: decaying and submerged leaf, petiole and twig

Habitat: terrestrial and fresh water

Reference: Marques et al. 2007b; Marques et al. 2008b; Barbosa et al. 2007a; Barbosa et al. 2009a;

Barbosa et al. 2013b

Geographical record: unknown

Thozetella cubensis R.F. Castañeda & G.R.W. Arnold, Rev. Jard. bot. nac., Univ. Habana 6(1): 51 (1985)

Substrate: decaying leaf and submerged leaf, petiole and twig

Habitat: terrestrial and fresh water

Reference: Barbosa et al. 2009a; Barbosa et al. 2013b

Geographical record: unknown

Thozetella gigantea B.C. Paulus, Gadek & K.D. Hyde, Mycologia 96(5): 1080 (2004)

Substrate: decaying leaf and submerged leaf and twig
 Habitat: terrestrial and fresh water
 Reference: Barbosa et al. 2011; Barbosa et al. 2013b
 Geographical record: new record for America

Thozetella pinicola S.Y. Yeung, Jeewon & K.D. Hyde, Can. J. Microbiol. 55(6): 681 (2009)

Substrate: submerged leaf
 Habitat: fresh water
 Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b
 Geographical record: new record for America

Thozetella submersa F.R. Barbosa & Gusmão, Mycotaxon 115: 328 (2011)

Substrate: submerged twig
 Habitat: fresh water
 Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b
 Geographical record: new species

Torula herbarum (Pers.) Link, Mag. Gesell. naturf. Freunde, Berlin 3(1-2): 19 (1809)

Substrate: submerged twig
 Habitat: fresh water
 Reference: Barbosa et al. 2013b
 Geographical record: unknown

Triposporium elegans Corda, Icon. fung. (Prague) 1: 16 (1837)

Substrate: twig
 Habitat: terrestrial
 Reference: Marques et al. 2008b
 Geographical record: unknown

Umbellidion radulans B. Sutton & Hodges, Nova Hedwigia 26(2-3): 532 (1975)

Substrate: decaying leaf and petiole and submerged leaf
 Habitat: terrestrial and fresh water
 Reference: Marques et al. 2008b; Barbosa et al. 2009a; Barbosa et al. 2013b
 Geographical record: unknown

Vermiculariopsiella cornuta (V. Rao & de Hoog) Nawawi, Kuthub. & B. Sutton, Mycotaxon 37: 181 (1990)

Substrate: submerged leaf and decaying leaf, petiole and twig
 Habitat: terrestrial and fresh water
 Reference: Marques et al. 2008c; Marques et al. 2008b; Barbosa et al. 2009a; Barbosa et al. 2013b (as *Gyothrix cornuta*)
 Geographical record: new record for Neotropic

Vermiculariopsiella cubensis (R.F. Castañeda) Nawawi, Kuthub. & B. Sutton, Mycotaxon 37: 180 (1990)

Substrate: decaying and submerged leaf and petiole
 Habitat: terrestrial and fresh water
 Reference: Marques et al. 2008c; Marques et al. 2008b; Barbosa et al. 2013b
 Geographical record: new record for Bahia

Vermiculariopsiella falcata Nawawi, Kuthub. & B. Sutton, Mycotaxon 37: 175 (1990)

Substrate: leaf
 Habitat: terrestrial
 Reference: Marques et al. 2008c, Marques et al. 2008b
 Geographical record: new record for South America

Vermiculariopsiella immersa (Desm.) Bender, Mycologia 24(4): 412 (1932)

Substrate: decaying leaf and petiole and submerged leaf
Habitat: terrestrial and fresh water
Reference: Marques et al. 2008c; Marques et al. 2008b; Barbosa et al. 2013b
Geographical record: new record for Serra da Jiboia

Vermiculariopsiella microsperma (Höhn.) R.F. Castañeda & W.B. Kendr., Univ. Waterloo Biol. Ser. 35: 118 (1991)

Substrate: decaying leaf and submerged leaf, petiole and twig
Habitat: terrestrial and fresh water
Reference: Marques et al. 2008b; Barbosa et al. 2009a; Barbosa et al. 2013b (as *Gyrothrix microsperma* (Höhn.) Piroz.)
Geographical record: unknown

Virgaria nigra (Link) Gray, Nat. Arr. Brit. Pl. (London) 1: 553 (1817)

Substrate: twig
Habitat: terrestrial
Reference: Marques et al. 2007b; Marques et al. 2008b
Geographical record: new record for Brazil

Virgariella atra S. Hughes, Can. J. Bot. 31(5): 654 (1953)

Substrate: submerged twig and bark
Habitat: fresh water
Reference: Barbosa et al. 2013b
Geographical record: unknown

Virgariella globigera (Sacc. & Ellis) S. Hughes, Can. J. Bot. 31: 654 (1953)

Substrate: submerged bark
Habitat: fresh water
Reference: Barbosa et al. 2013b
Geographical record: unknown

Virgatospora echinofibrosa Finley, Mycologia 59(3): 538 (1967)

Substrate: decaying twig and submerged petiole
Habitat: terrestrial and fresh water
Reference: Marques et al. 2007b; Marques et al. 2008b; Barbosa et al. 2013b
Geographical record: new record for Bahia

Volutella minima Höhn., Sber. Akad. Wiss. Wien, Math.-naturw. Kl., Abt. 1 118: 1543 [83 repr.] (1909)

Substrate: leaf and petiole
Habitat: terrestrial
Reference: Marques et al. 2008b; Barbosa et al. 2009a
Geographical record: unknown

Wiesneriomyces laurinus (Tassi) P.M. Kirk, Trans. Br. Mycol. Soc. 82(4): 748 (1984)

Substrate: decaying leaf and petiole and submerged leaf
Habitat: terrestrial and fresh water
Reference: Marques et al. 2008b; Barbosa et al. 2009a; Barbosa et al. 2013b
Geographical record: unknown

Xylomyces chlamydosporus Goos, R.D. Brooks & Lamore Mycologia 69(2): 282 (1977)

Substrate: submerged bark
Habitat: fresh water
Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b
Geographical record: new record for Brazil

Xylomyces elegans Goh, W.H. Ho, K.D. Hyde & K.M. Tsui, Mycol. Res. 101(11): 1324 (1997)

Substrate: submerged bark
 Habitat: fresh water
 Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b
 Geographical record: new record for Neotropic

Xylomyces foliicola W.B. Kendr. & R.F. Castañeda, Univ. Waterloo Biol. Ser. 33: 54 (1990)
 Substrate: submerged leaf and petiole
 Habitat: fresh water
 Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b
 Geographical record: new record for South America

Yinmingella mitriformis Goh, K.M. Tsui & K.D. Hyde, Can. J. Bot. 76(10): 1693 (1999)
 Substrate: twig and bark
 Habitat: terrestrial
 Reference: Marques et al. 2008b; Barbosa et al. 2007b
 Geographical record: new record for Neotropic

Zanclospora indica Subram. & Vittal, Can. J. Bot. 51(6): 1132 (1973)
 Substrate: petiole
 Habitat: terrestrial
 Reference: Marques et al. 2008b
 Geographical record: unknown

Zanclospora novae-zelandiae S. Hughes & W.B. Kendr., N.Z. J. Bot. 3: 152 (1965)
 Substrate: bark
 Habitat: terrestrial and fresh water
 Reference: Barbosa et al. 2007b; Marques et al. 2007b; Marques et al. 2008b; Barbosa et al. 2013b
 Geographical record: new record for Brazil and Neotropic

Zygosporium echinosporum Bunting & E.W. Mason, in Mason, Mycol. Pap. 5: 135 (1941)
 Substrate: decaying and submerged leaf and petiole
 Habitat: terrestrial and fresh water
 Reference: Marques et al. 2008b; Barbosa et al. 2009a; Barbosa et al. 2013b
 Geographical record: unknown

Zygosporium gibbum (Sacc., M. Rousseau & E. Bommer) S. Hughes, Can. J. Bot. 36: 825 (1958)
 Substrate: leaf and petiole
 Habitat: terrestrial
 Reference: Marques et al. 2008b; Barbosa et al. 2009a
 Geographical record: unknown

Zygosporium masonii S. Hughes, Mycol. Pap. 44: 15 (1951)
 Substrate: decaying leaf and submerged twig
 Habitat: terrestrial and fresh water
 Reference: Barbosa et al. 2009a; Barbosa et al. 2013b
 Geographical record: unknown

Zygosporium minus S. Hughes, Mycol. Pap. 44: 6 (1951)
 Substrate: submerged twig
 Habitat: fresh water
 Reference: Barbosa & Gusmão 2011; Barbosa et al. 2013b
 Geographical record: new record for Brazil

Conclusion

These data demonstrate that Serra da Jibóia is a reservoir of high fungal diversity and that research should continue in order to explore the full biological potential in this region. To obtain a holistic understanding of the diversity of fungi in Serra da Jibóia, collection efforts should be directed at locations that have not yet been sampled in the region with a focus on other ecological groups of fungi such as freshwater fungi, soil fungi, mycorrhizal fungi, endophytic and epiphytic fungi and fungi occurring on insects, plants, canopies, etc.

Acknowledgements

The authors would like to thank Dr. Huzefa Raja, Dr. José Luiz Bezerra and Dr. Julio de Jesus Mena Portales for reviewing the manuscript and making helpful comments and suggestions and to the PPBio/Semi-árido (Programa de Pesquisa em Biodiversidade do Semi-árido) for financial support.

Literature cited

- Almeida DAC, Barbosa FR, Gusmão LFP. 2012. Alguns fungos conidiais aquáticos-facultativos do bioma Caatinga. *Acta Bot Brasilia* 26(4): 924-932. <http://dx.doi.org/10.1590/S0102-33062012000400021>.
- Almeida DAC, Milller AN, Gusmão LFP. 2014. Brazilian Semi-Arid Ascomycetes I: New and interesting records of hysteriaceous ascomycetes. *Mycosphere* 5(2): 379-391.
- Barbosa FR, Gusmão LFP. 2011. Conidial fungi from semi-arid Caatinga Biome of Brazil. Rare freshwater hyphomycetes and other new records. *Mycosphere* 2(4): 475-485.
- Barbosa FR, Gusmão LFP, Barbosa FF. 2007a. *Thozetella* species (Anamorphic Fungi – Hyphomycetes) from semi-arid of Bahia State, Brazil. *Sitientibus* 7(2): 184-187.
- Barbosa FR, Gusmão LFP, Castañeda-Ruiz RF, Marques MFO, Maia LC. 2007b. Conidial fungi from the semi-arid Caatinga biome of Brazil. New species *Deightoniella rugosa* & *Diplocladiella cornitumida* with new records for the Neotropics. *Mycotaxon* 102: 39-49.
- Barbosa FR, Gusmão LFP, Raja HA, Shearer CA. 2008. *Annulatasacus apiculatus* sp. nov., a new freshwater ascomycete from the semi-arid Caatinga biome of Brazil. *Mycotaxon* 106: 403-407.
- Barbosa FR, Gusmão LFP, Raja HA, Shearer CA. 2013a. New species and new records of freshwater ascomycetes from Brazil and Costa Rica. *Mycologia* 105(2): 335-343. <http://dx.doi.org/10.3852/12-054>.
- Barbosa FR, Maia LC, Gusmão LFP. 2009a. Fungos conidiais associados ao folheto de *Clusia melchiorii* Gleason e *C. nemorosa* G. Mey. (Clusiaceae) em fragmento de Mata Atlântica, BA, Brasil. *Acta Bot Brasilia* 23(1): 79-84. <http://dx.doi.org/10.1590/S0102-33062009000100010>.
- Barbosa FR, Maia LC, Gusmão LFP. 2009b. Novos registros de Hyphomycetes decompositores para o Estado da Bahia, Brasil. *Acta Bot Brasilia* 23(2): 323-329. <http://dx.doi.org/10.1590/S0102-33062009000200004>.
- Barbosa FR, Raja HA, Shearer CA, Gusmão LFP. 2012. Three *Chaetomium* species (Chaetomiaceae, Ascomycota) from the semiarid region of Brazil. *Sitientibus* 12(1): 115-118.
- Barbosa FR, Raja HA, Shearer CA, Gusmão LFP. 2013b. Some freshwater fungi from the Brazilian semi-arid region, including two new species of hyphomycetes. *Cryptogam. Mycol.* 34(3):243-258. <http://dx.doi.org/10.7872/crym.v34.iss2.2013.243>.
- Barbosa FR, Silva SS, Fiuza PO, Gusmão LFP. 2011. Conidial fungi from the semi-arid Caatinga biome of Brazil. New species and records for *Thozetella*. *Mycotaxon* 115: 327-334. <http://dx.doi.org/10.5248/115.327>.
- Blackwell M. 2011. The Fungi: 1, 2, 3 ... 5.1 million species? *Am. J. Bot.* 98: 426-438. <http://dx.doi.org/10.3732/ajb.1000298>.
- Bravo F, Chagas C. 2004. Espécies novas de *Tonnoira* Enderlein (Diptera: Psychodidae) do Nordeste brasileiro. *Neotrop. Entomol.* 33(5): 601-605. <http://dx.doi.org/10.1590/S1519-566X2004000500009>.
- Carvalho-Sobrinho JG, Queiroz LP. 2005. Composição florística de um fragmento de Mata Atlântica na Serra da Jibóia, Santa Terezinha, Bahia, Brasil. *Sitientibus* 5: 20-28.
- Cruz ACR da, Gutiérrez AH, Gusmão LFP. 2008a. O gênero *Exserticlava* (Fungo Anamorfo – Hyphomycetes) no Brasil. *Rev Bras Bot* 31(2): 357-261.
- Cruz ACR da, Leão-Ferreira SM, Barbosa FR, Gusmão LFP. 2008b. Conidial fungi from semi-arid Caatinga biome of Brazil. New and interesting *Dictyochaeta* species. *Mycotaxon* 106: 15-27.
- Freitas MA, Moraes EPF. 2009. Levantamento da avifauna (Serra da Jibóia), município da Fazenda Jequitibá de Elísio Medrado/Bahia. *Atualidades Ornitológicas* 147: 73-76.
- Góes-Neto A, Marques MFO, Andrade JD, Santos DS. 2003. Lignicolous Aphylloroid Basidiomycota in an Atlantic Forest Fragment in the semi-arid caatinga region of Brazil. *Mycotaxon* 88: 359-364.
- Gryganskyi AP, Humber RA, Smith ME et al. 2012. Molecular phylogeny of the Entomophthoromycota. *Mol. Phylogenet. Evol.* 65: 682-694. <http://dx.doi.org/10.1016/j.mpev.2012.07.026>.

- Hawksworth DL. 1991. The fungal dimension of biodiversity: magnitude, significance and conservation. *Mycol. Res.* 95: 641-655. [http://dx.doi.org/10.1016/S0953-7562\(09\)80810-1](http://dx.doi.org/10.1016/S0953-7562(09)80810-1).
- Hawksworth DL. 2001. The magnitude of fungal diversity: the 1.5 million species estimate revisited. *Mycol. Res.* 105: 1422-1432. http://dx.doi.org/10.1017/S0953_3756201004725.
- Hawksworth DL. 2012. Global species numbers of fungi: are tropical studies and molecular approaches contributing to a more robust estimate? *Biodivers. Conserv.* 21: 2425-2433. <http://dx.doi.org/10.1007/s10531-012-0335-x>.
- Hibbett D, Binder M, Bischoff JF et al. 2007. A higher-level phylogenetic classification of the fungi. *Mycol. Res.* 111: 509-547. <http://dx.doi.org/10.1016/j.mycres.2007.03.004>.
- Juncá FA, Borges CLS. 2002. Fauna associada a bromélias terrícolas da Serra da Jibóia, Bahia. *Sitientibus* 2: 73-81.
- Leão-Ferreira SM, Santa-Izabel T dos S, Gusmão LFP, Marques MFO. 2009. Novas ocorrências de fungos conidiais para América do Sul e Neotrópico. *Rev Bras Bot* 32(4):775-780.
- Macedo TS, Góes-Neto A, Nonato FR. 2011. Samambaias e Licófitas da Serra da Jibóia. *The Field Museum* 301(1): 1-6.
- Maia LC, Carvalho-Junior AA. 2010. Lista de espécies: fungos. 90-261, in RC Forzza et al (org), Catálogo de plantas e fungos do Brasil. Rio de Janeiro. Instituto de Pesquisas Jardim Botânico do Rio de Janeiro.
- Marques MFO, Barbosa FR, Gusmão LFP, Castañeda-Ruiz RF, Maia LC. 2007a. Conidial fungi from the semi-arid Caatinga biome of Brazil. *Cubasina microspora* sp. nov., a note on *C. albofusca*, and some new records for South America. *Mycotaxon* 102: 17-23.
- Marques MFO, Cruz ACR da, Barbosa FF, Gusmão LFP. 2008a. *Cryptophiale* and *Cryptophialoidea* (Conidial fungi) from Brazil and keys to the genera. *Rev Bras Bot* 31(2): 339-344.
- Marques MFO, Gusmão LFP, Maia LC. 2008b. Riqueza de espécies de fungos conidiais em duas áreas de Mata Atlântica no Morro da Pioneira, Serra da Jibóia, BA, Brasil. *Acta Bot Brasilica* 22(4): 954-961. <http://dx.doi.org/10.1590/S0102-33062008000400006>.
- Marques MFO, Gusmão LFP, Maia LC. 2008c. Espécies de *Vermiculariopsiella* (Hyphomycetes) associadas a substratos vegetais em fragmento de Mata Atlântica, Serra da Jibóia, Estado da Bahia, Brasil. *Rev Bras Bot* 31: 659-665.
- Marques MFO, Junior VO de M, Santos SML, Gusmão LFP, Maia LC. 2007b. Fungos conidiais lignícolas em um fragmento de Mata Atlântica, Serra da Jibóia, BA. *Rev Bras Biocienc* 5(2): 1186-1188.
- Ministério do Meio Ambiente. 2000. Avaliações e ações prioritárias para a conservação da Biodiversidade da Mata Atlântica e Campos Sulinos. Brasília.
- Polishook JD, Bills GF, Lodge DJ. 1996. Microfungi from decaying leaves of two rain forest trees in Puerto Rico. *J. Ind. Microbiol.* 17: 284-294. <http://dx.doi.org/10.1007/BF01574703>.
- Queiroz LP, Sena TSN, Costa MJSL. 1996. Flora vascular da Serra da Jibóia, Santa Terezinha – Bahia. I: O campo rupestre. *Sitientibus* 15:27-40.
- Ramos GJP, Oliveira IB, Moura CW do N. 2011. Desmídias de ambiente fitotelmata bromelícola da Serra da Jibóia, Bahia, Brasil. *Rev Bras Biocienc* 9(1): 103-113.
- Silva BDB da. 2013. Two new species of *Geastrum* (Geastraceae, Basidiomycota) found in Brazil. *Nova Hedwigia* 96(3-4): 445-456. <http://dx.doi.org/10.1127/0029-5035/2013/0089>.
- Silva SS da, Santa-Izabel TS, Gusmão LFP. 2014. Fungos conidiais associados a substratos vegetais submersos em algumas áreas do bioma Caatinga. *Rodriguésia* 65(2): 527-538
- Tsui CKM, Hyde KD, Hodgkiss IJ. 2000. Biodiversity of fungi on submerged wood in Hong Kong streams. *Aquat Microb Ecol* 21: 289-291. <http://dx.doi.org/10.3354/ame021289>
- Valente EB, Pôrto KC. 2006. Hepáticas (Marchantiophyta) de um fragmento de Mata Atlântica na Serra da Jibóia, Município de Santa Teresinha, BA, Brasil. *Acta Bot Brasilica* 20(2): 433-441. <http://dx.doi.org/10.1590/S0102-33062006000200018>.
- Valente EB, Pôrto KC, Bôas-Bastos SB, Bastos CJP. 2009. Musgos (Bryophyta) de um fragmento de Mata Atlântica na Serra da Jibóia, município de Santa Terezinha, BA, Brasil. *Acta Bot Brasilica* 23(2): 369-375. <http://dx.doi.org/10.1590/S0102-33062009000200008>.
- Webster J, Weber RWS. 2007. *Introduction to Fungi*. Cambridge University Press. <http://dx.doi.org/10.1017/CBO9780511809026>.
- Zacca T, Bravo F, Araújo MX. 2011. Butterflies (Lepidoptera: Papilionoidea and Hesperioidea) from Serra da Jibóia, Bahia State, Brazil. *Entomobrasilis* 4(3): 139-143.
- Zelski SE, Raja HA, Miller AN, Barbosa FR, Gusmão LFP, Shearer CA. 2011. *Longicollum biappendiculatum* gen. et sp. nov., a new freshwater ascomycete from the Neotropics. *Mycosphere* 2(5) 539-545. <http://dx.doi.org/10.5943/mycosphere/2/5/9>.