

## Santa Catarina Island mangroves 4 – xylophilous basidiomycetes

LARISSA TRIERVEILER-PEREIRA, JULIANO MARCON BALTAZAR & CLARICE LOGUERCIO-LEITE

*lt\_pereira@yahoo.com.br, jm-baltazar@hotmail.com, cllite@ccb.ufsc.br*  
*Departamento de Botânica, Centro de Ciências Biológicas*  
*Universidade Federal de Santa Catarina*  
*Campus Universitário, 88040-900, Florianópolis, SC, Brazil*

**Abstract** — Itacorubi, Rationes, Rio Tavares and Saco Grande are natural mangrove forests in the western part of Santa Catarina Island, in southern Brazil. Thirty-three basidiomycetes were identified during a survey of xylophilous basidiomycetes in these mangrove forests from May 2005 to August 2006. The species are distributed among 9 families and 24 genera. Fifteen species are new records from mangrove forests of the world and eight species are recorded for the first time from the State of Santa Catarina.

**Key words** — Neotropics, fungal taxonomy, white-rot fungi

### Introduction

Close to 35% of mangrove forests, one of the world's threatened major tropical ecosystems, have been lost in the last twenty years (Valiela et al. 2001). These ecosystems occur worldwide on sheltered shores, mainly in the tropics, and their distribution is closely related to basic features of the marine environment, mainly salinity (Chapman 1977).

Plant diversity is low in mangrove forests (Alongi 2002, Lana 2004), with about 70 species of trees and shrubs known from all over the world (Duke 1992). New World mangrove forests are composed of nine tree species representing *Avicennia* (4 spp.), *Rhizophora* (3 spp.), *Laguncularia* (1 sp.) and *Conocarpus* (1 sp.) (Cintrón & Schaeffer-Novelli 1980).

Along the South American Atlantic coast, the austral limit of mangroves is at the city of Laguna, Brazil, located at latitude of 28°55' S, in the State of Santa Catarina (Cintrón & Schaeffer-Novelli 1980). These ecosystems are well represented in Brazil, which includes one of the six largest mangrove forests in the world (Lacerda 1984).

Mangrove species diversity is well known for animals and plants but poorly known for other organisms such as fungi (Macintosh & Ashton 2002). Most mangrove fungi refer mainly to 'marine fungi', which grow and sporulate exclusively in marine or estuarine habitats (Kohlmeyer & Kohlmeyer 1979). Little is known about terrestrial fungi in mangrove forests (Hyde & Lee 1995).

Previous studies on Santa Catarina Island mangroves have revealed interesting data on myxomycetes and fungi taxonomy (Trierveiler-Pereira et al. 2008a, b; Baltazar et al. 2009b).

Of the 112 xylophilous basidiomycetes recorded from mangrove forests around the world (Baltazar et al. 2009a), Brazilian mangroves are the best known primarily due to the research of Campos et al. (2003) and Sotão et al. (1991, 2002, 2003). The present study is the first basidiomycete survey carried out in southern Brazil mangrove forests.

### Materials and methods

Santa Catarina Island is located in the central-east of the State of Santa Catarina (27°35' S and 48°32' W) in the Florianópolis municipality. Mangroves are found only on the western shores of the island, where there are low-energy (i.e. little wave action) sites. The four largest mangroves on the island are: Ratonés (29°30'00" S, 48°27'00" W), Saco Grande (28°37'30" S, 48°27'30" W), Itacorubi (27°34'14" S, 48°30'07" W) and Rio Tavares (27°38'40" S, 48°30'17" W). The mangrove tree species from these areas are *Avicennia schaueriana* Stapf & Leechm. ex Moldenke, *Laguncularia racemosa* C.F. Gaertn. and *Rhizophora mangle* L. The most common species is *A. schaueriana*, also known as black-mangrove or "siriúba" (Souza-Sobrinho et al. 1969).

During 26 field trips to the Santa Catarina Island mangroves, from May 2005 to August 2006, 265 xylophilous basidiomycete specimens were collected. Whenever possible, the host species was identified. Microscopic characters were examined and measured using light microscopy, in mounts of 1% aqueous phloxine solution (plus 1% or 5% KOH) and Melzer's reagent (Ryvarden 1991). Drawings were made with the aid of a camera lucida. Vouchers are preserved in Herbarium FLOR (Holmgren & Holmgren 1998). Novelties in distribution are indicated by: \* = new record from Santa Catarina; ♦ = new record from Brazilian mangroves; □ = new record from mangroves of the world.

### Results

Thirty-three xylophilous basidiomycete species representing nine families were identified in the surveyed areas. Most species were recorded from dead wood; however, four species (*Fuscoporia gilva*, *Cerocorticium molle*, *Cymatoderma dendriticum*, *Schizophyllum commune*) were also collected from living trees. *Avicennia schaueriana*, with twenty-three recorded species, was the most common host. However, *Phellinus allardii* and *Perenniporia ohiensis* were only collected on *Laguncularia racemosa*, whereas *Hexagonia hydnoides* was collected on *Rhizophora mangle*. *Fuscoporia gilva*,

*Cerocorticium molle*, *Pycnoporus sanguineus* and *Schizopora paradoxa* were gathered on all three host trees.

In this survey, the Itacorubi mangrove forest had the highest species diversity with twenty-five species. Seven species (*Auricularia fuscusuccinea*, *Cerocorticium molle*, *Pycnoporus sanguineus*, *Trametes elegans*, *Trametes villosa*, *Schizophyllum commune*, *Schizopora paradoxa*) were found in all four mangrove forests. Most of the identified species have a cosmopolitan or pantropical (both with 14 spp.; 42.4%) distribution, and five species (15.15%) are neotropical.

#### **Auriculariaceae Fr.**

*Auricularia fuscusuccinea* (Mont.) Henn., Bot. Jb. 17: 19 (1893)

■ *Exidia fuscusuccinea* Mont., Hist. Phys. Cuba, Bot., Pl. Cell.: 364 (1842)

DESCRIPTION — Lowy (1952: 677).

COMMENTS — *Auricularia fuscusuccinea* is the most frequently collected tremelloid species in the Neotropics (Lowy 1971). The examined specimens have a characteristic well defined medulla. In addition to *A. fuscusuccinea*, *A. auricula-judae* (Bull.) Quél. and *A. polytricha* (Mont.) Sacc. (Sotão et al. 2003) are recorded from Brazilian mangrove forests. However, *A. auricula-judae* may be misidentified, for it is restricted to temperate zones, collected exceptionally in Mexico (Lowy 1971).

DISTRIBUTION — cosmopolitan (Lowy 1952).

SUBSTRATE — dead trunks of *A. schaueriana* and unidentified wood.

VOUCHER MATERIAL — BRAZIL. SANTA CATARINA: Ilha de Santa Catarina. Manguezal do Saco Grande. Baltazar & Trierveiler-Pereira 067. 22.XII.2005 (FLOR 32182); Manguezal de Ratonés. Baltazar, J. Michels & G. Michels 113. 29.I.2006 (FLOR 32183); Manguezal do Itacorubi. col. Trierveiler-Pereira & Baltazar 166. 24.II.2006 (FLOR 31955). Manguezal do Rio Tavares. col. Trierveiler-Pereira & Mozerle 226. 27.IV.2006 (FLOR 31958).

#### **Dacrymycetaceae J. Schröt.**

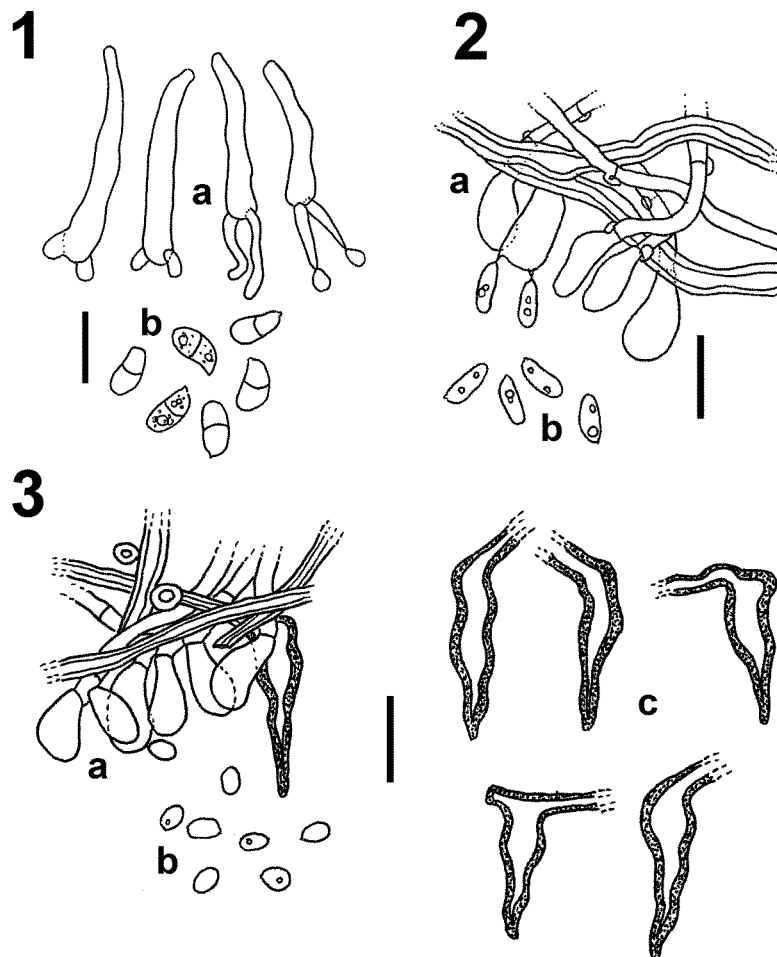
\**Calocera cornea* (Batsch) Fr., Stirp. Agri. Fems.: 67 (1827)

FIG. 1

■ *Clavaria cornea* Batsch, Elench. Fung.: 139 (1783)

DESCRIPTION — McNabb (1965: 41).

COMMENTS — *Calocera cornea* is characterized by the lack of clamp connections and simple-septate basidiospores, 8–10 µm long. The species shows great macroscopic variation, however microscopic features, such as



FIGURES 1–3. 1. *Calocera cornea*. a: basidia. b: basidiospores. 2. *Fomitopsis supina*. a: hymenium. b: basidiospores. 3. *Fuscoporia callimorpha*. a: hymenium. b: basidiospores. c: hymenial setae (scale bars = 10  $\mu\text{m}$ ).

basidiospores size and septation, are constant (MacNabb 1965). *Calocera cornea* is a common species but with few reports from Brazil. It was first recorded from Brazilian mangroves by Sotão et al. (2003).

DISTRIBUTION — cosmopolitan (MacNabb 1965).

SUBSTRATE — unidentified wood.

VOUCHER MATERIAL — **BRAZIL. SANTA CATARINA: Ilha de Santa Catarina.** Manguezal do Saco Grande. Baltazar & Trierweiler-Pereira 267. 27.VII.2006 (FLOR 32138).

### **Fomitopsidaceae Jülich**

☐ ***Antrodia albida*** (Fr.) Donk, Persoonia 4: 339 (1966)

■ *Daedalea albida* Fr., Observ. Mycol. 1: 107 (1815)

DESCRIPTION — Ryvarden & Johansen (1980: 247).

COMMENTS — This species may show a great variation in the configuration of the hymenial surface, but it is easily separated from other *Antrodia* species occurring on hardwoods by its large spores (Gilbertson & Ryvarden 1986). *Antrodia* species are brown-rot fungi usually associated with gymnosperms. However, *A. serialis* (Fr.) Donk and *A. sinuosa* (Fr.) P. Karst. were also reported from Brazilian mangroves (Almeida-Filho et al. 1993, Sotão et al. 2003).

DISTRIBUTION — cosmopolitan (Loguercio-Leite & Wright 1991).

SUBSTRATE — dead trunks of *A. schaueriana*.

VOUCHER MATERIAL — **BRAZIL. SANTA CATARINA: Ilha de Santa Catarina.** Manguezal de Ratoes. Baltazar & Trierweiler-Pereira 013. 08.IX.2005 (FLOR 32153); Manguezal do Itacorubi. Trierweiler-Pereira & Baltazar 56. 26.X.2005 (FLOR 32027); Manguezal do Rio Tavares, Trierweiler-Pereira & Baltazar 268. 29.VI.2006 (FLOR 32028).

☐ ***Fomitopsis supina*** (Sw.) Ryvarden, Bull. Jard. Bot. Nat. Belg. 48: 102 (1978) FIG. 2

■ *Boletus supinus* Sw., Fl. Ind. Occid. 3: 1926 (1806)

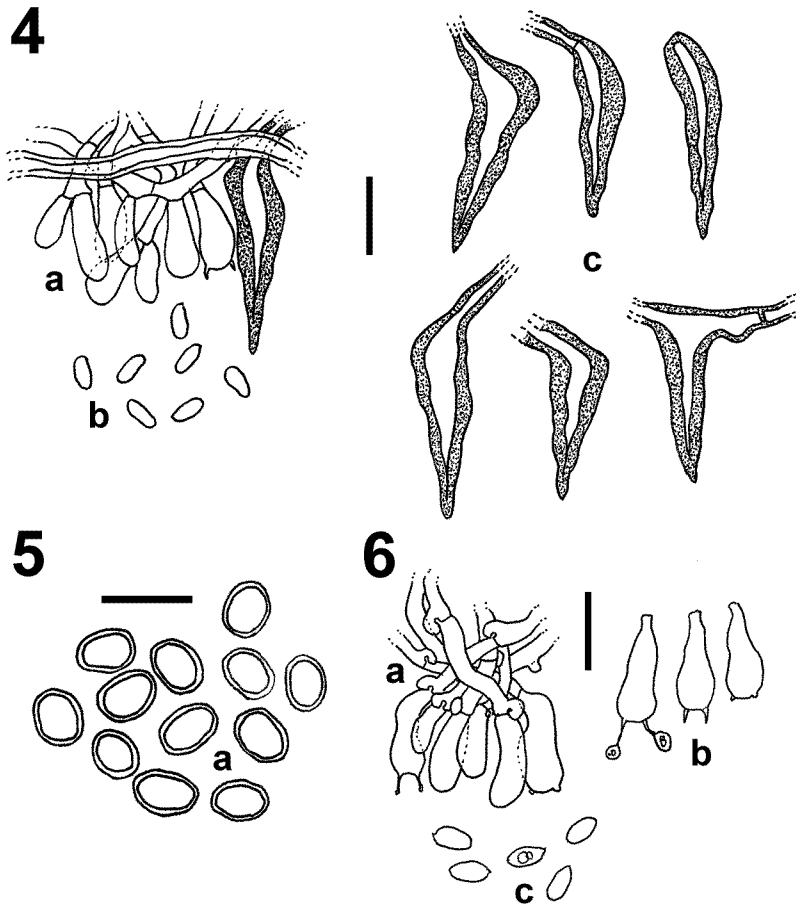
DESCRIPTION — Ryvarden & Johansen (1980: 342).

COMMENTS — This species may be recognized by its solitary, hard, woody basidiomata, reddish brown, zonate, laccate abhymenial surface and light-coloured pore surface when fresh. After drying, the pore surface turns light brown. It was recorded from Santa Catarina as *Fomitella supina* (Sw.) Murrill by Neves & Loguercio-Leite (1999), based on type of rot, but the genus is now considered synonym of *Fomitopsis* (Kirk et al. 2008).

DISTRIBUTION — pantropical (Loguercio-Leite & Wright 1991).

SUBSTRATE — dead trunks of *A. schaueriana*.

VOUCHER MATERIAL — **BRAZIL. SANTA CATARINA: Ilha de Santa Catarina.** Manguezal do Itacorubi. Trierweiler-Pereira & Baltazar 169. 24.II.2006 (FLOR 32015).



FIGURES 4–6. 4. *Fuscoporia ferrea*. a: hymenium. b: basidiospores. c: hymenial setae. 5. *Phellinus allardii*. a: basidiospores. 6. *Bjerkandera adusta*. a: hymenium. b: basidia. c: basidiospores (scale bars = 10  $\mu$ m).

#### **Hymenochaetaceae Imazeki & Toki**

◆ *Fuscoporia callimorpha* (Lév.) Groposo, C.L. Leite & Góes-Neto, Mycotaxon 101: 57 (2007) FIG. 3

■ *Polyporus callimorphus* Lév., Anns Sci. Nat., Bot., sér. 3, 5: 133 (1846)

DESCRIPTION—Ryvarden & Johansen (1980: 145).

COMMENTS — Loguercio-Leite & Wright (1995) separated *F. callimorpha* from *F. gilva* based on the setal morphology, however, setae of different morphologies may occur in the same specimen of *F. callimorpha*. According to Ryvarden & Johansen (1980), the species is separated from *F. senex* (Nees & Mont.) Ghob.-Nehj. and from *F. gilva* by its narrow spores. *Fuscoporia callimorpha* was recorded from Panamanian mangroves by Gilbert & Sousa (2002).

DISTRIBUTION — pantropical (Loguercio-Leite & Wright 1991).

SUBSTRATE — dead trunks of *A. schaueriana*.

VOUCHER MATERIAL — **BRAZIL. SANTA CATARINA: Ilha de Santa Catarina.** Manguezal do Itacorubi. Trierveiler-Pereira, Baltazar & Michels 126. 23.XII.2005 (*FLOR 31984*); Manguezal do Rio Tavares, Trierveiler-Pereira & Mozerle 224. 27.IV.2006 (*FLOR 31985*).

□ *Fuscoporia ferrea* (Pers.) G. Cunn., Bull. N.Z. Dept. Sci. Industr. Res., Pl. Dis. Div. 73: 7 (1948) FIG. 4

■ *Polyporus ferreus* Pers., Mycol. eur. (Erlanga) 2: 89 (1825)

DESCRIPTION — Ryvarden (2004: 177).

COMMENTS — The species may be recognized by its resupinate, widely effused basidiomata, large pores, and hymenial setae 30–36 µm long (Ryvarden & Johansen 1980). *Fuscoporia ferruginosa* (Schrad.) Murrill is macroscopically similar to *F. ferrea* but with setal hyphae, larger hymenial setae up to 65 µm, and wider basidiospores (3–3.5 µm) (Gilbertson 1979).

DISTRIBUTION — cosmopolitan (Ryvarden 2004).

SUBSTRATE — unidentified wood.

VOUCHER MATERIAL — **BRAZIL. SANTA CATARINA: Ilha de Santa Catarina.** Manguezal do Saco Grande. Baltazar & Trierveiler-Pereira 068. 22.XII.2005 (*FLOR 32147*); Manguezal do Rio Tavares. Trierveiler-Pereira, Maccarini & Assis 313. 05.VIII.2006 (*FLOR 31983*).

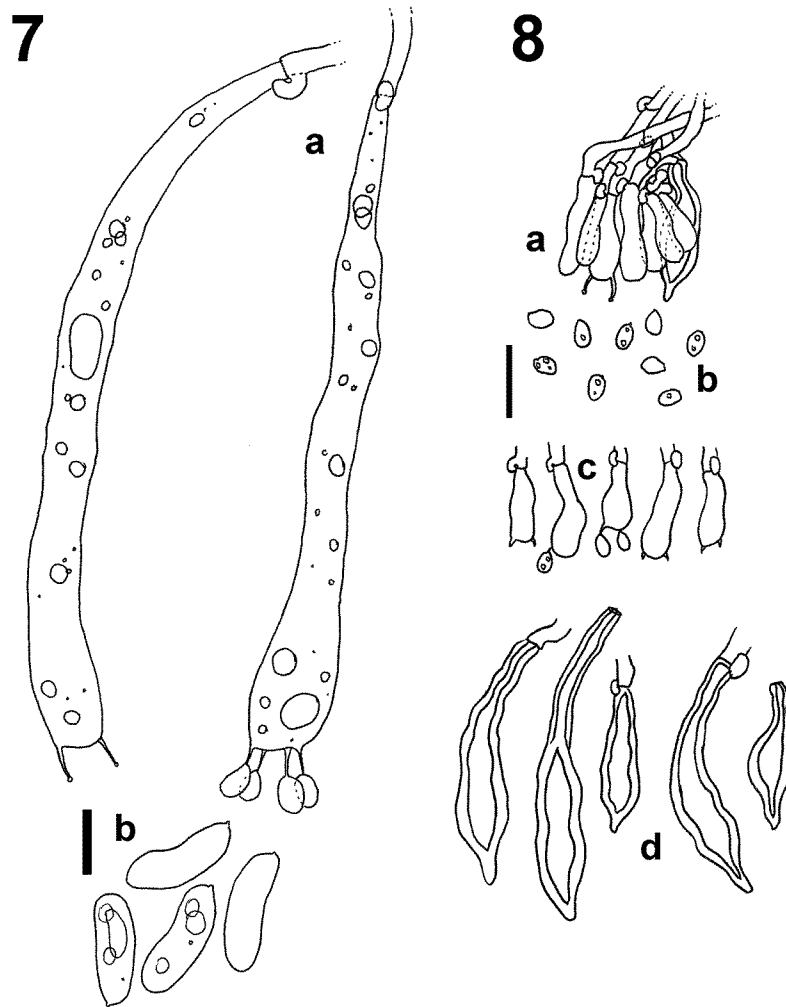
*Fuscoporia gilva* (Schwein.) T. Wagner & M. Fisch., Mycologia 94(6): 1013 (2002)

■ *Boletus gilvus* Schwein., Schr. Naturf. Ges. Leipzig 1: 96 (1822)

DESCRIPTION — Ryvarden (2004: 180).

COMMENTS — *Fuscoporia gilva* is a polymorphic species, but may be recognized in the field by its imbricate basidiomata and purplish brown pore surface (Gilbertson 1979). Microscopically, it may be distinguished by its hyaline and ellipsoid basidiospores, 4–5 µm long, and abundant hymenial

setae, 20–45  $\mu\text{m}$  long. The species was previously recorded from Brazilian mangroves by Sotão et al. (2003).



FIGURES 7–8. 7. *Cerocorticium molle*. a: basidia. b: basidiospores. 8. *Steccherinum reniforme*. a: hymenium. b: basidiospores. c: basidia. d: cystidia (scale bars = 10  $\mu\text{m}$ ).

DISTRIBUTION — pantropical (Ryvarden 2004).



SUBSTRATE — dead trunks of *A. schaueriana* and *R. mangle*, living tree of *L. racemosa*, and unidentified wood.

VOUCHER MATERIAL — **BRAZIL. SANTA CATARINA: Ilha de Santa Catarina.** Manguezal do Itacorubi. Trierveiler-Pereira, Baltazar & Santos 029. 07.VII.2005 (*FLOR 31986*); Manguezal de Ratonés. Baltazar, J. Michels & G. Michels 110. 29.I.2006 (*FLOR 32148*); Manguezal do Saco Grande, Baltazar & Regolin 190. 27.IV.2006 (*FLOR 32149*).

□ *Phellinus allardii* (Bres.) S. Ahmad, Monogr. Biol. Soc. Pakistan 6: 57 (1972) FIG. 5  
■ *Fomes allardii* Bres., Bull. Jard. Bot. État. Brux. 4: 19 (1910)

DESCRIPTION — Larsen & Cobb-Pouille (1990: 34).

COMMENTS — This species is recognized by brown, thick-walled basidiospores, lack of setae, and presence of a black line in the context (Ryvarden & Johansen 1980). The basidiomata are usually pileate and sessile, but Larsen & Cobb-Pouille (1990) also described subresupinate forms with thickened central parts similar to the specimen examined in this study.

DISTRIBUTION — cosmopolitan (Dai 1999, Ryvarden & Johansen 1980, Ryvarden & Gilbertson 1994, Gerber & Loguercio-Leite 1997).

SUBSTRATE — dead trunks of *L. racemosa*.

VOUCHER MATERIAL — **BRAZIL. SANTA CATARINA: Ilha de Santa Catarina.** Manguezal de Ratonés. Baltazar & Trierveiler-Pereira 009. 08.IX.2005 (*FLOR 32146*).

### **Meruliaceae P. Karst.**

□ *Bjerkandera adusta* (Willd.) P. Karst., Meddn Soc. Fauna Flora fenn. 5: 38 (1879) FIG. 6  
■ *Boletus adustus* Willd., Fl. Berol. Prodr.: 392 (1787)

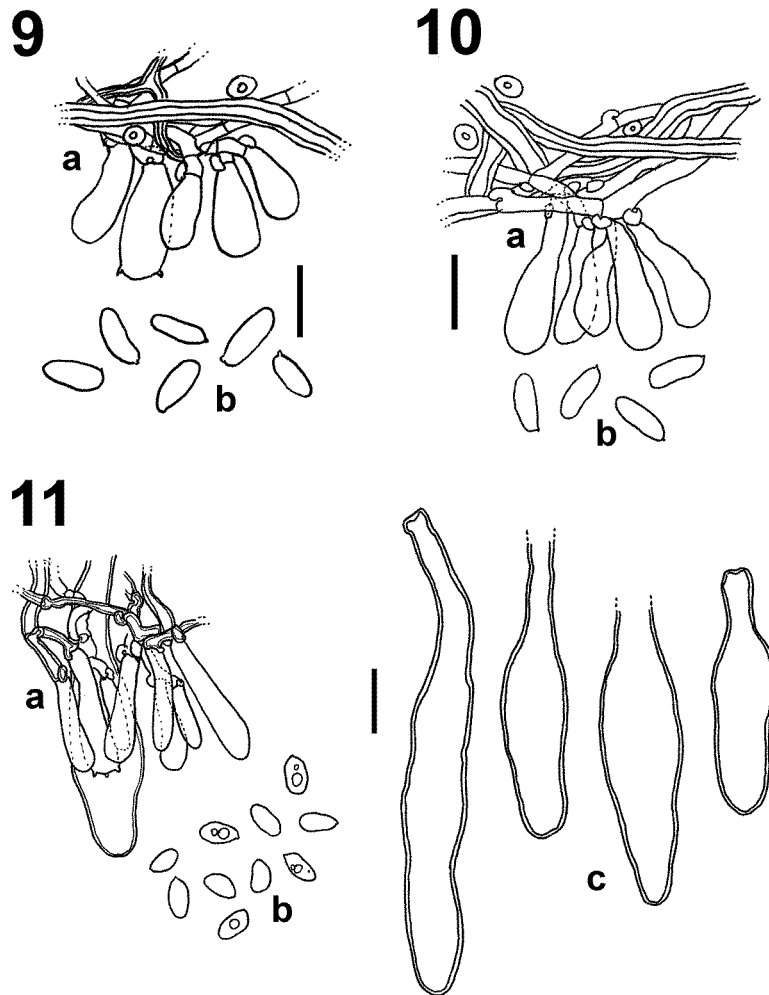
DESCRIPTION — Ryvarden & Johansen (1980: 265).

COMMENTS — Fresh basidiomata have a purplish brown and zonate abhymenial surface and white margin. After drying, the abhymenial surface turned beige and azonate, and the margins became black, as described by Ryvarden & Johansen (1980).

DISTRIBUTION — cosmopolitan (Ryvarden & Johansen 1980).

SUBSTRATE — dead trunks of *A. schaueriana*.

VOUCHER MATERIAL — **BRAZIL. SANTA CATARINA: Ilha de Santa Catarina.** Manguezal do Itacorubi. Trierveiler-Pereira & Baltazar 009. 24.IX.2004 (*FLOR 32019*); *ibid.*, Trierveiler-Pereira & Baltazar 168. 24.II.2006 (*FLOR 32020*).



FIGURES 9–11. 9. *Corioloopsis aspera*. a: hymenium. b: basidiospores. 10. *Datronia scutellata*. a: hymenium. b: basidiospores. 11. *Lentinus strigellus*. a: hymenium. b: basidiospores. c: cystidia (scale bars = 10  $\mu$ m).

\*♦*Cerocorticium molle* (Berk. & M.A. Curtis) Jülich, Persoonia 8(2): 219 (1975)

FIG. 7

■ *Corticium molle* Berk. & M.A. Curtis, J. Linn. Soc., Bot. 10: 336 (1868)

DESCRIPTION — Maekawa et al. (2003: 404).

COMMENTS — The species is recognized by its resupinate, orange to red, smooth basidiomata with white margins and smooth, large basidiospores (16–21 µm long). It was recorded from Japanese mangroves (Maekawa et al. 2003) and probably occurs in Florida mangroves also (Nieves-Rivera et al. 2005).

DISTRIBUTION — cosmopolitan (Hjortstam & Ryvarden 2007a, Maekawa et al. 2003).

SUBSTRATE — dead and living trunks of *A. schaueriana* and *R. mangle*; dead trunks of *L. racemosa* and unidentified wood.

VOUCHER MATERIAL — **BRAZIL. SANTA CATARINA: Ilha de Santa Catarina.** Manguezal do Itacorubi, Trierveiler-Pereira & Baltazar 061. 26.X.2005 (*FLOR 32048*); Manguezal de Ratoles. Baltazar, J. Michels & G. Michels 097. 29.I.2006 (*FLOR 32192*); Manguezal do Saco Grande, Baltazar & Regolin 192. 27.IV.2006 (*FLOR 32195*); Manguezal do Rio Tavares, Trierveiler-Pereira, Maccarini & Assis 293. 05.VIII.2006 (*FLOR 32066*).

*Cymatoderma dendriticum* (Pers.) D.A. Reid, Kew Bull. 13: 523 (1959)

■ *Thelephora dendritica* Pers., Voy. Uranie. Bot. 5: 176 (1827)

DESCRIPTION — Reid (1965: 109).

COMMENTS — *Cymatoderma dendriticum* may be separated from *C. elegans* Jungh. by the lack of thick-walled cystidia in the hymenium (Douanla-Meli & Langer 2004). Reid (1965) reports the abundance of gloeocystidia in *C. dendriticum*, but in the examined material these structures were difficult to observe. The species was reported from Brazilian mangroves by Sotão et al. (2003).

DISTRIBUTION — pantropical (Reid 1965).

SUBSTRATE — living trunks of *A. schaueriana* and unidentified wood.

VOUCHER MATERIAL — **BRAZIL. SANTA CATARINA: Ilha de Santa Catarina.** Manguezal de Ratoles. Baltazar & Trierveiler-Pereira 020. 31.X.2005 (*FLOR 32154*); Manguezal do Itacorubi, Trierveiler-Pereira & Baltazar 182. 24.II.2006 (*FLOR 32021*); *ibid.*, Trierveiler-Pereira & Baltazar 189. 24.II.2006 (*FLOR 32022*); Manguezal do Saco Grande, Baltazar & Regolin 199. 27.IV.2006 (*FLOR 32155*).

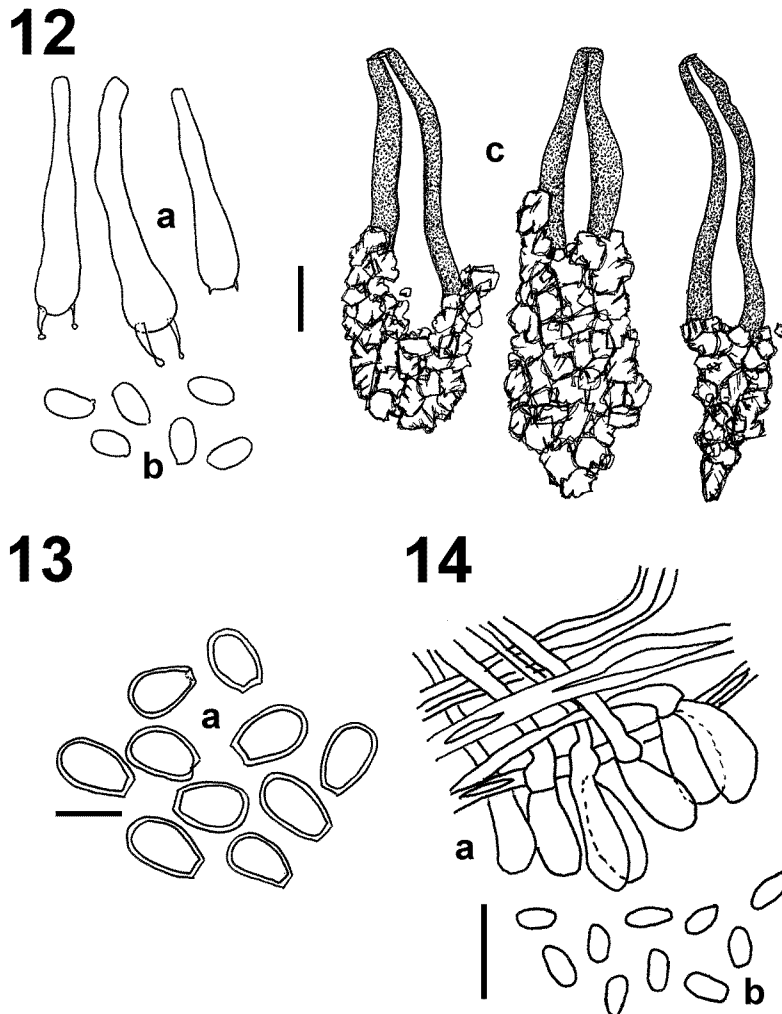
□ *Steccherinum reniforme* (Berk. & M.A. Curtis) Banker, Mem. Torrey bot. Club 12: 127 (1906) FIG. 8

■ *Hydnum reniforme* Berk. & M.A. Curtis, J. Linn. Soc., Bot. 10(46): 325 (1868)

DESCRIPTION — Maas Geesteranus (1974: 524).

COMMENTS — *Steccherinum reniforme* has slightly shorter basidiospores and different cystidia compared to *S. ochraceum* (Pers.) Gray (Maas-Geesteranus

1974, Grosse-Brauckmann 1986). According to Bononi (1979), it is the most common hydroid fungi in Brazil and has been recorded from the states of Rio Grande do Sul, Santa Catarina, São Paulo, Goiás, Mato Grosso and Rio de Janeiro.



FIGURES 12–14. 12. *Lopharia cinerascens*. a: basidia. b: basidiospores. c: cystidia. 13. *Perenniporia ohiensis*. a: basidiospores. 14. *Polyporus tricholoma*. a: hymenium. b: basidiospores (scale bars = 10  $\mu$ m).

DISTRIBUTION — neotropical (Bononi 1979).

SUBSTRATE — dead trunk of *A. schaueriana*.

VOUCHER MATERIAL — **BRAZIL. SANTA CATARINA: Ilha de Santa Catarina.** Manguezal do Itacorubi, Trierveiler-Pereira & Baltazar 066, 26.X.2005 (FLOR 32016).

### ***Pleurotaceae* Kühner**

***Pleurotus djamor* var. *roseus*** Corner, Beih. Nova Hedwigia 69: 124 (1981)

DESCRIPTION — Lechner et al. (2004: 852).

COMMENTS — Variety *roseus* is frequently collected in Brazil and is recognized in the field by its large, gregarious and pink basidiomata. According to Lechner et al. (2004), *P. djamor* (Rumph. ex Fr.) Boedijn var. *djamor* has a white pileus. This species was reported from Brazilian mangroves by Gugliotta & Bononi (1999) and Sotão et al. (2003), as *P. ostreatoroseus* Singer.

DISTRIBUTION — pantropical (Lechner et al. 2004).

SUBSTRATE — dead trunks of *A. schaueriana*.

VOUCHER MATERIAL — **BRAZIL. SANTA CATARINA: Ilha de Santa Catarina.** Manguezal do Itacorubi, Trierveiler-Pereira & Baltazar 064, 26.X.2005 (FLOR 32018).

### ***Polyporaceae* Fr. ex Corda**

\*□ ***Coriolopsis aspera*** (Jungb.) Teng, Chung-kuo Ti Chen-chun: 759 (1963) FIG. 9  
■ *Polyporus asper* Jungb., Praem. Fl. Crypt. Java (Batavia): 60 (1838)

DESCRIPTION — Ryvarden & Johansen (1980: 283).

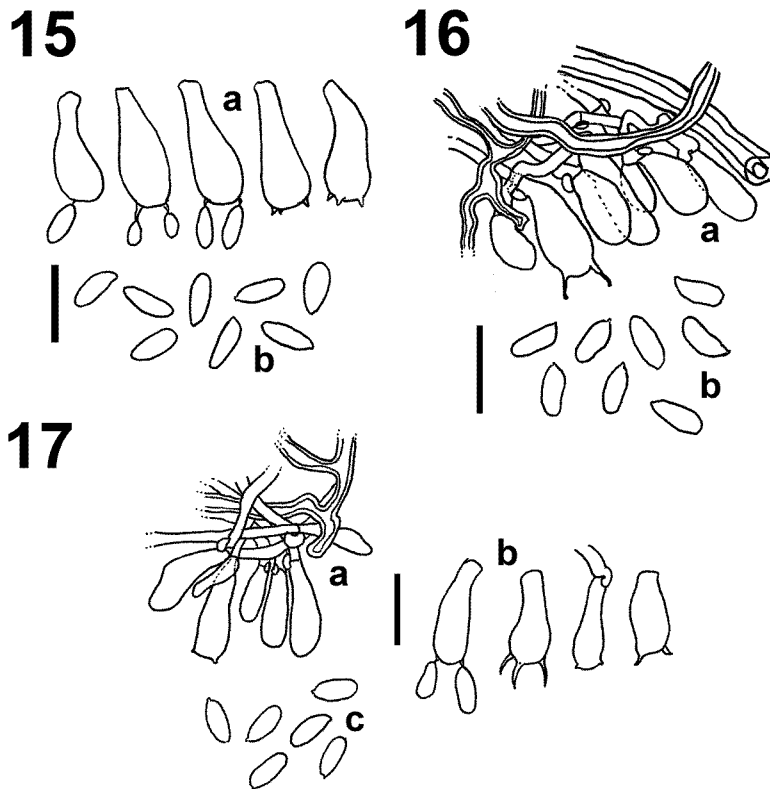
COMMENTS — The presence of forked hairs, as described by Ryvarden & Johansen (1980), were only observed in the pileus of young basidiomata. Mature basidiomata have a velutinate to glabrous pileus. The examined materials have dark brown pilei although a few specimens show a distinct red tint at the base. This species has large pores (3–4 per mm) and cylindrical basidiospores (9–12 × 3–4.5 μm).

DISTRIBUTION — pantropical (Ryvarden & Johansen 1980).

SUBSTRATE — dead trunks of *A. schaueriana* and *R. mangle*; unidentified dead wood.

VOUCHER MATERIAL — **BRAZIL. SANTA CATARINA: Ilha de Santa Catarina.** Manguezal do Itacorubi, Trierveiler-Pereira & Baltazar 091.

27.XI.2005 (FLOR 32023); *ibid*, Trierveiler-Pereira & Maccarini 138.  
29.I.2006 (FLOR 32025); *ibid*, Trierveiler-Pereira & Maccarini 142. 29.I.2006  
(FLOR 32026).



FIGURES 15–17. 15. *Trametes nivosus*. a: basidia. b: basidiospores. 16. *T. socotrana*. a: hymenium. b: basidiospores. 17. *T. versicolor*. a: hymenium. b: basidia. c: basidiospores (scale bars = 10  $\mu$ m).

***Corioloopsis rigida*** (Berk. & Mont.) Murrill, N. Amer. Fl. 9(2): 75 (1908)

■ *Trametes rigida* Berk. & Mont., Ann. Sci. Nat., Bot., sér. 3, 11: 240 (1849)

DESCRIPTION — Gilbertson & Ryvarden (1986: 218).

COMMENTS — The specimens examined are characterized by cream-coloured, subresupinate to effuse-reflexed basidiomata, zonate and tomentose pilei, light brown pore surface, 2–4 pores per mm, and basidiospores 8–11  $\times$  2.5–4  $\mu$ m. Another feature that was observed in all specimens were concentric lines around the attachment points to the substrate. This species

was recorded from Brazilian mangroves by Almeida-Filho et al. (1993) and Sotão et al. (2003).

DISTRIBUTION — pantropical (Loguercio-Leite & Wright 1991).

SUBSTRATE — dead trunks of *A. schaueriana*.

VOUCHER MATERIAL — **BRAZIL. SANTA CATARINA: Ilha de Santa Catarina.** Manguezal do Itacorubi, Trierveiler-Pereira, Baltazar & Michels 098. 23.XII.2005 (*FLOR 31997*); Manguezal de Ratoes, Baltazar & Trierveiler-Pereira 047. 29.XI.2005 (*FLOR 32156*); Manguezal do Saco Grande, Baltazar & Trierveiler-Pereira 063. 22.XII.2005 (*FLOR 32157*); Manguezal do Itacorubi, Trierveiler-Pereira & Maccarini 153. 29.I.2006 (*FLOR 32002*).

□ *Datronia scutellata* (Schwein.) Gilb. & Ryvarden, Mycotaxon 22(2): 364 (1985)

FIG. 10

■ *Polyporus scutellatus* Schwein., Trans. Am. phil. Soc., n.s. 4(2): 157 (1832)

DESCRIPTION — Gilbertson & Ryvarden (1986: 230).

COMMENTS — The specimen examined has small basidiomata (0.8–0.9 cm wide, 0.9–1.2 cm long, 0.5–0.7 cm thick), dark brown pileus, beige pore surface, and large, cylindrical basidiospores (8–10 x 3–4  $\mu\text{m}$ ) as described for the species (Gilbertson & Ryvarden 1986).

DISTRIBUTION — cosmopolitan (Gilbertson & Ryvarden 1986).

SUBSTRATE — unidentified dead wood.

VOUCHER MATERIAL — **BRAZIL. SANTA CATARINA: Ilha de Santa Catarina.** Manguezal do Itacorubi, Trierveiler-Pereira & Name 018. 01.IV.2005 (*FLOR 32014*).

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

■ *Boletus hydnooides* Sw., Fl. Ind. Occid. 3: 1942 (1806)

DESCRIPTION — Fidalgo (1968: 69).

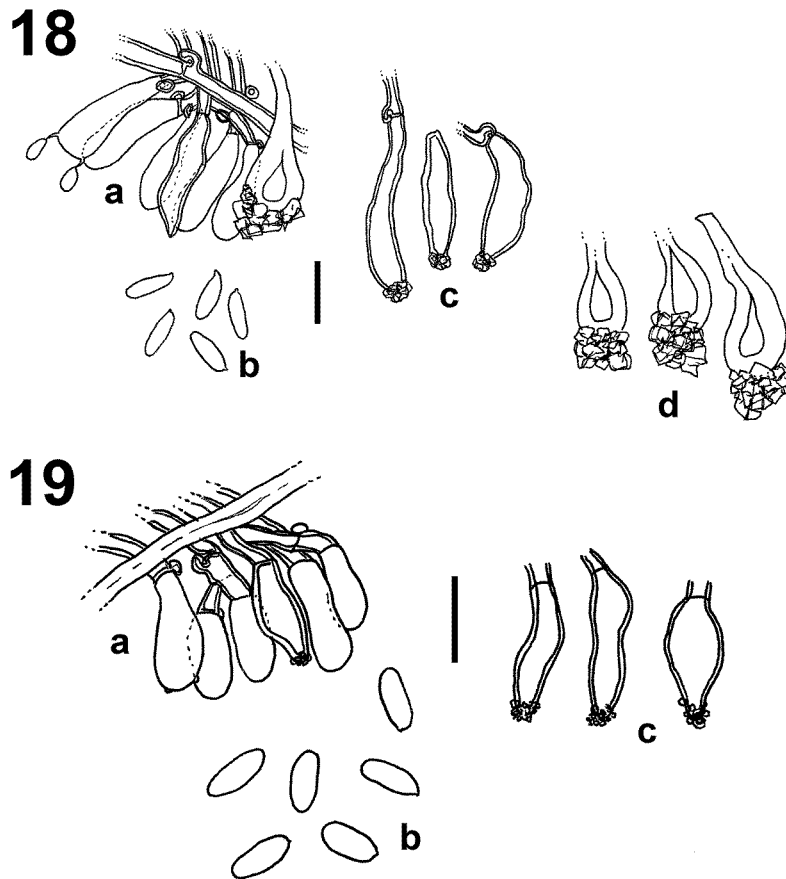
COMMENTS — *Hexagonia hydnooides* is easily recognized in the field because of its dark basidiomata with a dense mass of black, erect hairs on the pileus (Gilbertson & Ryvarden 1986). As noticed by Fidalgo (1968), basidiospores and basidia are rare. This species was recorded from Brazilian mangroves by Gugliotta & Bononi (1999) and Sotão et al. (2003).

DISTRIBUTION — pantropical (Gilbertson & Ryvarden, 1986).

SUBSTRATE — dead trunks of *R. mangle*.

VOUCHER MATERIAL — **BRAZIL. SANTA CATARINA: Ilha de Santa Catarina.** Manguezal do Rio Tavares, Trierveiler-Pereira, Maccarini & Assis

297. 05.VIII.2006 (FLOR 32003); ibid, Trierveiler-Pereira, Maccarini & Assis  
308. 05.VIII.2006 (FLOR 32004); ibid, Trierveiler-Pereira, Maccarini & Assis  
311, 05.VIII.2006 (FLOR32005).



FIGURES 18–19. 18. *Trichaptum bifforme*. a: hymenium. b: basidiospores. c: fusoid cystidia. d: capitata cystidia. 19. *T. byssogenum*. a: hymenium. b: basidiospores. c: fusoid cystidia (scale bars = 10  $\mu$ m).

***Lentinus crinitus*** (L.) Fr., Syst. orb. Veg. (Lundae): 77 (1825)

■ *Agaricus crinitus* L., Sp. pl., Edn 2 2: 1644 (1763)

DESCRIPTION—Pegler (1983: 33).

COMMENTS — This species shows great variety in its macroscopic morphology. *Lentinus crinitus* resembles *L. swartzii* Berk., but the latter



lacks squamules on the stipe and has a thicker context (Wright & Albertó 2002). This species was recorded from Brazilian mangroves by Sotão et al. (2003).

DISTRIBUTION — Neotropical (Pegler 1983).

SUBSTRATE — unidentified wood.

VOUCHER MATERIAL — **BRAZIL. SANTA CATARINA: Ilha de Santa Catarina.** Manguezal do Itacorubi, Trierweiler-Pereira & Name 001. 01.IV.2005 (FLOR 32013).

\*□ *Lentinus strigellus* Berk., J. Linn. Soc., Bot. 10(45): 302 (1868) FIG. 11

DESCRIPTION — Pegler (1983: 131).

COMMENTS — *Lentinus strigellus* is distinguished from *L. strigosus* (Schwein.) Fr. by a glabrescent pileus with scattered squamules, gloeocystidia, a thinner context, and frequently a centrally attached stipe (Pegler 1983).

DISTRIBUTION — neotropical (Pegler 1983).

SUBSTRATE — dead trunks of *A. schaueriana*.

VOUCHER MATERIAL — **BRAZIL. SANTA CATARINA: Ilha de Santa Catarina.** Manguezal do Itacorubi, Trierweiler-Pereira & Baltazar 084. 27.XI.2005 (FLOR 32029).

\* *Lopharia cinerascens* (Schwein.) G. Cunn., Trans. Roy. Soc. New Zealand 83(4): 622 (1956) FIG. 12

■ *Thelephora cinerascens* Schwein., Trans. Am. phil. Soc., Ser. 2 4(2): 167 (1832)

DESCRIPTION — Cunningham (1956: 622).

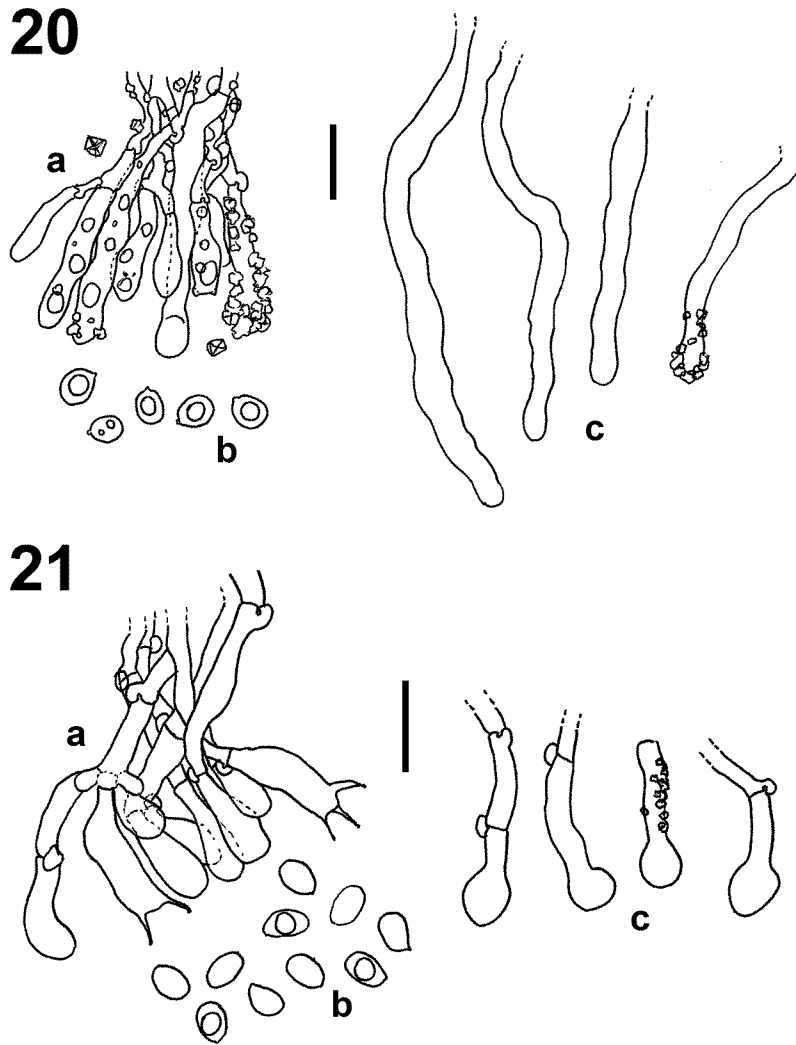
COMMENTS — This species is microscopically characterized by the presence of incrustated, thick-walled cystidia with brown, pigmented bases. Basidiomata of the examined specimens are resupinate to effuse-reflexed but Cunningham (1956) also reported pileate specimens. As reported by Hjortstam & Ryvarden (2007b), clamp connections are difficult to observe. Recorded from Brazilian mangroves by Sotão et al. (2003).

DISTRIBUTION — cosmopolitan (Cunningham 1956).

SUBSTRATE — dead trunks of *A. schaueriana* and *R. mangle*; unidentified wood.

VOUCHER MATERIAL — **BRAZIL. SANTA CATARINA: Ilha de Santa Catarina.** Manguezal do Itacorubi, Trierweiler-Pereira & Baltazar 057. 26.X. 2005 (FLOR 31943); *ibid.*, Trierweiler-Pereira & Baltazar 094. 27.XI.2005

(FLOR 31944); *ibid*, Trierveiler-Pereira, Baltazar & J. Michels 127. 23.XII.2005 (FLOR 31945); Manguezal do Rio Tavares, Trierveiler-Pereira & Baltazar 277. 22.VII.2006 (FLOR 31946); *ibid*, Trierveiler-Pereira, Maccarini & Assis 309. 05.VIII.2006 (FLOR 31947).



FIGURES 20–21. 20. *Hyphodontia sambuci*. a: hymenium. b: basidiospores. c: cystidia. 21. *Schizopora paradoxa*. a: hymenium. b: basidiospores. c: halocystidia (scale bars = 10  $\mu$ m).

- *Perenniporia ohiensis* (Berk.) Ryvarden, Norw. J. Bot. 19: 143 (1972) FIG. 13  
■ *Trametes ohiensis* Berk., Grevillea 1(5): 66 (1872)

DESCRIPTION — Gilbertson & Ryvarden (1987: 225).

COMMENTS — According to the descriptions of Ryvarden & Johansen (1980) and Gilbertson & Ryvarden (1987), there is no clear difference between *P. ohiensis* and *P. ochroleuca* (Berk.) Ryvarden, except for the pore size (5–7 and 2–4 per mm, respectively). Besides this, they differ in their upper pileus color, i.e. brown to blackish in the former and cream-ochraceous discoloring with age in the latter. Decock & Ryvarden (1999) accepted these two species and *P. detrita* (Berk.) Ryvarden as distinct species, however, they admit that the three taxa form a very homogenous group in the genus.

DISTRIBUTION — neotropical (Loguercio-Leite & Wright 1991).

SUBSTRATE — dead trunks of *L. racemosa*.

VOUCHER MATERIAL — BRAZIL. SANTA CATARINA: Ilha de Santa Catarina. Manguezal do Saco Grande, Baltazar & Trierveiler-Pereira 216. 28.V.2006 (FLOR 32158); Baltazar & Trierveiler-Pereira 291. 26.VIII.2006 (FLOR 32159); Baltazar & Trierveiler-Pereira 299. 26.VIII.2006 (FLOR 32160).

- *Polyporus tricholoma* Mont., Anns Sci. Nat., Bot., sér. 2, 8: 365 (1837) FIG. 14

DESCRIPTION — Silveira & Wright (2005: 43).

COMMENTS — This species can be distinguished macroscopically by its white to beige pileus when young, presence of cilia along the margin, and small pores (5–10 per mm). *Polyporus arcularius* (Batsch) Fr. also develops cilia along the margin, but its pileus is brown and the hymenial surface has 1–2 pores per mm (Gilbertson & Ryvarden 1987).

DISTRIBUTION — pantropical (Loguercio-Leite 1992).

SUBSTRATE — unidentified wood.

VOUCHER MATERIAL — BRAZIL. SANTA CATARINA: Ilha de Santa Catarina. Manguezal de Ratoles, Baltazar & Trierveiler-Pereira 037. 31.X.2005 (FLOR 32161).

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

■ *Boletus sanguineus* L., Sp. pl., Edn 2 2: 1646 (1763)

DESCRIPTION — Ryvarden & Johansen (1980: 527).

COMMENTS — The bright basidiomata of *P. sanguineus* contrasts with the mangrove vegetation, thus this species was frequently collected. The reddish

to orange pileus and the small pores (5–8 per mm) are characteristic of this species. *Pycnoporus cinnabarinus* (Jacq.) P. Karst. is similarly colored, but it does not occur in the tropics (Gilbertson & Ryvarden 1987). *Pycnoporus sanguineus* was recorded from Brazilian mangroves by Almeida-Filho et al. (1993) and Sotão et al. (2003).

DISTRIBUTION — pantropical (Ryvarden & Johansen 1980).

SUBSTRATE — dead trunks of *A. schaueriana*, *R. mangle*, *L. racemosa* and unidentified wood.

VOUCHER MATERIAL — **BRAZIL. SANTA CATARINA: Ilha de Santa Catarina.** Manguezal do Itacorubi, Trierweiler-Pereira & Baltazar 050. 26.X.2005 (*FLOR 32040*); Manguezal de Ratoles, Baltazar & Trierweiler-Pereira 032. 31.X.2005 (*FLOR 32162*); Manguezal do Rio Tavares, Trierweiler-Pereira, Maccarini & Assis 287. 05.VIII.2006 (*FLOR 32048*); Manguezal do Saco Grande, Baltazar & Trierweiler-Pereira 301. 26.VIII.2006 (*FLOR 32166*).

*Trametes elegans* (Spreng.) Fr., Epicr. syst. mycol. (Upsaliae): 492 (1838)

■ *Daedalea elegans* Spreng., K. svenska Vetensk-Akad. Handl. 41: 51 (1820)

DESCRIPTION — Gilbertson & Ryvarden (1987: 743).

COMMENTS — The irregular pore surface is characteristic of this species; it may be lamellate, but sinuous to daedaleoid pores occur especially near the margin. *Trametes elegans* was common in the collecting areas and may be recognized in the field by its usually large (up to 20 cm diam.), whitish to beige basidiomata in clusters and distinct hymenial surface. *Lenzites betulina* (L.) Fr., is similar but develops more fragile, smaller and thinner basidiomata with hirsute pilei. *Trametes elegans* was recorded from Brazilian mangroves by Loguercio-Leite (1993), Gugliotta & Bononi (1999) and Sotão et al. (2003).

DISTRIBUTION — pantropical (Gilbertson & Ryvarden 1987).

SUBSTRATE — dead trunks of *A. schaueriana* and unidentified wood.

VOUCHER MATERIAL — **BRAZIL. SANTA CATARINA: Ilha de Santa Catarina.** Manguezal do Itacorubi, Trierweiler-Pereira & Name 005. 01.IV.2005 (*FLOR 32104*); Manguezal de Ratoles, Baltazar & Trierweiler-Pereira 028. 31.X.2005 (*FLOR 32167*); Manguezal do Rio Tavares, Trierweiler-Pereira & Mozerle 227. 27.IV.2006 (*FLOR 32127*); Manguezal do Saco Grande, Baltazar & Trierweiler-Pereira 286. 27.VII.2006 (*FLOR 32170*).

\*♦ *Trametes nivosa* (Berk.) Murrill, N. Amer. Fl. 9(1): 42 (1907)

FIG. 15

■ *Polyporus nivosus* Berk., Hooker's J. Bot. 8: 196 (1856)

DESCRIPTION — Gilbertson & Ryvarden (1986: 275).

COMMENTS — This species is characterized by large, white basidiomata with small pores (4–8 per mm). Cystidioles, as reported by Gilbertson & Ryvarden (1986), were not observed in the examined material. Basidiomata of *T. nivosa* resemble *Tyromyces* species, but its hyphal system is clearly trimitic. This species was recorded from mangroves of Micronesia (Gilbert et al. 2008).

DISTRIBUTION — pantropical (Gilbertson & Ryvarden 1986, Gilbert et al. 2008).

SUBSTRATE — dead trunks of *A. schaueriana*.

VOUCHER MATERIAL — **BRAZIL. SANTA CATARINA: Ilha de Santa Catarina.** Manguezal do Itacorubi, Trierweiler-Pereira & Baltazar 082. 27.XI.2005 (*FLOR 31996*).

□ *Trametes socotrana* Cooke, Grevillea 11(57): 39 (1882)

FIG. 16

DESCRIPTION — Ryvarden & Johansen (1980: 584).

COMMENTS — *Trametes socotrana* has a robust, dark-coloured basidiomata and a velvety pileus that differentiates it from other *Trametes* species collected in Santa Catarina Island mangroves. It is similar to *T. hirsuta* (Wulf.) Pil. but differs by narrower basidiospores and double context with a black line.

DISTRIBUTION — pantropical (Loguercio-Leite & Wright 1991).

SUBSTRATE — dead trunks of *A. schaueriana*.

VOUCHER MATERIAL — **BRAZIL. SANTA CATARINA: Ilha de Santa Catarina.** Manguezal do Itacorubi, Trierweiler-Pereira & Baltazar 076. 27.XI.2005 (*FLOR 32032*); Trierweiler-Pereira & Baltazar 081. 27.XI.2005 (*FLOR32033*); Trierweiler-Pereira & Maccarini 160. 29.I.2006 (*FLOR 32034*).

□ *Trametes versicolor* (L.) Lloyd, Mycol. Writ. 6: 1045 (1921)

FIG. 17

■ *Boletus versicolor* L., Sp. pl. 2: 1176 (1753)

DESCRIPTION — Ryvarden & Johansen (1980: 589).

COMMENTS — This species often shows great variation in basidiomata colour, zonation, and hairs on the abhymenial surface (Cunningham 1965). *Trametes versicolor* is close to *T. villosa*, but it has deeper tubes, smaller pores, thicker basidiomata, and a black line separating the tomentum from the context (Loguercio-Leite 1993).

DISTRIBUTION — cosmopolitan (Loguercio-Leite & Wright 1991).

SUBSTRATE — dead trunks of *A. schaueriana*.

VOUCHER MATERIAL — **BRAZIL. SANTA CATARINA: Ilha de Santa Catarina.** Manguezal do Ratores, Baltazar & Trierweiler-Pereira 016. 08.IX.2005 (*FLOR 32171*); Manguezal do Itacorubi, Trierweiler-Pereira & Maccarini 149. 29.I.2006 (*FLOR 32191*); Manguezal do Rio Tavares, Trierweiler-Pereira 250. 31.V.2006 (*FLOR 32035*); *ibid.*, Trierweiler-Pereira & Marcon-Baltazar 266. 29.VI.2006 (*FLOR 32036*).

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

■ *Boletus villosus* Sw., Fl. Ind. Occid. 3: 1923 (1806)

DESCRIPTION — Gilbertson & Ryvardeen (1987: 763).

COMMENTS — This species resembles *T. hirsuta* (Wulfen) Lloyd due the size of the basidiospores (6–9 × 2–3 μm); however, *T. villosa* has shorter hairs in the tomentum and a smaller, more fragile basidiomata (Ryvardeen & Johansen 1980). This species was recorded from Brazilian mangroves by Sotão et al. (2003).

DISTRIBUTION — neotropical (Loguercio-Leite & Wright 1991).

SUBSTRATE — dead trunks of *A. schaueriana*.

VOUCHER MATERIAL — **BRAZIL. SANTA CATARINA: Ilha de Santa Catarina.** Manguezal do Itacorubi, Trierweiler-Pereira & Baltazar 058. 26.X.2005 (*FLOR 32037*); *ibid.*, Trierweiler-Pereira, Baltazar & Michels 121. 23.XII.2005 (*FLOR 32038*); Manguezal de Ratores, Baltazar & Trierweiler-Pereira 045. 29.XI.2005 (*FLOR 32172*); Manguezal do Saco Grande, Baltazar & Trierweiler-Pereira 093. 22.XII.2005 (*FLOR 32173*); Manguezal do Rio Tavares, Trierweiler-Pereira, Maccarini & Assis 286. 05.VIII.2006 (*FLOR 32039*).

\*♦ *Trichaptum biforme* (Fr.) Ryvardeen, Norw. JI Bot. 19(3–4): 237 (1972) FIG. 18

■ *Polyporus biformis* Fr., in Klotzsch, Linnaea 8: 486 (1833)

DESCRIPTION — Ryvardeen & Johansen (1980: 593).

COMMENTS — This species is characterized by a purplish hymenial surface when fresh and split pores (Ryvardeen & Johansen 1980). Macroscopically, *T. biforme* is similar to *T. byssogenum*, but with smaller pores, clavate thick-walled cystidia, and cylindrical basidiospores. *Trichaptum fuscoviolaceum* (Ehrenb.) Ryvardeen has similar cystidia, but it prefers conifers and does not occur in the tropics (Gilbertson & Ryvardeen 1987).

DISTRIBUTION — cosmopolitan (Gilbertson & Ryvardeen 1987).

SUBSTRATE — dead trunks of *A. schaueriana* and *L. racemosa*; unidentified wood.

VOUCHER MATERIAL — **BRAZIL. SANTA CATARINA: Ilha de Santa Catarina.** Manguezal do Itacorubi, Trierweiler-Pereira & Name 013. 01.IV.2005 (*FLOR 32072*); *ibid.*, Trierweiler-Pereira & Baltazar 177. 24.II.2006 (*FLOR 32082*); Manguezal do Rio Tavares, Trierweiler-Pereira & Mozerle 209. 27.IV.2006 (*FLOR 32087*); *ibid.*, Trierweiler-Pereira & Baltazar 254. 29.VI.2006 (*FLOR 32097*).

*Trichaptum byssogenum* (Jungh.) Ryvarden, Norw. JI Bot. 19(3–4): 237 (1972)

FIG. 19

■ *Polyporus byssogenus* Jungh., Praem. Fl. Crypt. Java (Batavia): 43 (1838)

DESCRIPTION — Ryvarden & Johansen (1980: 594).

COMMENTS — This species resembles *T. bifforme*, but with larger pores, broadly ellipsoid basidiospores, and slightly thick-walled, fusoid cystidia. This species was recorded from Brazilian mangroves by Campos et al. (2003) and Sotão et al. (2003).

DISTRIBUTION — pantropical (Ryvarden & Johansen 1980).

SUBSTRATE — unidentified wood.

VOUCHER MATERIAL — **BRAZIL. SANTA CATARINA: Ilha de Santa Catarina.** Manguezal do Itacorubi, Trierweiler-Pereira & Name 017. 01.IV.2005 (*FLOR 32041*); Manguezal de Ratonos, Baltazar & Trierweiler-Pereira 025. 31.X.2005 (*FLOR 32174*); Manguezal do Saco Grande, Baltazar & Trierweiler-Pereira 200. 28.V.2006 (*FLOR 32181*).

### **Schizophyllaceae Quél.**

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

DESCRIPTION — Cooke (1961: 580-582).

COMMENTS — This species is characterized by white to gray pilei, with split lamellae, and basidiospores 5–6  $\mu\text{m}$  long. *Schizophyllum brasiliense* W.B. Cooke resembles *S. commune*, however it has brown pilei and basidiospores up to 9  $\mu\text{m}$  long (Cooke 1961). *Schizophyllum commune* was recorded from Brazilian mangroves by Campos et al. (2003) and Sotão et al. (2003).

DISTRIBUTION — cosmopolitan (Cooke 1961).

SUBSTRATE — living or dead trunks of *A. schaueriana*; unidentified wood.

VOUCHER MATERIAL — **BRAZIL. SANTA CATARINA: Ilha de Santa Catarina.** Manguezal do Itacorubi, Trierweiler-Pereira & Name 009. 01.IV.2005 (*FLOR 31963*); Manguezal de Ratonos, Baltazar & Trierweiler-Pereira 033. 31.X.2005 (*FLOR 32128*); Manguezal do Saco Grande, Baltazar & Trierweiler-Pereira 261. 27.VII.2006 (*FLOR 32135*); Manguezal do Rio

Tavares, Trierweiler-Pereira, Maccarini & Assis 288. 05.VIII.2006 (*FLOR* 312978).

### **Schizoporaceae Jülich**

\*□ *Hyphodontia sambuci* (Pers.) J. Erikss., *Symb. bot. upsal.* 16(1): 104 (1958)

FIG. 20

■ *Corticium sambuci* Pers., *Neues Mag. Bot.* 1: 111 (1794)

DESCRIPTION — Langer et al. (2007).

COMMENTS — This species is characterized by resupinate, white basidiomata, capitate cystidia, and thin-walled hyphae. *Hyphodontia sambuci* resembles *H. griseliniae* (G. Cunn.) Langer and *H. fimbriata* Sheng H. Wu, but they can be differentiated by basidiospore size and basidiomata morphology (Langer et al. 2007).

DISTRIBUTION — cosmopolitan (Langer et al. 2007).

SUBSTRATE — dead trunks of *A. schaueriana*.

VOUCHER MATERIAL — **BRAZIL. SANTA CATARINA: Ilha de Santa Catarina.** Manguezal do Rio Tavares, Trierweiler-Pereira, Maccarini & Assis 301. 05.VIII.2006 (*FLOR* 32017).

□ *Schizopora paradoxa* (Schrad.) Donk, *Persoonia* 5(1): 76 (1967)

FIG. 21

■ *Hydnum paradoxum* Schrad., *Spicil. Fl. Germ.* 1: 179 (1794)

DESCRIPTION — Núñez & Ryvarden (2001: 450).

COMMENTS — This species is similar to *S. flavipora* (Berk. & M.A. Curtis ex Cooke) Ryvarden and *S. radula* (Pers.) Hallenb. (Gilbertson & Ryvarden 1987). *Schizopora flavipora* may be differentiated from *S. paradoxa* by its smaller pores (3–5 versus 1–3 per mm) and smaller basidiospores (3.5–4.5 versus 5.5–6.5 µm long); whereas *S. radula* has smaller basidiospores (4–5.5 µm long) and an orange pore surface.

DISTRIBUTION — cosmopolitan (Núñez & Ryvarden 2001).

SUBSTRATE — dead trunks of *A. schaueriana*, *R. mangle* and *L. racemosa*; unidentified wood.

VOUCHER MATERIAL — **BRAZIL. SANTA CATARINA: Ilha de Santa Catarina.** Manguezal do Itacorubi, Trierweiler-Pereira, Baltazar & Santos 025. 07.VII.2005 (*FLOR* 32006); Manguezal do Rio Tavares, Trierweiler-Pereira 251. 31.V.2006 (*FLOR* 32011); *ibid.*, Trierweiler-Pereira & Marcon-Baltazar 285. 22.VII.2006 (*FLOR* 32012); Manguezal de Ratones, Baltazar, J. Michels & G. Michels 117. 29.I.2006 (*FLOR* 32150); Manguezal do Saco Grande,



Baltazar & Santos 232. 25.VI.2006 (*FLOR 32151*); *ibid*, Baltazar & Trierveiler-Pereira 309. 26.VIII.2006 (*FLOR 32152*).

### Conclusions

In their comprehensive study, Baltazar et al. (2009a) reported 112 xylophilous basidiomycetes species from mangrove forests. This study adds 15 species (13.4%) to that list for a total of 127 species. In addition, four species are recorded for the first time from Brazilian mangrove forests. Furthermore, we add 8 new records to the basidiomycete mycota in the State of Santa Catarina, which has been studied for twenty years with 157 recorded species (Drechsler-Santos et al. 2008).

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