

New records of polypores (*Basidiomycota*) from the state of São Paulo, Brazil

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ABSTRACT – The diversity of polypores in Brazil is still poorly known. During a survey of this group in Parque Estadual da Serra do Mar, Núcleo Santa Virgínia, São Paulo state, undertaken from April 2013 to April 2014, the species *Cinereomyces dilutabilis* (Loguercio-Leite & J.E. Wright) Miettinen, *Flaviporus brownii* (Humb.) Donk, *F. subhydrophilus* (Speg.) Rajchenb. & J.E. Wright, *Fomitiporia bambusarum* (Rick) Campos-Santana & Decock, *Inonotus tropicalis* (M.J. Larsen & Lombard) T. Wagner & M. Fisch., *Junghuhnia carneola* (Bres.) Rajchenb., *Rigidoporus crocatus* (Pat.) Ryvar den and *Skeletocutis nivea* (Jungh.) Jean Keller were found as new records for the state of São Paulo and *Dichomitus cylindrosporus* Ryvar den as a new record for Brazil. Full descriptions, illustrations and remarks on the species are provided.

Keywords: *Agaricomycotina*, Atlantic rainforest, Neotropic, *Polyporales*, taxonomy

RESUMO – Novos registros de políporos (*Basidiomycota*) do Estado de São Paulo, Brasil. A diversidade de políporos no Brasil ainda é pouco conhecida. Durante um levantamento de políporos no Parque Estadual da Serra do Mar, Núcleo Santa Virgínia, estado de São Paulo, realizado de abril de 2013 a abril de 2014, foram encontradas as espécies *Cinereomyces dilutabilis* (Loguercio-Leite & J.E. Wright) Miettinen, *Flaviporus brownii* (Humb.) Donk, *F. subhydrophilus* (Speg.) Rajchenb. & J.E. Wright, *Fomitiporia bambusarum* (Rick) Campos-Santana & Decock, *Inonotus tropicalis* (M.J. Larsen & Lombard) T. Wagner & M. Fisch., *Junghuhnia carneola* (Bres.) Rajchenb., *Rigidoporus crocatus* (Pat.) Ryvar den e *Skeletocutis nivea* (Jungh.) Jean Keller que representam novos registros para o estado de São Paulo e *Dichomitus cylindrosporus* Ryvar den, um novo registro para o Brasil. São apresentadas descrições, ilustrações e comentários para as espécies.

Palavras-chave: *Agaricomycotina*, Mata Atlântica, Neotrópico, *Polyporales*, taxonomia

INTRODUCTION

Polypores are fungi characterized by the presence of a tubular hymenophore, of which the basidia and basidiospores are formed, ending in a surface with a pore-shaped feature that gives the name to the group (Ryvarden 1991, Rajchenberg 2006). The polypores are included in the *Basidiomycota* phylum and considered a polyphyletic group distributed in several orders, mainly in *Polyporales* Gäum and *Hymenochaetales* Oberw. Other minor orders, including polypores are *Agaricales* Underw., *Corticiales* K.H. Larss., *Gloeophyllales* Thorn, *Russulales* Kreisel ex. P.M. Kirk, P.F. Cannon & J.C. David and *Trechisporales* K.H. Larss. (Hibbett *et al.* 2007, Kirk *et al.* 2008).

Polypores are mainly saprophytic and predominantly xylophilous. Depending on environmental conditions and host, certain species may become parasites, opportunistic or facultative, in senescent or injured trees, persisting after their death as saprophytic or even mycorrhizal associations (Ryvarden 1991, Capelari *et al.* 1998). Because wood is the largest component of the biosphere, representing more than 90% of the biomass in forest ecosystems, the role of wood-decay fungi is very important in maintaining terrestrial ecosystems (Glazer & Nikaido 1995, Rayner 1995, Boddy *et al.* 2008).

In the state of São Paulo, there are gaps in the knowledge even in the Atlantic rainforest, one of the most studied

biomes in the country (Capelari *et al.* 1998, Capelari & Gugliotta 2006, Prado *et al.* 2008). Of the many inventories conducted in the state of São Paulo (Fidalgo & Fidalgo 1957, Bononi 1979, 1984a,b, Bononi *et al.* 1981, Jesus 1993, Gugliotta 1997, Soares & Gugliotta 1998, Gugliotta & Bononi 1999, Xavier-Santos *et al.* 2004, Louza & Gugliotta 2007, Leal & Gugliotta 2008, Abrahão *et al.* 2009, Gugliotta *et al.* 2010, Gugliotta *et al.* 2011), none addresses the diversity of the Parque Estadual da Serra do Mar, a well-preserved area of Atlantic rainforest. The aim of this work is to increase knowledge of the geographical distribution of eight polypores not yet registered in the state of São Paulo or in Brazil.

MATERIAL AND METHODS

The specimens were collected from April 2013 to April 2014 in the Parque Estadual da Serra do Mar (PESM), Núcleo Santa Virgínia (23°17'-23°24' S and 45°03'-45°11' W), which covers parts of the cities of Natividade da Serra (7,527 ha), São Luiz do Paraitinga (7,557 ha), Cunha (1,581 ha) and Ubatuba (255 ha) (Instituto Florestal, 2012, Joly *et al.* 2012). The PESM is approximately 17,000 ha, with a characteristic tropical vegetation of Atlantic rainforest; data on the floristic, phytosociology and physico-chemical composition of the soil are given by Joly *et al.* (2012).

The identification of the specimens was based on macro- and microscopic characters of the basidiomata according to the terminology of Ryvarden (1991) and Teixeira (1995). The main identification keys used were Gilbertson & Ryvarden (1986, 1987), Larsen & Cobb-Pouille (1990) and Ryvarden (2004). The microstructures were analysed following the recommendations of Teixeira (1995). All measures were made in a 3%–5% KOH solution. The presence of dextrinoid and amyloid reactions was tested with Melzer's reagent, represented by IKI- when the reaction was negative (Teixeira 1995). The basidiospore dimensions were obtained as detailed in Dai (1999) and Coelho (2005), by calculating the ratio $Q = L/W$ and average of Q (where $L = \text{length}$ and $W = \text{width}$) from 30 basidiospores. All of the collections were deposited at Herbarium SP. Additional specimens were examined from Herbaria ICN, O, S and SP.

RESULTS AND DISCUSSION

During the period of the surveys, eight species previously unregistered to the state of São Paulo were found and described here, and one species is registered in Brazil for the first time.

Cinereomyces dilutabilis (Loguercio-Leite & J.E. Wright) Miettinen, Mycotaxon 121: 345. 2012. *Diplomitoporus dilutabilis* Loguercio-Leite & J.E. Wright, Mycotaxon 68: 48. 1998.

(Figs. 1, 15)

Basidiome annual, resupinate. Pore surface white to yellow, with 5–7 pores per mm. Hyphal system trimitic; generative hyphae dissolving in KOH, thin to thick walled, clamped, 2.0–4.0 μm diam.; skeletal hyphae dissolving in KOH, thick walled, weakly amyloid in Melzer's reagent, 3.0–6.0 μm diam.; binding hyphae, 1.0–2.0 μm diam., solid to thick walled. Cystidia absent, fusoid cystidioles present, thin walled, hyaline, 10.0–14.0 \times 3.5–4.0 μm . Basidiospores broadly cylindrical to ellipsoid, curved, hyaline, smooth, thin walled, IKI-, 5.0–6.3 \times 3.0–4.0 μm , $Q = 1.1$ –1.5, $Q_m = 1.3$.

Remarks: *Cinereomyces dilutabilis*, originally described in the state of Santa Catarina, Brazil, is characterized by the amyloid and acyanophilous skeletal hyphae, which dissolves in KOH (Loguercio-Leite & Wright 1998). The related species *C. lindbladii* (Berk.) Jülich presents large pores (3–4 per mm) and basidiospores with 1.8–2.4 μm wide (Miettinen 2012). The specimens examined in this study present basidiospores slightly larger and wider than those examined by Miettinen (2012), with 4.8–5.5 (–5.6) \times (2.3–) 2.4–2.8 (–2.9) μm in *C. dilutabilis*. However, they share the basidiospore shape, which is broadly cylindrical to ellipsoid and curved.

Distribution: Only known from Brazil, from Santa Catarina

(Loguercio-Leite & Wright 1998, Drechsler-Santos *et al.* 2008) and São Paulo states.

Specimen examined: BRAZIL, SÃO PAULO, São Luiz do Paraitinga, PESH Núcleo Santa Virgínia, 17.IV.2013, Pires, R.M. RP 1 (SP 446258); *ibid.* 10.II.2014, Pires, R.M. RP 221 (SP 466181).

Dichomitus cylindrosporus Ryvarden, Synopsis Fungorum 23: 40, 2007.

(Figs. 2, 16, 17)

Basidiome annual, resupinate, margin narrow, pale brown to ochraceous. Pore surface white when fresh, becoming pale brown when dry, 2–4 pores per mm. Hyphal system dimitic, generative hyphae clamped, thin to thick walled, 2.0–3.5 μm diam.; arboriform skeletal hyphae present, dextrinoid in Melzer's reagent. Sterile elements absent. Basidiospores cylindrical, hyaline, smooth, thin-walled, IKI-, 7.5–9.0 (–10.0) \times 2.5–4.0 μm , $Q = 2.0$ –3.2, $Q_m = 2.6$.

Remarks: *Dichomitus cylindrosporus* is easily distinguished microscopically by the dextrinoid skeletal hyphae and the narrow, cylindrical basidiospores different from those of other species in the genus, which in general have much wider and larger spores (Ryvarden 2007). The specimen examined is very similar to the type, differing only in the thickness of the basidiome (2.0 mm in the holotype and 4.0 mm in the specimen examined in this study).

Distribution: Belize and Brazil. In Brazil, it is only known from the state of São Paulo.

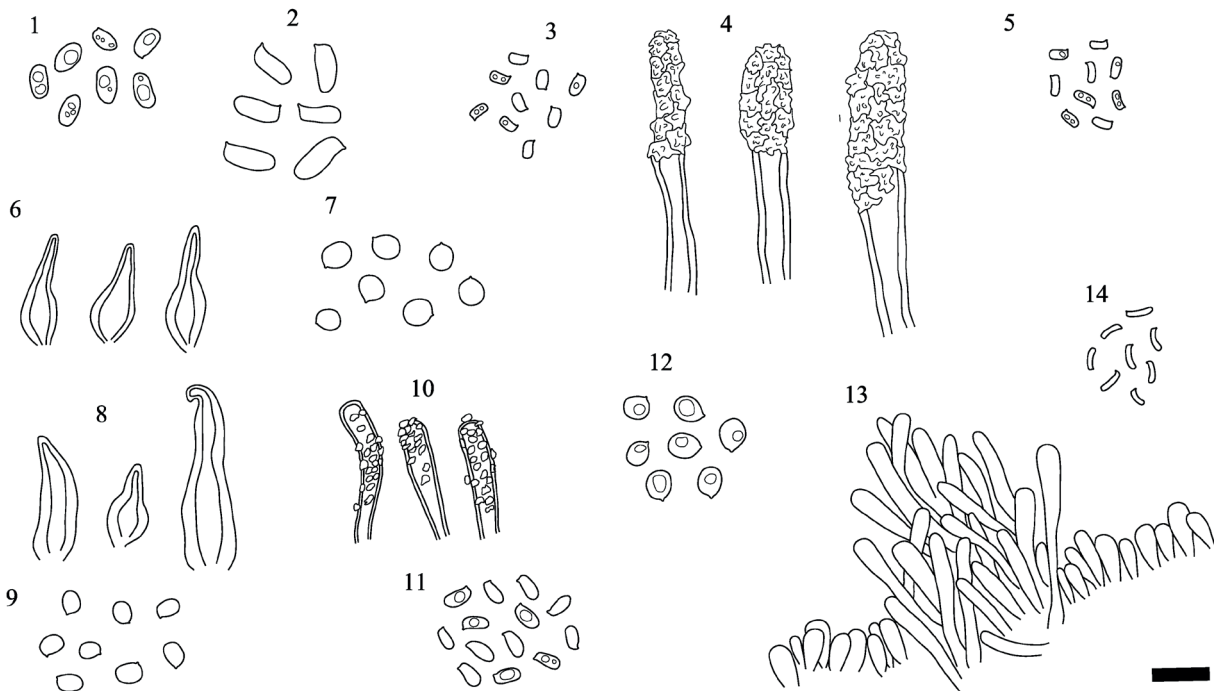
Specimens examined: BRAZIL, SÃO PAULO, São Luiz do Paraitinga, PESH Núcleo Santa Virgínia, 18.IV.2013, Pires, R.M. RP 31 (SP 446261); *ibid.* 07.VIII.2013, Pires, R.M. RP 93 (SP 466096).

Additional specimen examined: BELIZE, STAN CREED DISTR., Corkscomb basin Wildlife sanctuary, 16.XI.2001, Ryvarden, L. 44248 (O 450189 – Holotype).

Flaviporus brownii (Humb.) Donk, Persoonia 1(2): 189. 1959. *Boletus brownii* Humb., Florae Fribergensis Specimen plantas cryptogamicas praesertim subterraneas exhibens: 101. 1793.

(Figs 3, 4, 18)

Basidiome annual, pileate, dimidiate or imbricate, pilear surface reddish yellow, with concentric dark reddish-brown bands. Pore surface sulphurous yellow when fresh, paler when dry, with 8–10 (–12) pores per mm. Hyphal system dimitic, hyphae agglutinated; generative hyphae clamped, thin to thick-walled, 1.5–2.5 (–3.0) μm diam.; skeletal hyphae thick walled, dominating in trama and context, 2.0–4.0 μm diam. Skeletocystidia into the hymenium strongly encrusted at the apices, 22–50 \times 7.0–10 μm . Basidiospores broadly ellipsoid, hyaline, smooth, thin walled, IKI-, 2.8–3.5 \times 1.7–2.6 μm , $Q = 1.3$ –1.8, $Q_m = 1.5$.



Figs. 1–14. 1. *Cinereomyces dilutabilis* basidiospores (SP 446258); 2. *Dichomitus cylindrosporus* basidiospores (SP 446261); 3, 4. *Flaviporus brownii*. 3. Basidiospores; 4. Cystidia (SP 446265); 5. *F. subhydrophilus* basidiospores (SP 446262); 6, 7. *Fomitiporia bambusarum*. 6. Hymenial setae; 7. Basidiospores (SP 446263); 8, 9. *Inonotus tropicalis*. 8. Hymenial setae; 9. Basidiospores (SP 446266); 10, 11. *Junghuhnia carneola*. 10. Cystidia; 11. Basidiospores (SP 446259); 12. *Rigidoporus crocatus* basidiospores (SP 446270); 13, 14. *Skeletocutis nivea*. 13. Hyphal pegs; 14. Basidiospores (SP 446267). Bars = 10 μ m.

Remarks: This species, described from Europe, is easily recognized by the dark reddish-brown pilear surface and sulphurous-yellow hymenophoral surface; these aspects are distinctive from those of other species of *Flaviporus* Murrill (Ryvarden & Gilbertson 1993). Another important characteristics for its microscopic recognition are the dimitic hyphal system with agglutinated hyphae and the presence of tramal cystidia with encrusted apex (Gerber & Loguercio-Leite 1997). In the specimen examined, the basidiospores are slightly wider than the material described by Gerber & Loguercio-Leite (1997) of Santa Catarina state, Brazil, with $2.5\text{--}3.0 \times 1.5\text{--}2.0 \mu\text{m}$ and the material of Ryvarden & Gilbertson (1993) from Central Europe to Russia, with $2.6\text{--}2.8 \times 1.8\text{--}2.0 \mu\text{m}$, but according to Bernicchia (1990), with $(2.5\text{--}) 3.0\text{--}3.5\text{--}(4.0) \times 1.8\text{--}2.2\text{--}(2.5)$.

Distribution: Widespread in the tropical and subtropical zone. In Brazil, known from Paraná (Rajchenberg & de Meijer 1990, Gerber & Loguercio-Leite 1997, Ryvarden & de Meijer 2002, Meijer 2006); Rio Grande do Sul (Rick 1960, Sobestiansky 2005), Santa Catarina (Gerber 1996, Gerber & Loguercio-Leite 1997, Gonçalves & Loguercio-Leite 2001, Groposo & Loguercio-Leite 2005) and São Paulo states.

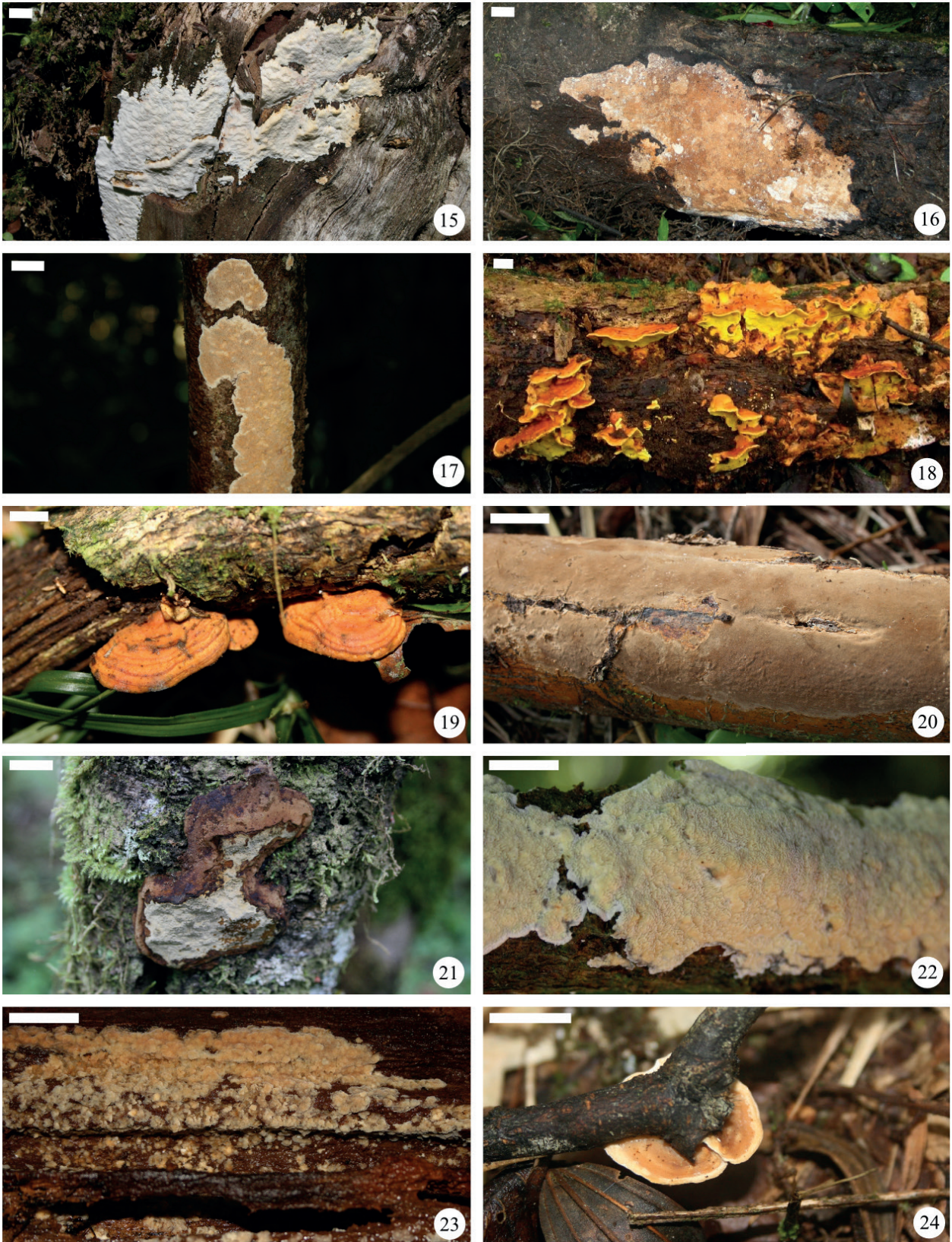
Specimen examined: BRAZIL, SÃO PAULO, São Luiz do Paraitinga, PESM Núcleo Santa Virgínia, 11.VI.2013, Pires, R.M. RP 64 (SP 446265).

Flaviporus subhydrophilus (Speg.) Rajchenb. & J.E. Wright, Mycologia 79 (2): 259. 1987. *Polystictus subhydrophilus* Speg., Boletín de la Academia Nacional de Ciencias en Córdoba 11 (4): 444. 1889.

(Figs. 5, 19)

Basidiome annual, pileate, dimidiate, velutinous pilear surface, concentrically zonate, brownish yellow with reddish-yellow bands, context beige. Pore surface light reddish-brown, with (9–) 10–12 pores per mm. Hyphal system dimitic, generative hyphae clamped, thin walled, $2.0\text{--}3.5 \mu\text{m}$ diam.; skeletal hyphae thick walled, finely encrusted at the edge of the dissepiments, $2.5\text{--}6.0 \mu\text{m}$ diam. Skeletocystidia into the hymenium strongly encrusted at the apices, $22\text{--}50 \times 7.0\text{--}10 \mu\text{m}$. Basidiospores ellipsoid to cylindrical, hyaline, smooth, thin walled, IKI-, $3.0\text{--}4.0 \times 1.5\text{--}2.0 \mu\text{m}$, $Q = 1.7\text{--}2.3$, $Q_m = 1.9$.

Remarks: *Flaviporus subhydrophilus*, described from South Brazil, differs from the other species of the genus by presenting cylindrical basidiospores and absence of agglutinated hyphae in the context (Gerber & Loguercio-Leite 1997). The examined specimens showed smaller pores than the descriptions of Gerber & Loguercio-Leite (1997) and Rajchenberg & Wright (1987) that described 8–9 pores per mm.



Figs. 15–24. Basidiomes. 15. *Cinereomyces dilutabilis* (SP 446261); 16. *Dichomitus cylindrosporus* (SP 446261); 17. *D. cylindrosporus* (SP 466096); 18. *Flaviporus brownii* (SP 446265); 19. *F. Subhydrophilus* (SP 446262); 20. *Fomitiporia bambusarum* (SP 446263); 21. *Inonotus tropicalis* (SP 446272); 22. *Junghuhnia carneola* (SP 446259); 23. *Rigidoporus crocatus* (SP 446270); 24. *Skeletocutis nivea* (SP 446267). Bars = 1 cm.

Distribution: Only known from Brazil, from Rio Grande do Sul (Rajchenberg 1987, Silveira & Guerrero 1991, Gerber & Loguercio-Leite 1997), Santa Catarina (Gerber 1996, Gerber & Loguercio-Leite 1997, Drechsler-Santos *et al.* 2008), Paraná (Meijer 2008) and São Paulo states.

Specimens examined: BRAZIL, SÃO PAULO, São Luiz do Paraitinga, PESM Núcleo Santa Virgínia, 18.IV.2013, Pires, R.M. RP 35 (SP 446262); *ibid.* 30.X.2013, Pires, R.M. RP 147 (SP 466129); *ibid.* 18.XII.2013, Pires, R.M. RP 191 (SP 446274).

Fomitiporia bambusarum (Rick) Campos-Santana & Decock, *Cryptogamie, Mycologie* 36 (1): 48. 2015. *Poria bambusarum* Rick, *Brotéria Série Trimestral: Ciências Naturais* 6: 146. 1937.

(Figs. 6–7, 20)

Basidiome resupinate. Pore surface yellowish to brown, with (8–) 9–11 pores per mm. Hyphal system dimitic, generative hyphae hyaline, simple septate, 1.5–3.0 µm diam.; skeletal hyphae thin to thick walled, 2.0–4.5 µm diam. Hymenial setae present, subventricose to ventricose, 14–23 × 6.0–8.0 µm. Basidiospores globose to subglobose, hyaline, smooth, thin walled, dextrinoid, 4.0–5.0 × 4.0–4.5 µm, Q = 1.0–1.2, Qm = 1.1.

Remarks: This species, described from the state of Rio Grande do Sul, Brazil, is characterized by the resupinate basidiome, globose dextrinoid basidiospores and bamboo as host (Lowe 1963, Ryvarden 2004). According to Ryvarden (2004), *F. bambusarum* has rare hymenial setae and slightly wider pores (7–8 per mm), differing from our description.

Distribution: Argentina and Brazil. In Brazil, known for Santa Catarina (Gerber & Loguercio-Leite 2000, Drechsler-Santos *et al.* 2008, Loguercio-Leite *et al.* 2008), Paraná (Rajchenberg & de Meijer 1990, Ryvarden & de Meijer 2002, Meijer 2006), Rio Grande do Sul (Coelho *et al.* 2009, Campos-Santana *et al.* 2015) and São Paulo states.

Specimen examined: BRAZIL, SÃO PAULO, São Luiz do Paraitinga, PESM Núcleo Santa Virgínia, 11.VI.2013, Pires, R.M. RP 50 (SP 446263).

Inonotus tropicalis (M.J. Larsen & Lombard) T. Wagner & M. Fisch., *Mycologia* 94(6): 1009. 2002. *Phellinus tropicalis* M.J. Larsen & Lombard, *Mycologia* 80: 73. 1988.

(Figs. 8, 9, 21)

Basidiome annual to perennial, resupinate. Pore surface dull brown and becoming paler toward the margin, with 7–9 pores per mm. Hyphal system monomitic; generative hyphae thin walled, simple septae frequent or not, pale yellowish brown, 2.5–5.0 µm diam. Hymenial setae rare, dark brown, ventricose to uncinata, 14–23 × 5–10 µm.

Basidiospores broadly ellipsoid to oval, pale yellow, smooth, thin-walled, IKI-, 4.0–5.0 × 3.0–3.8 µm, Q = 1.1–1.5, Qm = 1.3.

Remarks: *Inonotus tropicalis*, described from the state of Rio Grande do Sul, Brazil, was recorded from the state of São Paulo by Bononi *et al.* (1981, as *Poria rickii*, a synonymy), but a detailed analysis of the voucher (SP 142014) suggests that the identification was incorrect and the specimen actually belongs to the genus *Phellinus*. Thereby, our collection constitutes the first record of *I. tropicalis* for the state of São Paulo. Larsen & Cobb-Poulsen (1990) described this species with hymenial setae more or less ventricose, but the type material studied show hymenial setae to be rare and ventricose to uncinata.

Distribution: USA and Brazil. In Brazil, it is known for Paraná (Meijer 2006), Rio Grande do Sul (Rick 1960) and São Paulo states.

Specimens examined: BRAZIL, SÃO PAULO, São Luiz do Paraitinga, PESM Núcleo Santa Virgínia, 12.VI.2013, Pires, R.M. RP 73 (SP 446266); *ibid.* 31.X.2013, Pires, R.M. RP 176 (SP 446272).

Additional specimens examined: BRASIL, RIO GRANDE DO SUL, São Leopoldo, 1904, Rick 14 (S F15659 – Holotype), Rick 423 (S F15660 – Paratype). SÃO PAULO, Parque Estadual das Fontes do Ipiranga, 12.IV.1978, Trufem, S.F.B., s/n (SP 142014).

Junghuhnia carneola (Bres.) Rajchenb., *Revista de Investigaciones agropecuarias* 19: 45. 1984. *Poria carneola* Bres., *Hedwigia* 35: 282. 1896.

(Figs. 10–11, 22)

Basidiome annual, resupinate, cartilaginous. Pore surface yellow, becoming reddish when bruised, distinctive margin cream, with 3–5 pores per mm. Hyphal system dimitic, generative hyphae thin walled, clamped, 2.0–4.0 µm diam.; skeletal hyphae thick walled, 3.0–6.0 µm diam. Cystidia very abundant at the end of the dissepiments, up 40 µm long, 4.0–7.0 µm diam. Basidiospores oblong-ellipsoid to elongated, hyaline, smooth, thin walled, IKI-, 3.5–5.3 × 2.0–3.0 µm, Q = 1.7–2.0, Qm = 1.8.

Remarks: *Junghuhnia carneola*, described from the state of Santa Catarina, Brazil, is easily distinguished from the other resupinate species of the genus due to its yellow basidiome that becomes reddish when bruised (Ryvarden & Johansen 1980). Microscopically, the cystidia differs by having skeletal hyphae ending with slightly thickened walls encrusted with small crystals (Lowe 1966, Westphalen *et al.* 2012).

Distribution: Bolivia, Brazil, Costa Rica and Ecuador (Lowe, 1966). In Brazil, it is known from Paraná, Santa Catarina (Loguercio-Leite 1990), Rio Grande do Sul (Rick 1960) and São Paulo states.

Specimen examined: BRAZIL, SÃO PAULO, São Luiz do Paraitinga, PESM Núcleo Santa Virgínia, 17.IV.2013, Pires, R.M. RP 2 (SP 446259).

Rigidoporus crocatus (Pat.) Ryvar den, Occasional Papers of the Farlow Herbarium of Cryptogamic Botany 18: 13. 1983. *Poria crocata* Pat., Journal de Botanique (Morot) 8: 220. 1894.

(Figs. 12, 23)

Basidiome annual to perennial, resupinate, hard, curly when fresh, rigid and corneous when dry, easily separable from substrate, finely tomentose. Pore surface flesh coloured or pinkish-brown to pinkish-cream coloured, pinkish brown to smoky gray after dry, 5–7 pores per mm. Hyphal system monomitic, generative hyphae thin to thick walled, simple septate, 3.0–8.0 µm diam. Sterile elements absent. Basidiospores subglobose to ovoid, hyaline, smooth, thin walled, IKI-, 5.0–5.7 × 4.3–5.1 µm, Q = 1.1–1.2, Qm = 1.1.

Remarks: This species, described from Tunisia, is characterized by the corneous consistency of dried basidiomes and the pinkish or flesh-coloured pore surface that darkens on drying (Ryvarden & Gilbertson 1994). Macroscopically, the specimens with a lighter colour can be confused with *R. undatus* (Pers.) Donk, but microscopically, they can be easily separated by the presence of cystidia in the latter (Rajchenberg 2006, Westphalen & Silveira 2012).

Distribution: tropical to sub-tropical regions. In Brazil, it is known from Pará, Rondônia (Gomes-Silva *et al.* 2014), Rio Grande do Sul (Westphalen & Silveira 2012) and São Paulo states.

Specimen examined: BRAZIL, SÃO PAULO, São Luiz do Paraitinga, PESM Núcleo Santa Virgínia, 08.VIII.2013, Pires, R.M. RP 127 (SP 446270).

Additional specimens examined: BRASIL, RIO GRANDE DO SUL, São Francisco de Paula, FLONA, 22.VI.2009, Westphalen, M.C. 231/09 (ICN 154316), 22.VI.2009, Westphalen 253/09 (ICN 154319).

Skeletocutis nivea (Jungh.) Jean Keller, Persoonia 10 (3): 353. 1979. *Polyporus niveus* Jungh., Praemissa in floram cryptogamicam Javae insulae p.48. 1838.

(Figs. 13, 14, 24)

Basidiome annual, effused-reflexed to resupinate, rarely sessile, pileus solitary to imbricate, white to cream pilear surface. Pore surface white to cream, 8–10 pores per mm. Hyphal system trimitic, generative hyphae thin walled, clamped, 2.0–4.0 µm diam.; skeletal hyphae predominant, thick walled, 3.0–5.0 µm diam.; binding hyphae thick walled, very branched, 1.5–2.0 µm diam. Hyphal pegs usually abundant; fusoid cystidioles 10–12 × 3.0–4.0 µm. Basidiospores allantoid, hyaline, smooth, thin walled, IKI-, (3.5–) 4.0–5.0 × 0.5–1.0 µm, Q = 3.5–8.0, Qm = 5.1.

Remarks: *Skeletocutis nivea*, described from Indonesia, is macroscopically recognized by the irregular and white-to-cream pileus and the tiny pores (Ryvarden & Gilbertson 1994). Microscopically, the trimitic hyphal system and the extremely tiny and allantoid basidiospores are diagnostic (Ryvarden & Johansen 1980).

Distribution: Cosmopolitan species. In Brazil, it is known from Rio Grande do Sul (Rajchenberg 1987) and São Paulo states.

Specimen examined: BRAZIL, SÃO PAULO, São Luiz do Paraitinga, PESM Núcleo Santa Virgínia, 13.VI.2013, Pires, R.M. RP 84 (SP 446267).

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