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A new *Gloeoporus* species growing on bamboo from southern Brazil

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Abstract: *Gloeoporus guerreroanus* sp. nov. is described and illustrated from specimens collected on bamboo in Rio Grande do Sul State, southern Brazil. The new taxon presents hymenium continuum along the tubular internal surface and dissepiments and represents an addition into the relatively small, poroid-merulioid genus *Gloeoporus*.

Key words: Bambusoidae, Basidiomycetes, Corticiaceae s.l., Meruliaceae, neotropical fungi, wood-inhabiting fungi

INTRODUCTION

Several polypores species and other fungi have been found on bamboo (Boidin et al 1986) playing an important role in its decay in natural environments. Some polypores have been described being specific to this substrate, while others are able to decay bamboo and a variety of substrates as well (Ryvarden 1975b, Johansen and Ryvarden 1980, Hjortstam and Ryvarden 1984, Larsen and Cobb-Poulle 1990, Rajchenberg 2001, Hattori 2002, Ryvarden and De Meijer 2002). We have not found any literature records of *Gloeoporus* Mont. species on this substrate.

The poroid-merulioid genus *Gloeoporus* Mont. (Meruliaceae) is a relatively small cosmopolitan genus including about 11 accepted species, in which the hymenium is continuous along the internal tube surface and dissepiments. Species with simple-septate and clamped hyphae have been included in the genus. While in the Polyporaceae a variable septation is generally not accepted in the same genus, this is not uncommon in the Corticiaceae s.l. (Ryvarden 1991, Quanten 1997, Hjortstam 1998). Species of *Gloeoporus* are able to decay several substrates, especially *G. dichrous*, which have been collected on a wide range of substrates (Quanten 1997).

The purpose of this study is to describe and illustrate a new species of *Gloeoporus* growing on bamboo and to present keys to the accepted species of *Gloeoporus* and to polypores recorded on bamboo.

MATERIALS AND METHODS

Studied material, especially those of *G. guerreroanus*, have been obtained mostly from collections in the town of Santa Maria (in the central region of Rio Grande do Sul State, RS, southern Brazil) by the senior author. Descriptions and measurements are according to Dai (1999) and Coelho (2005). Numerical color names are from Munsell soil color charts (Munsell 1994). Authors of fungal names are according to Kirk and Ansell (1992). Examined specimens are deposited at the ICN herbarium including keyed specimens from RS without literature citation; records from the literature are individually cited, several from Diseases on Bamboos in Asia are abbreviated as DBA (http://www.inbar.int/publication/txt/tr10/default1.htm).

RESULTS

Gloeoporus guerreroanus G. Coelho, R.M. Silveira & Rajchenb. sp. nov. FIGS. 1, 2–6

Basidiomata annua, resupinata, mollia, primo purpuracea ad vinacea, in sicco ochraceo-purpuracea; margine albo vel roseo, sterile, fibroso; poris vadosis, rotundis ad ellipticos, (2–)3–5(–6) per mm. Systema hypharum monomiticum hyphis generatoriis tenui ad crassitunicatos, hyalinis vel pallido-luteis, septatis, (1.6–)2–4(–4.8) µm latis; sphaerocystidiis in hyphis contextus adsunt, intercalaribus vel terminalibus, 10–24 µm. Hymenium cystidiis ventricosis, parvis, (8–)9.6–15.6(–21.2) × 2.8–3.6(–4) µm; cystidiis clavatis vel capitatis, magnis, 10.8–28.8 × 4–6.8 µm; sporis allantoideis, hyalinis, (10–)16–36(–40) × (4–)4.8–6.8(–7.2) µm.

Typus speciei: Brasilia meridionalis, prov. Rio Grande do Sul, prope Santa Maria Boca do Monte in FEPAGRO 17.II.2001, G. Coelho legit, in Herbario ICN conservatur, No. 139058, sub culmos cariosos bambusae.

Etymologia: Nomem speciei in honorem clarissimae Rosa Trinidad Guerrero datum est.

Basidiome annual, entirely resupinate, adhered to the substrate, up to 200 × 30 mm, up to 1 mm thick, jelly to membranaceous in consistency, easily to macerate, firmer and papyraceous when dried. Hymenophore poroid, jelly in consistency, watery, salmon, pink, grayish pink, slightly dark purpuraceous to pale vinaceous (7/2–6/4, 5/6–5/8 10R), slightly shinning; pores shallow, round to elliptical,

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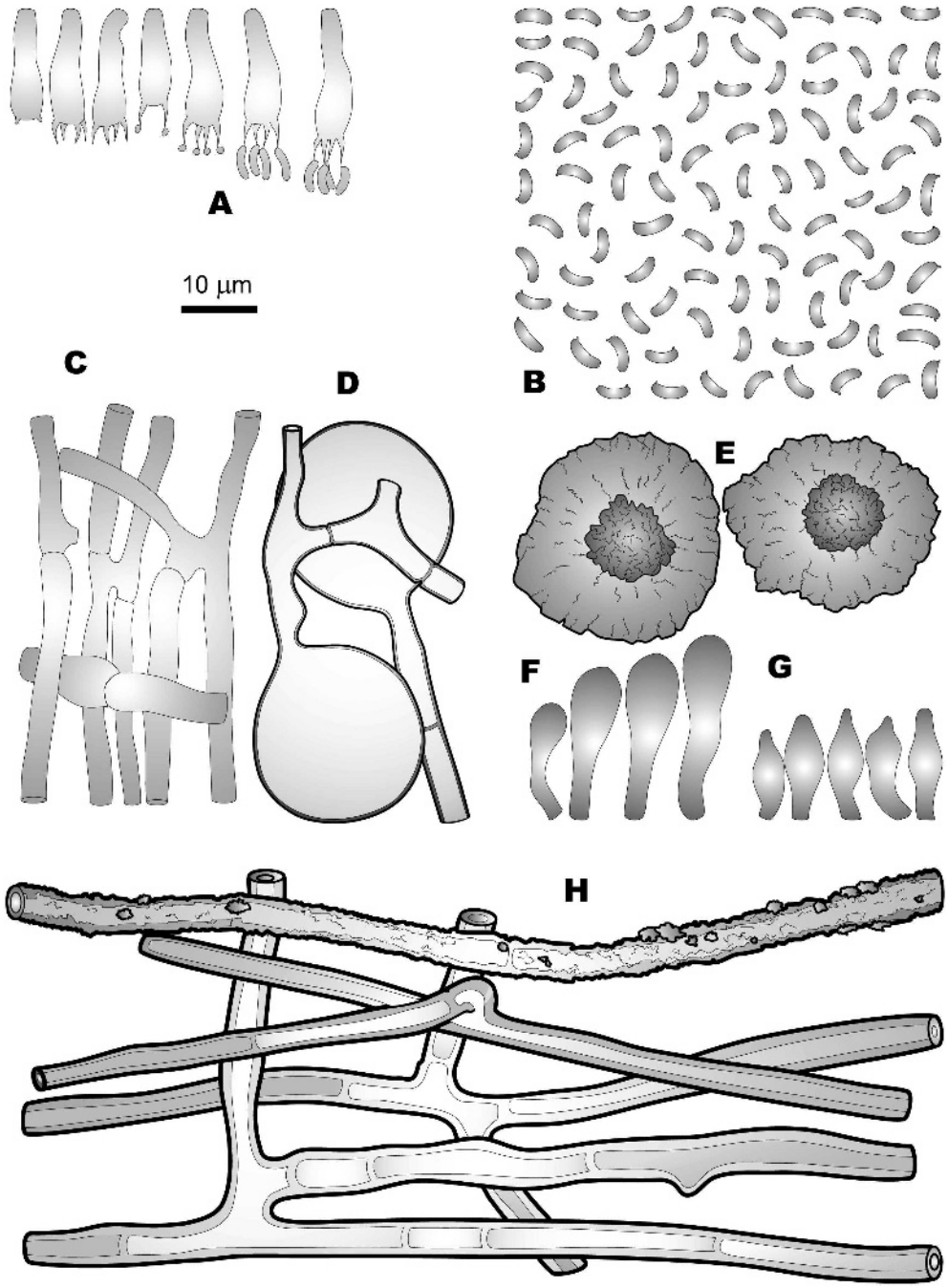
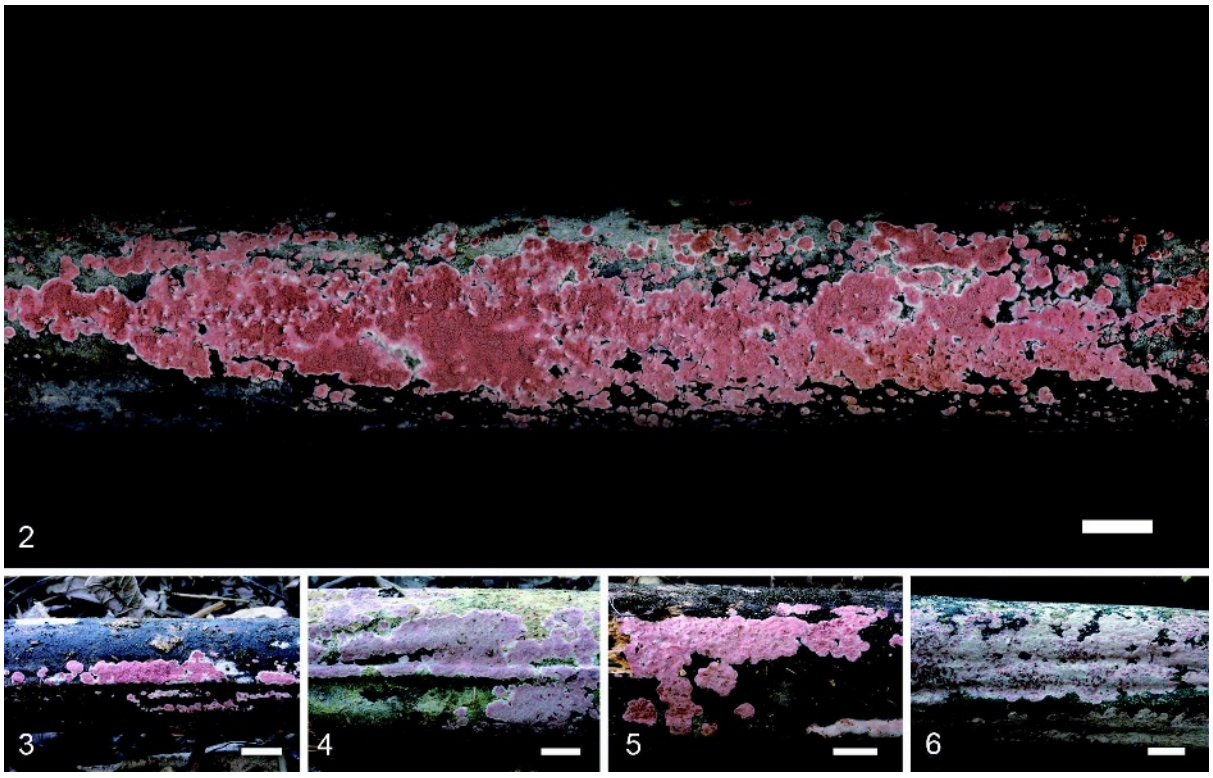


FIG. 1. *Gloeoporus guerreroanus* (ICN 139058): A. Basidia; B. Basidiospores; C. Generative hyphae from trama; D. Enlarged generative hyphae; E. Amorphous crystalline bodies in the context; F. Hymenial clavarioid cystidia, G. Hymenial ventricose cystidia; H. Generative hyphae from context, smooth and incrusted.

(2–)3–5(–6)/mm, P_m = 4.32, n = 118/3; dissepiments velutinous, hymenium recovering the dissepiments; margin whitish to pinkish (8/1, 8/2, to 8/3–8/4 10R), contrasting with the pores, fibrous, up to 1 mm wide. Tube walls concolor with the hymenophore, less than 1 mm long, easily macerated, soft. Context thin, whitish to pinkish white, similar to the margin, but paler than the tubes, homogeneous, with generative hyphae not very tightly intertwined.

Hyphal system monomitic. Generative hyphae simple-septate, hyaline, thin-walled, with an evident lumen; in the trama, usually regular in outline, (1.6–)2–4(–4.8) µm diam, D_m = 3.0 µm, n = 116/3; sometimes slightly ampulliform or enlarged; in the



FIGS. 2–6. Variation of fresh basidiomes of *Gloeoporus guerreroanus* on decayed culms of bamboo (2. ICN 139059, 3–6. ICN 139061–139064). Bars = 1 cm.

context also usually regular in outline, (2–)2.4–4.4 (–4.8) µm diam, D_m = 3.3, n = 116/3, usually thick-walled, with thick-walled septa and lumen narrower than in the trama, some hyphae are incrusted with amorphous material in the context; contextual and tramal hyphae can be enlarged or modified by the presence of terminal or intercalary spherical enlargements, similar to spherocystidia, 10–24 µm, D_m = 16.8; amorphous, crystalline bodies are also present in the context, being somewhat spherical, dark ferruginous, and sometimes dark nucleated.

Hymenium continuous along the pore mouths. Basidia clavated, (8–)10.4–16.8(–37.2) × (3.2–)4–4.4(–6.4) µm, $L_m \times W_m$ = 12.8 ± 3.25 × 4.16 ± 0.55, Q_r = 2.00–10.36, Q_m = 3.11 ± 0.90, n = 121/3, four-sterigmate. Basidiospores allantoid, thin-walled, smooth, hyaline, (2.8–)3.6–4.8(–5) × (1–)1.2–1.6 (–1.8) µm, $L_m \times W_m$ = 4.00 ± 0.38 × 1.28 ± 0.18 µm, Q_r = 2.15–4.23, Q_m = 3.17 ± 0.43, n = 224/4. Cystidioles small, centrally ventricose, with a narrower apex, variably rounded to slightly mucronate, hyaline, thin-walled, (8–)9.6–15.6(–21.2) × 2.8–3.6 (–4) µm, $L_m \times W_m$ = 11.8 ± 2.94 × 3.02 ± 0.34, Q_r = 2.33–8.00, Q_m = 3.96 ± 1.01, n = 46/2. Cystidia clavate to almost capitate, hyaline, thin-walled, (10–)16–36(–40) × (4–)4.8–6.8(–7.2) µm, $L_m \times W_m$ = 25.8 ± 6.86 × 5.28 ± 0.76, Q_r = 2.25–8.18, Q_m = 4.94 ± 1.34, n = 122/3.

Substrate: growing on fallen bamboo.

Material studied: BRAZIL, Rio Grande do Sul: Santa Maria, Boca do Monte, FEPAGRO, on bamboo, 17-II-2001, *Collector Gilberto Coelho, No. GC 281-10* (ICN 139058). On bamboo, 03-X-2005, *Collector Gilberto Coelho, No. GC 451-1* (SELECTED AS HOLOTYPE, ICN 139059). On bamboo, 03-X-2005, *Col. G. Coelho, No. GC 451-2* (ICN 139060). On bamboo, 09-XI-2005, *Col. G. Coelho, No. GC 459-1* (ICN 139061). On bamboo, 09-XI-2005, *Col. G. Coelho, No. GC 459-2* (ICN 139062). On bamboo, 09-XI-2005, *Col. G. Coelho, No. GC 459-3* (ICN 139063). On bamboo, 09-XI-2005, *Col. G. Coelho, No. GC 459-4* (ICN 139064). On bamboo, 09-XI-2005, *Col. G. Coelho, No. GC 459-5* (ICN 13905).

Remarks: This new taxon has several typical features of the genus *Gloeoporus* (i.e. a more or less continuous gelatinous hymenium along the tubes and over the dissepiments, shallow pores, a whitish context contrasting with a colored bright hymenium, allantoid spores and resinous material between the hyphae). It differs from other species in the genus by growing on bamboo (perhaps restricted to it) and with a combination of a pinkish to vinaceous

hymenium with defined pores, claviform and ventricose cystidia, simple-septate hyphae with swellings (sometimes spherical and similar to spherocystidia), and rounded, darkish crystals.

Gloeoporus cystidiatus Ryvarden also has a purpuraceous hymenophore on a resupinate to effuse-reflexed narrow pileus, pores 4–6/mm, clavate cystidia, 25–30 × 5–7 µm, and simple-septate hyphae. It differs from *G. guerreroanus* by its cylindrical to suballantoid basidiospores and large, clavate cystidia, 25–30 × 5–7 µm (Ryvarden 1987).

Gloeoporus purpurascens (Corner) Hjortstam also has a purpuraceous hymenophore; however it has tubular to long fusoid protruding cystidia among the basidia, almost ellipsoid spores, 4(–5) × 1.5(–2) µm and hyphae without swellings (Hjortstam 1995).

Gloeoporus taxicola (Pers.: Fr.) Gilb. & Ryvarden has a purplish red to brick red hymenophore and allantoid spores, cylindrical to lanceolate cystidia and generative hyphae without swellings, spores 4.5–6 × 1–1.5 µm, cystidia are subulate up to 35 × 3–4 µm, and pores 2–4/mm (Breitenbach and Kränzlin 1986, Bernicchia 1990, Legon and Pegler 1996).

KEY TO THE WORLDWIDE SPECIES OF *GLOEOPORUS* MONT.

1a. Spores subcylindrical to oblong ellipsoid 2
1b. Spores allantoid 5
  2a. Hyphae simple-septate 3
  2b. Hyphae clamped, basidiome resupinate, hymenophore brown to dark brown, pores (folds) 3/mm, spores cylindrical to oblong-ellipsoid, adaxially flattened to slightly concave, 4.5–5.5 × 1.5–2 µm . . . . . *Gloeoporus chlorinus* (Pat.) Ginns (Ginns 1976).
3a. Spores cylindrical to suballantoid, 4 × 1 µm, cystidia clavate, 25–30 × 5–7 µm, pores 4–6/mm, basidiome resupinate to effuse-reflexed . . . . . *G. cystidiatus* Ryvarden (Ryvarden 1987).
3b. Spores oblong-ellipsoid 4
  4a. Spores 4–5 × 1.5–2 µm, cystidia tubular to clavate, 18.4–40 × 3.2–6 µm, pores 1–6/mm. . . . . *G. purpurascens* (Corner) Hjortstam (Hjortstam 1995).
  4b. Spores 3.5–4 × 1.7–2 µm, cystidia lacking (or similar to sterile basidia, ventricose), pores 2–3/mm . . *G. subvinaceous* Corner (Corner 1992).
5a. Hyphae simple-septate 6
5b. Hyphae clamped 9
  6a. Hymenophore pale yellow, effuse reflexed to pileate, pores 5–6/mm, hyphae simple septate, spores 3.5–4.5 × 0.8–1.2 µm, cystidioles fusoid, 35 × 3–4 µm . . . . . *G. sulphureus* Corner (Corner 1989, Hattori 2001).
  6b. Hymenophore with different colors. 7
7a. Basidiome pileate, hymenophore pale yellow, pale ocraceous to rosaceous, pores 5–8/mm, spores 3.5–5 × 0.7–1 µm . . . . . *G. thelephoroides* (Hook.)G. Cunn. (Gilbertson and Ryvarden 1986).
7b. Basidiome resupinate 8
  8a. Hymenophore orange or purpuraceous red, pores 2–4/mm (4–5/mm), spores 4.5–6 × 1–1.5 µm, cystidia cylindrical to fusiform, 20–35 × 2–4 µm . . . . . *G. taxicola* (Pers.: Fr.) Gilb. & Ryvarden (Breitenbach and Kränzlin 1986, Bernichia 1990, Legon and Pegler 1996).
  8b. Hymenophore pale red, purpuraceous to vinaceous, pores 2–6/mm, spores 2.8–5 × 1–1.8 µm, cystidia clavate 10.8–40 × 4–7.2 µm, hyphae most regular in shape, sometimes with spherical enlargements . . . . . *G. guerreroanus* G. Coelho, R.M. Silveira & Rajchenb.
9a. Hymenophore citric yellow, resupinate to pileate, pores 7–10/mm, 2.4–3.2 × 0.4–0.8 µm . . *G. croceopallens* Bres. (Ryvarden 1975a, Quanten 1997).
9b. Hymenophore with different colors. 10
  10a. Hymenophore whitish, cream to dull, pileate, pores 5–8/mm, hyphae fibulate, spores allantoid to cylindrical, small, 3.5–5 × 0.5–1 µm. . . . . *G. phlebophorus* (Berk.) G. Cunn. (Cunninghan 1965, Quanten 1997).
  10b. Hymenophore whitish to violaceous 11
11a. Basidiome resupinate to usually pileate, hymenophore whitish, pinkish to pale violaceus, pores 5–6/mm, spores small, 3.5–5 × 0.8–1.3 µm . . . . . *G. dichrous* (Fr.) Bres. (Núñez and Ryvarden 2000).
11b. Basidiome resupinate, hymenophore pale vinaceous to pale brown, pores (folds) 2–3/mm, spores allantoid to cylindrical, 4–5 × 1–2 µm . . . . . *G. subanbiguus* (Henn.) Ginns (Ginns 1971, 1975).

KEY TO POLYPORES COLLECTED ON BAMBOO WORLDWIDE

1a. Basidiome with xhantocroic reaction. 2
1b. Basidiome without xhantocroic reaction 13
  2a. Hyphal system monomitic. 3
  2b. Hyphal system dimitic. 4
3a. Basidiome stipitate, spores globose to subglobose, 4.5–6 µm . . . . . *Coltricia bambusicola* (Henn.) Reid. (Ryvarden 1975b, Ryvarden and Johansen 1980).
3b. Basidiome pileate, spores ellipsoid, 3–4 × 3 µm *Phylloporia pectinata* (Klotzsch) Ryvarden (DBA)
  4a. Spores dextrinoid, thick-walled, globose . . . 5
  4b. Spores indextrinoid, thin-walled, ellipsoid to cylindrical 9
5a. Setae lacking . . . . . *Fomitiporia punctata* . . . . .(P. Karst.) Murril (Setliff and Ryvarden 1983).
5b. Setae present 6
  6a. Setae with uncinate apex . . . . . *Phellinus . . . uncinatus* Rajchenb. (Rajchenberg 1987).
  6b. Setae with a straight apex 7
7a. Setae long, ventricose, 27–51 × 7–10 µm, with apical protuberances . . . . . *Phellinus spinescens* J.E. Wright & G. Coelho. (Coelho and Wright 1996).
7b. Setae short, ventricose to straight 8
  8a. Setae mostly ventricose with enlarged base and narrow apex, rarely straight, 16–20 × 5–7, pores 7–10/mm. . . . . *Phellinus bambusarum* (Rick) M.J. Larsen (Larsen and Cobb-Poulle 1990).
  8b. Setae lanceolate to ventricose, 12–40 × 2.4–9.2 µm, pores 3–5/mm . . . . . *Fomitiporia sanctichampagnatii* G. Coelho, R.M. Silveira & Rajchenb. (in preparation).

9a. Contextual setae present. 10
9b. Contextual setae lacking 11
10a. Pores 2–3/mm . . . . . *Fuscoporia contigua* (Pers.: Fr.) G. Cunn.
10b. Pores 7–9/ mm . . . . . *Fuscoporia ferruginosa* (Schrad.: Fr.) Murrill (Boidin et al 1986).
11a. Spores cylindrical . . . . . *Fuscoporia ferrea* (Pers.) G. Cunn.
11b. Spores ellipsoid to subglobose 12
12a. Spores oblong-ellipsoid. . . . . *Fuscoporia gilva* (Schwein.: Fr.) T. Wagner & M. Fischer (DBA).
12b. Spores broadly-ellipsoid to subglobose. . . . . *Phellinus bambusinus* (Pat.) Pat. (Ryvarden 1983).
13a. Brown wood-rotting fungi 14
13b. White wood-rotting fungi 23
14a. Hyphal system monomitic. 15
14b. Hyphal system dimitic to trimitic. 16
15a. Pores 3.5–4/mm, spores cylindrical to suballantoid, 5.5–6.5 × 1–1.2 µm, contextual hyphae with irregularly thickened walls, swelling in KOH sol.. . . . . *Postia minuta* Rajchenb. (Rajchenberg 2001).
15b. Pores 4–6/mm, spores allantoid, 3.5–4.5 × 0.8–1.2 µm, contextual hyphae with regularly thickened walls, not swelling in KOH sol. . . . . *Oligoporus bambusicola* (Corner) T. Hatt. (Hattori 2002)
16a. Hymenophore at least in parts lamellate . . 17
16b. Hymenophore poroid. 19
17a. Pileus gray, glabrous to white scrupose, basidiospores 8.5–10 × 2.5–3.5 µm . . . . . *Gloeophyllum subferrugineum* (Berk.) Bondartsev & Singer (DBA).
17b. Pileus brown, velutinous, hirsute, warted to scrupose. 18
18a. Hymenophore with lamellae and pores, basidiospores 9–13 × 3–5 µm. . . . . *Gloeophyllum sepiarum* (Fr.) P. Karst. (DBA).
18b. Hymenophore with mostly waxy lamellae, without pores, basidiospores 6–10 × 2.5–3.5 µm. . . . . *Gloeophyllum striatum* (Swartz: Fr.) Murril (DBA).
19a. Basidiome annual to rarely perennial, hyphal system dimitic, white, cream, yellow to tan 20
19b. Basidiome perennial, rarely annual, hyphal system ditrimitic, ressupinate to pileate, white, rose brown to brown 21
20a. Trama monomitic, context dimitic, on *Pinus* (or gymnosperms), but growing on grass leaves adjacent to decaying woods, spores 6–10 × 2.5–3.5 µm. . . . . *Antrodia aurantia* Lodge, Ryvarden & Perdomo-Sanchez
20b. Trama dimitic, on gymnosperm wood, rarely on angiosperm wood, spores cylindrical to suballantoid, 4–6 × 1–2 µm . . . . . *Antrodia sinuosa* (Fr.) P. Karst. (DBA).
21a. Hyphal system dimitic, basidiocarps perennial, spores broadly-ellipsoid, 3.5–4.5 × 2–2.5 µm . . . . . *Nigroporus durus* (Jungh.) Murril (DBA).
21b. Hyphal system trimitic 22
22a. Basidiome annual to biennial, spores cylindric, 6.5–8 × 2.5–3 µm. . . . . *Fomitopsis palustris* (Berk. & M.A. Curtis) Gilbn. & Ryvarden (DBA).
22b. Basidiome perennial, spores cylindric-ellipsoid, 6–9 × 3.5–4.5 µm. . . . . *Fomitopsis pinicola* (Sw.: Fr.) P. Karst. (DBA).
23a. Spores ganodermatoid . . . . . *Ganoderma lucidum* (M.A. Curtis: Fr.) P. Karst., (Quanten 1997).
23b. Spores nonganodermatoid 24
24a. Hyphae simple-septate 25
24b. Hyphae clamped 34
25a. Hymenium continuous along tubes and dissepiments, spores allantoid, hymenophore pink, purpuraceous to vinaceous, with enlarged hyphae in the context and the trama. . . . . *Gloeoporus guerreroanus* G. Coelho, R.M. Silveira & Rajchenb.
25b. Hymenium lacking on dissepiments 26
26a. Spores asperulate, amyloid 27
26b. Spores smooth, nonamyloid 28
27a. Basidiome ressupinate, gloeoplerous hyphae absent, on ground in grassland. . . . . *Amylosporus ryvardenii* Stalpers (=*Rigidoporopsis amylospora* I. Johans. & Ryvarden [Ryvarden and Johansen 1980, Stalpers 1996]).
27b. Basidiome pileate, gloeoplerous hyphae present, on wood . . . . . *Amylosporus campbelii* (Berk.) Ryvarden (DBA).
28a. Hyphal system monomitic. 29
28b. Hyphal system dimitic. 32
29a. Cystidia absent, basidiome resupinate, hymenophore beige to brick red, spores subglobose 4.5–6.5 × 4–6 µm . . . . . *Ceriporia* sp.
29b. Cystidia present 30
30a. Pore surface white to pale ochraceous. . . . . *Oxyporus cervino-gilvus* (Jungh.) Ryvarden (DBA).
30b. Pore surface vivid orange or pinkish. 31
31a. Cystidioles ventricose, mucronate, thin-walled . . . . . *Rigidoporus microporus* (Fr.) Overeem (Quanten 1997).
31b. Cystidia incrustate, thick-walled. . . . . *Rigidoporus lineatus* (Pers.) Ryvarden (DBA).
32a. Cystidia lacking,spores broad-cylindrical to oblong-ellipsoid, 9–11.7 × 4.6–6.6 µm, on bamboo-shoot . . . . . *Dichomitus papuanus* Quanten (Quanten 1996).
32b. Cystidia incrustate present 33
33a. Spores cylindric to oblong-ellipsoid, 3.7–5.6 × 2–4 µm . . . . . *Flavodon flavus* (Klotzsch) Ryvarden (Quanten 1997).
33b. Spores oblong to cylindric to oblong-ellipsoid, 5–7 × 2–3 µm . . . . . *Irpex lacteus* (Fr.: Fr.) Fr. (DBA).
34a. Spores ornamented 35
34b. Spores smooth 36
35a. Pores large, 1–4/ mm, without cystidia . . . . . *Pachykytospora* cf. *papyraceae* (Schwein.) Ryvarden
35b. Pores small, more than 4/mm, cystidia tubular and heavily incrusted. . . . . *Trechispora regularis* (Murril) Liberta
36a. Arboriform hyphae present. 37
36b. Arboriform hyphae absent 40
37a. Pores favoloid or elongated when mature 38
37b. Pores nonfavoloid or elongated when mature . . . 39
38a. Pileus leather-colored when fresh, pores 3–5/mm, spores 6–8(10) µm . . . . . *Polyporus grammocephalus* Berk. (DBA).
38b. Pileus white when fresh, pores 1–2/mm, spores 9–12 µm. . . . . *Polyporus tenuiculus* (P. Beauv.) Fr. (DBA).
39a. Stipe with a black cuticle at least on the base . . . . . *Polyporus dictyopus* Mont. (Ryvarden and De Meijer 2002).

39b. Stipe without a black cuticle . . . . . *Polyporus arcularius* (Batsch : Fr.) Fr., (Ryvarden and De Meijer 2002).
40a. Hyphal system monomitic, spores allantoid *Tyromyces leucomallus* (Berk. & M.A. Curtis) Murrill (Ryvarden and De Meijer 2002).
40b. Hyphal system dimitic to trimitic. 41
41a. Hyphal system dimitic. 42
41b. Hyphal system trimitic 49
42a. Dextrinoid reaction present in hyphae and/or spores 43
42b. Dextrinoid reaction lacking 45
43a. Spores and hyphae dextrinoid . . . . . *Grammothelopsis bambusicola* Ryvarden & de Meijer (Ryvarden and De Meijer 2002).
43b. Spores nondextrinoid, skeletal hyphae dextrinoid 44
44a. Spores oblong-ellipsoid, 7–8.5 × 4–5 µm, pores 2–3/mm . . . . . *Grammothele bambusicola* Ryvarden (Hjortstam and Ryvarden 1984).
44b. Spores ellipsoid, 5.5–8 ×2.2–3.4 µm, pores 8–13/mm *Grammothele fuligo* (Berk. & Broome) Ryvarden (Virdi 1990, Carranza-Morse 1991).
45a. Spores ellipsoid 46
45b. Spores cylindrical to allantoid 47
46a. Spores ellipsoid, 5–6.5 × 3.5–4 µm . . . . . *Schizopora paradoxa* (Schrad : Fr.) Donk (Boidin et al 1986).
46b. Spores oblong-ellipsoid, 4.5–6 × 2.5–3.5 µm . . . *Antrodiella zonata* (Berk.) Ryvarden (DBA).
47a. Spores cylindrical . . . . . *Datronia scutellata* (Schwein.) Gilb. & Ryvarden (Setliff and Ryvarden 1983, as *Fomitopsis*).
47b. Spores allantoid 48
48a. Skeletal hyphae dissolving in KOH sol. . . . . *Skeletocutis diluta* (Rajchenb.) A. David & Rajchenb.
48b. Skeletal hyphae not dissolving in KOH sol.. . . . . *Skeletocutis percandida* (Malençon & Bertault) Jean Keller. (Boidin et al 1986).
49a. Hymenophore lamellate . . . . . *Lenzites elegans* (Fr. : Fr.) Fr. (DBA).
49b. Hymenophore poroid. 50
50a. Pilear surface with a reddish cuticle spreading from the base. . . . . *Earliella scabrosa* (Pers.) Gilb. & Ryvarden (DBA).
50b. Pilear surface without a reddish cuticle spreading from the base. 51
51a. Spores dextrinoid. . . . . *Loweporus tephroporus* (Mont.) Ryvarden (DBA).
51b. Spores nondextrinoid. 52
52a. Basidiome with a reddish vivid color . . . . . *Pycnoporus sanguineus* (L. : Fr.) Murril (DBA).
52b. Basidiome without a vivid color. 53
53a. Pores large, 2–4/cm . . . . . *Hexagonia apiaria* (Pers.) Fr. (DBA).
53b. Pores small. 54
54a. Pores 1–3/mm, spores 5–7 × 2–2.5 µm. . . . . *Trametes lactinea* (Berk.) Pat. (DBA).
54b. Pores 3–6/mm 55
55a. Context duplex, basidiomes dull, spores 5–6 × 3–4 µm . . . . . *Trametes ljubarskyii* Pilát (DBA).
55b. Context homeogeneous 56
56a. Basidiomes thin and flexible, often with strongly contrasting colors, spores 5–6 × 1.5–2 µm . . . . . *Trametes versicolor* (L. : Fr.) Pilát (DBA).
56b. Basidiomes coriaceous to hard when dry, whitish to ochraceous, concentrically zonate, soon grayish to sooty black, spores 5–6.5 × 3.5–4 µm . . . . . *Trametes cingulata* Berk. (DBA).

Synonymy used for updating the DBA checklist: *Fomes durus* = *Nigroporus d.*, *Fomes lignosus* = *Rigidoporus microporus*, *Fomes lividus* = *Loweporus tephroporus*, *Gloeophyllum subferrugineum* = *Gloeophyllum sepiarum*, *Irpex flavus* = *Flavodon f.*, *Lenzites striata* = *Gloeophyllum s.*, *Polyporus bambusicola* = *Coltricia b.*, *Polyporus zonalis* = *Rigidoporus lineatus*, *Poria vaporaria* = *Antrodiella sinuosa*, *Polyporus anthelminticus* = *amylosporus campbellii*, *Pycnoporus coccineus* = *P. sanguineus*, *Trametes cervino-gilvus* = *Oxyporus c.*, *Trametes perssoonii* = *Earliella scabrosa*, *Tyromyces palustris* = *Fomitopsis p.*; species excluded from DBA are *Fomes hypoplastus, Lenzites adusta, Polystictus steinheinlianus, Poria diversispora, Poria rhizomorpha, Merulius similis.*

DISCUSSION

The key to polypores collected on Bamboo worldwide is based on literature records and our collections, where 57 species of polypores was found growing on bamboo. About 8% (14 species) of the taxa are specific to bamboo as a substrate. *Grammothele fuligo* is always found on monocots (bamboo, palm). *Coltricia bambusicola* originally was described on *Bambusa*, however it has also been reported recently on dead roots and culms of sugarcane (*Saccharum*), the former substrate possibly being misidentified (Ryvarden 1975b, Ryvarden and Johansen 1980). About 11 species of *Gloeoporus* from the literature are accepted today and reported to several substrates, softwoods to hardwoods, but none of them on culms of bamboo. *Gloeoporus guerreroanus*, being hitherto collected only on bamboo, seems to indicate that it is specific to this substrate.

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