

CLAUDIO ANGELINI, CRISTIANO LOSI

ANNOTATED LIST OF FUNGUS FLORA OF THE DOMINICAN REPUBLIC. PART VI.  
SOME UNRECORDED POLYPOROID AND CORTICIOID FUNGI.

### Abstract

*Eleven polyporoid (Antrodiella versiculis, Ganoderma lobatum, Gloeoporus pannocinctus, Murrilloporus rutilantiformis, Oligoporus leucomallus, Perenniporiella micropora, Phylloporia elegans, Protomerulius substuppeus, Rigidoporus crocatus, Schizopora radula, Tyromyces hypocitrinus) and five corticioid neotropical fungi all collected in the Dominican Republic (Boidinia peroxydata, Crustodontia chrysocreas, Phlebia tremellosa, Pseudolagarobasidium belizense, Thelephora vialis) are here represented and annotated.*

### Riassunto

*Vengono qui rappresentate con brevi note a commento undici specie poliporoidi (Antrodiella versiculis, Ganoderma lobatum, Gloeoporus pannocinctus, Murrilloporus rutilantiformis, Oligoporus leucomallus, Perenniporiella micropora, Phylloporia elegans, Protomerulius substuppeus, Rigidoporus crocatus, Schizopora radula, Tyromyces hypocitrinus) e cinque specie corticioidi (Boidinia peroxydata, Crustodontia chrysocreas, Phlebia tremellosa, Pseudolagarobasidium belizense, Thelephora vialis) di funghi neotropicali tutti raccolti in Repubblica Dominicana.*

**Key words:** *Basidiomycota, Aphyllophorales, sub-tropical zone, Caribbean.*

### Introduction

Following our previous contributions to the knowledge of fungi of Dominican Republic (ANGELINI & LOSI, 2013a, 2013b, 2014, 2015, 2016; VIZZINI ET AL., 2016), here are represented other 16 records not previously annotated. The collecting and research areas in the Dominican Republic have been described in detail in our previous works (ANGELINI & LOSI, 2013a, 2013b, 2014) and on the website "*Neotropical Fungi - Hongos de la República Dominicana*" ([www.neotropicalfungi.com](http://www.neotropicalfungi.com)).

### Materials and methods

The basidiomata were photographed fresh in habitat using a Nikon coolpix 8400 digital camera and subsequently dried. The microscopic study was performed on dry material, rehydrated in water and observed with an Olympus optical microscope (BH-2). The material was also mounted with anionic Melzer and Congo Red. The macroscopic and microscopic descriptions in the text refer only to the examined material collected in the Dominican Republic.

### Definitions

**Polyporoid fungi: hymenium** poroid, rarely lamellar (and hard); **basidiomata** often tough and coriaceous, resupinate to pileate, sessile or stipitate (JÜLICH, 1989).

**Corticioid fungi: hymenium** smooth to hydroid; **basidiomata** resupinate to effused-reflected, rarely pileate, sessile or stipitate (JÜLICH, 1989).

### Taxonomy

Regarding the belonging of the *Genera* to the corresponding *Families*, for the Polyporoid fungi has followed what is reported in [mycobank.org](http://mycobank.org), as regards the Corticioid fungi followed what was proposed in LARSSON (2007).



Figura 1. *Antrodiella verscutis*

Photo by Claudio Angelini



Figura 2. *Ganoderma lobatum*

Photo by Claudio Angelini



Figura 3. *Gloeoporus pannocinctus*

Photo by Claudio Angelini



Figura 4. *Murrilloporus rutilantiformis*

Photo by Claudio Angelini

## POLYPOROID FUNGI

Family *Phanerochaetaceae* Jülich 1982 (as defined in ANGELINI & LOSI, 2013b)

Genus *Antrodiella* Ryvarden & I. Johans 1980 (as defined in ANGELINI & LOSI, 2015)

*Antrodiella versicutis* (Berk. & M.A. Curtis) Gilb. & Ryvarden

**Basidiomata** laterally short stipitate, single, tough. **Pileus** fanshaped, thin, up to 4.5 cm wide and long, hard and brittle when dried; upper surface glabrous, concentrically faintly zonate and sulcate, pale ochre-yellow with pinkish tints; margin slightly lobed, white or not differentiated. **Pore surface** cream to pale ochre, pores angular, 8-12 per mm, tubes concolorous with pore surface, 1-2 mm long; context whitish, homogenous, up to 2 mm thick. **Hyphal system** dimitic; generative hyphae with clamps, skeletal hyphae dominating in basidioma. **Cystidia** none. **Basidia** clavate, 4-sterigmata. **Basidiospores** cylindrical-allantoid to allantoid, hyaline, thin-walled,  $4.4\text{-}5.2 \times 1.2\text{-}1.8 \mu\text{m}$ . **Distribution** widespread from southern United States to Brazil, but exact distribution unknown due to confusion with *A. duracina* (Pat.) I. Lindblad & Ryvarden (RYVARDEN, 2015).

**Studied material:** 2 specimens growing on fallen decay trunk, in a mixed mountain forest of deciduous and pine trees (*Pinus occidentalis* Swartz), collected on Dec. 17, 2016 - Jarabacoa (La Vega) DR. *Exsiccatum:* JBSD129818 (ANGE787) (**Fig. 1**).

Family *Ganodermataceae* (Donk) Donk 1948 (as defined in ANGELINI & LOSI, 2013a)

Genus *Ganoderma* P. Karst. 1881 (as defined in ANGELINI & LOSI, 2013a)

*Ganoderma lobatum* (Cooke) G.F. Atk.

**Basidiomata** laterally stipitate to substipitate, single or with fused stipes, corky and rather light of weight. **Pileus** circular to fan-shaped, flat, up to  $3 \times 2.5$  cm; pileus surface adpressed tomentose to glabrous and crustose, subzonate, yellowish, white towards the margin and brownish or reddish brown towards the stipe. **Pore surface** whitish, pores angular, 4-6 per mm, tubes whitish to brown, 1-2 mm long; context brown, up to 5 mm thick. **Stipe** nodose, brown to yellowish brown, minutely tomentose, up to 1.5 cm wide and 3 cm high. **Basidiospores** ellipsoid to ovoid,  $8.4\text{-}9.6 \times 4.4\text{-}6.4 \mu\text{m}$ . **Distribution** widely reported from the East Coast to the southwestern U.S. (GILBERTSON & RYVARDEN, 1986). **Remarks** in literature basidiomata are reported larger and sessile to substipitate (GILBERTSON & RYVARDEN, 1986; MURRILL, 1908, as *Elfvigia*; OVERHOLTS, 1953, as *Fomes*; STEYAERT, 1980).

**Studied material:** 5 specimens growing on litter (on buried roots) in a man-made wood with deciduous trees - Jan. 04, 2016 - Sosua (P.to Plata) DR - Loc. P.to Chiquito. *Exsiccatum:* ANGE579, in the first author's herbarium, pending its deposit in the herbarium of Santo Domingo (JBSD - Dominican Republic) (**Fig. 2**).

Family *Meruliaceae* P. Karst. 1881 (as defined in ANGELINI & LOSI, 2013b)

Genus *Gloeoporus* Mont. 1842

**Basidiomata** resupinate to pileate. **Hymenophore** more or less colored, pores small with a continuous layer of basidia over the dissepiments, tube layer gelatinous, resinous to cartilaginous when dried. **Hyphal system** monomitic, generative hyphae with clamps or

simple septate. **Cystidia** present or absent. **Basidiospores** allantoid to cylindrical, thin-walled, smooth, non amyloid. On booth hardwoods and conifers, causing a white rot. Cosmopolitan genus (GILBERTSON & RYVARDEN, 1986). Many species have been transferred to or described in this genus, but around 13 species were accepted only by most mycologists (YUAN *ET AL*, 2016).

*Gloeoporus pannocinctus* (Romell) J. Erikss.

**Basidiomata** resupinate, soft, brittle when dried, up to 4 mm thick. **Pore surface** white or pale yellowish, pores circular or mostly angular, 5-8 per mm; subiculum whitish with a darker resinous layer near the tubes; margin not especially differentiated. **Hyphal system** monomitic; generative hyphae with clamps, hyaline, thin- to slightly thick-walled, 1.6-4 µm wide. **Cystidia** fusiform, hyaline, thin-walled, 20-25 × 3-4 µm. **Basidiospores** allantoid to suballantoid, hyaline, smooth, thin-walled, 3.2-4 × 0.5-0.8 µm. **Distribution** in the Neotropics apparently reported only from Brazil (LOGUERCIO-LEITE & GERBER, 1997, as *Ceriporiopsis*).

**Studied material:** growing on fallen decay trunk in a garden with deciduous trees - Nov. 22, 2016 - Sosua (P.to Plata) DR. *Exsiccatum:* JBSD129840 (ANGE768) (Fig. 3).

Family *Bondarzewiaceae* Kotl. & Pouzar 1957 (as defined in ANGELINI & LOSI, 2015)

Genus *Murrilloporus* Ryvarden 1985

**Basidiomata** sessile, coriaceous but light of weight. **Pore surface** white when fresh, ochraceous when dry with round to angular pores. **Hyphal system** dimitic; generative hyphae with clamps, skeletal hyphae strongly dextrinoid. **Basidiospores** ornamented, non amyloid non dextrinoid. The closest relative is *Wrightoporia* which however has amyloid spores (RYVARDEN, 1985).

*Murrilloporus rutilantiformis* (Murrill) Ryvarden

**Basidiomata** sessile, single, tough, of very light weight. **Pileus** dimidiate, 11 cm long, 9 cm wide, 3 cm thick at the base; upper surface glabrous and incrustated owing to a thin cuticle, faintly zonate and sulcate, lilac, lavender, livid vinaceous, reddish brown or greenish; margin not especially differentiated, undulating. **Pore surface** white to cream, pores circular to angular, 2-4 per mm, dissepiments at first thick and entire, becoming thin and lacerate with elongated, sinuous or daedaleoid pores; tubes concolorous up to 2 cm deep, context homogenous, whitish. **Hyphal system** dimitic; generative hyphae with clamps, skeletal hyphae dominating in basidioma. **Cystidia** none. **Basidia** clavate, 4-sterigmata, 16-24 × 5-7 µm. **Basidiospores** ellipsoid, finely asperulate, hyaline, slightly thick-walled, 4.4-5.6 × 3-4 µm. **Distribution** in the Neotropics known from Belize, Costa Rica, Venezuela and Brazil (RYVARDEN, 2015).

**Studied material:** 1 specimen growing in decay stump in a mountain wood with caribbean pine trees (*Pinus caribaea* Morelet) - Dec. 2, 2016 - Puerto Plata (DR). *Exsiccatum:* JBSD129821 (ANGE731) (Fig. 4).

Family *Polyporaceae* Fr. ex Corda 1839 (as defined in ANGELINI & LOSI, 2014)

Genus *Oligoporus* Bref. 1888

**Basidiomata** resupinate to pileate. **Hyphal system** monomitic, generative hyphae with clamps. **Cystidia** absent or present. **Basidiospores** smooth, hyaline, allantoid to ellipsoid negative or slightly amyloid; chlamydospores absent or present. Causes a brown rot. The genus as here defined is undoubtedly polyphyletic and possibly will be split into several smaller genera in the future (RYVARDEN & MELO, 2017).



Figura 5. *Oligoporus leucomallus*

Photo by Claudio Angelini



Figura 6. *Perenniporiella micropora*

Photo by Claudio Angelini



Figura 7. *Tyromyces hypocitrinus*

Photo by Claudio Angelini



Figura 8. *Phylloporia elegans*

Photo by Claudio Angelini

## *Oligoporus leucomallus* (Berk. & M.A. Curtis) Vlasák

**Basidiomata** sessile, solitary or imbricate, soft and fleshy. **Pileus** dimidiate, up to 5 cm wide and long; upper surface azonate or faintly sulcate and zonate, velvety to substrigose, white to pale fulvous; margin acute, sometimes inflexed, even or slightly wavy. **Pore surface** white, pores angular, 5-9 per mm, dissepiments thin, in some cases dentate or lacerate; tubes 2-3 mm long, concolorous. **Context** soft, white, up to 1 cm thick at the base. **Hyphal system** monomitic; generative hyphae with clamps, thin- to slightly thick-walled, hyaline, 2.4-4 µm wide; gloeopleurous hyphae (4-5 µm wide) and hyphal pegs present. **Cystidia** none. **Basidia** subclavate, 4-sterigmata, 10.4-16 × 4-5 µm. **Basidiospores** subballantoid, thin-walled, hyaline, (3.4)3.8-4.2(4.8) × 1.4-1.6 µm. **Distribution** rare species in the Neotropics. **Remarks** closest relative species are *O. tephroleucus* (Fr.) Gilb. & Ryvarden (GILBERTSON & RYVARDEN, 1987) and *O. subcaesius* (A. David) Ryvarden & Gilb. (VLASÁK ET AL., 2016).

**Studied material:** various specimens growing on fallen decay pine trunk, in a mixed mountain forest of deciduous and pine trees (*Pinus occidentalis*), collected on Dec. 7, 2016 - Jarabacoa (La Vega) DR. *Exsiccatum*: JBSD129819 (ANGE795) (Fig. 5).

## Genus *Perenniporiella* Decock & Ryvarden 2003

**Basidiomata** pileate, corky, of light-weight; mainly cream to light orange (DECOCK & RYVARDEN, 2003). **Hyphal system** dimitic, generative hyphae clamped; skeletal tramal hyphae with an arboriform branching pattern. **Basidiospores** globose to subglobose, hyaline, thick-walled, slightly dextrinoid.

## *Perenniporiella micropora* (Ryvarden) Decock & Ryvarden

**Basidiomata** sessile to effused-reflexed, thin, rather coriaceous and slightly flexible. **Pileus** dimidiate, up to 1.5 cm wide and long, up to 5 mm thick at the base; upper surface sulcate-zonate, often wrinkled, glabrous, yellow-ochre to yellowish-orange; margin white or not differentiated, even or lobed. **Pore surface** whitish to pale brownish, pores circular to slightly angular, 8-10 per mm, dissepiments entire; tubes pale ochre. **Context** concolorous up to 1-3 mm thick not always distinctly duplex with an upper soft and loose layer and a lower one more compact. **Hyphal system** dimitic, generative hyphae with clamps. **Cystidia** none. **Basidia** not seen. **Basidiospores** globose to subglobose, hyaline, thick-walled, faintly dextrinoid, 4-5 µm in diam. **Distribution** very rare species in Central and South America (CARRANZA & RYVARDEN, 1998). **Remarks** *P. tepeitensis* (Murrill) Decock & R. Valenz. has a similar basidiome but larger pores and spores (RYVARDEN, 1987). *P. micropora*, *P. tepeitensis* (Murrill) Decock & R. Valenz., *P. pendula* Decock & Ryvarden and *P. chaqueina* Robledo, Amalfi, G. Castillo, Rajchenb. & Decock (2009) are macro-, microscopically and genetically closely related to each other (DECOCK, VALENZUELA & CASTILLO, 2010). The duplex context and the small pores distinguish *P. micropora* in the genus (ROBLEDO ET AL., 2009); JBSD129837.

**Studied material:** 7 specimens growing on fallen decay branch, in a man-made wood with deciduous trees - Nov. 20, 2016 - Sosua (P.to Plata) DR - Loc. P.to Chiquito. *Exsiccatum*: JBSD129837 (ANGE751) (Fig. 6).

## Genus *Tyromyces* P. Karst. 1881 (as defined in ANGELINI & LOSI, 2015)

## *Tyromyces hypocitrinus* (Berk.) Ryvarden

**Basidiomata** sessile, solitary, somewhat fleshy and flexible. **Pileus** dimidiate, more or less convex, up to 1.5 cm wide and 1 cm long; upper surface radiately slightly wrinkled, glabrous



to velutinate or strigose towards the margin, azonate to faintly zonate, white to citric yellow, ochraceous when dry. **Pore surface** whitish to cream, pores angular, 3-6 per mm; tubes concolorous, 1,5-3 mm long. **Context** homogeneous, cream, 1-2 mm thick. **Hyphal system** monomitic; generative hyphae with clamps. **Gloeocystidia** present, slightly fusoid, up to 40  $\mu\text{m}$  long and 6-8  $\mu\text{m}$  in diam. **Basidia** clavate, 4-sterigmate, 12.8-24  $\times$  4-6  $\mu\text{m}$ . **Basidiospores** suballantoid, smooth, thin-walled, hyaline, 4.4-5.8  $\times$  1.2-1.6  $\mu\text{m}$ . **Distribution** in the Neotropics known from Brazil, Panama and Mexico (RYVARDEN, 2016). **Remarks** the sessile-dimidiolate basidiocarps, the suballantoid spores and the gloeocystidia distinguish *T. hypocitrinus* in the genus.

**Studied material:** 3 specimens growing on fallen decay trunk in a man-made wood with deciduous trees - Nov. 22, 2016 - Sosua (P.to Plata) DR - Loc. Playa. *Exsiccatum*: ANGE807, in the first author's herbarium, pending its deposit in the herbarium of Santo Domingo (JBSD - Dominican Republic) (Fig. 7).

Family *Hymenochaetaceae* (as defined in ANGELINI & LOSI, 2013a)

Genus *Phylloporia* (as defined in ANGELINI & LOSI, 2016)

*Phylloporia elegans* Ferreira-Lopez, Robledo & Drechsler-Santos

**Basidiomata** laterally stipitate, single to subcaespitose with joined stipes to the base or conrescent pilei, coriaceous. **Pileus** dimidiolate to flabelliform, up to 2 cm wide and 1 mm thick, mostly lobed, minutely tomentose to glabrous, concentrically zonate and sulcate, radially slightly folded or wrinkled, yellowish to brown or cinnamon, sometimes white towards the margin. **Pore surface** yellowish to light olive brown, pores round, 9-12 per mm with relatively thick entire dissepiments; tubes concolorous. **Context** yellowish to cinnamon, separated from the tomentum by a thin dark line not always visible. **Stipe** cylindrical to bulbous, nodose, adpressed velutinate, brown to yellowish brown, up to 0.8 cm wide and 1.5 cm long. **Hyphal system** monomitic; generative hyphae with simple septa, thin to thick-walled, hyaline to yellowish or brownish, 2.4-5  $\mu\text{m}$  wide. A short plagiotrichoderm in the sense of CLEMENÇÓN (2012) covers the pileus surface. **Basidia** 4-sterigmate, subclavate, 8-12  $\times$  4-5  $\mu\text{m}$ . **Basidiospores** ellipsoid to subglobose, pale yellow, smooth, slightly thick-walled, 2.8-3.4  $\times$  2-3  $\mu\text{m}$ . **Distribution** so far known from Brazil and Argentina (FERREIRA-LOPEZ ET AL., 2016) but exact distribution unknown due to confusion with the two closest *P. spathulata* (Hook.) Ryvarden and *P. nodostipitata* Ferreira-Lopes & Drechsler-Santos and so possibly pantropical.

**Studied material:** various specimens growing on litter (on buried roots) in a man-made wood with deciduous trees - Dec. 03, 2016 - Sosua (P.to Plata) DR - Loc. Cemetery. *Exsiccatum*: JBSD129845 as *P. spathulata* (ANGE799) (Fig. 8).

Family *Exidiaceae* R.T. Moore 1978

**Basidiomata** resupinate to pileate, sometimes inconspicuous (CANNON & KIRK, 2007), waxy, gelatinous to corky. **Hymenophore** even to hydroid, merulioid or poroid. **Hyphal system** monomitic, rarely dimitic; generative hyphae thin- to thick-walled, clamps present or absent. **Cystidia** absent or present. **Basidia** ovoid, ellipsoidal to globose, longitudinally or cruciately septate with 2-4 cells; sterigmata long-cylindrical or subulate. **Basidiospores** allantoid to subglobose, thin-walled, germinating by repetition. Significant genera: *Exidia*, *Exidiopsis*, *Heterochaete*, *Sebacina*, *Basidi dendron*, *Protomerulius*, *Bourdotia*, *Ductifera*, *Efibulobasidium*, *Eichleriella*, *Protodyndrum*, *Tremellodendron*, *Protomerulius*.

Genus *Protomerulius* Möller 1895

**Basidiomata** resupinate to pileate, annual. **Hyphal system** dimitic, generative hyphae with clamps. **Basidia** longitudinally septate and 4-celled. **Basidiospores** allantoid, hyaline, non



Figura 9. *Protomerulius substuppeus*

Photo by Claudio Angelini



Figura 10. *Rigidoporus crocatus*

Photo by Claudio Angelini



Figura 11. *Schizopora radula*

Photo by Claudio Angelini



Figura 12. *Boidinia peroxydata*

Photo by Claudio Angelini

amyloid. White rot in dead hardwoods. Cosmopolitan genus, with four species in tropical America (RYVARDEN, 2016).

*Protomerulius substuppeus* (Berk. & Cooke) Ryvarden

**Basidiomata** sessile to effused-reflexed, rather thin, fleshy, somewhat sappy and flexible. **Pileus** applanate to convex, up to 3 cm wide and 5 cm long; upper surface slightly warted to smooth, velutinate to strigose, azonate to faintly zonate, whitish, cream, pale grey, greenish, sometimes with ochre tint; margin white or not differentiated, even, wavy or slightly lobed. **Pore surface** whitish to pale ochre with pinkish tint, pores angular or daedaleoid, 1-3 per mm, with thin dissepiments that frequently become lacerate to form an irpiciform to hydroid hymenophore; tubes concolorous fragile when dry. **Context** whitish. **Hyphal system** dimitic; generative hyphae with rare clamps. **Cystidia** none. **Basidia** ovoid, longitudinally septate, 4-spored. **Basidiospores** ellipsoid to broadly ellipsoid, hyaline, thin-walled, usually uniguttulate or with several oil-bodies, 5.6-7.4(8) × (3.6)4-4.8 μm. **Distribution** the species seems to be quite common in tropical America (VLASÁK ET AL., 2016) and probably widespread in the Neotropics (RYVARDEN, 2016).

**Studied material:** 5 specimens growing on fallen decay trunk in a man-made wood with deciduous trees - Dec. 1, 2016 - Sosua (P.to Plata) DR - Loc. Playa. *Exsiccatum*: JBSD129809 (ANGE809) (**Fig. 9**); *ibidem* - Dec. 16, 2016. *Exsiccatum*: JBSD129839 (ANGE808).

Family *Meripilaceae* Jülich 1982 (as defined in ANGELINI & LOSI, 2015)

Genus *Rigidoporus* Murrill 1905 (as defined in ANGELINI & LOSI, 2015)

*Rigidoporus crocatus* (Pat.) Ryvarden

**Basidiomata** resupinate, tough, separable. **Pore surface** flesh-coloured, pinkish or greyish, pores circular to mostly angular, 4-8 per mm; tubes more or less concolorous with the pore surface, 2-3 mm long. **Context** homogeneous, cream to buff, up to 1 mm thick. **Margin** not especially differentiated. **Hyphal system** monomitic; generative hyphae with simple septa, thin- to thick-walled, hyaline, 3.2-7.2 μm in diam. **Cystidia** absent, fusoid cystidioles present, 11-16 × 4.8-6.8 μm. **Basidia** clavate, 4-sterigmate, 12-14 × 5-6 μm. **Basidiospores** subglobose, thick-walled, hyaline, 3.6-4.8 × 3.2-4.6 μm. **Distribution** uncommon in the Neotropics.

**Studied material:** growing on stump in a garden with deciduous trees - Dec. 22, 2016 - Cabarete (P.to Plata) DR - Loc. Perla Marina. *Exsiccatum*: JBSD129825 (ANGE781) (**Fig. 10**).

Family *Schizoporaceae* Jülich 1982 (as defined in ANGELINI & LOSI, 2015)

Genus *Schizopora* Velen. emend. Donk 1967

**Basidiomata** annual, resupinate, soft and coriaceous when fresh, firm and tough when dry. **Hymenophore** poroid to daedaleoid or hydroid. **Hyphal system** monomitic or dimitic; generative hyphae moderately thick-walled with clamps. **Cystidia**, fusoid or capitate ends present. **Basidiospores** hyaline, ellipsoid to subglobose, smooth, non-amyloid.

*Schizopora radula* (Pers.) Hallenb.

**Basidiomata** resupinate, somewhat fibrous-leathery. **Pore surface** whitish-cream to pale ochre, pores angular, more or less regular, 2-4 per mm. **Hyphal system** monomitic, hyphae with clamps. **Cystidia** as capitate hyphal ends. **Basidiospores** rarely observed, ellipsoid, smooth,

thin-walled,  $3.8-4.6 \times 3-3.5 \mu\text{m}$ . **Distribution** Argentina (E. LANGER, 1994) but in Neotropics exact distribution unknown because of confusion with *S. paradoxa* (Schrad.) Donk (RYVARDEN, 2016).

**Studied material:** various specimens growing on fallen decay branches, in a mixed mountain forest of deciduous and pine trees (*Pinus occidentalis* Sw.), collected on Dec. 7, 2016 - Jarabacoa (La Vega) DR. *Exsiccatum:* JBSD129810 (ANGE797) (Fig. 11).

## CORTICIOID FUNGI

### Russulales genus, incertae sedis

The crust-like genus *Boidinia* is now classified in the *Russulaceae* but studies have so far failed to clearly circumscribe and place this genus within the family; on the other hand *Boidinia* in its current extent is polyphyletic, with some species not falling into the *Russulaceae*.

Genus *Boidinia* Stalpers & Hjortstam 1982

**Basidiomata** resupinate, pellicular to membranaceous, smooth. **Hyphal system** monomitic with clamps. **Gloeocystidia** hyaline or with yellowish contents. **Basidia** suburniform. **Basidiospores** hyaline, thin- to slightly thick-walled, echinulate or verrucose, amyloid. *Boidinia* is morphologically characterized by: 1) globose to broadly ellipsoid ornamented and amyloid basidiospores with a distinct apiculus; 2) suburniform basidia; 3) tubular to subclavate gloeocystidia; 4) pellicular to soft-membranous texture (GINNS & FREEMAN, 1994).

*Boidinia peroxydata* (Rick) Hjortstam & Ryvarden

**Basidiomata** resupinate, adnate, thin, subceraceous; hymenial surface smooth, yellowish, pale brown or light orange; margin whitish, pruinose-fibrillose or not especially differentiated. **Hyphal system** monomitic, hyphae without clamps. **Gloeocystidia** subfusiform, up to  $130 \times 16 \mu\text{m}$ . **Basidiospores** broadly ellipsoid, warted, amyloid,  $4-5.6 \times 3.2-4 \mu\text{m}$ . **Distribution** in the Neotropics reported from South America (GORJÓN & JESUS, 2012).

**Studied material:** growing on stump in a man-made wood with deciduous trees - Dec. 1, 2016 - Sosua (P.to Plata) DR - Loc. Cemetery. *Exsiccatum:* ANGE801, in the first author's herbarium, pending its deposit in the herbarium of Santo Domingo (JBSD - Dominican Republic) (Fig. 12).

Family *Meruliaceae* P. Karst. 1881 (as defined in ANGELINI & LOSI, 2013b)

Genus *Crustodontia* Hjortstam & Ryvarden 2005

**Basidiomata** resupinate, hard to brittle, turning reddish with KOH. **Hymenophore** smooth to odontoid, usually golden to apricot yellow. **Hyphal system** monomitic, generative hyphae with clamps; microbinding hyphae mainly observed in the lower part of the subiculum. **Cystidia** often abundant, mainly ventricose. **Basidiospores** smooth, thin-walled, non amyloid, non dextrinoid.

*Crustodontia chrysocreas* (Berk. & M.A. Curtis) Hjortstam & Ryvarden

**Basidiomata** resupinate, adnate, golden yellow, yellowish green or reddish brown, subceraceous, crustaceous when dried. **Hymenial surface** tuberculate to lightly odontoid; margin white, continuous and lightly tuberculate or pruinose-fibrillose. **Hyphal system** monomitic; hyphae with clamps, hyaline, thin-walled or with somewhat thickened walls,



Figura 13. *Crustodontia chrysocrea*

Photo by Claudio Angelini



Figura 14. *Phlebia tremellosa*

Photo by Claudio Angelini



Figura 14b. *Phlebia tremellosa*

Photo by Claudio Angelini



Figura 15. *Pseudolagarobasidium belizense*

Photo by Claudio Angelini

frequently encrusted, 2.4-3.2  $\mu\text{m}$  wide. **Cystidia** numerous, enclosed or projecting, hyaline, thin-walled, cylindrical, subfusiform or ventricose, sometimes apically encrusted, 30-70  $\times$  6.4-10  $\mu\text{m}$ . **Basidia** clavate, 4-sterigmate, 20-26  $\times$  4-5  $\mu\text{m}$ . **Basidiospores** ellipsoid, thin-walled, smooth, 4-5  $\times$  2.4-3  $\mu\text{m}$ . **Distribution** widespread, pantropical species (GORJÓN & JESUS, 2012). **Remarks** cystidia are much larger than usually reported (HJORTSTAM & RYVARDEN, 2005).

**Studied material:** 3 specimens growing on fallen decay trunk in a garden with deciduous trees - Dec. 19, 2016 - Sosua (P.to Plata) DR. *Exsiccatum*: JBSD129811 (ANGE769) (**Fig. 13**).

Genus *Phlebia* Fr. 1821

**Basidiomata** resupinate or rarely pileate, ceraceous, subgelatinous or fleshy, corneous to crustaceous when dried. **Hymenophore** smooth to phlebioid, merulioid or odontoid. **Hyphal system** monomitic, rarely dimitic; generative hyphae mostly with clamps and embedded in a gelatinous matrix, thin- to slightly thick-walled. **Cystidia** present or lacking. **Basidia** normally narrowly clavate and arranged in a dense palisade. **Basidiospores** allantoid to ellipsoid, smooth, thin-walled, non amyloid. The synonymy of *Merulius* (NAKASONE & BURSALL, 1984) is adopted here.

*Phlebia tremellosa* (Schrad.) Burds. & Nakasone

**Basidiomata** resupinate and orbicular or dimidiate-pileate, carnose-tremellose; margin in resupinate and upperside in pileate white and fibrillose-tomentose. **Hymenial surface** whitish-cream to reddish, merulioid with radial ridges. **Hyphal system** monomitic, hyphae with clamps. **Basidiospores** allantoid to suballantoid, smooth, thin-walled, 3.6-4.2  $\times$  1-1.4  $\mu\text{m}$ . **Distribution** cosmopolitan species.

**Studied material:** various specimens growing on fallen decay pine trunk, in a mixed mountain forest of deciduous and pine trees (*Pinus occidentalis*), collected on Dec. 21, 2013 - Jarabacoa (La Vega) DR. *Exsiccatum*: JBSD125858 as *Merulius tremellosus* Schrad. (ANGE131) (**Fig. 14**); *ibidem*, 3 specimens growing on fallen decay pine brunch, collected on Dec. 7, 2016. *Exsiccatum*: JBSD129838 (ANGE796) (**Fig. 14b**).

Family *Phanerochaetaceae* Jülich 1982 (as defined in ANGELINI & LOSI, 2013b)

Genus *Pseudolagarobasidium* J.C. Jang & T. Chen 1985, emended (Nakasone & Lindner, 2012)

**Basidiomata** resupinate, subceraceous, membranaceous or crustaceous. **Hymenial surface** odontoid or raduloid occasionally reticulate to subporoid. **Hyphal system** monomitic or dimitic; generative hyphae with clamps, often finely encrusted; microbinding hyphae aseptate, frequently branched, usually present in the subiculum adjacent to the substrate. **Cystidia** numerous, thin-walled, often finely encrusted, with homogenous contents. **Basidiospores** globose to ellipsoid, hyaline, thin- to slightly thick-walled, smooth, non amyloid.

*Pseudolagarobasidium belizense* Nakasone & D.L. Linder

**Basidiomata** resupinate, adnate, subceraceous, creamish, ochraceous or pale gray, sometimes and especially on drying, cracking down to the wood into small polygons **Hymenophore** odontoid with small, very dense, conical spines, apically penicillate, up to 1.5 mm long. **Margin** not especially differentiated. **Hyphal system** dimitic; generative hyphae with clamps,



thin- to slightly thick-walled, hyaline to subhyaline, 1.8-5.6  $\mu\text{m}$  wide, slightly agglutinated in subiculum; microbinding hyphae aseptate, hyaline, with somewhat thickened walls, frequently branched, up to 0,5  $\mu\text{m}$  wide. **Cystidia** numerous, enclosed or slightly projecting, mostly subfusiform, sometimes sinuous, hyaline, thin-walled, up to  $100 \times 7.2 \mu\text{m}$ . **Basidia** subclavate, 4-sterigmate. **Basidiospores** broadly ellipsoid, smooth, slightly thick-walled, hyaline,  $4\text{-}5.6 \times 3.2\text{-}4.2 \mu\text{m}$ . **Distribution** so far it seems known only from the type locality in Belize (NAKASONE & LINDER, 2012).

**Studied material:** growing on decay stump, in a man-made wood with deciduous trees - Jan. 4, 2016 - Sosua (P.to Plata) DR - Loc. P.to Chiquito. *Exsiccatum*: ANGE574, in the first author's herbarium, pending its deposit in the herbarium of Santo Domingo (JBSD - Dominican Republic) (Fig. 15).

Family *Thelephoraceae* Chevall. 1826

Comprises genera with resupinate to pileate basidiomes and colourless to strongly pigmented, warted to typically echinulate basidiospores with an uneven outline (VIZZINI ET AL., 2016).

Genus *Thelephora* Ehrh. ex Willd. 1787

Has a mainly northern temperate distribution and is poorly studied in tropical ecosystems. It is characterized by diverse forms of basidiomata: clavarioid, cantharelloid, spathulate, pleuropodal pileate to resupinate. **Hymenial surface** smooth to slightly wrinkled and often cyanescent in KOH, abhymenial surface glabrous to strigose. **Hyphal system** monomitic; hyphae fibulate, hyaline to brown, thin- to thick-walled. **Basidiospores** subhyaline to brownish, ornamented and not amyloid.

Identification especially depends on microscopic observations of a rather limited set of characters, such as shape of the basidiomes, ornamentation type and size of the spores and presence/absence of cystidia (VIZZINI ET AL., 2016).

*Thelephora vialis* Schwein.

**Basidiomata** 1.5-5 cm high, single or in small clusters, caespitose or confluent, mostly pleuropodal, rather polymorphous, spathulate to flabelliform or somewhat infundibuliform; flesh subcoriaceous. **Abhymenial surface** radially rugulose-plicate to unevenly papillose, velutinous, greysh, yellowish with greenish tint, dull brown, blackish with age. **Hymenium inferior** smooth to papillose or subrugulose, more or less concolorous with abhymenial surface. **Margin** white or not differentiated, irregularly incised and frequently deeply lobed. **Hyphae** hyaline or subhyaline, thin- to slightly thick-walled, clamped or with a few simple septa, sometimes cyanescent in KOH,  $2.4\text{-}4.8 \mu\text{m}$  wide. **Basidiospores** warted, angular lobate, not echinulate or seldom with rather small and blunt spines on the angles, subhyaline to pale brown,  $5.6\text{-}8 \times 4.8\text{-}6.4 \mu\text{m}$ . **Distribution** very variable species occurring in North America (CORNER, 1968), Mexico (SÁNCHEZ-JÁCOME & GUZMÁN-DÁVALOS, 1997) and (extratropical and) tropical forest (SINGER ET AL., 1983).

**Material studied:** various specimens growing on litter in a mountain forest of pine trees (*Pinus occidentalis*), collected on Dec. 7, 2014 - Jarabacoa (La Vega) DR. *Exsiccatum*: JBSD129133 as *Thelephora terrestris* Ehrh. (ANGE399); *ibidem*, collected on Dec. 7, 2016. *Exsiccatum*: JBSD129842 (ANGE794); *ibidem*, collected on Dec. 8, 2016 - *Exsiccatum*: JBSD129812 (ANGE793) (Fig. 16).



Figura 16. *Thelephora vialis*

Photo by Claudio Angelini

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#### Authors addresses

CLAUDIO ANGELINI

Jardin Botanico Nacional Dr. Rafael Ma. Moscoso. Santo Domingo (Dominican Republic).

Via Cappuccini, 78/8, 33170 Pordenone (Italy).

E-mail: claudio\_angelini@libero.it

CRISTIANO LOSI

Canaregio, 3608, 30121 Venezia (Italy).

E-mail: cristianolosi@libero.it

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