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FUNGUS FLORA OF THE DOMINICAN REPUBLIC. PART V.  
OTHER POLYPOROID, CORTICIOID AND STEREOID FUNGI**Abstract**

We present an annotated list of 14 species of polyporoid, corticioid and stereoid fungi collected in Dominican Republic belonging to the families Aporpiaceae (*Aporpium dimidiatum*), Auriscalpiaceae (*Auriscalpium villipes*), Ganodermataceae (*Amauroderma schomburgkii*), Hydnodontaceae (*Trechispora thelephora*), Hymenochaetaceae (*Coltricia cinnamomea*, *Fuscoporia callimorpha*, *Hymenochaete damicornis*, *Phylloporia frutica*), Meruliaceae (*Coralloderma guzmanii*, *Podoscypha venustula*), Mycenaceae (*Dictyopanus pusillus*, *Favolaschia cinnabarina*, *Filoboletus gracilis*), Schizoporaceae (*Xylodon crustosus*) and Stereaceae (*Gloiothele turpis*). Some descriptions or comments and illustrations are provided.

**Riassunto**

Vengono descritte o commentate ed illustrate 14 specie di funghi poliporoidi, corticoidi e steroidi ritrovati in Repubblica Dominicana appartenenti alle famiglie Aporpiaceae (*Aporpium dimidiatum*), Auriscalpiaceae (*Auriscalpium villipes*), Ganodermataceae (*Amauroderma schomburgkii*), Hydnodontaceae (*Trechispora thelephora*), Hymenochaetaceae (*Coltricia cinnamomea*, *Fuscoporia callimorpha*, *Hymenochaete damicornis*, *Phylloporia frutica*), Meruliaceae (*Coralloderma guzmanii*, *Podoscypha venustula*), Mycenaceae (*Dictyopanus pusillus*, *Favolaschia cinnabarina*, *Filoboletus gracilis*), Schizoporaceae (*Xylodon crustosus*) e Stereaceae (*Gloiothele turpis*).

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

**Introduction**

In this 5<sup>th</sup> part of our study about Fungus flora of the Dominican Republic we present fourteen species, including common and uncommon taxa, but in many cases poorly represented with color images in the mycological literature (i.e. *Auriscalpium villipes*, *Coralloderma guzmanii*, *Trechispora thelephora*). The collecting and research areas in the Dominican Republic have been described in detail in our previous works (ANGELINI & LOSI, 2013a, 2013b).

**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 Red Congo. The macroscopic and microscopic descriptions in the text refer only to the examined material collected in the Dominican Republic.

**Our definitions**

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

**Corticioid and stereoid fungi:** hymenium smooth to hydroid. **Basidiomata** from resupinate to effused-reflected, rarely pileated, sessile or stipitate (JÜLICH, 1989).



Photo 1a. *Amauroderma schomburgkii*

Photo by Claudio Angelini



Photo 1b. *A. schomburgkii*

Photo by Claudio Angelini



Photo 1c. *A. schomburgkii*

Photo by Claudio Angelini



Photo 2. *Aporpium dimidiatum*

Photo by Claudio Angelini

Family *Aporpiaceae* Bondartsev & Bondartseva 1960

**Basidiomata** pileate or resupinate, coriaceous, poroid. **Hyphal structure** usually dymitic, with thin- or thick-walled, sometimes encrusted skeletal hyphae dominating, and thin-walled generative hyphae usually with clamp connections. **Hymenium** cream, pale brown or pinkish, with angular pores varying considerably in size, often with conspicuous hyphal pegs fringing the pore mouths.





Photo 3a. *Coltricia cinnamomea*

Photo by Claudio Angelini



Photo 3b. *Coltricia cinnamomea*

Photo by Claudio Angelini



Photo 3c. *Coltricia cinnamomea*

Photo by Claudio Angelini

**Cystidia** present or absent. **Basidia** 4-spored, varied in shape, becoming cruciately and longitudinally septate, usually dividing off a small basal cell with a clamp connection. **Basidiospores** variably shaped, thin-walled, hyaline, not staining in iodine (CANNON & KIRK, 2007). The family contains 3 genera (*Aporpium*, *Elmerina* and *Protomerulius*) and 18 species (*n.d.r.*).

Family *Auriscalpiaceae* Maas Geest. 1963

**Basidiomata** pileate, dimidiate or effuse, tough, coriaceous, brownish, sessile or stipitate, the stalk sometimes eccentric, usually tomentose or hispid at least initially. **Hyphal system** monomitic or dimitic with pigmented skeletal hyphae, clamp connections usually present. **Hymenium** spinose or lamellar with serrate edges, with well-developed gloeocystidia abundant in the spine. **Basidia** clavate, hyaline, thin-walled, with 2-4 sterigmata. **Basidiospores** ovoid to

ellipsoidal, hyaline, thin-walled, warted or echinulate, sometimes staining in iodine. **Saprobic** or **parasitic** on wood producing white rots. Widespread (CANNON & KIRK, 2007). The family contains 7 genera (*Amylonotus*, *Auriscalpium*, *Dentipratulum*, *Gloiodon*, *Hemicybe*, *Lentinellus*, *Pleurodon*) and 72 species (*n.d.r.*).

Family **Ganodermataceae**: see ANGELINI & LOSI (2013a)

Family **Hydnodontaceae** Jülich 1981

**Basidiomata** annual, rather soft-membranaceous, resupinate to pileate, context homogeneous; hymenial surface smooth to hydroid or poroid. **Hyphal system** usually monomitic with ampullate septa and clamps in most taxa. **Cystidia** present in some species. **Basidia** mostly small, short-cylindrical to suburniform, **context** homogeneous, 4-sterigmata. **Basidiospores** normally ornamented, not amyloid, dextrinoid or cyanophilous (JÜLICH, 1981). The family contains 14 Genera (*Boidinella*, *Brevicellicium*, *Dextrinocystis*, *Dextrinodontia*, *Fibricellum*, *Hydnodon*, *Litschauerella*, *Luellia*, *Sistotremastrum*, *Sistotremella*, *Sphaerobasidium*, *Subulicystidium*, *Trechispora*, *Tubulicium*) and 113 species (*n.d.r.*).

Family **Hymenochaetaceae**: see ANGELINI & LOSI (2013a)

Family **Meruliaceae**: see ANGELINI & LOSI (2013b)

Family **Mycenaceae** Roze 1876

**Basidiomata** pileate and stipitate, often small and delicate, usually with a central stipe, rarely polyporoid, sometimes brightly coloured; cap convex to campanulate, often appearing pleated, usually thin and pellucid, fleshy or gelatinous, smooth, veil absent. **Hyphal system** monomitic, often staining brown in iodine, clamp connections usually present, **cystidia** often present. **Hymenium** usually distinctly lamellate, the gills free or decurrent, or in an angular cupulate pore-like arrangement. **Basidia** cylindrical to clavate, usually with 4 sterigmata. **Basidiospores** ellipsoidal to cylindric or clavate, hyaline, thin-walled, smooth, usually not staining in iodine (CANNON & KIRK, 2007). The family contains 8 Genera (*Dictyopanus*, *Favolaschia*, *Mycena*, *Mycenoporella*, *Prunulus*, *Panellus*, *Poromyцена*, and *Resinomycena*). *Dictyopanus* has since been wrapped into *Panellus*, and both *Poromyцена* and *Prunulus* into *Mycena*) (WIKIPEDIA.ORG/WIKI/MYCENACEAE) and over 2000 species of which about 1800 belonging to the genus *Mycena* (*n.d.r.*).

Family **Schizoporaceae**: see ANGELINI & LOSI (2015)

Family **Stearaceae**: see ANGELINI & LOSI (2013b)

## POLYPOROID FUNGI

Genus **Amauroderma** Murrill 1905

(1) **Basidiomata** annual, solitary, usually terrestrial; some species epixylous, and attached to the substratum by a smooth or rough central stipe. **Pileus** orbicular, sometimes convex due to presence of an umbo on the abhymenial surface, and dull coloured. **Hymenial tubes** cylindrical but may be compressed or pseudolamellate. **Hyphal system** dimitic. **Basidia** bearing 4 spores on short sterigmata. **Spores** globose to ovoid, ganodermous (*sensu* CUNNINGHAM, 1965), smooth, or faintly echinulate, and coloured (OTIENO, 1968). (2) **Basidiomata** large, epixylous, stipitate, the stipe often much elongated; surface smooth, encrusted, not varnished, context brown, pinky;



tubes cylindrical, concolorous, the mouths usually light-colored at first; spores ovoid or globose, brown. The generic name here employed was used by Patouillard (Tax. Hymen. 105. 1900) for a subdivision of the genus *Ganoderma*, referring to the dark, namely, not shining, surface of certain species. Members of the genus within our limits are confined to the tropics (MURRILL, 1905).

### *Amauroderma schomburgkii* (Mont. & Berk) Torrend

**Basidiomata** solitary, centrally or laterally stipitate; **pileus** infundibuliform to slightly depressed, circular, up to 10 cm in diam., upper surface glabrous with concentric zones, dark reddish, chestnut, ochre, yellowish, lavender to violet, pore surface pale smoke grey to vinaceous grey, pores angular, 4-5 per mm. **Context** homogeneous, tough-fibrous, golden brown, up to 7 mm thick. **Stipe** tubular, mostly pale ochraceous to yellowish, up to 8 cm long and 5 mm thick. **Hyphal system** dimitic, **generative hyphae** with clamps, **skeletal hyphae** arboriform and aciculiform. **Basidia** not seen, **basidioles** vesiculate clavate,  $35-40 \times 16-20 \mu\text{m}$ . **Basidiospores** globose to subglobose or broadly ovoid,  $8.6-12 \mu\text{m}$  in diam. This is a quite variable taxon (FURTADO, 1981) and seems to be the most common *Amauroderma* in the neotropics (RYVARDEN, 2004).

**Material studied:** 2 specimens growing on litter in a wood with conifers (*Pinus occidentalis* Sw.), collected on Dec. 6, 2014 - Jarabacoa (La Vega) - Rep. Dom. *Exsiccatum*: JBSD127131 (**Photo 1c**); *ibidem*, 5 specimens collected on Jan. 10, 2016. *Exsiccata* ANGE540 (**Photo 1a**) and ANGE558 (**Photo 1b**) in the first author's herbarium, pending its deposit in the herbarium of Santo Domingo (JBSD - Rep. Dom.).

### Genus *Aporpium* Singer 1944

**Basidiomata** resupinate (or sessile, *n.d.r.*), annual; **hyphal system** dimitic; **generative hyphae** with clamps; **skeletal hyphae** with a wide lumen and dominant in the basidiocarp; **basidia** longitudinally septate and 4-celled; **basidiospores** hyaline, cylindrical to allantoid and not staining in iodine; causes a white rot in dead hardwoods (RYVARDEN & MELO, 2014).

### *Aporpium dimidiatum* A. David

**Basidiomata** pileate, effuse-reflexed or sessile, 0.5-1 cm wide, 2-4 mm thick, seldom solitary more often imbricate or fused laterally arising from a common effused base; upper surface low warted, glabrous, azonate to slightly zonate-sulcate, yellowish ochraceous, sometimes with a reddish tint at the base, yellowish cream to whitish towards the margin. **Pore** surface whitish to cream, pores round to angular, 6-10 per mm. **Hyphal system** dimitic, **generative hyphae** with clamps, thin-walled and often finely encrusted. **Basidia** cruciate septate with 4 sterigmata. **Basidiospores** ellipsoid to subcylindrical, thin-walled, hyaline,  $4.5-4.8 \times 2.4-2.6 \mu\text{m}$ . Tropical species (SETLIFF & RYVARDEN, 1982).

**Material studied:** growing on fallen decay hardwood trunk, collected on Dec. 22, 2012 - Sosua (P.to Plata) - Loc. Playa - Rep. Dom. *Exsiccatum*: 4601 (**Photo 2**) in the second author's herbarium.

### Genus *Coltricia* Gray 1821

**Basidiomata** annual, terrestrial or humus-loving, simple, small to medium, usually circular and central-stemmed; surface anoderm, brown, zonate or azonate: **context** brown, coriaceous to spongy; **hymenium** concolorous, covered of yellowish or whitish powder when young, **tubes** thin-walled, at lenth fimbriate; **spores** smooth, rounded, ferruginous, **cystidia** rarely present (MURRILL, 1905).



Photo 4a. *Dictyopanus pusillus*

Photo by Claudio Angelini



Photo 4b. *D. pusillus*

Photo by Claudio Angelini



Photo 4c. *D. pusillus*

Photo by Rosa A. Rodríguez Peña



Photo 5. *Favolaschia cinnabarina*

Photo by Claudio Angelini

### *Coltricia cinnamomea* (Jacq.) Murrill

**Basidiomata** stipitate, **pileus** more or less circular, mostly infundibuliform, with shiny, multizonate and reddish brown upper surface; **pores** angular, 1-4 per mm. **Hyphal system** monomitic with simple septate hyphae. **Basidiospores** irregularly ellipsoid, thick-walled, light cinnamon,  $7.2-9.6 \times 4.2-5.8 \mu\text{m}$ . Cosmopolitan species.

**Material studied:** 3 specimens growing on litter in a wood with conifers (*Pinus occidentalis*),





**Photo 6a.** *Filoboletus gracilis*

Photo by Claudio Angelini



**Photo 6b.** *F. gracilis*

Photo by Claudio Angelini



**Photo 6c.** *F. gracilis*

Photo by Claudio Angelini



**Photo 7.** *Fuscoporia callimorpha*

Photo by Claudio Angelini

collected on Apr. 26, 2014 - Jarabacoa (La Vega) - Rep. Dom. *Exsiccatum*: JBSD125835 (**Photo 3b**); *ibidem*, 7 specimens collected on Dec. 7, 2014. *Exsiccatum* JBSD127125 (**Photo 3a**); *ibidem*, 6 specimens collected on Jan. 10, 2016. *Exsiccatum*: ANGE541 (**Photo 3c**), in the first author's herbarium, pending its deposit in the herbarium of Santo Domingo (JBSD - Rep. Dom.).

Genus *Dictyopanus* Pat. 1900

**Basidiomata** small, pleurotoid. **Pileus** convex, reniform, firm fleshy. **Hymenophore**

tubulate or faveolate, with small shallow tubes. **Stipe** short, lateral, solid. **Context** of fleshy interwoven hyphae with clamp-connections. **Spore-print** white. **Spores** small, ovoid to ellipsoid, hyaline, amyloid, thin-walled, smooth. **Hymenophore** edge sterile, with crowded, encrusted cheilocystidia. **Pleurocystidia** absent. **Hymenophoral trama** regular, gelatinized or not. **Pileipellis** an epicutis of strongly diverticulate hyphae. Lignicolous. Tropical (PEGLER, 1983).

*Dictyopanus pusillus* (Pers. ex Lév.) Singer

**Basidiomata** pileate, laterally stipitate; **pileus** up to 12 mm wide, reniform, slightly convex, white to pale cream, glabrous or finely pubescent, azonate, smooth to slightly wrinkled; **hymenophore** poroid concolorous with the pileus, **pores** angular, radially elongate and aligned, 3-5 per mm; margin at first slightly incurved; stipe concolorous with the pileus, equal, up to 4 mm long and 2 mm thick; **context** thin, whitish. **Basidiospores** ellipsoid, thin-walled, hyaline, amyloid,  $3.3-4.2 \times 2.4-3.6 \mu\text{m}$ . Common tropical and subtropical species (SINGER, 1945).

**Material studied:** various specimens growing on fallen decay hardwood branch, collected on Oct. 28, 2011 - Reserva Científica La Salcedoa - "La Jibara" - Tenares (Salcedo) - Rep. Dom. Leg. Rosa A. Rodríguez Peña. *Exsiccatum*: JBSD127395 (**Photo 4c**); various specimens growing on fallen decay hardwood trunk, collected on Dec. 28, 2012 - Sosua (P.to Plata) - Loc. Playa - Rep. Dom. *Exsiccatum*: JBSD124870 (**Photo 4a, 4b**).

Genus *Favolaschia* (Pat.) Pat. 1892

**Basidiomata** often very small, brightly pigmented, frequently red or yellow, or unpigmented, stipitate or sometimes sessile. **Pileus** orbicular to reniform, convex, laterally or dorsally attached; surface translucent, tessellate. **Hymenophore** poroid. **Stipe** excentric to lateral or absent, short or well developed, solid, concolorous with the pileus, arising from a mycelial base. **Veil** absent. **Context** thin, hyaline, strongly gelatinized, inamyloid; hyphae with clamp-connections. **Spore-print** white to pale buff. **Spores** large, subglobose to broadly cylindric, hyaline, amyloid, thin-walled, smooth. **Hymenophore edge** sterile. **Gloeocystidia**, **acanthohyphidia** and **dichohyphidia** often present. **Hymenophoral trama** more or less regular, hyaline, subgelatinized. **Pileal surface** differentiated or not, often with dermatocystidia. Lignicolous. Pantropical (PEGLER, 1977).

*Favolaschia cinnabarina* (Berk. & M.A. Curtis) Kuntze

**Basidiomata** pileate, up to 5 mm broad, sessile or dorsally attached, sometimes with a poorly developed lateral stipe. **Pileus** orbicular to conchoid, slightly pustulate, glabrous, golden yellow, orange or reddish orange; margin mostly crenulate and involute. **Hymenophore** poroid concolorous with the upper surface, pores angular, 1-3 per mm. **Hyphal system** monomitic; hyphae immersed in a more or less gelatinous trama, hyaline, thin-walled, clamps difficult to visualize. **Acanthocystidia** optically empty and **gloeocystidia** mostly filled with oily contents both present on pore edges and pileipellis. **Basidiospores** broadly ellipsoid, subglobose or ovoid, thin-walled, smooth, with prominent apiculus, hyaline, amyloid,  $8-10.4(11.2) \times 5-7.2 \mu\text{m}$ . Common neotropical species (SINGER, 1974).

**Material studied:** various specimens growing on fallen branch in a man-made wood with deciduous trees, collected on Dec. 5, 2013 - Sosua (P.to Plata) - Loc. Puerto Chiquito -



Rep. Dom. *Exsiccatum*: ANGE268 (**Photo 5**) in the first author's herbarium, pending its deposit in the herbarium of Santo Domingo (JBSD - Rep. Dom.).

Genus *Filoboletus* Henn. 1900

**Basidiomata** collybioid or mycenoid, whitish. **Pileus** convex, smooth. **Hymenophore** tabulate, fairly shallow; **pores** small, without any radial arrangement. **Stipe** central, well developed, pruinose, often with **caulocystidia**. **Context** of thick-walled hyphae, often gelatinized, inamyloid; **clamp-connections** present. **Spores** short ellipsoid to ellipsoid, smooth, hyaline, thin-walled, amyloid. **Hymenophore-edge** fertile. **Cheilocystidia** absent, occasionally differentiated. **Pleurocystidia** absent. **Hymenophoral trama** regular. **Pileipellis** an epicutis of narrow, repent, filamentous hyphae. Pantropical. Lignicolous or humicolous (PEGLER, 1983).

*Filoboletus gracilis* (Klotzsch ex Berk.) Singer

**Basidiomata** solitary or in caespitose clusters, pileate and centrally stipitate. **Pileus** circular, up to 5 cm diam., mostly slightly convex and umbonate, white, pinkish or light cinnamon brown, hygrophanous, smooth, rugose or faintly wrinkled; margin regular to incised-lobed; hymenophore poroid, white, with minute pores; **context** thin, whitish. **Stipe** slender, smooth, hollow, more or less equal, white to brown. **Basidiospores** broadly ovoid, amyloid,  $5.8-8 \times 5.6-6.4 \mu\text{m}$ . Fairly common tropical and subtropical species (PEGLER, 1983).

**Material studied:** 3 specimens growing on fallen trunk in a rain forest with deciduous trees, collected on Dec. 24, 2010 - Rio S. Juan (María Trinidad Sánchez) - Rep. Dom. *Exsiccatum*: JBSD122295 (**Photo 6c**); various specimens growing on fallen hardwood trunk, collected on Dec. 1, 2011 - Reserva Científica La Salcedoa - "La Jibara" - Tenares (Salcedo) - Rep. Dom. *Exsiccatum*: ANGE8 (**Photo 6a, 6b**) in the first author's herbarium, pending its deposit in the herbarium of Santo Domingo (JBSD - Rep. Dom.).

Genus *Fuscoporia* Murrill 1907

**Basidiomata** resupinate to pileate, context homogeneous, pores small. **Generative hyphae** usually with encrustations which dissolve in KOH. **Hymenial setae** present in most species. **Basidiospores** cylindric to subglobose, smooth, hyaline and thin-walled (DAI, 2010).

*Fuscoporia callimorpha* (Lév.) Groposo, Log.-Leite & Góes-Neto

**Basidiomata** pileate, sessile, woody, up to 8 cm long and 4 cm from margin to attachment and 2 cm thick; upper surface uneven, slightly tomentose to glabrous, azonate or sulcate-zonate, yellow, yellowish brown, lilac to violet. **Pore** surface livid vinaceous with purplish tint, pores round to angular, 6-10 per mm. **Context** homogeneous, tough-fibrous, yellowish brown, up to 1.5 cm thick. **Hyphal system** dimitic with simple septate generative hyphae. **Hymenial setae** subulate, up to 32  $\mu\text{m}$  long. **Basidiospores** ellipsoid to subcylindrical, thin-walled, hyaline,  $3.2-4 \times 2.2-2.4 \mu\text{m}$ . Widespread in Central America (RYVARDEN & JOHANSEN, 1980) and very common in southern Florida (VLASÁK ET AL., 2011), however pantropical (LOGUERCIO-LEITE & WRIGHT, 1995).

**Material studied:** various specimens growing on fallen trunk in a wood with conifers (*Pinus occidentalis*), collected on Dec. 7, 2014 - Jarabacoa (La Vega) - Rep. Dom. *Exsiccatum*: JBSD127126 (**Photo 7**).



Photo 8a. *Phylloporia frutica*

Photo by Claudio Angelini



Photo 8b. *Phylloporia frutica*

Photo by Claudio Angelini



Photo 8c. *Phylloporia frutica*

Photo by Claudio Angelini



Photo 9. *Auriscalpium villipes*. Bar = 0,6cm. Photo by Claudio Angelini

### Genus *Phylloporia* Murrill 1904

**Basidiomata** annual to perennial, resupinate to pileate; **pileus** cinnamon to dark brown, tomentum soft and thick over a distinct thin dark zone, pileus mostly with narrow to wide, sulcate concentric zone; **pore surface** brown, **pores** entire, angular to circular; **tubes** concolorous with pore surface; **context** light to dark brown and thin; **basidiocarp tissue** black with KOH; **hyphal system** monomitic; **generative hyphae** to light rusty brown and





Photo 10a. *Coralloderma guzmanii* Photo by Claudio Angelini



Photo 10b. *Coralloderma guzmanii* Photo by Claudio Angelini



Photo 11a. *Gliothele turpis*

Photo by Claudio Angelini



Photo 11b. *Gliothele turpis*

Photo by Claudio Angelini



Photo 11c. *Gliothele turpis*

Photo by Claudio Angelini

with simple septa; **setae** none; **spores** ellipsoid, less than 5 µm in greatest dimension, slightly thick walled and light yellowish at maturity, always abundantly present; on hardwoods, almost exclusively on living trees and bushes, commonly on remarkably thin dead branches on living trees. Mainly tropical genus (RYVARDEN & MELO, 2014). A striking character for all species in the genus is their parasitism and when seen in nature, the basidiocarps are often striking sitting on living branches and stems of trees. An adaptation to this drought sensitive niche is the persistent thick cottony tomentum seen in all pileate species. Its ability to store considerably amounts of water is easily seen in the field when a basidiocarp is squeezed after a heavy tropical downpour. It may be that the soft tomentum is some sort of protection or is able to absorb and retain moisture (WAGNER, 2002). On deciduous wood, with a white rot, on leaves or often remarkably thin stems or branches on living trees and bushes, rarely on dead wood. Mainly tropical genus. Most remarkable in *Phylloporia* is its ability to grow on living bushes and trees, often on thin branches. It seems to be adapted to invade such substrata and resist the drought often experienced in such a habitat.

### *Phylloporia frutica* (Berk. & M.A. Curtis) Ryvarden

**Basidiomata** pileate, solitary, sessile, 2.5-3 cm in diameter; upper surface tomentose, azonate, yellowish brown, margin bright yellow. **Pore surface** more or less concolorous with the pileus, **pores** angular, 3-5 per mm, **tubes** 1 mm deep. **Context** faintly zonate, mustard yellow to cinnamon, somewhat duplex, paler and denser in the lower part, up to 1.5 cm thick. **Hyphal system** monomitic with simple septate hyphae. **Basidiospores** ellipsoid, slightly thick-walled,  $3.2-4.4 \times 2.4-2.8$  µm. Widespread in the tropical zone (GILBERTSON & RYVARDEN, 1987).

**Material studied:** 2 specimens growing in a root of a deciduous living tree, collected on Dec. 29, 2014 - Botanical Garden of Santo Domingo - Dominican Republic. *Exsiccatum*: JBSD127148 (**Photo 8a, 8b, 8c**).

## CORTICIOID AND STEREOID FUNGI

### Genus *Auriscalpium* Gray 1821

**Basidiomata** laterally to centrally stipitate, hydroid, upper surface hirsute to glabrous, pale to dark brown, **hymenium** developing on dark brown spines, **hyphal system** mono- or dimitic, **generative hyphae** with clamp-connections, **skeletal hyphae** present heither as such or as intercalary segments between clamps, **gloeocystidia** present, **basidiospores** ornamented, hyaline to pale brown and amyloid, cosmopolitan genus (RYVARDEN, 2001).

### *Auriscalpium villipes* (Lloyd) Snell & E.A. Dick

**Basidiomata** annual, pileate, single, laterally stipitate, 2-3 cm high and 1.5-2 cm wide. **Pileus** spatulate to ligulate, convex, thin, somewhat diaphanous; upperside glabrous, azonate, white to light yellowish, brownish towards the margin, **hymenial side** white to light yellow or cream with crowded spines up to 0.3 mm long. **Stipe** straight, cylindrical, up to 20 mm long and 5 mm thick, velutinous, whitish to yellowish, substrigose and brownish at the base. **Hyphal system** dimitic with fibulate generative hyphae, **skeletals** rare in the **context** (MAAS GEESTERANUS, 1971) and absent in the spines (STALPERS, 1996); **gloeoplerous hyphae** present. **Basidiospores** broadly ellipsoid to subglobose, finely verrucose, amyloid, 4-4.5 µm in diameter. Neotropical species (PETERSEN & CIFUENTES, 1994).



**Material studied:** 2 specimens growing on litter in a man-made wood with deciduous trees, collected on Dec. 22, 2014 - Sosua (P.to Plata) - Loc. Puerto Chiquito - Rep. Dom. *Exsiccatum*: ANGE514 (**Photo 9**) in the first author's herbarium, pending its deposit in the herbarium of Santo Domingo (JBSD - Rep. Dom.).

Genus *Coralloderma* D.A. Reid 1965

**Basidiomata** pileate and stipitate, coriaceous, spathulate, flabellate or infundibuliform. **Hymenial surface** smooth. **Hyphal system** monomitic, **hyphae** clamped or simple-septate; cuticular zone formed of erect coralloid hyphae present. **Cystidia** none. **Basidia** 2-4 sterigmata. **Basidiospores** thin-walled, hyaline, inamyloid, ellipsoid to ovate (REID, 1965).

### *Coralloderma guzmanii* Welden

**Basidiomata** annual, solitary, more or less infundibuliform, fleshy-coriaceous, up to 2.5 cm high. **Abhymenial surface** velutinate, radially wrinkled, zonate, blackish to dirty white towards the margin. **Hymenial surface** somewhat wrinkled, black to dark blackish brown towards the base, dirty white elsewhere. Margin thick, white, sinuate or slightly lobate. **Hyphal system** monomitic; **hyphae** distinct to densely compacted or agglutinated, hyaline to purple or blackish brown owing to an encrusting pigment, simple septate, thin- to slightly thick-walled, 2-4  $\mu\text{m}$  wide. **Cystidia** none. Numerous projecting coralloid hyphae present in the **hymenium**. **Basidia** densely compacted and agglutinated, narrowly clavate, with 2 sterigmata. **Basidiospores** broadly ellipsoid, subglobose or ovate, thin-walled, smooth, hyaline, with prominent apiculus, inamyloid, 8-9.6(-11)  $\times$  (-5.6) 6.4-7(-7.4)  $\mu\text{m}$ . In the type the basidiospores are slightly smaller and the hymenium is amphigenous (WELDEN, 1993). Further collections will test if the hymenium on both side of the basidiocarp of the type collection is only an anomaly (WELDEN, 2010). The closest relative of *C. guzmanii* is *C. acroleucum* (Pat.) Reid var. *acroleucum*. They differ above all in the size of the spores which are larger in the latter species: 10-12  $\times$  6-8(-9)  $\mu\text{m}$  in the type specimen and 13  $\times$  5-7.5  $\mu\text{m}$  in a second collection (REID, 1965).

**Material studied:** 2 specimens growing on litter in a man-made wood with deciduous trees, collected on Dec. 1, 2012 - Sosua (P.to Plata) - Loc. Puerto Chiquito - Rep. Dom. *Exsiccatum*: ANGE4 (**Photo 10a, 10b**) in the first author's herbarium, pending its deposit in the herbarium of Santo Domingo (JBSD - Rep. Dom.).

Genus *Gloiothele* Bres. 1920

**Basidiomata** resupinate, effuse, membranaceous to ceraceous. **Hyphal system** monomitic; **hyphae** simple-septate. **Subiculum** usually fairly thin. **Subhymenium** usually thickening. **Gloeocystidia** numerous. **Basidia** irregularly clavate or narrowly clavate, in some species somewhat utriform, 4-sterigmate. **Clamp-connections** absent. **Basidiospores** ellipsoid to globose, smooth, bearing a distinct apiculus, weakly amyloid. Nuclear behavior subnormal (WU, 1996).

### *Gloiothele turpis* (G.W. Freeman) Hjortstam

**Basidiomata** effused, membranous to ceraceous, smooth to tuberculate, bearing dense, semiglobose warts, bright yellow to pale orange, whitish to ochraceous; margin not especially differentiated or white fibrillose. **Hyphal system** monomitic, **hyphae** simple septate. Some **hyphidia** observed. **Gloeocystidia** (= pseudocystidia) numerous, enclosed, sinuose, tubular or somewhat clavate, thin-walled to slightly thick-walled towards the basal part, with granular oily contents, up to 200  $\mu\text{m}$  long and 18  $\mu\text{m}$  wide; reactions to sulfobenzaldehyde variable (GINNS & FREEMAN, 1994).



Photo 12a. *Hymenochaete damicornis*

Photo by Claudio Angelini



Photo 12b. *H. damicornis*

Photo by Claudio Angelini



Photo 12c. *H. damicornis*

Photo by Claudio Angelini



Photo 13. *Podoscypha venustula*

Photo by Claudio Angelini

**Basidia** subclavate basally tapering, up to 45  $\mu\text{m}$  long and 12  $\mu\text{m}$  wide, 4 sterigmata. **Basidiospores** broadly ellipsoid to subglobose, smooth, thin- to slightly thick-walled, with oil-bodies, amyloid,  $6.2\text{--}8 \times 5\text{--}6.4 \mu\text{m}$ . In the Neotropics reported from Florida (type locality, BURDSALL *ET AL.*, 1981) and certainty (HJORTSTAM & RYVARDEN, 2007) from Puerto Rico (HJORTSTAM *ET AL.*, 2005) and French Guiana (BOIDIN *ET AL.*, 1997).

**Material studied:** growing on fallen decay hardwood trunk, collected on Dec. 28, 2012 -





Photo 14a. *Trechispora thelephora*

Photo by Claudio Angelini



Photo 14b. *Trechispora thelephora*

Photo by Claudio Angelini



Photo 15a. *Xylodon crustosus*

Photo by Claudio Angelini



Photo 15b. *Xylodon crustosus*

Photo by Claudio Angelini

Sosua (P.to Plata) - Loc. Playa - Rep. Dom. *Exsiccatum*: JBSD124854 (**Photo 11a, 11b**); growing on fallen decay hardwood branch, collected on Dec. 21, 2014 - Sosua (P.to Plata) - Rep. Dom. *Exsiccatum*: ANGE441 (**Photo 11c**), in the first author's herbarium, pending its deposit in the herbarium of Santo Domingo (JBSD - Rep. Dom.).

Genus *Hymenochaete* Lév. 1846

**Basidiomata** in many cases perennial, leathery or almost woody, effused (resupinate), with **Stereum**-like thin **pilei**, in some rare cases with a primitive **stipe**; brown, but this colour turns almost black when treated with alkali (xanthochroic reaction), with more or less smooth hymenophore.

**Hymenium** with numerous very thick-walled dark brown cystidia-like **setae** (20-200 µm long); **clamp-connections** absent in all hyphae. **Basidiospores** hyaline, thin-walled and comparatively small. All species cause white fibrous or pocket rot of dead wood (PARMASTO, 2014).

### *Hymenochaete damicornis* (Link) Lév.

**Basidiomata** pileate with wide variation in the dimensions and in the number of pilei which are born on the central stem, single or branched in the upper part. **Pileus** flabelliform, spathulate or often fused in a compound basidiome, finely tomentose to glabrous, reddish brown, reddish golden, yellowish, cinnamon, dark brown or pale ochre, faintly zonate or with sharply concentric zones; **hymenial surface** smooth, concolorous with the pileus or greyish; **stipe** cylindric, more or less concolorous with the pileus. **Setae** on upper surface numerous, up to 80 × 12 µm. **Basidiospores** broadly ellipsoid, subglobose or ovoid, hyaline, with one large oil-drop or several oil-bodies, 5-7.4 × 4.2-5.8 µm. The only other stipitate species of *Hymenochaete* is *H. reniformis* (Fr.) Lév. (RYVARDEN, 1985) with smaller (20-35 × 12-19 µm) ovoid setae on pileus surface (LÉGER, 1998). Neotropical species.

**Material studied:** 2 specimens growing on litter in a wood with conifers (*Pinus occidentalis*), collected on Dec. 6, 2014 - Jarabacoa (La Vega) - Rep. Dom. *Exsiccatum*: JBSD127138 (**Photo 12a, 12b**); *ibidem*, 2 specimens collected on Dec. 7, 2014. *Exsiccatum*: ANGE404 (**Photo 12c**) in the first author's herbarium, pending its deposit in the herbarium of Santo Domingo (JBSD - Rep. Dom.).

### Genus *Podoscypha* Pat. 1900

Mainly characterized by stipitate and flabellate **basidiomata**, dimitic **hyphal system** (with **generative hyphae** with clamp-connections - KOUT, 2013) and presence of **gloeocystidia**. The genus is wide spread in distribution especially in tropical regions (RANADIVE, 2014).

### *Podoscypha venustula* (Speg.) D.A. Reid

**Basidiomata** pileate and stipitate, gregarious, sometimes laterally fused. **Pileus** membranaceous, delicate, flabelliform, spathulate or pseudoinfundibuliform, somewhat wavy, radiately rugose or faintly wrinkled, azonate, at first white then with pinkish or reddish brown tints, when dried ochre and faintly zonate towards the stipe; margin incised or lobed. **Stipe** slender, more or less developed, light brown to reddish brown. **Hyphal system** dimitic. **Pileocystidia** and **caulocystidia** subcylindrical with thickened walls; **gloeocystidia** frequent, thin-walled, enclosed or slightly projecting. **Basidiospores** ellipsoid to broadly ellipsoid or ovoid, thin- to slightly thick-walled, hyaline, usually uniguttulate, nonamyloid, 4-5.8 × 3.2-4 µm. Distribution: Brazil, Ecuador, Panama, Paraguay and Venezuela (RYVARDEN, 2010); in Lesser Antilles reported in Guadeloupe and Martinique (COURTECUISSE & WELTI, 2013).

**Material studied:** various specimens growing on a fallen hardwood decay branch, collected on Nov. 24, 2014, on the natural side of Botanical Garden of Santo Domingo - Dominican Republic. *Exsiccatum*: JBSD127136 (**Photo 13**).

### Genus *Trechispora* P. Karst. 1890.

**Basidiomata** resupinate to pileate, thin to thick, smooth to odontoid or poroid. **Hyphal system** monomitic or dimitic; **generative hyphae** clamped, ampullate septa common. **Cystidia** usually absent. **Basidia** short-cylindrical, 4-sterigmata. **Basidiospores** smooth or ornamented,



usually subglobose to elliptical, neither dextrinoid, amyloid nor cyanophilous or with a slight cyanophilous reaction (LARSSON, 1992).

### *Trechispora thelephora* (Lév.) Ryvarden

**Basidiomata** conrescent to form compound multipileate growths; individual pilei up to 6 cm diam., flat to depressed or slightly convex, glabrous, pitted, roughened or wrinkled, azonate, whitish to cream with yellowish and pinkish tints; margin sinuate to lobed or sometimes irregularly incised, white. **Stipe** short to indistinct, glabrous, white to pink. **Hymenophore** hydroid with aculei less than 1 mm long, decurrent, pink. **Context** homogeneous white. **Hyphal system** monomitic; **hyphae** 2.4-9  $\mu\text{m}$  wide, with clamps, often with somewhat ampullaceous swellings, hyaline, thin- to slightly thick-walled. **Cystidia** none. **Basidia** subclavate, 17-20  $\times$  5.6-7.2  $\mu\text{m}$ , 4 sterigmata. **Basidiospores** broadly ellipsoid to subglobose, finely echinulate, hyaline to very pale yellowish, spore print coral pink (COKER & BEERS, 1951), inamyloid, 4.2-5.6  $\times$  3.2-4.2  $\mu\text{m}$ . The phylogenetic analysis support the placing the species within *Trechispora* a usually resupinate genus (STEVEN & BRADLEY, 2010). *Trechispora gillesii* (Maas Geest.) Liberta, known from Africa, could be pileate-stipitate (LIBERTA, 1973) and macro- microscopically the differences seem very small against *T. thelephora* (LARSSON, 1992, as hypogeton). Widespread in the neotropical area (RYVARDEN, 2002).

**Material studied:** various specimens with growing a single fruiting, on litter in a park with deciduous trees, collected on Dec. 11, 2015 - Botanical Garden of Santo Domingo - Dominican Republic. *Exsiccatum*: ANGE536 (**Photo 14a, 14b**), in the first author's herbarium, pending its deposit in the herbarium of Santo Domingo (JBSD - Rep. Dom.).

### Genus *Xylodon* (Pers.) Gray 1821

**Basidiomes** resupinate, **hymenial surface** smooth to hydroid or poroid. **Hyphal system** monomitic, **hyphae** with clamps or rarely simple septate, usually distinct and thick-walled. **Cystidia** conical to mostly capitate. **Basidia** mainly suburniform, 4-sterigmata. **Basidiospores** smooth, mostly thin-walled, cylindric, allantoid to ellipsoid or subglobose, inamyloid, indextrinoid, sometimes slightly cyanophilous (HJORTSTAM & RYVARDEN, 2007).

### *Xylodon crustosus* (Pers.) Chevall. [as 'crustosum']

**Basidiomata** resupinate, adnate, subceraceous, odontoid with small conical aculei, cracked into small polygons and crustaceous when dried, whitish to pale ochraceous; margin not especially differentiated or white and pruinose. **Hyphal system** monomitic, **hyphae** with clamps. Numerous sinuous, subulate, cystidiols present. **Basidiospores** subcylindrical to narrowly ellipsoid, smooth, thin-walled, 5.2-6.4  $\times$  2.6-3.2  $\mu\text{m}$ . Cosmopolitan species.

**Material studied:** fructifying on a hardwood standing decay trunk, collected on Dec. 29, 2014 in the natural side of Botanical Garden of Santo Domingo - Dominican Republic. *Exsiccatum*: JBSD127146 as *Hyphodontia crustosa* (**Photo 15a, 15b**).

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