

## New records and checklist of corticioid Basidiomycota from Uruguay

SEBASTIÁN MARTÍNEZ<sup>1</sup> & KAREN K. NAKASONE<sup>2</sup>

<sup>1</sup>sebamart@fing.edu.uy

Laboratorio de Micología Facultad de Ingeniería/ Ciencias, J. Herrera y Reissig 565  
C. P. 11300 Montevideo, Uruguay

<sup>2</sup>Center for Forest Mycology Research, Northern Research Station, US Forest  
Service, One Gifford Pinchot Drive, Madison, Wisconsin, USA 53726–2398

**Abstract** — Twenty eight corticioid basidiomycete species are reported from Uruguay for the first time. An annotated checklist with 110 recorded species of corticioid Basidiomycota from Uruguay is presented based on these new records and an intensive search of literature records. These species are distributed in 49 genera and 10 orders. The order *Polyporales* is represented with the most species (40) and the genus *Phanerochaete* has the most species (11). *Hjortstamia fuscomarginata*, *Hyphoderma rimosum*, *Phlebia fascicularia* and *P. subserialis* are recorded for the first time from South America.

**Key words** — biodiversity, *Homobasidiomycetes*, taxonomy, wood-rot

### Introduction

Uruguay is located in southeast South America between 30° and 35°S and 53.5° and 58.5°W, covering around 178,000 km<sup>2</sup>. The mean temperature is 17.5°C varying from 16°C in the southeastern Atlantic coast to 19°C in the northwest. The mean annual precipitation is 1300 mm, ranging from 1100 mm in southern Uruguay to 1600 mm in the north (Dirección Nacional de Meteorología 2009). The climate in Uruguay is rainy, without a dry season, but with a wide annual variation in precipitation. The Uruguayan climate is temperate and wet (type “C”) with precipitation throughout the year (type “f”); in the hottest month the temperature is over 22°C (type “a”) (Dirección Nacional de Meteorología 2009). These characteristics correspond with the Cfa climate type of the Köppen-Geiger classification (Peel et al. 2007).

In Uruguay, 7% is forested and 80% is grasslands (Carrere 2001). About 750,000 ha are covered by native forests and an additional 670,000 ha consist of nonnative forests of mostly *Eucalyptus* and *Pinus* species for the pulp and sawmill industries (Anon. 2005). The native vascular flora of Uruguay consists of approximately 2500 to 2750 species (Marchesi 2005, Alonso-Paz & Bassagoda 2002) including 302 indigenous tree and shrub species (Brussa & Grela 2007). According to Alonso-Paz & Bassagoda (2002), the Uruguayan vascular flora is composed of 150 families and 859 genera, which is high if measured by unit area. The families with the highest number of

species are *Asteraceae*, *Poaceae*, *Fabaceae*, *Cyperaceae* and *Euphorbiaceae* (Marchesi 2005, Alonso-Paz & Bassagoda 2002). This diversity of woody native and introduced plant species suggest a corresponding high level of fungal diversity.

The corticioid Basidiomycetes of Uruguay are poorly known. Felippone (1928) was the first to record corticioid species from Uruguay. He recorded four species of *Thelephora* and eight in *Stereum*. Herter (1933) reported six species of *Thelephoraceae*, including one species of *Hymenochaete* and two species in *Irpex* and *Merulius*. Koch et al. (1981) recorded eight species in the genera *Corticium*, *Stereum* and *Thelephora*, as related to plant pathology. In a series of papers, Gazzano (1987, 1988, 1990, 1992, 1994, 1996, 1998, 2000, 2001, 2002, 2007) reported on various polyporoid and corticioid species from Uruguay, including many new records. In total, there are about 70 species of corticioid fungi reported from various sources. Recent collections from throughout Uruguay on native and exotic trees yielded new records of corticioid basidiomycetes. In this study, we report an additional 28 new records of corticioid species. The aim of the present work is to establish a baseline of knowledge of the diversity of corticioid basidiomycetes in Uruguay by providing a checklist of the recorded species.

### Materials and methods

The checklist is based on data obtained from an intensive search of literature records of corticioid fungi from Uruguay. Genera and species are listed alphabetically within each accepted order according with the proposed nomenclature of Hibbett et al. (2007) and Larsson (2007). Data on substrate and nutritional strategies are provided for each species. The new species records in this study were collected in native and nonnative, planted forests, urban areas, or retrieved from the herbarium of the Facultad de Ciencias, Montevideo, Uruguay (MVHC). Microscopic examinations were made from freehand sections mounted in 5% aqueous KOH and 1% aqueous phloxine solutions, 5% cotton blue in 25% lactophenol, and Melzer's reagent (Kirk et al. 2008). Specimens were deposited at MVHC. Author abbreviations follow Kirk & Ansell (1992). Cortbase version 2.1 (Parmasto et al. 2004) and Index Fungorum ([www.indexfungorum.org](http://www.indexfungorum.org)) were consulted for current names of species and synonyms.

### Results

The corticioid basidiomycetes of Uruguay consist of 110 recorded species, including the present additions. Ninety-nine species are here taxonomically or nomenclaturally accepted and eleven are listed as doubtful. These are distributed in 10 orders according with the modern classification based on molecular studies (Hibbett et al. 2007, Larsson 2007). Among them, only three species belonging to the *Boletales* are brown-rot decay fungi. The

orders with the highest number of species present in Uruguay are *Polyporales* (40 species), *Hymenochaetales* (25 species) and *Russulales* (16 species). The remaining seven orders are represented by five or fewer species. The genera with the highest number of recorded species are *Phanerochaete* (11 species), *Phlebia* (8 species) and *Hyphodontia* (7 species) from a total of 49 genera represented in the Uruguayan checklist. *Hjortstamia fuscomarginata* (Burt) Hjortstam & Ryvar den, *Hyphoderma rimosum* Burds. & Nakasone, *Phlebia fascicularia* (Rick) Burds. & Nakasone and *P. subserialis* (Bourdot & Galzin) Donk are recorded for the first time from South America. For the complete checklist see <http://www.mycotaxon.com/resources/weblists.html>.

### Annotated checklist of corticoid basidiomycetes from Uruguay

Distributional novelties are indicated as:

- = new record for Uruguay.
- = new record for South America.

#### AGARICALES Underw.

##### *Chondrostereum purpureum* (Pers.: Fr.) Pouzar

≡ *Stereum purpureum* Pers.: Fr.

≡ *Thelephora purpurea* Fr.

SUBSTRATE: *Prunus domestica*, *P. persica* and *Malus sylvestris*.

PREVIOUS REPORTS: Bertelli & Mesa (1941); Koch & Boasso (1955); Koch et al. (1981).

##### ■ *Cylindrobasidium evolvens* (Fr.: Fr.) Jülich

SPECIMEN EXAMINED — URUGUAY. Montevideo PRADO— on standing dead tree, 19 Jun. 2005., M. E. Cedrés & S. Martínez s. n. MVHC5423.

##### *Cylindrobasidium torrendii* (Bres.) Hjortstam

SUBSTRATE: *Eucalyptus grandis*. White rot.

PREVIOUS REPORT: Gazzano (2007).

##### *Dendrothele alliacea* (Quél.) P.A. Lemke

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORT: Gazzano (2000).

##### *Dendrothele griseocana* (Bres.) Bourdot & Galzin

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORTS: Gazzano (2000, 2001).

#### ATHELIALES Jülich

##### *Amphinema byssoides* (Pers.: Fr.) J. Erikss.

SUBSTRATE: Conifer wood. Mycorrhizal.

PREVIOUS REPORTS: Gazzano (1992, 1998).

##### *Athelia acrospora* Jülich

SUBSTRATE: *Eucalyptus grandis*. White rot.

PREVIOUS REPORT: Gazzano (2007).

***Athelia rolfsii*** (Curzi) C.C. Tu & Kimbr.

≡ *Corticium rolfsii* Curzi

Anamorph: *Sclerotium rolfsii* Sacc.

SUBSTRATE: *Avena*, *Beta*, *Capsicum*, *Daucus*, *Dianthus*, *Helianthus*, *Ipomoea*, *Lolium*, *Myoporum*, *Phaseolus*, *Solanum*. White rot.

PREVIOUS REPORTS: Bertelli & Mesa (1941); Pastorino (1954); Koch et al. (1981).

#### **BOLETALES** E.-J. Gilbert

■ ***Coniophora arida*** (Fr.) P. Karst.

SPECIMEN EXAMINED — URUGUAY. San José COLONIA WILSON — on *Eucalyptus* sp. fallen branch, 30 Apr 1991, Dpto. Botánica s. n. MVHC711.

***Coniophora fusispora*** (Cooke & Ellis) Sacc.

SUBSTRATE: Unknown wood. Brown rot.

PREVIOUS REPORT: Gazzano (2002).

***Serpula lacrymans*** (Wulfen: Fr.) J. Schröt.

≡ *Merulius lacrymans* (Wulfen) Schumach.

SUBSTRATE: Unknown wood. Brown rot.

PREVIOUS REPORT: Herter (1933).

#### **CANTHARELLALES** Gaüm.

■ ***Botryohypochnus isabellinus*** (Fr.: Fr.) J. Erikss.

SPECIMENS EXAMINED — URUGUAY. Colonia CARMELO, PARAJE MARTÍN CHICO — on *Eucalyptus* sp. wood, 11 Jul 2003, R. Alonso, S. Simeto & S. Martínez s. n. MVHC5206, MVHC5209.

■ ***Sistotrema resinicystidium*** Hallenb.

SPECIMENS EXAMINED: URUGUAY. Río Negro TRES BOCAS, EST. “LA NONA” — on *E. globulus* bark, 11 Nov 2003, F. Rivas, G. Pérez & S. Martínez s. n. MVHC5238.

#### **CORTICIALES** K.H. Larss.

■ ***Punctularia subhepatica*** (Berk.) Hjortstam

SPECIMEN EXAMINED — URUGUAY. Lavalleja NEAR MINAS, ESTABL. “SANTA CLARA” — on unidentified wood, 5 Nov 2003, S. Martínez s. n. MVHC5295.

***Vuilleminia comedens*** (Nees : Fr.) Maire

SUBSTRATE: *Eucalyptus globulus*. White rot.

PREVIOUS REPORT: Gazzano (2007).

#### **HYMENOCHAETALES** Oberw.

***Dichochaete ceratophora*** (Job) Parmasto

≡ *Hymenochaete ceratophora* Job

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORTS: Gazzano (1990, 2001).

***Fibrodontia brevidens*** (Pat.) Hjortstam & Ryvarden

≡ *Hyphodontia brevidens* (Pat.) Ryvarden

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORT: Gazzano (1988).

***Hymenochaete cervina*** Berk. & M.A. Curtis

SUBSTRATE: *Eucalyptus globulus*. White rot.

PREVIOUS REPORTS: Parmasto (2001, 2006).

***Hymenochaete corrugata*** (Fr.: Fr.) Lév.

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORTS: Parmasto (2001, 2006).

***Hymenochaete leonina*** Berk. & M.A. Curtis

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORTS: Reeves & Welden (1967); Parmasto (2001).

***Hymenochaete rhabbarina*** (Berk.) Cooke

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORTS: Gazzano (1998, 2001).

***Hymenochaete rheicolor*** (Mont.) Lév.

= *Hymenochaete sallei* Berk. & M.A. Curtis

= *Hymenochaete tenuissima* (Berk.) Berk.

SUBSTRATE: Conifer and unknown wood. White rot.

PREVIOUS REPORTS: Herter (1933, as *H. tenuissima*); Gazzano (2001, as *H. sallei*).

***Hymenochaete tenuis*** Peck

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORT: Gazzano (2002).

***Hyphodontia alutaria*** (Burt) J. Erikss.

SUBSTRATE: *Cupressus*. White rot.

PREVIOUS REPORTS: Gazzano (1996, 1998).

***Hyphodontia apacheriensis*** (Gilb. & Canf.) Hjortstam & Ryvarde

SUBSTRATE: *Cupressus*. White rot.

PREVIOUS REPORTS: Gazzano (1996, 1998).

■ ***Hyphodontia arguta*** (Fr.: Fr.) J. Erikss.

SPECIMENS EXAMINED — URUGUAY. Paysandú TRES BOCAS, EST. "INGRAL 3"  
— on *E. globulus* wood, 29 Aug 2005, S. Martínez s. n. MVHC5445. Idem— on *E. globulus* bark MVHC5451. Florida FLORIDA CITY, COVIDEF 1— on *Salix alba* wood, 14 Dec 2004, S. Martínez s. n. MVHC5347.

***Hyphodontia flavipora*** (Berk. & M.A. Curtis) Sheng H. Wu

= *Schizopora carneolutea* (Rodway & Cleland) Kotl. & Pouzar

SUBSTRATE: *Eucalyptus*, *Pinus*, *Scutia*, unknown wood. White rot.

PREVIOUS REPORTS: Gazzano (1987, 1998, 2001).

***Hyphodontia paradoxa*** (Schrad.: Fr.) Langer & Vesterh.

≡ *Schizopora paradoxa* (Schrad.: Fr.) Donk

SUBSTRATE: *Eucalyptus*, *Syagrus*. White rot.

PREVIOUS REPORTS: Gazzano (1994, 1998, 2001).

***Hyphodontia sambuci*** (Pers.: Fr.) J. Erikss.

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORT: Gazzano (2007).

■ *Hyphodontia spathulata* (Schrad.: Fr.) Parmasto

SPECIMENS EXAMINED — URUGUAY. **Río Negro** FRAY BENTOS, PLAYA DE ACOPIO EUFORES— on *E. globulus* debarked log, 21 Aug 2002, S. Martínez s. n. *MVHC5049*.

*Kneiffiella abieticola* (Bourdot & Galzin) Jülich & Stalpers.

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORTS: Gazzano (1988, 1998).

■ *Peniophorella praetermissa* (P. Karst.) K.H. Larss.

SPECIMENS EXAMINED — URUGUAY. **Lavalleja** PARAJE CARAPÉ, EST. “CARAPÉ”—on *E. viminalis* wood of fallen tree, 29 May 2003, S. Martínez s. n. *MVHC5255*. **Río Negro** ARROYO GRANDE, ROUTE 3 KM 278— on fallen twig, 1 Aug 2002, S. Martínez s. n. *MVHC5121*. **Soriano** PARAJE BEQUELÓ, EST. “LOS OLIVOS”—on *E. globulus* bark, 30 Aug 2005, S. Martínez s. n. *MVHC5456*.

NOTES — *Peniophorella praetermissa* is a complex of morphologically similar species as revealed by phylogenetic studies of the ITS region of the ribosomal RNA (Hallenberg et al. 2007). Variability in size and shape of cystidia in the specimens cited above suggests that *P. praetermissa* is a species complex in Uruguay also.

*Peniophorella pubera* (Fr.: Fr.) P. Karst.

≡ *Hyphoderma puberum* (Fr.: Fr.) Wallr.

SUBSTRATE: *Eucalyptus*, unknown wood. White rot.

PREVIOUS REPORTS: Gazzano (1994, 1998).

■ *Peniophorella rude* (Bres.) K. H. Larss.

SPECIMENS EXAMINED — URUGUAY. **Río Negro** TRES BOCAS, EST. “LA NONA”— on *E. globulus* fallen log, 18 Apr 2002, S. Martínez s. n. *MVHC5042*; Idem— on *E. globulus* bark, 11 Sep 2003, F. Rivas, G. Pérez & S. Martínez s. n. *MVHC5237*.

*Resinicium friabile* Hjortstam & Melo

SUBSTRATE: *Eucalyptus globulus*. White rot.

PREVIOUS REPORT: Nakasone (2007).

*Tubulicrinis borealis* J. Erikss.

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORT: Gazzano (1994, 1998).

*Xylodon asperus* (Fr.) Hjortstam & Ryvarden

≡ *Hyphodontia aspera* (Fr.) J. Erikss.

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORTS: Gazzano (2000, 2001).

■ *Xylodon crustosus* (Pers.: Fr.) Chevall.

SPECIMENS EXAMINED — URUGUAY. **Durazno** ROUTE 14, ARROYO TOMÁS CUADRA— on fallen twig, 7 May 2008, S. Martínez s. n. *MVHC5497*; **Florida** PARQUE ROBAINA— on fallen twigs, 15 May 2006, S. Martínez s. n. *MVHC5477*; **Maldonado** PIRIÁPOLIS, CERRO DEL TORO— on fallen twig of angiosperm, 15 Apr 2006, S. Martínez s. n. *MVHC5459*; **Paysandú** ARROYO ARAUJO, ROUTE 26, KM 40,400— on fallen twig of angiosperm, no date, S. Simeto, S. Lupo & S. Martínez s. n. *MVHC5017*.

*Xylodon lanatus* (Burd. & Nakasone) Hjortstam & Ryvarden

≡ *Hyphodontia lanata* Burds. & Nakasone  
 SUBSTRATE: Unknown wood. White rot.  
 PREVIOUS REPORTS: Gazzano (1992, 1998).

*Xylodon pruni* (Lasch) Hjortstam & Ryvarden  
 ≡ *Hyphodontia pruni* (Lasch) Svrček  
 SUBSTRATE: *Prunus persica*. White rot.  
 PREVIOUS REPORT: Gazzano (2000).

**POLYPORALES** Gáim.

*Byssomerulius corium* (Fr.) Parmasto  
 SUBSTRATE: Palmae, *Pinus*, unknown wood. White rot.  
 PREVIOUS REPORTS: Gazzano (1994, 1998, 2001).

*Cotylidia aurantiaca* (Pers.) A.L. Welden  
 ≡ *Thelephora aurantiaca* Pers.  
 SUBSTRATE: Unknown wood. White rot.  
 PREVIOUS REPORT: Felippone (1928).

*Cymatoderma caperatum* (Berk. & Mont.) D.A. Reid  
 ≡ *Stereum caperatum* (Berk. & Mont.) Lloyd  
 ≡ *Thelephora caperata* Berk. & Mont.  
 SUBSTRATE: Unknown wood. White rot.  
 PREVIOUS REPORTS: Felippone (1928); Herter (1933); Reid (1965);  
 Koch et al. (1981).

*Hjortstamia crassa* (Lév.) Boidin & Gilles  
 ≡ *Phanerochaete crassa* (Lév.) Burds.  
 SUBSTRATE: *Eucalyptus*. White rot.  
 PREVIOUS REPORTS: Gazzano (1992, 1998, 2001).

●■ *Hjortstamia fuscomarginata* (Burt) Hjortstam & Ryvarden  
 SPECIMEN EXAMINED — URUGUAY. Maldonado GREGORIO AZNÁREZ— on *E. globulus* burned standing tree, Apr 1992 MVHC9241.  
 NOTES — Reported originally as *Phanerochaete xerophila* Burds.  
 (Gazzano 1994, 1998).

*Hydnophlebia omnivora* (Shear) Hjortstam & Ryvarden  
 ≡ *Phanerochaete omnivora* (Shear) Burds. & Nakasone  
 SUBSTRATE: *Eucalyptus*, unknown wood. White rot.  
 PREVIOUS REPORT: Martínez & Nakasone (2005).

*Hyphoderma medioburiense* (Burt) Donk  
 SUBSTRATE: Unknown wood. White rot.  
 PREVIOUS REPORT: Gazzano (2002).

■ *Hyphoderma nudicephalum* Gilb. & M. Blackw.  
 SPECIMEN EXAMINED — URUGUAY. Paysandú EST. “SAN PEDRO” — on *E. globulus* root, 1 Nov. 2000.. S. Martínez s. n. MVHC5012.

●■ *Hyphoderma rimosum* Burds. & Nakasone

SPECIMENS EXAMINED — URUGUAY. **Canelones** RINCÓN DEL GIGANTE— on *Eucalyptus* sp. fallen branch, Apr 2002, S. Martínez s. n. *MVHC5044*. **Colonia** JUAN LACAZE, FANAPEL— on *Eucalyptus* sp. wood, 11 Jul 2003, R. Alonso, S. Simeto & S. Martínez s. n. *MVHC5226*.

NOTES — First record outside of southeastern U. S. A.

***Hyphoderma setigerum*** (Fr.: Fr.) Donk

SUBSTRATE: *Eucalyptus*, unknown wood. White rot.

PREVIOUS REPORT: Gazzano (1998).

■ ***Hypochnicium cremicolor*** (Bres.) H. Nilsson & Hallenb.

SPECIMENS EXAMINED — URUGUAY. **Colonia** JUAN LACAZE, FANAPEL— on *Phellinus* sp. basidiocarp on *Eucalyptus* sp., 11 Jul 2003, R. Alonso, S. Simeto & S. Martínez s. n. *MVHC5222*. **Maldonado** PARAJE LOS MATAOJOS, EST. “LAS MIMOSAS” — on *Eucalyptus* sp. bark, 30 May 2003, S. Simeto & S. Martínez *MVHC5365*.

■ ***Hypochnicium lyndoniae*** (D.A. Reid) Hjortstam

SPECIMEN EXAMINED — URUGUAY. **Lavalleja** MARMARAJÁ— on *E. globulus* root of fallen tree, 7 Jun 2001, S. Martínez s. n. *MVHC5061*.

NOTES — This is the second collection of *H. lyndoniae* in South America; it was reported previously from Brazil (Legon 2006). *Odontia lyndoniae* is the type species of the genus *Nodotia* Hjortstam, and *Nodotia* is a synonym of *Hypochnicium* J. Erikss. as shown by phylogenetic analysis of the ITS region of the ribosomal RNA (Paulus et al. 2007).

■ ***Hypochnicium punctulatum*** (Cooke) J. Erikss.

SPECIMEN EXAMINED — URUGUAY. **Lavalleja**, Carapé— on *Eucalyptus* sp., 29 May 2003. S. Martínez s. n. *MVHC5254*.

***Lopharia cinerascens*** (Schwein.) G. Cunn.

SUBSTRATE: *Fraxinus*, unknown wood. White rot.

PREVIOUS REPORTS: Gazzano (1994, 1998).

***Phanerochaete aculeata*** Hallenb.

SUBSTRATE: *Eucalyptus*, *Malus*. White rot.

PREVIOUS REPORT: Martínez & Nakasone (2005).

***Phanerochaete australis*** Jülich

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORT: Gazzano (2002).

***Phanerochaete avellanea*** (Bres.) J. Erikss. & Hjortstam

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORT: Gazzano (2000).

***Phanerochaete corymbata*** (G. Cunn.) Burds.

SUBSTRATE: *Tipuana tipu*. White rot.

PREVIOUS REPORT: Martínez & Nakasone (2005).

■ ***Phanerochaete exilis*** (Burt) Burds.

SPECIMEN EXAMINED — URUGUAY. **Colonia** ARROYO VÍBORAS— on fallen twig of unknown angiosperm, 11 Jul 2003, R. Alonso, S. Simeto & S. Martínez *MVHC5220*.

NOTES — This is the second collection of *P. exilis* in South America; it was recorded previously from Colombia (Hjortstam and Ryvarden



1997). *Phanerochaete exilis* is the fourteenth species of *Phanerochaete* recorded from Uruguay. A key to eleven species is provided in Martínez and Nakasone (2005).

***Phanerochaete luteoaurantiaca*** (Wakef.) Burds.

SUBSTRATE: *Eucalyptus grandis*. White rot.

PREVIOUS REPORT: Gazzano (2007).

***Phanerochaete magnoliae*** (Berk. & M.A. Curtis) Burds.

SUBSTRATE: *Eucalyptus*. White rot.

PREVIOUS REPORT: Martínez & Nakasone (2005).

***Phanerochaete singularis*** (G. Cunn.) Burds.

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORT: Martínez & Nakasone (2005).

***Phanerochaete sordida*** (P. Karst.) J. Erikss. & Ryvardeen

SUBSTRATE: *Eucalyptus*, unknown wood. White rot.

PREVIOUS REPORT: Martínez & Nakasone (2005).

***Phanerochaete vesiculosa*** S. Martínez & Nakasone

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORT: Martínez & Nakasone (2005).

***Phanerochaete xerophila*** Burds.

SUBSTRATE: *Scutia buxifolia*. White rot.

PREVIOUS REPORT: Martínez & Nakasone (2005).

■ ***Phlebia acerina*** Peck

SPECIMENS EXAMINED — URUGUAY. **Florida** NEAR CERRO COLORADO— on *Eucalyptus* sp. bark, Dec 2000, S. Lupo & L. Bettucci s.n. *MVHC5040*; **Paysandú** ALGORTA, ESTABL. “SANTO TOMÁS”— on *E. globulus* dead sprout, 15 Oct 2000, S. Martínez s. n. *MVHC5099*. **Paysandú** PALMAR DE QUEBRACHO, ESTAB. “SANTO DOMINGO”— on *E. globulus* “Jeeralang” bark, 5 Jun 2003, S. Martínez s. n. *MVHC5151*.

***Phlebia argentina*** (Speg.) Rajchenb. & J.E. Wright

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORTS: Gazzano (1996, 1998, 2001).

■ ***Phlebia chrysocreas*** (Berk. & M.A. Curtis) Burds.

SPECIMENS EXAMINED — URUGUAY. **Río Negro** TRES BOCAS, ROUTE 24, ESTABL. “LA NONA”— on *E. globulus* fallen tree, 1 Aug 2002, S. Martínez s. n. *MVHC5045*. **Idem**— on *Eucalyptus* sp. wood, 5 Dec 2002, S. Martínez s. n. *MVHC5138*.

NOTES — *Phlebia chrysocreas* is a widespread and variable species that is a complex of morphologically similar taxa. Recently, Hjortstam and Ryvardeen (2005) proposed the genus *Crustodontia* for this species.

●■ ***Phlebia fascicularia*** (Rick) Burds. & Nakasone

= *Phlebia lividina* Hjortstam

SPECIMENS EXAMINED — URUGUAY. **Paysandú**, PANDULE, EST. “EL CERRO”— on *E. globulus* bark, 15 Oct 2000, S. Martínez s. n. *MVHC5095*. **Idem**, PALMAR DE QUEBRACHO, EST. “SANTO DOMINGO”— on *Eucalyptus* sp. wood, 16 Aug 2004, S. Martínez s. n. *MVHC5339*.

NOTES — This is the first report of *P. fascicularia* from South America.

***Phlebia lilascens*** (Bourdot) J. Erikss. & Hjortstam

SUBSTRATE: *Eupatorium buniifolium*. White rot.

PREVIOUS REPORTS: Gazzano (1996, 1998).

●■ *Phlebia subserialis* (Bourdot & Galzin) Donk

SPECIMENS EXAMINED — URUGUAY. **Río Negro** TRES BOCAS, ROUTE 24, ESTABL. "LA NONA" — on *E. globulus* bark, 14 Oct 2002, S. Martínez s. n. MVHC5089; **Paysandú** PANDULE, ESTABL. "EL CERRO" — on fallen branch of *Eucalyptus* sp., 15 Oct 2002, S. Martínez s. n. MVHC5098, MVHC5094.

NOTES — This is the first report of *P. subserialis* from South America.

In the Uruguayan specimens, the basidiospores are shorter (5–5.5  $\mu\text{m}$  long) than usual for the species (5–7  $\mu\text{m}$  long in Nakasone et al. 1982).

*Phlebia subulata* J. Erikss. & Hjortstam

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORTS: Gazzano (1996, 1998).

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

≡ *Merulius tremellosus* Schrad.: Fr.

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORT: Ginns (1976).

*Phlebiopsis flavidoalba* (Cooke) Hjortstam

≡ *Phanerochaete flavidoalba* (Cooke) S.S. Rattan

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORT: Gazzano (1992, 1998).

*Phlebiopsis gigantea* (Fr.: Fr.) Jülich

SUBSTRATE: *Pinus*. White rot.

PREVIOUS REPORT: Gazzano (1998).

*Phlebiopsis ravenelii* (Cooke) Hjortstam

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORT: Gazzano (2002).

*Podoscypha elegans* (G. Mey.) Pat.

≡ *Stereum (Podoscypha) elegans* Mey.

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORT: Felippone (1928).

*Steccherinum ochraceum* (Pers.: Fr.) S.F. Gray

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORTS: Gazzano (1994, 1998).

*Steccherinum reniforme* (Berk. & M.A. Curtis) Banker

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORT: Gazzano (2000).

*Uncobasidium notabile* (H. S. Jacks.) Tellería

≡ *Cerocorticium notabile* (H. S. Jacks.) Jülich

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORTS: Gazzano (1992, 1998).

**RUSSULALES** Kreisel ex P.M. Kirk, P.F. Cannon & J.C. David

- ***Aleurobotrys botryosus*** (Burt) Boidin, Lanq. & Gilles  
SPECIMEN EXAMINED — URUGUAY. **Río Negro** ARROYO GRANDE, ROUTE 3, KM 278—on fallen twig of unknown angiosperm, 1 Aug 2002, S. Martínez & S. Simeto MVHC512).
- Aleurodiscus mirabilis*** (Berk. & M.A. Curtis) Höhn.  
SUBSTRATE: Unknown wood. White rot.  
PREVIOUS REPORTS: Gazzano (1998, 2001).
- Amylostereum areolatum*** (Chaillat: Fr.) Boidin  
SUBSTRATE: *Sirex noctilio* mycangia. White rot.  
PREVIOUS REPORT: Slippers et al. (2001).
- ***Astrostroma cervicolor*** (Berk. & M.A. Curtis) Masee  
SPECIMENS EXAMINED — URUGUAY. **Colonia** CARMELO, PARAJE MARTÍN CHICO— on *Eucalyptus* sp. dead wood, 11 Jul 2003, R. Alonso, S. Simeto & S. Martínez s. n. MVHC5210. **Rocha** PUNTA DEL DIABLO— on *Pinus* sp. dead wood, 6–8 Jul 2007, S. Martínez s. n. MVHC5502.
- Astrostroma muscicola*** (Berk. & M.A. Curtis) Masee  
SUBSTRATE: Unknown wood. White rot.  
PREVIOUS REPORT: Gazzano (1988, 1998).
- Dendrophora albobadia*** (Schwein.: Fr.) Chamuris  
SUBSTRATE: *Hibiscus*. White rot.  
PREVIOUS REPORTS: Gazzano (1998, 2001).
- Gloeocystidiellum porosum*** (Berk. & M.A. Curtis) Donk  
SUBSTRATE: *Eucalyptus globulus*. White rot.  
PREVIOUS REPORT: Gazzano (2007).
- Gloiothele citrina*** (Persoon) Ginns & G.W. Freeman  
SUBSTRATE: Unknown wood. White rot.  
PREVIOUS REPORT: Gazzano (2002).
- Gloiothele lactescens*** (Berk.) Hjortstam.  
SUBSTRATE: Unknown wood. White rot.  
PREVIOUS REPORT: Gazzano (2002).
- ***Laxitextum bicolor*** (Pers.: Fr.) Lentz  
SPECIMENS EXAMINED — URUGUAY. **Montevideo** PLAYA DE ACOPIO “LA TABLADA”— on *E. globulus* debarked trunk, 10 Apr 2002, S. Martínez s. n. MVHC5030. **Río Negro** FRAY BENTOS, PLAYA DE ACOPIO EUFORES— on *E. globulus* debarked trunk, 21 Aug 2002, S. Martínez s. n. MVHC5067.
- Peniophora cinerea*** (Fr.) Cooke  
SUBSTRATE: *Cupressus*, unknown wood. White rot.  
PREVIOUS REPORTS: Gazzano (1992, 1998).
- ***Peniophora confusa*** C.E. Gómez  
SPECIMEN EXAMINED — URUGUAY. **Paysandú** TRES BOCAS, EST. “INGRAL 3”— on *Eucalyptus* sp., 6 Nov 2002, S. Martínez s. n. MVHC5085.
- ***Peniophora crassitunicata*** Boidin, Lanq. & Gilles  
SPECIMENS EXAMINED — URUGUAY. **Río Negro** TRES BOCAS, ROUTE 24, EST. “LA NONA”— on *E. globulus* bark, 20 Aug 2002, S. Martínez s. n. MVHC5063.
- Peniophora violaceo-livida*** (Sommerf.) Masee

SUBSTRATE: Unknown wood. White rot.  
PREVIOUS REPORTS: Gazzano (1994, 1998).

***Scytinostroma portentosum*** (Berk. & M.A. Curtis) Donk

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORTS: Gazzano (1994, 1998).

***Stereum hirsutum*** (Willd.: Fr.) Gray

SUBSTRATE: *Eucalyptus*, unknown wood. White rot.

PREVIOUS REPORTS: Felippone (1928); Herter (1933); Koch et al. (1981); Gazzano (1998, 2001).

**THELEPHORALES** Corner ex Oberw.

***Thelephora caryophyllea*** (Schaeff.: Fr.) Fr.

SUBSTRATE: *Pinus*. Mycorrhizal.

PREVIOUS REPORTS: Felippone (1928); Herter (1933); Koch et al. (1981).

**TRECHISPORALES** K.H. Larss.

■ ***Sistotremastrum niveocremeum*** (Höhn. & Listch.) J. Erikss.

SPECIMENS EXAMINED — URUGUAY. **Paysandú** PANDULE, ESTABL. "EL CERRO"— on *Eucalyptus* sp. wood, 15 Oct 2002, S. Martínez s. n. MVHC5102. **Río Negro** TRES BOCAS, ROUTE 24, ESTABL. "LA NONA"— on *E. globulus* bark, 6 Sept 2002, S. Martínez s. n. MVHC5051.

NOTES — Basidiospores in the Uruguayan specimens are smaller than typical and approach those of *S. suecicum* (Litsch.) J. Erikss.

■ ***Subulicystidium longisporum*** (Pat.) Parmasto

SPECIMENS EXAMINED — URUGUAY. **Colonia** JUAN LACAZE, EMP. FANAPEL— on *Eucalyptus* sp. wood, 11 Jul 2003, R. Alonso, S. Simeto & S. Martínez s. n. MVHC5224; **Paysandú** TRES BOCAS, ESTABL. "INGRAL 3"— on *E. globulus* wood, 29 Aug 2005, S. Martínez s. n. MVHC5447.

**EXCLUDED OR DOUBTFUL SPECIES**

***Phlebia rufa*** (Fr.) M.P. Christ.

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORTS: Gazzano (1994, 1998).

NOTES — This species appears to be restricted to Europe and northwestern North America (Nakasone and Sytsma 1993).

***Rhizochaete filamentosa*** (Berk. & M.A. Curtis) Greslebin, Nakasone & Rajchenb.

≡ *Phanerochaete filamentosa* (Berk. & M.A. Curtis) Burds.

SUBSTRATE: *Prunus*. White rot.

PREVIOUS REPORT: Gazzano (1988).

NOTES — This species appears to be restricted to northeastern North America whereas *R. radicata* (Henn.) Gresl., Nakasone, & Rajchenb. has a worldwide distribution (Nakasone et al. 1994)

***Stereum aratae*** Speg.

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORT: Felippone (1928).

NOTES — According to Rajchenberg & Wright (1987), based on a type study, this species is *Stereum hirsutum vel aff.*

***Stereum cartilagineum*** (Fr.) Fr.

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORT: Felippone (1928).

***Stereum lobatum*** (Kunze: Fr.) Fr.

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORT: Felippone (1928).

***Stereum ochraceoflavum*** (Schwein.) Ellis

SUBSTRATE: *Arecastrum romanzoffianum*. White rot.

PREVIOUS REPORTS: Gazzano (2000, 2001).

***Stereum ostrea*** (Blume & T. Nees) Fr.

SUBSTRATE: *Eucalyptus*. White rot.

PREVIOUS REPORT: Gazzano (1998).

***Stereum pergamenum*** Speg.

SUBSTRATE: Unknown wood.

PREVIOUS REPORT: Felippone (1928).

NOTES — Felippone (1928) incorrectly gave Berk. & M.A. Curtis as the author citation for this species. Rajchenberg & Wright (1987) studied the type and determined that it is a later synonym of *Chondrostereum purpureum*.

***Stereum subtomentosum*** Pouzar

SUBSTRATE: *Eucalyptus*, *Lithraea*, *Pinus*, *Scutia*, unknown wood. White rot.

PREVIOUS REPORTS: Gazzano (1998, 2001).

***Stereum versicolor*** (Sw.) Fr.

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORT: Felippone (1928).

***Thelephora pallida*** Pers.

SUBSTRATE: Unknown wood. White rot.

PREVIOUS REPORT: Felippone (1928).

NOTES — According to Index Fungorum, this species is synonymous with *Cotylidia pannosa* (Sowerby) D.A. Reid.

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