

South American polypores: first annotated checklist from Argentinean Yungas

GERARDO L. ROBLEDO¹ & MARIO RAJCHENBERG²

¹*geradorobledo@ecosistemasarg.org.ar*
Instituto Multidisciplinario de Biología Vegetal – CONICET
Universidad Nacional de Córdoba
C.C. 495, 5000 Córdoba, Córdoba, Argentina

²*mrajchenberg@ciefap.org.ar*
Centro Forestal CIEFAP, C.C. 14, 9200 Esquel, Chubut, Argentina

Abstract_ A preliminary checklist of the polypore mycota of “Yungas”, subtropical mountain forests of northwestern Argentina, is presented. An intensive search of literature records was done, and polypore exsiccatae from that phytogeographic province kept at the main Argentinean herbaria were studied. A total of 850 specimens were revised and 111 species were determined. *Phellinus laevigatus* and *Skeletocutis stellae* are recorded for the first time in South America; 8 species are new records for Argentina and 31 new records for the region.

Key words_ fungal diversity, wood decay fungi, neotropic montane forests

Introduction

Yungas ecosystem

A system of tropical and subtropical cloud montane forests is developed on the oriental slope along the Andes in South America. This system, called Andean Yungas Forests, is mainly defined by its occurrence on the slopes in an altitudinal range where the weather is characterized by a persistent or seasonal fog and cloud cover (Brown et al. 2005).

Andean Yungas Forests have their southern limit in NW Argentina where they are called Yungas and also known as “Selva Tucumano-Boliviana” or “Selva Tucumano-Oranense”. Biogeographically, Argentinean Yungas are in the Andean corridor and constitute practically the southeast expression of the Amazonian Domain (Cabrera 1994). About 50% of Argentina’s biodiversity can be found in this ecosystem (Brown et al. 2005). Tree diversity is high and preliminary estimations include more than 230 tree species with particular elements of Holarctic (*Alnus*, *Berberis*, *Juglans*, *Sambucus*), Gondwanic (*Podocarpus*, *Escallonia*, *Weinmannia*), Pantropical (*Eugenia*, *Ocotea*) and Neotropical (*Myrcianthes*) origins (Grau & Brown 2000, Brown et al. 2005).

Argentinean Yungas are characterized by a high altitudinal gradient characterized by different environmental conditions such as periods of drought, high temperatures, high humidity levels, frosts and snow in winter, a fact that reflects a particular floristic composition. As result of the environmental gradient, three main forest types can be distinguished (Brown

et al. 2005), namely: premontane lowland forests (400-700 m asl); lower montane forests (700-1500 m asl); and upper, temperate montane forests (1500-2500 m asl).

Argentinean Yungas have been under strong anthropogenic pressure for many decades (Grau & Brown 2000). In the meantime, the biodiversity of Argentinean Yungas is threatened by global climate changes and human activity such as agricultural frontier expansion, intense logging, and oil and gas prospecting (Grau & Brown 2000). These activities cause a variation in occurrence and abundance of woody substrates, thus possibly producing direct effects on the populations and communities of wood decomposers, as has been shown in forests of the Northern Hemisphere (Sippola & Renvall 1999). Despite the high endemic value of plants of Argentinean Yungas (Zuloaga et al. 1999), important ecological groups as wood-rotting fungi have not yet been surveyed.

Mycological knowledge state of Yungas

The heterogeneity and diversity of woody substrates of Argentinean Yungas forests suggest a rich wood-decaying fungal diversity and a complex community structure, with taxonomic novelties, including taxa awaiting to be described (Robledo et al. 2003b). In the case of polypores, the study of their diversity in Argentina has been concentrated in: the subtropical rainforests and gallery forests of E and NE in the so-called (Argentinean) Mesopotamia and the capital city surrounding areas, Buenos Aires (Wright et al. 1973, Wright & Deschamps 1975b, 1977; Rajchenberg 1984, Ibáñez 1995, 1998; Popoff 2000), the humid and subxerophytic Chaco forests of north central Argentina and southern Paraguay (Popoff 2000, Popoff & Wright 1998), and the *Nothofagus*-dominated forests of Southern Argentina (Wright & Deschamps 1972, 1975a; Rajchenberg 2006). Several endemic and cosmopolitan taxa have been described recently from the particular *Polylepis* (*Rosaceae*) forests of central Argentina (Urcelay et al. 2000, Robledo et al. 2003a, 2006). But the research undertaken in NW Argentina has been more sporadic. Spegazzini (1919) made the first studies and deposited collections in LPS, and during the following 80 years polypore studies in this region have been restricted to field trips headed by the mycologists Rolf Singer and Jorge E. Wright. Their collections are kept mainly at BAFC, LIL and LPS. Several works published in the last 25 years have dealt with specific polypore taxa and genera, or with particular substrates (Bazzalo & Wright 1982, Gottlieb et al. 1998, 2002; Rajchenberg & Bianchinotti 1991, Rajchenberg 1982, 1985; Robledo et al. 2003b, Ryvarde et al. 1982, Silveira & Wright 2005, Urcelay & Robledo 2004, Wright 1966, 1976) but, as yet, there is no comprehensive study on the polypores of that area.

The aim of this study was to establish a baseline of knowledge of polypore diversity in Argentinean Yungas, through the construction of an annotated checklist.

Material and methods

An intensive search of fungal records in literature was done. When possible we updated and/or corroborated the records (mainly those of Spegazzini) through the

study of original specimens. Also, we revised all collections deposited in the herbaria CORD, LPS, LIL, CTES, and BAFC. Type and reference materials deposited in international herbaria were also checked. Herbarium acronyms are from Holmgren et al. (1990). Morphological features of basidiocarps were observed. Microscopic examinations and measurements were made from freehand sections mounted in 3-5% KOH plus 1% phloxine and in Melzer's reagent.

Results

We checked, studied and/or revised a total of 850 collections. Together with the literature search we established the presence of **111** species.

Annotated checklist for the polypore species from Argentinean Yungas

Genera and species are listed alphabetically. Names enclosed in quotation marks are verbatim quotations from Spegazzini's publications. Novelties in distribution are indicated by:

- ✓ = new record in the region,
- ☑ = new record in Argentina,
- ☛ = new record in South America.

✓ *Abortiporus biennis* (Bull.) Singer

REPRESENTATIVE SPECIMENS EXAMINED— ARGENTINA. Tucumán: SAN JAVIER, CIUDAD UNIVERSITARIA, Ad basis trunci vivi arboris *Baccharis* sp. 1300 mts— 24 April 1949, *Singer T474* (BAFC).

☑ *Amauroderma macrosporum* J.S. Furtado

REPRESENTATIVE SPECIMENS EXAMINED— ARGENTINA. Tucumán: SAN JAVIER— October 1917, *Spegazzini* (LPS 25771).

NOTES— previously known from the type locality in Brazil and from Venezuela (Ryvarden, 2004). The spore size makes it an easily distinguishable species within the genus.

☑ *Amylosporus campbellii* (Berk.) Ryvarden

REPRESENTATIVE SPECIMENS EXAMINED— ARGENTINA. Tucumán: Instituto Miguel Lillo— 13 July 1949, *Antonuccio* (BAFC).

✓ *Antrodia malicola* (Berk. & M.A. Curtis) Donk

REPRESENTATIVE SPECIMENS EXAMINED— ARGENTINA. Tucumán: HORCO MOLLE— 11 April 1987, *Job & Hladki 3996* (BAFC 34315); SAME LOCALITY— 9 April 1987, *Job 3943* (BAFC); SAN JAVIER, ANTA MUERTA— 25 May 1965, *Betucci & Guerrero* (BAFC).

✓ *Antrodia serialis* (Fr.) Donk

REPRESENTATIVE SPECIMENS EXAMINED— ARGENTINA. Tucumán: PARQUE 9 DE JULIO— 23 August 1954, *Iaconis & Deschamps* (BAFC); RACO— 14 June 1987, *Hladki T77* (LIL 53717).

Antrodiella liebmanni (Fr.) Ryvarden

PREVIOUS REPORTS— Spegazzini (1926) under *Polystictus*.

Aurificaria luteo-umbrina (Romell) D.A. Reid

PREVIOUS REPORTS— Spegazzini (1909, 1919) under *Phaeoporus*; Robledo et al. (2003b).

Bjerkandera adusta (Willd.) P. Karst.

PREVIOUS REPORTS— Robledo et al. (2003b).

✓ ***Ceriporia mellea*** (Berk. & Broome) Ryvarden

REPRESENTATIVE SPECIMENS EXAMINED— **ARGENTINA. Tucumán:** HORCO MOLLE— 10 April 1987, *Job & Haldki 3947* (BAFC 31174); SAN JAVIER— 22 April 1962, *Gamundi* (BAFC 27935); FAMAILLÁ, RIO COLORADO— 29 September 1946, *Garolera* (BAFC 27936).

✓ ***Ceriporia xylostromatoides*** (Berk.) Ryvarden

REPRESENTATIVE SPECIMENS EXAMINED— **ARGENTINA. Tucumán:** HORCO MOLLE— 9 April 1987, *Job 3936* (BAFC 31177).

Ceriporiopsis gilvescens (Bres.) Domański

PREVIOUS REPORTS— Robledo et al. (2003b).

Coltricia stuckertiana (Speg.) Rajchenb. & J.E. Wright

PREVIOUS REPORTS— Spegazzini (1909, 1926) under *Trametes*; Rajchenberg & Wright (1998).

✓ ***Corioloopsis byrsina*** (Mont.) Ryvarden

REPRESENTATIVE SPECIMENS EXAMINED— **ARGENTINA. Jujuy:** CAMINO ABRA DE LOS MORTEROS— 15 November 1973 (BAFC 24809). **Salta:** CAMPO DURÁN, LA ANGOSTURA— 9 November 1974, *Wright et al.* (BAFC 24807); ANTA, EL REY NATIONAL PARK— 23 September 1985, *Virasoro 70* (BAFC 30768).

Corioloopsis polyzona (Pers.) Ryvarden

PREVIOUS REPORTS— Spegazzini (1909, 1919) as '*Polystictus occidentalis* KL.

Corioloopsis rigida (Berk. & Mont.) Murrill

PREVIOUS REPORTS— Spegazzini (1919) as '*Trametes rigida* Brk. et Mntgn.

✓ ***Cyclomyces iodinus*** (Mont.) Pat.

REPRESENTATIVE SPECIMENS EXAMINED— **ARGENTINA. Tucumán:** PUEBLO VIEJO— 10 October 1974, *Singer T3109* (BAFC 25012).

Daedalea aethalodes (Mont.) Rajchenb.

PREVIOUS REPORTS— Spegazzini (1926) under *Trametes*; Rajchenberg (1985).

Datronia caperata (Berk.) Ryvarden

PREVIOUS REPORTS— Spegazzini (1926) as '*Polystictus cirrifer* Brk. & C.

Datronia mollis (Sommerf.) Donk

PREVIOUS REPORTS— Robledo et al. (2003b).

✓ ***Datronia scutellata*** (Schwein.) Gilb. & Ryvarden

REPRESENTATIVE SPECIMENS EXAMINED— **ARGENTINA. Salta:** LOS TIGRES, CAMPAMENTO LAS HERAS, on decayed wood— 23 September 1958, *Morillo et al.* (BAFC). **Tucumán:** SAN JAVIER NEAR ANTA MUERTA, ad ramulos putridos in silva subtropicali— 9 July 1950, *Singer T1048* (BAFC).

✓ ***Diacanthodes novoguineensis*** (Henn.) O. Fidalgo

REPRESENTATIVE SPECIMENS EXAMINED— **ARGENTINA. Tucumán:** SAN JAVIER, ad basin Myrtacearum in silva montano subtropicali— 20 March 1951, *Singer T1412* (LIL); CHICLIGASTA, RIO COCHUNA, ad radices immersas arborum dicotyledonearum in silva subtropicali— 11 February 1952, *Singer T1830* (LIL).

- Dichomitus hexagonoides*** (Speg.) Robledo & Rajchenb.
 PREVIOUS REPORTS— Spegazzini (1898) as '*Poria hexagonoides* Speg.'; Ryvardeen et al. (1982) as '*Megasporoporia hexagonoides*'; Robledo & Rajchenberg (2007).
 NOTES— Masuka & Ryvardeen (1999) have shown that *Megasporoporia* Ryvardeen & J.E. Wright is a tropical counterpart, but not sufficiently different, of the temperate *Dichomitus* D.A. Reid.
- Echinoporia aculeifera*** (Berk. & M.A. Curtis) Ryvardeen
 PREVIOUS REPORTS— Spegazzini (1926) under *Polystictus*.
- Fomes fasciatus*** (Sw.) Cooke
 PREVIOUS REPORTS— Spegazzini (1926).
- ✓ ***Fomitiporia punctata*** (P. Karst.) Murrill
 REPRESENTATIVE SPECIMENS EXAMINED— ARGENTINA. Salta: ORÁN, AGUAS BLANCAS, QUEBRADA EL NOGALAR— 24 July 1986, *Palaci 717* (BAFC 30784).
- Fomitopsis feei*** (Fr.) Kreisel
 PREVIOUS REPORTS— Spegazzini (1926) under *Polystictus*.
- ☑ ***Fomitopsis meliae*** (Underw.) Gilb.
 REPRESENTATIVE SPECIMENS EXAMINED— ARGENTINA. Jujuy: YUTO, on *Melia* sp.— 30 January 1965, *Bettucci & Guerrero* (BAFC 31347).
 Tucumán: RIO DE LOS SOSA— 18 February 1971, *Wright* (BAFC).
- Funalia gallica*** (Fr.) Bondartsev & Singer
 PREVIOUS REPORTS— Robledo et al. (2003b).
- Funalia trogii*** (Berk.) Bondartsev & Singer
 PREVIOUS REPORTS— Spegazzini (1898) as '*Trametes tucumanensis* Speg.'; Spegazzini (1919) as '*Trametes hispida* Bagl. var. *trogii* (Brk.)'
- ✓ ***Fuscocerreana portoricensis*** (Fr.) Ryvardeen
 REPRESENTATIVE SPECIMENS EXAMINED— ARGENTINA. Tucumán: HORCO MOLLE— 9 April 1987, *Job 3935* (BAFC 31135); TAFÍ DEL VALLE, EL INDIO, on decayed trunk of *Phoebe porfiria*— 19 July 1974, *Deschamps & del Busto Tuc2585* (BAFC 24174).
- Fuscoporia gilva*** (Schwein.) T. Wagner & M. Fisch.
 PREVIOUS REPORTS— Spegazzini (1926) as '*Polystictus lichnoides* Mntgn.'; Robledo et al. (2003b).
- Ganoderma adpersum*** (Schulzer) Donk
 PREVIOUS REPORTS— Spegazzini (1898) as '*Fomes applanatus* (Pers.) Wallr.'; Spegazzini (1919, 1926) as '*Ganoderma loricatum* Pers.' (LPS 24888); Gottlieb et al. (1998); Robledo et al. (2003b).
- ✓ ***Ganoderma coffeatum*** (Berk.) J.S. Furtado
 REPRESENTATIVE SPECIMENS EXAMINED— ARGENTINA. Salta: April 1961, Gómez (BAFC 23664).
- Ganoderma lucidum*** (Curtis) P. Karst.
 PREVIOUS REPORTS— Spegazzini (1919, 1926); Bazzalo & Wright (1982); Robledo et al. (2003b).
- Ganoderma oerstedii*** (Fr.) Murrill
 PREVIOUS REPORTS— Bazzalo & Wright (1982).
- Ganoderma resinaceum*** Boud.
 PREVIOUS REPORTS— Spegazzini (1926) as '*Ganoderma sessile* Murrill'; Bazzalo & Wright (1982).

Gloeophyllum striatum (Sw.) Murrill

PREVIOUS REPORTS— Spegazzini (1909) as '*Lenzites striata* Sw.'

Gloeoporus dichrous (Fr.) Bres.

PREVIOUS REPORTS— Robledo et al. (2003b).

✓ ***Grammothele subargentea*** (Speg.) Rajchenb.

REPRESENTATIVE SPECIMENS EXAMINED— **ARGENTINA. Tucumán:** TRANCAS, LA HIGUERA— 14 April 1987, *Job & Hladki 4012* (BAFC 31184).

Hexagonia hydroides (Sw.) M. Fidalgo

PREVIOUS REPORTS— Spegazzini (1898) as '*Trametes hydroides* (Schwn.) Fr.'; Spegazzini (1919) as '*Trametes fibrosa* Fr.'

Hexagonia papyracea Berk.

PREVIOUS REPORTS— Spegazzini (1909, 1919) as '*Hexagona varigata* Berk.'; Robledo et al. (2003b).

✓ ***Hydnopolyporus fimbriatus*** (Fr.) D.A. Reid

REPRESENTATIVE SPECIMENS EXAMINED— **ARGENTINA. Tucumán:** ROAD 38 KM 19 NEAR TAFI DEL VALLE— 16 June 1970, *Guerrero & Ruiz* (LIL 54003); CAPITAL, VILLA LUJÁN, on *Morus* sp— 5 April 1960, *Singer T3614* (LIL).

Inocutis jamaicensis (Murrill) A.M. Gottlieb et al.

PREVIOUS REPORTS— Gottlieb et al. (2002).

Inonotus patouillardii (Rick) Imazeki

PREVIOUS REPORTS— Gottlieb et al. (2002).

✓ ***Inonotus quercustris*** M. Blackw. & Gilb.

REPRESENTATIVE SPECIMENS EXAMINED— **ARGENTINA. Tucumán:** August 1917, Spegazzini (LPS 25209).

NOTES— this particular, amphitropical species was described decaying oak in Louisiana, USA (Blackwell & Gilbertson 1985), and then recorded from central Argentina on several substrates (Urcelay & Rajchenberg 1999, Gottlieb et al. 2002, Robledo et al. 2006). The material studied, collected, determined and published by Spegazzini (1926), was erroneously kept at LPS as '*Polyporus hypocitrinus* Brk.' [*Tyromyces hypocitrinus* (Berk.) Ryvarden (Ryvarden 1984)].

Inonotus rickii (Pat.) D.A. Reid

PREVIOUS REPORTS— Spegazzini (1926) as '*Polyporus coruscans* Fr.'; Gottlieb et al. (2002).

✓ ***Inonotus splitgerberi*** (Mont.) Ryvarden

REPRESENTATIVE SPECIMENS EXAMINED— **ARGENTINA. Tucumán:** SAN JAVIER, ANTA MUERTA, ad truncum vivum *Allophylus edulis* in silva montano-subtropicali— 11 May 1950, *Singer T983* (BAFC).

Inonotus venezuelicus Ryvarden

PREVIOUS REPORTS— Robledo et al. (2006).

NOTES— this species was erroneously described as *Inonotus serranus* Robledo et al. in *Polylepis* forest of central Argentina, and was recently reduced to synonymy (Robledo et al. 2006).

Irpex lacteus (Fr.) Fr.

PREVIOUS REPORTS— Spegazzini (1919, 1926).

Junghuhnia carneola (Bres.) Rajchenb.

PREVIOUS REPORTS— Robledo et al. (2003b).

Junghuhnia undigera (Berk. & M.A. Curtis) Ryvarden

PREVIOUS REPORTS— Robledo et al. (2003b).

***Lenzites betulina* (L.) Fr.**

PREVIOUS REPORTS— Spegazzini (1898) as '*Lenzites umbrina* Fr.'; Robledo et al. (2003b).

***Mycobonia flava* (Sw.) Pat.**

PREVIOUS REPORTS— Reid (1976).

NOTES— Singer (1986) and Reid (1976) noted that *Mycobonia* Pat. comes close to *Polyporaceae* s.l., particularly with *Pseudofavolus* Pat. Krüger & Gargas (2004) showed, with molecular analyses, that *M. flava* (sequences obtained from an Argentinean collection) relates with *Pseudofavolus cucullatus* (Mont.) Pat., here considered as *Polyporus curtipes*.

✓ ***Nigroporus vinosus* (Berk.) Murrill**

REPRESENTATIVE SPECIMENS EXAMINED— ARGENTINA. Salta: ORÁN, URUNDEL, QUEBRADA DEL DIABLO— 12 July 1946, *Singer 1622* (LIL 5555).

✓ ***Oxyporus latemarginatus* (Durieu & Mont.) Donk**

REPRESENTATIVE SPECIMENS EXAMINED— ARGENTINA. Tucumán: JARDÍN DEL LILLO, ad terram nec non ad corticem arboris frondosae in horto— 15 June 1950, *Singer 1023* (BAFC 28077)

***Oxyporus obducens* (Pers.) Donk**

PREVIOUS REPORTS— Robledo et al. (2006).

***Panellus pusillus* (Pers. ex Lévl.) Burds. & O.K. Mill.**

PREVIOUS REPORTS— Spegazzini (1919) as '*Favolus rhipidium* (Berk.) Sacc.'

***Perenniporia gomezii* Rajchenb. & J.E. Wright**

PREVIOUS REPORTS— Rajchenberg & Wright (1982).

NOTES— David & Rajchenberg (1985) synonymized this taxon to *Pyrofomes fulvo-umbrinus* (Bres.) A. David & Rajchenb., but Decock & Ryvarden (2000) suggested to maintain it as a separate species.

✓ ***Perenniporia martius* (Berk.) Ryvarden**

REPRESENTATIVE SPECIMENS EXAMINED— ARGENTINA. Salta: ORÁN— September 1975, Barrios S2741 (BAFC).

***Perenniporia medulla-panis* (Jacq.) Donk**

REPRESENTATIVE SPECIMENS EXAMINED— ARGENTINA. Tucumán: October 1917, *Spegazzini* (LPS 28077); TAFICILLO, on dead branch of *Celtis tala*— 3 October 1979, *Rajchenberg T3173* (BAFC 28172).

PREVIOUS REPORTS— Spegazzini (1926)

***Perenniporia ohiensis* (Berk.) Ryvarden**

PREVIOUS REPORTS— Wright et al. (1985).

***Perenniporia tephropora* (Mont.) Ryvarden**

PREVIOUS REPORTS— Spegazzini (1926) as '*Fomes lividus* Klkbr.'; Wright (1976).

***Phaeotrametes decipiens* (Berk.) J.E. Wright**

PREVIOUS REPORTS— Wright (1966).

***Phellinus apiahynus* (Speg.) Rajchenb. & J.E. Wright**

PREVIOUS REPORTS— Robledo et al. (2006).

✓ ***Phellinus aureobrunneus* J.E. Wright & Blumenf.**

REPRESENTATIVE SPECIMENS EXAMINED— ARGENTINA. Tucumán: TAFI VIEJO— 30 May 1976 (LIL 53447). Corrientes: May 1974 (HOLOTYPE-CTES AK28608).

NOTES— this species was known from the type collection described by Wright & Blumenfeld (1984) from NE Argentina and from Pernambuco in Brazil

(Gibertoni & Cavalcanti 2000). The thin-walled colored spores and the dark line at the base of the context are diagnostic features.

Phellinus chaquensis (Iaconis & J.E. Wright) J.E. Wright & J.R. Deschamps

PREVIOUS REPORTS— Iaconis & Wright (1953).

✓ ***Phellinus fastuosus*** (Lév.) S. Ahmad

REPRESENTATIVE SPECIMENS EXAMINED— ARGENTINA. **Jujuy:** ROAD 34 NEAR LEDESMA, (LPS 37526).

☑ ***Phellinus johnsonianus*** (Murrill) Ryvardeen

REPRESENTATIVE SPECIMENS EXAMINED— ARGENTINA. **Tucumán:** ANTA MUERTA— 17 July 1974, *del Busto & Deschamps T2528* (BAFC). **Jujuy:** ABRA DE LOS MORTEROS— 13 November 1973, *Cordo et al. J72* (BAFC). **UNITED STATES.** Michigan, Ann Arbor— 9 August 1894, *Johnson 1764* (HOLOTYPE-NY 776532).

NOTES— previously known from eastern regions of North America (Gilbertson & Ryvardeen 1987) and reported from Puerto Rico and Venezuela (Fidalgo & Fidalgo 1968, Ryvardeen & Iturriaga 2001) in South America. No differences were observed with the reference material.

☛ ***Phellinus laevigatus*** (Fr.) Bourdot & Galzin

REPRESENTATIVE SPECIMENS EXAMINED— ARGENTINA. **Tucumán:** SIERRA DE SAN JAVIER— 4 March 1972, *Teresa Ruiz* (BAFC). **FRANCE.** Rhône, Region de Montagne— March 1983, *David & Rajchenberg* (BAFC). **FINLAND.** Uusimaa prov Sipoo par— 11 October 1969, *Niemelä* (BAFC).

NOTES— this species is well known in the North Hemisphere, viz., North America (Gilbertson & Ryvardeen 1987), Europe (Ryvardeen & Gilbertson 1994) and Asia (Nuñez & Ryvardeen 2000). No differences were observed with reference materials.

✓ ***Phellinus merrilli*** (Murrill) Ryvardeen

REPRESENTATIVE SPECIMENS EXAMINED— ARGENTINA. **Salta:** ORÁN, AGUAS BLANCAS— 16 July 1986, *Palaci 613* (BAFC 30785, 30786); CAMPO DURÁN, LA ANGOSTURA, on branches of *Piptadenia macrocarpa*— 11 November 1974, *Wright et al.* (BAFC).

Phellinus rhabarbarinus (Berk.) G. Cunn.

REPRESENTATIVE SPECIMENS EXAMINED— ARGENTINA. **Salta:** SANTA VICTORIA, LOS TOLDOS, QUEBRADA EL NOGALAR— 19 March 1986, *Palaci 449* (BAFC); SAME LOCALITY— same date, *Palaci 462* (BAFC 30716); **Tucumán:** *León Castellón 39056* (HOLOTYPE-BPI 310286); MONTEROS, RIO DE LOS SOSA— 14 November 1946, *Digilio-Grassi 952* (LIL 7343); SAME LOCALITY, ad truncum vetustum— 18 January 1950, *Singer T910* (BAFC); VILLA NOGUÉS, on decayed trunks of *Blefarocalix gigantea*— 17 July 1974, *Deschamps & del Busto T2544* (BAFC).

PREVIOUS REPORTS— Lloyd (1915) as *Fomes rheicolor* Lloyd; see also comments under *Fomes rhabarbarinus* in section Nomina Incerta.

NOTES— in the original description of *Fomes rheicolor* the locality is only mentioned as Argentina (Lloyd 1915). The study of the type material revealed it to come from the Yungas Region. *F. rheicolor* was synonymized with *Ph. rhabarbarinus* (Ryvardeen 1989).

Phellinus rimosus (Berk.) Pilát

PREVIOUS REPORTS— Spegazzini (1919, 1926) as '*Fomes pappianus* Bresad.'

✓ ***Phellinus senex*** (Nees & Mont.) Imazeki

REPRESENTATIVE SPECIMENS EXAMINED— ARGENTINA. **Tucumán:** ANTA MUERTA, SIERRA DE SAN JAVIER, *Singer T689* (LIL).

- ☑ ***Phellinus shaferi* (Murrill) Ryvarden**
 REPRESENTATIVE SPECIMENS EXAMINED— ARGENTINA. Tucumán:
 HORCO MOLLE— 9 April 1987, *Job 3939* (BAFC); SAME LOCALITY— 10 April
 1987, *Job & Hladki 3951* (BAFC).
 NOTES— a neotropical species previously known from Panama and Venezuela
 (Ryvarden 2004).
- ☑ ***Phylloporia capucina* (Mont.) Ryvarden**
 REPRESENTATIVE SPECIMENS EXAMINED— ARGENTINA. Tucumán:
 August 1917, *Spegazzini* (LPS 25209).
 NOTES— previously known from the type locality in Brazil (Wagner &
 Ryvarden 2002) and from Paraguay (Popoff & Wright 1998). The rather large
 basidiospores make this species distinguishable from other taxa in the genus.
- Phylloporia fruticum* (Berk. & M.A. Curtis) Ryvarden**
 PREVIOUS REPORTS— Spegazzini (1909, 1912, 1926) under *Fomes*.
- ✓ ***Phylloporia pectinata* (Klotzsch) Ryvarden**
 REPRESENTATIVE SPECIMENS EXAMINED— ARGENTINA. Tucumán:
 FAMAILLÁ, QUEBRADA DE LULES— 6 October 1946, *Garolera* (LIL 6987).
- Polyporus arcularioides* A. David & Rajchenb.**
 PREVIOUS REPORTS— Silveira & Wright (2005).
- ✓ ***Polyporus arcularius* (Batsch) Fr.**
 REPRESENTATIVE SPECIMENS EXAMINED— ARGENTINA. Tucumán:
 HORCO MOLLE— 9 April 1987, *Job 3931* (BAFC).
- ☑ ***Polyporus biskeletalis* Corner**
 REPRESENTATIVE SPECIMENS EXAMINED— ARGENTINA. Tucumán:
 December 1956 (LIL).
 NOTES— species previously known only from the type locality in Brazil. The
 diagnostic features observed in the material studied: viz. presence of a
 tomentose-hydroid process at the base of the pilear surface, separated from the
 context by a thin, dark line, the presence of “giant” skeletal hyphae (up to 15
 µm in diameter in the material studied) and, finally, the pores’ shape and size
 (elongated, 2-4 mm long x 0.5-1 mm wide) agree with the original description
 (Corner 1984).
- Polyporus ciliatus* Fr.**
 PREVIOUS REPORTS— Spegazzini (1898) as ‘*Polyporus platensis* Speg.’
- ✓ ***Polyporus curtipes* (Berk. & M.A. Curtis) Ryvarden.**
 REPRESENTATIVE SPECIMENS EXAMINED— ARGENTINA. Jujuy:
 CALILEGUA NATIONAL PARK— 10 November 1999 (CORD). Tucumán:
 SIERRA DE SAN JAVIER— 5 July 1953, *Grassi & Vervoorst* (LIL).
- Polyporus dictyopus* Mont.**
 PREVIOUS REPORTS— Robledo et al. (2003b); Silveira & Wright (2005).
- Polyporus guianensis* Mont.**
 PREVIOUS REPORTS— Silveira & Wright (2005).
- ✓ ***Polyporus leprieurii* Mont.**
 REPRESENTATIVE SPECIMENS EXAMINED— ARGENTINA. Tucumán:
 TAFÍ VIEJO— 7 February 1965, *Guerrero & Betucci* (BAFC).
- Polyporus melanopus* (Pers.) Fr.**
 PREVIOUS REPORTS— Silveira & Wright (2005).
- Polyporus puttemansii* Henn.**
 PREVIOUS REPORTS— Silveira & Wright (2005) as *Polyporus guianensis* var.
puttemansii (Henn.) R.M Silveira & J.E. Wright.

- Polyporus saltensis* (Speg.) R.M. Silveira & J.E. Wright**
PREVIOUS REPORTS— Spegazzini (1898) as '*Favolus saltensis* Speg.'; Silveira & Wright (2005).
- Polyporus tenuiculus* (P. Beauv.) Fr.**
PREVIOUS REPORTS— Spegazzini (1926) as '*Favolus brasiliensis* Fr.'; Silveira & Wright (2005).
- Polyporus tricholoma* Mont.**
PREVIOUS REPORTS— Spegazzini (1926) under *Leucoporus*; Robledo et al. (2003b); Silveira & Wright (2005).
- Polyporus tucumanensis* Speg.**
PREVIOUS REPORTS— Spegazzini (1898); Silveira & Wright (2005).
- ✓ ***Polyporus udus* Jungh.**
REPRESENTATIVE SPECIMENS EXAMINED— **ARGENTINA. Salta:** SANTA VICTORIA, LOS TOLDOS— 17 March 1986, *Palaci 440* (BAFC 30711).
- ✓ ***Postia leucomallella* (Murrill) Jülich**
REPRESENTATIVE SPECIMENS EXAMINED— **ARGENTINA. Tucumán:** HORCO MOLLE— 9 April 1987, *Job 3944* (BAFC); SAME LOCALITY, same date, *Job 3938* (BAFC).
- Pycnoporus sanguineus* (L.) Murrill**
PREVIOUS REPORTS— Spegazzini (1909, 1919) under *Polystictus*; Robledo et al. (2003b).
- Rigidoporus concreescens* (Mont.) Rajchenb.**
PREVIOUS REPORTS— Rajchenberg (1987) as *Rigidoporus umbonatipes* Rajchenb.
- ✓ ***Rigidoporus lineatus* (Pers.) Ryvarden**
REPRESENTATIVE SPECIMENS EXAMINED— **ARGENTINA. Tucumán:** ACONQUIJA, SIERRA DE SAN JAVIER, ad truncum emortuum— 29 October 1949, *Digilio & Singer T733* (BAFC).
- Rigidoporus ulmarius* (Sowerby) Imazeki**
PREVIOUS REPORTS— Spegazzini (1898) as '*Fomes xylocreon* Speg.'.
- Schizopora radula* (Pers.) Hallenb.**
PREVIOUS REPORTS— Robledo et al. (2003b).
- ☑ ***Skeletocutis nivea* (Jungh.) Jean Keller**
REPRESENTATIVE SPECIMENS EXAMINED— **ARGENTINA. Tucumán:** SAN JAVIER— 28 July 1963, (BAFC 26999); **Salta:** ORÁN, URUNDEL— 13 July 1946, *Digilio & Grassi 554* (LIL 5622).
NOTES— a species already recorded from neotropical regions (Ryvarden & Iturriaga 2003).
- ☛ ***Skeletocutis stellae* (Pilát) Jean Keller**
REPRESENTATIVE SPECIMENS EXAMINED— **ARGENTINA. Salta:** 5 KM FROM HICKMAN, on logs of *Caesalpinia paraguayensis*— 12 November 1974, *Wright et al. Sal2665* (BAFC 27000). **CZECH REPUBLIC. BOHEMIA,** ad truncum iacentem *Picea abies*— 21 September 1991, *Vampola* (BAFC 32941).
NOTES— this species is well known in the North Hemisphere, viz., North America (Gilbertson & Ryvarden 1987), Europe (Ryvarden & Gilbertson, 1994) and Asia (Nuñez & Ryvarden 2001). No differences were observed with the reference material.
- Trametes cubensis* (Mont.) Sacc.**
PREVIOUS REPORTS— Spagazzini (1926) under *Polyporus*; Robledo et al. (2003b).

Trametes elegans (Spreng.) Fr.

PREVIOUS REPORTS— Spegazzini (1898) as '*Lenzites deplanata* Fr.', '*Lenzites polita* Fr.' and '*Lenzites tenuis* Lév.'; Spegazzini (1909, 1919) as '*Trametes ambigua* Brk.'

✓ ***Trametes hirsuta*** (Wulfen) Pilát

REPRESENTATIVE SPECIMENS EXAMINED— **ARGENTINA. Tucumán:** ANTA MUERTA— 3 May 1987, *Hladki T58* (LIL 53698); RACO— 14 June 1987, *Hladki 74* (LIL 53714).

Trametes lilacea Bres.

REPRESENTATIVE SPECIMENS EXAMINED— **ARGENTINA. (HOLOTYPE-LPS 30510).**

PREVIOUS REPORTS— Spegazzini (1926); Gibertoni et al. (2006).

NOTES— Gibertoni et al. (2006) accept the species in *Trametes*. Our observations of the type material show a sterile specimen without development of hymenium. The taxonomic position of this species requires a critical evaluation. It is only known from the holotype.

Trametes modesta (Kunze ex Fr.) Ryvarden

REPRESENTATIVE SPECIMENS EXAMINED— **ARGENTINA. Jujuy:** *Polyporus recurvatus* (HOLOTYPE-NY).

PREVIOUS REPORTS— Spegazzini (1926) as '*Polystictus recurvatus* Theiss.'

NOTES— the study of the type of *Polyporus recurvatus* Theiss. revealed it to be the same as *T. modesta*, and then a heterotypic synonym.

Trametes versicolor (L.) Lloyd

PREVIOUS REPORTS— Spegazzini (1916); Rajchenberg (1982); Robledo et al. (2003b).

Trametes villosa (Sw.) Kreisel

PREVIOUS REPORTS— Spegazzini (1909) as '*Polystictus gibberulosus* Lév.'; Spegazzini (1919) as '*Polystictus pinsitus* Fr.'; Rajchenberg (1982); Robledo et al. (2003b).

Trichaptum biforme (Fr.) Ryvarden

PREVIOUS REPORTS— Spegazzini (1898) as '*Polystictus laceratus* Brk.'

Trichaptum byssogenum (Jungb.) Ryvarden

PREVIOUS REPORTS— Spegazzini (1926) as '*Polystictus versatilis* Brk.'

Trichaptum fumoso-avellanea (Romell) Rajchenb. & Bianchin.

PREVIOUS REPORTS— Rajchenberg & Bianchinotti (1991).

Trichaptum sector (Ehrenb.) Kreisel

PREVIOUS REPORTS— Spegazzini (1909) as '*Polystictus floridanus* Berk.'; Spegazzini (1926) under *Polystictus*.

Nomina incerta

The following list includes names published by Spegazzini that require re-evaluation. Some combinations were not traced, representative materials were not found at the herbaria and there is no mention regarding their placement. In other cases the herbarium materials could not be identified because they were sterile or deteriorated.

‘*Fomes auberianus* Mntgn.’

NOTES— recorded by Spegazzini (1926). Materials not traced. The name is actually synonymized with *Rigidoporus microporus* (Sw.) Overeem (cfr. www.indexfungorum.org).

‘*Fomes bistratosus* Brk.’

NOTES— recorded by Spegazzini (1926). Type specimen of this species was studied and stated in synonymy with *Rigidoporus vinctus* (Berk.) Ryvarden (Ryvarden 1984). The Spegazzini material studied under this name (LPS 24942) is a sterile *Phellinus* Quél.

‘*Fomes igniarius* (L.) Fr.’

NOTES— recorded by Spegazzini (1898). Materials not traced. *Phellinus igniarius* (L.) Quél.?

‘*Fomes lorentzianus* Klkbr.’

NOTES— recorded by Spegazzini (1898). Materials not traced. A *Ganoderma* species with its lectotype lost (Moncalvo & Ryvarden 1997); Bazzalo & Wright (1982) mentioned that it might be an earlier name for *G. resinaceum*.

‘*Fomes rhabarbarinus* Brk.’

NOTES— recorded by Spegazzini (1926). The study of Spegazzini’s material (LPS 16931) shows a mixed collection of *Phellinus chaquensis* and *Phellinus johnsonianus*.

‘*Fomes rhytiphloeus* Mntgn.’

NOTES— recorded by Spegazzini (1898). Materials not traced. *Phellinus rhytiphloeus* (Mont.) Ryvarden?

‘*Fomes ribis* (Schm.) Fr.’

NOTES— recorded by Spegazzini (1898). Materials not traced. *Phylloporia ribis* (Schumach.) Ryvarden?

‘*Fomes sclerophyllaceus* Brk.’

NOTES— recorded by Spegazzini (1926). Materials not traced.

‘*Fomes semitostus* Brk.’

NOTES— recorded by Spegazzini (1926). Materials not traced. This species was described from India and combined in *Fomitopsis* P. Karst. by Ryvarden (1977) and is actually synonymized with *Rigidoporus microporus* (cfr. www.indexfungorum.org).

‘*Fomes supinus* (Sw.) Fr.’

NOTES— recorded by Spegazzini (1926). Materials not traced. *Fomitella supina* (Sw.) Murrill?

‘*Ganoderma chilense* Fr.’

NOTES— recorded by Spegazzini (1919). Materials not traced. A taxon within the *Ganoderma applanatum* (Pers.) Pat. complex, suggested as synonym of *G. australe* (Fr.) Pat. fide Moncalvo & Ryvarden (1997).

‘*Ganoderma fornicatum* Fr.’

NOTES— recorded by Spegazzini (1926). Materials not traced.

‘*Ganoderma loricatum* Pers.’

NOTES— recorded by Spegazzini (1919, 1926). This is probably *Ganoderma adpersum*, as is shown by a material studied kept as *G. loricatum* (ARGENTINA, Jujuy, May 1924, Petrochi, LPS 24888). The name, though, is a synonym of *Phellinus conchatus* (Pers.) Quél. (cfr. www.indexfungorum.org).

‘*Ganoderma orbiforme* Fr.’

NOTES— recorded by Spegazzini (1919). Materials not traced. *Ganoderma orbiforme* (Fr.) Ryvardeen?

‘*Ganoderma pseudoboletus* (Speg.) Pat.’

NOTES— recorded by Spegazzini (1909, 1919). The only material found (LPS 24862) is damaged and unidentifiable. However, it is an *Amauroderma* species and probably *Amauroderma pseudoboletus* (Speg.) J.S. Furtado, as suggested by Furtado (1981).

‘*Ganoderma scleton* (Fr.) Bresad.’

NOTES— recorded by Spegazzini (1926). Materials not traced. According to Moncalvo & Ryvardeen (1997), a name of unknown identity.

‘*Lenzites argentina* Speg.’

NOTES— recorded by Spegazzini (1898). It is *Gloeophyllum sepiarium* (Wulf.) P. Karst. vel aff. fide Rajchenberg & Wright (1987).

‘*Leucoporus brumalis* (Prs.) var. *vernalis* Quél.’

NOTES— recorded by Spegazzini (1926). Materials not traced. *Polyporus brumalis* (Pers.) Fr.? Silveira & Wright (2005) stated that *Polyporus tucumanensis* could be mistaken with *P. brumalis* and that it is possible that *P. brumalis* is not present in native forests of South America.

‘*Polyporus cognatus* Bresad.’

NOTES— recorded by Spegazzini (1926). Materials not traced. Species not mentioned in the type studies of Bresadola’s species (Ryvardeen 1988).

‘*Polyporus sulfureus* (Bull.) Fr.’

NOTES— recorded by Spegazzini (1898). No material was available for study.

‘*Polystictus fumosus* Prs.’

NOTES— recorded by Spegazzini (1919). Materials not traced. *Bjerkandera fumosa* (Pers.) P. Karst.?

‘*Polystictus pavonius* (Hook.) Fr.’

NOTES— recorded by Spegazzini (1926). Materials not traced. Probably *Trametes pavonia* (Hook.) Ryvardeen, but Rajchenberg (1982) did not record this species from the area.

‘*Polystictus pruvinatus* Brk. & Klotz.’

NOTES— recorded by Spegazzini (1898). Materials not traced. Probably *Corioloopsis sanguinaria* (Klotzsch) Teng fide Ryvardeen (1976).

‘*Polystictus surinamensis* Miq.’

NOTES— recorded by Spegazzini (1926). Materials not traced. Probably *Rigidoporus lineatus*.

‘*Trametes actinopila* Mntgn.’

NOTES— recorded by Spegazzini (1926), mentioned as common in Tucumán, Salta and Jujuy provinces. Materials not traced. Probably *Cerrena sclerodepsis* (Berk.) Ryvardeen. *Trametes actinopila* (Mont.) Sacc. is considered a synonym of *C. sclerodepsis* (Ryvardeen 1982), a fact previously underlined by Spegazzini (1926) in his remarks of *T. actinopila*.

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