

## A checklist of clavarioid fungi (*Agaricomycetes*) recorded in Brazil

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**ABSTRACT** — Based on an intensive search of literature about clavarioid fungi (*Agaricomycetes: Basidiomycota*) in Brazil and revision of material deposited in Herbaria PACA and URM, a list of 195 taxa was compiled. These are distributed into six orders (*Agaricales*, *Cantharellales*, *Gomphales*, *Hymenochaetales*, *Polyporales* and *Russulales*) and 12 families (*Aphelariaceae*, *Auriscalpiaceae*, *Clavariaceae*, *Clavulinaceae*, *Gomphaceae*, *Hymenochaetaceae*, *Lachnocladiaceae*, *Lentariaceae*, *Lepidostromataceae*, *Physalacriaceae*, *Pterulaceae*, and *Typhulaceae*). Among the 22 Brazilian states with occurrence of clavarioid fungi, Rio Grande do Sul, Paraná and Amazonas have the higher number of species, but most of them are represented by a single record, which reinforces the need of more inventories and taxonomic studies about the group.

**KEY WORDS** — diversity, taxonomy, tropical forest

### Introduction

The clavarioid fungi are a polyphyletic group, characterized by coralloid, simple or branched basidiomata, with variable color and consistency. They include 30 genera with about 800 species, distributed in *Agaricales*, *Cantharellales*, *Gomphales*, *Hymenochaetales*, *Polyporales* and *Russulales* (Corner 1970; Petersen 1988; Kirk et al. 2008). These fungi are usually humicolous or lignicolous, but some can be symbionts – ectomycorrhizal, lichens or pathogens, being found in temperate, subtropical and tropical forests (Corner 1950, 1970; Petersen 1988; Nelsen et al. 2007; Henkel et al. 2012). Some species are edible, while some are poisonous (Toledo & Petersen 1989; Henkel et al. 2005, 2011).

Studies about clavarioid fungi in Brazil are still scarce (Fidalgo & Fidalgo 1970; Rick 1959; De Lamônica-Freire 1979; Sulzbacher et al. 2012, 2016; Wartchow 2012a, 2012b; Furtado et al. 2016; Hyde et al. 2016). Most species were reported by Corner (1950, 1952a, 1952b, 1953, 1967, 1970), with a few by Hennings (1904), Theissen (1912), Burt (1919, 1920), Spegazzini (1919), Batista et al. (1966), Bononi (1979, 1980, 1981, 1992), Petersen (1981, 1983), Capelari & Maziero (1988), Silva & Minter (1995), Giachini (2004), Gibertoni et al. (2004), Sobestiansky (2005), Meijer (2006, 2009, 2010), Bononi et al. (2008), Araujo-Neta (2013) and Hodkinson et al. (2014). Thus, this study aimed to organize the records about clavarioid fungi in Brazil by presenting a checklist of the species and their distribution.

### Materials & Methods

The occurrences of clavarioid fungi in Brazil were listed after an extensive literature review, considering records found in published articles, books and dissertations. Additionally, material deposited URM and PACA herbaria was also revised. The nomenclature was updated (when necessary) using MycoBank ([www.mycobank.org/](http://www.mycobank.org/)) and Index Fungorum Partnership ([www.indexfungorum.org](http://www.indexfungorum.org)) databases.

The records are organized alphabetically by order, family, genus and species.

Brazil has 27 states and the 22 with occurrence of clavarioid fungi are abbreviated as: Acre (AC), Alagoas (AL), Amazonas (AM), Bahia (BA), Ceará (CE), Distrito Federal (DF), Maranhão (MA), Mato Grosso (MT), Mato Grosso do Sul (MS), Minas Gerais (MG), Pará (PA), Paraíba (PB), Paraná (PR), Piauí (PI), Pernambuco (PE), Rio de Janeiro (RJ), Rio Grande do Sul (RS), Rondônia (RO), Roraima (RR), Santa Catarina (SC), Sergipe (SE), and São Paulo (SP).

## Results and Discussion

After literature review and herbaria records, 195 species and varieties are compiled and listed below. The species are distributed in six orders of Basidiomycota: *Agaricales*, *Cantharellales*, *Gomphales*, *Hymenochaetales*, *Polyporales* and *Russulales*, and 12 families: *Aphelariaceae*, *Auriscalpiaceae*, *Clavariaceae*, *Clavulinaceae*, *Gomphaceae*, *Hymenochaetaceae*, *Lepidostromataceae*, *Lachnocladiaceae*, *Lentariaceae*, *Physalacriaceae*, *Pterulaceae* and *Typhulaceae*.

Material not identified to species was also found after literature and herbaria revision. De Lamônica-Freire (1979) reports *Pterula* sp. in RR, Capelari & Maziero (1988) *Clavaria* sp. in RO, Sobestiansky (2005) *Physalacria* sp. in RS and Meijer (2006, 2009) *Ramaria* sp. (subgen. *Echinoramaria*) in PR.

De Lamônica-Freire (1979) also reports *Clavaria alliacea* Corner in AM, but the name is invalid.

One hundred eight exsiccates were analyzed. Most of them were identified to species level, while several were identified to genus and after revision were confirmed or re-identified as *Clavaria* sp. (URM 23292 and URM 47817, both collected in PE), *Lachnocladium* sp. (URM 2344 in PE), *Ramaria* sp. (URM 75722 and URM 75751 in PE), *Ramariopsis* sp. (URM 5414 and URM 5799 in PE). Most of these specimens were in poor conditions or didn't have detailed notes about their characteristics when fresh.

In conclusion, there are 150 species confirmed to Brazil based in literature (\*), 12 based in literature and herbaria revision (\*\*\*) and 29 not confirmed to Brazil (#).

### **AGARICALES Underw.**

#### **Clavariaceae Chevall.**

#*Clavaria albipes* Mont., Annales des Sciences Naturelles Botanique 18: 244 (1842)

State: RS (Rick 1959).

Revised materials: PACA Fungi Rickiani 12240 and 17231 were both re-identified as *Ramaria* sp.

\**Clavaria cinereoatra* Rick, Brotéria Série Botânica 5: 12 (1906)

State: RS (Corner 1950).

\**Clavaria diverticulata* A.N.M. Furtado & M.A. Neves, Phytotaxa 253 (1): 2 (2016)

State: RS (Furtado et al. 2016).

\**Clavaria fragilis* Holmsk., Beata ruris otia fungis danicis 1: 7, t. 2–3 (1790)

State: PR (Meijer 2006, 2009 as *Clavaria* cf. *fragilis*, Furtado et al. 2016), SC (Furtado et al. 2016); RS (Corner 1967 as *C. vermicularis* SW.).

\**Clavaria fumosa* Pers., Annalen der Botanik (Usteri) 15: 31 (1795)

State: SC (Furtado et al. 2016).

\**Clavaria gibbsiae* Ramsb., Contr. Phytogeogr. Arfak. Mount.: 187 (1917)

State: PR, SC (Furtado et al. 2016).

\**Clavaria gibbsiae* var. *megasporea* Corner, Annals of Botany Memoirs 1: 691 (1950)

State: RJ (Corner 1967).

- \**Clavaria gibbsiae* var. *tenuis* f. *microspora* Corner, Annals of Botany Memoirs 1: 691 (1950)  
State: RJ (Corner 1967).
- \**Clavaria guarapiensis* Speg., Anales de la Sociedad Científica Argentina 17 (2): 81 (1884)  
State: RS (Rick 1959).
- #*Clavaria inaequalis* O.F. Müll., Fl. Danic. 5(14): 8 (1780)  
State: RS (Rick 1959).  
Revised material: PACA Fungi Rickiani 12443 was re-identified as *Clavulinopsis* sp.
- \**Clavaria lilacina* Jungh. in Lév. Champ. exot. p. 216 (1844)  
State: RS (Rick 1959).
- \**Clavaria neofossicola* Corner, Transactions of the British Mycological Society 50 (1): 38 (1967)  
State: AM, RJ (Corner 1967); PE (Araujo-Neta 2013).  
Revised material: URM 75621, collected in PE and originally identified as *Typhula* sp., was re-identified as *Clavaria* cf. *neofossicola*.
- \**Clavaria neofossicola* var. *armeniaca* Corner, Transactions of the British Mycological Society 50 (1): 40 (1967)  
State: AM, BA (Corner 1967); MT (Corner 1970); PE (Araujo-Neta 2013).  
Revised material: URM 75684, collected in PE, was re-identified as *Clavaria* cf. *neofossicola*.
- \**Clavaria parallela* Rick, Egatea 16: 118 (1931)  
State: RS (Rick 1959).
- \**Clavaria pteruloides* Pat. & Gaillard, Bulletin de la Société Mycologique de France 4 (1): 41 (1888)  
State: RS (Rick 1959).
- \**Clavaria pygmaea* Rick, Egatea 16: 117 (1931)  
State: probably RS (Corner 1970).
- \**Clavaria ridleyi* Masee, Bulletin of Miscellaneous Informations of the Royal Botanical Gardens Kew 1899: 172 (1899)  
State: RS (Rick 1959 as *Clavaria rydleyi* Masee).  
Revised material: PACA Fungi Rickiani 12439 was re-identified as *Clavulina* sp. The other sample, PACA Fungi Rickiani 12463, was not revised.
- \**Clavaria rosea* var. *grandispora* Corner, Transactions of the British Mycological Society 50 (1): 41 (1967)  
State: RJ (Corner 1967).
- \**Clavaria scabra* Berk., Hooker's Journal of Botany and Kew Garden Miscellany 8: 277 (1856)  
State: AM (Corner 1950).

#*Clavaria straminea* Cotton, Transactions of the British Mycological Society 3: 265 (1911)

State: PE.

Revised material: URM 2463 was re-identified as *Clavulina* sp.

\**Clavaria subglobosa* (Corner) A.N.M. Furtado & M.A. Neves, Phytotaxa 253 (1): 2 (2016)

= *Clavaria rosea* var. *subglobosa* Corner, Annals of Botany Memoirs 1: 691 (1950).

State: PR (Meijer 2010); RJ (Corner 1967); SC (Furtado et al. 2016).

\**Clavaria zollingeri* Lév., Annales des Sciences Naturelles Botanique 5: 155 (1846)

State: AM (De Lamônica-Freire 1979); PE (Araujo-Neta 2013); PR (Meijer 2006, 2009); RS, SC (Furtado et al. 2016); SP (Bononi 1981).

Revised material: URM 84249 was confirmed as *Clavaria* cf. *zollingeri*.

\**Clavulinopsis amoena* (Zoll. & Moritzi) Corner, Annals of Botany Memoirs 1: 352 (1950)

≡ *Clavaria amoena* Zoll. & Moritzi, Natuur- en Geneeskundig Archief voor Nederlandsch-Indië 1: 380 (1844).

State: AM, RS (Corner 1970); SC (Furtado et al. 2016).

\*\**Clavulinopsis aurantiaca* Araujo-Neta, Silva & Gibertoni, in Fungal Diversity Notes 81: 225 (2016)

State: PE (Hyde et al. 2016).

Revised material: URM 84212, URM 84216, URM 84272, URM 85691, URM 85692 and URM 85693 were all confirmed as *C. aurantiaca*.

\**Clavulinopsis aurantiocinnabarina* (Schwein.) Corner, Annals of Botany Memoirs 1: 358 (1950)

≡ *Clavaria aurantiocinnabarina* Schwein., Transactions of the American Philosophical Society 4 (2): 183 (1832).

State: AM (De Lamônica-Freire 1979); SC (Furtado et al. 2016). Sobestiansky (2005) reported *Clavaria* cf. *aurantiocinnabarina* to RS, while Meijer (2006) to PR.

Revised material: URM 499, collected in PE, was re-identified as *Clavaria* sp.

#*Clavulinopsis biformis* (G.F. Atk.) Corner, Annals of Botany Memoirs 1: 358 (1950)

≡ *Clavaria biformis* G.F. Atk., Annales Mycologici 6: 56 (1908)

State: PE (Araujo-Neta 2013).

Revised material: URM 453 was re-identified as *Clavulinopsis* sp.

\**Clavulinopsis carneola* Corner, Beihefte zur Nova Hedwigia 33: 55 (1970)

State: SP (Corner 1970).

\**Clavulinopsis corniculata* (Schaeff.) Corner, Annals of Botany Memoirs 1: 362 (1950)

≡ *Clavaria corniculata* Schaeff., Fungorum qui in Bavaria et Palatinatu circa Ratisbonam nascuntur Icones 4: 117, pl. 173 (1774).

State: probably RS (Corner 1970); PR (Meijer 2006 as *Clavaria corniculata*).

- \**Clavulinopsis corniculata* f. *simplex* Donk; Corner, Monogr. 361; Darwiniana 11:197 (1957)  
State: MS (Corner 1970).
- \**Clavulinopsis depokensis* (Overeem) Corner, Annals of Botany Memoirs 1: 364 (1950).  
≡ *Clavaria depokensis* Overeem., Bulletin du Jardin Botanique de Buitenzorg 5: 271 (1923).  
State: PR (Meijer 2006, 2009 as *Clavaria depokensis*).
- \**Clavulinopsis dimorphica* A.N.M. Furtado & M.A. Neves, Phytotaxa 253 (1): 012 (2016)  
State: RS (Furtado et al. 2016).
- #*Clavulinopsis* aff. *fusiformis* (Sowerby) Corner, Annals of Botany Memoirs 1: 367 (1950)  
≡ *Clavaria fusiformis* Sowerby, Coloured Figures of English Fungi 2: 98, pl. 234 (1799).  
State: AM (De Lamônica-Freire 1979).
- \**Clavulinopsis helvola* (Pers.) Corner, Annals of Botany Memoirs 1: 372 (1950)  
≡ *Clavaria helvola* Pers., Commentatio de Fungis Clavaeformibus: 69 (1797).  
State: SC (Furtado et al. 2016).
- \**Clavulinopsis imperata* A.N.M. Furtado & M.A. Neves, Phytotaxa 253 (1): 016 (2016)  
State: SC (Furtado et al. 2016).
- #*Clavulinopsis* aff. *inflatissima* Corner, Beihefte zur Nova Hedwigia 33: 64 (1970)  
State: AM (De Lamônica-Freire 1979).
- \**Clavulinopsis laeticolor* (Berk. & M.A. Curtis) R.H. Petersen, Mycologia 57: 522 (1965)  
≡ *Clavaria laeticolor* Berk. & M.A. Curtis, Botanical Journal of the Linnean Society 10: 338 (1869).  
State: AM (De Lamônica-Freire 1979); PR, RS, SC (Furtado et al. 2016); RS [Corner 1970 as *Clavulinopsis pulchra* (Peck) Corner]. De Lamônica-Freire (1979) also cites other specimen as *Clavulinopsis* aff. *laeticolor*.
- \**Clavulinopsis spiralis* (Jungh.) Corner, Annals of Botany Memoirs 1: 388 (1950)  
≡ *Clavaria spiralis* Jungh., Praemissa in floram cryptogamicam Javae insulae: 32 (1838).  
State: AM (De Lamônica-Freire 1979); SC (Furtado et al. 2016). Meijer (2006) reported *Clavaria* aff. *spiralis* to PR. De Lamônica-Freire (1979) also reports *Clavulinopsis* aff. *spiralis*.
- #*Clavulinopsis* aff. *umbrinella* (Sacc.) Corner, Annals of Botany Memoirs 1: 393 (1950)  
≡ *Clavaria umbrina* Berk., Outlines of British Fungology: 279, t. 18:4 (1860).  
State: AM [De Lamônica-Freire 1979 as *Clavulinopsis* aff. *holmskjoldii* (Oudem.) Corner].
- \*\**Multiclavula vernalis* (Schwein.) R.H. Petersen, Am. Midl. Nat. 77: 216 (1967)  
≡ *Clavaria vernalis* Schwein., Schriften der Naturforschenden Gesellschaft zu Leipzig 1: 112 (1822).  
State: RS (Rick 1959 as *Clavaria paludicola* Lib.).  
Revised material: PACA Fungi Rickiani 12438 and 12444, were both confirmed as *M. vernalis*.

- \**Mucronella albidula* (Corner) Berthier, *Bibliotheca Mycologica* 98: 82 (1985)  
 ≡ *Hormomitaria albidula* Corner, *Annals of Botany* 17: 362 (1953)  
 State: RJ (Corner 1953 as *H. albidula*).
- \**Mucronella calva* (Alb. & Schwein.) Fr., *Hymenomycetes europaei*: 629 (1874)  
 ≡ *Hydnum calvum* Alb. & Schwein., *Conspectus Fungorum in Lusatae superioris*: 271, t. 10:8 (1805).  
 State: AC (Bononi 1992); RO (Capelari & Maziero 1988).
- \*\**Ramariopsis atlantica* Araujo-Neta, Silva & Gibertoni, in *Fungal Diversity Notes* 81: 226 (2016)  
 State: PE (Hyde et al. 2016).  
 Revised material: URM 84210 and URM 84213 were both confirmed as *R. atlantica*.
- \**Ramariopsis dealbata* (Berk.) R.H. Petersen, *Persoonia* 12 (3): 230 (1984)  
 ≡ *Clavaria dealbata* Berk., *Hooker's Journal of Botany and Kew Garden Miscellany* 8: 275 (1856).  
 State: MT, RS [Corner 1970 as *Scytinopogon dealbatus* (Berk.) Corner]; PR [Meijer 2006 as *S. dealbatus*].
- \*\**Ramariopsis kunzei* (Fr.) Corner, *Annals of Botany Memoirs* 1: 640 (1950)  
 ≡ *Clavaria kunzei* Fr., *Systema Mycologicum* 1: 474 (1821).  
 State: PR (Meijer 2006); probably RS (Corner 1970); RS (Rick 1959 as *C. kunzei*); SC (Furtado et al. 2016).  
 Revised materials: PACA Fungi Rickiani 12466 and URM 445 (collected in PE), originally identified as *C. kunzei*, represent *R. kunzei* and *Ramariopsis* sp., respectively. The other sample, PACA Fungi Rickiani 12460, was not revised.
- \**Ramariopsis pulchella* (Boud.) Corner, *Annals of Botany Memoirs* 1: 645 (1950)  
 ≡ *Clavaria pulchella* Boud., *Bulletin de la Société Mycologique de France* 3: 146 (1887).  
 State: RJ (Corner 1970).
- \**Scytinopogon angulisporus* (Pat. & Gaillard) Corner, *Annals of Botany Memoirs* 1: 648 (1950)  
 ≡ *Clavaria angulispora* Pat. & Gaillard, *Bulletin de la Société Mycologique de France* 4 (1): 41 (1888).  
 State: PA, RJ, RS, SP (Corner 1970); PR (Meijer 2006).
- \*\**Scytinopogon robustus* (Rick) Corner, *Beihefte zur Nova Hedwigia* 33: 91 (1970)  
 ≡ *Clavaria robusta* Rick, *Egataea* 16: 120 (1931)  
 State: PE (Araujo-Neta 2013); PR (Meijer 2006); RJ (Corner 1970); RS (Rick 1959 as *C. robusta*).  
 Revised material: PACA Fungi Rickiani 12457, URM 84252 and URM 84265 were confirmed as *S. robustus*.
- \**Scytinopogon scaber* (Berk. & M.A. Curtis) D.A. Reid, *Persoonia* 2 (2): 161 (1962)  
 ≡ *Thelephora scabra* Berk. & M.A. Curtis, *American Journal of Science and Arts* 11: 94 (1851).  
 State: AM [Burt 1920 as *Stereum proliferum* (Berk.) Lloyd, Bononi 1981].

***Physalacriaceae* Corner**

\**Physalacria aggregata* Martin & A.C. Baker, Bulletin of the Torrey Botanical Club 68: 286 (1941)  
State: RS, SP (Corner 1970).

#*Physalacria inflata* (Schwein. ex Fr.) Peck, Bulletin of the Torrey Botanical Club 9: 2 (1882)  
≡ *Mitrula inflata* Schwein. ex Fr., Elenchus Fungorum 1: 234 (1828).  
State: RS (Rick 1959, Corner 1970).

Revised materials: PACA Fungi Rickiani 14511, 14513, 20523, and 20561 were in poor condition and were suggested to be discarded.

\**Physalacria rugosa* Rick, Brotéria Série Botânica 5: 12 (1906)  
State: RS (Rick 1959).

***Pterulaceae* Corner**

\**Allantula diffusa* Corner, Annals of Botany 16: 270 (1952)  
State: RJ (Corner 1952a, 1970).

\**Chaetothyphula tetraspora* Corner, Annals of Botany 17: 353 (1953)  
State: RJ (Corner 1953).

\**Deflexula argentina* (Speg.) Corner, Annals of Botany 16: 276 (1952)  
≡ *Mucronella argentina* Speg., Anales del Museo Nacional de Historia Natural Buenos Aires 6: 178 (1898).  
State: RS (Corner 1970 as *D. argentina* var. *ramosa* Corner).

\**Deflexula fascicularis* (Bres. & Pat.) Corner, Annals of Botany Memoirs 1: 395 (1950)  
≡ *Pterula fascicularis* Bres. & Pat., Mycological Writings 1 (6): 50 (1901).  
State: AM (De Lamônica-Freire 1979); RS (Rick 1959 as *Pterula fascicularis*).  
Revised materials: PACA Fungi Rickiani 14665, 14651, 14655, 14659, 14660, 14661, 14662, 14664, 14671, 14672, 14673 and 14676 were re-identified as *Deflexula* cf. *fascicularis*. The other samples, PACA Fungi Rickiani 14629 and 14634, were not revised.

\**Deflexula lilaceobrunnea* Corner, Annals of Botany Memoirs 1: 695 (1950)  
State: RJ, RS (Corner 1952a as *D. lilaceobrunnea* var. *elongata* Corner).  
Remarks: According to Index Fungorum and Mycobank, *D. lilaceobrunnea* var. *elongata* is *D. lilaceobrunnea*. However, Corner (1970) synonymized it to *D. argentina*.

#*Deflexula* cf. *nana* (Pat.) Corner, Bulletin du Jardin Botanique de l'État à Bruxelles 36 (3): 264 (1966)  
≡ *Pterula nana* Pat., Bulletin de la Société Mycologique de France 18 (2): 175 (1902).  
State: PR (Meijer 2006).

- \**Deflexula pennata* (Henn.) Corner, Annals of Botany 16: 278 (1952)  
 ≡ *Pterula pennata* Henn., Hedwigia 43 (3): 174 (1904).  
 State: AM (Corner 1952a); RS (Rick 1959 as *Pterula pennata*).  
 Revised materials: PACA Fungi Rickiani 14667, 14678 and 14680 were re-identified as *Pterula capillaris* (Lév.) Sacc.
- \**Deflexula secundiramea* (Lév.) Corner, Beihefte zur Nova Hedwigia 33: 199 (1970)  
 ≡ *Clavaria secundiramea* Lév., Annales des Sciences Naturelles Botanique 2: 216 (1844).  
 State: AM (De Lamônica-Freire 1979); RS (Corner 1970).
- \**Deflexula sprucei* (Mont.) Maas Geest., Persoonia 3 (2): 179 (1964)  
 ≡ *Hydnum sprucei* Mont., Sylloge generum specierumque plantarum cryptogamarum: 173 (1856).  
 State: MT (Corner 1970).
- \**Deflexula subsimplex* (Henn.) Corner, Annals of Botany 16: 279 (1952)  
 ≡ *Pterula subsimplex* Henn., Hedwigia 36: 197 (1897).  
 State: BA, RS (Corner 1952a); MT, RS (Corner 1970); PR (Meijer 2006). Sobestiansky (2005) reported *Deflexula* cf. *subsimplex* to RS.
- \**Deflexula subsimplex* var. *multifida* Corner, Annals of Botany 16: 282 (1952)  
 State: SP (Corner 1970).
- \**Deflexula sulcispora* Corner, Annals of Botany 16: 283 (1952)  
 State: RS (Corner 1952a).
- \**Parapterulicium octopodites* Corner, Annals of Botany 16: 286 (1952)  
 State: RS (Corner 1952a).
- \**Parapterulicium subarbusculum* Corner, Annals of Botany 16: 288 (1952)  
 State: RJ (Corner 1952a).
- \**Pterula arborea* Rick, Egatea 16: 201 (1931)  
 State: RS (Rick 1959).
- \**Pterula arbuscula* Bres., Hedwigia 35(5): 291 (1896)  
 State: RS (Rick 1959).
- \**Pterula brunneosetosa* Corner, Annals of Botany 16 (4): 566 (1952)  
 State: PR (Meijer 2006); RJ (Corner 1952b).
- \**Pterula capillaris* (Lév.) Sacc., Sylloge Fungorum 6: 742 (1888)  
 ≡ *Thelephora capillaris* Lév., Annales des Sciences Naturelles Botanique 2: 208 (1844).  
 State: RS (Corner 1950; Rick 1959).  
 Revised material: PACA Fungi Rickiani 22760 was re-identified as *P. cf. capillaris*.



- \**Pterula complanata* Corner, Annals of Botany 16 (4): 566 (1952)  
State: MA (Corner 1952b).
- \**Pterula crispa* Rick, Egatea 16: 202 (1931)  
State: RS (Rick 1959).
- \**Pterula cystidiata* Corner, Annals of Botany 16 (4): 567 (1952)  
State: RJ (Corner 1952b).
- \**Pterula falcatula* (Henn.) Corner, Annals of Botany Memoirs 1: 511 (1950)  
≡ *Clavaria falcatula* Henn., Hedwigia 36: 195 (1897).  
State: SC (Corner 1950; Rick 1959 as *C. falcatula*).
- \**Pterula fastigiata* (Rick) Rick, Egatea 16: 202 (1931)  
≡ *Hydnum fastigiatum* Rick, Annales Mycologici 2 (3): 243 (1904).  
State: RS (Rick 1959).
- \**Pterula fluminensis* Corner, Annals of Botany 16 (4): 567 (1952)  
State: RJ, RS (Corner 1952b).
- \**Pterula gordius* (Speg.) Corner, Annals of Botany Memoirs 1: 513 (1950)  
≡ *Clavaria gordius* Speg., Anales de la Sociedad Científica Argentina 17 (2): 83 (1884).  
State: probably PA (Corner 1950); PR (Meijer 2006 as *P. gordius* var. *macrospora* Corner).
- #*Pterula incarnata* Pat., Bulletin de l'Herbier Boissier 3: 58 (1895)  
State: RS (Rick 1959).  
Revised materials: PACA Fungi Rickiani 14666 was re-identified as *Pterula* cf. *incarnata*.
- \**Pterula juruensis* (Henn.) Corner, Annals of Botany Memoirs 1: 518 (1950)  
≡ *Phaeopterula juruensis* Henn., Hedwigia 43 (3): 175 (1904)  
State: AM, RJ (Corner 1952b).
- \**Pterula longispora* Corner, Annals of Botany 16 (4): 567 (1952)  
State: RJ (Corner 1952b).
- \**Pterula moniliformis* (Henn.) Corner, Annals of Botany 16 (4): 569 (1952)  
≡ *Lachnocladium moniliforme* Henn., Hedwigia 43: 198 (1904).  
State: BA (Corner 1952b); PE (Corner 1970); SP (Corner 1950 as *L. moniliforme*).
- #*Pterula multifida* E.P. Fr. ex Fr., Monographia Hymenomycetum Sueciae 2: 282 (1863).  
State: RS (Rick 1959 as *P. densissima* Berk. & M.A. Curtis). Meijer (2006) reported *Pterula* cf. *multifida* to PR.  
Revised materials: PACA Fungi Rickiani 14653 and 14657 were both re-identified as *Pterulicium xylogenum* (Berk. & Broome) Corner.

- #*Pterula nivea* Pat., Bulletin de la Société Mycologique de France 18 (2): 174 (1902)  
State: RS (Rick 1959).  
Revised materials: PACA Fungi Rickiani 14650 and 14656 were both re-identified as *P. subsimplex* Henn.
- \**Pterula palmicola* Corner, Annals of Botany 16 (4): 568 (1952)  
State: PR (Meijer 2006); SC (Corner 1952b).
- \**Pterula penicellata* Berk., in Lloyd, Mycol. Writ. 5: 863 (1919)  
State: RS (Rick 1959).
- \**Pterula plumosa* (Schwein.) Fr., Systema Orbis Vegetabilis 1: 90 (1825)  
≡ *Clavaria plumosa* Schwein., Schriften der Naturforschenden Gesellschaft zu Leipzig 1: 111 (1822).  
State: RS (Rick 1959).  
Revised material: URM 360, collected in PE, was in poor condition and was suggested to be discarded.
- \**Pterula plumosoides* Corner, Annals of Botany 16 (4): 568 (1952)  
State: PR (Meijer 2006, 2009); RJ (Corner 1952b).
- #*Pterula simplex* Sacc. & Paol., Atti R. Ist. Veneto Sci. Lett. Arti VI: no 78, 1:7 (1888)  
State: RS (Rick 1959).  
Revised materials: PACA Fungi Rickiani 14663 was re-identified as *Pterula* cf. *simplex*.
- \**Pterula stipata* Corner, Annals of Botany 16 (4): 568 (1952)  
State: RS (Corner 1952b).
- \*\**Pterula subplumosa* Henn., Hedwigia 36: 197 (1897)  
State: RS (Rick 1959).  
Revised materials: PACA Fungi Rickiani 14675 was confirmed as *P. subplumosa*.
- \**Pterula subulata* Fr., Linnaea 5: 532, t. XI: 4 (1830)  
State: RJ (Corner 1970).
- \**Pterula taxiformis* Mont., Annales des Sciences Naturelles Botanique 1: 143 (1854)  
State: RS (Corner 1952b, Rick 1959).  
Revised materials: PACA Fungi Rickiani 14652, 14669 and 14674 were re-identified as *Pterula* cf. *debilis* Corner.
- \**Pterula taxiformis* var. *gracilis* Corner, Annals of Botany 16 (4): 568 (1952)  
State: PA (Corner 1952b).

\**Pterula tenuissima* (M.A. Curtis) Corner, Annals of Botany Memoirs 1: 524 (1950)  
 ≡ *Typhula tenuissima* M.A. Curtis, J. Bot., Lond.: 350 (1848).  
 State: PR (Meijer 2006); RJ (Corner 1952b).

#*Pterula* cf. *typhuloides* Corner, Annals of Botany Memoirs 1: 698 (1950)  
 State: PR (Meijer 2006).

\**Pterula uleana* Henn., Hedwigia 36(4): 197 (1897)  
 State: BA, RJ, SC (Corner 1952b); PR (Meijer 2006 as *Pterula* cf. *uleana*); RS (Corner 1952b, Rick 1959).  
 Revised materials: PACA Fungi Rickiani 15186 was in poor condition and was suggested to be discarded.

### ***Typhulaceae* Jülich**

\**Macrotyphula defibulata* R.H. Petersen, Bulletin of the New Zealand Department of Industrial Research 236: 79 (1988)  
 State: PR (Meijer 2006 as *M. defibulata* f. *pallida* R.H. Petersen).

\**Macrotyphula juncea* (Alb. & Schwein.) Berthier, Bulletin Mensuel de la Société Linnéenne de Lyon 43 (6): 186 (1974)  
 = *Clavaria triuncialis* var. *juncea* Alb. & Schwein., Conspectus Fungorum in Lusatae superioris: 289 (1805).  
 State: PR [Corner 1970 as *Clavariadelphus junceus* (Alb. & Schwein.) Corner; Meijer 2006].

\**Typhula tucumanensis* Speg., Anales del Museo Nacional de Historia Natural Buenos Aires 19 (12): 280 (1909)  
 State: SC [Corner 1950 as *Pterula tenerrima* (Henn.) Corner].

#*Typhula uleana* Henn., Hedwigia 36: 195 (1897)  
 State: RS (Rick 1959).  
 Revised material: PACA Fungi Rickiani 15186 was in poor condition and was suggested to be discarded.

\**Typhula uncialis* (Grev.) Berthier, Bulletin Mensuel de la Société Linnéenne de Lyon 43 (6): 187 (1974)  
 ≡ *Clavaria uncialis* Grev., Scott. crypt. Fl.: 98 (1824).  
 State: RS (Rick 1959 as *C. uncialis*).

**CANTHARELLALES Gäum.****Aphelariaceae Corner**

\**Aphelaria aurantiaca* (Henn.) Corner, Annals of Botany Memoirs 1: 181 (1950)

≡ *Pterula aurantiaca* Henn., Hedwigia 43 (3): 174 (1904).

State: AM (Corner 1950); PA (Silva & Minter 1995).

\**Aphelaria clavarioidea* (Pat.) Corner, Transactions of the British Mycological Society 49 (2): 207 (1966)

≡ *Lachnocladium clavarioideum* Pat., Journal de Botanique (Morot) 3: 27 (1889).

State: AM (De Lamônica-Freire 1979).

\**Aphelaria deflectens* (Bres.) Corner, Annals of Botany Memoirs 1: 182 (1950)

≡ *Lachnocladium deflectens* Bres., Annales Mycologici 18 (1–3): 50 (1920).

State: RS (Corner 1950); SP (Bononi 1979).

#*Aphelaria* aff. *flabellata* (Wakef.) Corner, Annals of Botany Memoirs 1: 186 (1950)

≡ *Clavaria flabellata* Wakef., Botanical Journal of the Linnean Society 46 (1): 90 (1922).

State: AM (De Lamônica-Freire 1979); PR (Meijer 2006 as *A.* cf. *flabellata*); RS (Sobestiansky 2005).

#*Aphelaria* aff. *guadelupensis* (Lév.) Corner, Beihefte zur Nova Hedwigia 33: 19 (1970)

≡ *Merisma guadelupense* Lév., Annales des Sciences Naturelles Botanique 5: 157 (1846).

State: AM (De Lamônica-Freire 1979).

\**Aphelaria trachodes* (Berk.) Corner, Annals of Botany Memoirs 1: 191 (1950)

≡ *Thelephora trachodes* Berk., Hooker's Journal of Botany and Kew Garden Miscellany 8: 239 (1856).

State: AM (Corner 1950).

\**Aphelaria tropica* (Mont.) Corner, Annals of Botany Memoirs 1: 191 (1950)

≡ *Pterula tropica* Mont., Annales des Sciences Naturelles Botanique 1: 142 (1854).

State: AM (Corner 1953, 1970; De Lamônica-Freire 1979 as *A.* aff. *tropica*).

**Clavulinaceae Donk**

\*\**Clavulina amazonensis* Corner, Beihefte zur Nova Hedwigia 33: 151 (1970)

State: AM (Corner 1970); PE (Wartchow 2012b, Araujo-Neta 2013).

Revised material: URM 1071, unknown locality in Brazil and originally identified as *Scytinopogon angulisporus*, URM 84217 and URM 84219 were confirmed as *C. amazonensis*.

\**Clavulina amethystina* (Bull.) Donk, Mededelingen van het botanisch Museum en Herbarium van de Rijksuniversiteit Utrecht 9: 23 (1933).

- ≡ *Clavaria amethystina* Bull., Histoire des champignons de la France. I: 200, t. 496:2 (1791).  
State: RS (Rick 1959 as *Clavaria amethystina*).
- #*Clavulina cf. amethystinoides* (Peck) Corner, Annals of Botany Memoirs 1: 298 (1950)  
≡ *Clavaria amethystinoides* Peck, Bulletin of the Torrey Botanical Club 34: 102 (1907).  
State: PE (Araujo-Neta 2013).  
Revised material: URM 1076 was re-identified as *Clavaria* sp. and URM 84250 was confirmed as *C. cf. amethystinoides*.
- #*Clavulina cartilaginea* (Berk. & M.A. Curtis) Corner, Annals of Botany Memoirs 1: 299 (1950)  
≡ *Lachnocladium cartilagineum* Berk. & M.A. Curtis, Botanical Journal of the Linnean Society 10: 330 (1869).  
State: RS (Rick 1959 as *L. cartilagineum*).  
Revised materials: PACA Fungi Rickiani 17221, 17225 and 17235 were re-identified as *Ramariopsis* sp.
- \**Clavulina cinerea* (Bull.) J. Schröt., Die Pilze Schlesiens 1(4): 443 (1888)  
≡ *Clavaria cinerea* Bull., Histoire des champignons de la France. I: 204, t. 354 (1791).  
State: RJ, RS (Coner 1970); RS (Rick 1959 as *Clavaria cinerea*); unknown locality in Brazil (Coner 1950).
- \**Clavulina cirrhata* (Berk.) Corner, Annals of Botany Memoirs 1: 311 (1950)  
≡ *Clavaria cirrhata* Berk., Hooker's Journal of Botany and Kew Garden Miscellany 8: 275 (1856).  
State: AM (Corner 1950).  
Revised material: URM 47639, collected in PE, was re-identified as *Clavulinopsis* sp.
- \**Clavulina connata* (Berk.) Corner, Annals of Botany Memoirs 1: 311 (1950)  
≡ *Clavaria connata* Berk., Hooker's Journal of Botany and Kew Garden Miscellany 8: 275 (1856).  
State: AM (Corner 1950).
- \**Clavulina coralloides* (L.) J. Schröt., Die Pilze Schlesiens 1(4): 443 (1888)  
≡ *Clavaria coralloides* L., Species Plantarum: 1182 (1753).  
State: RS (Sobestiansky 2005). Meijer (2006, 2009) reported *Clavulina cf. coralloides* to PR.
- #*Clavulina aff. cristata* (Holmsk.) J. Schröt., Die Pilze Schlesiens 1(4): 442 (1888)  
≡ *Ramaria cristata* Holmsk., Beata ruris otia fungis danicis 1: 92, t. 24 (1790).  
State: AM (De Lamônica-Freire 1979).
- \**Clavulina delicia* (Berk.) Corner, Annals of Botany Memoirs 1: 323 (1950)  
≡ *Clavaria delicia* Berk. Hooker's Journal of Botany and Kew Garden Miscellany 8: 274 (1856).  
State: AM (Corner 1950); RS (Rick 1959 as *Clavaria delicia*).  
Revised materials: PACA Fungi Rickiani 12442 was re-identified as *Clavulina* sp.

- \**Clavulina floridana* (Singer) Corner, Annals of Botany Memoirs 1: 323 (1950)  
 ≡ *Clavaria floridana* Singer, Mycologia 37: 425 (1945).  
 State: SP (Bononi 1979).
- \**Clavulina fuscolilacina* (Berk.) Overeem, Bulletin du Jardin Botanique de Buitenzorg 5: 262 (1923)  
 ≡ *Clavaria fuscolilacina* Berk., Hooker's Journal of Botany and Kew Garden Miscellany 8: 276 (1856).  
 State: probably AM (Petersen 1983).
- \**Clavulina gracilis* Corner, Annals of Botany Memoirs 1: 693 (1950)  
 State: RJ (Corner 1970 as *C. gracilis* var. *incarnata* Corner).
- \*\**Clavulina incrustata* Wartchow, Cryptogamie Mycologie 33: 108 (2012)  
 State: PE (Wartchow 2012a).  
 Revised material: URM 82947 was confirmed as *C. incrustata*.
- \**Clavulina panurensis* (Berk.) Corner, Annals of Botany Memoirs 1: 336 (1950)  
 ≡ *Clavaria panurensis* Berk., Hooker's Journal of Botany and Kew Garden Miscellany 8: 276 (1856).  
 State: AM (Corner 1950, De Lamônica-Freire 1979); RJ (Corner 1970). De Lamônica-Freire (1979) also reports *Clavulina* aff. *panurensis*.
- \**Clavulina puiggarii* (Speg.) Corner, Darwiniana 11: 196 (1957)  
 ≡ *Clavaria puiggarii* Speg., Anales de la Sociedad Científica Argentina 12 (1): 29 (1881).  
 State: PR (Meijer 2006); SP [Corner 1950 as *Clavulinopsis puiggarii* (Speg.) Corner]; probably SP (Corner 1970).
- #*Clavulina* aff. *rugosa* (Bull.) J. Schröt., Kryptogamen-Flora von Schlesien 1(4): 442 (1888)  
 ≡ *Clavaria rugosa* Bull., Herbar de la France 10: t. 448:2 (1790).  
 State: PR (Meijer 2006, 2009).
- \**Clavulina sprucei* (Berk.) Corner, Annals of Botany Memoirs 1: 341 (1950)  
 ≡ *Clavaria sprucei* Berk., Hooker's Journal of Botany and Kew Garden Miscellany 8: 276 (1856).  
 State: AM (Corner 1950).
- \*\**Multiclavula clara* (Berk. & M.A. Curtis) R.H. Petersen, The American Midland Naturalist 77: 217 (1967)  
 ≡ *Clavaria clara* Berk. & M.A. Curtis, Botanical Journal of the Linnean Society 10: 338 (1869).  
 State: RS (Rick 1959 as *Clavaria flavella* Berk. & M.A. Curtis).  
 Revised material: PACA Fungi Rickiani 12459 was confirmed as *M. clara*.
- \**Multiclavula mucida* (Pers.) R.H. Petersen, The American Midland Naturalist 77: 212 (1967)  
 ≡ *Clavaria mucida* Pers., Commentatio de Fungis Clavaeformibus: 55 (1797).  
 State: RS (Rick 1959 as *C. mucida*).

**GOMPHALES Jülich****Gomphaceae Donk**

\**Delentaria decurva* Corner, Beihefte zur Nova Hedwigia 33: 226 (1970)

State: RJ (Corner 1970).

#*Phaeoclavulina abietina* (Pers.) Giachini, Mycotaxon 115: 189 (2011).

≡ *Clavaria abietina* Pers., Neues Magazin für die Botanik 1: 117 (1794).

State: RS (Rick 1959 *C. abietina*).

Revised material: PACA Fungi Rickiani 12469 was in poor condition and was suggested to be discarded.

\**Phaeoclavulina apiahyna* (Speg.) Giachini, Mycotaxon 115: 189 (2011)

≡ *Clavaria apiahyna* Speg., Boln. Acad. nac. Cienc. Córdoba 23(3–4): 435 (1919) [1918].

State: SP (Spegazzini 1919).

\**Phaeoclavulina articulotela* (R.H. Petersen) Giachini, Mycotaxon 115: 190 (2011)

≡ *Ramaria articulotela* R.H. Petersen, Biblioth. Mycol. 79: 115 (1981).

State: DF (Petersen 1981).

#*Phaeoclavulina* cf. *camellia* (Corner) Giachini, Mycotaxon 115: 190 (2011)

≡ *Ramaria camellia* Corner, Darwiniana 11: 200 (1957).

State: PR (Meijer 2006 as *Ramaria* cf. *camellia*).

\**Phaeoclavulina campoi* (Speg.) Giachini, Mycotaxon 115: 190 (2011)

≡ *Clavaria campoi* Speg., Boln. Acad. nac. Cienc. Córdoba 25: 28 (1921).

State: RS (Petersen 1981).

\**Phaeoclavulina cyanocephala* (Berk. & M.A. Curtis) Giachini, Mycotaxon 115: 191 (2011)

≡ *Clavaria cyanocephala* Berk. & M.A. Curtis, Botanical Journal of the Linnean Society 10: 338 (1869).

State: AM (De Lamônica-Freire 1979); PR [Meijer 2006 as *Ramaria grandis* f. *cyanocephala* (Berk. & M.A. Curtis) R.H. Petersen, Meijer 2009 as *Ramaria cyanocephala* (Berk. & M.A. Curtis) Corner]; RJ (Corner 1970).

Revised materials: URM 768 collected in PE and URM 28190 collected in SC, were both identified as *Phaeoclavulina* cf. *cyanocephala*.

\**Phaeoclavulina gigantea* (Pat.) Giachini, Mycotaxon 115: 193 (2011)

≡ *Lachnocladium giganteum* Pat., J. Bot., Paris 3: 34 (1889).

State: RJ (Petersen 1981).

\**Phaeoclavulina griseobrunnea* (Singer) Giachini, Mycotaxon 115: 193 (2011)

≡ *Ramaria griseobrunnea* Singer, in Singer, Araujo & Ivory, Beih. Nova Hedwigia 77: 19 (1983).

State: PA (Giachini 2004).

- \**Phaeoclavulina guyanensis* (Pat.) Giachini, Mycotaxon 115: 193 (2011)  
 ≡ *Lachnocladium guyanense* Pat., Journal de Botanique (Morot) 3: 35 (1889).  
 State: RS [Corner 1970, Rick 1959 as *Clavaria guyanensis* (Pat.) Rick].
- \**Phaeoclavulina ochracea* (Bres.) Giachini, Mycotaxon 115: 194 (2011)  
 ≡ *Lachnocladium ochraceum* Bres., Bulletin de la Société Royale de Botanique de Belgique 38: 157, Tab. B (1899).  
 State: DF, RS (Petersen 1981).
- \**Phaeoclavulina pancaribbea* (R.H. Petersen) Giachini, Mycotaxon 115: 194 (2011)  
 ≡ *Ramaria pancaribbea* R.H. Petersen, Bibliotheca Mycologica 79: 88 (1981).  
 State: PR (Meijer 2006, 2009 as *Ramaria pancaribbea* f. *caerulea* R.H. Petersen).
- \**Phaeoclavulina zippelii* (Lév.) Overeem, Bull. Jard. bot. Buitenz, 3 Sér. 5: 262 (1923)  
 ≡ *Clavaria zippelii* Lév., Anns Sci. Nat., Bot., sér. 3 (2): 215 (1844).  
 State: MT (Corner 1970 as *Ramaria zippelii* var. *gracilis* Corner).
- \**Ramaria albocinerea* (Pat.) Corner, Annals of Botany Memoirs 1: 555 (1950)  
 ≡ *Lachnocladium albocinereum* Pat., Journal de Botanique (Morot) 3: 33 (1889).  
 State: AM (Corner 1970).
- \**Ramaria aureofulva* Corner, Beihefte zur Nova Hedwigia 33: 247 (1970)  
 State: RJ, RS (Corner 1970). Meijer (2006, 2009) reported *Ramaria* cf. *aureofulva* to PR.
- \**Ramaria concolor* (Corner) R.H. Petersen, Bibliotheca Mycologica 43: 54 (1975)  
 = *Ramaria stricta* var. *concolor* Corner, Annals of Botany Memoirs 1: 700 (1950).  
 State: RJ, RS (Corner 1970 as *R. stricta* var. *concolor*).
- \**Ramaria flavobrunnescens* (G.F. Atk.) Corner, Annals of Botany Memoirs 1: 581 (1950)  
 ≡ *Clavaria flavobrunnescens* G.F. Atk., Annales Mycologici 7 (4): 367 (1909).  
 State: RS, SP (Fidalgo & Fidalgo 1970).
- \**Ramaria geesteranii* de Meijer [as 'geesterani'], Macrofungos notáveis das Florestas de Pinheiro-do-Paraná: 101 (2009)  
 State: PR (Meijer 2009).
- #*Ramaria luteoflaccida* Corner, Annals of Botany Memoirs 1: 699 (1950)  
 State: PE (Araujo-Neta 2013).  
 Revised material: URM 47644 was re-identified as *Ramaria* sp.
- #*Ramaria megalorhiza* (Berk. & Broome) Corner, Annals of Botany Memoirs 1: 605 (1950)  
 ≡ *Clavaria megalorhiza* Berk. & Broome, Botanical Journal of the Linnean Society 14: 75 (1875).  
 State: RS, SC (Rick 1959 as *C. megalorhiza*).



Revised materials: PACA Fungi Rickiani 12465 and 12441 were both re-identified as *Phaeoclavulina* cf. *guyanensis* (Pat.) Giachini.

\**Ramaria molleriana* (Bres. & Roum.) Corner, Monograph of Clavaria and allied Genera (Annals of Botany Memoirs No. 1): 606 (1950)

≡ *Lachnocladium mollerianum* Bres. & Roum., Revue mycol., Toulouse 12(no. 45): 36 (1890).

State: PR (Meijer 2009).

\**Ramaria moelleriana* var. *crispuloides* Corner, Beihefte zur Nova Hedwigia 33: 258 (1970)

State: RJ (Corner 1970).

\**Ramaria patagonica* (Speg.) Corner, Darwiniana 11: 203 (1957)

≡ *Clavaria patagonica* Speg., Boletín de la Academia Nacional de Ciencias en Córdoba 11 (1): 21 (1887).

State: PR (Meijer 2009).

\**Ramaria pupulispora* Corner, Beihefte zur Nova Hedwigia 33: 271 (1970)

State: RJ (Corner 1970).

\**Ramaria reticulata* (Berk. & Cooke) Corner, Transactions of the British Mycological Society 44 (2): 237 (1961)

≡ *Lachnocladium reticulatum* Berk. & Cooke, Botanical Journal of the Linnean Society 15: 388 (1877).

State: AM (Corner 1950, as *L. reticulatum*, Corner 1970); PR (Meijer 2006 as *R. reticulata* var. *macrospora* Corner); RS (Petersen 1975). Sobestiansky (2005) reported *Ramaria* cf. *reticulata* var. *reticulata* (Berk. & Cooke) Corner to RS.

\**Ramaria stricta* (Pers.) Quél., Flore mycologique de la France et des pays limitrophes: 464 (1888)

≡ *Clavaria stricta* Pers., Annalen der Botanik (Usteri) 15: 33 (1795).

State: RS (Rick 1959 as *C. stricta*).

\**Ramaria toxica* Toledo & R.H. Petersen, Mycologia 81 (4): 663 (1989)

State: PR (Meijer 2006); RS (Sobestiansky 2005).

\**Ramaria tubulosa* (Fr.) Corner, Annals of Botany Memoirs 1: 631 (1950)

≡ *Clavaria tubulosa* Fr., Elenchus Fungorum 1: 229 (1828).

State: BA, MG, PA, RS (Rick 1959 and Corner 1970 as *Lachnocladium tubulosum* (Fr.) Pat.); unknown locality in Brazil (Corner 1950).

Revised material: PACA Fungi Rickiani 17233 and 17256 were re-identified as *Lachnocladium* sp. and suggested to be discarded. URM 47756, collected in PE, was re-identified as *Ramaria* sp. and URM 84266, collected in PE, was confirmed as *Ramaria* aff. *tubulosa*.

**Lentariaceae Jülich**

- \**Lentaria surculus* (Berk.) Corner, Annals of Botany Memoirs 1: 444 (1950)  
 ≡ *Clavaria surculus* Berk., London Journal of Botany 1 (3): 154 (1842).  
 State: PR (Meijer 2006); RJ, RS (Corner 1970).

**HYMENOGYSALES Oberw.****Hymenochaetaceae Donk**

- \*\**Clavariachaete peckoltii* (Lloyd) Corner, Annals of Botany Memoirs 1: 269 (1950)  
 ≡ *Dendrocladium peckoltii* Lloyd, Mycological Writings 7 (66): 1111 (1922).  
 State: PE (Araujo-Neta 2013); RJ (Corner 1970).  
 Revised material: URM 657 originally identified as *Lachnocladium hoffmannii* Henn., was confirmed as *C. peckoltii*.

**POLYPORALES Gäum.****Lepidostromataceae Ertz, Eb. Fisch., Killmann, Sérus. & Lawrey**

- \**Sulzbacheromyces caatingae* (Sulzbacher & Lücking) Hodkinson & Lücking, Fungal Diversity 64 (1): 176 (2014)  
 ≡ *Lepidostroma caatingae* Sulzbacher & Lücking, in Sulzbacher, Baseia, Lücking, Parmen & Moncada, Bryologist 115 (4): 601–609 (2012).  
 State: PI (Sulzbacher et al. 2012 as *L. caatingae*, Hodkinson et al. 2014); CE, PB (Sulzbacher et al. 2016).

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

- \*\**Artomyces pyxidatus* (Pers.) Jülich, Bibliotheca Mycologica 85: 399 (1982)  
 ≡ *Clavaria pyxidata* Pers., Neues Magazin für die Botanik 1: 117 (1794).  
 State: RS (Rick 1959 as *C. pyxidata*).  
 Revised material: PACA Fungi Rickiani 12458 was confirmed as *A. pyxidatus*.
- \**Artomyces turgidus* (Lév.) Jülich, Bibliotheca Mycologica 85: 399 (1982)  
 ≡ *Clavaria turgida* Lév., Annales des Sciences Naturelles Botanique 5: 155 (1846).  
 State: PR [Corner 1970; Meijer 2009 as *Clavicornia turgida* (Lév.) Corner].

**Lachnocladiaceae D.A. Reid**

- \**Lachnocladium asterosetosum* Henn., Hedwigia 36: 196 (1897)  
 State: RS (Rick 1959).
- \**Lachnocladium brasiliense* (Lév.) Pat., Journal de Botanique (Morot) 3: 26 (1889)  
 ≡ *Eriocladus brasiliensis* Lév., Annales des Sciences Naturelles Botanique 5: 159 (1846).

State: AC (Batista et al. 1966, Silva & Minter 1995); AM (Hennings 1904, Theissen 1912); BA (Burt 1919, Corner 1950); MS (Bononi et al. 2008); RS, SP (Bononi 1980); unknown locality in Brazil (Corner 1970).

#*Lachnocladium compressum* (Lév.) Sacc. [as 'compressus'], Syll. fung. (Abellini) 16: 213 (1902)

≡ *Clavaria compressa* Berk., Annals and Magazine of Natural History 10: 383, t. 12:16 (1843).

State: RS (Rick 1959).

Revised materials: PACA Fungi Rickiani 17227, 17232, 17237 and 17239 were in poor condition and were suggested to be discarded.

\**Lachnocladium denudatum* Corner, Beihefte zur Nova Hedwigia 33: 180 (1970)

State: PA (Corner 1970).

#*Lachnocladium dubiosum* Bres., Annales Mycologici 18 (1–3): 50 (1920)

State: RS (Rick 1959).

Revised materials: PACA Fungi Rickiani 17230, 17241, 17246 and 17251 were re-identified as *Ramariopsis* sp.

\**Lachnocladium flavidum* Corner, Annals of Botany Memoirs 1: 696 (1950)

State: probably RS (Corner 1970).

\**Lachnocladium furcellatum* (Fr.) Pat., Journal de Botanique (Morot) 3: 26 (1889)

≡ *Clavaria furcellata* Fr., Linnaea 5: 531 (1830).

State: AM (Hennings 1904, Theissen 1912); PA (Theissen 1912); RS (Rick 1959, Corner 1970).

Revised materials: PACA Fungi Rickiani 17248 was re-identified as *Phaeoclavulina* cf. *zippelii*.

\**Lachnocladium hamatum* Henn., Hedwigia 43 (3): 174 (1904)

State: AM (Hennings 1904); RS (Rick 1959).

Revised materials: PACA Fungi Rickiani 17222, 17242 and 17252 were re-identified as *Pterula* sp. The other sample, PACA Fungi Rickiani 20762, was not revised.

\**Lachnocladium madeirense* Henn., Hedwigia 43 (3): 174 (1904)

State: AM (Hennings 1904); RS (Rick 1959).

\**Lachnocladium manaosense* Henn., Hedwigia 44: 59 (1905)

State: AM (Corner 1950).

#*Lachnocladium moelleri* Henn., Hedwigia 36: 196 (1897)

State: RS (Rick 1959).

Revised material: PACA Fungi Rickiani 17243 was re-identified as *Pterula* sp.

\*\**Lachnocladium schweinfurthianum* Henn., Botanische Jahrbücher für Systematik Pflanzengeschichte und Pflanzengeographie 17: 21 (1893)

State: AL, PE, SE (Gibertoni et al. 2004); PE (Araujo-Neta 2013); MT (De Lamônica-Freire 1979).

Revised material: URM 76831, URM 84247, URM 77338, URM 84267, collected in PE, and URM 77339, collected in SE, were confirmed as *L. schweinfurthianum*.

\**Lachnocladium spongiosum* Corner, Beihefte zur Nova Hedwigia 33: 185 (1970)

State: RS (Corner 1970).

\**Lachnocladium strictissimum* Henn., Hedwigia 43 (3): 174 (1904)

State: AM (Hennings 1904); RS (Rick 1959).

\**Lachnocladium ulei* Henn., Hedwigia: 98 (1892)

State: RS (Rick 1959).

Revised material: PACA Fungi Rickiani 17224 was in poor condition and was suggested to be discarded; The other sample, PACA Fungi Rickiani 17254, was not revised. URM 2423, collected in PE, was re-identified as *Clavaria* sp.

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