

Synopsis Fungorum 39

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Nomenclatorial novelties proposed in this volume:

New species:

Ceriporiopsis allantoidea Ryvarden,
Diplomitoporus cremea Ryvarden,
Navisporus resupinatus Ryvarden,
*Navisporus deviatu*s Ryvarden,
Perenniporia pulvinata Ryvarden,
Polyporus formosus Ryvarden,
Skeletocutis ugandensis Ryvarden
Antrodia afrosinuosa Ryvarden,
Antrodiella minuta Ryvarden,
Ceriporiopsis angulatoporus Ryvarden,
Daedaleopsis africanus Ryvarden,
Datronia africana Ryvarden,
Dichomitus densiporus Ryvarden,
Diplomitoporus cylindrosporus Ryvarden,
Diplomitoporus grandisporus Ryvarden,
Diplomitoporus stramineus Ryvarden,
Gloeoporus africanus Ryvarden,
Grammothebe obscura Ryvarden,
Hexagonia phellinoides Ryvarden,
Inonotus zimbabwensis Ryvarden,
Junghuhnia ochracea Ryvarden,
Junghuhnia cremea Ryvarden,

Oxyporus dimitticus Ryvarden,
Oxyporus multicarpus Ryvarden,
Perenniporia densipora Ryvarden,
Perenniporia miniochroleuca Ryvarden,
Phellinus irregularis Ryvarden,
Physisporinus cataractus Ryvarden,
Polyporus brunneopapyrus Ryvarden,
Polyporus nigroafricanus Ryvarden,
Rigidoporus perennis Ryvarden,
Skeletocutis grandispora Ryvarden,
*Skeletocutis afrochrysell*a Ryvarden,
Wrightoporia cinnamomea Ryvarden,
Tyromyces cystidiatus Ryvarden,
Tyromyces grandisporus Ryvarden,
Tyromyces longisporus Ryvarden,
Tyromyces luteus Ryvarden,
Tyromyces minutus Ryvarden
Tyromyces widdringtoniae Ryvarden.
Perenniporia nigra Metsebing et al
Aporpium camerooniensis Metsebing et al.
Antrodiella cinerea Tsigaing et al.
Polyporus magnimutabilis Oba et al.

New names

The name *Tyromyces afrochioneus* Ryvarden is proposed as a nomen novum for *T. subchioneus* Ryvarden 2018 non Murril 1907.

Type studies in Polyporaceae 33, species described by Van der Byl

By

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Abstract

25 poroid species described by Paul A. Van der Byl from South Africa have been examined. 5 species are taxonomically accepted, 15 are taxonomic synonyms, 2 names are illegitimate, while the types of 3 species have not been found.

Introduction

Paul A. Van der Byl (1888-1939) worked as a forest pathologist in South Africa and described a number of fungi out of which the poroid ones have been examined in connection with a forthcoming book "Poroid fungi of Africa". He was trained at the University of Stellenbosch and did not visit any foreign mycological institutions. This isolation is reflected in the high number of taxonomic synonyms among the species he described.

List of species

acaciae, *Polyporus* 1925:168,

= *Schizopora subiculoides* (Lloyd) Ryvardeen.

africana, *Fistulina* 1925:151.

= ***Fistulina africana***, for a description see Reid 1973:151.

argenteofulvus, *Polyporus* 1927:225,

= ***Amauroderma argenteofulvus*** (Van der Byl) Doidge. For a description, see Ryvardeen 1980: 69.

confragosus, *Polyporus* 1927:225,

= nomen illegit., non Fr. 1821.

The name was validated by Reid 1973:156, when he unintentionally, apparently, coined a nomen novum as *Amauroderma confragosus* Reid 1973:156.

durbanensis, *Polyporus*, 1922:261,

= *Trametes varians* Van der Byl.

eylesii, *Polyporus* 1927:225,

= The type is sterile.

flexilis, *Polyporus*, 1922:271.

= *Trametes floccosa* (Jungh.) Ryvardeen.

griseolilacina, *Trametes* 1922:283,

= *Fomitopsis lilacinogilva* (Berk.) Ryvardeen.

hobbisii, *Daedalea* 1922:287,

= *Cerrena meyenii* (Kl.) Hansen, teste Reid 1973:148.

keetii, *Trametes* 1922:283,

= *Phellinus gilvus* (Schw.) Pat., teste Reid 1974:226.

- ligneoexta*, *Daedalea* 1924:308,
 = The type is well described by Reid (1973:15) but without any taxonomic conclusions.
- livingstonensis*, *Polyporus* 1925:168,
 = *Trametes floccosa* (Jungh.) Ryvarden comb. Nov. Index Fung
- natalensis*, *Lentinus* 1924:4.
 = *Lentinus velutinus* teste Reid 1973:145.
- nigroapplanatus*, *Polyporus*, 1924:311,
Perenniporia detrita (Berk.) Ryvarden.
- ochroporus*, *Polyporus* 1922:269.
 = ***Inonotus ochroporus*** (Van d Byl) Pegler.
- philipsii*, *Lentinus* 1926: 284,
 = *Pleurotus* sp., see Pegler 1983:251.
- reticulatoporus*, *Polyporus* 1927:225.
 = *Ganoderma ochrolaccatum* (Mont.) Pat.
- rhodesiaca*, *Daedalea* 1925:167,
 = *Flavodon flavus* (Kl.) Ryvarden, teste Reid 1973:150.
- salebrosa*, *Trametes* 1924:313,
 = ***Trametes salebrosa*** Van de Byl.
- salisburyensis*, *Polyporus* 1927:226,
 = *Amauroderma preussii* (Henn.) Steyaert.
- schreuderi*, *Polyporus* 1924:311,
 = *Trametes feeii* (Fr.) Ryvarden.
- tomentosa*, *Trametes* 1922:285,
 = *Trametes polyzona* ((Pers.) Ryvarden.
- transvaalensis*, *Polyporus* 1925:169.
 = *Datronia brunneoleuca* (Berk.) Ryvarden.
- trichilae*, *Polyporus* 1922: 262,
 = *Schizopora subiculoides* (Lloyd) Ryvarden
- varians*, *Trametes*, Van d. Byl 1922:281,
 = ***Trametes varians*** Van der Byl.
 = *Polyporus radiatorugosus* Bres., 1920, nomen illegit, non Berkeley 1839.

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Type studies in Polyporaceae 34, species described by C. Torrend

By

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Abstract

C. Torrend described 12 poroid species, out of which 2 are accepted, 6 are taxonomic synonyms, 2 are illegitimate names, while the types of 2 species have not been found.

Introduction

Camille Torrend (1875-1961) was born in France and educated as a priest, but became professor of botany and phytopathology at the Escola Agrícola da Bahia in Brazil. He described a small number of poroid species from Angola, Brazil, Mozambique and Portugal. His collections are today located at several fungaria, such as in Cambridge (FH), Kew (K), New York (NY) and Stockholm (S) where available type specimens were examined.

List of species

- asterosporus* *Polyporus*, in Lloyd, Lloyd Mycol. Writ. 4: 7, 1915.
= *Diacanthodes novoguineensis* (Henn.) O. Fidalgo.
- barrettii* *Ganoderma*, Brotéria, Série Botânica 8:133, 1909.
= *Ganoderma australe* (Fr.) Pat.
- cinereus*, *Fomes*, in Lloyd, Lloyd Mycol. Writ. 5:9, 1917.
= *Perenniporia tephropora* (Mont.) Ryvarden.
- gusmanianum* *Amauroderma*, Brotéria, Série Botânica 18:129, 1920.
= *Amauroderma schomburgkii* (Mont. & Berk.) Torrend.
- maderensis* *Cyclomyces*, Brotéria Série Botânica 8:136, 1909.
= The type is apparently lost, it came from Funchal, Madeira.
- mosselmannii* *Amauroderma*, Broteria, Série Botânica 18:137, 1920.
= *Amauroderma schomburgkii* (Mont. & Berk.) Torrend.
- pallidosporus* *Polyporus*, in Lloyd, Mycol. Writ. 5 (Letter 63):13, 1916.
= *Amauroderma boleticeum* (Pat. & Gaillard) Torrend.
- picipes* *Amauroderma*, Brotéria, Série Botânica 18: 132, 1920.
= The type is lost, it came from Brazil.
- praetervisus* *Fomes*, in Lloyd Mycol. Writ. 5, Letter 65:14, 1917.
= Nomen illegit., non Saccardo 1891.
= *Amauroderma praetervisum* (Pat.) Torrend.
- rugosissimus* *Polystictus*, Broteria, Série Botânica. 12:56, 1914.
= *Phaeocoriolellus rugosissimus* (Torrend) D. A. Reid.
- silveirae* *Fomes*, Brotéria, Série Botânica. 8: 132, 1909.
= *Ganoderma australe* (Fr.) Pat.

undulatus Polyporus, Broteria, Série Botânica 12:58, 1914.

= Nomen illegit., non Persoon 1825.

zambesiana Hexagonia, Brotéria, Série Botânica 12:59, 1914.

Accepted in the genus.

Acknowledgements

Dr. I. Melo of Lisbon University has been most helpful with comments on some of Torrend's types.

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Type studies in Polyporaceae 35, species described by Charles H. Peck

by
Leif Ryvarden

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Abstract. C. H. Peck described 66 poroid (including *Lentinus*) species out of which 20 are accepted taxonomically, 9 names are illegitimate while 37 are taxonomic synonyms.

Introduction

Charles Horton Peck, 1833–1917, was a leading American mycologist from 1868 until 1913. He was more or less self-taught in the identification of fungi and was given a position as botanist at the New York State Museum in 1868. Here he worked until 1913, when he had a stroke. He was mainly interested in agarics, but he described also a number of wood inhabiting fungi, especially many poroid ones which are treated here. They were all collected in Eastern United States.

From the following it is clear that he rarely consulted literature from outside United States, and thus, he coined many illegitimate names and taxonomic synonyms.

I have had the opportunity to study his isotypes in the fungarium in New York Botanical garden of almost all of his poroid species. The lectotypes are in New York State Museum (NYS), Albany, New York.

In the following the species are placed alphabetically according to the specific epithet. The names of the taxonomically accepted species are indicated in bold font. They will all be included in a planned forthcoming book of “Poroid fungi of North America.”

Taxonomic part

- abortivus*, *Polyporus*, Bot. Gazette 6: 274, 1881.
= *Abortiporus biennis* (Bull.Fr.) Singer, teste Overholts 1953: 224.
- admirabilis*, *Polyporus*, Bull. Torrey bot. Club 26: 69, 1899.
= ***Polyporus admirabilis*** Peck.
- albellus* *Polyporus*, Ann. Rep. N.Y. State Mus. 24:78, 1871.
= *Tyromyces chioneus* (Fr.) P. Karst.
- albiceps*, *Polyporus*, Bull. Torrey bot. Club 27:19, 1900.
= *Polyporus admirabilis* Pesk, teste Overholts 1953:250.
- albogriseus*, *Fomes*, Torrey Bot. Cl. Bull. 30:97, 1903.
= *Laricifomes officinalis* (Vill.:Fr.) Kotl. & Pouzar.
- americanus*, *Lentinus*, Bull. Torrey Bot. Club 29:72, 1902.
= *Lentinellus micheneri* (Berk. & M. A. Curtis) Pegler.
- anceps*, *Polyporus*, Bull. Torrey bot. Club 22:207, 1907.
= *Dichomitus squalens* (P. Karst.) D. A. Reid.

- attenuatus*, *Polyporus*, Ann. Rep. N.Y. State Mus. 26:70, 1874.
 = *Junghuhnia nitida* (Fr.) Ryvarden, teste Lowe 1966:122.
- aurantiacus*, *Polyporus*, Ann. Rep. N.Y. State Mus. 26:69, 1874.
 = Nomen illegit., non Rostock 1838.
 = *Pycnoporellus fulgens* (Fr.) Donk.
- aurea*, *Poria*, Ann. Rep. N.Y. State Mus. 43:21, 1890.
 = ***Auriporia aurea*** (Peck) Ryvarden.
- balsameus*, *Polyporus*, Ann. Rep. N.Y. State Mus. 30:46, 1877.
 = ***Oligoporus balsameus*** (Peck) Gilb. & Ryvarden.
- bartholomaei*, *Polyporus*, Bull. Torrey Bot. Club 23:418, 1896.
 = ***Perenniporia bartholomaei*** (Peck) Gibertoni & Bernicchia.
- burtii*, *Polyporus*, Bull. Torrey bot. Club 24:146, 1897.
 = *Bjerkandera adusta* (Fr.) Murrill.
- caeruleoporus*, *Polyporus*, Ann. Rep. N.Y. State Mus. 24:78, 1871.
 = ***Albatrellus caeruleoporus*** (Peck) Pouzar.
- crispellus*, *Polyporus*, Ann. Rep. N.Y. State Mus. 38:91, 1885.
 = *Tyromyces balsameus* (Peck) Gilb. & Ryvarden.
- delectans*, *Polyporus*, Bull. Torrey bot. Club 11:26, 1884.
 = ***Spongipellis delectans*** (Peck) Murrill.
- dualis*, *Polyporus*, Ann. Rep. N.Y. State Mus. 30:44, 1878.
 = *Inonotus tomentosus* (Fr.) Teng, teste Overholts 1953:392.
- fimbriatellus*, *Polyporus*, Ann. Rep. N.Y. State Mus. 38:91, 1885.
 = ***Junghuhnia fimbriatella*** (Peck) Ryvarden.
 = *Steccherinum fimbriatellum* (Peck) Miettinen.
- firma*, *Fistulina* Bull. Torrey Bot. Club 26:70, 1899.
 = *Fistulina pallida* Berk. & Ravenel.
- flavidus*, *Polyporus*, Ann. Rep. N.Y. State Mus. 26:68, 1874.
 Nomen illegit., non Berkely 1854.
 = *Albatrellus peckianus* Cooke.
- fragrans*, *Polyporus*, Ann. Rep. N.Y. State Mus. 30:45, 1878.
 = *Bjerkandera fumosa* (Pers.:Fr.) P. Karst.
- fraxinophilus*, *Polyporus*, Bot. Gazette 7:43, 1882.
 = ***Perenniporia fraxinophila*** (Peck) Ryvarden.
- glomeratus*, *Polyporus*, Ann. Rep. N.Y. State Mus. 24:78, 1871.
 = ***Inonotus glomeratus*** (Peck) Murrill.
- griseus* *Polyporus*, Ann. Rep. N.Y. State Mus. 26:68, 1874.
 = ***Boletopsis grisea*** (Peck) Bondartsev & Singer.
- griseoalbus*, *Polyporus* Ann. Rep. N.Y. State Mus. 38:91, 1885.
 = *Ceriporia viridans* (Berk.) Donk.
- hispidellus*, *Polyporus*, Ann. Rep. N.Y. State Mus. 52:649, 1899.
 = *Jahnoporus hirtus* (Cooke) Nuss.
- hispidoides*, *Polyporus*, Ann. Rep. N.Y. State Mus. 33:21, 1880.
 = *Phaeolus schweintzii* (Fr.) Pat.
- humilis*, *Polyporus*, Ann. Rep. N.Y. State Mus. 26:69, 1873.
 = *Abortiporus fractipes* (Berk. & M. A. Curtis) Bondartsev.

- immitis*, *Polyporus*, Ann. Rep. N.Y. State Mus. 35:135, 1882.
= **Oligoporus immitis** (Peck) Gilb. & Ryvarden.
- induratus*, *Polyporus*, Ann. Rep. N.Y. State Mus. 31:37, 1878.
= nomen illegit., non Berkely 1875.
= *Myriadoporus induratus* Sacc.
- lactifluus*, *Polyporus*, Bull. Torrey Bot. Cl. 8:51, 1881.
= *Bondartzewia berkleyii* (Fr.) Bond. & Singer, teste Overholts 1953:238.
- macounii*, *Polyporus*, Bot. Gazette 4:169, 1879.
= *Phellinus ferruginosus* (Schrad.:Fr.) Pat.
- maculatus*, *Polyporus*, Ann. Rep. N.Y. State Mus. 26: 69, 1874.
= nomen illigit., non Berkeley 1848.
= *Oligoporus guttulatus* (Sacc.) Gilb. & Ryvarden.
- magnus*, *Lentinus*, Bull. Torrey Bot. Cl. 23:413 1896.
= *Lentinus lepidus* (Fr.) Fr.
- marginellus*, *Polyporus*, Ann. Rep. N.Y. State Mus. 42:26, 1889.
= *Phellinus ferrugineofusca* (p. Karst.) Bourdot.
- meriima*, *Trametes*, Bull. N. Y. State Museum 139:31, 1910.
= *Trametes pubescens* (Schum.:Fr.) Pilat.
- microspermus*, *Lentinus*, Bull. Torrey Bot. Club 33:216, 1906.
= *Collybia distorta* (Fr.) Quel.
- morganii*, *Polyporus* Torrey Bot. Cl. Bull. 30:430, 1903.
= *Polyporus radicans* Schwein.
- mutans*, *Polyporus*, Ann. Rep. N.Y. State Mus. 41:77, 1888.
= **Hapalopilus mutans** (Peck) Gilbn. & Ryvarden.
- myceliosa*, *Poria* Ann. Rep. N.Y. State Mus. 54:952, 1901.
= **Anomolona myceliosa** (Peck) Niemelä & K.-H. Larss.
- obconicus*, *Lentinus*, Bull. Torrey Bot. Club 33:215, 1906.
= *Lentinus torulosus* (Pers.:Fr.) Lloyd.
- odorus*, *Polyporus*, Ann. Rep. N.Y. State Museum 38:92, 1885.
= nomen illegit., non Sommerfelt 1828.
= *Skeletocutis odora* (Sacc.) Ginns.
- ornatus*, *Polyporus*, Ann. Rep. N.Y. State Mus. 38:92, 1885.
= *Perenniporia subacida* (Peck) Donk.
- perplexus*, *Polyporus*, Ann. Rep. N.Y. State Mus. 49:33, 1897.
= *Inonotus cuticularis* (Bull.:Fr.) P. Karst.
- piceinus* *Polyporus*, Ann. Rep. N.Y. State Mus. 42:25, 1889.
= *Phellinus abietis* (P. Karst.) Jahn.
- piceinus*, *Lentinus*, Bull N. Y. State Museum 130:33, 1911.
= *Lentinellus flabelliformis* (Bolton.:Fr.) Ito.
- pineus*, *Polyporus*, Ann. Rep. N.Y. State Mus. 41:78, 1888.
= *Meruliporia incrassata* (Berk. & M. A. Curtis) Murrill.
- planus*, *Polyporus*, Ann. Rep. N.Y. State Mus. 31:37, 1879.
= Nomen illegit., non Wallroth 1833.
= *Datronia stereoides* (Fr.) Ryvarden.
- radiculosus*, *Polyporus*, Ann. Rep. N.Y. State Mus. 40:54, 1887.

- = *Antrodia radiculosa* (Peck) Gilbn. & Ryvardeen.
- semipileatus*, *Polyporus*, Ann. Rep. N.Y. State Mus. 34:43, 1907.
- = **Skeletocutis semipileata** (Peck) Miettinen & Korhonen.
- semitinctus*, *Polyporus*, Ann. Rep. N.Y. State Mus. 31:37, 1879.
- = *Ceriporia tarda* (Berk.) Ginns.
- setigera*, *Poria* Ann. Rep. N.Y. State Mus. 51:293, 1898.
- = *Inonotus glomerulatus* (Peck) Murrill.
- simillimus*, *Polyporus*, Ann. Rep. N.Y. State Mus. 32:34, 1879.
- Coltricia perennis** (Fr.) Murrill.
- splendens*, *Polyporus*, Ann. Rep. N.Y. State Mus. 26:68, 1874.
- = *Coltricia cinnamomea* (Jaq.: Fr.) Murrill.
- spretus*, *Lentinus*, Bull. N.Y. State Museum 105:24, 1906.
- = *Lentinus lepideus* (Fr.) Fr.
- subacidus*, *Polyporus*, Ann. Rep. N.Y. State Mus. 38:92, 1885.
- = **Perenniporia subacida** (Peck) Donk.
- subcericea* *Polyporus* Ann. Rep. N.Y. State Mus. 33:37, 1880.
- = *Coltricia cinnamomea* (Fr.) Murrill.
- subiculosus*, *Polyporus*, Ann. Rep. N.Y. State Mus. 31:37, 1879.
- = **Inonotopsis subiculoides** (Peck) Parmasto.
- sulphurellus* *Polyporus*, Ann. Rep. N.Y. State Mus. 42:123, 1899.
- = *Antrodia xantha* (Fr.) Ryvardeen.
- umbilicatus*, *Lentinus*, Ann. Rep. N.Y. State Mus. 28:51, 1876.
- = nomen illegit., non Fries 1825.
- = *Lentinellus micheneri* (Berk. & M.A. Curtis) Pegler.
- underwoodii*, *Lentinus*, Bull. Torrey Bot. Club 23:414, 1896.
- = *Pleurotus dryinus* (Pers.:Fr.) Kummer.
- undosus*, *Polyporus*, Ann. Rep. N.Y. State Mus. 34:42, 1881.
- = **Oligoporus undosus** (Peck) Gilbn. & Ryvardeen.
- variiformis*, *Polyporus*, Ann. Rep. N.Y. State Mus. 42:26, 1889.
- = **Antrodia variiformis** (Peck) Donk.
- ventricosus*, *Lentinus*, Bull. Torrey Bot. Club 23:414, 1896.
- = *Hebeloma radicosum* (Bull.:Fr.) Ricken.
- vialis*, *Lenzites*, Ann. Rep. N.Y. State Mus. 26:67, 1874.
- = *Gloeophyllum trabeum* (Pers.) Murrill.
- volvatus*, *Polyporus* Ann. Rep. N.Y. State Mus. 27:98, 1877.
- = **Cryptoporus volvatus** (Peck) Shear.

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Type studies in Polyporaceae 36, species described by E. Fries

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Abstract

Elias Fries described or validated 401 poroid species, out of which 181 are accepted, 166 are taxonomic synonyms, 9 are illegitimate names, while the types of 41 species have not been found.

Introduction

Fries is central in mycological taxonomy since he (Fries 1821-28) was among the first ones to publish comprehensive books where he tried to summarize systematically all species and genera known to him at that time. The result was that his books were initially selected as a starting point for mycological nomenclature as all names published by him were given priority above all names, even those published earlier than 1. January 1821. The intention was then to create a stable nomenclatural system which to a certain degree has been a success. Later on, the starting point where moved forward to be the same as for vascular plants, i.e. 1. January 1753. To avoid numerous changes, Fries names were given special status as they were given priority above earlier published names.

One inherent problem in Fries books was that he generously copied a number of descriptions from other authors, but where he had not seen specimens of the quoted species. Thus, many of his descriptions are rather vague, and this is an understatement, which over time have been a source to entangled interpretations and in some cases, pure guesswork. Those interested in the problems may consult Donk 1963-1973.

Another problem is the typification of Fries species. A rather restricted number of his types are preserved today, most of them in the Uppsala fungarium. In lack of Friesian types, many authors have therefore gone back to the original descriptions and interpreted the species concepts from these and not from those of Fries. This procedure has often resulted in citing names without reference to Fries, in some cases in contravention to the Code.

However, over time there has, at least in Europe, been established a rather stable nomenclatorial system as to epithets for a fairly high number of his taxa. Fries as all his contemporary mycologists had rather wide species concepts. This has unavoidably given opportunity to splitting and descriptions of new species, partly based on DNA sequencing. The result is a proliferation of generic names based on DNA sequences and more will certainly be published in the coming years. Many of them are based on resurrections of old generic names that for a long time had been treated as taxonomic synonyms, but there are also new published based on split offs from previously well-established genera. Those interested are referred to Ryvar den (1990), Ryvar den & Melo (2017) and a recent update by Zmitrovich (2018).

The same conservative generic concepts are also used in the following since this study is purely nomenclatorial without any systematic or taxonomical discussion of neither species nor genera.

The species is listed alphabetically according to epithet with an abbreviated reference to the place of publication. A list of publications where Fries published polypores (in a wide sense) is given under references.

The synonymy given in the following list is based on numerous visits to the fungaria of Uppsala, Stockholm, London, Edinburgh, New York, Paris, Leiden and Beltsville to mention the most important ones. The curators of these institutions are thanked for their cooperation over many years and in many cases by sending specimens for examination.

The name of species accepted nomenclaturally and taxonomically are written in bold.

List of species

- abietina*, *Daedalea* Fr., Syst. Mycol.1:334, 1821.
= **Gloeophyllum abietinum** (Fr.) P. Karsten.
- abietinus*, *Polyporus* Dicks.: Fr., Syst. Mycol.1:370, 1821.
= **Trichaptum abietinum** (Dicks.: Fr.) Ryvarden.
- acanthoides*, *Polyporus* Bull.: Fr., Syst. Mycol.1:356, 1821.
= *Merilpilus giganteus* (Pers.: Fr.) P. Karsten.
- adustus*, *Polyporus* Wild.: Fr., Syst. Mycol.1:363, 1821.
= **Bjerkandera adusta** (Wild.: Fr.) P. Karsten.
- aegerita*, *Polyporus* Fr., Nova Symbolae, p. 70, 1851.
= The type is lost; it came from Mexico.
- aesculi*, *Polyporus* Schw.: Fr., Elench. Fung., p 99, 1828.
= *Trametes elegans* (Spring.: Fr.) Fr.
- affinis*, *Polyporus* Blume & Nees.: Fr., Elench. Fung., p. 75, 1828.
= **Microporus affinis** (Blume & Nees: Fr.) Kunt.
- afzelii*, *Polyporus* Fr., Elench. Fung., p. 90, 1828.
= The type is lost; it came from Sierra Leone. From the description it could have been a young specimen of *Trametes cingulata* Berk.
- albida*, *Daedalea* Fr., Syst. Mycol. 1:338, 1821.
= **Antrodia albida** (Fr.) Donk.
- albidus*, *Polyporus* Fr., Epicr. Syst. Mycol. p. 475, 1836-38.
= *Oligoporus stipticus* (Pers.: Fr.) Gilbn. & Ryvarden.
- albus*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 456, 1836-38.
= *Climacocystis borealis* (Fr.) Kotl. & Pouzar.
= *Boletus albus* Schaeff, 1774, nomen illegit., non Hudson 1762.
- alligatus*, *Polyporus* Fr. Elench. Fung., p 78, 1828.
= *Bjerkandera adusta* (Wild.: Fr.) P.Karsten.
- alutaceus*, *Polyporus* Fr., Syst. Mycol. 1:360, 1821.
= The type is lost. From the description it may be an *Oligoporus* sp.

- alveolaris*, *Cantharellus* DC.: Fr., Syst. Mycol., 1:322, 1821.
= **Polyporus alveolaris** (DC.: Fr.) Bond. & Singer.
- ambonensis*, *Polyporus* Fr., Syst. Mycol., 1:354, 1821.
= *Ganoderma ambonensis* (Lam.: Fr.) Pat. Type is lost; it came from New Caledonia; from the description it may be *G. australe* ((Fr.) Pat.
- amorphus*, *Polyporus* Fr., Syst. Mycol. 1:364, 1821.
= **Skeletocutis amorphia** (Fr.) Kotl. & Pouzar.
- aneirinus*, *Polyporus* Sommerf.:Fr Elench. Fung., p 122, 1828.
= **Ceriporiopsis aneirina** (Sommerf.: Fr.) Domanski.
- angustata*, *Daedalea* Fr., Syst. Mycol. 1:338, 1821.
= **Daedalopsis confragosa** (Bolt.: Fr.) Schroeter.
- annosus*, *Polyporus* Fr., Syst. Mycol. 1:373, 1821.
= **Heterobasidium annosum** (Fr.) Bref.
- annularis*, *Polyporus* Fr., Nova Symbolae p. 52, 1851.
= **Ganoderma annularis** (Fr.) Gilbn.
- apiaria*, *Hexagonia* (Pers.) Fr., Epicr. Syst. Mycol. p. 497, 1836-1838.
= **Hexagonia apiaria** (Pers.) Fr.
- arcticus*, *Polyporus* Fr., Epicr. Syst. Mycol. p. 479, 1836-38.
The type is lost; it came from Kamtschia in Russia.
- arcularius*, *Polyporus* Batch.: Fr., Syst. Mycol. 1:342, 1821.
= **Polyporus arcularius** Batch: Fr
- atratus*, *Polyporus* Fr., Nova Acta Soc. Sci. Upsal. III, 1:228, 1851.
= *Polyporus dictyopus* Mont.
- aurea*, *Daedalea* Fr., Syst. Mycol. 1:339, 1821.
= *Gloeophyllum sepiarium* (Wulf.: Fr.) P. Karsten.
- australis*, *Polyporus* Fr., Elench. Fung., p 108, 1828.
= **Ganoderma australe** (Fr.) Pat.
- azureus*, *Polystictus* Fr., Nova Symbolae, p 93, 1851.
= *Trametes versicolor* (L.: Fr.) Pilat.
- balanina*, *Trametes* Fr., Kung. Sv. Vetensk. Akad. Hand. Ser 3:87, 1851.
The type is lost; it came from Natal in South Africa.
- barbatulus*, *Polystictus* Fr., Nova Symbolae, p. 87, 1851.
= *Trametes villosa* (Fr.) Kreisel.
- benzoinus*, *Polyporus* Wahl.:Fr Elench. Fung., p 100, 1828.
= **Ischnoderma benzoinum** (Wahl.: Fr.) P. Karsten.
- berkeleyi*, *Polyporus* Fr., Nova Symbolae, p. 56, 1851.
= **Bondarzewia berkeleyi** (Fr.) Bond. & Sing.
- betulina*, *Daedalea* Fr., Syst. Mycol. 1:333, 1821.
= **Trametes betulina** (Fr.) Fr.
- betulinus*, *Polyporus* Fr., Syst. Mycol. 1:358, 1821.
= **Piptoporus betulinus** (Fr.) P. Karsten.
- beyrichii*, *Polyporus* Fr., Linnaea 8:518, 1830.
The type is lost; it came from Brazil.
- bicolor*, *Lenzites* Fr. Nova Acta R. Soc. Scient. Uppsala. Ser 3:43, 1851.
= *Trametes elegans* (Spreng.: Fr.) Fr.

- biennis*, *Daedalea* Bull.: Fr., Syst. Mycol. 1:332, 1821.
= **Abortiporus biennis** (Bull.: Fr.) Singer.
- biformis*, *Polyporus* Fr. in Kl., Linnaea 8:486, 1833.
= **Trichaptum biforme** (Fr. in Kl.) Ryvarden.
- blyttii*, *Polyporus* Fr., Hymen. Europ., p. 571, 1874.
= *Junghuhnia nitida* (Fr.) Ryvarden.
- bombycinus*, *Polyporus* Fr. Elench. Fung., p. 117, 1828.
= **Anomoporia bombycina** (Fr.) Pouzar.
- borealis*, *Polyporus* Fr., Syst. Mycol. 1:366, 1821.
= **Climacocystis borealis** (Fr.) Kotl. & Pouzar.
- brasiliensis*, *Daedalea* Fr., Syst. Mycol. 1:332, 1821.
= *Polyporus tenuiculus* Beavois.
- brumalis*, *Polyporus* Pers.: Fr., Syst. Mycol. 1:348, 1821.
= **Polyporus brumalis** Pers.: Fr
- bulliardi*, *Daedalea* Fr., Syst. Mycol. 1: 335, 1821.
= *Hapalopilus nidulans* (Pers.: Fr.) P. Karsten.
- bulpipes*, *Polyporus* Fr. in Lehmann, J.G.C.: Plant. Preiss. 2:135, 1846.
= *Coltricia cinnamomea* (Fr.) Murrill.
- caesius*, *Polyporus* Schrad.: Fr., Syst. Mycol. 1: 360, 1821.
= **Oligoporus caesius** (Schrad.: Fr.) Gilbn. & Ryvarden.
- callosus*, *Polyporus* Fr., Syst. Mycol. 1:381, 1821
= *Antrodia serialis* (Fr.) Donk.
- candidus*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 449, 1836-38.
= nomen illegit. non Persoon 1825.
- carbonarius*, *Polyporus* Fr., Syst. Mycol. 1: 349, 1821.
= *Coltricia perennis* (L.: Fr.) Murrill.
- carneus*, *Polyporus* Blume & Nees: Fr., Elench., Fung. p. 99, 1828.
= **Fomitopsis carneus** (Blume & Nees: Fr.) Imazeki.
- cascus*, *Polystictus* Fr., Nova Symbolae, p. . 88, 1851.
= *Lenzites elegans* (Fr.) Pat.
- casearius*, *Polyporus* Fr., Epicr. Syst. Mycol. p. 449, 1836-38.
= *Laetiporus sulphureus* (Bull.: Fr.) Murrill.
- castaneus*, *Polyporus* Fr., Syst. Mycol. 1:369, 1821.
= The type is lost; it came from Italy.
- centralis*, *Trametes* Fr., Nova Symbolae, p. 951, 1851.
= *Trametes elegans* (Spreng.: Fr.) Fr.
- cerasi*, *Polyporus* Fr., Syst. Mycol. 1:382, 1821.
= *Schizopora paradoxa* (Fr.) Donk.
- cervinus*, *Polyporus* Schw.: Fr., Elench. Fung. p. 92, 1828.
= **Trametes cervina** (Schw.: Fr.) Bres.
- chilensis*, *Polyporus* Fr., Nova Symbolae, p. 63, 1851.
= *Ganoderma australe* (Fr.) Pat.
- chioneus*, *Polyporus* Fr., Syst. Mycol. 1:359, 1821.
= **Tyromyces chioneus** (Fr.) P. Karsten.

- chrysoloma*, *Polyporus* Fr., Ofvers. Kung. Vet. Akad. Forh. 1: 30, 1861.
= **Phellinus chrysoloma** (Fr.) Donk.
- ciliatus*, *Polyporus* Fr., Syst. Mycol. 1:348, 1821.
= **Polyporus ciliatus** Fr.
- cilicioides*, *Polystictus* Fr., Nova Symbolae, p. 87, 1851.
= *Trichaptum bifforme* (Fr.) Ryvarden.
- cinerea*, *Daedalea* Fr., Syst. Mycol. 1: 336, 1821.
= *Cerrena unicolor* (Bull.: Fr.) Murrill.
- cingulatus*, *Polyporus* Fr., Linnaea 5:18, 1830.
= Type is lost; it came from Brazil.
- cinnabarina*, *Daedalea* Fr., Epicr. Syst. Mycol., p. 493, 1836-38.
= Nomen illegit., non Secretan 1833.
- cinnabarinus*, *Polyporus* Jacq.: Fr., Syst. Mycol. 1: ? 1821.
= **Trametes cinnabarina** (Jacq.: Fr.) Fr.
- cinnamomea*, *Lenzites* Fr., Öfv. Kong. Vet. Akad. Forhand. 8:51.1851.
= *Trametes betulina* (L.: Fr.) Pilat.
- cinnamomeus*, *Irpex*, Fr. Epicr. Syst. Mycol. p. 524, 1838.
= *Hydnochaete olivacea* (Schw.) Baker.
- circinata*, *Trametes* Fr., Act. Acad. Sci. Holm. p. 6, 1848.
= *circinatus*, *Polyporus* (Fr.) Fr., Monogr. 2:286, 1863.
= **Inonotus circinatus** (Fr.) Gilbn.
- coccineus*, *Polyporus* Fr., Nova Symbolae, p. 66, 1851.
= **Trametes coccineus** (Fr.) Hai, Li & He.
- collabens*, *Polyporus* Fr. Hymen. europ., p 572, 1874.
= **Junghuhnia collabens** (Fr.) Ryvarden.
- colossus* *Polyporus* Fr., Novae Symbolae, p. 56, 1851.
= **Ganoderma colossus** (Fr.) C.F. Baker.
- comatus*, *Polystictus* Fr., Nova Symbolae, p. 91, 1851.
= *Datronia caperata* (Berk.) Ryvarden.
- conchatus*, *Polyporus* Pers.: Fr., Syst. Mycol. 1:376, 1821.
= **Phellinus conchatus** (Pers.: Fr.) Quel.
- conchifer*, *Polyporus* Schw.:Fr Elench. Fung., p. 96, 1828.
= **Trametes conchifer** (Schw.: Fr.) Pilat.
- concinus*, *Polyporus* Palis.: Fr., Syst. Mycol. 1:350, 1821.
= **Microporus concinns** (Palis.: Fr.) Kunth.
- confluens*, *Polyporus* Alb. & Schw.: Fr., Syst. Mycol. 1:355, 1821.
= **Albatrellus confluens** (Fr.) Kotl. & Pouzar.
- confragosa*, *Daedalea* Bolt.: Fr., Syst. Mycol. 1:336, 1821.
= **Daedalopsis confragosa** (Bolt.: Fr.) Schroet.
- contiguus*, *Polyporus* Fr., Syst. Mycol. 1:378, 1821.
= **Phellinus contiguus** (Fr.) Pat.
- corrugis*, *Polystictus* Fr., Nova Symbolae, p. 52, 1851.
= **Podofomes corrugis** (Fr.) Pouzar.
- corruscans*, *Polyporus* Fr., Ofvers. Kung. Vet. Akad. Forh.8:52, 1852.
= *Inonotus dryophilus* (Berk.) Murrill.

- corticola*, *Polyporus* Fr., Syst. Mycol. 1:385, 1821.
= **Oxyporus corticola** (Fr.) Ryvarden.
- crassus*, *Polyporus* Fr., Epicr. Syst. Mycol. 1836-38:451.
= **Antrodia crassa** (Fr.) Ryvarden.
- cretaceus*, *Theleporus* Fr. Act. Acad. Sci. Holm. p. 18, 1848.
= **Theleporus cretaceus** Fr.
- crinigera*, *Hexagonia*, Fr. In Adam Afz. Fungi Guin. fig. 10, 1837.
= **Hexagonia crinigera** Fr.
- crispus*, *Polyporus* Pers.: Fr., Syst. Mycol. 1:363, 1821.
= **Bjerkandera adusta** (Wild.: Fr.) P. Karsten.
- cristatus*, *Polyporus* Pers.: Fr., Syst. Mycol. 1:356, 1821.
= **Albatrellus cristatus** (Fr.) Kotlaba & Pouzar.
- crocatus*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 477, 1836-38.
= **Phellinus crocatus** (Fr.) Ryvarden.
- croceus*, *Polyporus* Pers.: Fr., Syst. Mycol. 1:364, 1821.
= **Hapalopilus croceus** (Fr.) Dank
- cryptarum*, *Polyporus* Fr., Syst. Mycol. 1:376, 1821.
= *Heterobasidion annosum* (Fr.) Bref.
- cupreus*, *Polyporus* Fr., Nova Symbolae, p. 64, 1851.
= nomen illegit, non Junghuhn 1838.
- cuticularis*, *Polyporus* Bull.: Fr., Syst. Mycol. 1:363, 1821.
= **Inonotus cuticularis** (Bull.: Fr.) P. Karsten.
- cyclodes*, *Polystictus* Fr., Nova Symbolae, p. 90, 1851.
= *Trametes polyzona* (Pers.) Corner.
- cyphelloides*, *Polystictus* Fr., Nova Symbolae, p. 88, 1851.
= *Flaviporus brownii* (Humb.:Steud.) Donk.
- deformis*, *Polyporus* Fr., Epicr. Syst. Mycol. 1836-38:441.
= *Schizopora paradoxa* (Fr.) Donk.
- dentrificus*, *Polyporus* Fr., Nova Symbolae, p. 53, 1851.
= The type is lost; it came from Mexico.
- detons a*, *Trametes* Fr., Act. Acad. Sci. Holm. p. 13, 1848.
= **Phellinus detonsus** (Fr.) Ryvarden.
- detonsus*, *Polyporus* Fr., Linnaea 5:519, 1830.
= *Trametes modesta* (Fr.) Ryvarden.
- deplanata*, *Daedalea* Link ex. Fr., Linnaea 5:513, 1830.
= *Trametes elegans* (Spreng.: Fr.) Fr.
- destructor*, *Polyporus* Schrad.: Fr., Syst. Mycol. 1:359, 1821.
= *Oligoporus rennyii* (Berk.) Gilb. & Ryvarden.
- dialeptus*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 456, 1836-38.
= Type is lost; it came from Guinea.
- dichrous*, *Polyporus* Fr., Syst. Mycol. 1:364, 1821.
= **Gloeoporus dichrous** (Fr.) Bres.
- didrichsenii*, *Polystictus* Fr., Nova Symbolae, p.76, 1851.
= *Trametes menziesii* (Berk.) Ryvarden.

- diffusus*, *Polyporus* Fr., Nova Symbolae, p. 55, 1851.
= *Bjerkandera adusta* (Willd.: Fr.) Karst.
- discolor*, *Daedalea* Fr., Elench. Fung., p. 68, 1828.
= *Antrodia albida* (Fr.) Donk.
- discolor*, *Favolus* Fr. in Lehmann, J.G.C.: Plant. Preiss. 2:130-140, 1846.
= *Hexagonia glaber* (Beauv.) Ryvarden.
- distortus*, *Polyporus* Schwein.: Fr., Elench. Fung., p. 79, 1828.
= *Abortiporus biennis* (Fr.) Singer.
- dryadeus*, *Polyporus* Pers.: Fr., Syst. Mycol. 1:374, 1821.
= **Inonotus dryadeus** (Pers.: Fr.) Murrill.
- elegans*, *Daedalea* Spreng.: Fr., Syst. Mycol. 1:335, 1821.
= **Trametes elegans** (Spreng.: Fr.) Fr.
- elegans*, *Polyporus* Bull.: Fr., Epicr. Syst. Mycol., p. 440, 1836-38.
= *Polyporus varius* Fr.
- emollitus*, *Polyporus* Fr., Hymenom. Europe p. 57, 1874.
= *Junghuhnia collabens* (Fr.) Ryvarden.
- endozonus*, *Polyporus* Fr., Nova Symbolae, p.54, 1851.
= *Phellinus gilvus* (Schwein.) Pat.
- enteroleucus*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 468, 1836-38.
= *Ganoderma australe* (Fr.) Pat.
- epileucus*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 452, 1836-38.
= *Spongipellis spumea* (Sowerby: Fr.) Pat.
- erubescens*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 461, 1836-38.
= *Leptoporus mollis* (Fr.) Kotlaba & Pouzar.
- eucalyptorum*, *Polyporus* Fr. in Lehmann, J.G.C.: Plant. Preiss. 2:135, 1846.
= *Laetiporus portentosus* (Berk.) Rachjenberg.
- europaeus*, *Favolus* Fr., Epicr. Syst. Mycol., p. 498, 1836.
= *Polyporus mori* Poll.: Fr.
- expallens*, *Trametes* Fr., Nova Symbolae, p. 95, 1851.
= *Trametes cingulata* Berk.
- expansus*, *Polyporus* Desm.: Fr., Epicr. Syst. Mycol., p.475, 1836-38.
= **Donkioporia expansa** (Desm.: Fr.) Kotlaba & Pouzar.
- farinellus*, *Polyporus* Fr., Syst. Mycol. 1: 384, 1821.
= *Ceriporia reticulata* (Fr.) Dom.
- fasciatus*, *Polyporus* Schw.: Fr., Syst. Mycol. 1: 373, 1821.
= **Fomes fasciatus** (Schw.: Fr.) Cke.
- favularis*, *Polyporus* Fr., Nova Symbolae, p. 50, 1851.
= The type is lost, it came from Malaysia, from the description it may be *Microporus xanthopus*.
- feei*, *Polyporus* Fr., Linnaea, 5:518, 1830.
= **Fomitopsis feei** (Fr.) Kreisel.
- ferruginea*, *Daedalea* Fr., Syst. Mycol. 1:339, 1821.
= *Phaeolus schweinitzii* (Fr.) Pat.
- ferruginosus*, *Polyporus* Fr., Syst. Mycol. 1:378, 1821.
= **Phellinus ferruginosus** (Fr.) Pat.

- fibula*, *Polystictus* Fr., Epicr. Syst. Mycol., p. 475, 1836-38.
= *Trametes hirstua* (Fr.) Pilat,
- fimbriatus*, *Polyporus* Fr. Linnaea 5:520, 1830.
= **Hydnopolyporus fimbriatus** (Fr.) D. A. Reid.
- flaccida*, *Lenzites* Fr., Epicr. Syst. Mycol., p. 406, 1836-38.
= *Trametes betulina* (L.: Fr.) Pilat.
- flaccidus*, *Favolus* Fr. Linnaea 5: 511, 1830.
= *Polyporus tenuiculus* Beauv.:Fr
- flexipes*, *Polyporus* Fr., Linnaea 5:515, 1830.
= **Polyporus flexipes** Fr.,
= *Polyporus tricholoma* Mont. 1837.
- floccosus*, *Polyporus* Fr., Hymen. Europ. p. 572, 1874.
= Nomen illegit. Non Junghuhn 1838 (= *Phellinus contiguus* (Pers.: Fr.) Pat.).
- fomentarius*, *Polyporus* Fr., Syst. Mycol. 1: 374, 1821.
= **Fomes fomentarius** (Fr.) Kickx.
- fornicatus*, *Polyporus* Fr., Linnaea 5: 516, 1830.
= *Ganoderma australe* (Fr.) Pat.
- fragilis*, *Polyporus* Fr., Elench. Fung., p. 86, 1828.
= **Oligoporus fragilis** (Fr.) Gilbn. & Ryvardeen.
- fraxineus*, *Polyporus* Bull.: Fr., Syst. Mycol. 1 374, 1821.
= **Perenniporia fraxinea** (Bull.: Fr.) Ryvardeen.
- frondosus*, *Polyporus* Dicks.: Fr., Syst. Mycol. 1: 355, 1821.
= **Grifola frondosa** (Dicks.: Fr.) S.F. Gray.
- fulgens*, *Hydnum* Fr., Ofvers. Kung. Vet. Akad. Forh.9:130,1852.
= **Pycnoporellus fulgens** (Fr.) Donk.
- fuliginosus*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 451,1836-38.
= *Phellinus contiguus* (Fr.) Pat.
- fulvus*, *Polyporus* Scop.: Fr. Epicr. Syst. Mycol., p. 466,1836-38.
= *Inonotus rheades* (Pers.) P. Karsten. (Bond. & Singer.
- fumosus*, *Polyporus* Pers.: Fr. Syst. Mycol.1:367, 1821.
= **Bjerkandera fumosa** (Pers.: Fr.) P. Karsten.
- funalis*, *Polystictus* Fr., Epicr. Syst. Mycol., p. 469,1836-38.
= *Trametes leonia* (Kl.) Imazeki.
- furcata*, *Daedalea* Link: Fr., Linnaea 5:513,1830.
= *Gloeophyllum striatum* (Fr.) Murrill.
- fusca*, *Daedalea* Fr., Syst. Mycol. 1:339, 1821.
= The type is lost, it came from Brazil, from the description it may be
Gloeophyllum striatum.
- fuscatus*, *Polyporus* Fr., Observ. Mycol. 2:259, 1818.
= *Trametes versicolor* (L.: Fr.) Pilat.
- fuscidulus*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 431,1836-38.
= *Polyporus brumalis* Fr.
- fusco-violaceus*, *Hydnum* Fr., Syst. Mycol. 1:421, 1821.
= **Trichaptum fusco-violaceus** (Fr.) Ryvardeen.

- fuscus*, *Cyclomyces* Fr. Linnaea 5:512, 1830.
= **Cyclomyces fuscus** Fr.
- gallicus*, *Polyporus* Bull.: Fr., Syst. Mycol. 1:345, 1821.
= **Trametes gallica** (Fr.) Fr.
- gibbosa*, *Daedalea* Pers.: Fr., Syst. Mycol. 1:338, 1821.
= **Trametes gibbosa** (Pers.: Fr.) Fr.
- gibbosus*, *Polyporus* Blume & Nees Nova Acta Acad. Caroli. 13: 19, 1826.
= *Ganoderma gibbosum* (Blume & Nees) Pat.
- giganteus*, *Polyporus* Pers.: Fr., Syst. Mycol. 1:356, 1821.
= **Meripilus giganteus** (Pers.: Fr.) P. Karsten.
- gilvus*, *Polyporus* Schw.:Fr Elench. Fung., p. 104, 1828.
= **Phellinus gilvus** (Schw.: Fr.) Pat.
- graveolens*, *Polyporus* Schw.:Fr Elenchus Fung., p. 79, 1828.
= **Globifomes graveolens** (Schw.: Fr.) Murrill.
- guineensis*, *Lenzites* Fr., Nova Symbolae, p. 44, 1851.
= *Trametes betulina* (Fr.) Pilat.
- helvolus*, *Polyporus* Fr., Elench. Fung. p. 103, 1828.
= **Trametes helvola** (Fr.) Sacc.
- hepatica*, *Fistulina* Schaeff.: Fr., Syst. Mycol. 1:396, 1821.
= **Fistulina hepatica** Schaeff.: Fr.
- heteroclitus*, *Polyporus* Fr., Syst. Mycol. 1:344, 1821.
= *Abortiporus biennis* (Bull.) Singer
- heteromorpha*, *Daedalea* Fr., Syst. Mycol. 1:340, 1821.
= **Antrodia heteromorpha** (Fr.) Donk.
- heteroporus*, *Polyporus* Fr. in Quelet, Mem. Soc. Emul. Mont. Ser 2:287, 1872.
= Nomen illegit. non Montagne 1842 (= *Abortiporus biennis* (Bull.: Fr.) Singer.
- hexagonoides*, *Trametes* Fr. in Quelet, Mem. Soc. Mont. Ser 2:287, 1872.
= *Daedalea quercina* L.: Fr.
- hirsutus*, *Polyporus* Wulf.: Fr., Syst. Myco1. 1:367, 1821.
= **Trametes hirsuta** (Wulf.: Fr.) Pilat.
- hirtellus*, *Polystictus* Fr., Nova Symbolae, p. 83, 1851.
= *Trametes hirsuta* (Wulf.: Fr.) Pilat.
- hirtus*, *Polyporus* Fr., Syst. Mycol. 1:345, 1821.
= **Hexagonia hirta** (Fr.) Fr.
- hispidus*, *Polyporus* Bull.: Fr., Syst. Mycol. 1:362, 1821.
= **Inonotus hispidus** (Bull.: Fr.) P. Karsten.
- holmiensis*, *Polyporus* Fr., Nova Acta R. Soc. Scient. Upsal ser 3:1, p 52, 1851.
= *Bjerkandera fumosa* (Pers.: Fr.) P. Karsten.
- hydnoides*, *Polyporus* Fr., Syst. Mycol. 1:362, 1821.
= **Hexagonia hydnoides** (Fr.) M. Fidalgo.
- igniarius*, *Polyporus* Fr., Syst. Mycol. 1:375, 1821.
= **Phellinus igniarius** (Fr.) Quel.
- imberbis*, *Polyporus* Fr., Epicr. Syst. Mycol. p. 451, 1836-38.
= *Bjerkandera adusta* (Fr.) P. Karsten.

- imbricatus*, *Polyporus* Fr. , Syst. Mycol. 1:357, 1821._
= *Laetiporus sulphureus* (Fr.) Murrill.
- impolitus*, *Polyporus* Fr., Nova Symbolae p.581, 1851.
= The type is lost; it came from Costa Rica.
- incarnatus*, *Polyporus* Pers.: Fr., Syst. Mycol. 1:379, 1821.
= *Oligoporus placentus* (Pers: Fr.) Gilbn. & Ryvardeen.
- incendiarius*, *Polyporus* Fr., Epicr. Syst. Mycol. p. 431,1836-38.
= *Polyporus brumalis* Fr.
- incomptus*, *Polyporus* Fr., Epicr. Syst. Mycol. p. 438, 1836-38.
= **Microporus incomptus** (Fr.) Kunt.
- incondata*, *Trametes* Fr., Epicr. Syst. Mycol. p. 490, 1836-38.
= The type is lost; it came from Guinea.
- interrupta*, *Daedalea* Fr., Linnaea 5:513, 1830.
= *Trametes betulina* (Fr.) Pilát.
- intybaceus*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 446, 1836-38.
= *Grifola frondosa* (Dicks.: Fr.) S.F. Gray.
- inzengae*, *Daedalea* Fr., Funghi Sicil 2:no 8, 1869.
= *Daedalea quercina* L.: Fr.
- Isabellinus*, *Polyporus* Schw.: Fr., Elenchus Fung., p. 88, 1828.
= *Bjerkandera adusta* (Fr.) Murrill.
- isabellinus*, *Trametes* Fr., Hymenomyc. Suec, p. 585, 1874.
= *Phellinus viticola* (Schwein.) Donk.
- japonicus*, *Polyporus* Fr. Epicrisis Syst Mycol p. 442, 1836-38.
= *Ganoderma japonicum* (Fr.) Sawada, Rep. Dep. Agr. Res. Inst
. Formosa 51:76, 1951.
= *Ganoderma dimidiatum* (Thunb.) V. Papp., Stud. Bot. Hung. 47:265, 2016.
= *Boletus japonicus* Thunb., Fl. Japonica p. 348, 1784.
- kamphoveneri*, *Polyporus* Fr., Nova Symbolae p. 69, 1851.
= *Trametes menziesii* (Berk.) Ryvardeen.
- labyrinthicus*, *Polyporus* Fr., Elench. Fung., p. 83,1828.
= *Phaeolus schweintzii* (Fr.) Pat.
- lactea*, *Trametes* Fr., Nova Symbolae, p. 96, 1851.
= *Trametes elegans* (Spring.: Fr.) Fr.
- lacteum*, *Hydnum* Fr., Syst. Mycol. 1:412, 1821.
= **Irpex lacteus** (Fr.) Fr.
- lacteus*, *Polyporus* Fr., Syst. Mycol. 1:359, 1821.
= *Oligoporus tephroleucus* (Fr.) Gilbn. & Ryvardeen.
- laevigatus*, *Polyporus* Fr., Hymen. Europ. p. 571,1874.
= **Phellinus laevigatus** (Fr.) Bourd. & Galz.
- lanata*, *Trametes* Fr. Act. Acad. Sci. Holm. p 10, 1848.
= *Trametes polyzona* (Pers.) Corner.
- linguidus*, *Polyporus* Fr., Epicr. Syst. Mycol., p.442, 1836-38.
= *Trametes prosanguinea* Ryvardeen.
- latissima*, *Daedalea* Fr., Syst. Mycol. 1:340,1821.
= *Cerrena unicolor* (Bull.: Fr.) Murrill.

- lepideus*, *Polyporus* Fr., Syst. Mycol. 1:352, 1821.
= *Polyporus ciliatus* Fr.
- leporinus*, *Polyporus* Fr. Öfvers. K. Svensk. Ventensk. Akd. Forh. 9:130, 1852.
= **Inonotus leporinus** (Fr.) Gilbn. & Ryvarden.
- leprodes*, *Polyporus* Fr. Epicr. Syst. Mycol. p. 439, 1836-38.
= *Polyporus varius* Fr.
- leprosa* *Hexagonia*, Fr., Nova Acta Soc. sci. Uppsal. Ser. 3:101, 1851.
= **Hexagonia leprosa** Fr.
- leprosus*, *Polyporus* Fr., Elench. Fung., p. 107, 1828.
= The type is lost; it came from Brazil.
- leptocephalus*, *Polyporus* Jacq.: Fr., Syst. Mycol. 1:349, 1821.
= *Polyporus varius* Fr.
- levissimus*, *Polyporus* Fr., Elench. Fung., p. 106, 1828.
= The type is lost; it came from Sri Lanka.
- liebmanni*, *Polyporus* Fr., Nova Symbolae, p. 59, 1851.
= **Antrodiella liebmanni** (Fr.) Ryvarden.
- limbatus*, *Polyporus* Fr., Linnaea, 5:519, 1830.
= The type is lost; it came from Brazil.
- lingua*, *Polyporus* Nees.: Fr., Elench. Fung., p. 77, 1828.
= *Ganoderma australe* (Fr.) Pat.
- loniceriae*, *Polyporus*, Fr., Elench. Fung., p. 110, 1828.
= *Phylloporia ribis* (Schumacher) Ryvarden.
- lucidum*, *Polyporus* W. Curt.: Fr., Syst. Mycol. 1:353, 1821.
= **Ganoderma lucidum** (W. Curtis: Fr.) P. Karsten.
- lundii*, *Polyporus* Fr., Elench. Fung., p. 95, 1828.
= *Trametes polyzona* (Pers.) Corner.
- luteus*, *Polyporus* Nees.: Fr., Elench. Fung., p. 76, 1828.
= *Microporus affinis* (Blume et Nees) Kunt.
- marginatus*, *Polyporus* Pers.: Fr Syst. Mycol. 1:372, 1821.
= *Fomitopsis pinicola* (Fr.) P. Karsten.
- maxima*, *Daedalea* Fr., Syst. Mycol. 1: :332, 1821.
= *Phaeolus shweinitzii* (Fr.) Pat.
- medulla-panis*, *Polyporus* Jacq. & Pers.: Fr., Syst. Mycol. 1:380, 1821.
= **Perenniporia medulla-panis** (Fr.) Donk.
- melanopus*, *Polyporus* Pers.: Fr., Syst. Mycol. 1:347, 1821.
= **Polyporus melanopus** Fr.
- membranaceus*, *Polyporus* Sw.: Fr., Syst. Mycol. 1:370, 1821.
= **Trametes membranacea** (Sw.: Fr.) Kreisel.
- micans*, *Polyporus* Fr., Syst. Mycol. 1: 383, 1821.
= *Junghuhnia nitida* (Pers.: Fr.) Ryvarden.
- micheli*, *Polyporus* Fr., Syst. Mycol. 1:343, 1821.
= *Polyporus squamosus* Fr.
- microporus*, *Polyporus* Fr., Syst. Mycol. 1:376, 1821.
= **Rigidoporus microporus** (Fr.) Overeem.

- modestus*, *Polyporus* Kunze ex Fr., *Linnaea*, 5:519, 1830.
= **Trametes modesta** (Kunze: Fr.) Ryvardeen.
- mollis*, *Polyporus* Fr., *Syst. Mycol.*, 1:360, 1821.
= **Leptoporus mollis** (Fr.) Pilat.
- mollis*, *Daedalea* Sommerf.: Fr., *Elench. Fung.*, p. 71, 1828.
= **Datronia mollis** (Sommerf.: Fr.) Donk.
- molluscus*, *Polyporus* Pers.: Fr., *Syst. Mycol.* 1:384, 1821.
= **Trechispora mollusca** (Pers.: Fr.) Liberta.
- montagnei*, *Polyporus* Fr. in Mont., *Ann. Sci. Nat. Ser. 2*, 1:341, 1836.
= **Coltricia montagnei** (Fr.) Murrill.
- mori*, *Polyporus* Poll.: Fr., *Syst. Mycol.* 1:344, 1821.
= *Polyporus alveolaris* (DC: Fr.) Bondarts. & Singer.
- mortuosus*, *Polyporus* Fr., *Nova Symbolae*, p. 64, 1851.
= *Abundiporus roseo-albus* (Jungh.) Ryvardeen.
- mucidus*, *Polyporus* Pers.: Fr., *Syst. Mycol.* 1:382, 1821.
= **Ceriporiopsis mucida** (Pers.: Fr.) Gilbn. & Ryvardeen.
- natalensis*, *Favolus* Fr., *Act. Acad. Sci. Holm.*, p. 18, 1848.
= *Polyporus tenuiculus* (Beauv) Fr.
- natalensis*, *Trametes* Fr., *Act. Acad. Sci. Holm.*, p. 138, 1848.
= The type is lost; it came from Natal, South Africa.
- naucinus*, *Polyporus* Fr., *Nova Symbolae*, p. 57, 1851.
= *Laetiporus sulphureus* (Fr.) Murrill.
- neesii*, *Polyporus* Fr., *Syst. Mycol.* 1:370, 1821.
= The type is lost; it came from Germany.
- nidulans*, *Polyporus* Fr., *Syst. Mycol.* 1:362, 1821.
= **Hapalopilus nidulans** (Fr.) P. Karsten.
- nigricans*, *Polyporus* Fr., *Syst. Mycol.* 1:375, 1821.
= **Phellinus nigricans** (Fr.) P. Karsten.
- nigripes*, *Polyporus* Fr., *Linnaea* 5:515, 1830.
= The type is lost; it came from Brazil. From the description it seems to be an *Amauroderma* sp.
- nitens*, *Polyporus* Fr., *Linnaea* 5:517, 1830.
= **Ganoderma nitens** (Fr.) Pat. The type is lost; it came from Brazil.
- nitidus*, *Polyporus* Fr., *Syst. Mycol.* 1:379, 1821.
= **Junghuhnia nitida** (Fr.) Ryvardeen.
- nodulosus*, *Polyporus* Fr., *Epicr. Syst. Mycol.*, p. 474, 1836-38.
= **Inonotus nodulosus** (Fr.) P. Karsten.
- nubilis*, *Polyporus* Fr., *Epicr.*, *Syst. Mycol.*, p. 471, 1836-38.
= The type is lost; it came from Guinea.
- nuceus*, *Polystictus* Fr., *Nova Symbolae*, p. 81, 1851.
= *Gloeophyllum striatum* (Fr.) Murrill.
- nutans*, *Polyporus* Fr., *Nova Symbolae*, p. 61, 1851.
= **Ganoderma nutans** (Fr.) Pat.
- obliquus*, *Polyporus* Pers.: Fr., *Syst. Mycol.* 1:378, 1821.
= **Inonotus obliquus** (Pers.: Fr.) Pilat

- obsoletus*, *Polyporus* Fr., Linnaea, 5:516, 1830.
= The type is lost; it came from Brazil.
- odoratus*, *Polyporus* Fr., Syst. Mycol. 1:373, 1821.
= **Gloeophyllum odoratus** (Fr.) Imaz.
- odorus*, *Polyporus* Sommerf.:Fr Elench. Fung., p. 90, 1828.
= **Hapaloporus odorus** (Sommerf.: Fr.) Singer.
- oerstedtii*, *Polyporus* Fr., Nova Symbolae, p. 63,1851.
= **Ganoderma oerstedtii** (Fr.) Ryvarden.
- officinalis* *Polyporus* Will.: Fr., Syst. Mycol. 1:365, 1821.
= **Fomitopsis officinalis** (Will.: Fr.) Bond. & Singer.
- oniscus*, *Polystictus* Fr., Nova Symbolae, p. 82, 1851.
= *Trichaptum sector* (Ehrenb.) Kreisel
- orbiculata*, *Hexagonia* Fr., Epicr. Syst. Mycol., p. 497, 1836-38.
= *Hexagonia glaber* (Beauv.) Ryvarden
- orbiformis*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 463, 1836-38.
= **Ganoderma orbiforme** (Fr.) Ryvarden.
- ovinus*, *Polyporus* Schaff.: Fr., Syst. Mycol. 1:346, 1821.
= **Albatrellus ovinus** (Fr.) Kotl. & Pouz.
- paleaceus*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 471, 1836.
= **Trametes palaecea** (Fr.) Fr.
- palisoti* *Daedalea*, Fr., Syst. Mycol. 1:335, 1821.
= *Trametes elegans* (Spring.: Fr.) Fr.
- pallescens* *Polyporus* Fr., Syst. Mycol. 1:369,1821.
= **Bjerkandera fumosa** (Pers.: Fr.) P. Karsten.
- papyraceus*, *Polyporus* Fr., Elench. Fung., p. 97, 1828.
= The type is lost; it came from Puerto Rico.
- paradoxum*, *Hydnum* Fr., Syst. Mycol. 1:424,1821.
= **Schizopora paradoxa** (Fr.) Donk.
- pargamenus*, *Polyporus* Fr., Epicr. Syst. Mycol., p.480, 1836-38.
= *Trichaptum biformis* (Fr. in Kl.) Ryvarden.
- parilis*, *Polyporus* Fr. in Lehmann, J.G.C.: Plant. Preiss.2:136, 1846.
= The type is lost, it came from Western Australia.
- pauletii*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 449, 1836-38.
= *Albatrellus pes-caprae* (Pers.: Fr.) Pouzar.
- pediformis*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 463, 1836-38.
= The type is lost; it came from Guinea.
- peltata*, *Hexagonia* Fr. Act. Acad. Sci. Holm., p.16, 1848.
= **Hexagonia peltata** Fr.
- peltatus*, *Polyporus* Fr., Nov, Symbol., p. 52, 1851.
= Nomen illegit., non Persoon 1825.
- perennis*, *Polyporus* L.: Fr., Syst. Mycol. 1:350, 1821.
= **Coltricia perennis** (Fr.) Murrill.
- pertusa*, *Trametes* Fr., Act. Acad. Sci. Holm., p. 10, 1848.
= *Phellius gilvus* (Schwein.) Pat.

- perula*, *Polyporus* Beav.: Fr., Syst. Mycol. 1:349, 1821.
= **Microporus xanthopus** (Beav.: Fr.) Kunt.
- pes-caprae*, *Polyporus* Pers.: Fr., Syst. Mycol. 1:354, 1821.
= **Albatrellus pes-caprae** (Pers.: Fr.) Pouzar.
- petalodes*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 444. 1836.
= *Polyporus varius* Pers.: Fr.
- picipes*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 440, 1836-38.
= *Polyporus badius* (S.F. Gray) Schw.
- pictus*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 435, 1836-38.
= *Coltricia perennis* (L.: Fr.) Murrill.
- pini*, *Daedalea* Brot.: Fr., Syst. Mycol. 1: 336, 1821.
= **Phellinus pini** (Fr.) Ames.
- pinicola*, *Polyporus* Swartz.: Fr., Syst. Mycol. 1: 372 1821.
= **Fomitopsis pinicola** (Swartz.: Fr.) P. Karsten.
- pinsitus*, *Polyporus* Fr., Elench. Fung., p. 95: 1828.
= *Trametes villosa* (Fr.) Kreisel.
- placenta*, *Polyporus* Fr., Ofvers. Kung. Vet. Akad. Forh. 1:30, 1861.
= **Oligoporus placentus** (Fr.) Gilbn. & Ryvardeen.
- plumbosus*, *Polystictus* Fr., Nova Symbolae, p. 93, 1851.
= Type is presumably lost; it came from Mexico.
- polita*, *Daedalea* Fr., Linnaea 5: 514, 1830.
= *Trametes elegans* (Spring.: Fr.) Fr.
- politus*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 429, 1836-38.
= *Albatrellus confluens* (Fr.) Kotl. & Pouzar.
- polygramma*, *Hexagonia* Fr., Epicr. Syst. Mycol., p. 497, 1836-38.
= *Hexagonia glaber* (Beauv.) Ryvardeen.
- populinus*, *Polyporus* Schum.: Fr., Syst. Mycol. 1: 367, 1821.
= **Oxyporus populinus** (Schum.: Fr.) Donk.
- poripes*, *Polyporus* Fr., Nova Symbolae, p. 48, 1851.
= *Albatrellus cristatus* (Fr.) Kotl. & Pouzar.
- portoricensis*, *Polyporus* Spreng.: Fr., Elench. Fung., p. 115, 1828.
= **Fuscocerrena portoricensis** (Spreng.: Fr.) Ryvardeen.
- prolificans*, *Polyporus* Fr., Epicr. Syst. Mycol., P. 443, 1836-38.
= *Trichaptum bififormis* (: Fr in Kl.) Ryvardeen.
- protracta*, *Trametes* Fr., Ofvers. Kung. Vet. Akad. Forh.8:52, 1852.
= **Gloeophyllum protractum** (Fr.) Imazeki.
- protracta*, *Lenzites* Fr., Nova Symbolae, p. 45, 1851.
= *Gloeophyllum striatum* (Swartz.: Fr.) Murrill.
- pterygodes*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 445, 1836-38.
= *Microporus xanthopus* (Fr.) Kunt.
- pubescens*, *Polyporus* Schum.: Fr., Syst. Mycol.1:367, 1821.
= **Trametes pubescens** (Fr.) Pilat.
- pulcher*, *Polyporus* Fr., Linnaea 5:515, 1830.
= The type is lost; it came from Guinea.

- punctatus*, *Polyporus* Fr., Hymen. Eur., p. 572, 1874.
= **Phellinus punctatus** (Fr.) Pilat.
- punicea*, *Trametes* Fr., Nova Symbolae, P. 98, 1851.
= **Trametes punicea** Fr.
- purpureus*, *Polyporus* Fr., Syst. Mycol. 1:379, 1821.
= **Ceriporia purpurea** (Fr.) Donk.
- pusillus*, *Favolus* Fr., Linnaea 5:511, 1830.
= *Polyporus tenuiculus* (Beauv.) Fr.
- putidus*, *Polyporus* Fr., Nova Symbolae, p. 51, 1851.
= *Trametes membranaceus* (Sw.: Fr.) Keisel.
- quercina*, *Daedalea* L.: Fr., Syst. Mycol. 1:333, 1821.
= **Daedalea quercina** L. Fr.
- quercinus*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 441, 1836-38.
= **Piptoporus quercinus** (Fr.) Pilat.
- radiatus*, *Polyporus* Sow.: Fr., Syst. Mycol. 1:369, 1821.
= **Inonotus radiatus** (Sow.: Fr.) P. Karsten.
- radula*, *Polyporus* Fr., Syst. Mycol. 1:383, 1821.
= **Schizopora radula** (Fr.) Donk.
- ravenalii*, *Polyporus* Berk. et Fr., Nova Symbolae, p. 82, 1851.
= The type is lost; it came from South Carolina, United States.
- ravidus*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 475, 1836-38.
= **Oxyporus ravidus** (Fr.) Bond. & Singer.
- resinosus*, *Polyporus* Fr., Syst. Mycol. 1:361, 1821.
= **Ischnoderma resinosum** (Fr.) P. Karsten.
- reticulatus*, *Polyporus* Pers.: Fr., Syst. Mycol. 1:385, 1821.
= **Ceriporia reticulata** (Pers.: Fr.) Dom.
- rhodellus*, *Polyporus* Fr., Syst. Mycol. 1:380, 1821.
= *Ceriporia viridans* (Berk. & Broome) Donk.
- ribis*, *Polyporus* Fr., Syst. Mycol. 1:375, 1821.
= **Phylloporia ribis** (Fr.) Ryvardeen.
- roseus*, *Polyporus* Alb. & Schw.: Fr., Syst. Mycol. 1:372, 1821.
= **Fomitopsis rosea** (Alb. & Schw.: Fr.) P. Karsten.
- rostkowi*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 439, 1836-38.
= *Polyporus squamosus* Fr.
- rubescens*, *Daedalea* Fr., Syst. Mycol. 1: 339, 1821.
= *Daedaleopsis confragosa* (Bolton.: Fr.) Schroet.
- rubiiginosus*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 460, 1836-38.
= nomen illegit., non Wallroth 1833 (= *Phaeolus schweinitzii*).
- rufescens*, *Polyporus* Fr., Syst. Mycol. 1: 351, 1821.
= *Abortiporus biennis* (Bull.: Fr.) Singer.
- rufus*, *Polyporus* Fr., Syst. Mycol. 1: 379, 1821.
= *Gloeoporus taxicola* (Pers.) Gilb. & Ryvardeen.
- rugosus*, *Polyporus* Blume & Nees: Fr., Elench. Fung., p. 74, 1828.
= **Amauroderma rugosum** (Blume & Nees: Fr.) Torrend.

- rutilans*, *Polyporus* Fr., Syst. Mycol. 1: 363, 1821.
= *Hapalopilus nidulans* (Fr.) Pilat.
- sacer*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 437, 1836-38.
= **Lignosus sacer** (Fr.) Ryvarden.
- saligna*, *Daedalea* Fr., Syst. Mycol. 1:337,1821.
= *Bjerkandera fumosa* (Pers.: Fr.) P. Karsten.
- salicinus*, *Polyporus*, Fr., Syst. Mycol. 1:376, 1821.
= *Phellinus conchatus* (Pers.: Fr.) Quelet.
- sanguineus*, *Polyporus* L.Fr.) Syst. Mycol, p. 371, 1821.
= **Trametes sanguinea** (Fr.) Lloyd, Mycol. Writ. 7:1291, 1924.
- sanguinolentus*, *Polyporus* Alb. & Schw.: Fr., Syst. Mycol.1: 383, 1821.
= **Physisporinus sanguinolentus** (Alb. & Schw.: Fr.) Pilat.
- sarcitus*, *Polyporus* Fr., Nova Symbolae , p. 66, 1851.
= **Phellinus sarcites** (Fr.) Ryvarden.
- scalaris*, *Polystictus* Fr., Nova Acta R. Soc. Scient- Upsal. Ser. 3, 1:82, 1851.
= *Trametes floccosa* (Jungh.) Ryvarden.
- scalaris*, *Trametes* Fr. Act. Acad. Sci. Holm., p. 12, 1848.
= *Trametes polyzona* (Pers.) Corner.
- scanicus*, *Polyporus* Fr., Monogr. Hymenomyc. Suec. 2: 269, 1863.
= *Bjerkandera adusta* (Wild: Fr.) P. Karsten.
- skeleton*, *Trametes* Fr. Act. Acad. Sci. Holm., p. 14, 1848.
= The type is lost; it came from Natal, South Africa.
- schulzeri*, *Polyporus* Fr. Hymen. Europ. P. 556, 1874.
= Nomen illegit, non Kalchbrenner 1868.
- schweinizii*, *Polyporus* Fr., Syst. Mycol. 1: 351, 1821.
= **Phaeolus schweinitzii** (Fr.) Pat.
- scorteus*, *Polytictus* Fr., Nova Symbolae, p.89, 1851.
= *Trametes polyzona* (Pers) Ryvarden.
- scruposus*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 473, 1836-38.
= *Phellinus gilvus* (Schwein.) Pat.
- scutigera*, *Polyporus* Fr., Elench. Fung., p. 73, 1828.
= The type is lost; it came from Brazil.
- sector*, *Polyporus* Ehrenb.: Fr., Syst. Mycol. 1:505, 1821.
= **Trichaptum sector** (Ehrenb.: Fr.) Kreisel.
- sepiaria*, *Daedalea* Fr., Syst. Mycol. 1: : 333, 1821.
= **Gloeophyllum sepiarium** (Fr.) P. Karsten.
- serialis*, *Polyporus* Fr., Syst. Mycol. 1: 370, 1821.
= **Antrodia serialis** (Fr.) Donk.
- serpens*, *Daedalea* Fr., Syst. Mycol. 1: 340, 1821.
= *Antrodia albida* (Fr.) Donk.
- sinensis*, *Polyporus* L.: Fr., Syst. Mycol. 1: 345, 1821.
= *Hexagonia hirta* (Fr.) Fr.
- sinousus*, *Polyporus* Fr., Syst. Mycol. 1: 381, 1821.
= **Antrodia sinuosa** (Fr.) Donk.

- sinulosa*, *Daedalea* Klotzsch in Fr., Epicr. Syst. Mycol., p. 495, 1836-38.
= *Trametes elegans* (Spreng.) Fr.
- soloniensis*, *Polyporus* Dub.: Fr., Syst. Mycol. 1: 365, 1821.
= **Piptoporus soloniensis** (Dub.: Fr.) Pilat.
- speciosa*, *Hexagonia* Fr., Act. Acad. Sci. Holm., p. 17, 1848.
= **Hexagonia speciosa** Fr.
- spectabilis*, *Polyporus* Fr., Nova Symbolae, p. 48, 1851.
= *Phaeolus schweinitzii* (Fr.) Pat.
- spissus*, *Polyporus* Schw.: Fr., Elench. Fung., p. 111, 1828.
= **Ceriporia spissa** (Schw.: Fr.) Rajchenberg.
- spongiosus*, *Polyporus* Fr., Syst. Mycol. 1:377, 1821.
= *Phaeolus schweinitzii* (Fr.) Pat.
- spumeus*, *Polyporus* Sowerby.: Fr., Syst. Mycol. 1: 358, 1821.
= **Spongipellis spumeus** (Fr.) Pat.
- squalidus*, *Polyporus* Fr., Linnaea 5:517, 1830.
= The type is lost; it came from Brazil.
- squamosus*, *Polyporus* Huds.: Fr., Syst. Mycol. 1: 343, 1821.
= **Polyporus squamosus** Huds.:Fr
- stereoides*, *Daedalea* Fr., Nova Symbolae, p. 99, 1851.}]
= **Daedalea stereoides** (Fr.) Ryvarden.
- stereoides*, *Polyporus* Fr., Syst. Mycol. 1: 369, 1821.
= *Datronia stereoides* (Fr.) Ryvarden.
- stipticus*, *Polyporus* Pers.: Fr., Syst. Mycol. 1: 359, 1821.
= **Oligoporus stipticus** (Pers.: Fr.) Gilbn. & Ryvarden.
- striata*, *Daedalea* Swartz.: Fr., Syst. Mycol. 1: 334, 1821.
= **Gloeophyllum striatum** (Swartz.: Fr.) Murrill.
- strumosus*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 462, 1836-38.
= **Trametes strumosa** (Fr.) Zmitr., Wasser & Ezhiov.
- suaveolens*, *Polyporus* L.: Fr., Syst. Mycol. 1:366, 1821.
= **Trametes suaveolens** L: Fr.
- suaveolens*, *Daedalea* Bull.: Fr., Syst. Mycol. 1: 337, 1821..
= *Haploporus odoratus* (Sommerf.: Fr.) Bond. & Singer.
- suberosus*, *Polyporus* Fr., Syst. Mycol. 1: 505, 1821.
= *Spongipellis spumeus* (Sowerby.: Fr.) Pat..
- subspadiceus*, *Polyporus* Fr., Syst. Mycol. 1: 378, 1821.
= *Phellinus ferruginosus* (Schrad.: Fr.) Pat.
- subsquamosus*, *Polyporus* Fr., Syst. Mycol. 1: 346, 1821.
= **Boletopsis subsquamosa** (Fr.) Kotlaba & Pouzar.
- subtomentosa*, *Daedalea* Schw.: Fr., , Elench. Fung., p. 70, 1828.
= The type is lost; it came South Carolina, United States.
- sulfuratus*, *Polystictus* Fr., Nova Symbolae, p. 79, 1851.
= *Inonotus splitbergeri* (Mont.) Ryvarden.
- sulphureus*, *Polyporus* Bull.: Fr., Syst. Mycol. 1: 357, 1821.
= **Lactiporus sulphureus** (Bull.: Fr.) Murrill.

- sundaicus*, *Favolus* Fr., Nova Symbolae, p. 103, 1851.
 = *Polyporus tenuiculus* (Beauv.) Fr.
- supinus*, *Polyporus*, Swartz.: Fr., Syst. Mycol. 1: 376, 1821.
 = **Fomitella supina** (Swartz.: Fr.) Murrill.
- symphyton*, *Polyporus* Schw.: Fr., Elench. Fung., p. 97, 1828.
 = The type is lost, it came from United States.
- taxicola*, *Xylomyzon* Pers.:Fr Elench. Fung., p. 62, 1828.
 = **Gloeoporus taxicola** (Pers.: Fr.) Gilbn. & Ryvardeen.
- tenuiculus*, *Polyporus* Beauv.: Fr., Syst. Mycol. 1: 344, 1821.
 = **Polyporus' tenuiculus** Beauv.:Fr.
- tenuis*, *Hexagonia* Fr., Epicr. Syst. Mycol., p. 498, 1836-38.
 = *Hexagonia glaber* (Beauv.) Ryvardeen.
- tephroleucus*, *Polyporus* Fr., Syst. Mycol. 1:360, 1821.
 = **Oligoporus tephroleucus** (Fr.) Gilbn. & Ryvardeen.
- terrestris*, *Polyporus* Fr., Syst. Mycol. 1:383, 1821.
 = **Byssoporia terrestris** (DC) M. J. Larsen & Zak.
- tessulatus*, *Polyporus* Fr., Syst. Mycol. 1 342, 1821.
 = The type is lost; it came from Italy.
- testaceus*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 453, 1836-38.
 = **Gloeophyllum trabeum** (Fr.) Murrill.
- thunbergii*, *Daedalea* Thunb.: Fr., Syst. Mycol. 1: :335, 1821.
 = The type is lost; it came from Japan.
- tomentosus*, *Polyporus* Fr., Syst. Mycol. 1:351, 1821.
 = **Inonotus tomentosus** (Fr.) Teng.
- torridus*, *Polyporus* Fr. Elench. Fung., p. 103, 1828.
 = *Trametes polyzona* (Pers.) Ryvardeen.
- trabea*, *Daedalea* Fr., Syst. Mycol. 1:335, 1821.
 = **Gloeophyllum trabeum** (Fr.) Murrill.
- tricholoma*, *Polyporus* Fr., Nova Symbolae, p. 53, 1851.
 = nomen illegit non Montagne 1837.
- tricolor*, *Lenzites* Fr., Epicr. Syst. Mycol., p.406, 1836-38.
 = *Daedalopsis confragosa* (Fr.) Schroet.
- tricolor*, *Hexagonia* Fr., Epicr. Syst. Mycol., p. 498, 1836-38.
 = *Hexagonia glaber* (Beauv.) Ryvardeen.
- triqueter*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 474, 1836-38.
 = nomen illegit., non Persoon 1825.
- trogii*, *Polyporus* Fr., Nova Symbolae, p. 50, 1851.
 = *Podofomes trogii* (Fr.) Pouzar.
- tuberaster*, *Polyporus* Jacq.: Fr., Syst. Mycol. 1:347, 1821.
 = **Polyporus tuberaster** Jacq.:Fr.
- tuberculosis*, *Polyporus* Del.: Fr., Syst. Mycol. 1:380, 1821.
 = **Pachykytospora tuberculosa** (Fr.) Kotl. & Pouzar.
- ulmarius*, *Polyporus* Sow.: Fr., Syst. Mycol. 1:365, 1821.
 = **Rigidoporus ulmarius** (Fr.) Imazeki.

- umbellatus*, *Polyporus* Fr., Syst. Mycol. 1:354, 1821.
= **Polyporus umbellatus** Fr.
- umbonatus*, *Polystictus* Fr., Nova Symbolae, p. 87, 1851.
= *Trametes villosa* (Fr.) Kreisel.
- umbraculum*, *Polyporus* Fr., Elench. Fung., p. 74, 1828.
= The type is lost; it came from Guinea, probably a *Ganoderma* species.
- umbrina*, *Trametes* Fr. Act. Acad. Sci. Holm. p. 13, 1848.
= The type is lost; it came from Guinea.
- umbrina*, *Lenzites* Fr., Epicr. Syst. Mycol. p. 40, 1836-38.
= *Trametes betulina* (L.: Fr.) Pilat.
- umbrinella*, *Hexagonia* Fr. Act. Acad. Sci. Holm. p. 17, 1848.
= **Hexagonia umbrinella** Fr.
- undatus*, *Polyporus* Pers.:Fr Elench. Fung., p. 111, 1828.
= **Rigidoporus undatus** (Pers.: Fr.) Donk.
- unguicularis*, *Polystictus* Fr., Nova Symbolae, p. 76, 1851.
= *Trametes membranaceus* (Fr.) Kreisel.
- unicolor*, *Daedalea* Bull.: Fr., Syst. Mycol. 1:336, 1821.
= **Cerrena unicolor** (Bull.: Fr.) Murrill.
- unicolor*, *Hexagonia* Fr., Nova Symbolae, p. 101, 1851.
= *Gloeophyllum striatum* (Sw.: Fr.) Murrill.
- unitus*, *Polyporus* Fr., Elench. Fung., p. 116, 1828.
= *Perenniporia medullapanis* (Jaq.: Fr.) Donk.
- ursina*, *Trametes* Fr., Act. Acad. Sci. Holm., p. 9, 1848.
= *Hexagonia hydroides* (Sw.: Fr.) Fidalgo.
- vaiillantii*, *Polyporus* DC.: Fr., Syst. Mycol. 1:383, 1821.
= **Antrodia vaiillantii** (Fr.) Ryvarden.
- vaporarius* *Polyporus* Fr., Syst. Mycol. 1 :382, 1821.
= *Antrodia sinuosa* (Fr.) P. Karsten.
- variegata*, *Daedalea* Fr., Syst. Mycol. 1: 337, 1821.
= *Trametes betulina* (L.: Fr.) Pilat.
- varius*, *Polyporus* Fr., Syst. Mycol. 1:352, 1821.
= **Polyporus varius** Fr.
- vegetus*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 464, 1836-38.
= *Ganoderma appiantum* (Pers.) Pat.
- velutinus*, *Polyporus* Fr. Syst. Mycol. 1:368, 1821.
= *Trametes pubescens* (Schumach.: Fr.) Pilat.
- velutipes*, *Favolus* Fr., Nova Symbolae, p. 104, 1851.
= The type is lost; it came from Costa Rica.
- verruculosus*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 465, 1836-38.
= Nomen illegit, non Meyer 1818.
- versicolor*, *Polyporus* L.: Fr.) Syst. Mycol. 1:368, 1821.
= **Trametes versicolor** (L.: Fr.) Pilat.
- vibecinus*, *Polyporus* Fr., Act. Acad. Sci. Holm., p. 6, 1848.
= *Trametes villosa* (Fr.) Kreisel.

- villosus*, *Polyporus* Fr., Syst. Mycol. 1:344, 1821.
= **Trametes villosa** (Fr.) Kreisel.
- violaceus*, *Polyporus* Fr., Syst. Mycol. 1:379, 1821..
= *Gloeoporus taxicola* (Pers.: Fr.) Gilbn. & Ryvardeen.
- virellus*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 429, 1836-38.
= *Albatrellus cristatus* (Schaeff.: Fr.) Kotl. & Pouzar.
- virgineus*, *Polyporus* Fr., Elench. Fung., p.96,1828.
= The type is lost; it came from United States.
- viscosus*, *Polyporus* Pers.: Fr., Elench. Fung., p. 74,1828.
= The type is lost; it came from France. The name is not included in Donk 1974.
- vitellinus*, *Polyporus* Schw.: Fr., Elench. Fung., p. 117,1828.
= The type is lost; it came from Carolina, United States.
The name is not included in Overholts 1953.
- viticola*, *Polyporus* Schw.: Fr., Elench. Fung., p. 115,1828.
= **Phellinus viticola** (Schw.: Fr.) Donk.
- vitreus*, *Polyporus* Pers.: Fr., Syst. Mycol. 1: 381, 1821.
= **Physisporinus vitreus** (Pers.: Fr.) P. Karsten.
- vulgaris*, *Polyporus* Fr., Syst. Mycol. 1: 381, 1821.
= **Sidera vulgaris** (Fr.) Niemelä.
- vulpinus*, *Polyporus* Fr., Ofvers. Kung. Vet. Akad. Forh.8:130, 1852.
= *Inonotus rheades* (Pers.) Bond. & Singer.
- wahlbergii*, *Trametes* Fr. Act. Acad. Sci. Holm., p. 11, 1848.
= **Phellinus wahlbergii** (Fr.) D. A. Reid.
- weinmanii*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 459, 1836-38.
= *Oligoporus fragilis* (Fr.) Gilbn. & Ryvardeen.
- wirtgeni*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 483,1836-38.
= *Anomoporia bombycina* (Fr.) Pouzar.
- xanthopus*, *Polyporus*, Fr., Syst. Mycol.1:350, 1821.
= **Microporus xanthopus** (Beav.: Fr.) Kunt.
- xanthus*, *Polyporus* Fr., Syst. Mycol. 1: 379, 1821.
= **Antrodia xantha** (Fr.) Ryvardeen.
- xoilopus*, *Polyporus* Fr., Epicr. Syst. Mycol., p. 429, 1836-38.
= nomen illegit. Non Rostock 1838.
- zebrina*, *Trametes* Fr., Nova Acta Soc. Sci. Uppsal.. Ser 3,1:: 97 , 1851.
= The type is apparently lost; it came from United States.
- zonatus*, *Polyporus* Fr., Syst. Mycol. 1: 368, 1821.
= *Trametes ochracea* (Pers.) Gilbn. & Ryvardeen.
= non *Trametes zonatus* Wettst.
= *Daedaleopsis confragosa* (Bolton) Schroet.

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Studies in Aphylliphorales of Africa 28

Some corticoid species from Malawi

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Abstract

112 corticoid species, 8 poroid species and 10 Heterobasidiomycetes are reported from the Mulanje mountain in Malawi.

Introduction

This report is a follow up of the previous one on some poroid fungi of Malawi (Ryvardeen 2018).

In 1951 Laurens van der Post wrote an interesting book “Venture to the interior” describing an expedition to the Mulanje, an isolated mountain in the eastern part of Malawi. Intrigued by the book, and the fact that very little is known of the mycota from the country, it was felt by one of us (L. R.) that it could be mycologically interesting to visit the mountain. An added point is that it on higher elevations the mountain is covered with fairly large areas with the endemic *Widdringtonia whytei*, a tree in Cupressaceae from which no collections of wood inhabiting fungi were known. In addition, a few collections were also made on the tree fern *Cyathea capensis*. In the following, if not specified, the collections were made on unidentified hardwood trees.

The mountain was visited twice, i.e. from 3. to 13. March 1973 with collection numbers from 11122 –11568, and in 1992, from 22. To 25. January with the numbers 31208 –31481, The numbering is that of Ryvardeen and all collections are deposited in the fungarium of Oslo University (O).

List of species

Coniophoraceae

Coniophora olivacea (Fr.) P. Karst., 11315B, On *Widdringtonia*.
11401, 31255, 31329.

Corticaceae (s. l.)

Aleurocystis bakgallae (Berk. & Broome) G. Cunnungh. 11355.

Aleurodiscus botryosus Burt, 11258, 11313B, 31253.

Aphanobasidium pseudotsugae s.l. (Burt) Boidin & Gilles, 31353.

Asterostroma cervicolor (Berk. & M.A. Curtis) Masee, 11274, 11361, 11447, 11529.

Asterostroma laxum Bres., 31425, 31429.
Athelopsis lembospora (Bourdot) Oberwinkler, 31410, 31412 on *Cyathea*.
Boidinia furfuracea (Bres.) Stalpers & Hjortstam, 31421 on *Widdringtonia*
Botryobasidium cf. danicum J. Erikss. & Hjortstam, 31241.
Botryobasidium medium J. Erikss., 31385. On *Widdringtonia*.
Botryobasidium conspersum J. Erikss., 31456.
Ceraceomyces cf. microsporus K. H. Larss., 31398. On *Widdringtonia*.
Ceraceomyces sp. 11471, 31275, 31293, 11496.
Columnodontia sp. 31426.
Crustomyces cf. indecorus Hjortstam, 11294, on *Widdringtonia*.
Cystiodontia laminifera (Berk. & M. A. Curtis) Hjortstam. 31311, , 11300B,
Dacryobolus sudans Fr., 31448.
Dendrophysellum sp., 31265, 11350, 11376, 31269, 31435, 31370.
Dendrothele candida (Schwein.) P. Lemke, 31292 .
Dendrothele commixta (Höhn. & Litsch.) J. Erikss. & Ryvarden 31225.
Dichostereum durum (Bourdot & Galzin) Pilat, 11517.
Dichostereum sordulentum (Cooke & Masee) Boidin & Lanq., 11233, 11385 (on
Widdringtonia).
Epithele interrupta Bres., 31367 E.
Fibrodontia brevidens (Pat.) Hjortstam, 11138, 11197, 31287.
Fibrodontia cf. alba Yursheno & Sheng Wu, 11527.
Fibrodontia gossypina Parmasto, 31312, 11169, 11182.
Fibrodontia sp. 11126.
Gloeocystidiellum aspellum Hjortstam, 11495B.
Gloeocystidiellum sp. 11474.
Grammothele lineata Berk. & M.. Curtis, 11524.
Hydnophlebia sp. 11140, 11203.
Hyphoderma argillaceum (Bres.) Donk, 11159b.
Hyphoderma rimosum s.l. Burds. & Nakasone, 31443.
Hyphoderma setigerum (Fr.) Donk, 11161, 11484, 11559, 31234.
Hyphoderma sp. 11133B.
Hyphoderma terricola (Burt) Martin & Gilbn. 31389, 31385a. On *Widdringtonia*.
Hyphodermella sp. 11298, 31273.
Hyphodontia breviseta (P. Karst.) J. Erikss., 31274.
Hyphodontia nespori (Bres.) J. Erikss. & Hjortstam, 11387C, 31303 31304 31336 31368.
Hyphodontia rimosissima (Peck) Gilb. 11405.
Hyphodontia sambuci s.l. (Fr.) J. Erikss., 31233, 31237.
Hyphodontia septocystidiata Xiong, Dai & S. Wu 31334.
Hyphodontia sp. 31240, 31332.
Hyphodontia subalutacea (P. Karsten) J. Erikss. 31394. On *Widdringtonia*.
Hypochnicium sp. 31401, 3140. On *Widdringtonia*.
Hypochnicium subrigescens Boidin 31379. On *Widdringtonia*.
Intextomyces contiguus (P. Karst.) J. Erikss. & Ryvarden, 31277.
Irpex lacteus Fr., 11400C.
Laxitextum bicolor (Fr.) Lentz, 11516.

Leptosporomyces aff. raunkiaeri (M.P.Christ.) Jülich, 31236.
Leucogyrophana mollusca (Fr.) Pouzar, 31416.
Lopharia mirabilis (Berk. & Broome) Pat., 11801, 31283, 31752.
Luellia recondita (H.S. Jacks.) K.H. Larss. & Hjortstam, 31407 on *Cyathea*.
Melzerium udicola (Bourdot) Hauerslev, 31447.
Metuloidea sp. 11407C.
Mucronella calva (Alb. & Schwein.) Fr., 11248.
Mycoacia sp. 31309 D.
Nodotia lyndoniae (D. A. Reid) Hjortstam & Ryvarde, 31362.
Odontium laxum (L. Miller) Ryvarde, 11171.
Peniophorella echinocystis (Erikss. & Strid) K.H. Larss., 31 223.
Peniophorella pallida s.l. (Bres.) K.H. Larss., 31216.
Peniophorella praetermissa (P. Karst.) K. H. Larss., 11402, 11409, 11466, 31420 On
Widdringtonia, 31266, 31267, 31268.
Peniophorella pubera s. (Fr.) P. Karst. 11246.
Peniophorella sp. 31314.
Phaeophlebiopsis sp. 11273.
Phanerochaete aff. subceracea (Burt) Burds. 11511.
Phanerochaete livescens (P. Karst.) Volobuev & Spirin, 11301.
Phanerochaete sanguinea s.l. (Fr.) Pouzar, 11349.
Phanerochaete sp. 11364.
Phlebia albofibrillosa Hjortstam & Ryvarde, 11518.
Phlebia chrysocreas s.l. (Berk. & M.A. Curtin) Burds., 11323, 11245.
Phlebia hydnoidea Schwein., 31453.
Phlebia queletii (Bourdot & Galzin) H. P. Christ. 31321, 31325.
Phlebia sp 31375. 31442. On *Widdringtonia*.
Phlebia subcretacea (Litsch.) M.P. Christ., 11329, 31221, 31441.
Phlebiella californica (Liberta) K. H. Larsson & Hjortstam, 11400.
Phlebiella tulasnelloidea (Höhm. & Litsch) Oberw., 11368D, 11252, 11434.
Phlebiopsis flavidoalba (Cooke) Hjortstam, 11367, 11368A, 11368B, 11264.
Podoserpula pusio (Berk.) (D. A. Reid).
Porothelium aff. fimbriatum 11204, 11306.
Radulomyces sp. 11221.
Resinicium sp 31324.
Resinicium tenue Nakasone, 11241, 11359, 31452.
Rhizochaete perictrina (P. Roberts & Hjortstam) Nakasone, 31232, 31776.
Rhizochaete radicata (Henn.) Gresl., Nakasone & Rajchenb., 11368C, 11386, 31351, 31383.
 On *Widdringtonia*.
Rhizochaete sp. 31310, 31399. On *Widdringtonia*.
Scytinostroma alutum Lanq., 11220, 11520.
Scytinostroma duriusculum (Berk. & Broome) Donk, 31427.
Scytinostroma ochroleucum Donk, 11261.
Scytinostroma praestans (H.S. Jacks.) Donk, 31243.
Sistotrema coronilla (Höhnelt) D. P. Rogers 31365.
Sistotrema octosporum Höhnelt. & Litsch.) Hallenb., 31238 .

Sistotrema resinicystidium Hallenb., 31346a.
Sistotremastrum guttuliferum Melo et al., 11295, on *Widdringtonia*.
Sistotremastrum sp. 11348, 31306.
Stecchericum sp. (clampless!) 11555.
Steccherinum aff. bourdotii Saliba & David, 11365, 11230, 11309, On *Widdringtonia*, 31300.
Steccherinum ochraceum s.l. (Pers.) Gray, 31270, 31434.
Steccherinum subcrinale (Peck) Ryvar den, 31231, 31262, 31272.
Steccherinum sp. 31340.
Subulicystidium brachysporum (P.H. Talbot & V.C. Green) Jülich, 11225, 11494B, 11495, 11556.
Trechispora cf. tenuicula (Litsch.) K.H. Larsson, 31409 on *Cyathea*.
Trechispora cohaerens (Schwein.) Jülich & Stalpers, 11300G.
Trechispora sp. 31370A.
Tubulicium dussii (Pat.) Oberw. 1304, on *Cyathea*.
Tubulicrinis chaetophorus (Höhn.) Donk, 11268, 11313, On *Widdringtonia*.
Tubulicrinis gracillimus (D.P. Rogers & H. S. Jacks.) G. Cunn., 31224.
Vararia firma Boidin, 11467.
Vararia mediospora Boidin, Lanq. & Gilles 31360, 31339 31346.
Vararia ramulosa Boidin & Lanq., 11521.

Cyphellaceae

Henningsomyces sp. 31302, 31320.

Hymenochaetaceae

Hymenochaete cinnamomea (Pers.) Bres., 11514A. 31331.
Hymenochaete crustacea G. A. Escobar, 11314, 11387B On *Widdringtonia*, , 31284.
Hymenochaete fuscobadia Thind & Adlakha 31330.
Hymenochaete innexa G. Cunn., 11253.
Hymenochaete legeri Parmasto, 11222, 11226, 11439, 11492.
Hymenochaete livens Bres. 11430.
Phellinus purpureogilvus (Petch) Ryvar den, 31381.

Polyporaceae s. l.

Abortiporus roseus (Reid) Masuka & Ryvar den 31369.
Antrodia parvula (Bres.) Ryvar den, 11432.
Datronia scutellata (Schw.) Gilb. & Ryvar den 31388.
Junghubnia crustacea (Jungh.) Ryvar den 11400D.
Oxyporus obducens (Pers.) Donk 11514B.
Pachykytospora papyracea (Schw.) Ryvar den 31271.
Tyromyces pelluculosus (Berk.) G. Cunn., 31308.
Tyromyces subchioneus Ryvar den 31381.

Heterobasidiomycetes

Tulasnella sp. 31347.
Protodontia subgelatinosa (P. Karst.) Pilat, 11205.

Stypella sp. 31446.

Myxarium sp. 11244.

Protodontia sp. 31354.

Basidiodendron caesiocinereum (Höhn. & Litsch.) Luck-Allen var. *trachyspora* 11307A, On *Widdringtonia*.

Basidiodendron radians (Rick) P. Roberts, 31403, On *Widdringtonia*, 11469, 31286, 31408 on *Cyathea*.

Basidiodendron sp. 31387. On *Widdringtonia*.

Septobasidium sp. 11383, 31392. On *Widdringtonia*.

Eichleriella flavida (Pat.) Spirin & Malysheva, 31283, 31219, 31261, 31264, 31450, 31455, 31238B, 31305, 31318 31319 31322.

Heterochaete sp. 11217, 11331, 11347.

References

Ryvarden, L. 2018: Studies in Aphyllophorales of Africa 22. A first checklist of polypores from Malawi. *Synopsis Fung.* 38:9-11.

Studies in Aphylophorales of Africa 29

Some corticoid species from Uganda

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Abstract 41 corticoid and 12 steroid species besides 3 heterobasidiomycetes are reported from Uganda.

Introduction

This report is a follow up of the previous one on some poroid fungi from Uganda (Ipulet & Ryvarden 2005). All collections were made in Kibale national park close to Makerere University field station, and they are deposited in the fungarium of Oslo University (O). For a list of previous reports in the series, see Ryvarden (2018).

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References

Ipulet, P. & Ryvardeen, L. 2005: Studies in the Aphyllophorales of Africa 17 - new and interesting polypores from Uganda, *Synopsis Fung.* 20:87-99.
Ryvardeen, L. 2018: Studies in the Aphyllophorales of Africa – a survey, *Synopsis Fung.* 38:66-67.

Studies in African poroid fungi 30

Some poroid species from Uganda.

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Abstract

Ceriporiopsis allantoidea Ryvar den, *Diplomitoporus cremea* Ryvar den, *Navisporus resupinatus* Ryvar den, *Navisporus deviatu s* Ryvar den, *Perenniporia pulvinata* Ryvar den, *Polyporus formosus* Ryvar den and *Skeletocutis ugandensis* Ryvar den are described as new from Kibale national park in Uganda.

Introduction

This report is a follow up of the previous one on some poroid fungi of Uganda (Ipulet & Ryvar den 2005). All collections were made Kibale national park close to Makerere University field station. The types are all deposited in the fungarium of Oslo University (O).

For a list of previous reports on poroid species from Africa, see Ryvar den (2018).

Ceriporiopsis allantoidea Ryvar den nov. sp. Index Fung. No 556472.

Holotype: Uganda, Kabarole district, Makerere University field station, 20. April 2002, L. Ryvar den 44879 (O).

Basidiocarps annual, resupinate, effused, up to 10 cm long, 4 cm wide and up to 2 mm thick, soft when fresh, brittle when dry, margin 1-2 mm, white pore surface cream coloured, pores round, 5-7 (8) per mm, tubes concolorous with surface, up to 2 mm deep, subiculum, cottony, white 1 mm thick.

Hyphal system monomitic; generative hyphae with clamps, 2-5 μ m in diam.

Basidia 12-15 x 3-5 μ m, tetrasterigmatic, clavate.

Basidiospores 4-4.5 x 0.8-1 μ m allantoid, hyaline, smooth.

Substrata. On unknown hard wood log.

Distribution. Known only from the type locality.

Remarks. The tiny pores and allantoid, small spores make this a distinct species. It may be related to *C. allantospora* Ryvar den from Colombia, which has similar spores, but irregular pores, about 1-4 per mm.

Diplomitoporus cremea Ryvar den nov. sp. Index Fung. 556473.

Holotype: Uganda, Kabarole district, Kibale national park, Makerere University field station, 20. April 2002, L. Ryvar den 44898 (O).

Basidiocarps annual, resupinate, effused, 3 x 5 cm, 2 mm thick in centre, margin distinct, 2 mm wide, white, pore surface cream coloured, darkens to deep ochraceous when touched in fresh condition, pores round, 5-7 (8) per mm, tubes concolours with surface, up to 2 mm deep, subiculum, cottony, white very thin, adpressed cottony.

Hyphal system dimitic; generative hyphae with clamps, 2-5 μ m in diam.,

Skeletal hyphae dominant in basidiocarp, thick-walled to semisolid, 3-6 µm wide

Basidia 12-15 x 3-5 µm, tetrasterigmatic, clavate.

Basidiospores 4-5 x 3-4 µm elliptic, hyaline, smooth.

Substrata. On unknown hard wood log.

Distribution. Known only from the type locality.

Remarks. The elliptic spores and the small pores make this a distinct species.

Key to African *Diplomitoporus* species

1. Dendrohyphidia present in hymenium and dissepiments 2
1. Dendrohyphidia absent 3

2. Basidiospores 5-8 x 3-3.5 µm, oblong elliptic to cylindrical **D. hondurensis**
2. Basidiospores 5-6 x 2.5-3 µm, broadly elliptic **D. africanus**

3. Pore surface evenly cacao-coloured **D. cacao**
3. Pore surface differently coloured 4

4. Spores subglobose to elliptic 5
4. Spores cylindrical 6

5. Spores 9-10 µm long **D. grandisporus**
5. Spores 4-6 µm long 7

6. Pores irregular 2-5 per mm, often dentate **D. irregularis**
6. Pores regular, round, 6-8 per mm **D. cremea**

7. Spores shorter than 4 µm **D. ugandensis**
7. Spores longer than 4 µm 8

8. Spores 3-4 µm wide **D. centroafricanus**
8. Spores 2-2.5 µm wide **D. ethiopicus**

Navisporus resupinatus Ryvarden nov- sp. Index Fung. 556475.

Holotype: Uganda, Kabarole district, Kibale national park, Makerere University field station, 20. April 2002, L. Ryvarden 44768 (O).

Basidiocarps annual, resupinate, 5 x 5 cm and 5 mm thick, soft when fresh, brittle when dry, margin 1-2 mm, white to ale cream coloured, pore surface cinnamon - cream coloured, pores round, 6-8 per mm, hardly visible to the naked eye, tubes concolours with surface, up to 3 mm deep, subiculum, cottony, white 2 mm thick.

Hyphal system dimitic; generative hyphae with clamps, 2-5 µm in diam., difficult to observe, skeletal hyphae dominating 2-5 µm wide, thick-walled to solid, dextrinoid in Melzers reagent.

Basidia not seen.

Basidiospores 8-10 x 3-4 (5) μm oblong elliptic to distinct navicular, smooth, hyaline and non dextrinoid.

Substrata. On unknown hard wood log.

Distribution. Known only from the type locality.

Remarks. The navicular spores and the dextrinoid skeletal hyphae indicate clearly that it belongs in *Navisporus*, even if it seemingly is the first resupinate representative in the genus. The narrow spores are distinct.

Navisporus deviatus Ryvarden nov- sp. Index Fung. 556474.

Uganda, Kabarole district, Kibale national park, Makerere University field station, 20. April 2002, L. Ryvarden 44804 (O).

Basidiocarps annual to biennial in the type, pileate, up to 10 cm long, 4 cm wide, 1 cm thick, soft when fresh, tough to flexible when dry, pileus cinnamon brown, sulcate to concentrically zoned, soft floccose, irregularly tufted, adpressed, darker toward the attachment, seemingly two different growth seasons, pore surface dark cinnamon pores round, 6-8 per mm, hardly visible to the naked eye, tubes concolours with surface, up to 2 mm deep, context compressed cottony, cinnamon coloured, 2 mm thick.

Hyphal system dimitic; generative hyphae with clamps, 2-5 μm in diam., difficult to observe, skeletal hyphae dominating 2-5 μm wide, thick-walled to solid, dextrinoid in Melzers reagent.

Basidia not seen.

Basidiospores 5-7 x 3.5-4.5, μm oblong elliptic to distinct navicular, smooth, hyaline and non dextrinoid.

Substrata. On unknown hard wood log.

Distribution. Known only from the type locality.

Remarks. The navicular spores and the dextrinoid skeletal hyphae indicate clearly that the species belongs in *Navisporus*. The spores are shorter than in other species in the genus, but their navicular shape is distinct.

Perenniporia pulvinata Ryvarden nov- sp. Index Fung. 556476.

Holotype: Uganda, Kabarole district, Kibale national park, Makerere University field station, 20. April 2002, L. Ryvarden 44768 (O).

Basidiocarps annual, resupinate, 5 x 10 cm and cm thick, pulvinate with sloping margins, soft when fresh, dense when dry, margin 1-2 mm, white to ochraceous contrasting the pore surface, this dark brown in older parts /reminding one about a *Phellinus* species) brown in younger parts, pores round to slightly angular (lens), 7-8 per mm, invisible to the naked eye, tubes concolorous with surface, up to 3 mm deep, subiculum, fibrous, dark olivaceous brown. 1 mm thick.

Hyphal system dimitic; generative hyphae with clamps, 2-5 μm in diam., difficult to observe, skeletal hyphae dark olivaceous brown in 3 % KOH, dominating in basidiocarp, 2-5 μm wide, thick-walled to solid, dextrinoid in Melzers reagent.

Basidia not seen.

Basidiospores 4.5-5 (6) x 4-5 μm subglobose, slightly thick walled, some truncate, hyaline and non dextrinoid.

Substrata. On unknown hard wood log.

Distribution. Known only from the type locality.

Remarks. The pulvinate dark brown basidiocarps with dextrinoid skeletal hyphae and hyaline subglobose spores, characterize this species.

Polyporus pulchram Ryvarden nova sp. Index Fung. 556477.

Holotype: Uganda, Kabarole district, Kibale national park, Makerere University field station, 20. April 2002, L. Ryvarden 44797 (O).

Basidiocarps. annual, centrally stipitate; pilei circular, solitary, up to 5 cm in diam. and 4 mm thick at centre, pileus surface dark brown, azonate, glabrous, smooth when fresh somewhat rugose when dry; stipe central, dull, dark brown, finely adpressed velutinate, 4 cm long and 5 mm in diameter, round when fresh, longitudinally wrinkled when dry, context homogenous, white, dense, pore surface cream coloured, pores, dentate, slightly radial elongated, 1-3 per mm, dissepiments thin, becoming lacerate; tube layer concolorous, up to 2 mm deep context whitish, 0.5 mm thick.

Hyphal system dimitic; generative hyphae hyaline, thin-walled, often branched, with abundant clamps, 3-8 μm in diam, in context inflated up to 12 μm wide, skeleto-binding hyphae dominating, thick-walled, aseptate, with dendroid branching to tapering with narrow tips, 2-11 μm in diam.

Basidia 12-15 x 4-6 μm , clavate.

Basidiospores 4-5 x 3-3.5 μm , elliptic, smooth, hyaline, IKI-.

Substrata. Dead hard wood.

Distribution. Known only from the type locality.

Remarks. This is a beautiful small species with the glabrous dark brown to dark vinaceous pileus, wrinkled, dull brown stipe and irregular dentate pores. It is macroscopically similar to *P. austroafricanus*, which however is a larger more robust species with larger spores, i.e (8) 10-12 x 3-5 μm

Skeletocutis ugandensis Ryvarden, nov. sp. Index Fung. 556478.

Holotype: Uganda, Kabarole district, Kibale national park, Makerere University field station, 20. April 2002, L. Ryvarden 44860 (O).

Basidiocarps annual, resupinate, effused, up to 10 cm wide and long, up to 2 mm thick, soft when fresh, brittle when dry, margin 1-2 mm, white, fine floccose pore surface white when fresh, pale brown when dry and darker where touched when dry, pores angular, honeycomb like with thin walls, 3-4 per mm, context almost inviable, white.

Hyphal system dimitic; generative hyphae with clamps, 2-4 μm in diam; skeletal hyphae hyaline, thick walled, 3-5 μm wide strongly encrusted, especially along the dissepiments.

Basidia 12-15 x 3-5 μm , tetrastrigimatic, clavate.

Basidiospores 5-7 x 2.3-2.5 μm , oblong elliptic, hyaline, thin walled, smooth and IKI-.

Substrata. On unknown hard wood log.

Distribution. Known only from the type locality.

Remarks. This is a beautiful species with its honeycomb pores and where the pore surface change from pure white to pale brown or deep ochraceous when dry, distinctly becoming darker when touched in fresh condition.

Acknowledgements.

I am deeply obliged to Dr. P. Ipulet, University of Makerere, Uganda, who organized the collecting trip in Kibale national park with excellence.

References

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- Ryvardeen, L. 2018: Studies in the Aphylophorales of Africa – a survey, *Synopsis Fung.* 38:66-67.

Aphylophorales of Africa 31, the genus *Tyromyces* in Africa

By

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Abstract

24 species of *Tyromyces* are reported from Africa. The following species are described as new: *Tyromyces cystidiatus* Ryvar den, *Tyromyces grandisporus* Ryvar den, *Tyromyces longisporus* Ryvar den, *Tyromyces luteus* Ryvar den, *Tyromyces minutus* Ryvar den and *Tyromyces widdringtoniae* Ryvar den.

The name *Tyromyces afrochioneus* Ryvar den is proposed as a nomen novum for *T. subchioneus* Ryvar den 2018 non Murril 1907.

Introduction

The genus *Tyromyces* include pileate species with usually short-lived basidiocarps, almost all with a monomitic hyphal system. Over many years collecting in Africa a number of specimens from the genus have been examined and a small number of species are described as new. Coming years will certainly reveal more species in the genus. In a tropical rain forest degrading and insect attack will often result in short lives for monomitic basidiocarps of the type as seen in *Tyromyces*. The following is a survey of the genus in Africa as I know it today. Further collecting such as in the Congo basin will certainly add species to the list given here.

TYROMYCES P. Karst.,

Rev. Mycol. 3, no. 9:17, 1881.

Basidiocarps annual, pileate to resupinate, short-lived and sappy when fresh, usually rigid and fragile when dry, often with shrinking, taste mild to bitter; upper surface mostly white, drying darker; glabrous to hairy, pore surface white to cream, drying darker; hyphal system mono- or dimitic; generative hyphae with clamps; gloeopleurous hyphae present in some species; cystidia usually absent, present in a few species, but cystidiols sometimes present, spores hyaline, thin-walled, allantoid to ovoid, IKI-, on hard wood or coniferous wood with a white rot. Cosmopolitan genus.

Type species: *Tyromyces chioneus* (Fr.) P. Karst.

Remarks. The genus is here restricted to species with generally pileate, and short-lived basidiocarps, clamped generative hyphae, monomitic (rarely dimitic in trama) hyphal system and a white rot.

Key to African species of *Tyromyces*

Main key

- 1. On gymnosperms (*Juniperus*, *Podocarpus* or *Widringtonia*)..... **Key A**
- 1. On hardwoods **2**

- 2. Pileus dark brown to black and hirsute to strigose **Key B**
- 2. Pileus light coloured to brown, velutinate to glabrous **3**

- 3. Pores 1-4 per mm **Key C**
- 3. Pores smaller 4-8 per mm **4**

- 4. Spores allantoid to cylindrical, **Key D**
- 4. Spores globose, to elliptic **5**

Key A

- 1. On *Widringtonia* or *Juniperus*..... **4**
- 1. On *Podocarpus* **2**

- 2. Spores cylindrical 3.5-4 x 1.2-2 µm, pores 6-7 per mm **T. afrochioneus**
- 2. Spores elliptic **3**

- 3. Spores 4-4.5 x 2.3-2.6 µm, pores 4-5 per mm **T. cinereobrunneus**
- 3. Spores 3-3.5 x 2.2-3 µm, pores 5-6 per mm **T. ethiopicus**

- 4. On *Widringtonia* **T. widdringtoniae**
- 4. On *Juniperus procera* **T. densiporus**

Key B

- 1. Spores allantoid **T. atrostrigosus**
- 1. Spores elliptic **T. pelliculosus**

Key C - pores up 3 per mm or larger

- 1. Spores elliptic, pileus minute, up to 5 mm wide and long **T. minutus**
- 1. Spores allantoid to cylindrical, pileus at least 1 cm wide **2**

- 2. Spores 10-14 µm long **T. longisporus**
- 2. Spores shorter **3**

- 3. Spores allantoid, up to 1.5 µm wide **T. grandiporus**
- 3. Spores cylindrical, 2-3 µm wide **4**

4. Pileus dark brown to dark ochraceous, spores 5-6 x 2-2.5 cylindrical to sub allantoid **T. dentatus**
 4. Pileus white to cream, spores 4.5-6 x 2.5-3 mm, cylindrical to elliptic **T. raduloides**

Key D – spores cylindrical to allantoid

1. Skeletal hyphae present, generative hyphae with distinct side branches **T. chioneus**
 1. Skeletal hyphae absent, generative hyphae without side branches **2**
- 2 Spores 4-5 µm long **T. centroafricanus**
 2. Spores up to 4 µm long **T. kenyensis**

Key E - spores elliptic to globose

1. Spores globose to subglobose **2**
 1. Spores elliptic **3**
- 2, Spores 2.5-3 x 2.5 µm 6-8 pores per mm **T. globosporus**
 2. Spores 4-5 x 3.5-4 µm 10-12 pores per mm **T. minutoporus**
3. Cystidia present **T. minutus**
 3. Cystidia absent **4**
4. Basidiocarp pendant, pores 6-8 per mm **T. pendens**
 4. Basidiocarp sessile, broadly attached, pores 2-6 per mm **5**
5. Spores 3-3.5x 2-2.3 µm **6**
 5. Spores larger **7**
6. Pileus white, smooth **T. ethiopicus**
 6. Pileus yellow, radially wrinkled **T. luteus**
7. Spores 4-5 x 2-2.5 µm elliptic 3-4 per mm, pileus glabrous strongly veined pileus white dirty white **T. striatus**
 7. Spores 5-6 x 3.5-4.5 µm, pileus pale to dark brown finely velutinate- glabrous, 2-4 per mm' **T. brunneus**

Tyromyces afrochioneus Ryvardeen, Index Fung.

= *Tyromyces subchioneus* Ryvardeen 2018, nomen illegit non Murrill 1907.

Basidiocarps annual, pileate, applanate to slightly convex, broadly attached to semicircular and dimidiate, up to 7 cm broad and 10 cm wide, 0.5-2 cm thick, soft and fleshy when fresh, drying rather hard and brittle, upper surface azonate, whitish when fresh, becoming unevenly patchy pale brown to dirty white, glabrous, rugulose and azonate, no cuticle of agglutinated hyphae, pore surface ochraceous, pores round 6-7 per mm, tube layer concolorous with pore

surface, up to 3 mm thick, context pale ochraceous up to 1.5 cm at base, homogenous, chalky when dry and without structure.

Hyphal system monomitic; generative hyphae with clamps, thin walled, moderately branched with large clamps, swelling in 3 % KOH, 3-8 μm in diam,

Basidia 12-18 x 4-5 μm , clavate, tetrasterigmatic.

Basidiospores 3.5-4 x 1.2-2 μm , cylindrical.

Substrate. Dead *Podocarpus* sp.

Distribution. Known only from the type locality in Ethiopia.

Remarks. The fairly small spores and the dense consistency with uneven brown to dirty white colour characterize the species.

Tyromyces atrostrigosus (Cooke) Cunningh.,

Bull. New Zealand Dep Sci Ind. Res. 164:120, 1965. – *Polyporus atrostrigosus* Cooke, Grevillea 19:2, 1890.

Basidiocarp annual, solitary, sessile, sometimes dimidiate and in imbricate clusters, up to 5 cm wide and long, 8 mm thick at the base, pileus hirsute to strigose, azonate but with faint radial lines or striae, dark brown in variable shades, apparently becoming darker when the hairs wear away at the base, no cuticle present, margin thin, often split and deflexed when dry, pore surface wood-coloured to pale brown when fresh, darkens when touched, dries to pale dirty brown, pores angular, thin-walled and variable, mostly 4-6 per mm, often with dentate dissepiments, tubes concolorous, up to 5 mm deep, context white to pale cork-coloured near the tubes, close to the surface pale brown and in the upper 1 mm darker brown without any abrupt colour change, up to 5 mm thick at the base, brittle when dry.

Hyphal system monomitic, generative hyphae with clamps, variable in width, 5-7 μm wide with large clamps in the context, more narrow in the trama, hyaline in the trama and context, pale brown and more distinctly thick-walled in the pileus cover.

Cystidia none.

Basidiospores 4-5.5 x 1.5-2 μm , allantoid,

Distribution. Australia and Africa, specimens seen from Rwanda, Malawi and Uganda.

Remarks. The dark brown and strigose pileus, the pale pore layer and the allantoid spores characterize this species. The spores separate it from *T. pelliculosus* which has similar basidiocarps, but where the spores are elliptic.

Tyromyces brunneus Ryvar den,

Synopsis Fung 38:35, 2018.

Basidiocarp annual, sessile, single, semicircular, broadly attached or dimidiate, up to 3 cm wide, 7 cm long and 1 cm thick at the base, soft when fresh, rigid when dry, taste mild, upper surface pale brown becoming dark brown when dry, dull, azonate, first finely velutinate becoming glabrous, pore surface unevenly brown, pores thin-walled, angular, 2-4 per mm; tubes up to 5 mm deep, pale whitish brown, context whitish to pale brown, homogeneous, brittle, up to 5 mm thick at the base.

Hyphal system monomitic; generative hyphae with clamps, thin- to thick-walled, swelling strongly in 3 % KOH, 2.5-4 μm wide.

Basidia 18-22 x 5-7 μm clavate.

Basidiospores 5-6 x 3.5-4.5 μm , subglobose to broadly elliptic.

Distribution. Known only from the type locality in Ethiopia.

Remarks. The brown colours, the velutinate pileus and the subglobose spores characterize this species.

Tyromyces centroafricanus Ryvar den,

Synopsis Fung 38:35, 2018.

Basidiocarp annual, solitary or imbricate, pileate, semicircular to flabelliform, up to 4 cm wide and broad, 1 cm thick at the base, soft when fresh, somewhat flexible when dry, pileus white to cream, glabrous, azonate, slightly wrinkled radially when dry, in parts covered with a very thin, smooth pellicle, more rough in other parts, pore surface white to cream or pale ochraceous, pores round to slightly angular, 4-5 per mm, thick walled, tubes concolorous with pore surface, up to 2 mm thick. context white, homogenous, 2 mm thick.

Hyphal system monomitic, generative hyphae with clamps, thin to thick-walled with conspicuous clamps, 2-5 μm wide.

Cystidia none.

Basidiospores 4- 5 x 1.5-2 μm , cylindrical to allantoid.

Distribution. Known from Ethiopia, Tanzania and Cameroon.

Remarks. The small flabelliform basidiocarps with small pores and cylindrical spores characterize this species. It is undoubtedly similar to *T. chioneus*, by having straight generative hyphae without any branching, while they are characteristically branched in *T. chioneus*.

Further, those skeletal hyphae seen in the trama of the latter is conspicuously absent in this new species.

Tyromyces chioneus (Fr.) P. Karsten,

Rev. Mycol. 3, no. 9:17, 1881.- *Polyporus chioneus* Fr., Syst. Mycol. 1:359, 1821.

Basidiocarps annual, pileate, applanate to slightly convex, broadly attached to semicircular and dimidiate, more rarely spatulate, single or a few specimens together, up to 8 cm broad and 10 cm wide, 0.5-2 cm thick, soft and fleshy when fresh, drying rather hard and brittle, upper surface azonate, at first whitish and finely tomentose, soon becoming glabrous as the hyphae agglutinate, then finely scrupose and warted, cream, light yellowish, or pale greyish to straw-coloured, as the agglutination proceeds there develops a smooth pellicle which on drying becomes radially to irregularly wrinkled, in old specimens rather distinct in section, in age somewhat discoloured and then dirty yellowish to pale sordid grey; pore surface white to pale cream, slightly shiny, drying somewhat darker, pores angular to circular, 3-4(-5) per mm, with thin dissepiments; context white and dense in dry condition, usually distinctly thicker than the tubes, up to 1.5-2 cm thick at the base; tube layer concolorous with pore surface, up to 8 mm thick.

Hyphal system dimitic; generative hyphae with clamps, in the context intricately branched and twisted and difficult to separate in long sections, side branches partly as tube-like hyphae, often separated by a septum, but also with repeated branching, these hyphae are very characteristic and diagnostic for the species, they are randomly oriented, occasionally mixed with more unbranched, long hyphae, both types with rather numerous clamps, thin- to thick-walled, 3-8 μm in diam, in parts collapsed, in the trama more or less parallel and more straight, mostly 2-4 μm in diam; skeletal hyphae straight, rarely branched, thick-walled, 2-4.5 μm in diam, present only in the trama.

Cystidia absent, fusoid cystidiols present, 15-20 x 4-5 μm .

Basidiospores 4-5 x 1.5-2 μm , cylindrical to slightly bent.

Substrate. Dead hard wood, *Juniperus procera*, in other areas on numerous different hosts.

Distribution. A wide spread species, common in the temperate zone. In Africa we have only seen specimens from different localities in Ethiopia.

Remarks. The slightly applanate, short-lived basidiocarp, frequently with a thin yellowish to greyish, often wrinkled pellicle are useful macroscopic characters for a field determination.

Tyromyces cinerobrunneus Bitew and Ryvardeen,

Synopsis Fungorum 18: 81, 2004.

Basidiocarp annual, sessile, single or imbricate, semicircular, broadly attached or dimidiate, up to 6 cm wide, 8 cm long and 1 cm thick at the base, soft when fresh, rigid when dry, taste mild, upper surface first greyish with brown shades, smooth, finely concentrically zonate, finely velutinate adpressed with some scattered glabrous zones, later becoming brown from the base and with radial lines, pore surface white to pale cream, pores thin-walled, angular, 4-5 per mm; tubes up to 4 mm deep, pale ochraceous, context white and homogeneous, brittle, up to 6 mm thick at the base.

Hyphal system monomitic; generative hyphae with clamps, thin- to thick-walled, 2.5-4 μm wide.

Cystidia or other sterile hymenial elements absent.

Basidia 15-18 x 5-7 μm , clavate.

Basidiospores 4-4.5 x 2.3-2.6 μm , elliptic.

Substrata. Known only from dead *Podocarpus* sp.

Distribution. Known from Ethiopia and Uganda.

Remarks. This species is somewhat similar to the American species *T. pseudolacteus* as they having almost identical microscopical characters. However, the latter species has a purely white pileus in contrast to the greyish to brown colours seen in *T. cinerobrunneus*.

Tyromyces cystidiatus Ryvardeen nova species, Index Fungorum no 556479.

Holotype: Uganda, Kabarole district, Kibale national park, Makerere University field station, 20. April 2002, L. Ryvardeen 44793 (O).

Basidiocarps annual, pileate effused, pileus 3 cm wide and 5 cm long, 2-3 mm thick at attachment, soft when fresh, fragile when dry, pileus white, dull, azonate, pileus margin sharp, margin in effused part narrow, white and floccose, pore surface whitish to pale cream coloured, pores round 4-5 per mm, split on vertical part of basidiocarp, tubes concolorous with surface, up to 2 mm deep, subiculum, white, dense. 1 mm thick.

Hyphal system monomitic; generative hyphae with clamps, 2-5 μm in diam.

Cystidia hyphal, present in the hymenium, narrowly clavate 20-28 x 2-4 μm with small encrusted crown.

Basidia 12-16 x 4-6 μm , clavate, tetrasterigmatic.

Basidiospores 4-5 x 3-3.5 μm elliptic, hyaline IKI negative.

Substrata. On unknown hard wood log.

Distribution. Known only from the type locality.

Remarks. The hymenial apically encrusted cystidia are diagnostic for this species.

Tyromyces densiporus Ryvarden,

Synopsis Fung 38:37, 2018.

Basidiocarp annual, dimidiate, 3 cm wide, 2 cm long and 6 mm thick at the base, soft when fresh, rigid and contracting with curling when dry, upper surface first white with adpressed velutinate tomentum, then becoming dark brown from base with development of resinous thin cuticle and with some radial lines, pore surface white to pale cream, pores thin-walled, angular, 4-5 per mm; tubes up to 2 mm deep, contracted and resinous dense when dry, context first white becoming brown and dense with age, up to 2 mm thick.

Hyphal system monomitic; generative hyphae with clamps, thin-walled, 2-5 μm wide.

Cystidia or other sterile hymenial elements absent.

Basidia 15-18 x 5-7 μm clavate.

Basidiospores 4-5 x 2-2.5 μm , elliptic to subcylindrical.

Substrata. Known only from dead *Juniperus procera*.

Distribution. Known from Ethiopia and Zimbabwe.

Remarks. This species may be related to *T. cinerobrunneus* having more or less the same microscopical characteristics, but is separated by the dense basidiocarp with a resinous cuticle from the base and the resinous dense tubes. More collections will demonstrate whether also the host, i.e. *Juniperus procera* also is distinct for the species.

Tyromyces dentata Ryvarden,

Synopsis Fung 38:11, 2018.

Basidiocarps annual, imbricate, individual basidiocarps, 3 cm wide and 8 cm long, up to 3 mm thick at the base, soft when fresh, hard and dense when dry, pileus more or less glabrous, in some zones with a fine adpressed whitish tomentum which apparently wears away rather quickly, sulcate, slightly radially furrowed when dry, pale brown to dark ochraceous, reddish brown towards the base, margin sharp, pore surface semi labyrinthine to irregularly hydroid, dentate in older parts with flattened walls and in parts deeply split, 0.5-2 mm wide, pore surface whitish when fresh drying pale brown, tubes whitish towards the base 4 mm deep, context white and dense, up to 4 mm deep.

Hyphal system monomitic; contextual hyphae hyaline in KOH, thick walled with scattered clamps simulating skeletal hyphae, swelling in KOH to 5 μm with a narrow lumen.

Basidiospores 5-6 x 2-2.5 μm , cylindrical to sub allantoid.

Distribution. Known only from the type locality.

Remarks. This is a remarkable species with its highly irregular semi hydroid hymenophore with a variation from wavy to labyrinthine to hydroid pores. The colour change from ochraceous to pale reddish brown from the base is also a distinct feature.

Tyromyces ethiopicus Bitew and Ryvarden,

Synopsis Fungorum 18:80, 2004.

Basidiocarp annual, sessile, single or imbricate, semicircular, broadly attached or dimidiate, up to 5 cm wide, 7 cm long and 1 cm thick at the base, soft, watery and sappy when fresh, rigid when dry, taste mild, upper surface white, smooth to slightly rugulose, glabrous, matted with age the upper hyphae agglutinate to a very thin brownish cuticle, pore surface white to pale cream, pores thin-walled, angular, 5-6 per mm; tubes up to 6 mm deep, concolorous

with pore surface; context white and homogenous, chalky when dry, up to 6 mm thick at the base.

Hyphal system monomitic; generative hyphae with clamps, in the trama thin-walled, 2.5–4 μm wide, in the context more thick-walled.

Basidiospores 3–3.5 x 2–2.3 μm , elliptic.

Substrata. Known only from dead *Podocarpus* sp.

Distribution. Known only from the type locality in Ethiopia.

Remarks. This new species is somewhat similar to the American species *T. galactinus* as they have almost identical microscopical characters although the basidiospores in the latter species are slightly smaller and almost subglobose (2.5–3 x 2–2.5 μm). However, *T. galactinus* has a strigose to tomentose upper surface in contrast to the glabrous surface of *T. ethiopicus*.

Tyromyces globosporus Ipulet & Ryvardeen,

Synopsis Fung. 20: 83, 2005.

Basidiocarps annual, effused reflexed to sessile, individual pilei up to 2 cm wide and long, 2–3 mm thick at the base, soft when fresh, dense and brittle when dry, pileus glabrous, smooth when fresh, somewhat wrinkled in dry condition, white, becoming slightly brownish in parts, pore surface white when fresh, pale ochraceous when dry, pores round, thin-walled, 6–8 per mm, invisible to the naked eye, tubes white, up to 2 mm deep, context white with a thin resinous line close to the tubes, 1–3 mm thick.

Hyphal system monomitic, generative hyphae with clamps, densely agglutinated, 2–4 μm wide.

Basidiospores 2.5–3 x 2.5 μm , globose to subglobose.

Distribution. Uganda, Kanungu Distr., Bwindi Forest National Park.

Remarks. The small globose to subglobose basidiospores are the distinguishing character for this species.

Tyromyces grandiporus Ryvardeen, nova species, Index Fungorum 556480.

Holotype: Tanzania, Arusha province, Arusha national park, Mt. Meru, 3000 m.a.s.l. 24 June 1994, on dead hard wood log, Ryvardeen 34320 Fungarium O.

Basidiocarps annual, pileate reflexed, broadly attached, pileus elongated 4 cm long 1 cm wide, effused part up to 4 cm wide, soft and fleshy when fresh, drying rather hard and brittle, upper surface zonate, older inner part deep reddish brown, wrinkled, glabrous, younger part ochraceous whitish when fresh, becoming darker when dry, margin sharp, pore surface ochraceous, pores angular 1–2 per mm in places more irregular, tube layer white, 6 mm deep, context white, dense and homogenous, up to 8 mm thick at base, chalky.

Hyphal system monomitic; generative hyphae with clamps, thick walled, moderately branched with large clamps, swelling in 3% KOH and thick walled also in Melzers solution, 2–6 μm in diam.

Cystidia absent,

Basidia not seen.

Basidiospores 4–5 x 1–1.5 μm , allantoid.

Substrate. Dead hard wood log.

Distribution. Known only from the type locality.

Remarks. The large angular pores make this a distinct species.

Tyromyces kenyensis Ryvarden,

Synopsis Fung 38:31, 2018.

Basidiocarp annual, pileate, sessile to dimidiate, convex, semicircular up to 4 cm wide, 8 cm long and 2 cm thick at the base, soft when fresh, dense when dry, upper surface glabrous, smooth when fresh, radially wrinkled when dry as the basidiocarps contract distinctly by drying, cream becoming darker with a distinct hard cuticle and then dark straw coloured, pore surface cream to pale straw coloured, partly shiny when turned in incident light, pores invisible to the naked eye, angular 4-5 per mm, a few even larger, tubes white, 8 mm deep, drying fragile, context dense, homogenous, white and 1,2 cm thick at base.

Hyphal system monomitic; generative hyphae with clamps, straight, thin- to distinctly thick walled, especially in the context and with large clamps, 2-6 μm wide, swelling strongly in 3 % KOH.

Basidiospores 3.5-4.5 x 1.5 -1.7 μm , cylindrical to banana shaped.

Substrata. Dead hard wood log.

Distribution. Known only from the type locality in Kenya.

Remarks. The species reminds one of the boreal *T. chioneus* (Fr.) P. Karst. with its wrinkled glabrous pileus developing a thin cuticle by age and weathering. However, this species has larger spores and very characteristic branched hyphae.

Tyromyces longisporus Ryvarden, nova species, Index Fungorum 556481.

Holotype: Zimbabwe, Central prov. Mazowe Botanical Reserve, 10. November 1988, on dead hard wood log, Ryvarden 25056 Fungarium O.

Basidiocarps annual, pileate, sessile to dimidiate, small, 1 cm wide and 2 cm long, 5 mm thick at base, soft when fresh, rigid when dry pileus white, glabrous, slightly shrunken with faint wrinkles when dry, margin sharp, pore surface white, pores angular, 1-3 mm wide and 4 mm deep, context white, dense and homogenous, up to 4 mm thick at base, chalky.

Hyphal system monomitic; generative hyphae with clamps, thick walled, solid to very thick-walled both in KOH and Melzers reagent, sinuous with occasional protuberances or knob like outgrowths, clamps large, up to 5 mm wide.

Basidiospores 10-14 x 3-4 μm , cylindrical

Substrate. Dead hard wood log.

Distribution. Known only from the type locality.

Remarks. The large angular pores and the long spores make this a distinct species.

Tyromyces luteus Ryvarden, nova species, Index Fungorum no. 556482.

Holotype: Ethiopia, Arussi prov., Munessa forest, east of lake Lugano, 2400 m. a. s. l. on dead hard wood log, 15. July 1990, Ryvarden 28314 Fungarium O.

Basidiocarps annual, pileate, sessile to dimidiate, semicircular, 3 cm long, 2 cm wide and, 3 mm thick at base, soft when fresh, rigid when dry pileus yellow with a pale brown cuticle spreading from base, glabrous, dull, smooth when fresh, slightly shrunken with faint radially wrinkled when dry, margin sharp, pore surface white to pale cream, pores round, thick walled, 4-5 per mm, tubes concolours with pore surface up to 2 mm deep, context white, homogenous, up to 1 mm thick at base.

Hyphal system monomitic; generative hyphae with clamps, thick to thin-walled, 2-5 μm wide.

Cystidia absent,

Basidia 8-12 x 4-6 µm tetrasterigmatic.

Basidiospores 2-2.2 x 3-3.5 µm, subglobose.

Substrate. Dead hard wood log.

Distribution. Known only from the type locality.

Remarks. The yellow colour with a brownish cuticle spreading from base besides the small spores characterize this species.

Tyromyces minutoporus Ryvarden,

Synopsis Fung. 38:31, 2018.

Basidiocarps annual, pileate, dimidiate to broadly attached, up to 5 cm wide and long, 12 mm thick at base, pileus white when fresh, darkens to deep ochraceous when dry and old, , glabrous, azonate, soft when fresh, striking hard and partly shrunken when dry and hen with a dense, but distinct cuticle , pore surface white when fresh, darkens to deep ochraceous when dry, margin sharp and deflexed when dry, pores angular to round 10-12 per mm, invisible to the naked eye, tubes concolorous with pore surface up to 10 mm deep, tube walls semi translucent when dry, context very dense with numerous dark resinous bands with a distinct dark zone above the tubes,

Hyphal system monomitic; generative hyphae with clamps 2-5 µm in diameter, thin-walled in the subhymenium, thick-walled in trama and context and difficult to separate, even in 5 % KOH, IKI-.

Basidiospores 4-5 x 3.5-4 µm, subglobose.

Distribution. Known only from the type locality in Zimbabwe.

Remarks. This species reminds one about the temperate *Tyromyces fissilis* which in similar fashion shrinks and become dense, partly fragile in the tubes when dry. The present species has smaller spores and smaller pores besides becoming very dense with resinous bands in the context.

Tyromyces minutus Ryvarden nova sp. Index Fung. No. 556483.

Holotype: Zimbabwe, Manicaland, Stapleford, John Meikele Research Station, 12. January 1990, Ryvarden 27739, fungarium O.

Basidiocarps annual, pileate, minute with numerous small pilei along an almost vertical substrate, individual basidiocarps soft, 3-7 mm long and 3 mm wide and 2 mm thick, pileus surface cream coloured, loosely floccose, azonate; margin sharp, ; pore surface cream coloured, pores angular, 14 per mm.; tubes 1 mm deep, context loose, soft, fragile 1 mm thick at base.

Hyphal system monomitic; generative hyphae, thick-walled, with distinct clamps, 3-7 µm wide.

Cystidia arising from the subhymenium, up to 40 µm long and 3-8 µm wide with an apical crystal crown, often with sharp irregular crystals.

Basidia 10-15 x 4-6 µm, clavate.

Basidiospores 4-5 x 3-3.5 µm, elliptic, hyaline, smooth.

Distribution. Only the type has been seen.

Remarks. The minute cream coloured basidiocarps with angular pores and long apically encrusted cystidia, make this distinct in the genus. It is easily overlooked because of its small size.

Tyromyces pelliculosus (Berk.) Cunningh,
New Zeal. Deep. Sci. Ind. Res. 164:124, 1965. - *Polyporus pelliculosus* Berk., Lond. J. Bot.
7:575, 1848.

Basidiocarp annual, solitary, pileate and distinctly tapering which making it almost semi pendant, applanate to convex with deflexed margin, semi-circular to elongated, up to 6 cm wide, 8 cm long and 2 cm thick at the base, soft when fresh, light of weight and brittle when dry, pileus hirsute to strigose, azonate but with faint radial lines or striae, dark brown in variable shades, apparently becoming darker when the hairs wear away at the base, no cuticle present, margin thin, often lobed, deflexed when dry, pore surface white when fresh, darkens when touched, dries to cork-colour or pale dirty brown, pores angular, thin-walled and variable, mostly 2-5 per mm, but in parts up to 1 mm wide, tubes concolorous, up to 12 mm deep, context white to pale cork-coloured near the tubes, close to the surface pale brown and in the upper 1 mm darker brown without any abrupt colour change, up to 2 cm thick at the base, brittle when dry.

Hyphal system monomitic, generative hyphae with clamps, variable in width, 3-8 μ m wide with large clamps, hyaline in the trama and context, pale fuscous and more distinctly thick-walled in the pileus cover. Gloeopleurous hyphae present in context, brown in KOH, 3-8 μ m wide.

Basidiospores 4.5- 6 x 3-4 μ m, broadly elliptic.

Distribution. Australia and in Africa from Rwanda, Malawi and Uganda.

Remarks. The dark brown and strigose pileus and the white pore layer make this an easily identifiable species in the field.

Tyromyces pendens Ipulet & Ryvarden,
Synopsis Fung. 20: 85, 2005.

Basidiocarp annual, solitary, pileate and pendant, semi-circular to elongated, up to 2 cm in diameter and 1 cm thick at the base, soft when fresh, light of weight and brittle when dry, pileus glabrous, smooth, somewhat wrinkled in dry condition, white becoming slightly brownish in parts, pore surface white, pores round, thin-walled, 6-8 per mm, invisible to the naked eye, tubes white, up to 2 mm deep, context white, 1-3 mm thick.

Hyphal system monomitic, generative hyphae with clamps, variable in width, 3-8 μ m wide with large clamps.

Basidiospores 4- 4.5 x 2.7-3 μ m, broadly elliptic.

Distribution. Known only from the type locality in Uganda.

Remarks. The pendent basidiocarps with the tiny pores and the small elliptic spores make this a distinct species. *Oligoporus cerifluus* (Berk. & M. A. Curtis) Ryvarden & Gilbn has a similar shape, but is connected to coniferous wood in the northern hemisphere, and has more narrow spores (2-2.5 μ m wide) and larger pores (3-5 per mm). Furthermore, it has a brown rot, and this new species grew on a substrate without any hint of a brown colour.

Tyromyces raduloides (Henn.) Ryvarden,
Preliminary Polypore fl. East Africa p. 612, 1980. - *Polyporus raduloides* Henn., Engl. Bot.
Jahrb. 17:25, 1892.

Basidiocarp annual, solitary or imbricate, pileate, semicircular to flabelliform, up to 3 cm wide and broad, 2-4 mm thick at the base, soft when fresh, somewhat flexible when dry,

pileus white to cream, glabrous, azonate, slightly wrinkled radially when dry, in parts covered with a very thin, smooth pellicle, more rough in other parts, pore surface white to cream or pale ochraceous, pores round to angular, somewhat lacerate with age, 2-4 per mm, larger in old specimens, tubes concolorous with pore surface, up to 2 mm thick.

context white, homogenous, 1-2 mm thick.

Hyphal system monomitic, generative hyphae with clamps, thin to thick-walled with conspicuous clamps, 2-5 μm wide.

Basidiospores 4.5-6 x 2.5-3 μm , cylindrical to oblong elliptic.

Distribution. Tanzania and Malawi.

Remarks. The broad spores and the pileate basidiocarp with a smooth glabrous pellicle are diagnostic features of this species.

Tyromyces striatus Ryvardeen, novo species, Index Fungorum 556484.

Holotype: Tanzania, Arusha province, Arusha national park, Mt. Meru, 3000 m.a.s.l. 24 June 1994, on dead hard wood log, Ryvardeen 34432 Fungarium O.

Basidiocarps annual, pileate, applanate to slightly convex, broadly attached to semicircular and dimidiate, up to 10 cm broad, 3 cm wide, 0.5-2 cm thick, soft and fleshy when fresh, drying rather hard and brittle, upper surface azonate, whitish when fresh, becoming unevenly patchy pale brown to dirty white, strongly veined as if folded to scrupose with pointed hydroid structures, glabrous, azonate, no cuticle of agglutinated hyphae, pore surface ochraceous, pores round to angular 3-4 per mm in places more irregular, tube layer concolorous with pore surface, up to 6 mm thick, context pale ochraceous up to 1.5 cm at base, homogenous, chalky when dry and without structure.

Hyphal system monomitic; generative hyphae with clamps, thin walled, moderately branched with large clamps, swelling in 3 % KOH, 3-5 μm in diam, some conducting hyphae present in trama, dense and dark, up to 10 cm wide.

Cystidia absent,

Basidia 12-18 x 4-5 μm , clavate, tetrasterigmatic.

Basidiospores 4-5 x 2-2.5 μm , elliptic.

Substrate. Dead hard wood log, probably *Hagenia* sp.

Distribution. Known only from the type locality in Tanzania

Remarks. The veined to strongly folded surface with small hydroid protuberances on the pileus is a striking character in this species.

Tyromyces widdringtoniae Ryvardeen, nova species, Index Fungorum 556484.

Holotype: Malawi, Thylo district, Mulanje Mountain, Lichenya hut, 2100 m, on dead log of *Widdringtonia whytei* 22. January 1992, Coll. Ryvardeen 31381 Fungarium O.

Basidiocarps annual, pileate, pendant, circular with more or less a central point of attachment, up to 6 cm in diameter, 6 mm thick at centre, pileus white, smooth, glabrous, azonate, slightly brownish around point of attachment, margin sharp, pore surface white to pale ochraceous, pores angular 4-6 per mm, tube layer concolorous, 3 mm deep, context white, dense and homogenous, up to 3 mm thick at base.

Hyphal system monomitic; generative hyphae with clamps, thick walled, moderately branched with large clamps, swelling in 3 % KOH, 3-6 μm , thick walled also in Melzers

solution, in the context up to 8 µm wide, solid to thick-walled and with scattered large clamps, in some places also double.

Basidia not seen.

Basidiospores 3.5-4 x 2-2.3 µm, subcylindrical, smooth, hyaline.

Substrate. Log of *Widdringtonia whytei*.

Distribution. Known only from the type locality.

Remarks. This species is similar to *T. ethiopicus*, which however is a sessile species with larger spores. The host is a remarkable tree being close to *Juniperus*, and thus probably rather selective as to which species being able to establish themselves in the wood and produce a basidiocarp.

Studies in African Aphylophorales 32

Some new African polypores.

by

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Abstract

27 new poroid species are described as new, viz. *Antrodia afrosinuosa* Ryvarden, *Antrodiella minuta* Ryvarden, *Ceriporiopsis angulatoporus* Ryvarden, *Daedaleopsis africanus* Ryvarden, *Datronia africana* Ryvarden, *Dichomitus densiporus* Ryvarden, *Diplomitoporus cylindrosporus* Ryvarden, *Diplomitoporus grandisporus* Ryvarden, *Diplomitoporus stramineus* Ryvarden, *Gloeoporus africanus* Ryvarden, *Grammothele obscura* Ryvarden, *Hexagonia phellinoides* Ryvarden, *Inonotus zimbabwensis* Ryvarden, *Junghuhnia ochracea* Ryvarden, *Junghuhnia cremea* Ryvarden, *Oxyporus dimiticus* Ryvarden, *Oxyporus multicarpus* Ryvarden, *Perenniporia densipora* Ryvarden, *Perenniporia miniochroleuca* Ryvarden, *Phellinus irregularis* Ryvarden, *Physisporinus cataractus* Ryvarden, *Polyporus brunneopapyrus* Ryvarden, *Polyporus nigroafricanus* Ryvarden, *Rigidoporus perennis* Ryvarden, *Skeletocutis grandispora* Ryvarden, *Skeletocutis afrochrysellia* Ryvarden and *Wrightoporia cinnamomea* Ryvarden.

Introduction

From my many collecting trips in Africa, starting in 1985, numerous poroid specimens have been accumulated for later examination. In connection with a forthcoming book "Poroid fungi of Africa" these specimens were examined and a number of unknown species were discovered and described below.

Antrodia afrosinuosa Ryvarden, nov. sp. Index Fung. 556490.

Holotype. Ethiopia, Menegesha forest 10. July 1995, on *Juniperus procera*, Col. D. Abate, in Fungarium O (Oslo).

Basidiocarps annual, resupinate, effused, up to 10 cm wide, 5 cm wide and 5 mm thick, tough when dry, margin golden yellow, 1-2 mm wide, white, finely floccose, pore surface white when fresh, becoming cream when dry, pore surface irregular – dentate, poroid, daedaleoid, pores 1-2 mm wide context almost inviable, white.

Hyphal system dimitic; generative hyphae with distinct clamps, 2-4 μm in diam; skeletal hyphae hyaline, thick walled, 3-5 μm wide scattered encrusted in the dry type.

Basidia 15-20 x 5-6 μm , tetrasterigmatic.

Basidiospores 5-6 x 2.5-3 μm , elliptic, hyaline, thin walled, smooth and IKI-.

Substrata. On dead log of *Juniperus procera*.

Distribution. Known only from the type locality.

Remarks. This is a beautiful species with its irregular pores and even pale golden yellow to cream surface. It looks like an enlarged *A. sinuosa* from the Northern hemisphere which however has cylindrical spores.

Antrodiella minuta Ryvarden, nov sp. Index Fung. No. 556491.

Holotype: Cameroon, Campo prov. Akok lowland rain forest reserve 2 December 1991, on dead hard wood, Ryvarden 30877 in Fungarium O.

Basidiocarps annual, pileate, dimidiate, semicircular, up 1.5 cm wide and 2 mm thick, pliable, pileus ochraceous with a few concentric coloured lines, probably reflecting stages of growth, e, smooth, glabrous, margin thin and sharp, round; pore surface ochraceous, pores angular to round, inviable to the naked eye, 6-8 per, tubes concolorous with pore surface 1 mm deep, context white 0.5 mm thick.

Hyphal system dimitic; generative hyphae with clamps, thin walled, 3-5 μm in diam., skeletal hyphae dominating in the trama, thick walled to solid, 2-5 μm in diam., straight to distinctly sinuous, hyaline, swelling in 3 % KOH.

Basidia 12-14 x 4-6 μm tetrasterigmatic

Basidiospores 4-5 x 1.5-2 μm , cylindrical, smooth, thin walled and negative in Melzers reagent.

Distribution. Known from the type locality and Uganda.

Remarks. The small and thin semicircular ochraceous basidiocarps with tiny pores and small cylindrical spores characterize this delicate species. It is similar to the American species *A. duracina*, which however has narrower spores, i.e. 1-1.3 μm wide.

Ceriporiopsis angulatusporus Ryvarden nov. sp. Index Fung. No 556492.

Holotype Zambia, Copperbelt prov. Ndola, Burning plot. 21. January 1988, on dead hard wood log, coll. Ryvarden 25194 in Oslo Fungarium (O).

Basidiocarps annual, resupinate, effused, 5 x 4 cm, 1 mm thick, soft when fresh, brittle when dry, margin 1-2 mm wide, pore surface pale ochraceous, pores angular 1-3 per mm, tubes 0.5 mm. subiculum, white, distinct and visible in the bottom of the tubes, 400 μm , white and lose..

Hyphal system monomitic; generative hyphae with clamps, 2-6 μm in diam.

Basidia 8-12 x 3-5 μm , tetrasterigmatic, clavate.

Basidiospores 5-6 x 3.5-4 μm , elliptic, hyaline, smooth.

Substrata. On unknown hard wood log.

Distribution. Known from the type locality and Tanzania.

Remarks. The angular large pores and elliptic spores characterize this species.

Daedaleopsis africanus Ryvarden, novo species, Index Fung. No. 556493.

Holotype: Zimbabwe, Manicaland, Chirinda, Selinda Mts. 20. January 1993, on dead hard wood log, Coll. Ryvarden 32984, Fungarium O.

Basidiocarps annual, sessile, up to 3 cm long, 2 cm wide and 1 cm thick at base, tough when fresh, dense and hard when dry, pileus white to pallid brown in along radial partly irregular ridges, sulcate, glabrous, pore surface wood coloured to pale ochraceous, pores angular 1-2 per mm, tubes concolorous with pore surface, up to 1 mm deep, context homogenous, dense, white up to 8 mm thick at the base.

Hyphal system dimitic, generative hyphae with clamps, delicately thin walled, 2-4 µm wide, skeletal hyphae thick walled to almost solid, 3-6 µm wide.

Dendrohyphidia present, hyaline, up to 25 µm long.

Basidia 18-22 x 4-7 µm, clavate, tetrastrigimatic.

Spores 14-16 x 4-5 µm, cylindrical, smooth.

Substrate. Hard wood log.

Distribution. Known only from the type locality.

Remarks. This is a remarkable species by its long cylindrical spores and presence of dendrohyphidia.

Datronia africana Ryvar den, novo species, Index Fung. No. 556494.

Holotype: Zimbabwe, Central province, Mazow Botanical reserve, 16. January 1988, on dead hard wood log, Coll. Ryvar den 25095, Fungarium O.

Basidiocarps annual, sessile, up to 6 cm long, 3 cm wide and 1.5 cm thick at base, tough when fresh, dense and hard when dry, pileus pale brown becoming black from the base, slightly sulcate, glabrous, pore surface pale brown when dry, pores round, 4-5 per mm, tubes concolorous with pore surface, up to 5 mm deep, context homogenous, dense, snuff brown, up to 1 cm thick at base.

Hyphal system dimitic, generative hyphae with clamps, delicately thin walled, 2-4 µm wide, skeletal hyphae thick walled, 2-5 µm wide, slightly dextrinoid.

Basidia Not seen.

Spores 7-9 x 5-6 µm, elliptic, smooth, thin walled, IKI-.

Substrate. Hard wood log.

Distribution. Known only from the type locality.

Remarks. This is an intriguing species with its fairly large elliptic spores and slightly dextrinoid skeletal hyphae. Undoubtedly it is related to *D. scutellata* which has similar small black basidiocarps, but where the spores are cylindrical.

Dichomitus densiporus Ryvar den, nova species, Index Fungorum 556520.

Holotype: Zimbabwe, Stapleford, K. Meikele research Station, 12. January 1990, on dead hard wood log, Coll. Ryvar den 27513 Fungarium O.

Basidiocarps annual, resupinate, 10 x 2 cm, about 2 mm thick, soft and pliable when fresh, drying resinous hard, margin almost absent, pore surface mustard pale brown, pores angular to irregular and elongated as if shrunken during drying, 1-3 per mm, tube layer concolorous, 1 mm deep, context almost absent, ochraceous, strongly contrasting the dense pore layer.

Hyphal system dimitic; generative hyphae with clamps, thin walled, 2-4 µm wide, arboriform skeletal hyphae present, thick walled to solid, negative in Melzers solution.

Basidia 15-25 x 5-8 µm, clavate to club shaped.

Basidiospores 12-15 x 5-6 µm, cylindrical, smooth, hyaline, negative in Melzers solution.

Substrate. Dead hard wood log.

Distribution. Known only from the type locality.

Remarks. This species has the same hyphal system and large cylindrical spores as seen in most *Dichomitus* species, but easily separated by its evenly coloured, resinous basidiocarp with large shrunken slightly irregular pores.

Dichomitus africanus Ryvar den, nova species, Index Fungorum no 556495.

Holotype: Tanzania, Tanga prov. Usambara Mts Lushoto, 1600 m.a.s.l. 20. June 1994, on dead hard wood log, Coll. Ryvar den 34055 Fungarium O.

Basidiocarps annual effused reflexed with narrow pileus, individual basidiocarps 3-2 cm, up to 5 mm thick at base, soft and pliable when fresh, tough when dry, pileus up to 5 mm wide, glabrous, smooth to slightly sulcate, pale ochraceous, margin sharp and distinct towards the substrate, pore surface ochraceous, pores regular 4-5 per mm, tubes concolorous 2 mm deep, context 2 m thick, pale ochraceous.

Hyphal system dimitic; generative hyphae with clamps, thin walled, 2-4 μm wide, arboriform skeletal hyphae present, thick walled to solid with long side branches and most branching seem to occur close to the base, slightly dextrinoid in Melzers reagent.

Basidia not seen.

Basidiospores 6-7.5 x 2-2.5 μm , cylindrical, smooth, negative in Melzers reagent

Substrate. Dead hard wood log.

Distribution. Known only from the type locality.

Remarks. This basidiocarps are distinct by their sharp and slightly lifted margin, making them almost discomycete like. The dextrinoid reaction of the arboriform hyphae is easiest seen in masses. The spores are smaller than in other species in the genus.

Diplomitoporus cylindrosporus Ryvar den nov. sp. Index Fung. No. 556496.

Holotype Zimbabwe, Midland prov., Mvuma district, Beacon Hill, 5. January 1987, on dead hard wood, Coll. Ryvar den 24981 in Oslo Fungarium (O).

Basidiocarps annual, resupinate, effused, 5 x 1 cm, 1 mm thick, soft when fresh, brittle when dry, pore surface white to pale ochraceous, pores round 4-5 per mm, tubes concolorous 1-1.5 mm deep, subiculum, white, about 200 μm thick.

Hyphal system dimitic; generative hyphae with clamps, 2-5 μm in diam., difficult to observe, skeletal hyphae dominating in the basidiocarp, 2-5 μm wide, hyaline.

Basidia 10-14 x 4-5 μm , tetrasterigmatic, clavate.

Basidiospores 5-6 x 2.5-3 μm , cylindrical and slightly bent, hyaline, smooth.

Substrata. On unknown hard wood log.

Distribution. Known from the type locality.

Remarks. The cylindrical, almost sausage like spores make this a distinct species.

Diplomitoporus stramineus Ryvar den, nova species Index Fung. No 556497.

Holotype: Zimbabwe, Eastern province, Inyanga district, Holdenby valley Chitima river, about 1000 m.a.s.l. 22. February 1986, on hard wood, L. Ryvar den 24011 in Fungarium Oslo (O).

Basidiocarps. annual, resupinate, up to 2 x 3 cm, 1 mm thick, margin narrow white and floccose, pore surface straw coloured, pores angular about 2 per mm and slightly irregular in dry condition with finely floccose white dissepiments (lens!), tube layer concolorous, 1 mm deep, subiculum white, thin and hardly visible.

Hyphal system dimitic; generative hyphae hyaline, thin-walled with clamps, 2-5 μm in diam, but difficult to find, skeletal hyphae, solid to distinctly thick-walled, 3-5 μm in diam.

Basidia not seen.

Basidiospores 9-10 x 4-5 µm, cylindrical.

Substrata. Dead hardwood.

Distribution. Known only from the type locality.

Remarks. The straw coloured pore surface with large angular pores and large cylindrical spores make this a distinct species.

Diplomitoporus grandisporus Ryvar den, nova species Index Fung. No. 556498.

Holotype: Zimbabwe, Mashonaland, Binga forest, 25 km east of Harare, 27. January 1993, on dead hardwood log, Ryvar den 32575 in , in Fungarium Oslo (O).

Isotype: Zimbabwe: Eastern province, Inyanga district, Holdenby valley, Chitima river, 22. February 1986, on hard wood, Ryvar den 24011 (O).

Basidiocarps. annual, resupinate, up to 4 x 2 cm, 2 mm thick, margin narrow white and finely velutinate, pore surface whitish ochraceous, drying reddish brown, pores concolorous, becoming resinous dense when dry, pores round 4-5 per mm, tube layer concolorous with pore surface, up to 0.8 mm deep, subiculum white, thin and hardly visible.

Hyphal system dimitic; generative hyphae hyaline, thin-walled with clamps, 2-5 µm in diam, but difficult to observe, skeletal hyphae, solid to distinctly thick-walled, 3-8 µm in diam.

Basidia not seen.

Basidiospores 10-12 x 5-7, elliptic, smooth, thin walled.

Substrata. Dead hardwood.

Distribution. Known only from Zimbabwe.

Remarks. The reddish brown pore surface in dry condition with round pores and large elliptic spores are discriminating characters for this species.

Gloeoporus africana Ryvar den nov. sp. Index Fung. No 556499.

Holotype: Ethiopia, Shoa province, Menagesha Forest. 10 July 1995, on dead hard wood tree, Leg. D. Abate, Fungarium Oslo (O).

Basidiocarps annual, resupinate, growing as small patches, each up to 2 x 3 cm, tough when fresh, hard and brittle when dry, margin narrow and white, pore surface deep beige, pores round to angular, 4-6 per mm, often not more than a reticulate pattern, up to 400 µm deep, hymenium developed over the dissepiments like in *Phlebia*, concolorous with the pore surface, tube layer gelatinous and rubbery when fresh, resinous to horny when dry and old, context pure white hardly visible to the naked eye.

Hyphal system monomitic; generative hyphae in the subiculum distinct and thick-walled with large clamps, up to 6 µm wide, moderately branched, in the tubes strongly agglutinated, thin-walled and mostly collapsed in dry specimens, up to 3.5 µm in diameter.

Cystidia and other sterile hymenial elements absent.

Basidia 10-14 x 3-4 µm, clavate.

Basidiospores 3-4 x 0.7-1.5 µm, allantoid to cylindrical.

Substrate. Dead hard wood log.

Distribution. Known only from the type locality.

Remarks. The dense tube layer over a white loose context and the tiny allantoid spores make this a distinct species.

Grammothele obscura Ryvarden nova species Index Fungorum no 556500.

Holotype: Zambia, Copperbelt prov. Ndola, 21. January 1988, on dead hardwood log, Ryvarden 25128, in Fungarium Oslo (O).

Basidiocarps adnate, effused, up to 1 mm thick, margin narrow, white, hymenophore dark bluish greyish, irregular, oblong split in lamellae and semi poroid shapes, 0.5-1 mm between ridges, more distinctly poroid along the margins and then 1-3 pores per mm, pore edges whitish, finely floccose, surface, up to 1 mm deep tube walls dark bluish and dense when dry, subiculum thin, white.

Hyphal system dimitic, generative hyphae thin-walled and with clamps, 2-4 μm wide, skeletal hyphae thick-walled to solid, 2-5 μm wide, olivaceous in KOH, dextrinoid in Melzers reagent.

Dendrohyphidia richly present, hyaline and irregularly branched at the top, in the hymenium up to 35 μm long, in the dissepiments and on the vertical walls, apparently arising at the end of branched generative hyphae.

Basidia 15-18 x 4-5 μm long, clavate and tetrasterigmatic, also present at the bottom of the tubes.

Basidiospores 5--6 x 2.5- 3 μm , elliptic, hyaline, thin-walled and non-amyloid.

Substrate. Dead hard wood log.

Distribution. Known only from the type locality in Zambia.

Remarks. The bluish colour and irregular hymenophore should be sufficient to recognize the species in the field. Microscopically it is similar to *G. lineata*, which however has skeletal hyphae in distinct bundles besides smaller spores.

Hexagonia phellinoides Ryvarden, nova species, Index Fungorum no. 556501.

Holotype: Zimbabwe, West prov. Victoria Falls, in riverine forest 4. January 1990, on dead hard wood tree, Coll. Ryvarden 27302 in Fungarium O.

Basidiocarps annual, pileate, sessile to dimidiate, 5 cm wide, 6 cm long 1.5 cm thick at base, pliable when fresh, rigid when dry pileus dark brown at the basal part, becoming paler towards the margin, zonate, finely adpressed velutinate, margin sharp, pore surface dark brown, pores hexagonal, 1-1.5 mm wide, tubes concolorous with pore surface, up to 1 cm deep, context deep tobacco brown, homogenous.

Hyphal system trimitic; generative hyphae with clamps, 2-5 μm wide, difficult to observe, binding hyphae, few, twisted, brown, skeletal hyphae dominating, pale brown, thick walled, in the trama 2-5 μm , in the context up to 10 μm wide.

Hyphal pegs prominent, numerous, easily seen with a lens, pointed dark brown, consisting of pointed thick walled hyphal ends, up to 120 μm above the hymenium, 20-40 μm wide.

Basidia 25-40 x 4-6 μm tetrasterigmatic.

Basidiospores 10-12 x 4-6 μm , cylindrical, smooth, thin walled.

Substrate. Dead hard wood log.

Distribution. Known only from the type locality.

Remarks. This is a very remarkable species by its numerous dark brown hyphal pegs covering the hymenium in all tubes.

Inonotus zimbabwensis Ryvarden, nova species, Index Fung. No. 556502.

Holotype: Zimbabwe, Manicaland, Chrinda forest 30. January 1993, on dead hardwood log, Coll. Ryvarden 32722, Fungarium O.

Basidiocarps annual, pileate, sessile, up to 6 cm wide and long, 3 cm thick, soft when fresh, fragile and hard when dry, pileus cinnamon colored to dark brown, first velutinate, then later darker when the tomentum wears away and expose a very thin black cuticle, pore surface dark brown, pores 2-3 (4) per mm, becoming slightly irregular under drying, tubes as pore surface, up to 7 mm deep, context slightly radially fibrous, rusty brown and homogenous.

Hyphal system monomitic, generative hyphae with simple septa, 2-6 μm wide, thin to distinctly thick-walled, hyaline to yellowish.

Hymenial setae absent.

Basidia up to 12 μm long clavate to club like, tetrasterigmatic.

Spores 4-5 x 2.5-3 μm , subcylindrical to oblong elliptic, hyaline.

Substrate. Dead hard wood log.

Distribution. Known only from the type.

Remarks. The lack of all setal organs and the subcylindrical spores are defining characteristics.

Junghuhnia ochracea Ryvarden, nova sp. Index Fungorum no 556503.

Holotype: Cameroon, Canjo prov. Akok forest reserve 2. December 1991, R. 30806. In Fungarium O.

Basidiocarps resupinate, effused, up to 2 x 4 cm and 1 mm thick, margin white and narrow, pore surface evenly pale ochraceous, pores round to angular, 5-6 per mm, a few slightly larger apparently as a result of the drying and growth on the side of the log, subiculum thin, white.

Hyphal system dimitic, generative hyphae thin-walled and with clamps, 2-4 μm wide, skeletal hyphae thick-walled to solid, 2-5 μm wide, hyaline.

Cystidia up to 100 μm long and 10 μm wide, thick walled, arising from the trama and partly bending into the hymenium and in the dissepiments, encrusted in the upperpart to a length to about 30 μm , negative in Melzers reagent.

Basidia 8- 12 -15 x 4-6 μm , clavate and tetrasterigmatic.

Basidiospores 3-5-4 x 2.2 -2.5 μm , elliptic, hyaline, thin-walled and non-amyloid.

Substrate. Dead hard wood log.

Distribution. Known only from the type locality.

Remarks. The evenly coloured pore surface, the long encrusted skeleton cystidia and elliptic spores characterize this species. Macroscopically it is similar to *J. creama*, but easily separated by larger spores

Junghuhnia creama Ryvarden, nova sp. Index Fungorum 556504.

Holotype: Tanzania, Tanga prov. Usambara mts, Masumbai 2000 m. a. s. l. on dead hard wood log, Ryvarden 34176. In Fungarium O.

Basidiocarps resupinate, effused, up to 2 x 4 cm and 1 mm thick, margin white and narrow, pore surface evenly pale cream, pores round to angular, 4-6 per mm, a few slightly larger apparently as a result of the drying and growth on the side of the log, subiculum thin, white and cottony soft.

Hyphal system dimitic, generative hyphae thin-walled and with clamps, 2-4 μm wide, skeletal hyphae thick-walled to solid, 2-5 μm wide, hyaline.

Cystidia up to 100 µm long and 10 µm wide, thick walled, arising from the trama and partly bending into the hymenium and in the dissepiments, encrusted in the upper part to a length to about 30 µm, negative in Melzers reagent.

Basidia 8- 12 4-5 µm, subclavate and tetrasterigmatic.

Basidiospores 3-3.5 x 1.7-2.2 µm, elliptic, hyaline, thin-walled and non-amyloid.

Substrate. Dead hard wood log.

Distribution. Known only from the type locality.

Remarks. The evenly coloured pore surface, the long encrusted skeletal cystidia and small spores make this to a distinct species.

Oxyporus dimiticus Ryvar den, novo species, Index Fung. 556505.

Holotype: Zimbabwe, Manicaland, Chirinda, Selinda Mts. 19. January 1990, on dead hard wood log. Coll. Ryvar den 27970, Fungarium O.

Basidiocarps annual, resupinate to effused reflexed with an elongated narrow pileus, discomycete like when dry with curled and with partly lifted basidiocarps, 1-3 cm wide and long and of irregular outline, soft when fresh, dense when dry, pileus up to 4 mm wide, sulcate, first finely velutinate and then ochraceous to pale cinnamon, later glabrous and reddish brown, margin sharp, pore surface ochraceous, pores round to slightly angular when dry, 5-7 per mm, tubes concolorous with pore surface, up to 1 mm deep, context about 1 mm thick in the pileate parts.

Hyphal system dimitic, generative hyphae with simple septa, thin to distinctly thick-walled, hyaline, 2-5 µm wide, skeletal prominently present, 4-12 µm wide, thick walled and in many cases ending as skeletocystidia, slightly apically swollen and encrusted.

Cystidia from skeletal hyphae, apically swollen with encrusted crown, up to 200 µm long.

Basidia 10-14 x 4-7 µm, rounded to club shaped, tetrasterigmatic.

Spores 5-6 µm in diameter, globose.

Distribution. Known only from the type locality.

Remarks. This is a remarkable species by its discomycete shape with lifted margin, the prominent and wide skeletal hyphae ending as oblong club shaped, large skeletocystidia with a coarse encrusted crown.

Oxyporus multicorpus Ryvar den, novo species, Index Fung. 556506.

Holotype: Cameroon, Campo prov. Akok lowland rain forest reserve, 2. December 1991, Coll. Ryvar den 30758, Fungarium O.

Basidiocarps annual, sessile, semicircular, numerous on the substrate, up to 1 cm long and wide, 2 mm thick, soft, pileus whitish grey with adpressed cottony like tomentum in radial lines and agglutinated in separate small and irregular outgrowths, pore surface white to pale ochraceous, pores angular, 4-6 per mm and few larger and split on lower sloping pore surface, tubes 1 mm deep, context whitish, about 1 mm thick at the base, homogenous.

Hyphal system monomitic, generative hyphae with simple septa, thin to distinctly thick-walled, hyaline, 2-6 µm wide.

Cystidia hyaline, tubular, smooth, up to 20 µm long, only few observed.

Basidia not seen.

Spores 4-5 x 3.5-4.5 µm, subglobose, thin walled, smooth.

Substrate. Hard wood log.

Distribution. Known only from the type locality.

Remarks. The numerous small basidiocarps with adpressed irregular radial elongated tomentum make this a remarkable species. Only few cystidia were observed and may represent projecting hyphal ends.

Perenniporia densipora Ryvarden, nova species, Index Fung. 556507.

Holotype Zimbabwe, Manicaland, Chimanimani, forest appr. 12 km east of Chimanimani, 31, January 1993, on dead hardwood log, Ryvarden 32786 in Fungarium O.

Isotype: Zimbabwe, Manicaland, Chirinda forest, 30. January 1993, on dead hard wood log. Ryvarden 32957, Fungarium O.

Basidiocarps pileate, perennial, solitary, broadly attached, up to 6 cm broad and 15 cm wide, 4 cm thick, consistency woody hard when dry, pileus sessile, semicircular, appanate to deflexed, pileus glabrous, unevenly dirty brown, becoming black from the base without a cuticle, margin thick, obtuse, often paler than the rest of the pileus, entire or slightly lobed, pore surface first white becoming dirty brown with drying and age, pores round to slightly angular variable from 6-7 per mm to 2-4 mm in older and more angular pores, tubes up to 6 mm deep brown, context dense, azonate, white and 3 cm thick.

Hyphal system di- to trimitic, generative hyphae with clamps, thin-walled, 1.5-3 μ m wide, skeletal hyphae hyaline to yellowish, dextrinoid, thin to thick-walled, 2-7 μ m in diameter, binding hyphae scanty, thick-walled sparingly branched, dextrinoid, 1.5-6 μ m wide.

Basidia 16-24 x 4-7 μ m tetrasterigmatic, clavate, few seen.

Basidiospores 8-11 x 5-7 μ m, elliptic to slightly truncate, thick walled, hyaline and dextrinoid.

Substrate. Hard wood log.

Distribution. Known only from Zimbabwe.

Remarks. The species is recognized by the very hard, broadly attached pileate basidiocarps with a dirty uneven colour and the large elliptic to slightly truncate spores.

Perenniporia miniochroleuca Ryvarden, nova species Index Fungorum 556508.

Holotype: Zimbabwe, Manicaland, Chimanimani in forest about 12 km east of the city, 31. January 1993, Ryvarden 32751 in Fungarium O.

Isotype: Zimbabwe, Manicaland, Stapleford, J. Meikele Research Station in rain forest, 12. January 1990. Coll. R. 27791, Fungarium O.

Basidiocarps pileate, annual, solitary, broadly attached, semicircular, up to 3 cm broad and 2 cm wide, 5 mm thick, consistency woody hard when dry, upper surface glabrous, white to ochraceous, smooth when fresh, drying with numerous radial ridges or furrows and then with a dense surface as if soaked in a resinous substance, pore surface white to pale cream, pores round, 4-5 per mm, tubes up to 2 mm deep, context white, dense, azonate, up to 3 mm thick at the base.

Hyphal system trimitic, generative hyphae with clamps, delicately thin walled, 1.5-3 μ m wide, skeletal hyphae hyaline, non dextrinoid, thin to thick-walled, 2-3 μ m wide, binding hyphae scanty, thick-walled sparingly branched, non dextrinoid, 1.5-3 μ m wide.

Basidia 20-25 x 8-11 μ m, clavate and tetrasterigmatic.

Basidiospores 8-10 (11) x 6-7 μ m, truncate to slightly pipshaped, smooth, thick walled, dextrinoid.

Substrate. Hard wood log.

Distribution. Specimens have only been seen from Zimbabwe.

Remarks. The species as the name indicate, is like a small *P. ochroleuca* but with distinctly smaller spores. It is also characterized by having dextrinoid spores but non dextrinoid skeletal hyphae.

Phellinus irregularis Ryvarden, nov. species Index Fungorum no. 556509.

Holotype Zimbabwe, Mashonaland, west, Grid 1629C, Kariba area, Nyahodza river, 10. January 1989, Col. 25904 Fungarium O.

Basidiocarps annual, resupinate, up to 10 cm long, 3 cm wide 2 m thick, pore surface greyish brown, pores irregular, semi labyrinthine 1-3 per mm, at the margin as individual outgrowths, round or plate like, which then grown together to more complex poroid areas, tube walls whitish with numerous pointed setae, 1 mm deep, subiculum 1 mm thick yellowish brown, lighter than the tubes and with a thin black zone towards the substrate.

Hyphal system dimitic, generative hyphae with simple septa, thin walled, hyaline in the hymenium, pale yellowish in the trama and context, 2-4µm wide, skeletal hyphae pale rusty to reddish brown, 2-4 µm wide.

Hymenial setae 25-75 x 6-10 µm, abundantly present, acute, dark brown, thick walled.

Basidia not seen.

Spores 4-5 x 3-3.5 µm, elliptic, hyaline, thin walled.

Substrate. Hard wood log.

Distribution. Known only from the type locality.

Remarks. The species is characterized by the irregular pore surface, the black line above the substrate and the long and acute setae. It may be related to *P. contiguus*, which however has larger spores and regular pores.

Physisporinus cataractus Ryvarden, nova species, Index Fungorum no 556510.

Holotype: Zimbabwe, West province, Victoria falls in riverine forest, 4. January 1990, Ryvarden 27225, fungarium O.

Basidiocarps annual, resupinate, dense and resinous hard when dry, up to 5 cm wide and long and 1 mm thick, pore surface dirty whitish when fresh becoming dark olivaceous to black by drying, margin pale yellowish brown, floccose and distinct, pores angular, hardly visible to the naked eye, 7-10 per mm, shallow up to 200 µm deep, tube layer resinous and fragile dense, subiculum present as a floccose thin layer, colour as margin.

Hyphal system monomitic, generative hyphae with simple septa, hyaline to slightly tinted, in trama as if glued together, easily seen in subiculum and context as thick walled hyphae, 3-10 µm wide and a wall thickness of about 1 µm, often branched in right angles.

Basidia not seen.

Basidiospores 4-5 µm in diameter, globose, thin-walled, smooth.

Substrate. Hard wood log.

Distribution. Known from only the type locality.

Remarks. This is an easily overlooked species with its black colour, but distinct by the small pores, thick walled simple septate hyphae and globose spores. It is a conspicuous species by the very dense, clay-coloured pore surface becoming black and the very wide hyphae.

Polyporus brunneopapyrus Ryvarden nov sp. Index Fungorum no 556514.

Holotype: Zimbabwe, Manicaland, Vumba, Leopards Rock, 14. March 1995, Coll. R. 37070, in Fungarium Oslo (O).

Basidiocarps. annual, laterally stipitate; pilei semicircular with contracted base, 10 x 5 cm and up to 1 cm thick at the base, pileus evenly deep brown, azonate, glabrous and with a papery slight wrinkled surface when dry, margin acute; stipe lateral and tap like, 1 x 1 cm, pore surface pale cream, pores angular, thin walled 3-4 per mm, tube layer concolorous, 1 mm deep, context, up to 8 mm thick at point of attachment, whitish, homogenous and dense.

Hyphal system dimitic; generative hyphae hyaline, thin-walled with clamps, 2.5-5 μm in diam, but difficult to find, skeleto-binding hyphae thick-walled with dendroid branching to tapering with narrow tips, 2-8 μm in diam.

Basidia 10-15 x 5-6 μm , clavate.

Basidiospores 4-5 x 3.5-4 μm , elliptic

Substrate. Dead hardwood.

Distribution. Known only from the type locality.

Remarks. The semicircular, evenly dark brown and glabrous pileus besides the rather small spores, are diagnostic characters for this species.

Polyporus nigroafricanus Ryvarden nova species Index Fungorum no 556515.

Holotype: Cameroon, Akok lowland rain forest reserve, 2. December 1991, Coll. R. 30944, in Fungarium Oslo (O).

Basidiocarps. annual, centrally stipitate; pilei circular about 5 cm in diameter deeply infundibuliform, 1.5 mm thick, margin thin and deflexed in dry condition, pileus evenly deep brown to almost black, adpressed finely velutinate, azonate, margin acute; stipe central, about 3 mm in diameter, 2 cm long, pale brown, distinctly delimited towards the pore surface, finely velutinate, pore surface greyish black, patchy black where touched in fresh condition, pores round, 7-8 per mm, invisible to the naked eye, tubes 0.7 mm deep, concolorous with pore surface, context, up to 1 mm thick pale ochraceous, homogenous and dense.

Hyphal system dimitic; generative hyphae hyaline, thin-walled with clamps, 2 – 4 μm in diam, difficult to observe, skeleto-binding hyphae thick-walled with dendroid branching to tapering with narrow tips, up to 10 μm wide at base.

Basidia 10-14 x 5-6 μm , clavate.

Basidiospores 4-5 x 3- 3.4 μm , elliptic

Substrata. Dead hardwood.

Distribution. Known only from the type locality.

Remarks. The species is seemingly closely related to *P. brunneopapyrus* described here, but is separated by the centrally stipitate basidiocarps and much smaller pores (3-4 per mm in *P. brunneopapyrus*.)

Rigidoporus perennis Ryvarden nova species Index Fungorum no.556516.

Holotype: Cameroon, Canjo prov. Akok forest reserve 2. December 1991, R. 30719. In Fungarium O.

Basidiocarps pileate, perennial, pileus up to 5 cm long, 3 cm wide and 3 cm thick, almost hoof shaped with vertical margin, dense, bone hard, surface glabrous, dark brown, sulcate with numerous more or less circular zones, margin narrow and pale brown, pore surface ochraceous when fresh, pale brown when dry, pores tiny, invisible to the naked eye, 8-10 per mm, tubes wood coloured, multi-layered, up to 2.5 cm thick, context almost absent, ochraceous and dense.

Hyphal system monomitic, generative hyphae thick-walled and with simple septa, 3-10 μm wide.

Cystidia absent.

Basidia 10- 12 x 4-6 μm , clavate and tetrasterigmatic.

Basidiospores 3-4 μm in diameter, globose, hyaline, thin-walled and IKI-.

Substrate. Dead hard wood log.

Distribution. Known only from the type locality.

Remarks. The bone hard and hoof shaped basidiocarps make this a distinct species. *R. ulmarius*, the only other African species of the genus with perennial and thick basidiocarps, has flat and wide basidiocarps and larger spores.

Skeletocutis grandisporus Ryvarden, nova species Index Fung. 556517.

Holotype: Zimbabwe, Manicaland, Chrinda forest, 30. January 1993, on dead tree, Ryvarden 32720 in Fungarium O.

Basidiocarps. annual, resupinate, up to 5 x 4 cm, 2 mm thick, margin narrow white and floccose, pore surface white when fresh, drying wood coloured with brown patches where touched when fresh, pores angular and irregular in dry condition, 4-6 per mm, large and more split on sloping substrate, tube layer concolorous, 1 mm deep, context, up to 1 mm thick.

Hyphal system dimitic; generative hyphae hyaline, thin-walled with clamps, 2.5-5 μm in diam, but difficult to find, skeletal hyphae encrusted over long distances, solid to distinctly thick-walled, 2-5 μm in diam.

Basidia not seen.

Basidiospores 4-5 x 2-2.3 μm , allantoid to cylindrical.

Substrata. Dead hardwood.

Distribution. Known from several localities in Zimbabwe, and by all probability widespread in Southern Africa.

Remarks. The wood coloured pore surface with brown patches where touched when fresh, and the encrusted skeletal hyphae and the for the genus fairly large spores, are diagnostic for this species.

Skeletocutis afrochrysell Ryvarden, nova species Index Fungorum no. 556518.

Holotype: Zambia, Copperbelt province, Ndola, Ndola burning plots, 21. January 1988, on dead hardwood log, Coll. Ryvarden 24137, in Fungarium O.

Basidiocarps. resupinate, annual, up to 3 x 2 cm, 2 mm thick, margin narrow white, pore surface pale ochraceous, pores round to slightly angular, 6-8 per mm, invisible to the naked eye, tube layer concolorous, 2 mm deep, context whitish, almost invisible.

Hyphal system dimitic; generative hyphae hyaline, thin-walled with clamps, 2.5-5 µm in diam, but difficult to find, skeletal hyphae encrusted over long distances, solid to distinctly thick-walled, 2-5 µm in diam.

Basidia not seen.

Basidiospores 3-3.5 x 0.8-1 allantoid.

Substrate. Dead basidiocarps of *Phellinus* cfr *gilvus*.

Distribution. Known only from the type locality.

Remarks. This is a remarkable species by growing on old basidiocarps of a *Phellinus* sp., thus strongly reminding one of *Skeletocutis chrysellae* Niemelä, which however is known only from the boreal *Phellinus abietis* growing on gymnosperms. Besides different host range, this species also has larger pores, i.e. 3-4 per mm.

Wrightoporia cinnamomea Ryvar den, nova species, Index Fungorum 556519.

Holotype: Zimbabwe, Manicaland, Chirinda forest, 30. January 1993, on dead hard wood log, Coll. Ryvar den 32702 in Fungarium (O).

Basidiocarps effused pileate, individual pilei up to 1 cm wide and 3 cm long, 1 cm thick at base, upper surface dull, velvety, cinnamon and distinctly sulcate reflecting different stage of growth, pore surface ochraceous, pores invisible to the naked eye, 6-8 per mm, round and slightly angular, tubes concolorous with pore surface, up to 4 mm deep in individual layers, in part with intermittent sterile context which is dense and ochraceous.

Hyphal system dimitic, generative hyphae thin-walled and with clamps, 2-4 µm wide, skeletal hyphae dextrinoid, thick-walled to solid, 2-5 µm wide, hyaline.

Basidia not seen.

Basidiospores 4-4.5 x 3-3.5 µm, elliptic, smooth, hyaline, thin-walled and non-amyloid.

Substrate. Dead hard wood log.

Distribution. Known only from the type locality.

Remarks. The cinnamon colour and the dextrinoid skeletal hyphae indicate clearly that the species belongs in *Wrightoporia* even if the spores are non amyloid, an almost universal feature for species in the genus.

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Two new poroid species from Cameroon.

By

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Abstract

Perenniporia nigra Metsebing, Mossebo & Ryvarden and *Aporpium cameroonensis* Metsebing, Mossebo & Ryvarden are described as new species based on collections from Cameroon.

Introduction

Cameroon has a rich mycota and under a current investigation we have come across two new species which are described in the following. The two new species will later be included in a forthcoming book on Poroid fungi of Africa (in prep.).

New species

Perenniporia nigra Metsebing, Mossebo & Ryvarden, nova species Index Fung. 556614.

Holotype: Cameroon, Western Region, Mboukou (Santchou), 2. October 2017, Coll.

Mossebo (DM) in HUY1-DM 1213 (Herbarium of the Department of Plant Biology and Physiology of the University of Yaoundé 1 in Cameroon), isotype in O.

Basidiocarps resupinate, about 8 x 8 cm and 5 mm thick, tough when fresh, hard and rigid when dry, flat when fresh, curls up when dry due to shrinking, pore surface white-greyish when fresh, dark brown to black when dry, pores round, hardly visible to the naked eye, 8-10 per mm, tube concolorous, up to 4 mm deep, subiculum ochraceous, 200 – 500 mm thick with a distinct black resinous line.

Hyphal system trimitic, generative hyphae septate, thin- and thick-walled with clamps most often difficult to observe, 2-4 µm wide, skeletal hyphae thick walled to solid, 3-6 µm wide, dextrinoid in Melzers reagent, binding hyphae thick-walled, 3-5,5 (6) µm wide, most-often branched with tapering ends.

Basidia Not seen.

Basidiospores 5-7 x 3-4 µm, pip shaped to oblong truncate, dextrinoid, thick-walled.

Distribution. Known only from the type locality in Cameroon.

Remarks. The strong change of colour when drying is remarkable. The spores are distinctly pip shaped, a shape being rather rare among resupinate species in the genus.

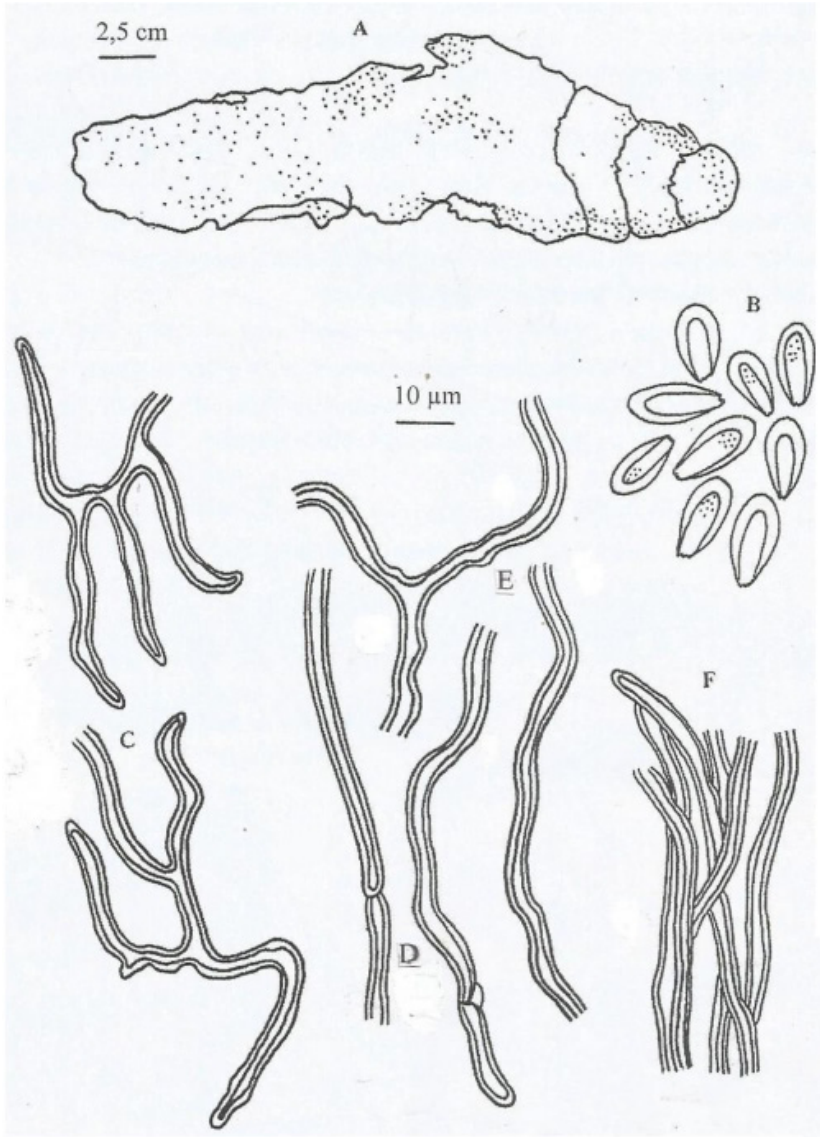


Fig. 1. *Perenniporia nigra*. A. Basidiocarp, B. Basidiospores, C. Binding hyphae, D. Generative hyphae, E. Skeletal hyphae, F. Cuticle cells.

Aporpium cameroonensis Metsebing, Mossebo & Ryvarden nova species Index Fung, 556615.

Holotype: Cameroon, Western Region, Fombap (Santchou), 11. October 2017. Coll. Mossebo (DM) in HUY1-DM 1249 (Herbarium of the Department of Plant Biology and Physiology of the University of Yaoundé 1 in Cameroon), isotype in O.

Basidiocarps pileate, dimidiate to partly sessile, 4 cm long, 3 cm wide, about 1 cm thick at the base with whitish hymenophore sometimes extending downwards along the substrate, soft when fresh, fragile to rigid when dry, pileus whitish at its borders and greenish from middle till base when fresh, darker at base and fading towards the margin when dry, surface soft and loose, partly agglutinated hyphae in irregular tomentose to strigose pattern on pileus surface, partly flattened in parts, pore surface whitish when fresh, drying buff to pale brown, pale brown, pores elongate angular to irregular, 1-2 per mm, first angular, then more sinuous and wavy when dry and then tube walls parchment like and dense, fragile, up to 2 mm deep, older pore walls with numerous white hyphal pegs, context whitish 1-2 mm thick, homogenous.

Hyphal system dimitic, generative hyphae 3-6(8) μm wide, septate, clamped, thin- and thick-walled with the latter slightly dominating, skeletal hyphae totally dominating, 3-7 (8) μm wide, regularly tube like with narrow walls, generative hyphae not seen.

Basidia Not seen.

Basidiospores 3.5-6(7) x 3-4(5) μm , subglobose, thin-walled, most often showing a single oil drop of different sizes

Chlamydospores 5-7 x 4-5 μm , present in context, almost rectangular to oblong elliptic, thick walled, IKI negative.

Host: Unknown dead hard wood tree.

Distribution. Known only from the type locality in Cameroon.

Remarks. At macroscopical level, the whitish-greenish and irregular tomentose to strigose pattern of the pileus surface as well as the elongate angular, sinuous to wavy pores and at microscopic level the clamped thin- and thick-walled generative hyphae make this a distinct and remarkable species in the genus *Aporpium*.

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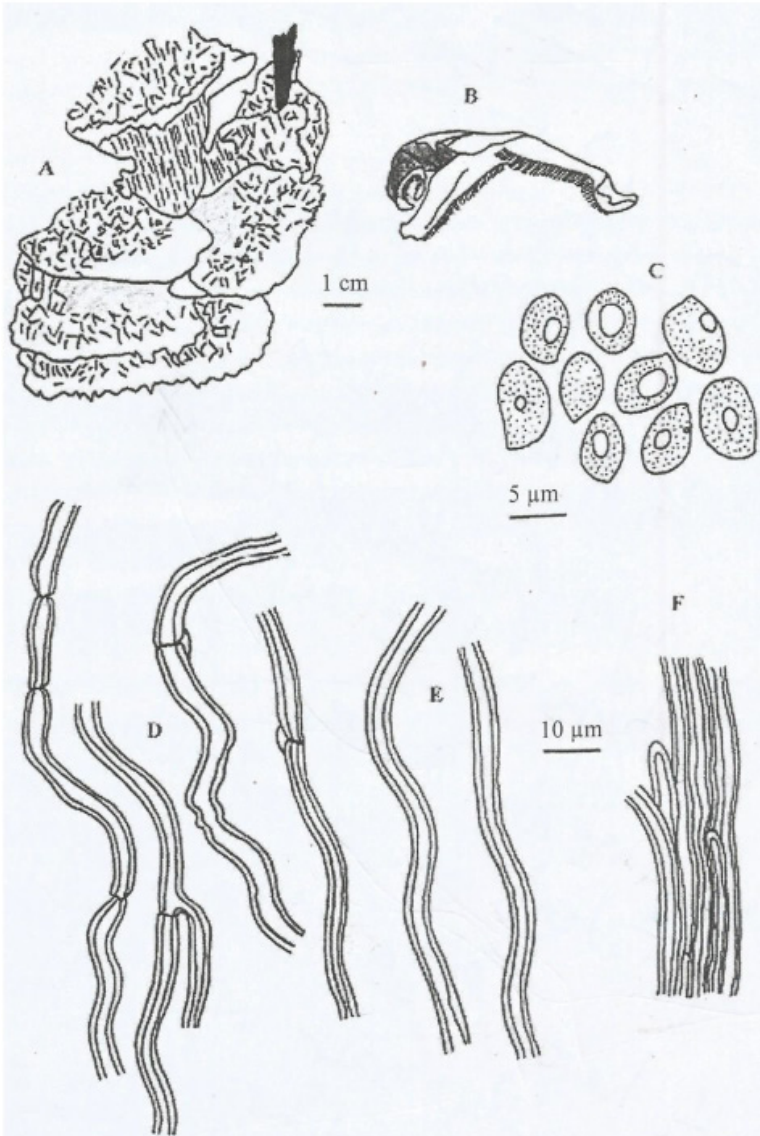


Fig. 2. *Aporpium cameroonensis*. A. Basidiocarp, B. Section of the basidiocarp C. Basidiospores D. Generative hyphae, E. Skeletal hyphae, F. Cuticle cells

Aphylophorales of Africa 34 - some new species from Cameroon and the Democratic Republic of Congo

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Abstract

Antrodiella cinerea Tsigaing, Mossebo & Ryvarden, and *Polyporus magnimutabilis* Oba, Mossebo & Ryvarden are described as new species based on collections from Cameroon and the Democratic Republic of Congo.

Introduction

The tropical forests of the Congo basin have a rich mycota and under a current investigation, we have come across two new species which are described in the following. The two new species will later be included in a forthcoming book on Poroid fungi of Africa (in prep.).

Antrodiella cinerea Tsigaing, Mossebo & Ryvarden, nov sp. Index Fung. 556616.

Holotype: Cameroon, Western region, Baham, 6. October 2017, on dead hard wood, Coll. Mossebo (DM) in HUY1-DM 1481 (Herbarium of the Department of Plant Biology and Physiology of the University of Yaoundé 1 in Cameroon), isotype in O.

Basidiocarps pileate, annual, imbricate, individual pilei about 3 cm wide, 5 cm long and 4 mm thick, tough when fresh rigid when dry, pileus glabrous, smooth slightly zoned, greyish when fresh, dries more greyish pale brown, pore surface white, pale grey when dry, pores angular, thin walled invisible to the naked eye, 6-8 per mm, tubes concolorous with pore surface 1 mm deep, context white, 0.5 mm thick.

Hyphal system dimitic; generative hyphae with clamps, thin walled, 35 µm in diam., skeletal hyphae dominating in the trama, thick walled to solid, 25 µm in diam.

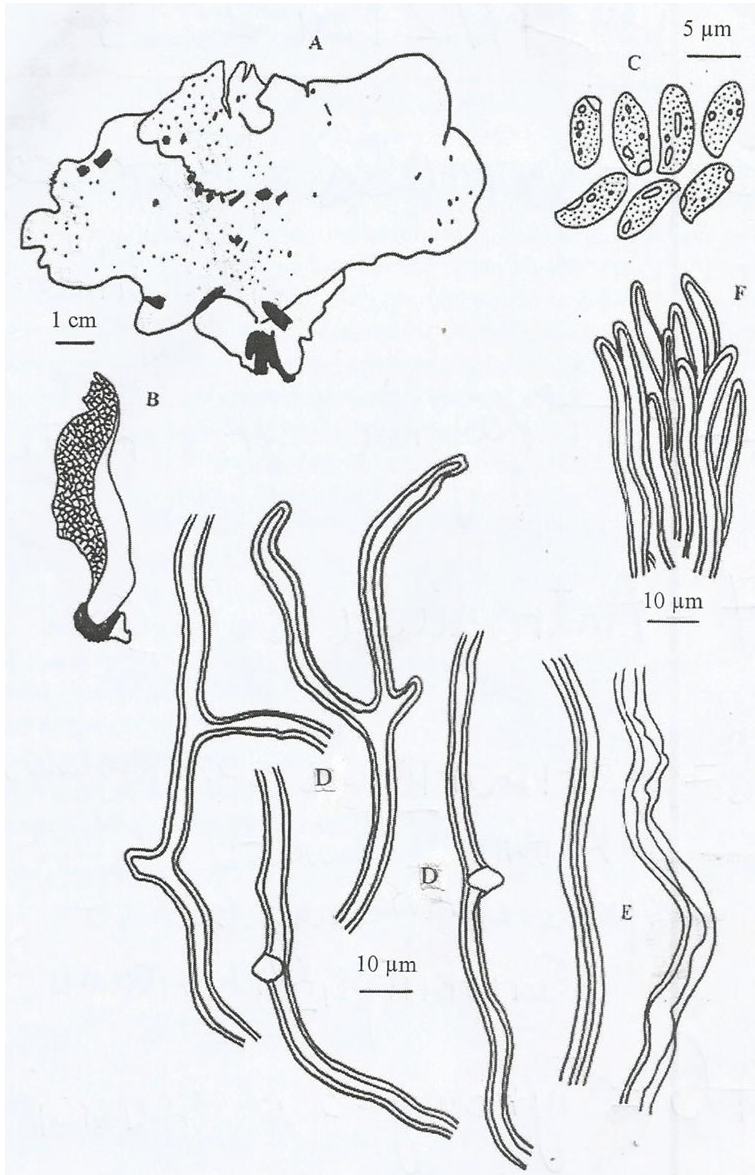


Fig. 1. *Antrodiella cinerea*. A. Basidiocarp, B. Section of the basidiocarp
 Basidiospores D. Generative hyphae, E. Cuticle cells C. F.

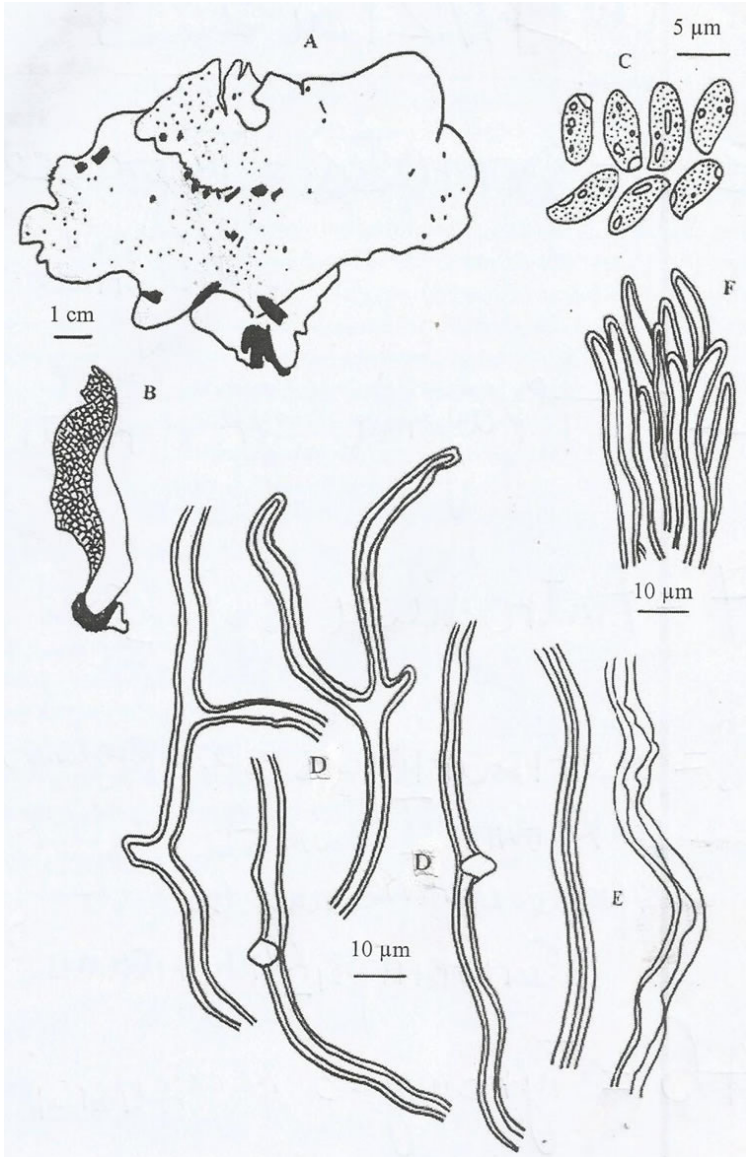


Fig. 2. *Polyporus magnimutabilis*. A. Basidiocarp, B. Section of the basidiocarp C. Basidiospores D. Generative hyphae, E. Skeletal hyphae, F. Cuticle cells

Basidia 12-14 x 4-6 µm tetrasterigmatic.

Basidiospores 3-4 x 1.5-2 µm, sub cylindrical to elliptic, smooth, thin walled and IKI negative.

Substrate: Unknown dead hard wood tree.

Distribution. Known from the type locality.

Remarks. The species is characterized by the whitish grey colour pileus, the small, but thin walled pores and the small spores.

Polyporus magnimutabilis Oba, Mossebo & Ryvarden nova species, Index Fung. 556617.

Holotype: Cameroon, Western Region, Batoutsa (Mbouda), 9. April 2018, Coll. Mossebo (DM) in HUY1-DM 1622A (Herbarium of the Department of Plant Biology and Physiology of the University of Yaoundé 1 in Cameroon), isotype in O.

Basidiocarps lateral stipitate to flabelliform, up to 5 cm wide and semicircular, up to 1 cm thick at attachment pileus glabrous, strongly radially veined, finely floccose towards the point of attachment, white when fresh, chocolate brown when dry and then curled and reflexed along the margin, this sharp and thin when fresh, flexible when fresh, rigid and partly fragile when dry, pore surface white when fresh, changing to deep olivaceous brown when dry, pore radially elongate, honey comb like, 0.2-0.4 mm wide and up to 2 mm long, tubes to 0.5 mm deep, context homogenous, ochraceous, 1-2 mm thick, more so towards the base.

Hyphal system dimitic, generative hyphae thinwalled and with clamps which are difficult to observe, basidiocarp dominated by arboriform hyphae (skeleton binding hyphae) with long whip-like branched, 2-8 µm wide.

Basidia Not seen.

Basidiospores 5-6 x 2 µm, sub cylindrical to elliptic, hyaline, thinwalled and nonamyloid, few observed.

Substrate. Unknown dead hard wood tree.

Distribution. Known only from the type locality in Cameroon and from the Democratic Republic of Congo.

Additional specimen examined: Democratic Republic of Congo, Lubumbashi, 16. November 2018, Coll. LUMANDE (LMD 0158) in HUY1-DM 1622B.

Remarks. Macroscopically this striking species is similar to the wide spread and common *Polyporus tenuiculus*. However, the small elliptic spores and the striking change from almost pure white when fresh to deep chocolate brown when dry, make it a distinct species. *P. tenuiculus* remains more or less white to pale cream when dry and besides has much large spores, i.e. 912 x 23.5 µm.

Acknowledgements

The authors thank the SEP2D program of the French Ministry of Foreign affairs who granted us a support fund for part of the field and laboratory work. The authors are also grateful to the Cameroon Ministry of Higher Education (MINESUP) for the special support fund for research and grant N° 16-00433/MINESUP/SG/CS thanks to which part of the collection work on the field was carried out particularly in Cameroon.