

# Three New Genera of Agaricales from Papua New Guinea

E. HORAK

Institute for Special Botany, ETH, CH-8092 Zürich, Switzerland

## *Fissolimbus* gen. nov.

Pileo ex umbonato-convexo applanato, conspicue fissurato-sciutto marginem versus, viscido, subvelutino ad apicem. Lamellis subliberis vel adnexis, argillaceis dein incarnatis. Stipite cylindrico, inflato vel marginato-bulboso ad basim, minute fibrilloso, sicco, velo nullo. Odore saporeque nullo. Sporis in cumulo pallide brunneis, ellipsoideis vel subamygdaliformibus, levibus. Cystidiis e fusoideo-lanceolatis, tenui-tunicatis, incrustationibus nullis. Cuticula ex hyphis cylindraceis, erectis, e pigmento incrustatis, subgelatinosis, defibulatis. Ad terram inter folia deiecta in silvis virgineis. Nova Guinea. Typus (ZT, 72/229).

Typus generis: *Fissolimbus fallaciosus* HORAK

*Fissolimbus fallaciosus* sp. n. (Fig. 1a, b, c, d; fig. 2f, g).

Pileo 20—40 mm lato, campanulato vel umbonato-convexo aetate umbonato-expanso vel applanato; pallide brunneo, ochraceo-brunneo vel argillaceo, saepe incarnato tinctu; viscido, marginem versus conspicue fissurato vel pectinato, velutino et subvenoso ad apicem, velo nullo. Lamellis (L 15—22, l 1—3) liberis, subliberis vel adnexis, ventricosis, efimbriatis; incarnato-argillaceis aetate pallide brunneo-roseis (*Rhodophyllo simile*). Stipite 30—80/2—6 (—10 ad basim) mm, cylindraceo, attenuato apicem versus, basim incrassato-bulboso vel bulboso-marginato, teres, solitario, pleno; albido, minute fibrilloso, sicco; velo nullo. Caro brunneola in pileo, albida in stipite. Odore saporeque nullo.

Sporis 12—16/7—8  $\mu\text{m}$ , ellipsoideis vel subamygdaliformibus, levibus, pallide brunneis, poro nullo. Basidiis 4-sporigeris, 35—50/10—14  $\mu\text{m}$ . Cheilo- et pleurocystidiis 55—90/15—25  $\mu\text{m}$ , e fusoideo lanceolatis, apicem versus acuto-conicis, tenui-tunicatis, hyalinis, concretionibus luteis impletis, numerosis. Caulocystidiis nullis. Cuticula ex hyphis cylindraceis, erectis (palisadam formantibus), membranis e pigmento brunneolo incrustatis, subgelatinosis, 6—12  $\mu\text{m}$  latis. Fibulis nullis.

Habitatio ad terram in silvis virgineis sub *Araucaria*. Nova Guinea. Coll.: Nova Guinea; «Morobe distr., Bulolo, Susu; 16. III. 1972, leg.

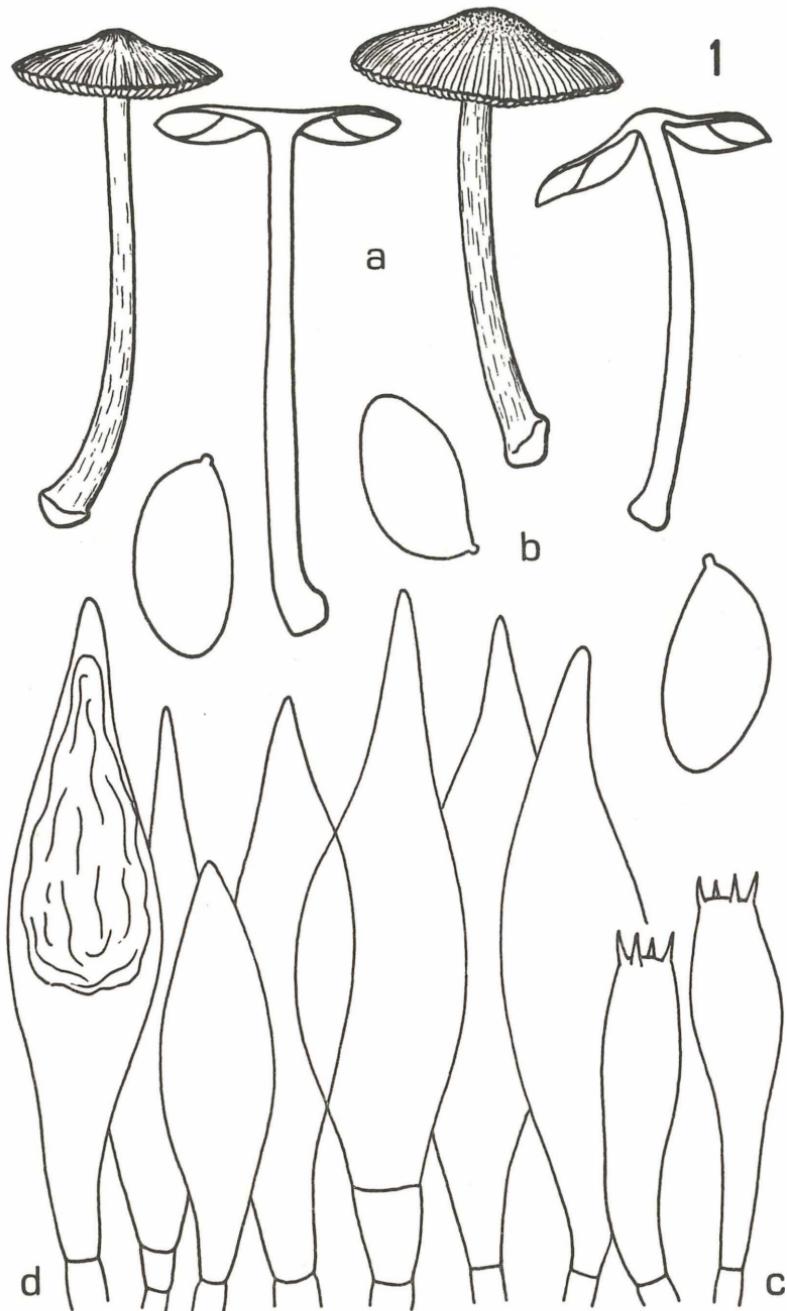


Fig. 1. *Fissolimbus fallaciosus* HORAK (type): a. carpophores. — b. spores. — c. basidia. — d. cheilocystidia and pleurocystidia

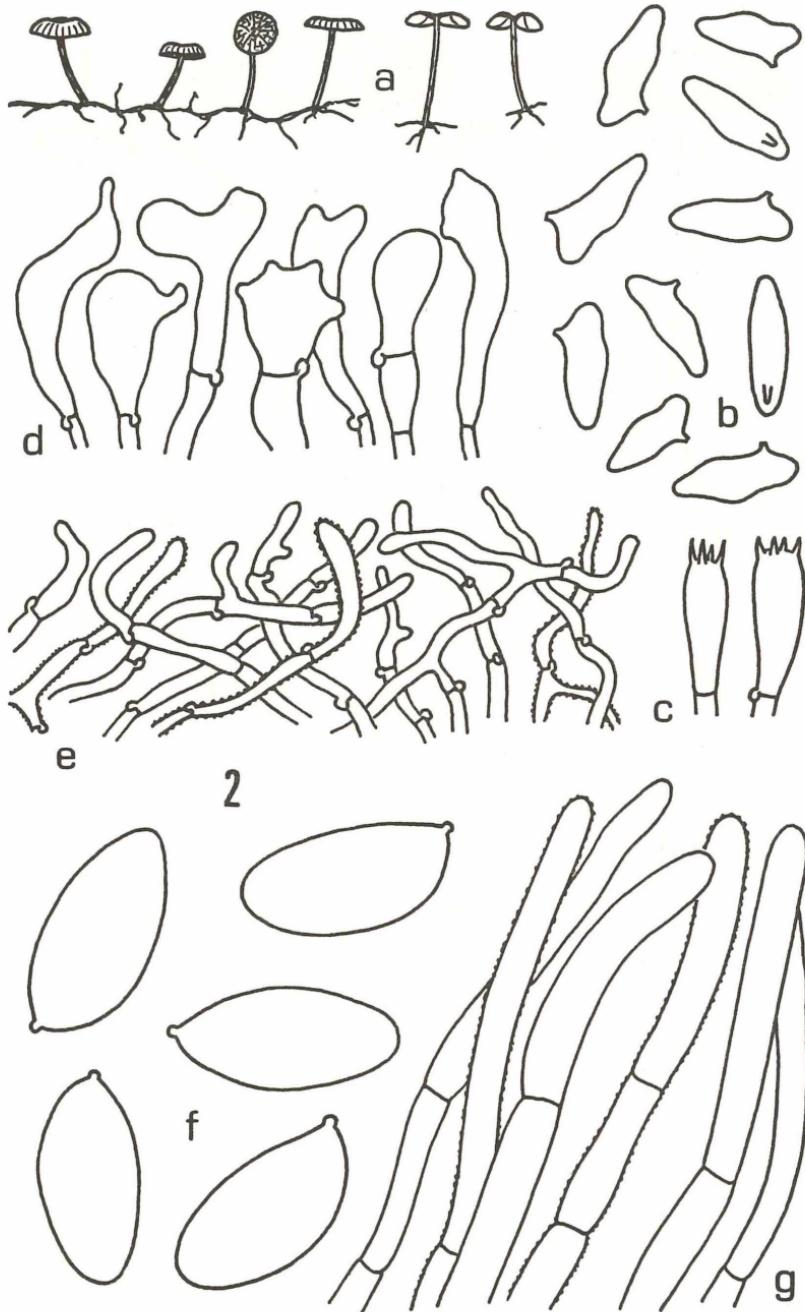


Fig. 2. *Morobia rhizomorphica* HORAK (type): a. carpophores. — b. spores. — c. basidia. — d. cheilocystidia. — e. cuticle. *Fissolimbus fallaciosus* HORAK (type): f. spores. — g. cuticle

HORAK (ZT, 72/229: holotypus). — «Morobe distr., Bulolo, Susu, ca. 1100 m; 26. IV. 1973, leg. HORAK (ZT. 73/185)»

This genus belongs to the *Cortinariaceae* (SINGER 1975: 566). Due to several microscopical and macroscopical characters (shape of the spores, colour of spore print, marginate base of stipe, pectinate margin of pileus) its taxonomical position must be sought of near the genus *Inocybe*. *Fissolimbus* is well separated from *Inocybe*, however, by a number of distinctive morphological and ecological data, as colour and attachment of the gills, pointed fusoid and non-metuloid cheilo- and pleurocystidia, lack of clamp connections and veil remnants and finally the habitat in anectotrophic rain forests.

*Morobia* gen. nov.

Pileo e convexo depresso-umbilicato, subcostato marginem versus, sicco, membranaceo, velutino-fibrilloso. Lamellis adnatis (haud liberis!) vel subemarginatis, albofimbriatis. Stipite cylindraceo, sicco, elevato, rhizomorphis albis interconnectis. Odore saporeque nullo. Sporis in cumulo albis, calcaratis, dextrinoideis, hyalinis. Cheilocystidiis e vesiculoso-clavatis, polymorphicis. Pleurocystidiis nullis. Cuticula pilei ex hyphis cylindraceis, irregulariter intermixtis, pigmento incrustatis, fibuligeris. Ad lignum putridum in silvis. Nova Guinea. Typus (ZT, 72/237).

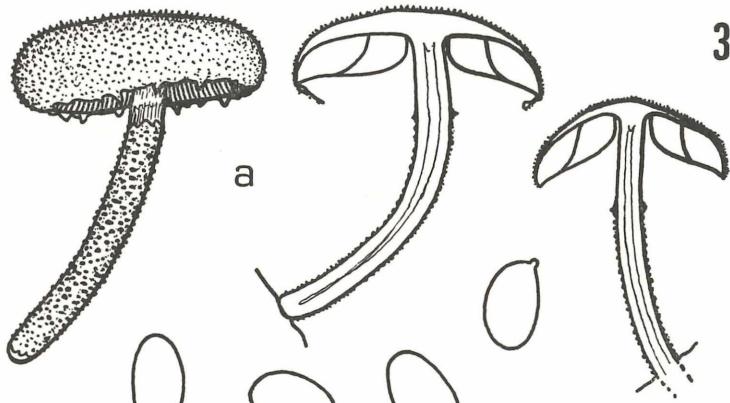
Typus generis: *Morobia rhizomorphica* HORAK

*Morobia rhizomorphica* sp. n. (Fig. 2a, b, c, d, e).

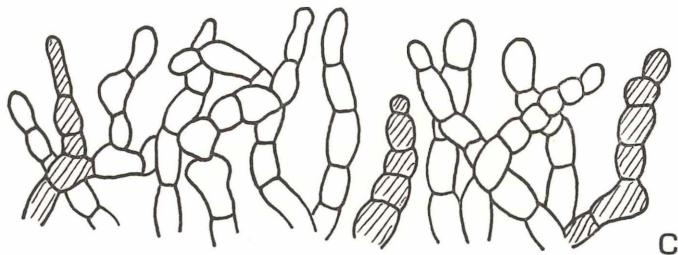
Pileo 2—8 mm lato, convexo dein depresso-umbilicato; albido, pallide brunneo ad apicem; sicco, haud hygrophano, subcostato marginem versus, fibrilloso-velutino, membranaceo. Lamellis (L 5—8, 1-1) adnatis vel subemarginatis, ventricosis, distantibus, albofimbriatis. Stipite 4—8/0,5 mm, cylindrico, centrali, haud fragili; pallide brunneo; sicco, glabro, velo nullo, pleno, ad basim rhizomorphis albis instructo, rhizomorphis reticulum conspicuum formantibus et carpophoribus numerosis interconnectis. Caro albida, membranacea. Odore saporeque nullo.

Sporis 7—9/2,5—3 µm, calcaratis (*Lepiotulae simile*), hyalinis, dextrinoideis, poro nullo. Basidiis 15—18/6—7 µm, 4-sporigeris. Cheilocystidiis 15—36/7—10 µm, e clavato-subfusoideis, irregularibus, hyalinis, numerosis. Pleurocystidiis nullis. Cuticula pilei ex hyphis cylindraceis, dense irregulariterque intermixtis, 3—6 µm latis, raro ramificatis, e pigmento luteobrunneolo incrustatis, septis fibulatis.

Habitatio ad lignum putridum in silvis. Nova Guinea. Coll.: Nova Guinea: "Morobe distr., Bulolo, Manki, sub Castanopsis; 17. III. 1972, leg. HORAK (ZT, 72/237: holotypus)" — "Morobe distr., Bulolo, Watut; 21. XI. 1972, leg. HORAK (ZT, 72/652)".



3



c

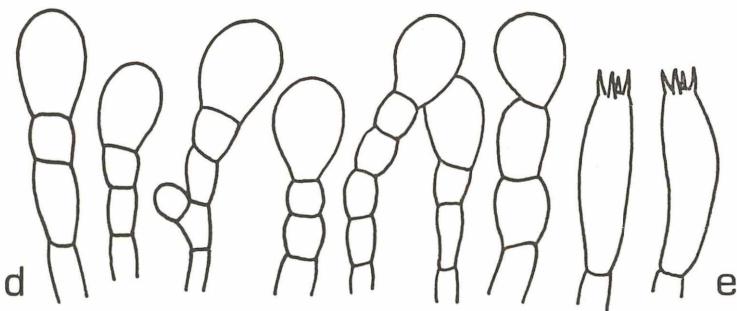


Fig. 3. *Termiticola rubescens* HORAK (type): a. carpophores. — b. spores. — c. cuticle. — d. basidia. — e. cheilocystidia

This species occurs on rotten wood in rain forests and in *Castanopsis* woods above 1100 m in the Bulolo region. Material was collected twice and in both cases the fungi have been taken as "*Marasmius*" due to the net-like, white rhizomorphs which support a dozen of carpophores or more.

According to the spurred and dextrinoid spores *Morobia rhizomorphica* reminds of *Lepiotula* (HORAK 1968: 337) but the two genera are held together by that character only. Typical species of *Lepiotula* can be distinguished from *M. rhizomorphica* by the following characters: convex-umbonate pileus, free lamellae, presence of veil remnants on pileus and/or stipe, fragile consistency, lack of long-spreading rhizomorphs and habitat usually on soil. Furthermore the structure of the cuticle is also different.

### *Termiticola* gen. nov.

Pileo hemisphaerico vel convexo-applanato, sicco, squamis minutis pyramidalibus dense instructo, pustulato-granuloso marginem versus, e velo conspicue appendiculato. Lamellis liberis, albidis dein umbrinis. Stipite cylindrico vel subfusoideo, nido Termitidarum (Isoptera) erumpente, velo membranaceo vel floccoso instructo, basim versus squamis minutis obtecto. Caro rubescente. Sporis in cumulo umbrinis, ovatis, levibus, aporis. Cheilocystidiis catenulatis. Cuticula pilei e cellulis ovatis, catenulatis, erectis, pigmento brunneo plasmatico impletis. Fibulis nullis. *Termiticola*. Nova Guinea. Typus (ZT, 72/375).

Typus generis: *Termiticola rubescens* HORAK (Fig. 3a, b, c, d, e)

### *Termiticola rubescens* sp. n.

Pileo 15—40 mm lato, hemisphaerico aetate convexo-applanato, apicem haud cuspidato, marginem incurvato; albido, squamis spinosis vel aculeatis dense obtectis, marginem estriatam versus granulosofarinoso, brunnescenti, sicco, e velo floccoso irregulariter appendiculato. Lamellis liberis, densis, haud ventricosis; primo albidis vel griseo-albidis, dein umbrinis, rubescentibus tactu, albo-fimbriatis. Stipite 30—60/4—10 mm, cylindrico vel fusoideo, sub nido Termitidarum nascenti, gregario; albido, rubescenti; anulo floccoso vel membranaceo supero instructo, basim versus squamis castaneis vel nigro-brunneis dense obtecto; cavo, sicco. Caro albida, conspicue rubescenti, haud cartilaginea. Odore saporeque nullo.

Sporis 6—7/3,5—4  $\mu\text{m}$ , ovatis, levibus, brunneis, opacis, poro nullo. Basidiis 20—28/5—8  $\mu\text{m}$ , 4-sporigeris. Cheilocystidiis clavato-vesiculosus, hyalinis, catenulatis. Pleuro- et caulocystidiis nullis. Cuticula pilei ex hyphis catenulatis, palisadum formantibus, 6—10  $\mu\text{m}$  latis, pigmento brunneo plasmatico instructis, raro incrustatis. Fibulis nullis. Habitatio sub nido Termitidarum (Isoptera) in silvis.

Nova Guinea. Coll.: Nova Guinea: "Morobe distr., Bulolo, Manki; 7. IV. 1972, leg. HORAK (ZT, 72/375: holotypus)" — "Northern distr., Kokoda; 18. IV. 1972, leg. HORAK (ZT, 72/398)" — "Morobe distr., Bulolo, Manki; 19. III. 1973, leg. HORAK (ZT, 73/106)"

This termitophilous genus belongs undoubtedly to the family of Agaricaceae (Singer 1975: 442) but has no obvious ties to any existent taxa assemblaged in this group.

According to our field observations the carpophores of *T. rubescens* grow exclusively on the concrete-like surface of termite hills in *Castanopsis-Lithocarpus* forests.

#### Acknowledgements

I am indebted to the authorities of the Department of Forest (PNG) who offered to me the opportunity to collect agarics in various localities in Papua New Guinea (1971—1973).

Type material is kept in the author's herbarium at the Institute for Special Botany, ETH, Zürich, Switzerland (ZT). Unless otherwise stated the magnification of the figures is: carpophores (natural size), spores (2000×), basidia and cystidia (1000×) and cuticle (vertical section, 500×).

#### References

- HORAK, E. (1968). Synopsis generum Agaricalium. — Beitr. Kryptog. Flora Schweiz, vol. 13, 1—741.  
SINGER, R. (1975). The Agaricales in Modern Taxonomy. — (Cramer, Vaduz).

# ZOBODAT - [www.zobodat.at](http://www.zobodat.at)

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Sydowia Beihefte](#)

Jahr/Year: 1977

Band/Volume: [8](#)

Autor(en)/Author(s): Horak Egon

Artikel/Article: [Three New Genera of Agaricales from Papua New Guinea 202-208](#)