Type studies of the species of *Corticium* described by G. H. Cunningham

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Abstract All species described by G. H. Cunningham in *Corticium* are revised and additional details and illustrations are given. The new genus *Cunninghammyces* is described and the following new combinations are proposed: *Ceraceomyces corymbatus*, *C. variicolor*, *Chondrostereum coprosmae*, *Cunninghammyces unbonatus*, *Dendrothele coniculata*, *Gloeocystidiellum corrosum*, *Parvobasidium lianacola*, *Phanerochaete cordylmes*, *Phlebia leptospermi*, *Phlebiopsis ajibulata*, *Repetobasidium glaucocanum*, *Rogersella griseinialae*. Keywords Basidiomycetes; Corticiaceae; *Corticium* s.l.; G. H. Cunningham

INTRODUCTION

G. H. Cunningham (1954, 1963) described 29 species in the genus *Corticium* Pers., which are all treated in his monograph on the Thelephoraceae of Australia and New Zealand (Cunningham 1963). Cunningham's concept of *Corticium* was traditionally wide, including all monomitic, non-poroid, non-hydnoid, resupinate basidiomycetes with a continuous hymenium, hyaline spores, and lacking striking structures (e.g., basidia with more than four sterigmata, erect fascicles, dichohyphidia, setae, or lamprocystidia).

For this revision the type specimens of all species were studied. Complete descriptions are omitted; only additional data or corrections to Cunningham's (1963) descriptions are given. The same applies to figures. For more details the reader is referred to Cunningham's monograph. However, some general remarks concerning terminology are necessary.

Cunningham's use of "paraphyses" deviates from the current definition. In his application of the term to any sterile structure resembling young basidia, he was in practice describing young basidia and basidioles. The term "cystidium" is used today to describe a wide variety of sterile cells, but Cunningham confined it to multi-rooted, thick-walled structures found in e.g., *Tubulicrinis* Donk and *Tubulicrium* Oberw. "Paraphysate hyphae" was used by Cunningham to refer not only to simple hyphidia or branched hyphidia (dendrohyphidia of e.g., *Corticium* (Vuilleminia) comedens (Nees:Fr.)) Fr. and C. (*Dendrothele*) *coriculatum* G. H. Cunn.), but also to leptocystidia provided they are not wider than the basidia.

In *Corticium* Cunningham often overlooked the amyloid reaction and the ornamentation of the spores, which seems inexplicable if he had treated the material as indicated in his preface (directly in Melzer's reagent and in 50% lactic acid in distilled water with 0.1% aniline blue). However, it is known that both ornamentation and amyloidity may not be evident in material previously treated with 4% KOH. If a base was applied before the test for amyloidity, the results could have been as he described.

MATERIALS AND METHODS

All types of Cunningham's species (Herb. PDD, Auckland) and some additional specimens were studied. Specimens were examined in Congo Red in 10% ammonia, in Melzer's solution, in 4% KOH, and in lactic acid with Cotton Blue. Gloeocystidia were tested with sulpho-benzaldehyde (Boidin 1958). In some cases spore width distinctly differs in side view from dorsal view and then three ranges have been given (dorsal last). All illustrations except that of *Corticium unbonatus* were prepared from type material.

DESCRIPTIONS


Basidiome cartilaginous, ceraceous when fresh. Hymenial surface warted, ochraceous; margin...
Fig. 1-5 1. *Corticium aphulatum*, cystidia, basidia and spores. 2. *C. ampullosporum*, spores, dendrohyphidium, stages in basidium development. 3. *C. corrosum*, cystidia, basidia and spores. 4. *C. crystallitectum*, gloecystidium, basidium and spores. 5. *C. corymbatum*, spores and young basidia.
white. Subhymenial hyphae thin- to somewhat thick-walled, 2–3.5 μm wide, densely interwoven, sometimes fasciculate, not gelatinised. Clamps absent (or very rare on subicular hyphae). Tramal cystidia hyaline, clavate to cylindrical, thin- to absent (or very rare on subicular hyphae). Tramal thick-walled, 2–3.5 μm wide, densely interwoven, subhymenial hyphae thin- to somewhat thick-walled, 2–3 μm wide, 20–32 × 2.5–3.5 μm. Spores hyaline, thin-walled, 3.7–5.5 × 2.5–3.5 μm, smooth, not amyloid.

The fungus on the type specimen covers both the bark of Corynocarpus laevigatus and the stroma of a pyrenomycete. It causes a weak white rot. The species fits well in Phlebiopsis Julich because of the densely interwoven subhymenial hyphae, the narrow basidia, and the shape of the cystidia; the fact that the cystidia are mostly encrusted in other species of the genus is not considered important at the generic level.

C. ampullosporum G. H. Cunn. — Trans. R. Soc. N.Z. 82: 306 1954. Fig. 2.

= Dendrothele sp.

Hymenial surface cream to yellowish; subcicum white. Hyphae hyaline, thin-walled, 2–3.5 μm wide, somewhat irregular, with clamps. Hyphidia present, simple or more rarely branched (dendrohyphidia), 1.5–2.5 μm wide. Cystidia present, resembling young basidia, but with 1–3 dendroid projections at the apex, sulpho-negative. Intact basidia very rare, up to 18.5 μm wide; sterigmata up to 15 μm long. Spores hyaline, smooth, thin- to slightly thick-walled, ellipsoid to subcylindrical, 13–18 × 7–9 × 8–10 μm, not amyloid, not dextrinoid, slightly cyanophilous.

The type specimen is not in good condition. Mature basidia were rarely intact and the abundant crystals hindered examination. The species, which causes a white rot, belongs to Dendrothele Höhn & Litsch, and may be identical with D. alba Viégas. It fits Talbot’s (1956) description of D. duthiae Talbot (a synonym of D. alba fide Lemke, 1964) except for the presence of hyphal pegs.


= Phlebia sp.

The species turns red in KOH, causes a white rot and belongs to Phlebia Fr. The type material was difficult to study and did not show much detail. However, some thin-walled encrusted cystidia were seen. Spores were not observed. The species is close to or identical with Ph. chrysocreas (Berk. & Curt.) Burdsall. Cunningham gave the spore dimensions as 3–4.5 × 2–2.5 μm, which is smaller than typical Ph. chrysocreas (4–5.5 × 2–2.5 μm).


= Chondrostereum coprosmae (G. H. Cunn.) comb. nov.

Under a hand lens the specimen shows a duplex structure; the basal layer is parallel to the substratum and loosely interwoven; the subicular layer is rather compact, but occasionally shows "holes"; the subhymenial layer is more or less agglutinated. Basal hyphae hyaline, thin- to slightly thick-walled, 2.5–4.5 μm wide, with clamps. Vesicles rare, more or less pyriform, thin- to somewhat thick-walled, about 15 × 9 μm. Cystidia rare, clavate to acuminate, basally often swollen, projecting up to 20 μm, originating in subhymenium or subiculum. Spores hyaline, thin-walled, smooth, ellipsoid to typically pip-shaped, 4.5–6 × 2.5–3.5 × 3–3.5 μm.

The species is transferred to Chondrostereum Pouzar because of its duplex structure, the typical vesicles, and the somewhat thick-walled subicular hyphae which swell in KOH. Contrary to the typically effused-reflexed C. purpureum (Pers.:Fr.) Pouzar, the type specimen of C. coprosmae is strictly resupinate and the texture of the basal hyphae does not give the impression of a potential for reflection of the basidiome. However, this character alone does not justify the erection of a new genus. A comparable situation is found in Amylostereum Boidin, where A. laevigatum (Fr.) Boidin is strictly resupinate and has no distinct basal layer, whereas A. chailletii (Pers.) Boidin and A. areolatum (Fr.) Boidin may also be effused-reflexed and have a distinct basal layer.


= Phanerochaete cordylines (G. H. Cunn.) comb. nov.

Basal layer strongly developed, consisting of hyaline, thin- to slightly thick-walled hyphae, 3–5.5 (–7.5) μm wide, without clamps. Cystidia absent. Spores hyaline, thin-walled, smooth, ellipsoid to pip-shaped, 4.5–6.5 × 3.5–4.5 μm.

The species causes a white rot and belongs to Phanerochaete P. Karst. It is close to Ph. tuberculata (P. Karst.) Parm., but differs from this species in the pink to vinaceous colour and the slightly wider spores.

≡ Dendrothele corniculata (G. H. Cunn.) comb. nov.

Hyphae hyaline, thin- to slightly thick-walled, 2-3 μm wide, with clamps, but not at all septa. Hyphae simple or branched, hyaline, thin-walled, 2.5-3.5 μm wide at the base, 1-2 μm wide in the branched parts, often apically covered with crystals. Gloeocystidia absent or very indistinct, hardly discernible from young basidia (rarely an apical bulb was seen), sulfo-negative. Basidia clavate to subcylindric, 18-28 x 4-5 μm. Spores hyaline, thin-walled, smooth. Gloeocystidia clavate, 20-40 x 4-6.5 μm, with prominent apiculus, not amyloid.

The species belongs to Dendrothele and is close to D. commixta (Höhn. & Litsch.) J. Erikss. & Ryv., which has larger spores, and D. microspora (H. S. Jacks. & Lemke) Lemke, which lacks clamps altogether. The type of rot is indistinct, but seems to be white.


≡ Gloeocystidiellum corosum (G. H. Cunn.) comb. nov.

Basidiome subinvisible when dry, probably pruinose when fresh, about 60 μm thick. Hyphae hyaline, thin-walled, 1.5-3 μm wide, without clamps. Gloeocystidia clavate, 20-40 x 5.5-9.5 μm, amyloid, with pale yellowish contents, sulfo-positive. Cystidia hyaline, acuminate, 15-40 x 4-6.5 μm, tapering towards the top, rarely abruptly narrowed. Basidia hyaline, clavate to subburiniform, sometimes stalked, 15-30 x 6-7.5 μm, amyloid, with 2-4 sterigmata. Spores hyaline, thin-walled, smooth, globose to subglobose, (5-)5.5-6.5 x (4.5-)5-6 μm, amyloid.

Macroscopically, the species appears close to Xenasma Donk or Tubuficrinis. However, pleurobasidia are absent and, although amyloid basidia and hyphae do occur in Tubuficrinis, the absence of thick-walled, multi-rooted lyocystidia does not permit the inclusion of the species in Tubuficrinis. The presence of two kinds of cystidia and the smooth, globose spores might indicate a relationship to Vesicalomyces Hagström, but there are some obvious differences (amyloid hyphae and basidia, sulpho-positive gloeocystidia, and very thin basidiome). The species causes a weak white rot and is tentatively placed in Gloeocystidiellum Donk rather than in a new monotypic genus.


≡ Ceraceomyces corymbatus (G. H. Cunn.) comb. nov.

Basidiome thin membranaceous. Hymenial surface cream-coloured to pale yellowish. Subicular hyphae hyaline, thin- to slightly thick-walled, 2.5-4.5 μm wide, without clamps, often branching at right angles. Subhymenial hyphae thin-walled, 2.5-3.5 μm wide, often sparsely covered with crystalline material. Basidia clavate to subcylindric, 18-28 x 4-5 μm. Spores hyaline, thin-walled, smooth, navicular to narrowly ellipsoid, rarely subcylindrical, 6.5-7.5(-8) x 2.5-3 x 3-3.5 μm.

The species takes an intermediate position between Ceraceomyces Jülich and Ceraceomerulius (Parm.) J. Erikss. & Ryv. Despite the absence of clamps it is placed in the former genus because of the structure of the basidiome. The type of rot is indistinct.


≡ Gloeocystidiellum peroxydatum (Rick) Stalpers & Hjortst.

Basidiome soft membranaceous. Basidia umiform to subclavate, 18-30 x 4-5 μm, with a basal swelling up to 6 μm wide; there are 2-4 sterigmata. Spores hyaline, subglobose to broadly ellipsoid, (4.5-)5-5.5 x 3.5-4.2 μm, warted, amyloid. The warts dissolve in 4% KOH.

The species is Gloeocystidiellum peroxydatum (Rick) Stalpers & Hjortst; it is closely related to G. lacticolor (Bres.) Stalpers & Hjortst. and Boidinia furfuracea (Bres.) Stalpers & Hjortst. (Hjortstam & Stalpers 1982). Boidin (1966) compared it with G. heimi Boidin f. citri Boidin and found only minor differences. Judging from Boidin's description, f. citri differed more from the type of G. heimi than from G. crystallitectum. The cultural characters — the species has verticillate clamps, which are unique in Gloeocystidiellum — probably prompted Boidin to this classification. The species causes a weak white rot.


≡ Scotomyces subviolaceus (Peck) Jülich

The type specimen is identical with Scotomyces subviolaceus (Peck) Jülich. The generic names Scotomyces Jülich (Jülich 1978) and Hydrabasidium Parker-Rhodes ex J. Erikss. & Ryv. (Eriksson & Ryvarden 1978) were both published on the same
date, 28 Dec. 1978. Thus the first author who made a choice between these genera has to be followed; this is Jülich (1979), who treated *Hydrabasidium* as a synonym of *Scotomyces*.


≡ *Gloeocystidiellum porosum* (Berk. & Curt.) Donk

The type specimen is not in very good condition and very few basidia were intact. The gloecocystidia are sulpho-negative. The spores are hyaline, thin-walled, 5-5.5 × 2.5-3.2 μm, warted, amyloid. It does not seem to be distinct from *Gloeocystidiellum porosum* (Berk. & Curt.) Donk.


Basal hyphae thin- to slightly thick-walled, 3-5(-6) μm wide, with rather small clamps. Echinocysts sessile or stalked, hyaline, globose to ellipsoid or ovoid, 6-11 × 6-8 μm, strongly cyanophilous, with a basal clamp, apically with 4-8 slender, tortuous “flagella” up to 8 μm long. Cystidia hyaline, thin-walled, clavate to generally cylindrical and constricted below the apex, thus becoming capitate, 28-40 × 5-6.5 μm. apex up to 8 μm wide, constriction 2.4-4 μm wide. Basidia clavate to typically urniform, 30-50 × 7-9(-10) μm, with four sterigmata. Spores hyaline, thin-walled, ellipsoid to subcylindrical, (7-)8-10(-10.5) × (4-)4.5-5(-6) × (4.5-)5-6(-6.5) μm, smooth, not amyloid.

The species is very close to *Hyphoderma compactum* (H. S. Jacks.) Jülich, which has similar, but significantly smaller structures. Stephanocysts, echinocysts, and small vesicles are considered to be homologous; they are all strongly cyanophilous, have a basal clamp directly under the swelling, and are found in the subiculum only. Moreover, in *II. flagellatum* both vesicles with flagella (echinocysts) and similar vesicles without flagella are present. Species with these structures generally also have cystidia with a constriction directly below the apex; they are considered to be closely related. To this group belong: *II. compactum, II. echinocystis* J. Erikss. & Strid, *II. flagellatum* and *II. praetermissum* (P. Karst.) J. Erikss. & Strid.


≡ *Repetobasidium glaucocanum* (G. H. Cunn.) comb. nov.

Basidiome when dry reticulate; hymenium not continuous. Hymenial surface whitish. Hyphae hyaline, thin-walled, 2-3.5 μm wide, with clamps. Cystidia hyaline, thin-walled, apically containing a resinous drop which stains strongly in phloxine, but not in Melzer’s reagent, smooth or sometimes encrusted with resinous material. Basidia hyaline, thin-walled, often swollen at the base, 13-18 × 5-8 μm, apically 4-6 μm wide. Some repetobasidia seen. Spores globose to subglobose, 5-6 × 4.5-6 μm.

The species belongs to *Repetobasidium* J. Erikss. and is very close to *R. mirificum* J. Erikss., differing only in the absence of distinctly capitate cystidia.


≡ *Hypochniciun analogum* (Bourd. & Galz.) J. Erikss.

Gloeocystidia long cylindrical, obtuse, originating low in the subiculum and sometimes curving downward from the parallel basal layer (pseudocystidia), 40-120 × 5-11 μm. Simple hyphidia present, 2.5-3.5 μm wide. Spores hyaline, thick-walled, globose to broadly ellipsoid, 7.5-9(-9.5) × 7-8 μm, warted to aculeolate, cyanophilous, not amyloid.

The species is *Hypochniciun analogum* (Bourd. & Galz.) J. Erikss., as was already more or less suspected by Cunningham (1963).


≡ *Rogersella griselinae* (G. H. Cunn.) comb. nov.

Basidiome at first hypochaenoid, becoming continuous, at first even, then covered with distant, blunt, completely fertile warts (not odontioid). Hyphae hyaline, thin- to slightly thick-walled, 1.5-3 μm wide, with small, but abruptly curved clamps (Hyphodontia-type). Basal hyphae sometimes with swellings. Cystidia clavate to capitata, 20-35 × 4-5 μm, often with scattered crystals; some capitata cystidia are hyphoid (2-2.5 μm wide) below the terminal swelling, which is up to 5 μm diam. Basidia subiform, 12-18 × 4-5 μm. Spores hyaline, slightly thick-walled, globose to subglobose, 4.5-5.5 μm diam., echinulate, cyanophilous, not amyloid, with oil droplet and small apiculus.

The species belongs to *Rogersella Liberta & Navas* (1978) and the name is an earlier synonym of *Rogersella aspera* Liberta & Navas. Apart from the ornamented spores and the lower warts, the species resembles *Grandinia aspera* (Fr.) Jülich in
Fig. 6–10 6. Corticium flagellatum, basidia, spores, cystidia and echinocysts. 7. C. glaucocanum, stages in basidium development, spores and various cystidia. 8. C. griseliniae, spores, basidium and cystidia. 9. C. lepispermum, basidia, spores and cystidia. 10. C. patricium, basidia, spores and cystidium.
many respects. *Rogersella* is, like *Lagarobasidium Jülich*, a satellite genus of *Grandinia Fr.* (= *Kneiffiella* P. Karst. = *Hyphodontia* J. Erikss.).


The type specimen shows collapsed hyphae, no hymenial structures and non-amyloid basidiospores as described by Cunningham. More material is needed before a more definite statement on its taxonomic position can be made. The species causes a brown rot.

*C. leptospermi* G. H. Cunn. — Trans. R. Soc. N.Z. 82: 312. 1954 (basionym). Fig. 9.

≡ *Phlebia leptospermi* (G. H. Cunn.) comb. nov.

Hymenial surface even, chrome-yellow at the margin and more orange to reddish brown towards the centre, turning red in KOH. Cystidia hyaline, thin-walled, clavate to capitate, smooth or sometimes (in older parts) covered with resinous material, projecting up to 12 μm. Spores hyaline, thin-walled, smooth, ellipsoid, 4.2-5 × 2-2.3 × 2.2-2.5 μm, not amyloid.

The species, which causes a weak white rot, belongs to *Phlebia* and is close to *Ph. fensiwoesia* (Litsch. & Lund.) J. Erikss. & Hjortst., which has a distinct warted to phlebioid hymenial surface and longer cystidia. It also resembles *Ph. lilascens* (Bourd.) J. Erikss. & Hjortst., which has no cystidia and often a pinkish to violaceous colour.


≡ *Parvobasidium lianacola* (G. H. Cunn.) comb. nov.

Hymenial surface even to minutely warted, pale olivaceous brown; margin white. Basal hyphae hyaline, thin-walled, 1.5-2.5 μm wide, with clamps. Vesicles broadly ellipsoid to ovoid, 10-14 × 6-8.5 μm. Basidia clavate, 12-15 × 3.5-4.5 μm. Spores hyaline, smooth, thin-walled, broadly ellipsoid to pip-shaped, 4-5 × 2-3 μm, not amyloid.

The cretaceous basidiome, the vesicles, and the small, clavate basidia make this species a typical member of the genus *Parvobasidium* Jülich. The type of rot is indistinct, but seems to be brown.


Hyphae hyaline, thin-walled, 3-5 μm wide, with clamps. Cystidia clavate to cylindrical, often constricted, sometimes with 1-3 apical constrictions, 32-55 × 5-8 μm, but some swellings up to 14 μm wide. Mature basidia not seen. Spores hyaline, thin-walled, smooth, cylindrical to allantoid, 8.5-10.5 × 2.5-3.2 × 3-4 μm, sometimes slightly constricted, not amyloid.

The original description points to *Galziniella pereximia* Parm., but the absence of mature basidia allows neither a positive identification nor an unequivocal assignment to a genus. However, the species may, like *Galziniella pereximia*, belong to *Sistotrema* Fr.

*C. patricium* G. H. Cunn. — Trans. R. Soc. N.Z. 82: 289. 1954. Fig. 10


≡ *Hyphoderma assimile* (H. S. Jacks. & Dearden) Donk

Basidiome membranaceous. Generative hyphae 3-5 μm wide. Leptocystidia thin- to slightly thick-walled, subclavate to cylindrical, 60-120(150) × 8-10(12) μm, cyanophilous, sometimes with what seem to be remnants of resinous caps, projecting up to 50 μm. Basidia suburniform to clavate, 25-50 × 6.5-8.5 μm. Spores hyaline, thin-walled, cylindrical to allantoid, 11-14.5 × 4-5.5 μm, generally with a single oil-drop.

The species belongs to *Hyphoderma* Wallr. and the name is a later synonym of *Hyphoderma assimile* (H. S. Jacks. & Dearden) Donk. Nakasone (1984) referred the species to *Crustoderma* Parm., but it deviates quite strongly from the type species, *C. dryinum* (Berk. & Curt.) Parm. and also from Nakasone's generic description. The basidia are not narrowly clavate or cylindrical, but suburniform and the spores are typical *Hyphoderma* spores and not thick-walled at all. The type of rot was indistinct in the material studied.


In addition to Cunningham's description the type specimen shows some clavate to acuminate cystidia, up to 70 μm long. Additional material is needed to ascertain the taxonomic position of this peculiar species.


The type material is in bad condition. No basidia or spores as described by Cunningham were found. Some collapsed amyloid warted basidiospores (about 4 μm long) were seen, but these are probably extraneous. Cunningham compared *C. pteridophilum* with *Gloeocystidium cretatum* Bourd. & Galz., which is the type species of *Parvobasidium* Jülich. It may well belong to this genus, but
Fig. 11-15  
additional material should be studied before a transfer can be made. The species seems to cause a brown rot.

- _Phanerochaete singularis_ (G. H. Cunn.) comb. nov.

Basidiome somewhat hypnoid when young, becoming membranaceous. Subicular hyphae brown, thin- to somewhat thick-walled, 5-8 μm wide, often branching at right angles. Clamps absent from most septa, but some septa showing 1-3 clamps. Subhymenial hyphae hyaline to yellowish, 3-5 μm wide. Immature basidia 18-25 × 4.5-7 μm; mature basidia not seen. Spores hyaline, smooth, thin-walled, ellipsoid to subcylindrical, 4.5-6 × 2-3 μm (few seen).

At first sight the white-rot species resembles _Tomentella_ Pat. It is here considered as belonging in _Phanerochaete_ because of the verticillate clamps and the smooth spores, but it rather isolated position there. _Phanerochaete cacaina_ (Bourd. & Galz.) Burdsall & Gilbertson is also brown, but here the hyphae are covered with resinous material; moreover, this species has cylindrical spores. _Ph. fuscomarginata_ (Burt) Gilbertson differs in having cystidia and broader spores (5-7 × 3-4 μm).

- _Hyphoderma praetermissum_ (P. Karst.) J. Erikss. & Strid

Besides the large tramaal gloecystidia hymenial leptocystidia are also present, 20-30 × 4-6 μm, slightly projecting and generally capitate or at least with a constriction or narrower part just below the apex. The species is _Hyphoderma praetermissum_ (P. Karst.) J. Erikss. & Strid; it causes a white rot.

- _Cunninghammyces umbonatus_ (G. H. Cunn.) comb. nov.

Basidiome effused, pellicular to thin membranaceous. Hymenial layer easily separable from poorly developed subiculum and substrate. Hymenial surface even, whitish to cream-coloured when old. Margin indistinct; hyphal strands absent. Subicular hyphae somewhat thick-walled, 2.5-6.5 μm wide. Subhymenial hyphae hyaline, thin- to slightly thick-walled, 2.5-4 μm wide. Clamps present at all primary septa. Cystidia and hyphidia absent. Basidia hyaline, thin-walled, clavate to unifomes, often with a basal swelling (probasidium), terminal or lateral (pleurobasidia), 22-45 × 6-7.5 μm, with 4 sterigmata up to 7 μm long. Spores hyaline, thin- to slightly thick-walled, globose, 7.5-9.5 μm diam., echinulate with smooth suprahilar plage, not amyloid; most spores with a large globule, which may cause a thick-walled appearance.

As there is no genus available for this species, a new one has to be described:

_Cunninghammyces_ gen. nov.


Basidiome annual, resupinatum, effusum, pelliculare vel membranaceum. Hymenium easily separable from subiculum and substrate. Hyphae hyaline, thin- to somewhat thick-walled, with clamps on all primary septa. Basidia hyaline, thin-walled, clavate to typically unifomes, terminal or lateral, with 4 sterigmata. Spores hyaline, thin- to slightly thick-walled, echinulate with smooth suprahilar plage, not amyloid, often with large globule.

_TYPE SPECIES:_ _Corticium umbonatum_ G. H. Cunn.


Subhymenial hyphae hyaline, thin- to slightly thick-walled, 2.5-4 μm wide. Clamps present at all primary septa. Cystidia and hyphidia absent. Basidia hyaline, thin-walled, clavate to unifomes, often with a basal swelling (probasidium), terminal or lateral (pleurobasidia), 22-45 × 6-7.5 μm, with 4 sterigmata up to 7 μm long. Spores hyaline, thin- to slightly thick-walled, globose, 7.5-9.5 μm diam., echinulate with smooth suprahilar plage, not amyloid; most spores with a large globule, which may cause a thick-walled appearance.

The species is close to _Hyphoderma sambuci_ (Pers.) Jülich, a species which is intermediate between _Grandinia_ and _Hyphoderma_ and therefore sometimes placed in _Lyomyces_ P. Karst.; the cultural characteristics of _H. sambuci_ (Stalpers 1978) suggest _Grandinia_. Vesicles as described by Cunningham were not observed. The study of additional material is necessary before the status of the name can be established.
= Ceraceomyces varicolor (G. H. Cunn.) comb. nov.

Basidiome loosely adnate, at first hypnochnid and brick-red, when mature even. Hymenial surface cream coloured to pale ochraceous, but below the hymenial layer the specimen is also red in the mature parts of the basidiome. Margin white; hyphal strands absent. Subicular hyphae hyaline, thin- to slightly thick-walled, 2.4-4 μm wide, straight or with some minute swellings, often encrusted with hyaline crystals. Clamps absent. Subhymenial hyphae hyaline, thin-walled, 2.4-4 μm wide, encrusted with hyaline to reddish-brown crystals. Cystidia clavate to cylindrical, thin- to thick-walled, 60-90 × 8-12 μm. Basidial clavate to nearly sphaeropedunculate when young, 28-40 × 6-8 μm, basally 3-4 μm wide. Spores hyaline, thin-walled, smooth, ellipsoid, 7.5-9(-10) × 4.5-5.5 × 6-7 μm.

Despite the absence of clamps, the species is placed in Ceraceomyces because of the even hymenial surface, the easily separable hymenium, and the ellipsoid spores. Moreover, C. violascens (Fr.:Fr.) Jülitch and C. cystidiatus (J. Erikss. & Hjorst.) Hjorst. Hjorst. have basal hyphae with coloured encrustation. However, it is realized that Merulipopsis hirtellus (Burt) Ginn is also close. The generic distinction between Ceraceomyces and Merulipopsis Bond. is vague.

= Phlebia sp.

Hymenal surface even to warted. Subicular hyphae hyaline, thin- to slightly thick-walled, 2.5-4 μm wide, with clamps at all septa. Hyphae not agglutinated except in the subhymenium. Crystalline material abundant on and between the hyphae. Cystidia absent. Basidia subclavate to subcylindrical, 15-22 × 3.5-5 μm. Spores hyaline, thin-walled, ellipsoid to cylindrical, 5.6-5.7 × 2.5-3 μm (few seen). Resinous material present between the basidia.

The species belongs to Phlebia and is close to or identical with Ph. nitidula (P. Karst.) Ryv.

ACKNOWLEDGMENTS
I am much obliged to the curator of herbarium PDD, Dr E. H. C. McKenzie, for the loan of specimens. I am grateful to Dr P. Buchanan for critical reading of the manuscript.

REFERENCES