Some new combinations of corticioid fungi (Basidiomycota. Agaricomycetes)

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Abstract
The following new combinations are proposed: *Bourdotiella crustula,* basionym *Odontia crustula, Chaetodermella incrassata,* basionym *Peniophora incrassata*, *Crustoderma cryptocallimon,* basionym *Hyphoderma cryptocallimon, Dentipellis lindtneri*, basionym *Gloeocystidium lindtneri*, *Fibricium subodoratum*, basionym *Corticium subodoratum*, *Gloeocystidiellum granulatum*, basionym *Boidinia granulata*, *Gloeocystidiellum permixtum*, basionym *Boidinia permixta*, and *Xenasmatella alnicola*, basionym *Grandinia alnicola. Bourdotiella crustula* is introduced as an older name for *Bourdotiella complicata* and *Fibricium subodoratum* replaces the younger name *Fibricium lapponicum*.

Introduction
While working on a new version of the identification handbook Corticiaceae of North Europe (Eriksson et al 1973-1988) some taxonomical and nomenclatural issues emerged that we prefer to resolve in a separate publication rather than in the upcoming book itself.

Materials and methods
Studied material is listed with each species in the taxonomy section below. Specimens were studied in preparations of 2% KOH, Melzer's solution, and Cotton blue. For morphological descriptions of treated taxa, we refer to the original publications of basionyms and synonyms.

Taxonomy

Bourdotiella crustula (L.W. Mill.) K.H. Larss. & Ryvarden comb. nov.
Basionym: *Odontia crustula* L.W. Mill., Mycologia 26(1): 29 (1934).
Mycobank MB 834066
Synonym: *Bourdotiella complicata* Duhem & Schultheis, Cryptog. Mycol. 32(4): 393 (2011).

We compared authentic material of *Odontia crustula* with the type of *Bourdotiella complicata*. The material of *Odontia crustula* is less developed and has a lighter colour but shares with *B. complicata* the cylindrical, penicillate spines, a porulose hymenium between the spines, and a surprisingly soft structure. We could not find any substantial micromorphological differences. Miller (1934) states that the species is not uncommon but there are few reports in the literature. Gilbertson (1964) studied authentic material but did not suggest any redisposition of the species but compared it with *Odontia pruni* Lasch. Ginns (1993) listed the species as a synonym of *Xylodon brevisetus* (as *Hyphodontia breviseta*). Although he studied a collection from the same locality and the same date as the type, it was collected on pine while the type grew on linden. Apparently, the specimens identified by Miller as *Odontia crustula* included several species.

The protologue does indicate any collector's number. In American herbaria there are several specimens with the same locality, substrate, and date but with different collector's number. Gilbertson (1964) studied number 15 and 21, both from the University of Iowa Herbarium (IS, today a part of ISC) and selected the former as lectotype.

Material studied: *Odontia crustula*. USA. Iowa, Milford, Little Sioux River, on linden, 16 June 1931, leg. L.W. Miller 21 (GB). *Bourdotiella complicata*. France. Vaucluse, Parc Naturel Régional du Luberon, commune des Baumettes, au bord de la rivière le Coulon ou le Cavalon. On wood of *Salix* sp. or *Populus* sp., 11 Nov. 2007, leg. B. Schultheis 383/07 (PC 0084610).

Chaetodermella incrassata (Malençon) K.H. Larss. & Ryvarden comb. nov.
Basionym: *Peniophora incrassata* Malençon, Bull. trimest. Soc. mycol. Fr. 68: 316 (1952). Mycobank MB 834067

Malencon moved his species to *Chaetoderma* (Malencon 1982). However, the genus name *Chaetoderma* Parmasto (1968) cannot be used for fungi since it is a homonym of *Chaetoderma* Kützing (1843), a genus of algae in Rhodophyta. Rauschert (1988) introduced *Chaetodermella* to replace Parmasto's illegitimate name but only combined the type species, *Chaetodermella luna*. We studied a specimen from Cyprus and could verify that the species has its place alongside *C. luna* in Gloeophyllales.

Material studied: Cyprus. Nicosia, Paphos Forest, Cedar Valley, on dead standing *Cedrus brevifolia*, 22 Nov. 2011, leg. A. Henrici (K, GB).

Crustoderma cryptocallimon (B. de Vries) K.H. Larss. & Ryvarden comb. nov.
Basionym: *Hyphoderma cryptocallimon* B. de Vries, Mycotaxon 28: 77 (1987).
Mycobank MB 834068

We sequenced a Portuguese specimen of this rarely collected species and recovered the sequence in the *Crustoderma* cluster (data not shown). With its long, projecting, apically often widened cystidia and subclavate basidia *C. cryptocallimon* fits well into the genus.

Material studied: Portugal, Baixo Alentejo; Mértola, Corte do Pinto, Mina de S. Domingos, on *Eucalyptus sp*., 14 Dec. 1994, leg. I Melo & J. Cardoso 6495 (LISU 170965, as *Hyphoderma multicystidium*; GB)

Dentipellis lindtneri (Pilát) K.H. Larss. & Ryvarden comb. nov.
Basionym: *Gloeocystidium lindtneri* Pilát, Bull. trimest. Soc. mycol. Fr. 53(1): 94 (1937).
Mycobank MB 834069

This species is known from a few river-side forests in Central and South-East Europe. Attempts to generate DNA sequences from the most recent collections have failed and we are reduced to use morphological traits when searching for a proper place for the species. We believe the species is best placed in family Hericiaceae and can then choose between *Dentipellis* and *Laxitextum*. Both genera would have to be emended to allow for *Gloeocystidium lindtneri* to fit and it is perhaps a matter of taste which one to choose. Like *Dentipellis fragilis*, the type of the genus, *G. lindtneri* has two kinds of gloeocystidia. One type occurs as the the terminal cell of gloeoplerous hyphae extending from the subiculum into the hymenium. The other type develops from generative hyphae in the hymenium. *Laxitextum bicolor*, the type of *Laxitextum*, has only one type of gloeocystidia. For this reason, we prefer to place *G. lindtneri* in *Dentipellis*. Since extant *Dentipellis* species are hydnoid while *Gloeocystidium lindtneri* has a smooth hymenophore inclusion of the latter species changes the definition of the genus.

Material studied: Bulgaria, Burgas, montes Stara Plania, inter pagos Banja et Obsor, ad ramum arbor. frondos. ad terram iacentem. Ca. 120 m s.m. 21 June 1978, leg. J. Kutan BG 78-107 (GB-0182230). Slovakia, Trnavsky kraj, silva “Kralov les” ap. Trstena na O. (distr. Gabicikovo), in silva madida; ad ramum iacentem Salicis. 26 Aug. 1974, leg. Z. Pouzar PRM 8665572 (GB-0182229. Slovakia, Bratislavsky kraj, silva Sur ap. Jur pri Bratislave; in Alneto glutinosae madidio, ad ramum iacentem Alni glutinosae. 13 Oct. 1978, leg. Z. Pouzar PRM 8665573 (GB-0182228).

Fibricium subodoratum (P. Karst. ex Bourdot & Galzin) Spirin comb. nov.
Basionym: *Corticium subodoratum* P. Karst. ex Bourdot & Galzin, Hyménomyc. de France p 226, 1928.
Mycobank MB 834070
Synonym: *Fibricium lapponicum* J. Erikss., Symb. bot. upsal. 16(no. 1): 114, 1958.
MBT 390308

We studied original material preserved at herb. PC. The specimen is not in the best condition but it is still possible to observe the membranous-pellicular basidioma, skeletal hyphae, presence of clamps on generative hyphae, a few cystidia, and basidiospores. These features make it possible to identify the specimen as the species previously named *Fibricium lapponicum*.

Bourdot & Galzin (1928) compared *Corticium subodoratum* with *Corticium odoratum* (syn. *Scytinostroma odoratum*) but noticed that tramal hyphae were wider in *C.*

subodoratum and that dendrohyphidia ("hyphes capillaires") were lacking. They did not observe cystidia, maybe not surprising considering the condition of the material and that cystidia sometimes are few in this species.

Since the name has not been typified, we here select as lectotype the material we studied.
Lectotype (designated here): Finland. Etelä-Häme, Tammela, Mustiala, ad ligna pini, leg. P.A. Karsten 7485 (Bourdot 8683), herb. PC 706689.
Mycobank MBT 390308

Gloeocystidiellum granulatum (Sheng H. Wu) E. Larss. & K.H. Larss. comb. nov.
Basionym: *Boidinia granulata* Sheng H. Wu, Mycotaxon 58: 17 (1996).
Mycobank MB 834071

For a discussion, see below under *Gloeocystidiellum permixtum*.

Material studied: Taiwan. Taipei, roadside of highway between Hsintien and Pinglin, on brach of angiosperm, 27 Apr. 1991, leg. S.H. Wu 910427-21 (isotype GB) – Taiwan. Ilan, Fushan nat. res., on branch of angiosperm, 3 Sep. 1992, leg. S.H. Wu 9209-34 (GB).

Gloeocystidiellum permixtum (Boidin, Lanq. & Gilles) E. Larss. & K.H. Larss. comb. nov.
Basionym: *Boidinia permixta* Boidin, Lanq. & Gilles, Bull. trimest. Soc. mycol. Fr. 113(1): 17 (1997).
Mycobank MB 834072

Larsson & Larsson (2003) showed that the type species of *Boidinia* and *Gloeocystidiellum* do not cluster together and concluded that *Boidinia* perhaps should be restricted to the type, *B. furfuracea*. They also found that a specimen of *Boidinia granulata* and two unidentified specimens clustered with the type of *Gloeocystidiellum*. Larsson (2007) included *G. porosum*, *B. granulata* and one of the unidentified specimens from Larsson & Larsson (2003) in an Agaricomycetes-wide sampling of corticioid species. The sequences were recovered in a clade that received 100% bootstrap support and a posterior probability value of 1.0 in a Bayesian analysis. The unidentified specimen was compared with the type of *Boidinia permixta* and found to be conspecific. Hence *Boidinia granulata* and *B. permixta* are transferred to *Gloeocystidiellum*.

Material studied: France. Lot-et-Garonne, Cucumont, on *Carpinus*, LY 13231 (holotype) – Turkey. Trabzon district, vicinity of Malavaci, alt 1200 masl, on fallen branch of *Fagus sylvatica* in a *Fagus* forest mixed with *Corylus avellana* and *Rhododendron*, 26 Sep. 1996, N. Hallenberg 13258 (GB).

Xenasmatella alnicola (Bourdot & Galzin) K.H. Larss. & Ryvarden comb. nov.
Basionym: *Grandinia alnicola* Bourdot & Galzin, Bull. Soc. mycol. Fr. 30(2): 254 (1914).
Mycobank MB 834073

Synonym: *Trechispora alnicola* (Bourdot & Galzin) Liberta, Taxon 15(8): 318 (1966). *Phlebiella alnicola* (Bourdot & Galzin) Bondartsev & Singer, Trut. Grib Evrop. Chasti SSSR Kavkaza [Bracket Fungi Europ. U.S.S.R. Caucasus] p. 51 (1953).

Kunttu et al (2010) pointed out that *Grandinia alnicola* has mostly pleural basidia and the presence of ampullate septa on subicular hyphae is doubtful. Thus, they preferred to place the species in *Phlebiella*. Molecular data confirm this arrangement (data not shown). However, *Phlebiella* is now regarded as not validly published and the species referred to that genus have been moved to *Xenasmatella* (Duhem 2010).

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