

TAXONOMIC AND NOMENCLATURAL NOTES ON LACCARIA B. & BR.—II  
LACCARIA BICOLOR, L. FRATERNA, AND L. LACCATA VAR. PALLIDIFOLIA

ELSE C. VELLINGA

*Rijksherbarium, Leiden*

GREGORY M. MUELLER

*Field Museum of Natural History, Chicago, IL, U.S.A.*

Since our previous publication (Mueller & Vellinga, 1986), additional information concerning the nomenclature and synonymy of some names in the genus *Laccaria* has been obtained.

Study of the holotypes of *Laccaria laccata* var. *pseudobicolor* M. Bon and *L. affinis* var. *sardoa* M. Bon revealed microscopic characters that support the view that these names should be placed in the synonymy of *L. bicolor* and *L. laccata* var. *pallidifolia* respectively.

***Laccaria bicolor* (Maire) P. D. Orton—Fig. 1**

*Laccaria laccata* var. *bicolor* Maire in *Publicions Inst. bot.*, Barcelona 3: 84. 1937. — *Laccaria proxima* var. *bicolor* (Maire) Kühn. & Romagn., *Fl. anal. Champ. sup.*: 131. 1953 (nom. inval., ICBN Art. 33.2). — *Laccaria bicolor* (Maire) P. D. Orton in *Trans. Br. mycol. Soc.* 43: 177. 1960. — Type specimen (holotype): *R. Maire*, 7 Oct. 1933, Spain, Catalonia, Collado de Tosses (MPU).

*Laccaria laccata* var. *pseudobicolor* M. Bon in M. Bon & Haluwijn in *Docum. mycol.* 12(46): 42. 1982. — Type specimen (holotype): *M. Bon 70428* (Herb. M. Bon).

Misapplied name. — *Laccaria farinacea* sensu Sing. non Huds. in *Sydowia Beih.* 7: 8. 1973.

Basidiospores (excl. ornamentation) (6.5–)7.0–8.5 × 5.5–7.0  $\mu\text{m}$ ,  $Q = 1.15–1.35$ ,  $\bar{Q} = 1.23$ , usually broadly ellipsoid, occasionally ellipsoid, echinulate; spines up to 1.2  $\mu\text{m}$  long, numerous; hilar appendage truncate; wall up to 1  $\mu\text{m}$  thick. Basidia 4-spored. Cystidia not observed. Pileipellis an undifferentiated cutis with ascending fascicles of hyphae; terminal hyphae with rounded apices and brown pigment. Stipitipellis a cutis of cylindrical hyphae; apex of stipe lacking cystidia.

The description above is based on study of the holotype of *L. laccata* var. *pseudobicolor* M. Bon.

The colour of the lamellae, vivid lilac (Bon & van Haluwijn, 1982: 42), and the size and shape of the basidiospores observed in the holotype fit within the circumscription of *L. bicolor* (Maire) P. D. Orton. Additionally, specimens of *L. bicolor* are occasionally encountered that lack lilac tinges at the base of the stipe. Thus, *L. laccata* var. *pseudobicolor* is considered a synonym of *L. bicolor*, and not of *L. laccata* (Scop.: Fr.) B. & Br., as we stated previously (Mueller & Vellinga, 1986: 35).

**Laccaria fraterna** (Cooke & Mass. → Sacc.) Pegl.<sup>1</sup>

*Agaricus fraternus* Cooke & Mass. in Grevillea 16: 31. 1887, non *Agaricus fraternus* Lasch in Linnaea 3: 402. 1828 (= *Cortinarius spec.*). — *Naucoria fraterna* (Cooke & Mass. → Sacc. in Syll. Fung. 9: 110. 1891. — *Laccaria fraterna* (Cooke & Mass. → Sacc.) Pegl. in Aust. J. Bot. 13: 332. 1956.

*Naucoria goossensiae* Beeli in Bull. Soc. r. Bot. Belg. 61: 88. 1928. — *Laccaria laccata* f. *bispora* Heinemann in Bull. Jard. bot. État 34: 310. 1964 (change of name).

*Laccaria lateritia* Malenç. in Bull. trimest. Soc. mycol. Fr. 82: 189. 1966.

Dr. R. Courtecuisse (Aubers, France) kindly drew our attention to the existence of *Agaricus fraternus* Lasch, 1828. This name is now treated in *Cortinarius*. The correct citation and synonymy of *Laccaria fraterna* is as presented above.

**Laccaria laccata** var. **pallidifolia** (Peck) Peck—Fig. 2

For synonymy see Mueller & Vellinga, 1986: 37.

Basidiospores (excl. ornamentation)  $8.5-10.5 \times 7.5-9.0(-9.5) \mu\text{m}$ ,  $Q = 1.0-1.2$ ,  $\bar{Q} = 1.1$ , globose to subglobose, occasionally broadly ellipsoid, finely echinulate; spines up to  $1 \mu\text{m}$  high; hilar appendage truncate; wall up to  $1 \mu\text{m}$  thick. Basidia 4-spored. Pleurocystidia lacking. Cheilocystidia up to  $50 \times 12 \mu\text{m}$ , cylindrical with rounded apices, hyaline. Pileipellis an undifferentiated cutis with some ascending fascicles of hyphae; terminal hyphae with rounded apices and brown pigment. Stipitispellis a cutis of cylindrical hyphae; apex of stipe with patent cylindrical, hyaline, cystidia-like elements; elements up to  $80 \times 14 \mu\text{m}$ , with rounded apices.

The description above is based on study of the holotype of *Laccaria affinis* var. *sardoa* M. Bon & Contu (coll. *M. Bon 84395*, Herb. M. Bon).

Bon & Contu (1985: 53) state that *Laccaria affinis* var. *sardoa* is unique because of the pink colours of its basidiocarps. Colour variation within the *L. laccata* complex is so great, however, that we do not feel that this is taxonomically significant. While the conspicuous cystidia-like elements at the stipe apex observed in the holotype are significant and deserving of mention, we do not feel that this alone is sufficient to merit maintaining this taxon as a separate variety. Following our circumscription of *L. laccata* var. *pallidifolia* (Mueller & Vellinga, 1986: 38–39) we place *L. affinis* var. *sardoa* in the synonymy of *L. laccata* var. *pallidifolia*.

## ACKNOWLEDGEMENTS

Dr. R. Courtecuisse is thanked for his letter concerning *Agaricus fraternus* and we are indebted to Mr. M. Bon for the loan of type specimens.

<sup>1</sup> For the use of the arrow see Mueller & Vellinga, 1986: 27.

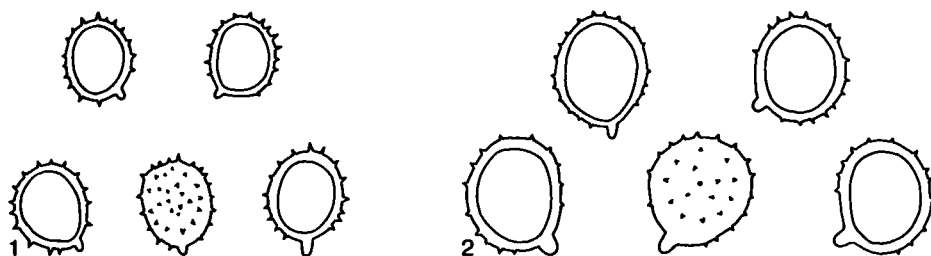


Fig. 1. *Laccaria bicolor*. — Spores ( $\times 1500$ ) (from *M. Bon* 70428, holotype of *L. laccata* var. *pseudobicolor*).

Fig. 2. *Laccaria laccata* var. *pallidifolia*. — Spores ( $\times 1500$ ) (from *M. Bon* 84395, holotype of *L. affinis* var. *sardoa*).

#### REFERENCES

- BON, M. & CONTU, M. (1985). Taxons nouveaux. In *Docum. mycol.* 15(59): 53.
- BON, M. & HALUWIJN, C. van (1982). Macromycètes des terrils de charbonnage du Nord de la France, 3ème partie. In *Docum. mycol.* 12(46): 33–52.
- MUELLER, G. M. & VELLINGA, E. C. (1986). Taxonomic and nomenclatural notes on *Laccaria* B. & Br. *Laccaria amethystea*, *L. fraterna*, *L. laccata*, *L. pumila*, and their synonyms. In *Persoonia* 13: 27–43.