

WHAT IS CORTINARIUS CYLINDRIPES KAUFFMAN?

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Type studies have shown that *Cortinarius cylindripes* Kauffman should be reduced to a synonym of *C. collinitus* (Sow.: Fr.) S.F. Gray. Contradictions between the protologue of *C. cylindripes* and the type material are discussed. For *C. cylindripes* a new lectotype is indicated.

In connection with a revision of *Cortinarius* (Pers.) S.F. Gray subgenus *Myxacium* (Fr.) Loudon section *Colliniti* (Fr.) Sacc. (= sect. *Myxacium* (Fr.) Nezd.) in Fennoscandia (Norway, Sweden, Finland) some type collections from North America have been studied. In another paper (Bendiksen & al., 1992) we conclude that *C. cylindripes* Kauffman is a synonym of *C. collinitus* (Sow.: Fr.) S.F. Gray s. J.É. Lange, a frequent species in European spruce forests, and apparently also a common species in North America (cf. Smith, 1944). But the well-established name *C. collinitus* is unfortunately connected with several nomenclatural problems, discussed in detail by Melot (1989) and Bendiksen & al. (1992) (cf. also Kühner, 1959). In fact the original plate of *Agaricus collinitus* by Sowerby (1797), depicts *C. lividoochraceus* (= *C. elatior* s. auct.) while the Friesian description in *Systema* (Fries, 1821) chiefly covers *C. trivialis*, partly species of section *Defibulati* and probably *C. collinitus* s. J.É. Lange. The name *Cortinarius collinitus* is emended on minor elements in the sanctioning description (cf. Bendiksen & al., 1992, in prep.), to maintain a name widely and persistently used for this taxon for more than 40 years. *Cortinarius muscigenus* Peck 1888 seems to be the oldest synonym of *C. collinitus*. *Cortinarius cylindripes* should also be reduced to a synonym, as argued in the following.

The original concept of Kauffman (1905) of *C. cylindripes* includes more than one element. The description seems to refer partly to a species of section *Defibulati* ('Cap margin ... at length longitudinally wrinkled'; lamellae. ... 'edge serrulate'). We found, however, that type material (lectotype, selected by us here: Kauffman, 28 Aug. 1904, Ithaca, New York; MICH) has clamped hyphae and no balloon-shaped cheilocystidia; therefore it belongs to section *Colliniti* and not to section *Defibulati*. Further, the material has spores within the range of variation of *C. collinitus* and outside that of any other known member of section *Colliniti* (Figs. 1, 2). Smith (1944) examined this same syntype of *C. cylindripes*, calling it the type because Kauffman had written the word 'type' on the handwritten label of this collection. It is, however, formally incorrect to call this collection the holotype and that is why we have done the lectotypification above.

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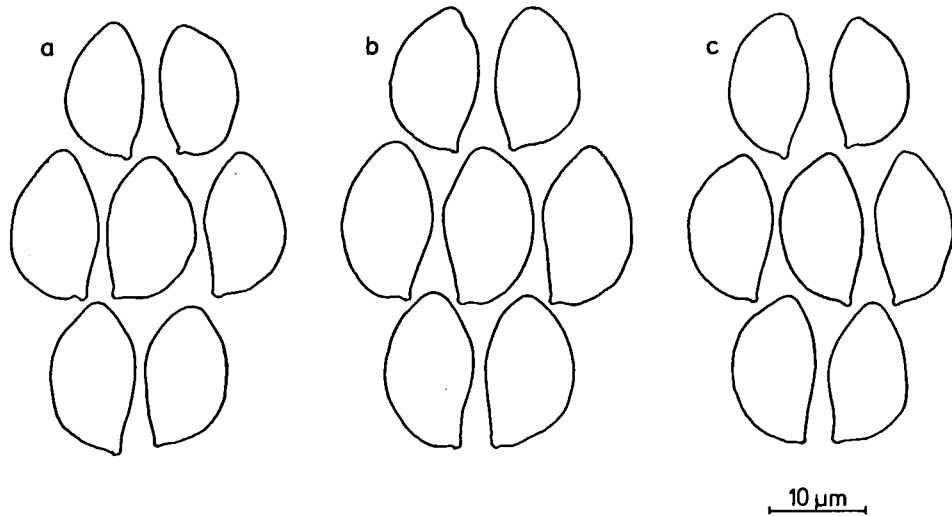


Fig. 1. Outlines of spores. — a. *Cortinarius cylindripes* (Kauffman, 28 Aug. 1904, lectotypus, MICH). — b. *C. muscigenus* (Peck, Sept. 1887, holotypus, NYS). — c. *C. collinitus* (E. & M. Ohenoja, 18 Aug. 1970, OULU).

In addition Smith studied several of Kauffman's other collections from the same locality and from Sweden. He conclusively regarded *C. cylindripes* as a species of coniferous regions both in North America and Scandinavia, characterized by 'large spores, violaceous colours ... and lack of cheilocystidia'. We conclude that these characters are in accordance with *C. collinitus*.

The contradictions between the protologue of *C. cylindripes* and the material collected by Kauffman, including the collection marked by him as the type, may be explained by the fact that Kauffman, like many other mycologists, seems to have confused *C. collinitus* and the superficially very similar *C. stillatitius* Fr. (= *C. integerrimus* Kühner) or a related species. His protologue relates partly to a species of section *Defibulati*, but his syntype collections at MICH represent *C. collinitus*.

Kauffman's wide concept of *C. cylindripes* is further demonstrated by his later statements after having visited Sweden. He then separated *C. collinitus* with larger spores (14–18 μm), common in the Stockholm area, from *C. cylindripes* retained as an American species with smaller spores (12–15 μm) (Kauffman, 1918, cf. also Lundell & Nannfelt, 1979). Smith (1944), however, found that spores from fruit-bodies collected by Kauffman in Sweden were identical with those of the collections marked by him as type of *C. cylindripes*; 13–17/5–7.5 μm . He concluded that Kauffman had made errors of observation. The various statements of Kauffman, however, have no nomenclatural consequences, since the type material belongs to *C. collinitus*.

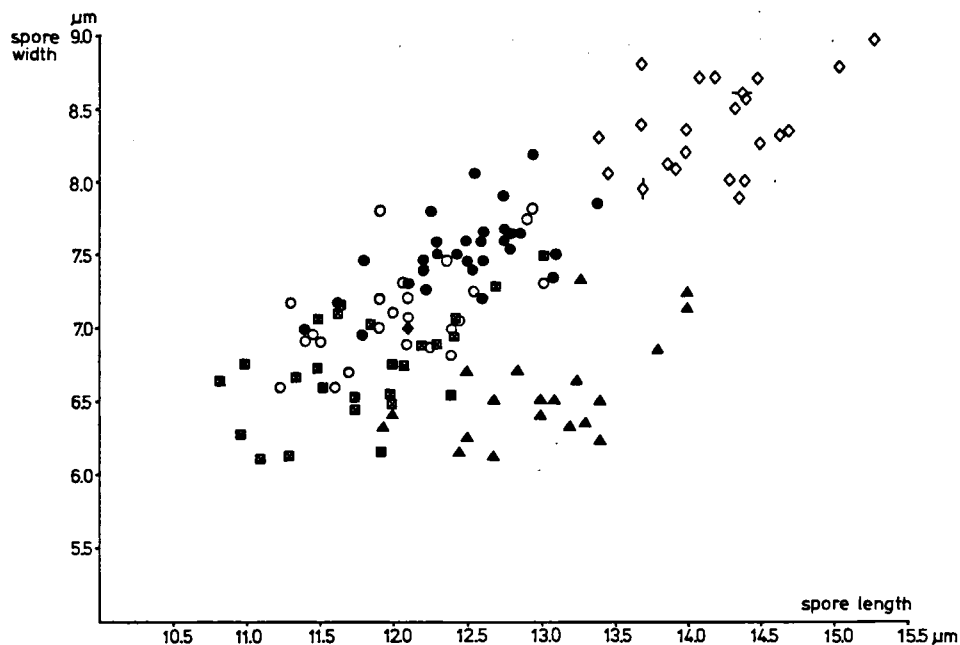


Fig. 2. Scatter diagram of mature spores from the cortina of species of *Cortinarius* sect. *Colliniti* growing in the boreal zones. Each dot represents the mean value of 10 measured spores from a single collection. — \diamond = *C. cylindripes* Kauffman (lectotypus, MICH). — \diamond = *C. collinitus* (Sow.: Fr.) S.F. Gray ($\langle \diamond \rangle$ holotype of *C. muscigenus* Peck, NYS). — \bullet = *C. fennoscandicus** E. Bendiksen & al. — \blacklozenge = *C. grallipes* Fr. (*T.E.B.* 324-79, O). — \blacktriangle = *C. mucosus* (Fr.: Fr.) Kickx. — \circ = *C. septentrionalis** E. Bendiksen & al. — \boxtimes = *C. trivialis* J.E. Lange. (* Described as new species in Bendiksen & al., 1992.)

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