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A new combination in *Leucopholiota* (Agaricales, Fungi)

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Leucopholiota lignicola (P.Karst.) Harmaja, *comb. nov.*

Basionym:—*Lepiota lignicola* Karsten (1879: 547)
Type:—Finland, Etelä-Häme, Tammela, September 1879, *P.A. Karsten s.n.*, Herbarium Karsten no. 2034 (holotype H!).
Synonym:—*Amylolepiota lignicola* (P.Karst.) Harmaja (2002: 40).

The new monotypic genus *Amylolepiota* Harmaja (2002: 39) was established to accommodate *Lepiota lignicola* that was deviating in *Lepiota* especially through the amyloid spore wall. I have now reconsidered the taxonomic position of that species, and regard it as belonging to the closely related, likewise originally monotypic genus *Leucopholiota* (Romagn.) Miller, Volk & Bessette (1996: 138), with *Agaricus decorosus* Peck (1873: 73) as the type. Knudsen (2008) indicated both generic and specific synonymy of *Amylolepiota lignicola* with *Leucopholiota decorosa* (Peck) Miller, Volk & Bessette (1996: 138).

While admitting the generic synonymy, I still consider *L. lignicola* and *L. decorosa* as different species. As described in Harmaja (2002), the only difference between the genera is the relation of the lamellae to the stipe: free in *Amylolepiota*; adnexed-emarginate in *Leucopholiota*. This was initially thought to be distinct enough to warrant the recognition of the genus *Amylolepiota.* Free vs. attached gills is a diagnostic character important at the generic level elsewhere in the Agaricales *s.l.*

This rule does not seem to apply here. Excepting the relation of the gills to the stipe, the differences between the type species of both genera are small and are thus best considered as differences at the species level.

Additionally I observed a character of the holotype of *L. decorosa*, kindly send to me on loan from the herbarium of the New York State Museum at Albany (NYS) that has not been reported before: the spores (as observed in boiled acetocarmine stain) are binucleate like those of *L. lignicola* (Harmaja 2002). This is a taxonomically important common feature of the species, in addition to other similar microscopic characters.
Consequently, *Leucopholiota* is amended to include two species. The species differ as follows: I. the lamellae are rather broadly adnexed-emarginate in *L. decorosa* (see the illustration in Peck, 1873) but free (with a narrow gap) in *L.lignicola*; II. *Leucopholiota decorosa* inhabits the wood of a variety of angiosperms (but hardly that of *Betula*) while *L. lignicola* is confined to—or at least strongly prefers—the wood of *Betula* as substrate; III. most probably only *L. lignicola* demands old-growth forest as habitat; IV. *Leucopholiota decorosa* occurs in temperate areas but *L. lignicola* is only found in boreal taiga forest; and V. *Leucopholiota. decorosa* is distributed in places in the eastern half of North America with one (reliable?) locality in France (Miller *et al.,* 1996) while *L. lignicola* dwells scattered in the vast northern coniferous belt of Eurasia (Harmaja, 2002). For more information about *L. decorosa*, see Miller *et al.* (1996), and about *L. lignicola*, see Harmaja (2002).

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