

Taxonomic reassessment of three lachnaceous genera (Helotiales, Ascomycota)

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Purpose: The family Lachnaceae (Helotiales, Ascomycota) is characterized by minute, stipitate apothecia covered by partially to totally granulate hairs. Lachnaceae contains 17 genera and its generic taxonomy has been mainly based on the morphology of hairs and ectal excipulum. In Lachnaceae, taxonomic confusion of three genera (*Albotricha*, *Capitotricha* and *Dasyscyphella*) has long been left. In this study, we aimed to clarify the generic concepts of these three genera.

Methods: Species of above three genera were collected mainly from Japan. Generic delimitation was studied considering detailed morphological observation and molecular phylogenetic analysis on three nuclear DNA regions (ITS-5.8S, LSU and RPB2) using ML and Bayesian methods.

Results: Two strongly supported clade appeared in molecular phylogenetic analysis: Clade A composed of *Albotricha* including type species and Clade B composed of *Albotricha* and *Capitotricha* including type species. Species in Clade A shared hairs lacking granules at three or more apical cells and ectal excipulums composed of textra angularis, while species in Clade B shared hairs lacking granules at one or two apical cells and ectal excipulums composed of textra prismatica. Species of *Dasyscyphella* were separated from the both clade in molecular phylogenetic analysis and no clades supporting more than two species appeared.

Conclusions: Clade A and Clade B was redefined as *Albotricha* and *Capitotricha* respectively and no taxonomic treatment of *Dasyscyphella* were conducted in this study.