

Outlineoffungi.org - Note 927 *Cuphophylloideae*

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Cuphophylloideae Z.M. He. & Zhu L. Yang

Lodge et al. (2014) studied the relationship among the members of the family *Hygrophoraceae* Lotsy based on extensive phylogenetic estimation and classified the family into three subfamilies: *Hygrophoroideae* E. Larss., Lodge, Vizzini, Norvell & S.A. Redhead, *Hygrocyboideae* Padamsee & Lodge, *Lichenomphalioideae* Lücking & Redhead, and a Cuphophylloid clade. The genera *Cuphophyllus* (Donk) Bon, *Ampulloclitocybe* Redhead, Lutzoni, Moncalvo & Vilgalys, and *Cantharocybe* H.E. Bigelow & A.H. Sm. are the basal of *Hygrophoraceae* with quite weak phylogenetic support (He & Yang 2021). The Cuphophylloid grade formed the base of these genera (Lodge et al. 2014). As a consequence, the proper systematic position of these genera has been dubious and unresolved (He & Yang 2021). In 2021, a new genus from this family, *Spodocybe* Z.M. He & Zhu L. Yang along with two of its new species *S. rugosiceps* Z.M. He & Zhu L. Yang and *S. bispora* Z.M. He & Zhu L. Yang were established with the help of morphology and multigene (ITS, LSU, *RPB1*, *RPB2*, *TEF1-a*, *ATP6*) phylogeny and formed a monophyletic clade with *Ampulloclitocybe*, *Cantharocybe*, and *Cuphophyllus* and sister clade with rest of the members of the family with strong phylogenetic support (He & Yang 2021). Based on these observations, the new subfamily *Cuphophylloideae* Z.M. He & Zhu L. Yang was erected to accommodate the genera *Spodocybe*, *Ampulloclitocybe*, *Cantharocybe*, and *Cuphophyllus* (He & Yang 2021). The members of this subfamily have characteristic clitocyboid basidiome without any veil. The shape of the pileus is convex to funnel with decurrent lamellae (He & Yang 2021). The basidiospores are thin-walled, subglobose to ellipsoid in shape, and inamyloid (He & Yang 2021). The nature of the pileipellis is generally cutis but can be ixocutis or trichoderm. The arrangement of the lamellar trama hyphae can be bidirectional or interwoven (He & Yang 2021). Clamp connections are observed in all the genera of *Cuphophylloideae*. Also, this subfamily was typified by *Cuphophyllus* (Donk) Bon. (He & Yang 2021). Usually, the representatives of this subfamily are saprophytic and grow in a caespitose or gregarious manner on the soil. Mostly they have been reported from the tropical to temperate regions (He & Yang 2021).

References

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