Outlineoffungi.org - Note 1329 *Monohydropisphaera*

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Monohydropisphaera L.W. Hou, L. Cai & Crous

The monotypic genus *Monohydropisphaera* was introduced to accommodate *Monohydropisphaera fusigera* (Berk. & Broome) L.W. Hou, L. Cai & Crous, as the type species based on morphology and phylogeny (a concatenated data set of LSU, ITS, *rpb*2 and *tef*-1α sequences) (Hou et al. 2023). The type species was found in dead tops of *Bambusa vulgaris* (*Poaceae*) in France. In the sexual morph of *Monohydropisphaera*, mycelium is composed of branched, septate, hyaline to pale brown, and smooth hyphae. Perithecia are solitary or crowded, superficial, subglobose- and reddish brown. The perithecial wall comprises two parts: an outer region consisting of thick-walled, globose to ellipsoid cells, and an inner region composed of thin-walled, elongated, flattened cells. Asci are unitunicate, clavate with rounded apices, laking a ring, and containing eight aseptate, fusoid, hyaline ascospores arranged biseriately. Additionally, in the asexual morph, conidiophores are macronematous, mononematous, unbranched, elongated, and hyaline to light brown. Conidiogenous cells are integrated, monophialidic, and terminal. Conidia are aseptate with smooth to verrucose, and hyaline walls. *Caespitomonium squamicola* is the closest clade to *Monohydropisphaera* based on a concatenated alignment of LSU, ITS, *rpb*2*,* and *tef*-1α sequences. The taxonomic placement of *Monohydropisphaera* is in *Bionectriaceae*, *Hypocreales*, *Sordariomycetes. Monohydropisphaera* is proposed as a new classification for the single species *M. fusigera,* which was initially identified as *Hydropisphaera fusigera* (Lechat et al. 2010). It is distinguished from *Hydropisphaera sensu stricto* in the multi-locus phylogenetic analysis and includes more strains and loci. Morphologically, the aseptate ascospores of *Monohydropisphaera* exhibit coarse, somewhat wavy striations, setting them apart from other genera within the *Bionectriaceae* (Hou et al. 2023).

References

Hou LW, Giraldo A, Groenewald JZ, Rämä T et al. 2023 – Redisposition of acremonium-like fungi in *Hypocreales*. Studies in Mycology 105(1), 23–203.

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(Edited by **Kevin D. Hyde** & **Subodini N. Wijesinghe**)

Published online 31 May 2024