Outlineoffungi.org - Note 1499 *Ascocodinaceae*

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Ascocodinaceae Vizzini, Consiglio & P. Alvarado

The family *Ascocodinaceae* was established to accommodate *Ascocodina* C.D. Viljoen, M.J. Wingf. & K. Jacobs as the type genus according to morphology, phylogenetical analysis (using combined LSU, SSU, ITS, *tef1-α* and *rpb2* sequence data), and divergence time estimates (Bao et al. 2023). In the sexual morph, perithecia form directly on the hymenial surface, arranging gregariously and *positioning themselves superficially to semi-immersed, gray to black, translucent brown in 3% KOH. These structures exhibit an ovoidal shape with an acute apex and collapse deeply through lateral pinching when dry. Stiff, erect, acute, unbranched, and septate black setae arise as modified cells from the upper half of the perithecium and demonstrate thick walls. The perithecial wall appears translucent brown under transmitted light, with thin-walled cells of textura epidermoidea at the surface. The perithecial apex consists of enlarged cells arranged in flesh. The ostiolar canal remains periphysate, while the periphyses connect continuously with the paraphyses. Paraphyses abound among and overreach mature asci, being infrequently branched, septate, and slightly enlarged at the tip. Asci take on a cylindrical shape with eight spores; the apex features a thin ring pierced by a pore. Ascospores lie uniseriate with overlapping ends, appearing ellipsoidal to fusiform, slightly curved, and multi-septate, with central cells translucent brown and end cells hyaline and smooth-walled. In the asexual morph, conidiophores present as macronematous, mononematous, stiff, erect, unbranched, and black; they resemble the sterile setae morphologically, each bearing a single terminal integrated conidiogenous cell. These conidiogenous cells operate monophialidically, enteroblastically, and proliferate percurrently or sympodially; their tips remain not fared, exhibiting slight periclinal thickening at the conidiogenous locus. Conidia take on a broadly ellipsoidal, cylindrical, or inequilateral shape, often slightly curved, and range from 0–1 septate, being hyaline, lacking a visible basal abscission scar, and smooth-walled, held in a drop of hyaline slime at the tip of each conidiophore (Bao et al. 2023). The family *Ascocodinaceae* is classified under *Glomerellales*, *Sordariomycetes*, *Pezizomycotina*, and *Ascomycota* (Bao et al. 2023).

Reference

Bao DF, Hyde KD, Maharachchikumbura SS, Perera RH, et al. 2023 – Taxonomy, phylogeny and evolution of freshwater *Hypocreomycetidae* (*Sordariomycetes*). Fungal Diversity 121(1), 1 – 94.

Entry by

Maryam Tavakol Noorabadi, Innovative Institute for Plant Health, Zhongkai University of Agriculture and Engineering, Guangzhou 510225, People's Republic of China

(Edited by **Kevin D Hyde**)

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