

Outlineoffungi.org - Note 1486 *Synnematotriadelphiaceae*

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Synnematotriadelphiaceae Mapook & K.D. Hyde

Synnematotriadelphiaceae was established to accommodate *Synnematotriadelphia* Chuaseehar., Somrith., Nuankaew & Boonyuen as the type genus based on morphological characteristics and phylogeny using the combined dataset of ITS, LSU, SSU, and RPB2 sequence data of *Microascales* group (Mapook et al. 2023). Members of the family *Synnematotriadelphiaceae* thrive as saprobes on decayed palm petioles. In their sexual morph, they remain undetermined, while in the asexual morph, they exhibit hyphomycetous characteristics. Colonies spread effusively on natural substrates, displaying a hairy texture as they develop synnemata or hair-like structures in synthetic media. The mycelium forms a partly superficial network, consisting of hyaline to subhyaline or olivaceous, septate, and branched hyphae. Conidiomata appear synnematos, standing erect and can be simple or branched, varying from solitary to gregarious, and are determinate, cylindrical, or clavate in shape, presenting colors from brown to blackish-brown. The parallel hyphae of the synnemata are septate and pale brown, with terminal short branches that bear single or fasciculate conidiogenous cells. Conidiogenous cells emerge from metulae located on the sides of synnemata and display holoblastic, monoblastic characteristics—either solitary or aggregated with shapes ranging from oblong to clavate or spherical to subspherical and colors from subhyaline to olivaceous. Conidia are pleomorphic and solitary, manifesting as acrogenous forms produced in two or three different conidial types on synnemata. These conidia are septate, featuring transverse septa, and their coloration varies from hyaline to pigmented, with wall thickness varying from thin to thick. The type species, *Synnematotriadelphia stilboidea*, was found on the dead leaf petiole of *Roystonea regia* in Cuba. *Synnematotriadelphiaceae* is classified under *Microascales*, *Sordariomycetes*, and *Ascomycota* (Mapook et al. 2023). *Triadelphiaceae* and *Graphiaceae* formed sister clades with *Synnematotriadelphiaceae* combined dataset of ITS, LSU, SSU and RPB2 sequence data of *Microascales* group (Mapook et al. 2023).

Reference

Mapook A, Hyde KD, Huanraluek N, Boonmee S. 2023 – Addition to *Microascales* (*Sordariomycetes*, *Ascomycota*), *Synnematotriadelphiaceae* fam. nov., *Triadelphia mukdahanensis* sp. nov. (*Triadelphiaceae*) and the validation of *Graphiaceae*. *Studies in Fungi* 8(1).

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