

Outlineoffungi.org - Note 1442 *Gyrotrichaceae*

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Gyrotrichaceae Hern Restr. & Crous

Hernández-Restrepo et al. (2022) established *Gyrotrichaceae* to accommodate *Gyrothrix* (Corda) Corda as the type genus based on morphology and phylogenetic analyses using ITS, LSU, RPB2, and TUB2 sequence data. Also, the type species is *Gyrothrix podosperma* (Corda) Rabenh., isolated from the leaf of *Eucalyptus* sp., in South Africa. family can be identified by its gyrothrix- and circinotrichum-like asexual forms, as well as its anthostomella-like sexual forms (Samarakoon et al. 2023). The new family *Gyrotrichaceae* is classified under *Xylariales*, *Xylariomycetidae*, *Sordariomycetes*, *Pezizomycotina*, and *Ascomycota* (Hernández-Restrepo et al. 2022). The family *Gyrotrichaceae* includes five genera, namely *Gyrothrix*, *Neogyrothrix*, *Pseudoceratocladium*, *Pseudocircinotrichum*, and *Xenoanthostomella* (Hernández-Restrepo et al. 2022). In the family *Gyrotrichaceae*, the colonies are effused, thin, velvety, and mouse grey to black-colored. Mycelium is partly superficial, and constructed of septate, subhyaline to olivaceous-colored hyphae. Setae are erect, straight or flexuous, simple or branched, and septate, smooth to verrucose. Conidiogenous cells are polyblastic, obclavate to lageniform-shaped, hyaline to subhyaline, and thin-walled. Conidia are adherent, dry, cylindrical to fusiform-shaped, and hyaline. Ascospores are immersed, black-colored, coriaceous, and clustered (rarely solitary). The ostiole is papillate with a central periphysate canal. The peridium has two to multiple cell layers with pale brown-colored cells of textura irregularis. The paraphyses are slightly longer than the asci, numerous, filamentous, and septate. Asci are eight-spored, unitunicate, cylindrical-shaped, with the discoid, apical ring, J+ in Melzer's reagent. Ascospores are uni- to biserial, ellipsoidal-shaped, unicellular, and smooth-walled (sometimes with mucilaginous sheath) (Hernández-Restrepo et al. 2022).

References

- Hernández-Restrepo M, Decock CA, Costa MM, Crous PW. 2022 – Phylogeny and taxonomy of *Circinotrichum*, *Gyrothrix*, *Vermiculariopsiella* and other setose hyphomycetes. *Persoonia-Molecular Phylogeny and Evolution of Fungi* 49(1), 99–135.
- Samarakoon MC, Lumyong S, Manawasinghe IS, Suwannarach N et al. 2023 – Addition of five novel fungal flora to the *Xylariomycetidae* (*Sordariomycetes*, *Ascomycota*) in Northern Thailand. *Journal of Fungi* 9(11), 1065.

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