

Outlineoffungi.org - Note 1482 *Xenodactylariales*

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Xenodactylariales D.F. Bao, K.D. Hyde & Z.L. Luo

Xenodactylariales was erected by Bao et al. (2023) to accommodate *Xenodactylariaceae* Crous as the type family based on morphological characteristics, divergence time estimates and phylogeny by combined LSU, SSU, ITS, *tefl-a* and *rpb2* sequences. In the phylogenetic analysis, *Xenodactylariaceae* clustered within Hypocreomycetidae as a distinct lineage closely related to *Torpedosporales*, corroborating the findings of Hyde et al. (2020). *Xenodactylariaceae* features subcylindrical, hyaline, septate conidia that form branched chains. In contrast, the characteristics of *Torpedosporales* differ significantly; their conidia are solitary and helicoid. For instance, *Juncigenaceae* produces single, brown, helicoid conidia, while the conidia of *Torpedosporaceae* are solitary, irregularly helicoid, and muriform (Bao et al. 2023). Members of this family inhabit plant tissue as endophytes. Their mycelium consists of smooth, hyaline, branched, and septate hyphae. They reduce conidiophores to conidiogenous cells on the hyphae, which stand erect or flexuous and are hyaline and smooth-walled, featuring one to several denticulate apical loci. Conidia occur in branched chains, appearing hyaline, smooth-walled, subcylindrical, and septate. The taxonomic position of *Xenodactylariales* is classified under *Hypocreomycetidae*, *Sordariomycetes* and *Ascomycota* (Bao et al. 2023).

References

- 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.
- Hyde KD, Dong Y, Phookamsak R, Jeewon R, et al. 2023 – Fungal diversity notes 1151–1276: taxonomic and phylogenetic contributions on genera and species of fungal taxa. *Fungal Diversity* 100, 5–277.

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