

Outlineoffungi.org - Note 1379 *Adelphomyces*

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Adelphomyces Xavier-Leite, M. Cáceres & Lücking

Xavier-Leite et al. (2023) introduced *Adelphomyces* under *Gomphillaceae* (*Graphidales*, *Ostropomycetidae*, *Lecanoromycetes*, *Pezizomycotina*, *Ascomycota*) to accommodate three species lichenized fungal species based on morphology and phylogeny using a combined SSU and LSU sequence data. This genus was typified by *Adelphomyces epithallinus* (Lücking) Xavier-Leite, M. Cáceres & Lücking and *A. cochlearifer* (Lücking & Sérus.) Xavier-Leite, M. Cáceres & Lücking and *A. parvulus* (Hafellner & Vězda) Xavier-Leite, M. Cáceres & Lücking are the other species. In the genus, apothecia are sessile (*Gyalideopsis*-like), have a biatorine structure, and display a distinct margin. The excipulum consists of hyphae densely arranged in a hyphal structure. The hypothecium is prosoplectenchymatous and appears pale. The epithecium is not visible. Ascospores are very small and have one-three septa. In cases where hyphophores are observed, they are setiform, black, with a widened apex, and are either rostrate or spatulate. Diahyphae is inserted at the apex, branch out extensively, have a moniliform structure, and exhibit colorless and ellipsoid to drop-shaped segments. The species that belong to this newly established genus were previously categorized within *Gyalideopsis* s. lat., which has been determined to be a highly polyphyletic group through cladistic and molecular phylogenetic analyses. In a prior cladistic study, the grouping of the three lichenicolous species was strongly supported (Lücking et al. 2005), and based on molecular analysis by Xavier-Leite et al. (2022) which showed the type species to be distinct from other *Gyalideopsis* representatives, we have included the two unsequenced taxa. However, this classification requires verification through molecular data (Xavier-Leite et al. 2023).

References

- Lücking R, Sérusiaux E, Vězda A. 2005 – Phylogeny and systematics of the lichen family *Gomphillaceae* (*Ostropales*) inferred from cladistic analysis of phenotype data. *The Lichenologist* 37(2), 123–170.
- Xavier-Leite AB, da Silva Cáceres ME, Aptroot A, Moncada B et al. 2022 – Phylogenetic revision of the lichenized family *Gomphillaceae* (*Ascomycota*, *Graphidales*) suggests post-K–Pg boundary diversification and phylogenetic signal in asexual reproductive structures: molecular Phylogenetics and Evolution 168, 107380.
- Xavier-Leite AB, Goto BT, Lücking R, da Silva Cáceres ME. 2023 – New genera in the lichenized family *Gomphillaceae* (*Ascomycota*, *Graphidales*) focusing on neotropical taxa. *Mycological Progress* 22(12), 88.

Entry by

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

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