Outlineoffungi.org - Note 1348 *Aulaxinella*

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Aulaxinella Xavier-Leite, M. Cáceres & Lücking

Xavier-Leite et al. (2023) introduced *Aulaxinella* under *Gomphillaceae* (*Graphidales*, *Ostropomycetidae*, *Lecanoromycetes*, *Pezizomycotina*, *Ascomycota*) to accommodate three lichenized fungal species based on morphology and phylogeny using SSU and LSU sequence data. This genus was typified by *Aulaxinella minuta* (R. Sant.) Xavier-Leite, M. Cáceres & Lücking while *A. corticola* (Kalb & Vězda) Xavier-Leite, M. Cáceres & Lücking and *A. multiseptata* (R. Sant.) Xavier-Leite, M. Cáceres & Lücking are the other accepted species. The thallus of *Aulaxinella* is continuous, featuring a dark brown prothallus, and is usually small in size. The apothecia are erumpent and zeorine, with a carbonized thalline margin lacking algae (*Aulaxina* type), and also small. The ascospores are vary. The hyphophores are setiform-shaped, black, and produced in clusters on algal-free thallus patches. The diahyphae are palmate. The molecular phylogenetic analysis revealed that the genus is biphyletic, as *Caleniopsis* falls between *Aulaxina minuta* aggregate and *Aulaxina* s. str. *Caleniopsis* differs from *Aulaxina* s. lat. due to its uncarbonized apothecia with a thicker, distinctly zeorine margin (*Calenia* type). An alternative suggestion is to incorporate *Caleniopsis* into a revised *Aulaxina* to keep the *A. minuta* aggregate within that genus. However, this proposal lacks justification from the molecular data, as both the *A. minuta* aggregate and *Caleniopsis* show long branches, indicating a significantly separate evolutionary history. While *Caleniopsis* is confirmed as a sister to *Aulaxina* s. str., the placement of *A. minuta* aggregate at the base of this group is not supported (Xavier-Leite et al. 2023).

Reference

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.

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