Outlineoffungi.org - Note 962 Brownlielloideae

Web-links: Index Fungorum, Facesoffungi, MycoBank, GenBank

Brownlielloideae S.Y. Kondr., Kärnefelt, Elix & A. Thell

The subfamily Brownlielloideae was established to accommodate eight genera namely Brownliella, Lazarenkoella, Marchantiana, Raesaeneniana. Streimanniella. Tarasginia, Tayloriella and Thelliana based on the phylogenetic analyses (Kondratyuk et al. 2015). The subfamily was named after the type genus Brownliella S.Y. Kondr., Kärnefelt, Elix, A. Thell & Hur and the members were mainly reported from the Southern and Northern hemispheres (Kondratyuk et al. 2015). The family formed a clade outside Teloschistaceae based on the recent phylogenetic analyses conducted by Wilk et al. (2021) based on a subset of DNA. The taxa of Brownlielloideae dispersed among all the subfamilies mostly within Teloschistoideae but also within Caloplacoideae and Xanthorioideae in the phylogenetic analyses and the generic type Brownliella itself nested within Teloschistoideae (Wilk et al. 2021). The DNA sequences data used in the establishment of the subfamily was found to have "chimeric" DNA data set whereas concatenated dataset contained ITS and LSU loci from the lichen mycobiont, but SSU from a fungal contaminant (Vondrák et al. 2018, Llewellyn 2019, Wilk et al. 2021). Thus, Brownlielloideae was synonymized under Teloschistoideae (Wilk et al. 2021). The taxonomic placement of this subfamily Teloschistoideae is in Teloschistaceae, Teloschistales, Lecanoromycetidae, Lecanoromycetes, Pezizomycotina and Ascomycota.

References

- Kondratyuk SY, Kärnefelt I, Thell A, Elix JA, Kim J, Kondratiuk AS, Hur JS. 2015 Brownlielloideae, a new subfamily in the Teloschistaceae (Lecanoromycetes, Ascomycota). Acta Botanica Hungarica 57(3-4), 321–343. https://doi.org/10.1556/034.57.2015.3-4.6
- Llewellyn T 2019 Revisiting generic concepts in the *Teloschistaceae* (lichenforming *Ascomycota*) using molecular phylogenetics, algorithmic taxa delimitation and molecular networks [MSc thesis]. Kew, UK: Royal Botanic Gardens. 65 p. [cited 2020 Aug 1]. Available from: <u>https://doi.org/10.34885/76</u>
- Vondrák J, Shahidin H, Moniri MH, Halıcı G, Košnar J. 2018 Taxonomic and functional diversity in *Calogaya* (lichenised *Ascomycota*) in dry continental Asia. Mycological Progress 17, 897–916. <u>https://doi.org/10.1007/s11557-018-1402-9</u>
- Wilk K, Pabijan M, Saługa M, Gaya E, Lücking R. 2021 Phylogenetic revision of South American *Teloschistaceae* (lichenized *Ascomycota, Teloschistales*) reveals three new genera and species. Mycologia 113(2), 278–299. <u>https://doi.org/10.1080/00275514.2020.1830672</u>

Entry by

Vinodhini Thiyagaraja, CAS Key Laboratory for Plant Biodiversity and Biogeography of East Asia, Kunming Institute of Botany, Chinese Academy of Science, Kunming 650201, Yunnan, People's Republic of China; Department of Entomology and Plant Pathology, Faculty of Agriculture, Chiang Mai University, Chiang Mai 50200, Thailand; Center of Excellence in Fungal Research, Mae Fah Luang University, Chiang Rai 57100, Thailand.

(Edited by Kevin D. Hyde & Maryam Tavakol Noorabadi)

Published online 2 April 2024