Outlineoffungi.org -Note 913 *Schizotheciaceae*

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Schizotheciaceae Y. Marin & Stchigel

Marin-Felix et al. (2020) established the family *Schizotheciaceae* raising *Schizothecium* as its type genus, which is typified by *S. fimicola* Corda. However, Huang et al. (2021) erroneously changed its name to *Neoschizotheciaceae* based on Wang et al. (2019). Wang et al. (2019) designated an incorrect epitype for *Schizothecium fimicola* and therefore, based on morphology and phylogenetic affiliation of this epitype, Huang et al. (2021) considered younger name *Schizothecium* as a synonym of *Podospora*. Thus, the new genus *Neoschizothecium* was introduced with *N. curvisporum* S.K. Huang & K.D. Hyde as its type species to accommodate species of *Schizothecium* that distantly grouped from the *Podosporaceae* (Huang et al. 2021). Then, a new family *Neoschizotheciaceae* was introduced for species in *Schizotheciaceae* and *Neoschizothecium* was designated as the type genus (Huang et al. 2021). However, *Podospora* and *Schizothecium* have two distinct type specimens representing two different type species for each genus (Lundqvist 1972; Ament-Velásquez et al. 2020; Vogan et al. 2021). This segregation was clarified based on morphology (Lundqvist 1972) and molecular data (Cai et al. 2005). Wang et al. (2019) unnoticed the conserved type of *Podospora*, *P. fimiseda* (Ces. & De Not.) Niessl. (≡ *Sordaria fimiseda*) and incorrectly cited *Schizothecium fimicola* as type species. Further, Wang et al. (2019) designated an epitype specimen (CBS H-24048) for *Schizothecium fimicola*, but morphologically and genetically this epitype represents *Podospora fimiseda*. Thus, the type species of *Schizothecium* should be conserved as *S. fimicola* and then, *Podospora* and *Schizothecium* are not synonyms as Huang et al. (2021) thought. Thus, *Neoschizotheciaceae* is invalid as it is a superfluous synonym of *Schizotheciaceae* (Marin-Felix & Miller 2022).

Schizotheciaceae includes 11 genera *viz*., *Apodus*, *Cercophora*, *Echria*, *Immersiella*, *Jugulospora*, *Lundqvistomyces*, *Pseudoechria*, *Pseudoschizothecium*, *Rinaldiella*, *Schizothecium* and *Zygopleurage* based on phylogenetic analysis with ITS, LSU, RPB2, and TUB3 sequence data and it is morphologically characterized by ostiolate ascomata, cylindrical to clavate asci and ellipsoidal ascospores, sometimes with long or short cylindrical or lash-like gelatinous appendages (Marin-Felix et al. 2020). *Schizotheciaceae* species, such as *Schizothecium aloides*, *S. glutinans* and *S. vesticola,* have been reported mainly from dung (Cai et al. 2005). Some species have been collected from soil, e.g. *Jugulospora antarctica* and *J. rotula*, and as saprobes on dead plant parts, e.g. *Cercophora caudata*, *Echria gigantospora*, and *Immersiella immersa* (Mirza and Cain 1969, Luo et al. 2019, Marin-Felix et al. 2020). The taxonomic placement of *Schizotheciaceae* is in *Sordariales*, *Sordariomycetes*.

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Entry by
Indunil C. Senanayake, Innovative Institute for Plant Health, Zhongkai University of Agriculture and Engineering, Haizhu District, Guangzhou 510225, China

(Edited by **Yasmina Marin-Felix, Kevin D Hyde& Maryam Tavakol Noorabadi**)

Published online 5 April 2024