Outlineoffungi.org - Note 692 *Schizothecium*

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Schizothecium Corda

Superfluous synonym: *Neoschizothecium* S.K. Huang & K.D. Hyde

Schizothecium was introduced and typified by *S. fimicola* Corda, which has membranaceous ascomata with agglutinated hairs and ascospores with lash-like caudae (Corda 1838). Later *Schizothecium* and its type species were erroneously synonymized under *Podospora* (Cesati 1856). Lundqvist (1972) resurrected *Schizothecium* discussing its nomenclatural legitimacy and recognized 17 species. Lundqvist (1972) also discussed the phenotypic uniqueness of *Schizothecium* and suggested that the perithecia adorned with swollen agglutinated hairs or prominent protruding peridial cells are characteristic of *Schizothecium*. Kirk et al. (2001) treated *Schizothecium* as a synonym of *Podospora* based on their morphological similarity of asci and ascospores. However, ascomatal morphology is a better taxonomic predictor than ascospore morphology within *Sordariales* (Miller & Huhndorf 2005). As the perithecial morphologies of *Schizothecium* species are prominent and easily recognizable, Cai et al. (2005) resuscitated *Schizothecium* as a valid genus in *Sordariales*. The combined gene analysis of ITS, LSU and *tub2* by Cai et al. (2005) showed that *Schizothecium* species form a well-supported, monophyletic clade, and this phylogenetic stability of *Schizothecium* was confirmed in later studies (Marin-Felix et al. 2020; Huang et al. 2021).

The type material of *Schizothecium fimicola* has been lost and the illustration in the protologue was designated as the lectotype of *S. fimicola* (Wang et al. 2019). Wang et al. (2019) also designated an epitype for *Schizothecium fimicola* with strain CBS 482.64 as the ex-epitype culture. However, morphologically and phylogenetically this epitype fits to *Podospora fimiseda* not the lectotype of *S. fimicola.* Thus, the synonymy of *Schizothecium fimicola* under *Podospora fimiseda* is not correct. Therefore, introduction of a new generic name *Neoschizothecium* by Huang et al. (2021) for *Schizothecium* species, which was performed based on the epitypification error of Wang et al. (2019), was also not correct. Marin-Felix & Miller (2022) resurrected the generic name *Schizothecium* explaining the taxonomic and nomenclatural mistakes made by Wang et al. (2019) and Huang et al. (2021).

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