Outlineoffungi.org - Note 682 *Neoarthrinium*

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Neoarthrinium Ning Jiang

Jiang et al. (2022) described *Neoarthrinium* with *N. lithocarpicola* Ning Jiang, isolated from leaf spots of *Lithocarpus glaber* from China, as the type. The asexual morph of the genus has cylindrical, septate, verrucose, flexuous conidiophores that are occasionally reduced into conidiogenous cells, erect, blastic, smooth-walled, doliiform, subglobose to lageniform, branched conidiogenous cells grouped in clusters on hyphae, and brown to dark brown, smooth to finely roughened, subglobose, ellipsoid to lenticular conidia with a longitudinal germ slit, occasionally elongated to ellipsoidal (Jiang et al. 2022). *Neoarthrinium* species have been recorded from Arecaceae (dead petiole of *Mauritia minor*, Gams 1995; diseased branches of *Trachycarpus fortuna*, Yan et al. 2019), Fagaceae (on leaf spots of *Lithocarpus glaber*, Jiang et al. 2022), and Urticaceae (on dead stems of *Urtica dioica*, Ellis 1965). However, the species associated with diseased plant substrates need further confirmation of their pathogenicity.

Gams (1995) introduced *Wardomyces moseri* W. Gams isolated from dead petiole of the palm *Mauritia minor* from Colombia and placed in *Microascaceae*. During a phylogenetic and taxonomic revision of *Microascaceae*, Sandoval-Denis et al. (2016) excluded *Wardomyces moseri* from *Microascaceae* due to its phylogenetic affinity to members of the *Amphisphaeriaceae* and *Clypeosphaeriaceae*. In the combined ITS-LSU-*rpb2-tub2-tef1* phylogeny, Samarakoon et al. (2022) revealed that *Wardomyces moseri* is a well-supported sister to *Amphisphaeriaceae*. *Neoarthrinium moseri* was recognized as a novel combination of *Neoarthrinium* by Jiang et al. (2022) based on the ITS-LSU-*tef1-tub2* phylogeny and asexual morphology. Pintos et al. (2019) showed that *Arthrinium trachycarpi* C.M. Tian & H. Yan and *A. urticae* M.B. Ellis formed separate clades to *Apiosporaceae* in an ITS-LSU-*tef1-tub2* phylogeny. *A. trachycarpi* (≡ *Neoarthrinium trachycarpi* (C.M. Tian & H. Yan) Ning Jiang) and *A. urticae* (≡ *N. urticae* (M.B. Ellis) Ning Jiang) were transferred to *Neoarthrinium* by Jiang et al. (2022).

Similar basauxic conidiogenesis can be found in *Apiospora*, *Arthrinium* and *Neoarthrinium*. The conidia of *Apiospora* and *Neoarthrinium* are often more or less spherical in the face view and lenticular in the side view, whereas conidia are differently shaped in *Arthrinium* (Pintos & Alvarado 2021, Jiang et al. 2022). Thick blackish septa, which are infrequently seen in conidia of *Apiospora* species, are present in *Arthrinium* and *Neoarthrinium* (Ellis 1965, Pintos & Alvarado 2021, Jiang et al. 2022). Asexual morphologies, however, are inadequate for these three genera to be distinguished. More fresh collections, sexual morphological analysis and phylogenetic approaches are required to resolve the taxonomic uncertainties.

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