Outlineoffungi.org - Note 915 <u>Rhamphoriales</u>

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Rhamphoriales K.D. Hyde & Hongsanan

Rhamphoriaceae Réblová was established by Réblová et al. (2018) to accommodate the type genus *Rhamphoria* with two other genera, viz. *Rhamphoriopsis* and *Rhodoveronaea*. This family was placed in *Diaporthomycetidae*. *Rhamphoriaceae* shared a sister clade with Sporidesmiaceae (Réblová et al. 2018; Luo et al. 2019; Hyde et al. 2020). However, morphologically, *Rhamphoriaceae* is distinguished from *Sporidesmiaceae* in the sexual morph, by the two-layered peridium and hyaline or brown, ellipsoidal, obovoid, clavate, fusiform to fusiform-clavate ascospores, lacking mucilaginous sheaths or appendages, whereas, Sporidesmiaceae has three-layered peridium and hyaline, fusiform ascospores with a thin sheath. In the asexual morph, Rhamphoriaceae differs from Sporidesmiaceae by the polyblastic to monoblastic, denticulate conidiogenous cells and ellipsoidal to obovoid, aseptate or septate, hyaline, or brown conidia, while Sporidesmiaceae has monoblastic, percurrently and terminal conidiogenous cells and brown, obclavate conidia, subobtuse at apex, truncate at base, with transversely euseptate or distoseptate (Réblová et al. 2018; Yang et al. 2018; Luo et al. 2019; Hyde et al. 2020). Divergence time estimates showed that the stem age of *Rhamphoriaceae* is 133 MYA, and this falls within the range of orders (Hyde et al. 2017). Therefore, Hyde et al. (2021) introduced the order *Rhamphoriales* K.D. Hyde & Hongsanan for *Rhamphoriaceae* based on the phylogeny with LSU, SSU, and *RPB2* data sequence and morphological characters. In the sexual morph, ascomata are perithecium that comprise 8-spored asci with cylindrical or cylindrical-clavate shapes. Ascospores are hyaline or brown with ellipsoidal to fusiform-clavate shapes. In the asexual morph, conidiophores are macronematous or semi-macronematous with holoblastic conidiogenous cells. Conidia are hyaline or brown and differ from aseptate to septate. Species in this order were reported from Argentina, Australia, Belgium, China (Guizhou Yunnan), Denmark, France, Germany, Great Britain, Netherlands, and the USA (New Jersey). They are saprobes on dead branches especially on Acer pseudoplatanus, Bertia moriformis, Buxus sempervirens, Crataegus oxyacantha, Escallonia serrata, Eucalyptus viminalis, Evernia prunastri, and Quercus species (Index Fungorum 2023).

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