

Outlineoffungi.org - Note 1304 *Golubeviaceae*

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Golubeviaceae Q.M. Wang, F.Y. Bai, Begerow & Boekhout

Golubeviaceae was proposed by Wang et al. (2015) as a monotypic family to accommodate *Golubevia* Q.M. Wang, F.Y. Bai, Begerow & Boekhout within *Exobasidiomycetes*. Based on phylogenetic analyses of seven loci datasets (ITS, LSU, SSU, *rpb1*, *rpb2*, *tef1*, and *CytB*), *Golubevia* was proposed to introduce a single species *G. pallescens* (Gokhale) Q.M. Wang F.Y. Bai, Begerow & Boekhout. It occurred as a sister lineage of the other orders within *Exobasidiomycetes* (Wang et al. 2015). However, in the description of *Golubevia*, the type species, *G. pallescens*, which was transferred from *Tilletiopsis*, Wang et al. (2015) did not cite the basionym. This made not only the type species and generic name invalidly published (ICN, Art. 41.5 & 40.1, respectively), but also invalidated the family name, *Golubeviaceae* (ICN, Art. 32.1(c)), as an automatically typified name formed from *Golubevia*. Recently, this combination, generic and family names were validly published by Guarnaccia et al. (2023). *Golubeviaceae* consists of one genus with three species, namely *Golubevia heteromorpha*, *G. mali*, and *G. pallescens* based on the phylogeny (ITS, LSU, *tef1*, and *rpb2* sequence data) and morphology (Guarnaccia et al. 2023). They are known not only in their yeast stage but also a holobasidium-like structure forming ballistospores on the apex, as observed in *G. heteromorpha* by Boekhout (1991). The taxonomic placement for *Golubeviaceae* is in the *Golubeviales* and *Exobasidiomycetes*. In the type genus, sexual reproduction is unknown. Budding cells and ballistoconidia are present. Hyphae are branched, narrow, and cylindrical-shaped. Clamp connections and starch-like compounds are absent (Wang et al. 2015, Guarnaccia et al. 2023).

Reference

- Boekhout T. 1991 – A revision of ballistoconidia-forming yeasts and fungi. *Studies in Mycology* 33, 1–192.
- Guarnaccia V, Remolif GME, Nari L, Gualandri V et al. 2023 – Characterization of fungal species involved in white haze disorder on apples in Northern Italy and description of *Golubevia mali* sp. nov. and *Entyloma mali* sp. nov. *Postharvest Biology and Technology* 209, 112678.
- Wang QM, Begerow D, Groenewald M, Liu XZ et al. 2015 – Multigene phylogeny and taxonomic revision of yeasts and related fungi in the *Ustilaginomycotina*. *Studies in Mycology* 81, 55–83.

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