

Outlineoffungi.org - Note 1089 *Thekopsoraceae*

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Thekopsoraceae P. Zhao & L. Cai in Zhao, et al.

Thekopsoraceae was introduced by Zhao et al. (2022) to accommodate the genus *Thekopsora*, which was previously included in *Pucciniastraceae* (Cummins & Hiratsuka 1983, 2003), a family that was highly polyphyletic (Aime et al. 2018, Aime & McTaggart 2020, [Zhao et al. 2021](#)). Although the genus *Thekopsora* contains 11 species (Index Fungorum), Zhao et al. (2022) included only the type species, *T. areolata* in their phylogenetic tree, but Yang et al. (2015) included nine species in an analysis of 28S sequences and ITS sequences. *Thekopsora areolata* is phylogenetically close to *Cronartium* but distinct from *Pucciniastrum* species in agreement with Aime et al. (2018). *Thekopsora* resembles *Coleopuccinia*, *Hylospora*, *Melampsoridium*, and *Pucciniastrum*, but differs from these genera in the aecia, uredinia, and telia ([Yang et al. 2015](#)). It also differs from the phylogenetically allied family *Cronartiaceae* in the structures of spermogonia, uredinia, and telia. *Thekopsora* species are characterized by intracellular teliospores, center-oriented germ pores in each cell of the spore balls, and well developed uredinial ostiolar cells (Hiratsuka et al. 1992, [Cummins & Hiratsuka 2003](#), [Yang et al. 2014](#)). Their uredinia and telia have been reported on *Asteraceae*, *Boraginaceae*, *Cornaceae*, *Ericaceae*, *Rosaceae*, *Rubiaceae* and *Saxifragaceae*, while *Picea* species are the alternate host. The genus is widely distributed, especially in the northern hemisphere. Thus, based on analysis of ITS and LSU sequence data, Zhao et al. (2022) showed that *Thekopsora* lies in a separate clade, which was defined as the new family.

References

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