

## Outlineoffungi.org - Note 920 *Endoraeciaceae*

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### *Endoraeciaceae* P. Zhao & L. Cai

*Endoraeciaceae* was introduced by Zhao et al. (2021) based on analysis of ITS, LSU and SSU sequence data to accommodate *Endoraecium* Hodges & D.E. Gardner. Hodges & Gardner (1984) established the genus *Endoraecium* for rust fungi on *Acacia* spp. in Australia. Subsequently, Cummins & Hiratsuka (2003) placed the genus in *Pileolariaceae*. *Endoraecium* was typified by *Endoraecium acaciae* Hodges & D.E. Gardner. Previous phylogenetic studies (McTaggart et al. 2015, Zhao et al. 2020, Aime & McTaggart 2021), found *Endoraecium* to be phylogenetically distant from the type genus *Pileolaria*. *Endoraecium* also differs in the morphology of teliospores from other genera in *Pileolariaceae*, in the shape of spermogonia and the morphology of telia and teliospores (Cummins & Hiratsuka 2003). *Endoraeciaceae* is an autoecious monotypic family that produces spermogonia, aecia, uredinia, and telia on *Acacia* spp. (family *Fabaceae*). The genus is characterized by group VI (type 5) spermogonia, uredo-type aecia, with aeciospores borne singly on a pedicel, germ pores scattered, uredo-type uredinia with the urediniospores similar to the aeciospores. The teliospores are pedicellate and aseptate with unique reticulate to foveolate ornamentation. The evidence of Zhao et al. (2021) clearly establishes the newly described family *Endoraeciaceae* with taxonomic placement in *Raveneliineae*, *Pucciniales*, and *Pucciniomycetes*.

### References

- Aime MC, McTaggart AR. 2021 – A higher-rank classification for rust fungi, with notes on genera. *Fungal Systematics and Evolution* 7, 21–47. <https://doi.org/10.3114/fuse.2021.07.02>
- Cummins GB, Hiratsuka Y. 2003 – *Illustrated Genera of Rust Fungi*, 3rd edn. American Phytopathological Society, St Paul, MI. 225 p.
- Hodges CS, Gardner DE. 1984 – Hawaiian forest fungi. IV. Rusts on endemic *Acacia* species. *Mycologia* 76, 332–349. <https://doi.org/10.2307/3793109>
- McTaggart AR, Doungsa-ard C, Geering ADW, Aime MC, Shivas RG. 2015 – A co-evolutionary relationship exists between *Endoraecium* (*Pucciniales*) and its *Acacia* hosts in Australia. *Persoonia* 35, 50–62. <https://doi.org/10.3767/003158515x687588>
- Zhao P, Qi XH, Crous PW, Duan WJ, Cai L. 2020 – *Gymnosporangium* species on *Malus*: species delineation, diversity, and host alternation. *Persoonia* 45, 68–100. <https://doi.org/10.3767/persoonia.2020.45.03>
- Zhao P, Zhang Z-F, Hu D-M, Tsui K-M, Qi X-H, Phurbu D, Gaforov Y, Cai L. 2021 – Contribution to rust flora in China I, tremendous diversity from natural reserves and parks. *Fungal Diversity* 110, 1–58. <https://doi.org/10.1007/s13225-021-00482-w>

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