

Outlineoffungi.org - Note 1306 *Geniculosea*

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Geniculosea Réblová

The monotypic genus *Geniculosea* (*Chaetosphaeriaceae*, *Chaetosphaeriales*, *Pezizomycotina*, *Ascomycota*) was introduced by Réblová & Nekvindová (2023) to accommodate *G. preussii* W. Gams & Hol.-Jech. based on morphology and multi-loci phylogenetic analyses. Gams & Holubová-Jechová (1976) earlier linked *Ch. preussii* to *Chloridium* (*Chl.*) *preussii*, with the former representing the sexual morph while the latter, the asexual morph. However, the morpho-phylogenetic analyses conducted by Réblová & Nekvindová (2023) showed that these sexual and asexual morphs represent two different taxa of two distinct genera. The description in the protologue of *Chl. preussii* did not belong to the latter and was instead based on three other strains (not ex-type strain of *Chl. preussii*) which were identical to the hyphomycetes growing next to the ascomata of *Ch. preussii* in its holotype specimen (Réblová & Nekvindová 2023). These three strains (asexual morph) were genetically identical to the sexual morph of *Ch. preussii*. Therefore, *Ch. preussii* and *Chl. preussii* are not representative parts of the life cycle for the same fungus (Réblová & Nekvindová 2023). While *Chl. preussii* has been transferred to *Chloridiopsiella preussii* in *Vermiculariopsiellales* (Réblová & Nekvindová 2023), *Ch. preussii*, whose strains form a phylogenetically well-separated clade in *Chaetosphaeriales*, has been accommodated in the new genus *Geniculosea* (Réblová & Nekvindová 2023).

Geniculosea preussii, the only taxon in the genus, in its sexual morph, comprises superficial, non-stromatic, ostiolate ascomata that are smooth and glossy, but which at times are surrounded by a thick mat of dark hyphae. The ascomatal walls are 2-layered and the paraphyses are septate, sparsely branched, and persistent. The asci have broad rounded apices with non-amyloid apical rings and they are short-pedicellate. The 1-septate, cylindrical to ellipsoidal ascospores usually separate into part spores, which are obliquely arranged in a 1-seriate configuration within the asci (Réblová & Nekvindová 2023). In its asexual morph on the natural substrate, *Geniculosea preussii* is characterized by solitary, straight to flexuous, macronematous, and unbranched conidiophores which are scattered to aggregated. They are brown to dark reddish-brown and bulbous at the base, gradually tapering and becoming paler towards the apex. They are also geniculate with several percurrent proliferations due to the frequent extension of the phialides. The conidiogenous cells, which extend percurrently, are integrated, terminal, paler than the conidiophores, monophialidic, and have only one conidiogenous locus. The conidia are hyaline, smooth, aseptate, and form slimy heads (Réblová & Nekvindová 2023). Phylogenetically, *Geniculosea* formed a sister clade with *Gongromeriza* (a concatenated data set of ITS, LSU, and *tef1* sequences). The species is saprobic on various decaying woods and woody fruits and has been reported in the European region (Réblová & Nekvindová 2023).

References

- Gams W, Holubová-Jechová V. 1976 – *Chloridium* and some other dematiaceous hyphomycetes growing on decaying wood. *Studies in Mycology* 13, 1–99.
- Réblová M, Nekvindová J. 2023 – New genera and species with chloridium-like morphotype in the *Chaetosphaeriales* and *Vermiculariopsiellales*. *Studies in Mycology* 106, 199–258.

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Published online 29 May 2024