

Outlineoffungi.org - Note 1017 *Pleostigmataceae*

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Pleostigmataceae Grube, Muggia, de Hoog, in Muggia et al., Mycological Progress 20: 916 (2021)

Pleostigmataceae is an ascomycetous taxon belonging to the family *incertae sedis* in sub-class *Chaetothyriomycetidae* (within *Eurotiomycetes*). *Pleostigmataceae* formed a sister clade to *Verrucariales* and is related to *Chaetothyriales* but lacks statistical support, thus the monophyletic family was introduced to support the placement of the lineage within the *Chaetothyriales-Verrucariales* clade ([Muggia et al. 2021](#)). The generic type, *Pleostigma* Kirschst was assigned to *Dothideomycetes* based on morphological characters. Based on molecular data of five gene loci (rDNA SSU, rDNA LSU, *rpb2*, mitochondrial rDNA SSU, and rDNA 5.8S), Stenroos et al. ([2010](#)) revised the placement to *Eurotiomycetes* ([Gueidan et al. 2014](#), [Chen et al. 2015](#), [Ekanayaka et al. 2019](#)). The family is recognised as rock-inhabiting black fungi that grow asymptotically with epilithic or crust-forming lichens or bryophytes in alpine habitats. *Pleostigma jungermannicola* (C. Massal.) Kirschst. is recognized as the type species with the strains M174 as representative sequences of *Pleostigma* by Stenroos et al. ([2010](#)), Gueidan et al. ([2014](#)) and Ekanayaka et al. ([2019](#)). Addition specimens are needed to confirm the morphology of *P. jungermannicola* with the characters described in the protologue (Kirschstein 1939). Subsequently, rock-inhabiting isolates of *Pleostigma* (*P. jungermannicola*, *P. alpinum*, *P. frigidum*, and *P. lichenophilum*) formed a separate lineage of *Pleostigmataceae*. In addition, six unidentified rock isolates of endolichenic fungi and *Chaetothyriales* TRN242 and A14 also clustered within the family but without strong support ([Muggia et al. 2021](#)). The lineage of *Pleostigmataceae* is phylogenetically not supported, therefore further studies are needed to confirm its placement.

References

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