

Outlineoffungi.org – Note 1567 *Cryoendolithus*

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Cryoendolithus Piątek, Stryjak-Bogacka & Czachura

The genus *Cryoendolithus* residing in the *Cladosporiaceae* (*Cladosporiales*, *Dothideomycetes*, *Ascomycota*) was described by Piątek et al. (2023) to accommodate four endolithic and psychrophilic species known from extreme environments of Antarctica and the Alps and originally classified in *Rachicladosporium* Crous, U. Braun & C.F. Hill. The type species is *C. mcmurdoi* (Selbmann & Onofri) Piątek, Stryjak-Bogacka & Czachura (syn. *R. mcmurdoi* Selbmann & Onofri) and three other species are *C. antarcticus* (Egidi & Onofri) Piątek, Stryjak-Bogacka & Czachura (syn. *R. antarcticum* Egidi & Onofri), *C. aridus* (Selbmann & Coleine) Piątek, Stryjak-Bogacka & Czachura (syn. *R. aridum* Selbmann & Coleine) and *C. monterosanus* (Isola & Zucconi) Piątek, Stryjak-Bogacka & Czachura (syn. *R. monterosanum* Isola & Zucconi). The genus is characterized by forming only hyphae or hyphae and arthroconidia. Hyphae are subhyaline, pale brown or dark brown, branched, usually torulose, rarely cylindrical. Arthroconidia are dark brown, ellipsoidal, 0–1-septate (Piątek et al. 2023). The genus is mostly delimited by phylogenetic analyses of concatenated ITS, LSU and *rpb2* sequences, which showed that its members form a distinct, sister lineage to representatives of *Rachicladosporium* (Piątek et al. 2023). *Rachicladosporium* species are mainly plant associates rarely also known from insects and rocks. *Cryoendolithus* differs from *Rachicladosporium* s. str. in that its members are unable to grow at 25 °C (Piątek et al. 2023), reflecting the adaptation of *Cryoendolithus* species to harsh and cold environments.

Reference

[Piątek M, Stryjak-Bogacka M, Czachura P, Owczarek-Kościelniak M. 2023 – The genus *Rachicladosporium*: introducing new species from sooty mould communities and excluding cold adapted species. Scientific Reports 13, 22795.](#)

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