

Outlineoffungi.org - Note 1250 *Clathrosphaerina*

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Clathrosphaerina Beverw.

Notes: *Clathrosphaerina* is an aeroaquatic fungus with distinctive clathrate, hollow conidia. Based on an ITS phylogeny including the ex-type culture of the type species *Clathrosphaerina zalewskii* (GenBank NR_159766, culture CBS 162.49) and the morphologically typical specimen ICMP 15322 (GenBank EF029222), *Clathrosphaerina* forms, along with the illegitimate *Psychrophila antarctica* (GenBank JZ001640, ex-type specimen) and the other *Psychrophila* species, a monophyletic clade sister to *Arachnopezizaceae* (Johnston et al. 2019, unpubl. data). A multigene analysis places *Psychrophila* in *Arachnopezizaceae*, although on a long branch and with low gene coverage (Johnston 2022). The sexual state of *Clathrosphaerina zalewskii* is described as lacking the subiculum characteristic of *Arachnopezizaceae* (Descals & Webster 1976, as *Hyaloscypha zalewskii*) and there are no reports of an aeroaquatic lifestyle or morphology amongst *Arachnopezizaceae*. With a lack of morphological support for a relationship with *Arachnopezizaceae* and less than ideal molecular data for *Clathrosphaerina* and *Psychrophila*, for now we leave them incertae sedis in *Helotiales*.

References

- Descals E, Webster J. 1976 – *Hyaloscypha*: perfect state of *Clathrosphaerina zalewskii*. Transactions of the British Mycological Society 67, 525–528.
- Johnston PR. 2022 – *Leotiomyces* phylogeny updated. Manaaki Whenua – Landcare Research Datastore. <https://doi.org/10.7931/gx9a-c781>
- Johnston PR, Quijada L, Smith CA, Baral HO, et al. 2019 – A multigene phylogeny toward a new phylogenetic classification for the *Leotiomyces*. IMA Fungus 10, 1.

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