

Outlineoffungi.org - Note 1094 *Psychromyces*

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Psychromyces L. Perini & Zalar

Perini et al. (2021) based on SSU, LSU, 5.8S rDNA, TEF, CYTB, RPB1 and RPB2 sequence data introduced this genus in *Microbotryomycetes* to accommodate a dimorphic taxon isolated from the subglacial ice in Norway and Greenland. The only and type species is *Psychromyces glacialis* L. Perini & Zalar. This is a monotypic genus, isolated as a yeast. However, only a single strain retained its ability to grow as a yeast after 2 years of preservation at -80° C, while other strains were revived as purely filamentous. Globose to subglobose teliospores were observed in young cultures some containing oil droplets. Budding is uni-bi-or multilateral occurring solitarily on the mother cell directly or on sympodially proliferating long stalks. Daughter yeast cells are formed on terminal or lateral sympodially proliferating stalks. Some yeast cells formed pseudomycelium-like structures. The presence of hyphae, with and without clamps, was observed. The clamped mycelium was wider than the ones without clamps. This genus can assimilate Tween 80, indicating lipolytic ability. Phylogenetically *Psychromyces* is closer to *Camptobasidium*, *Glaciozyma*, and *Cryolevonia*. Sexual reproduction in the form of germinating basidia from teliospores. Sequence data for SSU, *cytb*, *tef*, and *rpb2* are also available for this genus.

References

Perini L, Andrejašič K, Gostinčar C, Gunde-Cimerman N et al. 2021 – Greenland and Svalbard glaciers host unknown basidiomycetes: the yeast *Camptobasidium arcticum* sp. nov. and the dimorphic *Psychromyces glacialis* gen. and sp. nov. *International Journal of Systematic and Evolutionary Microbiology* 71 (2). <https://doi.org/10.1099/ijsem.0.004655>

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