

## Diversity of microfungi in ornithogenic soils from Beaufort Island, continental Antarctic

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### Abstract

This paper presents the results of a biodiversity study of microfungi in ornithogenic soils from Beaufort Island (Ross Sea, continental Antarctic). During the 2004/05 austral summer, we sampled a wide range of soil habitats from an abandoned penguin rookeries to examine the biodiversity of soil microfungi. Beaufort Island is predominantly ice and snow covered, isolated, difficult to access and known to have been visited only infrequently. Warcup's soil plating method was used for fungal cultivation. A total of ten fungal taxa were isolated, consisting of seven ascomycetes, two anamorphic fungi and one yeast. In terms of their thermal classes, a total of four psychrophilic, five psychrotolerant and 1 mesophilic fungi were isolated. *Thelebolus microsporus*, *Geomyces* sp. and *Thelebolus* sp. were the most common isolated fungi. Internal Transcribed Spacer (ITS) and 18S rDNA sequences were obtained from 17 fungal isolates, confirming their identification as *Thelebolus microsporus*, *Thelebolus* sp., *Phoma herbarum* and *Geomyces* sp.

**Key words:** Antarctica, soil fungi, biodiversity, ornithogenic

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