

## MSc thesis topics



### Colonization of the moraines of the Aletsch Glacier: soil mesofauna and testate amoebae (2 related projects)

**Context:** Global warming is causing a rapid retreat of glaciers worldwide. The Aletsch Glacier is the largest glacier in Switzerland and thanks to the work of early botanists the primary succession on recently exposed terrain has been well documented. Permanent plots are available to study the changes in ecosystem structure and function. Most of this work however has focused on vegetation dynamics (Lüdi, 1945, Paternoster, 1984, Richard, 1973, Richard, 1987) and to a lesser extent on soil characteristics. Less is known about soil invertebrates (Coulson *et al.*, 2003, Kaufmann, 2001) and microorganisms, including protists (Carlson *et al.*, 2010, Bernasconi *et al.*, 2011) and even fewer studies have included both vegetation and soil organisms.

**Goals:** In this project we will combine analyses of vegetation, soils (both done in a separate MSc thesis) to analyses of soil mesofauna (berlese extractions of soil cores) and testate amoebae (microscopy analyses).

**Requirements:** Interest for soil biology and biodiversity, ecological processes and alpine ecosystems

**Collaborations:** Pascal Vittoz (see other project on Aletsch)

**Keywords:** testate amoebae, mesofauna, climate change, primary succession.

**Workplace:** University of Neuchâtel, Lab. of soil biodiversity.

**Contact:** Prof. Edward Mitchell

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