



MSc Project

Understanding meta-ecosystem dynamics using protist microcosm experiments

We are looking for an enthusiastic MSc student who will be studying meta-ecosystem dynamics using protist communities as a study system. The project involves experimental work conducted in a laboratory setting using protist microcosms. The project is part of a larger research program (the MetaPerspect project based in the Altermatt Lab at Eawag, Dübendorf).

A fundamental goal of ecology is to understand the drivers of diversity, productivity and stability of natural ecosystems. Accumulating evidence highlights the role of spatial flows of organisms and non-living resources (nutrients and detritus) in shaping these properties of ecological communities and ecosystems. The meta-ecosystem concept offers a general and unified framework for studying the significance of spatial flows of organisms and/or resources among ecosystems. Meta-ecosystem ecology has progressed rapidly over the past decade, yet many realistic features of natural landscapes have yet to be integrated into this framework. The overall objective of the MetaPerspect project, based in the Altermatt Lab, is to understand how abiotic drivers, such as resource availability, destructive environmental perturbations or the spatial layout of the landscape, affect diversity, productivity, and stability of meta-ecosystems.

In this MSc project you will conduct a lab-based, meta-ecosystem experiment using protist microcosms. Your project will build on previous meta-ecosystem experiments using protist communities as a study system and contribute to the overall objective of the MetaPerspect project. Running the experiment will require setting up numerous replicate microcosms, high frequency monitoring, and analysing the resulting data using statistical approaches.



Requirements: Interest in community and ecosystem ecology and in developing laboratory skills, English language skills, and some prior statistical knowledge. The MSc project can start at any time.

Contact/Supervision:

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We look forward to meeting you! More info: www.altermattlab.ch