



## ***MSc Project***

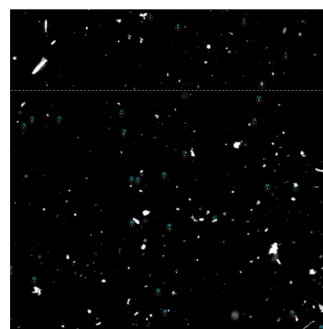
### **Does the community matter? Species responses to environmental change in a community context.**

We are looking for an enthusiastic MSc student who will be working on species responses (cell size, population growth and total biomass) to environmental stressors such as salinity. The project involves extensive laboratory work using microcosm experiments and is part of a larger research program (based at Eawag, Dübendorf).

Today, species experience strong selection pressures caused by anthropogenic-induced changes such as industrialization or intensified agriculture. It is well-known that species can respond to these changes via phenotypic plasticity (environmental response) and/or genetic trait change. However, in natural systems, species do not occur alone, and the environmental change experienced acts on all species simultaneously. Less well understood is how interspecific interactions alter species plastic and genetic response to environmental change.

In this MSc project, you would develop a microcosm experiment to obtain an understanding if and how species respond to salinity, if this effect varies among different species and how it depends on the presence of other species. You will quantify the contributions of plasticity and genetic trait change by using a selection experiment followed by a common garden set-up. We expect that different species will vary in their response via phenotypic plasticity as compared to genetic trait change, and that this response may strongly depend on the other community.

Requirements: Interest in ecology and evolutionary biology, and willing to perform laboratory microcosm experiments with protist species using well-equipped facilities to perform video analysis. English language skills are required. The MSc project can start any time.



#### **Contact/Supervision:**

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More info: [www.altermattlab.ch](http://www.altermattlab.ch)

We are looking forward to meeting you!