

## Eawag Seminar Invitation

# How Does Intraspecific Variation Influence Persistence and Coexistence of Populations?

Speaker **Prof. David Vasseur**

*Department of Ecology and Evolutionary Biology, Yale University, USA*

When **October 11, 11.00 – 12.00 a.m.**

Where **Forum Chriesbach, room C20, Eawag Dübendorf**

Abstract Although intraspecific variation is central to the study of evolution, its role in the ecology of populations has been relatively understudied. The vast majority of theory which guides our intuition on the structure and functioning of communities assumes that populations are homogeneous concerning their interactions with other species and with the environment. Perhaps fueled by our desire to better explain the maintenance of species diversity, there has been a recent surge in theory and experiments devoted to explaining the impact of intraspecific variation on community-level patterns. While it seems plausible that intraspecific variation may enhance the conditions for species coexistence, few studies have supported this finding. In this talk, I will demonstrate the ecological impact of intraspecific variation on coexistence using two commonly used equilibrium models of competition. I will then extend this framework to models where individuals vary in their response to temperature and discuss both the ecological and evolutionary impacts this variation has on population persistence.