

Eawag Seminar Invitation

Synthesizing Ecological Theory and Data to Understand Global Change

Speaker **Prof. Mary O'Connor**
University of British Columbia, Vancouver, Canada

When **October 20, 11.00 – 12.00 a.m.**

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

Abstract Climate change and human activities influence spatial patterns of biodiversity, thermal regimes and resource environments in nearly all habitats. We observe and understand these changes locally, through careful study of organisms and their ecology, and also by synthesizing observations across many datasets, locations and forms of knowledge. I will present work I have done to address major questions in ecology through synthesis research – How is biodiversity changing? Are there general consequences of biodiversity change for ecosystem functioning? With biogeographic evidence for universal temperature dependence of metabolic rates, does biodiversity modify effects of warming on communities and ecosystems? The process of synthesis research often not only yields new insights, but highlights research gaps, and I will give examples of such gaps in biodiversity and climate change ecological research. The talk aims to open a conversation with the Eawag community both about my research interests, and also about the opportunities, advantages and limitations of synthesis research for addressing grand challenges.