

Eawag Seminar Invitation

The theory approach in ecology: the case of competitive interactions along environmental gradients

Speaker **Dr. David Alonso**

Center for Advanced Studies of Blanes, CEAB/CSIC, Spain

When **October 26, 11.00 – 12.00 a.m.**

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

Abstract A long-standing goal of ecology is to unveil the processes explaining the spatio-temporal distribution of species on planet Earth. Species are responsible for maintaining ecosystem function, which, in turn, supports human societies. Human-induced global change is responsible for biodiversity losses and ecosystem degradation of unprecedented dimensions. Predicting future scenarios to anticipate adaptation and design sustainable societies is an urgent need. However, ecological systems are tremendously complex. Little is known about the scales and conditions at which biotic interactions matter and how these interact with environmental variation to determine species assemblages. In this talk, I will present some examples of the use of theory to analyze ecological communities and species trait data along environmental gradients. I will show how theory can be used to generate predictions about local distributions of species trait values. These predictions can then be used to unveil the footprint of competition on data of local communities across a region.