

Bayceer

Bayreuther Zentrum für Ökologie und Umweltforschung

Bayceer

Do. / Thu. 17 st Gebäude / Building GEO Hörsaal / Lect. hall H6 Wintersemester / Winter Term 2012-2013

## **BayCEER Kolloquium**

Vortragsreihe Ökologie und Umweltforschung Lectures in Ecology and Environmental Research

## Donnerstag 31.01.2013, 17:00 Uhr, H6

Anschließend Postkolloquium mit Bier und Brezeln im Foyer H6

## PD Dr. Andreas Stampfli

Plant Sciences, University of Bern, Switzerland

## **Invasibility of Swiss Grasslands**

Die Vortragsreihe ist eine interdisziplinäre Plattform zur Information und Diskussion für Studierende, Forschende und Lehrende

> Gäste sind herzlich willkommen

The lectures serve as an interdisciplinary platform for students, junior and senior scientists.

> Guests are cordially invited!

Ecological processes resulting from global change, such as more frequent extreme summer drought or increased propagule pressure of exotic species, often affect plant communities gradually at time scales of years or decades and may therefore not often be distinctly recognized. The effects of such processes are largely unknown.

Over the last decade sowing experiments have found reliable evidence for seed-availability related effects on the local occurrence of species, the size of populations and the richness and productivity of communities. This implies that processes influencing the production and dispersal of seeds are important for the functioning of ecosystems. However, most of these experiments have applied seed additions at one single level of density. With such an approach, the degree of seed limitation cannot be quantified. Yet, the natural seed rain as also the production of seeds have not been measured in the context of seed-addition studies and we still lack the information on how many species and/or individuals may be added to a saturation of the community and how many propagules are needed to reach species saturation of the community. So far, we suspect that speciesrich meadows that show a high seedling turnover are potentially susceptible to invasion.

A new multi-factorial seed-addition experiment will investigate the effects of productivity, summer drought, origin of species, and propagule pressure. The experiment covering a wide productivity gradient of meadows in different Swiss regions. The knowledge gained from this experiment will be used to predict grassland invasibility and help to adapt the management of Swiss meadows to climate change.