

Wintersemester 2010/2011

Gebäude GEO I
Hörsaal H6

BayCEER Kolloquium

Vortragsreihe Ökologie und Umweltforschung

Donnerstag 03.02.2011, 15:00 bis 16:00 Uhr, H6

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The importance of winter climate change on ecological processes

Winter ecological processes are important drivers of ecosystem functioning ecosystems. Winter conditions are subject to rapid climate change. The potential loss of a longer-lasting snow cover with implications to other ecologically important climate parameters makes the temperate zone particularly vulnerable to winter climate change. Trends in the occurrence of soil frost and snow cover based on climate data series of 150 German Weather Service stations and regional statistical climate modelling approaches are presented. Examples from own experiments indicate the strong and lasting effects of winter warming pulses on species composition, productivity and nutrient availability. Root injury and mycorrhizal community composition (ITS-sequencing) have been tested as causal drivers of the observed effects. A formalized literature search in the ISI-Web of Science finally shows that research on the effects of winter climate change is generally underrepresented. Temperate regions in particular are rarely studied in this respect, although the few existing studies imply strong effects of winter climate change on species ranges, species compositions, phenology, or frost injury. I conclude by discussing gaps in current knowledge such as the understanding of the relative effects of interacting climate parameters, as well as a stronger consideration of shortterm events and variability of climatic conditions.

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

Gäste sind herzlich willkommen