

Bayreuther Zentrum für Ökologie und Umweltforschung

Sommersemester 2011

Gebäude GEO I Hörsaal H6

BayCEER Kolloquium

Vortragsreihe Ökologie und Umweltforschung

Donnerstag 19.05.2011, 16:15 Uhr, H6 Anschließend Postkolloquium mit Bier und Brezeln im Foyer H6

Dr. Andreas Schindlbacher

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Experimental assessment of climate change effects on soil C - lessons from a manipulation experiment in Achenkirch, Austria

Forest soils store huge amounts of carbon (C) which likely are affected by climate change. Global warming is considered to increase the decomposition of soil organic matter (SOC) and thereby to release soil C to the atmosphere. The magnitude of the warming effect is however unclear as different SOC compounds respond differently to warming. Beside global warming, precipitation is considered to change in amount and frequency. Changes in precipitation will vary locally and are difficult to predict. Nevertheless, downscaling from global precipitation models predicts decreasing precipitation during summer and increasing precipitation during spring and fall for our study region in Western Austria (Achenkirch/Tyrol). To assess the interaction of warmer temperatures and changed precipitation on forest soil C, we conduct a combined soil warming and throughfall reduction experiment in a mature spruce forest. Soil is warmed since 2004 and temporary roofs were applied in 2008 and 2009. My presentation will provide an overview of preliminary results. Advantages and limitations of in-situ manipulation experiments will be highlighted. A discussion about, how manipulation experiments could be improved, would be welcomed.

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

> Gäste sind herzlich willkommen

