

Wintersemester / Winter Term 2014/15

BayCEER Kolloquium

Vortragsreihe Ökologie und Umweltforschung
*Lecture series in Ecology and Environmental Research***Donnerstag 23. 10. 2014, 12:00 Uhr, H6**

Anschließend Postkolloquium mit Mittagsimbiss im Foyer H6

Dr. Christian Mikutta

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Arsenic Speciation and Dynamics in Wetlands

Wetland systems like peatlands, swamps, and marshes cover more than six percent of the Earth's ice-free land area and are often enriched in trace elements such as arsenic (As). This pervasive toxin frequently reaches concentrations of environmental concern owing to historic or present mining, natural sulfide mineral weathering, or its use in agriculture. Since the mobility, bioavailability, and toxicity of As depends on its chemical form, speciation analyses are of prime importance to judge the environmental risk associated with As and to explore major controls of As cycling in wetlands.

This talk will summarize recent advances in the solid-phase speciation of As in wetlands using synchrotron-based techniques. It will focus on the speciation and distribution of As in minerotrophic and ombrotrophic peat soils, strongly As-contaminated floodplain soils, and suspended Fe-rich organic flocs of As-impacted wetland streams. Specific attention will be given to the mechanisms and controls of As binding to natural organic matter, the mineralogy and bioaccessibility of As in contaminated wetlands, and potential management strategies for As-rich wetlands.

Do. / Thu. 12 st
Gebäude/Building
GEO
Hörsaal/Lecture hall
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Diskussion für
Studierende,
Forschende und
LehrendeGäste
sind herzlich
willkommen*The lecture series
serves as an
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students, junior
and senior
scientists.**Guests
are cordially
invited!*