

Wintersemester 2010/2011

Gebäude GEO I
Hörsaal H6

BayCEER Kolloquium

Vortragsreihe Ökologie und Umweltforschung

Donnerstag 25.11.2010, 15:45 Uhr, H6

Anschließend Postkolloquium mit Bier und Brezeln im Foyer H6

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Sulfate-reducing microorganisms in low-sulfate peatlands: overlooked key players in the intertwined biogeochemical cycles of peat soils?

Methane emission from peatlands contributes substantially to global warming but is significantly reduced by sulfate reduction, which is mainly fuelled by globally increasing aerial sulfur pollution and apparently by an anoxic sulfur cycle in peatlands. However, the biology behind sulfate reduction in peatlands is not well understood. Comparative stable isotope probing in the presence and absence of sulfate revealed that a *Desulfosporosinus* species, which constitutes only 0.006% of the total microbial community, is a major sulfate reducer in the long-term experimental field site Schlöppnerbrunnen II. These results indicate that rare biosphere members can contribute significantly to biogeochemical cycles despite their low abundance.

Our results provide first insights into the ecology of sulfate reducing microorganisms in low-sulfate peatlands – a habitat that is considered a major unknown concerning its carbon storage/release-function in the upcoming climate change.

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

Gäste sind herzlich willkommen