UNIVERSITÄT BAYREUTH

Bayceer
Bayreuther Zentrum für Ökologie und Umweltforschung

Wintersemester / *Winter Term 2013/14*

Do. /*Thu. 17 st*
Gebäude/*Building*
GEO
Hörsaal/*Lecture hall*
H6

BayCEER Kolloquium

Vortragsreihe Ökologie und Umweltforschung
Lecture series in Ecology and Environmental Research

Donnerstag 7.11.2013, 17:00 Uhr, H6

Anschließend Postkolloquium mit Bier und Brezen im Foyer H6

PD Dr. Jürgen Dengler

Disturbance Ecology, UBT
& Synthesis Centre (sDiv), German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig

Scale dependency of biodiversity - how patterns and drivers change with spatial grain size

The fact that species richness, on average, increases with the scale of observation (grain size) is a fundamental law of ecology and biogeography. Still there is much dispute about how different factors contribute to shaping such species-area relationships (SARs) and which mathematical models are best suited for their description. Scale dependency, however, means more than just SARs. While ecologists often assume “universality” of diversity gradients along, for example, latitudinal and longitudinal gradients, as well as uniform underlying drivers, there might actually be a change in biodiversity patterns as well as in the role of different environmental factors that shape them when looking at different spatial grains.

In my talk, I will briefly introduce the idea of scale dependency in ecology and its manifestation in SARs and other phenomena. For a better understanding studies that combine analyses at different spatial grain sizes are important, particularly if they cover larger spatial extents. One particularly prominent manifestation of the scale dependency is the fact that global maxima of vascular plant species richness for grain sizes from 100 m² upwards are (expectedly) found in Neotropical rainforests, while at smaller grain sizes (probably unexpected for many) European semi-dry basiphilous grasslands are the global record holders, far above rainforests or any other habitat type studied so far. Starting from this, I will explore scale dependency in patterns and causes of biodiversity, using examples mostly from European grasslands and from Southern African drylands.

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

Gäste sind herzlich willkommen

The lecture series serves as an inter-disciplinary platform for students, junior and senior scientists.

Guests are cordially invited!

Kurzfassungen und weitere Infos / *Abstracts and further information*:
www.bayceer.uni-bayreuth.de/kolloquium/

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