

Das Department Biozönoseforschung des UFZ
lädt zu seiner Seminarreihe herzlich ein.

Veranstaltungsort:

Helmholtz-Zentrum für Umweltforschung GmbH – UFZ
Theodor-Lieser-Str. 4, 06120 Halle (Saale)
Vortragssaal im Erdgeschoss

June 18, 2018, 02:00 pm

**Arunava Datta (Department of Community Ecology, Helmholtz-Centre for
Environmental Research - UFZ):**

*Analysing plant invasions across multiple scales using *Ageratina adenophora* as
a case study*

Abstract

Biological invasions across multiple continents can be compared to unplanned large-scale transplant experiments and thus can provide a unique window of opportunity to study many fundamental processes and patterns in ecology. The invasive spread of the Asteraceae *Ageratina adenophora* (Crofton weed) is of global concern, as it has been recognized as a noxious invasive plant species in numerous countries across the globe. Native to Mexico, this apomictic, triploid plant is highly invasive in moist subtropical and sub-temperate montane regions. Using *Ageratina adenophora* as a model species and employing a suite of experimental and macroecological methods at different spatial scales, I have attempted to answer several questions of evolutionary and ecological significance in this thesis.

The 1st part of the presentation is based on a reciprocal transplant experiment carried out along an elevational gradient in western Himalayas. Through this experiment I have tried to investigate any evidence of rapid evolutionary changes such as local adaptation and clinal differentiation during the process of naturalization. Additionally, I have attempted to understand the crucial role of different lifecycle stages in shaping the distribution pattern along elevational gradient. In the 2nd part of the presentation, I asked whether the native climatic niche of *Ageratina adenophora* has shifted in any of the other four invasive ranges across the globe (the USA, the Canary Islands, Asia, and Australia) despite evolutionary limitations due to apomictic (asexual) mode of reproduction.

Aktuelle Informationen zur Seminarreihe unter:

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