UNIVERSIDAD DE GRANADA

Departamento de
Botánica

Visita de investigación y conferencia de Prof. Dr. Anke Jentsch

12/03/2026

Durante la semana del 16 al 21 de marzo nos visitará la profesora **Dr. Anke Jentsch** (Department of Disturbance Ecology and Vegetation Dynamics, **University of Bayreuth, Germany**).

El jueves **19 de marzo a las 16:30 h, en el aula A14** de la Facultad de Ciencias (Universidad de Granada), impartirá la conferencia: "**Biodiversity research in the tree canopies of tropical forests**".

Resumen:

Up in the tree – Expeditions into the canopy for functional biodiversity research in tropical forests: From coastal dry forests to mountain cloud forests into lowland rainforests. Dr. Anke Jentsch & the BESTROPS consortium (Spain, Peru, Brazil).

A botanist reports on her research expeditions to the Amazon region with a wealth of images. Accompanied by biologists and tree climbers in a small international team, the aim is to collect new data on previously unexplored relationships between species richness and functional diversity along the El Niño gradient in Peruvian, Brazilian and Costa Rican forest regions.

First findings reveal functional reassembly of tree communities from tropical drylands to rainforests: Ecotones along strong climatic gradients provide key insights into how plant communities reorganize in response to environmental constraints. However, the trait-based mechanisms underlying these transitions remain poorly understood, especially across tropical dryland forests, via Andean rainforests to flooded
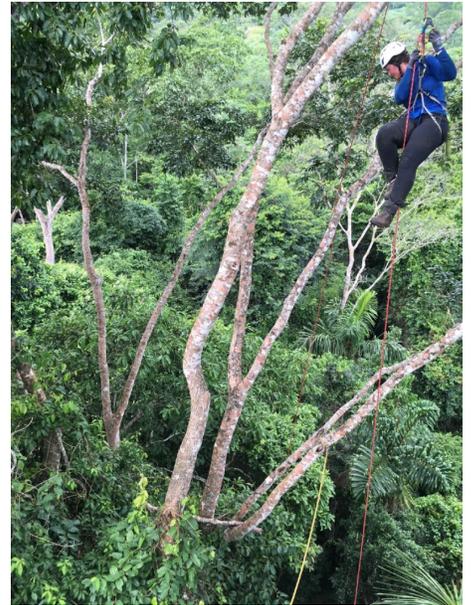
amazonian lowland rainforest. Here, we first characterize the distribution of tree functional traits across 5° South in Western Amazonia (from Marañon valley across Peru into Brazil), we then evaluate how these functional patterns are shaped by a longitudinal precipitation gradient partly subject to ENSO anomalies. We integrated species abundance data from the Peruvian National Forest Inventory with original field measurements of leaf, stem, and root traits for the 133 most dominant tree species to calculate Community Weighted Means. Our analysis reveals a profound functional reorganization across ecozones: arid communities are characterized by a conservative syndrome (high wood and root tissue density), while humid communities shift toward a size driven acquisitive strategy (high specific leaf area). Crucially, we demonstrate that precipitation acts as a deterministic axis that not only shifts trait means but fundamentally rewires functional trade-offs. In dryland communities, wood density and specific leaf area are negatively correlated, reflecting coordinated structural toughness; however, as precipitation increases, this relationship decouples or flips. These findings highlight that precipitation thresholds govern the "rules" of functional community assembly, with significant implications for predicting forest resilience to shifting rainfall regimes.

Website: http://www.disturbance.uni-bayreuth.de

Más información sobre **Anke Jentsch**: Scopus ID: 6602883636