

BayCEER Kolloquium

Lectures in Ecology and
Environmental Research

Summer 2024



UNIVERSITÄT
BAYREUTH

Thursday

04.07.2024

12:15 in H6, GEO



Dr. Tyson Terry

Disturbance Ecology, BayCEER, University of Bayreuth

How large-scale atmospheric trends affect resource availability for plants at small scales

Resource availability and use are thought to drive global vegetation patterns both temporally and spatially. Current changes in climate are modifying resource pools and abiotic environment leading to novel plant-soil interactions and patterns of plant productivity. In the first part of this talk, I will present results from a downslope translocation experiment that shows how a warmer and drier climate modifies the link between plant and microbial communities. Our findings indicate that soil microbial communities play a large role in plant response to moderate environmental change, but that high intensity change can decouple the relationships between plants, microbes, and soil nutrient pools.

In the second portion of my talk, I will show how changes in intra-annual precipitation patterns can influence productivity and resource availability in grasslands. Specifically, our findings show that the effect size and direction of more intense (bigger precipitation events with less frequency) intra-annual precipitation depends upon the total amount of precipitation and the degree of nutrient limitation. This work shows the utility of a novel precipitation variability metric that allows us to monitor temporal patterns of precipitation independent of precipitation amount.

