

THE DEPT OF FORESTRY & NATURAL RESOURCES PRESENTS

SPRING 2025 SEMINAR SERIES

MONDAY, FEBRUARY 24, 2025
WSLR 116 3:30 PM - 4:30 PM

JOIN US FOR A LECTURE AND CONVERSATION WITH

DR. KAI ZHU

Plant Biodiversity Responses to Climate Change: Contrasting Implications from Forests & Grasslands

Plants play a crucial role in the Earth's carbon cycle and are vital to mitigating and adapting to climate change. Here, I discuss two studies examining how plant biodiversity responds to climate change. The first study analyzed forest inventory data across the eastern US and found little evidence of climate-mediated tree migration. The study quantified the differences between seedlings' and adult trees' extreme latitudes of a hundred species and suggested that most species did not migrate to higher latitudes, despite model predictions that they would shift their ranges due to climate warming. The failure to migrate raised concerns about future climate change risks because of delayed responses in the distribution of long-lived trees. In contrast, the second study focused on grasslands in the California Floristic Province and revealed a rapid response to climate change. With climate niche estimates of hundreds of species from nearly one million occurrence records, the results showed significant shifts towards species associated with warmer, drier locations, keeping pace with climate warming and drying. This finding was consistent across various observational sites and global change experiments, implying that climate change clearly and rapidly impacts the distribution of short-lived grasses.



Dr. Zhu is an Associate Professor in the school for Environment and Sustainability at the University of Michigan. Dr. Zhu's research interests revolve around global change biology, ecological modeling, and environmental data science.

This series aims to stimulate discussion and create opportunities for collaborations. Everyone is welcome to attend.

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IF YOU ARE INTERESTED IN MEETING WITH KAI PLEASE CONTACT
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