



QUANTITATIVE AND SYSTEMS BIOLOGY COLLOQUIUM:

Responses of species and ecosystems to rapid environmental change, at local to global scales: Advancing science, building community data systems



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About the Speaker:

Dr. Jack Williams is Professor of the Department of Geography at the University of Wisconsin-Madison and a core faculty member of the Center for Climatic Research. Research themes include novel climates and ecosystems, the causes and consequences of past species extinctions, the capacity of species to respond to abrupt climate change, and the last deglaciation as a model system for understanding 21st-century climate change. Dr. Williams has over 150 published papers and is a Fellow of the Ecological Society of America. More information can be found at <https://williamspaleolab.github.io/>



Abstract:

Our society is confronting climate changes unlike any experienced by human society: how can we best adapt, and help species adapt? Earth's climate and ecological history, with its many past warm states, abrupt changes, and novel climates, offers insights into how species and ecosystems respond to climate change. The end of the last glacial period, with its 6°C global warming, is a particularly useful model system for studying climate-driven shifts in species distributions and abundances. Here I'll focus on three projects, linked by a focus on climate-driven rapid shifts in tree abundances, ranging from new field sites and local scales (northern Indiana) to regional scales (shifts in vegetation ecotones in Michigan) to global (global rates of vegetation change). In the global-scale analyses, I'll also review the Neotoma Paleocology Database, an open, community-curated data resource that serves global change research and education by providing a high-quality source for paleoecological and paleoenvironmental data.

Date:

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Time:

10:30 AM - 11:45 AM

Location:

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