

# iFAST: The International Forum on Advanced Environmental Sciences and Technology

*A series of distinguished seminars by eminent scientists*

**8 a.m. CDT, 9 a.m. EDT, Wednesday, March 25, 2026**

**1 p.m. GMT, 9 p.m. China, Wednesday, March 25, 2026**



**SERITA FREY**

UNIVERSITY OF NEW HAMPSHIRE

<https://colsa.unh.edu/soil-biome>

Serita Frey is a microbial ecologist and professor in the Department of Natural Resources and the Environment at the University of New Hampshire (USA), where she co-directs the Center for Soil Biogeochemistry and Microbial Ecology (Soil BioME). Her research examines how global change drivers—such as climate warming, nitrogen deposition, and invasive species—affect soil microbial communities and biogeochemical cycles in forest ecosystems. Working at the intersection of microbial ecology and ecosystem science, her team integrates -omics, stable isotopes, biogeochemical analyses, and long-term experiments to link microbial community structure and function with ecosystem-scale processes. Her team maintains five long-term global change experiments at the Harvard Experimental Forest (MA, USA). She works with modelers to link across scales from genomes to the globe by incorporating microbial genomic, physiological, community, and ecosystem-scale processes into Earth system models. Dr. Frey is a Fellow of the American Association for the Advancement of Science and the Ecological Society of America.

## **Challenging Assumptions, Leveraging Mistakes, and Overcoming Blind Spots to Advance Science: Lessons from a Soil Ecologist's Journey**

**Abstract** Understanding and reflecting on pioneering work inspires novel ideas and is essential for driving future innovations in science. It is equally important to challenge assumptions, acknowledge and leverage mistakes, and overcome blind spots in one's own work. In this talk I will give several examples from my career where my research group has challenged long-held, unsupported assumptions in the literature and acknowledged and addressed blind spots in our own thinking, leading to new insights.



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