Exploring interactions — from microbes to mountains — to understand how ecosystems will respond to global change

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ABSTRACT: How much carbon will terrestrial ecosystems hold or flux back to the atmosphere in the future? This important question remains uncertain, in part because we don’t know how soil communities will respond to climatic change. Soil organisms mineralize terrestrial carbon and also associate/infect plants to alter plant production and nutrient acquisition. These microbe-plant-soil-atmosphere interactions may vary with geography, season, and global change driver. Classen’s talk will explore how plant and soil communities shape terrestrial carbon processes across scales from the microbe-root interface to mountains around the world.

Dr. Aimée Classen is a global change and ecosystem ecologist and Associate Professor in The Rubenstein School of Environment and Natural Resources at University of Vermont and a Fellow of the Gund Institute for the Environment. Her research explores how ecosystems function and how interactions, both biotic and abiotic, influence patterns and processes within and among ecosystems. Her lab pursues questions across scales from the micro (soil food webs) to the macro (regional carbon fluxes) as well as across diverse terrestrial ecosystems (forests, meadows, bogs, tropics, boreal, temperate). The lab uses a combination of observations, experiments, and models to answer ecological questions.