

# Colloquium in Terrestrial Biogeoscience



Biological diversity and the carbon cycle:  
insights from soil fungal communities

**Wednesday February 4, 2015**  
**3 pm, Stone Science Room 442**

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**Abstract:** Fungi are a megadiverse group of organisms that drive carbon (C) and nutrient cycling through ecosystems through their activity as decomposers, symbionts, and pathogens. Over the last decade, advances in molecular technologies have enabled exploration of the ecological, evolutionary, and biochemical mechanisms that fungi use to control these large-scale processes in situ. This talk will describe key aspects of fungal communities that predict their activity in soils and the unexpected processes by which they do it. I will also describe new efforts to fold this data into theoretical, empirical, and predictive models of how interactions between fungi and soil resources control the exchange of energy and nutrients between the biosphere and the atmosphere.