

## **Speaker to Explore How Land-Use, Land-Cover Changes Affect Soil Carbon Dynamics**

While many international policies assume that reforestation results in carbon sequestration above and below ground, the picture is more complex as multiple factors control the response of soil carbon to land-use and land-cover change, says Erika Marin-Spiotta, a postdoctoral researcher at the University of California Santa Barbara.

Marin-Spiotta will explore those factors in a talk—"Does Tropical Reforestation Lead to Carbon Sequestration?"—to be given Thursday, Feb. 12 at 3 p.m. in 541 Deike.

In an investigation of pasture reforestation in Puerto Rico, Marin-Spiotta discovered that soil carbon dynamics in secondary forests did not reflect the accumulation of carbon in above-ground biomass. Former pasture use, however, did result in long-lasting effects on forest structure and composition and on the dynamics of different soil carbon fractions.

Marin-Spiotta, who will join the department of geography at the University of Wisconsin in fall 2009, currently is investigating hydrologic controls on soil carbon stabilization.

Marin-Spiotta is being hosted by the Earth and Environmental Sciences Institute (EESI), the College of Earth and Mineral Sciences and the Penn State Institutes of Energy and the Environment.