

SES Special Talk

Guest Speaker : Dr. Carla Restrepo

Professor at the College of
Natural Sciences, Biology, UPR, Puerto Rico



**“From sandpiles to real mountains
- Complex dynamics of tropical
mountainscapes mediated by
landslides.”**

Mountains cover roughly twenty five percent of Earth’s terrestrial surface, yet they harbor a disproportionately large number of unique species and human cultures. Mountains also play an important, albeit poorly understood, role in hydroclimatic and biogeochemical cycles that directly or indirectly sustain the livelihood of many people around the world. Among the processes that continuously shape mountains, landsliding stands out because of its severe and long-lasting effects on natural and human-dominated ecosystems. To date, however, we understand little about the contributions of landslides to the dynamics, functioning, and diversity of mountainscapes. Sand piles and avalanches represent a powerful metaphor to understand the dynamics of mountainscapes mediated by landsliding. Yet, pixels in satellite imagery, soils and biota on slopes, and people and livelihoods in rural villages reveal complexities about the functioning and diversity of mountainscapes that go beyond those observed in sand pile models. During this talk, I will bring together three studies aimed at elucidating the contribution of landslides to the functioning and diversity of tropical mountains. Specifically, I will focus on carbon cycling to explore the contribution of landslides to the functioning of mountainscapes. Then, I will focus on symbiotic microorganisms to examine the contribution of landslides to the diversity of these systems. I will conclude the talk with a discussion about the implications of our work for to the resilience of these systems.

Wed. Feb.28th

10:30-11:30

Murray Room 3301

Graham Hall



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