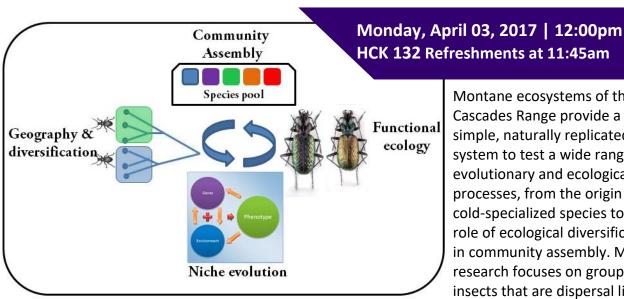
Biology Seminar

By: Dr. Sean Schoville

University of Wisconsin-Madison | Assistant Professor, Department of Entomology http://labs.russell.wisc.edu/molecularecology/sean-schoville/

Evolution and ecology of cold-specialized insects in the Cascades Range



Montane ecosystems of the Cascades Range provide a simple, naturally replicated system to test a wide range of evolutionary and ecological processes, from the origin of

cold-specialized species to the role of ecological diversification in community assembly. My research focuses on groups of insects that are dispersal limited

microhabitat specialists of snowfield and riparian ecosystems. Based on extensive sampling and genetic data, I discuss biogeographic models that explain the origin, current distribution and pattern of endemism in these insects. I then examine the role of ecological niche expansion in species diversification and the processes governing community assembly. Finally, I discuss the importance of cold-specialized insects to understanding global change processes in the Cascades Range, particularly shifting patterns of winter precipitation.