Two Graduate Positions Available in Plant Molecular Evolutionary Ecology

Dr. Erika Hersch-Green’s Lab at Michigan Technological University, Houghton MI

Two graduate positions (1 PhD and 1 MS) are available in my lab at Michigan Technological University to join a multi-year NSF-funded project. Research in my lab seeks to understand the origin, maintenance, and changes of genetic, phenotypic and species diversity patterns and current projects are related to plant genome size evolution and ecology, species interactions (plant-herbivore-pathogen-pollinator-plant interactions), and invasive species biology.

The overall premise of this funded project is to examine whether and how nutrient availabilities, disturbances, and plant genome size together contribute to the structuring of terrestrial biodiversity patterns from the molecular and functional attributes of organisms to multispecies assemblages.

**PhD student** will mainly focus on field-based projects that incorporate phylogenetic modelling approaches to examine how changes in nutrient conditions, disturbance regimes, and species interactions affect functional traits and multispecies biodiversity patterns across sites that vary in multiple environmental factors. Candidate must have a M.S. degree in a related discipline.

**MS student** will mainly focus on plant assemblages that vary in genome sizes to examine how resource availabilities and allocations influence genome, transcriptome, and metabolic properties of plants.

Both students will have the opportunity to work with national and international teaching and research collaborators, be involved in teaching workshops/activities to enhance scientific teaching and communication skills, and be expected to develop complementary research projects.

Candidate must have prior research experience in plant ecology, evolutionary biology, and/or molecular ecology, a good quantitative background (including statistics), and strong writing and computing skills. Other favored skills including experience with flow cytometry, Li-Cor machines, transcriptome sequencing, and/or in community phylogenetic methods.

Funding for these positions are provided (stipend and tuition). **Interested candidates** should contact Dr. Erika Hersch-Green by email (eherschg@mtu.edu) and include an updated CV and a statement of research interest – clearly specifying which position they are applying for in the SUBJECT LINE. **Initial review of applicants will begin March 1st** and preferred candidates will be contacted for references and an interview. I anticipate PhD student starting mid-May to early June (for field centered research) or MS student mid-August (for molecular centered research).

Michigan Tech is located in Houghton, MI on the south shore of Lake Superior. Houghton was recently named one of the 100 best small towns in America and the area is known for its natural beauty, pleasant summers, abundant snowfall, and numerous all-season outdoor activities. The University maintains its downhill and cross-country ski facilities adjacent to campus and a nearby golf course. Numerous cultural activities and opportunities are available on campus and in the community.

**Links for more information:** Michigan Tech Home Page (http://www.mtu.edu); Michigan Tech Graduate School (http://www.mtu.edu/gradschool); Michigan Tech Department of Biological Sciences (http://www.mtu.edu/biological/); Michigan Tech Recreation (http://www.mtu.edu/recreation); Webcams (http://www.mtu.edu/webcams)