

2 PhD student opportunities are available to join Erika Hersch-Green's lab in the Department of Biological Sciences at Michigan Tech in Houghton, MI; starting date is flexible and can be between August 2022, January 2023, or even May 2023 (if anticipating graduating).

Broadly speaking the lab group seeks to better understand both the factors that influence how plants interact with their abiotic and biotic environments and the ecological and evolutionary responses of these interactions. Particular research foci include " climate change biology, genome size/polyploidy, hybridization, invasive species biology and species interactions (fungal antagonists and mutualists, herbivores, pollinators).

Students will work as part of a team of students, scientists, teachers, and video media specialists on research that seeks to examine whether and how nutrient availabilities and/or disturbances affect plants differently based upon their genome sizes and whether this contributes to the structuring of biodiversity patterns from the molecular and functional attributes of organisms to multispecies assemblages. In the summer of 2021, the lab established a long-term experimental field site that is integrated into the globally distributed NutNet/DRAGNet experimental research consortium (<https://nutnet.org/>) " where grassland plots vary in nutrient and disturbance treatments. The successful candidates will be expected to incorporate this local site (and potentially other sites in the network) into a component of their research and potential foci includes examining how plant genome size influences genetic and transcriptome properties, community assembly processes, species interactions, and/or invasive species dynamics following disturbances and/or nutrient enrichments.

Funding (including tuition) is available for support from an NSF grant. Candidates must have prior work experience in a field setting or with molecular/transcriptome work or in measuring photosynthesis with a LiCor, work well independently and as part of a team, be able to take an initiative in one's research, and have a Master's degree in a related discipline to ecology and evolutionary biology; only substantial research experience will be considered in lieu of a Master's degree. All members of the lab group are committed to promoting diversity, equity, and inclusion and the successful candidate will be expected to commit to this approach. Desired qualifications include a good quantitative/statistics background and strong (demonstratable) writing skills. Students will be trained in scientific teaching and communication skills and will have the opportunity to work with G6-12 and undergraduate students. Therefore, we are also looking for a student who is interested in community outreach.

Qualified and interested candidates should email Dr. Erika Hersch-Green (eherschg@mtu.edu) by May 30th to express interest. In this email: include a statement of interest describing what area(s) of research are of interest and why, an updated CV, unofficial transcripts, and preferred start date and why that date. Suitable candidates will then be contacted for phone interview and to review the next steps. Review of applicants will start May 30th but please email if interested but do not know if you could start till a later date.

Michigan Tech is located in Houghton, MI on the south shore of Lake Superior. This 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 about the university and its surrounding area: Michigan Tech Home Page (<http://www.mtu.edu>), Dept. of Biological Sciences (<http://www.mtu.edu/biological/>), Graduate School (<http://www.mtu.edu/gradschool>), Research Centers (<https://www.mtu.edu/research/about/centers->

[institutes/](#)), Recreation/Things to do (<http://www.mtu.edu/recreation>,
<https://www.keweenaw.info/attractions/>, <http://visithoughton.com/attractions-entertainment/>).