

Title: Species establishment in restored prairies.

Mentors: Chad Zirbel (PhD candidate, Michigan State U.) and Dr. Lars Brudvig (Professor, Michigan State U.)

Project description:

This research project focuses on community and restoration ecology in tallgrass prairies. Ecological restoration is a field that seeks to repair ecosystems that have been damaged or destroyed by human activities. Our goal is to understand the determinants of restoration success and, in particular, how plant functional traits, or characteristics, help us predict which species of plants establish and which don't during restoration. This particular project will investigate how the traits of seedlings interface with environmental conditions at particular sites to determine how likely species are to establish during prairie restoration.

This summer we will work in experimental prairies located at KBS and in privately owned restored prairies in southwestern Michigan. We will collect trait data on plant species in these communities. This will include collecting data on seedling herbivory rates, seed predation rates, and leaf nitrogen. This is an opportunity to learn about the flora of Michigan, learn field skills important for plant community ecology, and work within beautiful grasslands throughout southwestern Michigan.

Other Information:

The student will help with field and lab work. This project will take place at MSU's W.K. Kellogg Biological Station (KBS) from May 23 – August 5, 2016 (11 weeks). Students will average ~30 hours of work a week. Field work will consist of long periods of time outside and will occasionally require strenuous physical labor. We look forward to mentoring an undergraduate student this summer. Feel free to e-mail with questions (zirbelch@msu.edu). We also encourage applicants to contact former students who can share their summer experience and answer questions about working with us and living at KBS: Maddy Cleary (clearym1@msu.edu) and Lindsey Kemmerling (kemmerl4@msu.edu).