

**The Friends of Nachusa Grasslands
2014 Scientific Research Project Grant Report
Due June 30, 2015**

Name: Kimberly F. Elsenbroek

2014 grant amount: \$2,800

Please answer the following questions with 1- to 2- sentence summaries:

Research Project Topic: I am assessing the soil microbial diversity of differentially successful prairies and remnant prairies to see if there are differences in community diversity and abundance. In a greenhouse experiment I also tested what types of plant communities the different soil communities support to gain information about belowground restoration contributing to aboveground restoration.

Research Project Purpose: To improve the recruitment of native prairie species at Nachusa Grasslands.

Research Project Outcomes to date: Plant and microbial diversity differ between remnant sites and restored sites.

Describe how the grant funds you have received from the Friends of Nachusa Grasslands have been used in regard to the above topic, purpose, and/or outcomes: Using the funds from Nachusa, I ran DNA analyses on my soil to identify community diversity and abundance across restored and remnant fields.

Describe how your project has benefited the work and goals of Nachusa Grasslands: My project will advance our understanding of what makes a healthy prairie and includes on the ground implementation of techniques to increase recruitment of native species (especially hard to recruit species).

Describe how your findings can be applied to challenges in management practices for restoration effectiveness and species of concern: My findings inform us of belowground patterns that influence aboveground plant success/recruitment. This information will help us to better understand and implement belowground restoration techniques to recruit native species.