Name: Elizabeth Bach
Address: Illinois Natural History Survey, 1816 S. Oak St., Champaign, IL 61820

2015 grant amount: $2200

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

Research Project Topic: I investigated seasonal shifts in soil microbial communities and activities. I sequenced soil fungi and bacteria and measured microbial activity at five key plant growth phases across the 2015 growing season.

Research Project Purpose: Tallgrass prairie restoration has the potential to provide several ecosystem services including soil carbon and nutrient storage. Microbes perform these ecosystem services and in order to accurately quantify the potential for restored soils to store carbon and nutrients, we must understand seasonal fluctuations in microbial activity that lead to net retention of carbon and nutrients.

Research Project Outcomes to date: All field work and laboratory analysis have been completed. Data analysis is in progress and preliminary results will be shared at the Midwest-Great Lakes Chapter of the Society for Ecological Restoration meeting (April 1-3, 2016) and the Ecological Society of America Annual Meeting (Aug. 7-12, 2016).

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: Grant funds enabled me to sequence both fungal and bacterial communities from soil. Without this funding, I could only have sequenced one aspect of the soil community.

Describe how your project has benefited the work and goals of Nachusa Grasslands: My work is generating lists of soil fungi and bacteria in the soil at Nachusa, providing a very detailed description of this previously unknown diversity.

Describe how your findings can be applied to challenges in management practices for restoration effectiveness and species of concern: My work may inform management decisions as it highlights differences in communities and activities, which may be leveraged to improve plant biodiversity.

Please list presentations/posters you have given on your research:

Forthcoming:


**Presented:**


**Have you submitted manuscripts to scientific journals? If so, which ones? If not, do you anticipate doing so? (Please keep us informed on publications.)** Yes, I intend to submit data for publication in the next year. I will keep Friends of Nachusa informed of any publications.