

**The Friends of Nachusa Grasslands
2021 Scientific Research Project Grant Report
Due June 30, 2022**

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2021 grant amount: \$2,000 (but returning \$1,000)

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

Research Project Topic: Long-term ground-dwelling arthropod sampling

Research Project Purpose: To establish and maintain a long-term dataset of ground-dwelling arthropod community changes in response to prairie restoration and management

Research Project Outcomes to date: Multiple papers have been published by our research group using this data set, and more papers are anticipated in the future.

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: I used part of the funds to purchase materials for arthropod sampling including plastic cups and containers, RV antifreeze, plastic forks, plastic bags, pin flags, and ethanol.

Describe how your project has benefited the work and goals of Nachusa Grasslands: Long-term datasets are often hard to come by in ecology, so having a long-term consistent sampling of the Nachusa restored sites will give us greater insight into how communities in restorations change over time and how management affects the development of prairie restorations in the long term.

Describe how your findings can be applied to challenges in management practices for restoration effectiveness and species of concern: Our findings so far can be used by managers to prioritize certain species or groups of organisms and balance the needs of those groups with any potential negative effects on other groups. Ideally, the whole of our research will help the Nachusa managers make decisions about scheduling burns and other management actions.

Please list presentations/posters you have given on your research: Posters, presentations, and papers have been given by a variety of people using the long-term dataset. Most recently, one of my undergraduate mentees gave a poster at MEEC about her evaluation of millipedes and isopods from the long-term dataset, and she wrote her Capstone paper on the same topic.

Have you submitted manuscripts to scientific journals? If so, which ones? If not, do you anticipate doing so? (Please send digital copies of published articles to the Friends so that we can learn from your work.)

Holly Jones recently submitted a manuscript using data from the long-term trapping dataset, and I know more papers are anticipated in the future (but I do not have specific details about those at this time).

What follow-up research work related to this project do you anticipate (if any)?

Optional: Suggestions for improving the application and award process for future Friends of Nachusa Grasslands Scientific Research Grants: Holly Jones and Nick Barber have planned follow-ups to the ReFuGE project as a whole, but I do not have the specific details at this time).