

The Friends of Nachusa Grasslands 2017 Scientific Research Project Grant Report

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2017 grant amount: \$3200.00

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

Research Project Topic: I am quantifying the effects bison reintroduction and other factors may have on grassland bird survivorship, artificial nest survivorship, and species composition. I am also testing whether the diversity of migrant birds flying over Nachusa can be quantified quickly.

Research Project Purpose: The main purpose is to understand and quantify how higher trophic levels are responding to the recent bison reintroduction and prairie management techniques using grassland bird nest success as a proxy. This project will be a part of a multi-institutional research effort that is currently studying how other trophic levels are impacted by these techniques.

Research Project Outcomes to date: I have found that survivorship of both natural and artificial nests are similar to each other and in areas with and without bison, but Brown-headed cowbird parasitism decreased over the last four years within the bison unit. Species composition is trending toward being different in areas with and without bison.

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: The grant funds were used to buy field supplies (flagging, etc.), quail eggs for artificial nests, and travel costs. The majority was used to buy bioacoustic recorders and supplies (batteries, sd cards, zipties etc.) and for some of my travel cost to and from Nachusa.

Describe how your project has benefited the work and goals of Nachusa Grasslands: My project has begun and continues to elucidate how grassland birds use the restored habitat at Nachusa and how management techniques impact their species composition and nest survivorship.

Describe how your findings can be applied to challenges in management practices for restoration effectiveness and species of concern: My findings can be used to give managers an idea of what vegetation composition, burn interval, and how bison reintroduction will impact grassland bird nest survival. This can be used as a benchmark in future restoration projects with management goals that are aimed to help conserve these declining species.

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

Presentations:

Herakovich H*, Jones H. The effects of bison reintroduction on grassland bird nest success in tallgrass prairie. BIOS 457/557 lecture. April 17, 2018.

Herakovich H*, Jones H. The effects of bison reintroduction on grassland nesting birds in tallgrass prairie. American Ornithological Society Conference. April 12, 2017.

Herakovich H*, Jones H. The effects of bison reintroduction on grassland nesting birds in tallgrass prairie. Northwest Illinois Audubon Society Meeting. March 6, 2017.

Herakovich H*, Jones H. The effects of bison reintroduction on grassland bird nest success in tallgrass prairie. Valparaiso University Biology Colloquium. November 27, 201.

Herakovich H*, Jones H. The effects of bison reintroduction on grassland birds in tallgrass prairie. 2017 Nachusa Science Symposium. October 21, 2017.

Herakovich H*, Jones H. Threats to grassland birds and implications for habitat management. 2017 Sand Bluff Bird Observatory's BirdFest. May 14, 2017.

Posters:

Herakovich H*, Jones H. The effects of bison reintroduction on natural and artificial nest success in tallgrass prairie. Poster Presentation at 2018 Phi Sigma Research Symposium. April 7, 2018.

Herakovich H*, Jones H. The effects of bison reintroduction on grassland bird nest success in a tallgrass prairie. Poster Presentation at 2017 Ecological Society of America. August 8, 2017.

Herakovich H*, Jones H. The effects of bison reintroduction on natural and artificial nest success in tallgrass prairie. Poster Presentation at 2017 Phi Sigma Research Symposium. April 8, 2017.

Have you submitted manuscripts to scientific journals? If so, which ones? If not, do you anticipate doing so? (Please keep us informed on publications.) I anticipate submitting two manuscripts by the beginning of fall 2018 and two others later on.

Optional: Offer suggestions for improving the application and award process for future Friends of Nachusa Grasslands Scientific Research Grants: