

**The Friends of Nachusa Grasslands
2015 Scientific Research Project Grant Report
Due June 30, 2016**

Name: Heather Herakovich

2015 grant amount: \$1500.00

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

Research Project Topic: I am quantifying the effects bison reintroduction may have on grassland bird nest density and survivorship. Vegetation, precipitation, restoration age, growing degree day, and burn interval are also being quantified to determine their impact on nest survival.

Research Project Purpose: The 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 density of grassland bird nests are low in remnant prairie, when bison are present, and in plantings that haven't been burned. Survivorship of both natural and artificial nests are similar to each other and 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 artificial nest supplies including batteries, quail eggs, clay, and sd cards. It was also used for most 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 to elucidate how grassland birds use the restored habitat at Nachusa and how management techniques impact their nest density and 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 that are aimed to help conserve these declining species.

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

Herakovich H*, Jones H. Restoring major ecosystem drivers in one of the world's most endangered ecosystems: The effects of bison reintroduction, prescribed fire, and restoration age on declining grassland bird populations in tallgrass prairie. Poster Presentation at 2016 Prairie Enthusiasts Conference. February 20, 2016.

Herakovich H*, Jones H. Restoring major ecosystem drivers in one of the world's most endangered ecosystems: The effects of bison reintroduction, prescribed fire, and restoration age on declining grassland bird populations in tallgrass prairie. Master's Defense. October 16, 2015.

Herakovich H*, Jones H. Restoring major ecosystem drivers in one of the world's most endangered ecosystems: The effects of bison reintroduction, prescribed fire, and restoration age on declining grassland bird populations in tallgrass prairie. Poster Presentation at 2015 Nachusa Science Symposium. October 24, 2015.

Herakovich H*, Jones H. Restoring major ecosystem drivers in one of the world's most endangered ecosystems: The effects of bison reintroduction, prescribed fire, and restoration age on declining grassland bird populations in tallgrass prairie. Poster Presentation at 2015 Natural Areas Conference. November 3, 2015.

Herakovich H*, Jones H. Restoring major ecosystem drivers in one of the world's most endangered ecosystems: The effects of bison reintroduction, prescribed fire, and restoration age on declining grassland bird populations in tallgrass prairie. 2015 Nachusa Science Symposium. October 24, 2015.

Herakovich H*, Jones H. The Effects of Restoration including Bison Reintroductions on Declining Grassland Bird Populations in Tallgrass Prairie. Poster Presentation at 2015 Midwest Ecology and Evolution Conference. March 28, 2015.

Herakovich H*, Jones H. The Effects of Restoration including Bison Reintroductions on Declining Grassland Bird Populations in Tallgrass Prairie. Poster Presentation at 2015 Phi Sigma Research Symposium. April 11, 2015.

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 publishing the results from 2014-2015 in Restoration Ecology within the year.