

Project Summary
Rocky Mountains Cooperative Ecosystem Studies Unit

Task Agreement #:

Project Title: Measure effects of bison grazing on arthropod and small mammal communities in Yellowstone National Park

Discipline: Natural
Type of Project: Technical Assistance/Research
Funding Agency: National Park Service
Other Partners/Cooperators: Montana State University
Student Participation: yes
Effective Dates: June 1 2021 – June 1 2024
Funding Amount: \$57,594

Investigators and Agency Representative:

Agency Contact:

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Project Abstract:

Project goals:

A graduate student external to the NPS will gain by new knowledge acquired through researching how landscape level changes in plant growth patterns and community composition caused by bison grazing affect arthropod and small mammal communities in Yellowstone National Park. The student will disseminate results to the scientific community through writing at least one scientific peer-reviewed article. The NPS receives the indirect benefit of gaining new scientific information about the role and function of bison to inform management policies related to regulating the size and distribution of the bison population.

Project objectives:

The principal investigator (PI) will be responsible for recruiting and hiring one graduate student, mentoring the graduate student, overseeing the project to completion, and directly coordinating with the NPS. The PI will design a field study in coordination with the NPS Collaborator. The NPS will show substantial involvement by implementing all data collection of the field study. The NPS Collaborator will also help mentor the graduate student through regular meetings and participating as a member of the student's graduate committee. The graduate student will prepare one scientific manuscript describing the effects of landscape modification of bison grazing on arthropod and small mammal communities in Yellowstone