

Rocky Mountains Cooperative Ecosystem Studies Unit  
Project Summary

**Project Title:** Effects of bison grazing on migratory animals in Yellowstone

**Discipline:** Natural

**Type of Project:** Research

**Funding Agency:** National Park Service

**Other Partners/Cooperators:** University of Wyoming

**Student Participation:** Yes, doctoral student

**Effective Dates:** Sept 1, 2019 – August 30, 2023

**Funding Amount:** \$79,941

**Investigators and Agency Representative:**

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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 phenology and productivity caused by bison grazing affect other large, migratory grazing animals in Yellowstone National Park. The student will disseminate results to the scientific community through writing two scientific peer-reviewed articles. 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 recipient will recruit and hire one graduate student to collaborate with the Bison Management Team in Yellowstone National Park during January 2020-August 2023. NPS biological technicians will radiocollar bison, elk, mule deer, pronghorn, and bighorn sheep and share these data with the graduate student. The Bison Management Team leader will mentor the graduate student through regular meetings and participating as a member of the student's graduate committee. The graduate student will prepare two scientific manuscripts describing the effects of landscape modification of bison grazing on habitat preferences and migratory strategies of other large grazers (i.e., elk, mule deer, pronghorn, bighorn sheep) in Yellowstone.