

Project Summary

Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Greater Yellowstone Ecosystem Wildlife Health Research

Type of Project: Research

Project Discipline: Natural

Funding Agency: USGS

Other Partners/Cooperators: Montana State University

Effective Dates: 6/1/2010 - 5/31/2012

Funding Amount: \$192,221 [FY11: \$115,470; FY10: \$76,751]

Investigators and Agency Representative:

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Project Abstract: The overall objective is to cooperate on wildlife health research in the Greater Yellowstone Ecosystem, particularly on brucellosis and chronic wasting disease.

Brucellosis in the Yellowstone National Park

To use epidemiological models to investigate the disease dynamics of brucellosis in the bison populations of the GYE and YNP.

Objectives:

1. Epidemiological modeling: assess the potential effectiveness of management programs that would combine vaccination with management removals and/or contraception to control/eliminate brucellosis from bison.
2. Communicate these results to natural resource managers.
3. Publish a scientific journal article on the results.

Wyoming Elk Feedgrounds

To study how climate, vegetation and management factors affect the risk of disease transmission from elk to cattle in the southern GYE.

Objectives:

1. To provide information on the spatio-temporal distribution of elk during periods when risk of transmission from elk to cattle is highest (i.e. beginning of abortions through calving), which will allow managers to adjust the artificial feeding season and the timing of cattle grazing on federal grazing allotments to minimize the probability of disease spill over.
2. To understand the risks to both elk and cattle associated with reducing the length of the supplemental feeding season.
3. To estimate the amount of elk movement between natural winter ranges and artificial feedgrounds as well as among feedgrounds within and among years.

Outcomes with completion dates: The final report shall be submitted within 90 days of the end of the project period.

Keywords: wildlife health, Bison, brucellosis, elk, feedgrounds, Yellowstone Ecosystem, USGS, Montana State University