

**Project Summary**  
**Rocky Mountains Cooperative Ecosystem Studies Unit**

**Project Title:** Social Dimensions of Private Land Use and Elk Winter Range: Toward a Complex Systems Model in Brucellosis Ecology

**Discipline:** Interdisciplinary

**Type of Project:** Research

**Funding Agency:** USGS

**Other Partners/Cooperators:** Montana State University

**Student Participation:**

**Effective Dates:** 08/15/2016 - 08/14/2021

**Funding Amount:** \$66,450.00

**Investigators and Agency Representative:**

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**Project Abstract:** The goal of this project is to understand social drivers of elk distribution and density change across space and time in core winter range habitats in the Greater Yellowstone Area (GYA). To build toward a dynamic understanding of this dynamic social-ecological problem, this research will ask: How are social drivers of elk distribution and density changing across space and time in core winter range habitats in the Greater Yellowstone Ecosystem? The research focuses on two key objectives:

Objective 1: What approaches best quantify how the private landscape that elk encounter during periods of migration changes over time in ways that may affect elk behavior?

Objective 2: What characterizes the human dimensions of private land access and habitat management in selected elk winter ranges within or adjacent to the GYE? Specifically, what is the range of private land owner and land manager perspectives on (1) hunting access and (2) on the relationship between private land management decisions and elk biology?

**Keywords:** Brucellosis, Elk, Greater Yellowstone Ecosystem, distribution, private land, USGS, Montana State University