

Rocky Mountains Cooperative Ecosystem Studies Unit
Project Summary

Project Title: Developing Predictive Capacity to Support Adaptive Management Strategies for Mountain Goat

Task Agreement #: P17AC00971 **Modification(s):** 2
Discipline: Natural
Type of Project: Research
Funding Agency: National Park Service
Other Partners/Cooperators: Colorado State University
Student Participation: Yes
Effective Dates: 5/2018 – 7/2021
Funding Amount: \$236,223

Investigators and Agency Representative:

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Project Abstract:

A: Project Goals – The overall goal of this request is to provide predictive capacity about the demography and distributional response of mountain goats in Glacier National Park and other alpine environments on adjacent state, federal, and tribal lands where mountain goats occur.

B: Project Objectives – The objectives for this request are to:

- 1) Relate demographic parameters (parturition rates, kid survival, yearling survival) and body condition indices (growth and/or body mass of adult females and juveniles) to annual measurements of climate, snow pack, productivity, and phenology of vegetation on important summer habitats for goats;
- 2) Relate assimilated nutrition of goats to vegetation productivity and phenology;
- 3) Relate vegetation and snow conditions to yearly climatic conditions; and
- 4) Document habitat use by goats on a fine scale during summer, and a coarse scale during winter, to understand patterns and sources of mortality and mountain-goat productivity.

Keywords: Mountain Goats, Glacier National Park, Adaptive Management, Mountain Goat Management, Predictive Capacity, Climate-Related Impacts, Recruitment, Mortality, Climate Change, Habitat.