

Project Summary

Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Evaluating the prey base for lynx: snowshoe hare abundance, habitat use, and population dynamics in Glacier National Park

Type of Project: Natural Resources/Research

Funding Agency: National Park Service

Other Partners/Cooperators: University of Montana

Effective Dates: 1/1/2005 - 12/31/2009

Funding Amount: \$433,000

Investigators and Agency Representative:

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Project Abstract:

The University of Montana has received three years of funding for this project to investigate the population dynamics of snowshoe hare in Glacier NP. The objectives of this study are to combining a snowshoe hare pellet count and genotyping survey on many sites with intensive live-trapping and telemetry work on a subset of sites in Glacier NP. UM will conduct this research over a three-year period, to determine inter-annual variation, and will sample snowshoe hare habitat use patterns when there are different snowshoe hare densities. Extensive sites will be stratified by predominant vegetation, time-since-burn, and the Park's east-west division. At each extensive site UM will assess snowshoe hare abundance, habitat structure and landscape features, and relative abundance of lynx. UM researchers changed their approach following the first year of study to focus more on fecal pellet genotyping and spend less time on radio telemetry, due to the low population numbers of hares found during summer 2005. This project was funded through the NPS, NRPP-Natural Resource Management program for a three year period.

Objective 1: Assess snowshoe hare distribution and abundance in relation to stand structure and fire history

Objective 2: Determine impacts of fragmentation and landscape patterns on hare distribution and abundance

Objective 3: Evaluate the relationship of lynx relative abundance and habitat selection to snowshoe hare distribution

Objective 4: Develop a field methodology for non-invasive monitoring of snowshoe hare populations in Glacier National Park

Objective 5: Implement a Public Outreach and Education Program

Outcomes with Completion Dates:

February 2005: Develop Field and Lab Manuals

January 2006: First annual report

September 2006: progress report

Final report: Summer 2008; Ph.D. thesis

Keywords: lynx, snowshoe hare, abundance, habitat use, population dynamics, Glacier National Park, University of Montana, pellet surveys, mark-recapture, genetic analysis

For Administrative Use Only:

Date Annual Report Received:

Date Final Report Received:
Publications, etc. on file: