

Project Summary

Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Development of a monitoring protocol for snowshoe hares in the Central Alaska Network, years 1-2

Discipline: Natural

Type of Project: Research

Funding Agency: National Park Service

Other Partners/Cooperators: Colorado State University

Effective Dates: 9/1/2005 - 9/1/2010

Funding Amount: \$37,760.00

Investigators and Agency Representative:

NPS Contact: Maggie MacCluskie, Central Alaska Network, National Park Service, 201 First Avenue, Fairbanks, AK 99701, (907) 455-0660, Maggie_Maccluskie@nps.gov

Investigator: Kenneth Wilson, Department of Fishery and Wildlife Biology, Colorado State University, Fort Collins, CO 80523-1474; Office: (970) 491-7755; FAX: (970) 491-5091; kenneth.wilson@colostate

Project Abstract:

The purpose of this research and development project is to determine if it is feasible to monitor snowshoe hares across the Central Alaska (CAKN) I&M network parks landscape and, if so, to suggest methodologies suitable for establishing the status and trends of snowshoe hare populations. "Feasibility" is conditional on levels of population change over specified temporal and spatial scales.

The first phase of this project will be to conduct a thorough literature review of current approaches for monitoring snowshoe hares. Based on this review we will determine what methodologies are most promising for application in our network. The next step will be to develop a study plan for pilot field work during summer 2006.

Year two will be used to analyze pilot data collected in July and August 2006 within Wrangell-St. Elias National Park. These data were collected using distance sampling methodology and Krebs pellet plot methodology.

The data will be used to further exam the feasibility of using distance sampling to estimate snowshoe hare densities and ultimately the ability to estimate population status and trends across temporal and spatial scales. For example, by asking "what-if" questions based on the data, the effort required to detect levels of population change will be evaluated.

Outcomes with Completion Dates:

For FY 2005-2006 (Sept 1, 2005 - December 30, 2006)

1. Literature review of current approaches for monitoring snowshoe hares including assessment of applicability for large scale monitoring efforts and recommendations of appropriate techniques to try in the CAKN.
2. Study plan for pilot field work to be conducted during summer 2006 for monitoring of snowshoe hares in the CAKN
3. Schedule for remaining development needed for protocol

For FY 2006-2007 (Sept 1, 2006 - March 30, 2007)

1. Analysis of data collected in summer 2006
2. What-if analysis of detection of population status and trends
3. Recommendation for 2007 field work

Keywords: snowshoe hare, monitoring protocol, Wrangell-St Elias National Park, Central Alaska Network, Colorado State University, Inventory and Monitoring

For Administrative Use Only:

Date Annual Report Received:

Date Final Report Received:

Publications, etc. on file: