PROJECT TITLE: Effects of snowshoe hare population cycles on demography of Dall sheep and their predators

PRINCIPAL INVESTIGATOR: Stephen M. Arthur

COOPERATORS: Alaska Chapter, Foundation for North American Wild Sheep; University of British Columbia

FEDERAL AID GRANT PROGRAM: Wildlife Restoration

GRANT AND SEGMENT NO. W-33-7

PROJECT NO. 6.14

WORK LOCATION: Central Alaska Range, Unit 20A

STATE: Alaska

PERIOD: 1 July 2008 – 30 June 2009

I. PROGRESS ON PROJECT OBJECTIVES SINCE PROJECT INCEPTION

OBJECTIVE 1: Estimate home range size and reproductive success of resident coyote pairs.

From March 1998–June 2003, 19 coyotes were captured and radiocollared as part of project 6.13. These coyotes were located approximately twice per month through September 2005 to determine home ranges, habitat use, movement patterns, and reproductive success. These included 15 resident adults (5 M:F pairs, plus 5 mortalities), 3 pups (2M, 1F; aged 10–13 months), and 1 dispersing 2-year-old male.

OBJECTIVE 2: Estimate annual survival and cause-specific mortality of Dall sheep lambs.


OBJECTIVE 3: Estimate annual survival and natality of Dall sheep ewes.

Ewes radiocollared during 1999–2002 as part of Project 6.13 were located daily in May to estimate birth rates and approximately twice per month during other months through September 2005 to estimate survival and causes of mortality.
OBJECTIVE 4: Estimate size and age/sex composition of the Dall sheep population each year.

The sheep population in the study area was surveyed annually during June 1998–2007. Surveys consisted of intensive searches conducted with R-22 and R-44 helicopters. Sheep were counted and classified as lambs, yearlings, adult ewes, or rams (4 horn size classes).

OBJECTIVE 5: Data analysis and report writing.

Analysis of survival rates and home ranges has begun.

II. SUMMARY OF WORK COMPLETED ON JOBS IDENTIFIED IN ANNUAL PLAN THIS PERIOD

JOB 5: Data analysis and report writing.

A manuscript was prepared for submission to The Journal of Wildlife Management. Additional data analysis and manuscript preparation/revision will continue in fiscal year 2010.

III. ADDITIONAL FEDERAL AID-FUNDED WORK NOT DESCRIBED ABOVE THAT WAS ACCOMPLISHED ON THIS PROJECT DURING THIS SEGMENT PERIOD

None.

IV. PUBLICATIONS

The following publications describe work conducted as part of this project. Publication costs were provided by other (non-Federal Aid) sources.


V. RECOMMENDATIONS FOR THIS PROJECT

None.
VI. APPENDIX

None.

PREPARED BY:       APPROVED BY:

Stephen M. Arthur    Clayton R. Hawkes  
Wildlife Biologist III Federal Assistance Coordinator  
Division of Wildlife Conservation

SUBMITTED BY:

Scott M. Brainerd    Douglas N. Larsen, Director  
Research Coordinator  Division of Wildlife Conservation

Laura A. McCarthy    APPROVAL DATE:  
Publications Technician II  

3