

**Alaska Department of Fish and Game
Wildlife Restoration Grant**

Grant Number: W-33

Segment Number: 9

Project Number: 13.01

Project Title: Elk movements and habitat use, Unit 3

Project Duration: From July 1, 2010 to June 30, 2014

Report Due Date: September 1, 2011

Principal Investigator: Richard Lowell

Cooperators: Rocky Mountain Elk Foundation

Work Location: Etolin and Zarembo islands in Alaska, GMU 3

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

- a) JOB/ACTIVITY 1: Capture and radiocollar of elk on Etolin and Zarembo islands.

Accomplishments: During the report period, staff spent four days in early April 2011 attempting to locate, capture, and radiocollar elk on Etolin and Zarembo islands. One yearling bull elk was successfully captured and radiocolled on southern Etolin Island. Federal regulations that prohibit helicopter landings within designated Wilderness forcing us to limit our capture efforts to only those elk located close to state tidelands hampering or efforts to capture and radiocollar additional elk. Despite repeated over flights in early April 2011, we were unable to locate any elk on Zarembo Island; therefore no capture attempts took place on Zarembo project.

II. SIGNIFICANT DEVIATIONS AND/OR ADDITIONAL FEDERAL AID-FUNDED WORK NOT DESCRIBED ABOVE THAT WAS ACCOMPLISHED ON THIS PROJECT DURING THIS SEGMENT PERIOD

On August 15, 2010, staff conducted an aerial census and sex and age composition count of the south Etolin elk herd. A total of 140 elk were observed in subalpine and alpine habitats in the vicinity of Mt. Etolin and Mt. Shakes. This represents the highest elk count documented during any single aerial census of the Etolin Island herd. Based on the August 15 survey we were for the first time able to calculate a bull to cow ratio of 19 bulls per 100 cows, and a calf to cow ratio of 51 calves per 100 cows on Zarembo.

During the report period, staff conducted periodic fixed-wing over flights to determine the status of 4 radiocolled elk on Etolin Island, and remotely download GPS relocation data stored within radiocollars.

In conjunction with the elk capture efforts in early April 2011, staff also located four radio collars attached to elk in 2009 that had been scheduled to release on April 1, 2011.

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We were able to successfully retrieve and download the remaining relocation data from the three collars that released in areas accessible from the shoreline. The remaining collar which released further inland could not be retrieved due to restrictions on helicopter landings within designated Wilderness.

Relocation data download from radiocollared elk was entered in a data base for future analysis of home range size, seasonal movement patters, and habitat selection.

III. PUBLICATIONS

None.

VI. RECOMMENDATIONS FOR THIS PROJECT

During the report period department expended significant staff time to prepare and submit Minimum Requirements Decision Guidelines (MRDG) to the USDA Forest Service in an attempt to secure authorization to conduct elk research activities, including necessary helicopter landings, within the South Etolin Wilderness.

Prepared by: Richard Lowell

Date: 9/01/11