

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

Grant Number: AKW-10 Wildlife Restoration FY2016
Project Number: 6.18
Project Title: Ewe Dall's sheep survival, pregnancy and parturition rates, and lamb recruitment in GMU 14C, Chugach Mountains, AK
Report Period: July 1 2015-June 30 2016
Report Due Date: **September 28, 2016**

PRINCIPAL INVESTIGATOR: Tom Lohuis

WORK LOCATION: Northern and Central Chugach Range, GMU 14C

I. PROGRESS ON PROJECT OBJECTIVES DURING LAST SEGMENT

OBJECTIVE 1: Determine pregnancy, natality, and recruitment rates. Where possible, determine cause of death in collared adult and juvenile sheep.

OBJECTIVE 2: Animal health profile.

OBJECTIVE 3: Assess weather effects.

OBJECTIVE 4: Data analysis and reporting.

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

JOB/ACTIVITY 1A: During the 2016 reporting period, 32/35 captured ewes survived. We recaptured 22 of the 35, and 16/22 were pregnant for a 73% pregnancy rate.

JOB/ACTIVITY 1C: Three adult ewes died between July 1 2015 and June 30 2016. Two were killed in avalanches, one in early December 2015, and one in late April 2016, while one was killed by a predator, likely a wolverine, in February 2015.

JOB/ACTIVITY 2B: At capture, 60-75 ml of blood was collected from adult ewes. These samples were collected in 2013, 2014, 2015, and 2016. Laboratory analysis is complete and data analysis is ongoing. Preliminary data suggests some animals may be selenium deficient relative to reference levels for Bighorn and/or domestic sheep.

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JOB/ACTIVITY 2C: A numerical BCS of 1-5 was assigned to each animal captured. Ewes in GMU 14C appeared, on average, larger and in better body condition than ewes in GMU 13D. This analysis was repeated during captures in March and April 2013, with animals appearing in slightly better condition in 2013 than in 2012. Adult ewes were captured in March 2014 were again in slightly better condition than in the previous year. Body condition scores recorded again showed a slight improvement in March and April 2015 compared to 2014. However, body condition scores again decreased in 2016 compared to 2015.

JOB/ACTIVITY 4A: We are developing a study plan for future research to better investigate the relationship between habitat quality, weather patterns, and sheep population performance, and to build a carrying capacity model for GMU 14C sheep.

III. RECOMMENDATIONS FOR THIS PROJECT

We will extend capturing and monitoring of adult ewes through June 30, 2018 to collect additional data, but we will not be capturing and radio collaring lambs during that time. This project will change significantly beginning in March 2017, at that time we may look at ending the project and starting a whole new (but related project) or we may continue the project in a new evolved state.

Prepared by: Tom Lohuis

Date: August 30, 2016