

**FEDERAL AID ANNUAL
RESEARCH PERFORMANCE REPORT**

ALASKA DEPARTMENT OF FISH AND GAME
DIVISION OF WILDLIFE CONSERVATION
PO Box 115526
Juneau, AK 99811-5526

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

Grant Number: AKW-4 Wildlife Restoration FY2015

Project Number: 1.72

Project Title: Identification of factors affecting calf production, calf survival, and survival of female adult moose in Game Management Unit 15C

Project Duration: July 1, 2011 – June 30, 2017

Reporting Period: July 1, 2014 – June 30, 2015

Report Due Date: Sept. 1 2015

PRINCIPAL INVESTIGATOR: Thomas McDonough, ADF&G

WORK LOCATION: Lower Kenai Peninsula, GMU 15C

I. PROGRESS ON PROJECT OBJECTIVES DURING LAST SEGMENT

OBJECTIVE 1: Quantify pregnancy rates, parturition rates, and parturition dates of adult cow moose.

Job/activity 1a: We captured 28 adult female moose and 2 calves in November 2014 and 25 adult cows and 1 calf in March of 2015. Pregnancy rates were 90% as determined through blood testing. Parturition rates were 87% based on aerially monitoring cows daily during calving. Parturition dates were from 13May through 20July with a median parturition date of 22May. Parturition dates were determined through daily aerially monitoring using vaginal implant transmitters. Similar data will be collected again in 2016.

OBJECTIVE 2: Determine twinning rates of adult cow moose.

Job/activity 2a: We conducted aerial surveys of radio collared cows during calving to determine a twinning rate of 35%. Similar data will be collected again in 2016.

OBJECTIVE 3: Determine cow and calf mortality rates.

AKW-4 1.72 Low Bull Cow Ratios GMU 15C FY2015
Annual Research Performance Report

Job/activity 3a: Radio collared cows were aerially monitored daily during calving. Since getting a visual confirmation on calves after green-up is difficult, calf survival will be fully assessed in the fall when visual confirmations can be done.

OBJECTIVE 4: Determine seasonal movements of radio collared cows.

Job/activity 4a: Periodic aerial telemetry flights of collared cows have occurred since initial collaring. Movement data has not yet been analyzed.

OBJECTIVE 5: Assess nutritional condition of cow moose at the yearly peak and nadir.

Job/activity 5a: Mean rump fat, which index body condition, assessed during Nov. 2014 and March 2015 were 5.0 and 2.2, respectively. Body condition will be assessed in the fall of 2015 and again in the spring of 2016.

V. PUBLICATIONS

Wilson, R. E., S. D. Farley, T. J. McDonough, S. L. Talbot, and P. S. Barboza. 2015. A genetic discontinuity in moose (*Alces alces*) in Alaska corresponds with fenced transportation infrastructure. *Conservation Genetics* 16:791-801.

Wilson, R. E., T. J. McDonough, P. S. Barboza, S. L. Talbot, and S. D. Farley. 2015. Population genetic structure of moose (*Alces alces*) of south-central Alaska. *Alces* 51:71-86.

VI. RECOMMENDATIONS FOR THIS PROJECT

We recommend continuing this project at least through FY2017 or for the life of intensive management activities.

Prepared by:
Thomas McDonough

Date:
27 Aug., 2015