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-10 Wildlife Restoration FY2016

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, 2015 – June 30, 2016

REPORT DUE DATE: Sept. 1 2016

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 30 adult female moose and 6 calves in November 2015 and 28 adult cows and 0 calves in Feb./March of 2016. Pregnancy rates were 78% as determined through blood testing. Parturition rates were 79% based on aerially monitoring cows daily during calving. Parturition dates were from 12May through 18June with a median parturition date of 20May. Parturition dates were determined through daily aerially monitoring using vaginal implant transmitters. Similar data will be collected again in 2017.

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 32%. Similar data will be collected again in 2017.

OBJECTIVE 3: Determine cow and calf mortality rates.

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 fully 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. 2015 and Feb./March 2016 were 3.6 and 1.4, respectively. Body condition will be assessed in the fall of 2016 and again in the spring of 2017.

II. 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.

III. 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:
25 Aug., 2016