

**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:** 1.73

**PROJECT TITLE:** Long-term effects of predator reductions on moose abundance, survival, nutrition, and hunting harvest in the Unit 19D East moose management area

**PROJECT DURATION:** 1 July 2012–30 June 2018

**REPORT DUE DATE:** 1 September 2015

**PARTNER:** None

**PRINCIPAL INVESTIGATOR:** Danny Caudill, ADF&G

**COOPERATOR:** None

**WORK LOCATION:** Interior, Alaska. Unit 19D East, the upper Kuskokwim River drainage upstream of the Selatna River. Intensive study area (also known as the “Unit 19D moose management area” or “MMA”) comprised of a 2,896 km<sup>2</sup> area along the Kuskokwim and Takotna rivers within Unit 19D East that immediately surrounds the community of McGrath.

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

**OBJECTIVE 1:** Monitor moose population dynamics in the MMA.

**JOB/ACTIVITY 1A:** Estimate moose numbers and population composition in the Unit 19D East MMA.

A moose survey was planned during fall 2014, but was not accomplished because the position was vacant. This survey has been rescheduled for fall 2016 based on logistical constraints and staff availability.

**JOB/ACTIVITY 1B:** Determine annual survival rates and primary causes of mortality of moose calves.

No moose calf survival study was planned or conducted during the reporting period.

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**JOB/ACTIVITY 1C:** Determine condition, survival rates, and causes of mortality of yearling moose.

Captures of yearling moose were not accomplished because the position was vacant at the time. Captures will be rescheduled for March 2017.

**JOB/ACTIVITY 1D:** Determine twinning rates of moose in the MMA.

We conducted twinning surveys during 17–20 May 2015. We observed 23 cows with a single calf and 22 cows with twins.

**OBJECTIVE 2:** Characterize winter moose browse in MMA.

**JOB/ACTIVITY 2A:** Conduct moose browse surveys.

No browse survey was conducted in spring 2014 or spring 2015 due to logistical and staff constraints. The winter moose browse survey has been rescheduled for spring 2017.

**OBJECTIVE 3:** Estimate wolf numbers in MMA.

**JOB/ACTIVITY 3A:** Wolf population estimation.

The wolf survey was not completed due to poor snow tracking conditions during the planned winter survey period.

**OBJECTIVE 4:** Estimate black bear numbers and harvest rates in the intensive study area.

**JOB/ACTIVITY 4a:** Bear population estimation.

No bear population estimate was planned or conducted during the reporting period. However, 16 black bears were captured and instrumented during May 2015 in order to maintain ~25% radiomarked bears in the study population. We detected 19 previously marked bears alive in the McGrath area concurrent to May 2015 captures, bringing the current minimum sample size to 35 individuals (~29% of the population). The previous population estimate study predicted 119 bears in the study area.

**JOB/ACTIVITY 4b:** Estimate black bear harvest rates.

No radiomarked bears were harvested in the study area during the report period.

**OBJECTIVE 5:** Analyze suspected predator hair and tissue samples for species and sex identification.

**JOB/ACTIVITY 5A:** DNA analysis.

No mortality study was planned or conducted during the reporting period. Thus, no hair was collected for this purpose.

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**OBJECTIVE 6:** Review literature, write annual progress reports, write final project report, and publish results in peer-reviewed journals.

**JOB/ACTIVITY 6A:** Literature review, data analysis, report writing, and publication of results.

The principal investigator reviewed the literature and completed reports.

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

The moose survey was not conducted in fall 2014 because the position was vacant and staff were not available to organize and conduct this work. It has been rescheduled for fall 2016 (FY17). The browse survey (job/activity 2) was delayed until FY17 due to staff availability. The wolf survey (job/activity 3) was not accomplished during FY15 because snow conditions were not appropriate.

**III. PUBLICATIONS**

None.

**IV. RECOMMENDATIONS FOR THIS PROJECT**

None.

**PREPARED BY:** Danny Caudill

**DATE:** 27 July 2015