

**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: W-33

SEGMENT NUMBER: 11

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 2017

REPORT DUE DATE: 1 September 2013

PARTNER: None

PRINCIPAL INVESTIGATOR: John F. Benson, 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 km² area along the Kuskokwim and Takotna Rivers within Unit 19D East that immediately surrounds the community of McGrath.

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

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

During 16–19 November 2012 we conducted aerial moose surveys within the EMMA (528 mi²) and expanded EMMA (1,118 mi²) portions of Unit 19D East. We estimated 612 (±117) moose in the EMMA and 1,377 (±199) moose within the expanded EMMA. We used 6 fixed-wing aircraft to complete the survey. No federal Pittman-Robertson operating funds were used on this job.

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

We monitored the survival of the 2013 calf cohort, their survival rate (May 2013–June 2013) was approximately 71% (36 of 51 lived). We attributed 10 deaths (67%) to black bears, 3 deaths (20%) to unknown (black or brown) bears, 1 death (7%) to a brown bear,

and 1 death (7%) to unknown predation. No federal Pittman-Robertson operating funds were used on this job.

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

Yearling moose were not captured during FY13 as the research position was vacant at that time.

JOB/ACTIVITY 1D: Monitoring moose during calving, and twinning surveys.

Twinning surveys were conducted by research biologists in the study area while surveying the area of calves to capture during May 2013. Twinning rate for uncollared females was 21% (12 of 56 parturient females observed). We did not monitor radiocollared females during this segment period for parturition or twinning. No federal Pittman-Robertson operating funds were used on this job.

JOB/ACTIVITY 3: Estimate wolf numbers in MMA.

The wolf survey was not completed due to lack of available personnel.

JOB/ACTIVITY 4: Estimate black bear numbers and harvest rates in the intensive study area.

The bear survey was not completed due to lack of available personnel and logistical constraints.

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

Six black bears were harvested in Unit 19D from July 2012 to June 2013. All were taken during fall 2012 and none were associated with control activities.

JOB/ACTIVITY 5: DNA analysis.

We collected 14 hair samples of suspected predators from calf mortality sites during May–June 2013. We obtained DNA samples from 20 captured black bears and 51 captured moose calves during May 2013.

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

The principal investigator position was vacant during the period 2 August 2012 to 12 May 2013. The principal investigator was engaged in field activities only during 18 May 2013 to 30 June 2013. No federal Pittman-Robertson operating funds were used on this job.

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

Yearling moose captures (job/activity 1C), the wolf survey (job/activity 3) and the bear survey (job/activity 4) were not accomplished during FY13 because the position was vacant and because of logistical constraints.

III. PUBLICATIONS

None.

IV. RECOMMENDATIONS FOR THIS PROJECT

None.

PREPARED BY: John F. Benson, ADF&G

DATE: 12 July 2013