

**Wildlife Restoration OPERATING GRANT  
FINAL 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-23 FY18

**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

**PERIOD OF PERFORMANCE:** July 1, 2017 –June 30, 2018

**REPORT DUE DATE:** September 1, 2018

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

**COOPERATORS:** None.



**I. PROGRESS ON PROJECT OBJECTIVES DURING PERFORMANCE YEAR**

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

**ACCOMPLISHMENTS:** We completed a GSPE survey 11/28–11/30 2017 to estimate moose numbers and population composition. We surveyed 92 units and estimated density of 2.15 moose per square mile for the expanded EMMA, corrected for sightability.

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

**ACCOMPLISHMENTS:** No capture or activity was planned during the report period per the project statement.

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

**ACCOMPLISHMENTS:** We monitored the previously captured (in previous reporting periods) moose to evaluate survival and mortality. Survival rates will be analyzed and reported upon completion of data collection (i.e. the end of the project).

**OBJECTIVE 1D:** Determine twinning rates of moose in the MMA.

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ACCOMPLISHMENTS: We conducted twinning surveys during late May and early June of 2018. We observed 34 cows with a single calf and 5 cows with twins.

OBJECTIVE 2: Conduct moose browse surveys.

ACCOMPLISHMENTS: No survey was planned during the reporting period per the project statement.

OBJECTIVE 3: Wolf population estimation.

ACCOMPLISHMENTS: No survey was planned during the reporting period per the project statement.

OBJECTIVE 4A: Bear population estimation.

ACCOMPLISHMENTS: No capture or survey was planned during the report period per the project statement.

OBJECTIVE 4B: Estimate black bear harvest rates.

ACCOMPLISHMENTS: No radio-marked bears were harvested in the study area during the report period.

OBJECTIVE 5: DNA analysis.

ACCOMPLISHMENTS: No analysis was planned during the reporting period.

OBJECTIVE 6: Literature review, data analysis, report writing, and publication of results.

ACCOMPLISHMENTS: The principal investigator reviewed the literature and completed reports. Data from the moose population survey and twinning surveys were compiled and preliminarily analyzed.

## **II. SUMMARY OF WORK COMPLETED ON PROJECT TO DATE.**

All accomplishments completed to date are outlined in the specific objectives above or in previous years' annual reports (2012–present). The black bear population has returned to pre-translocation size. Moose density has increased since predator populations were manipulated. Moose twinning rate has declined recently and browse removal has increased. For specific parameter estimates see the specific objectives in accomplishments sections of this and previous years. During this reporting period, 2 moose surveys were planned and implemented. Upon completion of the field portion of the surveys, the collected data were compiled and summarized. Bears and moose that were radiomarked in previous reporting periods were monitored. Relevant

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literature was reviewed and annual reports were completed. The data collected during this reporting period were compiled and integrated with data collected over the life of the project.

**III. SIGNIFICANT DEVELOPMENT REPORTS AND/OR AMENDMENTS.**

None.

**IV. PUBLICATIONS**

None during the reporting period.

**V. RECOMMENDATIONS FOR THIS PROJECT**

The project should continue as planned.

**Prepared by:** Danny Caudill

**Date:** 8/13/2018