

**Wildlife Restoration MULTI-YEAR GRANT  
INTERIM 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-29

**PROJECT NUMBER:** 9.0

**PROJECT TITLE:** Western Arctic Caribou Calf Mortality Evaluation

**PERIOD OF PERFORMANCE:** March 23, 2018 – June 30, 2020

**PERFORMANCE YEAR:** March 23, 2018 - June 30, 2019; year 1 of a 2-year grant

**REPORT DUE DATE:** Submit to Coordinator June 1<sup>st</sup>, 2019

**PRINCIPAL INVESTIGATOR:** Alex Hansen

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Authorities: 2 CFR 200.328  
2 CFR 200.301  
50 CFR 80.90

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

**OBJECTIVE 1:** Measure calf survival rates from birth through their first year of life.

**ACCOMPLISHMENTS:** Between June 2<sup>nd</sup> and June 8<sup>th</sup> 2018, a total of 76 neonates were captured and fitted with VHF collars. A total of 70 collars were purchased for deployment, 6 of the collars were re-deployed on new calves following mortalities on the calving ground. Calves were radio-tracked daily through June 10<sup>th</sup>. Following June 10<sup>th</sup>, radio-tracking efforts were reduced to more manageable intervals throughout the summer and into the fall. Radio-tracking efforts were minimal during the winter and resumed during the spring. A total of 27 mortalities have been recorded to date. Statistical estimates of survival rate are pending completion of the first year of the study.

**OBJECTIVE 2:** Identify causes of mortality.

**ACCOMPLISHMENTS:** Of the 27 total mortalities that have been detected 15 of the mortality sites have been visited and the collars retrieved. During site visits all evidence was examined in an effort to accurately assign mortality cause. Cause of mortality to date is as follows; abandonment (8), brown bear (3), unknown predator (2) and unknown cause (2). It is anticipated that the outstanding mortalities will be visited over the course of the summer.

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

Captures and radio-tracking efforts were successful and we feel that cause of mortality has been determined with a high degree of accuracy for all mortality events to date. Abandonment related mortality was higher than expected and may be at least partly attributed to the poorer than normal body condition of adults on the calving ground. The mortality rate for adult cows in the herd during the winter/spring of 2018 were much higher than average and may have left the surviving cows in less than optimum condition during calving. The high parturition rate (86%) observed on the calving ground indicates that adults were in good condition during the rut the previous fall. The combination of high parturition rate and low adult survival may imply that caribou encountered a difficult winter, with corresponding declines in body condition overwinter. The two predation events that were detected during June seem to coincide well with the relative lack of predators observed on the calving grounds during 2018. Visual observations of brown bears anecdotally appeared to be lower in number in 2018 as compared to previous years; however, it should be noted that accurate counts of brown bear observations were not recorded during 2018 nor previous years.

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

No significant developments, changes or amendments have been made to the project to date.

**IV. PUBLICATIONS**

None at the present time.

**V. RECOMMENDATIONS FOR THIS PROJECT:** Project will continue for 1 more year without significant changes.

**Prepared by:** Alex Hansen

**Date:** 5/17/19