

# 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:** P3.0

**PROJECT TITLE:** Cause and rate of neonatal moose calf mortality in Unit 23 Lower Kobuk

**PERIOD OF PERFORMANCE:** May 1, 2018 to Dec. 30, 2021

**PERFORMANCE YEAR:** March 23, 2018 to March 23, 2019; year 1 of a ~4-year grant

**REPORT DUE DATE:** Submit to Coordinator June 1, 2019

**PRINCIPAL INVESTIGATOR:** Warren 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:** Evaluate mortality rates and cause of mortality in neonatal moose

**ACCOMPLISHMENTS:** In June of 2018 we spent five days capturing and collaring neonatal moose on the Lower Kobuk. Our objective was to collar 60 neonates. We exceeded this expectation by capturing a total of 77 calves (39 females, 37 males, 1 unknown). Two mortalities were associated with abandonment. Predator related mortalities were detected after the first day of collaring. Calves were monitored for survival daily until June 25<sup>th</sup> and then monitored every other day until July 18<sup>th</sup> and then once per week until October 1 and once per month thereafter through the end of the reporting period. As of 4/29/2019 (outside of the reporting period), 49 calves have died yielding a survival rate of 38% (excluding the 2 capture related mortalities). All natural mortalities have been caused by bear with the exception of 2 that are unknown. One mortality was a confirmed black bear kill and all other have been grizzly bear.

For the 2019 capture season we have purchased an additional 70 radio transmitters. We took these transmitters to the Noorvik public school and worked with students ages 5<sup>th</sup> grade – 12<sup>th</sup> grade to build the radio collars and inform them on the objectives of the study. We intend to deploy these collars beginning May 28, 2019.

All goals have been met for capture and monitoring for mortality on this project. No future changes will be made to this project in the following year.

This project has been maintained within the outlined budget. It is too early in the project to make any management recommendations without multiple years of data.

OBJECTIVE 2: Monitor the population for signs of nutritional stress.

ACCOMPLISHMENTS: During the capture event we weighed all of the calves and noted if the calves were singletons or twins. Average weight of singleton calves was 19.1 kg while twins weighed an average of 16.8 kg. The observed twinning rate was 36%. This data met our project objectives for monitoring signs of nutritional stress.

All goals have been met for the monitoring of nutritional stress for the first year of this project. We are unable to evaluate factors that influence calf weights and twinning rates until multiple years of data are collected. With additional years of data we will be able to test for relationships between annual variation in calf weighs and abiotic factors.

This project has been maintained within the outlined budget. It is too early in the project to make any management recommendations without multiple years of data.

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

After the first year of this project we have identified a survival rate of 40% after the first 7 weeks of capture and 38% after 48 weeks. When compared to other studies of neonatal mortality of low moose density populations across the state of Alaska this survival rate appears to fall within the range of other studies (Bertram and Vivion, 2002). Neonatal calf weights and twinning rates initially appear to be reflecting a nutritionally healthy population, and are in concordance with previously estimated browse removal rates. Thereafter monitoring will continue once per month until failure of the collar. This is expected to occur after about one year. All 2018 collars will be continually monitored until failure along with additional 2019 collars that will be deployed in June, 2019.

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

A significant development to emerge from this project has been the public outreach effort. We have made a considerable effort to inform the communities within the study area about the project and when captures will be taking place. We have coordinated with the US Fish and Wildlife Service to relay capture dates to community members during their visits to villages in the study area and include an announcement in their annual newsletter. We printed a flier that indicated when and how we would be capturing moose calves in the study area and sent them to Kotzebue, Noorvik and Kiana for distribution. We also posted the flier to our Fish and Game Facebook and “boosted” it so that it would be advertised on the Facebook pages of all area residents. Recently, ADF&G colleagues traveled to Noorvik and presented information on the 2018 spring capture effort and currently observed mortality rates. This effort to inform the communities about our capture efforts has appeared to be effective at getting the message out. To date we have not received any negative feedback regarding the project goals, aircraft use or capturing and handling moose.

We will continue this outreach effort throughout the life of this project. No additional significant developments, changes or amendments have been or will be made to this project to date. The project will continue as planned for the following two years.

**IV. PUBLICATIONS**

No publications have been made from this project.

**V. RECOMMENDATIONS FOR THIS PROJECT**

This project is projected to continue for two years without any significant changes.

**Prepared by:** Warren Hansen

**Date:** 5/22/2019