

**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-R-12-2019

PROJECT NUMBER: P1.0

PROJECT TITLE: Estimation of Moose Abundance in Anchorage Urban Areas

PERIOD OF PERFORMANCE: February 22, 2019 – June 30, 2021

PERFORMANCE YEAR: February 22, 2019 – February 23, 2020

REPORT DUE DATE: Submit to Coordinator May 26, 2020; due to FAC June 29, 2020

PRINCIPAL INVESTIGATOR: David Saalfeld

COOPERATORS: David Battle, Sean Farley, and Cory Stantorf

Authorities: 2 CFR 200.328
2 CFR 200.301
50 CFR 80.90

I. PROGRESS ON PROJECT OBJECTIVES DURING PERFORMANCE YEAR

OBJECTIVE 1: Estimate population size, gender composition, exploitation rates, and survival of moose within the Anchorage urban area utilizing ground-based biopsy darting and Multiple Event Cormack-Jolly-Seber capture-recapture.

ACCOMPLISHMENTS: Prior to award in February 2019, we had already conducted 2 ground-based biopsy surveys of moose in the Anchorage bowl. In February 2018, we conducted a 3-day survey from February 23 – 25, resulting in 207 moose tissue samples collected. In February 2019, we conducted a 3-day survey from February 22 – 24, resulting in 237 moose tissue samples collected. After the award was approved and during this reporting period in 2020, we conducted a 3-day survey from February 21 – 23, resulting in 216 moose tissue samples. Samples from 2018 and 2019 have already been analyzed by the USGS Alaska Science Center Gene Lab and individual ID's and sex have been determined for each tissue sample.

Samples from 2020 are currently waiting analysis at the USGS Alaska Science Center Gene Lab. Once data is obtained from the 2020 samples, we will be able to calculate our first estimates of abundance and survival, as three full capture sessions is necessary for these calculations.

OBJECTIVE 2: Develop methodology/technique for management biologists to estimate moose populations without being dependent on snow cover.

ACCOMPLISHMENTS: With 3 full surveys completed, we can begin to assess the usefulness of this technique. We averaged 220 moose per survey which is more samples than we anticipated. Additionally, preliminary data from 2018/2019 show a recapture rate of individual moose > 30%, which is high for studies of large mammals. Based on the number of samples and recapture rate it is likely this technique will be an effective survey methodology for moose in small study areas.

II. SUMMARY OF WORK COMPLETED ON PROJECT TO DATE.

Prior to this grant being awarded in February 2019, we had already conducted 2 ground-based biopsy surveys of moose in the Anchorage bowl.

In February 2018, we conducted a 3-day survey from February 23 – 25, resulting in 207 moose tissue samples collected.

In February 2019, we conducted a 3-day survey from February 22 – 24, resulting in 237 moose tissue samples collected.

After the award was approved and during the current reporting period, we conducted a 3-day survey from February 21 – 23, 2020. During this survey, 7 teams of biologist canvassed Anchorage neighborhoods collecting 216 moose tissue samples.

Samples from 2018 and 2019 have already been analyzed by the USGS Alaska Science Center Gene Lab and individual ID's and sex have been determined for each tissue sample. Samples from 2020 are currently waiting analysis at the USGS Alaska Science Center Gene Lab. Once data is obtained from the 2020 samples, we will be able to calculate our first estimates of abundance and survival, as three full capture sessions is necessary for these calculations.

III. SIGNIFICANT DEVELOPMENT REPORTS AND/OR AMENDMENTS.

During the current reporting period we were unable to have the tissue samples analyzed due to the reporting period ending on the last day of the 2020 survey. Because genetic analyses are time consuming it will be necessary to extend the timeline of this grant through June 2022. We will not be requesting any additional funds, but we will be requesting an amendment to this grant to extend the timeline to allow sufficient time for genetic samples obtained in February 2021 to be analyzed.

V. RECOMMENDATIONS FOR THIS PROJECT

Based on the current timeline for this project it will be extremely difficult for the USGS Genetics Lab to complete their analyses for the 2021 survey, prior to the end date of this grant. Thus, we are requesting an amendment to this grant extending the timeline till June 2022. We will be

conducting 1 more ground-based survey in February 2021 and expect to have data from the genetic samples sent to USGS in summer 2021. This new timeline will allow USGS sufficient time to analyze the tissue samples and give us enough time to analyze the dataset and write final reports.

Prepared by: David Saalfeld

Date: 5/26/2020