

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-11-2019

PROJECT NUMBER: 1.0

PROJECT TITLE: Density and Demography of GMU13 Brown Bears

PERIOD OF PERFORMANCE: April 1, 2019 through June 30, 2020

PERFORMANCE YEAR: April 1, 2019 - June 30, 2024; year 1 of a 5-year grant

REPORT DUE DATE: Submit to Coordinator June 12, 2020; due to FAC June 29, 2020

PRINCIPAL INVESTIGATOR: Nick Demma

COOPERATORS:

Authorities: 2 CFR 200.328
2 CFR 200.301
50 CFR 80.90

Performance reporting on activities ensures performance expectations are being achieved while complying with Federal regulation. Please include, at minimum, the following project information in Sections I – V below:

1. A comparison of actual accomplishments to the objectives of the project established for the period. In other words: what progress have you made toward completion of the objective(s) of the project? Describe how your objective(s) were met.
2. The reasons why established goals or objectives were not met, if appropriate. In other words, please describe and justify any changes in the implementation of objective(s) or approach(es).
3. Additional pertinent information including, when appropriate, analysis and explanation of cost overruns or high unit costs. If applicable, please describe how the project resulted in any benefits, promising practices, new understandings, cost efficiencies, management recommendations, or lessons learned.
4. Additional work not previously described accomplished during this period of performance.

I. PROGRESS ON PROJECT OBJECTIVES DURING PERFORMANCE YEAR **OBJECTIVE 1: Estimate brown bear density and abundance using Capture-Mark-Resight techniques**

Initiate radiocollaring bears in September 2019 to obtain a marked sample leading up to conducting a CMR survey in GMU 13A during May 2022 (FY22).

ACCOMPLISHMENTS: We accomplished our objective to begin marking a sample of bears for the May 2022 CMR survey. We radiocollared 13 bears (5 males, 8 females) during October 2019 and 17 bears (2 males, 15 females) during May 2020.

OBJECTIVE 2: Determine demographic vital rates for multiple age and sex classes of bears
Demographic information will be gathered from a sample of 13A bears instrumented with GPS radio collars.

ACCOMPLISHMENTS: We made progress towards accomplishing this objective. We deployed GPS radio collars on 30 bears during October 2019 and May 2020 and are now collecting demographic information on those bears. We are monitoring GPS collar data and harvested bears brought in for sealing to determine mortalities of radiocollared bears for determining cause of death and calculating survival rates. Also, we have initiated bi-monthly tracking flights during non-denning months (May-October), to determine cub production and recruitment.

OBJECTIVE 3: Calculate population growth rate (λ)
Use demographic data to model population growth and determine biological/ecological drivers of the GMU 13A bear population.

ACCOMPLISHMENTS: We did not complete this objective.

We just initiated this study and are in the early stages of collecting demographic data. Therefore, we do not yet have enough data to calculate population growth rate. This will be done at completion of the study after all demographic data are collected.

OBJECTIVE 4: Calculate population harvest rate
Summarize brown bear harvest records and use CMR model results to calculate mean annual harvest rate during the study period.

ACCOMPLISHMENTS: We did not complete this objective.

We do not yet have a full season of data, but bear harvest in the study area will be determined at the end of each season after bears have entered dens (November). Calculating harvest rate depends on bear density, and therefore dependent on vital rates modeling for demographic data that will be collected during the entire study period to estimate density. So, mean annual harvest rate during the study period will be determined at the conclusion of the study.

II. SUMMARY OF WORK COMPLETED ON PROJECT TO DATE.

We are in year 1 of a 5-year study and therefore do not yet have adequate demographic data to estimate vital rates (or abundance).

Following direction 4 above, summarize findings to date from inception of the grant—analysis, trends, ongoing data, etc. Indicate what year project cycle is in; for example, in Year 3 of 5-year project.

III. SIGNIFICANT DEVELOPMENT REPORTS AND/OR AMENDMENTS.

Amendment 1 was approved in October 2019. The purpose of this amendment was to add \$768,816.36 to this grant, which makes the total grant \$1,182,859.49. This is the amount asked for in the original proposal.

IV. PUBLICATIONS

Identify and attach (cite) selected publications, photographs, screenshots of websites, or other documentation (including articles in popular literature, scientific literature, or other public information products) that have resulted from this project that highlights the accomplishments of the project.

V. RECOMMENDATIONS FOR THIS PROJECT

Project will continue for 4 more years.

Prepared by: Nick Demma

Date: 09 June 2020