

**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-B-R3-2020

PROJECT NUMBER: – P1.0

PROJECT TITLE: Alaska’s Region III Moose S&I program: Moose Populations and Factors Influencing Their Status in Interior and Eastern Arctic Alaska

PERIOD OF PERFORMANCE: July 1, 2019 - June 30, 2021

PERFORMANCE YEAR: July 1, 2020 - June 30, 2021; year 2 of a 2-year grant

REPORT DUE DATE:

PRINCIPAL INVESTIGATOR: Darren L. Bruning, Fish and Game Coordinator, ADF&G

COOPERATORS: NA

I. PROGRESS ON PROJECT OBJECTIVES DURING PERFORMANCE YEAR

OBJECTIVE 1: Conduct 3 investigations by 06-30-2021.

Project statement objectives:

Objective 1: Population Size, Status, and Trend. Assess the size and status of each moose population to evaluate the 5-year trend.

1.1: Collect anecdotal information about area moose populations through contacts with hunters and viewers.

ACCOMPLISHMENTS:

- We collected anecdotal information about Region III moose populations through contacts with hunters and moose viewers who contacted 6 area offices throughout the year.

1.2 Conduct geospatial population estimation (GSPE) surveys

ACCOMPLISHMENTS:

- We conducted a GSPE survey in Unit 19D during November 14–21 and sampled 109 of 184 SUs. We attempted to collect sightability data, but this was not accomplished due to the low number of radiocollared moose in the survey area.

- In southern Unit 20D we conducted a GSPE survey during November 2020. We sampled 77 of 320 SUs. for a total flight time of 71.3 hours.
- We conducted a GSPE survey in Unit 20B during November 2020 and sampled 175 of 1,628 SUs.
- In Unit 20E during 9–27 November we conducted a GSPE survey of the Taylor Corridor Survey Area (TCSA) and sampled 90 of 381 SUs within the TCSA. Total flight time for the GSPE survey was 80.8 hours. A restratification flight was conducted within 47 SUs over a portion of the northern section of the survey area prior to the GSPE for a total flight time of 3.8 hours.

1.3 Conduct riparian zone minimum direct count surveys

ACCOMPLISHMENTS:

- No riparian zone population minimum count surveys were accomplished during RY2020.

1.4 Conduct composition–trend surveys.

ACCOMPLISHMENTS:

- We collected composition and trend data as part of each GSPE survey listed above. Transects were flown approximately 0.5 miles apart and all groups of moose were circled to determine composition.

1.5 Monitor trend count data for information on age-sex composition.

ACCOMPLISHMENTS:

- We monitored the trend count data and assessed the long-term trends of age and sex composition for populations where population surveys are accomplished regularly.

1.6 Conduct spring twinning (calf production) surveys.

ACCOMPLISHMENTS:

- We conducted a twinning survey in Unit 20D during 26–29 May and observed 60 randomly-located cows with calves during 11.3 hours of flight time.
- We conducted a twinning survey in Units 20A during 26, 30, and 31 May and observed 120 randomly-located cows with calves during 17.9 hours of flight time.
- We conducted a twinning survey in Units 21D during 24–26 May and observed 50 randomly-observed cows with calves.

- We conducted a twinning survey in Unit 19D during 24–27 May and observed 40 randomly-located cows with calves.
- We conducted a twinning survey in Unit 20E on 25 May and 01 June and observed 17 radiocollared cows with calves during 13.2 hours of flight time.

1.7 Deploy radio collars on moose for use in GSPE surveys and to monitor distribution, productivity, and mortality.

ACCOMPLISHMENTS:

- No moose radio collars were deployed for use in GSPE surveys or to monitor distribution, productivity, or mortality in RY20.

1.8 Examine teeth to conduct age structure analysis.

ACCOMPLISHMENTS:

- We aged teeth from 142 harvested moose.

Objective 2: Mortality, Harvest Monitoring and Regulations. Assess the number of moose harvested by hunters and other sources of mortality that might have an impact on each moose population, statewide.

2.1 Monitor and assess harvest through analysis of hunt report data, potlatch information, and through contact with hunters.

ACCOMPLISHMENTS:

- Moose harvest throughout Units 12, 19, 20, 21, 24, 25, 26B, and 26C was monitored through analysis of 9,848 hunt reports from hunting seasons varying in length from 10 to 160 days (primarily during September), including moose taken in one general hunt applicable throughout most of the region, 89 drawing permit hunts, 14 registration permit hunts, 3 Tier II hunts, 1 targeted hunt, and 1 special hunt. Harvest data were analyzed, and the results were applied to management planning and ongoing harvest and population assessments.
- We operated a moose hunter checkstation on the Koyukuk River for 31 days and interviewed approximately 280 hunters about their observations and hunting methods during a 25-day season.
- At the Koyukuk River checkstation we collected teeth from 158 harvested moose.

2.2 Monitor natural mortality factors affecting the population.

ACCOMPLISHMENTS:

- Through interviews with hunters, local residents, pilots, and others and through biologists' observations, we monitored natural mortality in Units 12, 19, 20, 21, 24, 25, 26B, and 26C. No unusual mortality events were noted.

2.3 Opportunistically examine and collect samples from dead moose to look for causes of death, disease, mineral deficiencies, and contaminants.

ACCOMPLISHMENTS:

- 10 moose mortalities were investigated and 6 moose of various ages and sex were sampled or transported to the ADF&G Wildlife Health Laboratory for examination by ADF&G Wildlife Health Veterinarian.

2.4 Encourage hunters to report hunting activities via mandatory reporting processes to improve moose harvest data collection and assessment

ACCOMPLISHMENTS:

- Staff in 6 offices encouraged hunters to report harvest by explaining how the data are used and educating hunters about the various ways to report (in person, by phone, by internet, or by mail).

Objective 3: Habitat Enhancement and Assessment. Assess moose habitat and browse availability directly or indirectly in specified areas of the region and perform habitat enhancement in areas where it is feasible.

3.1 Assess moose habitat and browse.

ACCOMPLISHMENTS:

- Staff from 6 area offices assessed habitat quality through ground and aerial field observations in throughout region III in conjunction with surveys conducted above.
- In Unit 12, eighty-three moose pellet transects and associated vegetation surveys were conducted from the ground during 110 hours during May.

3.2 Assess habitat quality through browse surveys and field observations

ACCOMPLISHMENTS:

- No browse surveys were accomplished due to curtailment of field work due to COVID-19 concerns and lack of helicopter transport.

3.3 Assess habitat quality through weighing short-yearlings

ACCOMPLISHMENTS:

- There was no activity or accomplishments under this objective.

Objective 4: Moose Management with Public Participation and Outreach. Manage the moose populations of Alaska with an effort to engage the public using public meetings, working groups, educational materials, and incentive programs.

4.1 Compile data and prepare information for 13 five-year Moose Management Reports and Operational Plans.

ACCOMPLISHMENTS:

- We compiled information and data in preparation for writing 14 five-year Moose Management Reports and Plans for Units 12, 19, 20, 21, 24, 25, 26B and 26C. These reports are scheduled to be written in FY2022 and will include historical and current data, management directions, methods, Board of Game actions, harvests and natural mortality, habitat assessments, and local and statewide non-regulatory issues. The most recent Moose Management Reports and Plans are available at the following url:
http://www.adfg.alaska.gov/index.cfm?adfg=wildliferesearch.smrmoose2010_2020

4.2 Provide information to state and federal regulatory processes on moose management.

and

4.3 Work with local Fish and Game advisory committees to understand public desires and concerns regarding moose management

ACCOMPLISHMENTS:

- We communicated and coordinated with and provided information at meetings of 15 local Fish and Game Advisory Committees, the Alaska Board of Game, 4 Federal Regional Advisory Councils, the Federal Subsistence Board, Office of Subsistence Management, numerous local village councils and Native corporations, and the Wrangell–St. Elias Subsistence Resource Commission about moose management and to review and analyze biological information prepared to present regarding proposals for the Alaska Board of Game and the Federal Subsistence Board. The number of meetings attended was reduced, and many meetings, including the regular Statewide Board of Game meeting, were cancelled due to COVID-19 concerns. Region III staff contributed to the revised Board of Game meetings through videoconference and teleconference.

4.4 Review population and harvest objectives to assess their relevance to managing moose in the region.

ACCOMPLISHMENTS:

- Data and information from activities in objectives 1–4 was used by biologists in 6 area offices to review population and harvest objectives to determine whether each objective

remained relevant during the current year and assessed whether harvest was impacting each population.

4.5 Educate hunters to improve their understanding of hunting regulations and the value of conserving moose populations, to obtain better harvest data through increased harvest reporting.

ACCOMPLISHMENTS:

- Six area offices communicated and coordinated with local residents regarding moose–human conflicts, to improve understanding of these situations, and reduce need for Defense of Life or Property kills. We also responded in-person to and made recommendations in instances of moose–human interactions. Staff educated the public on moose awareness and safety, used public education programs and/or increased communication with the public to improve understanding of hunting regulations and the value of conserving moose populations, and to obtain better harvest data through increased harvest reporting.

4.6 Complete moose portion of Annual Intensive Management Reports for the Board of Game to comply with regulatory requirements for Intensive Management programs.

ACCOMPLISHMENTS:

- We prepared the moose portion of 2 Annual Intensive Management Reports for the Board of Game to comply with regulatory requirements for Intensive Management programs. See publications, listed in section IV.

4.7 Use public education at the Koyukuk River Checkstation to improve understanding of hunting regulations and the value of conserving moose populations, to obtain better harvest data through increased harvest reporting, and provide information about proper meat care

ACCOMPLISHMENTS:

- We completed a moose hunter newsletter for Unit 21D and 24 and mailed it to 404 hunters and mailed antler tags and hunt information to 200 resident hunters and educated hunters during 26 days at the Koyukuk River checkstation.

II. SUMMARY OF WORK COMPLETED ON PROJECT TO DATE.

Results of objectives 1–4 will be summarized in the report portion of the 5-year moose management report and plan, scheduled to be published in FY2022.

III. SIGNIFICANT DEVELOPMENT REPORTS AND/OR AMENDMENTS.

No SDRs were submitted for this project.

In addition to progress noted in section I, more staff time than expected was expended. This was caused by 2 events:

1. A substantial amount of time responding with biological information for emergency requests to extend or close moose seasons due concerns about food shortage due to COVID-19 or spread of the disease among hunters in the field.
2. Due to added complexities of COVID-19 safety protocols, additional staff time was spent preparing for field work.

Budgeted amounts differed from those expected in the project statement due to

1. Personnel: higher-than expected personnel cost, as indicated in previous paragraph.

IV. PUBLICATIONS

Moose portion of the Annual Report to the Alaska Board of Game on Intensive Management for Moose with Wolf, Black Bear, and Grizzly Bear Predation Control in Game Management Unit 19A. February 2021.

http://www.adfg.alaska.gov/static/research/programs/intensivemanagement/pdfs/2021_gmu_19a_intensive_management_annual_report.pdf

Moose portion of the Annual Report to the Alaska Board of Game on Intensive Management for Moose with Wolf, Black Bear, and Grizzly Bear Predation Control in Game Management Unit 19DEast. February 2021.

https://www.adfg.alaska.gov/static/research/programs/intensivemanagement/pdfs/2021_gmu_19d_east_intensive_management_annual_report.pdf

No other publications were completed during the report period.

V. RECOMMENDATIONS FOR THIS PROJECT

We recommend continued funding for this project in order to effectively survey, inventory and manage moose populations in Interior and Eastern Arctic Alaska.

Prepared by:

Date: October 2021