

**Alaska Department of Fish and Game
Wildlife Restoration Grant**

GRANT NUMBER: AKW-B-R2-2020

PROJECT NUMBER: 1.0

PROJECT TITLE: Region 2 Moose S&I program: Alaska's Moose Populations and Factors Influencing Their Status

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

PERFORMANCE YEAR: July 1, 2019 - June 30, 2020; year 1 of a 2-year grant

REPORT DUE DATE: Submit to FAC August 28, 2020

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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: Population Size, Status, and Trend. Assess the size and status of Region 2's moose populations to evaluate the 5-year trend.

ACCOMPLISHMENTS: Region 2- Units 6, 14C, and 7 & 15

Unit 6:

- Conduct a moose population estimate (modified GSPE) in select areas.
 - Surveys were conducted late spring in two hunt areas of Unit 6A. The point estimate for Unit 6A West was 204 moose (90% CI 117-292). The point estimate for Unit 6A East was 316 moose (90% CI 289-342).
- Conduct twinning surveys at peak parturition in Unit 6C.
 - A survey was conducted May 26 that resulted in a 38% twinning rate. Based on the large number of non-parturient cows that were observed, this survey was likely pre-peak parturition and has a twinning rate that is biased low.
- Conduct late-fall sex and age composition surveys

- Snow was insufficient in 2019 to conduct fixed-wing aerial composition surveys.

Unit 14C:

- Conduct a modified Gasaway moose census on Joint Base Elmendorf Richardson (JBER) in cooperation with the military.
 - A modified Gasaway moose census was not conducted on Joint Base Elmendorf Richardson and adjacent lands during the reporting period. Poor snow conditions prohibited surveys.
- Conduct minimum population counts in remote areas of 14C by air
 - Poor snow conditions and unfavorable weather prohibited minimum counts for moose in remote areas of 14C.

Unit 15:

- Conduct unit-wide fall moose census (GSPE).
 - A Geospatial Population estimate was conducted for Unit 15A between February 24-28, 2020. The point estimate produced was 612 moose with a 95% CI of 407-818 moose. Due to stratification errors and the fact that no sightability correction factor was produced for the low-density survey areas, we believe the true population estimate is on the high end of the 95% confidence interval, closer to 800 animals. Budgets and personnel constraints did not allow for GSPE surveys to be conducted in any other units.
- Conduct trend area surveys in Units 15A, 15B, and 15C.

Composition (Comp) count surveys were conducted in all units.

- Comp counts in Unit 15A were conducted between Dec. 5-6, 2019. Conditions ranged from fair to good. Five out of six core trend count areas were completed. Bull ratios remained above population objectives at 53 bulls: 100 cows and calf ratios were increased compared to recent years at 32 calves: 100 cows. With the low population level and density of moose in this unit, maintaining higher than normal bull ratios is advisable.
- Comp counts in Unit 15B were conducted between Dec. 4-6, 2019. Survey conditions ranged from fair to excellent. New trend areas were established in this unit due to a change in habitat structure and management objectives. Bull ratios were above population objectives throughout the unit with the lowest ratios found in the NW corner of the unit (29 bulls: 100 cows) as would be expected due to road access, and the highest found in the SE corner of the unit (74 bulls: 100), which is the area with the most limited access. The calf ratio was 24 calves: 100 cows.
- Comp counts in Unit 15C were conducted between Dec. 3-6, 2019 in all four core count areas. Conditions ranged from good to excellent. Bull

ratios were higher than population objectives in all trend areas with an overall bull ratio of 39 bulls: 100 cows and calf ratios were higher than recent years at 32 calves: 100 cows.

Objective 2: Mortality/Harvest Monitoring and Regulations. Document the number of moose harvested by hunters and other sources of mortality that may influence each moose population in Region 2.

ACCOMPLISHMENTS:

Objective 2 by Area

Units 6, 7, 14C, and 15

- Monitor harvest through analysis of registration, Tier II, and drawing permit data, potlatch information, and through contact with hunters.

Unit 6:

- Issued 20 drawing permits (DM160 and DM167) for a total harvest of 16 moose. Issued 207 registration permits (RM160 and RM164) for a total harvest of 36 moose. General season harvest tickets were used by 83 hunters which took 30 moose from areas open to them.

Unit 14C:

- Issued a total of 454 general season harvest tickets, drawing permits and registration permits for Unit 14C. Ninety-two moose were harvested during the reporting period including 17 cows and 75 bulls.

Units 7, 15A, 15B & 15C:

- Hunter harvest and participation increased in 2019, which may be due to the reintroduction of moose with 3 brow tines to the legal bag limit during the general season. 387 bulls were harvested during the general season an increase of 150 bulls over the previous season. An additional 56 moose were harvested through permit hunts, of which 13 were taken under Federal permits. Participation increased by 263 hunters during the general season.
- Monitor natural mortality factors affecting the population.
 - During July- September 2019, the Swan Lake Fire in Unit 15A burned over 167,164 acres. It is unknown if the fire caused any additional moose mortality. Ongoing projects are looking at the specific effects of fire on habitat and related moose movement.
- Swab nasal cavities of moose brought in with intact heads for sealing from Units 7 and 15, and opportunistically from other units.
 - Moose were swabbed for disease sampling in accordance with the requests from ADF&G veterinarians.

Objective 3: 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.

ACCOMPLISHMENTS:

We communicated and coordinated with and attended meetings of local Fish and Game Advisory Committees, the Alaska Board of Game, local village councils and Native corporations about moose management. The next Board of Game meeting for Region 2 is scheduled for winter of 2021/2022. Additional meetings related to the 2019 Swan Lake Fire were held and staff were in attendance to discuss wildlife and habitat issues as they relate to habitat succession and regeneration post-burn, along with developing plans to communicate with hunters to mitigate fire danger during the moose hunting season.

We compiled information and data to include in three 5-year moose Management Reports and Operational Plans for Units 6, 7 and 15, and 14C. These reports 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 next report is scheduled for publication in 2021. New reports and previous reports will be available at the following url: <http://www.adfg.alaska.gov/index.cfm?adfg=librarypublications.wildlifepublications&sort=all&species=Moose&submit=Search>.

II. SUMMARY OF WORK COMPLETED ON PROJECT TO DATE.

This project is ongoing. Summaries of past data trends are published at the following url:

<http://www.adfg.alaska.gov/index.cfm?adfg=librarypublications.wildlifepublications&sort=all&species=Moose&submit=Search>.

Summary results for FY2020 will be published at this location when completed.

III. SIGNIFICANT DEVELOPMENT REPORTS AND/OR AMENDMENTS.

None. Project number 1.0 was significantly underspent during the reporting period in personal services due to a staff vacancy in the Soldotna office, restrictions on travel due to COVID-19, and an overall budget shortage which resulted in a request to reduce planned spending in to preserve Fish & Game matching funds. In response to the 2019 Swan Lake fire, additional collars were purchased for deployment to collect information on moose activities and potential mortality events post-burn.

IV. PUBLICATIONS

Project publications for previous years are available at the following URLs:

<http://www.adfg.alaska.gov/index.cfm?adfg=librarypublications.wildlifepublications&sort=all&species=Moose&publicationtype=Species+Management+Report+%28and+Plan%29&submit=Search>

http://www.adfg.alaska.gov/index.cfm?adfg=wildliferesearch.smrmoose2010_2020

V. RECOMMENDATIONS FOR THIS PROJECT

We recommend continued funding for this project to effectively manage moose populations in Southcentral Alaska.

Prepared by: Cynthia Wardlow

Date: October 2020