

**FEDERAL AID
ANNUAL PERFORMANCE REPORT**

ALASKA DEPARTMENT OF FISH AND GAME
DIVISION OF WILDLIFE CONSERVATION
PO Box 25526
Juneau, AK 99802-5526

**MUSKOX
ANNUAL SURVEY AND INVENTORY
FEDERAL AID PERFORMANCE REPORT**

STATE: Alaska

GRANT AND SEGMENT NR.: W-27-5

PROJECT NR.: 16.0

WORK LOCATION: Statewide

PROJECT LOCATIONS: Regions 3 and 5

PERIOD: 1 July 2001–30 June 2002

PROJECT TITLE: The Status of Alaska Muskoxen and Factors Influencing Their Populations

REPORT DESCRIPTION: This statewide performance report includes the two regions involved in muskox survey and inventory activities. Regional activities are listed before specific activities by game management unit.

**The Status of Alaska Muskoxen and
Factors Influencing Their Populations in Region 3**

Regionwide Activities

Activity 1: Write an annual survey and inventory performance report.

Wrote an annual survey and inventory report.

Activity 2: Provide information to the Board of Game and advisory committees on muskox management.

Made presentations to the Board of Game and advisory committees as needed.

Activities by Unit

Units 26B and 26C

Activity 1: Conduct June composition counts in Unit 26B (all objectives).

Conducted a June composition counts in Unit 26B (n=284).

Deployed 3 radio collars to support survey activities.

Activity 2: Monitor the results of the permit hunts in Unit 26B and analyze harvest data.

Monitored the results of the permit hunts in Unit 26B and analyzed harvest data (9 muskoxen were harvested).

Activity 3: Review information obtained by the USFWS on population size, sex and age composition in Unit 26C and on movements of radio-collared animals (all objectives).

Reviewed information obtained by the USFWS on population size, sex and age composition in Unit 26C and on movements of radio-collared animals. Unit 26C (muskox population has declined dramatically).

Total Regional Segment Period Project Costs (in thousands): \$13.5

Submitted by: Roy A. Nowlin, Management Coordinator

The Status of Alaska Muskoxen and Factors Influencing their Populations in Region 5

Regionwide Activities

Activity 1: Write an annual survey and inventory performance report.

Performance report for Units 18, 22, and 23 were prepared August 2002 and submitted to HQ early September 2002

Activity 2: Provide information to the Board of Game on muskox management.

Unit 18: In preparation for the Board of Game meeting in November 2001, the department analyzed data and presented information on the population status of muskox and related issues pertaining to proposals to increase the maximum number of permits available on Nelson Island from 30 to 42. The Board adopted the proposal and expedited the action to include the spring 2002 season.

Unit 22: During the November 2001 BOG meeting the department provided information on muskox population and harvest levels to assist the board in its deliberation of a proposal generated by residents of Unit 22E and representatives of the Seward Peninsula Muskox Cooperators Group. The proposal requested: 1) an increased harvest rate of 8% for muskoxen in Unit 22E; 2) a 4% harvest rate for cow muskoxen in Unit 22E; 3) maintaining a Tier II subsistence hunt for any muskoxen in Unit 22E; and 4) establishing a resident drawing hunt for mature bull muskoxen in Unit 22E. The Board adopted the proposal as requested. The Board also increased the allowable harvest quotas in Units 22B, 22C, 22D and 23SW to allow a continued 5% harvest rate as the muskox population grows.

Unit 23: Department staff provided information to BOG members regarding the population status of muskoxen throughout Unit 23 during its November 2001 meeting.

Unit 26A: Department staff prepared data and presented information on the impacts of increased harvest that would come with a future Tier 2 permit hunting in Unit 26A to assist the Board of Game in its deliberation of a proposal that established a positive customary and traditional finding for muskoxen in Unit 26A and expanded Tier 2 Muskox hunt TX108 to include Unit 26A in addition to the western part of Unit 26B. The department also established 153° W longitude as the western extent of the hunt area in Unit 26A.



Activities by Unit

Unit 18

Activity 1: Conduct ground-based sex and age composition surveys on Nunivak Island and Nelson Island during late winter.

No work was accomplished on this objective during this reporting period.

Activity 2: Conduct aerial censuses of the Nunivak and Nelson Island populations during late winter to estimate the post-hunt, pre-calving population size.

We conducted an aerial census of Nunivak Island on 6-8 October 2001 and counted 609 muskoxen. On 18 July 2001 we counted 306 muskoxen on Nelson Island during an aerial census.

Activity 3: Monitor the location of animals on the mainland of Unit 18 through contacts with the public, field observations to assess distribution and dispersal, and reports of illegal harvest.

No muskoxen have been radiocollared at this time in Unit 18. We had reports from the public of several groups of muskoxen on the mainland during the time period.

Activity 4: Monitor hunting and other mortality factors through harvest reporting, contacts with the public and field observations.

During this report period the harvest on Nelson Island was 14 cows and 20 bulls. The cow harvest on Nunivak Island was 40 animals and the bull harvest was 45.

Activity 5: Improve communication with the public to reduce the magnitude of illegal and unreported muskox harvests.

We discussed muskoxen at the Lower Kuskokwim, Central Bering Sea and Lower Yukon advisory committee meetings.

Activity 6: Continue utilizing muskox management plans in cooperation with the public and other agencies.

We did not hold any public meetings other than the advisory committee meetings where muskoxen were discussed during the reporting period. The Board of Game proposal that adopted increased the number of permits available followed the Nelson Island Muskox Herd Cooperative Management Plan to increase the harvest when the population is over 300 animals.

Units 22 and 23SW (the portion of Unit 23 west of and including the Buckland River drainage)

Activity 1: Census muskoxen on the Seward Peninsula in February and March to determine the minimum direct-count pre-calving population size

A census conducted in March 2002 obtained a total count of 2050 muskoxen in 156 groups. This represents a 14% increase in population size, (7% annually) since the 2000 census when 1797 muskoxen were observed. This 7% annual growth rate is less than the 14% average annual growth rate documented in past years. The NPS, BLM and the Alaska National Guard helped fund the 2002 census and NPS staff participated in the census.

Activity 2: Determine age-sex composition of selected portions of the Seward Peninsula.

Following the muskox census, a thorough sex and age composition survey of Seward Peninsula muskoxen was undertaken for the first time. We used a helicopter to visit a sample of muskox groups in each subunit included in the census. Group members were classified by age and sex. Staff used a random sampling scheme weighted by group size, since not all groups could be sampled. Over 1200 muskoxen were classified. The NPS, BLM and the Alaska National Guard helped fund the age-sex composition work.

Activity 3: Monitor the locations of radio-collared muskoxen at periodic intervals to assess population distribution and dispersal.

No radio collars were active in Units 22 or 23SW.

Activity 4: Participate in the Muskox Cooperators Group meetings and facilitate exchange of information and ideas between agencies and user groups.

The Muskox Cooperators Group did not meet during this reporting period. However, in response to requests by residents of Unit 22E, Unit 22 area biologist Kate Persons organized a series of public meetings in Wales and Shishmaref concerning muskox management in Unit 22E. A proposal to increase the harvest rate and establish a drawing hunt for muskoxen in Unit 22E was produced at a final July 2001 meeting in Shishmaref. Participants included residents of Wales and Shishmaref, department and Federal staff and other long-time members of the Cooperators Group from Nome, Kotzebue and Anchorage. The proposal was mailed to all participants of the 2000 cooperators meeting, and comments were requested. Respondents were supportive and the Board of Game and Federal Subsistence Board adopted the proposed changes. Nome staff works closely with NPS staff to coordinate hunt administration and management activities.

Activity 5: Manage muskoxen in Units 22B and 22C primarily for viewing, education, and other non-consumptive uses, and secondarily for hunting.

When new hunts were authorized in Units 22B, 22C, and southern 22D, the hunt areas and seasons were selected to ensure that the most-viewed herds near Nome and those along the road system were not subjected to hunting disturbances. No hunting was allowed near the most accessible herds in the vicinity of Nome. Along the road system, seasons were delayed until roads were generally closed by snowfall. Thus hunting occurred in the winter and did not conflict with road-based viewing.

Activity 6: Work with local reindeer herders to identify and minimize conflicts between reindeer and muskoxen.

Activities related to reindeer herding occurred in Units 22 and 23SW. Nome staff attended the annual Reindeer Herders Association meeting and discussed the herders' concerns about wildlife issues, but muskoxen were not brought up for discussion.

Units 23NW, and 26A

Activity 1: Conduct a census and composition survey of the Cape Thompson muskox population annually.

We observed 259 muskoxen (236 adults and 23 calves) during a census conducted in June–July 2001 between Cape Lisburne and the mouth of the Noatak River. We suspect we missed many muskoxen during the census because of movements and leaf out. Calf production was low in 2001 (10 calves:100 adults).

Activity 2: Improve communication with the public to reduce the magnitude of illegal and unreported harvests.

Muskox management was discussed with advisory committees and local residents of Unit 23 and Unit 26A, and with the North Slope Borough Fish and Game Management Committee.

Activity 3: Encourage cooperation and information exchange among agencies and muskox user groups to develop and implement management objectives.

The USFWS participated in the 2001 census. Local residents were hired by ADF&G as observers on the muskox census. We continue to work with the North Slope Muskox Working Group, which is made up of representatives from villages and agencies that meet to discuss issues and make recommendations concerning management of muskoxen on the North Slope.

Activity 4: Record reported sightings of muskoxen, particularly mixed-sex groups as an indicator of range expansion.

Observations of muskoxen reported by the public and opportunistic observations by department staff were recorded and mapped. A mixed sex group of approximately 25 muskoxen moved from Unit 23 to Unit 26A, near the village of Point Lay during the summer of 2002. This may indicate a substantial range expansion for the Cape Thompson population.

Other activities funded by federal aid on this project:

Unit 22

Activity 1: Administer Tier II subsistence permit hunts in Unit 22.

Tier II hunts were administered in Units 22B, 22C, 22D and 22E. Activities included assisting the public with the Tier II application process, permit distribution, hunter orientations and compiling harvest data. In Unit 22B, 4 of 5 permits issued (80%) were filled, in Unit 22C, 2 of 4 permits (50%) were filled, in 22D, 28 of 37 permits issued (76%) were filled, and in Unit 22E, 13 out of 15 permits (87%) were filled. Hunt administration was coordinated with federal staff members who administer federal subsistence hunts on federal public lands.

Unit 26A.

Activity 1: Administer regulation 5AAC 92.046 which allows the ADF&G commissioner to issue permits to harvest muskoxen that disperse into important caribou hunting areas in Unit 26A.

We monitored the movements of a mixed sex group of muskoxen that dispersed into the area near Point Lay in anticipation of a request for permits to harvest some of them.

Total Regional Segment Period Project Costs (in thousands): \$133.3

Submitted by: Peter Bente, Wildlife Biologist III

Statewide Project Costs (in thousands):

State Share = \$ 37 Federal Share = \$110 Total Costs = \$147