**ALASKA DEPARTMENT OF FISH AND GAME**
**DIVISION OF WILDLIFE CONSERVATION**
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# MUSKOX
# ANNUAL SURVEY AND INVENTORY
# FEDERAL AID PERFORMANCE REPORT

**STATE:** Alaska **GRANT AND SEGMENT NR:** W-33-2
**PROJECT NR:** 16.0

**WORK LOCATION:** Statewide

**PROJECT LOCATIONS:** Regions 3 and 5

**PERIOD:** 1 July 2003–30 June 2004

**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 Muskox and Factors Influencing Their Populations in Region III

### Regionwide Activities

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

Provided information to the Board of Game and/or advisory committees during the regulatory process

### Units 26B and 26C

Activity: Capture and radio-collar 6 muskoxen in Unit 26B to assist in locating groups of muskoxen during precalving surveys and composition counts.

Captured and radiocollared 3 muskox to monitor movements and sex and age composition. No mortalities.

Activity: Conduct a June composition count in Unit 26B.

Conducted a June composition count. We sexed and aged 153 muskoxen. Twenty –five percent were calves. Previously known groups of muskoxen were missing.

Activity: 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 analyze harvest data. There were 5 hunters and 2 successful for TX108, 1 hunter and 1 successful for DX112, no hunters participated in hunt RX110.

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

Reviewed information obtained by the USFWS on population size, and sex and age composition in Unit 26C, and on movements of radiocollared animals. They do not have muskoxen radiocollared and the 26C muskox population has declined to < 30 animals.

**Other activities funded by Federal Aid on this project:**

**Stewardship Investment items purchased:** None

**Total Regional Segment Period Project Costs (in thousands):** $14.6

**Submitted by:** Doreen Parker McNeill, Assistant Management Coordinator

**The Status of Muskox**
**and Factors Influencing Their Populations in Region V**

## Regionwide Activities

Activity 1: Provide information to the Board of Game on muskox management.

During the November 2003 Board of Game (BOG) meeting, the Department provided information regarding population status of muskox in Units 18, 23, 22, and 26A. We commented on and provided additional information at the board's request on 1 proposal affecting the Seward Peninsula (Units 22 and 23SW). As recommended by the Department and the Seward Peninsula Muskox Cooperators Group, the BOG rejected a public proposal eliminating all cow bag limits and reducing bull harvest quotas in Units 22D, 22E and 23SW.

## Unit 18

Activity 1: Conduct annual aerial censuses of the Nunivak and Nelson Island populations to estimate population size and determine age-sex composition.

We counted 657 muskox on Nunivak Island and 327 on Nelson Island during July of 2003. We used a fixed-wing aircraft for these surveys so we were able to classify mature bulls, cows, 3 year-old bulls, 2 year-old bulls, yearlings, and calves.

Activity 2: Monitor the population size, distribution, and dispersal of musk ox onto the mainland through harvest reporting, contacts with the public, and field observations.

The public reported several groups of muskox on the mainland during the reporting period. Also, during a moose calving survey flight we observed 29 muskox about 45 miles north of Nelson Island.

Activity 3: 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 22 bulls; on Nunivak Island the harvest was 43 cows and 46 bulls.

Activity 4: Work with local Advisory Committees, village representatives, and other agencies to promote the establishment of a huntable muskox population on the mainland.

We discussed muskox at the Lower Kuskokwim, Central Bering Sea and Lower Yukon Advisory committee meetings

Activity 5: Work with local residents to rescue stranded muskoxen as needed and reduce kills of nuisance animals.

During spring 2004, 11 muskox became stranded on Triangle Island, a small island about 2 miles Northeast of Nunivak Island. There were two mature bulls and nine year-old animals. During a season opening on the island, residents of Mekoryuk harvested two bulls in June of 2004.

Activity 6: Continue to develop and utilize the ongoing cooperative muskox management plans (such as the *Nelson Island Musk ox Herd Cooperative Management Plan*) in cooperation with the public and other agencies.

We did not hold any public meetings other than the Advisory Committee meetings where muskox information or plans were discussed.

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

Activity 1: Participate in Seward Peninsula Muskox Cooperators Group meetings and facilitate exchange of information and ideas between agencies and user groups.

Department staff met with the Seward Peninsula Muskox Cooperators Group and federal managers in September 2003 to discuss muskox proposals before the Alaska Board of Game (BOG) and the Federal Subsistence Board (FSB). The Muskox Cooperators Group unanimously opposed a BOG public proposal eliminating all cow bag limits and reducing the bull harvest quotas for muskoxen in Units 22D, 22E and 23SW which was later rejected by the BOG. The cooperators also opposed an amended federal proposal to open Federal lands in Units 22B and 22D to hunters possessing a State Tier II permit. This proposal was withdrawn and resubmitted to the FSB as a proposal to expand the customary and traditional use determination for muskoxen in Units 22B and 22D to allow Nome residents and others in Unit 22 to hunt muskoxen in those units. The FSB amended and adopted the proposal, giving residents of Unit 22C a positive C&T determination for western Unit 22B; and residents of Unit 22C and White Mountain a positive C&T for the Kuzitrin drainage in Unit 22D. The cooperators expressed frustration because harvest in most hunt areas has consistently been below established harvest quotas. The cooperators asked ADF&G to issue additional Tier II permits in season if harvests appear likely to be below the quota, resulting in 11 additional Tier II permits in 4 of 7 hunt areas. The next cooperators meeting is planned to follow the 2005 muskox census.

Activity 2: Monitor hunting and other mortality factors through harvest reporting, contacts with the public, and field observations.

Hunting was by Tier II subsistence permits in Units 22B, 22C, 22D, 22E, and 23SW. We monitored Tier II hunts and analyzed harvest reports: in Unit 22B 1 of 7 Tier II permits (14%) were filled; in Unit 22C 5 of 6 permits (83%) were filled, in Unit 22D 31 of 40 permits (78%) were filled; in Unit 22E 16 of 26 permits (62%) were filled; and in Unit 23SW 2 of 10 permits (20%) were filled. Monitoring of hunts was coordinated with federal staff administering federal subsistence hunts on federal public lands. In combined state and federal hunts in Unit 22B 33% of the harvest quota was filled, 83% in Unit 22C, 87% in Unit 22D, 51% in Unit 22E and 20% in Unit 23SW.

For the second consecutive year a bulls-only drawing permit hunt was held in Unit 22E where 3 of 7 permits (42%) were filled.

Reports from the public and field observations indicate that bears are increasingly successful at preying on muskoxen on the Seward Peninsula.

Activity 3: Work with local reindeer herders to identify and minimize conflicts between reindeer and muskoxen in an effort to conserve muskoxen and allow for population growth and expansion.

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.

Activity 4: Encourage cooperation and sharing of information among agencies and users of the resource in developing and executing management and research programs.

Nome staff works closely with BLM and NPS staff to coordinate management activities. Staff attended two Seward Peninsula Regional Advisory meetings and reported on muskox population status and hunt administration.

Activity 5: Provide orientation for Tier II and drawing permit muskox hunters in Unit 22.

Department staff used in-person interviews and web-based orientation information on the ADF&G website to provide hunters and the public with muskox identification and sex and age classification information.

**Units 23NW and 26A**

Activity 1: Census muskox annually in Unit 23 NW (Cape Thompson population)

Muskoxen were censused during January-February 2004. The minimum population count was 363 muskoxen. We observed 22 calves:100 adults; however, this estimate is probably high because some 2-yr-old muskoxen were probably misclassified as calves.

Activity 2: Census and conduct muskox composition surveys annually in eastern Unit 26A (ANWR population).

We censused muskoxen from the ANWR population on 7-9 April 2004. A total of 198 muskoxen were counted, including 21 short yearlings (10.6 SY:100 adults). This represents a decline in the number counted in 2002 (214) and in 2000 (277). Forty-five of these muskoxen were found in Unit 26A, including one group of 11 that was found 32 miles west of the Colville River on upper Judy Creek.

Composition counts were conducted for the ANWR population on 7-8 June 2004. We surveyed 138 muskoxen of which 28% were bulls, 45% were cows, 7% were yearlings, and 20% were calves. Twenty-seven of these animals were in Unit 26A. Six members of a group of 16 that had been found earlier on the Colville River were found dead and had apparently died in a spring flood.

Activity 3: Conduct muskox distribution surveys periodically (every 2-3 years) in selected portions of Unit 26A to document range expansion of the population.

We surveyed the eastern side of Unit 26A and looked for muskoxen in the western section during caribou surveys. A group of 11 muskoxen was found on upper Judy Creek 32 miles west of the Colville River, indicating a westward expansion of the ANWR population. Approximately 20 muskoxen were found during caribou surveys in July 2003

in the south-western region of Unit 26A, indicating a westward expansion of the Cape Thompson Population into Unit 26A.

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

Unit 23. Six bull muskoxen were harvested during the Tier II muskoxen hunt (TX107).

Unit 26A. Three muskoxen were harvested during the Tier II muskoxen hunt (TX108). No muskoxen were harvested during a registration hunt in the Point Lay area when muskoxen moved into a caribou hunting area.

Activity 5: Use public education to improve understanding of the conservation value of hunting regulations and obtain better harvest data through increased harvest reporting.

We talked to students and hunters about hunting and wildlife management.

Activity 6: Encourage cooperation and information exchange among agencies and muskox user groups to develop and implement management objectives.

We invited USF&WS and NPS staff to participate in the Unit 23NW muskox census but they were unable to do so. We distributed a summary of the census results to these agencies and the BLM. We cooperated with staff from ANWR USFWS and from ADFG Region 3 to complete the census and the composition counts in Units 26A, 26B, and 26C. We worked with the North Slope Muskox Working Group to make recommendations for management decisions.

Activity 7: Record reported sightings of muskoxen, particularly mixed-sex groups as an indicator of range expansion.

Group size and location of all opportunistic sightings of muskoxen were recorded by ADF&G staff.

Activity 8: Evaluate whether muskox population growth will adversely affect resident reindeer and caribou populations.

We noted and photographed occasions when muskoxen and caribou were observed in proximity to each other. We responded to people in Point Lay who reported that muskoxen were displacing caribou from their hunting area.

**Other activities funded by Federal Aid on this project:**

Activity 1. Complete muskox composition counts in selected areas of Unit 22.

During March 2004 we recorded locations of all muskox groups seen during a moose census of Units 22B and 22C. In April, using a helicopter, we relocated 14 groups in Unit 22B and classified 236 muskoxen by age and sex. This was not a complete count of muskoxen in Unit 22B, however we classified 25% more muskox than were counted in the 2002 census, showing a minimum annual growth rate of 12.5%. All younger age classes were well represented which is characteristic of growing populations and yearlings, 2 year-olds and 3 year-olds were found in similar proportions to what we found in 2002.

In Unit 22C we found 16 groups and classified 212 muskoxen. Only 8% of the muskoxen classified were yearlings, down from 19% in 2002. The proportion of 2 year-olds was also down slightly from 18% in 2002 to 13%.

**Stewardship Investment items purchased:** None.

**Total Regional Segment Period Project Costs (in thousands):** $ 103.6

**Submitted by: Peter Bente, Management Coordinator**

**Statewide Project Costs (in thousands):**
**State Share = $29.55 Federal Share = $88.65 Total Costs = $118.2**