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-33-3
PROJECT NR: 16.0

WORK LOCATION: Statewide

PROJECT LOCATIONS: Regions 3 and 5

PERIOD: 1 July 2004–30 June 2005

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: Prepare biennial regional musk ox management reports.

Prepared biennial muskox management reports.

Activity: Provide information to advisory committees about muskox management.

Provided information to Fish and Game Advisory Committees concerning muskox management.

Activities by Unit

Unit 26B and 26C

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

Conducted a June composition count in Unit 26B, classifying 151 muskoxen with 40% calves and 16% yearlings.

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

Monitored harvest of 8 muskoxen under 3 permit hunts and analyzed harvest data.

Activity: Review information obtained by the U.S. Fish and Wildlife Service (FWS) on population size, and sex and age composition in Unit 26C, and on movements of radiocollared animals.

Reviewed information obtained by the FWS on population size, and sex and age composition in Unit 26C, and on movements of radiocollared animals.

Stewardship Investment items purchased: None.

Total Regional Segment Period Project Costs (in thousands): $7.8

Submitted by: Roy A. Nowlin, Management Coordinator

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

Regionwide Activities

Activity: Prepare a biennial regional muskox management report.

Staff prepared a biennial regional muskox management report.

Activities by Unit [and/or herd]

Unit 18

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

In July 2004 we counted 318 muskoxen on Nelson Island and 638 muskoxen on Nunivak Island. These censuses were flown using a fixed-winged aircraft so the animals were classified as either bulls, cows, 2-year-olds or calves.

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

Several groups of muskoxen were reported in the fall of 2004 and the winter of 2004–05. These include single animals seen near the villages of Russian Mission and Marshall, multiple animals near Bethel, Kasigluk, Kongiginak, and Akiak and a group near some extinct volcanoes southeast of Chevak.

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

Thirty-five muskoxen were harvested on Nelson Island during the report period. Twenty-one of those were bulls and 14 were cows. Forty-three bulls and 44 cows were harvested on Nunivak Island during the report period. As many as 20 muskoxen were illegally harvested from the groups living on the mainland near extinct volcanoes southeast of the village of Chevak.

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

We discussed muskoxen at the Lower Kuskokwim, Central Bering Sea and Lower Yukon Advisory Committee meetings

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

During the spring of 2004 eleven muskoxen became stranded on Triangle Island, a small island about 2 miles northeast of Nunivak Island. There were 2 mature bulls and 9 year-old animals. We opened the season with the intention of harvesting all of these animals. Residents of Mekoryuk harvested 2 bulls in June of 2004. The remaining 9 were harvested in July 2004.

Activity: 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 muskoxen were discussed during the reporting period.

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

Activity: Census muskox during March and April to estimate population size every 3 years on the projected schedule: 2005, 2008, 2011, etc.

In the March 2005 Seward Peninsula muskox census we counted 2387 muskoxen, which represents an average annual increase of 5.5% since the last census in 2002. We counted 326 muskoxen in Unit 22B, 220 in Unit 22C, 796 in Unit 22D, 863 in Unit 22E and 182 muskoxen in Unit 23 SW.

Activity: Conduct on-ground age/sex composition surveys during March and April to determine population structure and yearling recruitment age/sex composition surveys.

In April 2005 we used an R-44 helicopter to conduct an age/sex composition survey in Unit 22E. We observed 501 muskoxen and classified 83 bulls 4 years old or older (17%), 26 three-year-old bulls (5%), 43 two-year-old bulls (9%), 161 cows 4 years old or older (32%), 69 three-year-old cows (14%), 34 two-year-old cows (7%), and 77 yearlings (15%). Six muskoxen (1%) were unclassified.

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

We organized a meeting of the Seward Peninsula Muskox Cooperators group, which was held June 20–21 in Nome. We presented information about population status of the Seward Peninsula muskox herd and provided harvest information, which the group used to develop proposals for regulatory changes for submission to the Alaska Board of Game and the Federal Subsistence Board. Prior to the Cooperators meeting, we organized and participated in teleconferences and meetings with Unit 22E villages to develop a plan for transition from Tier II to Tier I hunting in Unit 22E.

Activity: 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, 6 of 14 Tier II permits (43%) were filled; in Unit 22C, 4 of 6 permits (67%) were filled, in Unit 22D, 18 of 45 permits (40%) were filled; in Unit 22E, 16 of 28 permits (57%) were filled; and in Unit 23SW, 5 of 12 permits (42%) 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 67% of the harvest quota was filled, 67% in Unit 22C, 50% in Unit 22D, 75% in Unit 22E and 70% in Unit 23SW.

For the second consecutive year a bulls-only drawing permit hunt was held in Unit 22E where 9 of 10 permits (90%) were filled.

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

Activity: 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: 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 the Bureau of Land Management and National Park Service (NPS) staff to coordinate management activities. Staff attended 2 Seward Peninsula Regional Advisory meetings and reported on muskox population status and hunt administration.

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

Department staff used in-person and telephone interviews and Web-based orientation information on the ADF&G Website to provide hunters and the public with muskox identification, sex and age classification and hunting information.

Units 23NW, and 26A

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

With assistance from NPS staff, we censused muskox during February 2005. We observed 369 muskoxen in 41 groups between Cape Krusenstern and Cape Lisburne.

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

We counted 188 muskoxen from the ANWR population in Units 26A and 26B on 12–13 April 2005, including 24 short yearlings (15 short yearlings per 100 adults). This is slightly less than the number counted in 2004 (198) and continues the decline in the numbers counted in 2002 (214) and in 2000 (277). Twenty-eight of these muskoxen were found in Unit 26A, including one group of 9 that was found near the Kogru River.

Activity: 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 moose surveys. A group of 11 muskoxen was found on upper Judy Creek 32 miles west of the Colville River in 2004, and they moved north to the Kogru River in 2005, indicating a westward expansion of the ANWR population. Approximately 20 muskoxen

were found during caribou surveys in July 2003 in the southwestern region of Unit 26A, indicating a westward expansion of the Cape Thompson Population into Unit 26A.

Activity: Capture muskoxen and attach satellite, GPS, or conventional radio collars. Capture activities will follow protocols in the division's Wildlife Capture and Chemical Restraint Manual. Up to 2 muskoxen will be captured in 2004–2005.

We captured and attached VHF radio collars to 2 muskoxen in Unit 26A during the spring of 2005. There were no mortalities.

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

Unit 23: Three muskoxen were taken under the state Tier II hunt (TX107).

Unit 26(A): Four muskoxen were harvested during the Tier II muskox hunt (TX108) in Units 26A and 26B. None were harvested during a registration hunt in the Point Lay area when muskoxen moved into a caribou hunting area. Through field observations, we found at least 6 muskoxen drowned when the Colville River flooded during the spring of 2004.

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

Unit 23: We talked to students, hunters, and other individuals regarding hunting, wildlife management, and conservation of muskoxen in Units 23 and 26A.

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

Unit 23: The northwest Unit 23 muskox census was conducted cooperatively with NPS staff. Results of muskoxen surveys were discussed with the public.

Unit 26(A): We cooperated with staff from ANWR FWS 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: Record reported sightings of muskoxen, particularly mixed-sex groups as an indicator of range expansion.

Unit 23: Numerous observations of muskoxen, including latitude and longitude as well as group size, were recorded during wildlife surveys and other activities in Units 23 and 26A.

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

Unit 23: Several instances of caribou and muskoxen grazing peacefully in close proximity to each other were photographed.

Unit 26(A): 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.

Stewardship Investment items purchased: None.

Total Regional Segment Period Project Costs (in thousands): $160.2

Submitted by: Peter Bente, Management Coordinator

Statewide Project Costs (in thousands):
State Share = $42.0 **Federal Share = $126.0** **Total Costs = $168.0**