Cape Krusenstern National Monument Muskox Survey - July 1997

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INTRODUCTION

Muskoxen were transplanted to Cape Thompson from Nunivak Island in 1970 (36 animals) and 1977 (34 animals). Since these transplants, population growth in the coastal area from Cape Krusenstern to Cape Lisburne has been slow. The Alaska Department of Fish and Game (ADF&G) has conducted counts of muskoxen in this area since the transplants. Most information is available in Annual Muskox Survey and Inventory Reports distributed by the ADF&G. This survey was conducted by The National Park Service (NPS) as part of the ongoing inventory of muskoxen that specifically occupy the Cape Krusenstern National Monument (CAKR) and adjacent lands where muskoxen have been observed.

METHODS

We surveyed CAKR using the existing Alaska Dept. of Fish and Game Universal Coding Units (UCU's) as survey units. The boundaries of UCU's are defined by contours and major drainages. We surveyed UCU's 83, 96, 111, 131, and 128 using a single PA-18 Super Cub with a pilot/observer team (NPS). Transects were flown within each UCU utilizing natural land formations as reference points. In the mountainous areas, we systematically searched using geographic features such as ridge lines and drainages. All surveys were flown at an altitude of 500-1,000 ft above ground level. When muskoxen were sighted, we initially approached them at an altitude of 1,000-1,200 ft., then slowly decreased our altitude as we completed accurate counts. This method enabled us to differentiate individual muskox and calves in the group without the group forming a defensive ring.

RESULTS

We conducted the survey between 15 July and 17 July 1997 (Table 1). Weather conditions during the survey were optimal with clear skies and light wind. The survey required 10.5 flight hours with each UCU requiring approximately 2 hours to complete. We classified 46 animals (36 adults; 10 calves) in six groups.

Table 1. Muskoxen locations and composition, Cape Krusenstern National Monument, July 1997.

Date	Location	Latitude	Longitude	UCU	Group No.	Adults	Calves
7/16/97	N. slope of Tahinichok Mountain	67.63^0	163.71^0	83	1	1	0
7/16/97	S.E. slope of Naglatuk Hill	67.28^0	163.60^0	111	2	5	1
7/16/97	S. slope of Naglatuk Hill	67.30^0	163.61^0	111	3	9	1
7/16/97	Beach side of Tasaychek Lagoon	67.26^0	163.76^0	111	4	7	4
7/16/97	W. of Eigaloruk Mountain	67.23^0	163.63^0	111	5	12	4
7/16/97	E. of Tulilik Lake	67.20^0	163.68^0	131	6	2	0

DISCUSSION

We observed 46 muskoxen in the Monument. The ADF&G completed a census in this area during 1997, but the results of this survey were not available to the NPS. The last survey conducted by the ADF&G where information is available was 1994 when 58 muskoxen were counted in the Tahinichok Mountains. Although we were confident that we obtained accurate counts of animals within the groups we encountered, it is likely that we missed a number of single bulls not associated with groups. This may account for the lower number of animals counted during this survey. Composition data collected during this survey indicated the percentage of calves in the population at approximately 21%. This is consistent with the previous surveys which found that the percentage of calves in the population ranged from 12 to 22% annually. The NPS will continue to annually count muskoxen within CAKR. At this time, the CAKR population will not support a harvest without jeopardizing the long-term viability of this locally resident population.