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W I N T E R M O O S E C E N S U S
MOUNT MCKINLEY NATIONAL PARK
1976

NATIONAL PARK SERVICE
Anchorage, Alaska

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MOOSE CENSUS - MOUNT MCKINLEY PARK

1976

An aerial winter inventory of moose was conducted in Mount McKinley National Park in 1976. All surveys were flown with a Piper Supercub (PA-18) chartered from Denali Flying Service. Observers were Steve Buskirk, John Haller and Pederson while Chalon Harris and Will Troyer alternated as pilots.

The census was conducted on October 29, 30, 31 and November 2, 4, and 5. Counting conditions were excellent. Trees and shrubs were heavily laden with snow and about 8-10 inches of snow covered the ground. Little wind turbulence was encountered and light conditions were good. These were far better counting conditions than had been experienced during previous surveys.

Results and Discussion

The eastern portion of the park (Wonder Lake to the Nenana River) was censused with the exception of the drainages (Sull River and Windy on the south side). This area had been previously divided into geographic counting units in 1974. Individual units 7, 8, 10, 11, 13, 14, 15, 16 and 17 were completed and a total of 576 moose were classified. This compared to 371 seen in the same units in 1974. Greater number of moose were tabulated in all units with the exception of 13. The best concentrations were found in the Riley, Savage and Sanctuary drainages. The composition of the population consisted of 138 bulls, 377 cows and 61 calves as shown in Table 1. The percent of calves in the population was only 10.6 with 16.2 calves per 100 cows. This indicates a slight reduction of calf production over 1974 but an increase over 1975. (Table 2)

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Calf production or survival to November continues to be low compared to many other moose herds in Alaska. However, the McKinley population is not subject to hunting pressure and is probably fairly stable subject to natural predation. Young calves are extremely vulnerable to predation and major losses may have occurred early in the summer. The low incidence of cows with two calves seen in November would suggest this to be a factor as twins were quite often seen with cows in late May and early June. The large number of bulls in the population (36.6 per 100 cows) is also an indication of an un hunted relatively stable population. It should be noted that 22 of the 138 bulls seen were in the yearly class indicating a low survival to this age class.

The higher total count of 576 moose compared with 371 in the same area in 1974 is primarily attributed to better counting conditions rather than a significant increase in the population, although some increase may have occurred.

The total number of hours flown in the survey was 23 with 16 hours and 50 minutes actually spent censusing moose. This is considerable less than 25 hours and 20 minutes spent censusing the same area in 1974. The survey suggests that not only are more moose seen under good counting conditions but costs are considerable less under such circumstances.

RECOMMENDATIONS

It is recommended that this same portion of the park be counted annually. Trends in changes of the population, reproductive rates and sex ratios may be significant in understanding the interrelationship of other ungulates, predators and their range. It is also recommended

that post calving counts be flown in mid-June to get a better estimate of the reproductive rate and the loss of calves occurring prior to the November survey.

TABLE I. COMPOSITION OF THE MOOSE POPULATION IN
- MT. MCKINLEY PARK BY COUNTING UNITS - 1976

AREA	COUNT TIME	BULLS			TOTAL BULLS	SINGLE COW	COW-1 CALF	COW-2 CALVES	TOTAL CALVES	TOTAL COWS	TOTAL ADULTS	TOTAL MOOSE
		Y	M	L								
7	1:10	1	1	5	7	6	2		2	8	15	17
8	1:30	2	2	5	9	12	3		3	15	24	27
10	2:35	2	2	9	13	31	6		6	37	50	56
11	2:20	1	5	13	19	23	7	1	9	31	50	59
13	1:10	2	2	4	8	11	6	1	8	18	26	34
14	3:30	5	3	11	19	70	13		13	83	102	115
15	2:00	2	7	25	34	100	9		9	109	143	152
16	1:35	7	12	7	26	59	5		5	64	90	95
17	1:00	0	1	2	3	8	2	2	6	12	15	21
GRAND TOTALS	16:50	22	35	81	138	320	53	4	61	377	515	576

TABLE II. COMPARISON OF MOOSE POPULATION RATIO
IN THE EASTERN HALF OF MCKINLEY PARK 1974-1976

YEAR	SMALL BULLS PER 100 COWS	TOTAL BULLS PER 100 COWS	CALVES PER 100 COWS	PERCENT CALVES	PERCENT BULLS	TOTAL SAMPLE
1974	3.5	42.1	20.1	12.1	26.1	371
1975	13.1	28.8	8.3	6.0	21.0	281
1976	5.8	36.6	16.2	10.6	24.0	576

OTHER WILDLIFE OBSERVATIONS

Albino or White Moose

On June 2, while flying caribou surveys, the writer saw a white or albino bull moose on the East Fork of the Toklat River on the north side of the mountains. The bull was located about one mile north of the last canyon inside the park boundary. The animal appeared all white, except for brown ear tips. It was a fairly large animal with developing antlers. The animal was not seen again in this vicinity but on June 8 another or possibly the same animal was sighted on a Fork of Stoney Creek, directly west of Mount Sheldon. It closely resembled the moose seen on the East Fork 6 days before.

Apparently the same animal was sighted on June 30 by Chalon Harris on the upper Stoney Creek drainage about 2 miles north of Bergh Lake and again by me on July 8 in the divide between Moose Creek and Stoney Creek. To my knowledge it was not sighted again during the summer though the last two observations were made within 3 miles of the road.

\ Wolves - On October 30, during the winter moose census, Chalon Harris spotted 11 wolves (4 black and 7 grays) feeding on a moose carcass on Riley Creek just south of the Yanert Lakes. On November 2, nine wolves were still present on the same kill.

Grizzly Bear - On October 31, John Haller and I sighted a grizzly on a moose kill in the low hills just east of the Tetlanika bridge near Igloo Creek Campground. The bear was sighted again on the same kill on November 2 even though the area was heavily covered with snow and temperatures were around zero. It appeared to be a large male.