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WINTER MOOSE CENSUS

MOUNT MCKINLEY NATIONAL PARK
1977

NATIONAL PARK SERVICE
Anchorage, Alaska

SUBMITTED BY:
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An aerial winter inventory of moose was conducted in the eastern portion of Mount McKinley National Park in November 1977. All surveys were flown with a Piper Supercub (PA-18) chartered from Denali Flying Service. Chalon Harris and Will Troyer alternated as pilots while Dennis Kogel, Pat O'Connor and Will Troyer served as observers.

The census was conducted on November 8, 9, and 10. Counting conditions were only fair. Most trees and shrubs were not snow covered; however, at least six inches of snow covered the ground and except for November 8, the wind was calm.

The objectives of the survey were to sample the population for age compositions, and to measure productivity and ratio trends. Therefore some of the dense forested areas were not censused intensely as they would have been in a total count.

RESULTS AND DISCUSSIONS

Only the eastern portion of the park was censused. This included the drainages of Teklanika, Sanctuary, Savage, Hines and Riley Creeks in moose counting units 13, 14, 15, 16, and 17. This region contains the greatest portion of the McKinley moose populations. A total of 300 moose were counted and classified with the greatest concentration in Riley, Savage and Sanctuary drainages as shown in Table 1.

The compositions of the population consisted of 82 bulls, 184 cows, and 34 calves. The percent of calves in the population was 11.3 with a ratio of 18.4 calves per 100 cows, while the bulls constituted 27.3 percent of the total and a ratio of 44.6 bulls per 100 cows.

As shown in Table II calf survival to November continues to be low and no significant changes in trend are apparent from 1974 through 1977. Again, general observations in June indicated most cows were with calves in late May and early June and twin calves were common, but by November the ratio of calves to cows had been reduced significantly. We received many reports of predation by bears during the early spring period but it is not known whether bear predation is a major factor in reduced number of calves in the population of November.

The low incidence of calves in the population and relatively high ratio of bulls to cows is typical of a stable non-hunted population. It will be interesting to see if this non-hunted population will continue to maintain itself at the same population level over a long period of time or if the low calf survival will eventually lead to a gradual overall decline.

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The McKinley population should serve as a good control area in comparing it to other heavily hunted populations in Alaska and on a long-term basis should eventually provide answers to the percentages of calves necessary to maintain a stable unhunted population.

OTHER WILDLIFE OBSERVATIONS

Wolves: On November 10 a pack of eight wolves were observed on a moose kill on the Sanctuary River just below Double Mountain. The kill appeared to be an adult cow.

Bear: A grizzly was also observed on a moose kill about one mile west of the Savage River and 100 feet south of the dog team trail on November 11. It appeared to be a medium sized adult. The temperature had been below zero for at least a week prior to this observation.

TABLE I. COMPOSITION OF THE MOOSE POPULATION IN MOUNT MC KINLEY BY COUNTING UNIT - 1977

AREA	BULLS <			TOTAL BULLS	SINGLE COWS	COW W/1 CALF	COW W/2 CALVES	TOTAL CALVES	TOTAL COWS	TOTAL ADULTS	TOTAL MOOSE
	Y	M	S								
13 (N. of Rd)	2	2	2	6	13	7	1	9	21	27	36
14 (Riley Creek)	5	4	16	25	51	12	0	14	63	88	102
15 (Savage River)	3	5	15	23	37	2	0	2	39	62	64
16 (Sanctuary)	8	11	8	27	47	9	0	9	56	83	92
17 (Teklanika)	1	0	0	1	5	0	0	0	5	6	6
GRAND TOTALS	19	22	41	82	153	30	1	34	184	266	300

TABLE II. MOOSE POPULATION RATIOS IN THE EASTERN HALF OF MOUNT MCKINLEY PARK - 1974 - 1977

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
1977	10.3	44.6	18.4	11.3	27.3	300