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McEwen, E.H.

Aerial moose survey in the Northern  
Mackenzie District 1955. n.p. 1955.

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1. Moose - Aerial surveys - N.W.T. -  
Mackenzie District. I. Title.

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Aerial Moose Survey in the  
Northern Mackenzie District - 1955

On February 25, a survey was conducted in the Arctic Red River and Fort Good Hope areas. The flight lines are shown on Fig. 1. This survey had been postponed from November because of weather conditions and the limited amount of daylight hours. The method described by Flook (1), determining the transect width from the angle of observation and the estimated altitude, would have been used if sufficient time to make the necessary preparations would have been available. An abney level was used to determine different angles from the vertical at 500 feet so that the angle of moose observations could be estimated. An attempt was made to determine the angle of observation using this level, but it was found that a reading could not be made successfully in the brief period of the observation. It was estimated that most of the moose observations were made between 20 and 40 degrees. The width of the transect was not calculated, but was estimated to be half-a-mile in width. The altitude of 500 feet was satisfactory in the fairly flat, open terrain, characteristic of the area surveyed. The height of land between the Arctic Red River and the headwaters of the Ontaratue River, according to the aircraft altimeter, was approximately 300<sup>feet</sup> higher than the Ramparts area.

The survey, flown from 1330 to 1745 hours, was about 520 air miles in length. Observations and flying were conducted with excellent weather conditions and unlimited visibility. A front was observed moving south into the Delta at 1200 hours. By 1730 hours, the front had extended throughout the Delta as far east as the East Branch Channel.

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(1) Flook, D.R. 1953. Progress report on moose project Central Mackenzie District, Spring 1953. Typewritten report to C.W.S.

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Table 1. Data on Moose Observations

TIME	SIDE	ANTLERED ADULTS	ANTLERLESS ADULTS (1)	CALVES	UNID.	TOTAL	HEIGHT	HABITAT	OBSERVATIONS
1357	R		1			1	7 00	Delta	Crossing Channel
1407	R		1			1	800	Regenerated	Lying down in w
1515	L		1			1	500	Open spruce	
1516	L		1			1	500		
1526	L		1			1	--		
1541	R		1			1	500	HumeRiver	Lying down
1605	L		1			1	500	Open spruce	
1621	R		1			1	500	Open spruce	
1640	R		1			1	500	Spruce	Lying down
1650	R		1			1	500	Willows along creek	Lying down
1732	L	1				1	500	Delta along creek	
<u>Total Number</u>						11			

(1) Sex not recognizable because antlers not developed.

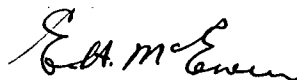
The survey was discontinued at the East Branch channel so that the low overcast clouds did not affect the observations. The sample was considered to be representative of the Northern District. Different types of habitats surveyed, included: delta; river and creek beds; high, exposed terrain; flat, delta-like terrain of the Ramparts area; and typical, open spruce habitat found between the Hume and Mackenzie Rivers. Observations were made on the right side of the aircraft by the writer and on the left side by the pilot, M. Zubko.

A total of 11 moose were observed, which are recorded in Table 1. The transect along the Arctic Red River and across to the Ramparts River, flown on March 14, 1954, was approximately the same as the 1955 transect. In 1954, nine moose and none, in 1955, were counted along the Arctic Red River. Although no moose were observed, a large number of tracks and one 'yard' were observed along the Arctic Red River. The 'yard' was thoroughly searched by circling it, but no moose were observed. Nine moose were observed between the Arctic Red River and the Ramparts River in 1954, but only three in 1955. A number of tracks were seen on the creeks and lakes between the Ontaratue and Hume Rivers. From the Hume to the Mackenzie Rivers, five moose were seen. The remaining three moose were seen on the fringe of the Mackenzie Delta in the East Branch area. Only single observations were made. No large concentrations of moose were found.

Although a fewer number of moose were observed in 1955, it would not be legitimate to conclude that the population has become reduced. On both surveys, their distribution has been found to be spotty, rather than continuous. They appear to prefer to range on the willow-covered islands and flats along rivers, creeks and channels,

of the Arctic Red River and the Ramparts area. Few tracks were seen on the height of land east of the Arctic Red River and wide tracks of sparse, stunted spruce areas between the Hume and the Mackenzie Rivers. The best moose habitat observed on the survey was found in the Ramparts area. Part of the Ramparts area consisted of a mixed forest type consisting of spruce, birch and poplar.

An inventory should be conducted in the Northern District next year so that the effect on the population of the new regulations permitting the taking of moose "at any time of year on all unoccupied Crown lands" can be evaluated.

  
E. H. McEwen,  
Mammalogist.

CWS

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c.1 Aerial moose survey in  
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District. 1955.

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ISSUED TO

Sept 10, 1976

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