

AERIAL SURVEY OF BIG GAME
RIDING MOUNTAIN NATIONAL PARK
MARCH 18-20, 1957

An aerial survey of big game in the Riding Mountain National Park was carried out on March 18 and 20, 1957. A Cessna 172 was chartered from Maple Leaf Aviation Ltd., Brandon, for the survey.

The weather on March 18th was ideal for surveying, the sky was clear, light winds and a temperature of 32°F. March 19th was still clear and warm, however, a southwest wind of 18 miles per hour caused extreme turbulence on the north escarpment and prevented surveying for that day. The survey was completed on March 20th when it was again clear and warm with light winds.

The snow conditions in the Park were good this year, a total of only 37 inches had fallen up to the time of the survey. As a result, the elk and moose were not concentrated on the wintering areas but were distributed evenly through the Park. Evidence of pawing was noted on all transects and food seemed to be readily available.

As in the past two years, 16 north-south transects, spaced 4 miles apart, were flown. An attempt was made to record animals seen 1/8 mile on each side of the aircraft. This provided a coverage of 71.2 square miles, or 6.2% of the park area.

OBSERVATIONS:

ELK: A total of 155 elk were observed during the survey, for a density of 2.18 elk per square mile. With a park area of 1148 square miles, the elk population index is 2500 animals. The 1957 index shows a 50% decrease over the index obtained in

1956. It is quite possible that a decrease of this magnitude actually took place. The winter of 1955-56 was extreme and following the survey at the beginning of March, the park wardens reported finding dead elk. The wrdens also report that very few calves were seen during the summer of 1956.

Table 1 shows the number of elk observed on the transects during the seven years of surveys. It should be noted that the counts of 1955, 1956 and 1957 were based on a 1/4 mile strip whereas the counts of the previous years were based on a 2/5 mile strip.

TABLE 1

Transect Number	Lineal miles	Elk Observed						
		1950	1951	1952	1953	1955	1956	1957
1	9	2	2	1	6	5	2	0
2	9	37	16	33	11	2	4	5
3	9	19	7	22	5	3	0	1
4	9	18	67	5	9	1	9	5
5	17	42	23	22	9	6	17	18
6	17	23	28	9	9	15	16	6
7	19	19	38	49	13	0	11	23
8	22	26	81	51	28	20	68	17
9	20	83	36	26	23	4	16	15
10	19	45	18	24	12	0	20	14 ¹⁰⁴
11	21	8	16	38	15	1	28	17
12	25	43	33	46	16	0	28	7
13	23	61	60	29	41	3	37	8
14	21 ²	16	27	36	9	5	23	14
15	22.5	31	37	76	2	2	25	1
16	22.5	-	-	-	3	4	18	4
Totals	285	473	489	486	208	71	322	155 St

Table 11 shows the comparison of elk population indices for the past seven years. The estimates for the years 1950 to 1953 are based on a sample of 224.6 square miles and the years 1955 to 1957 are based on a sample of 71.2 square miles.

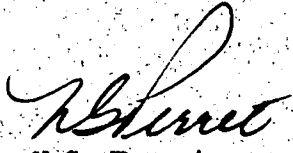
TABLE 11

<u>Year</u>	<u>1950</u>	<u>1951</u>	<u>1952</u>	<u>1953</u>	<u>1955</u>	<u>1956</u>	<u>1957</u>
Elk per square mile	4.10	4.10	3.97	2.12	1.00	4.52	2.18
Population Index	4700	4700	4500	2500	1100	5200	2500

MOOSE: A total of 71 moose were observed on the transects for an average of 1.00 moose per square mile. On this basis the population index for moose in the park is 1100 animals. The index for 1956 was 900 animals. Moose were widely distributed in the park and were seen on 15 of the 16 transects. Other years they were found mainly in the eastern part of the park.

OTHER ANIMALS: A total of 3 deer and 5 coyotes were the only other wildlife species observed. The coyotes were seen on the north escarpment and the deer in the western part of the park.

WINNIPEG, Manitoba,
March 22, 1957.


N.G. Ferret,
Wildlife Biologist.

CWS

57-15 Perret, N. G.

c.1 Aerial survey of big
game Riding Mountain
National Park, ...

TITLE

DATE
LOANED

BORROWER'S NAME

