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CWS-~~27~~-53 McEwen, E.H.

53-27 Caribou survey from Aklavik to Blow
River - September 29, 1953. [n.p.,
Canadian Wildlife Service, 1953.]

6 maps.

1. Caribou - Aerial surveys - Aklavik
- I. Title

On September 29, Warden Cooper and myself conducted this survey in the chartered Aklavik Flying Service's "Cessna 195," piloted by M. Zubko. Because of poor weather conditions, including fog, rain and snow, this survey had been delayed about two weeks.

On September 10, Cst. R.E. Moore, R.C.M. Police, Old Crow Detachment, reported that approximately 5,000 caribou had been observed in Old Crow Mountain area about August 30. These animals were travelling towards the Old Crow Flats, but, as yet, none had crossed the Porcupine River. About September 27, Cst. Moore reported "thousands" of caribou in the Old Crow Flats. Several radio schedules were made with him to obtain additional information, but none were successful because of interference. Arrangements have been made to procure a more detailed report from him.

This survey was about 300 miles in length, flown from 1151 to 1416 hours. It had been planned to conduct this survey in the Old Crow Flats area. However, after flying for 15 minutes from Aklavik towards McDougall Pass, it could be seen that the Pass was "closed in" with low cloud strata. At 1206 hours, we changed our course and flew northwestward along the Richardson Mountains towards "Canoe Lake" and the forks of the Blow River.

The flight lines flown on this survey are shown on Fig. 1. Briefly, the area surveyed was from "Black Mountain" (Mt. Good-enough) across "Willow" and "John Martin" creeks to "Canoe Lake" (68°13'N, 135°44'W). We crossed the forks of "Fish" Creek, continued to the east branch of the Blow River to the "forks" and west to the next creek (68°45'N, 137°30'W). At this point, we returned to "Fish Creek," flying slightly north of the previous route, landing at Aklavik at 1416 hours.

The weather conditions were marginal with low stratus clouds moving northward into the area in which the survey was being conducted. It was impossible to fly up the Blow River which is an alternative route to the Old Crow Flats. The mountains and tundra

were covered with a layer of snow which facilitated our observations of groups of caribou and their trails. The small lakes and streams were also covered with a thin layer of ice and snow.

A total of 8,494 caribou were counted, 3,977 from aerial photographs, and 4,517 in small groups by Cooper and myself. The small groups of caribou stretched from "Fish Creek" ($68^{\circ} 27'N$, $136^{\circ} 14'W$) to the creek west of the Blow River ($68^{\circ} 44'N$, $137^{\circ} 32'W$), a distance of about 40 miles. The larger concentrations were observed in the "Fish Creek" area and smaller numbers in the Blow River area. From the direction of their trails, the caribou appeared to have travelled eastward from the headwaters of the Babbage River, paralleling the coast to the Blow River, and following up the east branch of that river to "Fish Creek". From there, their movement seemed to be towards the Little Bell and Rat Rivers area. On the return flight from the Blow River to "Fish Creek", which was about four miles north of the first flight line, only a few caribou were seen. Thus the width of the front of this movement was narrow. No trails were observed while flying from "Fish Creek" to the Mackenzie Delta. According to Zubko no caribou were seen in this area on September 20, during a flight from Aklavik to Herschel Island. If a survey of the Old Crow Flats area could have been made, a more complete report on the number of caribou and their movements could have been given.

From aerial observations on this survey, and from a review of the aerial photographs, the groups of caribou were of a heterogeneous composition consisting of adult bulls, cows with calves, and other age and sex classes. A greater number of adult bulls were seen on this survey than on any previous ones, as it was made just prior to the rutting period. Three and four adult bulls could be seen feeding together and resting close together. In one instance two adult

bulls were seen sparring with their antlers. From a count made from a series of photographs recorded in Table 1, taken from the Blow River to "Fish Creek", 86 of a total of 469 animals, or 18.3%, were bulls over three years of age. These animals could be counted easily in the groups, with little possibility of error. The number of calves counted was 64 out of 469 or 15.8%.

Table 1. Proportions of Calves and Adult Bulls in Counts from Photographs taken September 29, 1953.

<u>Photograph No.</u>	<u>Calves</u>	<u>Adult Bulls</u>	<u>Total</u>
15	6	21	65
18	5	8	41
22	2	8	33
26	4	4	28
32	3	8	65
34	12	5	59
37	4	13	48
38	6	2	30
39	5	10	50
47	14	-	32
51	<u>3</u>	<u>7</u>	<u>18</u>
	64	86	469
Per Cent	15.8%	18.3%	100.0

Table 2. Counts from Aerial Photographs Taken April 18 and 19, 1952.

<u>Number</u>	<u>Rising Yearling</u>	<u>Two-Year-Old</u>	<u>Adult Cow</u>	<u>Adult Bull</u>	<u>Total</u>
<u>Blow River Area - April 18</u>					
3-20	nil	1	5	Nil	6
3-10-11	4	7	35		46
3-18	15	11	20		46
3-20	4	5	11		20
3-19	1	3	6		10
3-22	11	16	43		70
3-27	4	2	7		13
3-28	4	6	10		20
Subtotal	43	51	137	Nil	231

Rat and Porcupine Rivers Area - April 19

Number	Rising Yearling	Two-Year-Old	Adult Cow	Adult Bull	Total
2-2	7	7	23	Nil	37
2-4	4	4	14		22
2-5	3	6	17	1	27
2-13	14	21	33	3	71
2-14	7	10	18		35
2-31	9	9	28		46
2-33	5	3	7		15
2-15	7	13	28		48
2-47	2	3	12		17
2-48	8	10	26		44
Subtotal	66	86	206	4	362
TOTAL	109	137	443	4	593
Per Cent	18.3	23.2	57.8	0.7	100.0

A series of aerial photographs, taken in April, 1952, in the Blow River area and, Porcupine Rivers area, were analysed. The age class ratios of these two groups are recorded in Table 2, where for purposes of analysis, the data have been grouped together. It appears legitimate to assume that the two groups were part of the main herd, as no conclusive data have been collected to show the existence of more than one distinct herd in this area.

Of 593 animals counted on the photographs 18.3% were rising yearlings, 23.2% two-year-olds, and 58.5% others, predominately adult cows. In April, 1953 Munro and Scott (1953) found an average of 24.1% rising yearlings in a total sample of 1,354 animals. The small difference between the 1952 and 1953 calf crops may be the result of the small 1952 sample, or error on the part of the writer in interpreting the aerial photographs. Also, the heavy hunting pressure by natives from Aklavik, Fort McPherson, and Old Crow in 1951 may have reduced the calf crop by selective hunting. In October and early November, hunters avoid killing adult bulls because the meat is "high", during the

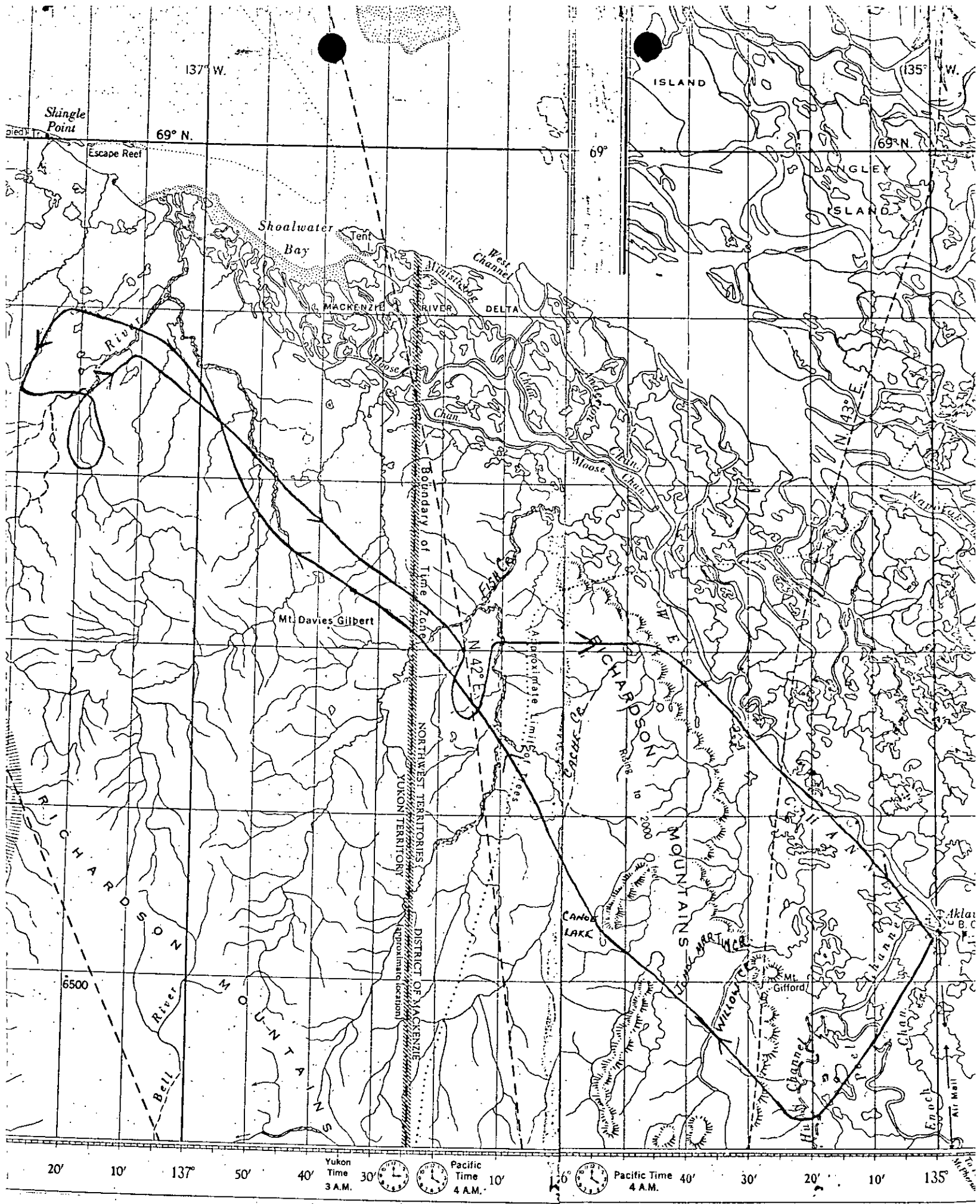
rutting period. In 1952, the hunting pressure by the natives of Aklavik and Fort McPherson was much lower than in 1951, because the caribou herds were not contacted.

The calf crop ratio of 15.8% in 1953 is lower than would be expected in September, since winter and spring losses can be expected to reduce this figure. The composition of the groups in September was noticeably different from that of April. In April only a few bulls were present with the rising yearlings, two-year-olds and adult cows, while in September adult bulls were present in considerable numbers. Their presence would tend to lower the ratio of calves to total numbers. In April, 1954 further data will be collected on age and sex ratios to obtain comparable data with previous years.

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E.H. McEwen,
Mammalogist,

Literature Cited

Munro, D.A. (1953) A Preliminary Report on the Caribou of the Northern Yukon Territory.



137° W.

135° W.

Shingle Point

69° N.

69° N.

Shoalwater Bay

MACKENZIE RIVER DELTA

West Channel

River

Boundary of Time Zone

Mt. Davies Gilbert

Approximate limits of tides

NORTHWEST TERRITORIES
YUKON TERRITORY

DISTRICT OF MACKENZIE
Approximate location

6500

CHARLTON MOUNTAINS

CANOE LAKE

Mt. Gifford

Aklavik B.C.

20' 10' 137° 50' 40' Yukon Time 3 A.M. 30' Pacific Time 4 A.M. 10' 135°

CWS

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DATE	ISSUED TO

