

MOOSE COUNTS, OLD CROW FLATS, 1975

0320-50-07

D. Mossop

Moose were counted from a Hiller 12-E helicopter flown at an altitude of 50-75 feet concurrent with waterfowl census. The transects flown were the same as those described in the report of Old Crow Flats Moose counts in 1974 (report on file). The pilot was E. Sigurdson.

The survey was flown three times during the summer. The total length of the transects was 332 miles. (15 miles shorter than 1974). The times and weather conditions of the three surveys were as follows:

Survey	Dates	Times flown	Observers	Weather
1	June 12	09:30 - 17:32	D. Mossop	overcast-bright
	13	16:00 - 18:30	K. Sars	overcast, clearing
			G. Baird	wind nil.
2	Aug. 4	11:05 - 18:00	D. Mossop	bright, 75% overcast
			G. Baird	wind nil
3	Sept. 1	11:20 - 19:00	D. Mossop	overcast, clearing
			G. Baird	wind light.

Number of moose counted on transects, Old Crow Flats, 1975

Date		Transect number								Total moose	Square miles censused	
		1	2	3	4	5	6	7	8			
June 12-13	Bulls	0	0	3	0	0	2	0	0	5	66.00	83.0
	Cows	3	2	3	1	0	2	1	0	12		
	Calves	3	2	1	1	0	0	1	0	8		
Aug. 4	Bulls	4	2	4	0	0	0	0	0	10	80.00	83.0
	Cows	5	2	1	2	0	0	0	0	10		
	Calves	6	1	0	1	0	0	0	0	8		
Sept. 1	Bulls	5	3	0	1	0	0	2	0	11	61.00	83.0
	Cows	4	1	3	6	0	1	0	2	18		
	Calves	5	0	2	3	0	0	0	1	11		

Cow-Calf Ratio: Twinning Rate.

Our work on the ground in the flats this summer allowed us to accumulate observations of moose in addition to those taken during air counts. Lumping all observations of cows throughout the summer yields the following data.

Cow-Calf ration and twinning rate, Old Crow Flats, 1975

	in transects		Ground Observations		Total Cows	Total Calves	Twins (sets)	Twinning Rate	Cow/Calf Ratio
	Cows	Calves	Cows	Calves					
June	12	8	15	9	27	17	4	14.8%	100:63
July	--	--	3	3	3	3	1	33.3%	100:100
August	10	8	1	2	11	10	3	27.3%	100:91
September	18	11	4	5	22	16	5	22.7%	100:73
<u>TOTAL ALL YEAR</u>	40	27	23	19	63	46	13	<u>20.6%</u>	<u>100:73</u>

82 calves/100

This year's twinning rate and cow/calf ratio are very high and indicate a very good year of calf production on the flats. The overall increment to the population is in the order of 36%.

Number of Moose on the Flats

The area censused (83 sq. miles) represents 5.2% of the entire flats. No adjustment was entered with this year's counts to account for different visibility of the sexes as bulls and cows were counted with almost equal frequency. The total number of moose was thus extrapolated directly.

Estimated moose population, Old Crow Flats, 1975

Count Period	Bulls	Cows	Calves	Total	Density whole flats (/sq.mi.)	Density land area
June	96	230	153	479	0.29	0.49
August	192	192	153	537	0.33	0.56
September	211	346	211	768	0.48	0.80

The measured build-up of moose numbers over the summer may be of interest in understanding the use of the flats by moose. The final understanding of these statistics will have to await a detailed study of moose movements and annual cycle of activity on the Old Crow Flats.