POST SEASON CLASSIFIED MOOSE COUNTS
Kamloops Region, Dec - Jan/72

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Classified moose counts were carried out in three management areas in late December and early January. Because of early heavy snowfall it was possible to conduct counts earlier than usual.

It is possible that moose may have been more concentrated later in the winter but many of the low winter ranges were already inhabited at the time of the flights. In addition to the summaries in this report, data was gathered on distribution by elevation; sex and age; on antler shedding; and on animals wounded in the hunting season. These are available in tape transcripts. A Bell Jet Ranger was used for all flights.

M.A. 12

TABLE I: MOOSE RATES AND RATIOS - M.A. 12 - 1964 - 1972

Year	Moose/hr.	Total Classified	Males	RATIO Females	Calves
1964	69	335	103	100	29
1965	62	491	120	100	24
1966	96	391	72	100	34
1967	82	492	83	100	33
1968	56	359	82	100	31
1969	38	277	75	100	23
1970	50	266	91	100	35
1971	49	274	79	100	23
1972	48	253	85	100	27
MEAN:	61	349	88	100	29

TABLE II: MOOSE SEEN ON ONE SQUARE MILE STUDY AREAS - M.A. 12

	1967	1968	1969	1970	1971	1972
Study Area C	66	23	7	36	35	11
Study Area D	7	18	3	42	7	12
Totals:	73	41	10	78	42	23

Flying conditions in management area 12 were almost ideal except for the last hour of the flight when heavy snow caused the flight to be aborted. A photographer was carried for the first day of the flight and this probably resulted in a slight reduction of the counting rate. The moose seen on two study areas (Table II) decline sharply from the previous year but this may have been due to a shift in distribution.

The calf: cow ratio improved over last year but is below the nine year average. Despite the low calf: cow ratio, there were three sets of twin calves compared with only set in M.A. 14.

The ranges improved by burning had good densities of moose, and two of the three sets of twins were on improved ranges.

Snow depths in the Archer Burn were estimated to be near 50” but moose were still able to move without too much hindrance as the snow had not yet compacted.

M.A. 13

The Raft and Mad River drainages of this management area were flown on December 23 in a snowstorm. Moose were still widely distributed and the rate of classifying moose was relatively low (Table III) compared with M.A. 12. There is little doubt that moose densities in the Mad and Raft River valleys have declined very significantly since the early 1960s. Productivity is low in these valleys because of poor range conditions with worsens as low elevation burns become older. Access has improved considerably and it is likely that the restrictions imposed on moose hunting this year in the north half of M.A. 13 will have to be continued or increased next year. One low elevation fire in the Raft River valley occurred in the summer of 1971 and this is expected to produce more moose, but it will be several years before the results of this increased production will be evident.

TABLE III: SUMMARY OF MOOSE FLIGHTS - M.A. 13

	Time Classifying	Total Moose	Moose per hr.	Bulls	Cows	Calves	RATIO Bulls	Cows	Calves
1971	3.4 hrs	63	17	14	31	8	45:	100:	26:

M.A. 14

Flights were carried out in the North Thompson, Criss Creek, Upper Deadman, Young, Bridge, Sheridan, Canim, south Green Lake, Bradley Creek, and Lang Lake areas. The last three named areas had not been flown in recent years and the flights there were exploratory. To stay within the allotted flying budget, two areas usually flown had to be eliminated from the flight plan: Bridge Lake to Lac des Roches, and Sulfurous Lake to south Canim Lake. This change probably had a depressing influence on the rate of seeing moose because the alternate areas were not as productive as the ones they replaced.

There were ideal flying conditions for 8 of 11 hours spent classifying moose. Temperatures were moderate, winds generally light, and little snow clung to the branches of the deciduous trees.

A total of 307 moose was classified in 11.7 hours, for a rate of 26.3 per hour -- slightly above the 9 year average. The rate would have been significantly higher if the flights had not included the previously mentioned “exploratory” areas. There was a significant increase in calves per hundred cows, presumably as a result of the lengthened antlerless season in 1970. The productivity of the population as a whole -- 25% juveniles -- is the highest since helicopter counts were initiated in 1964, giving some justification for changing the antlerless season.

TABLE IV: MOOSE RATES AND RATIOS FROM HELICOPTER POST SEASON COUNTS

Year	Moose/hr	Total Classified	Bulls	Cows	Calves	% of Calves in Population
1964	14	222	46	100	36	20
1965	26	417	43	100	35	20
1966	21	267	39	100	39	22
1967	27	297	65	100	45	21
1968	30	329	37	100	40	23
1969	30	367	32	100	34	20
1970	22	255	37	100	40	23
1971	20	234	45	100	37	20
1972	26	307	32	100	45	25
Mean:	24	299	42	100	39	22

Despite an increased rate of classifying moose on the survey as a whole, the census plots showed a downward trend. Thirty-nine moose seen on five one-mile plots (Table V) is down considerably from the previous five year average of 47. Land use and successional changes have been insignificant here, except on the Deka Lake plot. On this plot, a hayfield cleared in 1966 regenerating to willow created ideal browse conditions over much of the plot. In the past year, subdivision of the northern part has taken place, and the forest cover has been removed.

TABLE V: COMPARISON OF CENSUS OF ONE SQUARE MILE PLOTS

Plot Name	1967	1968	1969	1970	1971	1972
Eagan Lake South	24	33	25	24	12	11
Eagan Lake North	9	9	12	8	2	16
Sharpe Lake	2	--	4	3	2	5
Otter Lake	8	9	7	7	5	5
Deka Lake	4	1	3	14	5	2
	47	55	51	56	26	39