#### HUNTING SEASON REPORT 1954 R.W. Ritcey

### TABLE OF CONTENTS

- I INTRODUCTION
- II GAME HARVEST
  - TABLE I Summary of game checked in Wells Gray Park, Fall 1954

TABLE II - Game sighting record of hunters checked at Hemp Creek - Clearwater Lake

- III AGE DISTRIBUTION OF MOOSE KILL
- IV CONDITION OF MOOSE
- V HUNTING SUCCESS

TABLE III - Daily moose kill and hunter success ratio

- VI MULE DEER
- VII SUMMARY AND RECOMMENDATIONS

### I INTRODUCTION

The fall hunting season of 1954 in Wells Gray Park permitted the shooting of moose of either sex over one year of age. The season extended from September 18th to December 15th. All other big game seasons were the same as in previous years, with the exception that doe deer were legal game for the last ten days of the deer season. This report deals with studies made during this hunting season and with comparisons of the previous years' hunts.

Checking stations were operated at Hemp Creek, Mahood, Murtle, and Clearwater Lakes. At Hemp Creek, the checking station was staffed by Park Superintendent L. E. Cook, Assistant Ranger C. W. Shook, D. McQuaig, and R. Ritcey. Assistant Ranger C. Gaglardi and Patrolmen Bob Miller and Jack Norman manned the lakes checking stations. Information in this report was gathered by these workers and was supplied by hunters and guides who also supplied specimens of moose uteri and jawbones. The writer is grateful to all who were of assistance in this work. Mrs. R. Ritcey was responsible for summarizing and tabulating much of the information from hunter questionnaires. Table I gives the total take of game in the park by regions and a comparison of hunting success fro the past three years in the south-central part of the park. Both the total number of moose taken and the success ration is down from last year.

The deer kill was the same as in the previous year. The black bear kill increased from three to nine. No goat or grizzly was killed by hunters.

The small moose kill can be attributed directly to lack of sufficient snow to drive moose to early winter range. At the close of the hunting season, snow depth was about two inches on early winter range, compared with more than a foot in the same area last year. Mortality on park winter ranges is small in winters of light snow. It remains to be seen whether hunters will kill enough moose in heavy snow years to prevent overcrowding on winter ranges.

Means of increasing the moose kill were thoroughly discussed during a meeting of park personnel at Hemp Creek in November. It is likely that next year's kill will be considerably greater if proposals made at the meeting are carried out.

Two new trails in the area southeast of Clearwater Lake helped spread hunting over a larger area than previously. Eight moose were taken from hunting grounds served by these trails. This represents 9% of the park kill.

Note in Table II that the percentage of calves and fawns seen by hunters has dropped steadily in the past three seasons. This decrease in percentage of young has not been borne out by field studies. The male-female ratio for moose has remained remarkably constant through the three years. The sex ratio for deer has fluctuated more, but has favoured females by more that 2:1 throughout. Field work on moose and deer on summer range suggests more equal sex ratios than those calculated from hunter reports. Small antlers on deer are often overlooked by hunters without binoculars. The moose sex ratios are probably more accurate as moose antlers are usually quite prominent.

The value of hunter sighting reports is questionable and needs further analysis. Another season should furnish enough data to determine whether or not this phase of our studies should be continued.

Mean antler spread for 41 moose checked at Hemp Creek was 32.8". Mean number of points was 6.4 left and 6.1 right. Mean basal diameters were 1.9" on both sides. In 1953, the corresponding measurements were 35.6" spread, 7.12 points left and 7.02 right, basal diameter 2.01" left and 1.95" right. The decrease in antler size is due to the larger percentage of yearlings in the kill.

No moose was shot with a shed antler, but hunters found fresh sheds in late November and December.

# HEMP CREEK AND CLEARWATER LAKE CHECKING STATIONS

Moose Deer Black bear Grouse Ducks Hunters	TOTA 89 15 5 14 2 400	L	MALE 45 11	FEMALE 44 4
known illegal kill: 1 yearlin	g moose, 1	deer		
Days hunter per moose: 1 1 1	952 953 954	12.5 14.7 16.8		
MAHOOD LAKE CHECKING STATION				
Moose Deer Black bear Hunters	TOTA 4 5 3 56'	L	MALE 2 5	FEMALE 2
	MURTLE	LAKE CHECH	KING STATION	
Moose Deer Ducks Geese Hunters	TOTA 6 2 5 10	L	MALE 3 1	FEMALE 3
Maasa	T	OTALS FOR	PARK	
Deer Black bear Grouse Ducks Geese Hunters	99 21 9 14 4 5 466			

TABLE II: GAME SIGHTING RECORD OF HUNTERS CHECKED AT HEMP CREEK - CLEARWATER LAKE

	MOOSE	DEER	
Bulls	140	Bucks	51
Cows	212	Does	92
Calves	34	Fawns	3
Adults	26	Adults	24
Unclassified	23	Unclassified	12
totals	435		182

#### **3-YEAR COMPARISON**

MOOSE			DEER			
Year	Bulls	Cows	Calves as a % of all moose	Bucks	Does	Fawns as % of age- classified deer
1952	37%	63%	12%	32%	68%	8%
1953	40%	60%	10%	26%	74%	4%
1954	40%	60%	8%	33%	67%	2%

#### III AGE DISTRIBUTION OF MOOSE KILL

Eighty-four moose jaws were collected from guides and hunters during the season. This represents approximately an 80% sample of all moose killed in and near the southern end of the park. Cooperation in this phase of our study was excellent.

Figure I shows the age distribution of these jaws. Classification is reasonably sure in the first two age groups, but from three years onwards there is overlapping. This is because separation of age classes is by amount of tooth wear after two years, and this wear does not always progress at a similar rate in all animals.

This year's sample shows a much higher proportion of younger animals than the previous year's. The percentage of yearlings is more than double and there is a slight increase in the two year old class. Thus in the past hunting season, 43% of the jaws aged were under three years old compared with 29% in the 1953 season. The great increase in the yearling class has not yet been explained satisfactorily. The proportion of yearlings in the spring of 1953 and 1954 were similar, as shown by classifying animals on the range.

1954

If the age distribution of our sample is valid for the hunted population, we should be able to remove approximately one quarter of the herd in favourable years without depletion of the population through hunting. This removable fraction has been used previously on the basis of yearling counts in spring and on the basis of productivity o moose in other favourable areas.

A smaller percentage of very old jaws appeared in the sample. This may indicate a culling effect of hunting in the past two years or it may show that the percentage of old has been smaller through greatly increased production of younger animals.

## IV CONDITION OF MOOSE

Most moose checked through the stations this season were in excellent condition as judged by fat deposits in the meat and in body cavities. Moose killed in this season seemed fatter than those of the previous two years. The cool, moist summer this year seemed to especially favour moose.

No information was gathered on parasite incidence this fall but guides report hydatid and cysticercus infections to be common. There will probably be some decrease in hydatid incidence as the percentage of young animals in the kill increases.

# V HUNTING SUCCESS

It is seen that both success ratio and actual number of moose killed per day was highest in December. In the previous two seasons, success has risen in November while this year it remained low. This indicates that moose did not arrive on early winter range until December compared with November in previous years.

Date	Moose killed per day	Hunters operating daily	Success ratio
Sept. 18-30	0.9	26	.03
Oct. 1-15	0.9	19	.05
Oct. 16-31	0.9	25	.04
Nov. 1-15	1.0	22	.05
Nov. 16-30	0.6	19	.03
Dec. 1-15	1.6	15	.11

### TABLE III: DAILY MOOSE KILL AND HUNTER SUCCESS RATIO

A further conclusion may be arrived at from the daily kill data. Most moose were killed when there were fewest hunters in the park. While this does not mean we should try for fewer hunters, it does show that a good kill can be obtained when the success ratio is high, even though hunter numbers are low.

Of 99 moose checked through the park, 32 or approximately one-third were killed by guided hunters. Only 33 moose were transported by horse, while the remainder were back packed to a boat or car. Hunters have been increasingly reluctant to hire packing services unless they are on a guided trip. This is regrettable insofar that hunting activity is becoming restricted close to lakes and road-sides.

### VI MULE DEER

The deer kill remained the same as in the previous year though less than half as many deer were reported seen by hunters. An either sex season for the last ten days of the season was responsible for the high kill relative to the number of deer seen. Only four does were during this period, but hunters were able to shoot animals when not certain of sex, thus having more opportunities to bag game. As soon as the Game Act is amended to allow taking animals under one year of age, a liberal any deer season should be allowed in the park. Dense cover will assure that over-shooting cannot result.

#### VII SUMMARY AND RECOMMENDATIONS

The moose take declined and hunter success was lower than in the previous two years. This was due chiefly to late arrival of moose on early winter range. Kill of deer remained the same and the black bear kill increased.

The moose harvest is still inadequate. Methods of increasing it have been discussed elsewhere.

Age distribution of the moose kill shows a large increase in the number of yearlings and young animals in the hunter populations.

It is recommended that:

- 1. Continued efforts be made to increase the moose harvest.
- 2. Deer hunting regulations be liberalized.
- 3. Hunt studies be further analyzed after another season, to determine the value of information gathered from hunters.
- 4. Collection of jaws for age distribution studies be continued.