Hunting Season Report 1955

File: 0183573

Date: April 1956

Mr. E.G. Oldham
Forester-in-Charge
Parks and Recreation Division
BC Forest Service

Dear Sir:

The attached report entitled: "Hunting Season Report 1955" is submitted herewith for your approval.

Yours very truly,

"R Y Edwards"
for:
R. W. Ritcey
Wildlife Section

APPROVED: "RYE"
i/c Section

Date: April 25/56

APPROVED in accordance with
attached addenda.

"E. G. Oldham"
_____
E. G. Oldham
Forester
Parks and Recreation Division

Date: May 1, 1956
APPROVED: _____
Date: _____

ADDENDA

Steps are being taken as follows, based on data in this report:

1. The road to Clearwater Lake can probably be kept open with the heavier machinery soon to be in operation there. (Page 4)

2. A more liberal deer season is anticipated during the next hunt. (Page 13)

3. Several aspects of tagging, including tag design and regulations required, are under review, with corrective steps in progress. (Page 15)

4. The question of trail priority has been finalized in past years, and the picture remains largely unchanged. Work anticipated for this summer should fill recommendations in this report. (Page 19)

5. The forthcoming book on moose hunting in the park should increase both the number of hunters and their efficiency. (Page 19)

“R. Y. Edwards”

HUNTING SEASON REPORT 1955

by

R. W. Ritcey
1955

Wildlife Section Report No. 53

Project Wells Gray Park No. 5

British Columbia Forest Service
Parks and Recreation Division
E. G. Oldham, Forester

TABLE OF CONTENTS

I INTRODUCTION

The fall hunting season of 1955 in Wells Gray Park permitted the shooting of moose of either sex and of any age from mid September to the end of December. The regulations also permitted taking caribou of either sex through the same period of time. Buck deer were legal game from mid September to December 4th with an any sex, any age, season being in force for the last nine days. The season was the most productive for Wells Gray to date in that both total kill and success ratio were the highest yet recorded. However, snow and severe cold, factors which brought an abundance of moose to hunting areas, were responsible for a scarcity of hunters. The report deals with the details of the hunt.

Checking stations were again operated at Hemp Creek, Mahood, Murtle, and Clearwater Lakes. The writer is indebted to all workers at these stations for gathering data used in this report. Guides and hunters supplied information from their hunts, as well as specimens of reproductive tracts and jaws from game taken. We are grateful once more for excellent cooperation in this phase of our game studies. My wife, 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 hunters during the 1955 hunting season. The hunter success ratio is calculated for the south central part of the park (Hemp Creek checking station). In the calculation of hunter days per moose, the number of days hunted are divided by the number of moose taken. A small number of hunters did not check out. For the purpose of calculating success ratio, these were assumed to have killed no fame and were assumed to have

hunted the same average number of days (2.87) as those hunters who did check out. This procedure was used in determining hunter success in 1954. In the previous two years, non-reporters were so few that they were neglected from the calculations.

The relatively high moose kill and high success ratio is due to the following factors listed in order of probable importance:

1. Heavy snowfall brought moose to winter ranges at an early date. Snow began to accumulate at higher elevations in mid October, and in early November on lowland winter range. The snow was accompanied by severe (to minus 30°F) cold through much of November and December. Moose began to concentrate on favoured winter ranges in early November and this was reflected in increased hunter success (Table V). A high success ratio was maintained from then till the end of the season, with the highest success occurring in late December. Snow depth of winter range near the Pyramid were from 28" to 32" at season's end.

2. Extension of season into late December. This was responsible for an additional 30 moose being killed.

3. Extension of park boundaries. Twenty moose were killed in areas embraced by the extension of the park boundaries to include the Battle Mountain country.

4. Increased hunter efficiency. Although no exact figures are available, it is apparent that most moose were taken this year by hunters familiar with the park from previous visits. Others were taken by hunters accompanying friends or guides familiar with park conditions.

5. Amendment to allow shooting any age moose. In addition to the 14 calves legally taken this year, hunters were able to shoot at any moose without the danger of taking an illegal animal.

Table III shows the distribution of the moose kill by areas. It is seen that 57 moose, or 40% of the total kill, was made in the vicinity of Pyramid Mountain. The kill in this area of approximately five square miles is about ten moose per square mile. In spite of the heavy kill, one could still see up to twenty moose in a day's travel in this region at the end of the hunting season. The heavy moose concentration attracted a small concentration of hunters. A general breakdown in sporting conduct took place with the ready availability of animals. At least two moose carcasses in the region were abandoned, a third was only partly used. Hunters reportedly fired on moose, wounding them, then turned their attention to other moose more easily taken. A hunter wounded a moose which was killed and claimed by a second hunter before the former had time to dispatch it. A hunting party killed several moose and had to send for an additional hunter to claim an "extra" animal which they had killed.

Management should try to prevent build-ups of heavy moose concentrations to prevent unsporting and possibly dangerous activity in these areas by hunters. The following would help prevent concentrations of moose and of hunters in the Pyramid area:

1. Extension of the Pyramid trail to Pyramid Lake, and the erection of a hunter shelter there. This would have the effect of spreading hunters over a wider area and they would drive moose southward across the Murtle before reaching Pyramid.

2. Trail construction from the Murtle River to MacLeod Hill, to entice hunters to the south side of the river.

3. The road to Clearwater Lake should be kept open as long as there are hunters available to use it during the open season. This would require the assistance of Public Works machinery in emergency, to supplement the work of our light snow moving equipment. We have sufficient data from tagged and belled moose to show that a fair percentage of moose which concentrate at Pyramid come from the southern Clearwater Lake area. Hunting farther north would crop some of these moose before they reach Pyramid.

4. Guiding activity from Deer Creek to Gauge Hill whild kill some moose which would otherwise concentrate at Pyramid. it is doubtful whether more guides could be accommodated in the region. There is only a brief period when there would be enough moose to satisfy more than the needs of the two outfits operating in the region.

There is no other region where hunters concentrate as at Pyramid. The south end of Clearwater Lake appears congested at times, but is is merely a dispersal point and hunting is done at scattered points up the lake and in the region to the south of the lake. The reason for a small take in the Clearwater Lake region this season is that few hunters went this far north after snow and severe cold came in early November.

The only large and promising lowland area as yet unhunted is west of the Clearwater River. This area could probably furnish a kill of about fifty animals yearly under proper harvest. The construction of a bridge across the river will undoubtably benefit this region.

Moose in the region between MacLeod Hill and Battle Mountain were underharvested this year. Increased guiding activity or the construction of the proposed road to the foot of Battle Mountain would help remedy this situation.

II INCREASED HARVEST IN RECENT YEARS

In the two years preceding the opening of an either sex season for moose, Park Ranger L. E. Cook kept a careful count of game killed by hunters in the park. Fourteen moose and five deer were killed in 1950. In 1951: 36 moose, 11 deer, 4 goat, 6 grizzly, and 8 black bear were taken. The year 1951 may be considered slightly atypical in that there was more guiding activity for high country species than in most years. For moose kill, however, both 1950 and 1951 maybe considered fairly typical of the years immediately preceding the opening of the either sex seasons. The annual take by hunters in the park region exclusive of Mahood Lake before 1952 can be estimated at about 25 males. Since the liberalization of regulations, the annual kill for the same region has averaged more than one hundred animals. The high of 129 animals has occurred after four consecutive years of killing females through the longest open moose season on the North American continent. This fact should be given more publicity that it presently receives. Placing females and calves (one year only) on the list of legal game has allowed the harvest of 450 animals from an area that probably would have produced 100 bulls for hunters' guns during the same period under a bull law. Better access and a herd increase may have resulted in some extra kill, but no comparable increase in moose harvest during recent years has occurred elsewhere in the province. Thus most of the increase must be credited to more liberal regulations.

With better distribution of hunters, we can expect even higher kills in the years immediately following. However, the trend will be downward in less than a decade unless the successional trend towards mature forests is halted.

TABLE I: SUMMARY OF GAME CHECKED IN WELLS GRAY PARK, FALL 1955

HEMP CREEK AND CLEARWATER LAKE CHECKING STATIONS

	Total	Male	Female	Under 1 year
Moose	121	62	48	11
Deer	16	10	4	2
Caribou	2	2		
Goat	2	2		
Black bear	4	2		
Grizzly bear	1	1		
Grouse	12			
Ducks	3			
Geese	1			
Hunters	313			
Hunter days per moose	7.3			

MAHOOD LAKE CHECKING STATION

Moose	12	4	5	3
Deer	5	5		
Grouse	3			
Hunters	40			

MURTLE LAKE CHECKING STATION

Moose	8	6	2
Caribou	3	1	2
Grouse	5		
Ducks	5		
Hunters	15		

PARK TOTALS

Moose	146*	76	56	14
Deer	21	15	4	2
Caribou	5	3	2	
Goat	2	2		
Black bear	4	2		1
Grizzly bear	1	1		
Grouse	20			
Ducks	8			
Geese	1			
Hunters	468			

* includes 5 known to have been killed in the park but not checked out. Two of these were abandoned.

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

MOOSE		1955	DEER	
Bulls	219		Bucks	89
Cows	122		Does	121
Calves	42		Fawns	14
Adults	110		Adults	5
Unclassified	256		Unclassified	22
	749			251

TABLE III: LOCATIONS OF MOOSE KILLS, WELLS GRAY PARK 1955

Area	No. of Kills	Area	No. of Kills
Pyramid	57	Green Mtn-Hemp Creek	4
Clearwater Lk & vicinity	12	South Plateau	2
Deer Greek to Gauge Hill	17	Stillwater	1
foot of Battle	12	Fight Creek	2
Battle Mountain	2	Placid Lake	1
Table Mountain	2	Murtle Lake	8
Ray place - Shadow Lake	4	Mahood Lake	12
vicinity road	3		
Kings Meadow	4		
west of Clearwater River	3		

TABLE IV: AREAS HUNTED BY HUNTERS CHECKED AT HEMP CREEK, 1955

Area	No. of Hunters	Area	No. of Hunters
Pyramid	97	Murtle River-Blackwater Creek	14
Clearwater Lk & vicinity	106	west of Clearwater River	4
Deer Creek to Gauge Hill	31	Stillwater	4
foot of Battle Mountain	14	South Plateau	4
Battle Mountain	2	Fight Creek	3
Table Mountain	2	Dawson area	12
Ray place - Shadow Lake	29	Azure Lake	14
Green Mtn - Hemp Creek	26	Murtle Lake	4

TABLE V: DAILY MOOSE KILL AND HUNTER DAILY SUCCESS RATIO
HEMP CREEK CHECKING STATION 1955

Date	Moose Killed per day	Hunters Operating daily	Daily success ratio
Sept 15 - 30	0.5	14	0.04
Oct 1 - 15	0.6	11	0.05
Oct 16 - 31	0.8	13	0.06
Nov 1 - 15	1.2	14	0.09
Nov 16 - 30	1.8	12	0.15
Dec 1 - 15	1.3	10	0.13
Dec 15 - 30	1.5	2	0.75

TABLE VI: MOOSE ANTLER MEASUREMENTS 1955 HUNTING SEASON

	Mean Spread	No. of Points		Basal Diameter	
		Left	Right	Left	Right
Hemp Creek	35.6" (39)	5.8	5.9	2.06	2.01
Mahood Lake	41.5" (2)	9.0	9.0	2.25	2.33
Murtle Lake	33.4 (5)	6.8	5.8		
Wells Gray Park	35.9" (46)	6.1	6.0		

TABLE VII: COMPARISON OF SEX RATIOS OBTAINED FROM MOOSE KILL AND HUNTER SIGHTING REPORTS, 1952 - 1955

	Kill		Sightings	
	Bulls	Cows	Bulls	Cows
1952	37	64	173	294
1953	55	64	210	310
1954	45	44	140	212
1955	64	48	219	122
Average	47.5%	52.8%	44.2%	55.8%

TABLE VIII: AGE CLASSIFICATION OF 114 MOOSE JAWS

COLLECTED 1955 HUNTING SEASON*

Wear Class	Estimated Age	Number of Jaws	% of Sample
A-	calf	8	7.0
A	1 yr.	26	22.8
B	2 yr.	21	18.4
C	3 - 4 yr.	21	18.4
D	4 - 5 yr.	12	10.6
E	5 - 7 yr.	8	7.0
F	7 - 9 yr.	12	10.6
G	over 9 yrs.	6	5.2
		114	100.0%

* Table III shows the age distribution of 114 moose jaws collected in the 1955 hunting season. The yearling fraction is comparable to that of the 1954 season. Omitting calves (not legal in 1954), yearlings made up 24.5% of the sample compared with 26% last year. Yearlings and two year olds together made up 44.3%, excluding calves, compared with 43% in 1954. These two age classes made up only 29% of the 1953 sample. In 1952, the young age classes were an ever smaller fraction of the total. No adequate jaw sample is available for that year however. Apparently the winter survival of calves in the hunted herd has been increased since the opening of the cow season. It is not definitely known whether this has been due to better winter range conditions on account of mild winters or whether hunting has reduced crowding on certain ranges, producing the same effect. It is most likely that both factors have been operating together.

The small percentage of calf jaws in the sample is due to two reasons. Hunters and guides thought it unnecessary to bring in jaws of animals of which they were “sure” of the age. Secondly, hunters passed up calves for mature animals when a choice was available.

There is some evidence from the jaw sample that we are shooting two fairly distinct parts of the Wells Gray population each hunting season. The December sample showed a larger percentage of older animals than did the preceding months’ samples. The two divisions may be a resident lowland fraction with early migrants mixed in, which may be assumed to be comprised of younger animals and cows with calves. The other division may be a later migrating segment of the herd, comprised of older animals.

A second hypothesis is that the younger animals and cows with calves are more easily taken, and are the first to fall to hunters guns in early fall.

The problem needs further study (ie. continued collection of jaws and tagging data) as it has definitely management implications. In winters when the late migrating group does not arrive on

winter range until the close of hunting season, we may hardly harvest it while we overshoot the resident and early migrating population.

Hunter sighting reports showed a preponderance of males for the first time in four years of records. The large variation sex ratios of the hunter sighting reports makes them of limited value. The ratios usually approximate the kill fairly closely though this is not always the case (Table VII). Calf/cow ratios obtained from hunter sightings are always too low. This is demonstrated in that the yearling/adult fraction is always greater in the succeeding fall's hunt than the calf/adult fraction. The yearling/adult fraction of the spring counts is also greater than the calf/adult fraction obtained from the hunter sighting reports. Despite the inaccuracies in the sighting reports, they are probably of value in a relative sense. Further, they provide data from a period of the year when there are few moose seen by field workers.

III MULE DEER

The park deer kill was 21 animals, the same number as in the previous year. Of six jaws collected and aged, only two were under three years of age, the remainder being mature or approaching senility. This scanty data would indicate that the park population has a large number of older animals compared with hunted deer herds elsewhere.

Deer hunters have not have the benefit of lengthly either sex seasons and the kill has remained relatively low. The deer population which winters south of the park has apparently reached its maximum numbers. The herd will probably be reduced somewhat in severe winters such as the present one, with the downward trend which began abruptly in the late 1940s continuing. The trend cannot be reversed without drastic vegetational changes. Deer will benefit from most habitat management work carried out for moose but it would be uneconomical to carry out special habitat projects for deer in Wells Gray Park. This species can be produced in greater abundance in more favourable parts of its range. We can, however, adopt more sensible hunting regulations to harvest a larger percentage of the herd annually.

IV CARIBOU

The first open season on caribou for ten years yielded five animals, providing high class recreation for a small number of hunters. With the size and distribution of present caribou bands, we can expect but a small annual kill of this species. The hunter take may be increased to about twenty animals with proper distribution of hunting. This is not likely within the next few years. The most vulnerable part of the population are the small bands which range the country of Battle and Trophy Mountains. With the advent of mining activity at Summit Lake, this vulnerability will be increased. it is recommended that the season be closed in the Battle-Table area if the kill exceeds three caribou in any one year. Protection of the remaining caribou winter range is of prime importance (Edwards 1954). Here it is recommended that increased attention be given to fire protection of relatively inaccessible sub-alpine forests, at present mostly neglected in fire protection schemes.

Caribou taken in the hunting season gave information on size, general condition, feed habits, and reproduction of the species. This information will be included in the annual caribou report. However, it can be stated from our data to date that the park population is relatively free of parasites, has few senile animals, and is reproducing satisfactorily. Environmental losses rather than reproductive failure seem to be responsible for keeping the population at a relatively low level.

The liberal open season should be kept in effect in order for us to gather further data on vital statistics of the population. The only safeguard necessary is that mentioned in the Battle - Table Mountain area above.

V MOUNTAIN GOAT

There is little present demand for this species. Hunters took two this year. The hunter kill has fluctuated from 0 to 4 in the past five years, and apparently little change can be expected in the near future. There may be local overshooting of this animal but these can be naturally restocked from adjoining territories. No changes are recommended in the present regulations.

VI GRIZZLY BEAR

One grizzly was taken in the fall hunting season, a male shot on a moose kill. A relatively low grizzly kill has been tallied since the beginning of park records. The peak occurred in 1951, when six were reported killed. Any kill larger than this is believed excessive (Ritcey 1954).

Grizzly habitat requirements are known only in general terms and it seems that at present we can do little to increase the population through habitat manipulation. Management will consist of keeping the kill at a safe level until facts justify an increase in numbers taken. No change in present regulations is recommended.

VII BLACK BEAR

Four black bears were killed by hunters during the fall season. This species is not highly prized by hunters. The chief value of the park bear is as an interesting part of the local fauna, which at times lends itself to observation and photography. Present regulations prohibiting summer hunting should remain in effect. No other regulation appears necessary to protect the black bear from overhunting.

Early stages of succession are probably needed for a high black bear population. Habitat management for moose will benefit this species. No other habitat management is recommended.

VIII TAGGING REGULATIONS

Complete kill records are necessary for management. One of the chief stumbling blocks to a complete record in Wells Gray Park is the lack of publicized regulations requiring all game killed in the park to be tagged. This season, the regulations called for all moose and caribou killed in the park to be tagged with a park tag. However, the Game Commission regulations were not at all specific on this point. A small percentage of hunters operating within the park were not aware of park tagging regulations. This situation will be aggravated with increased hunting in the park extension south of the area served by the Hemp Creek Ranger Station.

It is recommended that regulations issued by the Game Commission state clearly that all game animals taken in Wells Gray Park must be tagged with a park tag. Goat, deer, grizzly, and black bear would be tagged as well as moose and caribou. One tag could cover all species, and the regulation would add nothing to administration costs.

It is not recommended that game birds require a tag. Many birds are consumed before the hunter leaves the park. Tagging of grouse, ducks, and geese would not ensure complete returns and could cause considerable inconvenience to bird hunters.

Table IX points out the province-wide interest in moose hunting. Over one half of the hunters drove more that two hundred miles to reach the park. This give some indication of the high quality fall recreation provided by hunting.

It should be noted that parks which provide fall sports fill a need not met in most provincial parks. Summer activities such as picnicking, hiking, swimming, and fishing are largely over with in September, and winter sports do not begin for the most part until December or January.

A successful hunt seems to be only a partial objective for most park users in the fall. There is an almost inverse ratio between hunting success and the number of people using the park (Table V, and Table III 1954). This may be explained in part by the fact that too many hunters make for poor hunting. However, it is also a fact that weather conditions which make for the best hunting tend to keep hunters at home. Roads are dangerous to impassable, camping out may be very uncomfortable, travel afield is tiring and often unpleasant.

One ponders where park management should be aimed, whether to endeavour to manipulate hunters to crop the maximum number of game animals thus providing for their recreation, or should the main aim be to provide for the hunters' comfort, thus adding to the enjoyment of the hunt? A compromise will probably be the best solution.

TABLE IX: WHERE HUNTERS CAME FROM, WELLS GRAY PARK 1955

B.C.	
Vancouver - Burnaby - New Westminster	95
Lower Mainland points	34
Vancouver Island	32
Okanagan	78
Kamloops - North Thompson	60
locals	18
other B.C. points	11
	328
U.S.A.	
Washington	16
California	8
Oregon	7
Ohio	6
New Jersey	1
	38

The number of hunters using the park has decline steadily the past four years: 1952: 828, 1953: 660, 1954: 466, 1955: 368. The 1952 figure is not directly comparable for many included in this number were visitors who did not hunt. The small number of hunters in 1955 is probably due to poor weather conditions. Another factor may be the province-wide abundance of game and more liberal hunting regulations which would attract more hunters to other areas.

It is difficult to arrive at the optimum numbers of hunters to crop our game herds while at the same time providing high quality recreation for a large number of people. It is essential that big game hunters should not be too crowded, both for their own safety and peace of mind as well as for their chance of success. At present it appears that between five and seven hundred hunters could crop the game herds that are at present accessible to them. This assumes a cropping of approximately 200 game animals of all species, and that a success ratio of one successful hunter in three would be considered attractive. It either the number of hunters accommodated or the number of game animals cropped is to be increased, there will have to be more access provided.

IX SUMMARY AND RECOMMENDATIONS

Highlights of the 1955 moose hunting season were severe winter weather in November and December, early arrival of moose on winter range, the highest moose kill and success ratio to date, and the smallest number of hunters since the opening of the cow moose season in the park. An experimental caribou hunt was held, with hunters taking five animals.

Regulations for hunting appear to be adequate at present for all species except deer. Here liberalization of hunting is needed. No definite recommendation will be made until some information on present winter survival is gathered.

Tagging regulations need to be changed and clarified. It is recommended that the Game Commission regulations specify that every game animal taken in Wells Gray Park be marked with a park tag.

No habitat management is indicated for species other than moose and caribou. All efforts to improve habitat should be concentrated towards the benefit of these animals.

More access is needed for an increase in the kill. It is also necessary to prevent undue concentration of hunters in the Pyramid area. Trail work from Pyramid to Pyramid Lakes and on the south side of the Murtle River should take top priority. Trail work in other areas is needed to help spread hunting effort. This has been discussed in detail elsewhere.

An increase in total hunter numbers will have to be forthcoming if the kill is to be greatly increased. It is unlikely that hunter numbers in the past season were typical of years to come.