PROVINCE OF BRITISH COLUMBIA

DEPARTMENT OF ATTORNEY-GENERAL

Provincial Game Commission

REPORT

For the Year Ended December 31st

1951

VICTORIA, B.C.
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1952

To His Honour CLARENCE WALLACE, C.B.E.,
Lieutenant-Governor of the Province of British Columbia.

MAY IT PLEASE YOUR HONOUR:

The undersigned has the honour to submit the Report of the Provincial Game Commission for the year ended December 31st, 1951.

G. S. WISMER,
Attorney-General.

Attorney-General's Department,
Victoria, B.C., May, 1952.

OFFICE OF THE GAME COMMISSION,
VANCOUVER, B.C., May 26th, 1952.

Honourable G. S. Wismer, Q.C.,
Attorney-General, Victoria, B.C.

SIR,—We have the honour to submit herewith our Report for the year ended December 31st, 1951.

We have the honour to be,
Sir,
Your obedient servants,

FRANK R. BUTLER,
JAMES G. CUNNINGHAM,
Game Commissioners.

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Report of the Provincial Game Commission, 1951

It is with considerable pleasure that we are in a position to advise that this Report covers the most successful year in the history of the Department, not only in regard to revenue, but also in improvements in the general game situation throughout British Columbia. Increased revenue naturally means an increase in the number of licences issued over previous years, and consequently also means a heavier demand upon our wild-life resources.

The total revenue, including fines imposed for violations of the Game and other Acts and regulations, amounted to $930,720.65, representing an increase of $129,871.50 over the previous year. It might be mentioned that this increase was due principally to the issuance of 23,829 more angling and hunting licences, the sale of more game tags, and the collection of additional fur royalties and trophy fees. Particulars covering the sale of hunting and angling licences are set out hereunder:—

Kind of Licence	Number Issued	Revenue Received
Non-resident anglers' licences	27,953	$165,859.00
Non-resident firearms (hunting) licences	3,441	84,650.00
Resident anglers' licences	87,055	87,055.00
Resident firearms (hunting) licences	81,592	318,946.00
Totals	200,041	$656,510.00

The foregoing figures, as previously stated, cover an additional 23,829 hunting and angling licences over the previous year, and $102,602.50 enlarged licence revenue over 1950. Non-resident hunters obtained 2,549 big-game trophies, or 448 more trophies over the previous year, with an increase of $25,510 in payment of trophy fees. The total amount paid as trophy fees by these non-resident hunters was $113,655, and was paid on the following big-game animals:—

Bear (grizzly)	112	Mountain-goat	198
Bear (black or brown)	164	Mountain-sheep	101
Caribou	75	Moose	1,389
Deer (Coast)	4	Wapiti (elk)	114
Deer (mule or white-tailed)	392		

Increased revenue naturally means heavier pressure on our wild-life resources, but your Commission is of the opinion that our game resources are in a very healthy condition. We must, however, emphasize the fact that in order to keep our game populations intact, we must thoroughly understand wild-life conditions in every section of the Province, not only from an administrative and scientific standpoint, but from the standpoint of the sportsmen as well. In our scientific approach to our work in managing the wild-life resources of the Province, we feel that we have made considerable progress. Many problems are being scientifically investigated, and conclusive findings or reports are being submitted. These reports are constantly before us and are given very careful consideration, and recommendations submitted are acted upon as needs arise and in keeping with Departmental policy.

During the year under review our Scientific Branch has grown and has been confronted with many problems that have arisen, and that are still before us. Many of these problems were not anticipated, and consequently our appropriation for scientific investigation had to be overexpended. These problems were principally created through enlarged activity on the part of industry and due to the need of our having to investigate approximately 600 applications for water rights. Investigations were necessary on the

activities of the British Columbia Electric Railway Company at Jones Lake; the projects of the British Columbia Power Commission at Buttle Lake, Clowhom Falls, and other places; the project of the Aluminum Company of Canada Limited in the Tweedsmuir Park area; the project of the Consolidated Mining and Smelting Company in respect to the Pend d'Orielle River; the Okanagan flood-control project on Okanagan River and Lake; the Libby Dam project; the development of the Puget Sound Power and Light Company on the Skagit River; the Nanaimo Lakes project of the H. R. MacMillan Export Company Limited; and several other projects entailing considerable time and expenditures which had not been provided for in our appropriation.

It is deemed necessary at this time to mention that the projects referred to were of such importance that immediate investigations were imperative, and while the cost of carrying out these investigations has been borne by the Department, with one exception, it is felt that there should be some provision whereby companies or individuals responsible for such investigations should furnish the necessary moneys to carry them out. In this regard, we feel that it is only right to mention that the Consolidated Mining and Smelting Company Limited has been most generous in providing financial assistance to enable us to carry out investigations in respect to their development work. During the hearing before the Comptroller of Water Rights on the application of the British Columbia Power Commission for permission to dam Buttle Lake, assurance was given that financial assistance would be forthcoming for the necessary alterations to the Puntledge Park Trout Hatchery on Vancouver Island, and that a substantial sum of money would be provided for maintaining the fisheries of Buttle Lake.

The investigations referred to have been under the capable supervision of Chief Fisheries Biologist Dr. P. A. Larkin and Chief Game Biologist James Hatter, and we have also been indebted to our honourary scientific advisers, Drs. W. A. Clemens and Ian McTaggart Cowan, of the Department of Zoology, University of British Columbia, for their valuable assistance and untiring efforts.

Our Predator-control Branch, under the supervision of W. Winston Mair, has just completed a most successful year in which a campaign was waged on predatory animals throughout the Central Interior and southern portions of the Province. The results obtained have demonstrated beyond doubt what can be accomplished by the careful use of the poison known as " 1080 " in the control of coyotes, wolves, and bears. Claims for bounty on coyotes throughout the Province, no doubt as a result of this predator-control campaign, dropped from 9,822 for 1950 to 5,202 in 1951. Our records indicate that the principal decrease in bounty payments was in the areas covered by the campaign referred to. Elsewhere in this Report will be found a review by W. Winston Mair, Supervisor of Predator-control, in which is outlined the activities of the Predator-control Branch, and information as to the general predator situation throughout the Province.

We again operated a game-checking station at Cache Creek, and information and results obtained provided us with very valuable scientific data and enabled us to supply very valuable information to sportsmen passing through this station to their respective hunting territories. The checking-station also was a means of providing more adequate enforcement of the " Game Act," and last, but not least, we were able to offer protection to the cattlemen of the Interior by checking on the transport of illegally taken domestic meat.

One hundred and twenty-one convictions were recorded through this station covering violations of the Game and other Acts, and the Game and Sport-fishery Regulations. A considerable amount of revenue and a saving in commission payments covering the collection of this revenue was also due to the operations of this checking-station.

It is of interest to note that the following trophies were cleared through the Cache Creek Checking-station:—

Bear (grizzly)	19	Moose	2,270
Bear (black or brown)	137	Mountain-goat	40
Deer	1,735	Mountain-sheep	9
Caribou	2	Wapiti (Elk)	2
Ducks	5,790	Grouse	11,876
Geese	368	Pheasants	77
Cougar	3	Coyotes	50

Game fish 10,298

A total of 12,132 hunters and fishermen were checked through this station, and this total was made up of 9,809 residents and 2,242 non-residents.

Revenue was collected through this station as follows:—

Non-resident big-game trophies	$68,800.00
Premium on United States funds	1,781.68
Fines	1,375.00
Court costs	363.00
Total	$72,319.68

The organized sportsmen of the Province have been very active in the interests of our wild life, and it was largely through their efforts in acquainting their local legislative representatives with their problems and the necessity of complete recognition of the value of our fish and game resources that an amendment to section 82 of the "Game Act" was introduced and approved during the 1951 Session of the Legislature. This amendment provides that 75 per cent of the revenue of the Department each year can be used in our game-management work, and 25 per cent turned over to the Government as a return from a natural resource. If any portion of the 75 per cent referred to is unexpended, then such unexpended portion is placed in a conservation fund for future use of the Department. We could refer to this amendment as being a "new deal" for game management in British Columbia, and it is felt that over a period of years it will provide the means of building up a financial reserve that will enable the Department to undertake and carry out all major wild-life investigations.

Along with the amendment referred to, a resolution from the organized sportsmen requesting increased fees for various licences under the "Game Act" was approved, and this will enable us—even though the cost of our administration has risen greatly—to meet the ever-increasing pressure on our wild-life resources.

Carrying out our usual policy, another Provincial Game Convention was convened with the approval of the Minister in charge of the Department, the Honourable the Attorney-General. This Convention, which was held in Vancouver in the latter part of April, was very successful, and these annual gatherings have been the means of creating better feeling and relations between the organized sportsmen and the Department, as well as other organizations, such as trappers, cattlemen, farmers, etc.

UPLAND GAME BIRDS

In 1951 the pheasant situation improved, due principally to a mild winter followed by a favourable hatching season. Conditions on the Lower Mainland showed a noticeable improvement over the previous two years. Pheasant populations in the Interior, while showing an improvement, have not advanced to the point where we can relax on bag-limits or length of season. We have received many and varied opinions as to the reasons for the decrease in the number of pheasants in the Interior sections of the Province, and our game biologists are continuing their investigations in this regard.

Grouse populations were good and came up to the expectations expressed in our last Annual Report.

MIGRATORY GAME BIRDS

The months of January and February provided the finest brant-hunting experienced on the Coast for some considerable time. There was a great demand for available hunting-sites in the Boundary Bay district where, owing to the size of the area, strong supervision and regulations are required. We were in receipt of, and favourably acted upon, a request for more strict regulations.

The number of ducks exceeded expectations, and taking the Province as a whole, wild-fowl conditions were much better than for some years. There was, however, some disappointment in the duck-crop in the Cariboo regions, but this was purely a local situation. The split open seasons of the past were discarded, and, as a result, sportsmen were favoured with a sixty-day continuous open season instead of a forty-five-day open season when the split seasons were allowed. Sportsmen, however, are not unanimous on the question of a straight or split season, and this subject, no doubt, will be fully aired this coming spring. Some dissatisfaction was expressed in the Interior in regard to the open seasons allowed, especially throughout the Okanagan. A further effort will be made in the coming year to impress upon the Canadian Wildlife Service at Ottawa the necessity of more fully agreeing and favourably acting upon our problems and recommendations.

BIG GAME

Big-game populations throughout the Province showed improvement over the previous year due, no doubt, to the fact that the past two winters have been favourable. Our predator-control programme has also, no doubt, been responsible for improvement in respect to deer. The moose is still the drawing-card, and from our investigations they are becoming more plentiful in the Cariboo section, and in some instances our biologists feel that a heavier kill would be beneficial to our moose populations. Moose are becoming more plentiful south of the main line of the Canadian Pacific Railway in the vicinity of the height of land lying between the Okanagan and Merritt districts. This area has been investigated, but we do not, however, propose to recommend any open season for the hunting of moose in this area.

Big-game trophies taken by non-resident sportsmen during the year numbered 2,549, representing an increase of 448 more trophies over the previous year. Some concern has been expressed by our own sportsmen that our big-game populations are being depleted. An examination of our records, however, indicates that the ratio of success from a non-resident hunter's point of view is exactly the same as it was eighteen years ago, 73.7 per cent, in spite of an over-all increase in non-resident hunting licences of 2,877 per cent.

GAME-LAWS ENFORCEMENT

With increased hunting pressure there has been a corresponding increase in violations of the law. A detailed statement of the prosecutions conducted during the year will be found elsewhere in this Report. Examination of this statement will show an increase in the total prosecutions from 1,359 in 1950 to 1,489 in 1951, with a corresponding increase in fines from $22,923 to $24,087.50. As in former years, the principal violations have been for hunting or angling without licences and carrying loaded firearms in or discharging same from automobiles.

We are very pleased indeed with the support we have received, and still are receiving, from our Magistrates in regard not only to this latter offence, but for other violations.

In spite of our activities over the past years, we are still confronted with that despicable offence of pit-lamping or hunting deer at night, and during the year there were nine successful prosecutions conducted.

GAME-FISH CULTURE

The importance of our Game-fish Culture Branch, and the necessity of further expansion in its activities, is becoming more and more apparent. Approximately 15,000 additional angling licences were issued over the past year, and out of a total of 200,041 hunting and angling licences, 115,008 were for fishing, this number comprising 87,055 resident and 27,953 non-resident angling licences.

During the year a great number of unforeseen problems arose through inroads by industry and demand for water power, coupled with increased pollution of fishable waters.

The proposed trout-hatchery mentioned in our last Report—to be constructed in the vicinity of Loon Lake—was completed in plenty of time to produce trout for the necessary stocking of many lakes in the Lillooet and Cariboo Districts. While there is a growing demand for additional hatcheries in the Shuswap Lake region and in the northern sections of the Province, it is felt that construction of such hatcheries should be delayed pending completion of investigations now in progress or contemplated by our Game-fish Cultural Scientific Branch.

ACKNOWLEDGMENTS

As in former years, it has been our distinct pleasure and privilege to attend many meetings of the Cattlemen's Associations and Farmers' Institutes and Game Associations in different sections of the Province, and we wish at this time to thank these organizations for their splendid co-operation, and, coupled with this, we fully appreciate the co-operation extended by all Provincial and Federal Government departments. The co-operation of our own personnel in all branches of the Department has been excellent, and it is a great pleasure to us to advise that every employee of the Department is fully conscious of the need of constant supervision of our wild-life resources.

"A" DIVISION (VANCOUVER ISLAND, THE GULF ISLANDS, AND THE MAINLAND COAST FROM TOBA INLET NORTH TO CAPE CAUTION, INCLUDING THE ISLANDS ADJACENT TO THE EAST COAST OF VANCOUVER ISLAND NORTH OF CAMPBELL RIVER).

By G. C. Stevenson, Officer Commanding

I have the honour to submit my annual report covering game and fish conditions in "A" Division for the year ended December 31st, 1951.

Big Game

Elk.—Little change is noted in the numbers of these animals from last year, and the various herds scattered throughout Vancouver Island are holding their own. A well-known trapper reported seeing seven cow elk, all with calves, at the headwaters of the Salmon River. These calves were observed during the month of July, and would indicate the calf survival is improving. Heretofore, the scarcity of elk calves has puzzled observers, and many reasons have been advanced. As the Commission is in the process of conducting a biological survey of the elk, many, so far obscure, reasons will, no doubt, come to light.

Deer.—Owing to a fairly mild winter the survival rate of yearlings and under was fairly good and a definite increase in deer population was noticeable in the southern part of Vancouver Island. In the Sayward area these animals were not plentiful, but all appeared to be in exceptionally good condition, even those observed late in November in the vicinity of Brown's Bay were remarkably fat. Due to the forest closure, deer-hunting did not commence until October 1st, and comparatively few animals were taken until the latter part of the month and the two weeks in November. Though deer are still plentiful, the hunting of these animals is not the simple matter it was in the past, and skill and perseverance are now called for in order to achieve success.

Black Bear.—These animals are numerous throughout the Island, and some exceptionally large specimens are to be encountered in the mountains west of Courtenay.

Grizzly Bear.—These bear are plentiful at the head of Toba and Knight Inlets. Some are also reported in the Loughborough Inlet region. One grizzly was taken on the Klinaklini River flats, at the head of Knight Inlet, this year, which is considered a world record.

Fur-bearing Animals

All fur-bearers, with the possible exception of muskrats, are plentiful in this Division. The increase in the beaver population is very noticeable, and often necessitates control measures in order to safeguard agricultural land. Racoon have made an exceptional increase in spite of a year-round open season. Market values for racoon-pelts are to a large measure responsible for trappers ignoring them, thereby leaving them to multiply.

Upland Game Birds

Blue Grouse.—These birds have shown no sign of decreasing up to now, in spite of the heavy hunting pressure. During the past season the harvest of these birds did not attain the same percentage as the previous year, but this could be accounted for by the fact that the opening season was interrupted by a forest closure, and also by the fact that many of the birds had commenced to move from the breeding-grounds by the time the season opened. It is thought the extreme dryness prevailing at the time could have caused this movement. The Commission is conducting a very interesting study of blue grouse, through their biological staff, which will no doubt reveal many peculiar traits of these birds.

Willow Grouse.—These birds show a marked improvement in numbers and have definitely benefited by the protection they have been afforded in recent years.

Pheasants.—These birds continue to be a problem in most parts of the Island. On the one hand we have sportsmen clamouring for more and more pheasants, and on the other hand we have farmers strenuously objecting to the release of the birds on their property. During the past year members of Game Associations in and around the Saanich area worked very harmoniously with the local farmers, and in consequence the Commission was able to release a large number of pheasants, but in other parts of the Island, with the possible exception of the Comox-Courtenay area, the reception of pheasants by the farmers is not so cordial. Much of this attitude is due to the sportsmen themselves, who seldom consider the farmer or his property. Members of Game Associations must make a very definite effort to work with the agricultural interests before the pheasant population can be appreciably increased. Nevertheless, there is a very substantial number of pheasants to be found on the Island, and although a considerable section of the birds may be in areas where hunting is prohibited, they, none the less, provide a definite and protected breeding stock.

Migratory Game Birds

There has been a plentiful supply of ducks and geese throughout this Division, and sportsmen enjoyed some good duck-shooting on the Island; Tofino, on the west coast, continues to attract very large numbers of wild fowl, and exceptional goose-shooting can be found there. Black brant made their appearance in large numbers all along the east coast of Vancouver Island, and hunters had very excellent sport.

Predator-control

There were 275 cougar and 3 wolves destroyed in this Division during the past year. Of these, 33 were accounted for by Departmental hunters and Game Wardens. A condition exists in this Division, as regards the cougar, which at times is difficult to cope with. This situation arises from the fact that there have been two attacks on humans by cougar in recent years; one was fatal, and the other required prolonged hospital treatment. In

consequence of these attacks, this Department cannot ignore calls for assistance by people living in remote areas, who fear for themselves and their children. Departmental hunters who have been allotted tasks of ridding certain defined areas of cougar have to be taken from their work and sent to answer these calls, very often at considerable cost of time and money. Furthermore, these calls cannot be ignored for fear of responsibility should a resident be killed or injured. Some criticism has been levied by the uninformed regarding the number of cougars killed by Departmental hunters, but they fail to take into consideration the time spent in answering calls by residents from all parts of the Island.

Many hawks, owls, crows, ravens, racoons, and stray cats have been destroyed by Game Wardens of this Division during the course of their regular patrols. A number of dogs actually found in the act of running deer have also been destroyed.

Game Protection

There were 205 informations laid under the "Game Act" and Fisheries Regulations for various infractions.

Game Propagation

Releases of pheasants were made in the Saanich, Metchosin, Alberni, Nanaimo, and the Courtenay-Comox areas during the year. These liberations were made with the assistance of members of the Game Associations in whose areas the birds were released.

Game Reserves

Reserves are maintained at Shaw Creek, Strathcona Park, Bald Mountain, Elk Lake, Elk Falls, and China Creek. There are also a number of lesser reserves throughout the Island.

Fur Trade

A considerable number of farm-raised pelts move through this Division, but most of the wild fur is shipped direct to Vancouver, as there is practically no trading in raw furs in Victoria.

Registration of Trap-lines

The system of trap-line registration continues to be an outstanding success in this Province, and amendments and adjustments have been made from time to time that have now made the system a model in Canada. Practically no difficulty is encountered with any of the trappers, and they themselves jealously guard their rights and privileges under the registration system. Fur-bearers continue to be abundant, but the squirrel and marten population will have to be watched if forest-management schemes continue to use poison for the destruction of mice on any large scale, as marten practically live on mice and squirrels.

Registration of Guides

This Division does not possess many guides, and the few there are centre around the Campbell River and Cowichan Districts.

Special Patrols

One special patrol was made by Game Warden W. S. Webb, of Alberni, who covered a large section on the west coast of the Island, calling in at many remote settlements seldom visited owing to transportation difficulties.

Hunting Accidents

January 1st, 1951, William Morgan, of 1330 Slater Street, Victoria, B.C., accidentally shot himself with a .22 rifle in the foot. Not serious.

October 1st, 1951, Howard Eckhart, of Duncan, V.I., accidentally shot by companion in mistake for deer. Fatal.

Game-fish Culture

A total of 340,500 Kamloops-trout fingerlings were reared at the Department's hatchery at Puntledge Park during the year. These were planted in lakes throughout the Division, according to the food content of the lake in question and the intensity with which it was fished. Several rivers also received a planting. A detailed statement of restockings will be found elsewhere in the Annual Report.

Summary and General Remarks

Owing to a forest closure due to fire-hazard, hunting of blue grouse and deer was delayed during the early part of the season, but the general harvest of game has been good. Ducks and geese were in good numbers, and during the early part of the year brant-shooting was excellent.

The rapid expansion of industry and logging is penetrating deeper into game habitat every year, but present regulations and administration is maintaining a sound and well-balanced conservation policy.

This Division has received excellent co-operation from the Royal Canadian Mounted Police in regard to road checks for game. May I take this opportunity of expressing my thanks and appreciation to the Officer Commanding Victoria Subdivision, Royal Canadian Mounted Police.

To the personnel of "A" Game Division I extend my sincere appreciation for the excellent manner in which they have at all times carried out their duties and maintained cordial relationship with the public.

"B" DIVISION (KOOTENAY AND BOUNDARY DISTRICTS)

By C. F. Kearns, Officer Commanding

I beg to submit herewith my annual report for the year ended December 31st, 1951.

Big Game

Wapiti (Elk).—This animal is the chief attraction in the East Kootenay, where a quite heavy bag was taken throughout the district from Golden to the border. They continue to extend their range and, together with the planting at the head of Kootenay Lake, it may soon be possible to have a further open season in the West Kootenay to supplement the short three-day season in the Creston area.

The small stand of elk in the Princeton area appears to be holding its own; also near Naramata on the east side of Okanagan Lake they are extending their range and show promise of a slight over-all strengthening of their numbers in spite of the open seasons and the taking of a fair number of bulls.

Moose.—The month's open season (October) in the East Kootenay was satisfactory. Setting the season back two weeks had a beneficial effect, as they were to some extent distributed from the sloughs and ponds. The later season is approved by the majority of hunters, and should hunting pressure increase, it might profitably set it back even further.

Mountain-sheep.—While these animals have not yet recovered their former numbers, they are showing signs of a healthy increase, and the month's open season has done no harm. The number of sheep taken throughout the district is very small and mostly secured by non-resident hunters.

The situation of the small bands on the Ashnola River in the vicinity of Okanagan Falls has not altered, although these animals have been the object of continued scientific investigation.

Mountain-goat.—Goat are well distributed throughout the Division but are not plentiful, except in some sections of the East Kootenay where it appears there has been

a decline in their over-all numbers. They continue to increase noticeably in the West Kootenay-Boundary-Similkameen area. As these animals have become increasingly popular of late years, a reduction of the bag-limit was a step in the right direction.

Caribou.—Mostly present in the Selkirk Mountains from the east side of Arrow Lake to the west side of Kootenay Lake, but perhaps more plentiful at the northern end of both lakes. The reported kill was light, but sufficient to indicate that these animals are maintaining their numbers.

Deer (Mule).—Plentiful throughout the Division, and the one-buck bag-limit this year met with general approval, except in a few localities. More hunters and a depleted (compared to a few years ago) deer population made the reduced bag necessary.

White-tailed Deer.—Well distributed except in the Boundary-Similkameen District. Elsewhere they are not as plentiful as in former years.

Grizzly Bear.—Found throughout the Division, with possibly more animals in the Kootenays, particularly the West Kootenay. The prohibition of sale of grizzly-hides might be advisable and tend to discourage local hunting with a view to selling the skin. These animals are a potent attraction for non-resident hunters.

Black Bear.—Plentiful throughout the Division and the occasion of some complaints from farmers and fruit-growers during the year. These complaints were attended to with good results by the Predator Animal staff and the local Game Wardens.

Fur-bearing Animals

The price of furs has increased somewhat, but with prevailing high wages there is little incentive to trap; unless a trapper has a very good line, he can make more in industry. However, the present low trend of fur prices will contribute to the replenishment of trap-lines.

Upland Game Birds

Ruffed (Willow) Grouse.—Willow grouse were generally well distributed throughout the Division, with good numbers observed after the close of the season.

Franklin's Grouse.—Not as plentiful as the ruffed grouse, but are well distributed. More numerous in East Kootenay than elsewhere.

Blue Grouse.—Very plentiful in the East and West Kootenays and reasonably so in the remainder of the Division. The reported apparent scarcity of these birds is not always borne out by facts. Some observers are too prone to decry the lack of blue grouse when these birds are really on their early-autumn range, which is at timber-line.

Sharp-tailed Grouse.—A short open season on these birds in the East Kootenay does not seem to have affected their stand. However, they are local in the area from Cranbrook to Windermere. Their decline and near elimination in the Lower Okanagan-Similkameen has not altered in recent years, and it is doubtful if they will ever come back due to the encroachment of agriculture.

Pheasants.—There was no open season in the Creston district, and short ones in the Similkameen and Grand Forks areas. These birds seem to be recovering something of their former numbers after the recent unaccountable decline.

The same remarks apply to Hungarian partridge, while quail in the Similkameen-Okanagan seemed to be in good numbers as compared to other years.

Migratory Game Birds

Spring and early summer conditions were good, and the season could be considered a normal one for young broods. A resident population of perhaps 1,000 ducks, of which mallards, lesser scaups, and redheads are in the majority, winter in the vicinity of Nelson and are fed during the severe weather. Presumably a number of these birds have lost their migrating urge.

Creston, the Duncan Lake area, and the Columbia River sloughs from Canal Flats as far as Golden are the chief nesting areas, although every small lake in the Division seems to support at least one flock of water-fowl. The bag taken by hunters in this part of the Province is only a tithe of the water-fowl that are raised here.

Predatory Animals and Noxious Birds

The following vermin were destroyed by game personnel during the year: 56 cougars, 42 coyotes, 4 bobcats, 3 bears, 29 hawks, 260 crows, 26 domestic ownerless dogs, 58 wild house cats, 14 owls, 49 ravens, 15 eagles, 56 magpies, 21 magpie-eggs, 27 mergansers, 4 rattlesnakes.

This does not include the results of hunting done by Predatory Animal Hunters Haskell and Morigeau, whose activities will no doubt be summarized by the Supervisor of Predator-control.

However, I think I should mention that all ranks have been active in combating predators, and that the Game Wardens have co-operated in distributing coyote baits prepared by Predatory-animal Hunter Haskell. This work involves considerable detail, particularly around the settled areas, and a great deal of co-operation with resident farmers. We have been very free during the past year of complaints, although there were one or two instances where dogs apparently had access to these baits. As these dogs were some miles from home, it is not felt that the Department was culpable.

Reports of coyotes being thinned down by the use of poison baits has been very encouraging, and the steady inroads made on the cougar population as well should be of great benefit to the game.

Game Protection

There were 177 prosecutions under the "Game Act" or Special Fisheries Regulations during the year.

Game Propagation

No plantings of game birds were made during the year. It is to be hoped that sufficient information will soon be collected on the pheasants in this part of the Interior to enable a programme of restocking in an effort to establish the former good stands of these birds in the Lower Okanagan-Similkameen, Grand Forks, and Creston areas. We can concede that our plantings in other localities have not been as successful as we hoped, but we did have good shooting in the areas mentioned above, and it is to be hoped that they may again be brought back to their former high productive level.

Game Reserves

The Elk River Reserve, comprising the upper watershed of the Elk and Bull Rivers, also White River, is the most important one, as it is situated in the heart of the big-game country.

Game-bird sanctuaries at Nelson and Vaseaux Lake, south of Penticton, are also beneficial, and their establishment continues to meet with general approval.

Deer sanctuaries exist at Elko, Canal Flats, and the Kettle River. These are located on winter yarding-grounds and serve as a haven should unusual conditions occur during the open season when deer might be too easily taken.

Fur Trade

Most of the fur of this Division is handled by local resident fur-traders or sent to traders in Vancouver. Very little fur is exported locally from the Province by trappers.

Registration of Trap-lines

This is a good system, and there would seem to be no criticism of its operations, as the trappers who hold the lines are satisfied.

Registration of Guides

We now appear to have reasonably satisfactory arrangements for guides, and much of the dissatisfaction of former years with regard to guiding territory seems to have disappeared. Guides have realized the value of control, and we only have to suggest that we revert to the old system of uncontrolled guiding to have an almost unanimous protest against such a course.

Special Patrols

We have none under the particular heading other than routine patrols which have been made during the year on horseback, on foot, and with rowboats in the course of general duties. A great many patrols have been made on foot during the winter by the personnel hunting cougars or other predators, and considerable information is available on winter conditions for game as a result of this particular activity.

Hunting Accidents

P. Kazakoff, of Nelson, B.C., accidentally shot himself in the toe with a 30.30 rifle. Tuno Green, of Oliver, B.C., also did the same with a .22. A .22 in the hands of his 12-year-old stepsister, who stumbled, also wounded James Whaley, of Rossland, B.C. None of the above wounds was serious.

Norman Pratt, of Palliser, B.C., died from natural causes while hunting in the mountains near home. Vern Weber, of Lodi, Calif., died as a result of being thrown from a saddle-horse while hunting in the Fernie district.

Ray Olson, of Marysville, B.C., was drowned in Horsethief Creek, Windermere, while on a fishing-trip. An overhead-cable car sagged into the swift water and threw him and a companion into the stream. His companion swam to shore but Olson was not seen again.

Summary and General Remarks

We are still suffering from a cycle of hard winters, although the past one, 1950–51, was average, and the present one, 1951–52, at this date, January 31st, gives promise of being also average. We still have not recovered the game stands that we had prior to the winter of 1946–47, but it seems reasonable to expect that, given a fair break in the winter seasons, we can again expect an increase in our game herds.

We can take some credit in meeting the situation as we have during the past five years. We have curtailed our big-game bag-limits very drastically, and this has been done with the approval of the organized sportsmen. We have been most assiduous in controlling predators in this Division, and no doubt this also has had some bearing on our game stands.

Nevertheless, we are faced with the spectre of an ever-increasing number of hunters who pour into the very accessible game district during the hunting season. So far this has not been too much of a problem, but it is increasing every fall.

An example was in the very good area in the vicinity of Wardner, or roughly between Wardner and Elko in the vicinity of the junction of the Bull and Kootenay Rivers. In this easily accessible area, bisected by the main highway and traversed by local roads in many directions, an estimated several hundred elk were killed. During the months of October and November this area was continuously hunted by an energetic and active array of hunters, the majority of whom seemed to be successful.

The number of elk was rather surprising, although we have known for a long time that these animals were increasing in that vicinity. But what we did not anticipate was that they would be present in such large numbers so early in the season, as they usually wait for the snow to bring them out of the mountains. It is very fortunate that we did not allow an open season on female elk, as some people had suggested, because it would have had the effect of eliminating breeding stock.

The moose season of one month was fairly satisfactory, but we had some opposition when opening a two weeks' season in the Cranbrook area. This was from local residents who refused to admit that moose have increased to the point where a number of mature bulls could be taken. We did not agree with the view-point, and the few animals taken bear out our contention that a small bag would do no harm.

The reduction of the deer season met with general approval, although it was noted that more youths and women who accompanied their husbands hunting took out deer licences than was formerly the case. Not so many deer were bagged as in other years in the Kootenays because the weather conditions were good, and at the close of the season on November 30th the snowfall had not been sufficient to force them to the lower level. The bag in the Similkameen-Okanagan was normal.

An extended buck and doe season for two weeks was permitted in a portion of the Nelson-Creston district and was generally satisfactory. The weather at the close of the season was still good, and no undue bag of either sex was noted.

In previous Reports I have mentioned the fact that the halcyon days of yesterday where game was concerned in this part of British Columbia appear to be over. Through the courtesy of the District Forester, the writer was privileged to inspect two remote lakes—one in the Selkirks and one in the Rockies—during the summer. The information as to the success of the trout planting of these lakes was very gratifying, but the easy method of reaching a game area was even more revealing. There is no doubt that the time will soon be with us when some of the big-game hunting in this area will be done using aeroplanes for transportation, and we should, if possible, continue to keep our regulations up to date where aeroplanes are concerned in the game field. At present remote lakes are being fished by aeroplane parties with apparent satisfaction.

One of the matters that has given us considerable concern is the energetic way in which roads are being made into hitherto inaccessible timber lands. This has the effect of making it easy for everyone to get into a really good game country early in the year. Hitherto, we did not expect too large a take of the big-game animals—elk, sheep, or goats—until winter conditions had forced them to lower altitudes near the end of the season. We do not have enough big-game animals for everybody, and in lieu of a system of rationing them, it seems we will be obliged to close or restrict certain districts for these animals, possibly with a year-to-year rotation.

It should be remembered that the very good game country is definitely limited because a great deal of the Kootenays is heavily wooded and does not support much game. In this connection we can view with interest the proposed developments of the pulp and paper corporations as well as the forest management licences shortly to be put into effect in this area. This will no doubt result in a great deal of the present heavily timbered areas being cleared, and the resultant browse and open spaces should provide a great deal of new pasturage for the deer animals.

If our experience in the past in other parts of the Province can be repeated in the Kootenays, then we can look forward to better deer-hunting in the West Kootenay area.

In closing, the usual cordial co-operation was received during the year from the organized sportsmen and the usual Government departments. I should like specifically to thank the District Forester at Nelson and his field staff for a great deal of extra-curricula help and advice rendered to this Department.

"C" DIVISION (KAMLOOPS, YALE, OKANAGAN, CARIBOO, CHILCOTIN, AND SQUAMISH DISTRICTS)

By R. M. Robertson, Officer Commanding

I have the honour to submit herewith my annual report on game conditions in "C" Game Division during the year ended December 31st, 1951.

Big Game

Moose.—In the Goldstream area of the Revelstoke district moose are increasing. They are wintering as far south as Five Mile Creek, which is about 30 miles north of Revelstoke. It is estimated that there are probably 200 moose in this Detachment at the present time.

In the Big Creek area of the Lillooet Detachment, also Bridge River valley, there has been a noticeable increase in moose. The same situation applies to Upper Hat Creek and Lytton districts. Information received from trappers and guides in the Quesnel area indicates that moose wintered well and had a good calf-crop. Predators did not affect big game to any noticeable extent.

It is estimated that a total of 250 to 300 bulls were killed in the Kamloops area during the past hunting season. Guides report a very strong influx of moose, mostly from the north-west, in the Puntchesakut and Tibbles Lakes area. The drying-up of sloughs and pot-holes, due to a record dry summer, forced moose to lower levels where water could be found. Heavy browsing over a large area is evident in the Quesnel district.

The Clinton Detachment reports a large increase in moose but with a steadily decreasing food-supply. Overbrowsing is reported all through the Cariboo. The numbers of this species taken by hunters in the Wells area have doubled in the last three years.

In the Kamloops area a good calf-crop was reported; in fact, it could be safely said that this applied to the Division as a whole. Winter conditions were more favourable during 1950–51. The kill of moose in the Kamloops district is not high, due largely to the unsuitable terrain and lack of accessibility.

Moose were seen at the Princeton airport during the summer, also around Burns Hill. There is a slow southward movement of these animals. In the Upper Deep Creek area of the Peachland district, also Beaver and Postill Lakes east and north of Kelowna, the presence of moose is reported, and an increase is indicated.

Caribou.—Revelstoke Detachment reports caribou as plentiful, but a very poor season was reported due to lateness of the fall, as the caribou did not start moving to their winter quarters until after the season was closed. In all other Detachments a general scarcity is reported.

Elk.—Around Chute Lake, south-east of Kelowna, this species is increasing. Little hunting is done due to rugged terrain. In the Big Gun Lake area a few are reported. At the head of Adams Lake, little hunting of elk is done as the area is not easily accessible.

Mountain-sheep.—In the Lillooet district an increase in lambs is reported.

In the Churn Creek basin a closed area should be declared, especially where sheep winter. There are too many guides and assistants operating in the Churn Creek basin. It would take a fair portion of a Warden's time to keep track of the numerous hunting parties operating in the wintering-grounds of mountain-sheep.

In the Squilax area about the only protection from deep snow, which was again evident at the end of 1951, that sheep can obtain is to descend to the railway-track of the Canadian Pacific Railway and Trans-Canada Highway. Here a few are killed, and if the snow is soft and deep on the high range, bobcats add to the toll of mountain-sheep.

In the Squam Bay region of Adams Lake very few sheep are found. This habitat appears unsuitable for mountain-sheep, and no increase is indicated.

Grizzlies.—Numerous at the head of Texas Creek, McGillivray Pass, White Cap Mountain in the Lillooet district, and also in the Revelstoke area. The main areas are Jordon River, Albert Canyon, Cambourne, and Ferguson. One guide saw twenty-seven bears, most of which were grizzlies, in the Revelstoke district. A few grizzlies are reported in the Park Mountain, Viddler Mountain, Sitkum Creek, and the Cherry Creek basin areas.

Black Bear.—There is no definite region where one can depend on the presence of black bear. They are widespread and are more of a nuisance than an asset. Damage by black bear on stock-raising ranges has been comparatively negligible to that of previous years.

Mountain-goat.—This species is found on numerous ranges, one of which is the Shuswap-Columbia River divide east of Sugar Lake. A small band of four were seen on the rocks at Echo Lake, Creighton Valley, having presumably come from the Harris Creek plateau. These were the first goats to be seen in this area for twenty years, according to early residents. Big-game resources of the North Okanagan are seldom exploited; in fact, many residents are not yet aware of what they have in big game on adjacent ranges.

The same situation applies to Revelstoke, except that the ranges are not so easily reached. Mountain-goats are definitely on the increase in all regions.

Cayoose and Tommy Creek areas of the Lillooet district have considerable numbers of mountain-goats.

Deer.—In all districts favourable reports on the deer situation came to hand. A few reports of disease of a minor but common nature were brought to our attention.

The season was indeed a highly successful one. Deer moved down to lower levels out of deep snow during the latter part of the season. In one cold-storage plant, 250 deer were placed in cold storage during the 1950 open season. In the same plant, 456 deer were stored during the 1951 open season.

Fur-bearing Animals

Beaver.—The issuance of beaver-seals has had a good effect on the conservation of this fur-bearer. I am afraid, however, without an intimate knowledge of what each trapper has, Wardens may be handicapped, if prices for beavers should ever increase, in knowing just how many tags to issue. The system as described for beaver conservation in my previous annual report is working out satisfactory. No trapper is issued with more seals than would amount to 25 per cent of his beaver population, etc. Many trappers returned some unused seals. In the Kamloops area twenty-nine trappers took 197 beavers.

Reports of beaver increase usually bring a number of complaints of damage to agricultural properties. These complaints were satisfactorily settled.

Prices for all fur-bearers were low, and little serious trapping was carried out as most trappers are engaged in other pursuits of a more remunerative nature. One cannot expect trappers to remain on a trap-line long when poor prices prevail for most furs.

In the southern portion of the Kamloops Detachment, beaver and marten were taken in greater numbers than during the previous season. A total of 1,222 beavers was taken by trappers during the 1950–51 season over the entire Division.

Upland Game Birds

Pheasants are making a very satisfactory come-back everywhere from the population of last winter. In the Kamloops area a spot count in September showed a cock-to-hen ratio of 1:2. A road check of the Tranquille and Westsyde areas gave a total of 33 cocks, 27 of which were juvenile birds. The total bag for the season was not large, but a check-up on pheasants after the season revealed a greater number than was at first expected. With good dogs, many hunters freely admitted that more birds could have been taken.

The kill of grouse passing through Cache Creek Checking-station compared favourably with the previous years, except for an increase in blue grouse. The ratio of blue grouse killed still does not compare with the willows and Franklins taken. The 12,132 hunters passing through Cache Creek took 8,085 upland game birds. A decline in

willows and Franklins was noted in the Wells area, fewer birds being taken. In all Detachments, reports indicate grouse of all kinds are still as numerous as ever.

Actually, in the Cariboo, if we judge by the numbers visiting that region—namely, 9,000 hunters during the 1950 season and at least 12,132 during 1951—the grouse-kill for 1951 would not be as great as the 1950 kill. This may indicate a decline in the grouse cycle.

Hungarian partridges are not prolific producers and never seem to remain in any one area. Reports of numbers are not good and are therefore not in the same category as other game birds. Prairie-chicken are another species of a very uncertain nature. Reports to hand are far from encouraging.

Migratory Game Birds

Roughly 1,000 mallards spent the winter on the South Thompson River. The winter 1950–51 was not as severe as the previous one. Water-fowl did not suffer and feeding was unnecessary. Hunters at Vernon enjoyed a good duck-hunting season on many of the lakes which did not go dry. All species of ducks around Quesnel had a very successful hatch. A flock of from 50 to 75 pelicans nested in the area of Bataunis Lake. These non-game birds were observed by Forestry Officers while on an air patrol. Over 200 swans appeared in the Bridge River valley last fall, and about the same number appeared on the South Thompson River where they spent the Winter.

Predatory Animals and Noxious Birds

A considerable decrease in the number of coyotes is reported, especially where the 1080 poison has been used on range lands. Dangerous as it is, the widespread use of this poison is not advisable, except in trained hands. Wolves are still a factor around Wells Gray Park and also the Mad River country and Douglas Lake. The travel route of one or two wolf-packs extends from along the north shore of Canim Lake east to and along Mahood Lake to the Clearwater and Murtle Rivers, thence to Stevens Lake and south-south-east to the headwaters of Mad River. Wolves are scarce around Wells and Bowron Lake. The following predators were killed by nine Game Wardens and two predatory-animal hunters: Bears, 27; bobcats, 7; cats, 202; cougars, 14; coyotes, 296; dogs, 55; red foxes, 2; ground-hogs, 154; skunks, 2; wolves, 9; crows, 1,046; eagles, 37; hawks, 156; magpies, 560; mergansers, 21; horned or snowy owls, 59; ravens, 142. Of this total, one predatory-animal hunter destroyed 137 coyotes.

Game Protection

There were 484 prosecutions launched in " C " Game Division during the year.

Another winter count should be taken of mountain-sheep at Shorts Point. There is a report that it is the intention of the owner at the Fintry Ranch, who holds some winter range on Shorts Creek, to run live stock over this portion and contemplates extending his operations over mountain-sheep range. Further inquiries on the proposed extension of grazing rights are being made.

Game Propagation

Forty-four pheasants were liberated at Kamloops, and were purchased locally. Pheasants were not brought in from coastal areas this year because of the possibility of disease-infected stock. The count of pheasants taken after the winter season gave fair indication of a normal breeding stock for the following year.

Thirteen beavers were taken from the Bowron Lake Reserve for distribution over the Province. Chukar partridges were released by the Department east of Kamloops, and a few have been seen from time to time.

Game Reserves

The game reserve for water-fowl opposite the City of Kamloops has provided a great deal of genuine pleasure for the residents of this city. Over 60 whistling swans and 200 lesser Canada geese were observed there in November. It is becoming a famous resting-place for water-fowl during the spring migration and hunting season. From 1,500 to 2,000 ducks, also geese and swans, were seen at times near the Thompson River junction at Kamloops. An effort to extend the sanctuary along several miles of a navigable river has not met with any success, as the feeling prevails that it would interfere with the enjoyment of hunters.

The following reserves are noted: Bowron Lake near Wells provides limited numbers of beavers for distribution on various trap-lines and irrigation projects; Yalakom Reserve protects mountain-sheep.

Wells Gray Park, now under Forest Service jurisdiction, has a programme of road and trail development and game protection, and is also engaged in a stock-taking of its game resources. The work of assisting trappers and guides is also being given serious consideration.

Minnie Lake sanctuary in the Douglas Lake country is another area which is becoming more important. For the first time, several hundred whistling swans rested there on their way south. One flock of 50 swans stayed around Nicola Lake until the freeze-up before leaving for the south.

Fur Trade

The bulk of the fur trade is carried on in Vancouver, and all fur is forwarded there through agents in the Interior. The winter of 1950-51 has not, up to the end of the year, produced much in the way of fur due to heavy snowfall and other factors.

Registration of Trap-lines

The system, now long established, is trouble-free and highly satisfactory. When the revised maps are completed, the entire system of geographical descriptions will have to be finalized.

Registration of Guides

The system now to a large extent in use at present, and which seems to be the most satisfactory, is the creation of areas of moderate size for the use of approximately six guides in close proximity to each other. In a block containing a small number of guides and assistants, greater respect for the area over which the guide has hunted in past years is invariably attained. A few guides have dropped their activities up to the present, and there is some indication that their numbers in overcrowded areas will naturally decrease during the next few years. A start toward the creation of small blocks containing a limited number of guides and assistants is now under way in the two or three detachments which have individual areas.

There is no guarantee that hunting rights within an individual area will be maintained for a single guide. Greater security for the guide and his investment is safer within blocks of moderate size.

There are 332 guides and 139 assistants in "C" Game Division. In the past the bottle-neck in the business of guiding lay mainly in the failure of the guides in a large number of cases to send in their return of the bag taken by the hunter. Continual scrutiny by the Wardens covering the activities of guides was necessary. A considerable improvement was noted in obtaining guides' returns from those who operated in the Cariboo. In other areas where no permanent road check was maintained, the returns from the guide could not be back-checked.

Special Patrols

A special patrol was made by Game Warden E. D. Cameron to the headwaters of Sitkum Creek, checking beaver and other game on the trap-line of a local trapper.

Hunting Accidents

There were reports of five hunting accidents during the 1951 season.

In the Quesnel Detachment one hunting accident occurred involving O. A. Rye, who was wounded in the foot; also H. Hilderbrand received a wound in the calf of the leg, and G. Rogers died due to exposure when rescue-boat overturned.

Lillooet reports that J. T. Monoghan accidentally received a wounded foot by his companion. W. Whitney, a 16-year-old boy, died from exposure after being lost in the mountains for several days near Lillooet.

In the Kamloops area Father Edward Francis Swoboda, on October 7th, received wounds in the right shoulder and back, but there were no serious effects suffered. On October 8th James Patrick Langston was wounded in the left foot and later had to have part of it amputated. On October 27th Fredrick Casimer was found dead in the Jamieson Creek area. He suffered from a weak heart. Robert Hugh Todd was wounded in the left arm.

Cache Creek Checking-station

The number of hunters checked was as follows: Resident, 9,890; non-resident, 2,242.

The game checked consisted of the following: Black bear, 129; grizzly bear, 19; caribou, 2; deer, 1,733; elk (wapiti), 2; mountain-goat, 40; moose, 2,230; mountain-sheep, 9; migratory game birds, 6,158; upland game birds, 8,085.

Summary and General Remarks

The great invasion of over 12,100 hunters into the Cariboo marked a new epoch in big-game hunting. The motive for this influx of hunters was the abnormally high price of meat on the British Columbia and foreign markets. In contrast to the influx of 9,000 hunters of the previous year, the increase this year was notable indeed. Just what is in store for the Cariboo region during 1952 is difficult to determine. If the high price of meat continues, it would be safe to predict a further increase in the number of hunters in the Cariboo in 1952.

One does not realize the vast extent of the Cariboo region until viewed from the air. A total of 2,230 moose taken from an area the size of the Cariboo could not be described as a strain on the big-game resources. With judiciously chosen seasons of moderate length based on the findings of biologists in the field on this and other factors, and barring natural catastrophies, this asset should prevail and furnish food and enjoyment to an even greater number of hunters for many years to come.

The harvesting of grouse while at their peak produced greater numbers, but this was due to the increased number of hunters. The blue-grouse harvest was double that of the previous year.

There was no harvest of game that would create alarm in the minds of biologists. It is true that the pheasant situation was a controversial problem, but it is one capable of reasonably quick recovery. More important to the propagation of the pheasant population is the question of cover. In fact, with adequate cover, on which we should concentrate more, the predator problem could be relegated to second place within the scope of sound game management.

Fur-bearers were not harvested as heavily as in former years, due to poor prices and poor conditions.

One of the most urgent requirements within this Division is the need for more personnel in the field. With a 41-per-cent increase in population, exclusive of non-resident hunters, Wardens were swamped with correspondence and requests for information, which forced them to spend much of their very limited time on the roads instead of visiting hunters' camps, which should also be done as a part of their already strenuous duties. It is quite clear under those circumstances that additional help is required where the concentration of hunters is greatest. Even in the Interior cities temporary assistance is needed, and additional equipment, especially in the form of jeeps, is an urgent necessity.

The abnormally high percentage of prosecutions on the field may mean:—

(1) A lack of education on the part of the hunter through failure to study the regulations.

(2) Carelessness. This was evident in the large number of hunters who left loaded firearms in their vehicles. Seventy per cent of the prosecutions obtained at the Cache Creek Checking-station were due to this careless habit.

A change for the better should take place in the case of non-resident hunters coming into the Province with firearms and no licence.

From the view-point of obtaining a meat-supply, the opportunity prevailed everywhere, especially for city hunters who were wise enough to have a guide. A breakdown of statistics would give a truer picture of the situation as prepared by the biologists.

In conclusion, our thanks are due to our biologists, the Forest Service personnel under Colonel Parlow, the Royal Canadian Mounted Police, the loyal co-operation at all hours of Wardens in the field, at times under very trying circumstances, members of Game Associations, and Water Rights Branch and Department of Public Works officials for their splendid assistance rendered during the year.

"D" DIVISION (PRINCE GEORGE, McBRIDE, VANDERHOOF, BURNS LAKE, SMITHERS, PRINCE RUPERT, POUCE COUPE, FORT ST. JOHN, FORT NELSON, AND LOWER POST DETACHMENTS).

By W. A. H. Gill, Officer Commanding

Big-game Animals

Moose.—These game animals are still very plentiful throughout this Division from Fort St. John south. A percentage of them are infected with tapeworms, but due to the excellent food available to the moose in most of the Division, together with favourable winter conditions, this parasite has not reduced their numbers. During the spring of 1951 very few ticks were present on moose examined.

Far more moose were taken by sportsmen in 1951 than in previous years, and from observations I am certain that these animals are still more plentiful than they were previously.

Cyanide of potassium poison baits for wolves were set out on numerous lakes within a radius of 100 air miles from Prince George, and in the Atlin and Cassiar Districts, with very good results, as moose are showing a marked increase in all of the areas where poison was placed.

A considerable number of aeroplane flights were made in carrying out this poison programme, and private owners of aircraft who supplied this transportation at their own expense are entitled to a great deal of credit for assisting in maintaining our moose-crop.

Deer.—Except on the Queen Charlotte Islands, these animals are not plentiful in this Division.

A slight increase in the number of deer is noted in the Burns Lake, Prince George, and Vanderhoof areas, but in the McBride area a decrease has been observed. However, with the Predatory-animal Branch being active with cyanide guns and 1080 poison

stations, it is felt that the destruction of coyotes and bear will soon be responsible for an increase in the deer population, as large numbers of these game animals are taken by predators each year.

Caribou.—In the area south of the Canadian National Railway (Jasper to Prince Rupert line) these animals are still very scarce. They are increasing slowly in the McBride, Woodpecker, and Herrick Creek areas.

The only large bands of caribou left are in the areas near Cold Fish Lake and the area between Fort St. John and Fort Nelson.

Black and Brown Bear.—These animals are still far too plentiful. Their numbers were greatly reduced during the spring of 1951 by the Predatory-animal Branch, by the use of cyanide guns and snares. A great number of complaints from farmers were answered, and in practically every instance the bears were destroyed.

Grizzly Bear.—These game animals are very plentiful, and I believe more tourists should be encouraged to carry out spring grizzly-hunts. At present very few sportsmen hunt grizzlies in this Division.

Mountain-sheep.—A good number of mountain-sheep still range north of the 56th parallel of north latitude, with the exception of the *Ovis dall* (white sheep), which are becoming very scarce in British Columbia.

Mountain-goat.—Although they are fairly plentiful throughout the Division, these game animals are not hunted to any extent.

Elk (Wapiti).—Elk are very scarce in "D" Division; however, there is a fair-sized herd south of Pouce Coupe, and from reports received they are steadily increasing.

Fur-bearing Animals

Marten.—Good reports have been received from trappers, who state that marten are steadily increasing. Due to the low fur prices, trappers are not trapping as heavily as when the fur market was good.

Beaver.—These fur-bearers are very plentiful throughout the whole Division on nearly all white trappers' lines.

The Indian trap-lines are in very poor condition, due to the Indian's practice of taking all the beaver he possibly can. As these animals live in colonies, the Indian usually camps right in the beaver country and carries on heavy trapping till the season closes.

Fox.—Although very plentiful, a No. 1 fox-pelt is only worth about $3, and trappers endeavour to keep them out of their traps, as it is not worth the trouble to skin them.

Mink.—An average catch of mink was made. Possibly these animals were trapped harder than any other fur-bearing animal, with the exception of beaver, due to the satisfactory price being paid for mink-pelts at the start of the season.

These fur-bearers are found only in portions of the Division. They are far more plentiful along the coast than in the Interior.

Fisher.—These animals are showing a marked increase and are still the most valuable pelt.

Lynx.—From reports received and observations made, this fur-bearer has shown the greatest increase of all our fur-bearers. However, due to the very low market they are not being taken in large numbers.

All other fur-bearers are holding their own. Squirrels are still being trapped quite heavily, as prices are good.

Upland Game Birds

Pheasants.—These game birds were released in the Vanderhoof area, and encouraging reports have been received, as a considerable number of birds have been seen around straw-stacks. The Vanderhoof Rod and Gun Club has commenced an active drive to exterminate the large numbers of owls and hawks, which have been killing the pheasants. A reward of 50 cents will be paid for each harmful hawk or owl brought in. Coloured

pictures of the hawks and owls on which a bounty is being paid are on display, so that as few as possible of the harmless varieties will be destroyed.

In regard to the pheasants in the Peace River District, I feel that they will never increase in this area to any extent, and, therefore, I would not recommend the release of any more birds in the area unless scientific advice was obtained recommending same.

Willow Grouse.—Willow grouse were plentiful in 1951, and if nothing unforeseen takes place they should be plentiful again in 1952. Due to the fact that these birds have reached such large numbers, a sudden decline may be expected at any time.

Blue Grouse.—These birds are very scarce in this Division and are hardly known by the local sportsmen.

Franklin's Grouse.—In 1949 the Franklin's grouse decreased greatly and have shown no upward trend to date.

Prairie-chicken (Sharp-tailed).—These birds are steadily increasing in the Smithers, Burns Lake, Vanderhoof, and Prince George areas, but have decreased to some extent in the Fort St. John and Dawson Creek districts.

Migratory Game Birds

Ducks and Geese.—These migratory birds were in approximately the same numbers as in past years. Certain areas have very poor duck and goose shooting, while in other parts of the Division the shooting has been fairly good. The early freeze-up drove a lot of the birds south; however, this condition did not last and good shooting was obtainable in the larger lakes and rivers at the close of the season when the northern birds came in.

Ducks appear to be increasing in the Fort St. John, Dawson Creek, and Smithers areas. This is believed due to the northern birds having located good feeding conditions in the grain-fields. It has only been a few years since the ducks first started landing on the Vanderhoof grain-fields, but the duck population stopping over in the area has been increasing ever since. I believe that similar results will follow in the Fort St. John, Dawson Creek, and Smithers districts.

From reports received, it would indicate that a considerable decrease was noted in the number of migratory game birds in the Prince Rupert area.

Destruction of Vermin

In 1950, 301 wolves were destroyed, with no cost to the Department other than for poison used and personnel's time. During 1951 only 78 wolves were destroyed with the use of aircraft; 13 of these were killed by use of aircraft hired at a cost of $500 plus the cost of the poison and personnel's time of two days. The remaining 65 wolves were killed by use of private aircraft, with no expense except the cost of the poison and one Game Warden's wages for six days.

It is felt that the only satisfactory way to reduce this major predator is by use of a Departmental aircraft, as this area is so vast that to cover same by any other means than by aircraft is impossible.

I might say that the trappers were very nervous about the use of poison for the destruction of wolves, but after discussing our method with them they are now keen to assist us and have even requested us to set out our poison baits within their registered trap-lines. I am certain that by maintaining their confidence and by the use of proper equipment we can reduce the wolf population to a satisfactory balance in a short time.

I feel that several flights should be carried out in the Atlin and Cassiar Districts this winter for the purpose of dropping poison baits to reduce the large wolf population.

Coyotes.—These predators have caused considerable losses to sheepmen and poultrymen in the Pouce Coupe, Smithers, Burns Lake, Vanderhoof, McBride, and Prince George districts.

Our predatory-animal hunter at Prince George has destroyed a noticeable number of these predators, and it is felt that with the use of 1080 poison and cyanide guns he will be able to reduce these predators to a satisfactory balance.

If predator-hunters can be stationed at Smithers and Pouce Coupe, I feel certain that within a short time they also will be able to reduce the numbers of coyotes sufficiently in these Detachments.

W. W. Mair, Supervisor of Predator-hunters, will visit this area in January, 1952, for the purpose of instructing the personnel of "D" Division in the use of 1080 poison. Baits of 1080 poison will be set out at Pouce Coupe, Fort St. John, Fort Nelson, Smithers, Burns Lake, Vanderhoof, McBride, and Prince George at that time.

Cougars.—These predators continue to increase slightly, but due to the severe winters I do not believe they will ever increase to numbers that would warrant a concentrated drive against them.

Magpies.—Reports indicate that magpies are increasing slightly and continue to move farther north.

Eagles.—Trappers are reporting that these birds continue to take a heavy toll of muskrats. A considerable number have been destroyed when they pick up the poison baits set out for wolves, but they are still very plentiful and no doubt destroy a great number of ducks, young geese, and swans. I have personally witnessed them destroying the adult birds.

Game Protection

As previously mentioned, a Department-owned aircraft, in my opinion, would be the greatest asset in game protection. Private aircraft could be checked in remote areas, and it would also be useful in setting out wolf poison in localities where wolves are making heavy inroads into our caribou herds.

Now that the Aluminum Company is established at Kitimat, a game detachment is necessary at Terrace.

Due to the road being completed this year from the Alaska Highway to Atlin, I feel that a game detachment should be opened at Atlin. This detachment would take in the Haines Cut-off area, which should be patrolled far more often than it is now possible to do from the Lower Post or Fort Nelson Detachment.

A new detachment was opened at McBride this year. Game Warden Hicks is carrying out his duties in a very satisfactory manner.

Far more game protection has been enforced in the Queen Charlotte Islands and along the coast due to the active work of Game Warden Jamieson.

A noticeable increase in the number of prosecutions was recorded during 1951. To a great extent, this is due to the large increase in population moving into this Division.

Game Propagation

Pheasants.—Seventy adult birds were released in the Vanderhoof area in the late spring.

The Vanderhoof Rod and Gun Club has commenced a concentrated drive against hawks and owls, as it is believed that their depredations are mainly responsible for the failure of the pheasants liberated to have increased satisfactorily. Birds that have not been destroyed seem to do well throughout the winters.

Beaver.—A few of these animals were released on the trap-lines of Allen Fletcher, of Smithers, and Sam L. Miller, of Prince George. They have established their homes and appear to be doing very well. The beaver released earlier on Allen Fletcher's, Alfred Harrison's, and Jack Gray's trap-lines have established their homes, and all have been responsible for starting at least two new colonies each.

No information is available regarding the beaver released on the Queen Charlotte Islands.

Game Reserves

There are only three small game reserves in this Division. These are located around towns and are more for the protection of the public than for game.

The Nechako Bird Sanctuary is still operating very satisfactorily. The numbers of ducks and geese using this resting-place are increasing every year. There is some doubt as to what effect the Aluminum Company's operations will have on this sanctuary; I do not think that it will curtail in any way the numbers of birds resting on this reserve. It is quite possible that it will increase the growth of feed in the sanctuary.

Fur Trade

The fur-catch appeared to be slightly less this year. Due to the poor fur market the trappers found that they could make more by working for wages than by trapping.

Registration of Trap-lines

Game Warden McCabe, of Fort Nelson, has been very active in this work and now has many of the trap-lines, not previously registered, completed. In remote areas in this Division no suitable maps are available, and this makes registration of trap-lines very difficult.

The registration of trap-lines has proven its worth. Very few complaints are received once all the lines in an area have been properly registered. I might add that the registered trap-line has been the major factor in building up our beaver population to where it is now.

Registration of Guides

Since registering guiding areas, we have not received any complaints in regard to guides infringing on other guides' territories. We have been fortunate in this Division, as only a very limited number of guides were operating before this regulation came into effect; therefore we can eliminate any tendencies toward overcrowding.

Special Patrols

Three of these patrols were carried out by Game Warden McCabe, of Fort Nelson. One was to Fort Liard with Game Warden Villeneuve in connection with the registration of trap-lines. This patrol took eight days, and a distance of 1,010 miles was travelled by river-boat.

The second trip was to Haines Cut-off in the company of Game Warden Stewart, of Lower Post. This was taken in September for the purpose of checking hunters and guides. The time taken was ten days. A distance of 1,372 miles was covered by car and 34 miles on foot. During this patrol three prosecutions were carried out.

In October, McCabe made a special patrol to Atlin to assist the Royal Canadian Mounted Police in reregistering trap-lines on the new maps supplied. This was necessary as all old maps had been lost in the fire when the Atlin Detachment burned. Fifteen days was the time taken for this patrol. Distance travelled was 1,445 miles by car, 2 miles by boat, and 6 miles on foot.

Hunting Accidents

I am pleased to report a decline in the number of hunting accidents, as only two accidents occurred in this Division during the year as compared to five accidents the previous year. These were as follows:—

Benjamin Kelly, of Queen Charlotte City, B.C., was fatally wounded when the shotgun which he was using as a club to kill a wounded pheasant, discharged, causing a wound in his abdomen. He received immediate attention but died shortly after the accident occurred.

Wilfred Calahasen, of Arras, B.C., was fatally wounded by his son, Clifford Calahasen, while they were out moose-hunting. Mr. Calahasen was shot through the chest with a 30.30 calibre rifle and died ten minutes later.

Game-fish Culture

One hundred and fifty thousand eyed Kamloops trout eggs were supplied to the Prince George Rod and Gun Club. These were hatched in the local hatchery and the fry planted as follows: Bednesti Lake, 20,000; Cluculz Lake, 55,000; Hart Lake, 10,000; Ness Lake, 10,000; Summit Lake, 10,000; Nadsilnich Lake, 30,000. Fifty thousand kokanee eggs were also planted in Cluculz Lake Creek.

Seventy thousand eyed Kamloops trout eggs were supplied to the Bulkley Valley Rod and Gun Club and hatched in its local hatchery. The fry were distributed as follows: Aldrich Lake, 10,000; Kathlyn Lake, 5,000; McLure Lake, 10,000; Irrigation Lake, 5,000; Round Lake, 20,000; Seymour Lake, 5,000; Johnson Lake, 5,000.

Sixty thousand eyed Kamloops trout eggs were supplied to the North Peace Rod and Gun Club and hatched in its hatching-tank. Fifty thousand fry were distributed to Charlie Lake.

Sixty thousand eyed Kamloops trout eggs were supplied to Game Warden Tate at Pouce Coupe. These eggs were all planted in streams in the vicinity of Dawson Creek.

Coarse-fish traps were again operated in both streams in and out of Nadsilnich (West) Lake, and approximately 6 tons of coarse fish were removed. Fish-tox was also used in the inlet creek with very good results. From records kept, it is noted that the size and number of trout in this lake have increased greatly. Coarse-fish traps were also installed in the inlet and outlet creeks of Cluculz Lake, and several tons of coarse fish were removed.

Fish-tox was used in all four creeks running in and out of Cluculz Lake at intervals, under the supervision of Dr. P. A. Larkin, Chief Fisheries Biologist, with very good results.

Another coarse-fish trap was installed at Stony Creek near Vanderhoof, and approximately 5 tons of coarse fish were removed.

I wish to thank the Prince George, Vanderhoof, Bulkley Valley, Fort St. John, and Dawson Creek Rod and Gun Clubs for their assistance in fish-culture. These clubs were very active and willing to assist whenever possible. A great deal of assistance was also rendered by Dr. P. A. Larkin and his student, Gerald Berry.

Summary and General Remarks on Game and Fish

From personal observation and reliable information the 1951 moose-crop was very good. A far greater number of moose was taken than in previous years, and I feel certain that there are far more moose left than there have been for a number of years. In the spring an exceptionally large number of cows were seen with two calves.

Deer are still fairly scarce in this Division in the Interior.

Caribou are believed to be increasing very slightly, and the same regulations should be maintained until a more substantial increase is evident.

I feel that the game and fish in this Division are in a very satisfactory state. The biggest hindrance to our game at the present time is the timber-wolf. If the Department could secure an aircraft for continuous operation against these predators during the winter months, I am certain it would be the main factor in rebuilding our caribou and sheep populations, which have been sadly depleted by these predators.

In closing, I wish to thank all Rod and Gun Club members, Game Wardens, clerks, and police officers, and owners of private aircraft, who assisted in more efficient game conservation in this Division.

"E" DIVISION (MAINLAND COAST NORTH TO TOBA INLET AND LOWER MAINLAND AS FAR INLAND AS NORTH BEND)

By R. E. Allan, Officer Commanding

I beg to submit herewith my annual report covering game conditions in "E" Game Division for the year ended December 31st, 1951.

Big Game

Deer (Coast or Columbian).—Fairly intensive hunting of these animals during the immediate past open season does not appear to have resulted in any noticeable change in their number within this Division. Game Wardens Urquhart and Hughes, of Coquitlam and Cloverdale districts respectively, again report deer to be on the increase. In the latter district, complaints continue to be received from time to time of their doing damage to fruit-trees and growing crops. The establishment of the car-ferry service between Horseshoe Bay and Gibsons Landing has resulted in a heavy influx of deer-hunters on to the large area of the Seechelt Peninsula, where good hunting was obtainable.

Elk (Wapiti).—Corporal Game Warden L. R. Lane, in charge of the Department's patrol vessel "P.M.L. 3," reports that he did not make a successful count of the elk herd in the McNab Creek area due to the heavy growth of timber and underbrush.

Black or Brown Bear.—These animals are plentiful throughout the Division. However, as fewer complaints of their doing damage were received, it would appear that they are being satisfactorily controlled. The most serious complaint received was from the Gibsons Landing district, where a large male killed two hogs.

Grizzly Bear.—Can be found in most of the up-coast inlets, particularly in Knights, Kingcome, Rivers, and Kwatna Inlets, where they are reported to be plentiful.

Mountain-goat.—The not easily accessible habitat of this animal has resulted in no serious inroads into their numbers in this Division. Favoured hunting areas are in the Powell Lake, Coquitlam, Mission, and Chilliwack districts.

Fur-bearing Animals

Seasonal trap-line returns do not vary a great deal, which would indicate that most trap-lines are being "farmed" and not overtrapped. Racoon and red fox continue to be bothersome and at times destructive predators throughout the Fraser Valley.

Upland Game Birds

Grouse (Blue and Willow or Ruffed).—In many areas of this Division, due to logging and change of habitat, blue grouse are being replaced by willow. Reports from Wardens indicate that the latter are on the increase in most districts. Not as many blue grouse were taken last year, due to this and the forest closure which prohibited travel in the woods at a time when these birds were more readily available.

California Quail and European Partridge.—These birds do not appear to be establishing themselves in this Division.

Pheasants.—The past open season on these birds compared very favourably with the good hunting which was enjoyed in the year 1948 and was due, to a great extent I believe, to the liberal release of hens in the early spring and ideal nesting weather which followed. As was usual, the bulk of the pheasant-crop was harvested during the first few days of the open season. From then up to the end of the season they were in dense brush and very difficult to hunt even with good dogs. Severe winter weather, which commenced early in December, and subsequent feeding of these birds, enabled us to make a survey, which indicated that a fair number should be on hand for the 1952 breeding season.

Migratory Game Birds

Ducks and Geese (Canada).—In the Fraser Valley and Delta the opening day on ducks and geese was very good, and numerous full bags were obtained with little difficulty. However, from that day and on to the end of the season, shooting was very spotty. Fields remained dry throughout the entire season, and the birds on most days rested well offshore. Officers in charge of Departmental patrol vessels plying the inside passages between Vancouver and Queen Charlotte Sound report sea-ducks as being plentiful.

Black Brant.—Showed up in large numbers in the Boundary Bay area early in February, and shooting was the best that had been had in many years. Following some considerable friction between hunters over the limited number of suitable places from which to shoot, stricter regulations were imposed upon sportsmen desirous of hunting in the Beach Grove area of Boundary Bay. It is anticipated that these added restrictions will enable a greater number of hunters to participate in the shooting of these birds at that place.

Snow Geese.—These were very plentiful over the delta foreshores during the open season on ducks but were almost non-existent when their season opened on December 22nd. They remained scarce, and to this date, very few of these birds have been seen in this Division. A report received and confirmed by Game Warden W. H. Cameron, of Ladner, indicates that approximately 40,000 snow geese are presently wintering a few miles from Boundary Bay and in the State of Washington. The present closed season on them down there is undoubtedly responsible for their poor showing here.

Band-tailed Pigeons.—These were fairly plentiful, although not many were taken due to the forest closure and prohibited travel in the woods during the greater part of the short open season.

Vermin

The recent appointment of a full-time predatory-animal hunter for the Lower Mainland will be of considerable assistance to the Game Wardens of that area in their endeavours to control vermin in their respective districts. Fewer complaints of cougar were received during the year.

Game Protection

A total of 397 prosecutions under the "Game Act," Special Fishery Regulations, and the "Migratory Game Bird Act" were conducted by officers in this Division during the past year. Following the re-establishment of a game detachment at Powell River and our repossessing the Departmental launch "P.G.D. 2" from the Royal Canadian Mounted Police, I am pleased to report that adequate game protection is now being given to the up-coast portion of this Division.

Game Propagation

As in previous years, a considerable amount of time was devoted by Game Wardens in the Lower Mainland area in connection with the picking-up and releasing of farm-raised pheasants. This was a particularly difficult task during the past summer, as many of the suitable areas to be planted lacked fresh water following an abnormal lengthy drought.

Game Reserves

The several game reserves within this Division continue to be beneficial as resting-grounds for wild fowl.

Fur Trade

Retail sales are reported to have dropped 40 to 50 per cent during the year due, as most local fur-buyers will agree, to a consumer resistance to dressed furs, which are

beyond the reach of the majority. Prices paid to the trapper for his raw pelts, and which are listed hereunder, show this general trend in the market:—

Type	1949	1950
Beaver	$24.50	$18.00
Muskrat	2.10	2.40
Otter	26.50	25.00
Fisher	55.00	39.00
Cross fox	3.00	2.25
Red fox	2.75	1.50
Marten	24.80	20.00
Weasel	2.20	1.90
Wild mink	29.50	23.00
Lynx	14.60	7.50
Racoon	1.25	1.25
Squirrel	.65	.65
Wolverine	35.00	25.00

Registration of Trap-lines

This system continues to function smoothly and is, I believe, largely responsible for the consistent returns from the many trap-lines in this Division.

Registration of Guides

There are very few registered in " E " Game Division, and I have nothing further to report on this subject.

Special Patrols

No special patrols were made during the year.

Hunting Accidents

William Bezubiak, of 245 Glen Drive, Vancouver, B.C., while hunting ducks during the night flight of December 18th, 1951, received two shotgun pellets above the left eye. Person responsible not known. Not serious.

On November 4th, 1951, Jack Kuzma, of Englewood, B.C., was accidentally shot to death by one John D. Murray of the same address. The deceased, wearing khaki coloured clothing, was mistaken for a deer. The firearms licence of Mr. Murray has been cancelled.

Charles Warris, of Powell River, B.C., while hunting crows with one Donald McQuarrie, of the same address, on November 12th, 1951, was hit by three shotgun pellets discharged by a gun in the hands of the latter. Not serious. Firearms licence of Mr. McQuarrie has been cancelled.

Game-fish Culture

Smiths Falls Hatchery at Cultus Lake operated over the year with usual good success. A total of 369,600 Kamloops trout fingerlings were reared and liberated in many of the Lower Mainland lakes and streams. These fingerlings were not as large as they were in some years, owing to a crowded condition which occurred in hatchery troughs and rearing-ponds. This situation was remedied by the construction of an additional battery of five concrete ponds. The siphon arrangement at the intake to the hatchery water-supply is not good. Several water failures occurred during the night, but the alertness of Fishery Officer F. Pells prevented the loss of fish.

At the present time there is a total of 800 Kamloops trout on hand as brood stock at this hatchery, and it is anticipated that a large number of these will mature this coming

spring. The eggs to be collected should augment to some considerable degree the usual supply received from the Interior collecting-stations. This egg-supply will be further augmented by the collection of eggs from a small run of Kamloops trout which occurs in the hatchery creek. Fish from these local eggs continue to be less susceptible to normal hatchery losses, and their growth exceeds that of Interior stock.

On January 1st, 1952, the cut-throat trout brood stock numbered 992 fish, a loss of 2 fish over the year. It is hoped that a large number will reach maturity this coming spring.

Fishing in the many lakes and streams in this Division has been very good during the past year, unquestionably as a direct result of the yearly plantings of hatchery-reared fish.

Chief Fisheries Biologist Dr. P. A. Larkin and his staff commenced a survey of the important fishing-waters of the Lower Mainland during the year in review, and, as you are aware, his findings will be covered in his report to you.

Summary

In conclusion, I wish to bring to your attention the valuable assistance rendered to this Division by the Game Associations, Forest Service, Public Works Department, the Royal Canadian Mounted Police, and in particular to the assistance and co-operation of Jack Pilling, of radio station CHWK of Chilliwack, who devoted some considerable broadcast time to fish and game matters. I also wish to express my thanks and appreciation to the Game Wardens and Fishery Officers for the usual efficient and courteous manner in which they performed their many and varied duties.

SUMMARY OF ACTIVITIES OF THE GAME MANAGEMENT AND RESEARCH BRANCH

By James Hatter, Chief Game Biologist

Introduction

The most encouraging feature of the year 1951 was the appointment of two Game Management Biologists to permanent field positions. P. W. Martin was stationed at Kamloops and D. J. Robinson at Nanaimo. The district in which Mr. Martin operates is exceptionally large, including all the Interior west of the Monashee Mountains and south of Prince George to the International Boundary. It is hoped that eventually this large district will become subdivided with the future appointment of additional Game Management Biologists. The Vancouver Island unit is much smaller and more compact, with the important hunting districts more accessible than those of the Interior. The variety of game species is not as great as found in the Interior, and hence the problems are fewer.

Development of the Game Management and Research Branch tends toward decentralization in its organization. Game problems in British Columbia are best handled by resident biologists assigned to districts. This is considered preferable to a central organization in which all activities extend from the office of the Game Commission in Vancouver. Appointments have been made on the basis of regional hunting pressure, and it is anticipated that those in the future will be made in a similar manner. As yet no appointment has been made to " B " Division, embracing the important districts of the East and West Kootenays.

E. W. Taylor, Game Management Biologist on the Lower Mainland Coast, has this year undertaken to obtain management information on elk and deer in the Princeton area, thus relieving P. W. Martin in the larger Interior district.

Seasonal work, largely by graduate students from the University, was again sponsored by the Branch and will be reported on in a further section of this report.

Objectives of the Game Management and Research Branch

A restatement of the objectives of this newly formed Branch is made at this time in order that the purpose of the activities listed may be better understood. Briefly, the major purpose of the Branch is to obtain basic factual information by which a maximum sustained crop of game may be harvested each year. The wise use of game resources must be based on information of this type. Hunting pressure in British Columbia, while low in comparison to many States to the south, has now reached a point where a factual approach to management is imperative. If we are to derive full benefit from our wild-life resources on a sustained basis, we must have the necessary information to achieve this end. There can be no substitute for pertinent quantitative data obtained with full recognition of our responsibilities.

It is our primary purpose to manage properly the wild-life stocks presently at our disposal. Attempts to increase certain species of big game through possible habitat development, such as controlled burning, is secondary to the problem of using what we now have to the full extent permissible. Not until such time as this is realized and hunting pressure increases over present levels can we concern ourselves with practices to improve the numerical status of such species as deer, moose, elk, and grouse. Over large areas, these species in particular are not being harvested to the extent permissible or, in some cases, even desirable from a biological standpoint. Other species of game, such as bighorn sheep, caribou, grizzly bear, and water-fowl, on the other hand, appear in many areas to be subjected to hunting pressure as great as may be tolerated in a sustained-yield programme of management. In the case of bighorn sheep, the Management and Research Branch is emphasizing inquiry into the causes for a declining status, which does not appear to be primarily the result of hunting pressure. Parasites and disease, live-stock competition, predation, and depleted winter ranges are promising fields of inquiry. They are being investigated in hopes that corrective measures may be undertaken to relieve their influence should they constitute important limiting factors. At the same time any trends in hunting pressure will be recorded and weighed in the balance along with other factors involved.

Habitat development for water-fowl is desirable, but our present activities must of necessity centre about surveys. These are designed to point the way and provide basic information for future action should facilities be placed at our disposal for a more energetic programme of water-fowl management than is possible at the present time.

Tools at one's disposal in game management form the backbone of this applied biological science. They consist, for the most part, of life-history data, plant and animal ecology, census methods, range surveys, the annual harvest, knowledge of parasites and disease, and training in interpretation of observations and facts into a sound management programme.

An outline of activities of the Branch is presented under the headings "Management," "Research," "Surveys and Special Investigations," "Conferences and Public Relations." Results of certain phases of the work will be summarized briefly.

Management

Pheasants

Ladner Delta.—Pheasant sex ratios, crowing counts, and the relative density of the breeding population was again determined on the Ladner Delta during the spring months. Brood counts and relative densities were obtained on several occasions during the production period. Final brood counts and population densities were determined in August and September. At this time a pre-hunt estimate of hunting success was made. In December, winter counts were made on the Delta for relative abundance. Details of the work were compiled in a report submitted by E. W. Taylor on October

17th, 1951, and entitled "Report on the Delta Pheasant Population—Spring and Summer, 1951."

The winter carry-over of cock pheasants was higher in 1951 than in the three preceding years.

Table I.—Cock-pheasant Density, May, 1948, 1949, 1950, and 1951, Based on Counts of Crowing Territories in Delta Municipality

Year	Acres Covered	Number of Cock Territories	Estimated Number of Cocks per Square Mile
1948	8,640	167	12.3
1949	7,570	168	14.2
1950	7,570	138	11.8
1951	7,570	198	16.7

This may be a reflection of reduced hunting pressure due to hunter response to the poor season of 1950. With the exception of a few weeks in late February and March, the winter weather was milder and probably more favourable to the birds than was the case in 1949 and 1950.

The total spring pheasant population was down from that of all preceding years of study. While cocks were higher in numbers than in any previous year since 1948, hens were lower. A large influx of snowy owls, the first in several years, occurred during the winter months. On two occasions, individuals of this species were seen to attack hen pheasants, but in neither instance were these attacks successful. The remains of hen pheasants eaten by snowy owls were found, but whether these birds had been killed by owls or merely scavenged was not known.

Table II.—Estimate of Breeding-population Size of the Pheasant in Delta Municipality, Comparative for the Month of May, 1948 to 1951, Inclusive

	1948	1949	1950	1951
Crowing cocks per square mile	12.3	14.2	11.8	16.7
Sex ratio (hens per cock)	5:4	4:3	5:3	3:1
Approximate breeding area (square miles)	39.0	39.0	39.0	39.0
Estimated cock population	479.7	553.8	460.2	651.3
Estimated hen population	2,590.4	2,481.3	2,439.0	2,019.0
Estimated potential breeding population	3,070.1	3,035.1	2,899.2	2,670.3

There appeared to be little difference in the progress of broods of 1951 and that of the broods of 1950. One conspicuous fact noted this year, however, was that the survival of early hatched chicks seemed quite high.

Table III.—Brood Size

Year	Average Number of Chicks for the Months of—			
	May	June	July	August
1948	.....	6.6	5.0	5.3
1949	9.4	7.1	4.5	3.8
1950	.....	6.2	5.2	4.7
1951	.....	6.4	5.2	4.6

As was the case in 1950, pheasant productivity was good. Unlike the situation in 1950, however, there was a well-maintained level of survival from August to October 15th, 1951. The exceptionally dry, warm spring and summer is believed to have been

favourable to the development of the young birds. Crops generally matured earlier than is customary on the area. Grain seemed more abundant in acreage and provided a large area of undisturbed cover.

Table IV.—Percentage of Hens Rearing Broods

Year	Percentage of Hens Rearing Broods in the Months of—		
	June	July	August
1948	6.9	47.9	81.5
1949	6.6	52.9	80.1
1950	9.0	71.6	87.0
1951	-----	-------	85.1

From Table V it may be seen that the productivity estimates as computed from data collected until August of each year show productivity in 1951 to be lower than in 1950. While the figure for the latter year may have been valid for conditions existing in August, it was obvious during the hunting season that a marked decline in population density had occurred in the period August to October, 1950.

The index in October, 1951, of 14.0 birds per mile was only 0.4 birds per mile less than the figure obtained by roadside counts in July. From the same index it was also indicated that the 1951 Delta pheasant-crop approached in size that of 1948.

Table V.—Productivity Estimate

	1948	1949	1950	1951
Estimated number of cocks in spring	479.7	553.8	460.2	651.3
Estimated number of hens in spring	2,590.4	2,481.3	2,439.0	2,055.3
Estimated percentage of hens rearing young	81.5	80.1	87.0	85.1
Estimated number of breeding hens successful[1]	2,111.1	1,987.5	2,121.9	1,718.1
Average brood size (August)	5.3	3.8	4.7	4.6
Calculated juvenile fall increment	11,188.8	7,522.5	9,973.4	7,903.1

[1] Data on hen losses due to mowing and other factors were not obtained in 1951. Figures for previous years are adjusted on this basis.

Table VI.—Pheasant Density, Delta, as Determined by Roadside Census

Year and Month	Number of Census Miles	Number of Birds Counted	Birds per Roadside Mile
1948—October	27.8	446	16.0
1949—October	8.8	107	12.1
1950—			
August	30.2	322	10.6
October	16.0	82	5.1
1951—			
August	67.9	978	14.4
September	26.7	359	13.4
October	25.8	363	14.0

The pre-hunt estimates of increased density of pheasants on the Delta in 1951 over 1950 were confirmed during the opening week-end when hunter success was considerably higher.

Lower Mainland, Vancouver Island, and Interior.—In addition to work on the Ladner Delta, crowing counts were made in the following districts: Surrey, Langley, Lulu Island, Pitt Meadows, Matsqui, Summerland, Vernon, Armstrong, Salmon Arm, Canoe, Kamloops, Kelowna, Oliver, and Osoyoos. Much of these data were used in making recommendations at the Kelowna pheasant meeting on July 10th. A request for a closed season by local Gun Clubs was not supported by the data on hand.

E. W. Taylor obtained preliminary data on pheasant range and habitat conditions in the following areas: Vernon, Lumby, Lavington, Armstrong, Enderby, Salmon Arm, Kamloops, and Oliver. Other range and habitat data were collected in the following areas: Princeton, Keremeos, Oliver-Osoyoos, Grand Forks, Creston, Kelowna, Penticton, Summerland, Ashcroft, Lillooet, and Merritt. A similar range survey was made on Vancouver Island. Victoria-Saanich, Cowichan-Duncan, Nanaimo, Courtenay, Comox, Denman Island, and Campbell River were visited. This time-consuming work is yet to be concluded, and to date no report has been submitted.

Investigation of a proposed site for a pheasant-farm at Vernon was made on May 12th. J. G. Cunningham, E. W. Taylor, J. Hatter, and members of the Vernon club were present.

Throughout the year numerous other inquiries and items of work pertaining to pheasants were undertaken. These are listed below:—

(1) Recommendations were submitted for establishment of experimental winter food-plots by A. C. Taylor on his property at Jardine. Several follow-up checks were made.
(2) A meeting was attended at Kelowna with North and South Okanagan clubs to discuss the pheasant season.
(3) Pinioning and release of experimental pheasants on the property of A. C. Taylor was carried out.
(4) Banded pheasants were released on Ladner Delta.
(5) A canvass of Jardine residents in Langley Municipality was made to ascertain their reaction to a proposed closure of the area for study purposes. A report was submitted September 14th, 1951.
(6) Pre-hunt counts in the Interior and on the Ladner Delta were carried out, and winter counts for relative abundance were also conducted on the Delta.
(7) Road checks on the Ladner Delta were continued as in previous years.
(8) A report was prepared by E. W. Taylor on " Pheasant Harvest Data Compiled from B.C. Game Club Postcard Returns in 1950." It was submitted April, 1951.
(9) The preparation and distribution of a special hunter-return card for pheasants was undertaken. Analysis of returns was commenced in March, 1951, and cannot be reported on at this time.
(10) Pheasant possibilities on Galiano Island were investigated. A preliminary report was submitted December 24th, 1951.
(11) A study of returns from pheasant releases in the Alberni Valley was undertaken following the open season. A report is in progress.

Blue Grouse

Vancouver Island.—Checking-stations were again established at Campbell River and in the Cowichan Valley during the first week-end of the blue-grouse season.

Brood counts were taken during the course of the production period and appear in Table VII. The prevailing forest closure during the summer of 1951 seriously curtailed field activities in this connection.

Table VII.—Brood Size for Major Blue-grouse Districts on Vancouver Island, June 3rd to August 29th

Area	Number of Females	Number of Juveniles	Minimum Brood Size	Remarks
Sooke Hills	2	16	8.0	Young broods.
Cowichan Valley	5	18	3.6	Late broods.
Port Alberni	12	47	3.9	Late broods.
Campbell River	43	132	3.1	Late broods.

Census areas were set up for future coverage to provide the means for relative counts. The marked decline of birds on the logged-off areas with the approach of fall is demonstrated in Table VIII.

Table VIII.—Comparison of Blue Grouse Observed per Hour between the Periods May 15th to August 30th and September 6th to November 20th

Area	Number of Birds		Hours in Field		Birds per Hour	
	May–Aug.	Sept.–Nov.	May–Aug.	Sept.–Nov.	May–Aug.	Sept.–Nov.
Sooke	24	2	14.00	10.00	1.7	0.20
Cowichan	30	7	6.50	23.50	4.6	0.30
Port Alberni	44	12	22.50	37.75	1.9	0.32
Campbell River	121	1	18.25	16.75	6.6	0.06

The marked decrease of birds on the logging-slashes after the first week of September illustrates the need of an early blue-grouse season if a sizeable harvest is to be realized. Altitudinal migration is the major controlling factor in the annual take. Forest closures in 1951 seriously curtailed hunting early in the season. By the time the closure was lifted, a large majority of the birds were on their wintering grounds.

Interior.—Generally speaking, blue grouse were unusually abundant in the Interior. Their upward population trends have seemingly followed the same pattern as the ruffed grouse, with both species at or near the " cyclic " peak in numbers.

No directed effort toward a study of blue-grouse production could be undertaken due to other duties and problems attending the late establishment of the Game Management Biologist at Kamloops. Nine broods encountered during the summer averaged 4.3 birds per brood.

Ruffed Grouse

Vancouver Island.—Ruffed grouse on Vancouver Island were more abundant in 1951 than usual. Unfortunately, few hunters seek this bird, and in many areas the surplus supply of birds in the fall remains unharvested. A major contributing factor to the low hunting pressure rests in the fact that by the time the ruffed-grouse season opens in October, the blue grouse have vacated the areas inhabited by the former species. The small bag-limit of two birds per day and the short season in effect is not sufficient to attract other than the local resident into the field.

To realize a better harvest, it is highly desirable that the season on ruffed grouse open much earlier than at present and that a combination ruffed- and blue-grouse bag be permitted. The small size of some broods in September would not in itself seem to justify a late opening date.

The lack of an altitudinal migration common to blue grouse is demonstrated for ruffed grouse in Table IX. It will be noted that there may be an increase in the number of birds observed per hour in the fall over the number seen during the summer. This is partially due, of course, to better visibility after the leaves fall. A reverse situation exists for blue grouse after the summer and fall migration takes place. (*See* Table VIII.)

Table IX.—Comparison of Ruffed Grouse Seen per Hour between May 15th to August 30th and September 6th to November 20th

Area	Number of Birds		Hours in Field		Birds per Hour	
	May–Aug.	Sept.–Nov.	May–Aug.	Sept.–Nov.	May–Aug.	Sept.–Nov.
Sooke	-----	8	14.0	10.00	-----	0.80
Cowichan	1	18	7.5	26.50	0.13	0.67
Port Alberni	13	14	21.5	46.75	0.60	0.30
Campbell River	1	5	21.0	16.75	0.05	0.30
Nanaimo	-----	5	-----	1.50	-----	3.30

Interior.—A number of drumming counts were made in several areas in the Interior. Cock densities of the following magnitude were recorded from two-minute roadside counts: Kamloops district, Paul Lake to Lloyds Creek, 1.8 per mile; Vidette mine, 1.2 per mile; Aspen Grove, Loon Lake to main highway, 1.2 per mile. Brood counts during the summer averaged 5.2 birds per covey.

To determine the influence of hunting pressure on the roadside abundance of birds in the Bridge Lake district, counts were made during the shooting season, which began on September 15th and ended October 31st. Snowfall prevented a post-season count.

Table X.—Roadside Density of Ruffed Grouse during the Shooting Season, Bridge Lake District

	Sept. 24, 25	Sept. 28	Oct. 4, 5	Oct. 13
Birds per mile	0.21	0.23	0.17	0.19
Grouse per covey	2.60	3.20	1.60	1.70
Miles per covey	11.70	14.00	9.40	8.90

Roadside density based on birds per linear mile decreased only 9.5 per cent between September 25th and October 13th. This demonstrates the need for a longer season and more liberal bag-limit during years of peak populations. Hunting pressure on this species is noticeably light for most districts of the Province. Hunting is largely confined to the roadside, and its magnitude in a given district is directly dependent upon the number of roads present.

Chukar Partridge

Releases of chukar partridges were made near Walhachin, Kamloops, and in the Vaseaux Lake area. Reports relating to these releases were submitted in August and September.

Several checks of the release sites were made, but to date no birds have been positively identified from the introductions.

Hungarian Partridge

A cursory survey of the Fraser Valley was made prior to the release of Hungarians owned by the Lower Mainland Partridge Committee. A release was made at Agassiz on August 25th and a report submitted on August 30th, 1951.

It is not the policy of the Game Management Branch to encourage the release of Hungarian partridges in British Columbia, particularly on the Lower Mainland. Habitat conditions are seldom suitable for the maintenance of a shootable population.

Fur-bearing Animals

Beaver.—The Management Branch assisted in the trapping of nuisance beaver in the Abbotsford area. Problems of this nature which arise in the future will probably be undertaken by the Predator-control Branch.

Two beaver surveys were made in the Penticton area with a view to encouraging beaver on the adjacent watershed for the purpose of conserving water. Two reports were submitted dealing with these cursory surveys.

Recommendations were submitted by the Game Management Biologist on Vancouver Island relative to control of nuisance beaver in the Alberni area. A report was submitted on December 29th.

An investigation of Piers Island was made at the request of the Game Commission. A report relative to the establishment of beaver on this island was submitted on September 24th.

A survey of the success of beaver introductions on Queen Charlotte Islands in 1949 was undertaken by Dr. I. McT. Cowan. A report was submitted dealing with this subject, together with general comments on the status of deer and elk. The release in

1949 resulted in the establishment of beaver which appear to be thriving in the new locality.

Big Game

Big-game studies are mainly a function of the winter months, when the animals are present on their winter range. At this time, herd reduction through exposure to a series of limiting factors is most important and largely determines the effective reproduction of a given species.

At the time of writing, winter studies are in progress, and, therefore, the results of these are not available for the present report. Mention will be made of necessity only to big-game work carried out during the late spring, summer, and fall months.

Moose.—Permanent study-plots were established in the Bridge Lake district for the purpose of determining trends in range use and survival of browse. This affords an index to population level and hence is essential to management.

Observations in July showed the following extent of forage use during the preceding winter: Number of study-plots, 25; willow-stems per plot, 139; number of browsed twigs, 536; number of unbrowsed twigs, 176.

Seventy-five per cent of the previous year's growth of twigs was utilized during the winter months by moose. On the basis of the plots studied, this figure is indicative of excessive use of the range.

An additional number of study-plots will be established in 1952.

Near Vidette Lake 100 willow-bushes were picked at random, and the number of twigs remaining from the previous year's growth were counted on each bush. Sixty-three per cent of these had no twigs left and 19 per cent bore only one twig. In areas where the palatable vegetation is used to this extent, there is urgent need of herd reduction through the removal of antlerless animals. Starvation, damaged range, and low reproductive gain are the undesirable results following such heavy use of the food-supply. Another crash in the moose population is imminent in the Cariboo and Chilcotin unless remedial action is undertaken to reduce the population size.

Bighorn Sheep.—Although no detailed information is on hand for the bighorn sheep at Squilax or Adams Lake, several attempts were made to obtain a population count in these areas. Initial activities were directed mainly toward familiarization of the areas inhabited. It is doubtful if more intensive work on these isolated bands of sheep can be undertaken without additional field help.

Population counts and range studies in the Ashnola district were continued by Dr. I. McT. Cowan. Further inquiries as to the interrelationship of bighorns and domestic live stock were carried out by the regional biologist at Kamloops and a member of the British Columbia Forest Service. Reports were submitted in September.

The Vaseaux Lake band of sheep was visited by Dr. Cowan, and a report of findings and recommendations submitted. Studies in this area will be continued by Dr. Cowan and the regional biologist at Kamloops.

Elk.—Two cursory surveys were made at the request of the Game Commission relative to the proposed liberation of elk near Prince George and in the Castlegar area.

An attempt to appraise the status of the Princeton elk herd was made in May with rather indifferent success.

Deer.—No details are present at the time of writing on winter studies being carried out on Vancouver Island and in the Interior. These will be embodied in a report at a later date. Summer work by the regional biologists has consisted of preliminary surveys and location of important winter ranges.

Water-fowl

Other than quarterly presentation of the bi-monthly water-fowl estimates to the Pacific Flyway Committee and assistance in the breeding-ground survey, it has not been possible for the Management Branch to participate actively in water-fowl management.

Breeding-ground counts were made in May and June in co-operation with the Canadian Wildlife Service.

The Tofino area on Vancouver Island was visited, and recommendations put forth to ensure future public access to this important hunting area.

Water-fowl counts were made during three succeeding trips to Tofino. At the end of October the following species and numbers of water-fowl were counted on one portion of the Tofino mud-flats, approximately 2½ miles long: Western Canada goose, 2,300–2,400; widgeon, 6,800–7,500; green-winged teal, 2,500±500; pintail, 1,800–2,200; mallard, 600–800; buffle-head, 900–1,000; white-winged scoter, 250–300; scaup, 45; shoveller, 10; approximate total, 16,000.

The above concentrations represent only a portion of the water-fowl using this area in October. Other large concentrations which could not be counted exist farther up the inlet. Another count in the third week of November revealed a drop in the number of mallards, otherwise the duck population appeared unchanged. Only 500 to 600 geese were seen, in contrast to the 2,400 present in October.

Little or nothing is known of goose movements on the west coast of Vancouver Island and the Mainland. The Tofino area cannot be adequately censused by means other than the use of aircraft. Such an aerial count should be carried out to provide fall migration data.

Research

Pheasants

Certain activities of the Branch fall clearly within the meaning of research. In other cases the dividing-line between management duties and research is difficult to establish.

Work is in progress dealing with climatic features of pheasant range in British Columbia.

Research on the effect of insecticide sprays and study of pheasant ecology in the Summerland area was continued during the summer of 1951. An outline report of findings was submitted in November.

Moose

The effect of experimental burning on moose and deer winter range in the Kamloops area is a long-term study currently in progress.

Information on sex and age ratios in the moose populations of the Cariboo District is currently being sought through the use of report forms distributed to big-game guides.

Water-fowl

A trap for banding diving ducks was described and presented for publication in the Journal of Wildlife Management by I. McT. Cowan and J. Hatter.

Surveys and Special Investigations

Pheasants

A survey of Paisley Island was made to determine the suitability of this area for insular experiments on pheasants. It was considered unsuitable.

A pheasant census and habitat study was carried out on Kirkland Island and a report submitted in December. Further work is in progress.

Eliza Island, off the coast of Washington, was visited during the annual removal of experimental birds, and study made of experiments in progress by the States of Washington and Oregon.

Blue Grouse

Texada Island was surveyed to determine the abundance of blue grouse following earlier introductions of this bird to the island. A report was submitted in October.

Grouse are well distributed over the island but have not reached numbers deemed suitable for an open season.

Elk

A cursory survey of the Buttle Lake and Upper Campbell Lake elk herds was made to determine the probable effect of damming either of these lakes.

Tweedsmuir Park Survey

Two weeks were spent in the Tweedsmuir Park area studying the probable effect of flooding by the Aluminum Company of Canada on wild life of the district. A report was submitted in February, 1952.

Bighorn Sheep

Further study of sheep winter range and live-stock competition in Churn Creek basin was undertaken, and a detailed report was submitted in January, 1952.

Another census of the Chilcotin River band of California bighorn sheep was carried out. A report was submitted in October.

Water-fowl

Duck-banding operations between July 1st and September 10th were continued for the fourth consecutive year in the Interior districts of the Province.

Deer

An area adjacent to Williams Lake was inspected with a view toward setting up a mule-deer sanctuary in a heavily hunted section of the district. This survey was requested by the Williams Lake Rod and Gun Club. A report was submitted favouring a small closed area between the Fraser River and the Cariboo Highway.

Conferences and Public Relations

Numerous meetings of Game Associations were attended throughout the year. At most of these, papers or talks were presented.

A large number of routine reports have been prepared, and others are in process of preparation at the time of writing. Work of this type, while essential, greatly reduces the time one has available for field work and preparation of research papers. In this connection there is a most apparent danger of routine-report writing by the Chief Game Biologist seriously curtailing the more important task of supervising workers in the field.

Acknowledgments

The Game Management and Research Branch extends its appreciation and thanks to all persons, within the Game Department and without, who have assisted and co-operated in various phases of its activity.

FISHERIES RESEARCH OF THE GAME DEPARTMENT FOR 1951

By Dr. P. A. Larkin, Chief Fisheries Biologist

The developments of the past year can best be revised by going back a few years to the time when the Game Commission saw fit to obtain some biologists. At that time, in 1948, the thought in the minds of the Commission was that biologists should be hired to investigate the fish and the game animals of British Columbia with the object of indicating new ways of solving acute and chronic problems. The emphasis was on research, and in its first two years of operation the Fisheries Research Group of the Game Department concentrated on lake and stream surveys, steelhead investigations, studies of the Kamloops trout, lake shiners and other fish, and associated research biological problems. In 1950 we looked forward optimistically to seeing the day when

these investigations would be summarized and acted upon. There was a limited amount of investigation of industrial developments and a sufficient number of hatchery problems and minor fisheries problems to keep the staff active.

By the spring of 1950 the industrial boom was moving into high gear, the extensive Public Works programme of road improvements was shortening the travelling-time from the centres of population to the hinterland lakes, and the "biggest ever" influx of American fishermen had begun.

Almost overnight, it seemed, the Department was required to accelerate all aspects of its fish-cultural programme, both practical and scientific. Between April of 1950 and April of 1951 came many major industrial projects that posed problems to sport-fisheries and which demanded attention—the Alcan project in Tweedsmuir Park was mooted, the Greater Vancouver Water District planned a dam for the Capilano River, the Okanagan flood-control project seemed ready to begin, the B.C. Electric announced plans for its Jones Lake development—these and a host of minor projects began to eat into the man-hours and money that were budgeted for much needed research and survey. But, at the same time, the mushrooming resort business and the great increase in sport-fishing could not be ignored. So for the year 1951–52 a programme of research and investigation was planned that would be commensurate with the growing significance of sport-fishing as big business, and which would meet the need for investigation of industrial development.

With a look to the future it was decided that an attempt should be made to squeeze the five-year lake- and stream-survey programme into four years, and in 1951, the third year of the five, a record of fifty-four lakes was placed on the list for investigation.

These plans grew out of a major change in the Department that was incipient prior to the spring of 1951. The Department was referring many of its practical problems and all of the major industrial problems to its scientific branch for their comment and criticism. Quite obviously, if any expansion was to come, to cope with the increasing problems of protecting fish, it was to be in the scientific branch, where the work was being done. In other words, the scientific branch was going to do not only survey and research, but was going to be responsible for carrying out recommendations arising from these investigations, was going to adjudicate on practical problems such as regulations and hatchery activities, and was going to fill the breach if and when major industrial projects got under way.

The budget was boosted to $35,000, another man was added to the permanent staff, and in April of 1951 we looked to a programme of work that would keep us even with, or perhaps even ahead of, the bubbling sport-fishing boom.

For the first few months of the past year everything went well. By September the lake-survey crews looked back on a highly successful season. Fire closures had prevented some surveys, and very low stream-levels reduced the value of others, but all except nine of the original list of fifty-four had been studied and thirty-one additional lakes had been surveyed. The summer's total of seventy-six was more than had been accomplished in the two previous years together, although, on the average, the lakes were smaller and more quickly surveyed.

The lakes and streams investigated were divided as follows: Vancouver Island, 18; Lower Mainland, 35; Southern Okanagan, 23.

The analysis of the material collected proceeded slowly during the winter months and is still far from its final refinement, but some major points of interest and value have already become evident. There is good reason to believe that the stocking of cut-throat trout in many Vancouver Island and Lower Mainland lakes would be preferable to the stocking of Kamloops trout from the Interior. A preliminary reconnaissance of cut-throat collecting-stations has been made. Through the foresight and diligence of Fishery Officer Pells, of Smiths Falls Hatchery, in raising a cut-throat brood stock, 300,000 cut-throat eggs are available for rearing this year. One hundred thousand will be raised

at the Puntledge Park Hatchery on Vancouver Island and 200,000 at the Smiths Falls Hatchery.

Analysis of water from Vancouver Island and Lower Mainland lakes has suggested that low mineral content may be the primary reason for low productivity of coastal waters. Interior lakes generally have from two to ten times the mineral content of coastal lakes. This bodes ill for the immediate prospect of making extensive improvements in these areas, because scientific knowledge of lake fertilization is still in an early stage, and much of the work that has been done in trying to raise yield by increasing the mineral content of natural waters has given negative or discouraging results.

The survey findings for 1951, together with those for 1949 and 1950, were consulted in the compilation of the distribution lists for the coming season. Thus each season more and more of the lakes that are stocked annually have had new stocking schedules, the effects of which will be closely scrutinized and evaluated.

The third year of lake survey was a marked success and has opened up many new fields for investigation, has indicated some new avenues of management, and has fully justified its expense.

Our research programme has continued along some old paths and along a few new ones suggested by studies in 1949 and 1950. Stuart Smith recently completed a fascinating study on growth rates of Kamloops trout, particularly as they were effected in Paul Lake by the selective action of the fishery and by the explosive increase of the lake shiner in recent years. Mr. Smith noted major changes in the trout population of this much studied lake, and his findings will have very extensive and important application to our stocking policy for lakes that contain shiners.

David Scott made an intensive investigation of factors affecting egg size and numbers of eggs in Kamloops trout, and this study will be continued.

Dr. Edgar Black and Mrs. Black continued their work on the temperature and oxygen tolerance of fish which occur in British Columbia. This work was sponsored by the National Research Council, and the Game Department assisted by providing accommodation for the work and fish for the experiments. These studies emphasized the close correspondence between temperature and oxygen tolerances of fish, and conditions of temperature and oxygen in lakes where summer or winter kill occurs. With an understanding of the causes of this common phenomenon in British Columbia, we are in a position to suggest ways in which it may be overcome.

Dr. Clemens, Mr. McMynn, and the writer have been compiling an extensive series of stomach-content analysis of trout with a view to reviewing the food habits of our common sport species.

Experiments on the effects of various hatchery diets on survival of fish when planted were continued and should be finalized in the coming season.

I. Barrett conducted some vital studies on the physiology of Kamloops trout, with special reference to the effects of starvation on the general vigour of fish and their tolerances to high temperature and low oxygen. These studies will have a valuable application to the problem of getting the best results in stocking. These studies should indicate principles of handling fish, which, together with a consideration of the biology of the water to be stocked, would ensure maximum survival and maximum return to anglers.

Steelhead studies were continued under F. P. Maher and have been largely sabotaged by the vagaries of nature as embodied in the Chilliwack River. Mr. Maher's studies will be continued in 1952.

Several other minor research projects were left almost in a state of abeyance until more time can be spent on them.

Experiments were conducted on the use of fish-tox in streams. Various streams were poisoned experimentally, to determine, under field conditions, the best dosage for killing coarse fish and to evaluate the relative cost of poisoning as contrasted with the

operation of coarse-fish traps. Results of this work were positive, encouraging, and in most instances nothing short of spectacular. Doses of 5 ppm. applied for fifteen minutes were best in most situations. Best results were obtained when applications were made at intervals ranging from one-quarter to half a mile, depending on stream conditions. In one trial in a creek tributary to Cluculz Lake near Prince George, approximately 4 tons of suckers were killed with 16 pounds of fish-tox. In another trial 2 tons of suckers were killed with 14 pounds of fish-tox. Fish-tox costs 30 cents a pound. At this rate then 4 tons of fish were killed for $4.80 in the first trial; 2 tons for $4.20 in the second. The economy of the use of poison in streams is obvious. The drawbacks are equally obvious ten days after poisoning, when the fish decompose. Disposal of the dead fish is a major problem associated with coarse-fish poisoning.

The results of the poisoning of two lakes in the One Mile chain in 1947 have been collated, and it has been noted that the poisoning of the two lakes did not produce equally satisfactory results in the first four years after poisoning. The reasons for this have tied in closely with observations on marginal lakes for trout, and the important point has emerged that it is imperative to be sure of the suitability of a body of water for trout before poisoning is entertained. The absence or sparsity of trout in a lake may not be primarily caused by the presence of coarse fish. Unless the harmful effect of coarse fish on trout is quite clear in a particular body of water, then poisoning may have questionable value. Since poisoning is only economically feasible for small lakes in which suitability for trout may often be in doubt, the results of this study have served the valuable purpose of emphasizing the need for a cautious poisoning programme.

The survey and research activities of the scientific group were constructive and encouraging in 1951. However, the last twelve months have been characterized also by a preoccupation with increasing the scope of the work of the group to include the problems attending industrial expansion in British Columbia. In 1951–52 twelve major investigations of this type were conducted, and roughly fifty smaller projects were briefly investigated. The progress to be reported on these projects is encouraging, and extensive concessions have been gained for protection of sport-fisheries. Few of these investigations were planned in budgeting for the year, and all were done by overexpending funds and overtaxing the staff. Was it worth the extra expense and extra effort? It would be premature and unwise to review all progress so far and to speculate on the eventual return from the investment. Further, the active co-operation and, for some projects, the initiative of the Dominion Department of Fisheries have greatly enhanced our representations for sport-fish interests. But we might make a lump estimate of moneys conceded or expended for protection of fish as a result of these investigations, and it would far exceed the cost of the work. At the present time, with many negotiations in early stages, the return on the cost of the work is already in the ratio of about 20 to 1; for every dollar spent in investigation, twenty dollars have been spent or promised for protection of sport-fish.

Associated with British Columbia's current boom, there has been a stepping-up of activity in almost all types of resource use. More mines are starting or reopening operations, and each has an associated pollution problem, sometimes only minor; new agricultural areas are being developed, and for many the problems of reconciling irrigation with fish protection must be faced; new forestry regulations have encouraged large-scale logging for pulp, and each pulp-mill needs water for operation and may pose a problem of pollution; more people in the Province means more sport-fishermen and more problems of maintaining stocks. This heightened activity has meant more work for everybody in the Department, administrators, Game Wardens, and scientists.

Carrying this extra load on the programme of research and survey has precipitated the major reorganization of fisheries work in the Department that has recently taken place. It involves a 60-per-cent increase in the budget for scientific-work, the employ-

ment of seven new men, all university-trained, six of them fisheries specialists. Five are added to the scientific staff and two to the hatchery staff.

All of the fisheries work of the Department, practical and scientific, will in future be integrated into one unit, for which there will be one budget and a central co-ordinating authority. The fisheries work is subdivided into four divisions, each with a biological staff, as follows:—

First, the Protection Division, concerned with the investigation of all water-licence applications and all pollutions which threaten fisheries interests. Headed by Mr. McMynn, assisted by Mr. Vernon.

Second, the Management Division, concerned with the assessment of the monetary value of sport-fisheries, the statistics of the annual catch, and the improvement of lakes and streams. Headed by Mr. Smith, assisted by Mr. Stringer.

Third, the Research and Survey Division, headed by Mr. Lindsey and Mr. Northcote.

Fourth, the Hatchery Division, directed by divisional offices and with two biologists attached—Mr. Barrett and Mr. Hurn.

It is to be hoped that with this major increase in the size of our budget and our staff, and with this reorganization, we may be able to cope with the problems of the coming year.

In concluding the résumé of the year's activities, I would like to stress that the encouragement and criticism of the Commissioners and their scientific advisers, Dr. Clemens and Dr. Cowan, have been of great value to us.

PREDATOR-CONTROL BRANCH

W. W. MAIR, SUPERVISOR OF PREDATOR-CONTROL

Throughout the past year the major portion of our effort has, very naturally, been expended in routine control operations. These have included work done in pursuance of our policy of control on a regional basis and the answering of direct complaints. The latter have been in connection with threat to human life (from cougars), threat to domestic live stock and poultry, and threat to our fur and game. Operations as a result of threat to human life have in the main been most costly, since most of the complaints have been from remote areas of Vancouver Island or the coastal Mainland and have necessitated costly aeroplane flights. They have on occasion required lengthy hunt patrols, sometimes of a month's duration. The past year's costs in this respect have amply demonstrated the need for some form of registered cougar-hunter system.

During the year, reports of cougars have increased somewhat over 1950. Main increase has been from the areas already noted. However, we anticipated some increase in cougar reports, as it was known that cougars have been extending their range northward year by year. Bounties have been slightly up, with 488 claimed for this year, compared to 395 for 1950. Departmental personnel, including permanent hunters, have been active in hunting these animals. During the year they have accounted for 117 cougars.

Administrative groundwork has been laid for the implementation of a registered (bonus) cougar-hunter system, pursuant to the ideas expressed at the 1950 Game Convention. The system will be implemented on Vancouver Island early next year, and it is hoped that it will develop a hard corps of professional cougar-hunters who will be able to take much of the burden of answering cougar complaints off the shoulders of the Department. This will permit our own personnel to carry out organized area hunting as dictated by game and agricultural needs, plus, of course, emergency complaint hunting as required. The success or failure of this system will largely rest with the hunters registered, and with the public generally in their support of this programme.

Foxes have increasingly demanded our attention, and this past year we have taken on the predator staff W. J. Hillen, an experienced hunter from the Interior. He has found the coastal conditions somewhat difficult due to uncertainty of weather, but in the four-month period employed has taken 17 foxes. It is anticipated that he will soon have the most critical situation under control. It has not yet been possible to carry out much work on the foxes on Vancouver Island, but some plans have been laid this year for implementation in 1952.

Bears proved to be a major problem during the summer throughout the Interior from the north line of the Canadian National Railways south to the International Boundary. This was no doubt due to the general shortage of wild berries. Innumerable complaints were answered, and in all 91 bears were killed—by rifle, trap, snare, cyanide gun, and by poison. In the Kelowna area alone, one operation, carried on throughout the summer, cost $3,232.97. Fourteen bears were definitely killed, and seven others are considered certain kills as extremely deadly poison baits were taken. Stockmen's losses dropped from 58 head in 1949 and 95 head in 1950 (their own figures and probably includes sheep) to 7 (possibly 9) in 1951. Thus the operation was successful in view of present-day meat prices. Valuable techniques were learned during the summer for future operations.

The 1080 poison programme has apparently been most successful and has been enlarged in scope this winter (1951–52). Coyote bounties dropped in most Agencies where stations have been located, and over the Province generally there has been a drop from 9,824 in 1950 to 5,200 in 1951. Our own personnel killed 546 coyotes during the year by trap, rifle, coyote-getter, etc. It is not possible to determine the kill by 1080, but it is estimated to be in the neighbourhood of 4,000 to 6,000 coyotes. Operations have been extended this winter to include the Peace River Block, along the Canadian National Railways from McBride to Smithers Detachments, and extended areas in the Chilcotin and Ashcroft districts. All areas baited last winter have been rebaited, although some specific station locations have been changed. At time of writing, all reports are not complete, so final number of stations is not available, but the total will be much greater than for last winter (153). Already over 200 have been recorded.

Our wolf-control programme suffered somewhat last winter due to the emphasis placed on coyote work. However, 107 wolves were taken by our personnel, 14 of them in the Cariboo. One major aeroplane flight from Lower Post through to Cold Fish Lake accounted for 30 wolves known dead and probably many more. Bad weather and deep snow prevented further check. Plans have been formulated for further aeroplane activities during March and April of 1952; these will be the largest operations of this type carried out to date.

Further to the wolf problem, a preliminary check was made in the Atlin and Telegraph Creek areas to determine at least the general public opinion prevailing in this matter, and to question guides and trappers. The general opinion was given that Dall sheep and caribou are still slowly decreasing in numbers, with the wolf the main offender. Plans have been initiated for a field investigation next year. As a result of talks held at Prince Rupert, it is also planned to investigate cougar and wolf predation in the Gardner Canal area next March or April.

A limited number of poison permits have been issued to trappers and farmers, etc., for protection of their own trap-lines or private property. Certain applications have been refused where applicants were considered unreliable, or where our own operations would cover the situation. The intention is to continue to limit such permits to areas beyond the scope of our present physical means, or until such time as education and awareness of the dangers in poison use are sufficiently adequate to permit expansion of public participation in our poison programme. That our operations have been successful so far has been demonstrated by the constantly increasing confidence of the trappers, in particular, in our poison programme.

The poisoning of coyotes in the Ashnola area may be considered a separate project, though still an integral part of the 1080 programme. According to Dr. I. McT. Cowan, the spring count of California bighorn lambs this year showed most gratifying increase over the previous year. At his request we have continued the programme in that area. Baits have been placed in the Vaseaux Lake area to protect that band of California bighorn sheep.

The mouse-poisoning operations of MacMillan & Bloedel on Vancouver Island were observed in company with D. J. Robinson, regional biologist of the Department for that area. The operations were well carried out, and it was considered that no harm will ensue to beneficial wild life. It must be accepted that this type of operation will become widespread in the logging industry; thus the Department can only ensure that the utmost precautions are taken to protect wild life. During the summer J. Bendell, a graduate student at University of British Columbia, carried out some studies on the lethality of 1080 poison to mice. Interesting facts were noted, but the Sayward area fires prevented any adequate observations or definite conclusions. Mr. Robinson will probably carry out any further tests. E. H. Samann, Assistant Supervisor of Predator-control, at Kamloops, carried out comparative mouse-trapping for the second year, to determine effect of coyote-control upon mouse populations. So far no significant differences have been noted.

Equipment has been improved during the year, and plans have been laid for further advances in the future. New-style jackets were issued to all Predator-control personnel, to foster greater public awareness of our work and to assist personnel in receiving public co-operation. A flash was designed by D. A. Smith, a commercial artist of Winnipeg, on a pattern outlined by our Supervisor. This identifying flash is worn on the left upper arm of the jacket.

The major plans for 1952 have been discussed briefly at appropriate points throughout this report. They are herewith summarized, to give some idea of the broad framework of our coming operations.

(1) Establishment of a registered cougar-hunter system, eventually to include at least one hunter for every major cougar-complaint area. Purpose is to increase probability of killing complaint cougars, to cut down excessive travelling costs answering complaints, and to free permanent predatory-animal hunters for more long-range control work.

(2) To institute limited cougar-tagging on Vancouver Island, to enable us to determine cougar movements, seasonal or otherwise. This information will be most valuable for future planning, as well as from the scientific view-point.

(3) Investigation will be made of the wolf situation developing in the Nanaimo area. Poisoning operations already under way.

(4) Fox traps and getters have been supplied to the predatory-animal hunter at Merville, and an effort will be made to bring the fox problem around Sayward area under control.

(5) To continue the 1080 poison programme, expanding it where required. Where coyotes are considered controlled to a level concomitant with good management, or where complaint of depredations cease, operations will be limited or completely suspended until further required.

(6) It is planned to carry out some further bear-control in the Kelowna area. Such further work will depend upon the situation as it develops. Coyote-getters will probably be used primarily.

(7) Mouse-trapping experiment in the Kamloops area will be continued one more year.

(8) Experiments will be carried out regarding lethality of cyanide, and possibility of secondary poisoning.

(9) Wolf-poisoning from the air will be carried out in February and March. It is expected to spend about $500 in the Peace River Block, Azouzetta Lake, and possibly Porcupine Lake, etc., and about $1,500 in the Cold Fish Lake and Telegraph Creek-Atlin areas.

(10) Recommended employment of a temporary predatory-animal hunter during February and March in Dawson Creek area to hunt wolves (Pine River area), a temporary predatory-animal hunter at Smithers to hunt wolves and coyotes (February and March at least), and a temporary predatory-animal hunter for one month in Prince Rupert area to hunt wolves. Further intended to poison wolves in Kitsumgallum Lake area if situation requires it.

(11) Plan an investigation lasting thirty days or more of Dall sheep and caribou somewhere in Telegraph Creek country. Suggested survey representative areas that might give some basis for more general conclusions regarding whole Cassiar.

(12) Plan investigation of Gardner Canal and Kitimat area, probably March or April, for the purpose of determining cougar and wolf situation, particularly with respect to goat. This investigation might be made instead of extending Cassiar trip beyond the month.

(13) To institute limited wolf-tagging in one area of "D" Division to determine wolf movements, of vital interest to future control plans.

(14) It is hoped to plan the work so that Predator-control staff can take over live-trapping of beaver, and any other activities of a similar nature; for example, nuisance trapping or shooting. It is believed this will not interfere with present work, but will provide a wider range of interest for the hunters.

In conclusion, our operations have been more widespread than in 1950 and have demanded greater effort on the part of all Predator-control personnel. Three part-time employees have been engaged—two on wolf-control and one on cougar-control. Three hundred and four complaints were received and dealt with by the Branch, at the expense of countless hours of hard work, often under adverse conditions. It is desired here to express thanks and appreciation for the effort and interest displayed by all members of the staff.

STATISTICAL STATEMENTS

Comparative Statistics, 1913 to 1951, Inclusive

Calendar Year	Prosecutions					Revenue Derived from Sale of Game Licences and Fees	Revenue Derived from Fur Trade
	Informations Laid	Convictions	Cases Dismissed	Firearms Confiscated	Fines Imposed		
1913	188	181	7	.....	$4,417.50	$109,600.80	.....
1914	294	273	21	.....	5,050.00	92,034.20	.....
1915	279	258	21	.....	4,097.50	72,974.25	.....
1916	127	110	17	.....	2,050.00	66,186.97	.....
1917	111	97	14	.....	1,763.50	65,487.50	.....
1918	194	167	17	5	3,341.00	75,537.00	.....
1919	267	242	25	36	6,024.50	116,135.00	.....
1920	293	266	27	46	6,073.00	132,296.50	$5,291.39
1921	329	312	17	74	6,455.00	114,842.00	24,595.80
1922	359	317	42	44	7,275.00	127,111.50	51,093.89
1923	309	280	29	24	5,676.50	121,639.50	60,594.18
1924	317	283	34	24	4,758.00	125,505.50	56,356.68
1925	296	279	17	43	5,825.00	123,950.50	56,287.78
1926	483	439	44	39	7,454.00	135,843.50	62,535.13
1927	518	469	49	47	10,480.50	139,814.00	71,324.96
1928	439	406	33	29	7,283.50	140,014.75	58,823.07
1929	602	569	33	54	9,008.00	142,028.22	47,329.89
1930	678	636	32	33	9,572.75	147,660.00	45,161.11
1931	676	625	51	40	8,645.00	137,233.31	46,091.08
1932	538	497	41	37	5,493.50	141,269.55	40,363.79
1933	498	474	24	22	3,531.00	135,876.94	44,167.48
1934	477	454	23	4	5,227.82	149,955.11	47,102.81
1935	454	438	16	19	4,399.50	148,689.64	49,831.95
1936	451	436	15	14	3,965.00	157,647.30	52,196.50
1937	585	552	33	20	5,332.50	177,771.33	53,697.48
1938	613	574	39	42	5,729.50	192,024.07	44,963.87
1939	547	526	21	21	4,776.50	193,170.53	49,187.00
1940	440	419	21	18	5,197.00	188,605.20	68,466.33
1941	446	430	16	9	4,977.50	213,267.67	63,125.30
1942	409	392	17	27	5,079.50	205,451.71	68,475.07
1943	356	342	14	18	5,554.50	207,661.72	58,354.03
1944	379	372	7	8	5,570.50	238,902.36	70,363.23
1945	652	632	20	30	8,381.50	352,228.85	104,250.95
1946	819	798	21	39	10,921.00	502,555.25	107,357.72
1947	895	878	17	56	11,837.50	597,529.30	99,344.14
1948	1,142	1,117	25	74	17,537.00	610,383.56	73,392.08
1949	1,115	1,099	16	86	18,148.50	656,997.38	61,543.26
1950	1,359	1,337	22	69	22,923.00	706,591.06	71,335.44
1951	1,489	1,468	21	83	24,087.50	830,178.59	76,454.56
Totals	20,423	19,444	959	1,234	$293,920.57	$8,792,652.12	$1,889,457.95

Summary of Total Revenue Derived from Sale of Various Licences, Collections, etc., January 1st to December 31st, 1951

Revenue derived from—	
Sale of resident firearms licences	$314,774.50
Sale of deer, moose-elk, goat, and pheasant tags	52,197.50
Sale of resident anglers', guides', and prospectors' firearms licences	96,911.00
Sale of non-resident firearms licences and outfitters' licences	84,615.00
Sale of non-resident anglers' licences	165,789.00
Sale of fur-traders', taxidermists', and tanners' licences, and royalty on fur	76,454.56
Sale of confiscated and surrendered fur	323.40
Sale of confiscated firearms	331.99
Sale of big-game trophy fees from non-residents	113,655.00
Prosecutions—fines imposed under the "Game Act"	24,087.50
Miscellaneous revenue	1,581.20
Total	$930,720.65

STATEMENT OF RESIDENT FIREARMS LICENCES, JANUARY 1ST TO DECEMBER 31ST, 1951

Government Agency	O.F.L.		G.F.L.		Extra-G.F.L.		S.F.L.		Extra-S.F.L.		Duplicates		Total
	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount	
Alberni	1,598	$4,794.00	48	$294.00	7	$84.00	65	$644.00	3	$7.50	18	$9.00	$5,832.50
Ashcroft	226	678.00	91	540.00							5	2.50	1,220.50
Atlin	11	33.00	33	198.00			18	180.00					411.00
Barkerville	110	330.00	93	555.00	3	36.00	18	180.00			1	.50	1,101.50
Burns Lake	460	1,380.00	902	5,178.00	16	192.00	187	1,837.00	20	50.00	4	2.00	8,639.00
Clinton	460	1,380.00	501	3,003.00			148	1,471.00			3	1.50	5,855.50
Cranbrook	1,138	3,414.00	1,792	9,915.00	4	48.00	49	481.00			18	9.00	13,867.00
Creston	761	2,283.00	271	1,599.00			31	304.00			6	3.00	4,189.00
Cumberland	3,503	10,509.00	74	387.00	12	144.00	156	1,554.00	48	120.00	20	10.00	12,724.00
Duncan	1,511	4,533.00	43	258.00	2	24.00	11	101.00	1	2.50	10	5.00	4,923.50
Fernie	434	1,302.00	645	3,858.00	10	120.00	63	615.00			21	10.50	5,905.50
Golden	368	1,104.00	579	3,468.00	20	240.00	80	800.00			7	3.50	5,615.50
Grand Forks	402	1,206.00	24	144.00	2	24.00	27	267.00			3	1.50	1,642.50
Greenwood	380	1,140.00	11	66.00			1	10.00			1	.50	1,216.50
Kamloops	2,220	6,660.00	926	5,541.00	12	144.00	167	1,652.00			32	16.00	14,013.00
Kaslo	157	471.00	55	318.00	1	12.00	7	70.00			1	.50	871.50
Kelowna	1,774	5,322.00	358	2,148.00	1	12.00	19	187.00			18	9.00	7,678.00
Lillooet	355	1,065.00	129	765.00	1	12.00	39	390.00			3	1.50	2,233.50
Merritt	518	1,554.00	61	360.00			33	327.00	5	12.50	1	.50	2,254.00
Nanaimo	2,109	6,327.00	106	636.00	2	24.00	23	227.00			13	6.50	7,220.50
Nelson	1,422	4,266.00	268	1,578.00	8	96.00	105	1,041.00			6	3.00	6,984.00
New Denver	365	1,095.00	73	438.00			3	30.00					1,563.00
New Westminster	8,936	26,818.00	2,323	13,920.00	16	192.00	277	2,755.00			46	23.00	43,708.00
Oliver	764	2,292.00	80	474.00	3	36.00					8	4.00	2,806.00
Penticton	2,019	6,057.00	365	2,175.00	8	96.00	20	197.00			11	5.50	8,530.50
Pouce Coupe	929	2,787.00	1,346	7,965.00	13	156.00	435	4,233.00	10	25.00	21	10.50	15,176.50
Powell River	593	1,779.00	30	180.00	2	24.00	9	90.00			5	2.50	2,075.50
Prince George	856	2,568.00	1,736	10,314.00	19	228.00	227	2,195.00	3	7.50	24	12.00	15,324.50
Prince Rupert	1,546	4,638.00	660	3,885.00	20	240.00	248	2,474.00	27	67.50	4	2.00	11,306.50
Princeton	1,042	3,126.00	122	732.00	5	60.00	20	188.00			7	3.50	4,109.50
Quesnel	723	2,169.00	697	4,176.00	4	48.00	104	1,025.00			9	4.50	7,422.50
Revelstoke	259	777.00	159	948.00	3	36.00	49	490.00			4	2.00	2,253.00
Rossland	1,765	5,295.00	299	1,770.00	17	228.00	14	131.00			11	5.50	7,429.50
Salmon Arm	925	2,775.00	252	1,455.00	1	12.00	51	507.00	2	5.00	8	4.00	4,758.00
Smithers	283	849.00	392	2,343.00	8	96.00	78	762.00	79	197.50	3	1.50	4,249.00
Stewart	1	3.00					1	10.00					13.00
Telegraph Creek			3	18.00			28	274.00	1	2.50			294.50
Vancouver	9,419	28,257.00	2,255	12,843.00	59	708.00	177	1,677.00	1	2.50	124	62.00	43,549.50
Vernon	2,059	6,177.00	486	2,910.00	4	48.00	40	394.00			21	10.50	9,539.50
Victoria	4,083	12,249.00	156	936.00	7	84.00	28	274.00			34	17.00	13,560.00
Williams Lake	724	2,172.00	547	3,279.00	8	96.00	214	2,077.00			5	2.50	7,626.50
Totals	57,211	$171,634.00	18,991	$111,570.00	300	$3,600.00	3,270	$32,121.00	200	$500.00	536	$268.00	$319,693.00
Less refunds													4,918.50
Total													$314,774.50

Revenue Derived from the Sale of Moose-Elk, Deer, Goat, and Pheasant Tags, January 1st to December 31st, 1951

Government Agency	Moose-Elk Tags		Deer Tags		Goat Tags		Pheasant Tags		Total
	No.	Amount	No.	Amount	No.	Amount	No.	Amount	
Alberni	49	$49.00	2,361	$590.25	.....	.....	181	$90.50	$729.75
Ashcroft	90	90.00	254	63.50	7	$7.00	22	11.00	171.50
Atlin	41	41.00	.....	.....	.....	.....	.....	.....	41.00
Barkerville	92	92.00	180	45.00	.....	.....	.....	.....	137.00
Burns Lake	785	785.00	626	156.50	15	15.00	.....	.....	956.50
Clinton	902	902.00	1,200	300.00	13	13.00	.....	.....	1,215.00
Cranbrook	1,889	1,889.00	2,873	718.25	684	684.00	.....	.....	3,291.25
Creston	249	249.00	1,020	255.00	45	45.00	.....	.....	549.00
Cumberland	.....	.....	4,988	1,247.00	4	4.00	424	212.00	1,463.00
Duncan	40	40.00	2,095	523.75	.....	.....	326	163.00	726.75
Fernie	779	779.00	1,207	301.75	222	222.00	.....	.....	1,302.75
Golden	667	667.00	958	239.50	322	322.00	.....	.....	1,228.50
Grand Forks	18	18.00	398	99.50	3	3.00	79	39.50	160.00
Greenwood	8	8.00	396	99.00	.....	.....	12	6.00	113.00
Kamloops	1,104	1,104.00	2,999	749.75	48	48.00	439	219.50	2,121.25
Kaslo	21	21.00	202	50.50	39	39.00	.....	.....	110.50
Kelowna	363	363.00	1,821	455.25	.....	.....	982	491.00	1,309.25
Lillooet	75	75.00	451	112.75	68	68.00	.....	.....	255.75
Merritt	50	50.00	438	109.50	4	4.00	31	15.50	179.00
Nanaimo	98	98.00	3,167	791.75	4	4.00	381	190.50	1,084.25
Nelson	187	187.00	1,504	376.00	93	93.00	.....	.....	656.00
New Denver	9	9.00	425	106.25	59	59.00	.....	.....	174.25
New Westminster	3,871	3,871.00	10,226	2,556.50	142	142.00	6,816	3,408.00	9,977.50
Oliver	306	306.00	952	238.00	16	16.00	154	77.00	637.00
Penticton	382	382.00	2,216	554.00	6	6.00	492	246.00	1,188.00
Pouce Coupe	1,550	1,550.00	1,923	480.75	137	137.00	.....	.....	2,167.75
Powell River	12	12.00	811	202.75	10	10.00	.....	.....	224.75
Prince George	1,971	1,971.00	1,946	486.50	85	85.00	.....	.....	2,542.50
Prince Rupert	582	582.00	2,144	536.00	176	176.00	47	23.50	1,317.50
Princeton	108	108.00	1,101	275.25	7	7.00	62	31.00	421.25
Quesnel	747	747.00	1,272	318.00	.....	.....	.....	.....	1,065.00
Revelstoke	115	115.00	315	78.75	44	44.00	29	14.50	252.25
Rossland	206	206.00	1,873	468.25	52	52.00	32	16.00	742.25
Salmon Arm	232	232.00	1,001	250.25	12	12.00	241	120.50	614.75
Smithers	392	392.00	424	106.00	85	85.00	.....	.....	583.00
Vancouver	2,209	2,209.00	8,039	2,009.75	113	113.00	5,595	2,797.50	7,129.25
Vernon	518	518.00	2,432	608.00	18	18.00	1,120	560.00	1,704.00
Victoria	146	146.00	5,689	1,422.25	4	4.00	1,208	604.00	2,176.25
Williams Lake	652	652.00	1,249	312.25	35	35.00	10	5.00	1,004.25
Totals	21,515	$21,515.00	73,176	$18,294.00	2,572	$2,572.00	18,683	$9,341.50	$51,722.50
Less refunds	.....	.....	.....	.....	.....	.....	.....	.....	38.00
Total	.....	.....	.....	.....	.....	.....	.....	.....	$51,684.50
Pheasant Tags[1]									
Cumberland	.....	.....	.....	.....	.....	.....	.....	$18.00	
Duncan	.....	.....	.....	.....	.....	.....	.....	105.00	
Kamloops	.....	.....	.....	.....	.....	.....	.....	2.00	
New Westminster	.....	.....	.....	.....	.....	.....	.....	357.00	
Oliver	.....	.....	.....	.....	.....	.....	.....	3.00	
Vancouver	.....	.....	.....	.....	.....	.....	.....	21.00	
Victoria	.....	.....	.....	.....	.....	.....	.....	7.00	
									513.00
Total	.....	.....	.....	.....	.....	.....	.....	.....	$52,197.50

[1] Sold in 1950 but accounted for in 1951.

Revenue Derived from Sale of Resident Anglers', Guides', Free Farmers', and Prospectors' Firearms Licences, January 1st to December 31st, 1951

Government Agency	Anglers		Guides		Free Farmers	Prospectors		Total
	No.	Amount	No.	Amount		No.	Amount	
Alberni	1,717	$1,717.00	1	$10.00	7	2	.....	$1,727.00
Ashcroft	343	343.00	.....	.....	11	8	.....	343.00
Atlin	33	33.00	5	55.00	.....	2	.....	88.00
Barkerville	208	208.00	4	50.00	.....	30	.....	258.00
Burns Lake	1,228	1,228.00	78	725.00	34	29	.....	1,953.00
Clinton	1,059	1,059.00	180	1,950.00	7	5	.....	3,009.00
Cranbrook	2,928	2,928.00	20	160.00	28	32	.....	3,088.00
Creston	1,132	1,132.00	7	65.00	17	10	.....	1,197.00
Cumberland	3,256	3,256.00	11	105.00	30	6	.....	3,361.00
Duncan	1,419	1,419.00	1	15.00	48	.....	.....	1,434.00
Fernie	1,420	1,420.00	49	480.00	3	.....	.....	1,900.00
Golden	825	825.00	67	710.00	20	6	.....	1,535.00
Grand Forks	501	501.00	11	105.00	14	8	.....	606.00
Greenwood	349	349.00	.....	.....	17	10	.....	349.00
Kamloops	3,858	3,858.00	91	850.00	77	16	$1.00	4,709.00
Kaslo	330	330.00	1	10.00	7	22	.....	340.00
Kelowna	3,030	3,030.00	.....	.....	59	13	4.00	3,034.00
Lillooet	621	621.00	15	125.00	9	37	1.00	747.00
Merritt	740	740.00	.....	.....	2	3	.....	740.00
Nanaimo	2,796	2,796.00	.....	.....	54	5	.....	2,796.00
Nelson	3,326	3,326.00	8	80.00	34	33	.....	3,406.00
New Denver	658	658.00	.....	.....	10	10	.....	658.00
New Westminster	15,632	15,632.00	3	40.00	112	33	2.00	15,674.00
Oliver	698	698.00	.....	.....	2	2	.....	698.00
Penticton	2,818	2,818.00	7	60.00	11	8	1.00	2,879.00
Pouce Coupe	1,296	1,296.00	90	795.00	46	29	.....	2,091.00
Powell River	1,042	1,042.00	.....	.....	11	1	.....	1,042.00
Prince George	2,041	2,041.00	52	485.00	49	38	1.00	2,527.00
Prince Rupert	1,788	1,788.00	14	145.00	11	31	1.00	1,934.00
Princeton	1,611	1,611.00	7	65.00	1	21	.....	1,676.00
Quesnel	1,008	1,008.00	37	390.00	38	40	2.00	1,400.00
Revelstoke	593	593.00	10	125.00	7	10	.....	718.00
Rossland	2,678	2,678.00	.....	.....	10	17	.....	2,678.00
Salmon Arm	1,610	1,610.00	9	65.00	66	3	.....	1,675.00
Smithers	570	570.00	13	140.00	36	21	.....	810.00
Stewart	.....	.....	.....	.....	.....	1	1.00	1.00
Telegraph Creek	.....	.....	8	85.00	.....	3	.....	85.00
Vancouver	14,346	14,346.00	1	10.00	48	139	1.00	14,357.00
Vernon	2,510	2,510.00	5	45.00	136	31	.....	2,555.00
Victoria	4,151	4,151.00	2	20.00	52	14	1.00	4,172.00
Williams Lake	786	786.00	196	1,870.00	23	24	5.00	2,661.00
Totals	87,055	$87,055.00	1,003	$9,835.00	1,147	753	$21.00	$96,911.00

Revenue Derived from Sale of Non-resident Firearms and Outfitters' Licences, January 1st to December 31st, 1951

Government Agency	General Firearms Licences		General Firearms Licences (Alternative)		General Firearms Licences (Special)		Ordinary Firearms Licences		Outfitters' Licences		Total
	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount	
Ashcroft	1	$25.00	—	—	—	—	—	—	—	—	$25.00
Atlin	1	25.00	—	—	1	$15.00	3	$9.00	—	—	49.00
Barkerville	5	125.00	—	—	—	—	—	—	—	—	125.00
Burns Lake	19	475.00	—	—	6	90.00	—	—	—	—	565.00
Clinton	67	1,675.00	—	—	1	15.00	—	—	—	—	1,690.00
Cranbrook	187	4,675.00	—	—	3	45.00	—	—	—	—	4,720.00
Creston	32	800.00	—	—	—	—	—	—	—	—	800.00
Cumberland	13	325.00	—	—	—	—	—	—	—	—	325.00
Duncan	1	25.00	—	—	2	30.00	—	—	—	—	55.00
Fernie	112	2,800.00	—	—	14	210.00	—	—	1	$50.00	3,060.00
Golden	65	1,625.00	—	—	4	60.00	4	12.00	1	50.00	1,747.00
Grand Forks	3	75.00	—	—	—	—	—	—	—	—	75.00
Greenwood	10	250.00	—	—	—	—	—	—	—	—	250.00
Kamloops	83	2,075.00	—	—	2	30.00	2	6.00	—	—	2,111.00
Kaslo	3	75.00	—	—	—	—	—	—	—	—	75.00
Kelowna	26	650.00	—	—	2	30.00	—	—	—	—	680.00
Lillooet	3	75.00	—	—	—	—	—	—	—	—	75.00
Merritt	—	—	—	—	—	—	1	3.00	—	—	3.00
Nanaimo	5	125.00	—	—	1	15.00	—	—	—	—	140.00
Nelson	6	150.00	—	—	1	15.00	—	—	—	—	165.00
New Westminster	1,898	47,450.00	4	$200.00	—	—	2	6.00	—	—	47,656.00
Oliver	283	7,075.00	—	—	—	—	—	—	—	—	7,075.00
Penticton	58	1,450.00	—	—	2	30.00	—	—	—	—	1,480.00
Pouce Coupe	124	3,100.00	—	—	17	255.00	10	30.00	3	150.00	3,535.00
Prince George	39	975.00	—	—	7	105.00	1	3.00	—	—	1,083.00
Prince Rupert	34	850.00	—	—	1	15.00	1	3.00	—	—	868.00
Princeton	6	150.00	—	—	2	30.00	—	—	—	—	180.00
Quesnel	5	125.00	—	—	1	15.00	—	—	—	—	140.00
Revelstoke	7	175.00	—	—	—	—	—	—	—	—	175.00
Rossland	—	—	—	—	1	15.00	—	—	—	—	15.00
Salmon Arm	1	25.00	—	—	—	—	—	—	—	—	25.00
Smithers	6	150.00	—	—	2	30.00	—	—	—	—	180.00
Telegraph Creek	2	50.00	—	—	—	—	—	—	—	—	50.00
Vancouver	176	4,400.00	1	50.00	2	30.00	11	33.00	—	—	4,513.00
Vernon	17	425.00	—	—	—	—	—	—	—	—	425.00
Victoria	10	250.00	—	—	—	—	—	—	—	—	250.00
Williams Lake	20	500.00	—	—	1	15.00	—	—	—	—	515.00
Totals	3,328	$83,200.00	5	$250.00	73	$1,095.00	35	$105.00	5	$250.00	$84,900.00
Less refunds	—	—	—	—	—	—	—	—	—	—	285.00
Total	—	—	—	—	—	—	—	—	—	—	$84,615.00

REVENUE DERIVED FROM THE SALE OF NON-RESIDENT ANGLERS' LICENCES, JANUARY 1ST TO DECEMBER 31ST, 1951

Government Agency	Anglers' Licences (Other than Canadian)		Anglers' Licences (Canadian)		Anglers' Licences (Minor)		Total
	No.	Amount	No.	Amount	No.	Amount	
Alberni	106	$742.00	6	$21.00	6	$6.00	$769.00
Ashcroft	26	182.00	2	7.00	6	6.00	195.00
Atlin	14	98.00	4	14.00	----	----	112.00
Barkerville	8	56.00	----	----	----	----	56.00
Burns Lake	90	630.00	35	122.50	11	11.00	763.50
Clinton	339	2,373.00	13	45.50	78	78.00	2,496.50
Cranbrook	600	4,200.00	125	437.50	80	80.00	4,717.50
Creston	664	4,648.00	81	283.50	83	83.00	5,014.50
Cumberland	554	3,878.00	33	115.50	76	76.00	4,069.50
Duncan	57	399.00	8	28.00	2	2.00	429.00
Fernie	135	945.00	770	2,695.00	38	38.00	3,678.00
Golden	114	798.00	367	1,284.50	64	64.00	2,146.50
Grand Forks	369	2,583.00	3	10.50	41	41.00	2,634.50
Greenwood	39	273.00	4	14.00	8	8.00	295.00
Kamloops	902	6,314.00	81	283.50	153	153.00	6,750.50
Kaslo	82	574.00	8	28.00	16	16.00	618.00
Kelowna	1,483	10,381.00	35	122.50	221	221.00	10,724.50
Lillooet	14	98.00	2	7.00	3	3.00	108.00
Merritt	106	742.00	2	7.00	14	14.00	763.00
Nanaimo	113	791.00	17	59.50	8	8.00	858.50
Nelson	778	5,446.00	99	346.50	46	46.00	5,838.50
New Denver	6	42.00	12	42.00	2	2.00	86.00
New Westminster	10,232	71,624.00	68	238.00	1,852	1,852.00	73,714.00
Oliver	1,748	12,236.00	7	24.50	277	277.00	12,537.50
Penticton	472	3,304.00	51	178.50	82	82.00	3,564.50
Pouce Coupe	192	1,344.00	357	1,249.50	55	55.00	2,648.50
Powell River	58	406.00	2	7.00	----	----	413.00
Prince George	50	350.00	21	73.50	14	14.00	437.50
Prince Rupert	39	273.00	10	35.00	4	4.00	312.00
Princeton	125	875.00	3	10.50	18	18.00	903.50
Quesnel	14	98.00	16	56.00	3	3.00	157.00
Revelstoke	61	427.00	24	84.00	14	14.00	525.00
Rossland	231	1,617.00	14	49.00	37	37.00	1,703.00
Salmon Arm	869	6,083.00	61	213.50	91	91.00	6,387.50
Smithers	25	175.00	4	14.00	1	1.00	190.00
Vancouver	628	4,396.00	41	143.50	51	51.00	4,590.50
Vernon	308	2,156.00	31	108.50	53	53.00	2,317.50
Victoria	228	1,596.00	26	91.00	28	28.00	1,715.00
Williams Lake	87	609.00	1	3.50	7	7.00	619.50
Totals	21,966	$153,762.00	2,444	$8,554.00	3,543	$3,543.00	$165,859.00
Less refunds	----	----	----	----	----	----	70.00
Total	----	----	----	----	----	----	$165,789.00

Revenue Derived from Sale of Fur-traders', Taxidermists', and Tanners' Licences, and Royalty on Fur, January 1st to December 31st, 1951

Government Agency	Resident Fur-traders' Licences		Resident Fur-traders' Licences (Transient)		Agent for Non-resident Fur-traders' Licences		Royalty or Tax on Fur		Taxidermists' or Tanners' Licences		Total
	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount	
Alberni	-----	-----	-----	-----	-----	-----	1	$4.50	-----	-----	$4.50
Atlin	1	$25.00	-----	-----	-----	-----	20	177.04	-----	-----	202.04
Burns Lake	13	325.00	-----	-----	-----	-----	32	1,430.06	-----	-----	1,755.06
Clinton	2	50.00	-----	-----	-----	-----	10	129.99	-----	-----	179.99
Cranbrook	-----	-----	1	$100.00	-----	-----	2	9.25	1	$2.00	111.25
Creston	-----	-----	-----	-----	-----	-----	2	18.10	-----	-----	18.10
Cumberland	1	25.00	-----	-----	-----	-----	-----	-----	-----	-----	25.00
Fernie	-----	-----	-----	-----	-----	-----	4	59.75	-----	-----	59.75
Golden	-----	-----	-----	-----	-----	-----	1	21.32	-----	-----	21.32
Grand Forks	-----	-----	-----	-----	-----	-----	1	.25	-----	-----	.25
Kamloops	2	50.00	-----	-----	-----	-----	6	24.63	1	2.00	76.63
Kelowna	-----	-----	-----	-----	-----	-----	2	6.82	-----	-----	6.82
Lillooet	2	50.00	-----	-----	-----	-----	1	3.00	-----	-----	53.00
Merritt	1	25.00	-----	-----	-----	-----	-----	-----	-----	-----	25.00
Nanaimo	-----	-----	-----	-----	-----	-----	1	11.80	1	2.00	13.80
Nelson	-----	-----	-----	-----	-----	-----	10	72.20	-----	-----	72.20
New Westminster	-----	-----	-----	-----	-----	-----	10	75.25	-----	-----	75.25
Penticton	2	50.00	-----	-----	-----	-----	-----	-----	-----	-----	50.00
Pouce Coupe	21	525.00	3	300.00	2	$400.00	299	14,003.65	4	8.00	15,236.65
Prince George	4	100.00	1	100.00	-----	-----	56	4,344.76	-----	-----	4,544.76
Prince Rupert	11	275.00	1	100.00	-----	-----	34	632.06	-----	-----	1,007.06
Quesnel	4	100.00	2	200.00	-----	-----	6	23.44	-----	-----	323.44
Revelstoke	-----	-----	-----	-----	-----	-----	2	62.00	-----	-----	62.00
Rossland	-----	-----	-----	-----	-----	-----	1	.02	-----	-----	.02
Smithers	6	150.00	-----	-----	-----	-----	33	2,176.07	-----	-----	2,326.07
Telegraph Creek	-----	-----	-----	-----	-----	-----	27	1,816.04	-----	-----	1,816.04
Vancouver	38	950.00	10	1,000.00	-----	-----	188	45,607.66	5	10.00	47,567.66
Vernon	1	25.00	-----	-----	-----	-----	6	4.75	1	2.00	31.75
Victoria	-----	-----	-----	-----	-----	-----	16	81.25	2	4.00	85.25
Williams Lake	12	300.00	4	400.00	-----	-----	5	12.40	-----	-----	712.40
Totals	121	$3,025.00	22	$2,200.00	2	$400.00	776	$70,808.06	15	$30.00	$76,463.06
Less refunds	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	8.50
Total	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	$76,454.56

Total Collections from Fur Trade, 1921 to 1951, Inclusive

Year	Fur Royalty or Tax	Fur-traders', Tanners', and Taxidermists' Licences	Total
1921	$24,595.80	$6,195.00	$30,790.80
1922	51,093.89	6,365.00	57,458.89
1923	60,594.18	6,930.00	67,524.18
1924	56,356.68	6,090.00	62,446.68
1925	48,737.78	7,550.00	56,287.78
1926	56,045.13	6,490.00	62,535.13
1927	61,629.96	9,695.00	71,324.96
1928	51,563.07	7,260.00	58,823.07
1929	40,769.89	6,560.00	47,329.89
1930	40,431.11	4,730.00	45,161.11
1931	41,056.08	4,925.00	45,981.08
1932	36,253.79	4,110.00	40,363.79
1933	39,592.48	4,575.00	44,167.48
1934	42,697.81	4,405.00	47,102.81
1935	44,986.95	4,845.00	49,831.95
1936	46,186.50	6,010.00	52,196.50
1937	47,257.48	6,440.00	53,697.48
1938	39,423.87	5,540.00	44,963.87
1939	44,238.00	4,949.00	49,187.00
1940	62,745.33	5,721.00	68,466.33
1941	56,755.30	6,370.00	63,125.30
1942	63,176.07	5,299.00	68,475.07
1943	52,122.03	6,232.00	58,354.03
1944	63,412.23	6,951.00	70,363.23
1945	93,793.40	10,559.00	104,352.40
1946	98,766.72	8,591.00	107,357.72
1947	92,637.14	6,707.00	99,344.14
1948	66,939.08	6,453.00	73,392.08
1949	56,563.26	4,980.00	61,543.26
1950	65,205.44	6,255.00	71,460.44
1951	70,799.56	5,655.00	76,454.56
Totals	$1,716,426.01	$193,437.00	$1,909,863.01

Comparative Statement Showing Pelts of Fur-bearing Animals on Which Royalty Has Been Collected during the Period 1921 to 1951, Inclusive

Calendar Year	Number and Kind of Pelts on Which Royalty Has Been Collected																				Amount of Royalty Collected
	Bear	Badger	Beaver	Fisher	Fox, Silver	Fox, Cross	Fox, Red	Fox, Blue (Farmed)	Fox, Black	Fox, Platinum (Farmed)	Lynx	Marten	Mink	Muskrat	Otter	Racoon	Skunk	Squirrel	Weasel	Wolverine	
1921	2,489	.....	473	711	62	259	297	.....	.....	.....	1,240	11,128	10,693	75,185	666	2,651	361	.....	26,285	329	$24,595.80
1922	2,127	.....	26,359	536	88	356	443	.....	.....	.....	1,855	12,181	18,932	139,232	915	6,069	715	.....	24,603	298	51,093.89
1923	1,397	.....	32,212	575	114	422	650	.....	.....	.....	2,666	10,043	19,276	127,846	832	5,204	813	.....	37,408	216	60,594.18
1924	1,339	.....	24,619	627	210	920	1,281	.....	.....	.....	4,830	11,780	20,201	91,599	769	4,595	681	.....	29,878	251	56,356.68
1925	1,199	.....	18,231	524	248	1,145	1,592	.....	.....	.....	6,488	7,535	18,795	67,331	713	4,959	802	.....	25,210	208	48,737.78
1926	1,505	.....	18,478	1,038	419	2,226	2,881	.....	.....	.....	8,250	9,920	24,158	48,426	783	5,120	798	.....	30,952	325	56,045.13
1927	1,529	.....	24,418	1,149	674	2,342	2,590	.....	.....	.....	6,385	11,008	16,548	63,884	1,068	7,488	1,132	.....	38,337	502	61,629.96
1928	1,735	.....	20,662	887	573	910	1,031	.....	.....	.....	4,397	11,610	11,968	65,130	981	7,141	1,114	.....	46,782	487	51,563.07
1929	1,165	.....	14,787	749	226	1,056	1,028	.....	.....	.....	2,583	11,265	8,226	52,696	856	5,271	725	.....	67,619	323	40,769.89
1930	1,105	.....	17,137	681	150	601	579	.....	.....	.....	1,584	9,172	8,995	84,500	838	3,790	837	.....	62,630	354	40,431.11
1931	641	.....	18,123	663	267	532	539	.....	.....	.....	1,599	8,066	10,528	106,920	807	3,171	543	.....	42,893	206	41,056.08
1932	592	.....	12,624	558	917	583	644	102	.....	.....	1,273	8,750	12,977	100,509	662	3,555	640	.....	48,357	236	36,253.79
1933	281	.....	11,741	602	2,174	714	972	342	.....	.....	2,064	11,433	17,066	91,230	723	2,891	513	.....	43,321	233	39,592.48
1934	254	.....	10,826	709	2,769	1,249	1,532	232	.....	.....	3,543	9,747	21,408	127,111	770	2,419	562	.....	43,666	207	42,697.81
1935	118	.....	13,593	721	2,696	1,698	2,413	287	.....	.....	3,661	8,979	21,453	107,339	573	1,983	353	.....	34,910	227	44,986.95
1936	141	.....	14,269	760	2,910	2,165	2,662	336	.....	.....	3,507	10,071	20,362	91,591	754	2,856	408	.....	36,307	267	46,186.50
1937	472	.....	15,932	676	3,693	1,626	1,827	530	.....	.....	2,751	9,849	18,030	70,166	824	2,972	391	.....	48,043	279	47,257.48
1938	405	.....	15,291	502	3,016	672	840	560	.....	.....	1,582	8,461	20,146	76,516	596	2,278	475	.....	44,159	215	39,423.87
1939	456	.....	18,748	538	3,312	552	628	472	.....	.....	1,125	9,038	27,579	85,553	667	2,107	329	62,797	50,197	191	44,238.00
1940	200	.....	20,652	558	2,772	605	733	553	.....	.....	1,226	9,678	37,986	117,506	749	1,798	424	589,355	71,580	213	62,745.33
1941	94	.....	21,107	585	2,144	597	863	265	.....	.....	1,295	9,200	20,675	116,722	706	2,648	313	400,938	32,949	246	56,755.30
1942	92	44	18,266	1,289	2,351	1,083	1,447	354	.....	.....	1,373	8,351	43,424	89,759	485	2,125	477	672,415	57,299	196	63,176.07
1943	151	28	17,257	446	2,130	1,696	2,612	274	.....	.....	1,520	6,540	30,408	93,931	417	3,170	321	475,859	52,114	128	52,122.03
1944	234	21	18,147	685	1,902	3,234	4,688	223	2	1	2,419	11,077	39,307	88,182	721	3,546	582	379,299	32,236	209	63,412.23
1945	189	34	23,968	788	1,560	3,156	5,696	602	1	.....	3,235	11,345	35,805	88,146	685	3,238	427	471,854	34,239	260	93,793.40
1946	230	13	22,899	782	1,570	1,549	3,030	221	.....	.....	2,046	11,604	37,693	65,573	844	3,019	286	621,969	52,811	272	98,766.72
1947	209	15	20,427	814	1,599	790	993	707	.....	47	1,992	11,971	41,275	60,433	724	2,647	142	553,812	52,492	164	92,637.14
1948	173	3	15,892	731	296	327	374	22	.....	5	1,194	7,798	33,451	73,432	653	1,796	31	345,444	28,135	209	66,939.08
1949	159	.....	15,120	482	39	114	165	.....	.....	.....	580	5,950	9,249	80,678	450	1,577	11	351,598	20,769	182	56,563.26
1950	136	.....	14,822	572	39	105	120	.....	.....	.....	848	7,454	14,311	103,890	657	594	9	349,152	36,270	158	65,205.44
1951	58	.....	12,769	846	54	164	211	.....	.....	.....	1,153	12,453	17,958	86,794	807	595	4	357,733	31,402	287	70,808.06
Totals	20,875	158	549,849	21,784	40,974	33,448	45,361	6,082	3	53	80,264	303,457	688,883	2,737,810	22,695	103,273	15,219	5,632,225	1,283,853	7,878	$1,716,434.51

NOTE.—Royalty first put into effect in July, 1921.

Particulars of Various Pelts of Fur-bearing Animals on Which Royalty Has Been Paid, January 1st to December 31st, 1951

Government Agency	Number and Kind of Pelts on Which Royalty Has Been Paid															
	Bear	Beaver	Fisher	Fox, Silver	Fox, Cross	Fox, Red	Lynx	Marten	Mink	Muskrat	Otter	Racoon	Skunk	Squirrel	Weasel	Wolverine
Alberni								3								
Atlin		55			1	6	11	31	12		3			307	79	5
Burns Lake	1	480	30	2	9	5	38	174	75	1,376	17			3,038	577	2
Clinton		14	3		1	3	16		37	100	1			947	267	
Cranbrook	1	6														
Creston		6						4	1	26						
Fernie		11			1	1		26	3						5	
Golden		1								198				1		
Grand Forks	1															
Kamloops		8	1		2	1	1	2	2					19	5	1
Kelowna										55				11	11	
Lillooet								2								
Nanaimo										118						
Nelson				1	1		1	40	8					120	13	
New Westminster	1			1		5	1	4		620		1				
Pouce Coupe	21	4,952	154	7	36	62	477	1,967	648	3,460	28		1	72,620	3,007	68
Prince George	4	1,707	65	4	19	30	105	523	260	2,121	12		1	10,763	752	21
Prince Rupert	1	18	2		5	1	1	120	681		56			508	44	
Quesnel			1	1	1	2			8					527	24	
Revelstoke			1					39								
Rossland														1		
Smithers		84	39	12	27	27	24	913	138	38	4			9,831	2,079	13
Telegraph Creek		531	48	2	10	16	71	322	208	281	13			3,492	536	71
Vancouver	26	4,896	502	22	49	50	407	8,270	15,768	78,401	668	562	2	255,548	23,979	104
Vernon	2			1		1			4							
Victoria				1	2	1		7	105		5	32				
Williams Lake								6							24	2
Totals	58	12,769	846	54	164	211	1,153	12,453	17,958	86,794	807	595	4	357,733	31,402	287

List of Fur Confiscated under "Game Act," January 1st to December 31st, 1951

Date of Confiscation	Confiscated from—	Confiscated at—	Kind of Fur Confiscated						
			Beaver	Mink	Muskrat	Coyote	Racoon	Weasel	Squirrel
Jan. 9	William Quass	Hope	—	2	5	—	—	—	10
„ 9	Morris Lundgrin	Hope	—	—	2	—	—	—	4
„ 30	Steve Szabo	Abbotsford	—	—	2	—	—	—	—
„ 30	Hugh Cox	Lumby	—	—	—	—	—	1	—
Feb. 5	Ian MacKay	Agassiz	—	—	—	—	—	—	7
„ 13	M. L. Postnikoff	Appledale	1	—	—	—	—	—	—
„ 21	John Brixton	Okanagan Centre	—	1	—	—	—	—	—
Mar. 2	L. Tereshek	Giscome	—	2	—	—	—	3	2
„ 30	Edward Larson	Bella Bella	—	—	1	—	—	—	—
Apr. 17	Accidentally trapped, surrendered by Melton Z. Beam	Creston	—	2	—	—	—	—	—
„ 19	Walter Antifaev	West Summerland	—	—	4	—	—	—	—
„ 19	H. L. Clarke	West Summerland	—	1	—	—	—	—	—
May 4	D. Toodick	Fort McLeod	—	—	1	—	—	—	—
„ 21	Accidentally trapped, Helge C. From	Westbridge	2	—	—	—	—	—	—
„ 22	Thomas J. Butcher	Sointula	1	—	—	—	—	—	—
June 7	George McInroy	Kelowna	—	—	8	—	—	—	1
„ 20	Glen Maw	Armstrong	—	—	—	3	—	—	5
„ 20	Fred Kriese	Vernon	—	—	7	—	—	—	—
„ 20	A. Corsi	Copper Mountain	1	—	—	—	—	—	—
„ 26	Victor Magnos	Oliver	—	—	1	—	—	—	—
„ 26	Mrs. Don. Smith	Oliver	—	1	1	—	—	8	1
Aug. 13	A. Hagfors	Stewart	8	—	—	—	—	—	—
„ 15	Warren Poff	Powell River	1	—	—	—	—	—	—
Nov. 20	L. Farewell	Chilliwack	—	—	25	—	1	—	—
„ 22	John Frozek	Nicola	—	—	—	—	—	25	—
	Totals		14	9	57	3	1	37	30

Note.—The sum of $323.40 was received during 1951 from the sale of confiscated and surrendered fur.

LIST OF FIREARMS CONFISCATED UNDER "GAME ACT," JANUARY 1ST TO DECEMBER 31ST, 1951

Date of Confiscation	Confiscated from—	Confiscated at—	Kind of Firearms Confiscated	
			Rifles	Shotguns
Jan. 9	C. Nicholson	Hope	1	—
,, 9	G. Nicholson	Hope	1	—
,, 9	Edward Davis	Hope	1	—
,, 9	Edward Oswald	Hammond	1	—
,, 9	W. Archer	Burnaby	—	1
,, 10	L. Greenman	Canal Flats	1	—
,, 10	M. Watrich	Cranbrook	1	—
,, 10	Wm. Freisen	Sardis	1	—
,, 30	G. Bennett	Westham Island	1	—
Feb. 5	W. R. Calder	Fort Nelson	1	—
,, 13	M. Labrie	Victoria	1	—
,, 13	D. Hillier	Victoria	1	—
,, 13	A. A. Frankland	Victoria	1	—
,, 21	Wm. Ujiye	Vernon	—	1
,, 21	M. Melnichuk	Vernon	1	—
,, 21	G. Dayneault	Lumby	1	—
,, 22	Geo. Stertz	Surrey	1	—
Mar. 5	Francis Pargeter	Deer Park	1	—
,, 22	Frank Miller	Victoria	1	—
,, 22	W. Wallinger	Cloverdale	1	—
,, 30	Ronald Govier	Burnaby	1	—
Apr. 2	Arthur White	Chilliwack	1	—
,, 13	R. E. Brooks	North Vancouver	1	—
,, 18	R. B. Trauger	Fort Nelson	1	—
May 17	Alfred Hadley	Victoria	1	—
June 1	Ronald Small	Vancouver	1	—
,, 7	Charles Chapman	Burnaby	1	—
,, 7	Kenneth Rumley	Burnaby	1	—
,, 7	Raymond Hudson	Burnaby	1	—
,, 12	David Miller	Victoria	1	—
July 9	C. A. Kohlhauses	Summerland	1	—
,, 17	A. W. Bowes	Lulu Island	1	—
,, 17	F. W. Aspin	Lulu Island	1	—
,, 17	E. C. Schuss	Lulu Island	1	—
,, 27	S. Nestoruk	Langley	1	—
,, 27	V. Corbett	Langley	—	1
,, 27	G. Hay	Langley	—	1
May 31	B. Priest	Chilliwack	1	—
Aug. 15	W. Foresythe	Rutland	1	—
,, 15	H. Larsonbe	Rutland	1	—
,, 15	D. Goudie	Sooke	1	—
,, 15	R. Vowles	Sooke	1	—
,, 23	Edwin Geisler	Haney	1	—
,, 24	B. D. DeHart	Port Coquitlam	1	—
,, 24	E. J. Emperiale	Maillardville	1	—
,, 24	F. Omstead	Haney	1	—
,, 24	J. Turner	Maillardville	1	—
,, 24	F. Anderson	Haney	1	—
Oct. 23	Donald Morphet	Vancouver	1	—
,, 23	Norman Olson	Vancouver	1	—
,, 23	Raymond Foisy	Mission	1	—
,, 26	Wm. Harper	Victoria	1	—
Nov. 6	Wm. Kirkpatrick	Haney	—	1
,, 8	Jack Currie	Sardis	1	—
,, 8	Roger Kerr	Rosedale	1	—
,, 8	Fred McLaughlin	Rosedale	1	—
,, 8	Ronnie Saunders	Burnaby	—	1
,, 8	R. J. Baycroft	Innisfail, Alta.	1	—
,, 8	Harry Kjersen	New Westminster	1	—
,, 8	Ralph Robertson	New Westminster	1	—
,, 8	Oscar Robertson	New Westminster	1	—
,, 8	Geo. Sidback	New Westminster	1	—
,, 20	Wm. Duff	Vancouver	—	1
,, 20	Murray Bamford	Burnaby	1	—
,, 23	Barrie Deakin	Chilliwack	1	1
,, 23	Geo. F. Hadgins	London, Ont.	1	—
,, 27	Donald Zink	Sardis	1	—
Dec. 4	Peter Hasbon	Shelby	1	—
,, 4	Joseph LeFleur	Dewey	1	—
,, 4	Walter Scott	Ferndale	—	1
,, 4	J. H. Berg	Vancouver	1	—
	Carried forward		63	9

List of Firearms Confiscated under "Game Act," January 1st to December 31st, 1951—*Continued*

Date of Confiscation	Confiscated from—	Confiscated at—	Kind of Firearms Confiscated	
			Rifles	Shotguns
	Brought forward		63	9
Dec. 4	L. J. Hanson	Vancouver	1	----
„ 5	L. Hansen	Sidney	----	1
„ 6	I. Hansen	Vancouver	1	----
„ 6	Roy Laine	New Westminster	1	----
„ 6	W. G. Burkholder	Port Hammond	1	----
„ 13	G. R. Reilly	Port Crawford	----	1
„ 13	P. N. Plotnikoff	Slocan Park	1	----
„ 27	Parke Davis	Vancouver	1	----
„ 29	Cecil Wilson	Hazelton	1	----
„ 29	Carl Moffott	Sandspit	1	----
„ 29	C. E. Saunders	Massett	----	1
	Totals		71	12

Note.—The sum of $331.99 was received during 1951 from the sale of confiscated firearms.

Bounties Paid during the Year Ended December 31st, 1951

Government Agency	Wolves		Cougar, $20	Coyote, $4	Amount
	$40	$25			
Alberni	----	----	50	----	$1,000.00
Atlin	----	----	----	12	48.00
Barkerville	----	1	----	8	72.00
Burns Lake	131	----	3	453	5,147.00
Clinton	----	8	22	526	2,864.00
Cranbrook	----	----	25	234	1,436.00
Cumberland	----	----	93	----	1,860.00
Duncan	----	----	46	----	920.00
Fernie	----	----	3	127	568.00
Golden	2	----	16	85	710.00
Grand Forks	----	----	12	86	584.00
Kamloops	3	15	31	455	3,115.00
Kaslo	----	----	3	12	108.00
Kelowna	----	----	4	117	548.00
Lillooet	----	3	4	60	440.00
Merritt	----	----	2	451	1,844.00
Nanaimo	3	----	26	----	595.00
Nelson	----	----	18	132	888.00
New Westminster	1	----	4	23	197.00
Penticton	----	----	4	177	788.00
Pouce Coupe	153	----	----	200	4,625.00
Powell River	----	----	7	----	140.00
Prince George	186	----	3	327	6,018.00
Prince Rupert	56	----	8	17	1,628.00
Princeton	----	----	5	99	496.00
Quesnel	----	33	7	142	2,028.00
Revelstoke	----	----	1	21	104.00
Rossland	----	----	1	49	216.00
Smithers	43	----	1	56	1,319.00
Salmon Arm	----	----	6	56	344.00
Stewart	----	----	----	2	8.00
Telegraph Creek	59	----	----	44	1,651.00
Vancouver	----	----	10	48	392.00
Victoria	----	----	19	1	384.00
Vernon	----	----	20	172	1,088.00
Williams Lake	----	56	34	1,010	6,960.00
Totals	637	116	488	5,202	$51,133.00

COMPARATIVE STATEMENT OF BOUNTIES PAID FROM 1922 TO 1951, INCLUSIVE

Calendar Year	Wolves	Cougars	Coyotes	Crows	Magpies	Eagles	Owls	Amount
1922	303	372	1,092	53,443	2,246	7,095	17,625	$60,494.80
1923	162	195	1,687	.....	70	20	172	14,840.00
1924	195	173	5,175	172	.....	89	.....	20,398.40
1925	291	137	7,276	.....	.....	.....	.....	24,397.00
1926	336	183	14,070	5,770	.....	.....	.....	41,077.00
1927	344	372	20,192	10,046	2,487	.....	.....	65,377.95
1928	452	444	3,672	.....	.....	.....	1,025	50,709.25
1929	411	530	1,881	.....	.....	.....	1,389	42,122.00
1930	312	491	1,544	.....	.....	.....	403	36,090.25
1931	310	701	2,864	.....	3,427	.....	1	42,036.15
1932	.....	8	.....	.....	.....	.....	.....	80.00
1933	1	628	.....	.....	.....	.....	.....	6,285.00
1934	221	572	.....	.....	.....	.....	.....	6,825.00
1935	561	430	1,877	.....	.....	.....	.....	12,374.00
1936	837	599	1,950	.....	.....	.....	.....	20,350.00
1937	828	423	1,400	.....	.....	.....	.....	19,540.00
1938	915	384	2,094	.....	.....	.....	.....	21,018.00
1939	1,159	366	1,971	.....	.....	.....	.....	26,399.00
1940	1,659	285	2,038	.....	.....	.....	.....	23,131.00
1941	1,002	196	1,924	.....	.....	.....	.....	16,868.00
1942	1,039	261	1,546	.....	.....	.....	.....	17,397.00
1943	1,017	265	1,221	.....	.....	.....	.....	16,587.00
1944	1,321	301	1,259	.....	.....	.....	.....	20,243.00
1945	1,202	472	5,506	.....	.....	.....	.....	46,627.00
1946	932	461	2,720	.....	.....	.....	.....	22,392.00
1947	1,102	519	2,976	.....	.....	.....	.....	36,386.00
1948	1,156	725	3,911	.....	.....	.....	.....	58,344.00
1949	1,180	524	6,847	.....	.....	.....	.....	70,501.00
1950	991	395	9,822	.....	.....	.....	.....	73,688.00
1951	753	488	5,202	.....	.....	.....	.....	51,133.00
Totals	20,992	11,900	113,717	69,431	8,230	7,204	20,615	$963,710.80

Big-game Trophy Fees Paid by Non-residents, January 1st to December 31st, 1951

Government Agency	Species									Amount
	Bear, Grizzly	Bear, Black or Brown	Caribou	Deer, Coast	Deer, Mule or White-tailed	Mountain-goat	Mountain-sheep	Moose	Wapiti (Elk)	
Alberni	-----	-----	-----	1	-----	-----	-----	-----	-----	$15.00
Atlin	2	-----	1	-----	-----	3	4	5	-----	420.00
Barkerville	-----	-----	-----	-----	-----	-----	-----	3	-----	180.00
Burns Lake	4	12	-----	-----	-----	5	-----	36	-----	2,545.00
Clinton	15	55	-----	-----	250	15	6	1,018	-----	68,975.00
Cranbrook	8	5	-----	-----	22	31	11	10	36	4,690.00
Creston	-----	-----	-----	-----	1	1	-----	-----	-----	50.00
Fernie	20	13	-----	-----	18	27	8	14	48	5,810.00
Golden	11	17	1	-----	18	36	1	27	30	5,205.00
Greenwood	-----	-----	-----	-----	3	-----	-----	-----	-----	75.00
Kamloops	2	2	-----	-----	2	3	-----	7	-----	635.00
Lillooet	1	3	-----	-----	4	3	1	10	-----	890.00
New Westminster	-----	8	-----	1	12	-----	-----	21	-----	1,605.00
Oliver	-----	-----	-----	-----	32	-----	-----	40	-----	3,200.00
Pouce Coupe	22	32	43	-----	2	40	46	38	-----	6,040.00
Prince George	8	7	9	-----	2	13	8	79	-----	5,805.00
Prince Rupert	5	2	8	-----	-----	6	8	3	-----	780.00
Princeton	-----	-----	-----	-----	2	-----	-----	-----	-----	50.00
Quesnel	-----	1	-----	-----	1	-----	-----	5	-----	330.00
Revelstoke	1	1	-----	-----	-----	-----	-----	-----	-----	55.00
Smithers	3	-----	-----	-----	-----	3	-----	1	-----	285.00
Telegraph Creek	4	1	13	-----	-----	5	7	1	-----	720.00
Vancouver	4	2	-----	1	5	1	-----	5	-----	675.00
Vernon	1	-----	-----	-----	-----	-----	-----	-----	-----	50.00
Victoria	-----	-----	-----	1	-----	-----	-----	-----	-----	15.00
Williams Lake	1	3	-----	-----	18	6	1	66	-----	4,555.00
Totals	112	164	75	4	392	198	101	1,389	114	$113,655.00

PROSECUTIONS (PROVINCIAL GAME DIVISIONS), JANUARY 1ST TO DECEMBER 31ST, 1951

Description of Offence	Divisions (*See* Foot-note) "A"	"B"	"C"	"D"	"E"	Dismissals	Convictions	Total No. of Informations Laid	Fines or Penalties Imposed
Game Animals									
Allowing dogs to run or hunt deer	-----	2	-----	-----	-----	-----	2	2	$20.00
Exceeding bag-limit on game animals	-----	-----	2	-----	-----	-----	2	2	50.00
Keeping game animals in captivity	1	-----	-----	2	-----	-----	3	3	85.00
Killing, hunting, or possession of game animals of female sex	3	6	5	4	-----	-----	18	18	1,190.00
Killing or possession of game animals under one year of age	3	1	6	4	-----	-----	14	14	360.00
Killing, hunting, or possession of game animals during close season	6	20	15	1	12	-----	54	54	1,485.00
Possession of members of deer family from which evidence (sex) removed	1	-----	2	1	1	-----	5	5	160.00
Possession of untagged moose or deer	3	5	10	3	1	1	21	22	320.00
Possession of big-game animals on premises of logging camp	-----	1	2	3	-----	2	4	6	255.00
Pit-lamping or hunting game at night	-----	2	-----	5	2	2	7	9	1,700.00
Selling or buying game illegally	-----	-----	2	-----	-----	-----	2	2	200.00
Trapping moose	-----	-----	-----	1	-----	-----	1	1	10.00
Firearms									
Carrying firearms or hunting on game reserve	1	-----	-----	1	-----	-----	2	2	10.00
Carrying loaded firearms or discharging same from automobile	22	24	123	33	21	2	221	223	2,906.00
Carrying or possession of unplugged shotgun	9	-----	5	4	1	1	18	19	205.00
Discharging firearms on or across highway	-----	-----	-----	3	8	1	10	11	90.00
Minors carrying firearms unaccompanied by an adult	16	5	2	2	11	-----	36	36	194.00
Fur Trade and Trapping									
Allowing traps to remain set after close of season	-----	1	1	-----	-----	1	1	2	5.00
Baiting traps with game birds	-----	-----	-----	1	-----	-----	1	1	10.00
Exporting fur without a permit	1	-----	1	-----	-----	-----	2	2	35.00
Failing to operate trap-line within required time	-----	-----	-----	1	-----	-----	1	1	10.00
Fur-trader buying without licence or failing to keep records	2	-----	2	2	1	1	6	7	170.00
Interfering or trapping on another person's trap-line	-----	-----	5	7	5	1	16	17	375.00
Possession of untagged beaver-pelts	-----	-----	1	2	-----	-----	3	3	220.00
Possession or taking fur during close season	1	2	1	2	1	-----	7	7	135.00
Trapping or carrying traps without a licence	2	5	6	1	2	-----	16	16	420.00
Trapping on other than his own trapping area	-----	-----	1	3	-----	-----	4	4	40.00
Trapping using an assistant without a permit	-----	-----	-----	3	-----	-----	3	3	20.00
Trading in pelts without a licence	-----	-----	-----	11	-----	-----	11	11	300.00
Licences									
Non-resident carrying firearms without a licence	1	3	7	8	-----	1	18	19	760.00
Non-resident angling without a licence	4	20	19	8	-----	-----	51	51	452.50
Resident carrying firearms without a licence	41	24	86	44	103	3	295	298	3,070.00
Resident angling without a licence	47	14	69	34	58	-----	222	222	2,227.50
Migratory Game Birds									
Hunting migratory game birds during prohibited hours	6	3	-----	-----	50	2	57	59	680.00
Hunting migratory game birds from power-boat	-----	-----	1	-----	1	-----	2	2	100.00
Hunting migratory game birds with a rifle	-----	-----	1	-----	4	-----	5	5	55.00
Hunting or possession of migratory game birds during close season	2	2	1	3	10	-----	18	18	445.00
Hunting or killing swans	1	-----	-----	-----	5	-----	6	6	165.00
Upland Game Birds									
Allowing dogs to hunt game birds during prohibited time	-----	-----	5	-----	2	-----	7	7	75.00
Exceeding bag or possession limit	-----	-----	-----	-----	4	-----	4	4	450.00
Hunting upland game birds during prohibited hours	-----	-----	2	-----	1	-----	3	3	30.00
Hunting, killing, or possession of upland game birds during close season	11	3	9	7	22	-----	52	52	1,155.00
Killing pheasants with a rifle	-----	-----	-----	-----	1	-----	1	1	10.00
Possession of upland game birds with plumage removed	-----	-----	-----	-----	-----	-----	-----	-----	-----
Possession of untagged pheasants	1	-----	4	-----	3	-----	8	8	115.00
Possession of or killing hen pheasants	-----	-----	-----	-----	2	-----	2	2	50.00
Selling game birds	1	-----	-----	-----	-----	-----	1	1	10.00

PROSECUTIONS (PROVINCIAL GAME DIVISIONS), JANUARY 1ST TO DECEMBER 31ST, 1951—*Continued*

Description of Offence	Divisions (*See* Foot-note) "A"	"B"	"C"	"D"	"E"	Dismissals	Convictions	Total No. of Informations Laid	Fines or Penalties Imposed
Special Fishery Regulations									
Angling for or possession of trout during close season	-----	6	5	-----	21	-----	32	32	$287.50
Dynamiting fish	-----	-----	-----	-----	1	-----	1	1	100.00
Exceeding bag or possession limit on trout	-----	2	5	1	-----	-----	8	8	120.00
Jigging or molesting trout or salmon on spawning-grounds	2	-----	-----	3	4	-----	9	9	225.00
Possession or use of salmon-roe in prohibited area	3	-----	-----	-----	2	-----	5	5	45.00
Possession of undersized trout	1	14	7	-----	6	-----	28	28	300.00
Possession of undersized crabs	4	-----	-----	-----	-----	-----	4	4	20.00
Taking or netting kokanee without a licence	-----	-----	7	-----	-----	-----	7	7	70.00
Transporting trout from one lake to another without a permit	-----	-----	1	-----	-----	-----	1	1	75.00
Taking trout other than by angling	-----	-----	1	-----	-----	-----	1	1	75.00
Taking kokanee during close season	-----	-----	10	-----	-----	-----	10	10	100.00
Using more than one rod while angling, etc.	3	3	3	1	-----	-----	10	10	95.00
Using gear designed to catch more than one fish	-----	1	-----	1	3	-----	5	5	50.00
Miscellaneous									
Assistant guide operating without supervision	-----	-----	1	-----	-----	-----	1	1	15.00
Furnishing false information, etc.	-----	2	6	6	6	1	19	20	285.00
Guide failing to make returns	-----	1	9	-----	-----	-----	10	10	100.00
Guide failing to complete the form on the reverse side of a non-resident licence	-----	-----	4	-----	-----	-----	4	4	40.00
Guiding without a licence	1	-----	6	2	-----	1	8	9	310.00
Guiding on other than his own area	-----	-----	1	-----	-----	-----	1	1	50.00
Hunting in closed area	2	4	3	-----	13	-----	22	22	225.00
Hunting game birds with use of nydar sight	-----	-----	1	-----	-----	-----	1	1	10.00
Killing deer by use of shotgun	1	-----	-----	-----	1	-----	2	2	20.00
Killing big game on a game reserve	-----	-----	-----	-----	1	-----	1	1	100.00
Non-resident hunting big game without a guide	-----	1	10	6	-----	-----	17	17	250.00
Obstructing a Game Warden in the course of his duties	-----	-----	1	-----	-----	-----	1	1	10.00
Trespassing on enclosed land or game farm	1	-----	2	-----	6	-----	9	9	140.00
Using another person's licence or loaning same	1	-----	-----	-----	-----	-----	1	1	50.00
Using metal-cased bullet while hunting big game	-----	-----	4	-----	-----	1	3	4	30.00
Using rim-fire shells hunting big game	-----	-----	1	2	1	-----	4	4	60.00
Totals	205	177	484	226	397	21	1,468	1,489	$24,087.50

Gaol Sentences

Killing or possession of big game during close season—2, total of five months.
Interfering with a registered trap-line—3, total of seven months.
Possession of migratory birds during close season—1, thirty days.
Hunting deer at night—1, two months.

NOTE.—"A" Division: Vancouver Island area and part of Mainland. "B" Division: Kootenay and Boundary areas. "C" Division: Kamloops, Yale, Okanagan, Cariboo, and Lillooet areas. "D" Division: Atlin, Skeena, Omineca, Fort George, Peace River, and Yukon Boundary areas. "E" Division: Vancouver, Coast, and Lower Mainland areas.

HUNTING AND FISHING ACCIDENTS, 1951

Date	Name of Wounded Person	Name of Person Responsible for Accident	District	Cause of Accident	Nature of Injuries	Result of Injuries
Jan. 1	William Morgan	Self	Victoria	Fell over log with loaded .22 rifle	Bullet in calf of right leg	Not serious.
May 20	Ronald W. Neufeld	Self	Lumby	Not known	Shot in mouth with .22 rifle	Died.
June 16	James Whaley	Marie Warr	Rossland	Accidental discharge of .22 rifle while falling	Shot in back	Not serious.
Sept. 2	Wilfred Calahasen	Clifford Calahasen	Arras	Mistaken for moose	Rifle-bullet in chest	Died.
,, 21	Vern Weber	Self	Fernie	Thrown from horse (no firearms involved)	Snags punctured body	Died.
,, 22	Eddy A. Johnson	John T. Monoghan	Gold Bridge	Discharge of shotgun while unloading same	Shot in right foot	Severe wound.
Oct. 1	Howard Eckhart	Edward Crouter	Duncan	Mistaken for deer	Shot in head	Killed.
,, 6	Tuno Green	Self	Midway	Unloading .22 rifle	Bullet in left foot	Not serious.
,, 7	Edward Swoboda	Louis Swoboda	Kamloops	Stepping into line of fire	Shot in left shoulder	Not serious.
,, 8	James P. Langston	James A. Langston	Kamloops	Accidental discharge of shotgun while stumbling	Gunshot wound in left foot	Not serious.
,, 13	Harry Vater	Self	Nanaimo	Not known	Gunshot wound in head	Killed.
,, 14	Benjamin Kelly	Self	Queen Charlotte Islands	Using shotgun as a club to kill wounded bird	Shot in abdomen	Died.
,, 22	Fredrick Casimer	Self	Kamloops	Fell into creek while hunting deer	Drowned	Drowned.
,, 28	O. A. Rye	Self	Quesnel	Accidental discharge of rifle	Shot in foot	Not serious.
,, 28	Henry Hildebrand	O. A. Rye	Quesnel	Ricochet from bullet	Shot in leg	Not serious.
Nov. 1	Charles Warris	Donald McQuarrie	Powell River	Stepping into line of fire	Pellets in face and hand	Not serious.
,, 3	Jack Kuzma	John Murray	Englewood	Mistaken for a deer	Shot in head	Died.
,, 11	Robert H. Todd	George Hodgins	Kamloops	Mistaken for a deer	Shot in right arm	Not serious.
,, 18	William Bezubiak	Not known	Pitt Meadows	Hunting ducks during night flight	Received shotgun pellets in face	Not serious.
,, 24	Peter Kazakoff	Self	Salmo	Accidental discharge of rifle while falling	Shot in foot	Not serious.
,, 30	Wilbert D. Whitney	Self	Lillooet	Lost	Died from exposure	Died.
Dec. 21	John Croken	Self	Vanderhoof	Bursting of shotgun barrel when discharged	Wound in left hand	Not serious.

Summary of Game-fish Culture Distributions, Showing Eggs, Fry, and Fingerlings, 1951

Kind of Game Fish	Eggs	Fry	Fingerlings
Cut-throat trout	514,760	256,653	.....
Eastern brook trout	.....	92,000	163,853
Kamloops trout	3,238,646	3,363,227	1,665,895
Kokanee trout	1,467,000	10,000	45,989
Totals	5,220,406	3,721,880	1,875,737

Summary of Game-fish Eggs, Fry, and Fingerlings at Departmental Hatcheries, December 31st, 1951

Hatchery	Cut-throat Eggs or Fry	Eastern Brook Eggs or Fry	Kamloops Fingerlings or Fry	Kokanee Eggs or Fry
Nelson	.....	222,100	220,459	77,090
Puntledge Park	.....	.....	87,250	.....
Smiths Falls	993	.....	201,500	.....
Summerland	.....	3,365	34,732	.....
Totals	993	225,465	543,941	77,090

Summary

Eggs	5,220,406
Fry	3,721,880
Fingerlings	1,875,737
Total distributions	10,818,023
On hand at hatcheries, December 31st, 1951	847,489
Total	11,665,512

GAME-FISH CULTURE BRANCH—SUMMARY OF TROUT PLANTINGS, 1951

HATCHERY OR STATION (Particulars of Plantings or Liberations)	KIND OF FISH OR EGGS												
	Cut-throat		Eastern Brook			Kamloops			Kokanee			Hatcheries	
	Eggs	Fry	Eggs	Fry	Finger-lings	Eggs	Fry	Finger-lings	Eggs	Fry	Finger-lings	Eggs	Fry or Fingerlings
VANCOUVER ISLAND													
Puntledge Park Hatchery													
Boomerang Lake	----	----	----	----	----	----	----	10,000	----	----	----	----	----
Cameron Lake	----	----	----	----	----	----	----	20,000	----	----	----	----	----
Cedar Lake	----	----	----	----	----	----	----	500	----	----	----	----	----
Company Dam	----	----	----	----	----	----	----	6,000	----	----	----	----	----
Comox Lake	----	----	----	----	----	----	----	25,000	----	----	----	----	----
Cusheon Lake	----	----	----	----	----	----	----	5,000	----	----	----	----	----
Dog Lake	----	----	----	----	----	----	----	5,000	----	----	----	----	----
Englishman River	----	----	----	----	----	----	----	5,000	----	----	----	----	----
Extension Lakes	----	----	----	----	----	----	----	10,000	----	----	----	----	----
Farewell Lake	----	----	----	----	----	----	----	1,000	----	----	----	----	----
Great Central Lake	----	----	----	----	----	----	----	20,000	----	----	----	----	----
Horne Lake	----	----	----	----	----	----	----	20,000	----	----	----	----	----
Kemp Lake	----	----	----	----	----	----	----	20,000	----	----	----	----	----
Little Qualicum River	----	----	----	----	----	----	----	6,000	----	----	----	----	----
Long Lake	----	----	----	----	----	----	----	5,000	----	----	----	----	----
Loon Lake	----	----	----	----	----	----	----	5,000	----	----	----	----	----
Lower Campbell Lake	----	----	----	----	----	----	----	5,000	----	----	----	----	----
Mud Lake	----	----	----	----	----	----	----	500	----	----	----	----	----
Mullers Lake	----	----	----	----	----	----	----	5,000	----	----	----	----	----
Nanaimo Lakes	----	----	----	----	----	----	----	10,000	----	----	----	----	----
Prospect Lake	----	----	----	----	----	----	----	15,000	----	----	----	----	----
Quamichan Lake	----	----	----	----	----	----	----	10,000	----	----	----	----	----
Quinsam Lake	----	----	----	----	----	----	----	2,000	----	----	----	----	----
Roberts Lake	----	----	----	----	----	----	----	2,000	----	----	----	----	----
Rogers Lake	----	----	----	----	----	----	----	10,000	----	----	----	----	----
Shawnigan Lake	----	----	----	----	----	----	----	50,000	----	----	----	----	----
Somenos Lake	----	----	----	----	----	----	----	10,000	----	----	----	----	----
Sproat Lake	----	----	----	----	----	----	----	20,000	----	----	----	----	----
Thetis Lake	----	----	----	----	----	----	----	15,000	----	----	----	----	----
Upper Campbell Lake	----	----	----	----	----	----	----	2,500	----	----	----	----	----
Westwood Lake	----	----	----	----	----	----	----	10,000	----	----	----	----	----
Wolf Lake	----	----	----	----	----	----	----	10,000	----	----	----	----	----
Totals	----	----	----	----	----	----	----	340,500	----	----	----	----	----

GAME-FISH CULTURE BRANCH—SUMMARY OF TROUT PLANTINGS, 1951—*Continued*

Hatchery or Station (Particulars of Plantings or Liberations)	Kind of Fish or Eggs												
	Cut-throat		Eastern Brook			Kamloops			Kokanee			Hatcheries	
	Eggs	Fry	Eggs	Fry	Finger-lings	Eggs	Fry	Finger-lings	Eggs	Fry	Finger-lings	Eggs	Fry or Fingerlings
Lower Mainland													
Smiths Falls Hatchery													
Alouette River								20,000					
Campbell River								15,000					
Capilano River								10,000					
Coquitlam River								20,000					
Cultus Lake								100,700					
Deer Lake (Harrison)								5,000					
Deer Lake (Ioco)								10,000					
Elbow Lake								10,000					
Elsie Lake								5,000					
Hatzic Lake								10,000					
Hicks Lake								5,000					
Hope Slough								15,000					
Kawkawa Lake								7,000					
Lake of the Woods								15,000					
Little Sumas River								15,000					
Maria Slough								10,000					
Nicomekl River								15,000					
Nicomen Slough								10,000					
Rainy River								1,000					
Salmon River								15,000					
Serpentine River								15,000					
Seymour Creek								20,000					
Silver Lake								10,000					
Suicide Creek								10,000					
International Sockeye Commission								200					
A. H. Peppar (private sale)						10,000							
Totals						10,000		368,900					
Okanagan District													
Lloyd's Creek Hatchery													
Agate Bay							40,000						
Andy Lake							7,000						
Anstey Creek						50,000							
Aylmer Lake							10,000						
Beaver (Devick) Lake							10,000						
Bob Lake							5,000						
Bolean Creek						10,000							

Blind Bay	----------	----------	----------	----------	----------	----------	25,000	----------	----------	----------	----------	----------	----------
Campbell Creek	----------	----------	----------	----------	----------	----------	10,000	----------	----------	----------	----------	----------	----------
Caverhill Lake	----------	----------	----------	----------	----------	60,000	----------	----------	----------	----------	----------	----------	----------
Dairy Lake	----------	----------	----------	----------	----------	----------	5,000	----------	----------	----------	----------	----------	----------
Dewey Lake	----------	----------	----------	----------	----------	----------	5,000	----------	----------	----------	----------	----------	----------
Disdero Lake (large)	----------	----------	----------	----------	----------	----------	20,000	----------	----------	----------	----------	----------	----------
Disdero Lake (small)	----------	----------	----------	----------	----------	----------	10,000	----------	----------	----------	----------	----------	----------
Dutch Lake	----------	----------	----------	----------	----------	----------	40,000	----------	----------	----------	----------	----------	----------
Eagle Bay	----------	----------	----------	----------	----------	----------	20,000	----------	----------	----------	----------	----------	----------
Eagle River	----------	----------	----------	----------	----------	50,000	----------	----------	----------	----------	----------	----------	----------
Franks Lake	----------	----------	----------	----------	----------	----------	5,000	----------	----------	----------	----------	----------	----------
Genier Lake	----------	----------	----------	----------	----------	----------	10,000	----------	----------	----------	----------	----------	----------
Granite Creek	----------	----------	----------	----------	----------	30,000	----------	----------	----------	----------	----------	----------	----------
Grants Lake	----------	----------	----------	----------	----------	----------	5,000	----------	----------	----------	----------	----------	----------
Harper Creek	----------	----------	----------	----------	----------	25,000	----------	----------	----------	----------	----------	----------	----------
Harper Lake	----------	----------	----------	----------	----------	----------	10,000	----------	----------	----------	----------	----------	----------
Hyas Lake	----------	----------	----------	----------	----------	----------	10,000	----------	----------	----------	----------	----------	----------
Johns Creek	----------	----------	----------	----------	----------	25,000	----------	----------	----------	----------	----------	----------	----------
Johnson Lake	----------	----------	----------	----------	----------	----------	10,000	----------	----------	----------	----------	----------	----------
Kamloops Lake	----------	----------	----------	----------	----------	----------	107,500	----------	----------	----------	----------	----------	----------
Kinney Lake	----------	----------	----------	----------	----------	10,000	----------	----------	----------	----------	----------	----------	----------
Knouff Lake	----------	----------	----------	----------	----------	----------	100,000	----------	----------	----------	----------	----------	----------
Lac Du Bois	----------	----------	----------	----------	----------	----------	10,000	----------	----------	----------	----------	----------	----------
Lac le Jeune	----------	----------	----------	----------	----------	----------	50,000	----------	----------	----------	----------	----------	----------
Latremeuille Lake	----------	----------	----------	----------	----------	10,000	----------	----------	----------	----------	----------	----------	----------
Lucerne Lake	----------	----------	----------	----------	----------	30,000	----------	----------	----------	----------	----------	----------	----------
McConnell Lake	----------	----------	----------	----------	----------	----------	20,000	----------	----------	----------	----------	----------	----------
Monte Lake	----------	----------	----------	----------	----------	----------	40,000	----------	----------	----------	----------	----------	----------
Palmer Creek	----------	----------	----------	----------	----------	200,000	----------	----------	----------	----------	----------	----------	----------
Paul Lake	----------	----------	----------	----------	----------	----------	200,000	----------	----------	----------	----------	----------	----------
Pemberton Lake	----------	----------	----------	----------	----------	----------	5,000	----------	----------	----------	----------	----------	----------
Pinantan Lake	----------	----------	----------	----------	----------	----------	60,000	----------	----------	----------	----------	----------	----------
Pinaus Lake	----------	----------	----------	----------	----------	60,000	----------	----------	----------	----------	----------	----------	----------
Pine Rock Lake	----------	----------	----------	----------	----------	----------	5,000	----------	----------	----------	----------	----------	----------
Ross Creek	----------	----------	----------	----------	----------	25,000	----------	----------	----------	----------	----------	----------	----------
Salmon River	----------	----------	----------	----------	----------	50,000	----------	----------	----------	----------	----------	----------	----------
Scotch Creek	----------	----------	----------	----------	----------	100,000	----------	----------	----------	----------	----------	----------	----------
Sock Lake	----------	----------	----------	----------	----------	5,000	----------	----------	----------	----------	----------	----------	----------
Spanish Lake	----------	----------	----------	----------	----------	----------	5,000	----------	----------	----------	----------	----------	----------
Stake Lake	----------	----------	----------	----------	----------	----------	15,000	----------	----------	----------	----------	----------	----------
Summit Lake	----------	----------	----------	----------	----------	----------	10,000	----------	----------	----------	----------	----------	----------
Tuloon Lake	----------	----------	----------	----------	----------	----------	10,000	----------	----------	----------	----------	----------	----------
Tunkwa Lake	----------	----------	----------	----------	----------	----------	100,000	----------	----------	----------	----------	----------	----------
Willowgrouse Lake	----------	----------	----------	----------	----------	20,000	----------	----------	----------	----------	----------	----------	----------
Wolf Lake	----------	----------	----------	----------	----------	----------	20,000	----------	----------	----------	----------	----------	----------
Blue River Rod and Gun Club	----------	----------	----------	----------	----------	110,000	----------	----------	----------	----------	----------	----------	----------
Bulkley Valley Rod and Gun Club	----------	----------	----------	----------	----------	70,000	----------	----------	----------	----------	----------	----------	----------
Dawson Creek Rod and Gun Club	----------	----------	----------	----------	----------	60,000	----------	----------	----------	----------	----------	----------	----------
North Peace Rod and Gun Club	----------	----------	----------	----------	----------	60,000	----------	----------	----------	----------	----------	----------	----------
Prince George Rod and Gun Club	----------	----------	----------	----------	----------	150,000	----------	----------	----------	----------	----------	----------	----------

GAME-FISH CULTURE BRANCH—SUMMARY OF TROUT PLANTINGS, 1951—*Continued*

Hatchery or Station (Particulars of Plantings or Liberations)	Kind of Fish or Eggs												
	Cut-throat		Eastern Brook			Kamloops			Kokanee			Hatcheries	
	Eggs	Fry	Eggs	Fry	Finger-lings	Eggs	Fry	Finger-lings	Eggs	Fry	Finger-lings	Eggs	Fry or Fingerlings
Okanagan District—*Continued*													
Lloyd's Creek Hatchery—Continued													
Terrace Rod and Gun Club	----	----	----	----	----	50,000	----	----	----	----	----	----	----
Vanderhoof Rod and Gun Club	----	----	----	----	----	120,000	----	----	----	----	----	----	----
Loon Creek Hatchery	----	----	----	----	----	----	----	----	----	----	----	1,225,000[1]	----
Nelson Hatchery	----	----	----	----	----	----	----	----	----	----	----	150,000[1]	----
Puntledge Park Hatchery	----	----	----	----	----	----	----	----	----	----	----	300,000[1]	----
Smiths Falls Hatchery	----	----	----	----	----	----	----	----	----	----	----	250,000[1]	----
Summerland Hatchery	----	----	----	----	----	----	----	----	----	----	----	100,000[1]	----
Totals	----	----	----	----	----	1,380,000	1,014,500	----	----	----	----	2,025,000[1]	----
Penask Lake Hatchery													
Boss Lake	----	----	----	----	----	----	5,000	----	----	----	----	----	----
Cowan Lake	----	----	----	----	----	----	3,000	----	----	----	----	----	----
Crater Lake	----	----	----	----	----	----	10,000	----	----	----	----	----	----
Davis Lake	----	----	----	----	----	----	5,600	----	----	----	----	----	----
Glimpse Creek	----	----	----	----	----	25,000	----	----	----	----	----	----	----
Harmon Lake	----	----	----	----	----	----	5,000	----	----	----	----	----	----
Harvey Hall Lake	----	----	----	----	----	----	20,000	----	----	----	----	----	----
Hornet Lake	----	----	----	----	----	----	5,000	----	----	----	----	----	----
Island Lake	----	----	----	----	----	----	5,000	----	----	----	----	----	----
Jackson Lake	----	----	----	----	----	----	5,000	----	----	----	----	----	----
Loosemore Lake	----	----	----	----	----	----	5,000	----	----	----	----	----	----
Ludwig Lake	----	----	----	----	----	----	10,000	----	----	----	----	----	----
Moore Creek	----	----	----	----	----	100,000	----	----	----	----	----	----	----
Nevue Lake	----	----	----	----	----	----	5,000	----	----	----	----	----	----
Thalia Lake	----	----	----	----	----	----	10,000	----	----	----	----	----	----
Unknown lake	----	----	----	----	----	15,000	----	----	----	----	----	----	----
Cranbrook Hatchery	----	----	----	----	----	----	----	----	----	----	----	400,000[1]	----
Lloyd's Creek Hatchery	----	----	----	----	----	----	----	----	----	----	----	2,880,000[1]	----
Nelson Hatchery	----	----	----	----	----	----	----	----	----	----	----	500,000[1]	----
Totals	----	----	----	----	----	140,000	93,600	----	----	----	----	3,780,000[1]	----
Beaver Lake Hatchery													
Arlington Lake	----	----	----	----	----	----	5,000	----	----	----	----	----	----
Barb Lake	----	----	----	----	----	----	5,000	----	----	----	----	----	----
Bear Lake	----	----	----	----	----	----	15,000	----	----	----	----	----	----
Brown Lake	----	----	----	----	----	----	5,000	----	----	----	----	----	----
Buck Lake	----	----	----	----	----	----	10,000	----	----	----	----	----	----

Crooked Lake							40,000						
Dee Lake							40,000						
Deer Lake							51,000						
Doreen Lake							15,000						
Echo Lake							40,000						
Hidden Lake							10,000						
Island Lake							50,000						
McCulloch Lake							25,000						
Mabel Lake						75,000							
Mara Lake						75,000	10,000						
North Lake							5,000						
Oyama Lake							20,000						
Pats Lake							5,000						
Postill Lake							10,000						
Round Lake							10,000						
Sugar Lake						50,000							
Swan Lake							20,000						
Wallace Lake							10,000						
Wilma Lake							10,000						
Revelstoke Rod and Gun Club						95,600							
Cranbrook Hatchery												183,600[1]	
Nelson Hatchery												574,200[1]	
Summerland Hatchery												659,000[1]	
Kelowna Rearing-ponds							226,000						
Colorado State Game Commission						204,000							
Totals						499,600	637,000					1,416,800[1]	
Summerland Hatchery													
Agur Lake							5,000						
Allendale Lake							5,000						
Allison Lake								358					
Bear Lake							15,000						
Clark Lake							5,000						
Deep Creek								20,000					
Deer Lake							5,000						
Fish Lake								2,000					
Fish (Dark) Lake					18,528								
Glen Lake							10,000						
Heffley Lake								42,500					
Hyas Lake								3,200					
Island Lake							5,000						
Little Eneas Lake							5,000						
Loon (Gardom) Lake					9,000								
Mabel Lake								3,000					
Madden Lake					9,000								
Martin Lake					8,000								
Mill Creek					5,000								
Missezula Lake								20,000					
Munro Lake							5,000						
Okanagan Lake							6,480	65,794					

[1] Kamloops.

Game-fish Culture Branch—Summary of Trout Plantings, 1951—*Continued*

Hatchery or Station (Particulars of Plantings or Liberations)	Kind of Fish or Eggs												
	Cut-throat		Eastern Brook			Kamloops			Kokanee			Hatcheries	
	Eggs	Fry	Eggs	Fry	Finger-lings	Eggs	Fry	Finger-lings	Eggs	Fry	Finger-lings	Eggs	Fry or Fingerlings
Okanagan District—*Continued*													
Summerland Hatchery—Continued													
Osoyoos Lake (Oroville Sportsmen's Assn.)	----	----	----	----	----	----	60,000	----	----	----	----	----	----
Osoyoos Lake	----	----	----	----	----	----	----	13,000	----	----	----	----	----
Otter Lake	----	----	----	----	----	----	----	4,700	----	----	----	----	----
Peachland Dam Lake	----	----	----	----	----	----	----	5,000	----	----	----	----	----
Pillar Lake	----	----	----	----	----	----	----	4,000	----	----	----	----	----
Pinantan Lake	----	----	----	----	----	----	----	4,821	----	----	----	----	----
Richter Lake	----	----	----	----	----	----	----	10,000	----	----	----	----	----
Shannon Lake	----	----	----	----	----	----	----	6,000	----	----	----	----	----
Shuswap Lake	----	----	----	----	----	----	----	29,370	----	----	----	----	----
Silver Lake	----	----	----	----	----	----	5,000	----	----	----	----	----	----
Similkameen River	----	----	----	----	----	----	40,000	12,000	----	----	----	----	----
Skaha Lake	----	----	----	----	----	----	----	50,000	----	----	----	----	----
Swan Lake	----	----	----	----	----	----	----	850	----	----	----	----	----
Taylor Lake	----	----	----	----	----	----	5,000	----	----	----	----	----	----
Thompson River	----	----	----	----	----	----	----	7,500	----	----	----	----	----
Trepanier Creek	----	----	----	----	----	----	----	27,000	----	----	----	----	----
Tuc-a-Nuit Lake	----	----	----	----	----	----	----	2,000	----	----	----	----	----
Tulameen River	----	----	----	----	----	----	20,000	----	----	----	----	----	----
Twin Lakes	----	----	----	----	15,000	----	----	----	----	----	----	----	----
Wilgress Lake	----	----	----	----	----	----	----	1,000	----	----	----	----	----
Williamson Lake	----	----	----	----	----	----	----	2,000	----	----	----	----	----
Wolf Lake	----	----	----	----	----	----	----	2,500	----	----	----	----	----
W. Clifton (private sale)	----	----	----	----	----	----	----	1,000	----	----	----	----	----
H. W. Corbitt (private sale)	----	----	----	----	----	----	----	1,000	----	----	----	----	----
R. Lingford (private sale)	----	----	----	----	----	----	----	2,000	----	----	----	----	----
Princeton Rearing-ponds	----	----	----	----	----	----	----	2,000	----	----	----	----	----
Vernon Rearing-ponds	----	----	----	----	----	----	15,420	40,000	----	----	----	----	----
Cranbrook Hatchery	----	----	----	----	----	----	----	----	----	----	----	209,276[1]	----
Nelson Hatchery	----	----	----	----	----	----	----	----	----	----	----	239,927[1]	----
Totals	----	----	----	----	64,528	----	211,900	384,593	----	----	----	449,203[1]	----
Kelowna Rearing-ponds													
Woods Lake	----	----	----	----	----	----	----	15,166	----	----	----	----	----
Totals	----	----	----	----	----	----	----	15,166	----	----	----	----	----

KOOTENAY DISTRICT													
Nelson Hatchery													
Akokli (Goat) Creek						29,460							
Barrier Lake (North)									50,000				
Baynes Lake					10,000								
Bear Lake						9,820							
Beaver Creek				20,000									
Big Cayuse Creek						19,640							
Big Sheep Creek				20,000									
Bonanza Creek									75,000				
Boundary Creek						29,460							
Boundary Lake					32,180								
Box Lake							30,000						
Burton's Ponds							3,000						
Burton Lake					2,000								
Canim Lake									100,000				
Caverhill Lake									100,000				
Champion Lake								2,032					
Christina Lake							25,000	6,000					
Cluculz Lake									75,000				
Columbia River							20,000						
Conkle Lake							15,000						
Cottonwood Creek											45,989		
Crawford Creek									30,000				
Echo Lake										10,000			
Erie Lake				20,000									
Goat Creek									50,000				
Goat River									75,000				
Goat River (below canyon)						29,460							
Granby River (North Fork)							20,000						
Grohman Creek						8,732							
Halcyon Lake					3,000								
Jewel Lake								15,000					
Kalamalka Lake									50,000				
Kettle River (West Fork)						29,460							
Kettle River (above Westbridge)							10,000						
Koch Creek						9,820							
Kokanee Creek						8,733			30,000				
Kootenay Lake								15,960					
Kootenay Lake (Ainsworth)								9,000					
Kootenay Lake (Boswell)								8,000					
Kootenay Lake (Corra Linn)								7,980					
Kootenay Lake (Crawford Bay)								9,020					
Kootenay Lake (Kaslo)								8,980					
Kootenay Lake (Mirror Lake Landing)								7,980					
Kootenay Lake (Queen's Bay)								8,980					
Kootenay Lake (Sanca Creek)								7,980					
Kootenay Lake (Sunshine Bay)								1,000					
Kootenay Lake (Taghum)								7,955					

[1] Kamloops.

GAME-FISH CULTURE BRANCH—SUMMARY OF TROUT PLANTINGS, 1951—*Continued*

HATCHERY OR STATION (Particulars of Plantings or Liberations)	KIND OF FISH OR EGGS												
	Cut-throat		Eastern Brook			Kamloops			Kokanee			Hatcheries	
	Eggs	Fry	Eggs	Fry	Finger-lings	Eggs	Fry	Finger-lings	Eggs	Fry	Finger-lings	Eggs	Fry or Fingerlings
KOOTENAY DISTRICT—*Continued*													
Nelson Hatchery—Continued													
Kootenay Lake (West Arm)								18,479					
Kootenay Lake (Woodbury Creek)								7,980					
Kootenay Lake (between No. 1 and 2 plants)								7,955					
Kootenay River (Brilliant Dam)							25,000						
Lac la Hache									100,000				
La France Creek									20,000				
Lemon Creek (South Fork)							10,000						
Little Slocan Lake					20,000								
Little Sheep Creek				5,000									
Loon Lake				5,000									
Lost Creek (Salmon River)							10,000						
Lower Arrow Lake								5,000					
Lower Moyie Lake									40,000				
Meadow Creek				12,000									
Nakusp Creek						24,550							
Nine Mile Creek						8,733			20,000				
Okanagan Lake (Mission Creek)									50,000				
Pacific Biological Station									2,000				
Palmer Bar Creek				5,000									
Pass Creek							20,000						
Porcupine Creek							10,000						
Redfish Creek						8,733			20,000				
Rock Creek (Kettle River)						19,640							
Rosebud Lake					22,145								
Salmon River (North Fork)							10,000						
Seton Lake									50,000				
Shea Lake						24,550							
Shuswap Lake (Palmer Creek)									70,000				
Sitkum Creek									30,000				
Six Mile Lakes (three)							15,000						
Slocan Lake								49,980					
Slocan Pool								5,180					
Slocan River								50,000					
Squaw Creek						49,100							
Stony Lake					10,000								
Sugar Lake									50,000				
Whatshan Lakes (two)						88,980							
Wildhorse Creek				5,000									
Wilgress Lake								5,000					

Wilkinson Creek						9,820							
Wilson Lakes						39,280							
Woods Lake (Reiswig Creek)									50,000				
Xenia Lake							10,000						
F. R. Rotter (private sale)								2,000					
Federated Sportsmen, Redding, Calif.									300,000				
Nursery Waters (Salmo)							25,000						
Summerland Hatchery												106,000[2]	
Totals				92,000	99,325	447,971	258,000	267,441	1,437,000	10,000	45,989	106,000[2]	
Gerrard Hatchery													
American Creek (Trout Lake)								10,000					
Benson Creek								15,000					
Boulder Creek								15,000					
Duncan Lake								15,000					
Horsefly Creek								10,000					
Lardeau River								152,100					
Meadow Creek								15,000					
Spring Creek (Staubert Lake)									30,000				
Nelson Hatchery												1,540,000[3]	
Totals								232,100	30,000			1,540,000[3]	
Cranbrook Hatchery													
Bark Shanty Creek	22,240					24,000							
Bartholomews Lake	10,775												
Blackwater Lake							25,000						
Bull River (between dams)	20,000												
Burns Lake							10,000						
Bush Lakes						40,000							
Cartwright Lake							10,000						
Columbia Lake							10,000						
Deer Lake							20,000						
Dunbar Lake	3,000												
Dunbar, Twin, and Bott Lakes	40,600												
Echo Lake								10,000					
Edwards Lake						25,275							
Elk River		2,000											
Elk River (north of Fernie)	88,515												
Elk River (south of Fernie)	86,770												
Fish Lake	11,860												
Fish Lake (above Monroe Lake)		5,000											
Garbutts Lake						24,000							
Goat River	43,700												
Grave Lake							5,000	10,000					
Hall Lake		5,000											
Horseshoe Lake							5,000	2,000					
Jeffrey Lake		10,000											
Johnson Lake							5,000						
Lead Queen Lakes		5,000											

[2] Kokanee. [3] Cut-throat.

GAME-FISH CULTURE BRANCH—SUMMARY OF TROUT PLANTINGS, 1951—*Continued*

Hatchery or Station (Particulars of Plantings or Liberations)	Kind of Fish or Eggs												
	Cut-throat		Eastern Brook			Kamloops			Kokanee			Hatcheries	
	Eggs	Fry	Eggs	Fry	Finger-lings	Eggs	Fry	Finger-lings	Eggs	Fry	Finger-lings	Eggs	Fry or Fingerlings
KOOTENAY DISTRICT—*Continued*													
Cranbrook Hatchery—Continued													
Lillian Lake							15,000						
Little and Big Sand Creeks	20,000												
Little Rothwell Lake							3,040						
Long Lake							10,000						
Loon Lake							10,000						
Lunds Lake							5,000						
McBains Lake							10,000						
McNair Lake		5,000											
Manistee Lake							15,000						
Meacham Creek	54,750												
Michel Creek	22,295												
Mirror Lake								5,000					
Munroe Lake		51,695											
Moyie Lake	25,860							10,000					
Moyie Lake (Narrows)							15,115						
Moyie River						36,000							
Moyie River (below lakes)	29,260												
New Lake							10,000						
North Star Lake							7,500						
Paddy Ryan Lakes								8,865					
Palliser River	20,000												
Perry Creek		10,000											
Premier Lake							30,000						
Quartz Lake							4,000						
Rock Lake							7,500						
Seven Mile Lake		10,000											
Silver Springs Lake								2,000					
Skookumchuck River		25,230											
Smith Lake							20,000						
Sowerby Lake							6,000						
St. Mary Lake		24,695											
St. Mary River		14,280											
Surveyor Lake								7,180					
Tamarac Lake							4,790	2,150					
Tie Lake							10,000						
Twin Lakes							6,000						
Upper Columbia Lake						91,800							
Windermere Lake						100,000							
Wiseman Lake	15,155												

E. Linden (private sale)							500						
Fernie Rearing-ponds		28,000					5,000						
Matthew Creek Rearing-ponds		15,000											
Revelstoke Hatchery												50,000[3]	
Totals	514,780	210,900				341,075	284,445	57,195				50,000[3]	
Revelstoke Hatchery													
Beaver Lake							3,027						
Begbie Lake							3,027						
Butterball Lake							3,027						
Echo Lake							2,000						
Greely Creek							3,027						
Griffin Lake		11,514					17,850						
South Pass Creek		2,727											
Summit Lake		7,272					10,200						
Three Valley Lake		15,756					24,225						
Victor Lake		8,484					13,600						
Williamson Lake							3,027						
Totals		45,753					83,010						
CARIBOO DISTRICT													
Loon Creek Hatchery													
Alta Lake (Rainbow Creek)						30,000							
Bear Creek						30,000							
Beaverdam Lake							25,000						
Big Bar Lake							40,644						
Big Gun Lake							24,000						
Bridge Lake							100,000						
Canim Lake							99,713						
Cheakamus River						30,000							
Chimney Lake							10,000						
Crown and Turquoise Lakes							19,500						
Crystal Lake							50,000						
Davis Lake							10,000						
Deka Lake							13,737						
Eighty-three Mile Lake							10,000						
Fountain Creek						20,000							
Hathaway Lake							14,610						
Horse Lake							68,943						
Kelly Lake							20,000						
Lac la Hache							50,000						
Little Mamquam River						25,000							
Loomis Lake							21,750						
Maindley Creek (inlet)						30,000							
Maindley Creek (outlet)						20,000							
Milburn Lake							10,000						
Montana Lake							10,000						
Morgan Lake						50,000							

[3] Cut-throat.

GAME-FISH CULTURE BRANCH—SUMMARY OF TROUT PLANTINGS, 1951—*Continued*

HATCHERY OR STATION (Particulars of Plantings or Liberations)	KIND OF FISH OR EGGS												
	Cut-throat		Eastern Brook			Kamloops			Kokanee			Hatcheries	
	Eggs	Fry	Eggs	Fry	Finger-lings	Eggs	Fry	Finger-lings	Eggs	Fry	Finger-lings	Eggs	Fry or Fingerlings
CARIBOO DISTRICT—*Continued*													
Loon Creek Hatchery—Continued													
Nita Lake	----	----	----	----	----	20,000	----	----	----	----	----	----	----
Pavilion Lake	----	----	----	----	----	----	25,000	----	----	----	----	----	----
Puntchesakut Lake	----	----	----	----	----	----	23,000	----	----	----	----	----	----
Sheridan Lake	----	----	----	----	----	40,000	----	----	----	----	----	----	----
Spain Lake	----	----	----	----	----	----	21,750	----	----	----	----	----	----
Spout Lake	----	----	----	----	----	----	19,125	----	----	----	----	----	----
Spring Lake	----	----	----	----	----	----	20,000	----	----	----	----	----	----
Timothy Creek	----	----	----	----	----	50,000	----	----	----	----	----	----	----
Tyaughton Lake (Crane Creek)	----	----	----	----	----	25,000	----	----	----	----	----	----	----
Watch Lake	----	----	----	----	----	50,000	----	----	----	----	----	----	----
Williams Lake	----	----	----	----	----	----	74,000	----	----	----	----	----	----
Totals	----	----	----	----	----	420,000	780,772	----	----	----	----	----	----

STATEMENT OF VERMIN DESTROYED BY GAME WARDENS DURING THE YEAR 1951

Kind of Animals or Birds Destroyed	Game Divisions					Total
	"A"	"B"	"C"	"D"	"E"	
Animals						
Bears	1	3	40	44	3	91
Bobcats	-----	2	7	1	2	12
Cats (wild)	83	56	202	39	240	620
Cougars	40	60	14	-----	3	117
Coyotes	-----	40	316	187	3	546
Dogs (wild)	61	26	56	10	24	177
Foxes	-----	-----	2	3	26	31
Ground-hogs	-----	53	150	1	3	207
Otters	-----	-----	-----	-----	-----	-----
Racoons	40	-----	-----	1	36	78
Skunks	-----	-----	2	1	15	18
Wolves	-----	-----	14	93	-----	107
Birds						
Crows	59	238	1,087	188	712	2,284
Eagles	4	20	38	24	21	107
Hawks	15	29	159	33	64	300
Horned or snowy owls	2	12	59	27	9	109
Magpies	-----	54	580	22	5	661
Mergansers	3	25	22	1	56	107
Ravens	25	52	164	99	41	381
Starlings	-----	-----	-----	-----	7	7

Summary of Liberation of Game Birds, 1951

Area	Pheasants
Vancouver Island—	
Alberni	300
Courtenay	1,159
Ladysmith	21
Nanaimo-Parksville	972
Victoria (North and South Saanich)	1,809
Total	4,261
Lower Mainland—	
Agassiz	761
Chilliwack	2,210
Delta	1,118
Lulu Island	262
Langley	150
Matsqui	790
Mission (Hatzic)	2,731
Pitt Meadows	2,400
Sumas Prairie	1,994
Surrey	1,497
Total	13,913
Interior—	
Kamloops	90
Vanderhoof	72
Okanagan	25
Total	187

Summary

District	
Vancouver Island	4,261
Lower Mainland	13,913
Interior	187
Total	18,361

During the year 52 California quail were purchased and liberated in the South Saanich District. Two hundred and seventy-one Chukar partridge were purchased, and of these, 52 were liberated in the Kamloops district, 139 in the Oliver district, and 80 in the Savona district.

NOTE.—Total cost covering purchase of all game birds listed was $33,253.20.

STATEMENT OF GAME-BIRD FARMERS, 1951

Number and Kind of Birds on Hand as at January 1st, 1951

Pheasants	4,680
Quail	56
Partridge	117

Number and Kind of Birds Raised, 1951

Pheasants	21,421
Partridge	490

Number and Kind of Birds Purchased, 1951

Pheasants	449

Number and Kind of Birds Sold, 1951

Pheasants	19,798
Quail	54
Partridge	282

Number and Kind of Birds Killed, 1951

Pheasants	2,412

Number and Kind of Birds on Hand, December 31st, 1951

Pheasants	4,340
Quail	2
Partridge	325

NOTE.—During the year 1951 there were 128 licensed game-bird farmers in the Province, but during the year 1951 thirty-six of these farmers discontinued business. There were three *nil* returns, and three farmers did not submit returns. Game-bird bands sold to licensed game-bird farmers during the year 1951 amounted to $213.10 (2,131 bands at 10 cents each).

MISCELLANEOUS REVENUE, 1951

Sale of Lists of Various Licence-holders, etc.

54 Game Convention minutes at 75 cents per copy	$40.50
2,131 game-bird bands at 10 cents each	213.10
288 trap-line registration fees	720.00
1,376 game maps at 10 cents each	137.60
Proceeds, sale of trout eggs	78.00
Proceeds, export of live fur-bearing animals	145.00
Proceeds, permits to export game meat	120.00
Proceeds, fee for tagging deer and moose hides	122.50
Proceeds, sale of three fur-traders' lists	4.50
Total	$1,581.20

LIST OF GUIDES AND NON-RESIDENT OUTFITTERS, 1951

Definition of Guide Licence Classifications

A First-class Guide shall be one who has acted as a guide in the Province for a period of at least three years in the ten years immediately preceding his application for a guide's licence and who has suitable equipment for outfitting any person desiring to hunt game.

A Second-class Guide shall be one who has acted as a guide in the Province for a period of at least three years in the ten years immediately preceding his application for a guide's licence, but who cannot qualify as a First-class Guide.

An Assistant Guide shall be one who cannot qualify as either a First-class or Second-class Guide, and shall be entitled to act as a guide in the hunting of game birds or in angling for trout, and after securing a permit so to do from the Game Commission, when employed by or under the supervision of a First- or Second-class Guide, to guide big-game hunters.

Lower Mainland Coast and Fraser Valley, Vancouver Island, and Coastal Mainland to Prince Rupert

Name and Address of Guide	Class of Licence
Alsdorf, William, Campbell River	2nd
Brimacombe, Herbert, Stuart Island	2nd
Brynildsen, Gus Alger, Bella Coola	2nd
Dick, Gilbert Lyle, Massett, Q.C.I.	2nd
Flesher, Eric Reed, Phillips Arm	2nd
Gilbert, Walter, P.O. Box 290, Chilliwack	2nd
Hancock, Arthur C., Lake Cowichan	1st
Hancock, Joseph A., Lake Cowichan	1st
Johnson, Oskar, Allison Harbour	1st
Leith, Robert E., Pender Harbour	2nd
Lindsay, George, Massett, Q.C.I.	2nd
Mack, Clayton, Bella Coola	1st
Marshall, Donald, Campbell River	2nd
Nichols, Caesar K., Sayward	2nd
Nygaard, Martin, Bella Coola	1st
Palliser, William, Box 466, Lake Cowichan	2nd
Parkin, Alvin, Campbell River	2nd
Robertson, George R., 2329 Blanshard St., Victoria	2nd
Skuce, Herbert, Ocean Falls	2nd
Stanton, James R., Minstrel Island	1st
Wells, Gordon, Sardis	1st
Wells, Ray, Cultus Lake	1st
Wilson, Jack, Port Alberni	2nd

Revelstoke-Sicamous-Salmon Arm-Vernon Districts

Name and Address of Guide	Class of Licence
Armstrong, Melvin, Sorrento	2nd
Cullis, H., Taft	2nd
Daney, Selden M., Ferguson	1st
DeSimone, Samuel H., Revelstoke	1st
Durrand, W. D., Revelstoke	2nd
Engler, John, Lumby	2nd
Gardiner, Robert, Albas	1st
Hanson, Chas. E., Cherryville	2nd
Laforme, George W., Revelstoke	1st
Mobley, Charles W., Tappen	2nd
Mobley, Howard, Salmon Arm	1st
Nelson, Eric A., Revelstoke	1st
Potts, Bill, Sorrento	2nd
Small, Roy G., Trout Lake	1st
Softing, Berger, Lumby	2nd
Werner, Carl, R.R. 1, Lumby	2nd

Cassiar District (Telegraph Creek-Atlin District)

Name and Address of Guide	Class of Licence
Asp, Phillip, Telegraph Creek	2nd
Carlick, Thomas D., Telegraph Creek	2nd
Carlick, Walter, Telegraph Creek	2nd
Clever, Gene B., Bennett	2nd
Dennis, Alex, Telegraph Creek	2nd
Dennis, John Creyke, Telegraph Creek	1st
Dennis, Thomas, Telegraph Creek	2nd
Frank, Benny, Telegraph Creek	2nd
Frank, Edward, Telegraph Creek	2nd
Gleason, Henry, Telegraph Creek	1st
Jack, Alex, Telegraph Creek	2nd
Jackson, Richard, Telegraph Creek	2nd
Johnson, Harry, Atlin	2nd
Nyman, Robert, Atlin	2nd
Pedersen, Herman M., Atlin	2nd
Tashoots, Frank Pete, Telegraph Creek	2nd
Tashoots, Jack Pete, Telegraph Creek	2nd

West Kootenay (Including Creston-Nelson-Slocan-Kootenay-Arrow and Trout Lakes Districts)

Name and Address of Guide	Class of Licence
Cummings, Arnold, Boswell	2nd
Currie, Haskett S., Ainsworth	2nd
Drummond, James, Burton	2nd
Flick, Charles, Edgewood	2nd
Hallgren, Sven, Ainsworth	1st
Koch, Charles A., Sanca	2nd

West Kootenay (Including Creston-Nelson-Slocan-Kootenay-Arrow and Trout Lakes Districts)—*Continued*

Name and Address of Guide	Class of Licence
MacNicol, J. W., Johnson's Landing	2nd
Newbrand, Emil, Box 109, Nakusp	2nd
Oliver, George J., Gray Creek	2nd
O'Neil, Richard, Sirdar	2nd
Robson, L.A., Box 104, Nakusp	2nd
Rodgers, Floyd C., Creston	1st
Schwartzenhauer, Carl, Deer Park	2nd

Grand Forks-Greenwood (Including Kettle Valley)

Name and Address of Guide	Class of Licence
Anschetz, Chris, Rock Creek	2nd
Armstrong, Allan Carew, Keremeos	2nd
Bohnet, James, Rock Creek	2nd
Bradshaw, Geo. A., Westbridge	2nd
Carey, Bertram C., Rock Creek	2nd
Carey, Joe F., Westbridge	2nd
Clark, Herbert Gerald, Keremeos	1st
From, Helge, Westbridge	2nd
From, Oliver, Westbridge	2nd
Gold, Robie Booth, Osprey Lake	2nd
Haddrell, George H., West Summerland	1st
Hall, D. E., Westbridge	2nd
Lewis, James William, Princeton	1st
Lutner, E. C., Beaverdell	2nd
McLean, Gordon A., Okanagan Falls	2nd
Manion, William Bartlett, Tulameen	2nd
Smith, Howard J., Westbridge	2nd
Tower, Stanley, Princeton	2nd
Wright, Brian (Pat), Princeton	2nd

Kamloops District (Including Savona-Bonaparte Lake-Clearwater-Vavenby)

Name and Address of Guide	Class of Licence
Archibald, D. A., Clearwater	2nd
Blackman, William, Valemount	2nd
Boule, James, Savona	1st
Brousseau, Clifford, Savona	1st
Burdett, George, Savona	1st
Burdett, Loretta, Savona	2nd
Cahoon, Charles, Clearwater	2nd
Carter, Cecil, Black Pool	2nd
Clearwater, Ralph, Westsyde	2nd
Cochran, Marvin, Darfield	2nd
Comeau, William Rufus, Savona	1st
Cooper, Norman T., Savona	2nd
Cooper, Phillip, Westsyde	1st
Dunlop, William, Barriere	2nd
Ellis, Douglas K., Kamloops	2nd
Farquharson, James, Kamloops	2nd
Fennell, A. C., Chu Chua	2nd
Gourlay, James, Barriere	1st
Grant, Gordon, McLure	1st
Hagen, Harry, Barriere	2nd
Helset, Ted, Clearwater	1st
Hogue, Henry, Clearwater	2nd
Hoover, Eldred, General Delivery, Kamloops	1st
Humphrey, A. C., Knutsford	2nd
Johnson, Jack, Savona	2nd
Kipling, John, R.R. 1, Heffley Creek	2nd
Korsvick, George, Valemount	2nd
LaFave, George, Louis Creek	2nd
LaFave, John, Louis Creek	1st
Latremouille, Joseph, Little Fort	1st
Lean, Theodore, Clearwater	1st
Lloyd, William, Red Lake	2nd
Loveway, Thomas, Little Fort	2nd
Ludtke, Lawrence, Clearwater	1st
McDiarmid, Garfield, Clearwater	1st
McGarigle, W. J., Little Fort	2nd
Marriott, Robert, Heffley Creek	2nd
Mason, Allan, 2544 Columbia St., Vancouver	2nd
Miller, Robert, Blue River	1st
Morton, Alfred, McLure	1st
Murray, George E., Savona	1st
Neighbour, Hersch, Tête Jaune	1st
Nelson, Gerald, Black Pines	2nd
Palmer, William F., Darfield	2nd
Perry, Samuel, Kamloops	2nd
Petell, Seymour, Savona	2nd
Rainer, Karl, Darfield	2nd
Sand, Martin, Vavenby	2nd
Scott, Duncan, Barriere	1st
Small, Reg., Clearwater	2nd
Thacker, George, Walhachin	2nd
Turner, John, Criss Creek	2nd
Tuson, Clifford, Copper Creek	1st
Welland, John, Red Lake	2nd
Whittaker, John, Lac la Jeune	2nd

Peace River (Including Fort Nelson, Fort St. John, Lower Post, and Pouce Coupe)

Name and Address of Guide	Class of Licence
Beattie (Sr.), Robert, Hudson Hope	2nd
Beattie, Robert, Gold Bar	2nd
Belcourt, Clarence, Big Slough (Mt. Valley P.O., Alta.)	2nd
Brown, Wesley J., Mile 175, Fort St. John	1st
Calliou, John, Kelly Lake (Goodfare P.O., Alta.)	2nd
Callison, Dennis W., Fort Nelson	1st
Callison, E. O., Mile 422, Alaska Highway	1st
Cameron, Patrick, Moberly Lake	1st
Courvoisier, Henry C., Fort Nelson	1st
Dahl, Joel O., Fort Nelson	1st
Davidson, John O., Lower Post	1st
Dhenin, Rene G., Fort St. John	1st
Durney, Milo, East Pine	1st
Edzerza, George, Lower Post	1st
Elden, Otto, Little Prairie	2nd
Forfar, E. C., Lower Post	2nd
Garbitt, Theophile S., Moberly Lake	1st
Gibson, Harry, Dawson Creek	2nd

Peace River (Including Fort Nelson, Fort St. John, Lower Post, and Pouce Coupe)—*Continued*

Name and Address of Guide	Class of Licence
Gladu, Isadore, Kelly Lake (Goodfare P.O., Alta.)	2nd
Golata, Francis W., Dawson Creek	1st
Hambler, Albert, Kelly Lake (Goodfare, P.O., Alta.)	2nd
Hambler, Joseph, Kelly Lake (Goodfare P.O., Alta.)	1st
Haralson, Lorne M., Fort Nelson	1st
Horseman, Narcissé, Kelly Lake (Goodfare P.O., Alta.)	1st
Johnston, Freddie, Teslin Lake, Y.T.	2nd
Kruger, William, Hudson Hope	2nd
Larson, Albin, Fort Nelson	1st
Letendre, James, Kelly Lake (Goodfare P.O., Alta.)	2nd
Letendre, Roland, Kelly Lake (Goodfare P.O., Alta.)	2nd
Longhurst, William J., Mile 147, Fort St. John	1st
McDonald, Charlie, Fort Nelson	2nd
MacLean, Arthur J., Fort St. John	1st
McLean, William, Little Prairie	1st
Millar, William E., Fort St. John	2nd
Mould, Thomas J., Fort Nelson	1st
Paquette, Morris, Moberly Lake	1st
Peck, Donald R., Mile 200, Fort St. John	1st
Powell, Gary J., Hudson Hope	2nd
Ross, James A., Mile 147, Fort St. John	1st
Rutledge, Leo., Hudson Hope	1st
Simpson, William H., Fort St. John	2nd
Suprenant, John, Kelly Lake (Goodfare P.O., Alta.)	2nd
Varley, Jim, Coal River	2nd
Wanyandie, Paul, Big Slough (Mt. Valley P.O., Alta.)	2nd
Warn, William, Groundbirch	2nd
Young, Andrew, Box 871, Dawson Creek	2nd
Young, Louis, Dawson Creek	2nd

Prince George District "A" (Prince George East to Jasper)

Name and Address of Guide	Class of Licence
Bricker, William, South Fort George	1st
Brooks, George, South Fort George	1st
Buchanan, Edward G., South Fort George	2nd
Carr, Stan J., Tête Jaune	1st
Corless (Jr.), Richard F., Prince George	1st
Crate Lloyd, Lucerne	2nd
Dale, Joseph T., Woodpecker	2nd
Gaugh, Allen H., Prince George	1st
Gray, Jack, Prince George	2nd
Hansen, Anund, Hansard	1st
Hansen (Jr.), Anund, Hansard	2nd
Hargreaves, Roy F., Mount Robson	1st
Hale, Stan, Dome Creek	2nd
Henry, Walter J., Prince George	1st
Hobe, Henry, Hansard	2nd
Hooker, James B., Dome Creek	1st
Jensen, Arne, Dome Creek	2nd
Jensen, Ernest H., Dome Creek	1st
Lonsdale, Freeman E., McBride	2nd
Miller, Delmer N., Prince George	1st
Mintz, Arthur J., Tête Jaune	2nd
Monroe, Everett A., McBride	2nd
Sande, W. J., Sinclair Mills	1st
Shovar, Dorrell T., McBride	2nd
Simmons, Herbert, Prince George	2nd
Vansomer, James R., Prince George	2nd
Witter, Henry L., Prince George	2nd
Zlotucha, Antoni, Prince George	2nd

Prince George District "B" (West from Prince George to Terrace, Including Fort McLeod and Fort Grahame)

Name and Address of Guide	Class of Licence
Beaver, Albert E., Ootsa Lake	2nd
Bennett, Vernon, Southbank	2nd
Benson, Allen, Hazelton	1st
Berghammer, Joe, Fort Grahame	2nd
Braaten, Edwin, Southbank	2nd
Brown, John S., Burns Lake	2nd
Campbell, Theodore Blair, Hazelton	2nd
Cook, Ted, Vanderhoof	1st
Craker, Ronald J., North Bulkley	2nd
Davidson, Charlie B., Vanderhoof	1st
Donald, Jimmy, Burns Lake	2nd
Evans, William Robert, Vanderhoof	2nd
Fletcher, Allen Eugene, Smithers	2nd
Foote, Charles H., Fraser Lake	2nd
Gardiner, William C., Smithers	1st
George, Thomas Seymour, Telkwa	2nd
Gilliland, Donald Wallace, Germansen Landing	2nd
Grainger, Barry, Noralee	2nd
Harding, Clifford R., Fort St. James	2nd
Harrison, Bryan R., Wistaria	1st
Harrison, Robt. Owen, Wistaria	1st
Haugen, Karl, Germansen Landing	2nd
Henry, Stanley B., Ootsa Lake	1st
Henson, Frank, Marilla	1st
Hipp, Anthony J., Terrace	2nd
Hobson (Jr.), R. P., Vanderhoof	2nd
Johnson, George M., Vanderhoof	2nd
Johnson, Howard T., South Fort George	2nd
Johnson, John H., Isle Pierre	2nd
Johnson, John Kornelius, Fort St. James	1st
Knox, John, Ootsa Lake	1st
Kohse, Louis, Vanderhoof	2nd
Lee, John Thomas, Hazelton	1st
Leon, Paddy, Topley	2nd
Lord, Walter H., Tchesinkut Lake	2nd
Loss, Helmer F., Topley	2nd
McConachie, H. R., Fort St. James	1st
McNeill, Clifford, Ootsa Lake	1st
McNeill, John W., Ootsa Lake	1st
Meier, John, Hulatt	2nd
Menard, Gerard, Nithi River	2nd
Moran, Thomas E., Vanderhoof	2nd
Morgan, James E., Ootsa Lake	1st
Munger, Francis W. R., Houston	2nd
Murray, Ronald A., Fort St. James	2nd
Nelson, George Wm., Vanderhoof	1st
Nelson, J. N., Clemretta	2nd

PRINCE GEORGE DISTRICT "B" (WEST FROM PRINCE GEORGE TO TERRACE, INCLUDING FORT MCLEOD AND FORT GRAHAME)—*Continued*

Name and Address of Guide	Class of Licence
Pease, Clarence A., Nithi River	1st
Plowman, Clarence, Endako	2nd
Prince, Alex, Fort St. James	2nd
Prince, Dixon, Fort St. James	2nd
Prince, Teddy, Fort St. James	2nd
Rehill, Manlie, Ootsa Lake	1st
Seyfarth, Joe, Fort St. James	2nd
Shea, James Bartholemew, Telkwa	1st
Smith, Craig H., Fort St. James	1st
Smith, George A., Vanderhoof	2nd
Stevenson, D. G. H., Burns Lake	2nd
Vantine, Edward, Ootsa Lake	1st
Vanzantine, James H., Francois Lake	2nd
Walker, Thomas A., Fort St. James	1st
Wheeler, Wm. A., Burns Lake	2nd
Wiley, Alvin John, Southbank	2nd
Winsor, Wm. J., Isle Pierre	2nd

CARIBOO DISTRICT "A" (100-MILE HOUSE SOUTH TO ASHCROFT, INCLUDING LILLOOET)

Name and Address of Guide	Class of Licence
Baker, James A., Ashcroft	2nd
Baker, R. M., 70-Mile House	1st
Barker, A. S., Fawn P.O.	2nd
Bishop, James, Clinton	1st
Bissette, Arthur, Ashcroft	2nd
Bones, Alex, Clinton	1st
Bones, Peter, Clinton	1st
Bones, Theresa, Clinton	2nd
Brooke, H. A., Cache Creek	2nd
Camille, Francis, 83-Mile House	2nd
Chabara, Anna, 70-Mile House	2nd
Christy, Frank, Moha	2nd
Christy, Thomas, Moha	2nd
Cleveland, J. G., Bridge Lake	1st
Cleveland, L. C., Bridge Lake	1st
Cleveland, R. C., Bridge Lake	1st
Coldwell, H. W., Jesmond	1st
Cunningham, C. B., Bralorne	1st
Dean, J. C., R.R. 1, Fawn	2nd
Dougherty, Charles A., Clinton	1st
Dougherty, E. C., Clinton	1st
Dyer, Guy H., 70-Mile House	2nd
Eden, Don D., 70-Mile House	2nd
Eden, R. B., 70-Mile House	2nd
Faessler, Charles T., Fawn P.O.	1st
Fenton, Walter, Big Bar Creek	1st
Flaherty, R. J., 93-Mile House	1st
Forde, H. D. W., Clinton	2nd
Fowler, Norman A., Clinton	2nd
Gaines, Clinton, Fawn P.O.	2nd
Gammie, Bert, 70-Mile House	1st
George, Henry, Cache Creek	2nd
Graf, Joe, Fawn P.O.	2nd
Graf, Mike, Fawn P.O.	1st
Grice, Percy, 70-Mile House	2nd
Grinder, Bert, Clinton	2nd
Grinder, Isidore, Clinton	1st
Grinder, J., Jesmond	1st
Grinder, Mrs. L., Clinton	2nd
Grinder, Walter, Big Bar Creek	1st
Grypuik, S., Cache Creek	2nd
Hall, M., R.R. 1, Fawn	1st
Hannah, L. B., Clinton	2nd
Hansen, John F., Bridge Lake	1st
Hansen, Wesley B., Bridge Lake	2nd
Hendricks, Ike, Ashcroft	2nd
Higginbottom, Alfred, Jesmond	1st
Higgins, Cecil, Fawn P.O.	1st
Higgins, Ed., Fawn P.O.	1st
Higgins, Marion, Bridge Lake	1st
Higgins, Ronald, R.R. 1, Fawn	1st
Hodges, E. W., Fawn P.O.	1st
Horn, Walter A., 70-Mile House	2nd
Houseman, J. J., 100-Mile House	1st
Huckvale, James, Fawn P.O.	1st
Hunter, M., Ashcroft	2nd
Johnson, Claude, Bridge Lake	1st
Johnson, J. A., 100-Mile House	2nd
Johnson, Zale A., Bridge Lake	1st
King, C. Jack, R.R. 1, Fawn	2nd
King, Gordon, R.R. 1, Fawn	2nd
Knauf, H. G., Fawn P.O.	1st
Krebs, Len., 100-Mile House	1st
Louis, Freddie, Canoe Creek (Jesmond)	1st
Langley, A. L., 70-Mile House	2nd
Larson, Jack O., Bridge Lake	1st
Larson, Karel J., Fawn P.O.	2nd
Larson, L. L., Fawn P.O.	1st
Leavitt (Jr.), F. W., Fawn P.O.	1st
Lebourdais, Joe, Clinton	2nd
Lehman, Bert, Lillooet	2nd
Levick, John S., Fawn P.O.	1st
Loring, Edwin, Clinton	1st
Louie, Freddie, Canoe Creek	1st
Louis, Garvey, Jesmond	2nd
Louis, Victor, Canoe Creek	2nd
MacLean, D., Fawn	2nd
McMahon, Jesse C., 70-Mile House	1st
McNeil, B. S., Fawn P.O.	1st
McNeil, H. M., Fawn P.O.	1st
Mackie, James, R.R. 1, Fawn	1st
Madden, E. E., Cache Creek	2nd
Mathewson, A. E., Ashcroft	2nd
Matier, J. H., Clinton	1st
Mobbs, B. H., 70-Mile House	2nd
Mooring, Alex, Fawn P.O.	1st
Nath, Carl J., Fawn P.O.	2nd
Nordgren, Jonas, Fawn P.O.	2nd
O'Keefe, Wm., Shalalth	1st
Olafson, H. J., R.R. 1, Fawn	2nd
Oleman, Patrick, Shalalth	2nd
Osterlund, Ed., Moha	2nd
Parent, S. J., Fawn P.O.	2nd
Park, Arlie H., 70-Mile House	2nd
Park, Jack, 70-Mile House	1st
Parkes, L. G., 70-Mile House	2nd
Perault, J., Jesmond	2nd
Petrie, Donald, Bridge Lake	1st
Pierro, Johnny, Cache Creek	2nd
Pigeon, A., Clinton	2nd
Pigeon, C. L., Clinton	1st
Pigeon, J. R., Clinton	1st
Pollard, J. H., Clinton	1st
Powell, H. J., R.R. 1, Fawn	1st
Powell, T. G., R.R. 1, Fawn	1st
Reinertson, R. J., 70-Mile House	2nd

Cariboo District "A" (100-Mile House South to Ashcroft, Including Lillooet)—*Continued*

Name and Address of Guide	Class of Licence
Roberts, R. V., Fawn P.O.	1st
Scheepbower, Jacob A., 70-Mile House	2nd
Scheepbower, John C., 70-Mile House	2nd
Scheepbower, William, 70-Mile House	2nd
Scott, Doug., 100-Mile House	1st
Sedman, John E., R.R. 1, Fawn	2nd
Siebert, John, Jesmond	2nd
Singleton, Fred, Fawn P.O.	2nd
Thomason, D. M., Bridge Lake	1st
Thorsteinson, Charles, 93-Mile House	2nd
Umphrey, S. T., Fawn P.O.	2nd
VanHorlick, Buster, Clinton	2nd
Vecqueray, R. J., Clinton	1st
Vecqueray, Ted, Clinton	2nd
Walsh, F. C., 70-Mile House	2nd
Watt, James D., Clinton	2nd
Watt, Lloyd, Ashcroft	2nd
Whitley, W. P., 70-Mile House	2nd
Wilkinson, T. H., Fawn P.O.	2nd
Winteringham, Frank, R.R. 1, Fawn	2nd
Womack, C. B., Fawn P.O.	1st
Wrigley, E. W., 70-Mile House	2nd
Young, William, Clinton	2nd

Cariboo District "B" (100-Mile House to Williams Lake and Marguerite and East of Fraser River)

Name and Address of Guide	Class of Licence
Abram, A. E., Lac la Hache	2nd
Archie, George, Buffalo Creek	1st
Archie, Jacob, Canim Lake	1st
Archie, Sam, Buffalo Creek	2nd
Ash, Chris, Big Lake	2nd
Asserlind, H. C. F., Keithley Creek	2nd
Atkin, Daniel, Horsefly	2nd
Barrett, Stan, Horsefly	2nd
Bayne, Dr. A., Canim Lake	2nd
Bob, Edward, Canim Lake	1st
Bothwick, Hector, Forest Grove	2nd
Bowe, Alfred, Williams Lake	2nd
Charlie, Jimmy, Forest Grove	2nd
Christopher, David, Canim Lake	2nd
Christopher, Peter, Canim Lake	2nd
Curtis, Rae, Williams Lake	2nd
Daniels, George, Canim Lake	2nd
Decker, English, Forest Grove	2nd
Dick, Mathew, Alkali Lake	2nd
Dingwall, William, Wright Station	2nd
Dixon, Morris, Lac la Hache	2nd
Eagle, C. B., Lac la Hache	1st
Gibbons, M. L., Horsefly	1st
Goetgen, C. E., Horsefly	1st
Graham, John, Horsefly	2nd
Graham, W. James, Horsefly	2nd
Greenlee, E. L., Canim Lake	1st
Gunn, John, Horsefly	1st
Haller, August, Lac la Hache	2nd
Hamilton, G., Williams Lake	2nd
Hamilton, H. M., Lac la Hache	1st
Hamilton, Pete, Williams Lake	2nd
Hamilton, R. M., Williams Lake	2nd
Hamilton, Theodore, Lac la Hache	1st
Hamilton, Tom, Williams Lake	2nd
Hinsche, Frederick, 150-Mile House	2nd
Hockley, George, Horsefly	1st
Hooker, F. C., Horsefly	1st
Hooker, Percy F., Horsefly	2nd
Hooker, S. B., Horsefly	1st
Hubbard, I. H., Horsefly	1st
Jacobson, John, Big Lake	2nd
Jefferson, Jesse, Big Lake	2nd
Jenner, Ernest, Horsefly	1st
Johnson, Floyd, 150-Mile House	2nd
Jones, Frederick E., Horsefly	1st
Jones, Lawrence, Horsefly	2nd
Junek, Adolph, Horsefly	2nd
Lord, Ed., Buffalo Creek	2nd
McBurney, Aubrey, Keithley Creek	2nd
McDougall, Robert, Big Lake	1st
Mitchell, Sam, Williams Lake	2nd
Morgan, Dallas, Likely	1st
Morris, D. L., Forest Grove	1st
Nicol, A., Horsefly	1st
Nicol, Shelley, Horsefly	1st
Oak, E., Horsefly	2nd
Paxton, H. E., Macalister	2nd
Petrowitz, Arthur, 150-Mile House	1st
Pinkney, Robert, Canim Lake	1st
Pulver, George, Williams Lake	1st
Racher, W. J., Horsefly	1st
Robertson, Kenneth, Miocene	2nd
Roper, Alf., Forest Grove	1st
Sharp, William, Ochiltree	2nd
Thygesen, Julius, Horsefly	1st
Vaness, John, Horsefly	1st
Walters, Glenn Henry, Horsefly	1st
Walters, Leonard, Horsefly	1st
Webster, Alister, Horsefly	2nd
Westwick, Burton, Williams Lake	1st
Westwick, Lawrence, 150-Mile House	2nd
Wiggins, H. W., Miocene	2nd
Williams, Aubrey, Horsefly	1st
Williams, Mrs. Thelma, Horsefly	2nd
Wotzke, Herb., Williams Lake	2nd
Wynstra, Jack, Horsefly	2nd

Cariboo District "C" (Quesnel-Barkerville from Marguerite North)

Name and Address of Guide	Class of Licence
Allan, George H., Quesnel	1st
Armstrong, Wilfred, Quesnel	2nd
Cochran, James Dean, Barkerville	1st
Coldwell, Harry B., Punchaw	2nd
Ellison, Ray, Quesnel	2nd
Forster, Herbert H., Quesnel	1st
Harrington, George A., Quesnel	1st
Heaton, William Frank, Narcosli Creek	1st
Hortness, Sigurd, Cinema	2nd
Knudson, Leonard E., Quesnel	2nd

CARIBOO DISTRICT "C" (QUESNEL-BARKERVILLE FROM MARGUERITE NORTH)—*Continued*

Name and Address of Guide	Class of Licence
Laurent, Louie, Nazko	2nd
Lavington, Arthur C., Nazko	1st
Lavington, Harold A., Quesnel	1st
Lovie, George C., Batnuni Lake	2nd
McKenzie, James, Cinema	1st
McKitrick, Roy Douglas, Wells	1st
McKort, Clarence C., Alexandria	1st
Martin, George, Bowron Lake	2nd
Miller, Isaac Edward, Punchaw	1st
Moffat, Ronald H., Alexandria	1st
O'Leary, Arthur, Quesnel	1st
Orr, William M., Chilliwack	2nd
Paley, Robert G., Quesnel	1st
Quanstrom, Carl, Quesnel	2nd
Quanstrom, Harry, Quesnel	1st
Quanstrom, Julius, Quesnel	2nd
Rawling, Arden L., Quesnel	2nd
Rogers, Alfred, Moose Heights	2nd
Sorum, Erick, Quesnel	2nd
Tibbles, Fred, Quesnel	1st
Williams, Byron, Bowron Lake	2nd

CARIBOO DISTRICT "D" (CHILCOTIN DISTRICT, CARIBOO WEST OF FRASER RIVER)

Name and Address of Guide	Class of Licence
Blatchford, John A., Alexis Creek	1st
Bliss, Bill, Alexis Creek	1st
Bobb, E. R., Marguerite	2nd
Brebner, R. W., Alexis Creek	2nd
Bryant, Alfred, Anahim Lake	1st
Bullion, Jimmy, Hanceville	2nd
Butler, Leonard, Tatla Lake	2nd
Capoose, Oggie, Anahim Lake	2nd
Cheta, George, Alexis Creek	2nd
Cheta, Johnnie, Alexis Creek	2nd
Church, Dick, Big Creek	1st
Collier, Eric, Meldrum Creek	2nd
Dester, Baptiste, Kleena Kleene	1st
Dorsey, Lester, Anahim Lake	1st
Edwards, Ralph A., Hagensborg	2nd
Elkins, Joe, Alexis Creek	2nd
Elkins, Thomas, Alexis Creek	1st
Erickson, Carl B., Anahim Lake	2nd
Haines, Harry K., Tatlayoko	1st
Hance, Grover, Hanceville	1st
Hansen, Fred, Kleena Kleene	1st
Haynes, R. W. G., Tatlayoko	1st
Henderson, John, Tatlayoko	1st
Henry, Cecil, Big Creek	1st
Henry, Eagle Lake, Tatlayoko	1st
Holte, Andrew, Anahim Lake	1st
Holte, Tommy, Anahim Lake	2nd
Holtey, Lewis, Anahim Lake	2nd
Hudson, E. R., Kleena Kleene	2nd
Hugo, A. M., Hanceville	1st
Hutchinson, William, Big Creek	1st
Jack, Johnny, Alexis Creek	2nd
Johnson, William, Riske Creek	1st
Johnston, Vic, Riske Creek	2nd
Kelley, James A., Soda Creek	2nd
Knoll, Alvis N., Chezacut	2nd
LaLievre, Lind, Penticton	1st
McKill, Clarence, Kleena Kleene	1st
Mack, Maxine, Alexis Creek	2nd
Maindley, John, Alexis Creek	2nd
Maxted, William, Big Creek	1st
Moore, K. B., Tatlayoko	2nd
Mullins, B. A., Tatla Lake	2nd
Mulvahill, R., Redstone	1st
Mulvahill, William, Redstone	2nd
Nicholson, Donald R., Tatla Lake	2nd
Nicholson, Terence, Tatla Lake	2nd
Paxton, Alex, Alexis Creek	1st
Paxton, Ann, Alexis Creek	2nd
Petal, Henry, Alexis Creek	2nd
Phillips, Floyd, Anahim Lake	1st
Rafferty, A .T., Riske Creek	2nd
Reynolds, A. J., Big Bar Creek	1st
Reynolds, H. D., Big Bar Creek	1st
Robson, Bert, Atnarko	2nd
Rosette, Augustine, Gang Ranch	1st
Ross, Eddie, Redstone	2nd
Ross, Peter, Redstone	2nd
Scheek, Edward, Tatlayoko	2nd
Squinas, Thomas, Anahim Lake	1st
Stephenson, Donald, Alexis Creek	2nd
Sulin, Willy, Anahim Lake	2nd
Weir (Sr.), Donald J., Alexis Creek	1st
Wilson, David F., Tatla Lake	1st
Witte, Duane, Big Creek	1st
Witte, Frank, Big Creek	1st
Woods, Bill, Hanceville	1st

EAST KOOTENAY DISTRICT "A" (CRANBROOK-INVERMERE-GOLDEN DISTRICTS)

Name and Address of Guide	Class of Licence
Anderson, Dixon, Windermere	1st
Belcher, Walter L., Canal Flats	2nd
Bjorn, Henry Manning, Fort Steele	2nd
Bower, Glen, Edgewater	2nd
Brewer, Carl, Invermere	2nd
Canning, Lester, Skookumchuck	2nd
Capilo, Louie, Shuswap Reserve, Athalmere	1st
Cooper, Albert, Windermere	2nd
Dobbie, Alexander J., Invermere	2nd
Drysdale, Alistair James, Skookumchuck	2nd
DuBois, Vaughn, Windermere	1st
Feuz, Walter, Golden	1st
Fisher, Tony, Fairmont	2nd
Goodwin, Cecil, Invermere	2nd
Goodwin, Ellwood, Edgewater	1st
Gould, Percy, Canal Flats	1st
Hansen, Trygvert, Wilmer	2nd
Harrison, William O., Edgewater	1st
Hogan, Charles R., Harrogate	1st
Hogan, Charles M., Harrogate	1st
Jimmie, Joe, Windermere	2nd
Kain, Isidore, Wilmer	2nd
Keer, Eugene Warren, Marysville	2nd

East Kootenay District "A" (Cranbrook-Invermere-Golden Districts)—*Continued*

Name and Address of Guide	Class of Licence
King, Norman F., Golden	1st
Lindborg, Axel, Golden	1st
Lum, Peter, Fort Steele	2nd
McClain, J. I., Spillimacheen	1st
McIntosh, Ewen, Athalmere	2nd
McKay, Gordon, Invermere	1st
McKay, James, Invermere	2nd
Mitchell, Robert, Brisco	2nd
Nicholas, Dominic, Fairmont	1st
Nicol, Arthur Henry, Fort Steele	1st
Nixon, W. L., Invermere	2nd
Nixon, Walter, Invermere	1st
Phillips, E. C., Invermere	1st
Pommier, Emile, Skookumchuck	2nd
Rad, Gordon, Invermere	1st
Richter, Frank, Invermere	1st
Romane, William, Golden	1st
Seward, Arvid, Golden	1st
Sheek, Wesley P., Spillimacheen	1st
Sykes, Harry, Spillimacheen	1st
Tegart, George, Edgewater	1st
Tegart, Hiram W., Brisco	1st
Tegart, James, Brisco	1st
Thomas, Orville, Golden	2nd
Thomas, Robert, Parson	1st
Thompson, Jack, Edgewater	2nd
Thompson, James, Edgewater	1st
Thompson, Lioel, Edgewater	1st
Wieden, Frederick, Wilmer	2nd
White, James Freeman, Fort Steele	1st

East Kootenay District "B" (Cranbrook East to Crowsnest, Including Fernie and Natal)

Name and Address of Guide	Class of Licence
Arbuckle, John, Fernie	2nd
Ashman, Levi, Waterton Park, Alta.	2nd
Baher, M. C., Natal	1st
Baher, Mathias, Natal	1st
Barnes, Alfred, Fernie	1st
Barnes, James Norman, Fernie	1st
Cutts, Jack, Fernie	2nd
Dvorak, Frank, Fernie	1st
Dvorak, Wenzel, Fernie	2nd
Eftoda, Gordon, Natal	1st
Gorrie (Sr.), Meth, Flagstone	1st
Gravelle, Nick, Flagstone	2nd
Hicks, Frank, Fernie	1st
Hicks, Phillip, Fernie	1st
Holley, Thomas, Michel	2nd
Kubinic, Pete, Fernie	2nd
McFarlane, Kenneth, Natal	2nd
McGinnis, Earl, Natal	1st
McQuire, Albert, Flagstone	2nd
Pelton, Robert Benjamin, Cranbrook	2nd
Phillips, Frank, 1551 St. Andrew's Ave., North Vancouver	1st
Porco, Albert, Natal	1st
Porco, Ralph, Natal	1st
Riddell, Harry Scott, Wardner	2nd
Rosicky, Anton, Wardner	1st
Rothel, Malcolm, Natal	1st
Siple, Alfred, Jaffray	1st
Travis Frank, Natal	2nd
Volpatti, Benjamin J., Natal	1st
Washburn, Lenox, Flathead (P.O., Trail Creek, Mont., U.S.A.)	1st
Wise, Charles, Flathead (P.O., Trail Creek, Mont., U.S.A.)	2nd

Non-resident Outfitters

Harrison, George H., Banff, Alta.
McCullough, Henry, Wembley, Alta.
Ray, Jack, Hinton Trail, Alta.
Russell, Andy, Twin Butte, Alta.
Sunderman, Kelly, Hythe, Alta.

ASSISTANT GUIDES

Vancouver Island

Durrant, Kenneth S., Campbell River.
Lewis, William, Roberts Lake.
Vanstone, Frederick J., Campbell River.

Revelstoke-Salmon Arm and Okanagan Districts

Engler, Jacob, Lumby.
Hurstfield, F. N., Chase.
McEwen, Harvey, Sicamous.
Martin, Pete, Sicamous.
Moffatt, John Bruce, Sorrento.
Wallis, Edward H., Revelstoke.
Woods, Robert Charles, Sicamous.
Young, A. H., Sicamous.

Grand Forks-Greenwood

Cawston, Richard Hamilton, Cawston.
Gold, Robin Birch, Osprey Lake.
Lawrence, George V., Hedley.
Nesbitt, Harry, Princeton.
Reser, Everett Eugene, Westbridge.

KAMLOOPS DISTRICT

Bagg, Maurice, Savona.
Bagg, Melvin, Savona.
Blair, P., Little Fort.
Boyko, John, Savona.
Brown, Starr A., Little Fort.
Charter, Gilbert, 42 Valley View, Kamloops.
Christian, J. W., Pinantan.
Clearwaters, Dale, Westsyde.
Cochran, Glen Ford, Darfield.
Comeau, Gordon, Savona.
Evans, Jack, R.R. 1, Clearwater.
Hansen, Howard, Little Fort.
Harrop, Frank, R.R. 1, Kamloops.
Johnson, Cyril, Penticton.
Johnson, Ralph T., Savona.
Jules, Hyacinth, Savona.
Jules, Johnny, Savona.
Lloyd, Mrs. Wm., Red Lake.
McAbee, Cyril, Walhachin.
McDiarmid, Bill, Lac le Jeune.
McDougall, Harold, Darfield.
McKinnon (Jr.), Joe, Kamloops.
McLean, Clifford, McClure.
Marsden, Gladstone, Savona.
Mathews, Maurice, 770 Pleasant St., Kamloops.
Nielsen, Ryan Rendel, Pinantan.
Petersen, Ross, Savona.
Radomske, Albert, Criss Creek.
Richmond, Stuart Lee, Kamloops.
Rolston, Dave, Penticton.
Shook, Charles, Clearwater.
Wagner, Martin, Kamloops.
Wharton, Francis, Little Fort.
Woodward, E. J., Little Fort.

PEACE RIVER

Anderson, Edward, Dawson Creek.
Beattie, Donald, Hudson Hope.
Beattie, Robert Hallam, Hudson Hope.
Belcourt, Maglorie, Big Slough (Mt. Valley P.O., Alta.).
Cage, James Wilson, Rose Prairie.
Calliou, Pete, Mile 147, Fort St. John.
Callison, John F., Fort Nelson.
Cameron, Ralph, Moberly Lake.
Campbell, Alfred, Kelly Lake (Goodfare P.O., Alta.).
Cardinal, Alex, Moberly Lake.
Cardinal, Joseph H., Mile 147, Fort St. John.
Cooke, Frank Edward, Fellers Heights.
Courtepatte, Alfred, Kelly Lake (Goodfare P.O., Alta.).
Desjarlais, Joseph, Moberly Lake.
Desjarlais, Louis, Moberly Lake.
Ferguson, Fraser, Kelly Lake (Goodfare P.O., Alta.).
Fleet, Delbert J., Fort St. John.
Fox, Sammy, Mile 147, Fort St. John.
Gauthier, Eugene, Kelly Lake (Goodfare P.O., Alta.).
Gauthier, John, Moberly Lake.
Gauthier, Lawrence, Kelly Lake (Goodfare P.O., Alta.).
Gray, George D., Kelly Lake (Goodfare P.O., Alta.).
Hambler, George, Kelly Lake (Goodfare P.O., Alta.).
Higgins, Robert B., Farrell Creek.
Holly, James, Mile 147, Fort St. John.
Jackson, Bobbie, Teslin Lake Indian Band.
Johnson, Alvin, Little Prairie.
Johnston, Billie, Teslin Lake Indian Band.
McGarvey, George, Hudson Hope.
McLeod, Rene Bruce, Fort St. John.
Mitchell, Gabriel, Moberly Lake.
Monias, Jim, Moberly Lake.
Mykoose, Joe, Moberly Lake.
Napoleon, Felix, Moberly Lake.
Paquette, Marvin, Moberly Lake.
Peck, O. Keith, Hudson Hope.
Powell, Jack Kenneth, Fort St. John.
Schobert, Arthur, Taylor.
Sheffield, Garth C. A., Taylor.
Southwick, T. O., Muncho Lake.
Torkelson, Gordon G., Doe River.
Trea, Joseph, Taylor.
Watson, Gordon E., Fort St. John.
Watson, James H., Fort St. John.

CASSIAR (TELEGRAPH CREEK-ATLIN)

Mutts, Alex, Telegraph Creek.
Quock, Charles, Telegraph Creek.
Reed, Paul, Telegraph Creek.

PRINCE GEORGE DISTRICT "A"

Cannon, Walter L., Sinclair Mills.
Gaugh, Gordon A., Prince George.
Henry, Mack G., Prince George.
Kay, Robert, Prince George.
Langstaff, James E., McBride.
Mahon, Mike J., Prince George.
Marsh, Henry, McBride.
Miller, Amos, Prince George.
Olson, John V., Prince George.
Sait, Frederick F., McBride.
Wade, Gordon, South Fort George.
Witter, Henry L., Prince George.
Zlot, Martha, Prince George.

PRINCE GEORGE DISTRICT " B "

Andros, R. G., Vanderhoof.
Aslin, Lawrence, Ootsa Lake.
Averill, Mervel, Vanderhoof.
Chingy, Harry, Fort McLeod.
Christie, Ellis D., Burns Lake.
Cornell, Jim, Fort St. James.
Cowan (Jr.), Hugh S., Clemretta.
Easter, Calvin Bruce, Fort St. James.
Foote, Charles W., Fort Fraser.
Green, Efner R., Telkwa.

Harrison, Alford J., Wistaria.
Hindmarch, Floyd Ellis, Vanderhoof.
Horr, Rosswell, Marilla.
Hughes, Rolland I., Vanderhoof.
Isadore, Jimmy, Fort McLeod.
James, Patrick, Ootsa Lake.
Johnson, Peter Ivor, Fort St. James.
Loper, Howard Ambrose, Vanderhoof.
Lord, Roy, Tchesinkut.
Lord, Samuel V., Tchesinkut Lake.
Love, Walter John, Hazelton.
Luck, William F. S., Fort St. James.
Mattess, August, Fort St. James.
Melville, Kennedy, Fort McLeod.
Murray, Ronald W., Fort St. James.
Plowman, Enid Alice, Endako.
Plowman, Gerald Edward, Endako.
Sam, Duncan, Fort St. James.
Short, Fay W., Colleymount P.O.
Skog, Martin, Vanderhoof.
Toodick, Mack, Fort McLeod.
Tourond, Pete, Noralee.
Vantine, Douglas Lee, Ootsa Lake.
Vantine, James H., Ootsa Lake.
Wheeler, William G., Burns Lake.
Witter, Wilbert H., Fort McLeod.

Cariboo District "A" (100-Mile House South to Ashcroft, Including Lillooet)

Abbs, R., Fawn P.O.
Alexander, Richard, Shalalth.
Begg, Chester, 70-Mile House.
Bissette, Norman, Ashcroft.
Black, John P., Bridge Lake.
Bryson, Robert C., Shalalth.
Chapel, Tom, Clinton.
Colin, A., 100-Mile House.
Dahlgren, C., Bridge Lake.
Dougall, Ninian, Bridge Lake.
Duncan, Pete, Clinton.
Fenton, Henry, Big Bar.
Flaherty, R. W., 93-Mile House.
Gaelick, William, R.R. 1, Fawn.
Gallant, Hubert, Mahood Lake.
Gammon, Albert, Pavilion.
Hadvick, Algot, 70-Mile House.
Haywood-Farmer, Frank, 70-Mile House.
Higgins, Elmer, Bridge Lake.
Higgins, K. E., Fawn P.O.
Johnson, Wayne C., Bridge Lake.
Kelley, C. E., Fawn P.O.
Kent, W. R., Lytton.
Knauf, E., Fawn P.O.
Krinke, Paul, Bridge River.
Long, H. C., Fawn P.O.
McMillan, J. A., Fawn P.O.
Perault, C., Jesmond.
Peters, Benjamin, Shalalth.
Pierro, Alex, Cache Creek.
Pigeon, Norman, Clinton.
Reinertson, Jacob, 70-Mile House.
Scotton, Norman, Jesmond.
Schwartz, Thomas, Bralorne.
Seymour, Jimmy, Canoe Creek.
Sharpe, Cecil, Clinton.
Shulldes, Bruce, Clinton.
Taylor, Ernest, Fawn P.O.
Vecqueray, Philip, Clinton.
Watkins, A., Cache Creek.

Cariboo District " B "

Colin, Grover, Lac la Hache.
Dick, Willard, Alkali Lake.
Ogden, Lawrence, Lac la Hache.
Ogden, Peter, Lac la Hache.
Williams, E., Canim Lake.

Cariboo District " C "

Anderson, Alvin P., Quesnel.
Coldwell, Reginald, Punchaw.
Erdman, Richard, Quesnel.
Leake, Clarence, Nazko.
McKenzie, Albert Henry, Cinema.
Merz, W. C., Quesnel.
Moore, William Stanley, Quesnel.
Paley, Wayne, Quesnel.
Reeve, Alfred F., Quesnel.
Wilkinson, Hugh J., Punchaw.

Cariboo District " D "

Aitken, G., Anahim Lake.
Alphones, Raymond, Alexis Creek.
Babtiste, Johnny, Riske Creek.
Betal, Dave, Alexis Creek.
Betal, Tony, Alexis Creek.
Blatchford, Bob, Alexis Creek.
Bliss, Jack, Alexis Creek.
Bonner, James, Big Creek.
Boyd, John G., Hanceville.
Brebner, R. L., Alexis Creek.
Bullion, Sammy, Alexis Creek.
Butler, Lee, Tatla Lake.
Cahoose, Gus, Anahim Lake.
Castleman, John, Big Creek.
Charlie, A., Gang Ranch.
Chell, Otto, Alexis Creek.
Clayton, John, Anahim Lake.
Collier, Veasy, Meldrum Creek.
Dorsey, Dave, Anahim Lake.
Ekks, Donald, Kleena Kleene.
Elkins, Marvin, Alexis Creek.
French, Robert, Redstone.
Garner, Thomas, Alexis Creek.
George, Willie, Alexis Creek.
Grambush, Donald, Anahim Lake.
Gregg, Frank, Kleena Kleene.
Guilt, Johnny, Hanceville.
Harrington, R. S., Anahim Lake.
Harry, Sammy, Alexis Creek.
Heikert, Don, Big Creek.
Holte, James R., Anahim Lake.
Jasper, Delmar, Riske Creek.

CARIBOO DISTRICT "D"—*Continued*

Johnny, Eugene, Riske Creek.
Johnny, Joseph, Riske Creek.
Keefe, Dave, Marguerite.
Lulua, Felix, Alexis Creek.
Lulua, Tommy, Alexis Creek.
McCue, Barry, Alexis Creek.
Matheson, Alex G., Tatla Lake.
Meldrum, Irvin, Redstone.
Meyers, Tommy, Hanceville.
Myers, George, Hanceville.
Myers, Tony, Big Creek.
Moore, Gerry, Tatlayoko.
Paxter, Andy, Hanceville.
Quilt, Charley, Hanceville.
Quilt, Dick, Hanceville.
Quilt, Francis, Hanceville.
Quilt, Jack, Hanceville.
Quilt, Louis, Big Creek.
Quilt, M., Hanceville.
Reid, A. E., Big Creek.
Riley, Bill, Hanceville.
Roberts, Bert, Williams Lake.
Robertson, Johnny, Anahim Lake.
Rosette, Raymond, Gang Ranch.
Russel, Freeman, Big Creek.
Sammy, Eugene, Alexis Creek.
Seymour, Alex, Gang Ranch.
Sill, Frank, Anahim Lake.
Sing, Isaac, Anahim Lake.
Timmothy, Dominic, Kleena Kleene.
Timmothy, Isador, Kleena Kleene.
Turner, George, Kleena Kleene.
Turner, Timothy, Kleena Kleene.
Ulm, Roy C., Soda Creek.
Watson, Arthur, Alexis Creek.
Watson, Gordon, Alexis Creek.
Watt, Bruce, Big Creek.
Weir (Jr)., Donald, Alexis Creek.
Whitey, Ed., Hanceville.
Wilson, G. W., Anahim Lake.

EAST KOOTENAY DISTRICT "A" (CRANBROOK-INVERMERE-GOLDEN DISTRICTS)

Alexander, Michael, Spillimacheen.
Alton, William, Parson.
Beauchene, Henry Joseph, Cranbrook.
Buckman, Alan, Fort Steele.
Calcutt, Maurice, Radium Hot Springs.
Cloarec, Leon J., Cranbrook.
Ellis, C., Skookumchuck.
Goodwin, Dave, Invermere.
Goodwin, Lester, Invermere.
Grainger, Clifford Carl, Fort Steele.
Hynes, Ben, Harrogate.
Joseph, Camille, Fairmont.
King, Ronnie, Golden.
Kohorst, Charles, Edgewater.
Morrison, Robert, Athalmere.
Pommier, John, Skookumchuck.
Pommier, Louis Emil, Cranbrook.
Rauch, Harold, McMurdo.
Schiesser, Frederick, Golden.
Seward, Roy, Golden.
Shibley, J. B., Cranbrook.
Smith, Mrs. Josephine, Fort Steele.
Tegart, R. M., Brisco.
Tennes, Moses, Athalmere.
Thomas, Mrs. Mildred, Parson.
Thornton, George, Invermere.
Thouret, Edward H., Radium Hot Springs.

EAST KOOTENAY DISTRICT "B" (CRANBROOK EAST TO CROWSNEST, INCLUDING FERNIE AND NATAL)

Baher, Fred, Natal.
Cunliffe, James, Galloway.
Cunliffe, Tom, Fernie.
Eberlein, Vernon Kent, Cranbrook.
Fontana, Peter Louis, Michel.
Fristel, Emil, Natal.
Gravelle, Alex, Flagstone.
Hammer, Andy, Wardner.
Herman, John, 2819 Alder St., Vancouver.
Holley, Thomas Wm., R.R. 9, New Westminster.
Kaisner, Gerald, Natal.
Kubinec, John, Fernie.
Logan, Doris May, Wardner.
McKenzie, F., Fernie.
Matevic, Louis, Natal.
Nolan, Wallace, Natal.
Phillips, George, Flagstone.
Porco, Jennie, Natal.
Rosicky, Andrew, Wardner.
Sharpe, Gerald, General Delivery, Oliver.
Venzi, Guy, Box 138, Michel.
Witing, Renal, Natal.
Wojtula, Archie, Natal.

WEST KOOTENAY DISTRICT (INCLUDING CRESTON-NELSON-SLOCAN-KOOTENAY-ARROW AND TROUT LAKES DISTRICTS)

Brett, Artley, Arrow Creek.
Cummings, Ray, Boswell.
Lequime, J. G., Balfour.

PERSONNEL OF GAME COMMISSION AS AT DECEMBER 31ST, 1951

Attorney-General (Minister)	Hon. Gordon S. Wismer, K.C.	Victoria.
Game Commission (members)	Frank R. Butler	Vancouver.
	James G. Cunningham	Vancouver.

SCIENTIFIC BRANCH

Scientific Advisers	Dr. W. A. Clemens	Vancouver.
	Dr. Ian McTaggart Cowan	Vancouver.
Game Biologist	J. Hatter	Vancouver.

Scientific Branch—*Continued*

Assistant Game Biologist	E. Taylor	Vancouver.
Regional Game Biologist	P. W. Martin	Kamloops.
Regional Game Biologist	D. J. Robinson	Nanaimo.
Fisheries Biologist	Dr. P. A. Larkin	Vancouver.
Fisheries Management Biologist	S. Smith	Vancouver.
Special Projects Biologist	R. G. McMynn	Vancouver.
Technical Hatchery Officer	D. R. Hurn	Vancouver.
Supervisor of Predator-control	W. W. Mair	Vancouver.
Assistant Supervisor of Predator-control	E. Samann	Kamloops.

Headquarters

Chief Clerk	H. D. Simpson	Vancouver.
Intermediate Clerk	Miss I. Lawson	Vancouver.
Intermediate Clerk	J. McLellan	Vancouver.
Clerk	W. Fowkes	Vancouver.
Secretarial Stenographer	Miss J. Smith	Vancouver.
Clerk-Stenographer	Mrs. M. Drinkwater	Vancouver.
Clerk-Stenographer	Miss E. P. Golder	Vancouver.
Clerk-Stenographer	Mrs. E. Hudson	Vancouver.
Clerk-Stenographer	Miss R. McKay	Vancouver.
Clerk-Stenographer	Mrs. J. Markham	Vancouver.

Game-fish Culture Branch

Fishery Supervisor	C. H. Robinson	Nelson.
Fishery Officer	E. Hunter	Nelson.
Hatchery Officer	J. Phelps	Nelson.
Fishery Officer	F. Pells	Cultus Lake.
Fishery Officer	F. H. Martin	Cultus Lake.
Hatchery Officer	C. O. Mellor	Cultus Lake.
Hatchery Officer	J. D. S. Inverarity	Courtenay.
Hatchery Officer	I. C. Inglis	Courtenay.
Fishery Officer	R. A. McRae	Kaslo.
Fishery Officer	A. Higgs	Summerland.
Hatchery Officer	A. S. Frisby	Summerland.

"A" Division (Vancouver Island and Portions of Lower Mainland)

Inspector	G. C. Stevenson	Victoria.
Intermediate Clerk	D. Keirs	Victoria.
Game Warden	J. W. Jones	Victoria.
Game Warden	R. W. Sinclair	Victoria.
Game Warden	W. S. Webb	Alberni.
Game Warden	R. S. Hayes	Campbell River.
Game Warden	C. E. Estlin	Courtenay.
Corporal Game Warden	O. Mottishaw	Duncan.
Game Warden	F. P. Weir	Duncan.
Game Warden	F. H. Greenfield	Nanaimo.

" B " Division (Kootenay and Boundary Districts)

Inspector	C. F. Kearns	Nelson.
Clerk-Stenographer	Mrs. E. H. Edgar	Nelson.
Game Warden	R. A. Rutherglen	Nelson.
Game Warden	P. D. Ewart	Castlegar.
Game Warden	J. W. Bayley	Cranbrook.
Game Warden	B. Rauch	Cranbrook.
Game Warden	G. A. Lines	Creston.
Game Warden	J. J. Osman	Fernie.
Game Warden	N. Cameron	Golden.
Corporal Game Warden	A. F. Sinclair	Grand Forks.
Game Warden	J. V. Mackill	Invermere.
Game Warden	A. Monks	Penticton.
Game Warden	A. F. Gill	Princeton.

"C" Division (Kamloops, Yale, Okanagan, and Cariboo Districts)

Inspector	R. M. Robertson	Kamloops.
Clerk-Stenographer	Miss M. Duck	Kamloops.
Game Warden	J. P. C. Atwood	Kamloops.
Game Warden	H. Tyler	Kamloops.
Game Warden	W. T. Ward	Kamloops.
Game Warden	K. R. Walmsley	Alexis Creek.
Game Warden	W. I. Fenton	Clinton.
Game Warden	D. D. Ellis	Kelowna.
Game Warden	R. S. Welsman	Lillooet.
Game Warden	E. M. Martin	Merritt.
Game Warden	H. J. Lorance	Quesnel.
Game Warden	E. D. Cameron	Revelstoke.
Game Warden	D. Cameron	Salmon Arm.
Game Warden	R. Farquharson	Vernon.
Game Warden	E. Holmes	Wells.
Game Warden	L. Jobin	Williams Lake.

"D" Division (Atlin, Skeena, Omineca, Fort George, Peace River, and Yukon Boundary Districts)

Inspector	W. A. H. Gill	Prince George.
Clerk	R. J. Guay	Prince George.
Stenographer	Mrs. F. A. Hootz	Prince George.
Game Warden	A. J. Jank	Prince George.
Game Warden	L. I. Olson	Prince George.
Game Warden	W. H. Richmond	Burns Lake.
Game Warden	J. A. McCabe	Fort Nelson.
Game Warden	B. Villeneuve	Fort Nelson.
Game Warden	J. D. Williams	Fort St. John.
Game Warden	J. W. Stewart	Lower Post.
Game Warden	J. M. Hicks	McBride.
Game Warden	R. W. C. Tate	Pouce Coupe.
Corporal Game Warden	E. Martin	Prince Rupert.
Clerk-Stenographer	Miss D. Ardern	Prince Rupert.
Game Warden	H. O. Jamieson	Prince Rupert.
Game Warden	L. J. Cox	Smithers.
Game Warden	L. G. Smith	Vanderhoof.

"E" Division (Vancouver, Coast, and Lower Fraser Valley District)

Inspector	R. E. Allan	Vancouver.
Game Warden	R. S. King	Vancouver.
Corporal Game Warden	L. R. C. Lane	Vancouver.
Game Warden	R. K. Leighton	Vancouver.
Game Warden	F. R. Lobb	Vancouver.
Game Warden	H. D. Mulligan	Vancouver.
Game Warden	H. L. Rose	Vancouver.
Corporal Game Warden	W. J. Mason	Alert Bay.
Game Warden	D. A. MacKinlay	Alert Bay.
Game Warden	A. J. Butler	Chilliwack.
Game Warden	H. P. Hughes	Cloverdale.
Game Warden	W. H. Cameron	Ladner.
Game Warden	P. M. Cliffe	Mission.
Game Warden	F. Urquhart	Port Coquitlam.
Game Warden	B. E. Wilson	Powell River.

Predatory-animal Hunters

Chief Predatory-animal Hunter	J. Dewar	Extension.
Predatory-animal Hunter	A. W. Hames	Extension.
Predatory-animal Hunter	W. J. Hillen	Abbotsford.
Predatory-animal Hunter	G. Haskell	Cranbrook.
Predatory-animal Hunter	M. Morigeau	Fairmont.
Predatory-animal Hunter	C. G. Ellis	Kamloops.
Predatory-animal Hunter	M. W. Warren	Prince George.
Predatory-animal Hunter	M. Mortensen	Williams Lake.

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