

PROVINCE OF BRITISH COLUMBIA  
DEPARTMENT OF RECREATION AND CONSERVATION  
HON. E. C. WESTWOOD, *Minister*                      D. B. TURNER, *Deputy Minister*

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REPORT OF THE  
Department of Recreation  
and Conservation

*containing the reports of the*

FISH AND GAME BRANCH, PROVINCIAL PARKS BRANCH,  
TRAVEL BUREAU, PHOTOGRAPHIC BRANCH, AND  
COMMERCIAL FISHERIES BRANCH

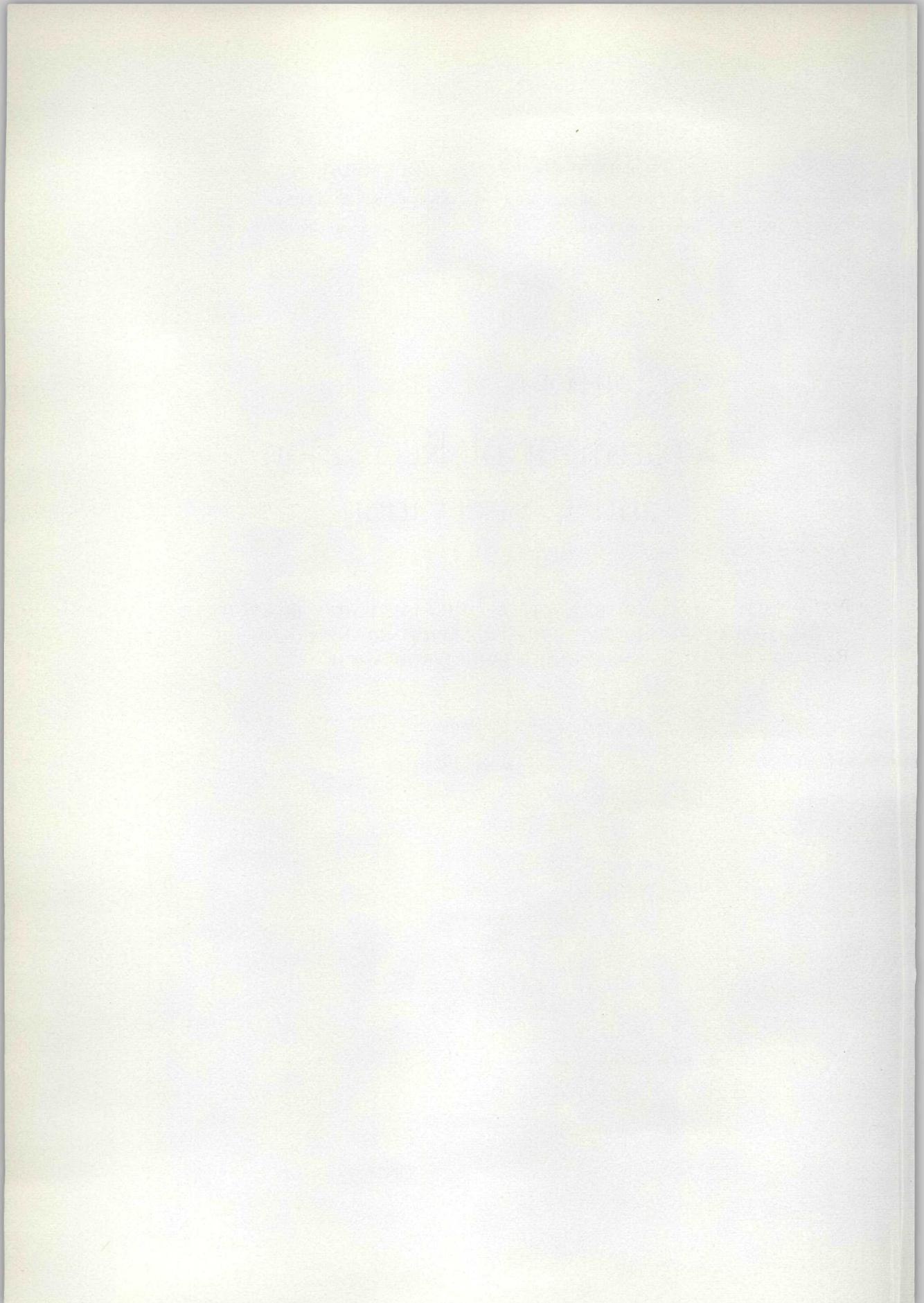
*Year Ended December 31st*

1958



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1959



VICTORIA, B.C., February 1st, 1959.

*To the Honourable* FRANK MACKENZIE ROSS, C.M.G., M.C., LL.D.,  
*Lieutenant-Governor of the Province of British Columbia.*

MAY IT PLEASE YOUR HONOUR:

Herewith I beg respectfully to submit the Annual Report of the Department of Recreation and Conservation for the year ended December 31st, 1958.

E. C. WESTWOOD,  
*Minister of Recreation and Conservation.*

VICTORIA, B.C., February 1st, 1959.

*The Honourable E. C. Westwood,  
Minister of Recreation and Conservation.*

SIR,—I have the honour to submit the Annual Report of the Department of Recreation and Conservation for the year ended December 31st, 1958.

D. B. TURNER,  
*Deputy Minister of Recreation and Conservation.*

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MINISTER OF RECREATION AND CONSERVATION

HON. E. C. WEST WOOD

Deputy Minister and Commissioner of Fisheries

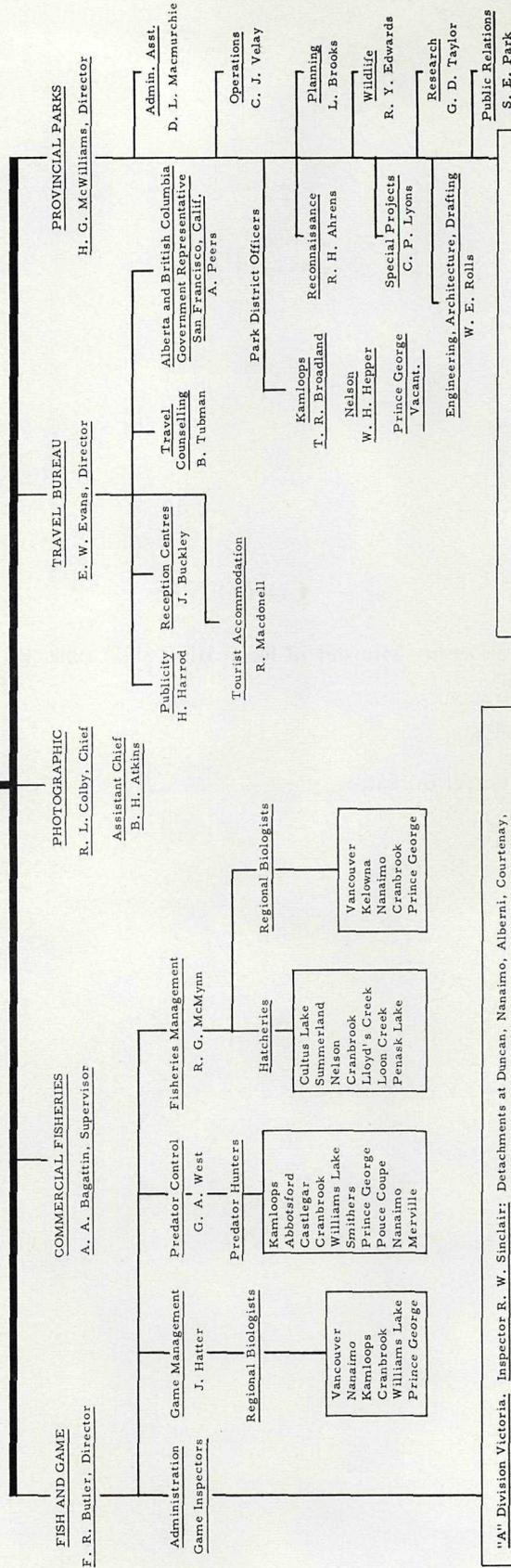
D. B. TURNER

Admin. Asst.  
R. Gadsby

Accounts Office  
Chief Clerk  
G. L. Levy

BRANCHES

ORGANIZATION  
DEPARTMENT OF RECREATION AND CONSERVATION  
Victoria, B. C.  
Year ending December 31, 1958



"A" Division Victoria. Inspector R. W. Sinclair: Detachments at Duncan, Nanaimo, Alberni, Courtenay, Campbell River, Victoria.

"B" Division Nelson. Inspector C. E. Estlin: Detachments at Princeton, Pentiction, Grand Forks, Castlegar, Creston, Fernie, Cranbrook, Golden, Invermere, Nelson, Canal Flats.

"C" Division Kamloops. Inspector L. G. Smith: Detachments at Kelowna, Vernon, Revelstoke, Merritt, Salmon Arm, Clinton, 100 Mile House, Williams Lake, Alexis Creek, Lillooet, Kamloops, Clearwater, Bella Coola.

"D" Division Prince George. Inspector W. A. H. Gill: Detachments at Vanderhoof, Smithers, Burns Lake, Terrace, Prince George, Prince Rupert, McBride, Pouce Coupe, Fort St. John, Fort Nelson, Quesnel.

"E" Division Vancouver. H.Q. Supervision: Detachments at Port Coquitlam, Mission, Chilliwack, Ladner, Vancouver, Powell River, Alert Bay

# Report of the Department of Recreation and Conservation, 1958

D. B. TURNER, DEPUTY MINISTER AND COMMISSIONER OF FISHERIES

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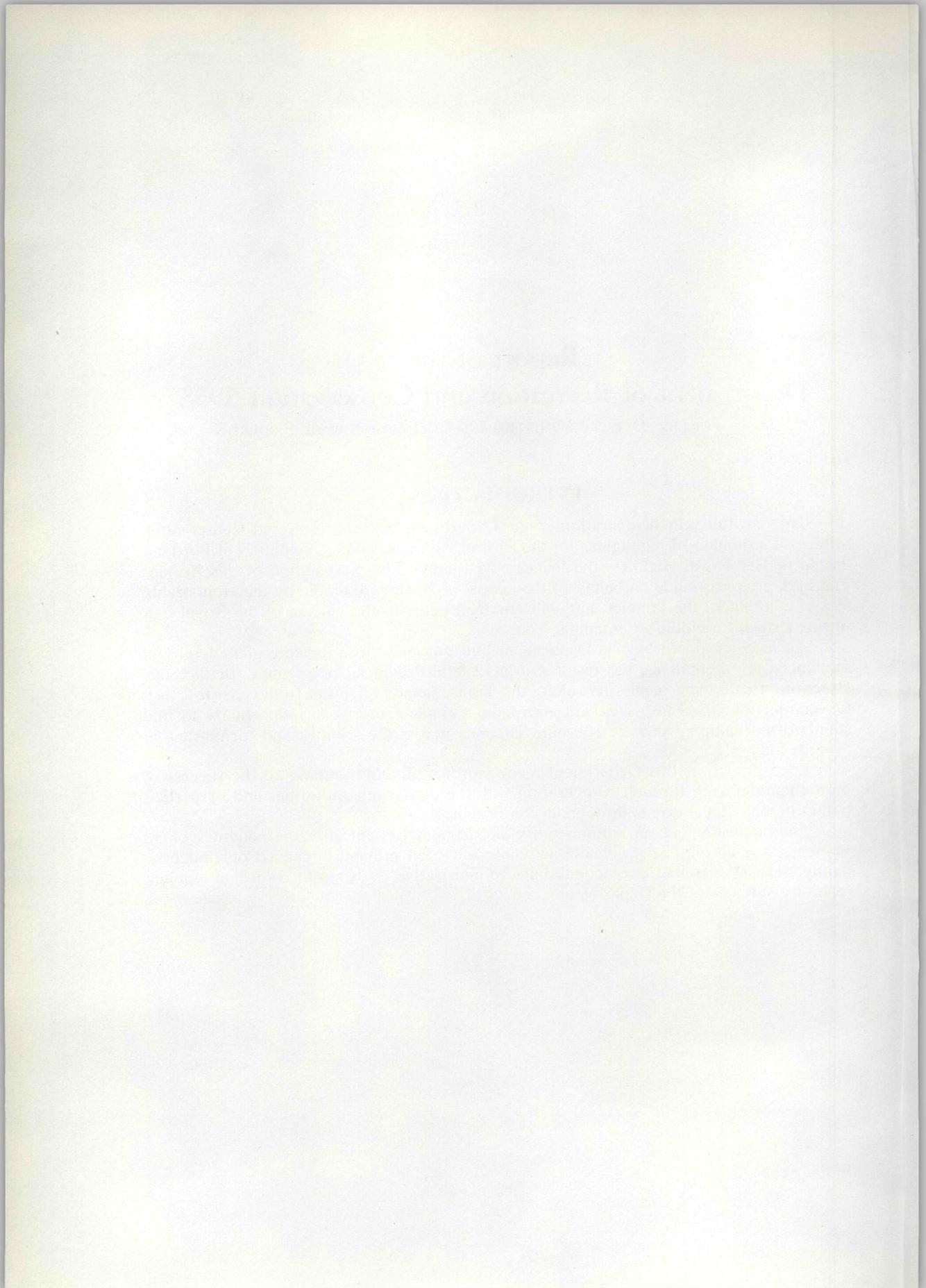
## INTRODUCTION

The first full year of operation of the Department of Recreation and Conservation witnessed a number of highlights, not the least of which was the presentation of Portland Island to Her Royal Highness the Princess Margaret. The presentation of this Provincial park area was made on behalf of the people of British Columbia by the Honourable W. A. C. Bennett, the Premier, and will remain a permanent memento of the Royal visit during British Columbia's Centennial Year.

An idea, proposed by this Department and presented to a meeting of Federal and Provincial representatives, has resulted in a Federal-Provincial programme for the construction of camp and picnic sites along the Trans-Canada Highway from coast to coast. On completion, the camp-sites will afford the Canadian tourist an opportunity to find standardized camping-sites at 100-mile intervals across the country and picnic-sites at 50-mile intervals.

Each branch of this Department made worth-while contributions to the success of the Centennial Year through co-operation with the organizing authorities and by participation in many local events throughout the Province.

The acquisition of an administrative department to centralize the activities of all branches was accomplished. These activities had been previously carried out independently. The Department also acquired an Administrative Assistant to co-ordinate public relations activities of the Department.



# HIGHLIGHTS OF 1958

Although the work of each branch is fully described and reported upon in separate submissions, here are some of the highlights of 1958.

## FISH AND GAME BRANCH

### GAME MANAGEMENT

The year 1958 brought a record increase in game harvests. Deer and moose taken were estimated at 60,000 and 11,000 animals respectively.

The wapiti or elk harvest increased from an estimated 1,800 animals in 1957 to approximately 3,600 animals in 1958.

A lengthening of the grouse season in two regions resulted in an 80-per-cent increase in harvest.

An attempt was begun to re-establish the sage grouse in its old habitat. Fifty-seven birds received from the State of Oregon were released in the Southern Okanagan.

The problem of access received attention, with permanent reserves and routes being established in the Tofino region. This important work will be continued, pressing for the creation of public access and shooting areas in a number of sections of British Columbia.

The practice of releasing artificially raised pheasants was discontinued as impractical after five years' extensive research.

### FISHERIES MANAGEMENT

Lake rehabilitation utilizing either rotenone or toxaphene has provided spectacular results. Within one year of restocking with desirable species, usually rainbow or cut-throat trout, lakes that produced less than 1 pound of trout per acre have been known to achieve 15 to 20 pounds per acre.

A total of fifty-seven lakes and pot-holes covering 5,708 acres were treated.

### PREDATOR-CONTROL

A total of 1,075 aerial baits and 362 ground baits were placed. These baits provided an invaluable means of protection for game animals, some rare, against predators. A secondary benefit was for stock-raisers.

## PROVINCIAL PARKS

### FEDERAL-PROVINCIAL AGREEMENT FOR THE ALLEVIATION OF UNEMPLOYMENT

By sharing funds on a 50-50 basis these Governments allocated a total of \$754,000 to the Parks Branch for works projects. The period covered was from January to May, 1958. A similar programme commenced in November to continue through the winter.

### MARINE PARKS

The first marine park, Sidney Spit, went into operation during June, 1958. Located 2 miles east of Sidney, the new park has six camp units, a six-table picnic area, and six mooring units just offshore. Use has been heavy and reports excellent.

### GIFTS TO CROWN OF LAND FOR PARK PURPOSES

Necessary legal surveys are being completed for five of these generous donations to the public.

## CENTENNIAL YEAR PROJECTS

1. Historic-site Markers: New tastefully designed markers were erected at forty-four points of historic interest. This marked the beginning of a continuing programme.
2. "Garbage gobbler" trash-disposal units were devised and placed in conjunction with the markers, adding colour to our highways.

## MOUNT SEYMOUR PARK POMA SKI LIFT

Now under construction by concessionaire, it is expected to relieve present heavy congestion. Planned for completion by January, 1959.

## CAMPER FEE SURVEY

This timely subject has been under survey this summer. A report has been placed before the Honourable the Minister. No decisions have been announced.

## NATURE HOUSE

The success of the Manning Park Nature House prompted the construction of a similar unit at Miracle Beach. Public reaction was excellent. Total visitor count was over 18,000 persons this summer.

## TRAVEL BUREAU

An estimated increase of \$3,000,000 in Provincial revenue was derived from the visitor industry. Special Western Canadian productions and Centennial publicity are credited with pushing this revenue estimate from \$103,000,000 to \$106,000,000 for 1958.

## NEW MOBILE INFORMATION CENTRE ESTABLISHED

A specially fitted trailer, equipped with reference material and literature and manned by a husband-wife team of travel counsellors, was stationed during the summer months at Yahk and Cranbrook in the Kootenays. It directed some 5,000 cars carrying more than 15,000 visitors who travelled an estimated 2,866,500 miles in British Columbia.

## INCREASE IN REGISTERED TOURIST ACCOMMODATIONS

A figure of 2,029 tourist establishments registered with the British Columbia Travel Bureau in 1957 rose to 2,131 in 1958 with completion of new hotels, resorts, auto courts, private camp-grounds, lodges, and dude ranches. Total estimated investment in tourist accommodations is now more than \$190,000,000.

STAR RATING SHOWS STANDARD OF ACCOMMODATION  
RAISED IN 1958

An increase in the number of four-star units from 24 per cent last year to 26 per cent was noted.

Department-sponsored tourist service clinics promoted industry improvement in twelve British Columbia tourist centres.

An expanded British Columbia Tourist Council meeting attracted a cross-section of the visitor industry.

Co-operation of British Columbia, Washington, and Oregon in joint promotions was extended by new agreements.

Groundwork was laid for additional joint advertising and publicity linking the three major areas of the Pacific Northwest.

### PHOTOGRAPHIC BRANCH

Centennial Year, with its many outstanding events, provided many unusual opportunities for the Photographic Branch. All noteworthy functions were covered by members of the staff.

The visit of Her Royal Highness the Princess Margaret to this Province was completely recorded by both "motion" and "still" cameras.

The Branch contributed pictures to the Portland Island presentation volume.

Other interesting events were a complete record of the Barkerville restoration, the inaugural trip on the Pacific Great Eastern Railway to Prince George and Fort St. John, and the visit of the Governor-General later in the year.

The great "Salute to the Sockeye" festival, held at the end of the Adams River run, provided another colourful event.

Less glamorous but equally important were records of prison life at the Haney Camp and at Oakalla and a picture record of the youth crew project.

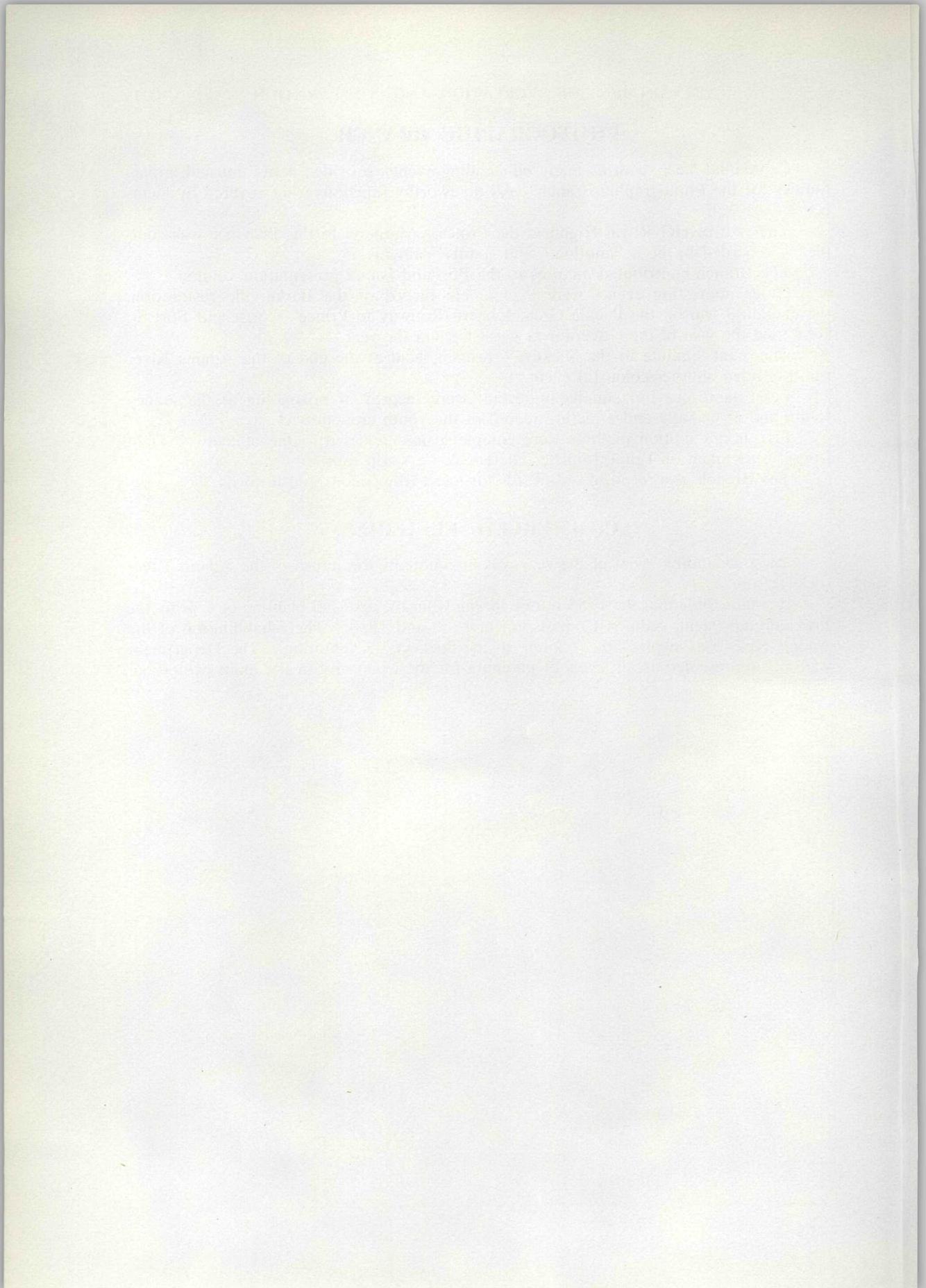
Five major motion pictures were completed and released. One of them, "Tight Lines," was taken on Prime Minister Diefenbaker's world tour.

The Branch also received six awards for merit from salons and festivals.

### COMMERCIAL FISHERIES

The outstanding event of the year was undoubtedly the return of the Adams River sockeye run.

It is incredible that the 1958 return sprang from the artificial planting of eggs by the International Pacific Salmon Commission in 1950 and 1954. The rehabilitation of the Adams River run inspired the "Salute to the Sockeye" celebration. The Department was well represented at all levels of planning for the event and in the main exhibition.



**FISH and  
GAME  
BRANCH**





Liberating fry from travel truck.



The salmon are running.

## FISH AND GAME BRANCH

FRANK R. BUTLER, DIRECTOR

With the present increase in hunting and fishing pressure, administrative and management problems take a very definite upswing in importance. Greater attention is required in order that our wildlife populations are kept intact and in a good healthy condition.

The Branch is doing its utmost to keep abreast of this increased pressure. It is gratifying that the Branch is keeping ahead of the problem.

### GAME AND FISHING REGULATIONS

Each year careful attention and frequent study are given to the setting of open seasons for hunting and fishing so that such seasons will satisfactorily take care of the proper annual and regulated cropping of fish and game and at the same time furnish positive proof that by such controlled cropping there is neither interference with nor harm done to wildlife populations.

The Branch has endeavoured to simplify sport-fishing regulations. As a result, a point has now been reached where frequent consideration is being given to the need for bringing into effect local or district restrictions. These restrictions become necessary and important through advanced management work.

Considerable time is spent each year in setting open seasons for the hunting of game and the trapping of fur-bearing animals. The seasons are set after considering every phase of continuous studies in the field and studying recommendations received from Game Wardens, game associations, farmers, and others.

### WILDLIFE PROBLEMS

As previously mentioned, the Branch still faces increasing problems in game-management work such as:—

- (a) Public access to hunting and fishing areas.
- (b) The pollution of lakes and streams and investigating obstructions and their effect on fish.
- (c) Studying game ranges and endeavouring to keep them intact.
- (d) Water licences and investigating each application in order to prevent any harm coming to sport fish.
- (e) Game conditions—constantly studying conditions in every section of the Province.
- (f) Game reserves and prohibited hunting areas—looking into the need for.
- (g) Lake rehabilitation—eradicating coarse-fish populations, construction of barriers, etc.
- (h) Banding and studying migratory waterfowl.
- (i) Predator-control in every section of British Columbia.
- (j) Game damage and taking steps to prevent damage.
- (k) Beaver-control—due to decreased value on the fur market, beaver-control has become very necessary.
- (l) Public shooting-grounds—endeavouring to secure for use by the hunting public.
- (m) Game-check stations—hunting pressure makes it very necessary to each year operate these stations, from which important data on game management are secured.
- (n) Hunting accidents—devising means to eliminate or curtail.

- (o) Public relations—this is most necessary in any game-management programme.

Probably more complete explanations should be given in reference to the above, but for the time being it is felt that sufficient information has been supplied for the purposes of this report.

#### VIOLATIONS

It is to be regretted that it is necessary to report an increase in Game and Fishery Act violations, but as hunting and fishing pressure increases, it probably should follow that violations must naturally increase. Complete figures covering these violations cannot be supplied until all returns for the year 1958 have been received.

#### HUNTING ACCIDENTS

All reports of hunting accidents have not been received, but it is anticipated that there will not be any increase over the accidents that took place in 1957. Every hunting accident, it might be mentioned, is carefully studied, and in every instance the firearms licence held by the person responsible is cancelled.

Since the last report a further study has been made of the problem of how to prevent these regrettable accidents, and from such studies everything would seem to point to the need of educating the hunter that he must exercise every care in the handling and use of firearms. The Branch has constantly endeavoured to carry out an educational programme in this regard and is pleased to report that this policy is bearing fruit. Notwithstanding an increase in hunters, accidents have not increased.

#### REVENUE

As previously mentioned, hunting and fishing pressure is increasing, and the year 1958 has been no exception to the rule. By the time all revenue returns are received, there undoubtedly will be shown an increase, which is anticipated will be some \$50,000 over the revenue of 1957.

#### ACKNOWLEDGMENTS

Sincere thanks are extended to all Government departments, game associations, farmers' organizations, and others for the excellent co-operation received during the year, and special thanks are given to all Fish and Game Branch personnel for their devotion to duty, often under adverse conditions.

#### GAME MANAGEMENT DIVISION

##### GAME REGULATIONS

Recognized authorities have suggested that the best measure of success of a game-management programme is the amount of game harvested annually on a perpetual basis. Maximum sustained yield, where possible, may only be effected through regulations designed to allow the hunting public to take the annual surplus. Improperly devised regulations may result in either underharvesting or in overuse of the resource.

A major objective of the Game Management Division over the past five years has been to regulate seasons for the purpose of achieving harvests more closely in line with the surplus that may be taken. Inasmuch as most game species have been underutilized in past years, Fish and Game Branch regulations, in providing for either-sex seasons in particular, have enabled the hunter to realize a greater yield of game rather than placing further restrictions on the annual take.

*Seasons Lengthened in 1958 Compared to 1957*

	1957/58	1958/59
<i>Caribou</i>		
G.M.A. 9: Either sex, any age.....	No open season	Sept. 1-Oct. 31
G.M.A. 11: Either sex, any age.....	Sept. 1-Sept. 30	Sept. 1-Oct. 31
G.M.A. 13, 14, 19: Either sex, any age.....	No open season	Sept. 1-Oct. 31
<i>Elk</i>		
G.M.A. 11: Antlerless season extended eleven days.		
<i>Grouse</i>		
G.M.A. 13 to 21.....	Sept. 14-Nov. 17	Sept. 13-Nov. 30
G.M.A. 1: Ruffed grouse.....	Oct. 12-Nov. 17	Oct. 11-Dec. 14

*Seasons Shortened in 1958 Compared to 1957*

<i>Deer (Antlerless)</i>		
G.M.A. 6, 8, 9, 13, 14, 18, 19.....	Nov. 16-Dec. 1	Nov. 22-Nov. 30
G.M.A. 15 and 16.....	Nov. 1-Dec. 1	Nov. 22-Nov. 30

The antlerless season was removed on Saltspring Island and the southern portion of Vancouver Island.

## GAME-HARVEST

At the time of writing, it is not possible to determine the annual game-harvest. Most big-game seasons close at the end of November or in December. The Hunter Sample must be drawn at the close of the season and cannot be mailed until January, and not until late February at the earliest are harvest figures available and compiled. Returns from the game-checking station at Cache Creek only are available at this time. From them, however, one must detect the significant trends in the harvest.

Hunting success during the latter two weeks of November was excellent in the southern areas of the Province and in the East Kootenay region. An all-time record kill was probably made in many of these districts.

*Cache Creek Checking-station Totals*

Year	Deer	Moose	Bear	Caribou	Elk	Moun- tain Goat	Moun- tain Sheep	Water- fowl	Grouse	Hunters
1954.....	1,890	1,718	128	26	1	53	19	7,430	5,850	10,747
1955.....	2,296	2,301	82	20	---	63	8	6,568	4,371	10,966
1956.....	2,397	2,649	141	27	2	56	26	7,349	7,032	14,517
1957.....	2,245	2,799	179	48	4	91	24	8,193	11,027	14,146
1958.....	2,344	2,820	113	45	3	82	43	8,985	19,351	14,763

## STATUS OF GAME POPULATIONS

*Big Game*

The influence of several preceding winters milder than usual has resulted in a good carry-over, and in an apparent increase of big game. On many Interior ranges, however, the mild weather in late winter resulted in deer and elk remaining high. Good comparative counts on the winter range were not possible. On Vancouver Island high survival to the yearling age-class provided an estimated 15 to 20 per cent increase in deer numbers. In northern areas of the Province all reports indicated an increasing deer population. In the Southern Interior early spring surveys revealed deer also in good numbers. Over most of the Province deer herds are above the sustainable carrying capacity as a result of

better than average winters of recent years. Regulations remain liberal in an attempt to remove more of the surplus.

Moose populations have not experienced any serious winter mortality for several years. The annual harvest has increased steadily, and in 1958 should approach 11,000 animals. Winter ranges in most sections of the Province continue to show excessive utilization. In the Prince George area most ranges are severely overbrowsed and rapidly decreasing in productivity. A longer antlerless season was provided for this region in 1958 in order to encourage a larger harvest of surplus animals.

#### *Game Birds*

The warm, dry spring and summer appeared ideal for upland birds. Grouse, which are approaching a population peak in Central British Columbia, were more numerous than at any time since 1952. Peak numbers should be reached generally by 1960. Seasons were lengthened in most districts to encourage a larger take of birds, with the hope that the population "crash" may be delayed or ameliorated.

The non-native species, such as pheasants, Hungarian and chukar partridge, likewise experienced a successful breeding season. On opening day of the pheasant season on the Ladner delta, hunter success averaged 0.77 bird, which is the highest success figure recorded for that area in the past ten years.

The dry spring and summer months contributed to excellent blue grouse production on Vancouver Island. A hot, dry August, however, speeded up migration and forest closures delayed the season opening. The result was a poor harvest of the expanded population of birds.

#### WATERFOWL BANDING AND RESEARCH

A total of 3,259 waterfowl were banded in the Kamloops and Williams Lake areas in July. A new tube-type trap was devised and used in most banding operations. Ninety-seven additional nest boxes were erected for Barrow golden-eye at Williams Lake, to give a total of 127. Twenty per cent of the golden-eye boxes produced successful clutches in 1958.

A comprehensive survey of waterfowl populations in the Cariboo District was undertaken by the late J. A. Munro. Results of the study were reported upon in "The Status of Nesting Waterfowl in the Cariboo Parklands."

#### INTRODUCTION OF SAGE GROUSE

Fifty-seven sage grouse were gratefully received from the Oregon State Game Commission and released 2 miles north of Richter Lake. Once present in the Osoyoos area, the last authenticated specimen was taken in 1864. It is hoped that the introduction will lead to the re-establishment of this large game bird, and that it will once again form a part of the fauna of British Columbia.

#### HABITAT IMPROVEMENT

Experimental habitat improvement for pheasants was begun on the 1,000 acres of Vancouver wireless station at Ladner. Purpose of this project is to provide a demonstration area for land-owners who may eventually wish to undertake their own pheasant cultural practices. A total of 3,000 multi-flora rose-bushes and 100 pounds of corn were planted in the initial stage of the development.

#### HUNTER SAMPLE

Basic to a sound management programme is the annual inventory of the harvest. This is accomplished through the all-important Hunter Sample. This year sampling will be expanded from 9,000 to 12,000 questionnaires. In addition, a follow-up system

will be used to obtain added regional information on the harvest. The questionnaire form itself has been revised and simplified.

#### WINTER INVENTORIES

Aerial and ground surveys were expanded over 1957, particularly with reference to deer populations. A helicopter was used experimentally for the first time in British Columbia to count bighorn sheep. Its many advantages were weighed against the high cost of operation.

#### ACCESS AND PUBLIC SHOOTING-GROUNDS

The closure of lands to public shooting continues at an accelerating and alarming rate on the Lower Mainland. More noticeable than ever before are the large number of gun clubs with exclusive hunting rights on privately owned farm lands. At the present rate it will be but a short time before the average hunter will have to pay for the privilege of pheasant and duck hunting on most of the better farm lands of the Fraser Valley and on the Fraser River delta.

#### APPOINTMENTS

The staff of seven biologists was increased by the long-awaited appointment of P. J. Bandy. The demands placed upon this small group are increasing. Within the scope of the Division lies the major responsibility of regulating a harvest of game animals by over 100,000 hunters, spending in excess of 1,000,000 man-days and over \$13,000,000 annually. Any competent survey would reveal a shortage of technical personnel required to meet the demands of a modern programme of game management and research in British Columbia.

### FISHERIES MANAGEMENT DIVISION

#### GENERAL

The year 1958 was productive and satisfying for the Fisheries Management Division. Although no staff increase has taken place and fishing pressures continue to grow, a tremendous amount of management work was accomplished. This was made possible through sheer enthusiasm, devotion to their responsibilities, and many hours of overtime duty by all of the personnel of this Division. The salient features of last year's activities are briefly outlined under four groups—management and protection, hatcheries, research, and engineering.

#### MANAGEMENT AND PROTECTION

Fifty-seven lakes were chemically rehabilitated during the summer and fall—fifty-five with toxaphene and two with rotenone. This represents a total volume of 211,000 acre-feet or an increase of nearly 80 per cent over 1957. Worthy of particular mention was the treatment of Pinantan, Hyas, Niskonlith, Ness, and Ten Mile Lakes (the last two in the Quesnel-Prince George region). Continuation of experiments on use of toxaphene have made the following conclusions possible: Concentrations used should be limited to the range of 0.005 to 0.0075 p.p.m.; concentration used is determined by species of fish present (higher concentration required to kill carp than shiners), and will depend upon light penetration in the lake, amount of wind action, and the rate of flushing; at least one year is required before the lake can be restocked with the desired species (usually rainbow trout). Major problem in lake rehabilitation now appears to be that of adequately covering all tributary streams and minor pot-holes; future possibilities include the technique of aerial treatment by use of helicopters.

Protection work was highlighted during 1958 by a rigid policy of enforcement of laws governing the pollution of waters as set forth under the Federal Fisheries Act. Eradication of the entire fish population of Bear Creek, New Westminster District,

through acid release by a fertilizer company was followed by a successful prosecution. Pollution by a food-processing plant near Chilliwack led to a successful prosecution and clean-up. A large mining concern in the Kootenay District was also successfully prosecuted following a mine-tailing impoundment failure.

The results of these have led to the institution of corrective measures by the companies concerned, as well as more co-operation from industrial concerns.

Much time and effort has been directed to the protection of anadromous sport fishes; that is, steelhead trout and coho salmon. This work has been greatly facilitated through close association with the Federal Department of Fisheries. Tentative minimum-flow figures have been established for those rivers on Vancouver Island which, through damming and diversion for power purposes, have suffered decreased flows. Negotiations for satisfactory flow for the Seymour River near Vancouver are in final stages.

Plans have been outlined to determine the effects on fish of the application of various insecticides and herbicides. A programme is under way to evaluate the effects of past log-booming practices on the animal and plant populations of British Columbia lakes.

Operation of private and commercial hatcheries in the Province continues to require considerable time from the Regional Fisheries Biologist. The following table shows the numbers and locations of these operations. It is significant to point out that to date, although there are over thirty operating hatcheries, none have proved to be anything more than an expensive hobby for the individuals concerned.

*Private and Commercial Fish-farms in Operation*

	Lower Mainland	Vancouver Island	Okanagan
Private hatcheries <sup>1</sup> .....	17	6	2
Commercial hatcheries.....	4	1	1

<sup>1</sup> Cannot sell fish.

As a result of public access problems increasing each year, the Division has prepared an extensive outline of the problems as they affect sport-fishing interests. This report is being used by a committee set up to study the entire matter. Free public access was accomplished into Sasamat Lake (Ioco) through negotiation between this Division and Imperial Oil Company. Private and leased land is rapidly encroaching on recreational sites. Roads once recognized as public have been de-gazetted, with the former right-of-way seemingly reverting to private ownership. Such roads need not be kept in repair as long as the right of trespass is maintained to allow future development. Close liaison with other agencies, especially the Department of Highways, could resolve many access problems. Lakes north of Princeton present a classic example of how boat-launching and access can conflict with road-building unless mutual problems are appreciated.

Motor-boat use on some small lakes is creating a host of problems related to recreation. A review of all aspects of this situation is being undertaken at the present time, and it is anticipated that some of the problems can be solved by appropriate amendment of existing Federal Statutes, which would permit the Province to regulate motor-boat use under special circumstances.

An obstruction (falls) on the Coquihalla River, which for years had blocked over 65 per cent of the summer run of steelhead from reaching up-river spawning-grounds, was successfully removed by blasting. Preliminary observations indicate that fish are now readily passing through the area.

Summer work on the problem of getting more large fish into the spawning run of the Lardeau River, tributary to Kootenay Lake, has produced some interesting results.

It was anticipated that an artificial spawning-channel might alleviate the situation; however, work indicates that the present spawning-grounds are not being fully utilized and that a spawning-channel is not the answer. Rather, regulation of the fishery seems to be the key. In this case a closure of all fishing for the period of the spawning migration should achieve the desired result.

Tidal sport fishing, currently administered by the Federal Department of Fisheries, is now a major recreational pursuit, particularly in the Lower Mainland, where over one-half of all salmon caught in the Strait of Georgia (commercial plus sport) are taken by sport fishermen. There is growing agitation in this Province that the sport be licensed and management practices applied.

Increased emphasis by the staff on public relations has been rewarding, in so far as we are generally receiving popular support for our management practices. Attendance at numerous rod and gun club meetings, night-school lectures, radio and television appearances, service club talks, and high-school lectures have all contributed to a far better public appreciation of the role and value of the Province's sport-fish resource.

#### HATCHERIES

In 1958, hatchery operations were characterized by continued modernization and consolidation of facilities. This programme took five definite directions:—

- (1) Conversion of all feeding schedules to the use of dry meals and pellets, rather than previous methods of using mixtures of ground liver, salmon viscera, and additives for nutritional balance.
- (2) Introduction of new strains of trout, particularly rainbow trout of the winter-spawning variety.
- (3) Closing of small, expensive temporary operations and consolidation of these operations into expanded, modern operations of a lesser number, but better located to serve the needs of regional management.
- (4) Design and construction of new portable aerated fish-tanks for more efficient transport of fish from hatcheries to lakes and streams.
- (5) Elimination of trout-fry liberations, replaced instead by liberations of lesser numbers of larger fingerlings, from which more predictable or consistent yields will be obtained.

Several permanent transfers of personnel, changes in allocation of production, revision of stocking schedules, and almost complete elimination of previous methods of feeding and rearing trout were required to efficiently carry out the programme of modernization.

Hatchery production was doubled from 14,000 to 28,000 pounds by the use of new trout-feeds and double-cropping rearing facilities by the use of both summer- and winter-spawned trout. Production cost dropped from \$5.84 per pound of fish planted to \$3.34 per pound.

#### RESEARCH

Activities of the Research Division in 1958 were concentrated upon two field projects—one a coarse-fish spawning study at Baker Lake near Quesnel and the other a study of fall-spawning fishes, particularly kokanee, at Nicola Lake near Merritt.

The Baker Lake project, started in 1956 and completed this spring, has gathered together a considerable body of information on the spawning behaviour and life-history of several species of coarse fish. Perhaps most outstanding is the amazing recovery and survival of longnose and white suckers after spawning. Since 1956 all suckers spawning in the inlet stream to Baker Lake were marked by injection of liquid latex beneath their skin. Over 55 per cent of the suckers in the 1958 spawning run had also spawned in the stream in 1956 or 1957, indicating an even higher degree of repeat spawning in these species than was suggested by recoveries in the 1957 spawning run. Additional informa-

tion which was obtained on factors affecting spawning runs of squawfish and reidside shiners, as well as the two species of suckers, will be useful in their control or eradication in other lakes or streams.

In 1958 a study was started at Nicola Lake on the spawning behaviour and life-history of several species of sport fish, such as kokanee and Dolly Varden, which spawn in the fall, usually in streams. The kokanee is becoming an increasingly important sport fish in British Columbia for a number of reasons:—

- (1) It provides good fishing in midsummer when angling for rainbow trout in warmer lakes is not as productive as earlier or later in the year.
- (2) It provides good fishing during the peak annual period of angling pressure.
- (3) It is a good "family sport fish," readily caught by simple angling methods.
- (4) Although usually not large, it is highly regarded for its flavour.
- (5) It is an important forage fish, chiefly responsible for rapid growth of large rainbow trout in many lakes in British Columbia.

As relatively little is known of the life-history of the kokanee and other fall-spawning sport fish in British Columbia, the Nicola Lake study will provide information invaluable in their management and conservation.

A two-way trap was established at the mouth of Moore Creek, at the north-east end of Nicola Lake, in order to record data on fish moving up-stream from or down-stream to the lake. Statistics were gathered on nearly 4,000 kokanee utilizing this stream for spawning in 1958.

Already several significant facts have emerged from data collected on the 1958 kokanee spawning run:—

- (1) Kokanee move onshore at dusk each evening and move offshore again before dawn, timing attuned to light conditions.
- (2) Onshore movement is not restricted to shore-line immediately adjacent to mouth of the spawning-stream.
- (3) Kokanee approach spawning-stream mouth by apparent "random" movement at night along edge of shore-line.
- (4) Experimental evidence suggests that the kokanee's sense of smell is important in successful location and entrance to spawning-stream.

Distribution, movement, and feeding habits of kokanee, Dolly Varden, and several other species of fish in Nicola Lake were studied throughout the spring, summer, and fall of 1958.

Further data collected at Nicola Lake in 1958 are being analysed and will be supplemented with additional information on both spring- and fall-spawning fish in 1959, all of which will provide basic knowledge required by management personnel for judicious conservation of important sport fish.

In addition to the Baker and Nicola Lake field projects, the Research Division, at its University laboratory, continued analysis of data and experiments on movement of young and adult rainbow trout in outlet and inlet spawning-streams. Papers were published on:—

- (1) Effects of light and water temperature on movement of young trout.
- (2) Feeding habits of young rainbow trout.
- (3) Life-history and management of mountain whitefish in British Columbia.
- (4) Life-history and management of smallmouth bass in British Columbia.
- (5) Factors in lake typology in British Columbia.

Summer personnel of the Research Division assisted in the collection and compilation of data on the movement of steelhead trout in the Coquihalla River.

The Research Division took an active part in the planning and operation of the Fish and Game Branch's kokanee display at the "Salute to the Sockeye." This display, which pointed out the importance of kokanee as a sport fish and its relationship to the sockeye, was extremely successful.

## ENGINEERING

In its first year the Engineering Division has been very active, mainly with organizational problems and with projects that had already been planned for completion in this year.

The main project worked on and completed in this year was the expansion of rearing facilities at the Loon Creek hatchery. This work involved surveying, designing, and contracting for four concrete raceways and a water system costing approximately \$12,000.

Three fish-barrier dams were designed and one was constructed. The dam constructed was on the outlet creek of Ten Mile Lake just north of Quesnel.

A new garage and trout-food storage building was built at the Summerland hatchery. This building has a capacity to store four large trucks and 40 tons of dry fish-food. The fish-food storage area is kept at a constant temperature of 40° F. in a large cooler (9 by 28 by 14 feet). The building, including the refrigeration, cost approximately \$10,000.

Other projects included the compilation of the Morehead Lake survey data with the design of new facilities, the design of expanded facilities for the Summerland hatchery, investigation of a new hatchery-site in the East Kootenay, investigation and survey of a possible spawning-channel site on the Lardeau River, and the organization of the blasting of the obstruction in the Coquihalla River. In addition, many small projects required attention.

## PREDATOR CONTROL DIVISION

The major control measures taken during 1958 were very effective, and again losses to game and domestic stocks were very low over the Province as a whole. A total of 1,437 major poison stations were used. This represented a reduction of numbers by some 21.2 per cent and is a direct reflection of efforts directed at a form of wolf management in the outlying or non-hunted areas. This step is essential as there are large areas where wolves are the only check that game herds must contend with. To at least slow the threat of overpopulation, wolves must be left on their own within reason.

Much of the baiting activity (in addition to domestic-stock areas) was centred on every wild-sheep range within the Province. Wild sheep require protection from outside elements whenever possible, and so their winter ranges are kept as clear of major predators as possible. Reports indicate that this programme was highly successful.

The numbers of major complaints regarding the depredations of black bears were considerably less during 1958. However, many "panic" complaints were received because a child was killed in a National park. This incident had serious repercussions inasmuch as parents were certain that their children were being exposed to serious danger whenever a black bear made its appearance near habitation. The over-all damage caused by bears was not serious, with the exception of one or two localized areas.

Mountain-lions or cougars are still at or near a low point in population numbers according to kill statistics and other field reports. There is, however, a definite indication that these big cats are on the increase in the Interior of the Province. Reports from Vancouver Island suggest that the same is true for that area. Reports of young cougars are beginning to mount in numbers.

There were large numbers of "cougar" complaints following the death of a small girl near Nanaimo by a lion from a zoo. These reports came in from most of the Province and represented a considerable expense in both time and funds. Invariably the "cougars" reported were imaginary, but the complaints had to be looked into.

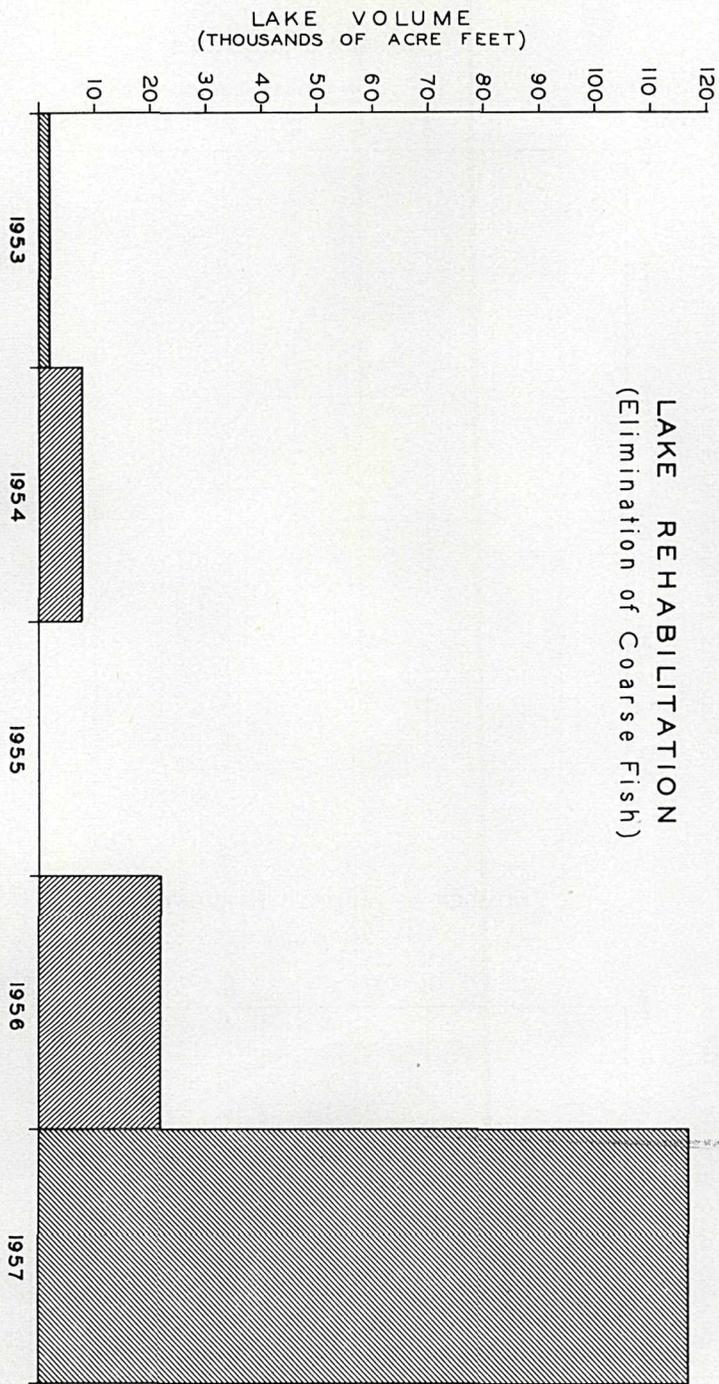
Wolves and coyotes within settled or hunting areas caused negligible damage as their numbers have been kept at a very low level by continuous and intensive control measures. This systematic pressure must be kept up without a break so that these species do not have the opportunity to re-establish themselves, particularly in settled areas.

Pressures were applied on foxes in the Courtenay-Campbell River area as a result of complaints from local rod and gun clubs. A total of twenty-eight foxes were destroyed

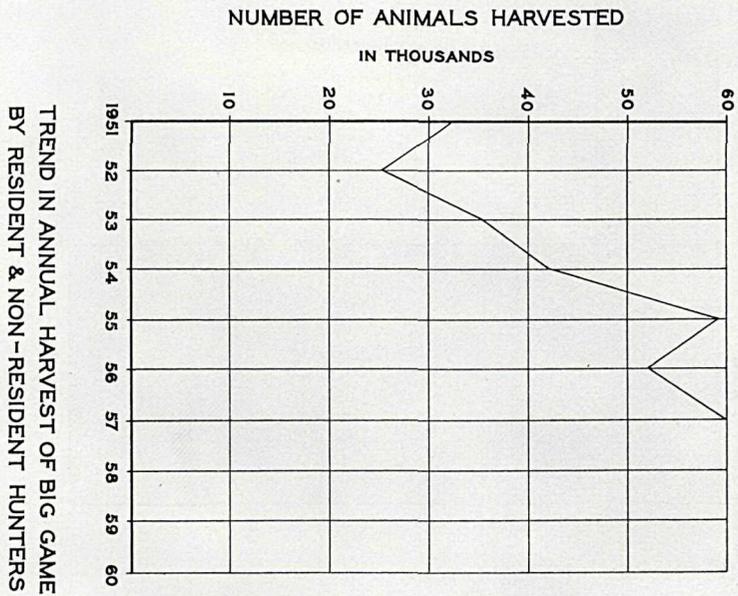
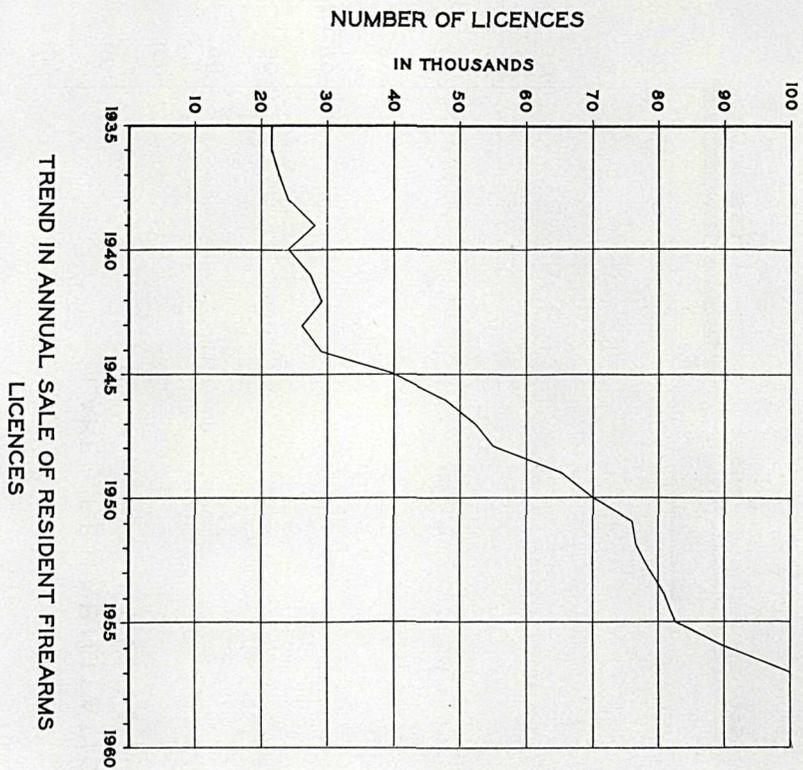
in this area. A more intensive control is contemplated for the coming season. A total of 263 foxes were destroyed because of complaints, but damage was relatively low.

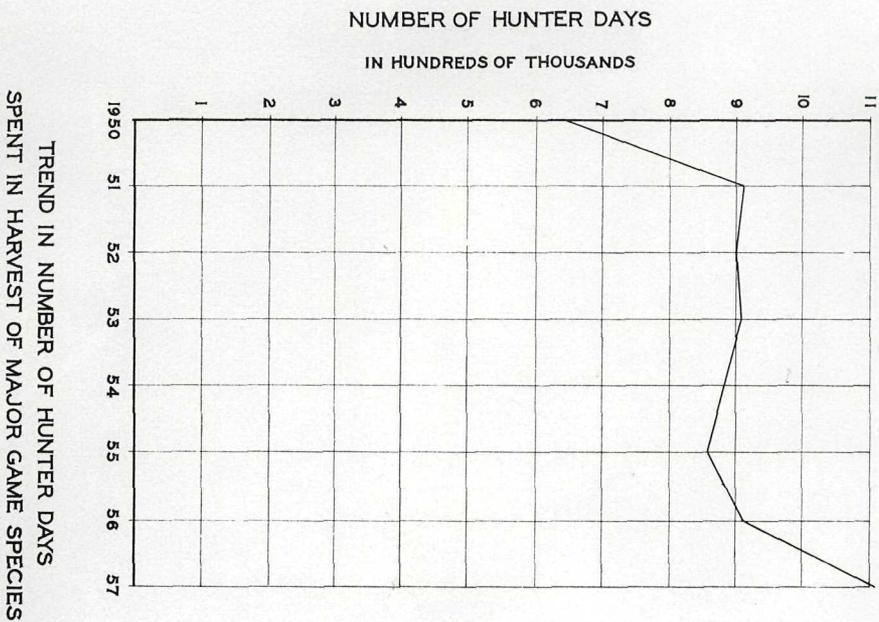
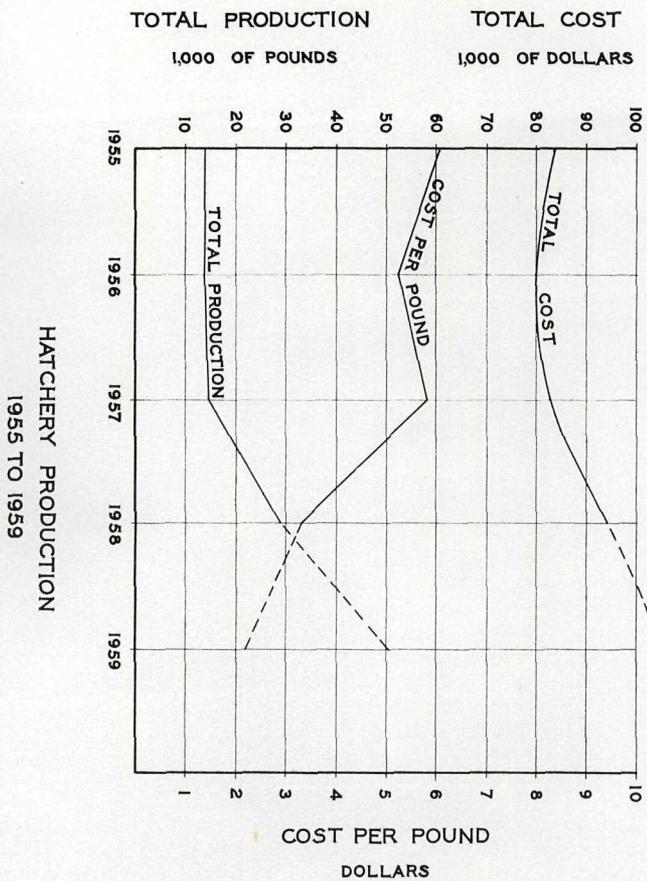
Rodent-control was late in starting during 1958, but 3,100 of 8,875 acres surveyed were treated. This represented a total of approximately 93,000 individual baits placed. Farmers of other areas are exerting considerable pressure for rodent-control, so that it appears as though rodent work is here to stay. To perform an adequate control over the areas requiring this service will involve a large expenditure for field personnel and equipment. In addition, much experimentation will be required in this field.

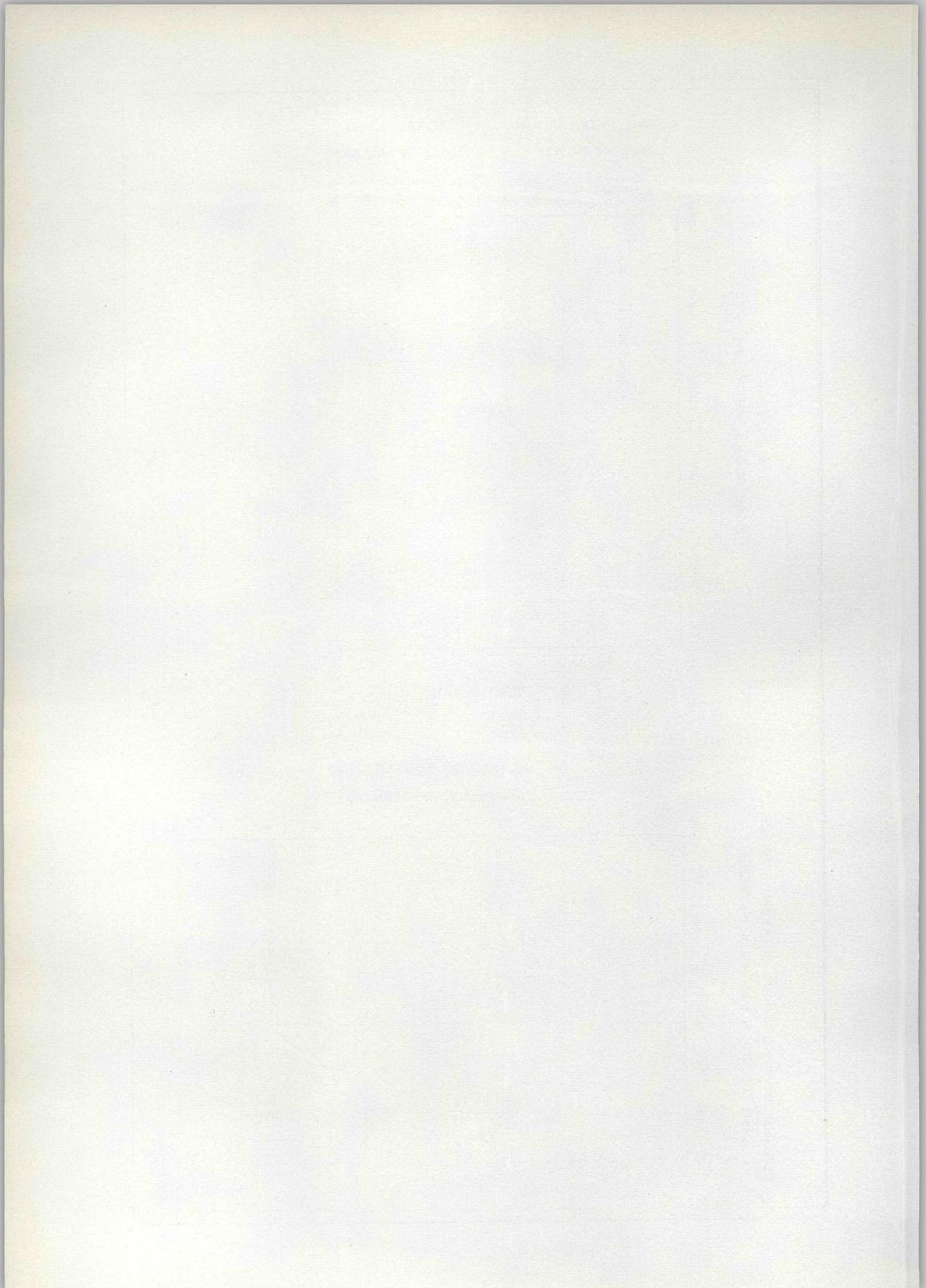
LAKE REHABILITATION  
(Elimination of Coarse Fish)



FISHERIES MANAGEMENT DIVISION  
DEPARTMENT OF RECREATION & CONSERVATION (GAME)







PROVINCIAL  
PARKS  
BRANCH





The formal opening of Shuswap Lake Park by the Honourable E. C. Westwood, shown with (left to right) Mr. J. A. Reid, M.L.A., Honourable H. L. Shantz, and Dr. D. B. Turner.



New "point of interest" sign and "garbage gobbler."

## PROVINCIAL PARKS BRANCH

H. G. McWILLIAMS, DIRECTOR

The impact of Centennial Year was reflected in all phases of Provincial park activity. Special efforts were made to meet Centennial commitments and projects. Many of these plans were undertaken co-operatively with other branches of the Government and industrial organizations. A greater volume of tourist traffic brought substantial increases in park visitors. Camp-site use rose by 50 per cent and total park visits by 12 per cent. Attendance at Provincial parks reached a new peak of 2,350,000 visits.

The park system also continued to grow physically in area and in numbers.

	Parks	Acreage
1957.....	116	8,416,657
1958.....	129	8,418,780

Another reflection of increasing public interest is shown in the number of offers, made to the Crown, of gifts of land for Provincial park purposes. Some of these gifts have already been accepted and the necessary legal surveys are in process of completion.

Also of major importance was the Federal-Provincial Agreement for the alleviation of unemployment through works projects.

By sharing funds on a 50-50 basis, these governments allocated the sum of \$754,000 to the Parks Branch for development work performed between January and May. A similar programme started in November and will continue through the winter of 1958/59.

The Youth Crew Training Programme has been placed under the full control of the Parks Branch. A total of 120 boys were placed in ten crews and were employed in seven separate localities during the summer holidays.

The opening of the first marine park at Sidney heralded the start of a new and most important development trend for the Branch.

### RECONNAISSANCE AND INVENTORY

The 1957 inventory of suitable marine park-sites resulted, this year, in two valuable acquisitions at Portland Island and Montague Harbour. A 208-acre reserve was established on D'Arcy Island and progress made toward the acquisition of 68 acres on Keats Island.

Negotiations were undertaken for the donation of beach areas at Bamberton Beach and Lakelse Lake.

A generous donation of 5 acres made possible the establishment of a Class "C" park on the Koksilah River. Purchase of land added 5 acres to Okanagan Falls Park and established 100 acres for the proposed Mount Fernie Park. Appraisals were made at Pilot Bay, Kootenay Lake, with a view toward an equitable exchange of property. A reserve was established at Elko Lake for a proposed Class "C" park.

Numerous recommendations to acquire land for park purposes were investigated, which resulted in 141 areas involving 12,871 acres of land and 1,962 acres of foreshore being reserved.

The year saw five new Class "A" parks established, five increased in area, and two decreased in size; seven new Class "C" parks were established and one reduced in area. Silver Star Park was reclassified as a Class "C" park. The total area in Class "A" parks increased by 1,982 acres and in Class "C" parks by 142 acres. An inventory was made of a portion of Strathcona Park and adjacent lands.

## PLANNING

The Planning Section was concerned primarily with two main projects. These were the continuation of studies and field surveys as a prerequisite to the preparation of an over-all development plan for Garibaldi Park and the selection, mapping, and planning of park-sites adjacent to the Trans-Canada Highway as part of the Canada-wide scheme for a system of roadside camp and picnic sites.

Two planning survey crews operated out of Victoria as part of the programme for continued expansion of park facilities across the Province. These crews carried out mapping and planning in fourteen different parks.

A study was made of five marine park-sites, and field mapping was carried out in preparation for early development in 1959. A development plan for the first marine park at Sidney Spit was completed in early summer.

The main projects of the landscape planners included completion of a plan for the headquarters area of Manning Park and the preparation of a large-scale programme of cover restoration in a number of parks through use of the new Parks Branch hydro-seeder.

## RESEARCH

The Research Section undertook a more varied programme than in previous years. In addition to such continuing projects as visitor studies, use of facilities, and wear to vegetation cover, several new ventures were added.

Okanagan Lake, Okanagan Falls, and Englishman River Falls Provincial parks provided areas for visitor studies. The use of facilities at Miracle Beach, Cultus Lake, and Okanagan Lake Provincial parks was studied. All regional supervisors and park supervisors received a revised set of instructions for collecting park attendance data. More accurate attendance counts have been made possible.

New studies completed this year include a camper fee survey, which evaluated the problem of charging for camp-sites in Provincial parks; sample counts of border crossing traffic at Douglas and Osoyoos for the Travel Bureau; and a joint investigation with the Planning Section of ski areas in the Pacific Northwest.

The Branch library became the responsibility of Research at the start of the year. A paper was presented to the Eleventh British Columbia Natural Resources Conference.

A survey of ski-ing and a sample count of pleasure-boats were completed in connection with a private research organization.

Arrangements were made for a very successful meeting of Recreation Sub-committee, Columbia Basin Inter Agency Committee, in Victoria on May 28th and 29th, 1958.

## WILDLIFE

Wildlife research and management in Wells Gray Park concentrated mainly upon moose, caribou, marten, and trout. The Lightning Lakes trout study continued in Manning Park. Technical papers were produced on moose diseases, moose reproduction, caribou distribution, and caribou migrations.

The park interpretation programme was enlarged. It attracted over 18,000 people to two nature houses—one at Manning Park and a new one at Miracle Beach. Public reaction has been enthusiastic toward these museums, which serve as introductions to the natural features of parks. Associated services, such as nature trails, informal illustrated talks, conducted hikes for large groups, and the placing of outdoor signs at park features of outstanding interest, have shown successes equal to those of nature houses.

## HISTORIC SITES

As part of the Province's Centennial celebrations, thirty-eight large "stop of interest" plaques were erected. Approach and feature marking signs, together with "garbage gobbler" units, added to the appeal and usefulness of these selected view points.

The programme for the restoration of Barkerville was a Centennial project administered by the Parks Branch. Good progress was made in the acquisition of important private properties. Facilities for the public were provided through a camp and picnic ground, the preparation of exhibit buildings, and an extensive sign system.

The collection of a large amount of historic material relating to Barkerville will be of great future importance.

### ENGINEERING

The Engineering Section undertook the preparation of designs and specifications for a variety of works located in thirteen parks. These included picnic shelters, toilet and change buildings, bridges, water systems, and road locations. Major undertakings were the awarding of contracts for a concrete dam and related works at Mount Seymour and toilet and change houses in Shuswap Lake and Wasa Lake Parks.

### SUMMARY OF PROJECTS

#### *Champion Lakes Park:*

- Picnic shelter (designed).
- Primer spraying of roads and parking-lots (completed).
- Toilet and change house (constructed).
- Water system (surveyed and designed).

#### *Cultus Lake Park:*

- Swimming-piers (two designed).
- Picnic shelter (designed).
- Toilet and change building (designed).

#### *Englishman River Falls Park:*

- Picnic shelter (designed).
- Toilet building (designed).

#### *Garibaldi Park (South):*

- Picnic shelter (designed).
- Rain shelter (being designed).
- Toilet and change building (designed).

#### *Goldstream Park:*

- Double Warren bridge (plans prepared).

#### *Ivy Green Park:*

- Picnic shelter (designed).
- Water system (designs for filter cleaning).

#### *Little Qualicum Falls Park:*

- Topographic mapping of 320 acres completed.
- Boundaries of park re-established.

#### *Manning Park:*

- Combined service-station and store (constructed).

#### *Mount Seymour Park:*

- Concrete dam and related works (under construction).
- Height of land traversed and surveyed for boundary revisions.
- New concession building (preliminary design studies made).
- Power-line right-of-way traversed for proposed extension.

Sewer and sewage-treatment plant (nearing completion).

Topographic mapping of 235 acres completed.

Water system: Pipe-line right-of-way regraded; system retraversed and referenced.

*Okanagan Lake Park:*

Picnic shelter (designed).

*Paul Lake Park:*

Topographic mapping of 120 acres completed.

Road location (3.25 miles completed).

*Shuswap Lake Park:*

Picnic shelter (designed).

Toilet and change house (constructed).

Workshop (constructed).

*Wasa Lake Park:*

Toilet and change house (constructed).

Water system (surveyed and designed).

*Portable Change-house:*

Designing of a portable change-house now under way.

#### OPERATIONS AND MAINTENANCE

An increase and acceleration of capital development in the parks resulted from the implementation of the Federal-Provincial Agreement during the period of January 1st to May 31st, 1958. A similar but larger plan functioned from early November through the winter of 1958/59. The programme which was introduced for the primary purpose of alleviating unemployment has produced tangible results in the form of greatly expanded park facilities; for example, Cultus Lake Park developments increased by 85 per cent.

The continued expansion of construction and development has led, in turn, to new approaches to park works. The chief of these has been a greater emphasis on winter developments in "high use" areas, thus avoiding conflict with actual summer recreational use.

Maintenance standards have been raised and consolidated. A major effort has been to raise developments standards in older areas by carrying out extensive reconstruction. The plan for dividing the Province into geographic regions by grouping seasonal areas around a central permanent administrative establishment was continued. First stages in this evolutionary process were achieved at Manning and Shuswap Lake regions. Initial plans were made for the establishment of Cariboo and Wasa regions.

Greater emphasis was placed on work programming. An attempt is being made to reduce the part-time aspects of park employment by balancing summer public service against winter work projects.

An adverse factor in an otherwise excellent summer was the high degree of fire-hazard. Park crews fought forty fires in park and adjacent lands. The worst fires occurred in Wells Gray and Strathcona Parks, with losses of 4,800 and 6,000 acres respectively. Close attention to fire equipment, instructions, and control methods assisted in keeping a low damage ratio in parks. It is worthy of note that no fire damage occurred in developed camp-sites, and that only one of these areas had to be closed during the period of fire-hazard as a precautionary move.

## LANGFORD WORKSHOP

Total production from the workshop for projects is as follows: 980 tables, 569 iron fireplaces, 963 signs, 25 "garbage gobbler" units, 250 toilet assemblies, 34 incinerators, and 31 Centennial plaques. In addition, the workshop produced the first marine-park buoys and anchors and various miscellaneous items.

## YOUTH CREWS

Ten crews of twelve boys each were fully employed during the summer. The crews were located as follows: Mount Robson, 1; Champion Lakes, 3; Manning Park, 3; Lac la Hache, 2; and Jimsmith Lake, 1.

Crews undertook such projects as trail and camp-site construction and general park maintenance. A limited educational programme was instituted and group recreation undertaken.

## SUMMARY OF PROJECTS BY PARKS, 1958

## VANCOUVER ISLAND REGION

*Elk Falls:*

Bank stabilization programme (utilizing hydro-seeding technique).  
Irrigation system.

*Miracle Beach:*

Reconstruction of 100 camp units.  
Twenty-two camp units added.  
Pilot-model quarters established for park interpretation centre.

*Little Qualicum River Falls:*

Forty-three-unit lower camp-site completed plus extension to water service.

*Englishman River:*

Thirty-table picnic-site, two parking-lots, service area, 1,600 feet of road, and extension to water system.

*Goldstream:*

Camp-site right-of-way clearing begun.  
Six-unit temporary picnic-site established.

*Sidney Island:*

Establishment of a six-unit picnic area complementing a six-unit camp-site, which marked the first development among the newly created marine parks.

## LOWER MAINLAND

*Peace Arch:*

Service yard recurbed and paved.  
Preliminary work begun on establishing a Branch nursery.  
Roof of Peace Arch water-proofed.

*Mount Seymour:*

Safety standards raised by adding centre line to 8-mile highway.  
Poma lift now under construction by private group under special agreement; will reduce congestion.  
Forty-kilowatt diesel-electric plant added for concession operation.  
Lodge entrance relocated.  
Ten-acre extension of ski slopes.

Trails improved.  
 Aerial spraying for black-flies.  
 Road improvements made, such as right-of-way clean-up, patching culvert modification, gravel addition, and oiling.  
 Bottom towers rebuilt for Twin Hills ski tow.  
 Storage dam for domestic water under contract.  
 Sewage-disposal plant contract continuing.

*Garibaldi:*

## Black Tusk:

Trail improvements.  
 Water system for administration cabin.  
 Boat-house constructed.  
 Base camp established by helicopter lift for planning survey party.

## Diamond Head:

Improvements to jeep-road.  
 Improvements to chalet, of which the main items were replacement of water-system intake and sheathing of sod roof.

## Alouette Lake:

Two and one-half miles of access highway completed in 1958 (Mile 1 to Mile 5, 100 per cent complete; Mile 5 to Mile 7.4, 25 per cent complete; Mile 7.4 to Mile 8.0, 10 per cent complete).  
 Picnic area access road, Parking-lot No. 1, table units, and beach area completed.  
 Twenty-five per cent of 218-unit camp-site finished.  
 Service area established, including construction camp and water system.

*Cultus Lake:*

One hundred and eighteen camp-sites added by the entrance bay and Clear Creek developments.  
 One hundred and fifteen picnic units—construction carried out at entrance bay along with extensive parking-lots and beach development.  
 Fifty-nine old camp-sites renovated in Delta Grove.  
 Grass cover of earthwork slopes established by hydro-seeder.  
 Spring-water site reconstructed.  
 Maple Bay water system established.

## MANNING REGION

*Pinewoods Area:*

New ski area prepared.  
 New motel area landscaped.  
 Permanent water system extended to chalet motels.  
 Family cabins refurbished and converted to Propane.  
 Renovation of gas-station interior begun.  
 Improvements made to concession laundry.  
 One hundred kilowatt diesel-electric plant added to bring power-house capacity to 240 kilowatts.  
 Park interpretation centre re-established.

*Blackwall Road:*

Mile 0 to Mile 5, subgrade 100 per cent complete.  
 Mile 5 to Mile 9.5, subgrade 40 per cent complete.

*Skagit:*

Camp-site 80 per cent reconstructed.

*Coldspring:*

Renovated and ten new camp-sites added.

*Mule Deer:*

Reconstruction of camp-site begun.

*Hampton Creek:*

Eighty-one-unit camp-site constructed and temporary water system added.

*Roadside Areas:*

Three picnic areas established for a total of twelve tables.

*Bromley:*

Reconstructed and enlarged to a twenty-nine-unit total (seventeen camp, twelve picnic).

*Stemwinder:*

Reconstructed and enlarged to a total of twenty-three camp-sites.

## OKANAGAN REGION

*Okanagan Lake:*

One thousand two hundred feet of underground power-line laid to serve picnic area.  
Camp-site beach area cleared, sanded, and protected by rock breakwaters.  
Four toilet-building areas landscaped.  
Residence area landscaped.  
Earthwork slopes extensively planted with grass by hydro-seeder.  
Camp-site pumping capacity doubled.

*Okanagan Falls:*

Domestic- and irrigation-water system established to serve new thirteen-unit camp-site.  
Landscaping, including topsoiling and tree-planting.

*Penticton Cut-offs:*

Irrigation systems established in each of the three picnic areas—Soorimpt, Kickinnee, and Pyramid.

*Kelowna:*

Camp-site enlarged from six to nine units, water system installed, and area landscaped.

## SHUSWAP REGION

*Shuswap Lake:*

Toilet and change house and park workshop completed by contracts.  
Eighty per cent of 25,000-foot water system with 16,000-gallon elevated storage completed.  
Work continued toward ultimate completion of 228 camp-sites; picnic area completed.  
Ten thousand tons of crushed gravel hauled and stock-piled for road-surfacing.  
Park officially opened August 19th by Honourable Earle C. Westwood.  
Structures erected for "Salute to the Sockeye" celebration.

*Mara Park:*

Motel removed by contract and initial use as picnic area begun.

## CARIBOO REGION

*Lac la Hache:*

Twenty camp-site addition, to bring total to fifty-four.  
Renovation of picnic and beach area.  
Hand-pump added to well drilled in 1957.

## KOKANEE REGION

*Rosebery:*

Development of eight picnic units and nineteen camp-sites.

*Champion Lakes:*

Foot-trail established around Third Lake.  
Ninety-unit camp-site completed.  
Clean-up and lake-shore and beach sanding.  
Bituminous treatment to 7-mile park-entrance road.  
Toilet and change house completed by contract.

*King George VI:*

Thirty per cent completed (twelve camp, thirty-six picnic).

## WASA REGION

*Mount Fernie:*

Three-quarter-mile access road to camp-site and picnic-site 30 per cent completed.  
Forty-five-unit camp-site and 10-unit picnic-site 25 per cent complete.

*Jimsmith Lake:*

Twenty-seven-unit camp-site 40 per cent completed.

*Morrissey:*

Renovation of nine-unit picnic area.

*Wasa Lake:*

Toilet and change house completed by contract.

## EAST CENTRAL INTERIOR

*Wells Gray Park:*

Six miles of right-of-way clearing on Clearwater Lake Road by prison-labour group.  
Two and one-quarter mile trail completed to top of Green Mountain. Wing fences totalling 1 mile built for moose-corrals.  
Residence landscaping and water-system revision begun.  
Five miles of jeep-road built by Power Commission to its proposed dams.

*Mount Robson:*

Lucerne camp-site increased by three units; the remaining twenty-six reconditioned.  
The major part of water and electrical systems was installed to serve Yellowhead Lodge.  
Complete renovation of twenty-one-unit Mount Robson camp-site by youth crew plus improvements to Kinney Lake Trail.  
Major improvements made to Berg Lake Trail.  
Residence foundation repaired, interior renovated, and 3-kw. light plant installed.

## PRINCE GEORGE AND PRINCE RUPERT AREA

*Bear Lake:*

General renovation to picnic area and camp-site, service area developed, and garage-storage building constructed.

*Cinema:*

Facilities renovated.

*McClure Lake:*

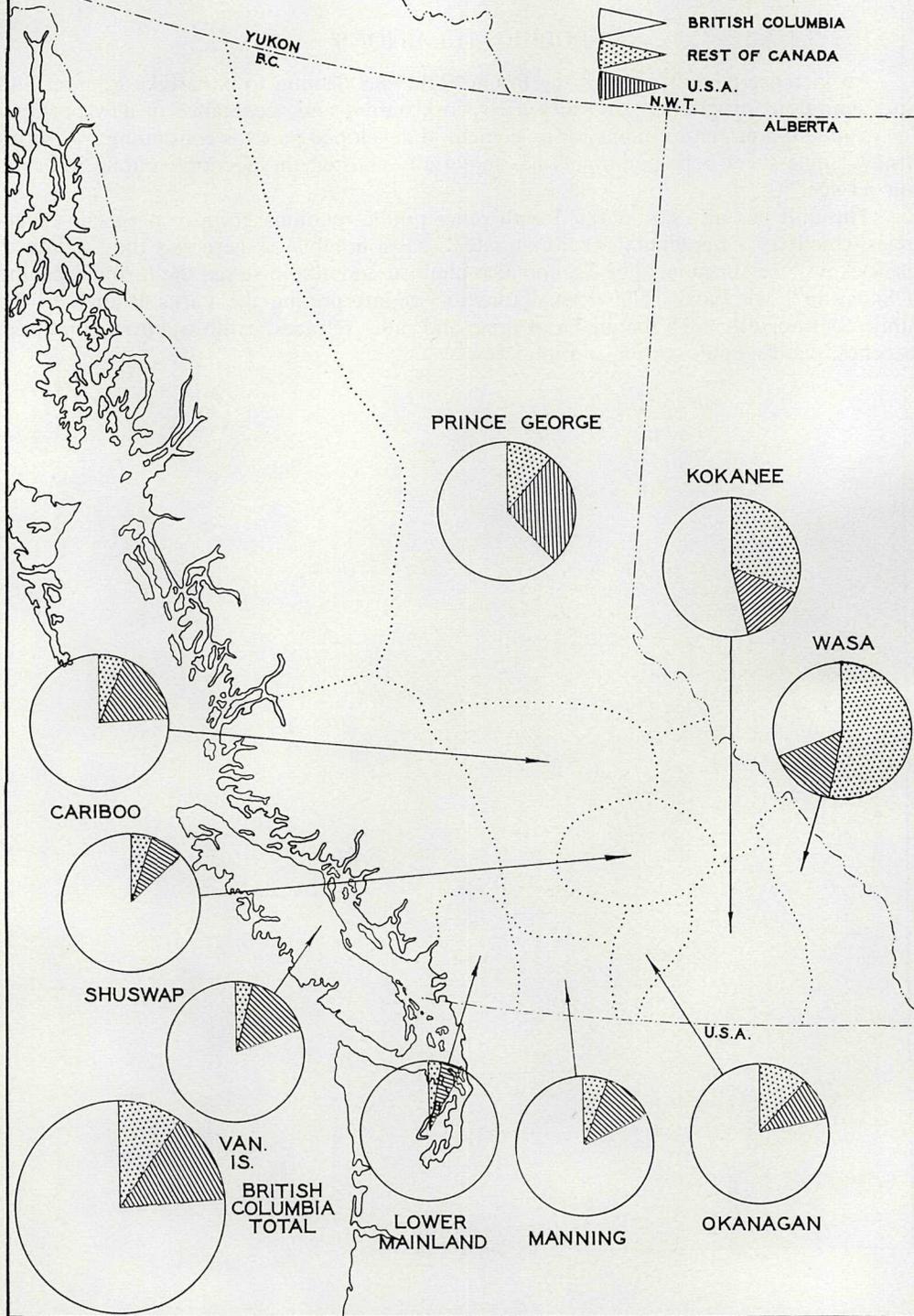
Initial work was undertaken on expansion of facilities.

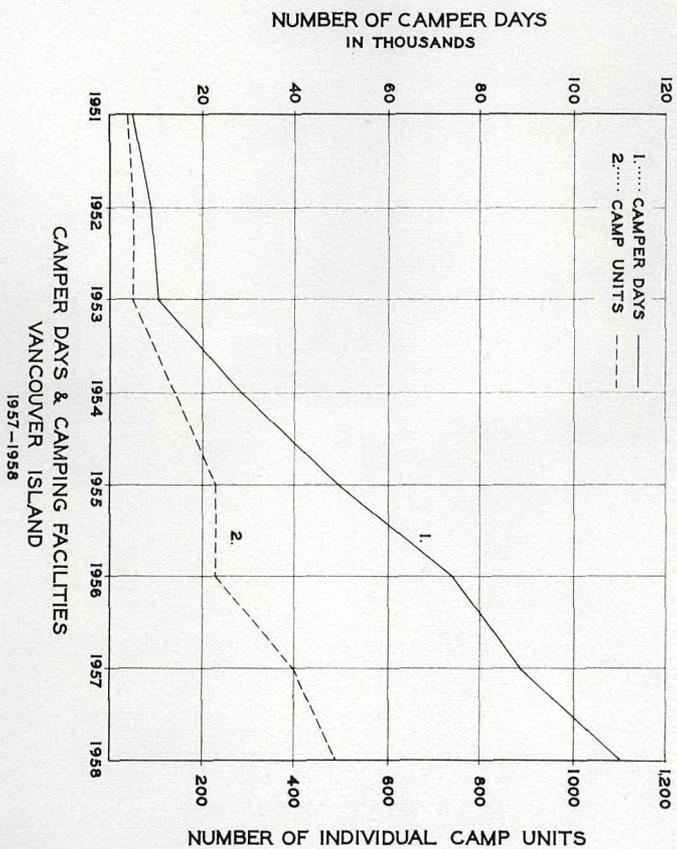
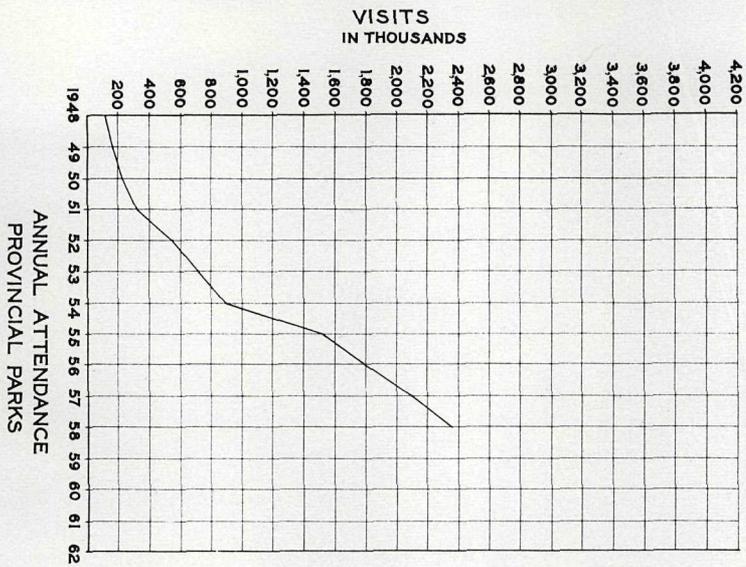
### PUBLIC RELATIONS

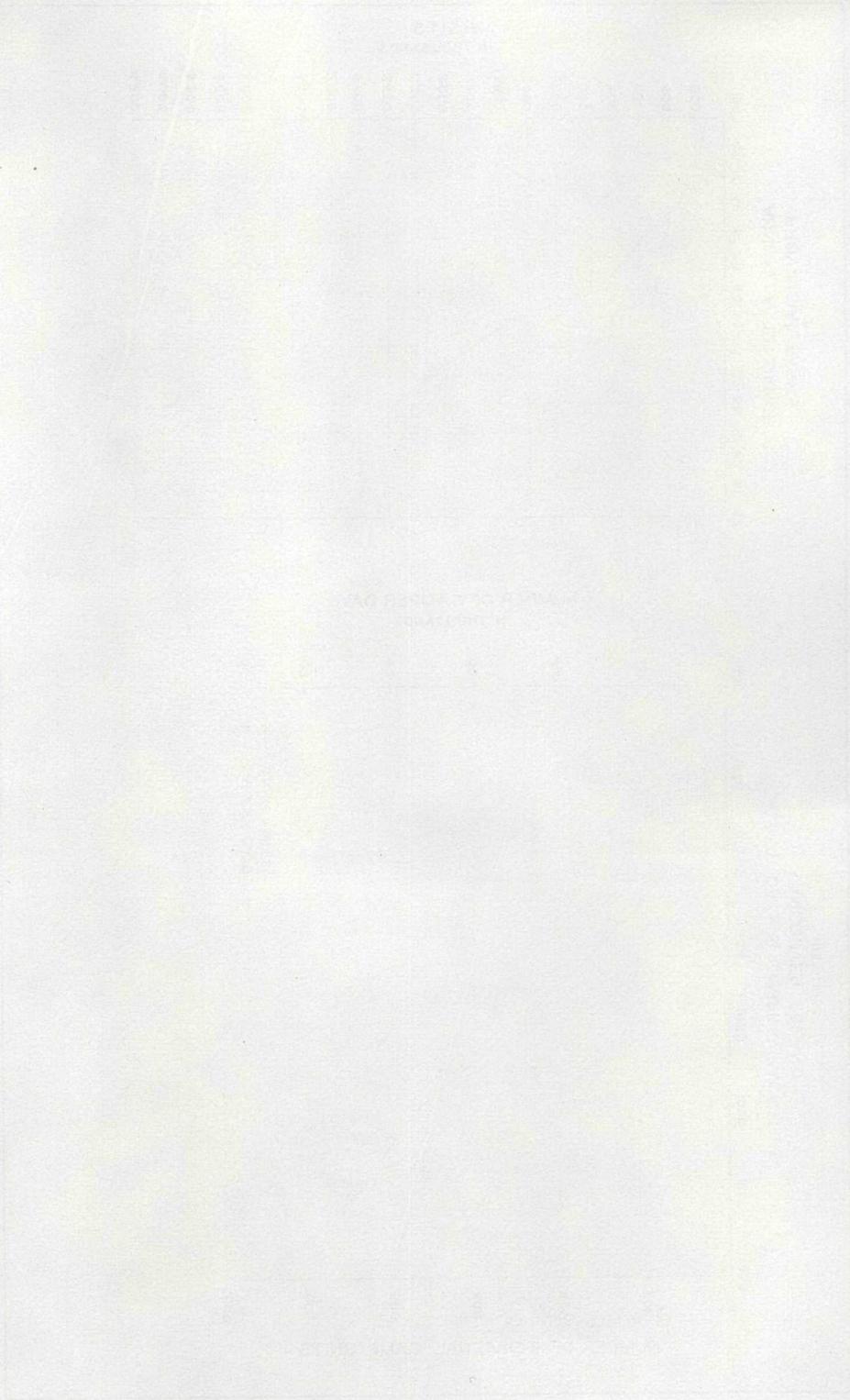
An increase in staff enabled the Public Relations Section to undertake a larger and more ambitious programme and increased work output and acceptance of new projects. The production of picture-maps for placement in developed parks is continuing. A series of new single-sheet park pamphlets has materially assisted the Section's public information service.

The unit has also co-operated with other public relations groups on special enterprises, chiefly of a Centennial Year character. Most notable of these was the "Salute to the Sockeye" celebration. The Section also planned and administered the formal opening of Shuswap Lake Park. The normal function of interpreting the Parks Branch to the public continued through the media of press and radio releases, exhibits, correspondence, speeches, panels, conferences, and interviews.

# CAMPERS PLACE OF RESIDENCE PROVINCIAL PARKS BY REGION 1958

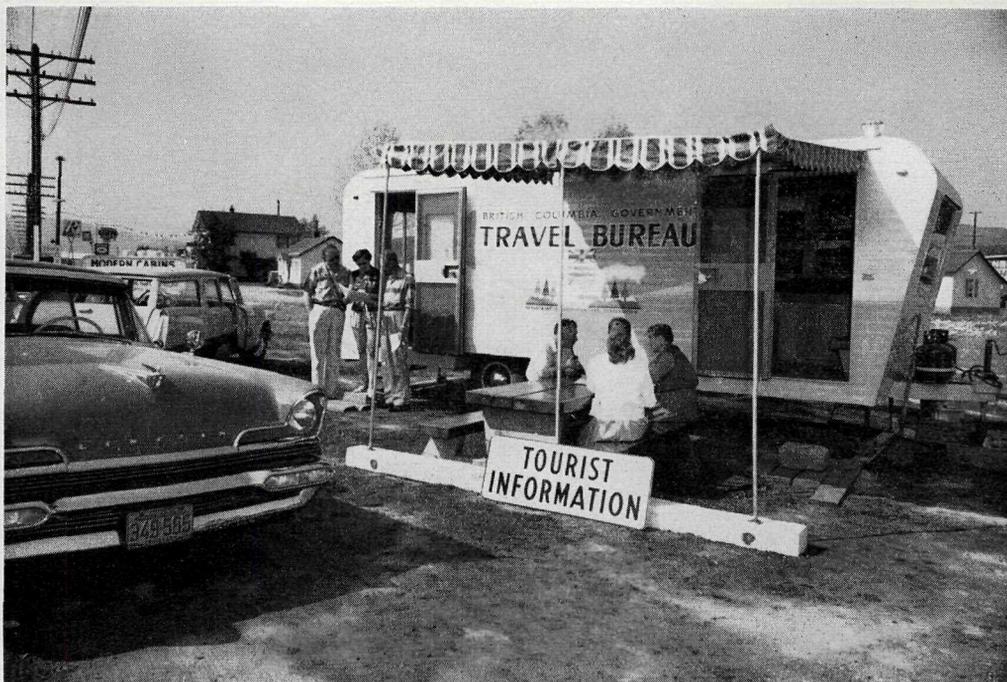






# TRAVEL BUREAU





Exterior view of the Travel Bureau new mobile centre.



Travel Directors of the four Western Provinces in attendance at a Western Tourist Conference in Regina. At this meeting the star-rating formula was formally adopted by the four Western Provinces. Left to right: E. Evans, British Columbia; H. Dryden, Saskatchewan; W. E. Organ, Manitoba; and D. Campbell, Alberta.

**BRITISH COLUMBIA TRAVEL BUREAU**

ERNEST EVANS, DIRECTOR

British Columbia's tourist economy showed a slight appreciation in 1958 over 1957; a 3.1-per-cent gain in border crossings to the end of November, however, did not reflect the benefits anticipated from the Centennial promotions. The normal pattern of tourist traffic to the Province was disturbed by several factors. The whole Canadian tourist trade was affected by poor summer weather east of the Rockies. The publicity attendant upon the ferry strike worked against an increased traffic between Vancouver Island and the British Columbia Mainland. Another factor was the vastly increased competition with which British Columbia is faced in the tourist trade. Before World War II there was comparatively little competition. Now seventy-two countries and forty-nine States and two Territories actively compete for our market. Many of these have stepped up their promotions in the last year. This has been especially noticeable in the case of Washington and Oregon. A total of fifty-four countries have 105 tourist offices in the United States.

There was every indication that Canadians from other Provinces visited British Columbia in larger numbers. Offsetting this, British Columbians travelled less in the Province than in previous years. This was felt particularly in the Okanagan, which relies to a great extent on Lower Mainland patronage, and also on Vancouver Island and Sunshine Coast, which also benefit from domestic trade.

The Kootenay area benefited from a larger influx from Alberta and other Prairie Provinces. It suffered from a decline in United States traffic as a result of official Automobile Club reports which detailed poor road conditions from Spokane to Lake Louise and Banff through Cranbrook.

The smaller hotels, auto courts, and resorts report a season very slow in starting. First-class accommodation in metropolitan areas enjoyed good business, and conditions in the accommodation industry generally reflected an average season.

Central British Columbia reported that travellers to and from Alaska were showing an increasing preference for the Alberta highway. There are no statistics to support this statement.

To the end of September, which accounts for 85 per cent of the visitor entries, 251,451 foreign vehicles had entered on forty-eight-hour Traveller's Vehicle Permits, compared with 242,519 in 1957, and 101,770 had entered without permits for short-term visits, compared with 92,741 in 1957. On this basis it is estimated that 1,350,000 visits were made in 1958 by United States citizens arriving by automobile, and that some 300,000 arrived by public carrier. It is estimated that 500,000 Canadians from other Provinces made recreational trips into British Columbia.

On this basis it is estimated that British Columbia's tourist business was worth \$106,000,000 in 1958, an increase of \$3,000,000 over 1957. Final data are not yet available from the Dominion Bureau of Statistics.

**PROMOTION**

The Bureau's activities in travel promotion during 1958 were tied in with and supplementary to the promotions of the Centennial Celebrations Committee. Travel Bureau advertising budget, which was reduced on this account, was expended mainly in the magazine field. The radio, billboard, and poster programmes were a function of the Centennial Celebrations Committee.

The Director was a member of the Tourist Promotion Sub-committee of the Centennial Celebrations Committee under the chairmanship of the Deputy Minister of Industrial Development, Trade, and Commerce. This Sub-committee served in an advisory capa-

city in 1956 and early 1957, when its members served on the joint committee on advertising and publicity.

All phases of tourist promotion were discussed at committee meetings, and recommendations were made with respect to field contact, posters, billboards, press and radio advertising, and literature of all kinds.

Upon the final adoption of a programme by the Central Committee, the Tourist Promotion Sub-committee held itself in readiness to serve further upon call. Active co-operation was assigned to the Director, Travel Bureau. The Bureau possessed the required promotional machinery and contacts. All advertising sponsored by the Travel Bureau supported the Centennial theme. A constant stream of publicity material emanated from the Bureau. General Centennial visitor inquiries were directed to it.

Inquiries during 1958 from the magazine and newspaper advertising and other promotions totalled approximately 85,000, compared with 55,000 in 1957. The heavy mail started on January 8th, when 1,522 inquiries were received, and extended to May 12th. After this date the daily inquiry pattern approximated that of previous years. This emphasis in the early months of the year was due to the newspaper campaign in British Columbia and early promotions in the western States.

#### PUBLIC RELATIONS

Throughout 1958 the Bureau continued to take advantage of all established media of free publicity while extending the field of its public relations by co-operation with other interested organizations. Materials were supplied to leading magazines and newspapers and to free-lance contributors. In addition, the Bureau presented a series of weekly talks on a Victoria radio station throughout the spring and summer.

The staff public relations officer represented the Province at the Pacific Northwest Travel Association exhibit in St. Louis, Missouri, and also accompanied the Victoria Chamber of Commerce goodwill tour to Barkerville.

Co-operation with other branches on Departmental projects included preparation of the Department exhibit for the British Columbia Building in Vancouver, an exhibit for the "Salute to the Sockeye" at Squilax, and production of the Portland Island presentation book for Princess Margaret.

Bureau public relations staff continued to produce the monthly British Columbia Government News. The April issue was devoted entirely to the work of the Department of Recreation and Conservation. Representatives sat on committees relating to Centennial celebration and Pacific Northwest promotion, and assisted in the reception of special visitors to the Province.

The Bureau shared in hosting four travel editors from major United States newspapers who toured Vancouver Island and the Lower Mainland under the auspices of the Pacific Northwest Travel Association. This visit resulted in favourable publicity. It co-operated with other branches and departments to secure outstanding recognition for the Province in many national and international publications.

#### TOURIST TRADE REPRESENTATIVE, SAN FRANCISCO

The Bureau, in co-operation with the Province of Alberta, retained the services of a tourist trade representative for the western States, with headquarters in San Francisco. He reported:—

"A decided increase in the interest of American travellers for Western Canada vacations was evident in the eleven western States. This upswing was predominant in the group seeking automobile routings. On the other hand, travel agents point out that the British Columbia coastal shipping strikes not only lowered the common-carrier traffic to Pacific ports, but caused many cancellations in the resort areas of the Canadian Rockies,

due to a large number of their tours combining both boat and rail. The same would apply to bus and air to some extent.

"There would appear to be many automobile travellers who intend to visit British Columbia and (or) Alberta, but are unable to make the full tour they originally planned due to their spending longer periods in the recreational areas of adjoining States. This might be attributed to the effectiveness of the State Line information centres operated by some States.

"Throughout the year personal contact was made with the many organizations providing travel information service to members or to the public. This type of office is increasing both in number and importance, and attention to them requires much of the contact time. A great deal of co-operation has been received from the newspapers, magazines, and TV. stations, while speeches and film showings form still another feature of the promotional activities.

"During the year major travel displays were exhibited to an attendance of more than 2,000,000 persons.

"A group of California State Automobile Association touring advisers were taken through British Columbia and Alberta in September. This familiarization tour was to up-date key touring personnel on our highway-construction programme and prepare instructional guides for the counter staffs throughout their district offices."

#### LITERATURE

The Travel Bureau standard literature carried the Centennial message. A Centennial historic map was produced and a special edition of "Alluring British Columbia" was printed. The run on the calendars of events, as chargeable to the Bureau's budget, was over a quarter of a million. Several hundred thousand of these were also produced for and distributed by the Centennial Committee. No new folders were issued, but all basic folders were brought up to date as required. Over a million and a half pieces of literature were distributed by the Bureau, in a total of 2,517 shipments.

#### TOURIST INFORMATION CENTRES

Three visitor reception centres were operated by the Bureau during the tourist season. At the permanent White Rock centre, 13,000 cars with a total of 35,954 visitors checked in. These were mainly United States visitors. At the Cache Creek centre, service was given to over 4,000 cars, 57 per cent of which were registered in British Columbia. The greater proportion of these visitors were primarily interested in fishing. Camping followed as a close second. This centre served a useful purpose in providing a reliable source of information pertinent to the Interior. In addition, the Bureau established a mobile information centre first at the junction of Highways No. 3 and No. 95 at Yahk and later at Cranbrook, where it was placed north of the city centre on Highway No. 95. In the two and a half months of operation at both locations, the trailer was host to some 5,000 cars carrying over 15,000 passengers. These people planned to stay a total of 21,496 days within the Province. They would travel an estimated 2,866,500 miles during the course of their stay. The suggestion of alternate routes through British Columbia and the diversion of south-bound Highway No. 95 traffic from Kingsgate to the Interior over Highway No. 3 resulted in an estimated increased mileage totalling 410,400 or roughly 16 per cent.

The trailer staff were instrumental in clarifying and dispelling persistent rumours of poor road conditions from the Kootenays to the Coast. They undoubtedly increased traffic via Canadian highways.

The staff of the reception centres did an exceptionally good job. Many appreciative comments and not a single complaint on the service were received from visitors. The

counsellors are well informed with respect to routes and road conditions, and also with respect to camping, fishing conditions, and the amenities of the country generally.

Resident and non-resident fishing and hunting licences were sold at the Douglas Reception Centre as a convenience to visitors.

#### “TOURIST ACCOMMODATION REGULATION ACT”

In 1958, 2,131 establishments were registered with the Bureau as tourist accommodation, compared with 2,029 in 1957. Ten new camp and trailer parks were recorded, and the Bureau received almost daily inquiries with respect to developments in this particular field. It is estimated that the investment in hotels, auto courts, and resorts in British Columbia is in excess of \$190,000,000. There are over 35,000 rental units and more than 75,000 guest beds available to the tourist.

Star rating of this accommodation continued. There was considerable up-grading over the year. Four-star accommodation accounts for 26 per cent, compared with 24 per cent in 1957. Three-star accommodation dropped from 31 to 30 per cent. The star-rating officers were called upon for a great deal of counsel with respect to both operation and management of tourist accommodation, and to many operators the service has proved invaluable.

The star-rating formula has been uniformly applied over all western Provinces as a result of a meeting of representatives from British Columbia, Alberta, Saskatchewan, and Manitoba in Regina in January.

Many operators are new to the tourist business because turnover ownership of accommodation is very high, approximately 10 or 12 per cent annually. They require more counsel than is afforded in a general way by the star-rating officers and the Bureau staff. It was therefore considered advisable to continue with the tourist service clinics, which were first conducted in 1957.

#### TOURIST SERVICE CLINICS

The Bureau was fortunate this year in being able to secure the voluntary services of well-known authorities. Great contributions were made to this work by Messrs. Bailey and Edgcumbe, who represented restaurant interests, and by Mr. Seal, director of the American Motor-Hotel Association, president of the Washington State Motor-Hotel Association, member of the Washington State Advertising Advisory Council of Seattle, and by Messrs. R. Dickson and H. Sewell, of the Robert Simpson Contract Division. The clinics held well-attended meetings in Vernon, Kelowna, Penticton, Osoyoos, Powell River, Campbell River, Pender Harbour, Trail, Nelson, Cranbrook, Prince George, and Dawson Creek in co-operation with local Chambers of Commerce, the Auto Courts and Resorts Association, British Columbia Branch of the Canadian Restaurant Association, and the hotel associations.

In addition to being of help and inspiration to the operators of accommodation and restaurants, the clinics were addressed to retail service personnel. Every advantage was taken of opportunities to create a public awareness of the value of the tourist industry. The clinic received the very full support of local press, radio, and television outlets.

#### TOURIST COUNCIL

It has become increasingly obvious over the past few years, and particularly so in 1958, that the tourist trends are rapidly changing, and that competition for the visitor dollar is becoming keener. New and faster methods of transportation, highway development in the United States, and the opening-up of new countries to travel, all dictate a reappraisal of British Columbia's tourist facilities, potential, and the merchandising approach. The Tourist Council was enlarged for this purpose. It held a meeting at

Harrison Hot Springs, October 16th and 17th. The programme was arranged to permit full discussion of the problems confronting the industry and resulted in twenty-eight recommendations being made to the Council. These recommendations will be of great value in formulating future policy and providing for closer co-ordination between the various interests. The delegates attended the conference at their own expense. This indicates a sincere interest in the tourist industry.

One result of the Tourist Council meeting was the holding of regional Council meetings in other areas, notably Nanaimo and Trail. The Bureau was represented. Emphasis was placed on the need for a greater recognition of the tourist industry at regional and local levels.

#### EXHIBITIONS

In co-operation with Alberta, British Columbia was represented at Minneapolis Vacation Show; San Francisco Sport, Travel and Boat Show; Los Angeles Sport Show; San Diego County Fair; and at the California State Fair, Sacramento. Through the co-operation of the Canadian Government Travel Bureau, the Provinces were represented at agricultural fairs which featured the R.C.M.P. musical ride. The ride attracted large audiences in San Francisco, Chicago, and Kansas City, where the field representative was able to distribute pertinent literature and answer many hundreds of inquiries. The Bureau was represented at the booth sponsored by the Pacific Northwest Travel Association at travel shows in Kansas City, Chicago, St. Louis, Milwaukee, Cleveland, Minneapolis, Oakland, and Los Angeles.

#### LIAISON

The British Columbia Travel Bureau was represented at the meeting of the Federal-Provincial Tourist Conference in Ottawa and at the Canadian Tourist Association and National Association of Travel Organizations conventions in Quebec. Publicity was derived from the presentation of a totem-pole to the City of Quebec and the appearance there and in Toronto of Chief Mungo Martin and his great granddaughter Shirley Hunt. Opportunities were provided for the Director to speak at meetings of the Okanagan Valley Tourist Association, Okanagan-Cariboo Trail Association, Associated Chambers of Commerce of Vancouver Island, British Columbia Hotel Association and Hotel Operators and Innkeepers Society, and the British Columbia Auto Courts and Resorts Association. The Bureau was represented at meetings of the Pacific Northwest Travel Association, Vancouver Tourist Association, Victoria and Island Publicity Bureau, Seattle Chamber of Commerce, and Canadian Restaurant Association, and at many meetings of the regional and district Boards of Trade and of travel bureaux throughout the Province.

The Deputy Minister and Director met with representatives of the Washington State Department of Commerce and Economic Development and Tourist Information Division of Oregon State Highway Department in the interests of joint Pacific Northwest promotions.

Since the work of the Bureau is closely associated with that of the regional promotional bureaux, acknowledgment should be made here of the splendid work of and the co-operation received from Chambers of Commerce and travel bureaux throughout the Province. Without exception, their promotional activities have been of an extremely high standard and well co-ordinated with those of the Bureau.

The Bureau also acknowledges the co-operation of the Department of Economic Affairs for Alberta and the Director and staff of the Alberta Travel Bureau. Officers and staff of the Canadian Government Travel Bureau were in contact with the Bureau and provided invaluable assistance and exchanges throughout the year.

The director and officers of the Canadian Tourist Association contributed generously.

## SETTLEMENT

Settlement inquiries were somewhat less than in previous years. The majority of the 200 inquiries received were from the United States and were concerned with land settlement. The assistance of the Department of Citizenship and Immigration and the National Employment Service is acknowledged in this respect, as is the help rendered by the Departments of Lands and Agriculture.

The Bureau does not solicit immigration, but all inquiries are attended to promptly and the necessary information and references are forwarded without delay.

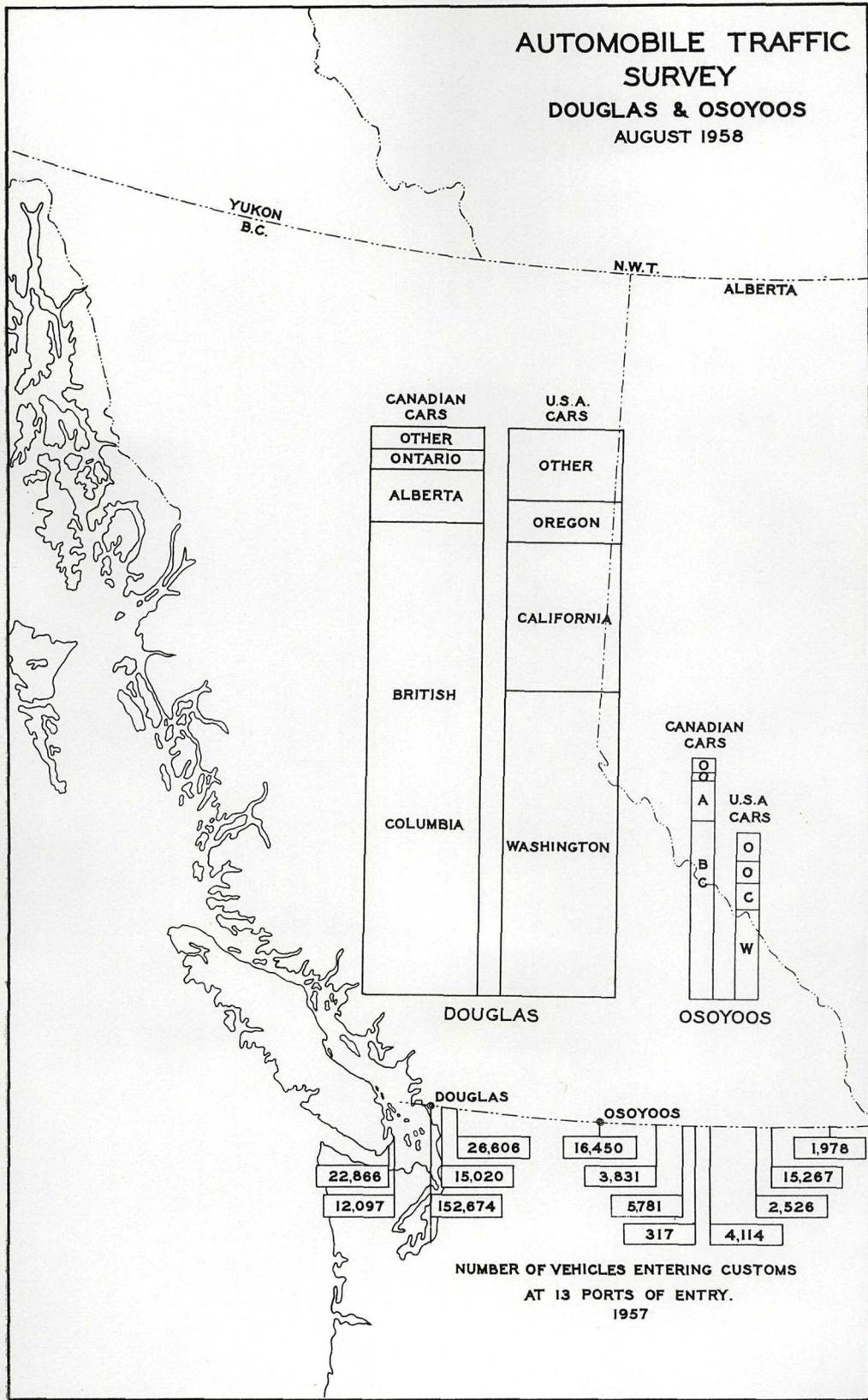
## HISTORIC SITES

During the year the programme of marking historic sites was conducted by the Centennial Committee in co-operation with the Parks Branch. The Bureau's interest was confined to the making of one standard bronze plaque for the Rutland Centennial Committee—marking Brent's flour-mill, first industry in the Okanagan.

# AUTOMOBILE TRAFFIC SURVEY

## DOUGLAS & OSOYOOS

AUGUST 1958



NUMBER OF VEHICLES ENTERING CUSTOMS  
AT 13 PORTS OF ENTRY.  
1957

1911

1912

1913

1914

1915

1916

1917

1918

1919

1920

1921

1922

1923

1924

1925

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1952

1953

1954

1955

PHOTOGRAPHIC  
BRANCH





Her Royal Highness the Princess Margaret and the Honourable Frank Mackenzie Ross.

## PHOTOGRAPHIC BRANCH

R. L. COLBY, CHIEF

### STILL PHOTOGRAPHY

Complete still coverage of the Legislature opening in January began a busy year for the Branch. The Budget Speech was covered. The inaugural trip of the Game Department's new launch and the eleventh meeting of British Columbia Natural Resources Conference were photographed. Progress on the Queen's totem was recorded. Assignments from the Attorney-General's Department took photographers to Haney and Oakalla institutions.

Photographers visited Sidney Spit Marine Park and Portland Island in May. Colour shots of Portland Island were included in a Centennial gift booklet that was presented to Her Royal Highness the Princess Margaret.

Comprehensive coverage of the Royal tour was the Branch's major assignment in July. Other projects in the same month included photographs of the opening of Nine-mile Canyon Bridge, Squamish Highway, and new Malahat construction. Progress photographs of Rogers Pass sections of the Trans-Canada Highway, Second Narrows Bridge, and Deas Island Tunnel were taken in July.

August assignments included Parks Branch youth crews, Barkerville restoration programme, and work in the south Kootenays.

Esquire magazine's travel editor, Richard Josephs, and his photographer, Louis Renault, were taken to a Cariboo guest ranch in September. The material gathered will appear as an article in Esquire in May, 1959. Motion pictures shot by the Branch during this trip were used on Mr. Josephs' television programme in New York.

In September the inaugural trip of the Pacific Great Eastern Railway to Dawson Creek and Fort St. John was covered, as well as "Salute to the Sockeye" at Shuswap Lake and Salmon Arm.

Photographers carried out an aerial assignment of Vancouver and the Lower Fraser Valley to replace outdated prints. Coverage of Governor-General Vincent Massey's visit to British Columbia in November was also completed.

All prints of interest to the British Columbia Centennial Committee have been made available to that organization and to the Provincial Archives.

### MOTION PICTURES

The year 1958 turned out to be the busiest yet in motion-picture production. Five completed films were released—a record for this Branch—as follows:—

- (1) "The Queen's Totem." This film, which shows the production of the totem-pole presented to Her Majesty the Queen to commemorate British Columbia's Centennial Year, was produced for the British Columbia Centennial Committee. The Canadian Government Travel Bureau has expressed a great deal of interest in this film, and it is possible that it will want to distribute it widely in the United States.
- (2) "Deas Island Tunnel." This film was produced for the Department of Highways and shows why the tunnel was required and the magnitude of the task involved to bring the project to completion. This release is only an interim film. It will be followed by a complete release in 1959.
- (3) "Date with B.C." This film, which shows a trip of a visiting family using some Provincial camp-sites, should be released early in December. (The film is produced for our Department.)
- (4) "Princess in Wonderland." A film which shows the events during the visit of Princess Margaret to British Columbia in the summer of 1958, and

- which is to be released toward the middle of December, was produced for the Department of the Provincial Secretary.
- (5) "Tight Lines." This film on sports fishing in British Columbia has had an enthusiastic reception, particularly by the Canadian Government Travel Bureau, who wish to have at least sixty prints in circulation in 1959.
- (6) The following films are in various stages of production at this time:—
- (a) One on the International Trade Fair, produced for the Department of Industrial Development, Trade, and Commerce.
  - (b) One on the Island Highway, produced for the Department of Highways.
  - (c) A historical film on road construction in the Fraser Canyon, produced for the Department of Highways.
  - (d) A film on the Soap Box Derby at Mission.
  - (e) A film showing the removal of totem-poles from Anthony Island in the Queen Charlottes is ready for sounding and release as soon as the necessary funds are made available.

#### DARKROOM PRODUCTION

The demand for still photographs, which increased sharply during the year, was undoubtedly prompted by the Provincial Centennial celebrations. The darkroom processed a total of 6,013 negatives and produced 25,812 prints, of which 3,750 were supplied to writers, newspapers, and magazines.

#### AWARDS

A Branch photograph of Douglas Lake Ranch won the top colour award at the annual international salon conducted by the Professional Photographers Association of British Columbia. A silver medallion was given to a black-and-white print of the same subject, and three honourable mentions were awarded to other prints submitted.

The film "Men, Mountains and the Challenge" was awarded an "Oscar" by the Canadian Good Roads Association as being "the most distinguished contribution to publicity for good roads across the nation." This film won an award for the best industrial film at the Kelowna Centennial Film Festival against competition from National Film Board, Nova Scotia, and Japan.

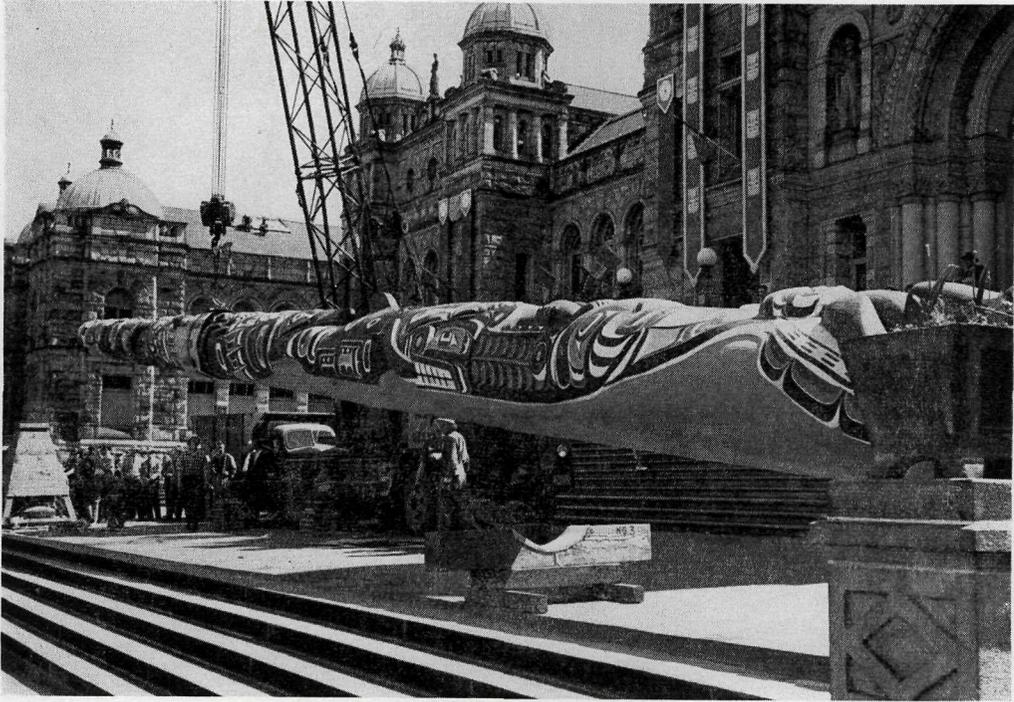
#### GENERAL

In all, 1,302 letters were received and 1,139 sent out in 1958. The total number of motion-picture showings dropped, due to the withdrawal of outdated subjects and worn-out prints. The demand for new films remained high. During the year sixty shows were put on in the Branch theatre, and twenty-five outside shows were given to service clubs and other groups.

Private film showings in Canada totalled 791, with audiences of 50,005. During the first six months of the year there were 922 shows in the United States, with audiences totalling 44,204. There were ten television showings in Canada and twenty-four in the United States for the first six months.

For this Branch, 1958 was an outstanding year, and this was made possible by, first, a skilled and interested staff and, secondly, by the firm support of many other Government departments, notably the Department of Highways.

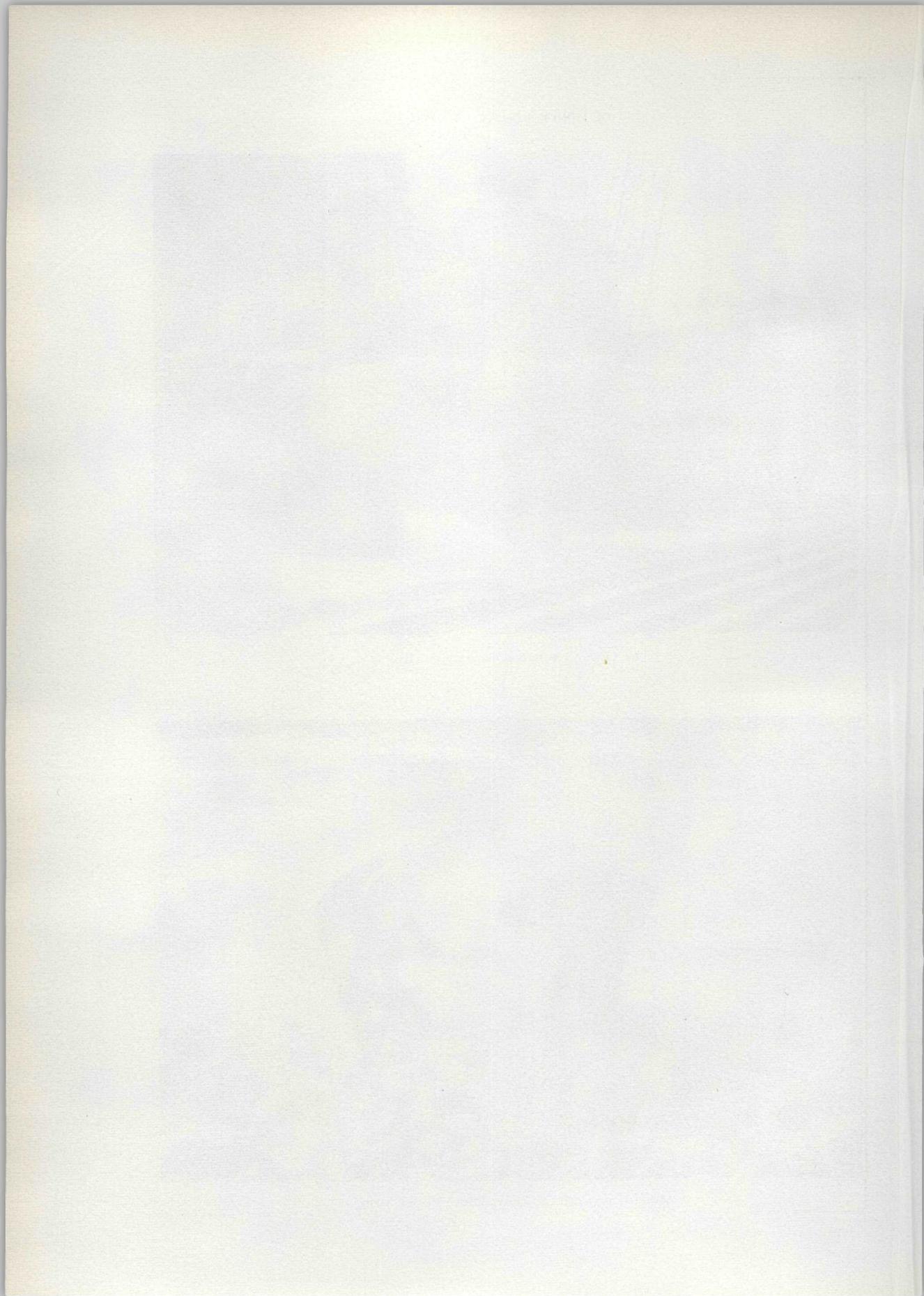
CENTENNIAL YEAR



The Queen's totem-pole goes on display.



Modern prospectors relive the "Fraser rush."



FISHERIES  
BRANCH





Fish-cannery, Prince Rupert.



Mending dog-fish nets, Queen Charlotte City, Q.C.I.

**COMMERCIAL FISHERIES BRANCH**

A. A. BAGATTIN, SUPERVISOR

The marketed value of British Columbia's fisheries for 1958\* has not been finalized. Indications point to a record high market value. The increased value can be attributed to the record pack of sockeye, which is the most valuable species of salmon used for canning, and the increased herring-catch, along with high unit prices for halibut.

In 1958 twenty salmon-canneries were licensed to operate in the Province. The active canneries were located as follows: Queen Charlotte Islands, 1; Skeena River, 6; Central Area, 2; Port Alberni, 1; Fraser River and Lower Mainland, 10. There were no canning operations on Rivers Inlet. One new cannery was licensed to operate at Port Alberni.

The canned-salmon pack for British Columbia in 1958, according to preliminary figures as of December 6th, 1958, amounted to 1,900,025 cases, compared with 1,450,976 cases canned in 1957. This was the largest pack since 1941, when the total pack amounted to 1,957,520 cases.

The 1958 estimated canned-salmon pack was composed of the following species (48-pound cases): Sockeye, 1,074,305; springs, 10,549½; steelheads, 1,205; coho, 131,527; pinks, 451,801½; chums, 230,606½.

**ADAMS RIVER SOCKEYE RUN**

The Fraser River sockeye-salmon fishery is regulated by the International Pacific Salmon Fisheries Commission under treaty between Canada and the United States. The year 1938 was the first of active work by the Commission on the Fraser River sockeye. In 1946 the Commission was authorized to regulate the sockeye-catch, whereby the nationals of both countries share equally in the catch.

Investigations carried on by the Commission deal practically with all phases of the life-cycle of the sockeye salmon. The remarkable come-back of the Adams River run of sockeye is due to the efforts of the Commission.

Fishing in the Fraser River area was closed September 14th because the main run of the Adams River sockeye was delayed approximately three weeks. This closure was put into effect to assure adequate escapement for spawning and also to permit equal division of catch between Canadian and United States fishermen. It was revealed from Government inspection tests, during the closure, that the late run of sockeye were sub-standard quality. Consequently, canning of the late run was discontinued by the industry.

Conservation measures put into effect by the Federal Department of Fisheries on several occasions curtailed chum-fishing during 1958.

It is a recognized fact that the Commission's first evidence of success in rehabilitation attempts were a success in 1950, with the result that the Adams River run of sockeye this year was one of the largest since 1901. Records disclose that during that year the Fraser River sockeye-pack amounted to 928,669 cases. While it is assumed the pack for 1958 will not be as great as in 1901, it has been established that it will exceed that of most former years.

**SPECIAL PROTECTIVE MEASURES IN ADAMS  
RIVER SOCKEYE RUN**

During the latter part of the 1958 spawning season, as a serious danger of over-seeding existed, an electric fish-diverter was installed at the mouth of the Adams River. This action was necessary to prevent the entry of further spawners from destroying seeded grounds.

\* As the Fisheries fiscal year does not end until March 31st in each year, production figures for the 1958 season are not available for inclusion in this report.

### "SALUTE TO THE SOCKEYE" CELEBRATION

In commemorating the Centennial birthday of the Province of British Columbia, the "Salute to the Sockeye" celebration was held on the Indian reserve at Squilax, on the banks of the Adams River, October 10th to 13th, 1958.

The Boards of Trade of the near-by towns of Salmon Arm and Chase assisted in the celebration. They sponsored a four-day fair, with events in the towns and at the spawning-grounds.

A special Fisheries exhibit building and a large marquee were erected on the Indian reserve. Exhibits were displayed by the Fisheries Association of British Columbia, Fisheries Research Board of Canada, International Pacific Salmon Fisheries Commission, Federal Department of Fisheries, Fisheries Institute (University of British Columbia), Fishing Vessel Owners' Association, and the Department of Recreation and Conservation.

The main run of sockeye did not reach the spawning-grounds at the specified time, and it was deemed advisable to maintain the exhibits an additional week. However, an adequate run of sockeye appeared, which enabled the hundreds of people to view the salmon at the spawning-beds.

It was estimated that approximately 2,000,000 sockeye reached the spawning-grounds. This historic event proved most spectacular and interesting to the thousands of visitors who witnessed it.

### EXPORT MARKET

The United Kingdom's decision to relax the import regulations on several commodities, including canned salmon, was greeted enthusiastically by the canning industry, as this was the first time the restriction has been lifted since 1938. This action alleviated the problem of disposal of surplus stock.

### HALIBUT

On the Pacific Coast of North America the International Pacific Halibut Commission was set up under treaty between Canada and the United States for the protection and rehabilitation of the halibut-fishery. This is a "long line" fishery and is shared by nationals of both countries on a quota basis. The regulations are based on biological and statistical investigations. For the purpose of regulation, the Coast is divided into a number of areas, the principal ones, from a standpoint of production, being Areas 2 and 3.

In 1958 the catch-limits set by the Commission for the different areas were 26,500,000 pounds in Area 2, as in 1957, and 30,000,000 pounds in Area 3A.

Grounds west of Shumagen Islands, Area 3B, were opened to halibut-fishing on April 1st, about one month earlier than elsewhere on the Pacific Coast. Areas 2 and 3A opened May 4th.

It is presumed the total halibut-landings in 1958 will compare favourably with the landings in 1957.

### HERRING

After the settlement of the herring strike, production was light during the summer months. The demand for seine-boats and packers and also the need for full crews during salmon-canning operations discouraged herring-fishing until fall. Herring-catches have been good since fall herring-fishing resumed, indicating herring production in 1958 may exceed that of previous years, excluding 1956, when 253,396 tons were caught.

### RED TIDE

During 1958 a series of laboratory tests from clams revealed a continuous varying degree of toxicity still existed in Fishing Areas 13, 14, and 15 and the northerly portions

of 16 and 17. In the public interest the present clam closure must remain until toxicity in these areas no longer exists. These areas have been under quarantine since October 29th, 1957.

### OYSTER SPAWNING

Because of the warm weather during the summer months of 1958, high water temperatures prevailed, which resulted in good breeding success. Water temperatures reached 79° F. and averaged 72.2° F. in Pendrell Sound, while temperatures reached 79° F. and averaged 73.3° F. in Ladysmith Harbour.

For the convenience and information of all oyster-growers, weekly oyster-spawning reports were mailed by the Commercial Fisheries Branch.

An almost continuous setting of different intensities occurred from the second week of July to the last week of August at Pendrell Sound and at Ladysmith Harbour. Oyster-growers at Ladysmith set out cultch with good results and obtained enough spat to fill their seed requirements. There was also a good set of oysters in Pendrell Sound. It is assumed, therefore, that the importation of oyster seed from Japan will be reduced next year.

### LICENCES ISSUED AND REVENUE COLLECTED

The following table shows the number of licences issued and revenue collected during the 1958 season:—

Licence	Number of Licences	Revenue
Salmon-cannery .....	20	\$4,000.00
Herring-cannery .....	1	100.00
Herring reduction .....	12	1,200.00
Tierced salmon .....	7	700.00
Fish cold storage .....	16	1,600.00
Fish-processing .....	16	16.00
Shell-fish cannery .....	8	8.00
Tuna-fish cannery .....	1	1.00
Fish-offal reduction .....	9	9.00
Fish-liver reduction .....	3	3.00
Whale reduction .....	1	100.00
Herring dry-saltery .....		
Fish-buyers' .....	442	11,050.00
Non-tidal fishing .....	228	232.50
General receipts .....	9	66.60
		<hr/>
		\$19,086.10

### REVIEW OF THE FISHERIES PRODUCTION OF BRITISH COLUMBIA, 1957

Twenty salmon-canneries operated during the 1957 season. The total canned-salmon pack for British Columbia, according to the annual returns submitted to the Commercial Fisheries Branch by those cannerymen licensed to operate, amounted to 1,450,976 cases, compared with 1,112,844 cases packed in 1956.

The sockeye-pack in 1957 was the smallest since 1943. During that year 164,889 cases were canned.

Spring salmon find a large outlet in the fresh and frozen trade. As a result, the pack of this species is never indicative of the size of the catch or of the run.

Steelhead are not salmon, but a few are canned each year, principally those caught incidentally while fishing for salmon.

The coho-pack in 1957 was 41,922 cases above the average annual pack for the previous five-year period. Coho also find a market in the fresh- and frozen-fish trade. For this reason, the canned pack is not indicative of the size of the catch. Bluebacks are included with the coho-pack.

In 1957 the pink-salmon pack was 136,511 cases above the average annual pack for the previous five-year period. Pink salmon run to the Fraser River every alternate year. The runs coincide with the odd-numbered years. In the Queen Charlotte Islands District the pink-salmon runs coincide with the even-numbered years. The principal producing districts for the species in 1957 were Vancouver Island and the adjacent Mainland, Fraser River, Central Area, and the Skeena River.

The chum-salmon pack in 1957 exceeded the pack in 1956, but was 65,651 cases less than the average annual pack for this species for the previous five-year period.

In comparing the pack figures for any species of salmon canned in British Columbia refer to the tables contained in this report for a breakdown of the fisheries of each species by districts.

The summary showing the numbers of salmon caught in 1957 by area was supplied by the Department of Fisheries of Canada, Pacific Area, Vancouver, B.C.

#### OTHER CANNERIES

*Herring-canneries.*—In 1957 one herring-cannery operated in British Columbia and produced a pack of 18,349 cases. In 1956 a total of 11,728 cases were canned.

*Pilchard-canneries.*—Since 1949 there have been no pilchards in British Columbia waters. No pilchard-cannery licences were issued during the 1957 season.

*Tuna-fish Canneries.*—During 1957 one tuna-fish cannery was licensed to operate. This cannery produced 45,370 cases of 4-ounce cans, 55,198 cases of 7-ounce cans, 23,752 cases of 6-ounce cans (flakes), and 2,249 cases of 7-ounce cans (jellied). The run of tuna to British Columbia waters has been spasmodic. Nearly all tuna canned in British Columbia was imported from Japan.

*Shell-fish Canneries.*—In 1957 eight shell-fish canneries were licensed to operate in British Columbia and produced a pack as follows:—

Crabs: 21,112 cases of 24/½'s and 13,633 cases of 48/¼'s.

Clams: 6,142 cases of 24/¼'s, 290 cases of 48/½'s, and 8,583 cases of 48/1's.

Oysters: 1,954½ cases of 48/¼'s, 613 cases of 48/10-oz., and 693 cases of 10-oz. oyster stew.

Abalone: 21 cases of 48/15-oz.

#### MILD-CURED SALMON

Six plants were licensed to mild-cure salmon in 1957. These plants produced 550 tierces of mild-cured salmon, totalling 4,380 hundredweight. This operation is compared with the production of six plants in 1956 which produced a pack of 703 tierces, containing 5,985 hundredweight.

In 1957 two herring dry-saltries were licensed to operate and produced 2,645 boxes of dry-salted herring. This compared with the production of the one plant licensed in 1956 which produced 1,202 boxes.

#### HALIBUT-FISHERY

In 1957 the catch-limits set by the Commission for the different areas were as follows: Area 2, 26,500,000 pounds; Area 3, 30,000,000 pounds. The catch-limit in Area 3A for the 1957 season was increased from 28,000,000 to 30,000,000 pounds.

Halibut-landings in 1957 (1956 in parentheses) by the combined Canadian and United States vessels amounts to 62,327,000 (67,566,000) pounds.

*Halibut-landings by Area*

Area	All Ports, 1957	All Vessels, Canadian Ports		Canadian Vessels, Canadian Ports		Canadian Vessels, U.S. Ports		U.S. Vessels, Canadian Ports	
		1957	1956	1957	1956	1957	1956	1957	1956
	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.
1A	271,000	-----	-----	-----	-----	-----	-----	-----	-----
1B	136,000	-----	-----	-----	-----	-----	-----	-----	-----
2	31,269,000	14,339,000	15,686,000	13,841,000	14,988,000	587,000	93,000	498,000	698,000
3A	29,267,000	9,929,000	10,102,000	8,566,000	7,794,000	1,813,000	2,456,000	1,363,000	2,303,000
3B	1,384,000	205,000	147,000	205,000	147,000	40,000	174,000	-----	-----
Totals	62,327,000	24,473,000	25,935,000	22,612,000	22,934,000	2,440,000	2,723,000	1,861,000	3,001,000

Average price paid for halibut in 1957 was 16.32 cents. This was down 5.41 cents from 1956.

Halibut livers and viscera landed by United States vessels totalled 307,131 pounds, with a marketed value of \$72,046. Canadian vessels landed 160,000 pounds, with a marketed value of \$36,000.

The figures relating to the halibut-catch are to the nearest thousand pounds. The statistical information for the halibut-fishery was supplied by the International Pacific Halibut Commission and is hereby acknowledged.

## FISH OIL AND MEAL

*Herring Reduction.*—During the 1957 season nine herring-reduction plants were licensed to operate and produced 13,643 tons of meal and 1,746,227 gallons of oil. This production is compared with the previous year when thirteen plants produced 32,772 tons of meal and 3,602,937 gallons of oil.

*Fish-liver Reduction.*—In 1957 four plants were licensed to reduce fish-livers to oil. They processed 892,890 pounds and produced 3,292,555 million U.S.P. units of Vitamin A. Four plants processed 648,134 pounds and 2,355,410 million U.S.P. units of Vitamin A in 1956.

*Miscellaneous Reduction—Fish-offal and Dog-fish.*—During the 1957 season nine plants were licensed to operate and produced 1,570 tons of meal and 170,433 gallons of oil. This production is compared to 1,925 tons of meal and 187,787 gallons of oil, produced by ten plants, in 1956.

*Whale Reduction.*—In British Columbia there is one whaling-station. The operations show 635 whales killed, compared with 375 in 1956.

## NET-FISHING IN NON-TIDAL WATERS

Fishing with nets in certain specified non-tidal waters within the Province is permissible under licence from the Minister of Recreation and Conservation. This fishery is confined almost exclusively to the residents living within reasonable distance of the lakes in question. The table gives the principal catch figures for this fishery.

*Catch of Fish Taken from Non-tidal Waters, 1957/58*

	Kind of Licence			Number of Fish Taken	Approximate Weight (Lb.)
	Fur-farm	Ordinary	Sturgeon		
Bednesti Lake	1	---	---	1,216	1,807
Cameron Lake	---	5	---	768	2,304
Christina Lake	---	13	---	1,641	373
Cluculz Lake	1	---	---	1,718	2,711
Cobb Lake	1	---	---	1,316	2,007
Eaglet Lake	1	---	---	1,480	805
Fish Lake	---	3	---	1,770	9,027
Klua Lake	---	2	---	1,051	6,269
Okanagan Lake	---	144	---	10,255	8,548
All others	---	---	---	786	2,423
Totals	---	---	---	22,001	36,274

## BRITISH COLUMBIA

*Catch by Species*

Species	Number of Fish	Weight (Lb.)
Kokanee .....	13,031	9,206
Lake trout .....	38	263
Whitefish .....	4,273	18,897
Ling .....	125	257
Squawfish .....	1,386	905
Suckers .....	3,110	5,959
Sturgeon .....	6	690
Others .....	32	97
Totals .....	22,001	36,274

## SPECIES AND VALUE OF FISH CAUGHT IN BRITISH COLUMBIA

The total marketed value of each of the principal species of fish taken in British Columbia for the year 1957 is as follows:—

Kind of Fish	Value
Salmon .....	\$44,903,000
Herring .....	6,290,000
Halibut .....	5,616,000
Grey cod .....	579,000
Ling-cod .....	552,000
Black cod .....	391,000
Red cod .....	47,000
Clams .....	375,000
Crabs .....	758,000
Eulachon .....	17,000
Flounders .....	17,000
Oysters .....	329,000
Perch .....	25,000
Smelts .....	4,000
Shrimps and prawns .....	383,000
Skate .....	6,000
Soles .....	912,000
Sturgeon .....	10,000
Livers and viscera .....	219,000
Miscellaneous <sup>1</sup> .....	1,656,000
	\$63,089,000

<sup>1</sup> Includes whales, mink-feed, and fish products, meal and oil, for which no breakdown into species was available.  
Source: Canadian Department of Fisheries at Vancouver, B.C.

## STATEMENT SHOWING THE QUANTITY OF HERRING PRODUCTS PRODUCED IN BRITISH COLUMBIA, 1954 TO 1957, INCLUSIVE

Season	Canned	Dry-salted	Meal	Oil
	Cases	Tons	Tons	Gal.
1954/55 .....		2,397	28,782	3,714,924
1955/56 .....	25,508	249	47,097	4,475,536
1956/57 .....	11,728	290	32,772	3,602,937
1957/58 .....	18,349	2,645	13,643	1,746,227

The above figures are for the season October to March 31st, annually.

STATEMENT SHOWING THE QUANTITY OF MEAL, OIL, AND VITAMIN A PRODUCED  
FROM SOURCES OTHER THAN HERRING, 1954 TO 1957, INCLUSIVE

Season	From Whales		Oil from Fish-livers	From Other Sources	
	Whalebone and Meal	Oil		Meal and Fertilizer	Oil
	Tons	Gals.	Units <sup>1</sup>	Tons	Gal.
1954/55.....	2,502	872,060	4,310,057	2,361	265,405
1955/56.....	3,411	759,785	4,760,668	1,993	201,690
1956/57.....	2,182	526,584	2,355,410	1,925	187,787
1957/58.....	3,446	952,702	3,292,552	1,570	170,433

<sup>1</sup> Million U.S.P. units of Vitamin A.STATEMENT SHOWING THE SALMON-PACK OF BRITISH COLUMBIA, 1954 TO 1957,  
INCLUSIVE (SHOWING THE ORIGIN OF SALMON CAUGHT IN EACH DISTRICT)

(48-pound cases.)

*Sockeyes*

Area	1957	1956	1955	1954
Fraser River.....	121,965½	88,132½	103,678¼	497,023
Vancouver Island and adjacent Mainland.....	26,030	13,970	13,192½	12,051
Rivers Inlet.....	26,334½	124,634½	50,702½	50,639½
Smith Inlet.....	5,952	36,898	28,864	18,937
Central Area.....	10,552½	17,967	19,648	30,858½
Skeena River.....	25,428	14,663	14,649	60,817
Nass River.....	10,110	22,505	13,654½	10,285
Queen Charlotte Islands.....	2,079½	1,323	433	107½
Alaska.....	-----	-----	-----	3
Cold storage.....	-----	-----	-----	67½
Totals.....	228,452	320,093	244,821¾	680,789

*Springs*

Fraser River.....	3,126½	2,873½	6,843½	8,298
Vancouver Island and adjacent Mainland.....	5,189	5,941½	5,534	1,649½
Rivers Inlet.....	373	419	813	649
Smith Inlet.....	109	166	326	177½
Central Area.....	746½	1,364½	1,864	1,645
Skeena River.....	514½	371	1,430	1,260½
Nass River.....	274	536	1,028	398½
Queen Charlotte Islands.....	148	1	16	6½
Cold storage.....	2,104	-----	5	272½
Totals.....	12,584½	11,672½	17,859½	14,357

*Steelheads*

Fraser River.....	429¾	337½	269	1,077
Vancouver Island and adjacent Mainland.....	74	25½	63	91½
Rivers Inlet.....	43½	55	86	131
Smith Inlet.....	18½	33½	20½	51
Central Area.....	243½	273½	318½	595½
Skeena River.....	383¼	312	976½	1,513½
Nass River.....	125	217	99	237
Queen Charlotte Islands.....	-----	-----	5	37½
Cold storage.....	-----	-----	44½	163½
Totals.....	1,317¾	1,254	1,882	3,897½

*Coho*

Area	1957	1956	1955	1954
Fraser River.....	4,836	12,273½	15,910	11,948
Vancouver Island and adjacent Mainland.....	113,630½	118,938	101,349	54,783
Rivers Inlet.....	4,191	6,601½	5,316½	4,669½
Smith Inlet.....	1,654	2,249	1,014½	868
Central Area.....	33,834½	40,299	24,846	26,511
Skeena River.....	6,026½	8,265	14,192	10,449
Nass River.....	10,547½	8,165½	9,356	6,024½
Queen Charlotte Islands.....	18,339	7,314½	11,666	11,289
Alaska.....	-----	8,034½	2,030	1,536
Cold storage.....	17,836½	-----	511½	1,546
Totals.....	210,895½	212,140½	186,191½	129,624

*Pinks*

Fraser River.....	68,968½	348	160,187½	17½
Vancouver Island and adjacent Mainland.....	423,275½	55,052½	421,355½	32,913
Rivers Inlet.....	3,104½	12,046½	8,658	2,581½
Smith Inlet.....	1,005	1,664	2,275½	523
Central Area.....	58,957	205,658	122,371½	118,538½
Skeena River.....	148,049½	25,633	86,788	39,324½
Nass River.....	38,694	44,402½	29,040	36,448
Queen Charlotte Islands.....	9,556	18,809½	548	105,123
Alaska.....	-----	-----	31	81
Cold storage.....	844	-----	-----	1,512½
Totals.....	752,454	363,614	831,255	337,062½

*Chums*

Fraser River.....	5,585	9,989	7,350½	45,444
Vancouver Island and adjacent Mainland.....	44,080½	71,595½	40,105	248,098½
Rivers Inlet.....	2,553	2,926½	5,588	12,352½
Smith Inlet.....	3,000	1,642	2,070	2,992
Central Area.....	136,370	58,602½	45,950	149,672
Skeena River.....	6,898½	6,283	5,471½	23,135½
Nass River.....	30,961	35,588	8,904	15,965½
Queen Charlotte Islands.....	10,091	17,443½	9,420	83,805½
Alaska.....	-----	-----	-----	163
Cold storage.....	5,734½	-----	3,430	496
Totals.....	245,273½	204,070	128,289	582,124½

*Total Pack by Species, 1957*

Sockeyes .....	228,452
Springs .....	12,584½
Steelheads .....	1,317⅜
Coho .....	210,895½
Pinks .....	752,454
Chums .....	245,273½
<b>Total .....</b>	<b>1,480,976⅞</b>

CATCHES BY CANADIAN BOATS IN WATERS NORTH OF DIXON ENTRANCE ARE CLASSIFIED AS ALASKA AREAS PREVIOUSLY DESIGNATED AS 'A' AND 'B' ARE NOW SHOWN UNDER THIS HEADING.

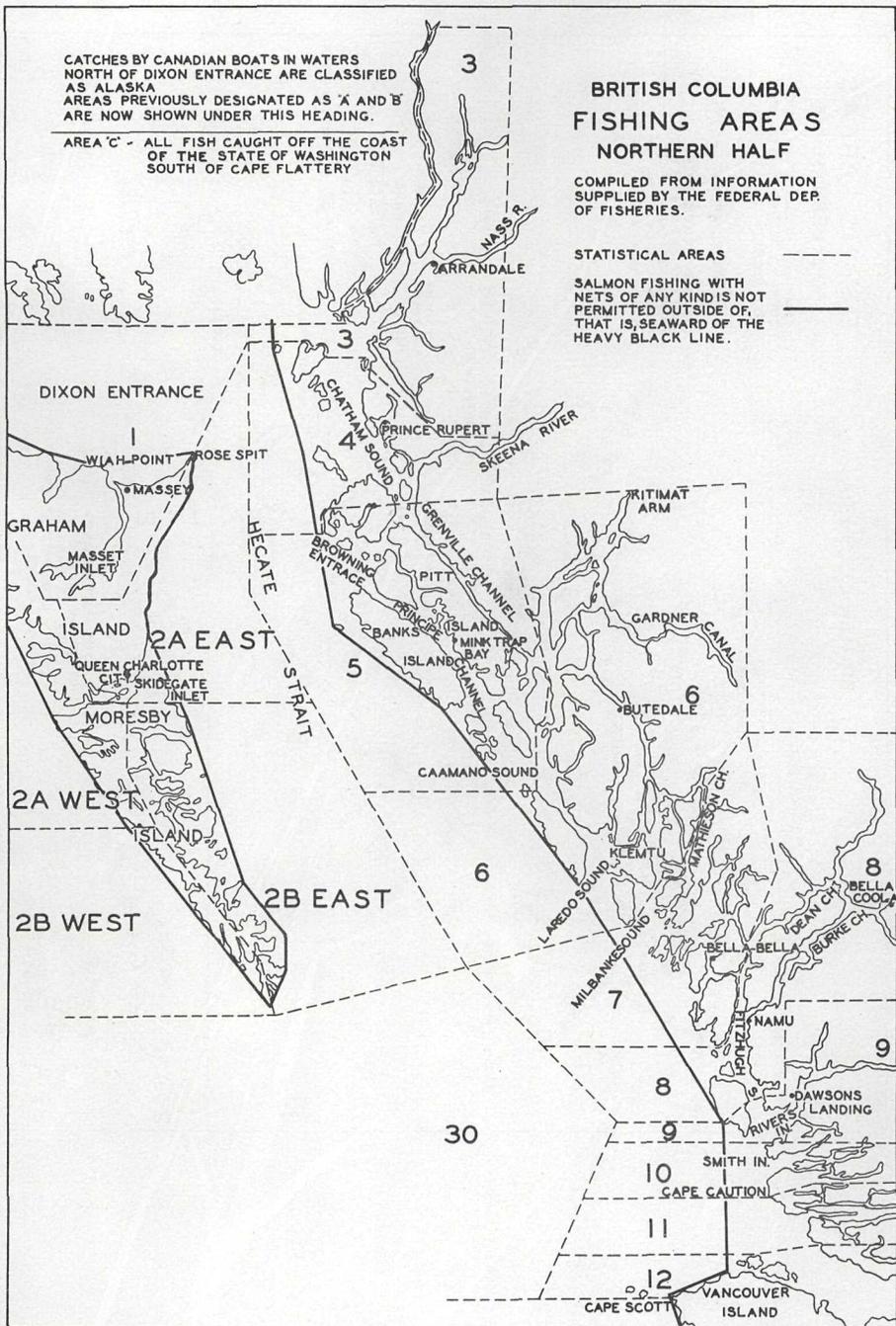
AREA 'C' - ALL FISH CAUGHT OFF THE COAST OF THE STATE OF WASHINGTON SOUTH OF CAPE FLATTERY

## BRITISH COLUMBIA FISHING AREAS NORTHERN HALF

COMPILED FROM INFORMATION SUPPLIED BY THE FEDERAL DEPT. OF FISHERIES.

STATISTICAL AREAS

SALMON FISHING WITH NETS OF ANY KIND IS NOT PERMITTED OUTSIDE OF, THAT IS, SEAWARD OF THE HEAVY BLACK LINE.



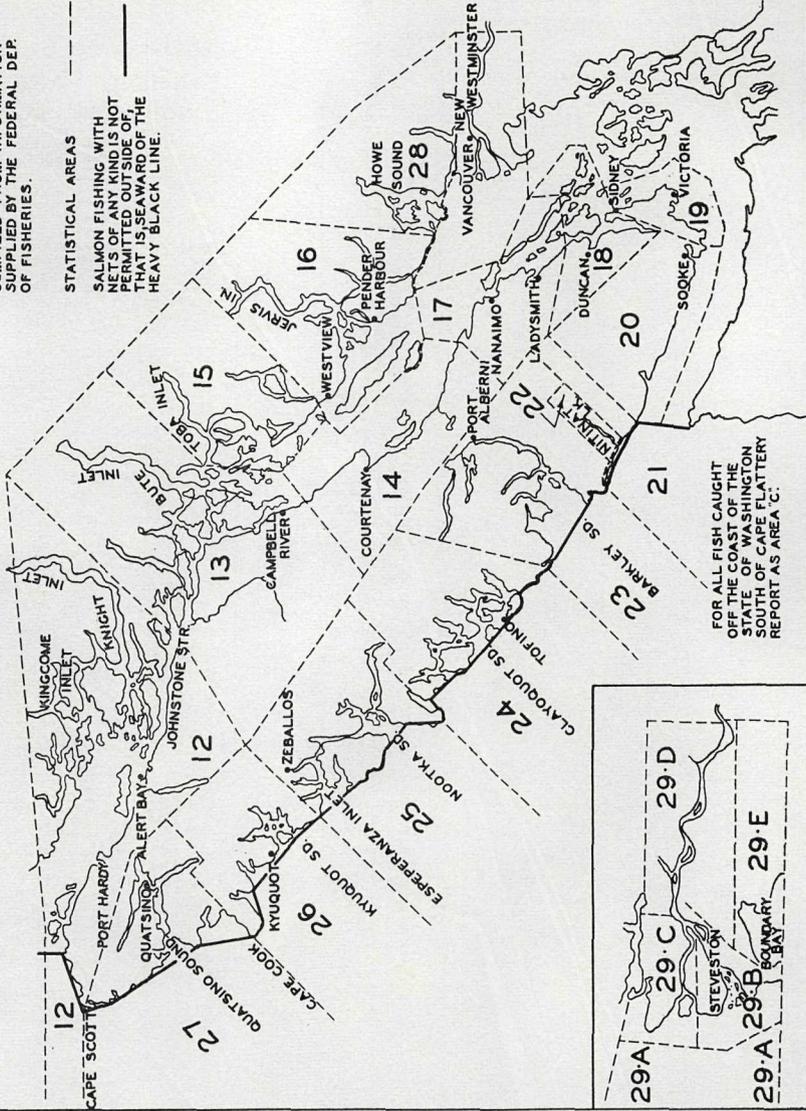
# FISHING AREAS SOUTHERN HALF

COMPILED FROM INFORMATION  
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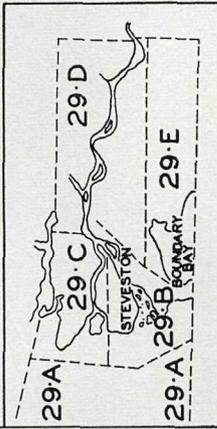
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## BRITISH COLUMBIA



FOR ALL FISH CAUGHT  
OFF THE COAST OF THE  
STATE OF WASHINGTON  
SOUTH OF CAPE FLATTERY  
REPORT AS AREA 'C'.



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