FISHERIES RESEARCH BOARD OF CANADA

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Times of Passage of Skeena River Sockeye and Pink Salmon through the Commercial Fishing Area

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Biological Station, Nanaimo, B.C.

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TABLE OF CONTENTS

INTRODUCTION

The Skeena River (Fig. 1) supports the largest run of sockeye and one of the largest runs of pinks in northern British Columbia. These salmon runs have been an important factor in the local economy. The landed value of sockeye and pinks caught in the commercial fishery in the Skeena gillnet area (Area 4) averaged about 1.3 million dollars during the years 1951 to 1966. In addition, large numbers of sockeye and pinks bound for the Skeena River may be caught in adjacent fisheries in British Columbia and Alaska (Shepard et al., 1962). Substantial catches of sockeye and fewer pinks are taken annually by the Native subsistence fishery along the Skeena River.

As early as 1937, concern was expressed about a decline in the catch and apparent total abundance of Skeena sockeye. In the early 1940's the Fisheries Research Board of Canada was requested to initiate a Skeena River Salmon Investigation to determine if there had been a decline in any species of salmon and, if so, what were the causes and what remedial measures were recommended. An important phase of the investigation was to obtain information about the routes of migration towards the river, the times when the runs to the various tributaries passed through the fishing area, and to assess the extent to which each run of each population was exploited. To help obtain this objective, salmon, mainly sockeye, were tagged during the years 1944 to 1948 in the commercial fishing area. Some of the results from these taggings were reported by Pritchard (1944, 1945, 1947 and 1948) and by Milne (1949).

In 1954 the Committee on Management for the Skeena River Salmon Fisheries was established to investigate conditions on the Skeena with a view to improving the management of the runs and to increasing the yield. The need for additional information on times of passage was recognized and subsequently taggings were carried out from 1955 to 1959 by the Fisheries Research Board of Canada.

In 1957 and 1958 the Fisheries Research Institute of the University of Washington under contract with the United States Fish and Wildlife Service tagged salmon in the West Coast District of Southeastern Alaska. Many tags from these tagging experiments were recovered from salmon in the Skeena fishery and on Skeena spawning grounds.

The purpose of this report is to review the information presently available, which bears on the times of passage of the various Skeena sockeye and pink salmon stocks through the commercial fishing area. Also, it is hoped that some of this information may prove useful to those interested in more general questions related to the movements of salmon.

BACKGROUND INFORMATION

A commercial fishery for salmon on the Skeena River began in 1877 when a salmon cannery, the first in northern British Columbia, was established at Inverness on the North Skeena Passage. The sockeye catch in the area rose with

the development of the fishery and reached a peak between 1904 and 1934 when the annual catch averaged about 107,000 cases. Thereafter the sockeye catch declined to an average of about 43,000 cases annually in the period 1951 to 1966. The catch of pink salmon in the Skeena area increased steadily until 1930 when 214,000 cases were packed. After 1930 the catch dropped to a relatively low level. Since 1951 the catch has averaged about 52,000 cases annually.

The boundaries of the Skeena fishing area have changed over the years by movement of the river boundaries downstream and the ocean boundaries seaward. The present boundaries of the area (Fig. 2) have been in force, with only minor changes, since about 1948. Fishing is permitted in the Skeena area only with gillnets or troll, except in Tuck Inlet and the northern part of Prince Rupert Harbour where seines are permitted to operate. Trolling, while permissible in the gillnet area, is carried out almost entirely outside the outer chain of islands. The gillnet fishery operates throughout the area but is concentrated mainly off Smith Island, in Marcus and Telegraph Passages, and in the river. Gillnet and purse seine fisheries operate in the adjacent Nass area (Area 3) to the north and the Grenville-Principe area (Area 5) to the south.

Commercial fishing in the Skeena area with gillnets, other than large-meshed chinook gillnets, has commenced in most years on the last or second last Sunday in June. By this time the sockeye, which may be caught in very small numbers in the chinook gillnets as early as late May, are present in the area in moderate numbers. The sockeye run usually reaches its peak by the end of July, after which the run declines rapidly although some sockeye are present in the area into September. The first pink salmon appear in the Skeena gillnet area at the end of June or early July. The pink run reaches its peak of abundance usually in the first two weeks of August and declines to a low level by the end of the month. Some pinks are present in the area to late September.

Sockeye salmon spawn in most of the accessible lake systems in the Skeena River drainage (Fig. 1). The largest run, accounting for about 90% of the Skeena total, spawns in the Babine Lake system. The Morice Lake sockeye run, which formerly was the second largest in the Skeena system, was severely reduced in numbers during the years 1955 to 1960 but since then has increased slightly in size. Moderately sized runs spawn in the Alastair, Lakelse, Swan-Stephens, and Bear Lake systems. Small runs spawn in and/or adjacent to Johnston, Kitsumkalum, McDonell, Kitwanga, Maxan, Sustut, Asitka, Johanson, and several other small lakes. Small numbers of sockeye also spawn in the Shawatlans and Pinkhonne Lake systems, which drain into the Skeena gillnet area, but which are not part of the Skeena River drainage.

Pink salmon spawn in many streams and rivers throughout the Skeena drainage (Fig. 1). Runs of considerable size spawn in locations close to the sea coast to as far upstream as the Bear River, a distance of about 250 miles from the sea. Until recently one of the largest pink runs on the Skeena River spawned in the Kisplox River, which flows into the Skeena a few miles upstream from Hazelton. At the present time the largest run to the Skeena drainage spawns in the Lakelse River which flows northwesterly into the Skeena a few miles downstream from Terrace. Large runs of pinks also spawn in the Kitwanga River, a tributary which joins the Skeena between Terrace and Hazelton, and in

the Skeena River itself between Terrace and the upper tidal limit. Smaller but still sizeable runs occur in the Babine, Kitsumkalum, Scotia, and several other rivers in the drainage. Pink salmon also spawn in several coastal streams which drain into Area 4 but which are not part of the Skeena River drainage. The most important of these coastal runs are those which spawn in Moore Cove Creek and in the Oona River.

MATERIALS AND METHODS

Tagging method

The type of tag, tagging equipment, and tagging method employed for the taggings reported here was essentially the same as commonly used for salmon along the Pacific coast of North America for the last three or four decades. These are described in detail by Pritchard and DeLacy (1944).

The tags consisted of two laminated plastic or celluloid discs. For the northern British Columbia and Southeastern Alaska taggings, discs of various sizes and colours, and with a variety of legends were used. The Fisheries Research Board of Canada used discs 1/2" in diameter in 1944, 1945, 1946, 1947, 1948, 1955, 1956 and 1957; 17/32" discs in 1957; 11/16" discs in 1958; and 3/4" discs in 1959. One disc of each pair bore a serial number. One or both discs indicated that the tag originated from and was to be returned to the Fisheries Research Board of Canada at Nanaimo. The Fisheries Research Institute used similar 7/8" tags in 1957 and 3/4" tags in 1958. Like the Canadian tags, the Fisheries Research Institute tags indicated the name of the originating agency where the tag was to be returned.

The actual tagging was accomplished by passing a sharp nickel pin through the numbered disc, then through the flesh of the fish immediately below the insertion of the dorsal fin, and finally through the unnumbered disc or "baffle". The pin was then cut to a suitable length and twisted with the aid of long-nosed pliers into a loop which held the baffle in place.

In 1958 both the Fisheries Research Board of Canada and the Fisheries Research Institute experimented with plastic dart tags. Each dart tag consisted of a short length of flexible plastic tubing, about 1/8" in diameter, which was attached to a barbed plastic shaft. Printed on each tag was a serial number and the name of the originating agency. The barbed end of the tag was inserted into the flesh of the fish near the dorsal fin by means of a sharpened stainless steel tube.

In the tagging operations carried out from chartered seine boats, the seine containing the salmon was pursed and "dried up" alongside the vessel. The salmon were dipped from this retaining bag one at a time, tagged, and released. In the test fishing operations near Tyee, salmon which were in good condition were placed in a live tank on deck from which they were dipped out, tagged and released. Whenever conditions at the test fishing operation permitted, two men operating from a skiff "worked" the gillnet removing the salmon from the

net whenever they were seen to strike. These fish were tagged and released immediately upon removal from the net.

For all taggings a record was kept of the tag number, the species, and the tagging date and location. Each individual fish tagged was thus made identifiable and its history could be outlined from the recoveries. Length data and scale samples for age determinations were taken wherever possible in all years except in 1944 and in the offshore taggings in 1956.

Collection of tags

A concentrated effort was made to secure as complete a collection as possible of recovered tags. Posters were widely distributed throughout the commercial fishing area describing the tag, outlining the information desired, and indicating that a reward would be paid for each tag recovery. Special tag return envelopes were distributed to facilitate the return of tags. The back of these envelopes had spaces where the tag number, place of capture, date of capture, and the name and address of the sender could be recorded. The envelope was addressed to the Biological Station at Nanaimo. Arrangements were made with the canneries in the Prince Rupert area that they would redeem any tags turned over to them. In addition, Fisheries Research Board personnel made regular visits to the Skeena River canneries and to the Prince Rupert waterfront to redeem tags and to maintain contact with the fishermen. Officers of the Department of Fisheries collected any tags from the commercial, sports, and Native subsistence fisheries which came to their notice and collected tags from live and dead salmon during the course of stream surveys. Personnel of the Fisheries Research Board of Canada collected tags from fish at counting weirs and from fish on the spawning grounds.

RESULTS

Tags applied

A. 1944 to 1960

To procure as much information as possible it was evident that large numbers of salmon should be tagged and that the further from the river mouth the fish were tagged, the greater would be the area from which information could be collected. In 1944 a purse seine vessel was chartered to see if salmon for tagging could be captured in the outer (seaward) portions of the fishing area. Catches proved to be small, therefore it was assumed that in these outside areas schooling was not general and thus the numbers which might be captured would be limited. Toward the end of the 1944 season the tagging was carried out closer to the mouth of the Skeena River where more sockeye could be caught.

In 1945, 1946, 1947 and 1948, the tagging program, which in 1944 had only included sockeye, was expanded to include all five species of Pacific

salmon but with special emphasis on sockeye. This time operations of the seiner were restricted to the area off the mouth of the Skeena River except for occasional short trips to the Nass area and to Principe Channel. In 1945 and 1946 a second vessel was chartered to fish offshore in the neighbourhood of Dundas, Banks, Stephens, and Porcher Islands, and in Hecate Strait. Again few salmon could be captured in the outside areas and consequently few outside fish were tagged.

The 1944 to 1948 taggings usually commenced in the first half of June and were discontinued by the end of July. About 70% of the sockeye run and 25% of the pink run had entered the tagging area by the time tagging was discontinued. The numbers of sockeye and pink salmon tagged in 1944, 1945, 1946, 1947 and 1948 are listed by tagging date and location in Tables I, II, III, IV and V respectively. The tagging locations are shown in Fig. 3.

B. 1955 to 1959

From 1955 to 1964, the Fisheries Research Board of Canada chartered two gillnet boats to carry out test fishing at the Aberdeen Drift near Tyee on the Skeena River about four miles above the river boundary for the purpose of estimating the daily escapement of salmon from the fishery. During the course of this operation many salmon were taken in a condition judged suitable for tagging. Accordingly, salmon were tagged from the test fishing nets in 1955, 1956 and 1957 (Table VI). The tagging was carried out throughout the season from early June to early September.

In order to get information on the routes by which Skeena-bound salmon approach the river and the speed with which they migrate through the fishing area, another attempt was made in 1956 to catch salmon for tagging by purse seining in the offshore portions of Areas 3 and 4. This time sufficient salmon were taken at several outside locations to make the operation worthwhile. Consequently, a seining operation was continued in 1957 and 1958 and fish were tagged in the offshore portions of Areas 3 and 4 and in Ogden Channel (Area 5). In 1957 and 1958 all species of salmon were tagged but special emphasis was placed on tagging pink salmon. The 1956 tagging, which was exploratory in nature, was carried out intermittently between mid-July and late August. In 1957 tagging commenced in early June and was discontinued in late August. The 1958 tagging program was carried out from mid-July to mid-August, the period when the main pink runs are in the area. The number of sockeye and pinks tagged in the offshore areas in 1956, 1957 and 1958 are shown by tagging date and location in Tables VII, VIII, and IX respectively. The tagging locations are shown in Fig. 3. The success of the 1956, 1957 and 1958 offshore taggings indicated, contrary to the findings of earlier years, that substantial numbers of salmon could be caught in offshore areas. The lack of success in catching salmon offshore in the earlier years was likely due to the inadequacy of the fishing methods and gear in use at that time. Present day seine boats, which are equipped with drums or Puretic blocks, are able to make more sets per unit time and can operate successfully in locations considered hazardous to the earlier gear.

In 1957 pink salmon were tagged from catches made by a beach seine operated in the Skeena River at McLean Point (Fig. 4) about 20 miles upstream from the river boundary (Table X). The tagging was carried out in the period when the main pink runs should have been passing.

In the 1957 and 1958 tagging experiments in the West Coast District of Southeastern Alaska by the Fisheries Research Institute obtained salmon for tagging from catches made in salmon traps located at Cape Addington, Cape Ulitka, Point Deconecida, Tranquil Point, McLeod Bay, and Ruth Bay and from seine catches made in Keller Bay and off Granite Point (Fig. 4). The numbers of sockeye and pinks tagged in the West Coast District are listed by tagging date and location in Tables XI and XII for 1957 and 1958 respectively.

Spawning area recoveries of tags

The number of recoveries from the different spawning areas varied considerably. A large number were made in areas where counting weirs were located. It is estimated that at Babine Lake about 25% of the sockeye tags entering the area were stopped at the counting fence located below the lake outlet. Of the tagged sockeye which continued past the Babine fence only about 20%, on the average, were recovered subsequently on spawning streams and in the Native subsistence fishery. Tag recoveries were high from some areas where the Natives were able to fish selectively for tagged salmon in order to collect rewards. Tag recoveries were low from remote areas which were seldom visited, from streams which were difficult to survey, and from areas where the fish become unavailable after spawning. In areas such as Bear, Sustut, Atlika, and Johanson Lakes, where lake spawning occurs, most of the carcasses sink to the bottom and therefore tagged individuals are not readily available. Tag recoveries are low from large rivers and from silty streams which are difficult to survey and where carcasses of spawned out fish may be swept away or obscured.

To determine the timing of the Skeena sockeye and pink runs only those tags which were recovered in definite spawning areas could be used. This eliminated many of the tags recovered by sportsmen and the Native subsistence fishery. In the years 1944 to 1959 a total of 2,304 sockeye and 652 pink tags were recovered in definite spawning areas in the Skeena area (Table XIII).

All sockeye and pink tag recoveries from the 1944 to 1948 and the 1955 to 1959 Canadian taggings in northern British Columbia and the 1957 and 1958 United States taggings in the West Coast District of Southeastern Alaska are tabulated in Tables I to XXVI of the Appendix.

Times of migration through the fishing area

A. Sockeye

To facilitate comparisons of passage times of fish tagged at a large number of different locations, a common point along the migration route (the river boundary area) was chosen and estimates made of the dates at which the

tagged fish reached this point. The time of travel or "days out" from each tagging location to the river boundary was estimated by the median value of the number of days out for tag recoveries in the boundary area from each tagging location.

In the years 1944 to 1948 most of the tagging was done off Smith Island and adjacent locations close to the mouth of the Skeena River. The commercial fishery in these years operated five days weekly, from 6:00 P.M. Sundays to 6:00 P.M. Fridays. Tagging was carried out daily with the exception of Mondays. Examination of the recovery data indicated differences in time-out depending on the day of the week in which the fish were tagged. This difference was due, probably, to the lack of tag recoveries during the weekend closure (6:00 P.M. Friday to 6:00 P.M. Sunday). In 1946 (Table XIV and Fig. 5) the daily number of days out varied between 3 and 7 days. The data suggests that for taggings carried out between Tuesdays and Saturdays the estimate of time-out would be too high because of the weekend closure. Data for Sunday taggings were probably the most accurate because Sunday tags became available to the fishery at 6:00 P.M. Sunday and remained available until 6:00 P.M. Friday, by which time 70% of the recoveries had been made. In addition, more salmon were tagged on Sundays and more tags were recovered from Sunday taggings than any other day of the week. For these reasons the number of days out for sockeye from Smith Island to the boundary area in the years 1944 to 1948 was estimated from recoveries of tags placed on Sundays. The number of days out was estimated to have been 2 in 1944 and 1948, 3 in 1946, and 4 in 1945 (Table XV and Fig. 6).

In 1956, 1957 and 1958, sockeye were tagged at many different locations, most of them some distance from the river mouth. The number of days out between the river boundary area and Dundas Island, Grace Island, and Ogden Channel was estimated to have been 5, 4, and 2 days respectively, by combining tag recoveries in all years (Table XVI and Fig. 7). Tag recoveries in the boundary area from other tagging locations in 1956, 1957 and 1958 were not sufficient to estimate number of days out. For tagging sites in the Nass area (including Steamer Passage, Elliott Point, and Tracy, Boston, Maskelyne, Birnie, and Finlayson Islands) the migration time to the boundary was assumed to be the same as from Dundas Island, which lies roughly the same distance from the Skeena River boundary. Similarly the migration time for sockeye tagged near Rachael and Avery Islands and in Oval Bay was assumed to be similar to that for sockeye tagged at Grace Island. For fish tagged near Smith Island in 1958 it was assumed that the number of days out to the boundary was 3 days, the average time out for the 1944 to 1948 taggings at Smith Island. The time of travel between the boundary area and the test fishing site near Tyee was considered to be less than one day as the test fishing catches reflect changes in the commercial fishery, such as openings and closures, within a few hours. The number of days out between the tagging sites in the West Coast District of Southeastern Alaska and the river boundary and Telegraph Passage was estimated to have been 7 days in 1957 and 10 days in 1958 (Table XVII and Fig. 8).

Tag recoveries from sockeye in spawning areas in the Skeena River drainage during the years 1944 to 1958 are tabulated in Tables XVIII to XXX. In these tables the number of tag recoveries in each spawning area are shown by tagging location, tagging date, and the date at which the fish was estimated to have been in the boundary area.

As mentioned earlier, the recovery rate for tags varied considerably between different areas. Also the number of tags recovered in any one area varied from year to year. Substantial numbers of tags were recovered in most years at Babine Lake and from the Bulkley River (largely Morice Lake fish), both of which were relatively large producers.

Moderate numbers of tags were recovered at Alastair, Lakelse, Kitwanga, and Bear Lakes but only a few tags were recovered at Kitsumkalum and Johanson Lakes and in the Kloplox River system. No recoveries were made at Johnson, McDonell, Sustut, and Asitka Lakes and other small producing areas.

At Alastair Lake tags were recovered from sockeye in three years, 1947, 1957 and 1958 (Table XXXI, and Fig. 9). The seven tags which were recovered in 1947 during the course of a single survey of Alastair Lake were estimated to have been present in the boundary area between June 18 and 28. This information suggested that the Alastair sockeye run was early. In 1957, during several surveys of Alastair Lake, 21 tags were recovered. These tagged sockeye had been present in the boundary area from June 10 to July 20. A single tag was recovered at Alastair Lake in 1958 from a sockeye which was tagged at Cape Addington in Southeastern Alaska on August 2 and which was estimated to have been in the boundary area on August 12. These data indicate that while the bulk of the Alastair sockeye run is early, a segment of the run has been present in the fishing area as late as early August.

Recoveries of sockeye tags at Lakelse Lake (Table XXXII and Fig. 10) show that in five years when tags were recovered, Lakelse Lake sockeye were present in the fishing area during June and early July. Although tagging continued well into July in most years, no tag recoveries were made at Lakelse Lake from sockeye which had been in the boundary area later than July 3. The Lakelse Lake sockeye run apparently is early and of short duration.

A total of 17 sockeye tags were recovered in the Kitwanga River system in six of the years when tagging was carried out (Table XXXIII and Fig. 11). Of these fish 12 were estimated to have passed the river boundary between July 22 and 31, 2 on June 17, and one each on June 25, July 2 and August 24. The tag recoveries suggest that the Kitwanga sockeye run is present in the fishing area throughout the entire season with the greatest abundance in late July.

The Bulkley River sockeye run, as indicated by spawning estimates and by Native subsistence fishery catches at Moricetown Falls and Hagwilget Canyon, was at a relatively high level of abundance in the earlier years of tagging, 1944 to 1946, and at a very low level in the later years of tagging, 1955 to 1958. The bulk of the tags recovered in the Bulkley River system were made in the earlier period (Table XXXIV and Fig. 12). Bulkley River sockeye spawn in two parts of the drainage: most of them at Morice Lake at the head waters of the Morice River, the main tributary of the Bulkley River; the remainder at Bulkley and Maxan Lakes, the headwaters of the Bulkley River itself. It is not possible to demonstrate any differences in the timing of these two runs as all tag recoveries in the Bulkley River system were made in the Native subsistence fishery at points downstream from the confluence of the Bulkley and

Morice Rivers. In the years 1944 to 1948 Bulkley River sockeye were present in the boundary area from mid-June to late July, the period of the tagging. The data indicate that in no year did the Bulkley River sockeye run have a well defined peak but that in most years the run was present in the fishery in fairly consistent numbers throughout the tagging period. In these earlier years the run may have been present in the boundary area into August, after tagging had been discontinued. The few recoveries of tags from Bulkley River sockeye in the years 1955 to 1958 failed to demonstrate the presence of the run in the fishery during August. However, these data cannot be expected to describe accurately the Bulkley River sockeye run in earlier years because in the years 1955 to 1958 the escapement was at a very low level as were the number of tags recovered and probably the number of Bulkley River sockeye which were tagged. To summarize, the data indicate that the Bulkley River sockeye run has been present in the fishing area from mid-June to late July but are inadequate to show whether it was present or absent during August.

Fifteen tagged sockeye were recaptured at Bear Lake during six years of tagging (Table XXXV and Fig. 13), nine of them in 1947. The tag recovery data suggest that the Bear Lake sockeye run was present in the boundary area from late June to mid-August with the greatest abundance in the last 10 days of July.

A few tags were recovered from sockeye at Kitsumkalum and Johanson Lakes and in the Kispiox River (Fig. 14). The three tagged sockeye recaptured at Kitsumkalum Lake were estimated to have been at the boundary on July 8, 15 and 25, 1947. The single recoveries at Johanson Lake and from the Kispiox River were from sockeye estimated to have passed the boundary on July 25, 1945, and July 30, 1947, respectively.

The Babine sockeye run, which at present forms about 90% of the total Skeena run, has been present in the fishing area throughout the fishing season. A total of 1,983 tags have been recovered from sockeye at Babine Lake from sockeye estimated to have been in the boundary from as early as June 17 to as late as August 24 (Table XXXVI and Fig. 15). The greatest number of recoveries were made from fish which had passed the boundary during the latter part of July when the peak in the Skeena sockeye run usually occurs. Sockeye taggings carried out at Babine Lake (Pritchard, 1953a and 1953b; McDonald, 1967 - unpublished) have shown that the Babine sockeye run is composed of several runs which both pass through the commercial fishery and enter the lake at different times.

The number of sockeye tagged throughout the season was not proportional to the number of fish present in the fishing area. Also tagging in most years was not done throughout the entire season. However, comparison of the distribution of all tag recoveries at Babine Lake with the average sockeye count at the Babine River counting fence throughout the 1946, 1947, and the 1955 to 1958 seasons (Fig. 16) suggests that, with the possible exception of the late run, all segments of the Babine sockeye run were tagged although not in proportion to the size of the different parts. On this basis it is assumed that all the other Skeena sockeye runs were tagged throughout the period of their migration through the tagging area. However, these runs were not tagged proportionately throughout the season or to one another. Despite these limitations in the data,

the tagging information has been combined for all years for each Skeena sockeye run in order to compare the timing of these runs through the boundary area (Fig. 17). This comparison indicates that differences existed in the time of passage among the Skeena runs. However, these runs overlap in their timing and at any one time sockeye from several runs may have been present in the fishery. The earliest runs which entered the river were the Alastair and Lakelse Lake runs. These were followed a short while later by the Babine Lake and Bulkley River runs. The Lakelse Lake run and the main part of the Alastair Lake run were present in the fishery during June and early July. The tagging data indicate that the Bulkley River run continued to the end of July and the Babine Lake run into late August. The limited information on the other Skeena runs suggests that they were present off the river mouth in July.

B. Pink salmon

In the earlier years of tagging, 1945 to 1948, few pink salmon were tagged and only from the early part of the run. In these years the number of pink tag recoveries in the boundary area were so few that to determine the number of days out from Smith Island to the boundary the recoveries from all years were combined. The number of days out was estimated to have been five days (Table XXXVII and Fig. 18).

In 1956, 1957 and 1958 pink salmon were tagged at many different locations, most of them some distance from the river mouth. Pink salmon appeared to be more variable than sockeye in their migration speed through the fishing area. With pinks the days out to the boundary area varied between different tagging locations and between years for each tagging location. Accordingly, the number of days out, wherever possible, was estimated for each tagging location for each year of tagging. The data from some tagging locations suggest that the days out may have varied for taggings carried out on different days of the week. This difference may be the effect of closures in the fishery on tag recoveries (in some weeks only three days fishing was permitted). Tag recoveries in 1957 in the boundary area from taggings in the West Coast District suggest a seasonal change in the number of days out (Table XXXVIII), from about 9 or 10 days in late July to about 6 days in mid-August. Data from other tagging locations are not sufficient to demonstrate any seasonal change in migration rate. In any event, any seasonal change in the migration time probably would have little effect on the analysis. In the Nass area the time out to the Skeena boundary from tagging locations near Dundas Island was estimated to have been 5 days in 1957 and 7 days in 1958 (Table XXXIX and Fig. 19), and from tagging sites near Digby, Maskelyne, and Finlayson Islands, 3 days in 1957 (Table XL and Fig. 20). In the Skeena area, the days out to the boundary was calculated to have been 4 days from Goble Point and 3 days from the Kinahan Islands in 1957 (Table XLI and Fig. 21), and 3 and 6 days from Grace Island in 1957 and 1958, respectively (Table XLII and Fig. 22). From Ogden Channel to the boundary area the time out was estimated to have been 4 days in 1957 and 3 days in 1958 (Table XLIII and Fig. 23). In 1957 and 1958 the estimated days out from the West Coast District tagging sites in Southeastern Alaska to the Skeena boundary and Telegraph Passage were 9 and 10 days respectively (Table XLIV and Fig. 24). The time of travel between the boundary area and the test fishing site near Tyee is considered to have been less than one day for pinks as well as for sockeye.

The time of travel between McLean Point and Tyee in 1959 was estimated by comparing the average daily catch of pinks per hour in the test fishing nets with the daily catch of pinks in the beach seine operated at McLean Point (Fig. 25). The "peaks and valleys" of the test fishing catch are in general repeated after an interval of several days in the McLean Point catches. The cumulative catch curves at the two locations (Fig. 26) have the same slope but the McLean Point curve is displaced to the right of the test fishing curve except for a period near the end of the season when seining effort was reduced and finally discontinued earlier than the test fishing. The similarity between the two curves suggests the daily seine catches were proportional to the daily escapement as indicated by the test nets. The distance between the two cumulative catch curves suggests the time of travel from Tyee to McLean Point was about 3 days. If the McLean Point curve is displaced to the left by 3 days the curves coincide in general throughout the period of the greatest slope when the largest number of pinks were present. At the beginning and end of the run when the two curves do not coincide, the proportion of the run present was small and any error resulting from assuming a 3-day migration would be small. Therefore it was assumed that pinks tagged at McLean Point had passed the test fishing site and the boundary area 3 days previously.

Tag recoveries from pinks in spawning rivers adjacent to the Skeena gill-net area in the years 1945 to 1959 are shown in Tables XLV to LII. The tag recoveries are tabulated by spawning area, tagging location and date, and the date when the tagged fish were estimated to have passed the river boundary.

On the Babine River a total of 77 tagged pinks were recovered, 54 of them from the 1959 McLean Point tagging and 23 in all the other years (Table LIII and Fig. 27). Of the recoveries, the earliest to have entered the river was an individual tagged near Tyee on July 9, 1957, the latest on August 11, 1955. In 1959, the midpoint of the tag recoveries (i.e. the date at which one-half of the total number recovered had passed the boundary area) occurred on July 28.

A total of 130 tags were recovered from pink salmon in the Kispiox River (Table LIV and Fig. 28). These fish had passed the boundary area between June 15 and August 12. The midpoints of the Kispiox tags at the boundary were August 2 in 1957 and July 28 in 1958 and 1959.

A large number of tags were recovered from the Bulkley River in relation to the size of the spawning population. These recoveries were made from pinks which had been in the boundary area between July 15 and August 12 (Table LV and Fig. 29). The data suggest that the peak of the Bulkley River run probably passed the boundary around August 1.

Tags recovered from pinks on the Kitwanga River indicate that the Kitwanga pink run was present at the boundary over a large part of the fishing season, from as early as July 16 to as late as August 30 (Table LVI and Fig. 30) with a midpoint on August 9-10 in 1957 and on July 30 in 1958 and 1959.

A total of 128 tags were recovered from pinks in the Lakelse River (Table LVII and Fig. 31). The data indicate that the Lakelse River pink run like the Kitwanga run was present in the fishing area over a large part of the

season. Tags were recovered in the Lakelse River from pinks which were estimated to have been in the boundary area between July 27 and September 6. The midpoint of the recoveries at the boundary was on August 15 in 1957, August 6-7 in 1958, and August 9 in 1959.

In 1959, 24 tags were recovered from pink salmon spawning in the main stem of the Skeena River itself between the village of Terrace and the upper tidal limit (Table LVIII and Fig. 32). The recoveries were from fish which were estimated to have passed the boundary between July 26 and August 14. The run may have extended later into the season than the 1959 data indicate. Spawning surveys indicate that the Skeena River and the Lakelse River pink runs spawn throughout the same period which suggests that the timing of the runs through the fishing area may be similar.

A few tags have been recovered from pink salmon which spawn in some of the smaller and less important tributaries of the Skeena River. A single tag was recovered in 1947 on the Bear River from a pink salmon which was estimated to have been at the boundary on July 30. Along the middle Skeena, tags were recovered from pink salmon in Price Creek near Kitwanga, in Kleanza Creek, and in the Zymoetz and Kitsumkalum Rivers. The Price Creek tag was from a fish estimated to have passed the boundary on August 5 in 1957. At Kleanza Creek, tags were recovered from seven pinks of which one had passed the river boundary on July 23, 1957, two on July 26, 1959, one on August 2, 1959, two on August 5, 1959, and one on August 14, 1957. Six tags were recovered in the Kitsumkalum River from pinks of which one each had passed the boundary on July 24, 1957, July 30, 1955, August 11, 1957, and August 14, 1959, and two on August 14, 1957. Along the lower Skeena River tags were recovered from pink salmon in the Exstew, Gitnadoix, and Ecstall Rivers. Single tags were recovered in the Exstew and Gitnadoix Rivers from pink salmon which had been at the river mouth on August 2, 1956, and August 6, 1958, respectively. Four tags were recovered in the Ecstall River from fish which had passed the boundary on August 2, 1955, July 31 and August 5, 1957, and July 29, 1958.

In 1957 and 1958 a few tags were recovered from pink salmon in streams which drain into the Skeena gillnet area but which are not part of the Skeena River drainage. These streams included Useless Creek, Spiller River and Oona River on Porcher Island and Moore Cove and Pearl Harbour Creeks on the mainland. In general, the tags recovered in these streams were from pinks which had been tagged in the latter part of the season. The single tag recovered in Useless Creek had been placed on the fish at Arnleton Point on July 27, 1957. Of the three tagged pinks recovered in the Spiller River in 1957, two were tagged near the Gnarled Islands on August 9 and one off Cape Addington in Southeastern Alaska on August 10. Seven tags were recovered in the Oona River from pinks which had been tagged at Ogden Channel on August 21, 1957, and on August 3 and 7, 1958, at Cape Addington on August 11, 1957, and at Cape Ulitka in Southeastern Alaska on July 27, July 28, and August 10, 1957. Two tags were recovered in 1957 in Moore Cove Creek from pinks tagged on August 10 at Cape Addington and on August 17 at Arnleton Point. A single tagged pink recaptured in Pearl Harbour Creek had been tagged at Cape Addington on August 25, 1957.

Tag recovery information for the Skeena River pink runs are compared in

Fig. 33. The data suggest that the time at which the runs enter the river mouth is related to the distance the fish must travel upriver to the spawning grounds. Those runs which have a long upriver migration are generally earlier than those runs which spawn close to the sea coast. The Babine, Kispiox, and Bulkley River runs, which must travel furthest to the spawning grounds, are the first to enter the river. The latest of the major runs to the Skeena River are the Lakelse River and the Skeena main-stem runs, both of which spawn less than 100 miles from the sea coast. It is apparent that a high degree of overlap occurs in the timing of the Skeena River pink runs. Pinks from the major pink runs are present in the fishery in varying degrees through the main part of the season. The data are insufficient to demonstrate if differences in timing through the fishing area exist between runs in the odd- and even-numbered years to any one spawning area. Spawning survey information indicates that in certain runs the time of arrival on the spawning grounds, the time of spawning, and the portion of the spawning ground utilized may vary between runs in the two cycles. Year-to-year differences exist in the timing of the Skeena River pink run as a whole. This is due in part to the timing and relative strength of the component runs.

SUMMARY

Present sockeye tag recovery information on the Skeena River has demonstrated that while differences do exist in the timing of the Skeena sockeye runs, the timing of these runs overlapped so that at any one time sockeye from several runs were present in substantial numbers in the fishery (Fig. 17). The taggings indicated that during June and early July the sockeye in the fishery were bound mainly for Alastair, Lakelse, and Babine Lakes and the Bulkley River. During the remainder of July the run was made up mostly of Babine Lake and Bulkley River sockeye. The sockeye run in August was composed almost entirely of sockeye bound for Babine Lake.

Similarly, pink tag recoveries on the Skeena River demonstrated that the timing of the major pink runs differ but overlap one another (Fig. 33). The recoveries showed that the earliest pink runs, the Babine, Kispiox, and Bulkley River runs, were present in the fishery in late July and early August. The last of the major pink runs in the fishery was the Lakelse River run which was present from the end of July to the latter part of August. The Kitwanga River run was intermediate in timing, extending from late July to the latter part of August. Tag recoveries from the main stem of the Skeena River suggested that it was present from the end of July to mid-August.

Comparison of tag recoveries from the major sockeye and pink runs indicate that the runs of the two species overlapped in timing to a large degree. The early pink runs, the Babine, Kispiox, and Bulkley runs, and the early parts of the Kitwanga, Lakelse, and Skeena main-stem pink runs coincided with the end of the Bulkley River sockeye run and with a substantial part of the Babine sockeye run. Comparison of the weekly stocks (catch plus the weekly escapement as determined from the test fishing catches at Tyee and from subsequent spawning ground estimates) of sockeye and pink in Area 4 illustrates the amount of overlap of the two runs in the fishing areas (Fig. 34). On the average about 59%

of the sockeye run in the years 1956 to 1964 was present in the fishing area during the last two weeks of July and the first week of August. During the same weeks, 67% of the pink run was present in the odd-numbered years 1957 to 1963 and 47% of the pink run in the even-numbered years, 1956 to 1964. The peak of the sockeye run occurred in the last week of July, the peak of the odd- and even-pink runs in the first and second weeks of August respectively (Fig. 34). The difference in the timing of the odd- and even-year pink runs was due to the proportions of early and late pinks in the run.

Tag recoveries have demonstrated for both sockeye and pink, that while the timing of the component runs and of the two species does differ, considerable overlap of the runs in time of migration through the fishery occurs. Therefore, any regulation designed to affect any one run will also affect to a varying degree one or more runs of the same or other species.

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REFERENCES

Milne, D. J. 1949. Salmon tagging off the Skeena River in 1948. Fish. Res. Bd. Canada, Pacific Prog. Rept., No. 80, p. 50-51.

Pritchard, A. L., and A. C. DeLacy. 1944. Migration of pink salmon (Oncorhynchus gorbuscha) in southern British Columbia and Washington in 1943. Bull. Fish. Res. Bd. Canada, No. 66, 23 p.

Pritchard, A. L. 1944. Sockeye salmon tagging off the Skeena River in 1944. Fish. Res. Bd. Canada, Pacific Prog. Rept., No. 61, p. 8-12.

1945. Sockeye salmon tagging off the Skeena River in 1945. Ibid., No. 65, p. 77-79.

1947. Sockeye salmon tagging off the Skeena River in 1946. Ibid., No. 70, p. 13-16.

1948. Sockeye salmon tagging off the Skeena River in 1947. Ibid., No. 75, p. 40-42.

1953. Sockeye salmon migration in Babine River and Lake as indicated by tagging at Babine fence in 1946. Fish. Res. Bd. Canada, MS Rept. Biol., No. 532, 14 p.

1953. Sockeye salmon migration in Babine River and Lake as indicated by tagging at Babine fence in 1947. Fish. Res. Bd. Canada, MS Rept. Biol., No. 536, 14 p.

Shepard, M. P., K. V. Aro and F. C. Withler. 1962. Exploitation by United States and Canadian fisheries on pink and sockeye salmon en route to northern British Columbia and southern Southeast Alaska. Fish. Res. Bd. Canada, Mar Biol., No. 720. 98 p.

Tables I to LVIII

Figures 1 to 34

Table I. Number of sockeye tagged in British Columbia Statistical Areas 3, 4, and 5 in 1944.

Tagging		
Date	Location	Number tagged
June 14	Finlayson Island	5
15	" "	4
18	Edye Passage	4
21	Mink Trap Bay	206
22	" " "	196
	Endhill Bay	14
28	Stuarart Passage	2
	Wales Island	1
July 2	Endhill Bay	38
3	Edye Passage	5
9	Smith Island	131
9	" "	38
11	Stuarart Passage	1
13	Edye Passage	6
14	Ridley Island	47
15	Smith Island	113
16	" "	271
18	" "	69
19	" "	113
20	" "	60
21	" "	50
Total		1,373

Table II. Number of sockeye and pink tagged in British Columbia Statistical Areas 3, 4, and 5 in 1945.

Tagging		Number tagged	
Date	Location	Sockeye	Pink
June 6	Seaver Passage	1	
9	Port Simpson	2	
13	Mink Trap Bay	191	
14	" "	154	
15	Ogden Channel	2	
16	Endhill Bay	162	
17	" "	6	
18	Edye Passage	1	
19	Smith Island	11	
20	" "	39	
	Ogden Channel	1	
21	" "	3	
	Smith Island	25	
22	" "	39	
23	" "	367	
24	" "	220	
25	Ogden Channel	3	
26	Smith Island	97	
27	" "	59	
28	" "	52	
29	" "	169	
30	" "	7	
July 1	" "	42	
4	Stephens Passage	14	6
5	" "	19	5
6	" "	13	3

(Continued)

Table II (cont'd.)(page 2)

Tagging		Number tagged	
Date	Location	Sockeye	Pink
	Boston Island	1	
July 7	Smith Island	165	2
8	" "	158	3
10	" "	59	6
11	" "	10	2
12	" "	39	6
13	Lelu Island	7	3
	Smith Island	1	4
14	" "	116	36
15	" "	258	3
17	" "	20	1
18	Steamer Passage	12	195
19	" "	12	118
20	Smith Island	65	131
21	" "	44	89
22	" "	72	122
24	" "	8	77
25	" "	7	89
26	" "	15	188
27	" "	11	185
29	" "	93	89
30	" "	6	242
Total		2,808	1,609

Table III. Number of sockeye and pink tagged in British Columbia Statistical Areas 3, 4, and 5 in 1946.

Tagging		Number tagged	
Date	Location	Sockeye	Pink
June 12	Mink Trap Bay	79	
13	Kndhill Bay	153	
18	Smith Island	42	
19	" "	32	
21	" "	11	
22	" "	11	
23	" "	27	
25	" "	81	
26	" "	27	
27	" "	84	
	Finlayson Island	21	
28	" "	7	
	Smith Island	106	
29	" "	121	
30	" "	59	
July 1	Gibson Island	1	
2	Smith Island	16	
3	" "	18	
4	" "	2	
	Stevens Passage	1	
5	" "	5	
	Smith Island	4	
6	" "	44	
7	" "	88	
9	" "	36	1
10	" "	2	

(Continued)

Table III (cont'd.) (page 2)

Tagging		Number tagged	
Date	Location	Sockeye	Pink
July 11	Steamer Passage	13	2
12	" "	2	1
13	Smith Island	140	2
14	" "	187	1
16	" "	64	1
17	" "	101	3
18	" "	9	4
19	" "	13	
20	"	218	9
21	" "	177	1
23	" "	13	5
24	Lelu Island	9	2
	Smith Island	89	77
25	" "	43	79
26	" "	48	46
27	" "	127	29
28	" "	85	26
Total		2,416	289

Table IV. Number of sockeye and pink tagged in British Columbia Statistical Areas 3, 4, and 5 in 1947.

Tagging		Number tagged	
Date	Location	Sockeye	Pink
June 12	Mikado Bay	119	
13	Mink Trap Bay	281	
15	Smith Island	25	
17	" "	18	
18	" "	16	
19	" "	20	
20	" "	30	
21	" "	39	
22	Moore Cove	9	
25	Smith Island	20	
	Lelu Island	19	
26	Smith Island	1	
	Lelu Island	13	
27	Smith Island	32	
28	" "	63	
29	" "	97	
July 1	Stevens Passage	1	
2	Lelu Island	2	
	Smith Island	25	
3	" "	55	
4	" "	8	
5	Moore Cove	56	
	Smith Island	10	
6	Georgy Point	25	1
	Smith Island	35	
8	Moore Cove	5	

(continued)

Table IV (cont'd.) (page 2)

Tagging		Number tagged	
Date	Location	Sockeye	Pink
	Smith Island	1	
July 9	" "	75	
	Lelu Island	6	
10	Smith Island	21	2
11	" "	12	2
12	" "	55	3
	Georgy Point	62	3
13	Smith Island	102	8
15	" "	33	7
	Georgy Point	5	1
16	Smith Island	31	21
	Gravesville Island	10	4
17	Stephens Passage	5	9
18	" "	2	2
	Finlayson Island	17	4
19	Lelu Island	95	20
	Smith Island	272	26
20	" "	148	24
22	" "	80	23
23	" "	60	10
	Moore Cove	70	43
24	Smith Island	153	84
25	" "	148	142
26	" "	213	138
27	" "	45	61
Total		2,764	618

Table V. Number of sockeye and pink tagged in British Columbia Statistical Areas 3 and 4 in 1946.

Tagging		Number tagged	
Date	Location	Sockeye	Pink
June 10	Steamer Passage	3	
11	Finlayson Island	6	
12	Steamer Passage	13	
13	" "	3	
	Finlayson Island	1	
15	Smith Island	60	
16	" "	127	
17	" "	29	
18	" "	55	
19	" "	60	
20	" "	34	
22	" "	124	
23	" "	141	
	Lelu Island	39	
24	" "	53	
	Smith Island	17	
25	Moore Cove	14	
	Smith Island	45	
26	Lelu Island	36	
	Smith Island	109	
27	" "	31	
	Lelu Island	5	
29	Smith Island	15	
	Lelu Island	2	
30	" "	2	

(Continued)

Table V (cont'd.) (page 2)

Tagging		Number tagged	
Date	Location	Sockeye	Pink
July 1	Smith Island	6	
2	" "	5	
	Lelu Island	1	
3	Smith Island	75	
4	" "	148	
6	" "	20	
7	" "	21	
8	" "	16	
	Lelu Island	7	
9	Smith Island	33	
	Lelu Island	12	
10	Moore Cove	36	
	Smith Island	76	
11	" "	72	2
13	Steamer Passage	63	26
14	" "	16	55
15	" "	6	43
16	Smith Island	36	3
17	" "	489	4
18	" "	300	11
Total		2,462	144

Table VI. Number of sockeye and pink tagged near Tyee on the Skeena River in 1955, 1956, and 1957.

Date	1955		1956		1957	
	Sockeye	Pink	Sockeye	Pink	Sockeye	Pink
May 29	2					
31	3					
June 2	2					
5					1	
6					3	
7	8		1			
8	12		1			
9	14		2			
10	4		5		1	
11	4		7			
12	2		1		3	
13	3		5		6	
14	11		4		2	
15	4		4		1	
16	10		2		3	
17			13		5	
18			10		5	
19			5		16	
20			11		16	
21	16		5		14	
22	16		6		13	
23	6		2		13	
24			10		5	
25			10		6	
26	2		27		10	
27	17		33		14	

(Continued)

Table VI (cont'd.) (page 2)

Date	1955		1956		1957	
	Sockeye	Pink	Sockeye	Pink	Sockeye	Pink
June 28	24		17		1	
29	6		25		7	
30	6		29		11	
July 1	21		14		9	
2	25		5		15	1
3	41		12		13	1
4	14		50		50	
5	13		36		79	1
6	3		48		32	
7	5	1	29		64	2
8	4		13		47	
9	25		8		70	3
10	54	1	8		38	2
11	19		24	1	71	3
12	9	1	42	1	71	7
13	8	2	29		49	
14	5	2	24		17	4
15	41		23		16	8
16	50	3	13	1	7	2
17	39	2	19	3	24	10
18	7	2	3	1	14	23
19	9	3	77	8		71
20	9	5	33	3	33	105
21	4	6	26	6	57	60
22	5	7	50	7	28	62
23	16	8	54	12	21	126
24	12	16	23	5	5	82

(Continued)

Table VI (cont'd.) (page 3)

Date	1955		1956		1957	
	Sockeye	Pink	Sockeye	Pink	Sockeye	Pink
July 25	11	14	4	8	20	37
26	21	17	22	11	1	72
27	22	33	57	12		89
28	25	19	63	22		112
29	18	65	59	27	9	38
30	19	53	32	3	19	118
31	14	62	30	11	9	64
Aug. 1	7	45	19	11	5	70
2	14	31	35	12	26	125
3	9	75		39	17	161
4	4	75	2	26	27	139
5	5	43	33	44	9	101
6	1	52	43	23	15	158
7	6	46	17	17	13	96
8	5	61	5	15	5	98
9	3	64	2	31	13	93
10	1	66	13	45	15	124
11		82	16	34	11	143
12	4	54	17	64	4	147
13	4	30	1	7	3	124
14	7	38	3	11	1	300
15	1	40	3	17	10	166
16	1	40		1	2	92
17	1	10		34		
18		46		47		
19	1	69		65		
20	1	79		37		

(Continued)

Table VI (cont'd.) (page 4)

Date	1955		1956		1957	
	Sockeye	Pink	Sockeye	Pink	Sockeye	Pink
Aug. 21		29		21	4	32
22	1	40		11	3	87
23		19	4	9	5	32
24		9		15	3	9
25		7		8		20
26		4	1	27	1	15
27		1	1	36	1	5
28		1	1	27		2
29		1		23	1	2
30		4		33	1	11
31		5		4		1
Sept. 1	2			2		
2		1		6		
3	1	2		4		
4		1		4		
5				1		
6	1			2		
7						
8				3		
9				3		
13			1			
15				1		
Total	820	1,486	1,382	961	1,241	3,338

Table VII. Number of sockeye and pink tagged in the commercial fishing areas of British Columbia Statistical Areas 3, 4, and 5 and in adjacent parts of Southeastern Alaska in 1956.

Tagging		Number tagged	
Date	Location	Sockeye	Pink
July 13	Arniston Point	11	6
14	" "	3	4
15	North end of Dundas Island		3
	Barren Island, Alaska		7
	Garnet Point, Alaska	1	63
16	Tracy Island	1	
	Parkin Island	9	32
	Pointer Rocks	1	2
18	Rachael Islands	25	
	Avery Island	2	1
22	Arniston Point	34	24
23	" "	29	38
28	Ogden Channel	2	64
29	" "	5	28
31	" "	1	5
Aug. 1	Somerville Island	2	34
12	Prince Lebeo Island		10
	Triple Island		3
18	Cape Chacon, Alaska		8
24	Arniston Point	1	12
25	" "		191
30	Ogden Channel		183
Total		127	755

Table VIII. Number of sockeye and pink tagged in the commercial fishing areas of British Columbia Statistical Areas 3, 4, and 5 in 1957.

Tagging		Number tagged	
Date	Location	Sockeye	Pink
June 5	Arniston Point	12	
6	" "	8	
	Steamer Passage	3	
7	Truro Island	1	
11	Arniston Point	6	
13	Kwinamass Bay	1	
	Elliott Point	27	
	Maskelyne Island	1	
14	Elliott Point	78	
15	" "	85	
	Arniston Point	11	
	Hudson Bay Passage	7	
16	Caamano Sound	3	
	Elliott Point	6	
17	" "	2	
19	Baird Point	4	
20	Table Hill, Principe Channel	2	
	Riel Point	1	
22	Finlayson Island	1	
23	Arniston Point	6	
24	" "	121	
25	"	2	
26	"	51	1
30	"	61	3
July 1	" "	63	8

(continued)

Table VIII (cont'd.) (page 2)

Tagging		Number tagged	
Date	Location	Sockeye	Pink
July 2	Hudson Bay Passage	5	2
	Elliott Point	40	4
3	" "	27	33
	Tracy Island	1	5
4	Boston Island	29	58
	Tracy Island	13	64
5	Boston Island	3	9
	Maskelyne Island	2	
	Finleyson Island		1
6	Baird Point	2	
	Ogden Channel	4	5
7	Grace Island	3	
10	Agnleton Point	16	22
11	" "	9	7
	Boston Island	11	107
12	" "	30	169
	Elliott Point	1	2
13	Boston Island	2	15
	Elliott Point	1	3
	Maskelyne Island	7	2
	Rimmle Island		6
	Finlayson Island	6	22
14	Elliott Point		4
	Tracy Island	1	15
	Boston Island	1	5
	Agnleton Point	8	4

(Continued)

Table VIII (cont'd.) (page 3)

Tagging		Number tagged	
Date	Location	Sockeye	Pink
July 15	Arniston Point	118	223
	Whitly Point		1
16	Arniston Point	10	5
	Green Island	24	30
17	Arniston Point	16	62
18	" "	89	394
19	" "	54	83
20	Goble Point		17
	Grace Island	8	369
	Ogden Channel	4	18
21	Grace Island	5	96
	Kinahan Island		380
26	Arniston Point	86	458
27	" "	29	337
28	Finlayson Island	43	127
30	Ogden Channel	9	266
31	" "	3	463
Aug. 1	" "	1	356
3	Arniston Point	14	195
	Boston Island	2	5
	Steamer Passage	5	2
4	Maskelyne Island	10	414
	Finlayson Island	50	97
7	Ogden Channel	2	46
8	" "		44
	Holliday Island	3	249
9	Gnarled Islands	30	575

(Continued)

Table VIII (cont'd.) (page 4)

Tagging		Number tagged	
Date	Location	Sockeye	Pink
July 10	Boston Island	1	10
	Birnie Island	22	50
11	Finlayson Island	5	327
16	Ogden Channel	3	92
17	" "		21
	Arniston Point	31	247
18	" "	21	92
19	" "	15	81
20	" "	2	29
21	Ogden Channel	1	41
22	" "		47
Total		1,531	6,915

Table IX. Number of sockeye and pink tagged in British Columbia Statistical Areas 3, 4, and 5 in 1958.

Tagging		Number tagged	
Date	Location	Sockeye	Pink
July 12	Smith Island	12	3
	Ogden Channel	21	143
13	" "	28	269
14	" "	26	168
16	Smith Island	5	2
17	Grace Island	9	11
	Captain Cove		2
18	Rod Island	3	2
	Oval Bay	1	1
	Grace Island	24	287
19	" "	54	284
20	Arniston Point	35	319
21	" "	95	352
23	Grace Island	3	28
24	" "	39	444
25	" "	65	170
	Ogden Channel	7	54
26	" "	8	570
27	Arniston Point	14	192
28	" "	7	141
	Whitly-Prospector Points	3	75
	Slab Hill, Dundas Island	1	168
31	Green Island	6	27
	Whitly-Prospector Points	8	79
	Arniston Point	84	380

(Continued)

Table IX (cont'd.) (page 2)

Tagging		Number tagged	
Date	Location	Sockeye	Pink
Aug. 1	Agnisten Point	22	193
2	Ogden Channel	12	197
3	" "	15	500
7	" "	3	255
8	" "		358
9	Agnisten Point	63	495
10	" "	36	398
11	Green Island	1	36
	Grace Island	1	8
12	Green Island		15
Total		761	6,628

Table X. Number of pink tagged at McLean Point on the Skeena River in 1959.

Date	Number tagged
July 24	6
25	7
27	15
28	110
29	641
30	685
31	650
Aug. 1	637
2	568
3	356
4	124
5	32
6	219
7	532
8	271
9	311
10	213
11	193
12	352
13	233
14	245
15	146
16	56
17	117
21	30
Total	6,749

Table XI. Number of sockeye and pink tagged in the West Coast District of Southeastern Alaska in 1957.

Tagging		Number tagged	
Date	Location	Sockeye	Pink
July 16	Cape Addington		43
22	" "		149
23	" "		850
25	" "	49	676
27	" "		432
	Cape Ulitka		499
28	Cape Addington		686
	Cape Ulitka		501
Aug. 3	Cape Addington		200
5	" "	219	360
	Cape Ulitka		600
6	Cape Addington	50	585
	Cape Ulitka		200
7	Cape Addington	139	10
	Cape Ulitka	1	392
8	" "	1	301
9	" "		309
10	Cape Addington		1,003
	Cape Ulitka		187
11	Cape Addington	43	1,528
	Cape Ulitka	1	173
12	" "		340
13	" "		411
14	" "		148
17	Ruth Bay		726

(Continued)

Table XI (cont'd.) (page 2)

Tagging		Number tagged	
Date	Location	Sockeye	Pink
Aug. 17	McLeod Bay		397
18	Ruth Bay		379
	McLeod Bay		403
24	Point Desconocida		499
25	Cape Addington		1,000
	Point Desconocida		501
26	" "		400
27	" "		398
29	" "		408
Sept. 1	" "		258
2	" "		698
Total		503	16,552

Table XII. Number of sockeye and pink tagged in the West Coast District of Southeastern Alaska in 1966.

Tagging		Number tagged	
Date	Location	Sockeye	Pink
July 9	Cape Addington	31	109
10	" "	25	65
17	" "	21	19
18	" "	10	27
19	Granite Point	27	81
22	Point Desconocida	108	14
	Granite Point	33	19
23	Point Desconocida	429	48
	Cape Addington	12	15
24	Roller Bay	19	60
	Point Desconocida	9	
25	Cape Ulitka	3	31
	Cape Addington	227	329
26	Cape Ulitka	203	301
27	Cape Addington	291	348
28	Tranquil Point	42	96
31	McLeod Bay	89	100
Aug. 1	Granite Point	27	100
2	Cape Addington	434	434
3	" "	52	299
	Cape Ulitka	56	305
5	Tranquil Point		290
6	Point Desconocida	23	279
7	Cape Ulitka	24	104
	Point Desconocida	1	4

(Continued)

Table XII (cont'd.) (page 2)

Tagging		Number tagged	
Date	Location	Sockeye	Pink
Aug. 8	Tranquil Point		403
9	Point Desconocida		600
10	Cape Ulitka		573
	Cape Addington		731
11	" "		301
14	Tranquil Point		327
16	Point Desconocida	1	400
	Cape Ulitka		100
17	" "		282
18	McLeod Bay		100
21	" "		100
23	Point Desconocida	7	232
	Cape Ulitka	2	136
24	Cape Addington	16	282
	Cape Ulitka	3	106
25	Point Desconocida	25	906
Total		2,240	8,841

Table XIII. Recoveries on Skeena spawning grounds of sockeye and pink tagged in northern British Columbia and in the West Coast District of Southeastern Alaska, 1944 to 1959.

Year	Tagging area	Recoveries	
		Sockeye	Pink
1944	Smith Island	31	
1945	" "	153	2
1946	" "	396	4
1947	" "	673	8
1948	" "	181	0
1955	Tyee	61	7
1956	"	163	5
1956	Areas 3, 4, and 5	37	0
1957	Tyee	132	71
1957	Areas 3, 4, and 5	318	122
1957	West Coast District	7	65
1958	Areas 3, 4, and 5	176	83
1958	West Coast District	96	1
1959	McLean Point		284
Total		2,324	652

Table XIV. Recoveries of sockeye tags in the boundary area from taggings at Smith Island in 1946 by day of week when tagged and by number of days out.

Days out	Day of tagging						Total
	Tues	Wed	Thurs	Fri	Sat	Sun	
0	1	1				4	6
1	3	4	1		6	18	32
2		2		1	16	20	39
3	5		2	2	18	23	50
4		3		4	16	14	37
5	1	3		4	7	7	22
6	1			4	4		9
7	2	3	1	2		5	13
8	2				1	6	9
9	2	1			3	7	13
10		1			4	1	6
11					3		3
12					3	1	4
13	1			1	3		5
14					1		1
15		1		1	2		4
16					3	4	7
17				1	1	1	3
18					3		3
19						3	3
21	2			1			3
22						1	1
23	1				1		2
24					1	1	2
25				1	1		2
27	1			2			3
29					1		1
30					1	1	2
31						1	1
32						1	1
34					1		1
35	2						2
41	1						1
43		1					1
Total	25	20	4	24	100	119	292
Median	7	4-5	3	6	4	3	4

Table XV. Recoveries of sockeye tags in the boundery area from tagging at Smith Island in the years 1944 to 1948 plotted by the number of days out. Data include only those tags placed on Sundays.

Days out	1944	1945	1946	1947	1948	Total
0	16	2	4		11	33
1	31	17	18	11	30	107
2	24	22	20	11	22	99
3	7	25	23	12	11	78
4	10	19	14	8	15	66
5	2	13	7	1	6	29
6		2		1	1	4
7		2	5		1	8
8		4	6	4	3	17
9	3	5	7	4		19
10	1	8	1	1	3	14
11	2	8		2	3	15
12	1	9	1		2	13
13						
14		2				2
15		2		1		3
16		3	4	2	1	10
17		2	1	1	1	5
18	1				1	2
19		2	3			5
20						
21				1		1
22			1			1
23						
24			1			1
25		1		1		2
26		4			1	5
27						
28						
29						
30		1	1			2
31			1			1
32		1	1			2
33						
34						
35						
36		1				1

Continued ....

Table XV - cont'd. (page 2)

Days out	1944	1945	1946	1947	1948	Total
37						
38						
39		1				1
40		1				1
Total	98	157	119	61	112	547
Median	2	4	3	3	2	3

Table XVI. Recoveries of sockeye tags in the boundary area from taggings carried out around Dundas Island, near Grace Island and in Ogden Channel in the years 1956, 1957, and 1958. The tag recoveries are plotted by the number of days out. The figures in brackets are the number of recoveries made in test fishing gill nets operated near Tyee on the Skeena River.

Days out	Dundas Island	Grace Island	Ogden Channel
0			
1	2	1	7
2	6	7 (1)	9 (1)
3	16	3	6
4	27 (2)	5	
5	16	2	2
6	22	4 (1)	
7	3		
8	2 (1)		
9	3 (1)	2	2
10	4		
11	3		
12			
13	4		
14	1		
15			
16		1	
17	1	1	
18		2	
19			
20	1		
21			
22	1		
Total	112	30	26
Median	5	4	2

Table XVII. Recoveries of sockeye tags in the boundary area and in Telegraph Passage from taggings carried out in the West Coast District of Southeastern Alaska in 1957 and 1958. The tag recoveries are plotted by the number of days out. The single recovery enclosed in brackets was made in a test fishing gill net operated near Tyee on the Skeena River.

Days out	1957	1958
0		
1		
2	1	
3		
4		1
5		1
6	3	2
7	7	3
8	6	10
9	3	11
10		10
11		6
12		4 (1)
13	1	2
14		1
15		1
16		
17		2
18		
19		
20		
21		1
22		1
23		1
Total	21	57
Median	7	10

Table XVIII. Spawning area recoveries in Area 4 of sockeye tagged near Smith Island in 1944.

Date tagged	Date at river boundary	Number of recoveries			
		Kitwanga River	Bulkley River	Babine Lake	Total
July 8	July 10		2	2	4
9	11		1		1
14	16			3	3
15	17		1	8	9
16	18			2	2
18	20		1	1	2
19	21			2	2
20	22	1	2	2	5
21	23		2	1	3
Total		1	9	21	31

Table XIX. Spawning area recoveries in Area 4 of sockeye tagged near Smith Island in 1945

Date tagged	Date at river boundary	Number of recoveries						
		Lakelse Lake	Kitwanga River	Bulkley River	Babine Lake	Bear Lake	Johanson Lake	Total
June 19	June 23			1				1
20	24			2	2			4
21	25	1		3	1			5
22	26			1	2			3
23	27	2		9	12			23
24	28			7	9			16
26	30			3	8			11
27	July 1				8			8
28	2				2			2
29	3	2		2	8			12
30	4			1				1
July 1	5					1		1
4	8			1				1
7	11			5	3			8
8	12			7	5			12
10	14			3	1			4
12	16			1	3			4
14	18			6	5			11
15	19			2	6			8
20	24			3	5			8
21	25						1	1
22	26		1	1	3			5
25	30			1				1
29	Aug. 2			1	2			3
Total		5	1	60	85	1	1	153

Table XX. Spawning area recoveries in Area 4 of sockeye tagged near Smith Island in 1946.

Date tagged	Date at river boundary	Number of recoveries				
		Lakelse Lake	Bulkley River	Babine Lake	Near Lake	Total
June 18	June 21	2	1	4		7
19	22	1	3	3		7
21	24		2			2
22	25			2		2
23	26		2	2		4
25	28		4	6		10
26	29		3	1		4
27	30		7	12		19
27	July 2			1*		1*
28	1		4	9		13
29	2		3	6		9
30	3		2	6		8
July 3	6			6		6
4	7		1			1
6	9		3	6		9
7	10		5	6	1	12
9	12		1	5		6
13	16		6	26		32
14	17		6	27		33
16	19		1	12		13
17	20		1	9		10
18	21			3		3
19	22		1	2		3
20	23		5	47		52
21	24		5	33		38
23	26			1		1
24	27		1	20		21
25	28			12		12
26	29			14		14
27	30		2	26		28
28	31		2	14		16
Total		3	71	321	1	396

*Tagged near Finlayson Island

Table XXI. Spawning area recoveries in Area 4 of sockeye tagged near Smith Island in 1947.

Date tagged	Date at river boundary	Number of recoveries								
		Alastair Lake	Lakelse Lake	Kitsumkalum Lake	Kitwanga River and Lake	Bulkley River	Kispiox River	Babine Lake	Bear Lake	Total
June 15	June 18	1						1		2
17	20	2	1					3		6
18	21		1					3		4
19	22		1			1		4		6
20	23		3					7		10
21	24	3	3			1		4		11
22	25					1		3		4
25	28	1	2			1		5		9
26	29		2			1		4		7
27	30							8		8
28	July 1					3		14		17
29	2		1			5		9		15
July 2	5							7		7
3	6							7		7
4	7							2		2
5	8			1		1		11	1	14
6	9					2		11		13
8	11							2		2
9	12					4		24		28
10	13					1		2		3
11	14							5		5
12	15			1		5		22		28
13	16					3		15		18
15	18					1		4		5
16	19							8		8
18	23					1*		1*		2*
19	22				3	10		82	1	96
20	23			1				34	1	36

*Tagged near Finlayson Island

Cont'd...

Table XXI - cont'd. (page 2)

Date tagged	Date at river boundary	Number of recoveries								
		Alastair Lake	Lakelse Lake	Kitsumkalum Lake	Kitwanga River and Lake	Bulkley River	Kispiox River	Babine Lake	Bear Lake	Total
July 22	July 25							20		20
23	26				1			50	1	52
24	27					1		60	2	63
25	28				1	3		70	2	75
26	29				1	1		78	1	81
27	30				1		1	8		10
Total		7	14	3	7	45	1	586	9	673

Table XXII. Spawning area recoveries in Area 4 of sockeye tagged near Smith Island in 1948.

Date tagged	Date at river boundary	Number of recoveries			
		Lakelse Lake	Bulkley River	Babine Lake	Total
June 15	June 17	1	1	3	5
16	18	2	4	8	14
17	19		1	1	2
18	20	1	3	3	7
19	21	1	1	6	8
20	22	1	2	3	6
22	24	1	6	11	18
23	25	1	1	18	20
24	26			7	7
25	27		3	4	7
26	28		3	10	13
27	29			3	3
29	July 1			2	2
July 3	5		3	1	4
4	6			2	2
6	8		1	1	2
7	9		1	1	2
8	10		1		1
9	11		1		1
10	12			4	4
11	13			5	5
16	18		3	2	5
17	19		9	29	38
18	20		2	3	5
Total		8	46	127	181

Table XXIII. Spawning area recoveries of sockeye tagged near Tyee on the Skeena River in 1955.

Date tagged		Number of recoveries				
		Lakelse Lake	Bulkley River	Babine Lake	Bear Lake	Total
June	8	1				1
	14	1				1
	23		1			1
	27		1			1
July	1		2	2		4
	2		1			1
	3			2		2
	4			1		1
	9			2		2
	10		1			1
	11			1		1
	15			5		5
	16		1	3		4
	17		1	1		2
	20		1	3		4
	23			2		2
	25			3		3
	26			2		2
	27			4		4
	28			6		6
	29			2		2
	30			3		3
	31			1		1
Aug	1				1	1
	2			1		1
	7			1		1
	8			2		2
	9			1		1
	12			1		1
Total		2	9	49	1	61

Table XXIV. Spawning area recoveries in Area 4 of sockeye tagged near Tyee on the Skeena River in 1956.

Date tagged	Number of recoveries				
	Kitwanga River	Bulkley River	Babine Lake	Bear Lake	Total
June 17	1				1
22			1		1
23			1		1
24			1		1
25	1				1
26				1	1
27			1		1
28			1		1
29			1		1
30		1	2		3
July 1			2		2
3			2		2
5			6		6
6			1	1	2
7			1		1
9			2		2
11			2		2
12			2		2
13			9		9
14			5		5
15			2		2
16			1		1
17			4		4
19			7		7
20			3		3
21			7		7
22			5		5
23			15		15
24			3		3
25			1		1
26			4		4
27			9		9
28			5		5
29			12		12
30		1	4		5
31			3		3

Continued....

Table XXIV. (cont'd)(page 2)

Date tagged	Number of recoveries				
	Kitwanga River	Bulkley River	Babine Lake	Owar Lake	Total
Aug 1			2		2
2			4		4
5			7		7
6			4		4
7			3		3
8			2		2
9			1		1
10			3		3
11			2		2
12			3		3
14			1		1
Total	2	2	157	2	163

Table XXV. Spawning area recoveries in Area 4 of sockeye tagged in the commercial fishing areas of British Columbia Statistical Areas 3, 4 and 5 in 1956.

Tagging location	Date tagged	Date at river boundary	Recoveries Babine Lake
Arniston Pt.	July 13	July 18	2
Racnael Is.	18	22	8
Avery Is.	20	24	1
Arniston Pt.	22	26	14
Arniston Pt.	23	27	11
Ogden Channel	29	31	1
Total			37

Table XXVI. Spawning area recoveries in Area 4 of sockeye tagged near Tyee on the Skeena River in 1957.

Date tagged	Number of recoveries					
	Alastair Lake	Kitwanga River	Bulkley River	Babine Lake	Bear Lake	Total
June 12	1		1			2
17	1	1				2
21	1			1		2
22				1		1
29	3			1		4
25				2		2
26				1		1
27				1		1
30				1		1
July 1				1		1
2	1	1				2
3				3		3
4				4		4
5				12		12
6				8		8
7				9		9
8				3		3
9				8		8
10				3		3
11				2		2
12				3		3
13				2		2
14	1			2		3
16				1		1
17				1		1
18				2		2
20				5		5
21				5		5
22				1		1
23				1		1
25				3		3
29				4		4
30				2		2
31				1		1

Continued....

Table XXVI (cont'd)(page 2)

Date tagged		Number of recoveries					
		Alastair Lake	Kitwanga River	Bulkley River	Babine Lake	Bear Lake	Total
Aug	1				2		2
	2				7		7
	3				5		5
	[illegible]				5		5
	[illegible]				1		1
	[illegible]				2		2
	[illegible]				2		2
	12					1	1
	13				1		1
	28				1		1
Total		8	2	1	120	1	132

Table XXVII. Spawning area recoveries in Area 4 of sockeye tagged in the commercial fishing areas of British Columbia Statistical Areas 3, 4, and 5 in 1957.

Tagging location	Date tagged	Date at river boundary	Number of recoveries				
			Alastair Lake	Kitwanga River	Bulkley River	Babine Lake	Total
Arniston Point	June 5	June 10	1				1
" "	15	20	2			2	4
Finlayson Island	22	27				1	1
Arniston Point	24	29	4		1	15	20
" "	26	July 1	2			9	11
" "	30	5				5	5
" "	July 1	6	2			14	16
Elliott Point	3	8				1	1
Tracy Island	4	9				1	1
Ogden Channel	6	8				1	1
Arniston Point	10	15				2	2
Finlayson Island	13	18				2	2
Maskelyne Island	13	18				1	1
Arniston Point	14	19				2	2
" "	15	20	2			47	49
" "	16	21				7	7
" "	17	22				2	2
" "	18	23				16	16
" "	19	24				9	9
Grace Island	20	24				1	1
" "	21	25				1	1
Arniston Point	26	31		1		13	14
" "	27	Aug. 1				2	2
Finlayson Island	28	2				15	15
Ogden Channel	30	1				3	3
" "	31	2				2	2
Arniston Point	Aug. 3	8				1	1
Steamer Passage	3	8				2	2
Maskelyne Island	4	9				2	2
Finlayson Island	4	9				9	9
Holliday Island	8	13				1	1
Gnarled Islands	9	14				3	3
Minnie Island	10	15				3	3
Finlayson Island	11	16				1	1
Arniston Point	17	22				4	4
" "	19	24		1		2	3
Total			13	2	1	202	218

Table XXVIII. Spawning area recoveries in Area 4 of sockeye tagged at Cape Addington in the West Coast District of Southeastern Alaska in 1957.

Date tagged	Date at river boundary	Recoveries Bablne Lake
July 25	Aug. 1	4
Aug. 5	Aug. 12	2
Aug. 7	Aug. 14	1
Total		7

Table XXIX. Spawning area recoveries in Area 4 of sockeye tagged in British Columbia Statistical Areas 3, 4 and 5 in 1958.

Tagging location	Date tagged	Date at river boundary	Number of Recoveries			Totals
			Kitwanga River	Bulkley River	Babine Lake	
Ogden Channel	July 12	July 14			1	1
" "	13	15			1	1
" "	14	16			4	4
Smith Island	16	19			1	1
Grace Island	17	21			3	3
" "	18	22		1	3	4
Oval Bay	18	22			1	1
Grace Island	19	23			17	17
Arniston Point	20	25	1		5	6
" "	21	26	1		20	21
Grace Island	23	27			1	1
" "	24	28			12	12
" "	25	29			27	27
Ogden Channel	25	27			2	2
" "	26	28			2	2
Arniston Point	27	Aug. 1			4	4
" "	28	2			2	2
Green Island	31	5			1	1
Whitly-Prospector Pt.	31	5			1	1
Arniston Point	31	5			24	24
" "	Aug. 1	6			8	8
Ogden Channel	2	4			4	4
" "	3	5			2	2
" "	7	9			1	1
Arniston Point	9	14			13	13
" "	10	15			12	12
Green Island	11	16			1	1
Totals			2	1	173	176

Table XXX. Spawning area recoveries in Area 4 of sockeye tagged in the West Coast District of Southeastern Alaska in 1958.

Date tagged	Date at river boundary	Number of recoveries		
		Alastair Lake	Babine Lake	Total
July 9	July 19		1	1
16	26		5	5
17	27		1	1
19	29		1	1
22	Aug 1		1	1
24	3		2	2
25	4		9	9
27	6		25	25
28	7		1	1
31	10		1	1
Aug 1	11		5	5
2	12	1	32	33
3	13		10	10
7	17		1	1
Totals		1	95	96

Table XXXI. Recoveries of tagged sockeye at Alastair Lake by date fish should have been present in the boundary area.

Date at river boundary	1947	1957		1958	Totals
		Tyee	Outside areas 3, 4 & 5	West coast District	
June 10			1		1
12		1			1
17		1			1
18	1				1
20	2		2		4
21		1			1
23		3			3
24	3				3
28	1				1
29			4		4
July 1			2		2
3		1			1
6			2		2
14		1			1
20			2		2
August 12				1	1
Totals	7	8	13	1	29

Table XXXII. Recoveries of tagged sockeye at Lakelse Lake by date fish should have been present in the boundary area.

Date at river boundary	1945	1946	1947	1948	1955 Tyee	Totals
June 8					1	1
14					1	1
17				1		1
18				2		2
20			1	1		2
21		2	1	1		4
22		1	1	1		3
23			3			3
24			3	1		4
25	1			1		2
27	2					2
28			2			2
29			2			2
July 2			1			1
3	2					2
Totals	5	3	14	8	2	32

Table XXXIII. Recoveries of tagged sockeye at Kitwanga Lake and in the Kitwanga River by date fish should have been present in the boundary area.

Date at river boundary	1944	1945	1947	1956 Type	1957 Type	1957 Outside areas 3, 4 & 5	1958 Outside areas 3, 4 & 5	Totals
June 17				1	1			2
25				1				1
July 2					1			1
22	1		3					4
25							1	1
26		1	1				1	3
28			1					1
29			1					1
30			1					1
31						1		1
August 24						1		1
Totals	1	1	7	2	2	2	2	17

Table XXXIV. Recoveries of tagged sockeye in the Bulkley River system by date fish should have been present in the boundary area.

Date at river boundary	1944	1945	1946	1947	1948	1955 Tyee	1956 Tyee	1957 Tyee	1957 Outside Area 3, 4 & 5	1958 Outside Area 3, 4 & 5	Total
June 12								1			1
17					1						1
18					4						4
19					1						1
20					3						3
21			1		1						2
22			3	1	2					1	7
23		1				1					2
24		2	2	1	6						11
25		3		1	1						5
26		1	2								3
27		9			3	1					13
28		7	4	1	3						15
29			3	1					1		5
30		3	7				1				11
July 1			6	3		2					9
2			3	5		1					9
3		2	2								4
4		1									1
5					3						3
7			1								1
8		1		1	1						3
9			3	2	1						6
10	2		5		1	1					9
11	1	5			1						7
12		7	1	4							12
13				1							1
14		3									3
15				5							5
16		1	6	3		1					11
17	1		6			1					8
18		6		1	3						10
19		2	1		9						12
20	1		1		2	1					5
22	2		1	10							13
23	2		5	1							8
24		3	5								8

Continued....

Table XXXIV (cont'd)(page 2)

Date at river boundary	1944	1945	1946	1947	1948	1955 Tyee	1956 Tyee	1957 Tyee	1957 Outside Area 3, 4 & 5	1958 Outside Area 3, 4 & 5	Total
July 26		1									1
27			1	1							2
28				2							2
29				1							1
30		1	2				1				4
31			2								2
Aug. 2		1									1
Totals	9	60	71	45	46	9	2	1	1	1	245

Table XXXV. Recoveries of tagged sockeye at Bear Lake by date fish should have been present in the boundary area.

Date at river boundary	1945	1946	1947	1955 Tyee	1956 Tyee	1957 Tyee	Totals
June 26					1		1
July 5	1						1
6					1		1
8			1				1
10		1					1
22			1				1
23			1				1
26			1				1
27			2				2
28			2				2
[illegible]			1				1
Aug. 1				1			1
12						1	1
Totals	1	1	9	1	2	1	15

Table XXXIV. Recoveries of tagged seabass in Patrick Lake by date the fish should have been present in the boundary area.

Date at close boundary	1966	1965	1964	1963	1962	1961 Type	1961 Outside Area L, M & S	1962 Type	1962 Outside Area L, M & S	1962 West Coast, Columbia	1963 Outside Area L, M & S	1963 West Coast, Wisconsin	Totals
July 27				1									1
28				5	1								6
29					1								1
30				2	1				1				3
31			4	3	1			1					10
Aug. 1			3	4	1	1		1					11
2				7		1		1					9
3		2		4	11			1					18
4		1	1	1	10			1					13
5		11			4	1		1	1				17
6		3	1	2	10			1					14
7			1	4					15				20
8		4	10	4	5			2	1				26
9		5	5	14	5	1		1	8				39
10		2	7	8									17
11		3	6			1		1					11
12					1			1					2
13				7	1	1		1					10
14			6	7	1			1	10				25
15				1				1					2
16				11	2				1				14
17			4	12	1	1		1	1				20
18	2		4										6
19		3		2		1		1					7
20		3	1	10	1			1					16
21		3	1	10	4			1					19
22		1		1									1
23													
24													
25													
26													
27													
28													
29													
30													
31													
Sept. 1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
Totals	31	85	141	146	127	99	127	37	121	111	1	175	96	1963

Table XXXVII. Recoveries of pink tags in the boundary area from taggings at Smith Island in 1945, 1946, 1947, and 1948 plotted by the number of days out.

Days out	Number of tags
0	3
1	10
2	9
3	7
4	14
5	11
6	9
7	4
8	2
9	4
10	3
11	2
12	4
13	
14	4
15	1
16	
17	
18	2
19	2
20	
21	
22	1
23	
24	
25	1
26	2
27	1
56	1
Total	97
Median	5

Table XXXVIII. The number of pink tags recovered and the median number of days out from tagging sites in the West Coast District of Southeastern Alaska to the boundary area and Telegraph Passage by tagging date, in 1957.

Date		Number of tags recovered	Median number of days out
July	16	5	20
	22	4	12
	23	35	9
	25	49	11
	27	71	10
	28	181	9
August	3	35	9
	5	26	8
	6	35	7
	7	8	9
	8	5	10
	9	3	9
	10	24	9
	11	80	8
	12	14	8
	13	8	8
	14	2	6
	25	3	8
Total		588	9

Table XXXIX. Recoveries of pink tags in the boundary area from taggings near Dundas Island in 1957 and 1958 plotted by the number of days out. The figures enclosed in brackets are the number of recoveries made in test fishing gill nets operated near Tyee on the Skeena River.

Days out	1957	1958
0		1
1	5	3
2	20	4
3	68	7
4	97 (1)	13
5	77 (3)	13
6	51	14
7	5 (1)	10
8	9 (1)	15
9	13	13
10	16	7 (1)
11	8	6
12	5	3
13	4 (1)	1
14	5	3
15	2	2
16	3	4
17	4	1
18	3	1
19	1	1
20		
21		
22		1
23	1	1
24	1	
Total	426	121
Median	5	7

Table XL. Recoveries of pink tags in the boundary area from taggings near Hiznie, Muskelyne and Finlayson Island in 1957 plotted by the number of days out. The figures enclosed in brackets are the number of recoveries made in test fishing gill nets operated near Tyee on the Skeena River.

Days out	Number of tags
0	4
1	18
2	29
3	52 (1)
4	9 (1)
5	
6	
7	2
8	1
9	4
10	3
11	
12	
13	
14	1
15	
16	1
17	1
Total	125
Median	3

Table XLI. Recoveries of pink tags in the boundary area from taggings near Goble Point and Kinahan Island in 1957 plotted by the number of days out.

Days out	Goble Point	Kinahan Island
0		
1		6
2	3	21
3	1	11
4	1	1
5		
6		
7		1
8		4
9		3
10		4
11	1	11
12		
13	1	
14		
15		3
16	1	1
17	1	
Total	9	66
Median	4	3

Table XLII. Recoveries of pink tags in the boundary area from taggings near Grace Island in 1957 and 1958 plotted by the number of days out. The figures enclosed in brackets are the number of recoveries made in test fishing gill nets operated near Tyee on the Skeena River.

Days out	1957	1958
0	1	1
1	20 (1)	
2	31 (1)	11 (1)
3	38	24
4	25	20
5		13
6		2
7	1	3 (1)
8	4	9 (1)
9	5	9
10		11
11	9	11
12		6
13		3
14		1
15	1	2
16		4
17	2	5
18	1	1
19		1
20		
21		
22		
23		
24		1
25		
26		1
Total	138	139
Median	3	6

Table XLIII. Recoveries of pink tags in the boundary area from taggings in Ogden Channel in 1957 and 1958 plotted by the number of days out. The figures enclosed in brackets are the numbers of recoveries made in test fishing gill nets operated near Tyee on the Skeena River.

Days out	1957	1958
0	2	1
1	11	32
2	14	53
3	13	86
4	10 (1)	42 (1)
5	14 (1)	19
6	13	5
7	6	4 (1)
8	1	18
9	1	19
10	2	16 (1)
11		8
12	4	1 (1)
13		1
14		4
15		2
16		5
17		5
18		2
19		1
20	1	1
21		2
22		1
23		
24		
25	1 (1)	
26		1
27		
28		
29		1
Total	93	330
Median	4	3

Table XLIV. Recoveries of pink tags in the boundary area and in Telegraph Passage from taggings in the West Coast District of Southeast Alaska in 1957 and 1958. The tag recoveries are plotted by the number of days they were out. The figures enclosed in brackets are the number of recoveries made in test fishing gill nets operated near Tyee on the Skeena River.

Days out	1957	1958
0		
1	4	
2	6	
3		
4	4	
5	8	
6	23	
7	79 (1)	2
8	111	6
9	133	6
10	97	8
11	38 (1)	3
12	19 (1)	1
13	13	1
14	12	1
15	9	6
16	11	2
17	7	3
18	2	
19	4	2
20	2	
21	1	
22	1	
23	1	
24	1	
25		
26		
27	1	
28	1	
37		1
Total	588	42
Median	9	10

Table XLV. Spawning area recoveries in Area 4 of pink tagged near Smith Island in 1945, 1946, and 1947.

Date tagged	Date at river boundary	Number of recoveries					Total
		Kitwanga River	Bulkley River	Kispiox River	Babine River	Bear River	
1945							
July 25	July 30		1				1
27	Aug. 1		1				1
Total			2				2
1946							
July 24	July 29				1		1
25	30				1		1
26	31				1		1
28	Aug. 2				1		1
Total					4		4
1947							
July 23	July 28			1	1		2
25	30	1			1	1	3
26	31				3		3
Total		1		1	5	1	8

Table XLVI. Spawning area recoveries in Area 4 of pink tagged near Tyee on the Skeena River in 1955.

Date tagged	Number of recoveries					
	Ecstall River	Lakelse River	Kitsumkalum River	Bulkley River	Babine River	Total
July 21				1		1
30			1			1
31				1		1
Aug. 2	1					1
11					1	1
17		1				1
22		1				1
Totals	1	2	1	2	1	7

Table XLVII. Spawning area recoveries in Area 4 of pink tagged near Tyee on the Skeena River in 1956.

Date tagged	Number of recoveries				Total
	Exstew River	Laxelse River	Kitwanga River	Bulkley River	
Aug. 2	1				1
4			1	1	2
30			1		1
Sept. 6		1			1
Total	1	1	2	1	5

Table XLVIII. Spawning area recoveries in Area A of pink tagged near Tyee on the Skeena River in 1957.

Date tagged	Number of recoveries							
	Lakelse River	Kitsumkalum River	Kiamots Creek	Kitwanga River	Sulkley River	Kisplox River	Zebine River	Total
July 9							1	1
20					1			1
22						1		1
23					1	1		2
28					1			1
29				1				1
30				3		1		4
31				2		2		4
Aug. 1	1							1
2				1				1
3				4		1		5
4				1				1
5				3				3
6				1				1
7				1				1
8				2				2
9	1			2				3
10	1			2				3
11	1	1		3				5
12	2			5				7
13	2			3				5
14	2		1	5				7
15				4				4
16	1			1				2
21	1			1				2
22	1			1				2
23	1							1
Total	13	1	1	46	3	6	1	71

Table 41E. Spawning area proportions in area A of pink tagged in British Columbia Statistical Areas 3, 4, and 5 in 1957.

Tagging location	Date	Area A streams other than Skeena River					Date at river boundary	Skeena River								
		Ueekis Creek	Ugilik River	Dona River	Moore Creek	Total		Exstall River	Lakelse River	Kitsumkalum River	Zymoetz River	Kitsumgum Creek	Kitwanga River	Babine River	Kispiox River	Bastion Creek	Total
Ashkatan Point	July 10						July 15								1		1
" "	17						22									1	1
" "	18						23					1	1		3	2	7
Gaddis Point	20						24						1				1
Grease Island	20						25								1		1
Kitselas Island	21						24			2	1		1		5	1	9
Ashkatan Point	26						31	1					5	1	2	1	10
" "	27	1				1	Aug 1						3		1		4
Finlayson Island	28						July 31						4		1	1	6
Ogden Channel	30						Aug 3		1				3	1	3		8
" "	31						4		1				4		3	1	13
" "	Aug 1						5		2				4		3	1	10
Ashkatan Point	3						6		1				6		7		4
Meshilyow Island	4						7						3		1		3
Ogden Channel	7						11						1				1
" "	8						12		1				5		2		8
Gharied Islands	9		2			2	14		3	1			5				9
Birnie Island	10						13						1				1
Finlayson Island	11						14		8	2			6				16
Ogden Channel	17						21		1								1
Ashkatan Point	17				1	1	22		3				2				5
" "	18						23		1				1				2
" "	19						24		1								1
" "	20						25						1				1
Ogden Channel	21			1		1	25						1				1
Totals		1	2	1	1	5		1	24	3	1	1	54	2	37	10	117

Table 1. Sampling area conversion to base 1 of pink tagged in the West Coast Estuaries of Southeastern Alaska in 1997 and 1998.

Tagging location	Date	Area A (Areas other than the Ohmer Creek)						Area of Ohmer Creek	Ohmer Creek						
		Point Ohmer Creek	Hoggatt Bay Sta.	Spruce River	Ohmer Creek	Ohmer Cove Creek	Total		Eastern River	Lakeview River	Redoubt River	Trout Creek	Fishmonger River	Bokeria River	Fishtrap River	Total
2002																
Ohmer Anchorage	Pink	89						Pink	1				1	1	1	3
" "		35							0	3	1		2	1	0	6
" "		57							0	1		1	4			6
Ohmer Bokeria		27			1		1		0							
Ohmer Anchorage		80							0				0	1	0	1
Ohmer Bokeria		28			1		1		0				0		1	1
Ohmer Anchorage	Pink	0							0				1	0		1
" "		0							0				1			1
Ohmer Bokeria		0							0				1			1
Ohmer Anchorage		0							0	0						0
Ohmer Bokeria		1							0	1						1
" "		0							0				1			1
" "		0							0				1			1
Ohmer Anchorage		10		1	0		0		0	0			0			0
Ohmer Bokeria		11			1		1		0							
Ohmer Anchorage		11			1		1		0	0			0			1
" "		26	1				1		Pink	0						0
Totals			1	1	3	0	6			5	10	1	1	14	3	4	37
2003																
Ohmer Anchorage	Pink	19						Pink	0				1			1

Table 12. Spawning area recoveries in Area 4 of pinks tagged in British Columbia Statistical Areas 2, 4 and 5 in 1958.

Tagging		Ozma River	Sanoma River								
Location	Date		Date at river boundary	Kcatall River	Glendale River	Lakalse River	Kitsumgo River	Bulkley River	Gaglon River	Babine River	Total
Ogden Channel	July 2?		July 15					1			1
" "	23		26				1				1
	24		27				3				3
Grace Island	28		24				4		5		12
" "	29		25				1	5	3		9
Appleton Point	30		27						1		1
" "	31		28				1				1
Grace Island	23		29						1		1
" "	24		30			2	8	2	4	1	17
" "	25		31					1			1
Ogden Channel	25		28						1		1
" "	26		29			1	1		1		4
Appleton Point	27		Aug. 3					1			1
" "	28		4				1				1
Whitly-Prospector Pts.	28		4				1				1
Table Hill, Dundas Is.	28		4			1	1				2
Green Island	31		7			1					1
Whitly-Prospector Pts.	31		7				1				1
Appleton Point	31		7						2		2
" "	Aug. 1		8			1					1
Ogden Channel	2		5			1		2		1	4
" "	3	1	6		1	3		2			6
" "	7	1	10			3		1			4
" "	8		11			1	3				4
Appleton Point	9		17				1				1
Total		2		1	1	16	30	13	18	2	83

Table LII. Spawning area recoveries in Area 4 of pinks tagged at McLean Point on the Skeena River in 1959.

Date tagged	Date at river boundary	Number of recoveries								
		Skeena River	Lakelse River	Kitsumkalum River	Kleanza Creek	Kitwanga River	Bulkley River	Kispiox River	Babine River	Total
July 24	July 21							1		1
25	22								1	1
27	24								1	1
28	25							2	1	3
29	26	1			2	4	1	15	10	33
30	27	4	2			10	1	8	8	33
31	28	1	3			4	1	11	10	30
Aug. 1	29	3				6	2	9	5	25
2	30	1	3			9		7	5	25
3	31	1	2			2		5	2	12
4	Aug. 1		1			1		1		3
5	2	1			1					2
6	3		1				1	3	2	7
7	4	1	5			6	3	6	5	26
8	5		3		2	5	2	2	1	15
9	6	1	2			2				6
10	7	2	1			1			2	6
11	8	1	1			1				3
12	9	2	8							10
13	10		3			5				8
14	11	2	9	1		1		1	1	15
15	12	1	4							5
16	13	1	1			1				3
17	14	1	7							8
21	18		3							3
Total		24	60	1	5	58	11	71	54	284

Table LIII. Recoveries of tagged pink in the Babine River by date fish should have been present in the boundary area.

Date at river boundary	1946	1947	1955 Tyee	1957 Tyee	1957 Outside Area 3, 4 & 5	1958 Outside Area 3, 4 & 5	1959 McLean Point	Total
July 9				1				1
22					1		1	2
23					2			2
24					1		1	2
25							1	1
26							10	10
27							8	8
28		1					10	11
29	1						5	6
30	1	1				1	5	8
31	1	3			2		2	8
August 2	1							1
3							2	2
4					3		5	8
5					1	1	1	3
7							2	2
11			1				1	2
Total	4	5	1	1	10	2	54	77

Table LIV. Recoveries of tagged pink in the Kispiox River by date fish should have been present in the boundary area.

Date at river boundary	1947	1957			1958	1959	Total
		Tyee	Outside Area 3, 4 & 5	West Coast District	Outside Area 3, 4 & 5	McLean Point	
July 15			1				1
21						1	1
22		1					1
23		1	4				5
24			5		5		10
25					3	2	5
26						15	15
27					1	8	9
28	1				1	11	13
29					2	9	11
30		1			4	7	12
31		2	3			5	10
August 1			1	1		1	3
3		1	3	3		3	10
4			3			6	9
5			3			2	5
6				3			3
7			1		2		3
8			1				1
11						1	1
12			2				2
Totals	1	6	27	7	18	71	130

Table LV. Recoveries of tagged pink in the Bulkley River by date fish should have been present in the boundary area.

Date at river boundary	1945	1955 Tyee	1956 Tyee	1957 Tyee	1957 Outside Area 3, 4 & 5	1957 West Coast District	1958 Outside Area 3, 4 & 5	1959 McLean Point	Total
July 15							1		1
20				1					1
21		1							1
23				1					1
24				1					1
25							3		3
26								1	1
27								1	1
28								1	1
29								2	2
30	1						2		3
31		1			1		1		3
August 1	1					1			2
3					1	1	1	1	4
4			1					3	4
5							2	2	4
6						1	2		3
10							1		1
12						2			2
Totals	2	2	1	3	2	5	13	11	39

Table LVI. Recoveries of tagged pink in the Kitwanga River by date fish should have been present in the boundary area.

Date at river boundary	1947	1956	1957			1958		1959	Total
			Tyee	Outside Area 3, 4 & 5	West Coast District	Outside Area 3, 4 & 5	West Coast District	McLean Point	
July 16						1			1
17						3			3
23				1					1
24				2		7			9
25						1			1
26			1					4	5
27								10	10
28						1		4	5
29						1		6	7
30	1		3			8		9	21
31			2	6				2	10
Aug. 1				3	1			1	5
2			1						1
3			4	3	2				9
4		1	1	6		3	1	6	18
5			3	4	2			5	14
6			1		5			2	8
7			3			1		1	5
8				6				1	7
9			2						2
10			2					5	7
11			3	1		3		1	8
12			5	5	1				11
13			3	1				1	5
14			5	11	2				18
15			4						4
16			1						1
17					1	1			2
18					1				1
19					4				4
20					5				5
21			1						1
22			1	2					3
23				1					1
25				2					2
30		1							1
Totals	1	2	46	54	24	30	1	59	216

Table LVII. Recoveries of tagged pink in the Lakelse River by date fish should have been present in the boundary area.

Date at river boundary	1955 Tyee	1956 Tyee	1957 Tyee	1957 Outside Area 3, 4 & 5	1957 West Coast District	1958 Outside Area 3, 4 & 5	1959 McLean Point	Total
July 27							2	2
28							3	3
29						1		1
30						2	3	5
31							2	2
August 1			1				1	2
3				1	2		1	4
4				1		1	5	7
5				2		1	3	6
6						3	3	6
7						1	1	2
8				1		1	1	3
9			1				8	9
10			1			3	3	7
11			1			3	9	13
12			2	1			4	7
13			2				1	3
14			1	3			7	11
15				3	2			5
16			1		1			2
17	1							1
18							3	3
19					5			5
20					6			6
21			1	1				2
22	1		1	3				5
23			1	1				2
24				1				1
Sept. 3					2			2
6		1						1
Totals	2	1	13	18	18	16	60	128

Table LVIII. Recoveries of tagged pink in the main stem of the Skeena River below Terrace by date fish should have been present in the boundary area.

Date at river boundary	1959 McLean Point
July 26	1
27	4
28	1
29	3
30	1
31	1
August 2	1
4	1
6	1
7	2
8	1
9	2
11	2
12	1
13	1
14	1
Total	24

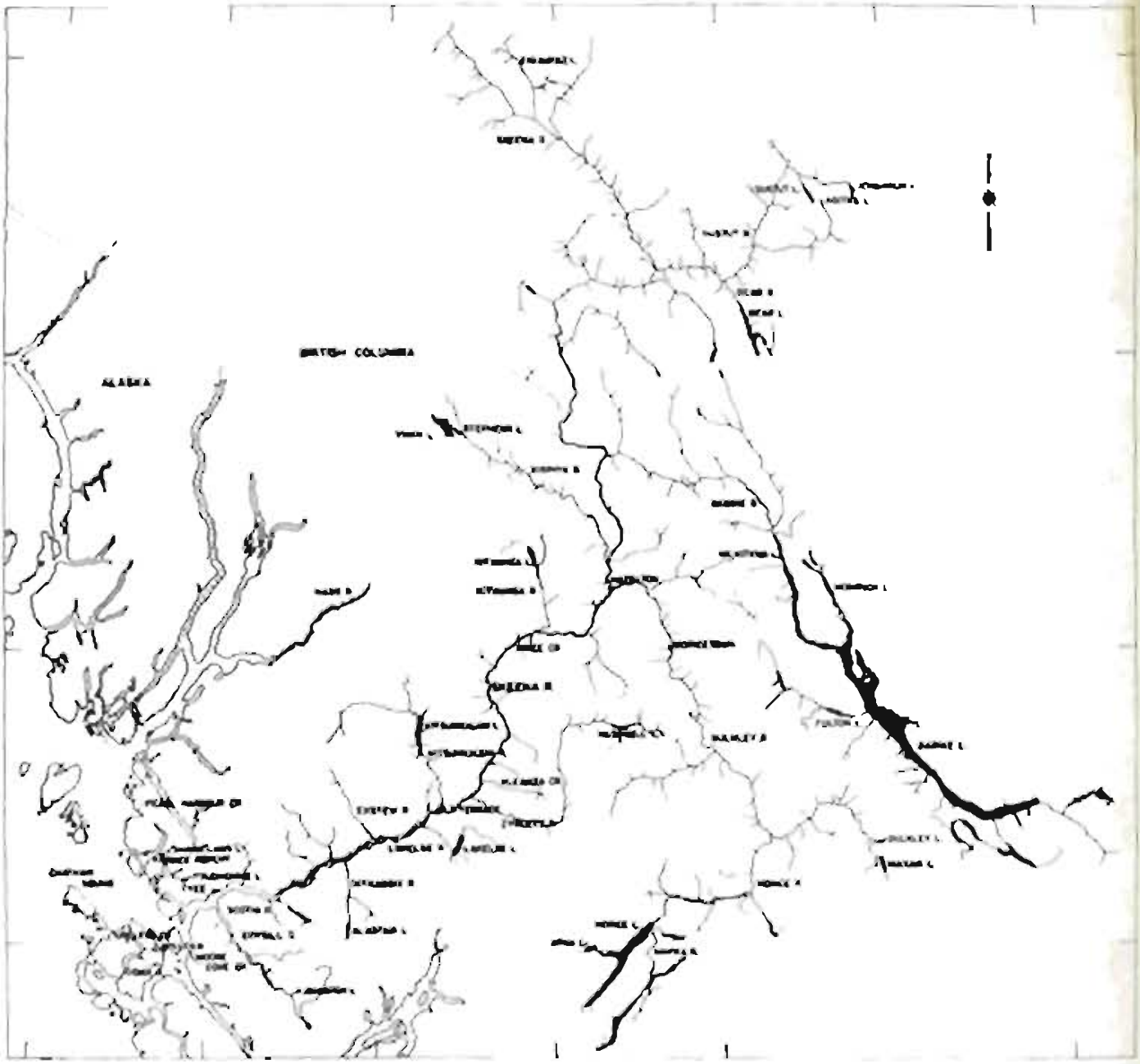

Fig. 1. Skeena River drainage area.

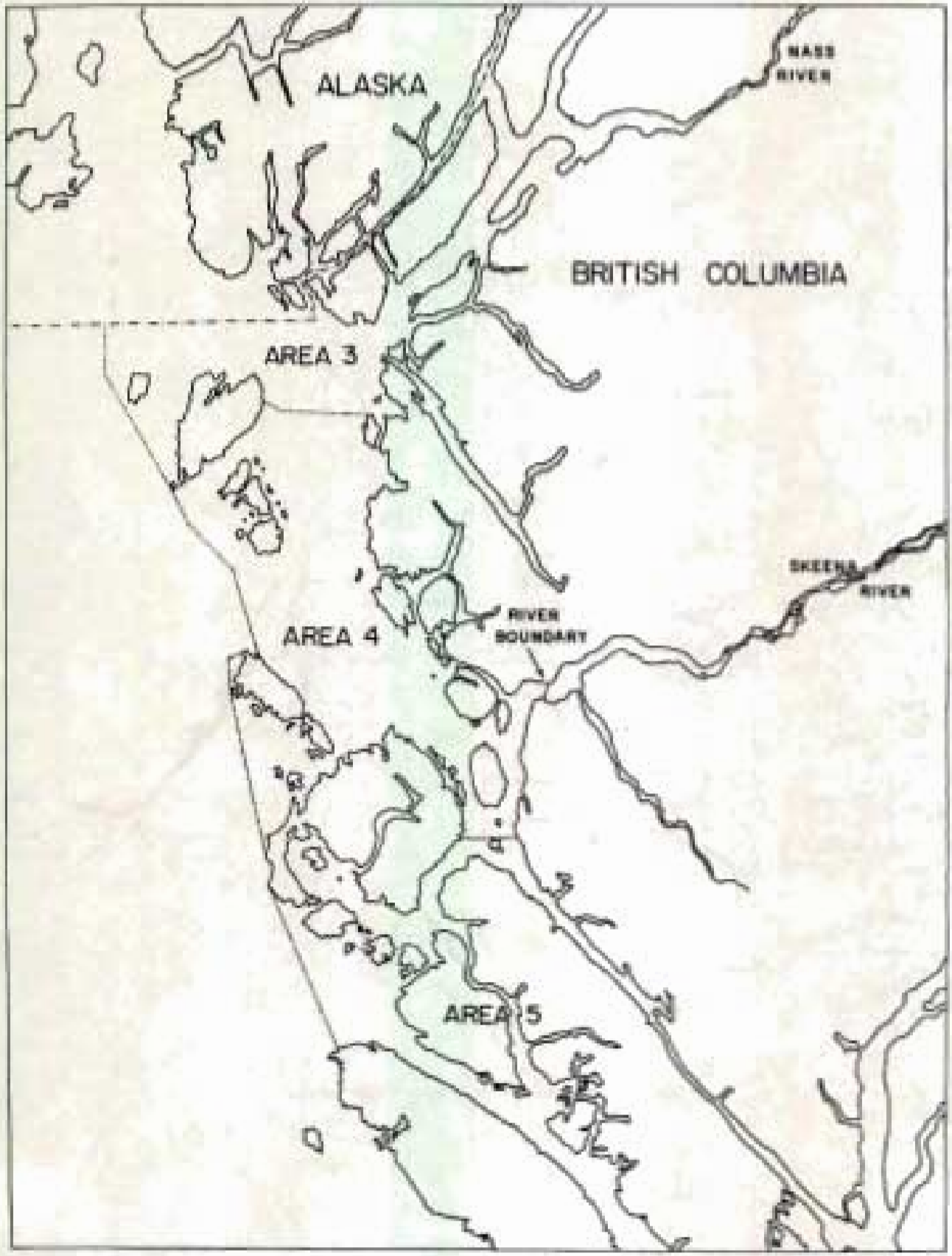

Fig. 2. British Columbia Statistical Areas 3, 4, and 5.

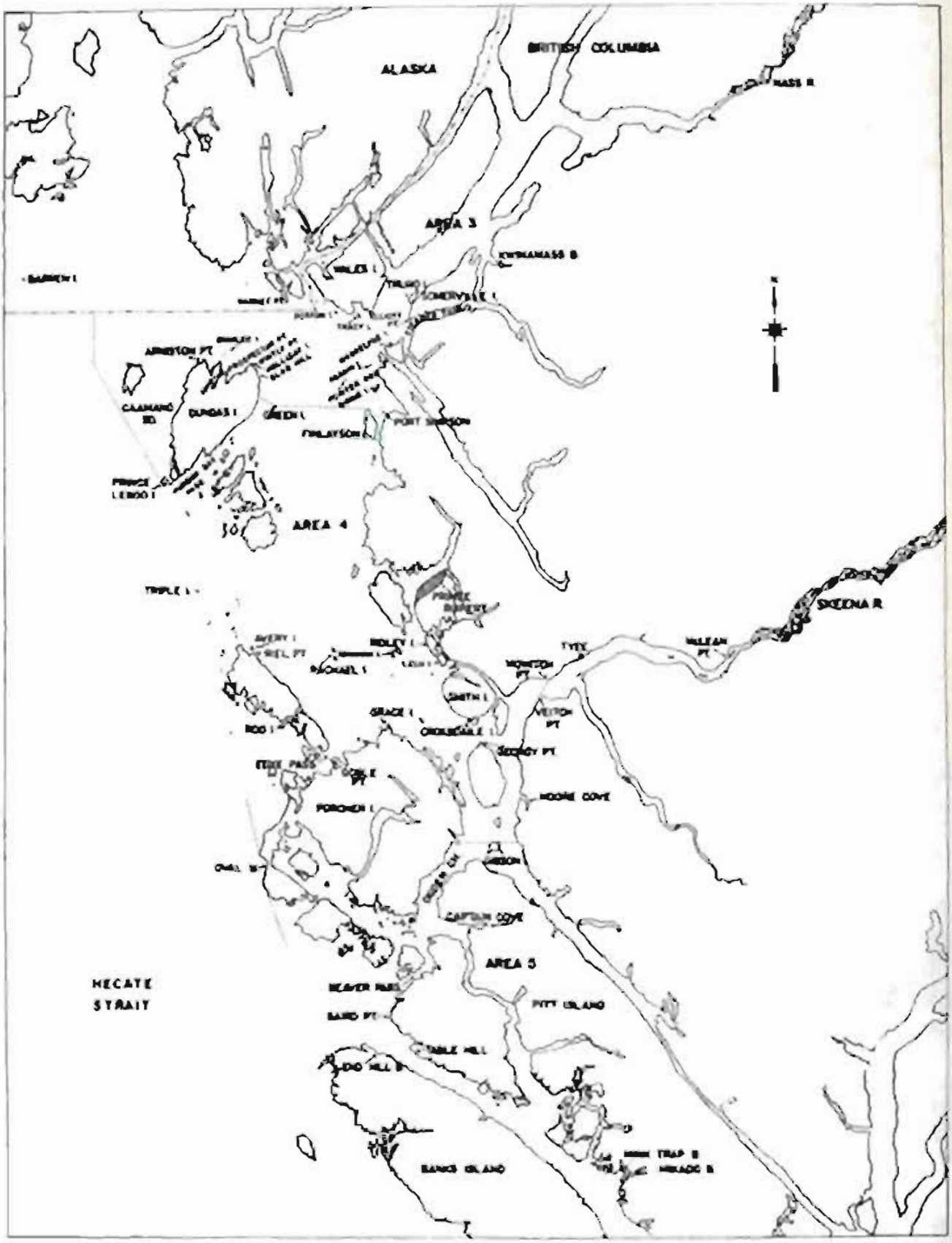

Fig. 3. Tagging locations in northern British Columbia, 1944 to 1948 and 1955 to 1959.

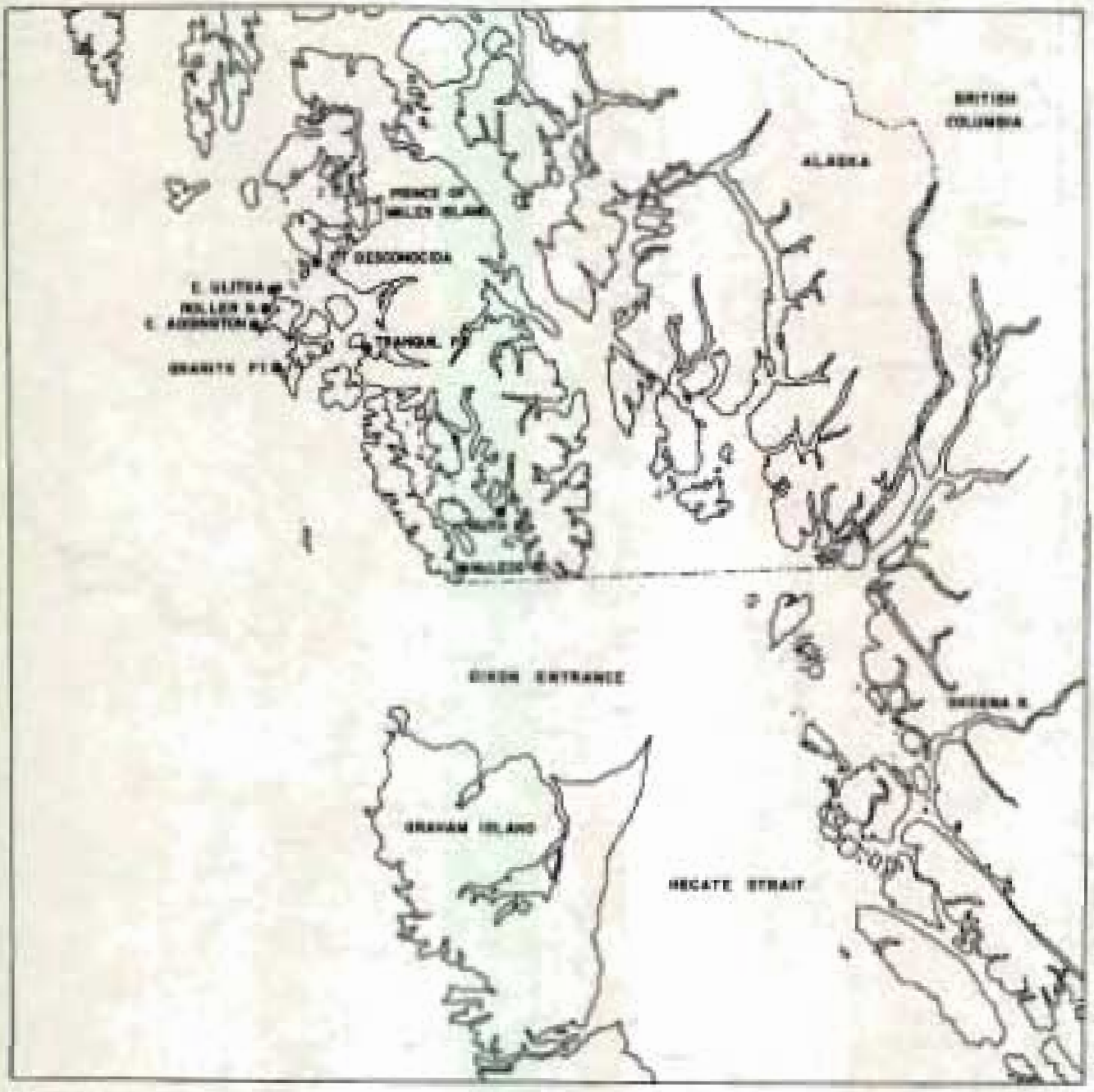

Fig. 4. Tagging locations in the West Coast District of Southeastern Alaska in 1957 and 1958.

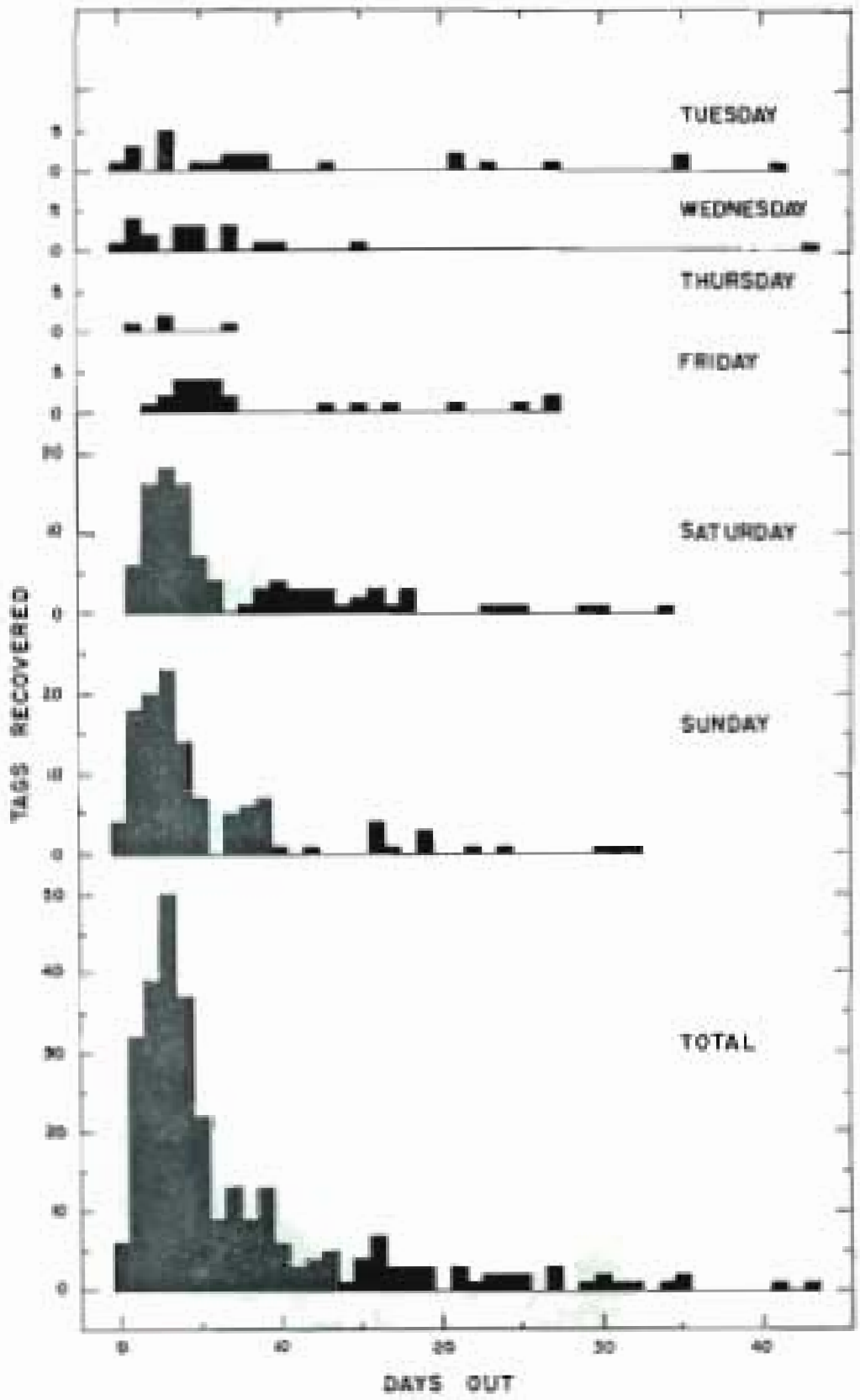

Fig. 5. Recoveries of cockeyl tags at the river boundary from taggings carried out on different days of the week near Swin Island in 1946. The recoveries are plotted by the number of days out from Swith Island to the boundary.

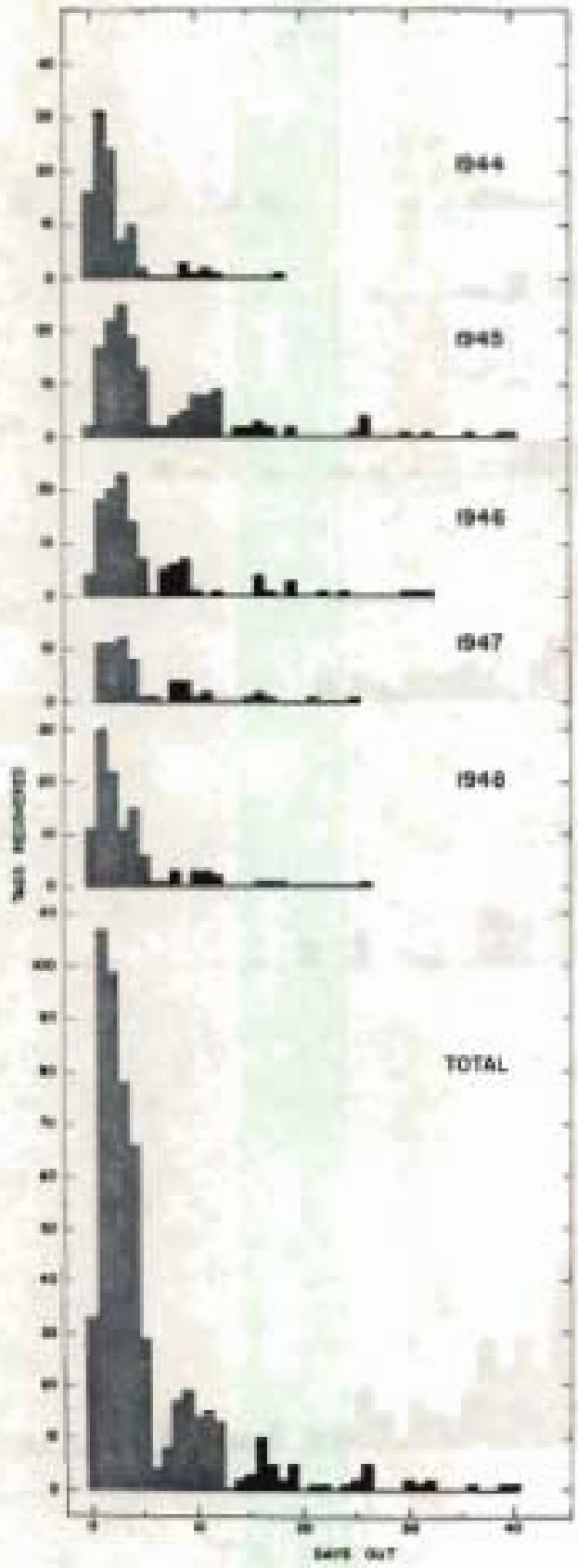

Fig. 6. Recoveries of sockeye tags at the river boundary from the taggings carried out on Sundays near Smith Island in 1944, 1945, 1946, 1947 and 1948. The recoveries are plotted by the number of days out from Smith Island to the boundary.

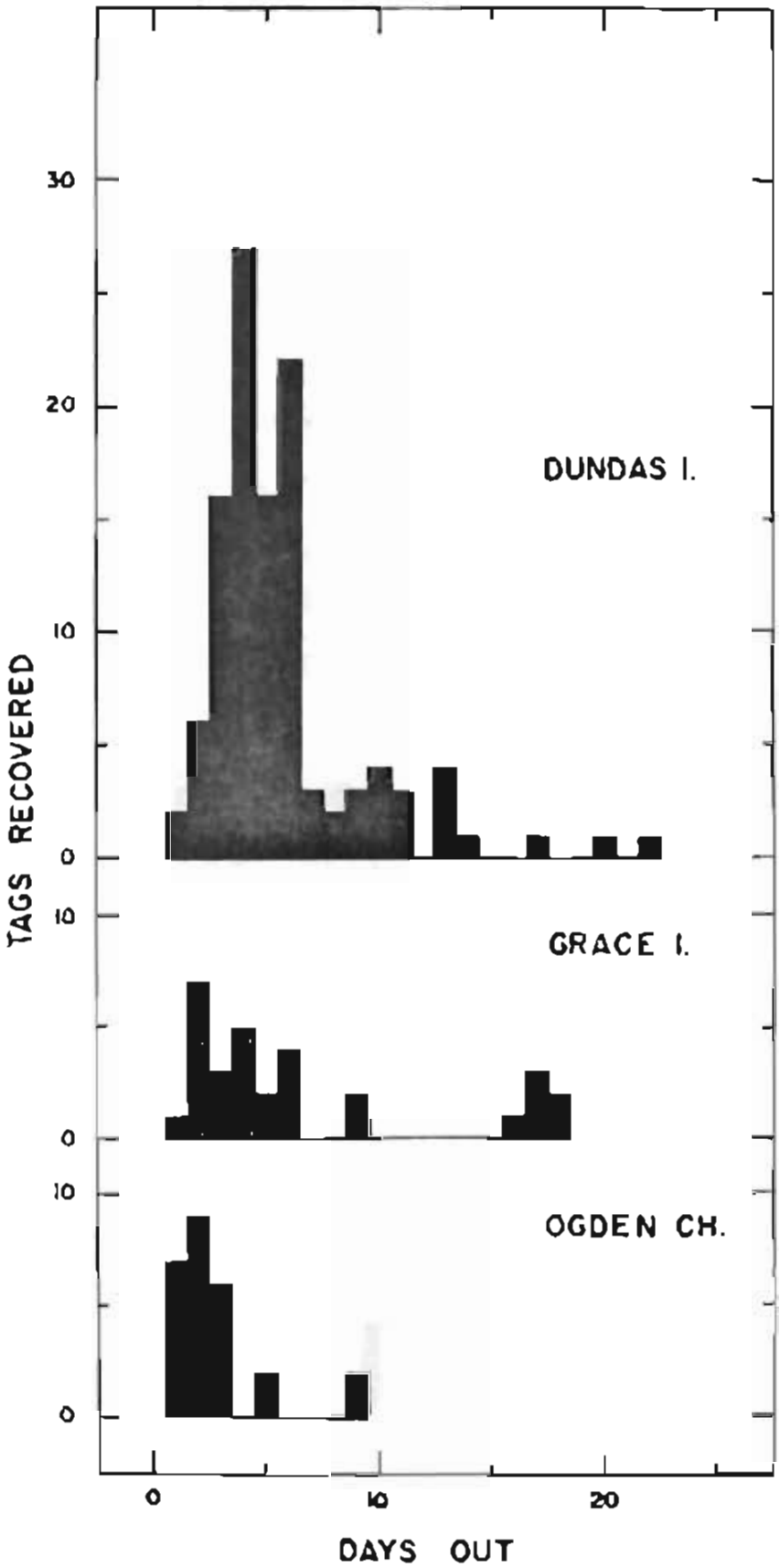

Fig. 7. Recoveries of sockeye tags at the river boundary from taggings carried out near Dundas Island, Grace Island, and in Ogden Channel in 1956, 1957 and 1958. The recoveries are plotted by the number of days out from the tagging locations to the river boundary.

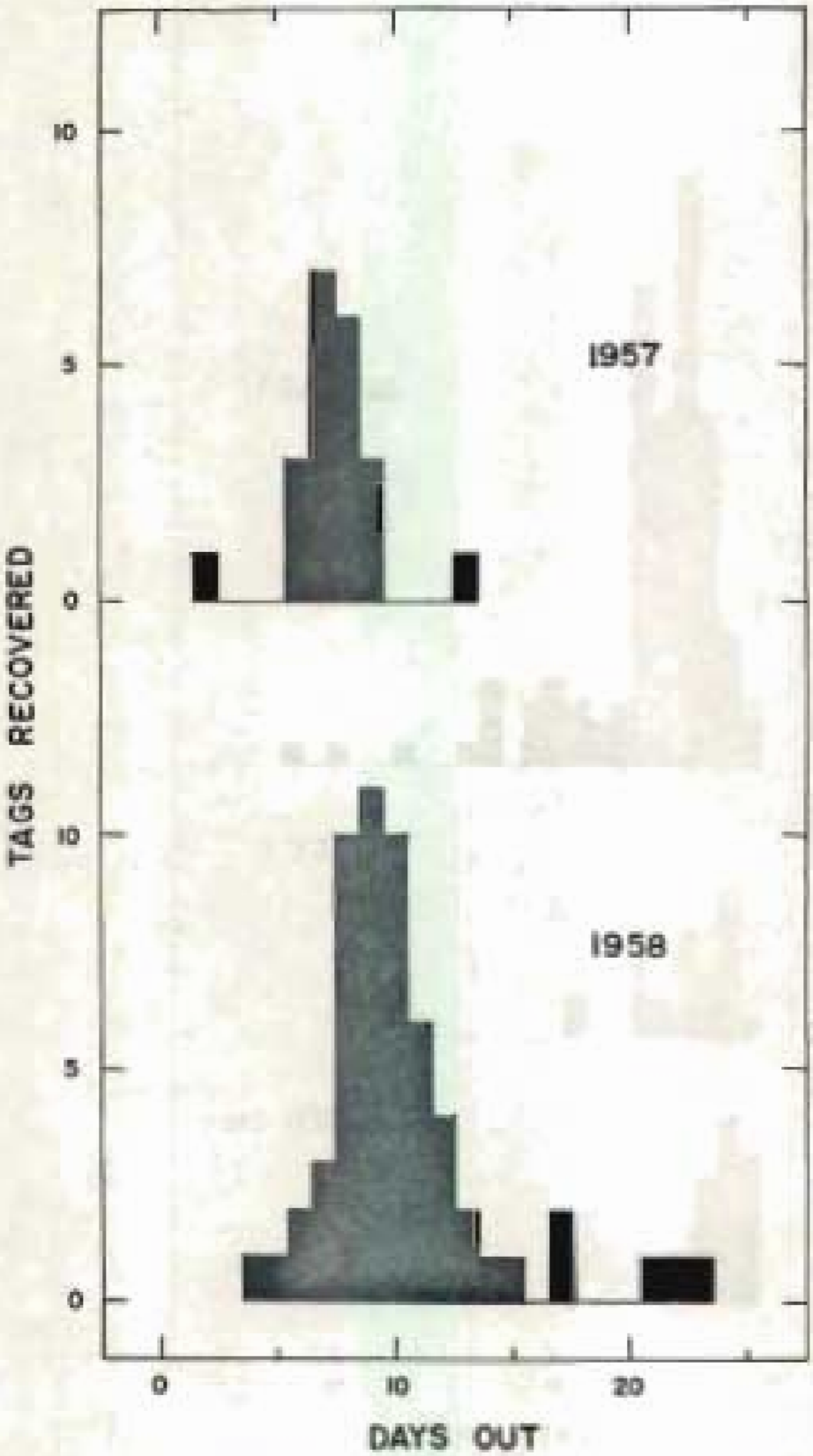

Fig. 8. Recoveries of sockeye tags at the river boundary and in Telegraph Passage from taggings carried out in the West Coast District of Southeastern Alaska in 1957 and 1958. The recoveries are plotted by the number of days out between the tagging and recovery locations.

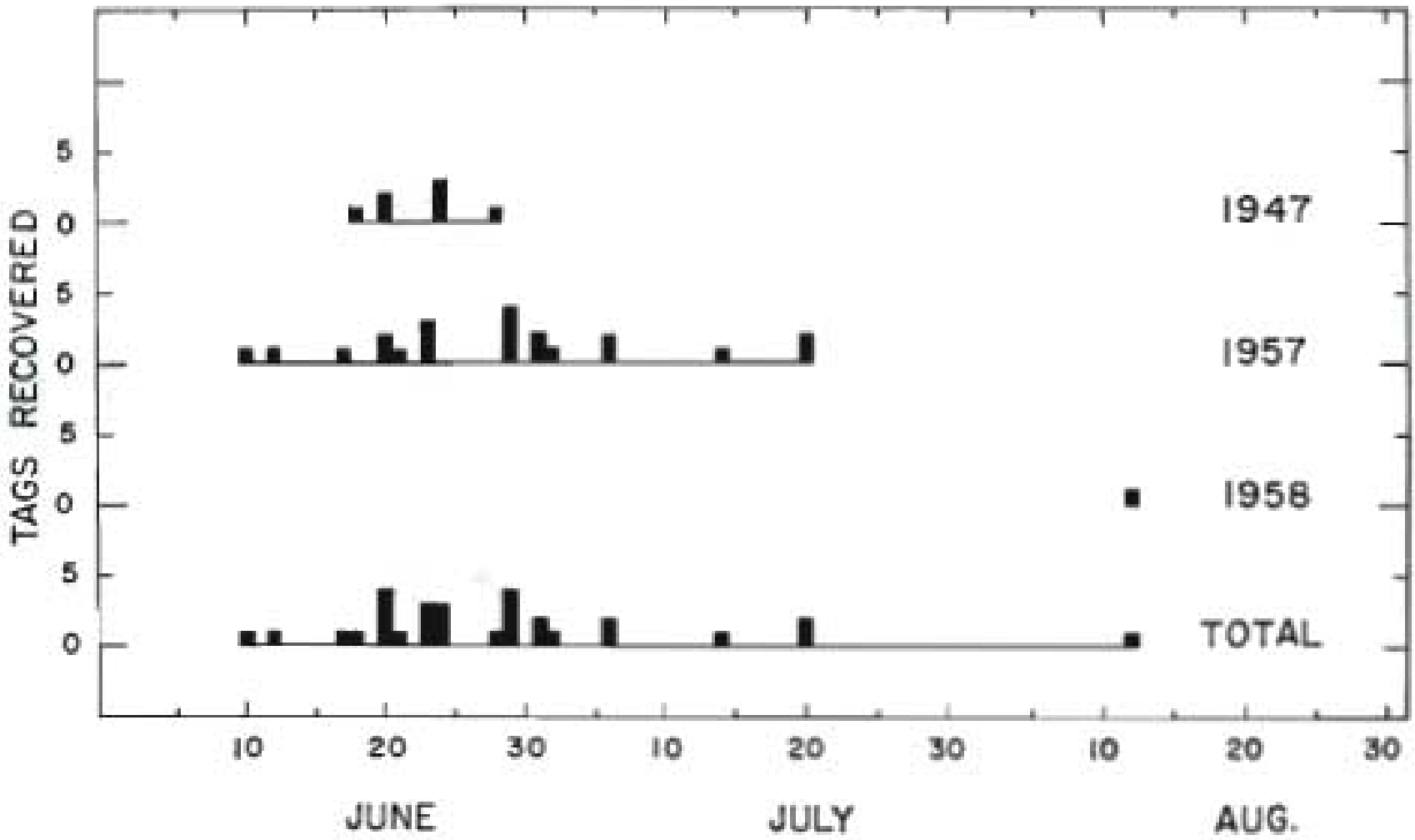

Fig. 9. Recoveries of sockeye tags at Alastair Lake plotted by the dates when the fish were estimated to have passed the river boundary.

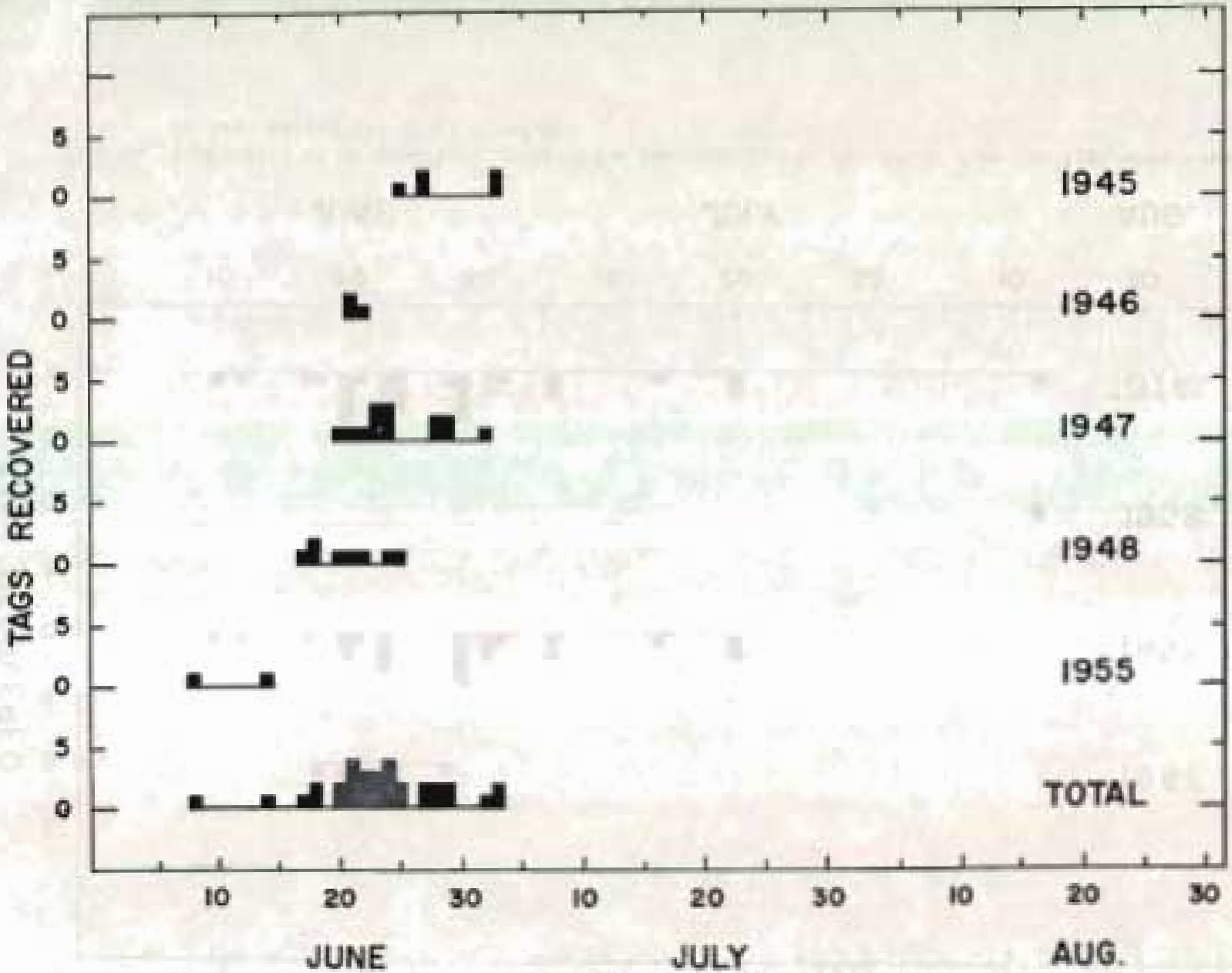

Fig. 10. Recoveries of sockeye tags at Lakelse Lake plotted by the dates when the fish were estimated to have passed the river boundary.

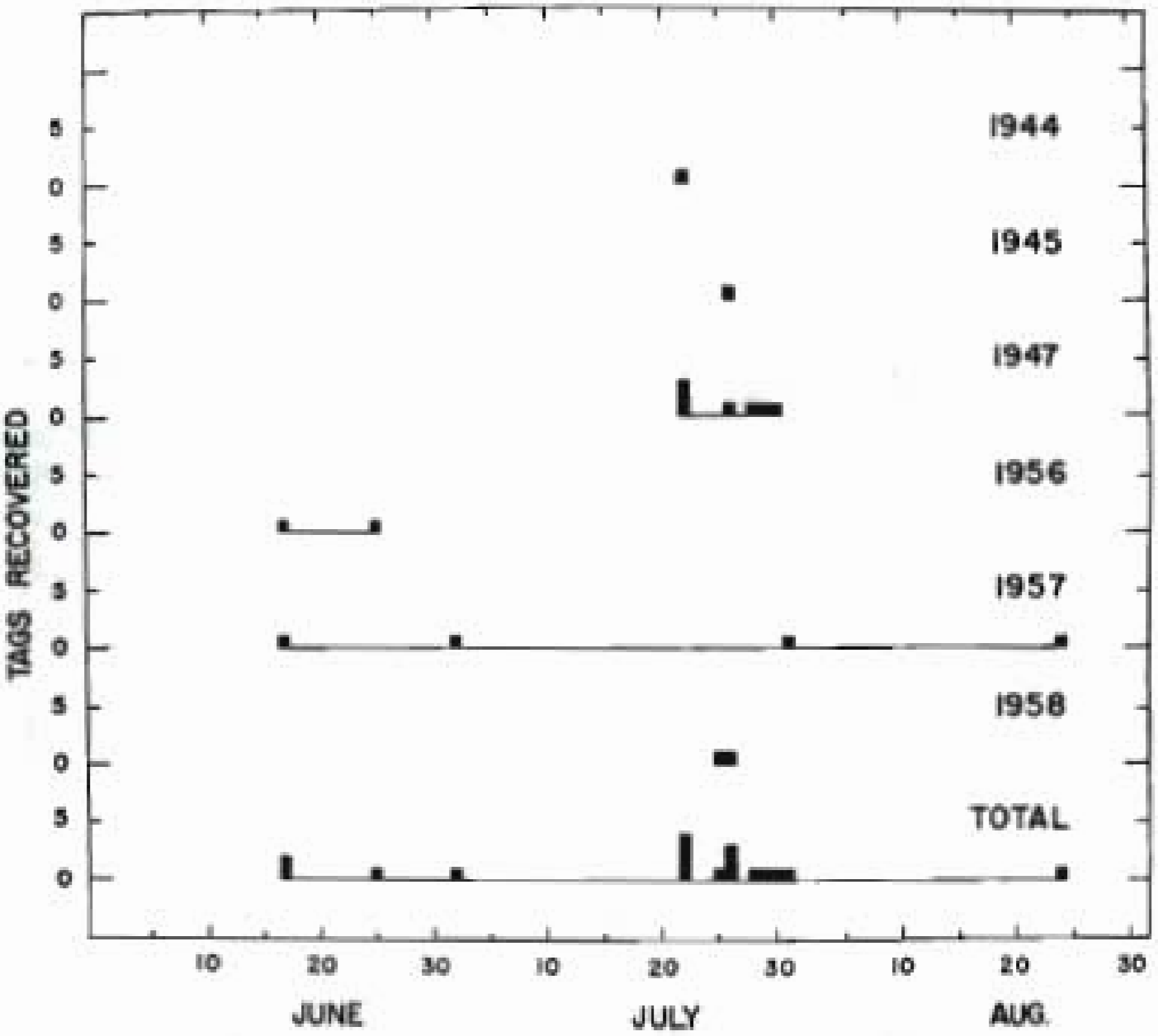

Fig. 11. Recoveries of sockeye tags in the Kitwanga River system plotted by the dates when the fish were estimated to have passed the river boundary.

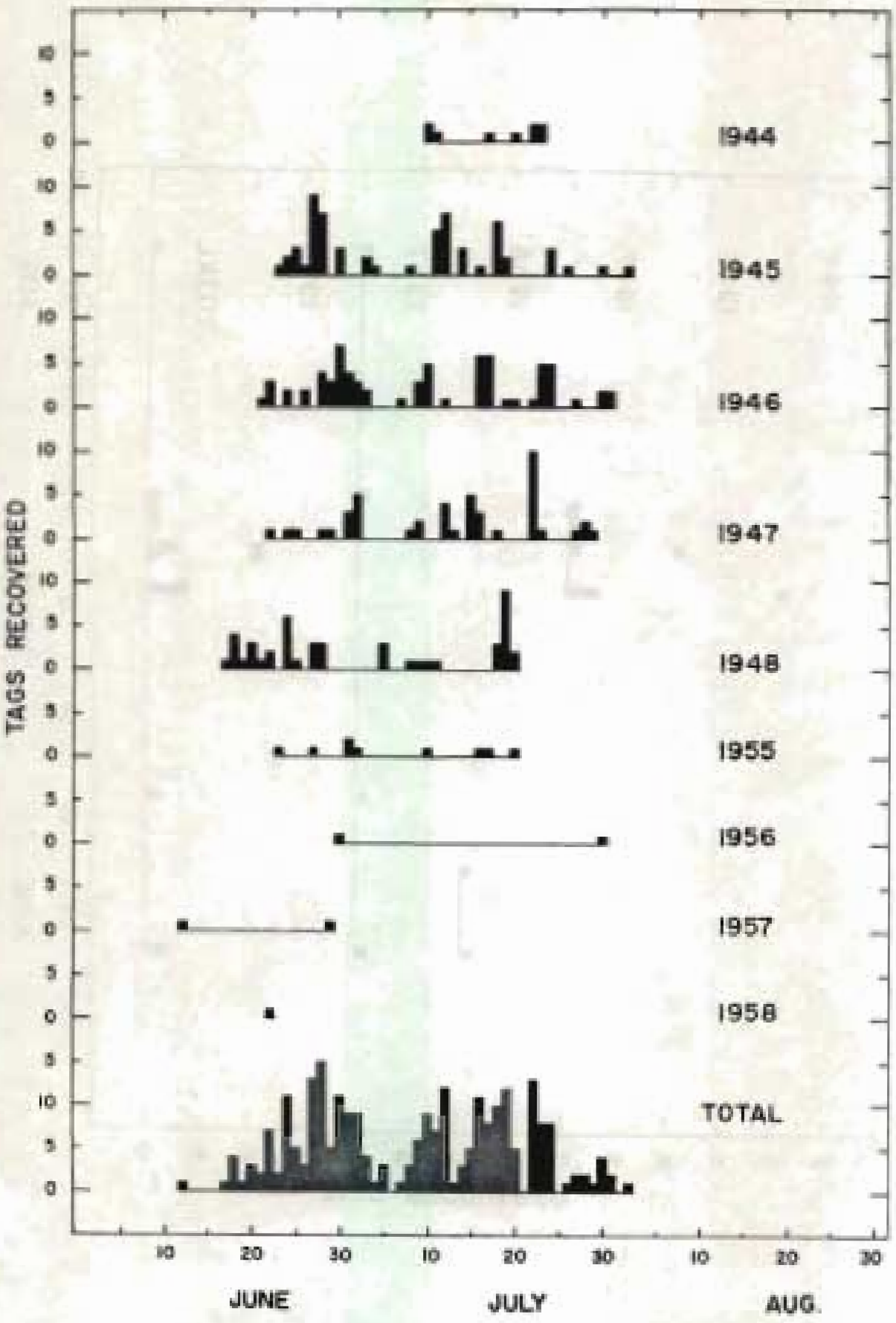

Fig. 12. Recoveries of sockeye tags in the Bulkley River system plotted by the dates when the fish were estimated to have passed the river boundary.

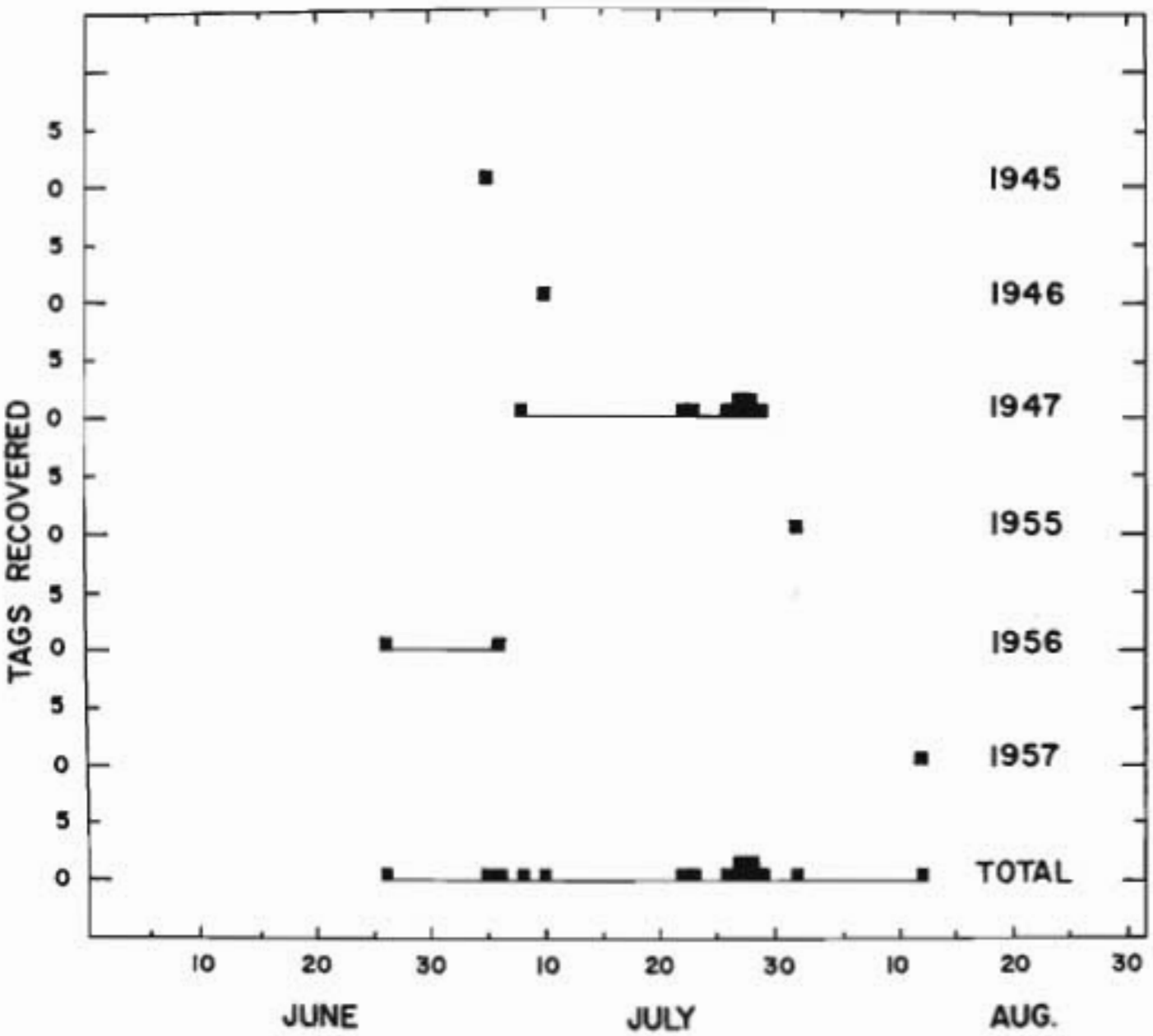

Fig. 13. Recoveries of sockeye tags at Bear Lake plotted by the dates when the fish were estimated to have passed the river boundary.

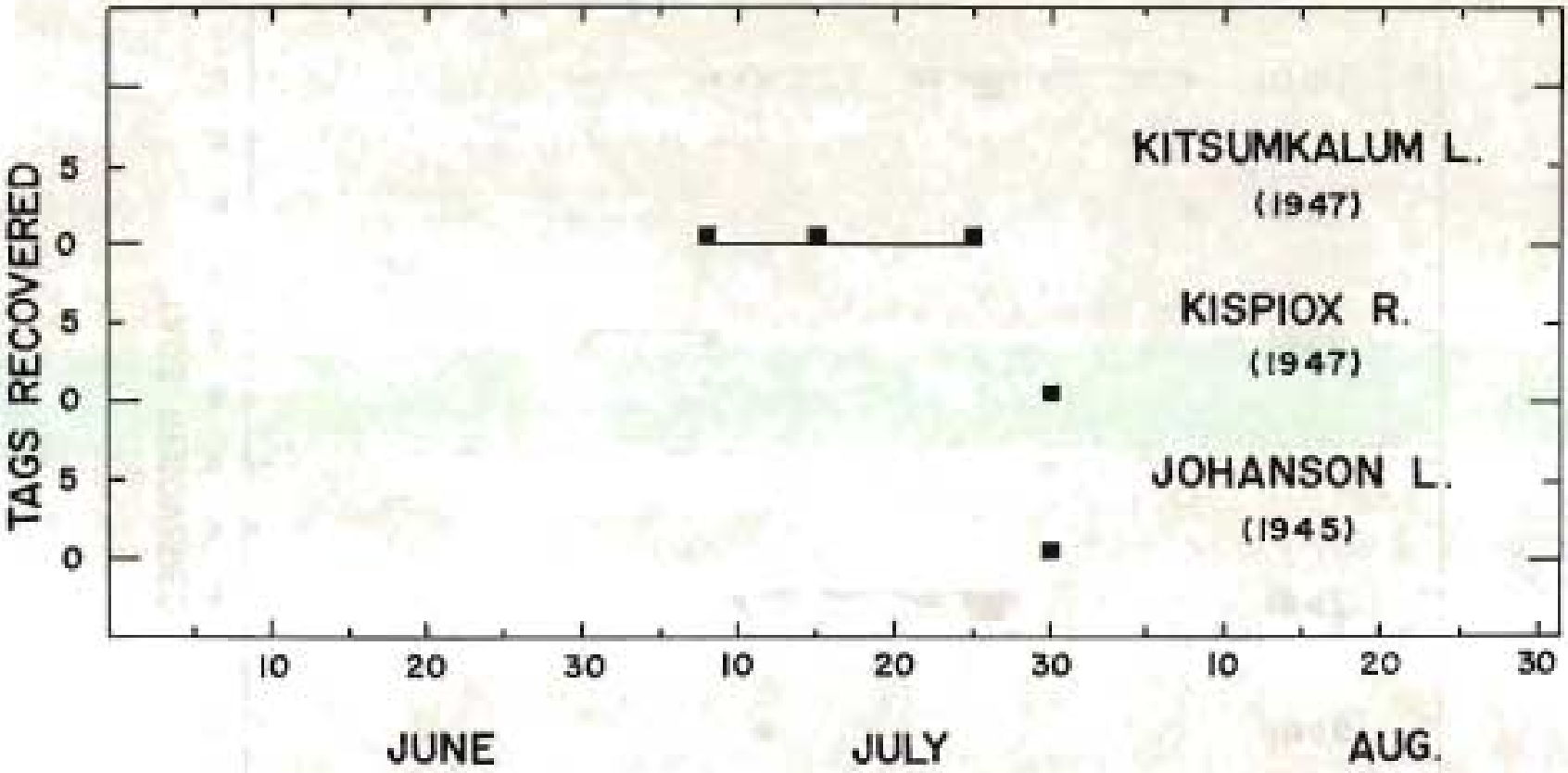

Fig. 14. Recoveries of sockeye tags in Kitsumkalum and Johanson Lakes and in the Kispiox River plotted by the dates when the fish were estimated to have passed the river boundary.

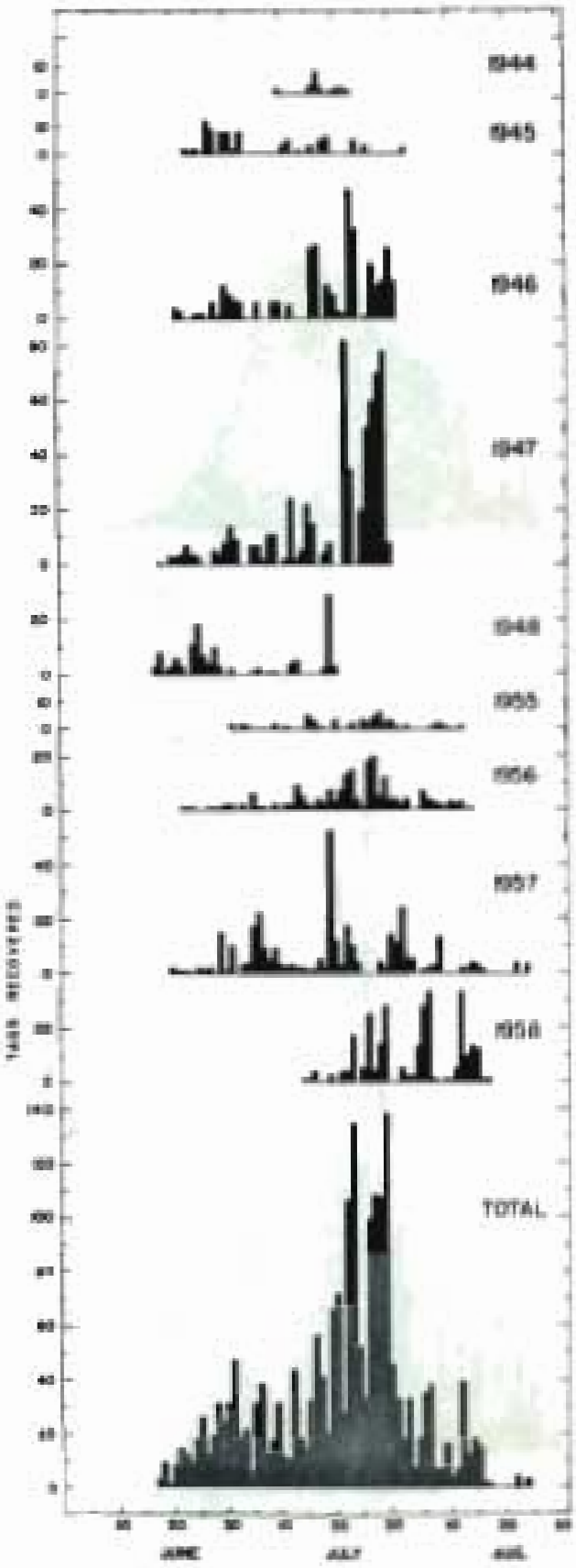

Fig. 15. Recoveries of sockeye tags at Rubine Lake plotted by the dates when the fish were estimated to have passed the river boundary.

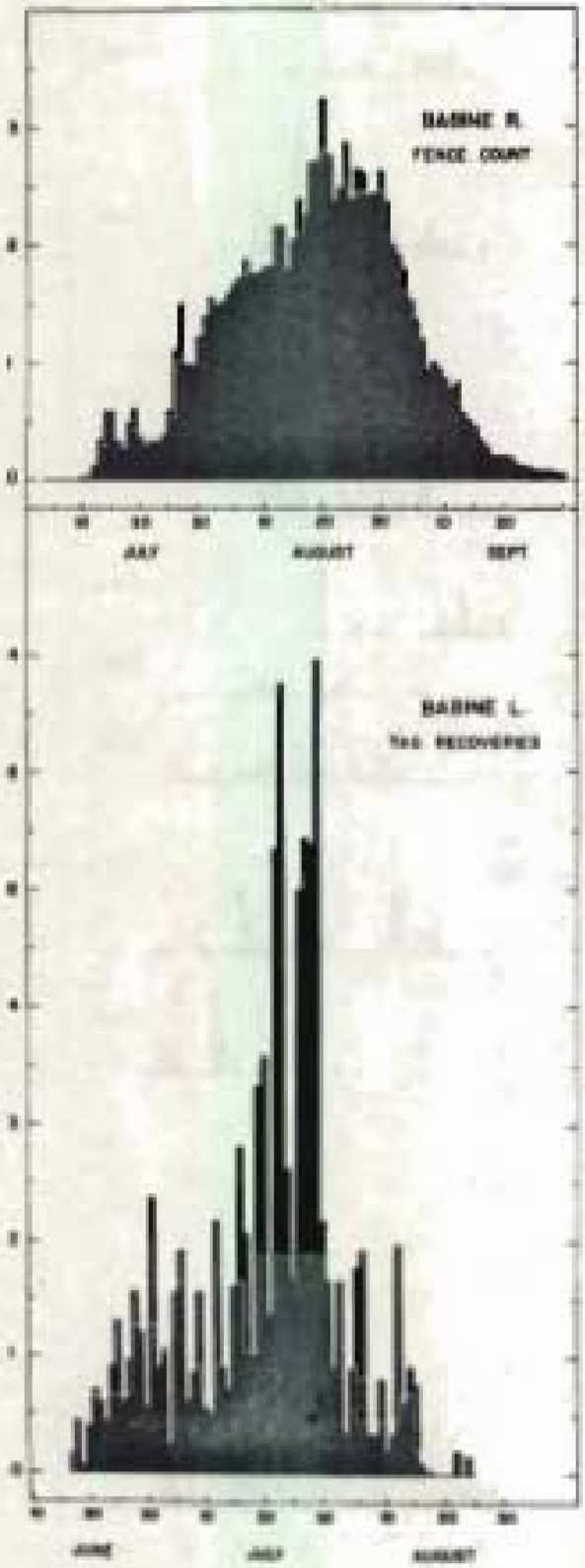

Fig. 16. Comparison of the distribution of sockeye tag recoveries at Babine Lake with the average sockeye count at the Babine counting fence in the 1946, 1947, and the 1955 to 1958 seasons.

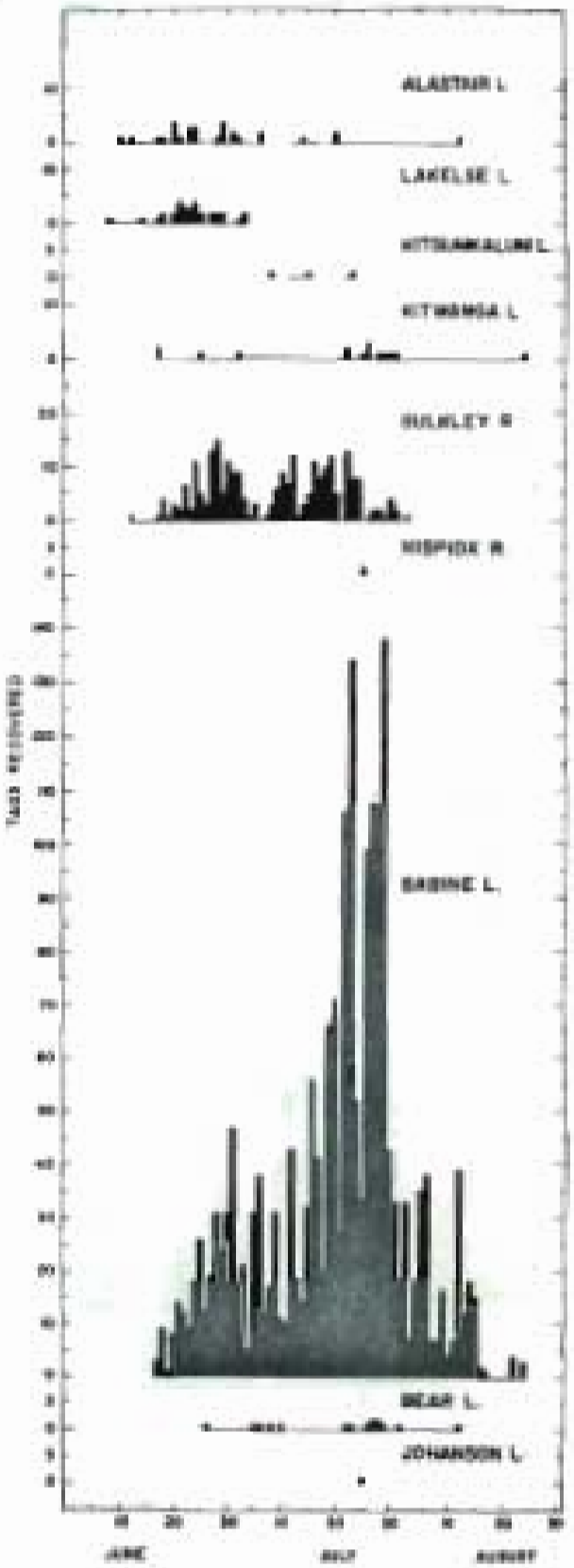

Fig. 17. Comparison of sockeye tag recoveries at various Skeena River spawning areas plotted by the dates when the fish were estimated to have passed the river boundary.

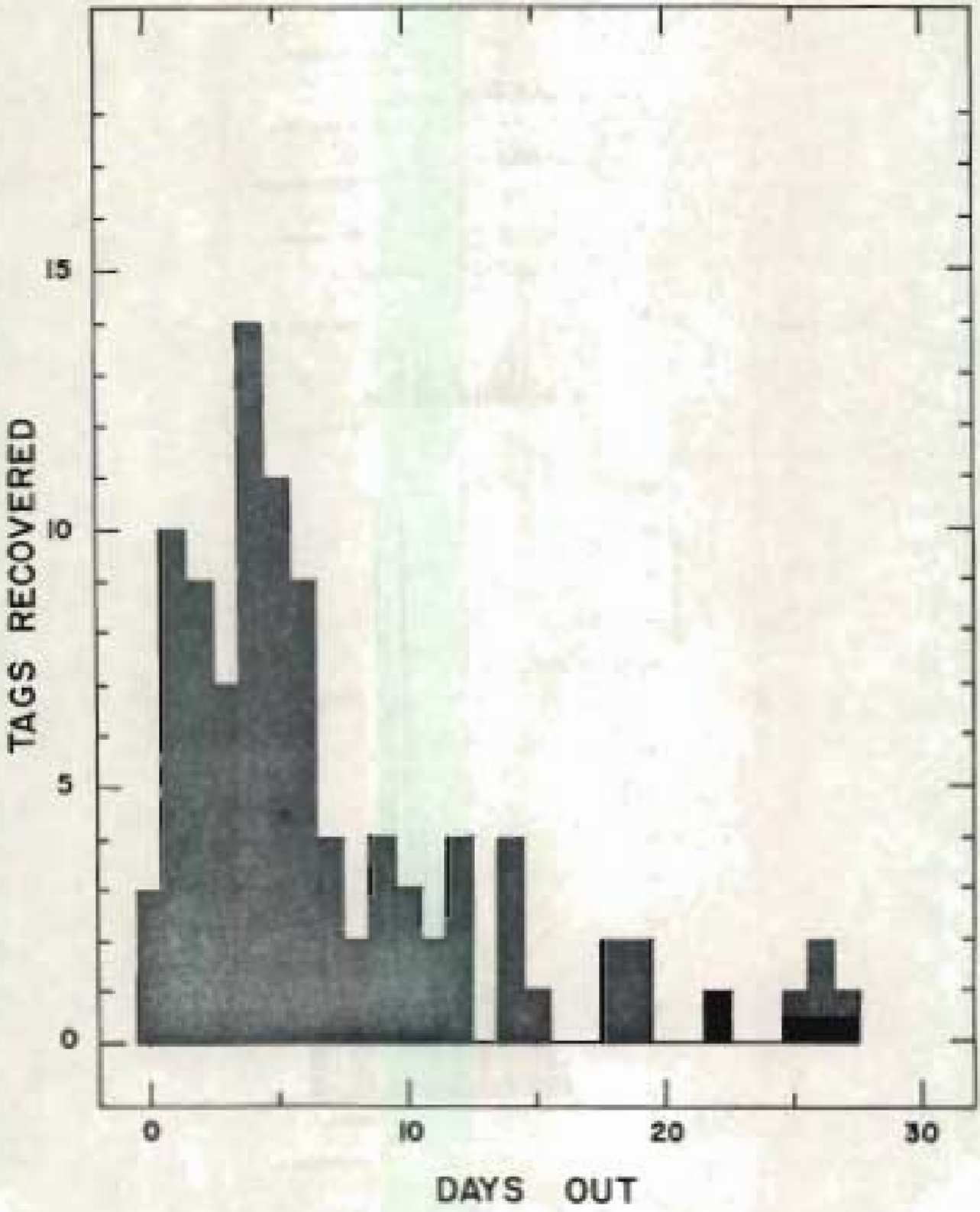

Fig. 18. Recoveries of pink tags at the river boundary from taggings carried out near Smith Island in 1945, 1946, 1947 and 1948. The recoveries are plotted by the number of days out from Smith Island to the boundary.

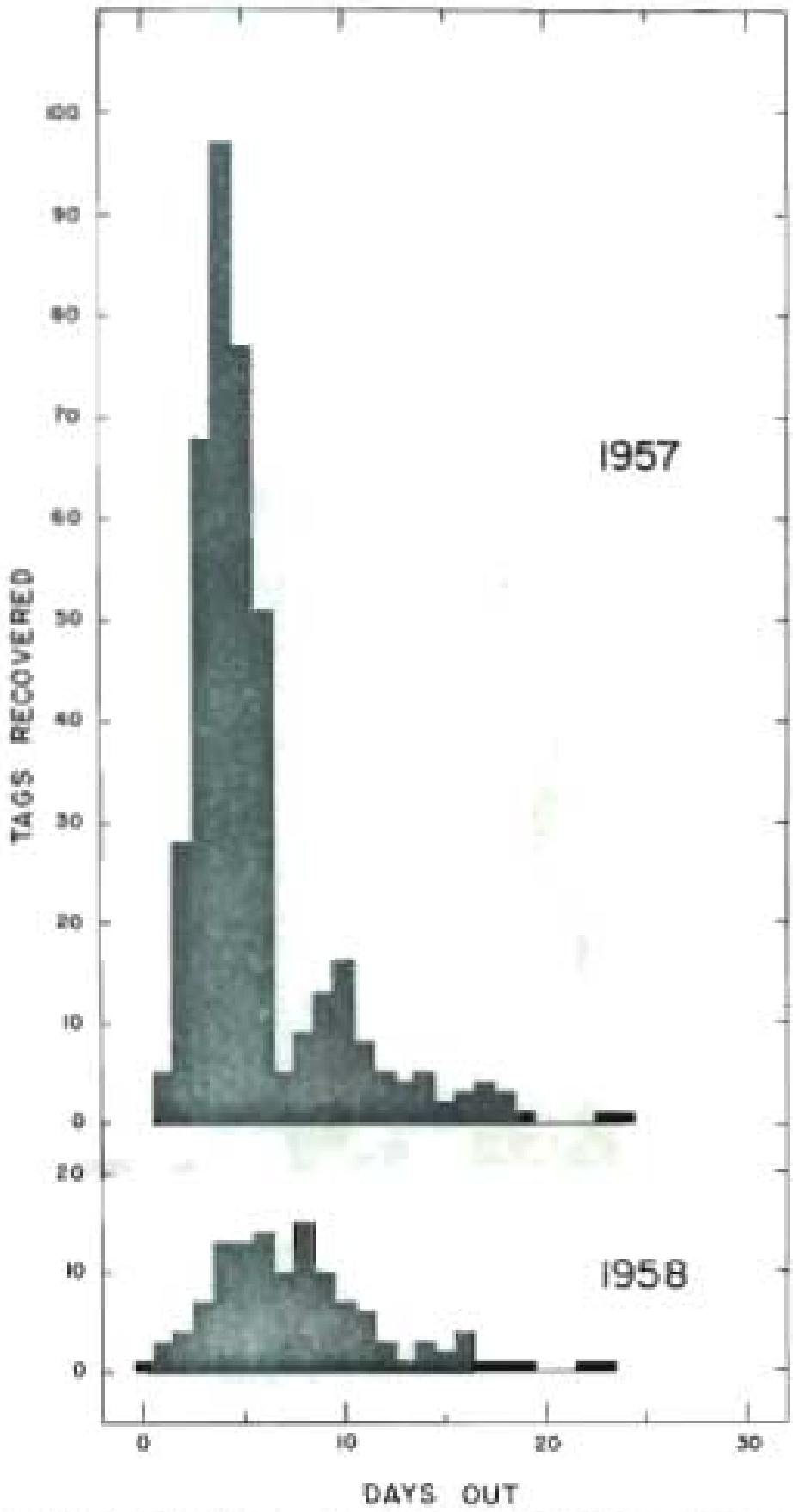

Fig. 19. Recoveries of pink tags at the river boundary from taggings carried out near Dundas Island in 1957 and 1958. The recoveries are plotted by the number of days out from Dundas Island to the boundary.

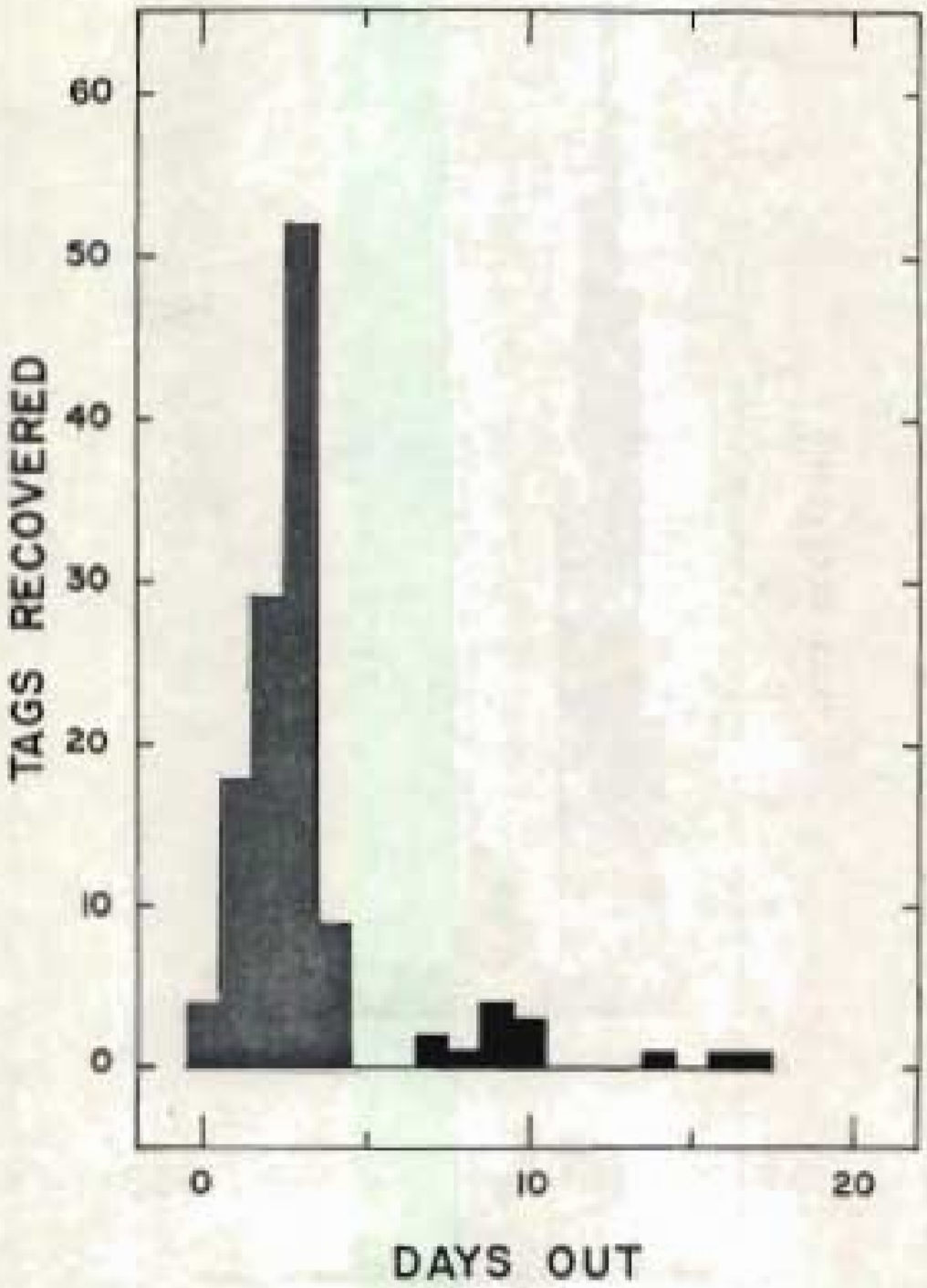

Fig. 20. Recoveries of pink tags at the river boundary from taggings carried out near Dirnie, Muskelyne, and Finlayson Islands in 1957. The recoveries are plotted by the number of days out from the tagging locations to the boundary.

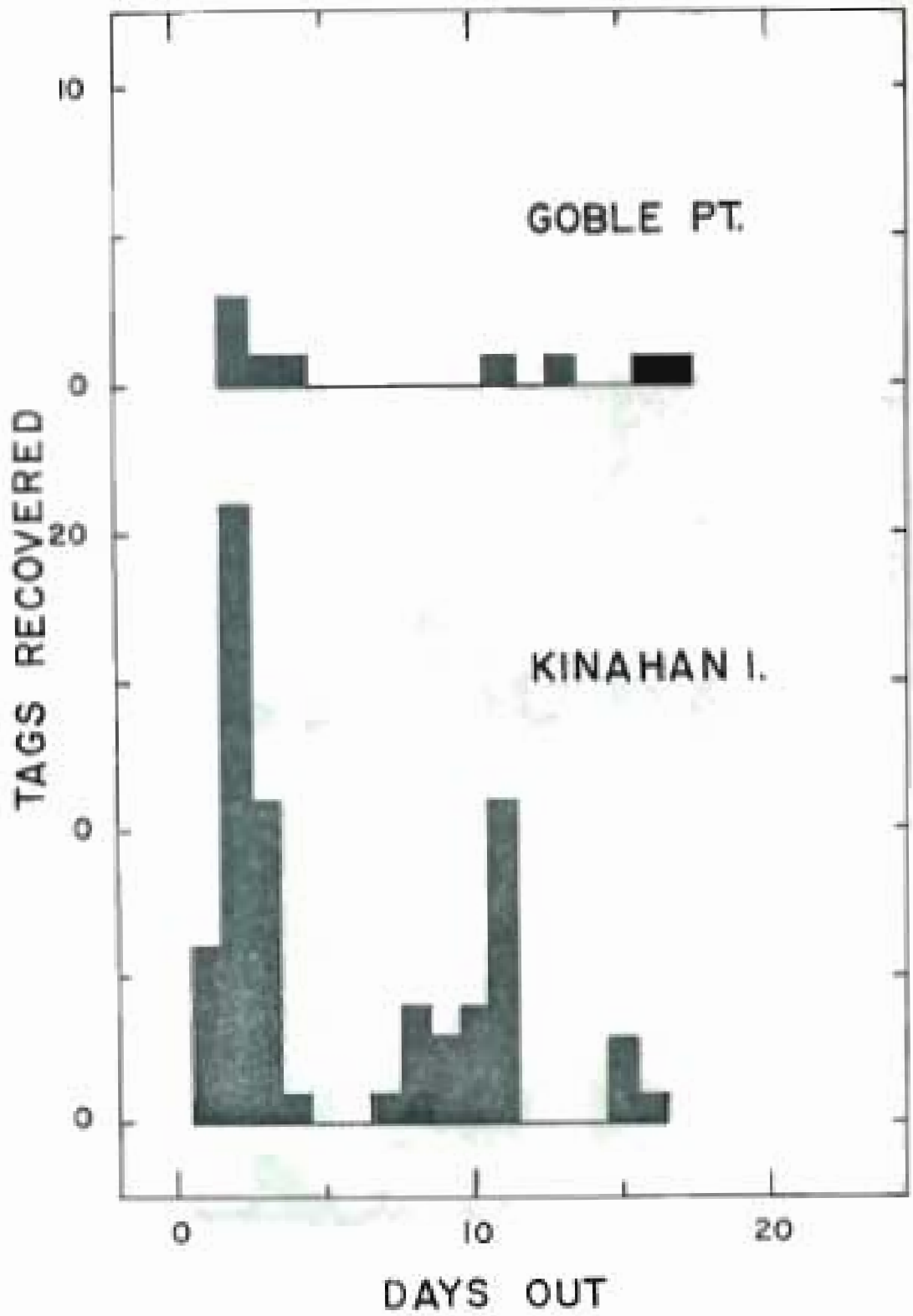

Fig. 21. Recoveries of pink tags at the river boundary from taggings carried out at Goble Point and the Kinahan Islands in 1957. The recoveries are plotted by the number of days out from the tagging locations to the boundary.

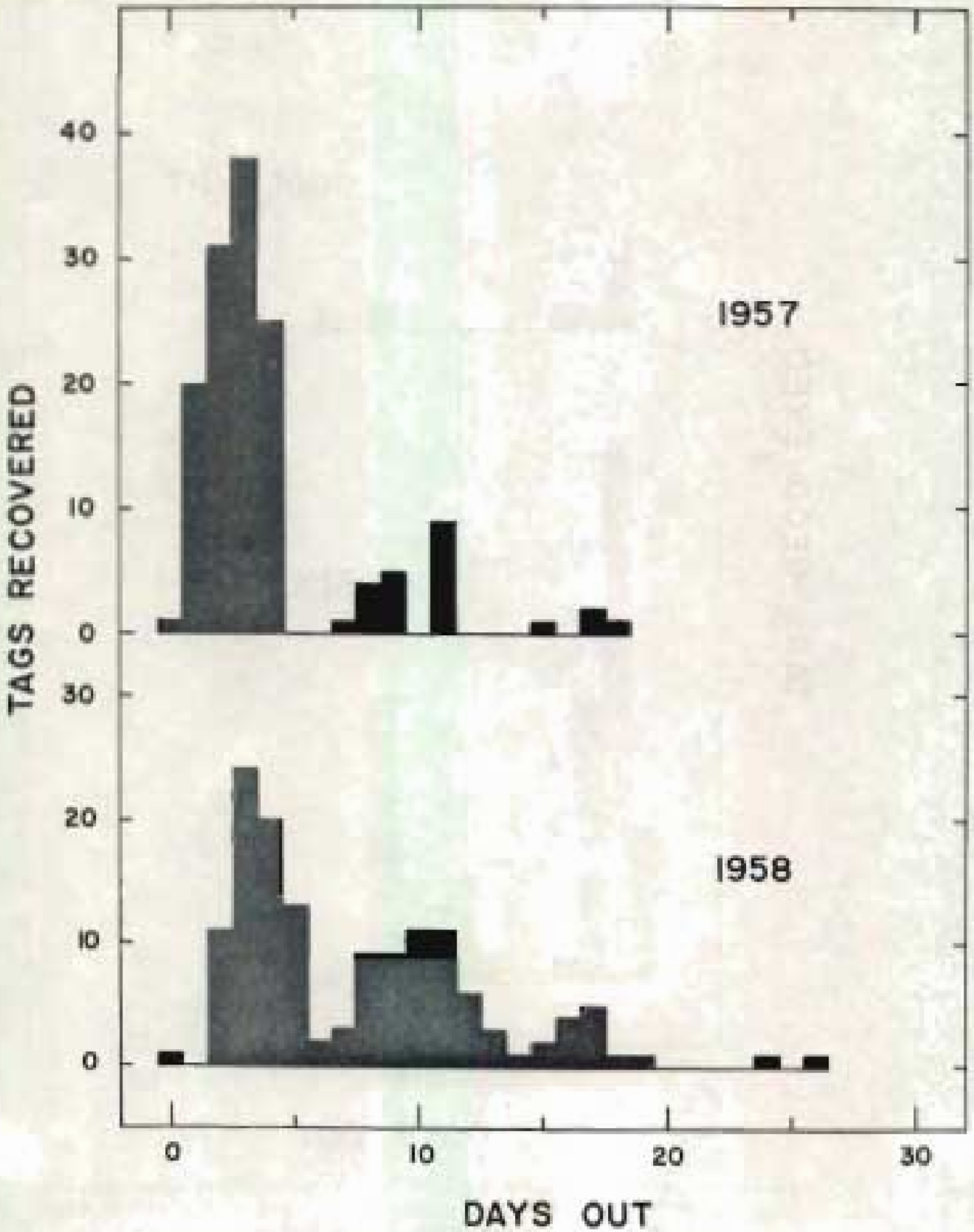

Fig. 22. Recoveries of pink tags at the river boundary from taggings carried out near Grace Island in 1957 and 1958. The recoveries are plotted by the number of days out from Grace Island to the boundary.

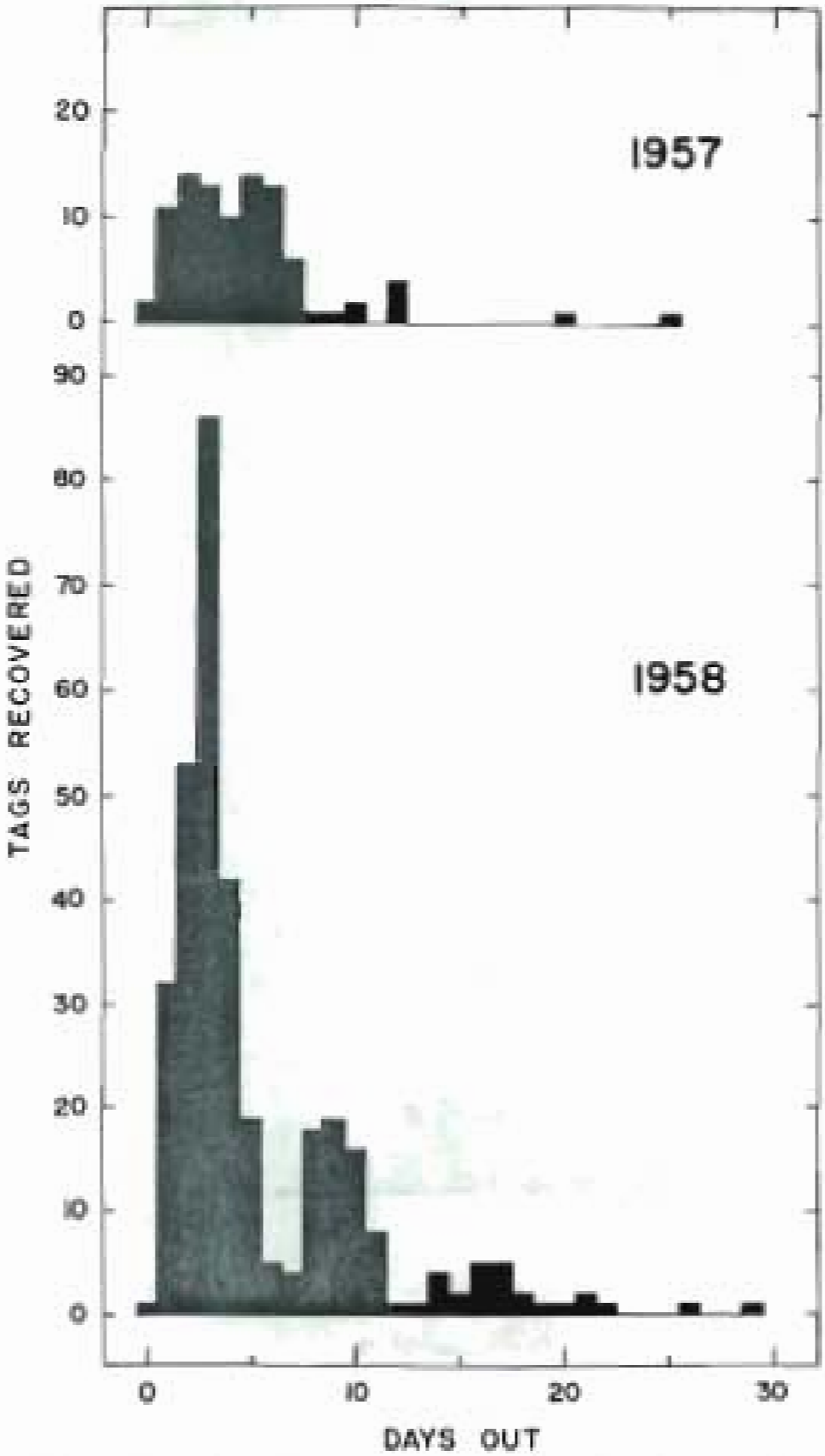

Fig. 23. Recoveries of pink tags at the river boundary from taggings carried out in Ogden Channel in 1957 and 1958. The recoveries are plotted by the number of days out from Ogden Channel to the boundary.

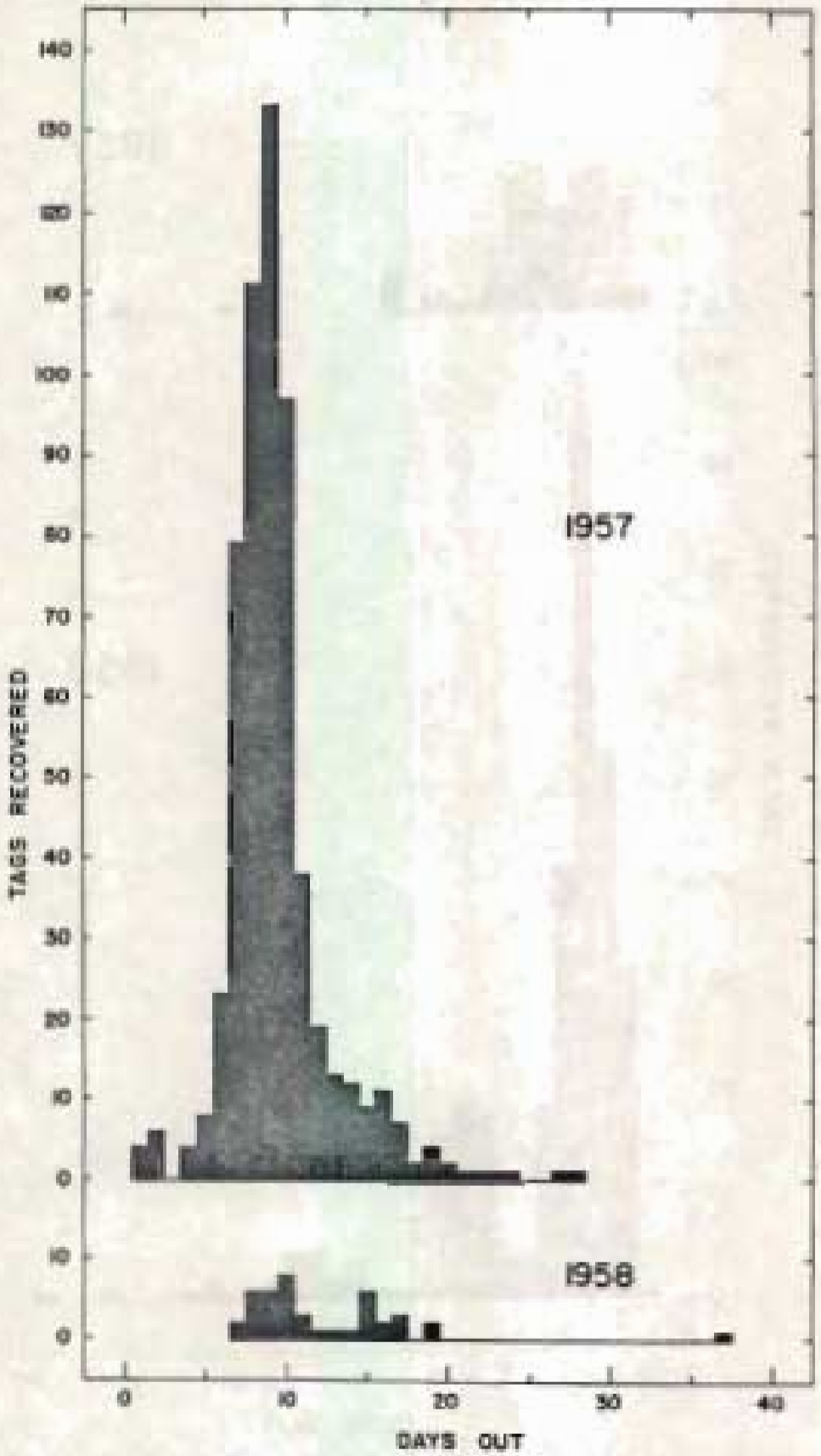

Fig. 24. Recoveries of pink tags at the river boundary and in Telegraph Passage from taggings carried out in the West Coast District of Southeastern Alaska in 1957 and 1958. The recoveries are plotted by the number of days out between tagging and recovery locations.

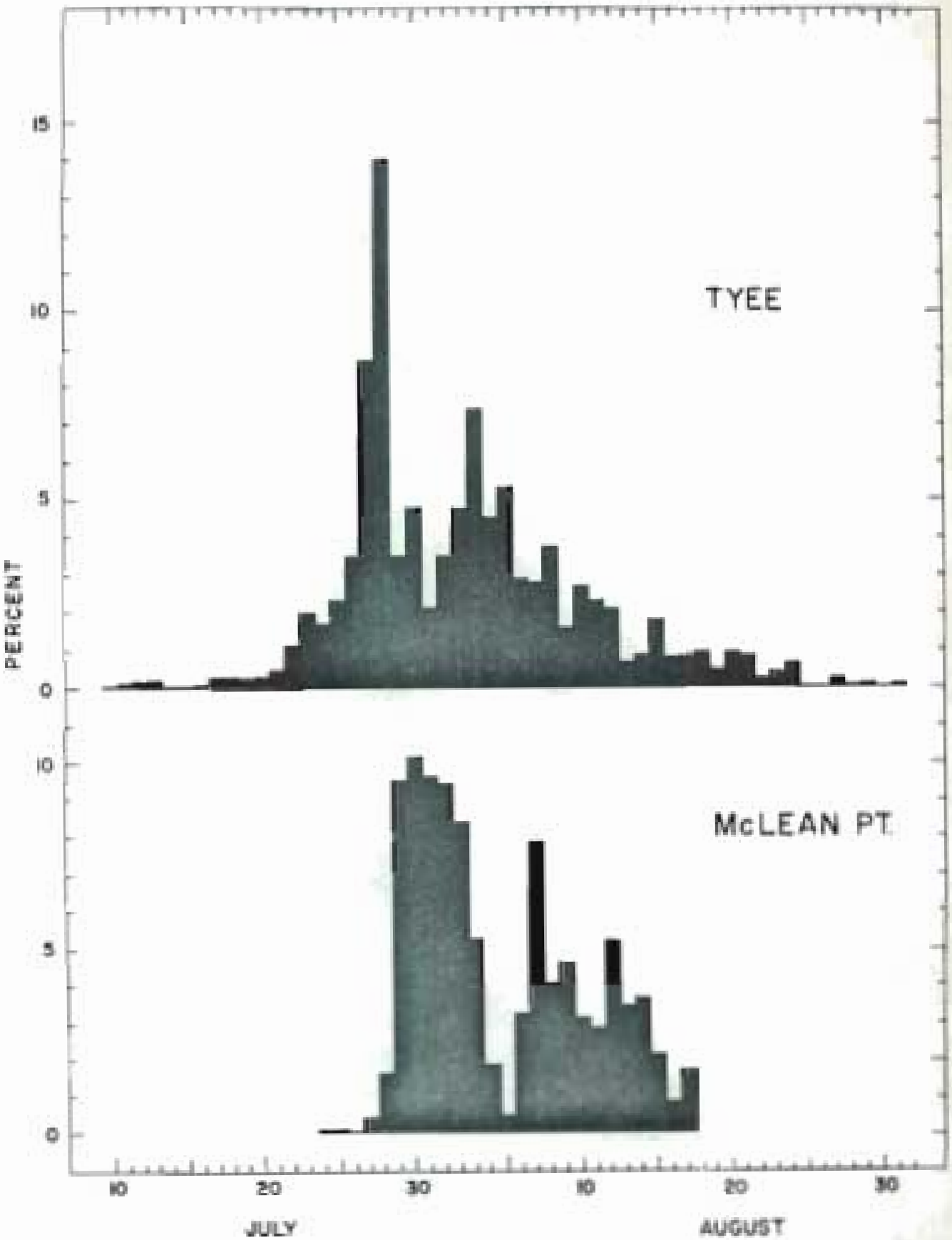

Fig. 25. Comparison of the average daily catch of pinks per hour in the test fishing nets at Tyee with the daily catch of pinks in the beach seine at McLean Point in 1959. The catches are shown as percentages of the seasonal total.

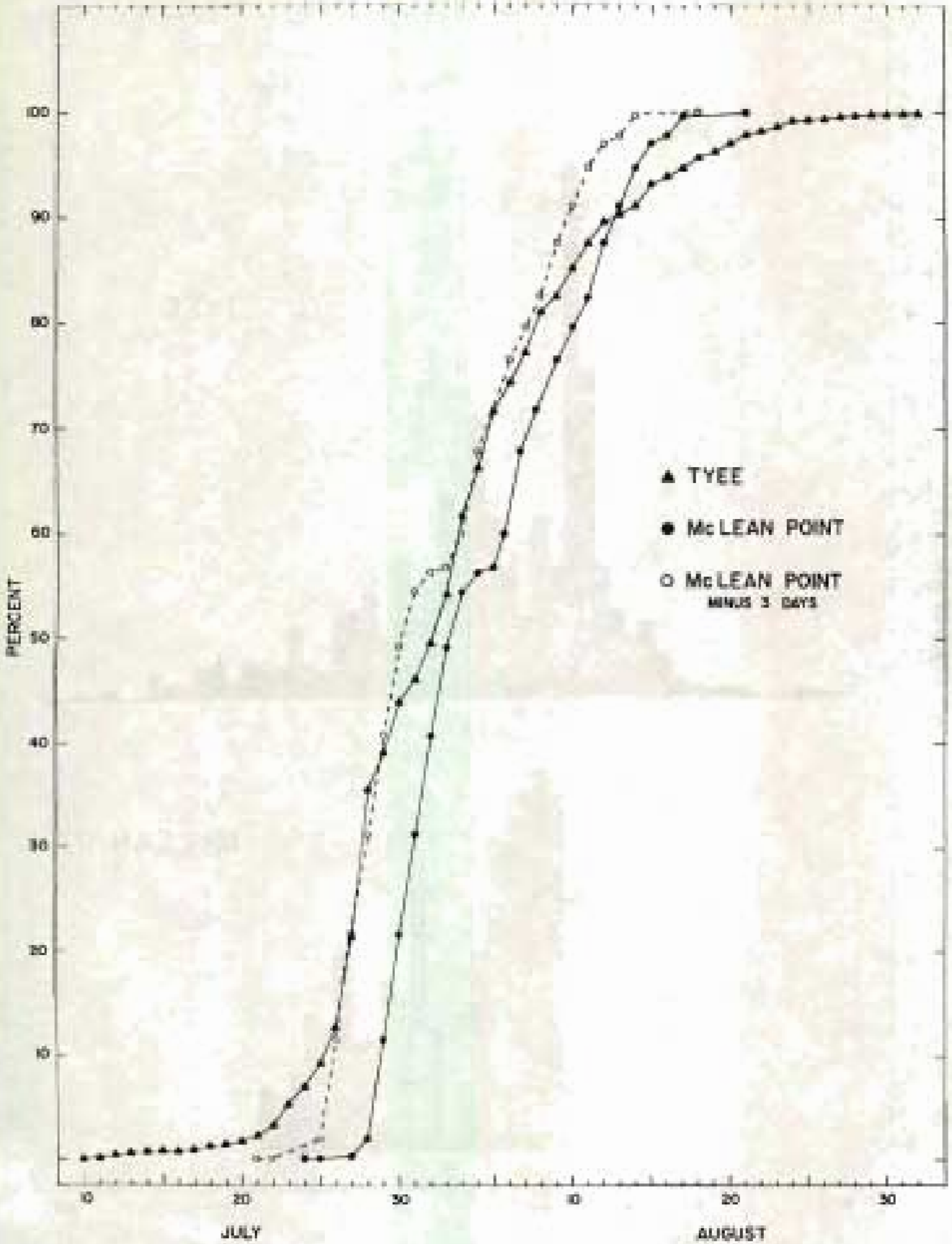

Fig. 26. Comparison of the cumulative average daily catch per hour in the test fishing nets at Tyee with the cumulative daily catch of pinks in the beach seine at McLean Point in 1959. The catches are shown as percentages of the seasonal total.

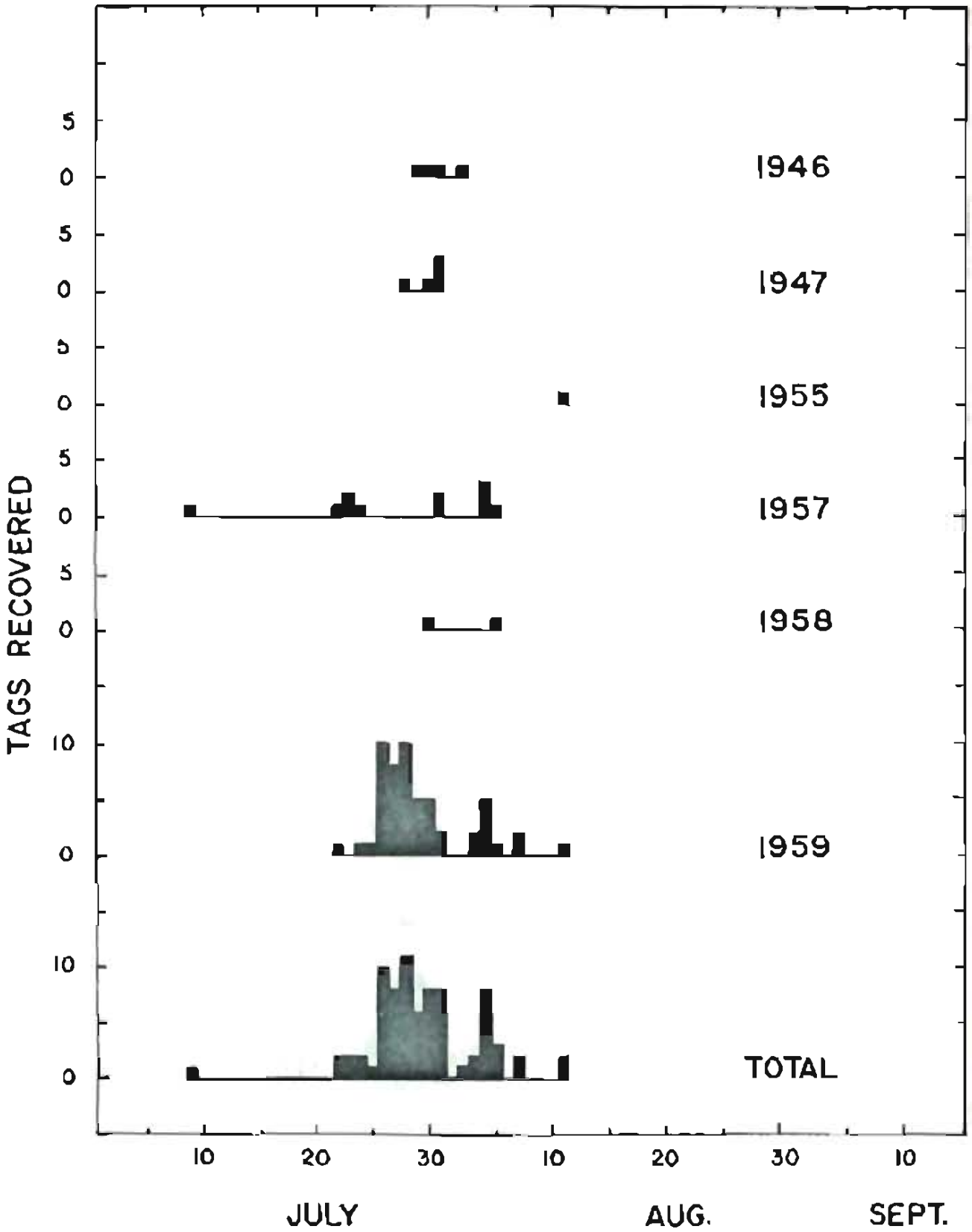

Fig. 27. Recoveries of pink tags in the Eubine River plotted by the dates when the fish were estimated to have passed the river boundary.

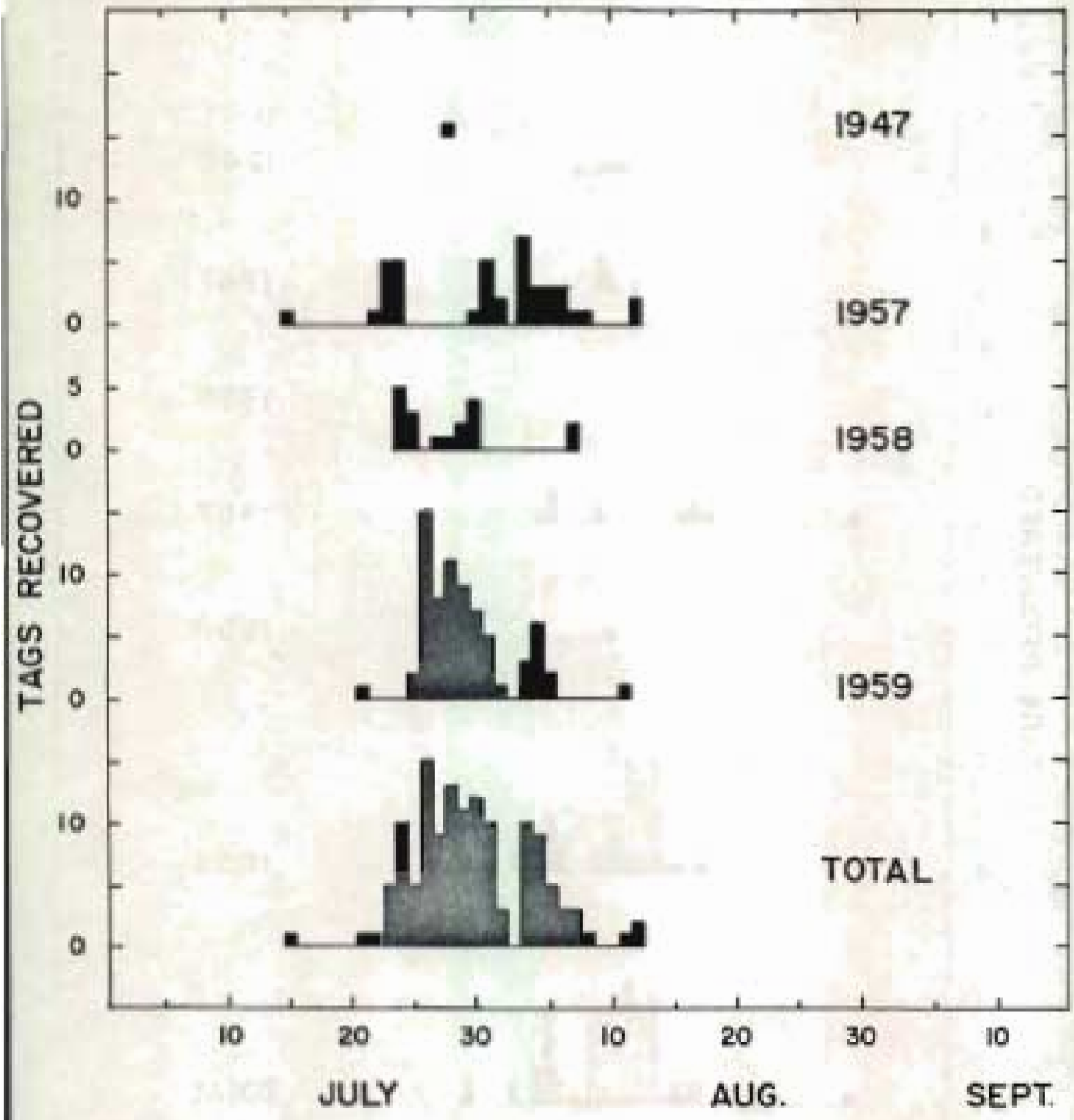

Fig. 28. Recoveries of pink tags in the Kiapiok River plotted by the dates when the fish were estimated to have passed the river boundary.

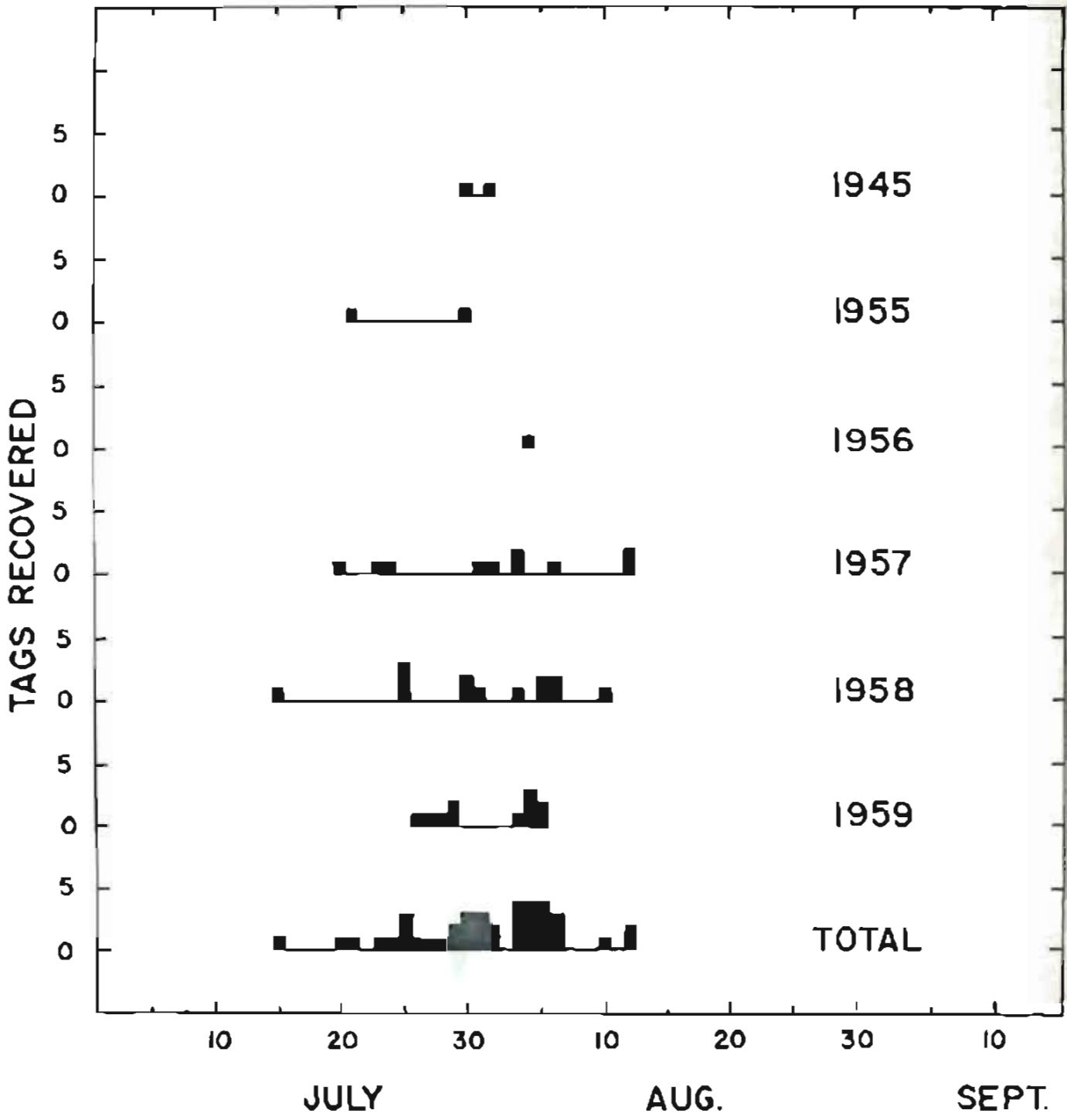

Fig. 29. Recoveries of pink tags in the Bulkley River plotted by the dates when the fish were estimated to have passed the river boundary.

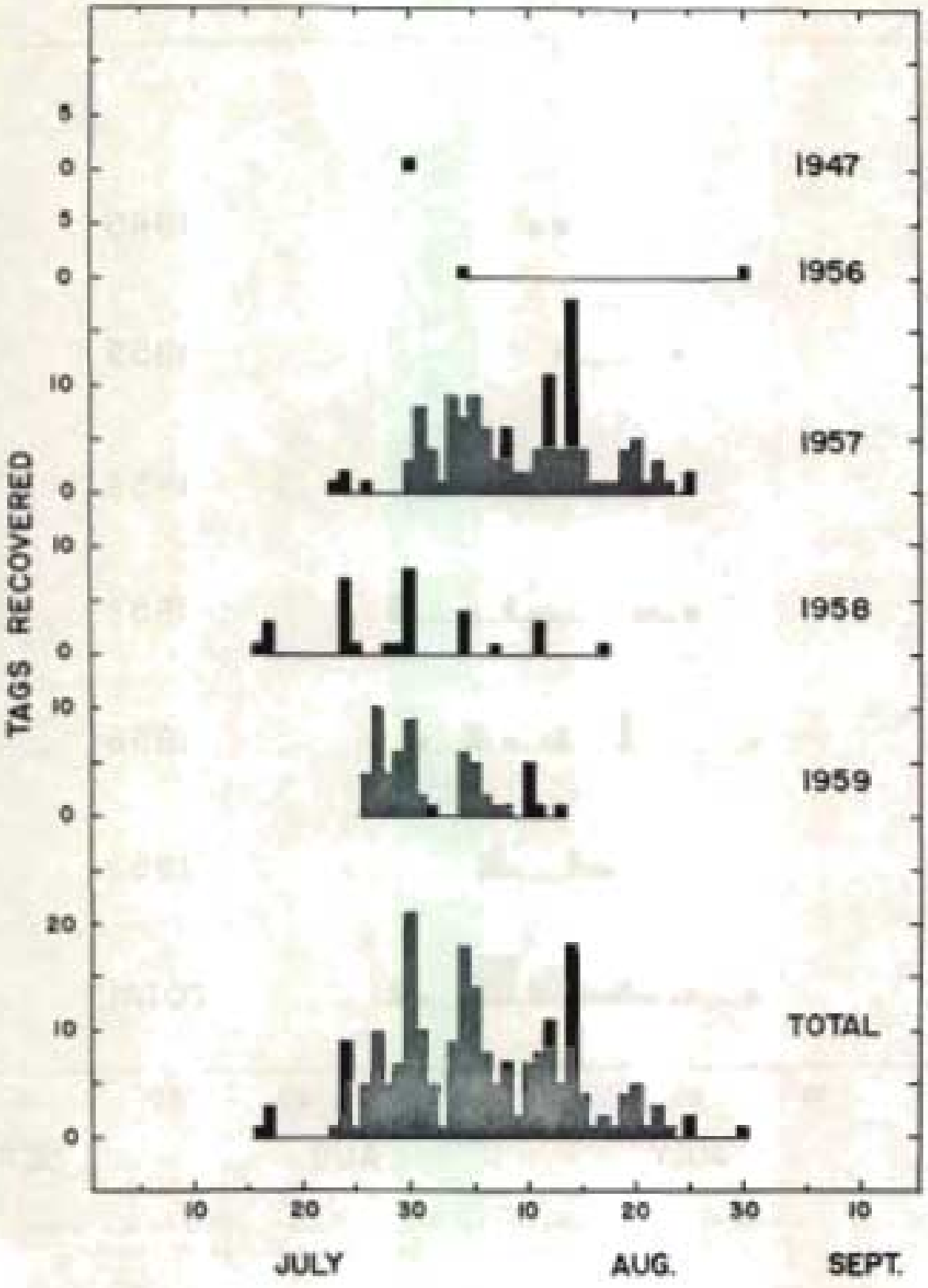

Fig. 30. Recoveries of pink tags in the Kitwanga River plotted by the dates when the fish were estimated to have passed the river boundary.

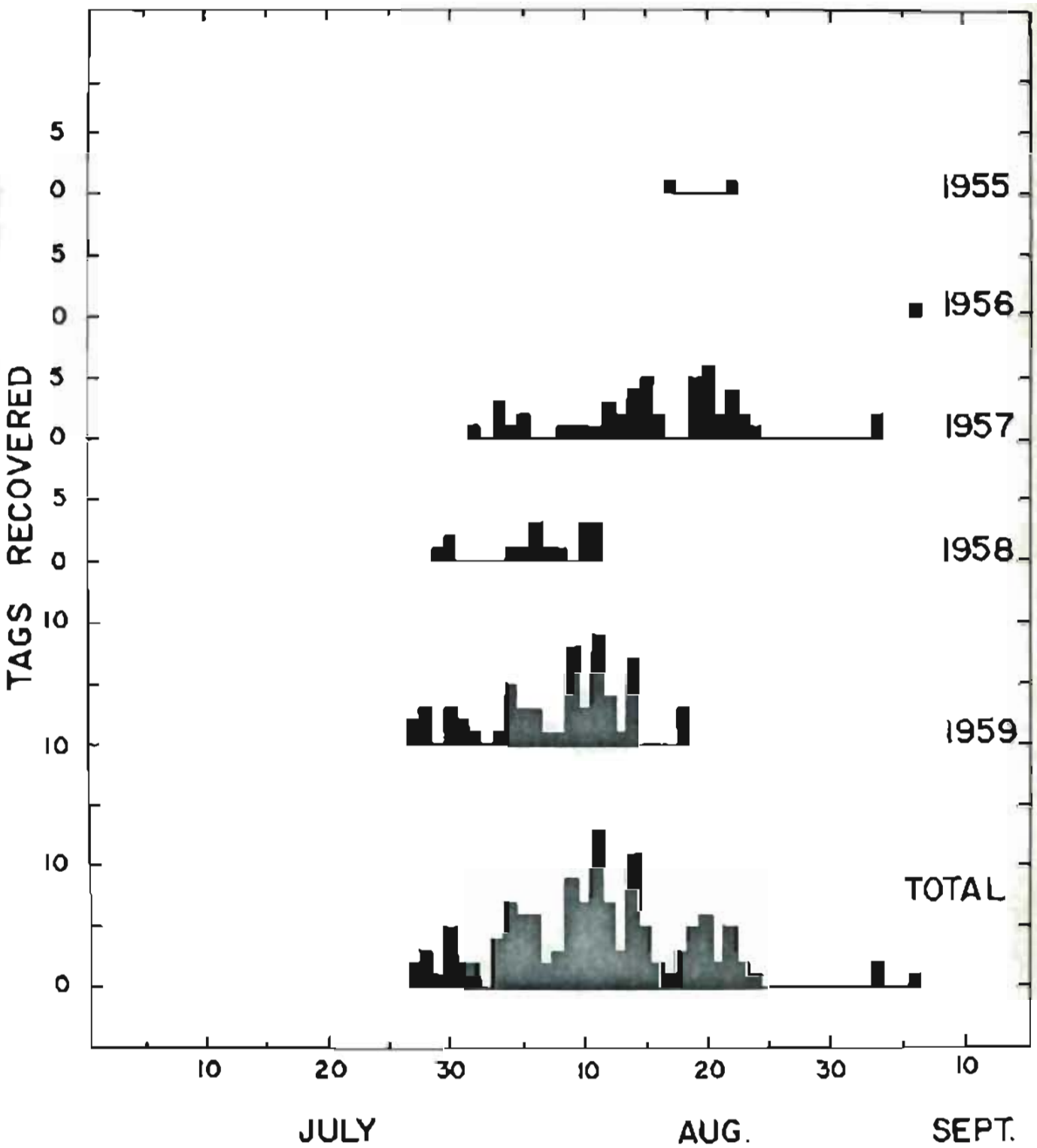

Fig. 31. Recoveries of pink tags in the Lakelse River plotted by the dates when the fish were estimated to have passed the river boundary.

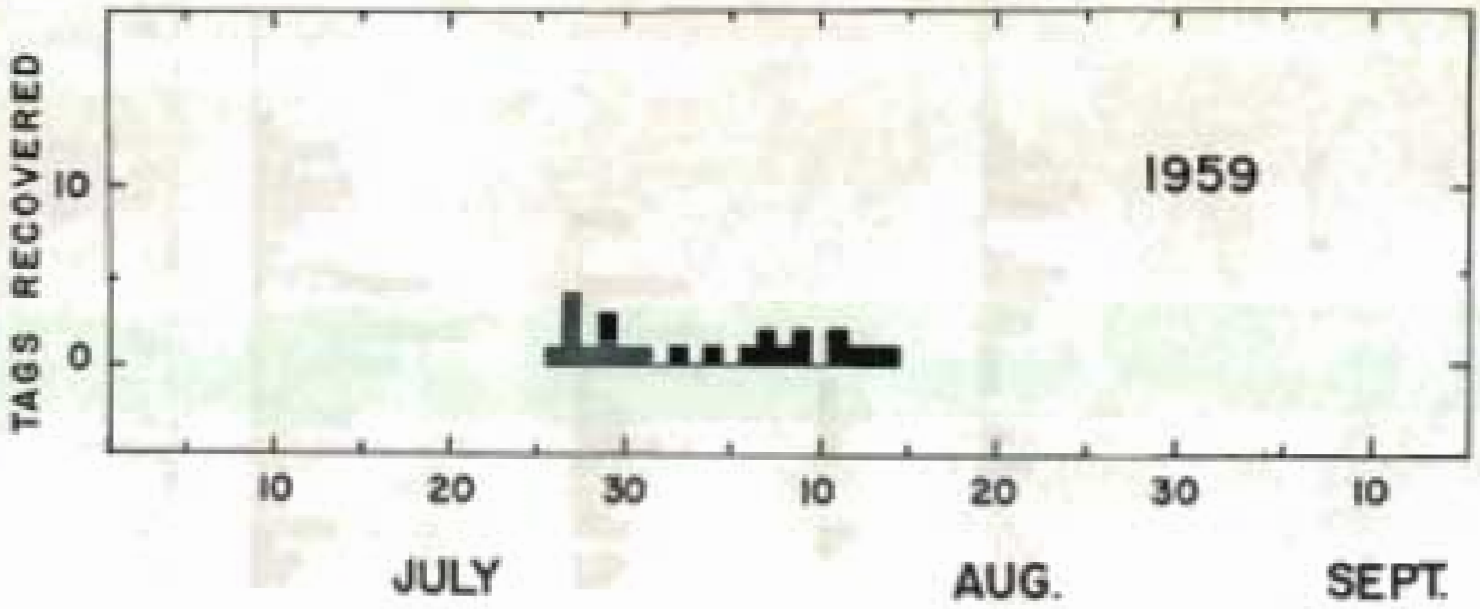

Fig. 32. Recoveries of pink tags in the main stem of the Skeena River plotted by the dates when the fish were estimated to have passed the river boundary.

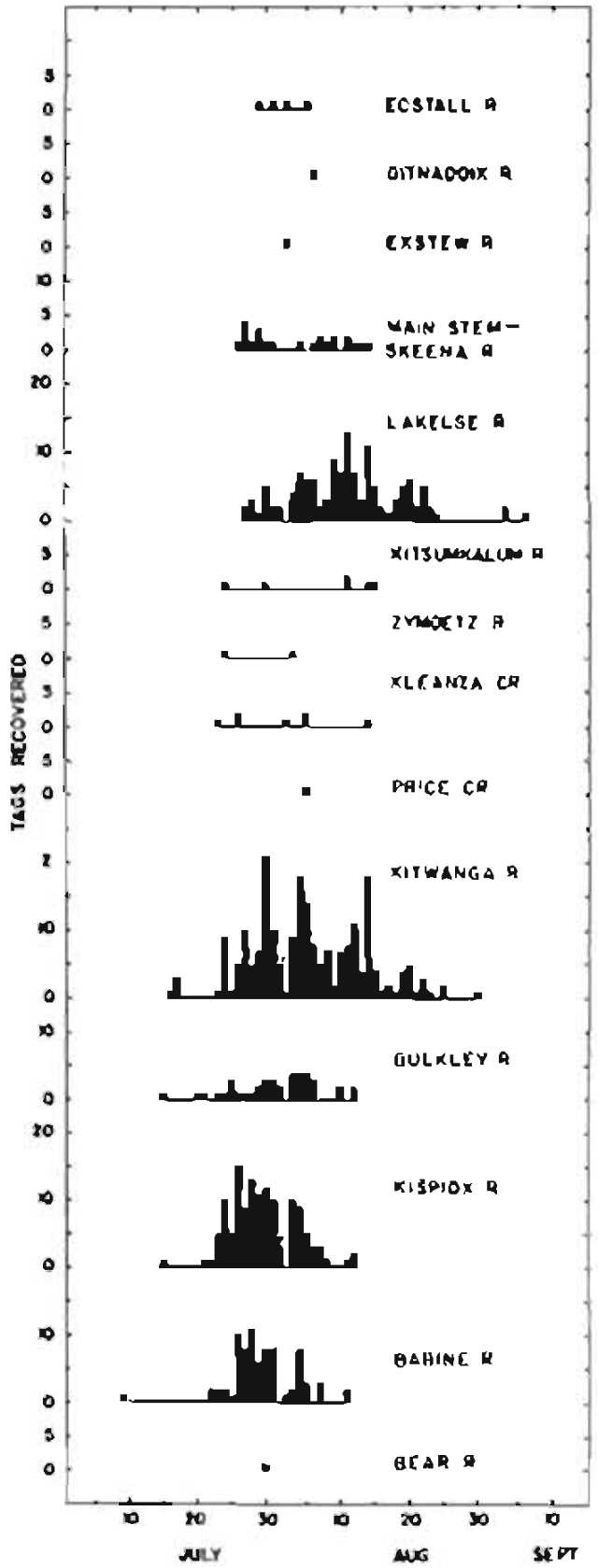

Fig. 33. Comparison of pink tag recoveries at various Skeena River spawning areas plotted by the dates when the fish were estimated to have passed the river boundary.

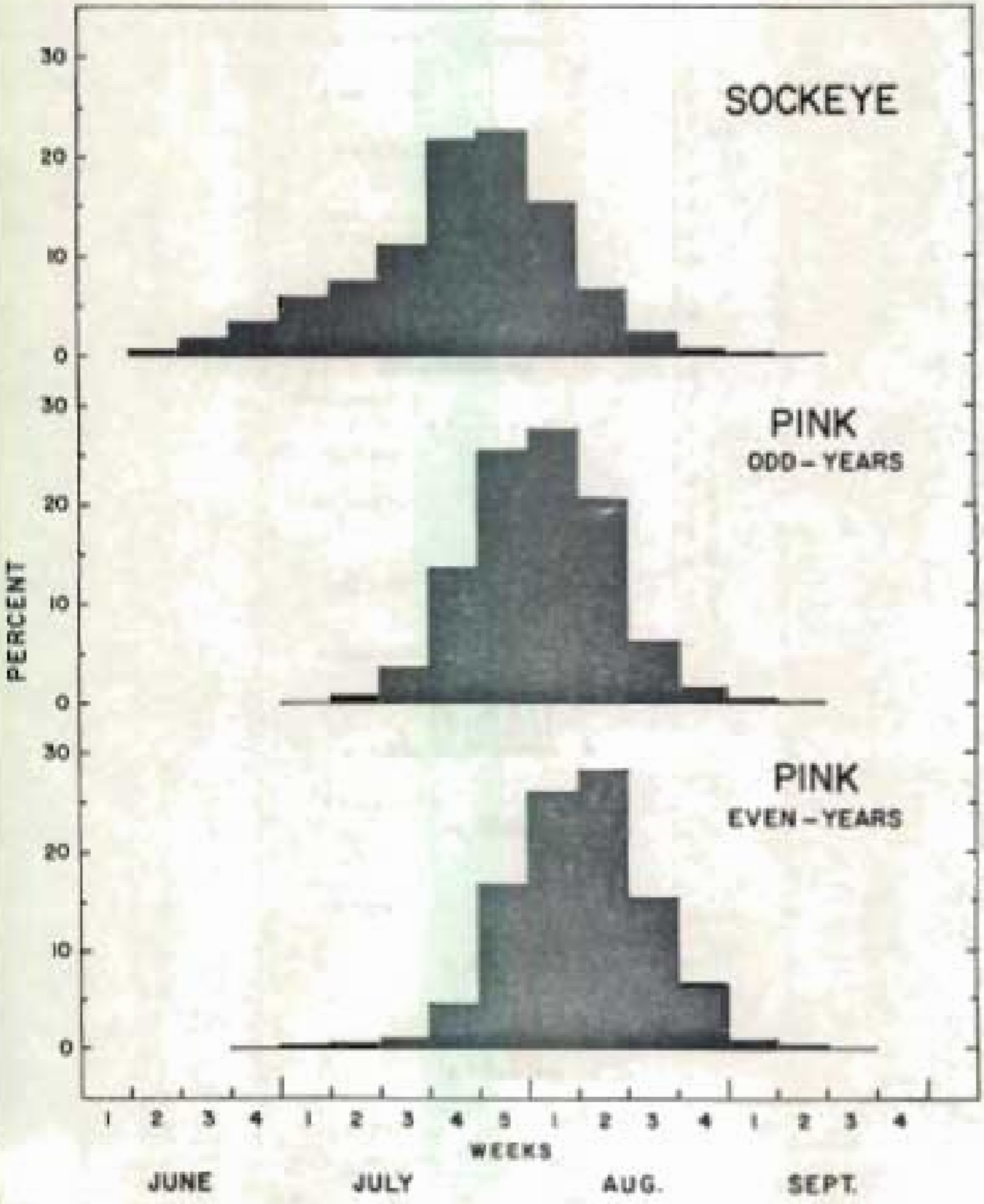

Fig. 34. Average weekly total stocks (catch + escapement) of sockeye, odd-year pink, and even-year pink in Area 4, 1956 to 1964.

APPENDIX

All sockeye and pink tag recoveries from the 1944 to 1948 and the 1955 to 1959 Canadian taggings in northern British Columbia and the 1957 and 1958 United States taggings in the West Coast District of Southeastern Alaska are tabulated in Tables I to XXVI which follow. The recoveries are listed by the date and location tagged and are broken down into commercial fishery recoveries and stream recoveries. They are further broken down into Alaskan and British Columbian recoveries. The latter are listed by the statistical areas in which they were recaptured.

APPENDIX

Table 1. Recoveries of sockeye tagged in British Columbia Statistical Areas 3, 4, and 5 in 1966.

Tagging			Recoveries												
			Commercial fishery								Stream				
				British Columbia							British Columbia				
Date	Location	Number tagged	Alaska	Area 3	Area 4	Area 5	Area 6	Unknown B. C.	Total B. C.	Total	Area 3	Area 4	Area 5	Total	Total
June 14	Finlayson Island	5													
15	" "	4													
18	Edye Passage	6			2				2	2					2
21	Mink Trap Bay	206				31	1		32	32		1	16	17	49
22	" " "	196			1	48			49	49			15	15	64
	Sandhill Bay	14			1	10			11	11					11
28	Steamer Passage	2		1					1	1	1			1	2
	Wales Island	1		1					1	1					1
July 2	Sandhill Bay	38				25			25	25					25
3	Edye Passage	5			5				5	5					5
8	Smith Island	131			23				33	23		14		14	47
9	" "	38			11				11	11		3		3	14
11	Steamer Passage	1	1							1					1
13	Edye Passage	6			2				2	2					2
14	Ridley Island	67			10				10	10		7		7	17
15	Smith Island	113		2	34	1	1	1	39	39		14		14	53
16	" "	271		1	148	2	1		152	152		8		8	160
18	" "	58			33				33	33		7		7	40
19	" "	113		1	50				56	56		7		7	63
20	" "	60			28				28	28		6		6	34
23		90			17	1			13	13		4		4	17
Total		1,373	1	6	375	118	3	1	503	504	1	71	31	103	607

APPENDIX

Table II. Recoveries of sockeye tagged in British Columbia Statistical Areas 3, 4, and 5 in 1945.

Tagging			Recoveries								
			Commercial fishery						Stream		
			British Columbia						British Columbia		
Date	Location	Number tagged	Area 3	Area 4	Area 5	Area 29	Unknown B. C.	Total	Area 4	Area 5	Total
June 6	Beaver Passage	1									
9	Port Simpson	2									
13	Mink Trap Bay	191			1			1		4	4
14	" " "	154			3			3		4	4
15	Ogden Channel	2									
16	Endhill Bay	162									
17	" "	6									
18	Edye Passage	1									
19	Smith Island	11							3		3
20	" "	39		2				2	4		4
	Ogden Channel	1									
21	" "	3									
	Smith Island	25		2				2	5		5
22	" "	39		5				5	3		3
23	" "	267		36				36	38		38
24	" "	230		31				31	26		26
25	Ogden Channel	3		1				1			
26	Smith Island	97	1	7				8	15		15
27	" "	59	1	7				8	11		11
28	" "	52		10				10	4		4
29	" "	169	1	51				52	15		15
30	" "	7		2				2	1		1
July 1	" "	42		13				13	4		4
4	Steamer Passage	14	6					6	1		1
5	" "	19	3	1			1	5			
6	" "	13	3					3			

Continued...

Table II (cont'd.) (page 2)

Tagging			Recoveries									
			Commercial fishery						Stream			
			British Columbia						British Columbia			Total
Date	Location	Number tagged	Area 3	Area 4	Area 5	Area 20	Unknown B. C.	Total	Area 4	Area 5	Total	
July 6	Boston Island	1		1				1				1
7	Smith Island	165	1	64				67	14		14	81
8	" "	158		65				65	14		14	79
10	" "	59		20			1	21	7		7	28
11	" "	10		3				3				3
12	" "	39		9				9	5		5	14
13	Lelu Island	7		1				1				1
	Smith Island	1										
14	" "	116		45				45	14		14	59
15	" "	258		89				89	14		14	103
17	" "	20	1	6				7	2		2	9
18	Steamer Passage	12	1				1	2				2
19	" "	12	1	1				2				2
20	Smith Island	85		13				13	8		8	21
21	" "	44	2	17		1		20	2		2	22
22	" "	72		23				23	7		7	30
24	" "	8										
25	" "	7		2				2	1		1	3
26	" "	15		3				3				3
27	" "	11		4				4				4
29	" "	93		27				27	3		3	30
30	" "	6										
Total		2,808	23	561	4	1	3	592	221	8	229	821

Table III. Recoveries of sockeye tagged in British Columbia Statistical Areas 3, 4, and 5 in 1986.

Tagging			Recoveries										
			Commercial Fishery							Sport			
			British Columbia							British Columbia			Total
Date	Location	Number Tagged	Area 3	Area 4	Area 5	Area 6	Area 20	Unlisted & U.S.	Total	Area 3	Area 4	Total	
June 12	Mink Trap Bay	76			8				8				8
13	Rendall Bay	154		3	50				53				53
14	Smith Island	42		2					2		11	11	13
15	" "	20		1					1		9	9	10
17	" "	11		1					1		2	2	3
22	" "	13									4	4	4
23	" "	17		3					3		1	1	4
25	" "	85		11					11		13	13	24
26	" "	24		3					3		4	4	7
27	" "	94		5					5		22	22	27
28	Pitt Island	35	2						2		1	1	3
	" "		1						1				1
29	Smith Island	226	4	30	1	4			39	1	33	34	73
29	" "	132		40		4			44		13	13	57
30	" "	68		11		4			19		10	10	33
July 1	Gibson Island	4		1					1				1
2	Smith Island	15		4					4		1	1	5
4	" "	10									6	6	6
	" "	2									1	1	1
	Shushartie Passage	1											
9	" "	3						1	1	1		1	2
	Smith Island	4									1	1	1
10	" "	84		1					1		12	12	13
11	" "	80		21					21		17	17	44
14	" "	36		10					10		10	10	30
17	" "	2											

Continued...

Table III (cont'd.) (page 2)

Tagging			Recoveries										
			Commercial fishery							Stream			
			British Columbia							British Columbia			Total
Date	Location	Number tagged	Area 3	Area 4	Area 5	Area 6	Area 29	Unknown B. C.	Total	Area 3	Area 4	Total	
June 11	Steamer Passage	13	2						2				2
12	" "	2											
13	Smith Island	140		34					34		40	40	74
14	" "	187	2	97					99		34	34	133
16	" "	64		21					21		13	13	34
17	" "	101		41					41		12	12	53
18	" "	9		4					4		3	3	7
19	" "	13		5					5		4	4	9
20	" "	218		72					72		55	55	127
21	" "	177		71			1		72		41	41	113
23	" "	13		6					6		1	1	7
24	Lelu Island	9		3					3		1	1	4
	Smith Island	89		24					24		21	21	45
25	" "	43		7					7		14	14	21
26	" "	48	1	8					9		16	16	25
27	" "	127		41		2		1	44		29	29	73
28	" "	89		40		1			41		16	16	57
Total		2,416	12	440	57	6	1	2	718	2	468	470	1,188

APPENDIX

Table IV. Recoveries of sockeye tagged in British Columbia Statistical Areas 3, 4, and 5 in 1947.

Tagging			Recoveries									
			Commercial fishery						Stream			
			British Columbia						British Columbia			Total
Date	Location	Number tagged	Area 3	Area 4	Area 5	Area 9	Unknown B. C.	Total	Area 3	Area 4	Area 5	Total	
June 12	Nikado Bay	119		1	6			7			7	7	14
13	Nine Trap Bay	281		2	4			6			17	17	23
15	Smith Island	25		3				3		2		2	5
17	" "	18								6		6	6
18	" "	16								4		4	4
19	" "	20								6		6	6
20	" "	30								10		10	10
21	" "	39		1				1		13		13	14
22	Moore Cove	9								5		5	5
25	Smith Island	20		2				2		4		4	6
	Lelu Island	49								7		7	7
26	Smith Island	1								1		1	1
	Lelu Island	12								6		6	6
27	Smith Island	32	1	5				6		8		8	14
28	" "	83		12				12		20	1	21	33
29	" "	97	3	26				29		18		18	47
July 1	Steamer Passage	1											
2	Lelu Island	2											
	Smith Island	25		2				2		7		7	9
3	" "	55		10				10		11		11	21
4	" "	8		1				1		4		4	5
5	Moore Cove	56		15	1			16		13		13	29
	Smith Island	10								3		3	3
6	Geargy Point	25		9				9		11		11	20
	Smith Island	39	1	6				7		8		8	15

Continued...

Table IV (cont'd.) (page 2)

Tagging			Recoveries										
			Commercial fishery						Sipeam				
			British Columbia						British Columbia				Total
Date	Location	Number tagged	Area 3	Area 4	Area 5	Area 9	Unknown B. C.	Total	Area 3	Area 4	Area 5	Total	
July 8	Moore Cove	5								3		3	3
	Smith Island	1								1		1	1
9	" "	75	1	8				9		31		31	40
	Lelu Island	6								3		3	3
10	Smith Island	24		2				2		3		3	5
11	" "	12								5		5	5
12	" "	55		7				7		16		16	23
	Georgy Point	62		13				13		17		17	30
13	Smith Island	102		26	1			27	1	20		21	48
15	" "	39		9				9		4		4	13
	Georgy Point	5		1				1		1		1	2
16	Smith Island	31		5				5		8		8	13
	Crescent Island	10		1				1		1		1	2
17	Stephen Passage	5	2					2					2
18	" "	2		1				1					1
	Pinkerton Island	17	1	4				5		2		2	7
19	Lelu Island	95		5				5		41		41	46
	Smith Island	272		77	3			80		69		69	149
20	" "	149	3	46	1		1	51		39		39	90
22	" "	80		26				26		23		23	49
23	" "	60		16				16		21		21	37
	Moore Cove	70		11				11		32		32	43
24	Smith Island	153		22		1		23		68		68	91
25	" "	149		13				13		79		79	92
26	" "	213		34				34		86		86	120
27	" "	45		6				6		10		10	16
Total		2,764	12	428	10	4	1	456	1	750	25	776	1,234

APPENDIX

Table V. Recoveries of sockeye tagged in British Columbia Statistical Areas 3 and 4 in 1948.

Tagging			Recoveries						
			Commercial fishery					Stream	
			British Columbia					British Columbia	Total
Date	Location	Number tagged	Area 3	Area 4	Area 5	Unknown B. C.	Total	Area 4	
June 10	Steamer Passage	3	2				2		2
11	Finlayson Island	6							
12	Steamer Passage	13	1	1			2		2
13	" "	3							
	Finlayson Island	1							
15	Smith Island	60						9	9
16	" "	127		4			4	23	27
17	" "	29		2	1		3	5	8
18	" "	55		2			2	11	13
19	" "	60		1			1	17	18
20	" "	34		1			1	11	12
22	" "	134		3			3	32	35
23	" "	141		3			3	26	29
	Lelu Island	39						9	9
24	" "	53		1			1	7	8
	Smith Island	17		1			1	2	3
25	Moore Cove	14						5	5
	Smith Island	45		7			7	8	15
26	Lelu Island	36		5			5	5	10
	Smith Island	109		24			24	21	45
27	" "	21		4			4	2	6
	Lelu Island	5		1			1	1	2
29	Smith Island	15		3		1	4	3	7
	Lelu Island	2		1			1		1
30	" "	2		1			1		1
July 1	Smith Island	6		1			1		1

Continued...

Table V (cont'd.) (page 2)

Tagging			Recoveries						
			Commercial fishery					Stream	
			British Columbia					British Columbia	Total
Date	Location	Number tagged	Area 3	Area 4	Area 5	Unknown B. C.	Total	Area 4	
July 2	Smith Island	5		3			3		3
	Lelu Island	1							
3	Smith Island	75		27			27	9	36
4	" "	148	1	74			75	13	88
6	" "	20		5			5	1	6
7	" "	21		11			11	1	12
8	" "	16		8			8		8
	Lelu Island	7		2			2	2	4
9	Smith Island	33	1	15			16	4	20
	Lelu Island	12		2			2	2	4
10	Moore Cove	36		7			7	8	15
	Smith Island	76		20			20	9	29
11	" "	72		30		3	33	7	40
13	Steamer Passage	63	7	2			9		9
14	" "	28	2				2		2
15	" "	6							
16	Smith Island	36		1			1	6	7
17	" "	489	1	102	1	1	105	62	167
18	" "	300		127		3	130	14	144
Total		2,462	15	502	2	8	527	335	862

APPENDIX

Table VI. Recoveries of sockeye tagged near Tyee at the Skeena River in 1955.

Tagging		Recoveries								
		Commercial fishery						Rivers		
		British Columbia						British Columbia		Total
Date	Number tagged	Area 3	Area 4	Area 5	Area 6	Unknown B. C.	Total	Area 4		
May 24	2									
25	3									
June 6	1									
7	9					1	1			1
8	10		2				2			2
9	14	1					1	1		2
10	4									
11	4									
12	9									
14	11		2				2	1		3
15	4		1				1			1
18	10		1				1			1
21	16		2				2			2
22	14							2		2
23	6									
26	2									
27	17		4				4	1		5
28	24		2				2	3		5
29	8		1				1			1
30	4									
July 1	31		5		1		6	4		10
2	35		4	1			5	1		6
3	41		15				15	3		18
4	14		6				6	1		7
5	10		1	1			2			2
6	9		2				2			2

Continued ....

Table VI cont'd (page 2)

Tagging		Recoveries							
		Commercial fishery						Stream	
Date	Number tagged	British Columbia						British Columbia	Total
		Area 3	Area 4	Area 5	Area 9	Unknown B. C.	Total	Area 4	
July 7	5		1				1		1
8	4	1	1				2		2
9	25		5				5	3	8
10	54		12	1			13	1	14
11	19		4				4	2	6
12	9								
13	8	1					1		1
14	5		1				1		1
15	41		8			1	9	6	15
16	50		7			1	8	4	12
17	39		9				9	2	11
18	7								
19	9		1			1	2		2
20	9							5	5
21	4		1				1		1
22	5								
23	16							2	2
24	12								
25	11							3	3
26	21		1				1	2	3
27	22		1				1	4	5
28	25							7	7
29	18							3	3
30	19							3	3
31	14							2	2
Aug. 1	7		1				1	2	3
2	14		2				2	2	4

Continued ....

Tagging		Recoveries							
		Commercial fishery						Stream	
		British Columbia						British Columbia	Total
Date	Number tagged	Area 3	Area 4	Area 5	Area 6	Unknown B. C.	Total	Area 4	
Aug. 3	3								
4	4								
5	5								
6	1								
7	6					1	1	1	2
8	5							2	2
9	3		1				1	2	3
10	1								
12	4							1	1
13	6					1	1		1
14	7	1	1			1	3		3
15	1								
16	1								
17	1								
19	1								
20	1								
22	1								
Sept. 1	2								
2	1								
6	1								
Total	620	4	109	2	1	3	124	75	199

APPENDIX

Table VII. Recoveries of sockeye tagged near Tyee on the Skeena River in 1956.

Tagging		Recoveries						
		Commercial fishery					Stream	
		British Columbia					British Columbia	
Date	Number tagged	Area 3	Area 4	Area 6	Unknown B. C.	Total	Area 4	Total
June 7	1							
8	1							
9	3							
10	5							
11	3							
12	1		1			1		1
13	5							
14	4							
15	4							
16	2							
17	13						1	1
18	10		1			1		1
19	9						1	1
20	11							
21	5		1			1		1
22	6						3	3
23	2						1	1
24	10						2	2
25	10						3	3
26	27		1			1	2	3
27	33						4	4
28	17						7	7
29	25						2	2
30	29				1	1	4	5
July 1	14						3	3
2	5							
3	12						2	2
4	50		2			2	2	4
5	36						10	10
6	46						4	4
7	29						2	2
8	13							
9	8						2	2
10	8							
11	24		1			1	2	3
12	42						3	3
13	29						10	10
14	24						5	5

Continued ....

Table VII cont'd (page 2)

Tagging		Recoveries						
		Commercial fishery					Stream	
		British Columbia					British Columbia	Total
Date	Number tagged	Area 3	Area 4	Area 6	Unknown B. C.	Total	Area 4	
July 15	23				1	1	3	4
16	13						3	3
17	19						4	4
18	3							
19	77		1			1	8	9
20	33						3	3
21	26						9	9
22	50				3	3	6	9
23	54		1			1	15	16
24	23		2			2	3	5
25	4						1	1
26	22						4	4
27	57	1			1	2	12	14
28	63		1	1		2	7	9
29	59						14	14
30	32		2		2	4	5	9
31	30		3		1	4	6	10
Aug. 1	19		1			1	2	3
2	35		1			1	5	6
4	2		1			1		1
5	33		7			7	8	15
6	43		6		4	10	4	14
7	17						4	4
8	5						2	2
9	2						2	2
10	13						3	3
11	16						3	3
12	17						4	4
13	1							
14	3							
15	3				1	1	1	2
23	4						1	1
26	1							
27	1							
28	1							
Sept.13	1							
Total	1362	1	33	1	14	49	217	266

APPENDIX

Table VIII. Recoveries of sockeye tagged near Tyee on the Skeena River in 1957.

Tagging Date	Number tagged	Recoveries								
		Commercial fishery					Stream			Total
		British Columbia					British Columbia			
		Area 3	Area 4	Area 5	Unknown B. C.	Total	Area 3	Area 4	Total	
June 5	1									
6	3									
10	1									
12	3							2	2	2
13	6							1	1	1
14	2		1			1		1	1	2
15	1									
16	3									
17	5							2	2	2
18	5		1			1				1
19	16									
20	16									
21	14							5	5	5
22	13							1	1	1
23	13							4	4	4
24	9							1	1	1
25	6							2	2	2
26	10							3	3	3
27	14		1					3	3	4
28	1									
29	7									
30	11							3	3	3
July 1	9							1	1	1
2	15							3	3	3
3	13		1			1		4	4	5
4	50							7	7	7
5	79		1					20	20	21

Continued ....

Table VIII cont'd (page 2)

Tagging		Recoveries								
		Commercial Fishery					Rivers			
		British Columbia					British Columbia			Total
Date	Number tagged	Area 3	Area 4	Area 5	Unknown B, C,	Total	Area 5	Area 4	Total	
July 6	28		0			0		13	13	13
7	64	1	4			5		14	14	19
8	47		2			2		5	5	7
9	73		3			3		28	28	31
10	38		3			3		6	6	9
11	71		5			5		5	5	10
12	73	1	8			9		5	5	14
13	46		18			18	1	5	6	24
14	17		14			14		6	6	5
15	16		4			4		1	1	5
16	7							1	1	1
17	49		1			2		2	2	4
18	19		1			1		3	3	4
19	80		7			7		6	6	13
20	67		22			22		5	5	27
21	80		11		1	12		1	1	13
22	51		6			6		2	2	8
23	9		1			1				1
24	20		3	3		3		3	3	6
25	1									
26	9		2			2		4	4	6
27	19		2			2		2	2	4
28	6		2			2		1	1	3
29	5							2	2	2
30	26		1			1		7	7	8
31	17		1			1		5	5	6
1	29		5	1		6		6	6	12

Continued ....

Table VIII cont'd (page 3)

Tagging		Recoveries								
Date	Number tagged	Commercial fishery					Stream			Total
		British Columbia					British Columbia			
		Area 3	Area 4	Area 5	Unknown B. C.	Total	Area 3	Area 4	Total	
Aug. 5	9		3			3				3
6	15		3			3		2	2	5
7	13		1			1		2	2	3
8	5									
9	13		2			2		3	3	5
10	15		5			5				5
11	11		6			6				6
12	4		1			1		1	1	2
13	3							1	1	1
14	1		1			1				1
15	10		1			1				1
16	2		1			1				1
21	4							1	1	1
22	3									
23	5									
24	3		1			1		1	1	2
26	1									
27	1									
29	1									
30	1									
Total	1241	2	142	2	1	147	1	200	201	348

Table IX. Recoveries of sockeye tagged in the commercial fishing areas of British Columbia Statistical Areas 3, 4, and 5 and off Garnet Point, Alaska, in 1956.

Tagging			Recoveries										
			Commercial fishery							Stream			
Date	Location	Number tagged	Alaska	British Columbia					Total	British Columbia			Total
				Area 3	Area 4	Area 5	Unknown B. C.	Total		Area 3	Area 4	Total	
July 13	Arniston Point	11		1	1	2		4	4		3	3	7
14	" "	3	1		1			1	2		1	1	3
15	Garnet Point, Alaska	1		1				1	1				1
16	Tracy Island	1											
	Parkin Island	9		2				2	2	1		1	3
	Pointer Rocks	1											
18	Rachael Islands	25			2			2	2		11	11	13
	Avery Island	2		1				1	1		1	1	2
22	Arniston Point	34		1	4		3	8	8		15	15	23
23	" "	29		3			3	6	6		11	11	17
28	Ogden Channel	2									1	1	1
29	" "	5									1	1	1
31	" "	1											
Aug. 1	Somerville Island	2		1				1	1				1
24	Arniston Point	1											
Total		127	1	10	8	2	6	26	27	1	44	45	72

Table 2. Recoveries of octopus tagged in the commercial fishery among at Belizean Cayes during Statistical Areas 3, 4, and 5 in 1982.

Tagging			Recoveries																	
			Commercial Fishery													Others				
Date	Location	Number Tagged	Mexico	Belizean Cayes										Total	Total	Belizean Cayes			Total	Total
				Area 2	Area 3	Area 4	Area 5	Area 7	Area 13	Area 20	Area 25	Unknown Ex. Co.	Total			Area 3	Area 4	Area 5		
June 3,	Ambergris Caye	22			1								1	1			1		1	2
4,	" "	8			1								1	1						1
	Glovers Reefers	3																		
7	Tangier Island	1																		
11	Ambergris Caye	5			1	1							2	2						2
12	Ambergris Cay	1																		
	Pilots Point	17		4	1								5	5	3				3	13
	Mosquito Island	1																		
14	Pilots Point	19		11	2							1	14	14	4				4	18
15	" "	45		11					1			1	13	13	10				10	23
	Ambergris Caye	11			1								1	1		1			1	2
	Stubbert Bay Passage	1																		
16	Commerce Island	3													3				3	3
	Pilots Point	4																		
17	" "	3		3									3	3						3
19	Caye Caulker	1																		
20	Punta Gorda, Belize (Toledo)	2		1									1	1						1
	Blue Point	1																		
21	Fisherman Caye	1															1		1	1
22	Ambergris Caye	5			1	1							2	2			2		2	4
24	" "	111		1	4	2		1					7	7	2	24		4	30	37
25	" "	2																		
26	" "	51			2	1							3	3			13		13	16
27	" "	41	1		4	1	1	1					7	8	1	11		1	13	21
June 1,	" "	45		1	4	2							11	11	1	27		3	31	42
2	Stubbert Bay Passage	5																		
	Pilots Point	41	1	1									1	2	4	1			1	3
8	" "	17		1	1								2	3	4	1			1	8
	Tangier Island	2																		
9	Mexican Island	10													5	1			5	5
	Tangier Island	11		1									1	1	2	1			3	4
5	Mexican Island	3																		
	Mosquito Island	1																		
6	Pelican Point	2				1							1	1						1
	Ogden Channel	9															5		5	5
7	Mexico Island	6				2							2	2						2
13	Ambergris Caye	14		1	7								8	9			3		3	12
11	" "	9		1	5							1	7	8						8
	Mexican Island	10		5	3								8	8	1				1	9
22	" "	40	2	22	3		1						28	28	4	3			4	32
	Silk Cayes Belize	1																		

Table 41. Recoveries of salmon tagged in British Columbia Statistical Areas 3, 4, and 5 in 1956.

Tagging			Recoveries													
			Commercial fishery									Spawn				
Date	Location	Number tagged	Alaska	British Columbia							Total	Alaska	B. C. Area 4	Total	Total
				Area 1	Area 3	Area 4	Area 5	Area 6	Area 8	Strait of B. C.	Total					
July 12	Smith Island	13				6					6	6		1	1	7
	Ogden Channel	25			1	13					14	14		1	1	15
13	" "	38			3	28	4				35	35		2	2	37
14	" "	26	1			12	2				14	14		2	2	16
16	Smith Island	8				1					1	1		2	2	3
17	Green Island	9			3	3	1				4	4		4	4	8
18	Reef Island	3				1	1				2	2				2
	Christ Bay	1												1	1	1
	Green Island	24			1	7					8	8		4	4	12
19	" "	64				46				1	47	47		18	18	65
20	Kanaaron Point	35		1	3	6	2	1	1		12	12		10	10	22
21	" "	35	8		4	13	2	1			20	27	1	38	39	62
23	Green Island	3												1	1	1
24	" "	29			1	3					4	4		14	14	18
25	" "	65				5					5	5		30	30	35
	Green Island	1												1	1	1
26	" "	8				8					8	8		2	2	10
27	Kanaaron Point	14				5					5	5		4	4	9
28	" "	7			1	1					2	2		2	2	4
	Whisky - Prospector Points	3														
	Table Hill, Dundas Island	1														
30	Green Island	6												1	1	1
	Whisky - Pendennis Points	8				3					3	3		1	1	4
	Kanaaron Point	84	7		3	30				1	41	34		38	38	60
Aug. 1	" "	22	1		1	5					7	8		8	8	16
2	Ogden Channel	13				4	1				5	5		4	4	9
3	" "	15				2	2			1	5	5		2	2	7
4	" "	3				1	1				2	2		1	1	3
8	Kanaaron Point	63	2		4	14	3				23	23		13	13	36
10	" "	36	1		11	7	1			1	21	22		14	14	36
11	Green Island	2												1	1	1
	Green Island	1														
Total		753	18	1	84	251	18	2	1	4	360	378	1	180	199	477

Table XII. Recoveries of caribou tagged on the West Coast Districts of Northwestern Alaska in 1957.

Tagging			Recoveries														
			Subarctic Alaska											Canada			
Date	Location	Caribou tagged	Alaska	British Columbia									Total	Alaska	Yk. Ty. Area A	Total	Total recoveries
				Area 3	Area 7	Area 8	Area 9	Area 10	Area 11	Area 12	Unknown Yk. Ty.	Total					
July 31	Cape Nelligbuk	99	12		5	6	1					12	24		4	4	28
Aug. 5	" "	313	30	1	8	19	2		1	1		37	96		3	3	99
6	" "	58	9			3						3	12				12
7	" "	239	23		8	13		1	1	1	1	23	46	1	1	2	48
8	Cape Kitlike	1				1						1	1				1
9	" "	1	1										1				1
11	Cape Nelligbuk	40	3		1	7	1					9	12		2	2	14
	Cape Kitlike	1				1						1	1				1
Totals		833	109	1	13	50	4	1	2	2	1	88	205	1	11	12	217

Table XIII. Recoveries of marks tagged in the West Coast Districts of Southeastern Alaska in 1956.

Tagging			Recoveries																	
			Commercial Fishery												Others					
				British Columbia																
Date	Location	Number tagged	Alaska	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 12	Unknown B. C.	Total	Total	Alaska	British Columbia		Total	Total	
																Area 4	Area 5			
Aug. 9	Cape Addington	31	3		1								1	6		2		2	3	8
10	" "	25	1			1	3	1					5	6						6
17	" "	32	2				1						1	3	1	1		1	1	5
18	" "	10	1				1						1	2						2
19	Gravina Point	27	6				3				1		4	10		2		2	3	12
22	Point Deacon-cliffe	208	29											29	4				4	33
	Gravina Point	33	3			2	6						8	11		1		1	4	12
23	Point Deacon-cliffe	429	117											117	9	1		1	10	127
24	Cape Addington	12	2			1							1	3		2		2	2	5
	Helen Bay	19	6			3	3			1		1	7	13						13
	Point Deacon-cliffe	3	3											3						3
25	Cape Ulitka	3					1						1	1						1
	Cape Addington	227	83			3	15	1	1	1			21	154	2	10		10	12	166
26	Cape Ulitka	203	78			2	5						8	88		5		5	5	93
27	Cape Addington	290	77			4	17	2	1				24	105		27		27	27	132
28	Sentinel Point	40	14											14		1		1	1	15
31	Helen Bay	88	32											32						32
Aug. 1	Gravina Point	27	3			1							1	4		5		5	5	9
2	Cape Addington	434	92	1		7	24	7		2	1		43	140	1	34	1	35	36	176
3	" "	52	7				2						2	9		4		4	4	13
	Cape Ulitka	56	13				1						1	14	1	1		2	2	16
6	Point Deacon-cliffe	22	7											7						7
7	Cape Ulitka	24	5					1					1	6		1		1	1	7
	Point Deacon-cliffe	1	1											1						1
14	" "	1	1											1						1
23	" "	1																		
	Cape Ulitka	2																		
24	Cape Addington	14	1			1							1	2						2
	Cape Ulitka	3	1			1							1	3						3
25	Point Deacon-cliffe	20	3											3						3
Total		3,240	999	1	1	25	91	7	2	4	2	1	135	734	18	101	1	102	120	854

Table XIV. Recoveries of pinks tagged in British Columbia Statistical Areas 3 and 4 in 1945.

Tagging			Recoveries							
			Commercial fishery						Stream	
Date	Location	Number tagged	Alaska	British Columbia				Total	British Columbia	Total
				Area 3	Area 4	Unknown B. C.	Total B. C.		Area 4	
July 4	Steamer Passage	6		1			1	1		1
5	" "	5		1			1	1		1
6	" "	3		2			2	2		2
7	Smith Island	2								
8	" "	3								
10	" "	6								
11	" "	4			1		1	1		1
12	" "	8								
13	Lelu Island	3								
	Smith Island	4								
14	" "	36			7		7	7		7
15	" "	3			1		1	1		1
17	" "	1								
18	Steamer Passage	195	4	13	5		18	22		22
19	" "	118	4	9			9	13		13
20	Smith Island	131			6		6	6	3	9
21	" "	89			8		8	8		8
22	" "	120		2	13		15	15		15
24	" "	77		1	10		11	11		11
25	" "	89			3		3	3	1	4
26	" "	188		1	10		11	11	1	12
27	" "	185			8		8	8	2	10
29	" "	89			6		6	6		6
30	" "	242			9	1	10	10		10
Total		1609	8	30	87	1	118	126	7	133

APPENDIX

Table XV. Recoveries of pinks tagged in British Columbia Statistical Areas 3 and 4 in 1946.

Tagging			Recoveries					
			Commercial fishery				Stream	
			British Columbia				British Columbia	Total
Date	Location	Number tagged	Area 4	Area 5	Area 6	Total	Area 4	
July 9	Smith Island	1						
11	Steamer Passage	2						
12	" "	1						
13	Smith Island	2						
14	" "	1						
16	" "	1						
17	" "	3						
18	" "	4						
20	" "	9	1			1		1
21	" "	1						
23	" "	5						
24	Lelu Island	2						
	Smith Island	77	8			8	2	10
25	" "	79	11		2	13	3	16
26	" "	46	2		1	3	2	5
27	" "	29	3			3		3
28	" "	28	5	1		6	1	7
Total		289	30	1	3	34	8	42

APPENDIX

Table XXX. Recoveries of pinks tagged in British Columbia Statistical Area 4 in 1947.

Tagging			Recoveries				
			Commercial fishery			Stream	
			British Columbia			British Columbia	
Date	Location	Number tagged	Area 4	Area 5	Total	Area 4	Total
July 6	George Point	1					
12	Smith Island	2					
11	" "	2					
12	" "	3	1		1		1
	George Point	8	1		1		1
13	Smith Island	8	1		1	1	2
19	" "	7	2		2		2
	George Point	1					
16	Smith Island	21					
	Cranmore Island	4					
17	Whaler Passage	9					
18	" "	2					
	Pinkerton Island	4					
14	Lelu Island	22	1		1	1	2
	Smith Island	26	3		4		4
15	" "	24	3		4	1	4
22	" "	23				1	1
23	" "	13	2		2		2
	Moore Cove	43	4		6	5	11
24	Smith Island	84	11		11	3	14
25	" "	102	9		9	3	12
26	" "	110	10		10	2	12
27	" "	61	9	1	10		10
Total		416	68	1	69	14	83

APPENDIX

Table XVII. Recoveries of pinks tagged in British Columbia Statistical Areas 3 and 4 in 1948.

Tagging			Recoveries								
			Commercial fishery					Stream			
			British Columbia					British Columbia			
Date	Location	Number tagged	Area 3	Area 4	Area 5	Unknown B. C.	Total	Area 3	Area 4	Total	Total
July 11	Smith Island	2									
13	Steamer Passage	26	1				1				1
14	" "	95	5		1	1	7				7
15	" "	43	3				3	2		2	5
16	Smith Island	3		1			1				
17	" "	"		1					1	1	2
18	" "	11		2			2				2
Total		144	9	4	1	1	15	2	1	3	18

APPENDIX

Table XVIII. Recoveries of pinks tagged near Tyee on the Skeena River in 1955.

Tagging Date	Number tagged	Recoveries						
		Commercial fishery					Stream	Total
		British Columbia					British Columbia	
		Area 3	Area 4	Area 5	Unknown B. C.	Total	Area 4	
July 7	1							
10	1							
12	1							
13	2							
14	2							
16	3			1		1		1
17	7		1			1		1
18	2				1	1		1
19	3							
20	5		1			1		1
21	6						1	1
22	9		1			1		1
23	8				1	1		1
24	16							
25	14		1			1		1
26	17							
27	23						2	2
28	19				1	1	1	2
29	65						3	3
30	52		1			1	2	3
31	62		1		1	2	2	4
Aug. 1	45						2	2
2	31	1			1	2	1	3
3	75		1		1	2	2	4
4	75		2			2	2	4
5	43		1			1	3	4
6	52		5			5	2	7
7	36		4			4	1	5
8	61		3		1	4	1	5
9	64		1		1	2	1	3
10	66		4		1	5	1	6
11	82		2		1	3	3	6
12	54						1	1
13	30		2			2		2
14	38		2		3	5	1	6
15	40							
16	40				1	1	2	3
17	10		1			1	1	2

Continued ....

Table XVIII cont'd (page 2)

Tagging		Recoveries						
		Commercial fishery					Stream	
Date	Number tagged	British Columbia					British Columbia	Total
		Area 3	Area 4	Area 5	Unknown B. C.	Total	Area 4	
Aug. 18	46							
19	69							
20	79							
21	29		2		1	3		3
22	40						1	1
23	19							
24	9							
25	7							
26	4							
27	1							
28	1							
29	1							
30	4							
31	5							
Sept. 2	1							
3	2							
4	1							
Total	1486	1	36	1	15	53	36	89

APPENDIX

Table XIX. Recoveries of pinks tagged near Tyee on the Skeena River in 1956.

Tagging		Recoveries						
		Commercial fishery					Stream	
		British Columbia					British Columbia	Total
Date	Number tagged	Area 3	Area 4	Area 5	Unknown B. C.	Total	Area 4	
July 11	1							
12	1							
16	1							
17	3							
18	1							
19	8							
20	3							
21	6							
22	7							
23	11		1			1		1
24	5		1			1		1
25	8							
26	11		1			1		1
27	12						1	1
28	22							
29	27							
30	3						1	1
31	11							
Aug. 1	11		1			1		1
2	12						1	1
3	39		1			1		1
4	26		1			1	2	3
5	44		1			1		1
6	23		2			2		2
7	17		1			1	1	2
8	15		2			2		2
9	31				1	1		1
10	45				1	1	1	2
11	34						1	1
12	64		4		1	5	1	6
13	?							
14	11	1				1		1
15	17			1		1		1
16	1							
17	34							
18	47		3			3		3
19	65		3		2	5		5
20	37				1	1	1	2
21	21	1	1			2		2

Continued ....

Table XIX cont'd (page 2)

Tagging		Recoveries						
		Commercial fishery					Stream	
Date	Number tagged	British Columbia					British Columbia	Total
		Area 3	Area 4	Area 5	Unknown B. C.	Total	Area 4	
Aug. 22	11							
23	9							
24	15		1			1		1
25	8							
26	27				3	3		3
27	36		3			3		3
28	27							
29	23							
30	33						1	1
31	4							
Sept. 1	2							
2	6						1	1
3	4							
4	4							
5	1							
6	2							
8	3							
9	3							
15	1							
Total	961	2	27	1	9	39	12	51

Table XX. Recoveries of plates tagged near Tyee on the Skeena River in 1957.

Tagging		Recoveries							
		Commercial fishery						Sport	
		British Columbia						British Columbia	Total
Date	Number tagged	Area 3	Area 4	Area 5	Area 6	Outside B. C.	Total	Area 4	
July 5	1								
6	1								
7	6								
8	8							1	1
10	9		1				1	1	2
11	5		1				1		1
12	7								
13	4		1				1		1
15	6		1				1		1
16	2								
17	10		1				1	1	2
18	11		1				1	3	4
19	11		4				4	1	5
20	105		6			3	9	2	11
21	83	1	6	1			8	2	10
22	82		6				6	2	8
23	136		12				12	2	14
24	63		1				1	2	3
25	31		2				2	2	4
26	32		3				3	3	6
27	69		6				6	3	9
28	153		17				17	3	20
29	26		3				3	2	5
30	116		3				3	4	7
31	64		4				4	5	9
Aug. 1	10		1				1	3	4

Continued .....

Table XX cont'd (page 1)

Tagging		Recoveries							
		Commercial fishery						Stream	
		British Columbia						British Columbia	Total
Date	Number tagged	Area 3	Area 4	Area 5	Area 6	Unknown B. C.	Total	Area 4	
Aug. 2	125		4				4	3	7
3	161		7		1	1	9	5	14
4	139		11	1			12	2	14
5	101		8				8	5	13
6	158		14			1	15	2	17
7	96		4				4	1	5
8	98		1				1	3	4
9	93							3	3
10	124		9				9	4	13
11	143	1	20				21	5	26
12	147		31		1		32	7	39
13	124		5				5	5	10
14	200		1				1	9	10
15	168		1				1	4	5
16	62		1				1	2	3
21	32							2	2
22	67							3	3
23	32		1				1	1	2
24	9								
25	20								
26	15								
27	5								
28	2								
29	2								
30	11								
31	1								
Total	3338	2	170	2	2	3	207	106	313

Table XXI. Recoveries of pinks tagged in the commercial fishing areas of British Columbia (statistical Areas 3, 4, and 5 and in adjacent parts of Alaska in 1958.

Tagging			Recoveries													
			Commercial fishery								Steveston					Total
Date	Location	Number tagged	Alaska	British Columbia					Total	Alaska	British Columbia			Total		
				Area 3	Area 4	Area 5	Area 6	Unknown B. C.	Total			Area 3	Area 4	Total		
July 13	Arnaston Point	4		1		3		1	4	4						4
14	" "	4	1				1		1	2						2
15	North end of Dundas Island	2	1							1						1
	Barron Island, Alaska	7		2					2	2	1				1	3
	Gannet Point, Alaska	63	16	13	1			2	16	32			1	1	1	33
16	Pearse Island	32	1	13	1			2	16	17						17
	Pointer Rocks	2														
20	Avery Island	1			1				1	1						1
22	Arnaston Point	24	1	1	1				2	3						3
23	" "	38		1	4	3	2		10	10						10
24	Ogden Channel	64			15	5		1	21	21			2	2	2	23
29	" "	28		1	3	6			10	10						10
31	" "	3			1				1	1						1
Aug. 1	Somerville Island	74	2	10	6			3	19	21		1	1	2	2	23
12	Prince Lebon Island	10	2		1				1	3						3
	Triple Island	2	1							1						1
18	Cape Chacon, Alaska	8			1				1	1						1
24	Arnaston Point	10		1	1			1	3	3						3
29	" "	191		12	31	1	1	5	50	50						50
30	Ogden Channel	140		1	6		2		7	7						7
Total		750	20	86	71	17	6	19	169	190	1	1	4	5	6	196

[illegible]

Table [illegible]. Recoveries of plaice tagged in the commercial fishing areas of [illegible] Revenue Service in [illegible] and [illegible] in 1955.

Tagging			Recoveries																							
			Commercial fishing															Fishing							Total
Date	Location	Number tagged	Number	Weeks between														Number	Weeks between						
				Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Total		Week 1	Week 2	Week 3	Total		
June 28	[illegible]	1																							
30	[illegible]	1																							
July 1	[illegible]	1			1												1	1							1
2	[illegible]	1																							
	[illegible]	4		3													3	3							3
3	[illegible]	11	1	7													7	4							4
	[illegible]	1		1													1	1							1
4	[illegible]	31	7	15	3												25	14							14
	[illegible]	31	4	17	4												25	15							15
5	[illegible]	1		1													1	1							1
	[illegible]	1																							
6	[illegible]	1			1												1	1							1
10	[illegible]	11		5	4												9	9			1	1			9
11	[illegible]	7		1	1												2	2							2
	[illegible]	377	11	92	5											1	49	93							93
12	[illegible]	125	11	19	4											1	12	36		1		1			36
	[illegible]	1																							
13	[illegible]	11	1	1	1											1	4	8							8
	[illegible]	1		1													1	1							1
	[illegible]	1		1													1	1							1
	[illegible]	1		1													1	1							1
	[illegible]	11		1	3												4	4							4
14	[illegible]	1		1													1	1							1
	[illegible]	11	1	3													4	4							4
	[illegible]	1	1	1													1	1							1
	[illegible]	1																							
17	[illegible]	221	11	41	10	1									1		84	83			1	1			83
	[illegible]	1		1													1	1							1
18	[illegible]	1																							
	[illegible]	11	1	1	1												4	11							11
17	[illegible]	61	3	8	11												18	11			2	2	1		11
18	[illegible]	181	11	31	111										1		157	171		1	15	15	11		111
19	[illegible]	11	4	4	11										1		21	11			1	1	1		11
20	[illegible]	11		1	11												11	11			1	1	1		11
	[illegible]	111		1	111	1						1			1		111	111			1	1	1		111
	[illegible]	11		1	1												1	1							1
21	[illegible]	11		1	11												11	11							11
24	[illegible]	111		1	111												111	111			11	11	1		111
25	[illegible]	171		11	111	4	1	1	1		1	1	1	1	4		171	111			11	11	11		111
27	[illegible]	111	4	11	11	4	1	1	1	1		1	1		4		111	111			5	5	1		111
28	[illegible]	11		1	11							1					11	11			1	1			11
31	[illegible]	111		1	11	11	1										111	111			1	1			111
	[illegible]	111		1	11	11	1								1		111	111			1	1			111
Aug. 1	[illegible]	111		1	11	11											11	11			11	11	11		111
3	[illegible]	111		11	11			1	1								111	111			1	1	1		111
	[illegible]	1	1												1		1	1							1
	[illegible]	1																							
4	[illegible]	111	1	111	111	1	1					1			11		111	111			1	1	1		111
	[illegible]	11		11	11										1		11	11							11
7	[illegible]	11		1	1	11	1										11	11			1	1			11
11	[illegible]	11		1	1	1											11	11			1	1	1		11
	[illegible]	111	1	1	111	1									1		111	111							111
9	[illegible]	111	1	11	111	1	1	1							1		111	111			11	11	1		111
10	[illegible]	11	1	1	1										1		4	4	1			1			1
	[illegible]	11			11												11	11			1	1			11
11	[illegible]	111	1	11	111	1						1					111	111			11	11	11		111
15	[illegible]	11			11	1	1										11	11					1	1	11
17	[illegible]	11			1	1											1	1			1	1	1	1	11
	[illegible]	111		1	11		1		1			1			1		11	11			1	1	1		111
18	[illegible]	11	1	1	11										1		11	11	1		1	1	1		11
20	[illegible]	11	1	1	1		1		1				1				11	11			1	1	1		11
23	[illegible]	11		1	1												1	1			1	1	1		11
25	[illegible]	11			1	1											1	1			1	1	1		11
30	[illegible]	11			1		1							1			1	1					1		11
Totals		4611	111	1111	1111	111	11	11	11	1	1	1	11	11	1	11	1111	1111	1	1	111	11	111	11	1111

Table XXIII. Recoveries of plugs tagged in British Columbia Statistical Areas 3, 4, and 5 in 1956.

Tagging			Recoveries																								
				Commercial Fishery																Sport							
				British Columbia																British Columbia							
Date	Location	Number tagged	Alaska	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9	Area 10	Area 13	Area 14	Unassigned B.C. Ports	Total	Total	Alaska	Area 3	Area 4	Area 5	Area 6	Total	Total	Total
June 12	British Columbia	1																									
	Ogden (Quinsam)	140	10			1	42	4	2							1	61	61			1			1	1	1	1
13	Ogden (Quinsam)	269	9		1	4	111	25	1							2	137	146	1		10			11	11	157
14	Ogden (Quinsam)	109	5			3	51	13									67	72			13			13	13	85
16	British Columbia	1					1										1	1									1
17	Quinsam Inlet	11	1				3	1									4	5									6
	Campbell River	1					1										1	1									1
18	Reed Inlet	2					2										2	2									2
	Owens Bay	1					1										1	1									1
	Quinsam Inlet	207	17			13	111	13	3		1		5			1	133	150			14			14	14	164
19	" "	204	11			13	68	31	1				3				113	124			13			13	13	137
20	Appletown Point	324	59			20	28	7	4								74	133			5			5	5	138
21	" "	451	60		2	25	35	4	4	2	1		1	1		1	76	197			4			4	4	171
23	Quinsam Inlet	20				1	3	2									5	5			1			1	1	6
24	" "	448	1			4	41	17	1							5	111	113			10			10	10	141
25	" "	170	3			4	20	3		1		1				1	40	43			4			4	4	47
	Ogden (Quinsam)	54					51	3								1	15	15			3			3	3	18
26	" "	870	2			8	103	74	3		1					1	188	190			7			7	7	197
27	Appletown Point	150	14			17	17		1	1						1	37	51	1		1			1	1	52
28	" "	141	14			11	24		1		1					1	38	52			2			2	2	54
	Mitchy-Viewpoint Points	72	7			4	12	2	1								19	27			1			1	1	28
	Tyee Hill, Double Island	259	41		1	11	17	2	1							1	44	85	3		3			3	3	88
31	Quinsam Inlet	27	8				1										1	9			1			1	1	10
	Mitchy-Viewpoint Points	74	24				4	11								1	16	40			2			3	3	43
	Appletown Point	300	54		2	13	40	4	2		1						72	126			5		1	6	6	132
Aug. 1	" "	143	32			12	29	1								1	43	75	2		2			2	5	77
2	Ogden (Quinsam)	247				1	55	31								1	88	88			6	1		7	7	95
3	" "	500				4	98	142								4	248	248		1	8	1		10	10	258
4	" "	355			3	1	24	37	1							2	68	68			5	5		11	11	79
5	" "	334			1		11	45								3	60	60			6	6		14	14	114
6	Appletown Point	435	39	1	1	19	12	13	3	1	1					4	55	140	4		2			2	6	154
10	" "	340	52	1	1	13	12	11	3	1	1			1	1	1	35	133	1						2	2	206
12	Quinsam Inlet	36	10			4	1										5	15	1						2	2	18
	Quinsam Inlet	9	1				3		1								2	3		4							3
13	" "	23	2		1												1	3									3
Totals		6,428	551	3	18	254	1,174	469	85	6	7	1	9	3	1	34	2,011	2,562	15	1	153	14	1	169	184	2,746

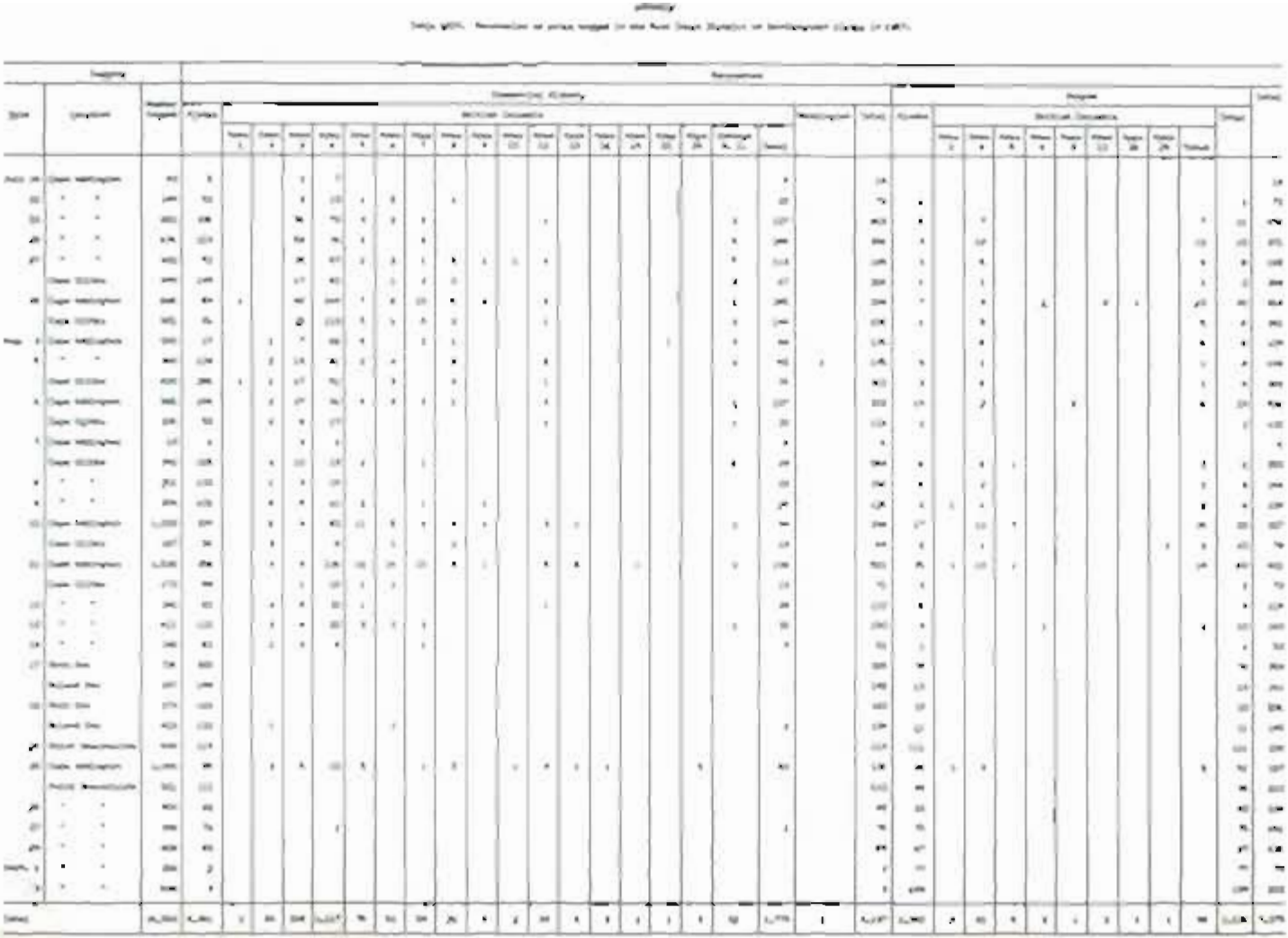

Table XIV. Recoveries of tubes tagged in the West Coast Districts of Southeastern Alaska in 1950.

Tagging			Recoveries																			
			Commercial fishery													Sport						
				Retrieval Statistics													Retrieval Statistics					
Date	Location	Number tagged	Alaska	Alaska 1	Alaska 2	Alaska 3	Alaska 4	Alaska 5	Alaska 6	Alaska 7	Alaska 8	Alaska 10	Unknown Ala. Ca.	Total		Alaska	Alaska 2	Alaska 4	Alaska 5	Total		Total
July 4	Cape Addington	129	32					1						1	33							33
10	" "	68	28			5	1							7	35							35
17	" "	23	4			1	1							2	6							6
18	" "	22	4			4								4	8							8
19	Ignatius Point	91	34			4	1		2		1			10	44	1				1		45
22	Point Deception/Ala	14	3												3	3				3		6
	Ignatius Point	19	3			1	1							2	5							5
23	Point Deception/Ala	46	3												3	4				4		7
24	Cape Addington	23	6												6	2				2		8
	Bellevue Bay	43	17			1	1							2	21	4				4		25
25	Cape Ulitka	31	11			1	2							3	14	1				1		15
	Cape Addington	105	125		1	14	4	4		1				24	149	15		1	1	17		166
26	Cape Ulitka	101	74		3	2	9							4	80	17				17		97
27	Cape Addington	248	96	1	3	6	13	3						26	122	4				4		126
28	Tenmouth Point	94	28			1								1	29	22				22		51
31	Bellevue Bay	126	44			1								1	45	3				3		48
Aug. 1	Ignatius Point	100	24	1	2		2							4	28	3				3		31
2	Cape Addington	424	146	4	3	3	11		1		1			19	165	10		1	1	12		177
4	" "	244	103	2		4	11	1						18	121	10				10		131
	Cape Ulitka	104	45		2	1								3	48	4				4		52
5	Tenmouth Point	250	103	1		1						1		3	106	14				14		120
8	Point Deception/Ala	174	139												139	20				20		159
7	Cape Ulitka	104	39												39	1				1		40
	Point Deception/Ala	4																				
8	Tenmouth Point	403	151	1			1							1	152	14				14		166
9	Point Deception/Ala	420	159									2		2	161	18				18		179
11	Cape Ulitka	473	222	2	4	2	1							9	231	14				14		245
	Cape Addington	726	311		3	4	3		2			2		14	324	17	2		2	21		345
12	" "	403	114	2		1	1							4	117	4				4		121
14	Tenmouth Point	307	137	3	1	1	1							6	143	20				20		163
15	Point Deception/Ala	430	154			1								1	155	43				43		198
	Cape Ulitka	230	32												32	4				4		37
17	Cape Ulitka	382	75			1	1						1	3	78	11				11		89
19	Bellevue Bay	430	44												44	3				3		47
22	" "	160	24												24	2				2		26
23	Point Deception/Ala	202	52												52	54				54		106
	Cape Ulitka	136	21			1								1	22	21				21		43
28	Cape Addington	360	31			1								1	32	14				14		46
	Cape Ulitka	128	21			1								1	22	22				22		44
29	Point Deception/Ala	404	284												284	144				144		352
Total		8,940	4,025	23	39	97	97	8	7	2	2	2	1	188	4,213	459	2	2	4	9	477	4,690

APPENDIX

Table XXVI. Recoveries of pinks tagged at McLean Point on the Skeena River in 1959.

Tagging		Recoveries					
Date	Number tagged	Commercial fishery				Stream	Total
		British Columbia				British Columbia	
		Area 4	Area 5	Area 29	Total	Area 4	
July 24	6					1	1
25	7					2	2
27	15					1	1
28	110					5	5
29	641					36	36
30	685					37	37
31	650					35	35
Aug. 1	637					30	30
2	568					31	31
3	356					17	17
4	124					3	3
5	32					2	2
6	219					12	12
7	532		1		1	33	34
8	271					16	16
9	311	1			1	8	9
10	213					6	6
11	193					3	3
12	352		1		1	12	13
13	233	2			2	9	11
14	245	2			2	15	17
15	146					6	6
16	56	1			1	3	4
17	117			2	2	8	10
21	30					3	3
Total	6749	6	3	2	10	334	344

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