FISHERIES RESEARCH BOARD OF CANADA

MANUSCRIPT REPORT SERIES

(BIOLOGICAL)

No. 882

(Section 4)

TITLE

CATALOGUE OF SALMON SPAWNING GROUNDS AND TABULATION OF ESCAPEMENTS IN THE SKEENA RIVER AND DEPARTMENT OF FISHERIES STATISTICAL AREA 4

AUTHORSHIP

Howard D. Smith and John Lucop

Establishment

Biological Station, Nanaimo, B. C.

Dated November 1966

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Catalogue of salmon spawning grounds and tabulation of escapements in the Skeena River and Department of Fisheries Statistical Area 4

INTRODUCTION

Purpose

The purpose of this catalogue is to bring under a single cover historical and recent information which describes salmon spawning grounds and annual escapements in the Skeena River drainage and immediately adjacent to it. This region includes mainland and island streams and is defined for management purposes as Department of Fisheries Statistical Area 4.

Source of data

Spawning escapements and stream characteristics have been recorded by personnel of the British Columbia Provincial Fisheries 1904-36, the Department of Fisheries of Canada, and the Fisheries Research Board of Canada. The original data are in publications and files referenced in this catalogue by abbreviations in the margins and in a few instances by footnotes on the appropriate catalogue pages, as follows:

1. British Columbia Provincial Fisheries - includes spawning ground reports of the Commissioner of Fisheries for British Columbia in the period 1904-1936. (Abbreviated BCFR.)

2. Department of Fisheries of Canada:

   (a) Annual Reports (abbreviated DFR)

   (b) Yearly spawning ground reports (abbreviated BC-16)[1]

3. Fisheries Research Board of Canada:

   (a) Annual Reports (abbreviated FRB Ann. Rep.)

   (b) Progress Reports of the Pacific Coast Stations Biological Station, Nanaimo, B. C. (abbreviated Pac. Prog. Rep.)

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[1]Forms B.C. 16 replaced in 1959 by Forms F381. Format remains the same.

(c) Miscellaneous data on file at the Biological Station, Nanaimo (abbreviated FRB) and including the following:

- file 3-3 containing salmon escapement data;
- a card file of stream data compiled largely in the period 1944-1948.
- miscellaneous notes from spawning ground surveys 1955-1965.

(d) Skeena River Salmon - Interim Report, 1948 (with appendices). (Abbreviated Skeena MS, 1948)

(e) Brett, J. R. (1952). Skeena River Sockeye Escapement and Distribution. Journal of the Fisheries Research Board of Canada, Vol. 8, No. 7, 1952. (Abbreviated Brett, 1952)

4. Department of Fisheries of Canada and Fisheries Research Board of Canada - joint preparation. Proposed Sockeye Salmon Development Program for Babine Lake. (1965). (Abbreviated Bab. Dev. Rep., 1965)

HISTORY AND LIMITATIONS OF DATA

Skeena escapement estimates were initiated about 60 years ago. Our first recorded estimate is of 750,000 sockeye on the spawning grounds of the Babine River in 1904. Salmon hatcheries built at Lakelse Lake in 1902 and on Morrison Lake in 1907 likely provided the stimulus for spawning ground assessments in local streams in 1907. The frequency and scope of reporting at these places and elsewhere through the system increased slowly during the next 10 years.

Until about 1920, sockeye was the only species enumerated. During the next 10 years, assessments of the other species began and the inventory of streams regularly reported upon grew rapidly.

However, in the early years word appraisals were the usual method of reporting escapements and it is seldom clear whether the intention was to compare escapements from one year to the next in a particular river, or to compare escapements between rivers in a particular year.

In the mid-1940's important changes were made in the system of reporting. The Department of Fisheries developed a form which encouraged the use of absolute numbers, and provided a system of code letters which could be used to indicate a numerical range when absolute numbers could not be provided. This standard method is still in effect.

For purposes of this report, in those cases where only code-letters

were available, we have entered both code letters, and the number representing the mid-point of the coded range of escapements.

Two large-scale investigations of Skeena River salmon have contributed enormously to the fund of data on escapements. The first was conducted by the Fisheries Research Board, 1944-1948, and is reflected in several files of escapement data at the Nanaimo Biological Station.

A second Skeena Investigation was initiated in 1955. This has been under the direction of a committee having responsibility for biological investigations and management of the commercial fisheries. Accurate escapement enumerations have been an objective and pink salmon escapements in large tributaries have been regularly reported upon for the first time in the past 10 years. Block assessments of runs within broad geographical areas are gradually being replaced by assessments of separate substocks spawning in small, well-defined stream and lake units.

In recent years sockeye and spring salmon escapements have been regularly assessed on all important spawning grounds by either the Fisheries Research Board, the Department of Fisheries or both. Coho salmon, by virtue of their diverse habitat and late spawning have been overlooked, or incompletely reported upon in a vast number of streams. Chum salmon have never been an important species on the Skeena.

Data on all species have been entered through 1964.

Greatly accelerated development within the Skeena River valley in the past decade has changed the scope of escapement reporting. An improved and proliferated highway and public access system has simplified logistic problems. The emergence of economical, readily available air transport has encouraged assessments in remote areas. Furthermore the accumulation of a fund of knowledge on characteristics of spawning ground and speciation, distribution and timing of the runs has lessened the burden on all who have participated in enumeration work.

The remarkable contribution of a host of men responsible for spawning assessments in early years is best appreciated in the light of circumstances surrounding escapement enumerations today.

FORMAT

The catalogued data are presented in 5 sections. Each section deals with a separate geographical region within the Skeena drainage area and is preceded by a map of the region. Regional boundaries have been drawn along heights of land to ensure that major rivers and their tributaries do not appear in more than one section. The map scale is not the same in all cases.

Data from every productive stream and lake in Area 4 is listed in the numerical and alphabetical indices, and each is represented by two forms[1]:

1. A description data form which gives the location and physical features of the streams and lakes, and shows timing, and internal distribution of salmon by species. Relative importance of principle streams is indicated.

2. An escapement data form listing annual escapements by species. This is in two sections: one for sockeye and pink salmon; one for spring, coho and chum salmon.

A number of the more productive systems are further described by means of sketch maps bearing descriptive features of their surroundings. Escapement data, 1950-1960, are graphed whenever a series of numerical assessments are available. From 1960 onward, nearly all numerical data are graphed. The scale is not uniform for all systems but is indicated on the margins of all the graphs.

Finally miscellaneous data have been appended when this has helped the aim of the volume.

The loose-leaf format permits new pages to be entered, corrections and additions to be made as required, and makes possible a division into two or more sections for convenience when taken into the field.

Standards used in filling out the forms

1. Name of stream: The preferred name is capitalized, and if gazetted (Gazetteer of Canada - British Columbia, 1953) it is followed by (G). Popular names are added in lower case type when their inclusion appears likely to aid identification.

2. Number: All streams in Area 4 which have supported, or appear capable of supporting, 100 or more salmon annually (any species or all species combined) are provided for in the numbering system[2]. Lakes which are known to support (even intermittently) any number of migrating or spawning adult sockeye are also numbered.

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[1]Historic data in several localities combines lake, stream and river escapements. We have catalogued these as reported, but in view of the need for separating such escapement units we have included separate forms and assigned catalogue numbers as a guide for future reporting.

[2]Streams supporting 100 or more pink salmon in either odd or even years are included.

Streams which appear capable of supporting 100 salmon, but neither appear in the records nor clearly serve as access to spawning grounds above. are shown without numbers on the five index maps. Corresponding gaps appear in the number index but if these streams develop runs they can be catalogued without disrupting the numbering sequence.

Occasionally very short unproductive streams or defiles separate numbered bodies of water without themselves being numbered.

A logical rather than an arbitrary numbering system has been used. Once familiar with the system a reader may visualize the general vicinity of the stream when provided with its number, and when confronted only with a suitable map of the Skeena drainage, may deduce the logical number for any desired stream.

The system is applicable to any management area. The addition of the area number as a prefix to the stream number can be used to differentiate between streams in a corresponding geographical position in two separate areas.

The following hypothetical river system will be used to clarify the numbering procedure described below:

A. Trunk streams (flow directly into the ocean). Numbered consecutively from 1 as their distance from the northwest corner of the management area increases.

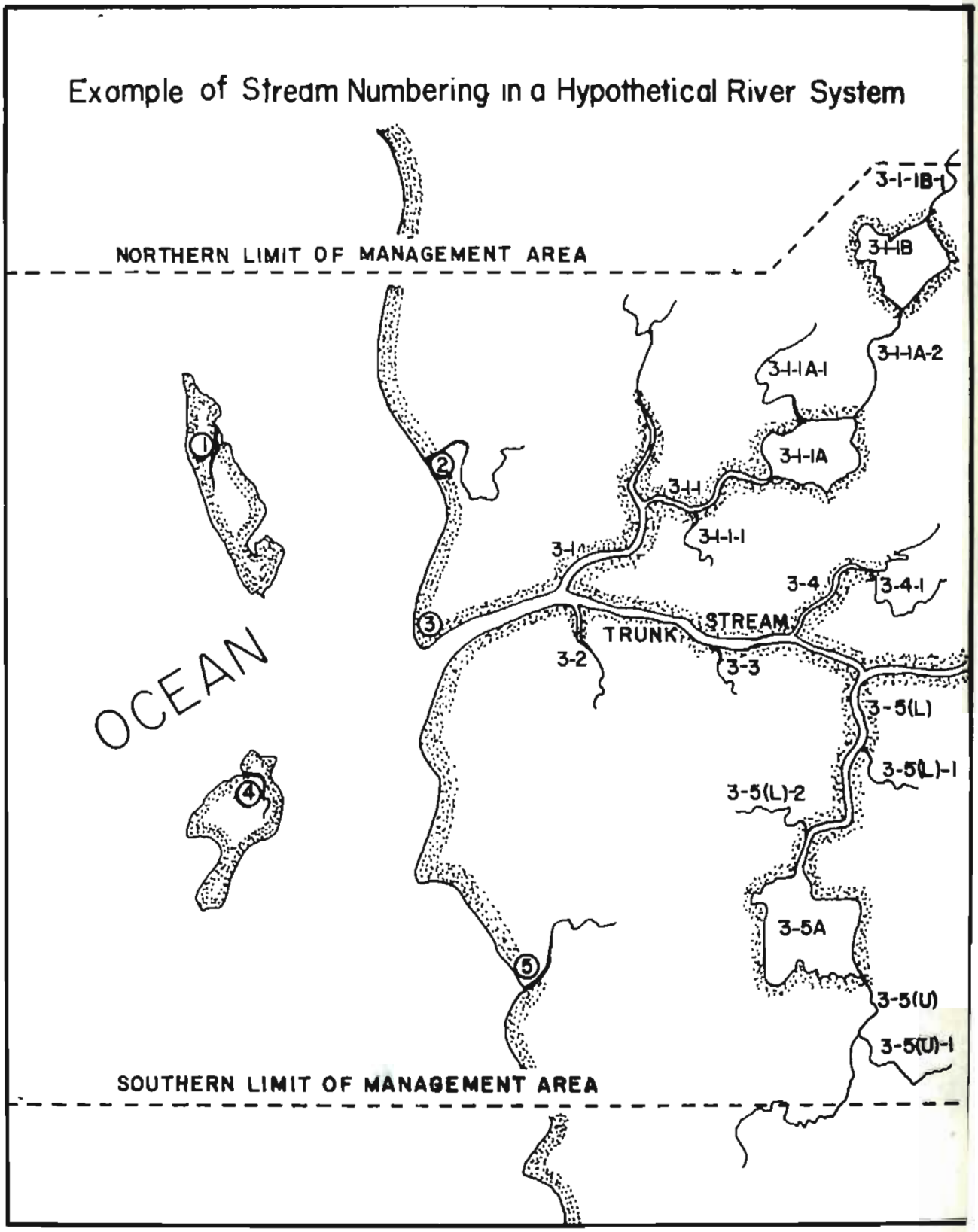
B. Tributary streams. May be of several orders. Numbered consecutively from 1 nearest the sea and describe the route a salmon must follow to reach its destination. When two tributaries enter directly opposite each other the one on the right bank receives the lower number.

(a) First order tributary streams (flow directly into a trunk stream). Numbered with the trunk stream number plus a second number separated from the first by a hyphen, e.g. 3-1.

(b) Second order tributary streams (flow directly into first order tributary streams). Numbered with the first order tributary number plus a second number separated from the first by a hyphen, e.g. 3-1-1.

(c) Third order tributary streams and below. Numbered by extension of the principle established for first, and second order streams above, e.g. 3-1-1-1 etc.

C. Lakes. Numbered with their outlet stream numbers plus a capital letter, e.g. 3-1-1A. When more than one lake appears in succession on the same local drainage system letters are assigned consecutively from A as their distance increases by water route from the sea (e.g. the Morrison system on Babine Lake, and the Stevens-Swan Lake system on the Kispiox River system).


Example of Stream Numbering in a Hypothetical River System
NORTHERN LIMIT OF MANAGEMENT AREA
SOUTHERN LIMIT OF MANAGEMENT AREA
OCEAN
TRUNK STREAM
3-1-1B-1
3-1-1B
3-1-1A-2
3-1-1A-1
3-1-1A
3-1-1
3-1-1-1
3-1
3-4
3-4-1
3-2
3-3
3-5(L)
3-5(L)-1
3-5(L)-2
3-5A
3-5(U)
3-5(U)-1
1
2
3
4
5

D. Tributaries flowing into lakes. Assigned the lake designation plus a number separated from it by a hyphen, e.g. 3-1-1A-1. Numbered consecutively from 1 according to the distance from the outlet stream.

When a major stream bears the same gazetted name above and below a lake, and historic escapement records have been separated accordingly, the section below the lake is designated (L), e.g. 3-5(L); the section above (U), e.g. 3-5(U). Tributaries entering the upper and lower sections are numbered consecutively from 1 in both the lower section, e.g. 3-5(L)-1, and the upper section, e.g. 3-5(U)-1. (L) and (U) designations are omitted from numbers describing small local systems such as Upper and Lower Club Creeks on the Kispiox River system.

3. Location of stream mouth or lake outlet: Located by map co-ordinates to the nearest minutes of latitude and longitude. Prominent landmarks are described where helpful. Direction of flow is indicated.

4. Length: (a) of streams - measured in miles and tenths of a mile from the mouth to a point beyond which 1% of the spawning population of any species fails to spawn profitably. Does not include tributary streams; (b) of lakes - maximum length.

5. Width: (a) of streams - averaged width estimated to the nearest foot throughout the length described in 4; (b) of lakes - maximum width.

6. Depth: (a) of streams - average depth estimated to the nearest 0.1 feet throughout the length as described in 4; (b) of lakes - maximum depth.

7. Drainage: Area in square miles of the entire drainage basin feeding a lake or stream, measured by a compensating polar planimeter directed along the heights of land separating it from other basins.

8. Bottom composition: Composition of the wetted stream bed at average water levels when the principal salmon species is spawning. Gravel of mean particle diameter 2" (50.8 mm) or greater is considered "coarse"; less than 1/4" (6.4 mm) is termed "silt and sand".

9. Gradient: Vertical drop per thousand linear feet of useful stream as defined in 4 above, and established from topographic maps where possible. Recorded in 3 categories: slow - averaging less than 100 feet per thousand; moderate - from 100 to 300 feet per thousand; rapid - more than 300 feet per thousand.

10. Average discharge and water temperature: From stream gauge and thermograph records when available. Otherwise from stream survey records - preferably measured in an area near the mouth when the most abundant species is spawning.

11. Barriers or points of difficulty: Complete and partial barriers to salmon, and their distance in miles and tenths of a mile from the stream mouth are noted. Species likely to be affected during their normal migration periods may be listed.

12. Spawning bed: Accessible stream bed (defined in 4) is divided into: percent in use; percent unused. The latter refers to parts of the stream which appear suitable but are not normally populated by spawning salmon. The total of suitable stream bed - both used and unused - is given in square yards.

13. Potential of unused portion of stream: Expressed as good, fair, or poor in terms of factors observed to limit salmon production. Gradient, gravel size and the quantity and quality of water are considered.

14. Potential of inaccessible portion of stream: Substantial sections of stream bed above barriers but apparently suitable as spawning grounds are rated fair or poor as in 13.

15. Species using stream and sections of stream used. Species commonly spawning in the stream are shown by an × opposite the species name, and distribution is indicated by brief comments opposite. Extent of spawning area is described in miles and tenths of a mile from the mouth, e.g. from 1.5 to 2.5 mi.

16. Time of entry, time of spawning and range of escapements: The estimated start, peak and end of periods of entry and spawning of the central 90% of the escapement is entered opposite the species name. Months and days of the month are entered when known. Months are identified by their first letters, July through November. Day of the month is entered to the nearest 5 days starting on the first day of the month, e.g. J (for July) 1, 5, 10 etc.

17. Rating of productivity: For each species the ten most productive streams are rated by a single numeral indicating their rank in descending order of production from 1. Ranking is by maximum rather than average escapements.

18. Access and general remarks: Describes the best or conventional access routes to streams or spawning grounds and emphasizes features of streams or spawning populations not adequately covered, or omitted from sections above.

ALPHABETICAL INDEX

NUMERICAL INDEX

Index No.	Name
1	La Hou Creek [Pearl Harbour Creek]
2	McNichol Creek
3	Silver Creek
4U	Shawatlan Creek
5	Denise Creek
6	Kloiya River
6A	Prudhomme Lake
6A-1	Diana Creek
7	Humpback Creek
8	Little Useless Creek
9	Useless Creek
10	Skeena River
11	Spiller River
12	Oona River
13	Moore Cove Creek
10-1	Ecstall River
10-1-4	Hayward Creek [Beaver River]
10-1-7	Madeline Creek [Gibralter Creek]
10-1-8	Big Falls Creek
10-1-9	Lockerby Creek
10-1-10	Muddy Creek
10-1-11	Sparkling Creek [Clearwater Creek]
10-1-12	Johnston Creek
10-1-12A	Johnston Lake
10-1-13	Lower Lake Creek
10-1-13A	Lower Lake
10-1-13A-1	Ecstall Creek
10-1-13B	Ecstall Lake
10-5	Khyex River
10-7	Scotia River

Index No.	Name
10-9	Kwinitsa Creek
10-12	Kasiks River
10-13	Exchamsiks River
10-14	Gitnadoix River
10-14-2	Dog Tag Creek
10-14-5	Kadeen Creek
10-14A	Alastair Lake
10-14A-1	Westside Creek
10-14A-2	Southend Creek
10-16	Exstew River
10-18	Shames River
10-20	Lakelse River
10-20-1	White Creek [Whitewater Creek]
10-20-2	Coldwater Creek
10-20-3	Herman Creek
10-20A	Lakelse Lake
10-20A-2	Clearwater Creek
10-20A-3	Schulbuckhand Creek [Scully Creek]
10-20A-4	Hatchery Creek [Granite Creek]
10-20A-6	Williams Creek
10-20A-6-1	Sockeye Creek [Eliza Creek]
10-21	Alwyn Creek [Alvin Creek]
10-22	Zymagotitz River [Zimacord River]
10-23(1)	Kitsumkalum River (Lower) [Kalum River]
10-23(1)-2	Deep Creek
10-23(L)-3	Lean-to Creek
10-23(L)-5	Glacier Creek
10-23(L)-7	Star Creek
10-23A	Kitsumkalum Lake [Kalum Lake]
10-23A-1	Goat Creek
10-23A-2	Nelson River
10-23A-5	Douglas Creek [Dry Creek]
10-23U	Kitsumkalum River (Upper) [Kalum River] [Beaver River]

Index No.	Name
10-23U-1	Clear Creek
10-23U-2	Cedar River
10-24(L)	Zymoetz River (Lower) [Copper River]
10-24A	McDonell Lake
10-24(U)	Zymoetz River (Upper) [Dennis River]
10-25	Kleanza Creek [Gold Creek]
10-26	Lowrie Creek
10-27	Chimdemash Creek
10-33	Lorne Creek
10-34	Insect Creek [Mosquito Creek]
10-37	Boulder Creek
10-38	Price Creek
10-39	Mill Creek [Milling Creek]
10-40	Kitwanga River
10-40-1	Deuce Creek
10-40-2	Kitwancool Creek
10-40-3	Moonlit Creek
10-40A	Kitwanga Lake
10-42	Kitseguecla River
10-43	Burdick Creek [Stoney Creek]
10-44	Chicago Creek [Seeley Creek]
10-46	Hazelton Creek [Cedar Creek]
10-47	Glen Vowell Creek
10-48	Kispiox River
10-48-1	Date Creek
10-48-2	Heavener Creek [Daniel, Dean Creek]
10-48-3	McCully Creek [Cedar Creek No. 2]
10-48-4	Murder Creek [Beirnes Creek]
10-48-5	Cullon Creek [Grouse Creek]
10-48-10	Nangeese River [Moongoose River]
10-48-11	Footsore Creek [Ammonnook Creek]
10-48-12	Stephens Creek
10-48-12A	Stephens Lake

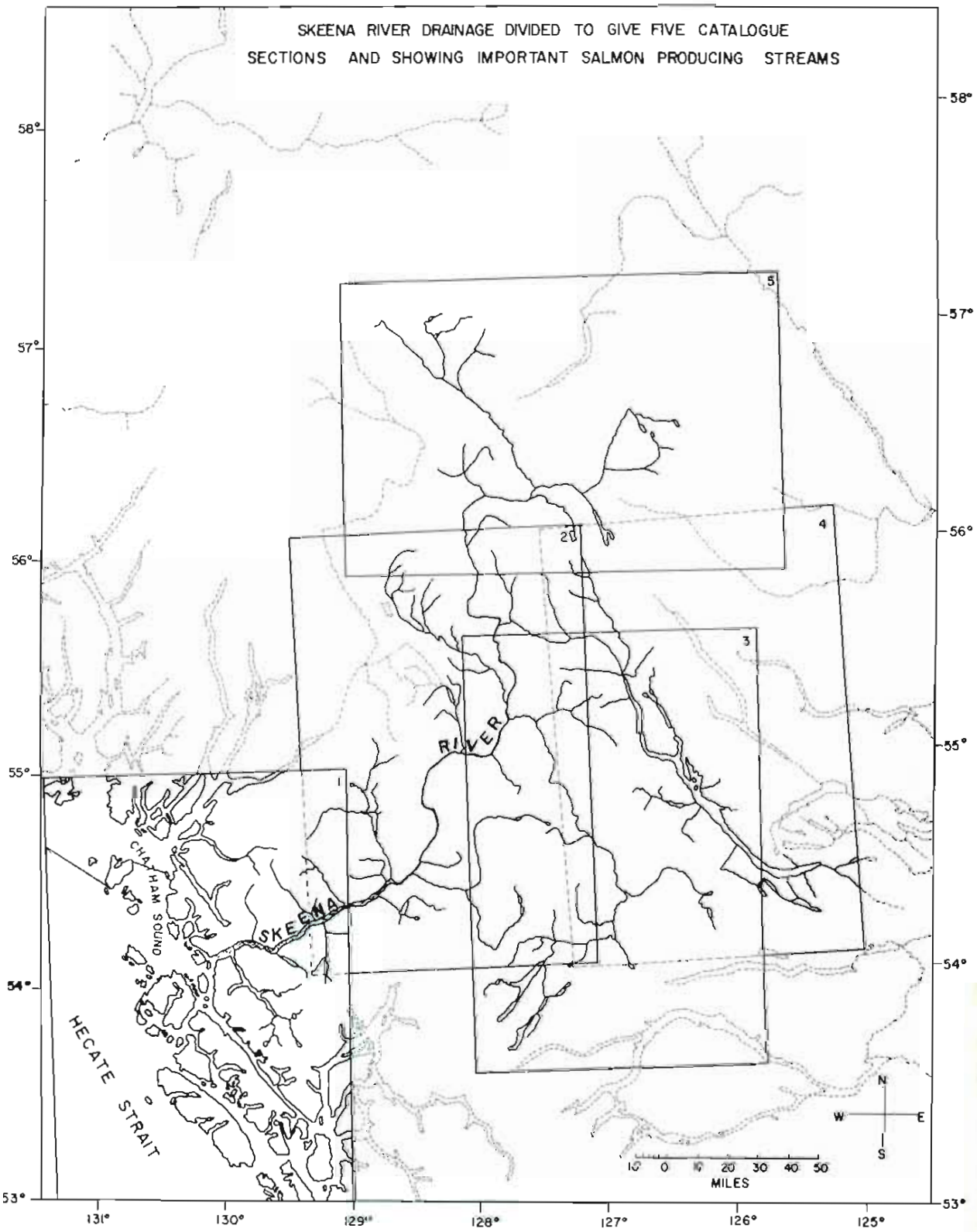
Index No.	Name
10-48-12A-1	Lower Club Creek
10-48-12B	Club Lake
10-48-12B-1	Upper Club Creek
10-48-12C	Swan Lake
10-48-12C-1	Falls Creek
10-48-14	George Williams Creek
10-49	Shegunia River [Salmon River]
10-50	Babine River (General)
10-50-3	Nilkitkwa River
10-50-3A	Onerka Lake
10-50-4	Nichyeskwa Creek
10-50(L)	Babine River (Lower)
10-50(L)-1	Boucher Creek [McDonald Creek]
10-50A	Nilkitkwa Lake
10-50(U)	Babine River (Upper)
10-50(U)-1	Tsezakwa Creek [Trail Creek]
10-50B	Babine Lake
10-50B-1	Five Mile Creek
10-50B-2	Nine Mile Creek
10-50B-3	Forks Creek
10-50B-4	Morrison Creek [Hatchery Creek]
10-50B-4A	Morrison Lake
10-50B-4A-1	Tahlo Creek [Salmon Creek]
10-50B-4B	Tahlo Lake
10-50B-4B-1	Upper Tahlo Creek
10-50B-5	Fulton River
10-50B-6	Tachek Creek
10-50B-7	Big Loon Creek [Wright Creek]
10-50B-8	Sockeye Creek
10-50B-9	Kew Creek [Driscol Creek]
10-50B-10	Pierre Creek
10-50B-11	Twain Creek [Twin Creek]
10-50B-12	Cross Creek [Pendelton Creek]

Index No.	Name
10-50B-13	Donalds Creek
10-50B-14	Pinkut Creek [15 Mile Creek] [Anderson Creek]
10-50B-15	Gullwing Creek [6 Mile Creek] [Wiggins Creek]
10-50B-16	Four Mile Creek
10-50B-17	Tetzalto Creek
10-50B-18	Sutherland River [Beaver River]
10-50B-18-1	Shass Creek [Grizzly Creek]
10-52	Kuldo Creek
10-45	Bulkley River
10-45(L)	Bulkley River (Lower)
10-45(L)-1	Station Creek [Mission Creek]
10-45(L)-2	Suskwa River [Bear River]
10-45(L)-4	Causqua Creek
10-45(L)-8	Sheedy Creek [Trout Creek]
10-45(L)-9	Toboggan Creek
10-45(L)-10	Reiseter Creek [Two Bridge Creek]
10-45(L)-11	Driftwood Creek
10-45(L)-12	Carr Creek [Canyon Creek]
10-45(L)-13	Kathlyn Creek [Chicken Creek]
10-45(L)-14	Telkwa River
10-45(L)-17	Morice River
10-45(L)-17-2	Owen Creek
10-45(L)-17-5	Gosnell Creek [Coho Creek]
10-45(L)-17A	Morice Lake
10-45(L)-17A-1	Nanika River
10-45(U)	Bulkley River (Upper)
10-45(U)-1	Buck Creek
10-45(U)-3	Richfield Creek [Findlay Creek]
10-45A	Bulkley Lake
10-45A-1	Maxan Creek
10-55	Sicintine River
10-55A	Sicintine Lake

Index No.	Name
10-57	Canyon Creek [Larch Creek]
10-58	Slamgeesh River
10-58-1	Slamgeesh Creek
10-58-1A	Slamgeesh Lake
10-58-1A-1	5th Cabin Creek
10-60	Squingula River
10-60A	Motase Lake
10-61-2	Bear River
10-61-2A	Bear Lake
10-61-2A-1	Salix Creek [Willow Creek]
10-61-2B	Azuklotz Lake
10-61-2B-1	Azuklotz Creek
10-61	Sustut River
10-61A	Sustut Lake
10-61-4	Asitka River
10-61-4A	Asitka Lake
10-61-9	Johanson Creek
10-61-9A	Johanson Lake
10-68	Kluatantan River
10-68-1	Tantan Creek
10-68-1A	Kluatantan Lake
10-68-2A	Kluayaz Lake

RIVER MILES BETWEEN PRINCIPAL RIVERS AND LAKES
WITHIN THE SKEENA RIVER DRAINAGE SYTEM

	Test Fishing	Gitnadoix Riv (Jct Skeena)	Alastair Lake	Lakelse Riv (Jct Skeena)	Lakelse Lk (Herman Crk)	Copper Riv (Jct Skeena)	McDonell Lake	Kitwanga Riv (Jct Skeena)	Kitwanga Lake	Bulkley Riv (Jct Skeena)	Kispiox Riv (Jct Skeena)	Sweetin Riv	Stephens Lake	Babine Riv (Jct Skeena)	FRB Fence-Babine Lake	Sustut Riv (Jct Skeena)	Bear Riv (Jct Sustut)	Bear Lake	Sustut Lake	Johanson Crk (Jct Sustut)	Johanson Lake	Kluatantan Riv (Jct Skeena)	Kluatantan Lake	Maricetown Falls	Marice River	Marice Lake
Test Fishing																										
Gitnadoix Riv (Jct Skeena)	36																									
Alastair Lake	49	13																								
Lakelse Riv (Jct Skeena)	56	20	33																							
Lakelse Lk (Herman Crk)	66	30	43	10																						
Copper Riv (Jct Skeena)	58	36	59	16	26																					
McDonell Lake	140	104	117	84	94	68																				
Kitwanga Riv (Jct Skeena)	119	83	101	68	78	52	120																			
Kitwanga Lake	145	109	122	89	99	73	141	21																		
Bulkley Riv (Jct Skeena)	148	112	125	92	102	76	144	24	45																	
Kispiox Riv (Jct Skeena)	156	120	133	100	110	84	152	32	53	8																
Sweetin Riv	200	164	177	144	154	128	196	76	97	50	42															
Stephens Lake	214	178	191	158	168	142	210	90	111	64	56	14														
Babine Riv (Jct Skeena)	188	152	165	132	142	116	184	64	85	38	30	72	86													
FRB Fence-Babine Lake	236	200	213	180	190	164	232	112	133	88	80	122	136	50												
Sustut Riv (Jct Skeena)	262	226	239	206	216	190	258	138	159	114	106	148	162	76	126											
Bear Riv (Jct Skeena)	280	244	257	224	234	208	276	156	177	132	124	166	180	94	144	18										
Bear Lake	286	250	263	230	240	214	282	162	183	138	130	172	186	100	150	24	6									
Sustut Lake	318	282	295	262	272	246	314	194	215	170	162	204	218	132	182	56	38	44								
Johanson Crk (Jct Sustut)	328	292	310	272	282	256	324	204	225	180	172	184	198	142	192	64	48	42	14							
Johanson Lake	351	306	323	285	295	269	337	217	238	193	185	197	211	155	205	77	61	55	27	13						
Kluatantan Riv (Jct Skeena)	401	355	368	335	345	319	387	267	286	243	235	277	291	261	311	50	68	74	106	114	127					
Kluatantan Lake	411	365	378	345	555	329	397	277	298	253	245	287	301	271	321	60	78	84	116	124	137	10				
Maricetown Falls	176	140		120		104		52		28	36															
Marice River	234	198		178		162		110		86	94												58			
Marice Lake	276	242		222		206		154		130	138												102	44		


SKEENA RIVER DRAINAGE DIVIDED TO GIVE FIVE CATALOGUE
SECTIONS AND SHOWING IMPORTANT SALMON PRODUCING STREAMS
58°
57°
56°
55°
54°
53°
131°
130°
129°
128°
127°
126°
125°
5
2
4
3
1
RIVER
SKEENA
CHATHAM SOUND
HECATE STRAIT
N
W
E
S
10 0 10 20 30 40 50
MILES

Section 4

The Babine River and tributaries

In order to allay misunderstandings in reading and interpreting data from the Babine River spawning grounds the following is presented.

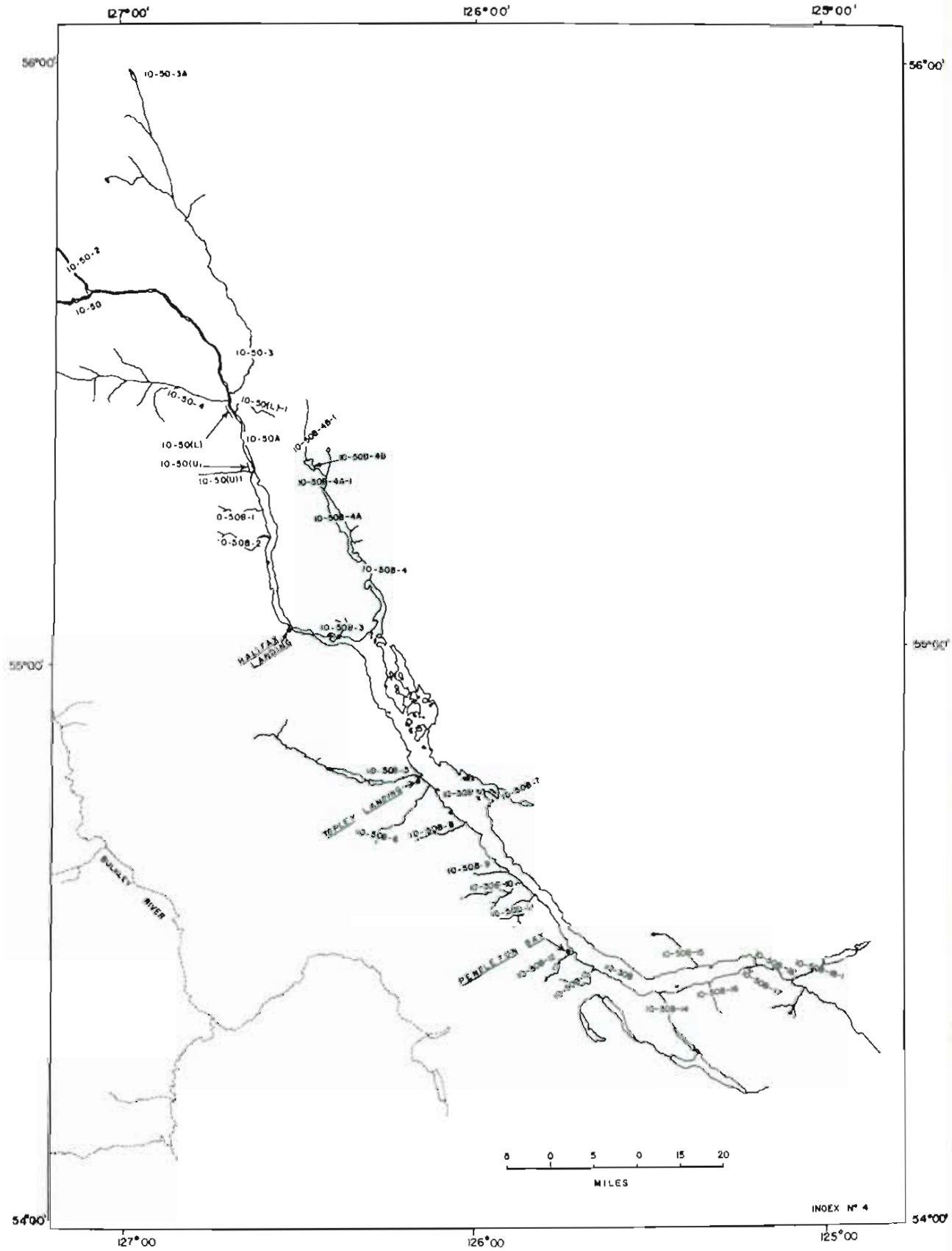
1. Four species of salmon pass through the Babine River to spawn in, or adjacent to, Babine Lake but no known spawning grounds exist for any species in the Babine River below its confluence with Nichyeskwa River.

2. Early escapement data (prior to 1934) probably was often meant to include salmon passing through to spawning grounds on Babine Lake as well as salmon spawning below Babine and Nilkitkwa Lakes.

3. Beginning in 1933 estimates of salmon spawning in Babine River were related to 4 separate sections. Sections 1-3 were adjoining areas between Babine and Nilkitkwa Lakes. Section 4 extended from Nilkitkwa Lake downstream to about Nichyeskwa River.

4. Beginning in 1962 the escapements were estimated by separate tag and recovery programs as well as by the traditional direct observation method. One tagging was in the upper river between Babine and Nilkitkwa Lakes; one in the lower river below Nilkitkwa Lake. In recent years the two river areas have been termed Upper Babine River, and Lower Babine River respectively.

5. Escapement estimates in the Upper and Lower Babine Rivers have been entered in the data record sheets as estimated by the District Fisheries Inspector from his direct observations. Thus some continuity is maintained through 30 years of observations. The estimates from tag and recovery are entered separately a few lines below. Only the Inspector's sectional estimates have been graphed.


127°00'
126°00'
125°00'
56°00'
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10-50-3A
10-50-2
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10-50(L)-1
10-50(L)
10-50A
10-50(U)
10-50(U)1
10-508-1
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10-508-4B-1
10-508-4B
10-508-4A-1
10-508-4A
10-508-4
10-508-3
HALIBAT LANDING
10-508-5
10-508-6
10-508-7
TRACY LANDING
10-508-8
10-508-9
10-508-10
10-508-11
BULKLEY RIVER
PRINCE RUPERT
10-508-12
10-508-13
10-508-14
10-508-15
10-508-16
10-508-17
10-508-18
10-508-18-1
0 5 0 15 20
MILES
INDEX Nº 4

NAME OF STREAM BABINE RIVER (G) NUMBER 10-50

LOCATION OF MOUTH 55-41 N, 127-41 W. Flows W into the Skeena R. 30 mi. above Hazelton (see also "Lower" Babine R. 10-50(L)).

Length 55 mi. Width 250 ft. Depth _____ ft. Drainage area 3861 sq. mi

Composition (%): Bedrock _____ Coarse _____ Fine _____ Silt and sand _____

Gradient (fall in ft/000): Rapid _____ Moderate X Slow _____

Av. discharge _____ cfs, and water temperature _____ °C at spawning time.

Barriers or points of difficult ascent Probably difficult areas at some water levels. A rock slide restricted migration 1951, 1952.

Spawning bed: In use _____ % Unused _____ %: Total _____ sq. yds.

Potential of unused portion of stream: Good _____ Fair X Poor _____

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM	SECTIONS OF STREAM USED
Sockeye	See general remarks.
Pink	
Coho	
Spring	
Chum	

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye							
Pink							
Coho							
Spring							
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum

Access route and general remarks: Four species of salmon migrate through this river but there is no recognized spawning ground below its confluence with Nichyeskwa R. Spawning grounds immediately below Nilkitkwa L. are now called "Lower Babine River".

Early reports did not specify specific spawning grounds.

BABINE RIVER - Early General Reports

Year	Sockeye	Pinks	Reference
1904	750,000		1905 Dom. Fish.
	.		Rep.
1908	8 Indian families obtained all		B.C.F.R.
	needed by 5 Sept. 1908.		
1909	Late, but in great quantity		B.C.F.R.
1910	Easiest fishing since 1906		Dom. Fish. Rep.
1911	Large number - Indians had enough		B.C.F.R.
	by 10 Oct. 1911		
1912	Indians report poor catches,		
	Indians estimate 80,000		B.C.F.R.
1913	86 Indian familes say poor run		B.C.F.R.
1914	Plentiful	Few	B.C.F.R.
1915	Indians did "OK"		B.C.F.R.
1916	Worst in Natives memory		Dom. Fish. Rep.
1919	114,000 (95 families, 1200 fish		
	each)		B.C.F.R.
1920	Poor - equal to 1916		B.C.F.R.
1921	Poor	Large numbers	B.C.F.R.
1922	Up to average of good years	Very few	B.C.F.R.
1923	As good as last year	Exceptional run	B.C.F.R.
1924	Good	Good	B.C.F.R.
1925	As good as previous years	Very thick	B.C.F.R.
1926	Good	Not as plentiful	B.C.F.R.
1927	Good	Greatest ever known	Dom. Fish. Rep.
1928	Estimate 150,000 caught	Poor	B.C.F.R.
1929	A big run	Record run	B.C.F.R.
1930	150,000 caught - suggests good run	Few	B.C.F.R.
1931	Good but not up to expectations.	Good	B.C.F.R.
	35,000 caught by Indians.		
	"Jacks" suggested as 10% of total		F.R.B.
1932	Good average run	Poor	Dom. Fish. Rep.
			and F.R.B.
1933	Lower River - heavy	Medium	F.R.B.
	Upper River - Poor		
	Sec. 1 - very few		
	Sec. 2 - complete washout		
	Sec. 3 - Medium - 15% runts		F.R.B.

BABINE RIVER - Early General Reports

Year	Sockeye	Pinks	Reference
1934	Good - Lower River better than 1939		Dom. Fish. Rep.

BABINE RIVER - Early General Reports

Year	Springs	Coho	Chum	Reference
1921		Some		B.C.F.R.
1922	Good showing			B.C.F.R.
1924	Some	Good		B.C.F.R.
1925	Plentiful			B.C.F.R.
1926	Exceptional			B.C.F.R.
1927		Up to average		Dom. Fish. Rep.
1928	Good			B.C.F.R.
1930	Good			B.C.F.R.
1931	Good			B.C.F.R.
1932	Greatest in 10 years	Light		F.R.B.
1933	Good	Medium		Dom. Fish. Rep. and F.R.B.

NAME OF STREAM NILKITKWA RIVER (G) NUMBER 10-50-3

LOCATION OF MOUTH 55-27 N, 126-43 W. Flows S into Babine R. 2.5 mi. N of Nilkitkwa L.

Length 2.5 mi. Width 100 ft. Depth _____ ft. Drainage area 357 sq. mi.

Composition (%): Bedrock _____ Coarse _____ Fine _____ Silt and sand _____

Gradient (fall in ft/000): Rapid X Moderate _____ Slow _____

Av. discharge _____ cfs, and water temperature _____ °C at spawning time.

Barriers or points of difficult ascent Numerous beaver dams in clear N fork.

Spawning bed: In use _____ % Unused _____ %: Total _____ sq. yds.

Potential of unused portion of stream: Good _____ Fair _____ Poor _____

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM		SECTIONS OF STREAM USED
Sockeye	X	Upper limits of N fork
Pink		
Coho	X	Upper limits of N fork at least
Spring		
Chum		

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye							200-400
Pink							
Coho							200-300
Spring							50-250
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum

Access route and general remarks: By trail from FRB counting fence on Babine R. to Nilkitkwa mouth or by air to Onerka L. on N fork headwaters. River is heavily glaciated to clear N fork about 45 mi. from mouth. Some sockeye spawn in upwelling ponds 1 mi. from lake, and below numerous beaver dams in upper 3 mi. which is comparatively small stream.

NILKITKWA RIVER

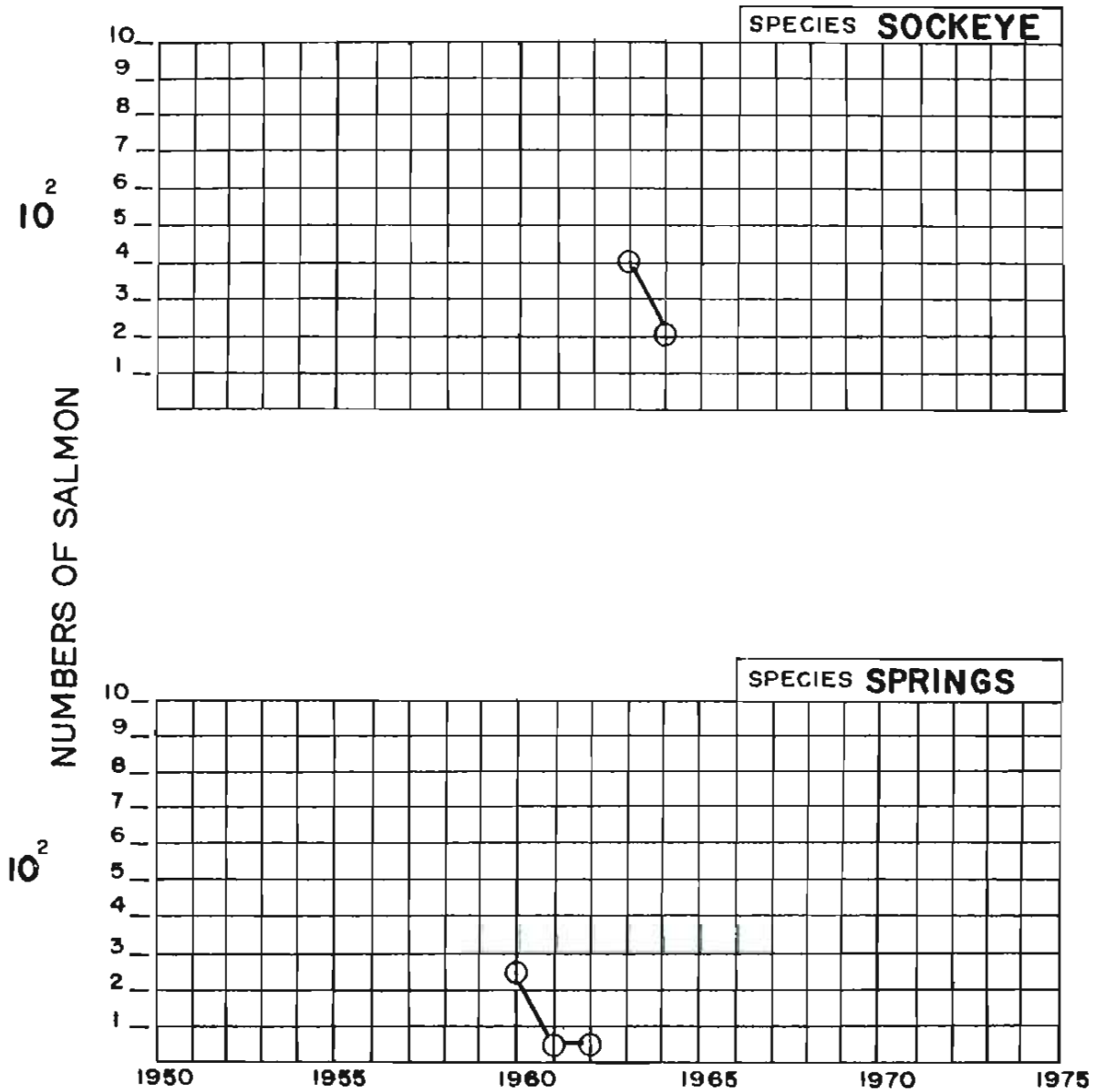
Year	Sockeye	Pinks	Reference
1913	A little below average		Dom.Fish.Rpts.
1960	Some sockeye reported to spawn near lake		B.C. 16
1963	D-400		B.C. 16
1964	C-200		B.C. 16

NILKITKWA RIVER

Year	Springs	Coho	Chum	Reference
1913	Better than for a			
	number of years			Dom. Fish. Rpts.
1960	C-250	C-300		B.C. 16
1961	A-50-Light	C-250-Light		B.C. 16
1962	A-50-Light	C-200-Light		B.C. 16

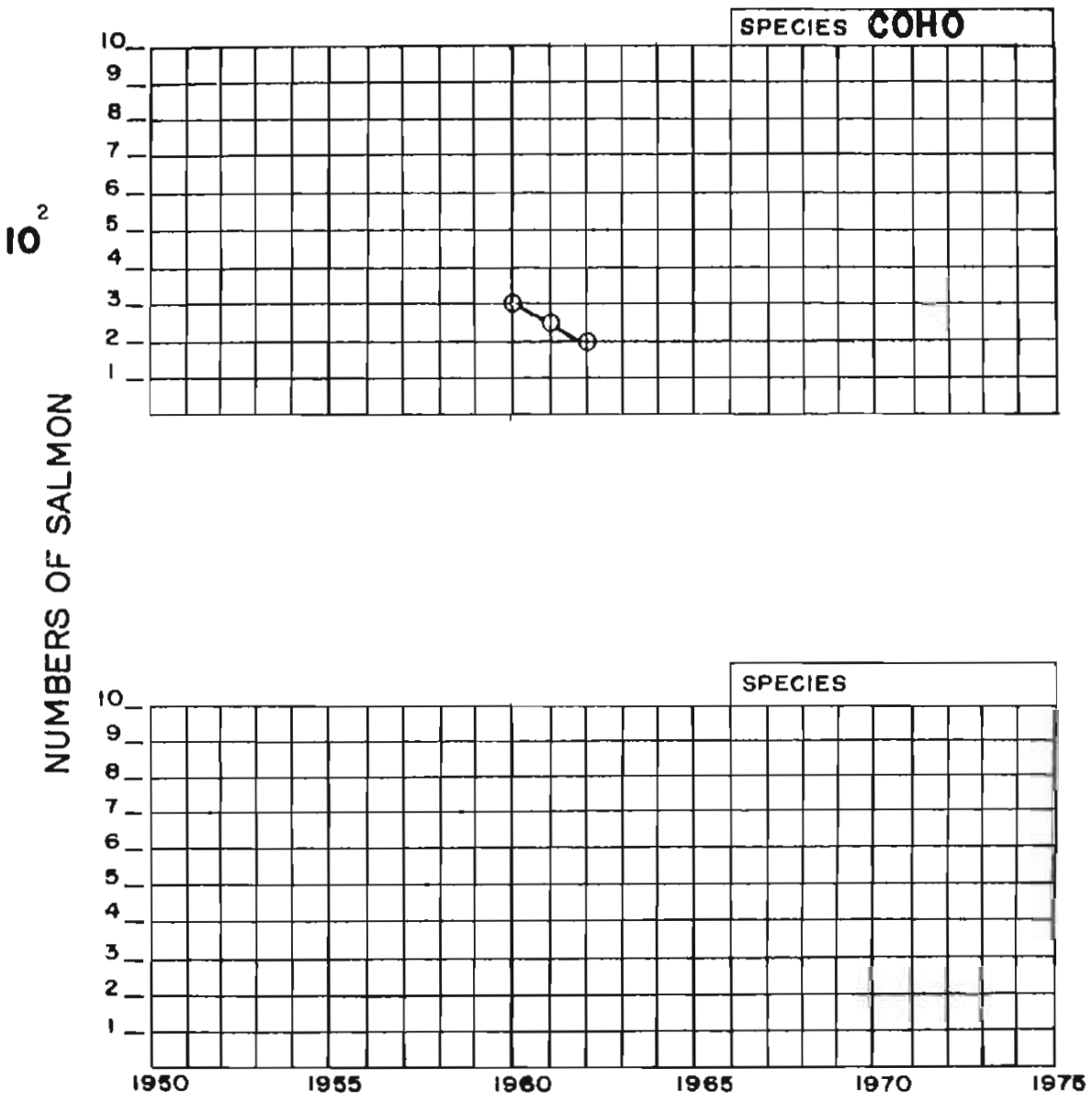
ANNUAL ESCAPEMENT TO—

NILKITKWA RIVER



ANNUAL ESCAPEMENT TO—

NILKITKWA RIVER



NAME OF STREAM ONERKA LAKE (G) NUMBER 10-50-3A

LOCATION OF MOUTH 55-59 N, 126-59 W. Headwaters of N fork of Nilkitkwa R.

(Elevation 3600')

Length 1.2 mi. Width 500 ft. Depth _____ ft. Drainage area 20 sq. mi.

Composition (%): Bedrock _____ Coarse _____ Fine _____ Silt and sand _____

Gradient (fall in ft/000): Rapid _____ Moderate _____ Slow _____

Av. discharge _____ cfs, and water temperature _____ °C at spawning time.

Barriers or points of difficult ascent _____

Spawning bed: In use _____ % Unused _____ %: Total _____ sq. yds.

Potential of unused portion of stream: Good _____ Fair _____ Poor _____

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM		SECTIONS OF STREAM USED
Sockeye	X	
Pink		
Coho	X	
Spring		
Chum		

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye				S 1		S 20	
Pink							
Coho							
Spring							
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum

Access route and general remarks: By plane. Spawners have been observed in lake and in small pond 1 mi. below on left bank. Probably utilize stream below lake at times.

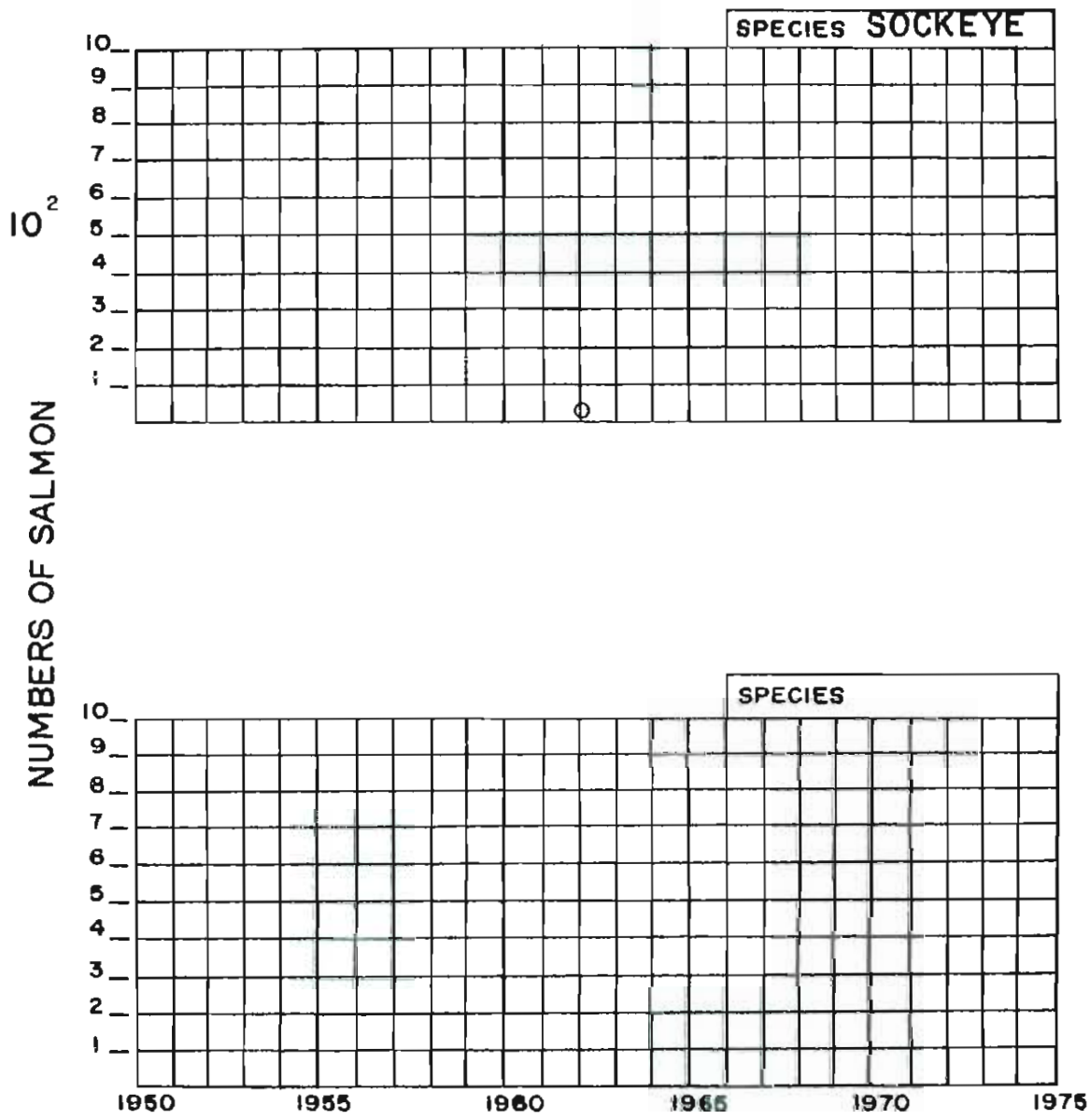
Ref: FRB Ann. Rep. 1946.

ONERKA LAKE

Year	Sockeye	Pinks	Reference
1946	6		F.R.B. Ann. Rep.
1962	25		F.R.B.

ANNUAL ESCAPEMENT TO—

ONERKA LAKE



NAME OF STREAM NICHYESKWA CREEK (G) NUMBER 10-50-4

LOCATION OF MOUTH 55-27 N. 126-43 W. Flows E into Babine R. 1 mi. N of Nilkitkwa L.

Length 19 mi. Width 35 ft. Depth 1.0 ft. Drainage area 136 sq. mi.

Composition (%): Bedrock _____ Coarse _____ Fine _____ Silt and sand _____

Gradient (fall in ft/000): Rapid X Moderate _____ Slow _____

Av. discharge _____ cfs, and water temperature _____ °C at spawning time.

Barriers or points of difficult ascent Low water frequently delays migration.

Spawning bed: In use _____ % Unused _____ %: Total _____ sq. yds.

Potential of unused portion of stream: Good _____ Fair _____ Poor _____

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM		SECTIONS OF STREAM USED
Sockeye		
Pink	X	Scattered through lower 10 mi.
Coho	X	" " " "
Spring	X	" " " "
Chum		

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye							
Pink							
Coho							100-1000
Spring							100-800
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum

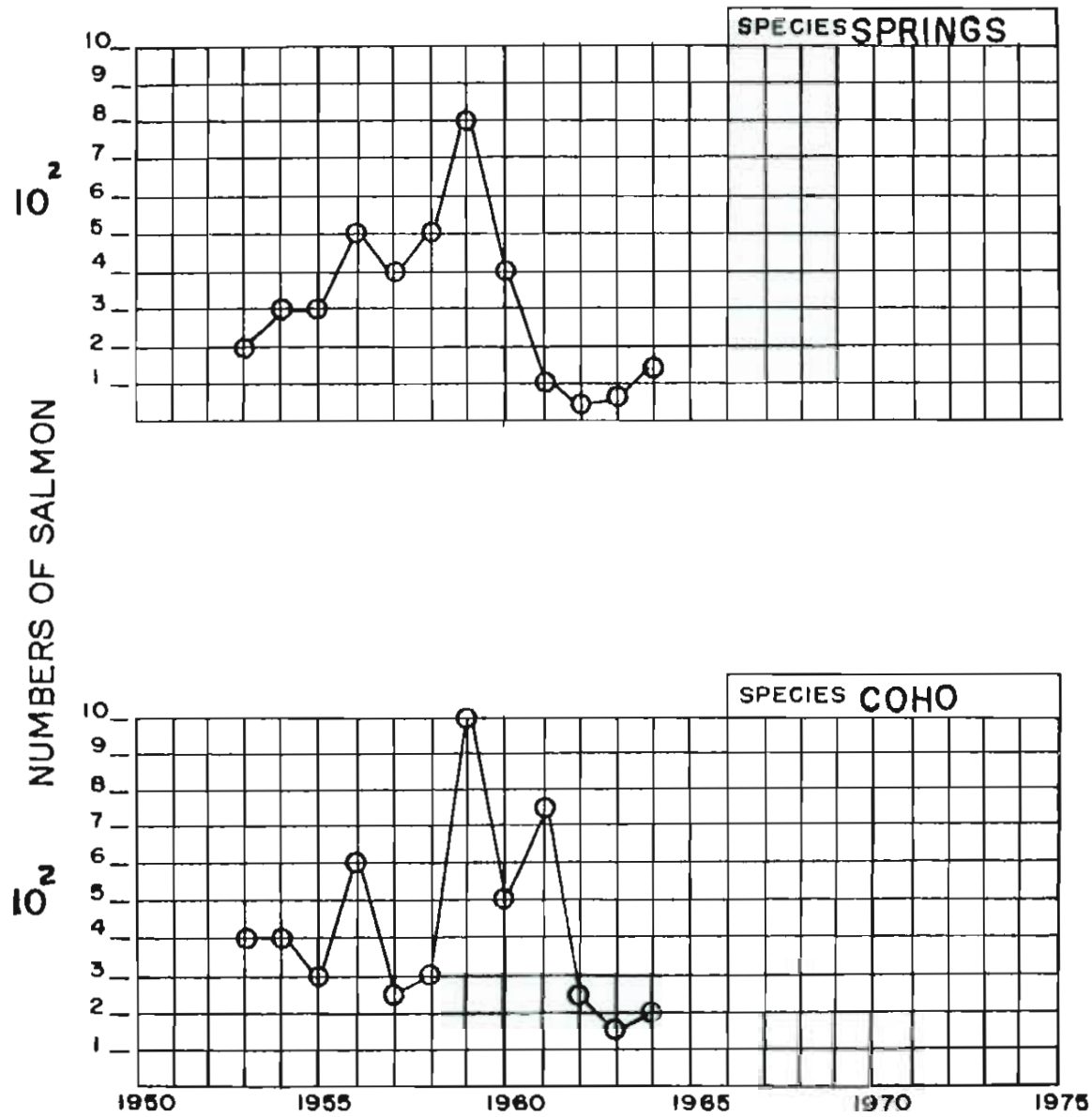
Access route and general remarks: Trail follows left bank of Babine R. from counting fence to stream mouth. Coho in particular school in mouth for prolonged periods in September if water is low.

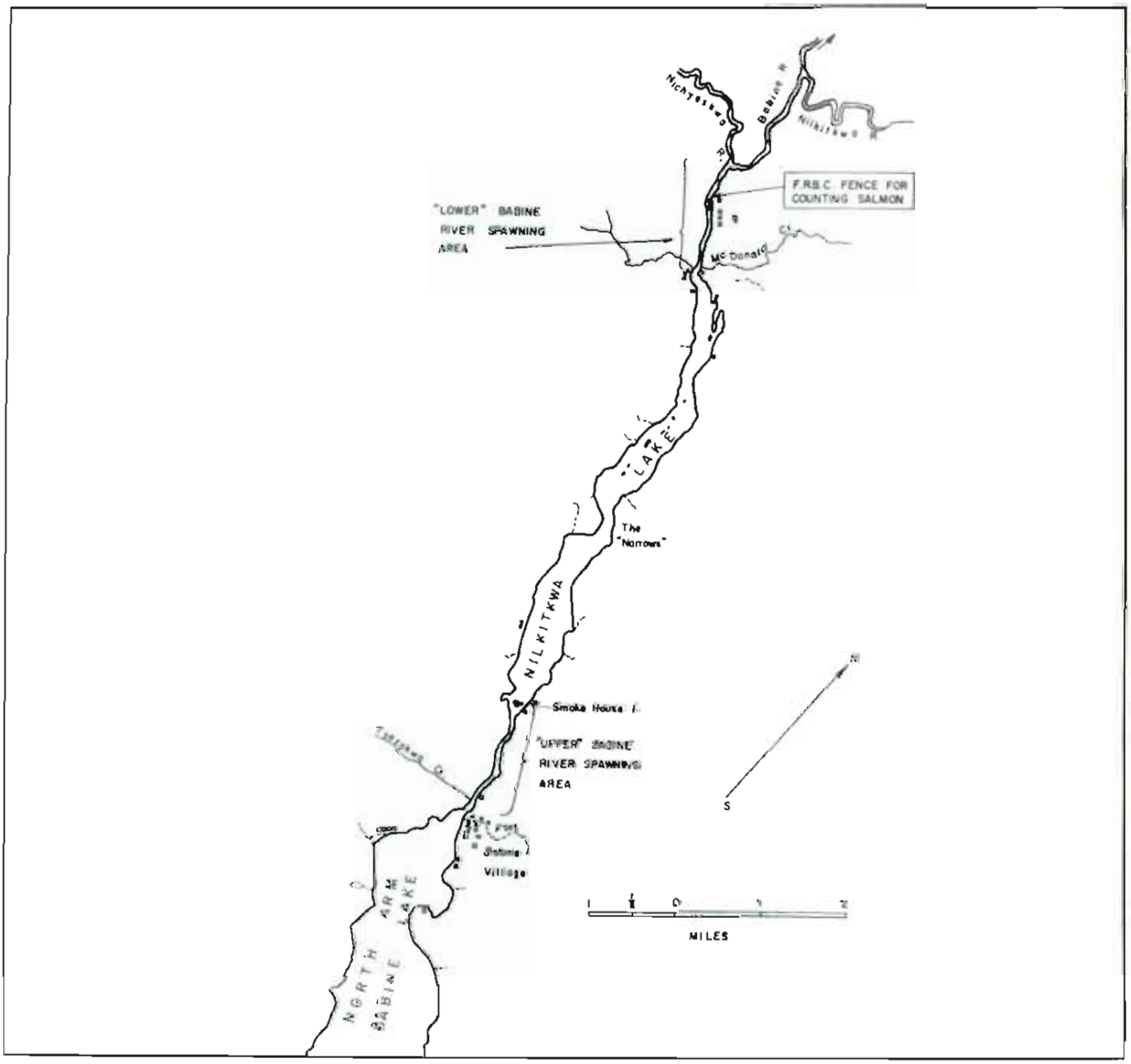
NICHYESKWA CREEK

Year	Springs	Coho	Chum	Reference
1953	200	400		B.C. 16
1954	D-300-Medium	D-400-Medium		B.C. 16
1955	C-300-Light	C-300-Light		B.C. 16
1956	D-500-Medium -30% ♀ -	E-600-Medium- 45% ♀ -		
	40% Jacks	10% Jacks		B.C. 16
1957	D-400-Medium- 50% ♀	D-250-Light -50% ♀		B.C. 16
1958	D-500-Medium -50% ♀	C-300-Light -50% ♀		B.C. 16
1959	E-800-Heavy -50% ♀	F-1,000-Heavy -50% ♀		B.C. 16
1960	D-400-Light -50% ♀	D-500-Light -50% ♀		B.C. 16
1961	C-100-Light -33% ♀ -	E-750-Medium -45% ♀ -		
	34% Jacks	10% Jacks		B.C. 16
1962	A-50-Light- 25% ♀ -	C-250-Light -45% ♀ -		
	50% Jacks	10% Jacks		B.C. 16
1963	B-75-Light -50% ♀	C-150-Light -50% ♀		B.C. 16
1964	C-150-Light -40% ♀	C-200-Light -45% ♀		B.C. 16
	20% Jacks	10% Jacks		

ANNUAL ESCAPEMENT TO—

NICHYESKWA CREEK




F.R.B.C. FENCE FOR COUNTING SALMON
"LOWER" BABINE RIVER SPAWNING AREA
Mc Donald
"LAKE"
The "Narrows"
NILKITKWA
Smoke House
"UPPER" BABINE RIVER SPAWNING AREA
Village
NORTH ARM BABINE LAKE
MILES

NAME OF STREAM BABINE RIVER (LOWER) NUMBER 10-50(L)

LOCATION OF MOUTH 56-26 N, 126-43 W. ("Lower" Babine R. is defined as that section from Nichyeskwa R. to Nilkitkwa L.)

Length 0.8 mi. Width 280 ft. Depth 2 ft. Drainage area _____ sq. mi.

Composition (%): Bedrock _____ Coarse _____ Fine _____ Silt and sand _____

Gradient (fall in ft/000): Rapid _____ Moderate X Slow _____

Av. discharge 2500 cfs, and water temperature 13 °C at spawning time.

Barriers or points of difficult ascent _____

Spawning bed: In use 70 % Unused 30 %: Total _____ sq. yds.

Potential of unused portion of stream: Good _____ Fair X Poor _____

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM		SECTIONS OF STREAM USED
Sockeye	X	Entire area above fence
Pink	X	From .1 mi. below fence to lake
Coho	X	Throughout
Spring	X	Throughout
Chum		

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye	J 15	A 20	S 10	S 20	O 5	O 15	10,000-150,000
Pink	A 10	A 25	S 10	S 5	S 10	S 15	50-90,000
Coho	A 10	A 30	S 30	O 1	O 20	N 10	400-2500
Spring	J 25	S 1	S 15	S 1	S 20	O 1	200-8000
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum
3	7		4	

Access route and general remarks: By boat or air: Site of FRB counting fence. Outstanding production. Stable flow throughout period of spawning and incubation: clear water. Odd-year pinks enter and spawn 10 days earlier than even-year pinks. Indian gaff fishery for spring salmon during spawning period.

BABINE RIVER - LOWER - Sec. no. 4

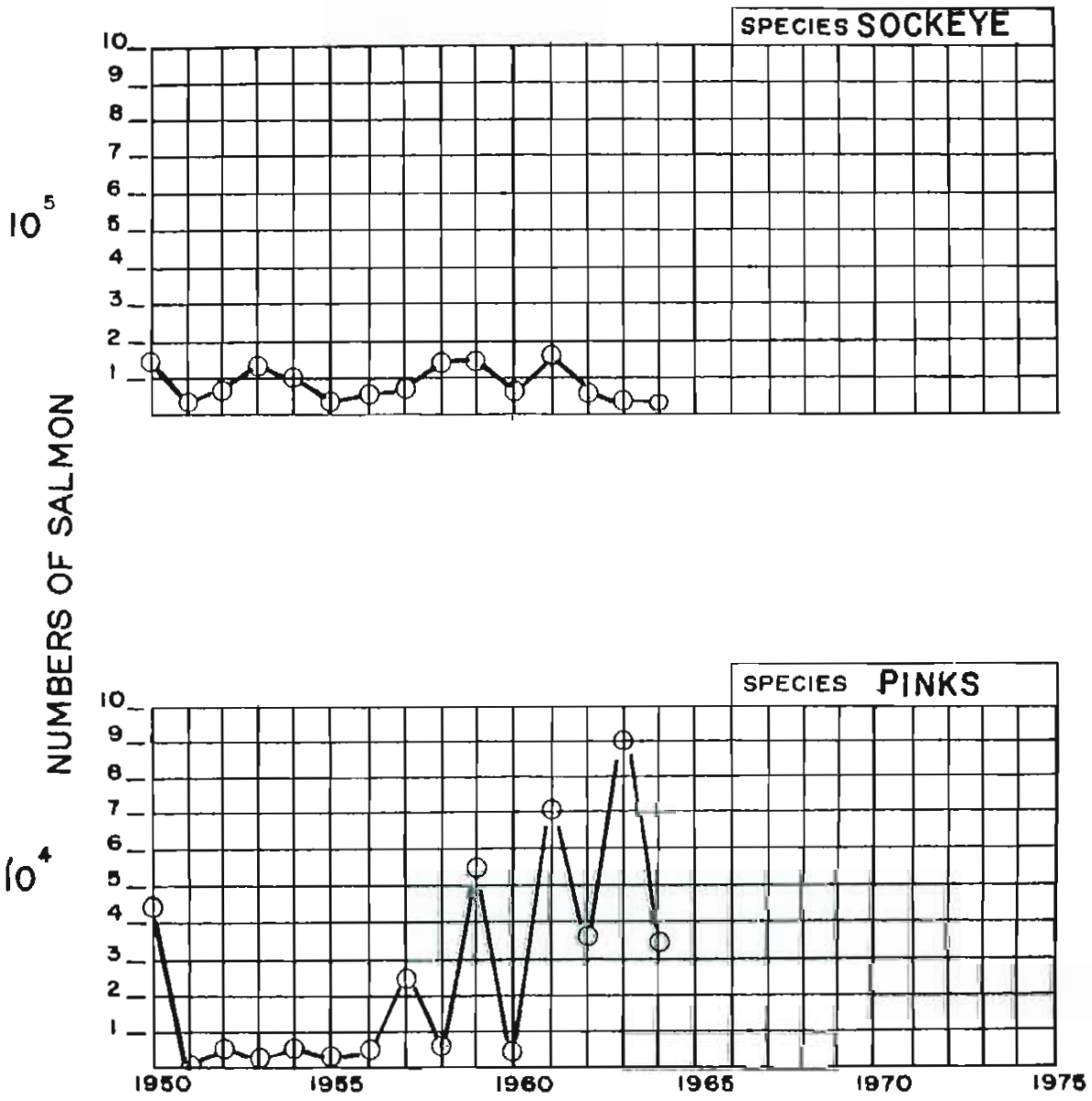
Year	Sockeye	Pinks	Reference
1934	Very heavy - 15% runts	Light	F.R.B.
1935	Heavy run - 15% runts		F.R.B.
1936	Heavy run - no runts	Light	F.R.B.
1937	Heavy run - 60% ♂ - 10% runts	Heavy run - 60% ♂	F.R.B.
1938	Medium run - 10% runts	Heavy	F.R.B.
1939	Heavy - predominance ♀ - 5% runts	Heavy	F.R.B.
1940	Heavy - 60% ♀ - 5% runts	Medium	F.R.B.
1941	Light - ♀ in majority		F.R.B.
1942	Medium - ♀ in majority	Medium	F.R.B.
1943	Light	Heavy - 300,000+	F.R.B.
1944	Heavy - 54% ♂ - 10% runts	Light	F.R.B.
1945	Heavy (biggest run ever experienced)	Heavy	F.R.B.
1946	Medium heavy - 60% ♀	Very light - ♀ in majority	F.R.B.
1947	Light - 60% ♀ - 20% runts	Medium	F.R.B.
1948	Heavy - estimate 150,000	Medium heavy	F.R.B.
1949	Heavy - estimate 150,000 - 50% ♀	Heavy (29,000)	F.R.B.
1950	Heavy (145,000) - 50% ♀ - 20% jacks	Heavy (44,000)	F.R.B.
1951	K-12,000 - Light - 45%♀ - 10% jacks	50 - Light	B.C.16
1952	M-50,000-100,000 - Light - 36% ♀ -	G - Light	B.C.16
	8% jacks		
1953	N-130,000 - Heavy - 42% ♀ - 2% jacks	F - 1,000 - Light	B.C.16
1954	M-100,000 - Heavy - 50% ♀ - no jacks	G - 4,500 - Medium	B.C.16
1955	K-15,000 - Light - 35% ♀ - 40% jacks	G - 2,000 - Light	B.C.16
1956	M-55,000 - Medium - 50% ♀ - 5% jacks	G - 2,500 - Light	B.C.16
1957	M-70,000 - Heavy - 50% ♀ - 5% jacks	L - 25,000 - Heavy	B.C.16
1958	N-110,000 - Heavy - 50% ♀ - 2% jacks	H - 6,500 - Medium	B.C.16
1959	N-130,000 - Heavy - 58% ♀ - 5% jacks	M - 56,000 - Heavy	B.C.16
1960	M-60,000 - Light - 40% ♀ - 10% jacks	G - 4,500 - Light	B.C.16
1961	N-175,000 - Heavy - 52% ♀ - 2% jacks	M - 70,000 - Heavy	B.C.16
1962	M-75,000 - Heavy - 47% ♀ - 8% jacks	L - 37,000 - Heavy	B.C.16
1963	M-55,350 - Heavy - 42% ♀ - 23% jacks	M - 90,000 - Heavy	B.C.16
1964	L-48,000 - Heavy - 52% ♀ - 2% jacks	L - 35,000 - Medium	B.C.16
	Sockeye estimates from tagging		
1962	55,200		
1963	34,500		
1964	49,500		

BABINE RIVER - LOWER - Sec. no. 4

Year	Springs	Coho	Chum	Reference
1934	Medium	Light		F.R.B.
1935	Light	Heaviest since 1929		F.R.B.
1936	Heavy	Light		F.R.B.
1937	Heavy run	Light		F.R.B.
1938	Heavy	Heavy		F.R.B.
1939	Heavy	Light		F.R.B.
1940	Medium	Medium		F.R.B.
1942	Heavy	Heavy		F.R.B.
1943	Medium	A few		F.R.B.
1944	Medium	Light		F.R.B.
1945	Medium	Light		F.R.B.
1946	Medium	Light		F.R.B.
1947	Medium	Light		F.R.B.
1948	Medium	Medium		F.R.B.
1949	Heavy - 7,000	Heavy - 6,000		F.R.B.
1950	Heavy - 7,000	Medium		F.R.B.
1951	2,000 - Light	400 - Medium		B.C.16
1952	G - Medium	F - Medium		B.C.16
1953	H - 8,000 - Medium	D - 500 - Light		B.C.16
1954	H - 6,000 - Medium	E - 500 - Light		B.C.16
1955	G - 3,200 - Medium	F - 2,000 - Medium		B.C.16
1956	G - 4,000 - Light	F - 1,000 - Medium		B.C.16
1957	H - 6,000 - Medium	E - 800 - Medium		B.C.16
1958	H - 8,000 - Medium	F - 2,000 - Heavy		B.C.16
1959	H - 9,000 - Medium	G - 2,500 - Medium		B.C.16
1960	G - 2,500 - Light	E - 800 - Light		B.C.16
1961	G - 2,500 - Light	F - 1,500 - Medium		B.C.16
1962	G - 3,000 - Light	G - 2,500 - Medium		B.C.16
1963	G - 3,000 - Light	D - 500 - Medium		B.C.16
1964	G - 3,000 - Light	D - 400 - Light		B.C.16

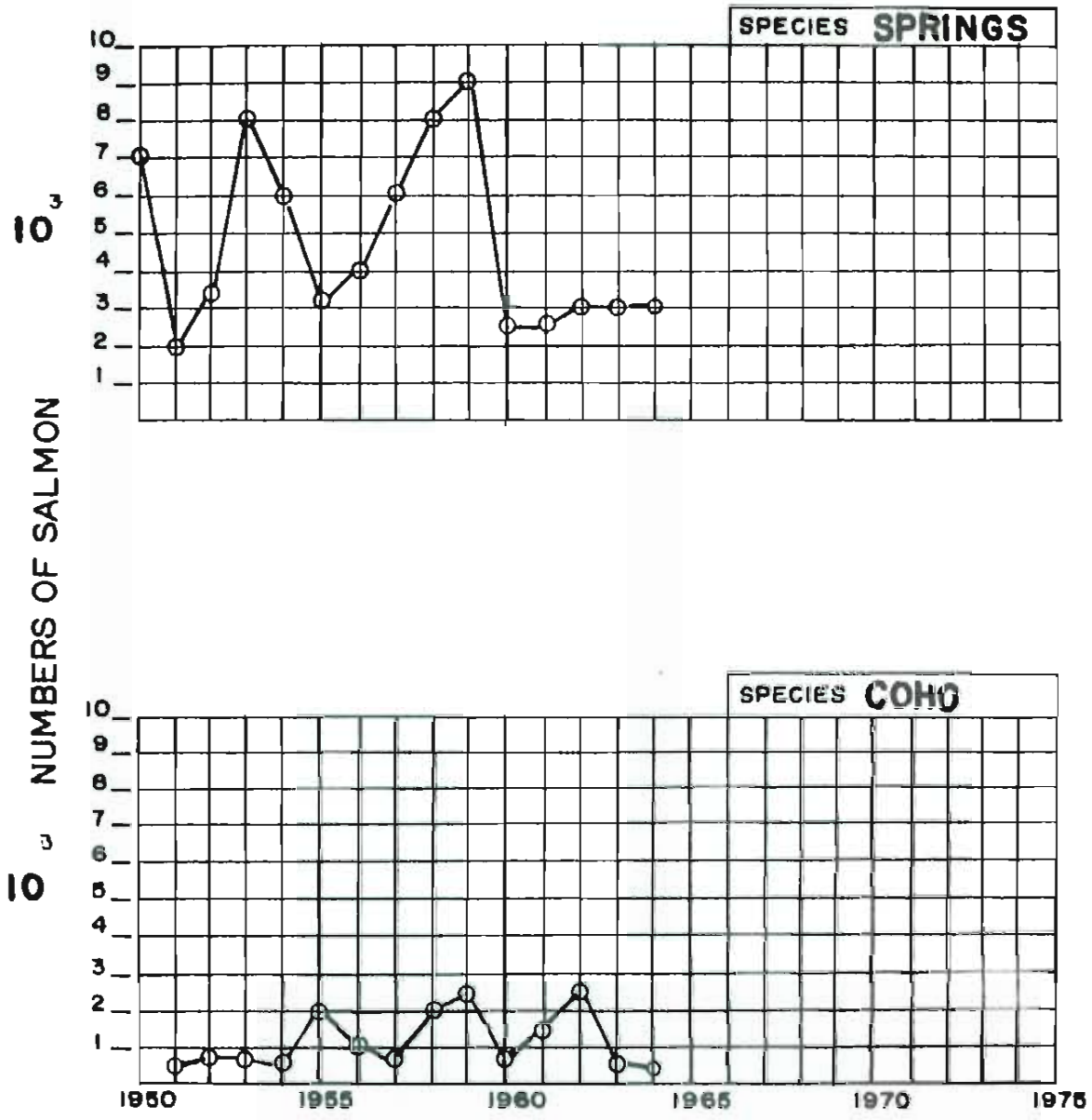
ANNUAL ESCAPEMENT TO—

BABINE RIVER (LOWER)



ANNUAL ESCAPEMENT TO—

SABINE RIVER (LOWER)



NAME OF STREAM BOUCHER CREEK (G): McDonald Creek NUMBER 10-50(L)-1

LOCATION OF MOUTH 55-25 N, 126-42 W. Flows SW into Lower Babine R. near outlet of Nilkitkwa L.

Length 3 mi. Width 10 ft. Depth 0.5 ft. Drainage area 48 sq. mi.

Composition (%): Bedrock _____ Coarse _____ Fine _____ Silt and sand _____

Gradient (fall in ft/000): Rapid X Moderate _____ Slow _____

Av. discharge _____ cfs, and water temperature _____ °C at spawning time.

Barriers or points of difficult ascent Rapids at 1.5 mi. may limit most pink migration.

Spawning bed: In use _____ % Unused _____ %: Total _____ sq. yds.

Potential of unused portion of stream: Good _____ Fair _____ Poor _____

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM		SECTIONS OF STREAM USED
Sockeye	X	Lower .5 mi.
Pink	X	Lower 1.5 mi.
Coho	X	Probably throughout
Spring		
Chum		

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye							100-4000
Pink							Nil to 1000
Coho							100-300
Spring							
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum

Access route and general remarks: Trail leads from FRB fence to stream mouth. This is an intermittent producer which suffers from low water many years.

BOUCHER CREEK - McDONALD CREEK

Year	Sockeye	Pinks	Reference
1925		Full	F.R.B.
1927		Strong	F.R.B.
1929		Very heavy	F.R.B.
1930		Light	F.R.B.
1931		Medium-about 50% -1929 run	F.R.B.
1932		Only a few	F.R.B.
1933		Heavy -about same as 1930	F.R.B.
1934		Light	F.R.B.
1935		Heavy -compares to 1929	F.R.B.
1936		None this season	F.R.B.
1937		Heavy -compares to 1929 -60% ♀	F.R.B.
1938		Medium -100% better than 1936	F.R.B.
1940		Medium - less than 1938	F.R.B.
1942		Lighter than 1940	F.R.B.
1943	185 - Lighter than 1939	Medium-1,000- 60% ♀ better than 1941	F.R.B.
1945	——Washout	low water ——	F.R.B.
1946		10 - very light	F.R.B.
1947	8		F.R.B.
1948	50-Light	500-Heavy	F.R.B.
1949	——Wash	out——	F.R.B.
1950	——Low	water——	F.R.B.
1951	——Low	water——	B.C. 16
1952	D-all died unspawned		B.C. 16
1953	G-4,000 Heavy		B.C. 16
1954	D-400-Heavy		B.C. 16
1955	——not	used——	B.C. 16
1956	——Creek	dry——	B.C. 16
1958	Nil ——Creek	nearly dry ——	B.C. 16
1959		D-500-Medium	B.C. 16
1960	——Stream	dry——	B.C. 16
1961	——Stream	dry——	B.C. 16

BOUCHER CREEK - McDONALD CREEK

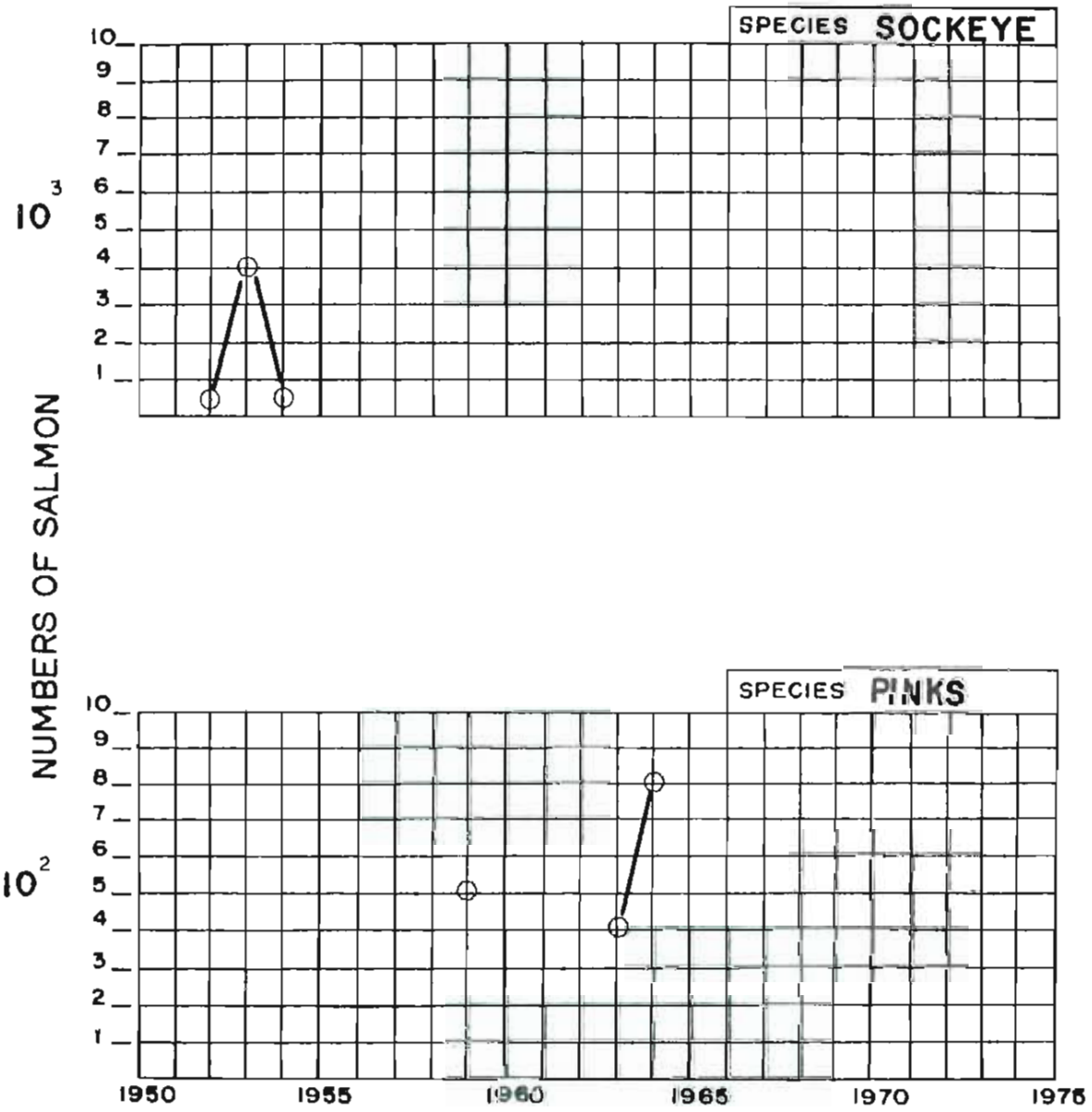
Year	Sockeye	Pinks	Reference
1962	——Stream	dry——	B.C. 16
1963		D-400-Heavy	B.C. 16
1964		E-800-Medium	B.C. 16

BOUCHER CREEK - McDONALD CREEK

Year	Springs	Coho	Chum	Reference
1925	A lot			F.R.B.
1927	Strong			F.R.B.
1928	Very few			F.R.B.
1929	Not many			F.R.B.
1930	Light			F.R.B.
1938		125		F.R.B.
1940		Medium		F.R.B
1946	25	300		F.R.B.
1947	"	50		F.R.B.
1948		150 Light		F.R.B.
1952		B-60% Loss		B.C. 16
1953		B-100 Medium		B.C. 16
1954		A-75-Light		B.C. 16
1955		B-100-Light		B.C. 16
1956		Creek dry		B.C. 16
1957		C-200-Medium		B.C. 16
1958		Nearly dry		B.C. 16
1959		B-100-Light		B.C. 16
1960		Stream dry		B.C. 16
1961		Stream dry		B.C. 16
1962		Stream dry		B.C. 16

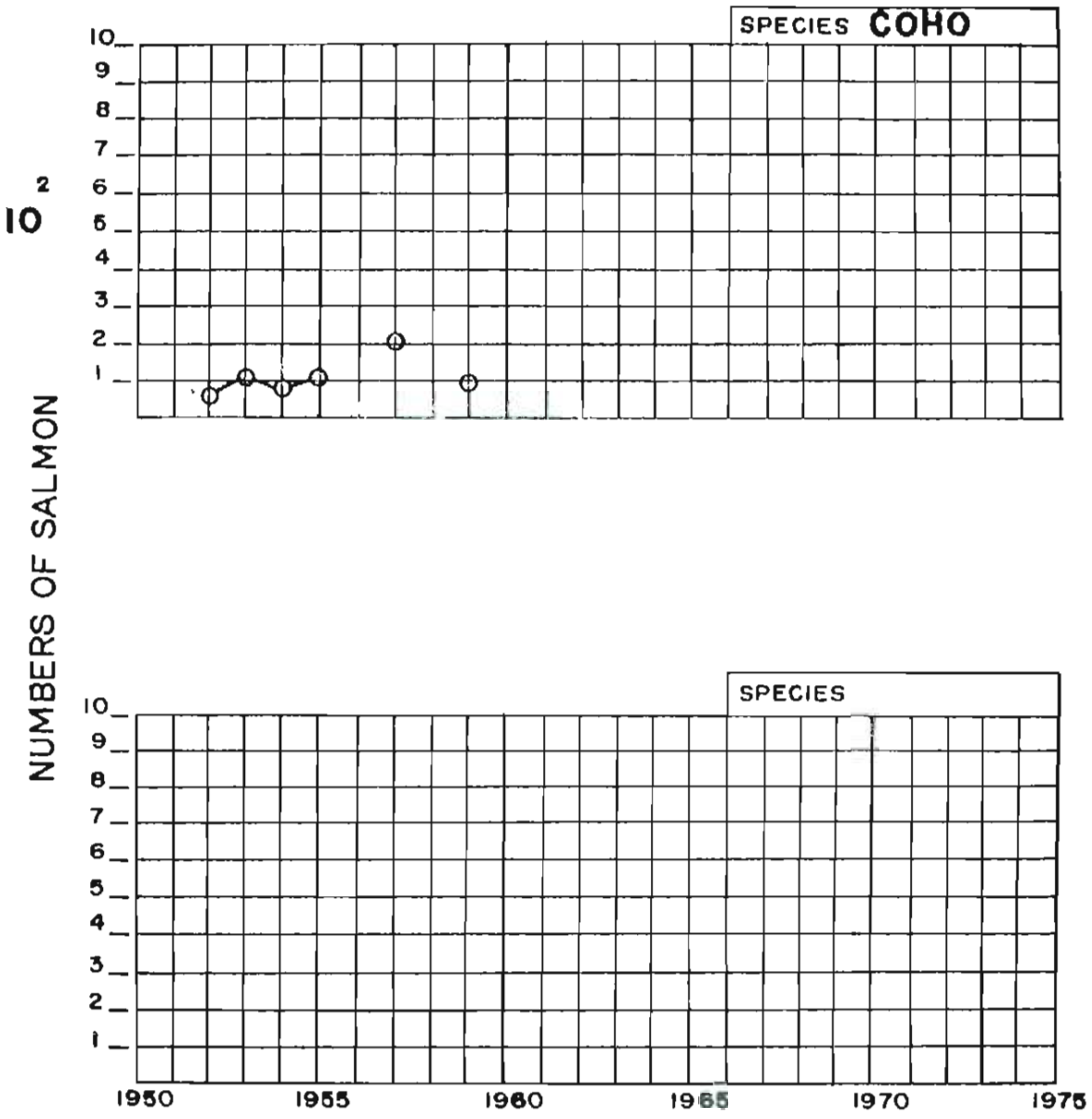
ANNUAL ESCAPEMENT TO—

BOUCHER CREEK



ANNUAL ESCAPEMENT TO—

BOUCHER CREEK



NAME OF STREAM NILKITKWA LAKE (G) NUMBER 10-50A

LOCATION OF MOUTH 55-25 N. 126-41 W. Drains N into Babine R.

Length 6 mi. Width .6 mi. Depth 60 ft. Drainage area _____ sq. mi.

Composition (%): Bedrock _____ Coarse _____ Fine _____ Silt and sand _____

Gradient (fall in ft/000): Rapid _____ Moderate _____ Slow _____

Av. discharge _____ cfs, and water temperature _____ °C at spawning time.

Barriers or points of difficult ascent _____

Spawning bed: In use _____ % Unused _____ %: Total _____ sq. yds.

Potential of unused portion of stream: Good _____ Fair _____ Poor _____

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM	SECTIONS OF STREAM USED
Sockeye	
Pink	
Coho	
Spring	
Chum	

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye							
Pink							
Coho							
Spring							
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum

Access route and general remarks: A few salmon may spawn in narrows in mid-lake. Otherwise used as migration route, ripening area and nursery area for young of several species.

Ref: Skeena MS: 1948.

NAME OF STREAM BABINE RIVER (UPPER) NUMBER 10-50(U)

LOCATION OF MOUTH 55-20 N, 126-38 W. Flows N from N arm of Babine L. into Nilkitkwa L.

Length 1.3 mi. Width 300 ft. Depth 3.0 ft. Drainage area _____ sq. mi

Composition (%): Bedrock _____ Coarse 30 Fine 60 Silt and sand 10

Gradient (fall in ft/000): Rapid _____ Moderate _____ Slow X

Av. discharge _____ cfs, and water temperature 11-12 °C at spawning time.

Barriers or points of difficult ascent None

Spawning bed: In use 90 % Unused 10 %: Total 250,000 sq. yds.

Potential of unused portion of stream: Good _____ Fair _____ Poor X

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM		SECTIONS OF STREAM USED
Sockeye	X	Throughout
Pink	X	Uncertain - none observed in recent years
Coho	X	Throughout
Spring	X	None observed in recent years
Chum		

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye	S 25	O 10	O 20	O 1	O 15	N 20	9000-240,000
Pink							Few to light
Coho							150-1000
Spring							Up to 500, usually few
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum
1				

Access route and general remarks: Supports largest sockeye sub-stock in Babine system. Combines excellent gravel with stable flow during period of spawning and incubation. Duration of spawning probably density dependent most years. Population estimate by tagging beginning in 1962.

BABINE RIVER - UPPER. Sections 1 - 2 - 3

Year	Sockeye	Pinks	Reference
1934	Sec. 1 - Light - 7% runts	Nil	F.R.B.
	Sec. 2 - Light	Nil	F.R.B.
	Sec. 3 - Medium - 10% runts	Few	F.R.B.
1935	Sec. 1 - Heavy - 15% runts	Light to medium	F.R.B.
	Sec. 2 - compares to 1932 -	Medium to heavy	F.R.B
	20% runts		
	Sec. 3 - Heavy - 20% runts	Light	F.R.B.
1936	Sec. 1 - Medium - compares 1932		F.R.B.
	Sec. 2 - Heavy - compares 1931 -		F.R.B
	15% runts		
	Sec. 3 - Heavy - little less than		F.R.B
	1930		
1937	Sec. 1 - Medium - 75% ♂ 10% runts	Heavy	F.R.B.
	Sec. 2 - Heavy - 1% runts	Heavy	F.R.B.
	Sec. 3 - Would compare with any	Heavy	F.R.B.
	year - 15% runts		
1938	Sec. 1 - Medium - few runts	Light	F.R.B.
	Sec. 2 - Heavy - 15% runts	Light	F.R.B.
	Sec. 3 - Heavy - 15% runts	Light	F.R.B.
1939	Sec. 1 - Heavy - 66% ♀ 5% runts		F.R.B.
	Sec. 2 - Heavy - 75% ♂ 5% runts		F.R.B.
	Sec. 3 - Heavy - 66% ♀ 5% runts		F.R.B.
1940	Sec. 1 - Very heavy - 60% ♂,	A few	F.R.B.
	better than 1936		
	Sec. 2 - Heavy - 60% ♀ 5% runts	A few	F.R.B.
	Sec. 3 - Heavy - 60% ♀ but not	Very light	F.R.B.
	equal to 1930. Compares with 1932		
1941	Sec. 1 - Heavy - ♀ in majority -		F.R.B.
	15% small - compares with 1937		
	Sec. 2 - Heavy - ♀ in majority -		F.R.B.
	20% small - some waste due to ♀		
	predominance		
	Sec. 3 - Heavy - ♀ in majority		F.R.B.
1942	Sec. 1 - Fairly heavy - compares	Light	F.R.B
	to 1938		
	Sec. 2 - Medium - 55% ♀ 10% runts	Light	F.R.B.
	Sec. 3 - Medium - ♀ in majority -	Light	F.R.B.
	10% runts		

BABINE RIVER - UPPER. Sections 1 - 2 - 3

Year	Sockeye	Pinks	Reference
1943	Sec. 1	A few	F.R.B.
	Sec. 2 Overall - light		
	Sec. 3		
1944	Sec. 1 - Heavy - 10% small	A few	F.R.B.
	Sec. 2 - Heavy - 10% small	A few	F.R.B.
	Sec. 3 - Heavy - 2% small (compare	A few	F.R.B.
	to either 1930 or 1940)		
1945	Sec. 1 - Heavy - few runts -	Light	F.R.B.
	better than 1940-41		
	Sec. 2 - Heavy - better than	Light	F.R.B.
	1940-41		
	Sec. 3 - Heavy - superior to	Light	F.R.B.
	1940-41		
1946	Sec. 1 - Medium-Heavy - ♀ in	Very light	F.R.B.
	majority		
	Sec. 2 - Fairly heavy - ♀ in	Very light - does not compare well	F.R.B.
	majority (compares favourably with	with any year	
	1941-42)		
	Sec. 3 - Heavy - ♀ in majority	Very light - does not compare with	F.R.B.
	(compares favourably with 1941-42	any year	
1947	Sec. 1 - Light - 50% ♀ - 15% runts		F.R.B.
	Sec. 2 - Light - 50% ♀ - 15% runts		F.R.B.
	Sec. 3 - Light - 15% runs. Will	Light	F.R.B.
	not compare with 1943		
1948	Sec. 1 - Heavy	A few	F.R.B.
	Sec. 2 - Heavy	A few	F.R.B.
	Sec. 3 - Heavy	A few	F.R.B.
1949	Sec. 1 - Heavy - 45% ♂		F.R.B.
	Sec. 2 - Heavy - 45% ♂		F.R.B.
	Sec. 3 - Heavy (90,000) - 50% ♀		F.R.B.
1950	Sec. 1 - Medium (40,000).		F.R.B.
	Large % jacks		
	Sec. 2 - Estimate 50,000 - Jacks		F.R.B.
	over 25%		
	Sec. 3 - Heavy (40,000) - Jacks		F.R.B.
	over 25%		
1951	Sec. 1 - G-5,000 - light - 35% ♀ -		B.C.16
	25% jacks		

BABINE RIVER - UPPER. Sections 1 2 3

Year	Sockeye	Pinks	Reference
1951	Sec. 2 - H-7,000 - Light - 40% ♀ -		B.C.16
	20% jacks		
	Sec. 3 - H-8,000 - Light - 40% ♀ -		B.C.16
	20% jacks		
1952	Sec. 1 - K-10,000-20,000 - Light -		B.C.16
	36% ♀ - 8% jacks		
	Sec. 2 - L-20,000-50,000 - Light -		B.C.16
	36% ♀ - 8% jacks		
	Sec. 3 - L-20,000-50,000 - Light -		B.C.16
	36% ♀ - 8% jacks		
1953	Sec. 1 - L-40,000 - 49% ♀ -		B.C.16
	2% jacks		
	Sec. 2 - M-60,000 - Heavy - 49% ♀ -		B.C.16
	2% jacks		
	Sec. 3 - M-50,000 - Heavy - 49% ♀ -		B.C.16
	2% jacks		
1954	Sec. 1 - L-40,000 - Heavy - 50% ♀ -		B.C.16
	2% jacks		
	Sec. 2 - M-50,000 - Heavy - 50% ♀ -		B.C.16
	2% jacks		
	Sec. 3 - L-45,000 - Heavy - 50% ♀ -		B.C.16
	2% jacks		
1955	Sec. 1 - H-8,000 - Light - 30% ♀ -		B.C.16
	40% jacks		
	Sec. 2 - G-4,000 - Light - 30% ♀ -		B.C.16
	35% jacks		
	Sec. 3 - G-3,500 - Light - 30% ♀ -		B.C.16
	35% jacks		
1956	Sec. 1 - K-20,000 - Medium -		B.C.16
	50% ♀ - 5% jacks		
	Sec. 2 - L-25,000 - Medium -		B.C.16
	50% ♀ - 5% jacks		
	Sec. 3 - L-25,000 - Medium -		B.C.16
	50% ♀ - 5% jacks		
1957	Sec. 1 - L-40,000 - Heavy - 50% ♀ -		B.C.16
	10% jacks		
	Sec. 2 - L-50,000 - Heavy - 50% ♀ -		B.C.16
	10% jacks		

BABINE RIVER - UPPER. Sections 1 - 2 3

Year	Sockeye	Pinks	Reference
1957	Sec. 3 - L-40,000 - Heavy - 50% ♀ -		B.C.16
	10% jacks		
1958	Sec. 1 - L-50,000 - Heavy - 50% ♀ -		B.C.16
	2% jacks		
	Sec. 2 - M-60,000 - Heavy - 50% ♀ -		B.C.16
	2% jacks		
	Sec. 3 - L-50,000 - Heavy - 50% ♀ -		B.C.16
	2% jacks		
1959	Sec. 1 - L-45,000 - Heavy - 58% ♀ -		B.C.16
	5% jacks		
	Sec. 2 - M-70,000 - Heavy - 58% ♀ -		B.C.16
	5% jacks		
	Sec. 3 - M-50,000 - Heavy - 58% ♀ -		B.C.16
	5% jacks		
1960	Sec. 1 - H-9,000 - Light - 40% ♀ -		B.C.16
	10% jacks		
	Sec. 2 - K-20,000 - Light - 40% ♀ -		B.C.16
	10% jacks		
	Sec. 3 - K-12,000 - Light - 40% ♀ -		B.C.16
	10% jacks		
1961	Sec. 1 - M-70,000 - Heavy - 52% ♀ -		B.C.16
	2% jacks		
	Sec. 2 - M-80,000 - Heavy - 52% ♀ -		B.C.16
	2% jacks		
	Sec. 3 - M-50,000 - Heavy - 52% ♀ -		B.C.16
	2% jacks		
1962	Sec. 1 - M-70,000 - Heavy - 47% ♀ -		B.C.16
	8% jacks		
	Sec. 2 - M-80,000 - Heavy - 47% ♀ -		B.C.16
	8% jacks		
	Sec. 3 - M-60,000 - Heavy - 47% ♀ -		B.C.16
	8% jacks		
1963	Sec. 1 - L-36,900 - Heavy - 42% ♀ -		B.C.16
	23% jacks		
	Sec. 2 - M-55,350 - Heavy - 42% ♀ -		B.C.16
	23% jacks		
	Sec. 3 - M-49,200 - Heavy - 42% ♀ -		B.C.16
	23% jacks		

BABINE RIVER - UPPER. Sections 1 2 3

Year	Sockeye	Pinks	Reference
1964	Sec. 1 - M-80,000 - Heavy - 52% ♀-		B.C.16
	1% jacks		
	Sec. 2 - M-95,000 - Heavy - 52% ♀-		
	1% jacks		
	Sec. 3 - M-75,000 - Heavy - 52% ♀-		
	1% jacks		
	Sockeye estimate from tagging		
1962	174,600		
1963	119,500		
1964	241,000		

BABINE RIVER - UPPER. Sections 1 - 2 - 3

Year	Springs	Coho	Chum	Reference
1934	Sec. 1 - Nil	Light		F.R.B.
	Sec. 2 - Nil	Light		F.R.B.
	Sec. 3 - Light	Light		F.R.B.
1935	Sec. 1 - Nil	Light		F.R.B.
	Sec. 2 - Poor	Medium		F.R.B.
	Sec. 3 - Poor	Medium		F.R.B.
1936	Sec. 1 - Nil	Nil		F.R.B.
	Sec. 2 - Nil	Light		F.R.B.
	Sec. 3 - Medium	Light		F.R.B.
1937	Sec. 1 - Light	Light		F.R.B.
	Sec. 2 - Light	Light		F.R.B.
	Sec. 3 - Light	Light		F.R.B.
1938	Sec 1 - Few	Medium		F.R.B.
	Sec. 2 - Light	Medium		F.R.B.
	Sec. 3 - Light	Light		F.R.B.
1940	Sec. 1 - Few	Light		F.R.B.
	Sec. 2 - Few	Light		F.R.B.
	Sec. 3 - Few	Very few		F.R.B.
1942	Sec. 1 - Few			F.R.B.
	Sec. 2 - Not many	Medium		F.R.B.
	Sec. 3 - Light	Medium		F.R.B.
1943	Sec. 1 - Very light	Few		F.R.B.
	Sec. 2			
	Sec. 3			
1944	Sec. 1 - Few	Light		F.R.B.
	Sec. 2 - Few	Light		F.R.B.
	Sec. 3 - Few	Few		F.R.B.
1945	Sec. 1 - Few	Light		F.R.B.
	Sec. 2 - Few	Medium		F.R.B.
	Sec. 3 - Light	Heavy		F.R.B.
1946	Sec. 1 - Few	Light		F.R.B.
	Sec. 2 - compares well	Light		F.R.B.
	with 1941-42			
	Sec. 3 - Few - com-			F.R.B.
	pares well with 1941-42	Light		
1947	Sec. 1 - Few	Few		F.R.B.
	Sec. 2 - Light	Light		

BABINE RIVER - UPPER. Sections 1 - 2 - 3

Year	Springs	Coho	Chum	Reference
1947	Sec. 3 - Few	Light		F.R.B.
1948	Sec. 1 - Light	Light		F.R.B.
	Sec. 2 - Light	Light		F.R.B.
	Sec. 3 - Light	Light		F.R.B.
1949	Sec. 1 - Light	Light		F.R.B.
	Sec. 2 - Few	Estimate (1,000)		F.R.B.
	Sec. 3 - Medium (500)	Medium		F.R.B.
1950	Sec. 1	Medium		F.R.B.
	Sec. 2	400		F.R.B.
	Sec. 3	400		
1952	Sec. 1	E - Medium		B.C.16
	Sec. 2	F - Medium		B.C.16
	Sec. 3	G -		B.C.16
1953	Sec. 1	C - 150 - Light		B.C.16
	Sec. 2	E - 500 - Medium		B.C.16
	Sec. 3	C - 300 Medium		B.C.16
1954	Sec. 1	A - 20 - Light		B.C.16
	Sec. 2	C - 200 - Light		B.C.16
	Sec. 3	B - 100 - Light		B.C.16
1955	Sec. 1	D - 400 - Medium		B.C.16
	Sec. 2	C - 200 - Light		B.C.16
	Sec. 3	C - 250 - Light		B.C.16
1956	Sec. 1	C - 200 - Light		B.C.16
	Sec. 2	D - 400 - Medium		B.C.16
	Sec. 3	D - 500 - Medium		B.C.16
1957	Sec. 1	D - 500		B.C.16
	Sec. 2	D - 400 - Medium		B.C.16
		light		
	Sec. 3	D - 400 - Heavy		B.C.16
1958	Sec. 1	E - 500 - Heavy		B.C.16
	Sec. 2	K - 1,000 - Heavy		B.C.16
	Sec. 3	D - 300 - Heavy		B.C.16
1959	Sec. 1	D - 300 - Medium		B.C.16
	Sec. 2	E - 900 - Medium		B.C.16
	Sec. 3	E - 700 - Medium		B.C.16
1960	Sec. 1	C - 150 - Light		B.C.16
	Sec. 2	E - 350 - Light		B.C.16
	Sec. 3	C - 250 - Light		B.C.16

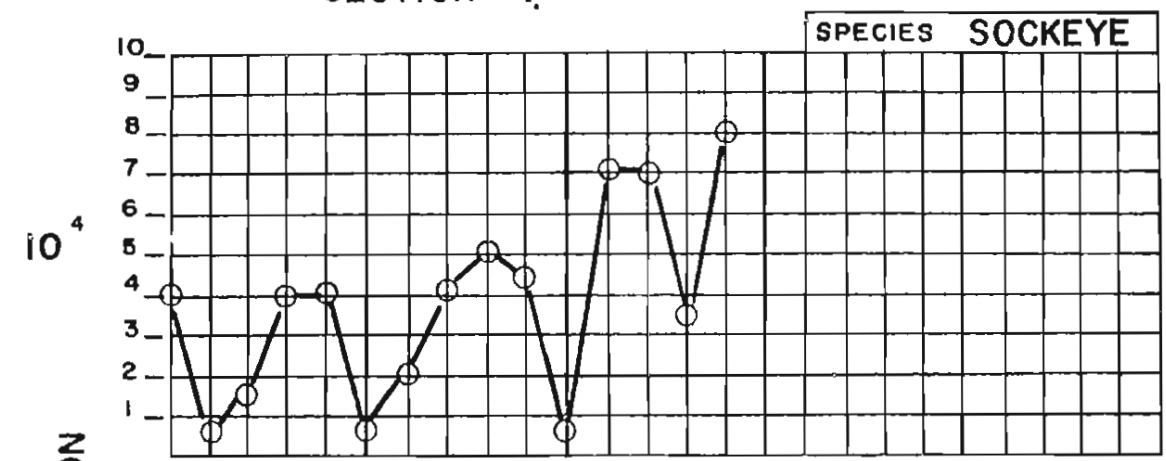
BABINE RIVER - UPPER. Sections 1 - 2 - 3

Year	Springs	Coho	Chum	Reference
1961	Sec. 1	E - 750 - Light		B.C.16
	Sec. 2	H - 1,000 - Heavy		B.C.16
	Sec. 3	D - 400 - Heavy		B.C.16
1962	Sec. 1	C - 200 - Medium		B.C.16
	Sec. 2	D - 350 - Medium		B.C.16
	Sec. 3	E - 900 - Medium		B.C.16
1963	Sec. 1	C - 200 - Medium		B.C.16
	Sec. 2	D - 350 - Medium		B.C.16
	Sec. 3	D - 350 - Medium		B.C.16
1964	Sec. 1	C - 200 - Medium		B.C.16
	Sec. 2	D - 400 - Medium		B.C.16
	Sec. 3	C - 200 - Medium		B.C.16

ANNUAL ESCAPEMENT TO—

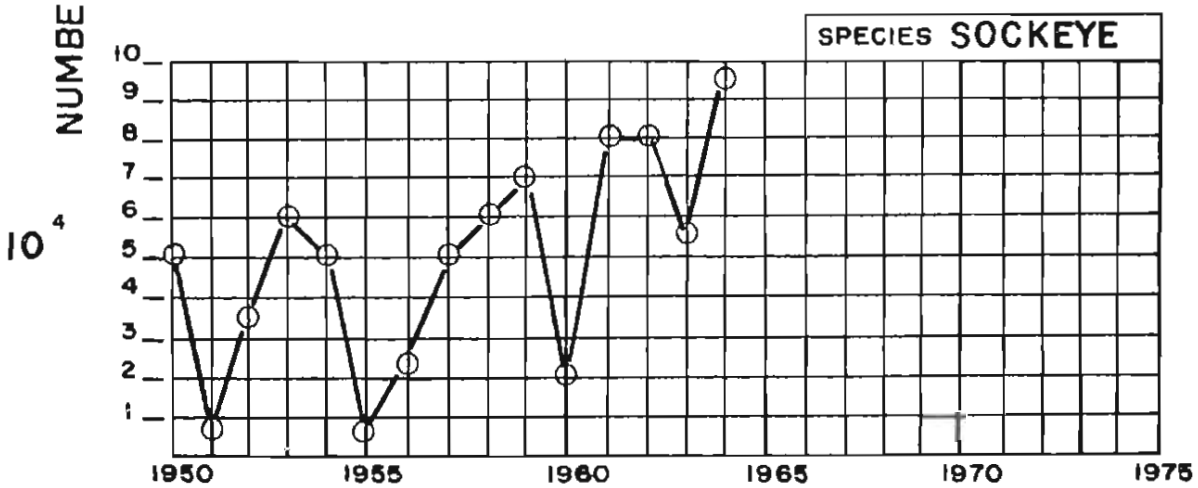
BABINE RIVER (UPPER)

SECTION 1.



NUMBERS OF SALMON

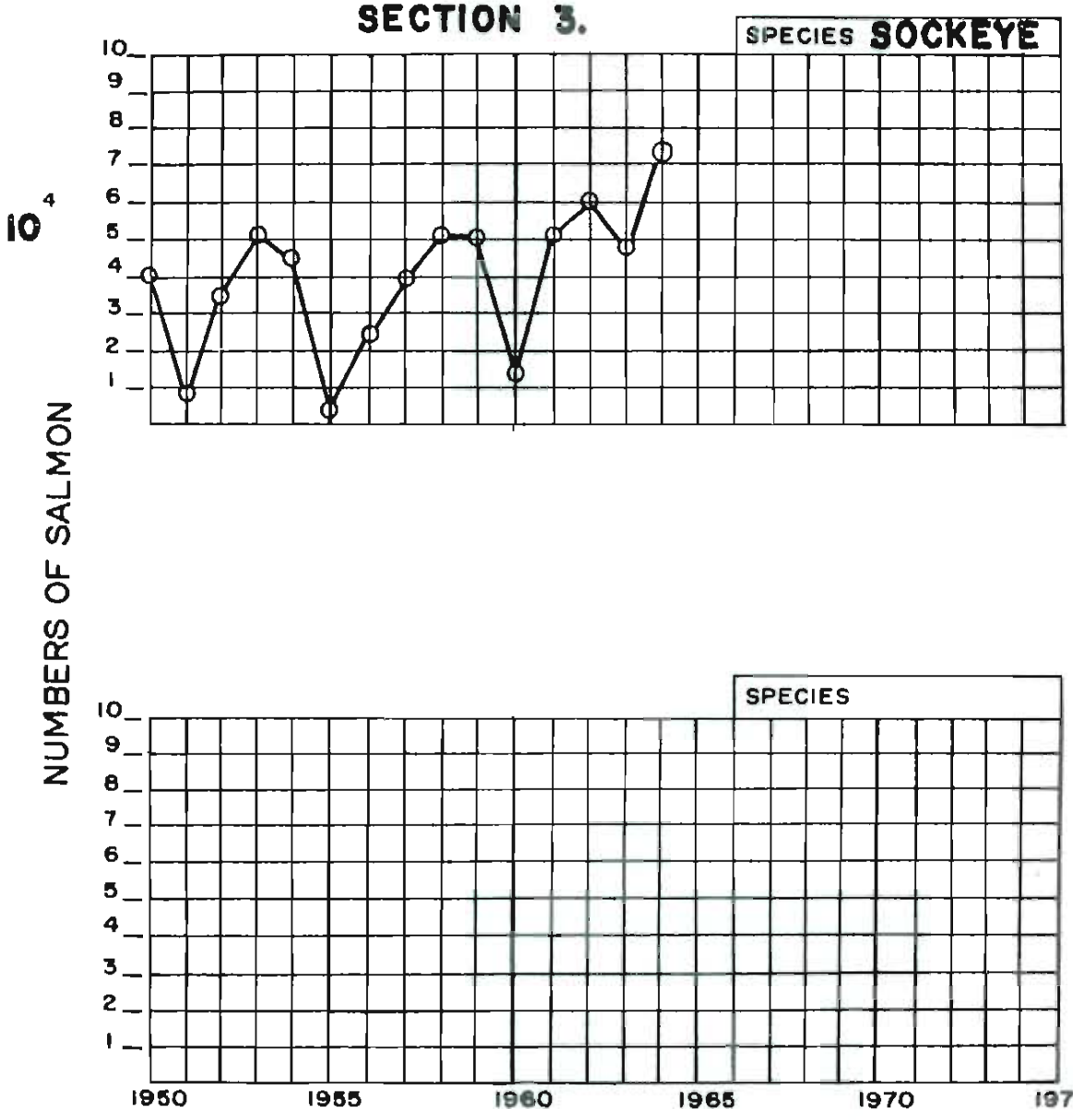
SECTION 2.



ANNUAL ESCAPEMENT TO—

BABINE RIVER (UPPER)

SECTION 3.



ANNUAL ESCAPEMENT TO—

BABINE RIVER (UPPER)

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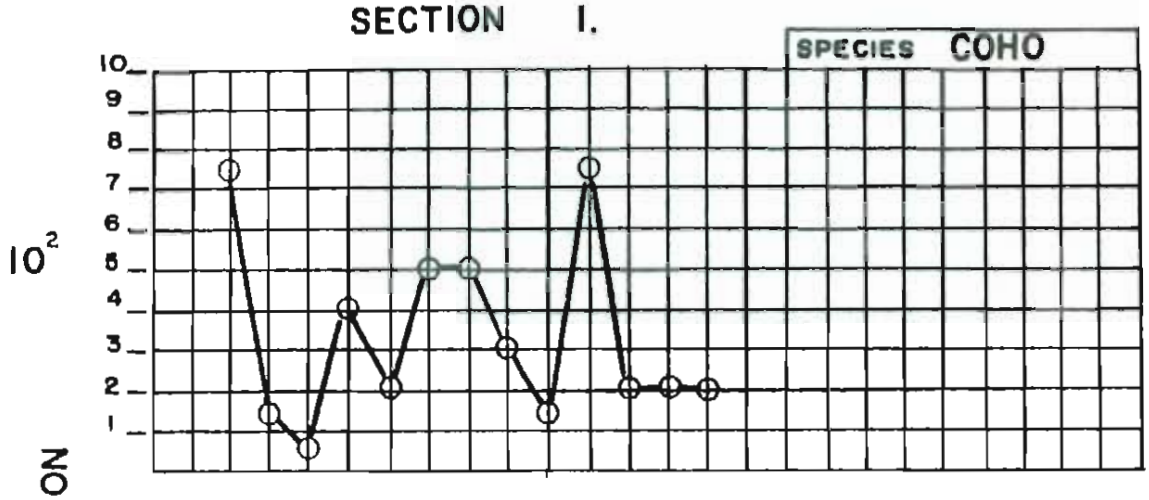

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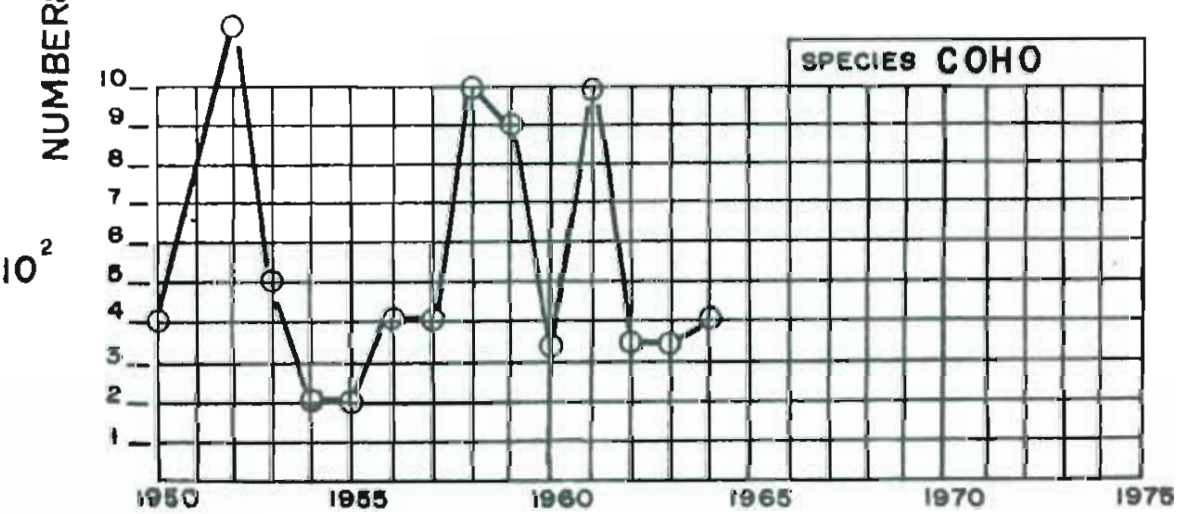
NUMBERS OF SALMON

SECTION 2.



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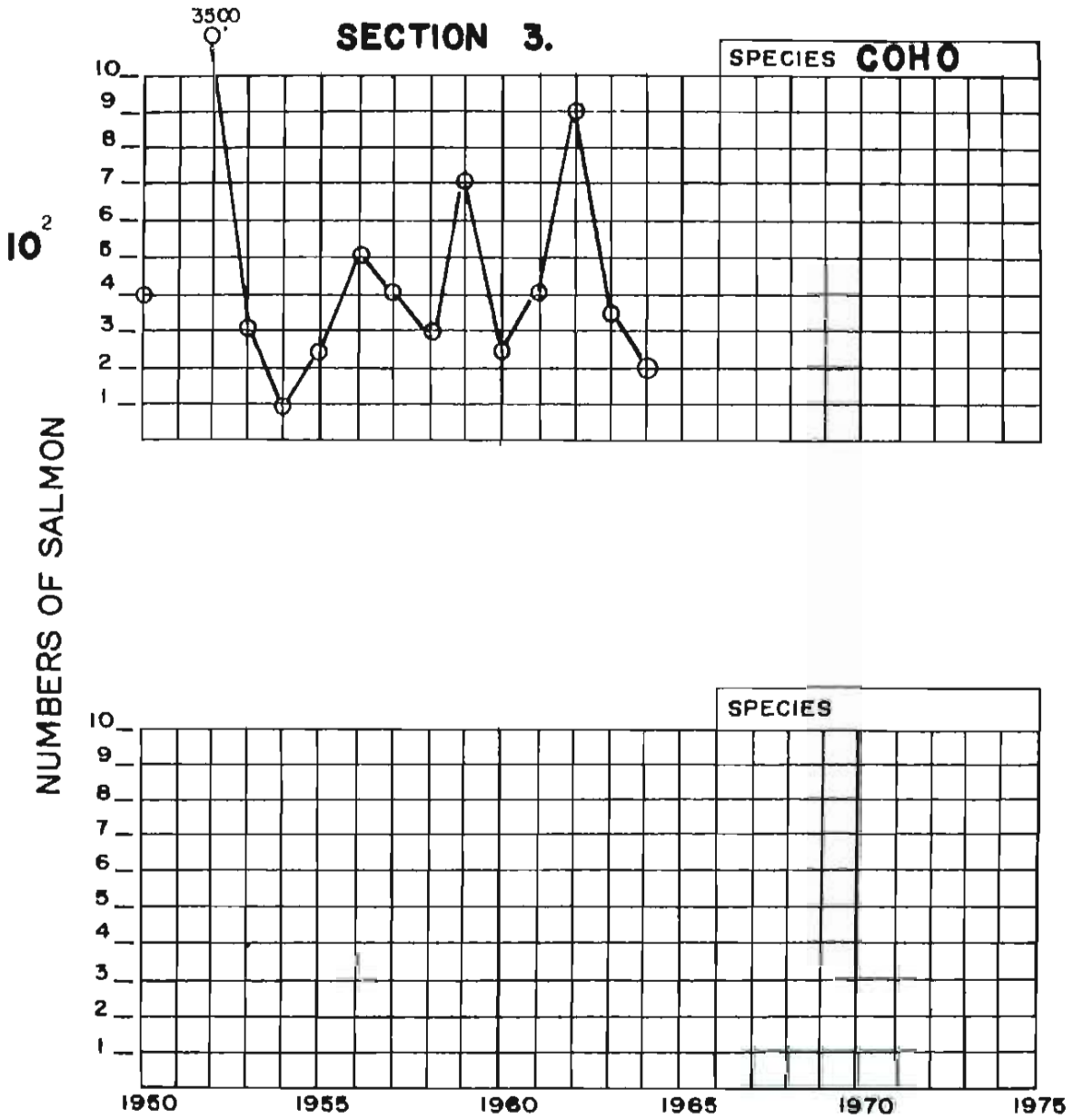
ANNUAL ESCAPEMENT TO—

BABINE RIVER (UPPER)



NAME OF STREAM TSEZAKWA CREEK (G): Trail Creek NUMBER 10-50(U)-1

LOCATION OF MOUTH 55-19 N, 126-37 W. Flows E into Upper Babine R. opposite Fort Babine.

Length 2 mi. Width 8 ft. Depth .5 ft. Drainage area _____ sq. mi

Composition (%): Bedrock _____ Coarse _____ Fine _____ Silt and sand _____

Gradient (fall in ft/000): Rapid _____ Moderate _____ Slow _____

Av. discharge _____ cfs, and water temperature _____ °C at spawning time.

Barriers or points of difficult ascent Only accessible in years of high water.

Spawning bed: In use _____ % Unused _____ %: Total _____ sq. yds.

Potential of unused portion of stream: Good _____ Fair _____ Poor _____

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM		SECTIONS OF STREAM USED
Sockeye	X	Mouth to 1 mi.
Pink		
Coho		
Spring		
Chum		

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye							50-400
Pink							1929 report only
Coho							
Spring							
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum

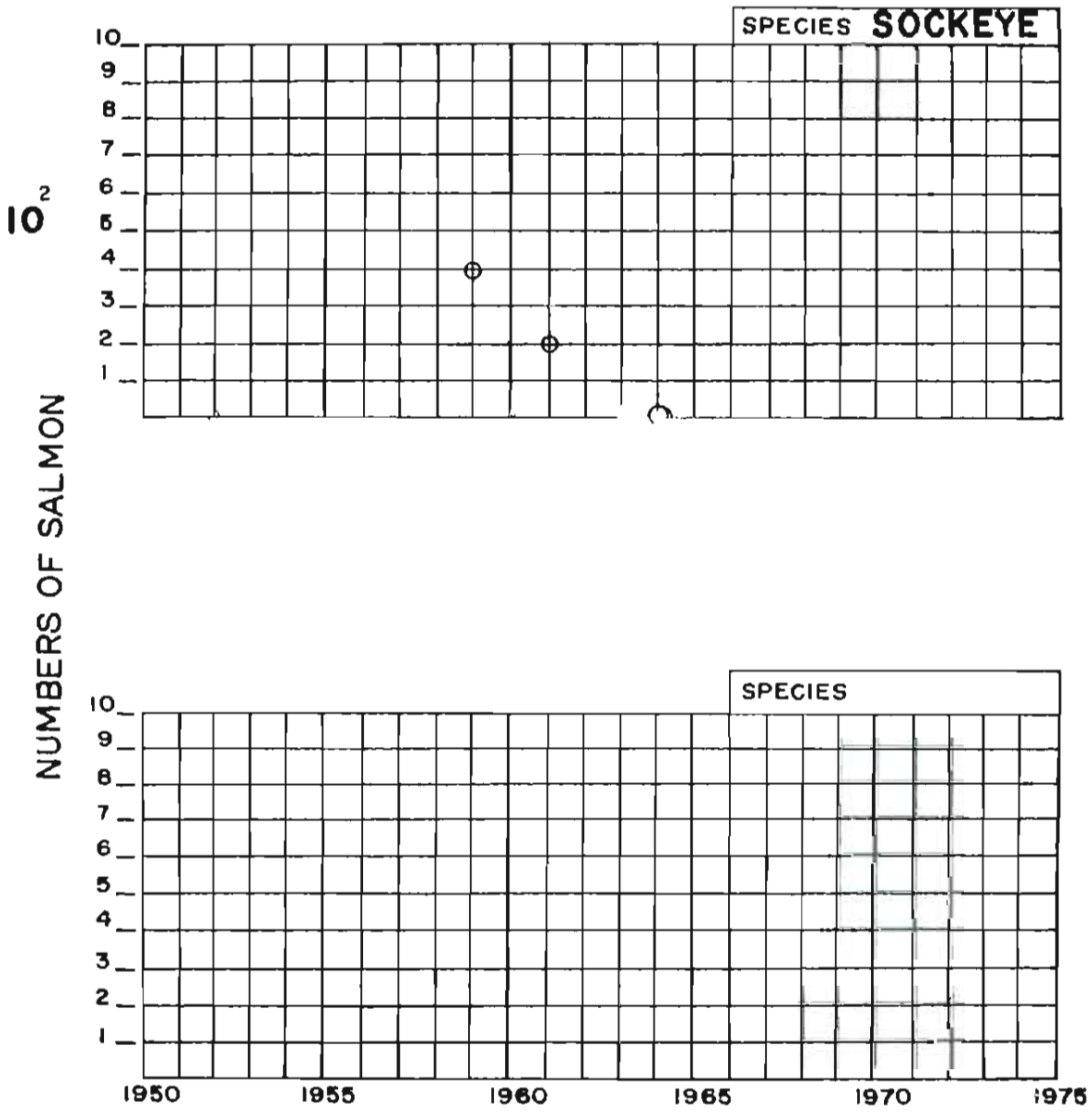
Access route and general remarks: Marginal producer.

TSEZAKWA CREEK - TRAIL CREEK

Year	Sockeye	Pinks	Reference
1929	Small run	Medium -20% more ♀	F.R.B.
1930	300 - sexes even		F.R.B.
1931	Very light - ♂ predominant		F.R.B.
1934	Light run ♂ 2:1		F.R.B.
1936	No fish - channel washed out		F.R.B.
1937		No pinks	F.R.B.
1942	200 -not known if they spawned		F.R.B.
1943	118 - ♀ slightly in majority		F.R.B.
1944	169		F.R.B. Ann. Rpt.
1945	Nil		F.R.B. Ann.Rpt.
1946	100		F.R.B. Ann.Rpt.
1947	75		F.R.B. Ann.Rpt.
1948	No fish		F.R.B. Ann.Rpt.
1951	No run - low water		B.C. 16
1952	Nil		B.C. 16
1959	D-400-50% ♀		B.C. 16
1960	Stream dry		B.C. 16
1961	C-200-Heavy-52% ♀-2% Jacks		B.C. 16
1962	Stream dry		B.C. 16
1963	Stream dry		B.C. 16
1964	Nil		B.C. 16

ANNUAL ESCAPEMENT TO—

TSEZAKWA CREEK



NAME OF STREAM BABINE LAKE (G) NUMBER 10-50B

LOCATION OF MOUTH 55-19 N, 126-38 W. Drains N through Nilkitkwa L. and the Babine R.

(Elevation 2332')

Length 93 mi. Width 5 mi. Depth 680 ft. Drainage area _____ sq. mi.

Composition (%): Bedrock _____ Coarse _____ Fine _____ Silt and sand _____

Gradient (fall in ft/000): Rapid _____ Moderate _____ Slow _____

Av. discharge _____ cfs, and water temperature _____ °C at spawning time.

Barriers or points of difficult ascent _____

Spawning bed: In use _____ % Unused _____ %: Total _____ sq. yds.

Potential of unused portion of stream: Good _____ Fair _____ Poor _____

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM	SECTIONS OF STREAM USED
Sockeye	
Pink	
Coho	
Spring	
Chum	

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye							
Pink							
Coho							
Spring							
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum

Access route and general remarks: Sockeye lake spawning was confirmed 1963-4 by diving reconnaissance. The W shoreline from near Pendleton Bay to Black Point, 5 mi. N, supports spawners in 30-100' of water. Other beach spawning occurs at Red Bluff, 3 mi. N of Topley and, at least periodically, off the mouths of several streams. Ref: Skeena MS: 1948.

NAME OF STREAM FIVE-MILE CREEK NUMBER 10-50B-1

LOCATION OF MOUTH 55-16 N, 126-36 W. Flows E into N arm of Babine L. approximately 5 mi. from outlet.

Length 2.5 mi. Width 10 ft. Depth .8 ft. Drainage area _____ sq. mi.

Composition (%): Bedrock _____ Coarse _____ Fine _____ Silt and sand _____

Gradient (fall in ft/000): Rapid _____ Moderate _____ Slow _____

Av. discharge _____ cfs, and water temperature 12-14 °C at spawning time.

Barriers or points of difficult ascent None

Spawning bed: In use _____ % Unused _____ %: Total _____ sq. yds.

Potential of unused portion of stream: Good _____ Fair _____ Poor _____

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM	SECTIONS OF STREAM USED
Sockeye X	Mostly lower third
Pink	
Coho	
Spring	
Chum	

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye	J	A	A	A 5	A 10	A 20	40-600
Pink							
Coho							
Spring							
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum

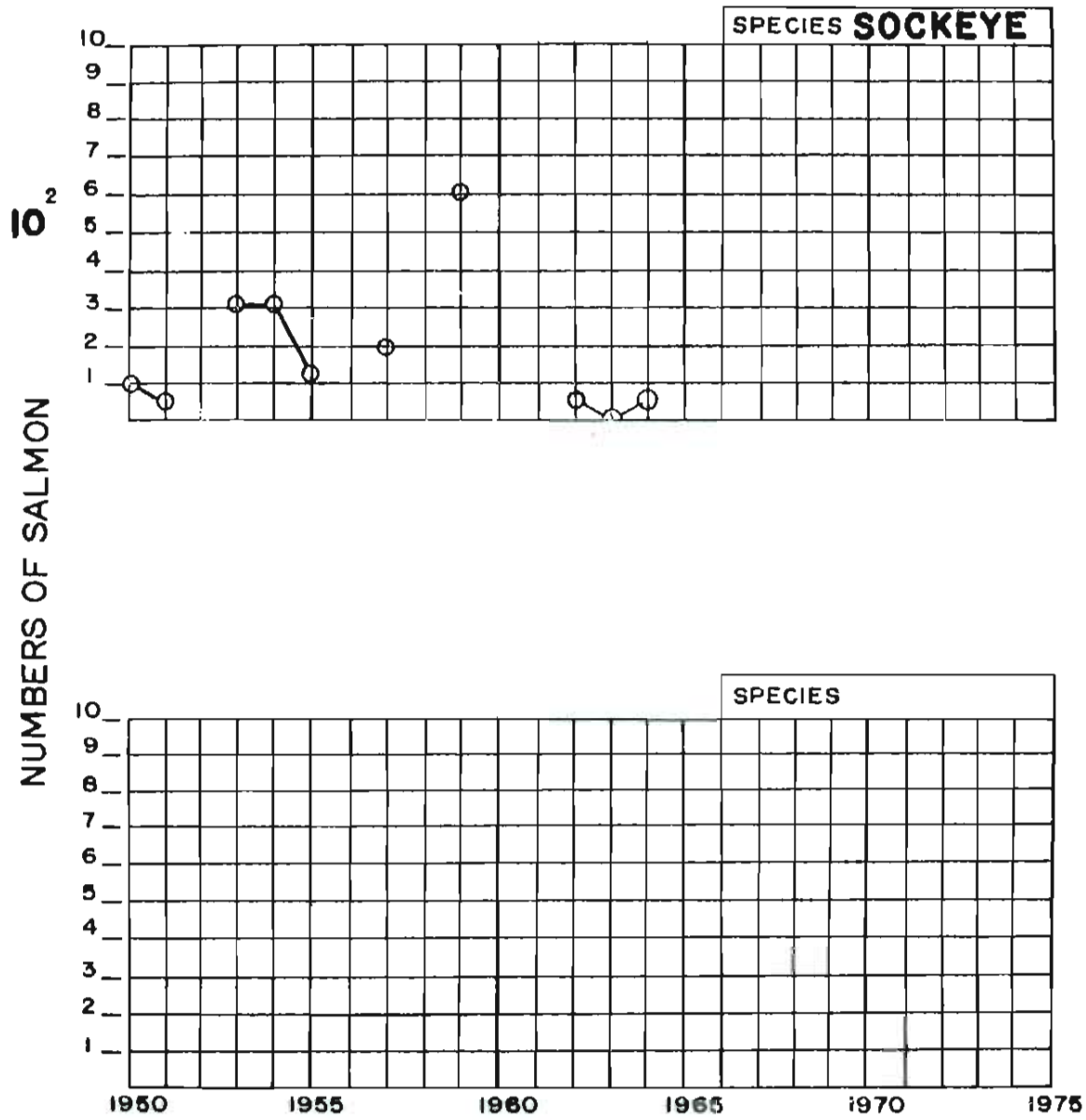
Access route and general remarks: Stream often dry at time fish normally enter.

FIVE MILE CREEK

Year	Sockeye	Pinks	Reference
1944	568 - sexes even		F.R.B.
1945	Nil - no water		F.R.B.
1947	40		F.R.B.
1948	Heavy		F.R.B.
1949	1		F.R.B.
1950	111		F.R.B.
1951	B-58 - Light - 52% ♀		B.C.16
1952	No water		B.C.16
1953	C-300 - Light - sexes even		B.C.16
1954	C-300 - Light - sexes even		B.C.16
1955	C-100 - Light - sexes even		B.C.16
1956	Nil - Creek dry		B.C.16
1957	C-300 - Light - sexes even		B.C.16
1958	Nil - water low		B.C.16
1959	E-600 - Heavy - 60% ♀		B.C.16
1960	Stream dry		B.C.16
1961	Stream dry		B.C.16
1962	A-50 - Light - water low		B.C.16
1963	Nil - stream dry		B.C.16
1964	A-50 - Light		B.C.16

ANNUAL ESCAPEMENT TO—

FIVE MILE CREEK



NAME OF STREAM NINE-MILE CREEK NUMBER 10-50B-2

LOCATION OF MOUTH 55-10 N, 126-36 W. Flows E into N arm of Babine L. approximately 9 mi. from outlet.

Length 2.5 mi. Width 15 ft. Depth .8 ft. Drainage area _____ sq. mi

Composition (%): Bedrock _____ Coarse _____ Fine _____ Silt and sand _____

Gradient (fall in ft/000): Rapid _____ Moderate _____ Slow _____

Av. discharge _____ cfs, and water temperature 12-14 °C at spawning time.

Barriers or points of difficult ascent log jams troublesome at low water. Barrier falls about 2.5 mi.

Spawning bed: In use 20 % Unused 80 %: Total _____ sq. yds.

Potential of unused portion of stream: Good _____ Fair X Poor _____

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM		SECTIONS OF STREAM USED
Sockeye	X	Lower half
Pink		
Coho	X	
Spring		
Chum		

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye	J	A	A	A 5	A 15	A 20	60-10,000
Pink							
Coho							100-200
Spring							
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum

Access route and general remarks: Follow trail along left bank. Occasionally a few pinks or springs enter (as in 1962). Good gravel. Could support more spawners, but low water often limits production. Dry in some years.

NINE MILE CREEK

Year	Sockeye	Pinks	Reference
1928	A washout this season		F.R.B.
1929	A few - practically a failure		F.R.B.
1930	400 - 60% ♂ - no runts		F.R.B.
1931	Secured its quota - ♂ predominate		F.R.B.
1933	Very light		F.R.B.
1934	60 - sexes even - large fish		F.R.B.
1935	Heavy - about 200		F.R.B.
1936	Heavy run - 25% heavier than 1935		F.R.B.
1937	Light run - large fish		F.R.B.
1938	400 - large fish - sexes even		F.R.B.
1940	4,000 - large fish - 60% ♀		F.R.B.
1941	2,200 - large fish		F.R.B.
1942	468 - sexes even		F.R.B.
1943	2,000 - 60% ♀ - fairly heavy		F.R.B.
1944	5,500 - sexes even - 10% small		F.R.B.
1945	11,000 - large fish - sexes even		F.R.B.
1946	650 - 60% ♀		F.R.B.
1947	565 - 66% ♀ - 10% runts		F.R.B.
1948	Heavy		F.R.B.
1949	75		F.R.B.
1950	975		F.R.B.
1951	D-407 - Light - 50% ♀ - 2% jacks		B.C.16
1952	B - water very low		B.C.16
1953	G - 2,500 - 52% ♀		B.C.16
1954	F - 1,000 - Medium - sexes even		B.C.16
1955	A-60 - Light - sexes even - mouth		B.C.16
	silting up		
1956	No run - creek dry		B.C.16
1957	G-4,000 - Heavy - sexes even		B.C.16
1958	Nil - Gravel bar at mouth stopped		B.C.16
	fish		
1959	G-2,500 - sexes even		B.C.16
1960	F-2,000 - Light - 40% ♀ - 10% jacks		B.C.16
1961	G-4,000 - Heavy - 52% ♀ - 2% jacks		B.C.16
	1,500 died - these in addition to		
	4,000 shown		

NINE MILE CREEK

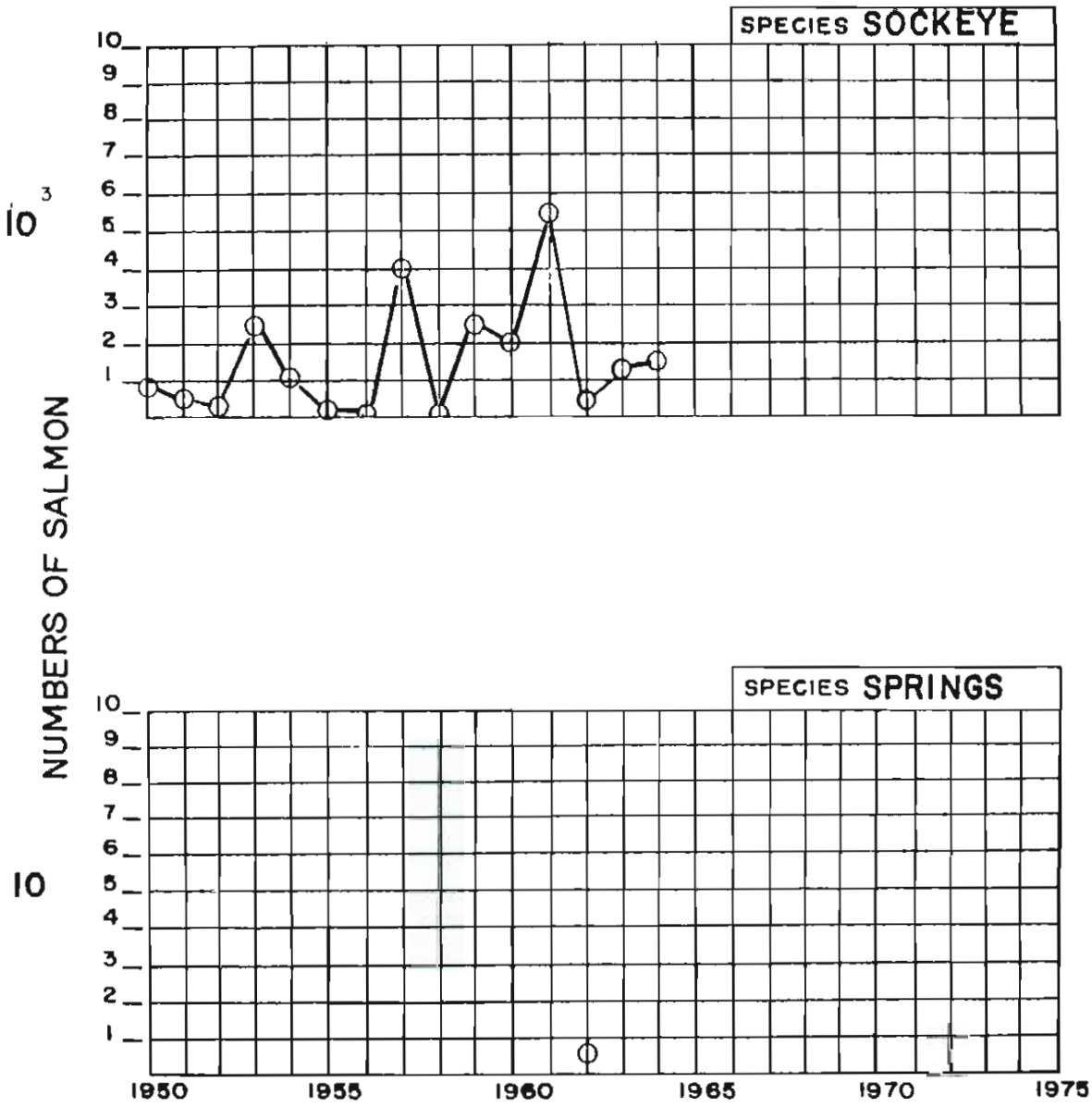
Year	Sockeye	Pinks	Reference
1962	500	Few pinks	B.C.16
1963	F-1,230 - Light - 42% ♀ - 23% jacks		B.C.16
1964	F-1,500 - Medium - 53% ♀		B.C.16

NINE MILE CREEK

Year	Springs	Cono	Chum	Reference
1953		B - 100 - Light		B.C.16
1962	A - 50 - Light	C - 200 - Light		B.C.16

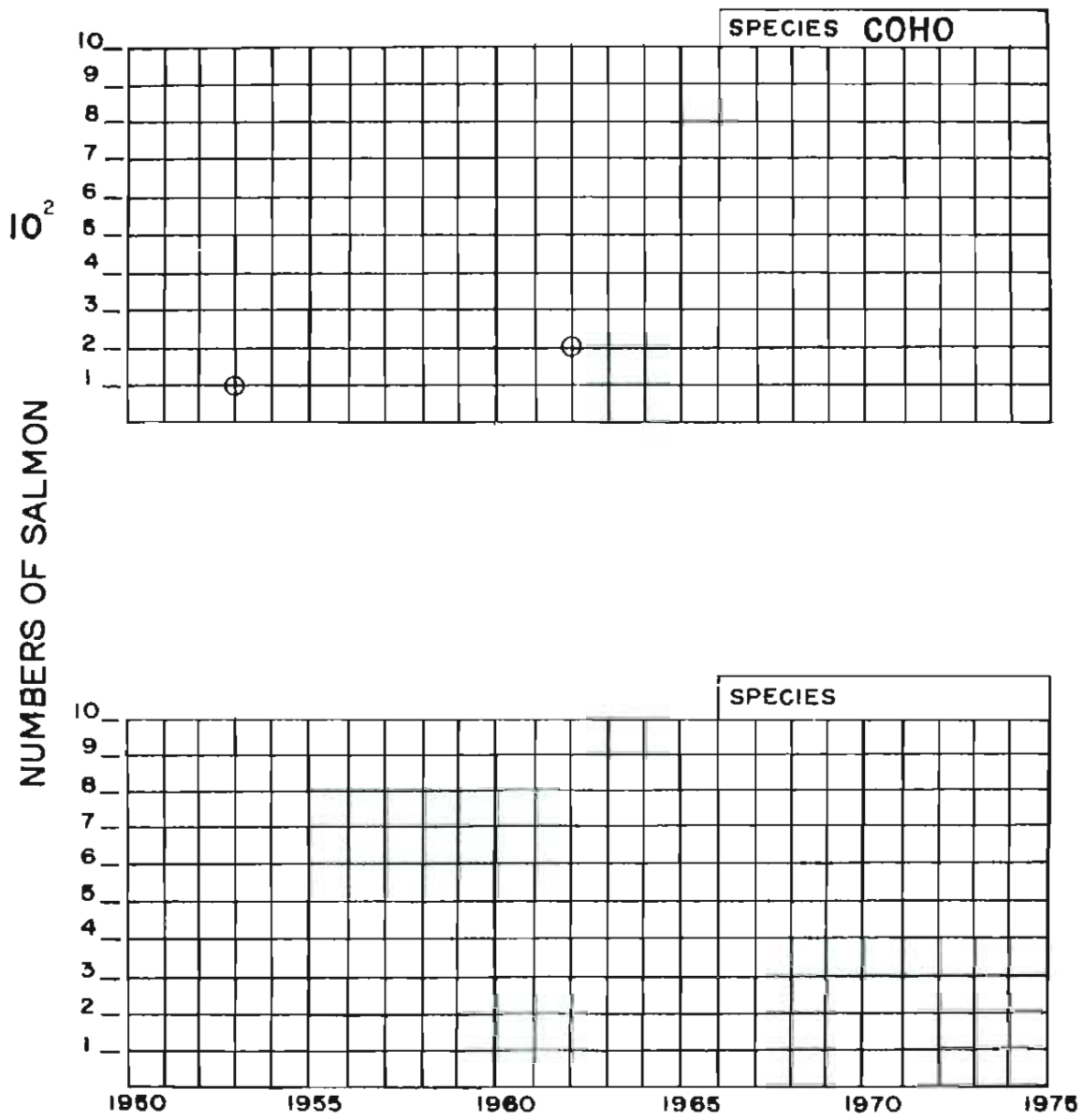
ANNUAL ESCAPEMENT TO—

9 MILE CREEK



ANNUAL ESCAPEMENT TO—

9 MILE CREEK



NAME OF STREAM FORKS CREEK NUMBER 10-50B-3

LOCATION OF MOUTH 55-03 N, 126-23 W. Flows S into Babine L. at junction of north arm and main lake.

Length _____ mi. Width _____ ft. Depth _____ ft. Drainage area _____ sq. mi

Composition (%): Bedrock _____ Coarse _____ Fine _____ Silt and sand _____

Gradient (fall in ft/000): Rapid _____ Moderate _____ Slow _____

Av. discharge _____ cfs, and water temperature _____ °C at spawning time.

Barriers or points of difficult ascent _____

Spawning bed: In use _____ % Unused _____ %: Total _____ sq. yds.

Potential of unused portion of stream: Good _____ Fair _____ Poor _____

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM	SECTIONS OF STREAM USED
Sockeye	X
Pink	
Coho	
Spring	
Chum	

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye							
Pink							
Coho							
Spring							
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum

Access route and general remarks: Receives a few spawners in years of adequate flow. Usually dry at spawning time.

FORKS CREEK

Year	Sockeye	Pinks	Reference
1959	E-600-Heavy- In year of high water only		B.C. 16

NAME OF STREAM MORRISON CREEK (G): Hatchery Cr. NUMBER 10-50B-4

LOCATION OF MOUTH 55-08 N, 126-18 W. Flows S into NE (Morrison) arm of Babine L.

Length 3.5 mi. Width 25 ft. Depth 1.5 ft. Drainage area _____ sq. mi

Composition (%): Bedrock _____ Coarse _____ Fine _____ Silt and sand _____

Gradient (fall in ft/000): Rapid _____ Moderate X Slow _____

Av. discharge _____ cfs, and water temperature 13 °C at spawning time.

Barriers or points of difficult ascent Beaver dams often are partial, or a complete block during periods of low flow.

Spawning bed: In use 80 % Unused 20 %: Total 30,000 sq. yds.

Potential of unused portion of stream: Good _____ Fair X Poor _____

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM	SECTIONS OF STREAM USED
Sockeye X	Throughout: heaviest 1.0-2.5 mi.
Pink	
Coho	
Spring	
Chum	

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye				S 15	S 25	O 5	600-33,000
Pink							
Coho							Very few to 1100
Spring							
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum
8				

Access route and general remarks: Rough road parallels stream from head of Morrison Arm. Beaver dams delay migration some years. Segment of run ripens in Morrison L. then falls back to spawn. Dominion Fish Hatchery operated here 1907-1936.

Ref: Bab. Dev. Rep. 1965.

MORRISON CREEK

Year	Sockeye	Pinks	Reference
1907	Babine Lake Hatchery into operation		
	-4 Sept.-16 Oct. 1907. The Creek		
	is referred to as Salmon River &		
	the Lake as Gourdeau Lake.		
	4,824,000 eggs were secured by		
	stripping all sockeye remaining as		
	at 4 Sept. but indications are		
	that main natural spawning was		
	over. Mention that river was		
	covered with dead salmon.		Dom. Fish. Rpt.
1908	Steady stream of salmon -but not		
	as large as 1907. Hatchery		
	released 4,700,000 fry & collected		
	8,400,000 eggs.		Dom. Fish. Rpt.
1909	Small run suggested of 8,054,000		
	eggs placed in hatchery - only		
	3,000,000 were collected at 11		
	points around Morrison Creek		
	between 10 Sept. & 23 Oct. 1909 -		
	balance of eggs came from Babine		
	River and Tatcha River		Dom. Fish.Rpt.
1910	Some natural spawning took place -		
	Of 8,700,000 eggs placed in		
	hatchery, 7,000,000 were secured		
	in the Morrison Lake area.		
	Morrison Creek is not mentioned as		
	a source of eggs.		Dom. Fish. Rpt.
1911	The natural run a failure -		
	8,700,000 eggs secured for		B.C. Prov. Fish
	hatchery from Babine River		Reports
1912	Water very low, but lots of sock-		
	eye-Hatchery filled with eggs from		
	in & around Morrison Crk. - many		
	runts. 8,300,000 eggs		Dom. Fish. Rpts
1913	"Larger than ever before" took		
	8,500,000 eggs & could have got		
	twice that many with fish still		
	being left in Creek.		Dom. Fish. Rpt

MORRISON CREEK

Year	Sockeye	Pinks	Reference
1914	Very good run -7,700,000 eggs taken		
	by Hatchery, all from own creek.-		
	No mention of Indian Fishery		Dom. Fish. Rpts.
1915	Heavy run, better than last year -		
	7,100,000 eggs taken for Hatchery		Dom. Fish. Rpts.
1916	Very poor run, Hatchery not able		
	to get all their eggs from Crk, so		
	visited other areas. 6,000,000		
	eggs into hatchery		Dom.Fish.Rpts.
1917			
1918			
1919	Very big run -Hatchery took all		
	their eggs from Creek.		F.R.B.
1920	Good run -Hatchery did not get all		
	their eggs due to high water		F.R.B.
1921	Very big run -Hatchery took all		
	they needed but still lots left.		F.R.B.
1922	Good run -Hatchery took all their		
	eggs from Creek but lots of fish		
	left.		F.R.B.
1923	Good run -Hatchery took 8,000,000		
	eggs		F.R.B.
1924	Sockeye numerous -Hatchery took		
	all their eggs - 8,000,000		F.R.B.
1925	About same as last year but doubt-		
	ful if Hatchery would get all their		
	eggs due to high water.		F.R.B.
1926	Not as numerous as 1923-24-25 -		
	Hatchery only able to secure half		
	their quota-predominance of males		F.R.B.
1927	25% better than last year -very		
	big fish -Hatchery would get all		
	the eggs they needed		F.R.B.
1928	Plenty of fish available for egg		
	taking -but they were allowed to		
	spawn naturally -the Hatchery was		
	filled with 6,000,000 eggs from		
	Pierre Crk. & 3,000,000 eggs from		

MORRISON CREEK

Year	Sockeye	Pinks	Reference
	15 Mile Creek. Very large number		B.C. Prov.
	of runts noted		Fish. Reports
1929	Heavy run -sexes even -7,830,000		
	eggs taken for Hatchery		F.R.B.
1930	"Large numbers" Eggs on top of		
	gravel in places -seeded to the		
	limit		F.R.B.
1931	Small run -only 25% of hatchery		
	eggs secured from this Creek		F.R.B.
1932	Quote "The run to Morrison Creek		
	was comparatively light but owing		
	to high water very few were		
	collected by the hatchery -		
	consequently there was more		
	natural spawning".		F.R.B.
1933	The best in the last three years		B.C. Prov.
	but not as good as 1929		Fish. Rpt.
1934	Best run in four years -hatchery		
	collected 3,730,000 eggs from 75%		
	of the fish -balance were allowed		
	to spawn naturally -Males exceeded		B.C. Prov.
	females 6:1		Fish.Reports
1935	Best run for years, males greatly		
	in majority -hatchery took		
	3,100,000 eggs		F.R.B.
1936	12,000-best run since 1930 -		
	3,120,000 eggs taken by hatchery		F.R.B.
	Hatchery closed by Order in Council		Dom. Fish.Rpts
1937	10,000 -fairly heavy -55% ♀ -		
	2% runts		F.R.B.
1938	10,000 -A heavy run -Males 2:1 -		
	no runts		F.R.B.
1939	11,000 (estimate)		1944 F.R.B.
1940	14,000 -♀ slightly in majority		
	10% runts		F.R.B.
1941	13,000		1945 F.R.B.
1942	6,000 -55% ♀ -2% runts		F.R.B.
1943	12,000 -60% ♀ - no runts	Two seen	F.R.B.

MORRISON CREEK

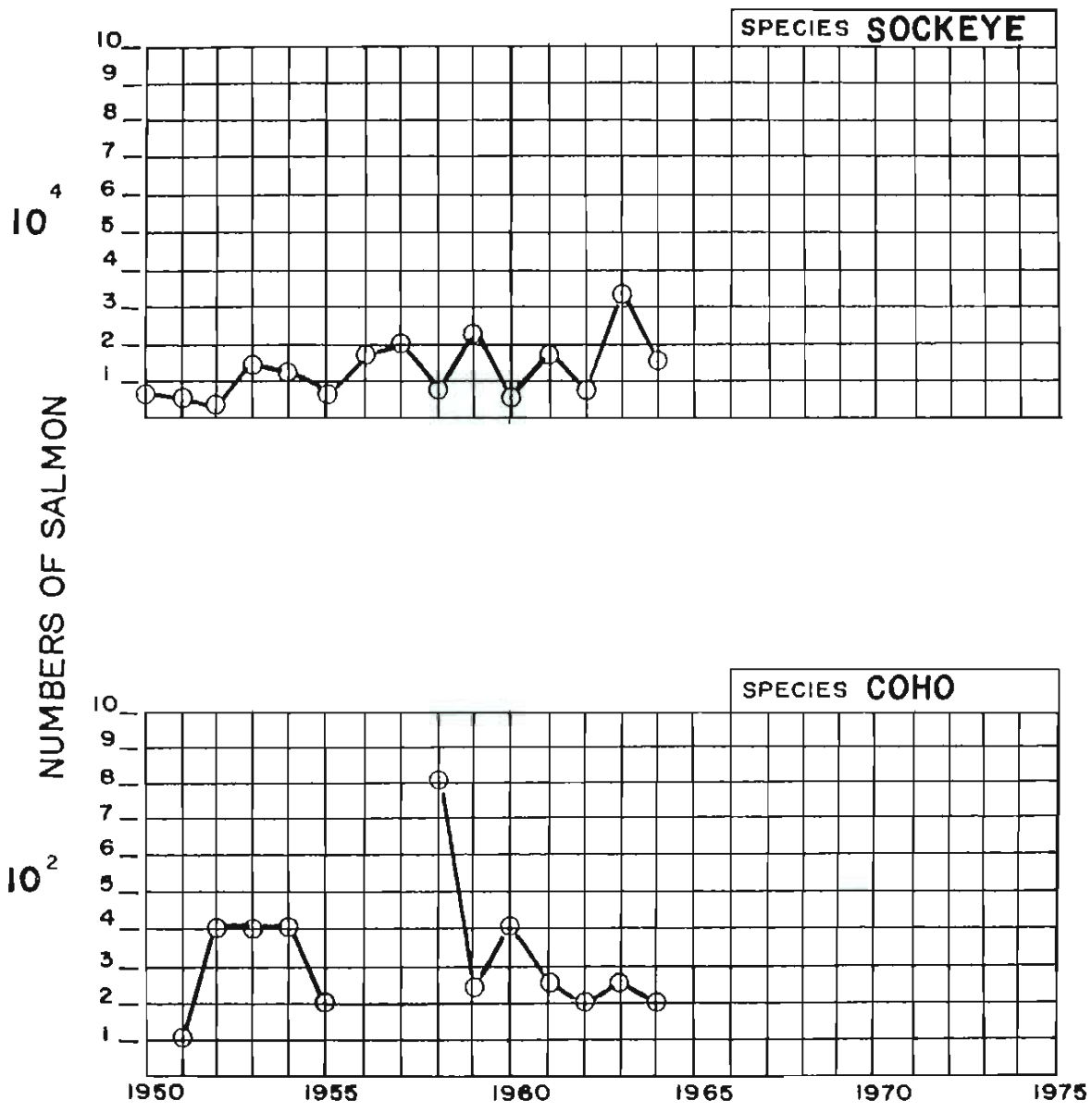
Year	Sockeye	Pinks	Reference
1944	12,785		F.R.B. Ann.Rpt
1945	24,100		F.R.B. Ann.Rpt
1946	20,000 -probably 50% migrating to		
	Morrison Lake		F.R.B. Ann.Rpt
1947	28,000 - 95% Jacks		F.R.B. Ann.Rpt
1948	30,000- many are probably migr-		
	ating to Morrison Lake		F.R.B. Ann.Rpt
1949	1,450		F.R.B.
1950	C-6,445 Plus. 25% Jacks		1953 F.R.B.
1951	G-2,200 -41% ♀ - 14% Jacks		B.C. 16
1952	D-Light		B.C. 16
1953	K-16,000-Heavy-46% ♀ -7% Jacks		B.C. 16
1954	K-12,000-Medium -sexes even		B.C. 16
1955	E-6,000-Light--sexes even		B.C. 16
1956	K-18,000-Heavy-50% ♀ - 5% Jacks		B.C. 16
1957	K-20,000-Heavy -46% ♀ -8% Jacks		B.C. 16
1958	H-9,000-Medium-50% ♀		B.C. 16
1959	L-22,000 -56% ♀ -5% Jacks		B.C. 16
1960	H-6,000-Light -40% ♀ -10% Jacks		B.C. 16
1961	K-18,000-Medium-52% ♀ -2% Jacks		B.C. 16
1962	H-9,000-Light-47% ♀ -8% Jacks		B.C. 16
1963	L-32,500-Heavy -39% ♀ -30% Jacks		B.C. 16
1964	K-16,000-Heavy-50% ♀ -2% Jacks		B.C. 16

MORRISON CREEK

Year	Springs	Coho	Chum	Reference
1928		Average run		F.R.B.
1930		Only a few		F.R.B.
1932	Some	Good run		F.R.B.
1934	Light	Light		F.R.B.
1935		Heavy run		F.R.B.
1936		A few		F.R.B.
1937		Very few		F.R.B.
1938		Light run -1,000-1,500		
		Males 2:1		F.R.B.
1943		The odd one		F.R.B.
1944		111 - sexes even		F.R.B.
1946		900		F.R.B.
1947		1100 - sexes even		F.R.B.
1948		Light		F.R.B.
1949		500		F.R.B.
1951		B-100-Medium		B.C. 16
1952		D-Heavy		B.C. 16
1953		D-400-Medium		B.C. 16
1954		D-400-Medium		B.C. 16
1955		C-200-Light		B.C. 16
1958		E-800-Heavy		B.C. 16
1959		C-250-Medium		B.C. 16
1960		D-400-Medium		B.C. 16
1961		C-250-Medium		B.C. 16
1962		C-200-Medium		B.C. 16
1963		C-250-Medium		B.C. 16
1964		C-200-Medium		B.C. 16

ANNUAL ESCAPEMENT TO—

MORRISON CREEK



NAME OF STREAM MORRISON LAKE (G) NUMBER 10-50B-4A

LOCATION OF MOUTH 55-10 N. 126-18 W. Drains through Morrison R. into Morrison Arm of Babine L. (Elevation 2400')

Length 9 mi. Width 1 mi. Depth 183 ft. Drainage area _____ sq. mi

Composition (%): Bedrock _____ Coarse _____ Fine _____ Silt and sand _____

Gradient (fall in ft/000): Rapid _____ Moderate _____ Slow _____

Av. discharge _____ cfs, and water temperature _____ °C at spawning time.

Barriers or points of difficult ascent _____

Spawning bed: In use _____ % Unused _____ %: Total _____ sq. yds.

Potential of unused portion of stream: Good _____ Fair _____ Poor _____

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM	SECTIONS OF STREAM USED
Sockeye	
Pink	
Coho	
Spring	
Chum	

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye							
Pink							
Coho							
Spring							
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum

Access route and general remarks: By mining road from Morrison Arm or by plane. There is no known lake spawning in Morrison Lake. Sockeye have been observed at the mouths of small streams in the narrows near the S end. Sockeye and coho pass through into Tahlo Cr.

NAME OF STREAM TAHLO CREEK (G): Salmon Creek NUMBER 10-50B-4A-1

LOCATION OF MOUTH 55-17 N, 126-25 W. Flows S into Morrison L.

Length 5.0 mi. Width 15 ft. Depth 1 ft. Drainage area _____ sq. mi.

Composition (%): Bedrock _____ Coarse _____ Fine _____ Silt and sand _____

Gradient (fall in ft/000): Rapid _____ Moderate X Slow _____

Av. discharge _____ cfs, and water temperature _____ °C at spawning time.

Barriers or points of difficult ascent Beaver dams are often partial or complete barriers during periods of low flow.

Spawning bed: In use 50 % Unused 50 %: Total _____ sq. yds.

Potential of unused portion of stream: Good _____ Fair _____ Poor X

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM		SECTIONS OF STREAM USED
Sockeye	X	Throughout; heaviest below Tahlo L.
Pink		
Coho	X	
Spring		
Chum		

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye				S 10	S 20	S 30	400-12,000
Pink							
Coho							A few
Spring							
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum

Access route and general remarks: Trail on west shore. Fair producer when water level sufficient. Central section of stream is slough-like and unproductive. Two narrow rocky canyons support appreciable numbers of spawning sockeye.

TAHLO CREEK
SALMON CREEK

Year	Sockeye	Pinks	Reference
1919	Many got into Salmon Creek		F.R.B.
1921	Will be well seeded up to average		F.R.B.
1923	Well seeded - ♀ in majority		F.R.B.
1924	A good run after fence removed		F.R.B.
1925	Compares with last year - 91,000		F.R.B.
	eggs taken by hatchery		
1928	Remark: Use this crk. for spawning		F.R.B.
1929	Good supply - eggs also taken		F.R.B.
	for hatchery		
1930	10,000 or more		F.R.B.
1931	Very few sockeye		F.R.B.
1932	Approx. 100		F.R.B.
1934	900,000 eggs planted by hatchery		F.R.B.
1936	Between 800-900 - 60% ♀, no runts		F.R.B.
1937	400 - Light run		F.R.B.
1940	2,800 - heaviest run seen in area		F.R.B.
	Sexes even - 10% runts		
1943	1,500 - Better than cycle year		F.R.B.
	♀ 2 - 1 ♂		
1944	5,000 - Medium		F.R.B.
1945	10,000 - but 50% loss estimated		F.R.B.
	due to low water		
1946	5,000 - suggested average		F.R.B.
	adequate water		
1947	3,256 - 60% ♂ - 15% runts		F.R.B.
1948	7,000 - Heavy		F.R.B.
1951	1,200 - Light		B.C.16
1952	D - Light - 40% ♀		B.C.16
1953	H-10,000 - Medium - 49% ♀ -		B.C.16
	2% jacks		

TAHLO CREEK
SALMON CREEK

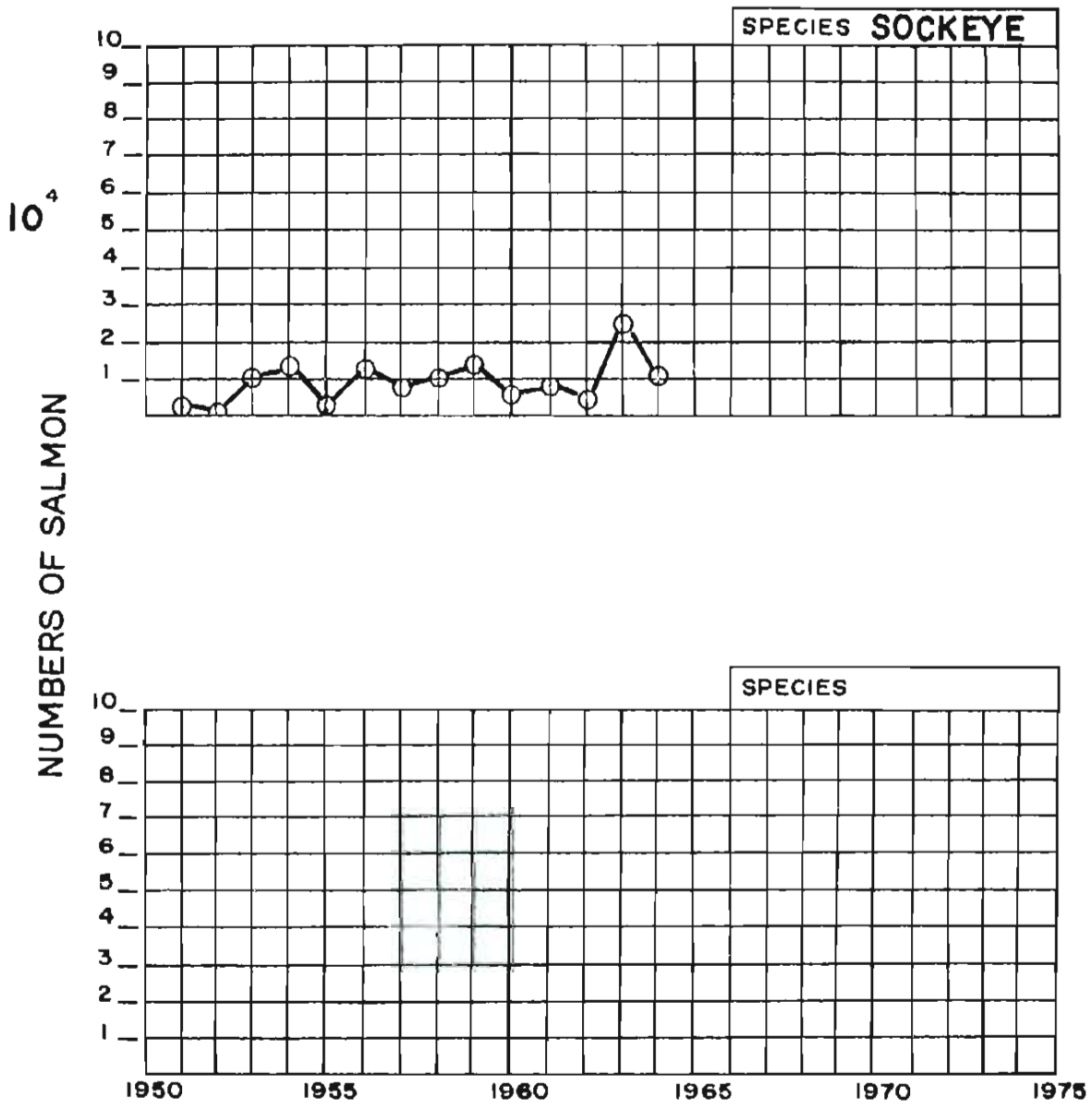
Year	Sockeye	Pinks	Reference
1954	K-12,000 - Medium - Sexes even		B.C.16
1955	F-1,200 - Light - Sexes even		B.C.16
1956	K-11,000 - Medium - 50% ♀ -		B.C.16
	10% jacks		
1957	H-9,000 - Medium - 55% ♀		B.C.16
1958	H-10,000 - Light - 50% ♀		B.C.16
1959	K-12,500 - Heavy - 50% ♀		B.C.16
1960	G-5,000 - Light - 40% ♀ - 10% jacks		B.C.16
1961	H-7,000 - Medium - 52% ♀ - 2% jacks		B.C.16
1962	G-4,500 - Light - 47% ♀ - 8% jacks		B.C.16
1963	L-24,600 - 42% ♀ - 23% jacks		B.C.16
1964	H-10,000 - Medium - 52% ♀		B.C.16

TAHLO CREEK
SALMON CREEK

Year	Springs	Coho	Chum	Reference
1931		A few		F.R.B.
1943		Heavy		F.R.B.
1944		Light		F.R.B.
1948		Light		F.R.B.

ANNUAL ESCAPEMENT TO—

TAHLO CREEK



NAME OF STREAM TAHLO LAKE (G) NUMBER 10-50B-4B

LOCATION OF MOUTH 55-19 N, 126-27 W. Drains S through Tahlo Cr. into Morrison L.

(Elevation 2550')

Length 1.5 mi. Width .5 mi. Depth _____ ft. Drainage area _____ sq. mi

Composition (%): Bedrock _____ Coarse _____ Fine _____ Silt and sand _____

Gradient (fall in ft/000): Rapid _____ Moderate _____ Slow _____

Av. discharge _____ cfs, and water temperature _____ °C at spawning time.

Barriers or points of difficult ascent _____

Spawning bed: In use _____ % Unused _____ %: Total _____ sq. yds.

Potential of unused portion of stream: Good _____ Fair _____ Poor _____

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM	SECTIONS OF STREAM USED
Sockeye	
Pink	
Coho	
Spring	
Chum	

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye							
Pink							
Coho							
Spring							
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum

Access route and general remarks: By float plane. No known lake spawning. Sockeye and coho pass through into Upper Tahlo Cr. infrequently.

NAME OF STREAM UPPER TAHLO CREEK NUMBER 10-5CB-4B-1

LOCATION OF MOUTH 55-20 N, 126-28 W. Flows S into Tahlo L. of Morrison system.

Length 8 mi. Width 10 ft. Depth .5 ft. Drainage area _____ sq. mi

Composition (%): Bedrock _____ Coarse _____ Fine _____ Silt and sand _____

Gradient (fall in ft/000): Rapid _____ Moderate _____ Slow X

Av. discharge _____ cfs, and water temperature _____ °C at spawning time.

Barriers or points of difficult ascent Beaver dams and low water periodically.

Spawning bed: In use _____ % Unused _____ %: Total _____ sq. yds.

Potential of unused portion of stream: Good _____ Fair _____ Poor _____

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM		SECTIONS OF STREAM USED
Sockeye	X	
Pink		
Coho	X	
Spring		
Chum		

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye							
Pink							
Coho							
Spring							
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum

Access route and general remarks: Use helicopter if possible. There are no escapement records for this stream though word of mouth confirms that Indian homes near stream were used during salmon curing season in early times. Early escapements perhaps grouped with those to Tahlo Cr.

The Resource Development Branch of the Department of Fisheries has estimated the Fulton River escapement by means of a tag and recovery program in 1961, and a tower count since.

The direct counts of the District Fisheries Inspector have been entered in the tables and graphs for ready comparison of historic and recent escapements.

Recent estimates by the Resource Development Branch are as follows:

Year	Sockeye Escapement Estimate
1961	169,800
1962	77,800
1963	99,200
1964	120,500

NAME OF STREAM FULTON RIVER (G) NUMBER 10-50B-5

LOCATION OF MOUTH 54-48 N, 126-08 W. Flows E into Babine L. at Topley Landing.

Length 4 mi. Width 50 ft. Depth 2 ft. Drainage area 532 sq. mi

Composition (%): Bedrock _____ Coarse _____ Fine _____ Silt and sand _____

Gradient (fall in ft/000): Rapid _____ Moderate X Slow _____

Av. discharge 150 cfs, and water temperature 12 °C at spawning time.

Barriers or points of difficult ascent 40' falls below Fulton L.

Spawning bed: In use 75 % Unused 25 %: Total _____ sq. yds.

Potential of unused portion of stream: Good _____ Fair X Poor _____

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM		SECTIONS OF STREAM USED
Sockeye	X	Throughout - see Ref.
Pink		
Coho	X	Throughout
Spring		
Chum		

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye	A 25	S 10	S 20	A 30	S 20	O 15	17,000-175,000
Pink							
Coho							Light to Medium Runs
Spring							A few in 1945
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Cnum

Access route and general remarks: Road from Topley Landing parallels left bank. Supports largest sockeye run in main basin of Babine L. First Babine spawning channel developed 1965. Escapements counted from tower beginning 1963. Occasional springs.

Ref: Bab. Dev. Rep. 1965.

FULTON RIVER

Year	Sockeye	Pinks	Reference
1904	Barricade removed - many salmon		F.R.B.
	taken		
1919	Well seeded		F.R.B.
1920	Much better - 20 Oct. 1920		F.R.B.
1921	Large numbers		F.R.B.
1922	Very few - below average size		F.R.B.
1923	Large numbers		F.R.B.
1924	Large numbers		F.R.B.
1925	Slightly larger number than 1923-24		F.R.B.
1926	Very good run - many runts		F.R.B.
1927	Area well seeded - sexes even		F.R.B.
1928	Average run - 50% runts		F.R.B.
1929	Heavy run - sexes even - 10% runts		F.R.B.
1930	Extra heavy - 3% runts		F.R.B.
1931	From good to medium - 10% runts		F.R.B.
1932	Medium - 10% runts		F.R.B.
1933	Heavy run - 3 ♂ - 1♀ - lighter		F.R.B.
	than 1929		
1934	50,000-100,000 - 10-15% runts -		F.R.B.
	60% ♂ - the run was lighter than		
	1929-30		
1935	Heavy run - compares with 1930 -	A few seen	F.R.B.
	♂ 3 - 2 ♀, about 35% better than		
	1934		
1936	A heavy run - 10% runts		F.R.B.
1937	A heavy run - 10% runts		F.R.B.
1938	Fairly heavy - estimate 50,000		F.R.B.
1939	50,000-75,000 - 66% ♀ - 10% runts		F.R.B.
1940	Heavy run - 60% ♀ - 10% runts		F.R.B.
1941	No estimate due to dark water		F.R.B.
1942	25,000 - 10% runts		F.R.B.
1943	79,400 - heaviest since 1939 -		F.R.B.
	60% ♀ - 10% runts		
1944	30,000 - sexes even - 10% runts		F.R.B.
1945	74,800 - heavier than 1940 or 1941		F.R.B.
1946	24,000-25,000 - 60% ♀		F.R.B.
1947	43,824 - sexes even - 15% runts		F.R.B.

FULTON RIVER

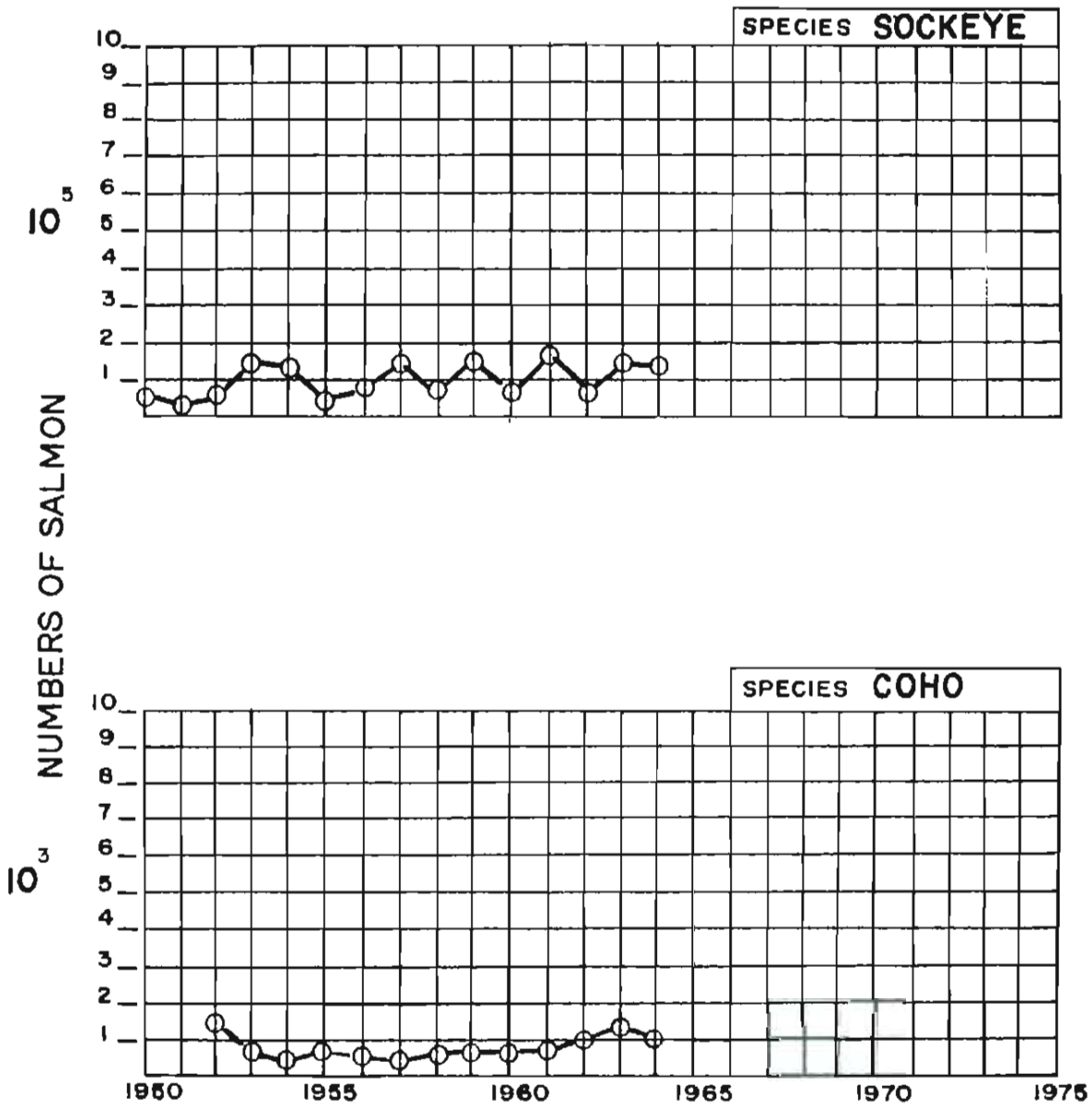
Year	Sockeye	Pinks	Reference
1948	Heavy - 115,000 - fewer jacks than 1947		F.R.B.
1949	35,000 - 55% ♀ - 6% jacks		F.R.B.
1950	60,000 - 50% ♀ - 30% jacks		F.R.B.
1951	K-19,000 - Light - 35% ♀ - 20% jacks		B.C.16
1952	L - Light - 35% ♀ - 10% jacks		B.C.16
1953	N-140,000 - Heavy - 48% ♀ -4% jacks		B.C.16
1954	N-110,000 - Heavy - sexes even - 4% jacks		B.C.16
1955	K-17,000 - Light - 40% ♀ -15% jacks		B.C.16
1956	M-90,000 - Medium - 45%♀ -10% jacks		B.C.16
1957	N-120,000 - Heavy - 45%♀ -10% jacks		B.C.16
1958	M-90,000 - Medium - 50%♀ - 5% jacks		B.C.16
1959	N-120,000 - Heavy - 60% ♀ -5% jacks		B.C.16
1960	L-40,000 - Light - 40% ♀ - 10% jacks		B.C.16
1961	N-175,000 - Heavy - 52%♀ - 2% jacks		B.C.16
1962	M-80,000 - Heavy - 47% ♀ - 8% jacks		B.C.16
1963	N-130,000 - Heavy - 39% ♀ - 30% jacks		B.C.16
1964	N-140,000 - Heavy - 52% ♀ - 1% jacks		B.C.16

FULTON RIVER

Year	Springs	Coho	Chum	Reference
1922		Light run		F.R.B.
1928		Medium run (3,600)		F.R.B.
1930		Very light		F.R.B.
1931		Very light		F.R.B.
1932		Light		F.R.B.
1935		Medium run		F.R.B.
1936		Medium run		F.R.B.
1938		Medium run		F.R.B.
1943		Medium run		F.R.B.
1945	A few	Light run		F.R.B.
1947		Few		F.R.B.
1948		Light		F.R.B.
1952		F - Medium		B.C.16
1953		E - 800 - Medium		B.C.16
1954		E - 500 - Medium		B.C.16
1955		E - 800 - Medium		B.C.16
1956		E - 600 - Medium		B.C.16
1957		D - 400 - Medium		B.C.16
1958		D - 300 - Medium		B.C.16
1959		D - 500 - Medium		B.C.16
1960		E - 500 - Medium		B.C.16
1961		E - 750 - Medium		B.C.16
1962		F - 1,000 - Heavy		B.C.16
1963		F - 1,200 - Medium		B.C.16
1964		E - 1,000 - Medium		B.C.16

ANNUAL ESCAPEMENT TO—

FULTON RIVER



NAME OF STREAM TACHEK CREEK (G) NUMBER 10-50B-6

LOCATION OF MOUTH 54-48 N, 126-07 W. Flows E into Babine L. 2 mi. S of Topley Landing.

Length 4 mi. Width 12 ft. Depth 1 ft. Drainage area _____ sq. mi

Composition (%): Bedrock _____ Coarse _____ Fine _____ Silt and sand _____

Gradient (fall in ft/000): Rapid _____ Moderate X Slow _____

Av. discharge _____ cfs, and water temperature 11-12 °C at spawning time.

Barriers or points of difficult ascent Rapids at about 4 mi. passable only at higher water levels.

Spawning bed: In use _____ % Unused _____ %: Total _____ sq. yds.

Potential of unused portion of stream: Good _____ Fair _____ Poor _____

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM		SECTIONS OF STREAM USED
Sockeye	X	Usually mouth to 2 mi.
Pink		
Coho		
Spring		
Chum		

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye				A 5	A 20	S 15	300-14,200
Pink							
Coho							
Spring							
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum

Access route and general remarks: Small producer. Low flow in summer is limiting.

TACHEK CREEK

Year	Sockeye	Pinks	Reference
1904	Described as a great sockeye creek		F.R.B.
1908	Great numbers		B.C. Prov. Fish
			Repts.
1909	Salmon massed below falls		B.C. Prov. Fish
			Repts.
1911	Not so numerous		B.C. Prov. Fish
			Repts.
1912	Very poor compared to previous years		B.C. Prov. Fish
			Repts.
1913	Better than 1912		B.C. Prov. Fish
			Repts.
1914	Good - better than last year		B.C. Prov. Fish
			Repts.
1915	General remark:-all streams well		B.C. Prov. Fish
	supplied		Repts.
1916	Conflicting remarks:- (1) Decrease		B.C. Prov. Fish
	(2) Well seeded		Repts.
1919	Immense quantities - creek full		F.R.B.
1920	Ambiguous Report - Poor run?		B.C. Prov. Fish
			Repts.
1927	Was well seeded - water low		F.R.B.
1928	Run medium - 800 fish		F.R.B.
1930	2 runs - first died due warm		F.R.B.
	weather and low water. 2nd OK -		
	area well seeded		
1931	Fewer fish than last year - but		F.R.B.
	no loss		
1932	Heavy run - compares to cycle year		F.R.B.
1933	200-250 - large fish - about 10%		F.R.B.
	of 1932		
1934	2,000 - Medium - 60% ♀ - 10% runts		F.R.B.
	about 50% of 1930 run		
1935	Medium seeding - not up to 1930		F.R.B.
	but low mortality		

TACHEK CREEK

Year	Sockeye	Pinks	Reference
1936	Very heavy - 17,000 - 60% ♀ - superior to 1929-1930		F.R.B.
1937	About 900 - 60% ♀ - creek does not look favorable		F.R.B.
1938	1,000-1,200 - 60% ♂ - 10% runts		F.R.B.
1939	2,333 - 60% ♀		1943 - F.R.B.
1940	5,000 - 60% ♀ - 1% runts		F.R.B.
1941	650		1945 - F.R.B.
1942	1,500 - 55% ♀ - compares well with 1938		F.R.B.
1943	6,225 - Medium sized fish		F.R.B.
1944	12,025 - ♂ between 55% and 60% - 10% small		F.R.B.
1945	12,500 - sexes even - loss through suffocation would cut run to 7,300		F.R.B.
1946	6,500 - sexes even		F.R.B. Ann. Rept
1947	12,000		F.R.B. Ann. Rept
1948	5,700 - creek changed course during spring flooding		F.R.B. Ann. Rept
1949	2,590		F.R.B.
1950	2,055 - 45% ♀ - 10% jacks		F.R.B.
1951	G-2,600 - 44% ♀ - 4% jacks		B.C.16
1952	Stream dry - poor channel at mouth last few years - high water in spring broke out new mouth		B.C.16
1953	G-2,500 - 54% ♀ - 3% jacks		B.C.16
1954	F-1,900 - Medium - sexes even		B.C.16
1955	D-300 - Light - sexes even		B.C.16
1956	Nil - water too low		B.C.16
1957	H-6,771 - 50% ♀ - 5% jacks		B.C.16
1958	G-3,000 - Light - 50% ♀ - 1,200 may have been lost due to high temperature and low water		B.C.16
1959	H-6,000 - Heavy - sexes even		B.C.16
1960	F-2,000 - Light - 40% ♀ - 10% jacks		B.C.16
1961	Stream dry		B.C.16
1962	E-600 - Light - 47% ♀ - 8% jacks		B.C.16
1963	1,600		F.R.B.

TACHEK CREEK

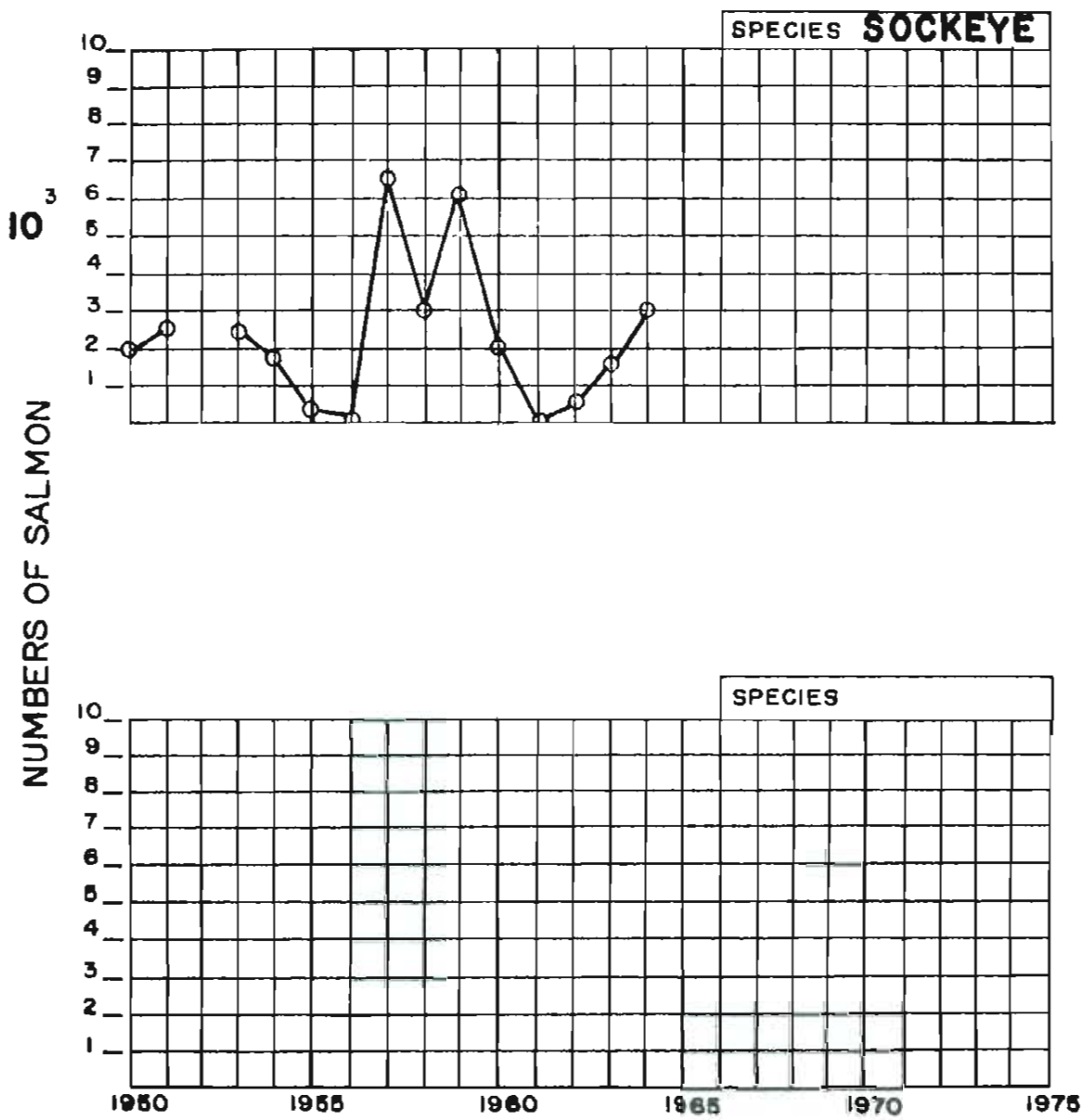
Year	Sockeye	Pinks	Reference
1964	G-3,000 - Medium - 52% ♀		B.C.16

TACHEK CREEK

Year	Springs	Coho	Chum	Reference
1933		Medium		F.R.B.
1942		500-600 - compares		F.R.B.
		well with 1939		

ANNUAL ESCAPEMENT TO—

TACHEK CREEK



NAME OF STREAM BIG LOON CREEK (G): Wright Creek NUMBER 10-50B-7

LOCATION OF MOUTH 54-47 N, 125-55 W. Flows W into Wright Bay, Babine L. opposite Topley Landing.

Length _____ mi. Width _____ ft. Depth _____ ft. Drainage area _____ sq. mi

Composition (%): Bedrock _____ Coarse _____ Fine _____ Silt and sand _____

Gradient (fall in ft/000): Rapid _____ Moderate _____ Slow _____

Av. discharge _____ cfs, and water temperature _____ °C at spawning time.

Barriers or points of difficult ascent _____

Spawning bed: In use _____ % Unused _____ %: Total _____ sq. yds.

Potential of unused portion of stream: Good _____ Fair _____ Poor _____

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM	SECTIONS OF STREAM USED
Sockeye X	
Pink	
Coho	
Spring	
Chum	

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye							up to 800
Pink							
Coho							
Spring							
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum

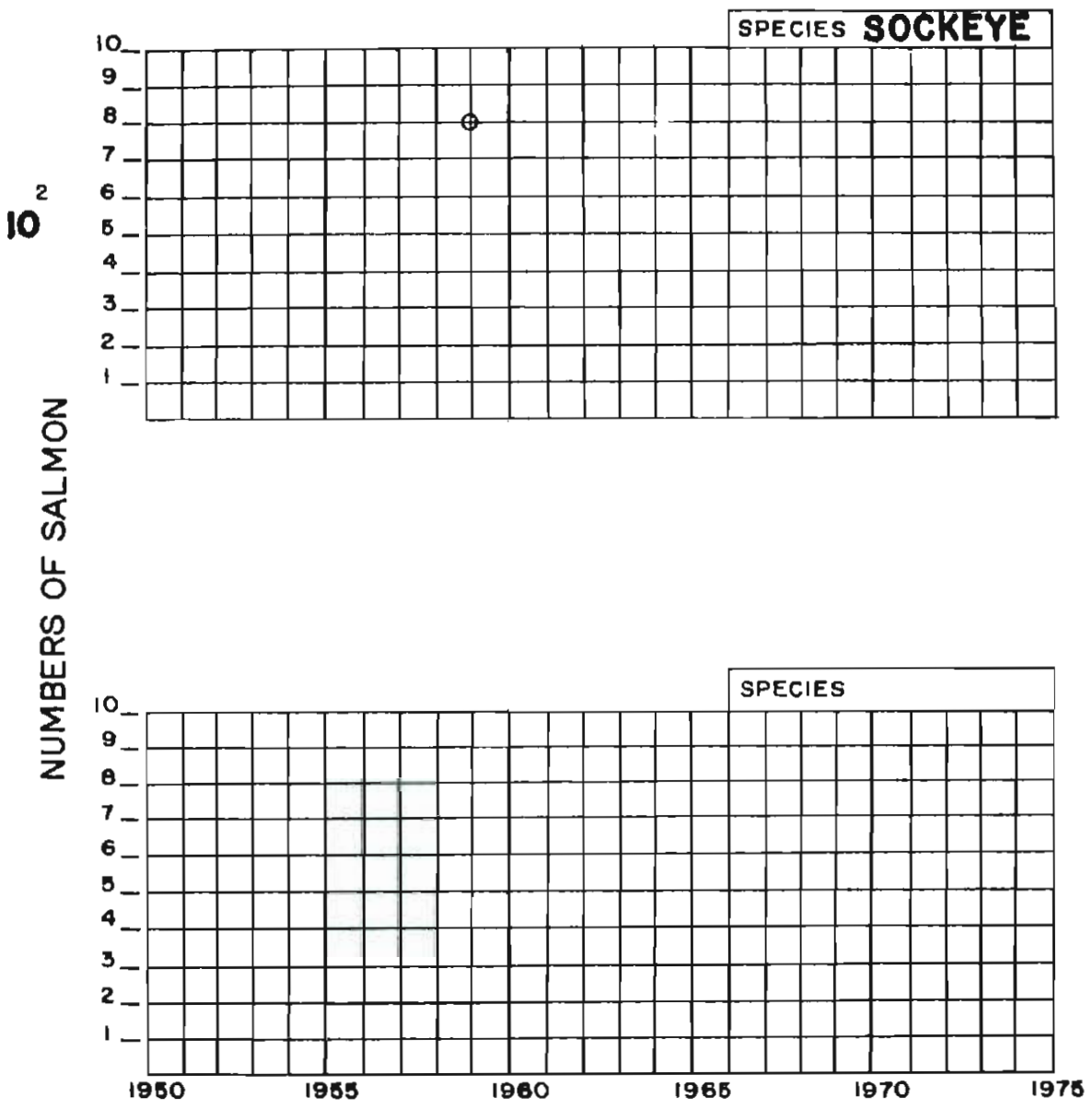
Access route and general remarks: Nominal escapements some years of adequate flow.

BIG LOON CREEK

Year	Sockeye	Pinks	Reference
1959	E-800-Heavy-50% ♀ -in years of high water only		B.C. 16

ANNUAL ESCAPEMENT TO—

BIG LOON CREEK



NAME OF STREAM SOCKEYE CREEK NUMBER 10-50B-8

LOCATION OF MOUTH 54-44 N, 126-01 W. Flows E into Babine L. 8 mi. S of Topley Landing.

Length 2 mi. Width 12 ft. Depth 1.0 ft. Drainage area _____ sq. mi.

Composition (%): Bedrock _____ Coarse _____ Fine _____ Silt and sand _____

Gradient (fall in ft/000): Rapid _____ Moderate X Slow _____

Av. discharge _____ cfs, and water temperature 11-12 °C at spawning time.

Barriers or points of difficult ascent Impassable falls at 2 mi.

Spawning bed: In use _____ % Unused _____ %: Total _____ sq. yds.

Potential of unused portion of stream: Good _____ Fair _____ Poor _____

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM	SECTIONS OF STREAM USED
Sockeye X	Usually lower half
Pink	
Coho	
Spring	
Chum	

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye				A 5	A 20	S 15	100-3100
Pink							
Coho							
Spring							
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum

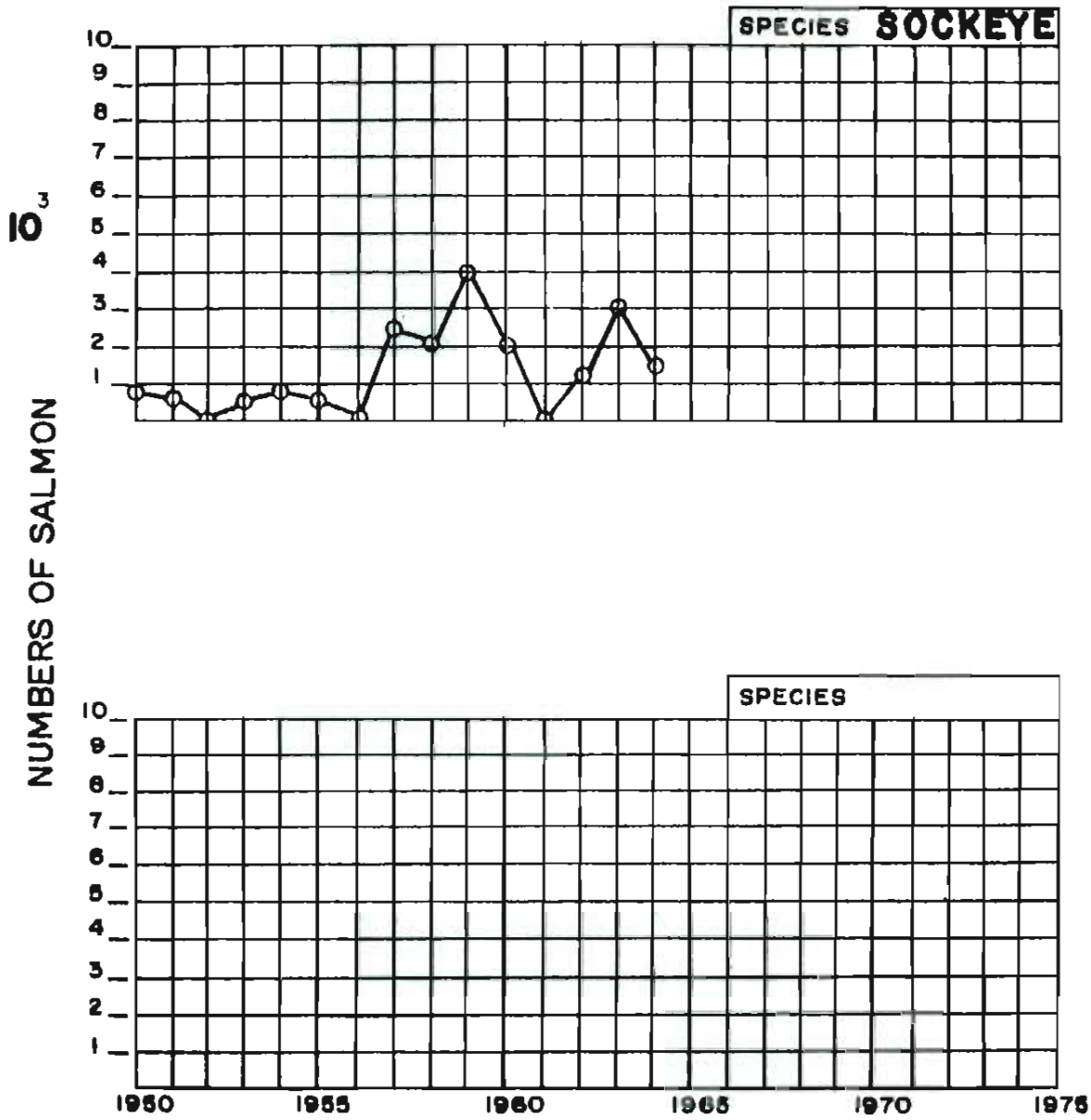
Access route and general remarks: Small producer. Low flow in summer is limiting. Sometimes two runs separated in time of entry.

SOCKEYE CREEK

Year	Sockeye	Pinks	Reference
1944	2,255		F.R.B. Ann. Rep
1945	350		F.R.B. Ann. Rep
1946	320		F.R.B. Ann. Rep
1947	1,400		F.R.B. Ann. Rep
1948	600 - note that fish seen spawning		F.R.B. Ann. Rep
	in channels which will dry up		
1949	154		F.R.B.
1950	900 - 45% ♀ - 2% jacks		F.R.B.
1951	E-786 - Medium - 48% ♀ - 4% jacks		B.C.16
1952	Nil - creek dry		B.C.16
1953	E-600 - Light - sexes even		B.C.16
1954	E-900 - Medium - sexes even		B.C.16
1955	D-500 - Medium - sexes even		B.C.16
1956	Nil - Creek dry		B.C.16
1957	G-2,500 - Medium - 55% ♀		B.C.16
1958	G-2,000 - Medium - sexes even		B.C.16
1959	G-4,000 - Heavy - sexes even		B.C.16
1960	F-2,000 - Medium - 40% ♀ -		B.C.16
	10% jacks		
1961	Nil - stream dry		B.C.16
1962	F-1,100 - Light - 47% ♀ - 8% jacks		B.C.16
1963	G-3,075 - Light - 42% ♀ - 23% jacks		B.C.16
1964	F-1,500 - Medium - 52% ♀		B.C.16

ANNUAL ESCAPEMENT TO—

SOCKEYE CREEK



NAME OF STREAM KEW CREEK: Driscol Creek NUMBER 10-508-9

LOCATION OF MOUTH 54-41 N, 125-55 W. Flows E into Babine L. 2 mi. N of Pierre Cr. 12 mi. N of Pendleton Bay.

Length .5 mi. Width 8 ft. Depth .5 ft. Drainage area _____ sq. mi.

Composition (%): Bedrock _____ Coarse _____ Fine _____ Silt and sand _____

Gradient (fall in ft/000): Rapid _____ Moderate _____ Slow _____

Av. discharge _____ cfs, and water temperature _____ °C at spawning time.

Barriers or points of difficult ascent Entrance only in years of high water.

Spawning bed: In use _____ % Unused _____ %: Total _____ sq. yds.

Potential of unused portion of stream: Good _____ Fair _____ Poor _____

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM		SECTIONS OF STREAM USED
Sockeye	X	Mouth to .5 mi.
Pink		
Coho		
Spring		
Chum		

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye							up to 400
Pink							
Coho							
Spring							
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum

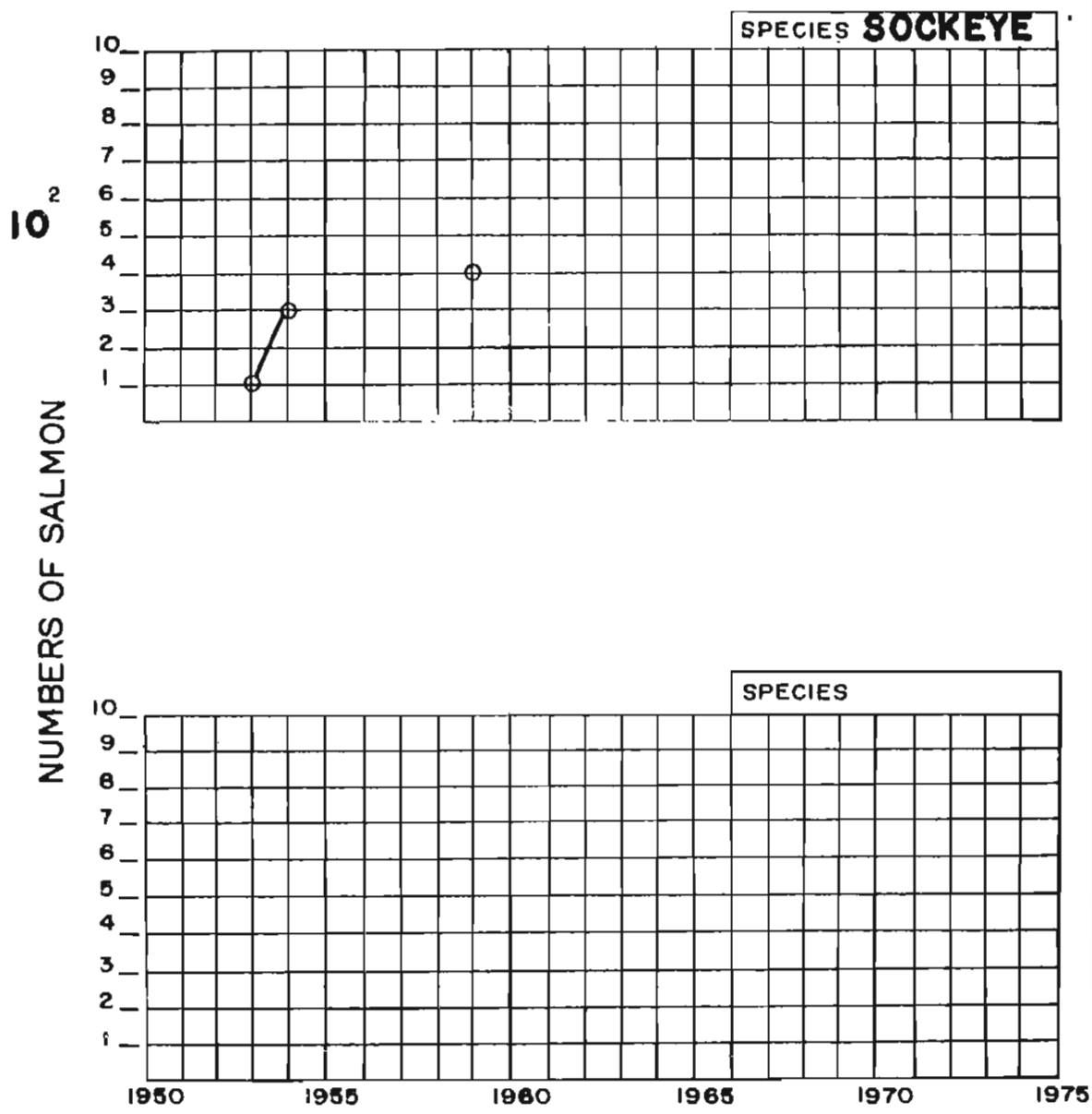
Access route and general remarks: Often supports a few sockeye when there is adequate flow. Frequently dry in mid-summer.

KEW CREEK

Year	Sockeye	Pinks	Reference
1953	B-100-Light-53% ♀ -water high		B.C. 16
1954	C-300-Medium-sexes even		B.C. 16
1956	No run - creek dry		B.C. 16
1957	Nil - water too low		B.C. 16
1958	Nil - creek dry		B.C. 16
1959	D-400-Heavy-50% ♀ -water high		B.C. 16
1960	Stream dry		B.C. 16
1961	Stream dry		B.C. 16
1962	Stream dry		B.C. 16
1963	Stream dry		B.C. 16

ANNUAL ESCAPEMENT TO—

KEW CREEK



NAME OF STREAM PIERRE CREEK (G) NUMBER 10-50B-10

LOCATION OF MOUTH 54-37 N, 125-52 W. Flows E into Babine L. 10 mi. N of Pendleton Bay.

Length 2 mi. Width 25 ft. Depth 1.5 ft. Drainage area _____ sq. mi.

Composition (%): Bedrock 5 Coarse 45 Fine 45 Silt and sand 5

Gradient (fall in ft/000): Rapid _____ Moderate X Slow _____

Av. discharge _____ cfs, and water temperature 9-10 °C at spawning time.

Barriers or points of difficult ascent 40' falls at 2 mi. Log jams are partial obstructions at low water.

Spawning bed: In use 90 % Unused 10 %: Total _____ sq. yds.

Potential of unused portion of stream: Good _____ Fair _____ Poor X

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM		SECTIONS OF STREAM USED
Sockeye	X	Throughout
Pink		
Coho	X	Throughout
Spring		
Chum		

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye				A 10	A 20	S 30	3600-80,000
Pink							
Coho							25-1500
Spring							
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum

Access route and general remarks: Good producer. Prolonged period of entry; frequently with 2 or more runs well separated in time. Characteristically cold water stream. Was donor stream for Stewart L. hatchery some early years.

PIERRE CREEK

Year	Sockeye	Pinks	Reference
1904	5,600 - estimate from long report		F.R.B.
1908	Stream filled with live and dead salmon - only 1 mile covered		B.C. Prov. Fish Repts.
1911	Not so numerous but sufficient		B.C. Prov. Fish Repts.
1912	Very poor - water low		B.C. Prov. Fish Repts.
1913	Quite a large number		B.C. Prov. Fish Repts.
1914	A record run - Stuart Lake hatchery took 2,000,000 eggs		B.C. Prov. Fish Repts.
1915	Heavy - ♀ in excess		Dom. Fish. Rept
1919	Very few - Stuart Lake hatchery took 3,000,000 eggs - suggests beach spawning at mouth of creek		F.R.B.
1920	Far better shape than ever seen before - 2,500,000 eggs taken by Stewart Lake - Beach spawning at mouth		F.R.B.
1921	Large number - Stewart Lake took 3,190,000 eggs - thought that 250,000 eyed eggs were replanted		F.R.B.
1922	Well filled		F.R.B.
1923	Big run - sexes even		F.R.B.
1924	Fine showing - many sockeye in lake at mouth of creek		F.R.B.
1925	Very well stocked - ♂ in excess		F.R.B.
1926	Large number - compares well with 1923-24-25		
1927	Great many sockeye - not much water		F.R.B.
1928	Good run - 10,000 - Stewart Lake hatchery took 5,300,000 eggs - large fish - few runts		F.R.B.
1929	Good run - as good as last year		F.R.B.

PIERRE CREEK

Year	Sockeye	Pinks	Reference
1930	Heavy - water low, but no unusual		F.R.B.
	loss of eggs - 350 ♀ - 300 ♂		
	spawned by Babine hatchery for		
	1,000,000 eggs - 10,000 salmon in		
	creek		
1931	10% of a normal year but not a		F.R.B.
	failure		
1932	A good run - not quite as good as		F.R.B.
	1928		
1933	A little better than Twin Creek		F.R.B.
	which is reported as having 400		
1934	10,000 - large fish - 60% ♂ -		F.R.B.
	compares 1929		
1935	Better than any year since 1930	Were seen in creek - but not many	F.R.B.
	but not equal to it		
1936	12,000-15,000 - 60% ♀ - better		F.R.B.
	than 1931 but less than 1930		
1937	About 3,600 - 60% ♀ - 1% runts		F.R.B.
1938	Medium-light - about 4,000 -		F.R.B.
	10% runts		
1939	12,000		F.R.B.
1940	Two runs - 16 Aug. 9,700 - 60% ♀.		F.R.B.
	4-7 Sept. 6,000 - 60% ♀ - 20%		
	small - compares with 1936 which		
	was K -		
1941	8,500 - sexes even		F.R.B.
1942	12,000-14,000 - 55% ♀ - 2% runts		F.R.B.
1943	11,975 - 60% ♀		F.R.B.
1944	13,246		F.R.B. Ann.Rept.
1945	17,000		F.R.B. Ann.Rept.
1946	16,000		F.R.B. Ann.Rept.
1947	19,000		F.R.B. Ann. Rept.
1948	19,600		F.R.B. Ann.Rept.
1949	4,370		F.R.B.
1950	17,920		F.R.B.
1951	K-12,460 - Heavy - 42% ♀ - 8% jacks		B.C.16
1952	G-Medium - 35% ♀ - 5% jacks		B.C.16
1953	K-20,000 - Heavy - 56% ♀ - 4% jacks		B.C.16

PIERRE CREEK

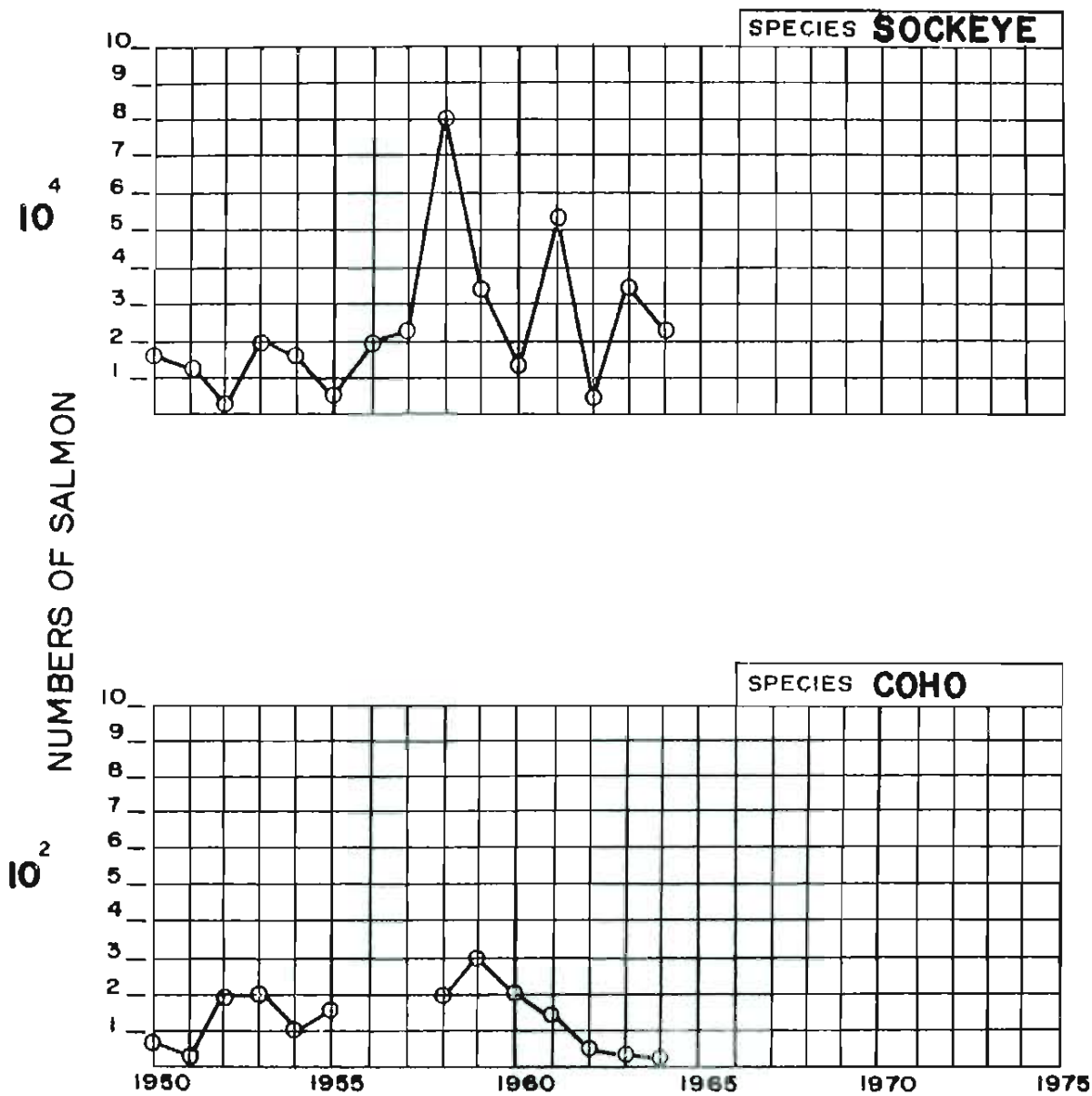
Year	Sockeye	Pinks	Reference
1954	K-17,000 - sexes even		B.C.16
1955	G-4,000 - 48% ♀ - 4% jacks		B.C.16
1956	K-20,000 - Heavy - 50% ♀ - 10% jacks		B.C.16
1957	L-23,000 - Heavy - 46% ♀ - 8% jacks		B.C.16
1958	M-80,000 - Very heavy - 50% ♀ -		B.C.16
	2% jacks		
1959	L-34,000 - Heavy - 59% ♀ - 3% jacks		B.C.16
1960	K-11,000 - 40% ♀ - 10% jacks		B.C.16
1961	M-55,000 - Heavy - 52% ♀ - 2% jacks		B.C.16
	Estimate 3,000 died unspawned -		
	low water and high temperature		
1962	G-4,500 - 47% ♀ - 8% jacks		B.C.16
1963	L-36,900 - 42% ♀ - 23% jacks		B.C.16
1964	L-22,000 - Medium - 52% ♀ -		B.C.16
	2% jacks		

PIERRE CREEK

Year	Springs	Coho	Chum	Reference
1928		1,000 Medium		F.R.B.
1929		Light		F.R.B.
1930		None seen		F.R.B.
1932		Light - best seen in		
		this area		F.R.B.
1933		Medium		F.R.B.
1934		Light run		F.R.B.
1935		Medium run		F.R.B.
1938		Fairly heavy 1,500 -		
		60%		F.R.B.
1942		600 -compares with		
		1939		F.R.B.
1949		263		F.R.B.
1950		83		F.R.B.
1951		A-26		B.C. 16
1952		C-Medium		B.C. 16
1953		C-200-Medium		B.C. 16
1954		C-100-Medium		B.C. 16
1955		C-150 Medium		B.C. 16
1958		C-200 Medium		B.C. 16
1959		D-300 Medium		B.C. 16
1960		C-200 Medium		B.C. 16
1961		C-150 Medium		B.C. 16
1962		A-35 Light		B.C. 16
1963		A-25 Light		B.C. 16
1964		A-Light		B.C. 16

ANNUAL ESCAPEMENT TO—

PIERRE CREEK



NAME OF STREAM TWAIN CREEK (G): Twin Creek NUMBER 10-50B-11

LOCATION OF MOUTH 54-36 N, 125-49 W. Flows E into Babine L. 6 mi. N of Pendelton Bay.

Length 2.5 mi. Width 20 ft. Depth 15 ft. Drainage area _____ sq. mi

Composition (%): Bedrock _____ Coarse _____ Fine _____ Silt and sand _____

Gradient (fall in ft/000): Rapid _____ Moderate _____ Slow _____

Av. discharge _____ cfs, and water temperature _____ °C at spawning time.

Barriers or points of difficult ascent 35' falls at 2.5 mi.

Spawning bed: In use 75 % Unused 25 %: Total _____ sq. yds.

Potential of unused portion of stream: Good _____ Fair _____ Poor _____

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM	SECTIONS OF STREAM USED
Sockeye X	Throughout
Pink	
Coho	
Spring	
Chum	

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye				A 10	A 20	S 15	400-20,000
Pink							
Coho							
Spring							
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum

Access route and general remarks: Walk up creek bed. Water level critically low some years. Stream forks near limit of migration. S fork not used.

TWAIN CREEK

Year	Sockeye	Pinks	Reference
1919	Heavy run -Stuart Lake Hatchery got all their eggs (number not disclosed)		F.R.B.
1924	Heavily covered - Males 2:1		F.R.B.
1925	Well stocked with sockeye		F.R.B.
1926	Large numbers -compares well with 1923-1924-1925		F.R.B.
1929	Medium run - sexes even		F.R.B.
1930	Well seeded -not too much water		F.R.B.
1931	1,500-2,000 Males 2:1 only a few runts- average eggs left unspawned - 19		F.R.B.
1932	Excellent run -Males 3:2 fish well spent		F.R.B.
1933	About 400-Light run-50% ♀		F.R.B.
1934	3,000-4,000- 60% ♂ - some runts		F.R.B.
1935	Medium run -60% ♂ does not compare with cycle year	A few fish - very unusual	F.R.B.
1936	Extra heavy -7,000-9,000 -60% ♀ better than 1929-1930- superior to 1931		F.R.B.
1937	3,100 -60% ♀ - 1% Runts		F.R.B.
1938	Between 4,000-5,000 - sexes even		F.R.B.
1939	4,874 - 60% ♀		1943- F.R.B.
1940	8,000-60% ♀		F.R.B.
1941	6,000-60% ♀		F.R.B.
1942	3,400-55% ♀		F.R.B.
1943	4,500-60% ♀		F.R.B.
1944	13,500		F.R.B. Ann.Rpt
1945	15,500-Large numbers died unspawned		F.R.B. Ann.Rpt
1946	9,500		F.R.B. Ann.Rpt
1947	9,700-Large numbers of "Jacks" - 95% of run		F.R.B. Ann.Rpt
1948	5,100		F.R.B. Ann.Rpt
1949	2,273		F.R.B.
1950	8,081		F.R.B.
1951	G-5,020-Medium-50% ♀ - 5% Jacks		B.C. 16
1952	D-Light -30% ♀ Very low water		B.C. 16

TWAIN CREEK

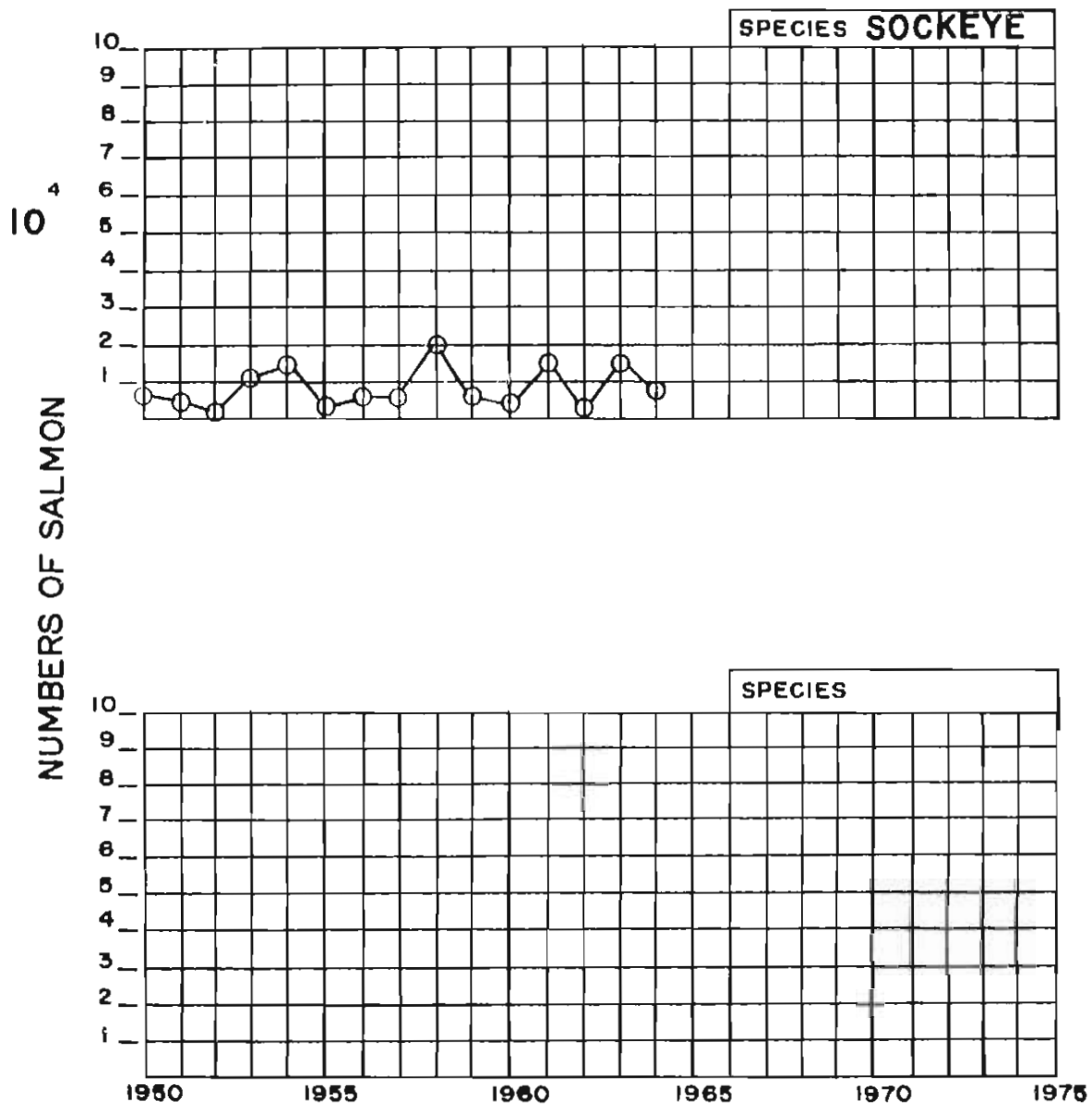
Year	Sockeye	Pinks	Reference
1953	H-10,000-Heavy -55% ♀ -2% Jacks		B.C. 16
1954	K-14,000-Heavy -sexes even -		
	water high		B.C. 16
1955	G-2,500-Heavy -48% ♀ -4% Jacks		B.C. 16
1956	G-5,000-Medium -50% ♀ -10% Jacks		B.C. 16
1957	H-6,000-Medium -50% ♀ -10% Jacks		B.C. 16
1958	K-20,000-Heavy-50% ♀ -2% Jacks -		
	8,000 died unspawned due to low		
	water		B.C. 16
1959	H-9,000-Heavy-50% ♀		B.C. 16
1960	H-6,000-Medium -40% ♀ -10% Jacks		B.C. 16
1961	K-15,000-Heavy -52% ♀ -2% Jacks		B.C. 16
1962	F-1,400-Light -47% ♀ -8% Jacks		B.C. 16
1963	K-14,760-Heavy -42% ♀ -23% Jacks		B.C. 16
1964	H-9,000-Medium -52% ♀		B.C. 16

TWAIN CREEK

Year	Springs	Coho	Chum	Reference
1929		Light run		F.R.B.
1933		Medium run		F.R.B.
1934		Light		F.R.B.
1935		Medium run		F.R.B.
1938		1,500-Medium		F.R.B.

ANNUAL ESCAPEMENT TO—

TWAIN CREEK



NAME OF STREAM CROSS CREEK (G): Pendleton Creek NUMBER 10-50-12

LOCATION OF MOUTH Flows E into Babine L. at Pendleton Bay, Babine L.

Length 2 mi. Width 8 ft. Depth .8 ft. Drainage area _____ sq. mi.

Composition (%): Bedrock _____ Coarse _____ Fine _____ Silt and sand _____

Gradient (fall in ft/000): Rapid _____ Moderate _____ Slow _____

Av. discharge _____ cfs, and water temperature _____ °C at spawning time.

Barriers or points of difficult ascent 25' falls at 2 mi.

Spawning bed: In use _____ % Unused _____ %: Total _____ sq. yds.

Potential of unused portion of stream: Good _____ Fair _____ Poor _____

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM	SECTIONS OF STREAM USED
Sockeye	X
Pink	
Coho	
Spring	
Chum	

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye							100-2500
Pink							
Coho							
Spring							
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum

Access route and general remarks: Marginal stream - dry in many years.

CROSS CREEK

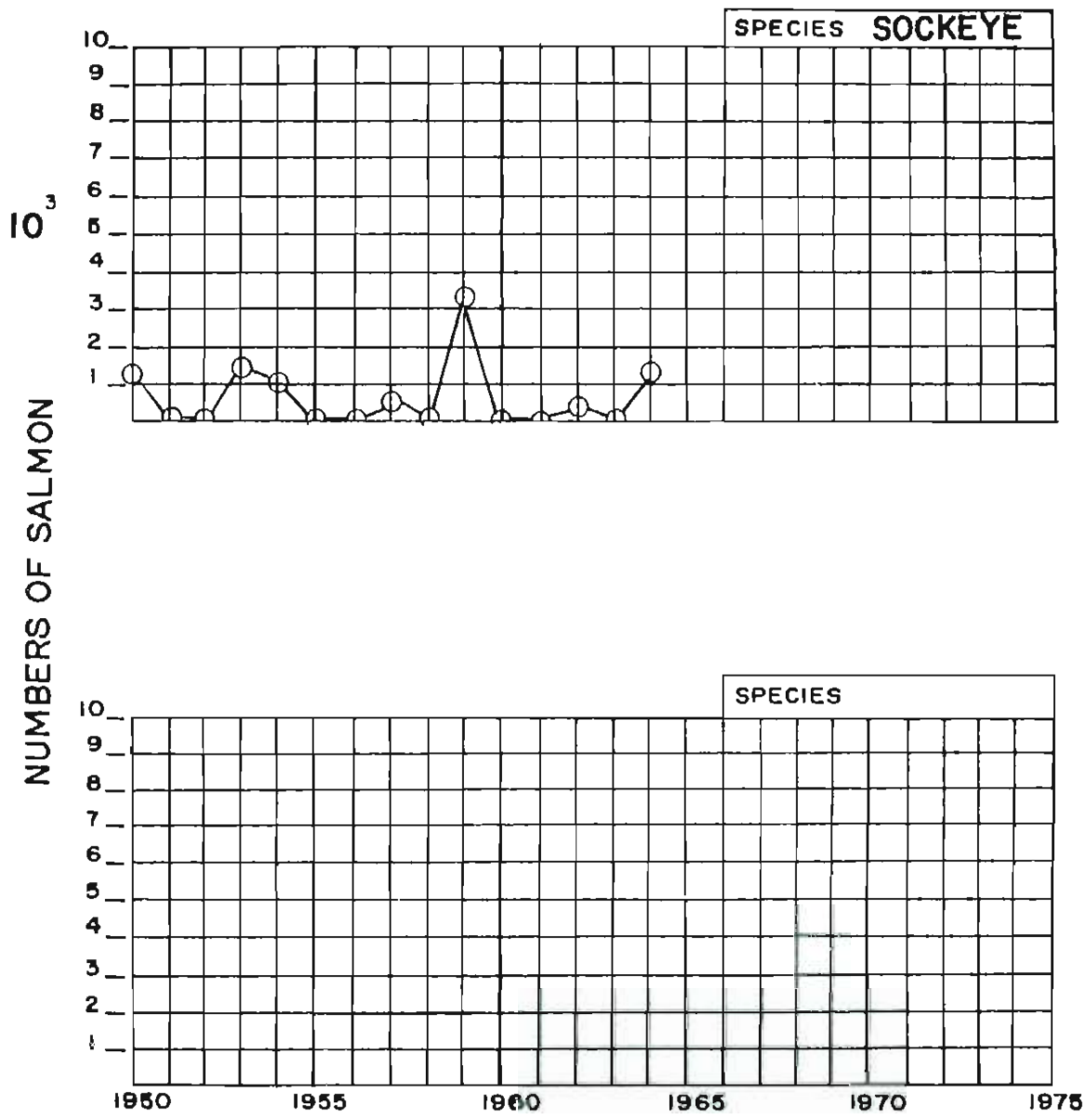
Year	Sockeye	Pinks	Reference
1927	Filled with sockeye - 5 ♂ to 1 ♀		F.R.B.
1929	Light run - sexes even		F.R.B.
1930	300-400 fish		F.R.B.
1931	Nil - Creek too low		F.R.B.
1932	Small number		F.R.B.
1934	23 Aug. 34 - No fish as yet		F.R.B.
1938	100-250 - water low		F.R.B.
1943	990		F.R.B.
1944	425 - sexes even - 20% runts		F.R.B.
1945	2,100 - 300 died without spawning		F.R.B.
1946	2,000		F.R.B.
1947	1,396 - 60% ♀ - 40% small		F.R.B.
1948	1,300		F.R.B.
1949	C - 1,058		F.R.B.
1950	1,341 - 45% ♀ - 8% jacks		F.R.B.
1951	Few entered but died unspawned -		B.C.16
	water low		
1952	Nil - Creek dry		B.C.16
1953	F-1,500 - Medium - 50% ♀ - 5% jacks		B.C.16
1954	F-1,100 - Medium - 50% ♀ - no jacks		B.C.16
1955	No run - water too low		B.C.16
1956	Nil - water too low		B.C.16
1957	D - 300		B.C.16
1958	Nil - water too low		B.C.16
1959	G-2,500 - Heavy - 60% ♀		B.C.16
1960	Nil - stream dry		B.C.16
1961	Nil - stream dry		B.C.16
1962	C - 200 - Light - sexes even		B.C.16
1963	Nil		B.C.16
1964	F-1,400 - Heavy - 52% ♀		B.C.16

CROSS CREEK

Year	Springs	Coho	Chum	Reference
1929		Light		F.R.B.

ANNUAL ESCAPEMENT TO—

CROSS CREEK



NAME OF STREAM DONALDS CREEK NUMBER 10-50B-13

LOCATION OF MOUTH 54-29 N, 125-38 W. Flows E into Babine L 4 mi. S of Pendleton Bay at Dept. of Fisheries Donald's Ldg. Station

Length .5 mi. Width 6 ft. Depth .5 ft. Drainage area 8 sq. mi.

Composition (%): Bedrock _____ Coarse _____ Fine _____ Silt and sand _____

Gradient (fall in ft/000): Rapid X Moderate _____ Slow _____

Av. discharge _____ cfs, and water temperature _____ °C at spawning time.

Barriers or points of difficult ascent Beaver dams are troublesome periodically. Small falls block sockeye at .5 mi.

Spawning bed: In use _____ % Unused _____ %: Total _____ sq. yds.

Potential of unused portion of stream: Good _____ Fair _____ Poor _____

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM		SECTIONS OF STREAM USED
Sockeye	X	Mouth to .5 mi.
Pink		
Coho		
Spring		
Chum		

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye							
Pink							
Coho							
Spring							
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum

Access route and general remarks: Often supports a few sockeye when there is adequate flow. Frequently dry in mid-summer.

NAME OF STREAM PINKUT CREEK (G): 15-Mile, Anderson Cr. NUMBER 10-50B-14

LOCATION OF MOUTH 54-29 N, 125-28 W. Flows N into Babine L. about 15 mi. from S. end.

Length 0.8 mi. Width 70 ft. Depth 1.5 ft. Drainage area 320 sq. mi.

Composition (%): Bedrock 60 Coarse 20 Fine 20 Silt and sand _____

Gradient (fall in ft/000): Rapid _____ Moderate _____ Slow _____

Av. discharge 100 cfs, and water temperature 13 °C at spawning time.

Barriers or points of difficult ascent Impassable falls at 0.8 mi.

Spawning bed: In use 25 % Unused 75 %: Total 30,000 sq. yds.

Potential of unused portion of stream: Good _____ Fair _____ Poor X

Potential of inaccessible portion of stream: Good _____ Fair X Poor _____

SPECIES USING STREAM		SECTIONS OF STREAM USED
Sockeye	X	Lower 1000 feet and sporadic in canyon
Pink		
Coho	X	
Spring		
Chum		

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye	A 20	S 5	S 20	A 25	S 15	O 10	3200-140,000
Pink							
Coho							28-800
Spring							
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum

Access route and general remarks: Trail on south bank. Good producer. Excellent gravel in lower 1000 feet, coarser gravel upstream, bedrock near falls. Escapements counted from towers beginning 1964.

Ref: Bab. Dev. Rep. 1965.

The Resource Development Branch of the Department of Fisheries has estimated the Pinkut Creek escapement from tower counts beginning in 1964.

The direct counts of the District Fisheries Inspector have been entered in the tables and graphs for ready comparison of historic and recent escapements.

Resource Development Branch estimates are as follows:

Year	Sockeye Escapement Estimate
1964	146,000

PINKUT CREEK

Year	Sockeye	Pinks	Reference
1904	Still many fish in river 21 Sept.		Dom. Fish. Rep
	1904		1905
1908	Crowded with salmon		B.C.F.R.
1909	Indicates as many as preceding year		B.C.F.R.
1910	In splendid shape		Dom. Fish. Rep
1911	Large number - 10 Oct. 1911		B.C.F.R.
1912	Very poor - large number small		B.C.F.R.
	sockeye		
1913	Large numbers - ♂ in excess ♀		B.C.F.R.
1914	Very disappointing - hatchery		B.C.F.R.
	took 4,000,000 eggs		
1915	Well stocked		Dom. Fish. Rep
1916	Well seeded		B.C.F.R.
1919	Conservative estimate 22,000 -		F.R.B.
	hatchery took 1,200,000 eggs		
1920	Very poor showing - great many		F.R.B.
	undersized ♂		
1921	Indians took 4,000 - hatchery got		F.R.B.
	2,100,000 eggs but still a number		
	of sockeye available 17 Sept. 1921		
1922	Well filled - from mouth to falls -		F.R.B.
	not as many runts - higher % ♀		
1923	Heavy - few runts - sexes even		F.R.B.
1924	Well covered - 30% runts - 2♂ - 1♀		F.R.B.
1925	Very large numbers - sexes even -		F.R.B.
	few runts		
1926	1/2 of previous year's - evidence		F.R.B.
	large egg wastage		
1927	Very good run - 5,000,000 eggs to		F.R.B.
	Stewart Lake hatchery		
1928	Good run - 1,200,000 eggs taken		F.R.B.
	for hatchery		
1929	Approx. 30,000 spawned - 60% of run		F.R.B.
	undersized and not marked - large		
	% dead and still containing spawn		

PINKUT CREEK

Year	Sockeye	Pinks	Reference
1930	Good run but low water contributed		F.R.B.
	to large egg wastage		
1931	Up 31 Aug. - 2,000 sockeye - but		F.R.B.
	run peaked about 9 Sept. 1931 - No		
	egg wastage - males to females		
	3-1 - few runts - 5%		
1932	Run not as good as 1928 - sexes		F.R.B.
	even - overall run to Babine		
	estimated 50% runts		
1933	Two runs - 1st - 4,500 - sexes even		F.R.B.
	2nd - 10,000-12,000 - small and		
	medium fish - males 2-1 - creek		
	got heavy seeding		
1934	14,000-15,000 - 60% ♂ - 15% runts -		F.R.B.
	compares with 1929 but less than		
	1930		
1935	Extra heavy - 20% runts	A few seen	F.R.B.
1936	9,000-10,000 - sexes even		F.R.B.
1937	Light run - sexes even - no wastage		F.R.B.
1938	12,500 plus - 60% ♂ - 15% runts		F.R.B.
1939	3,500 - during full course of		F.R.B.
	season		
1940	18,000 - spawned - considerable		F.R.B.
	wastage due to poor gravel at		
	upper end		
1941	Satisfactory - 15,000-16,000 -		Dom. Fish. Rep.
	some wastage of eggs		
1942	Possibly 8,000 - 55% ♀ - 2% runts		F.R.B.
1943	Approx. 5,000 - 60% ♀ - does not		F.R.B.
	compare with cycle year		
1944	5,200 - actual count		F.R.B.
1945	25,000 - water low - loss of 2,000		F.R.B.
	through spawning on rock		
1946	14,000 - 60% ♀ - better than 1942		F.R.B.
	but less than 1941		
1947	10,000 - sexes even - 15% runts -		F.R.B.
	compares to 1943		
1948	25,500 - fewer jacks		F.R.B.

PINKUT CREEK

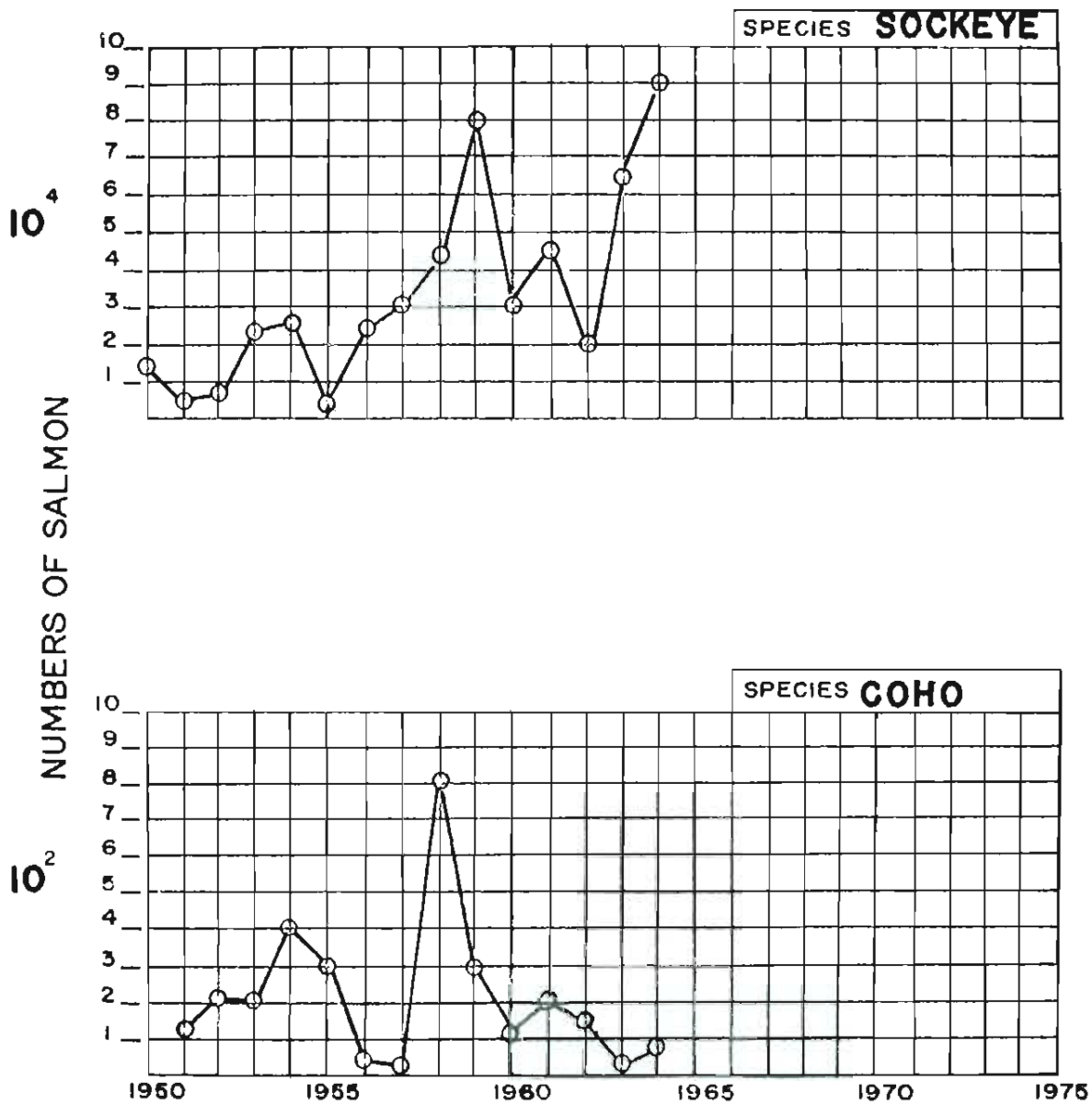
Year	Sockeye	Pinks	Reference
1949	10,000 - all medium large fish		F.R.B.
1950	14,698 - sexes even - 6,000 jacks		F.R.B.
1951	5,770 - Light - 45% ♀ - 15% jacks		B.C.16
1952	H- Medium - 60% ♂ - 750 spawned on		B.C.16
	bare rocks		
1953	L-24,000 - 50% ♀ - 2% jacks		B.C.16
1954	L-25,000 - sexes even		B.C.16
1955	G-4,000 - Light - 40% ♀ - 20% jacks		B.C.16
1956	K-24,000 - Heavy - 50% ♀ - 5% jacks		B.C.16
1957	L-30,000 - Heavy - sexes even -		B.C.16
	3% jacks		
1958	L-45,000 - Heavy - 50% ♀ - 1% jacks		B.C.16
1959	M-80,000 - Heavy - 59% ♀ - 3% jacks		B.C.16
1960	L-30,000 - Medium - 40% ♀ - 10% jacks		B.C.16
	350,000 eggs taken for Naninka		
1961	L-47,000 - Heavy - 52% ♀ - 2% jacks		B.C.16
	1,701 ♀ and 347 ♂ stripped for		
	Nanika hatchery		
1962	20,000 - 4,600 ♀ stripped for		B.C.16
	Nanika hatchery		
1963	M-65,000 - Heavy - 39% ♀ - 29%		B.C.16
	jacks - 4,500 sockeye removed for		
	Nanika hatchery		
1964	M-90,000 - Heavy - 52% ♀ - 1% jacks		
	7,000 stripped for Nanika hatchery		B.C.16

PINKUT CREEK

Year	Springs	Coho	Chum	Reference
1942		Compares well with 1939		F.R.B.
1943		Light seeding		F.R.B.
1948		Heavy		F.R.B.
1951		125 - Medium		B.C.16
1952		C - Light		B.C.16
1953		C - 200 - Medium		B.C.16
1954		D - 400 - Medium		B.C.16
1955		C - 300 - Medium		B.C.16
1956		A - 40 - Light		B.C.16
1957		A - 20 - Light		B.C.16
1958		E - 800 - Heavy		B.C.16
1959		D - 300 - Medium		B.C.16
1960		B - 100 - Light		B.C.16
1961		C - 200 - Medium		B.C.16
1962		C - 150 - Medium		B.C.16
1963		A - 30 - Light		B.C.16
1964		B - 75 - Medium		B.C.16

ANNUAL ESCAPEMENT TO—

PINKUT CREEK



NAME OF STREAM GULLWING CREEK (G); 6-mi., Wiggins Cr. NUMBER 10-50B-15

LOCATION OF MOUTH 54-29 N, 125-22 W. Flows S into Babine L. approximately 6 mi. from S. end.

Length 1.5 mi. Width 12 ft. Depth 1.5 ft. Drainage area _____ sq. mi.

Composition (%): Bedrock _____ Coarse _____ Fine _____ Silt and sand _____

Gradient (fall in ft/000): Rapid _____ Moderate X Slow _____

Av. discharge _____ cfs, and water temperature _____ °C at spawning time.

Barriers or points of difficult ascent Fast water in canyon 1.5 mi. is partial barrier at low water.

Spawning bed: In use _____ % Unused _____ %: Total _____ sq. yds.

Potential of unused portion of stream: Good _____ Fair _____ Poor _____

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM		SECTIONS OF STREAM USED
Sockeye	X	Throughout; heaviest to 1 mi.
Pink		
Coho	X	
Spring		
Chum		

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye				A 5	A 20	A 25	100-3500
Pink							
Coho							A few
Spring							
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum

Access route and general remarks: Trail from mouth follows N bank. Small producer. Sometimes dry in mid-summer. FRB cabin located at mouth.

GULLWING CREEK

Year	Sockeye	Pinks	Reference
1921	Better than 1920		F.R.B.
1924	Large numbers - sexes even		F.R.B.
1925	Very few - low water		F.R.B.
1926	Well covered		F.R.B.
1927	No fish seen - dry		F.R.B.
1929	Medium run - sexes even		F.R.B.
1933	About 100		F.R.B.
1934	No sockeye this year		F.R.B.
1935	400 - 3♂ - 2♀		F.R.B.
1937	Fair		F.R.B.
1938	100-250 (water low - all killed		
	by bears)		F.R.B.
1939	342 - 60% ♀		F.R.B.
1943	267 - 60% ♀		F.R.B.
1944	4,106 - 50% ♀ - better than 1940		F.R.B. and
			F.R.B. Ann. Rep.
1945	800 - about 200 died unspawned		F.R.B. Ann. Rep.
1946	340		F.R.B. Ann. Rep.
1947	800 - large number of jacks		F.R.B. Ann. Rep.
1948	2,700 - mouth almost blocked off		F.R.B. Ann. Rep.
1949	433		F.R.B.
1950	1,225 - 50% ♀ - 2% jacks		F.R.B.
1951	Nil - water too low		B.C.16
1952	Nil - creek dry		B.C.16
1953	G-2,663 - Medium - 50% ♀ -1% jacks		B.C.16
1954	F-1,800 - Medium - sexes even		B.C.16
1955	B-100 - Light - sexes even		B.C.16
1956	A-50 - Light - low water		B.C.16
1957	E-600 - sexes even		B.C.16
1958	G-2,500 - Medium - 50% ♀ - 250		
	lost - low water		B.C.16
1959	G-3,500 - Heavy - 50% ♀		B.C.16
1960	E-1,000 - Light - 40% ♀ - 10% jacks		B.C.16

GULLWING CREEK

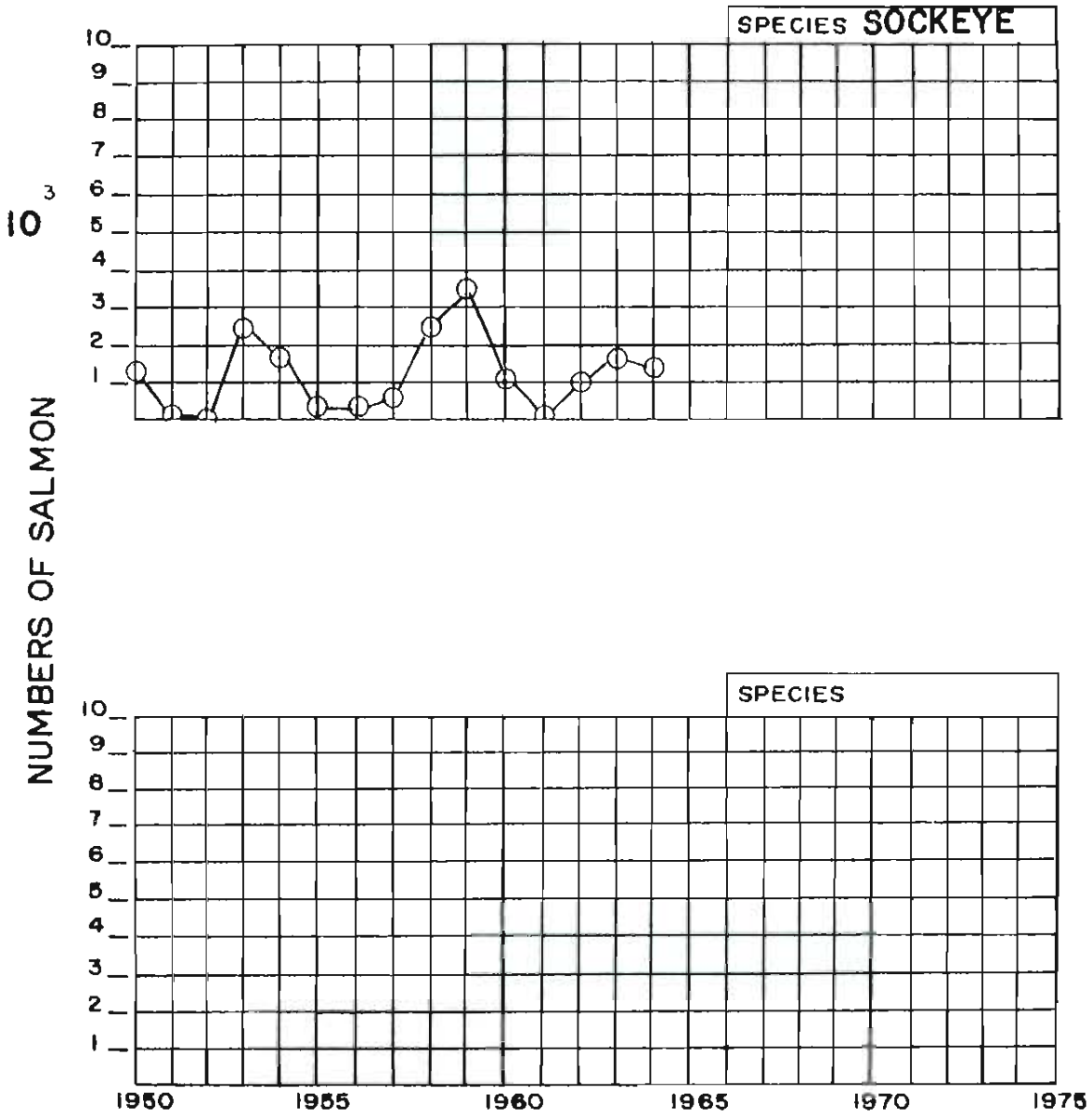
Year	Sockeye	Pinks	Reference
1961	Stream dry		B.C.16
1962	E-1,000 - Medium - 47% ♀ - 8% jacks		B.C.16
1963	1,845 - Light - 42% ♀ - 23% jacks		B.C.16
1964	F-1,500 - Medium - 52% ♀		B.C.16

GULLWING CREEK

Year	Springs	Coho	Chum	Reference
1929		A few		F.R.B.

ANNUAL ESCAPEMENT TO—

GULLWING CREEK



NAME OF STREAM FOUR-MILE CREEK NUMBER 10-50B-16

LOCATION OF MOUTH Flows N into Babine L. approximately 4 mi. from S end.

Length 1 mi. Width 10 ft. Depth .8 ft. Drainage area _____ sq. mi.

Composition (%): Bedrock _____ Coarse _____ Fine _____ Silt and sand _____

Gradient (fall in ft/000): Rapid _____ Moderate _____ Slow _____

Av. discharge _____ cfs, and water temperature 9-11 °C at spawning time.

Barriers or points of difficult ascent Impassable falls 1 mi.

Spawning bed: In use 90 % Unused 10 %: Total _____ sq. yds.

Potential of unused portion of stream: Good _____ Fair _____ Poor _____

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM		SECTIONS OF STREAM USED
Sockeye	X	Throughout; heaviest lower .3 mi.
Pink		
Coho		
Spring		
Chum		

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye	A 5	A 10	A 25	A 5	A 20	S 15	300-5400
Pink							
Coho							
Spring							
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum

Access route and general remarks: Trail cut along stream for access during 1964-65 mate selection studies. Frequently two runs separated in time of entry. Beach spawning occurs adjacent to mouth some years.

FOUR MILE CREEK

Year	Sockeye	Pinks	Reference
1907	2,500,000 eggs taken to start		Dom. Fish. Rep.
	Stewart Lake hatchery		"
1919	Very few fish - almost dry		F.R.B.
1920	10 or 12 sockeye		B.C. Prov.
			Fish. Reports
1921	A few		B.C. Prov.
			Fish. Reports
1922	Many live and dead seen - reported		F.R.B.
	to have been full		"
1923	Quite a number		F.R.B.
1924	Small number		F.R.B.
1925	Well stocked		F.R.B.
1926	Well covered - ♂ in excess ♀		F.R.B.
1929	Medium run - sexes even		F.R.B.
1932	Medium - 300		F.R.B.
1933	100 fish		F.R.B.
1934	No fish		F.R.B.
1935	300-500 - 60% ♂ - compares to 1930		F.R.B.
1938	100-750 - water low - bears		F.R.B.
	destroyed them		
1939	1,402		F.R.B.
1943	336 - Medium fish - 60% ♀		F.R.B.
1944	6,125 - sexes even - 10% small		F.R.B.
1945	5,000-6,000 - fish died unspawned -		F.R.B.
	loss - 70-50% - low water		
1946	1,100		F.R.B.
1947	1,029 - sexes even - 10% runts		F.R.B.
1948	Medium		F.R.B.
1949	1,635		F.R.B.
1950	4,664 - 55% ♀ - 10% jacks		F.R.B.
1951	E-927 - Medium - 51% ♀ - 4% jacks		B.C.16
1952	C- Light - 30% ♀		B.C.16
1953	K-2,000 - Light - 59% ♀ - 2% jacks		B.C.16

FOUR MILE CREEK

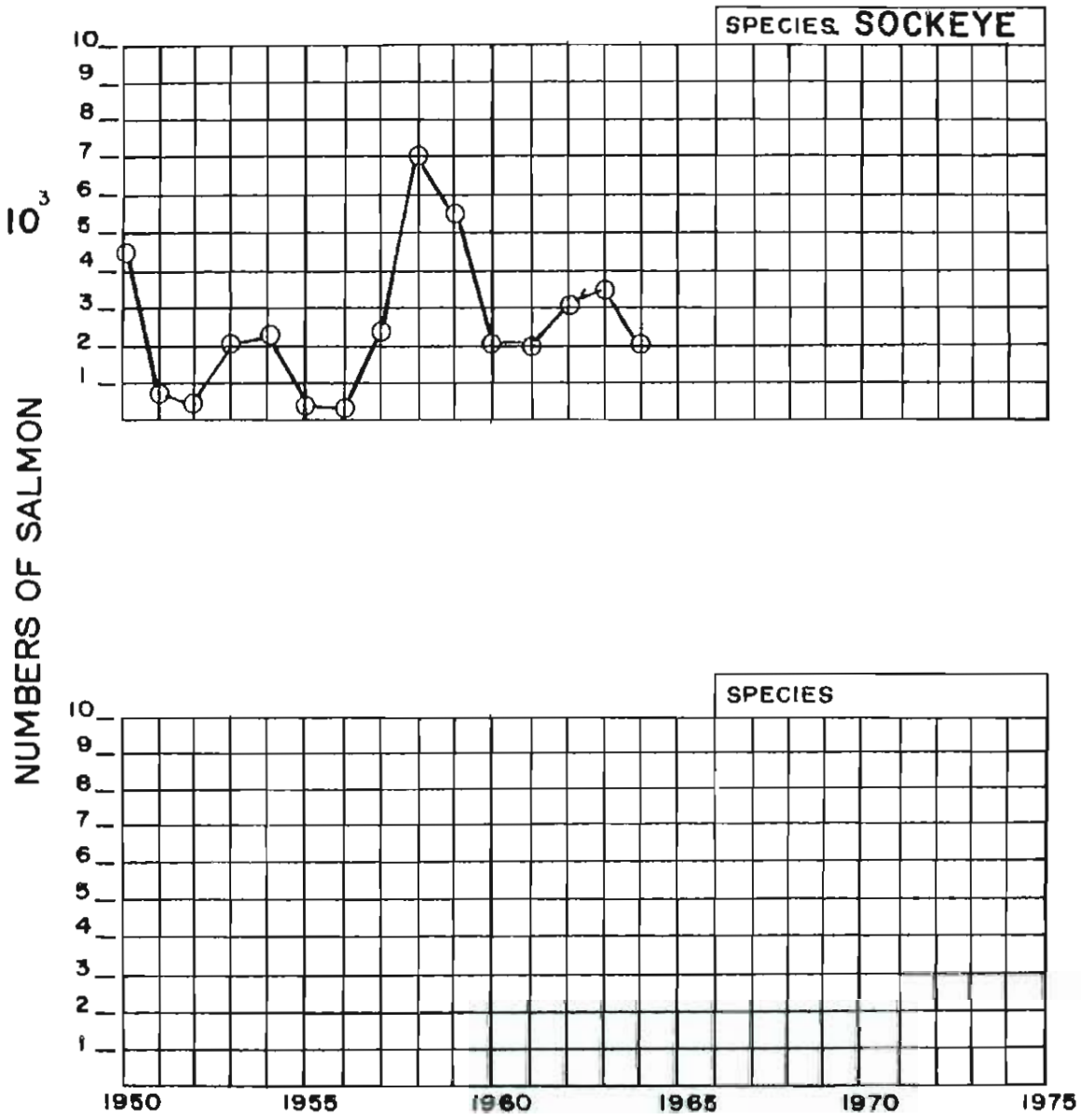
Year	Sockeye	Pinks	Reference
1954	G-2,200 - Light - sexes even		B.C.16
1955	D-400 - Light - sexes even		B.C.16
1956	D-400 - Light - sexes even		B.C.16
1957	G-2,500 - Medium - sexes even		B.C.16
1958	H-7,000 - Heavy - sexes even -		B.C.16
	estimated 1,000 died unspawned		
1959	H-5,400 - Heavy - 60% ♀		B.C.16
1960	F-2,000 - Light - 40% ♀ - 10% jacks		B.C.16
1961	F-2,000 - Light - 52% ♀ - 2% jacks		B.C.16
	50% died due to low water levels		
1962	G-3,000 - Light - 47% ♀ - 8% jacks		B.C.16
1963	G-3,690 - Heavy - 42% ♀ - 23% jacks		B.C.16
1964	G-2,064 - Medium - 52% ♀		B.C.16

FOUR MILE CREEK

Year	Springs	Coho	Chum	Reference
1924		Good run		F.R.B.
1929		Light run		F.R.B.

ANNUAL ESCAPEMENT TO—

FOUR MILE CREEK



NAME OF STREAM TETZALTO CREEK NUMBER 10-50-17

LOCATION OF MOUTH Flows N into S end of Babine L. at base of Tetzalto Mountain.

Length 1 mi. Width 8 ft. Depth .5 ft. Drainage area _____ sq. mi.

Composition (%): Bedrock _____ Coarse _____ Fine _____ Silt and sand _____

Gradient (fall in ft/000): Rapid _____ Moderate _____ Slow _____

Av. discharge _____ cfs, and water temperature _____ °C at spawning time.

Barriers or points of difficult ascent Access only in years of high water.

Spawning bed: In use _____ % Unused _____ %: Total _____ sq. yds.

Potential of unused portion of stream: Good _____ Fair _____ Poor _____

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM		SECTIONS OF STREAM USED
Sockeye	X	Lower .8 mi.
Pink		
Coho		
Spring		
Chum		

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye							up to 900
Pink							
Coho							
Spring							
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum

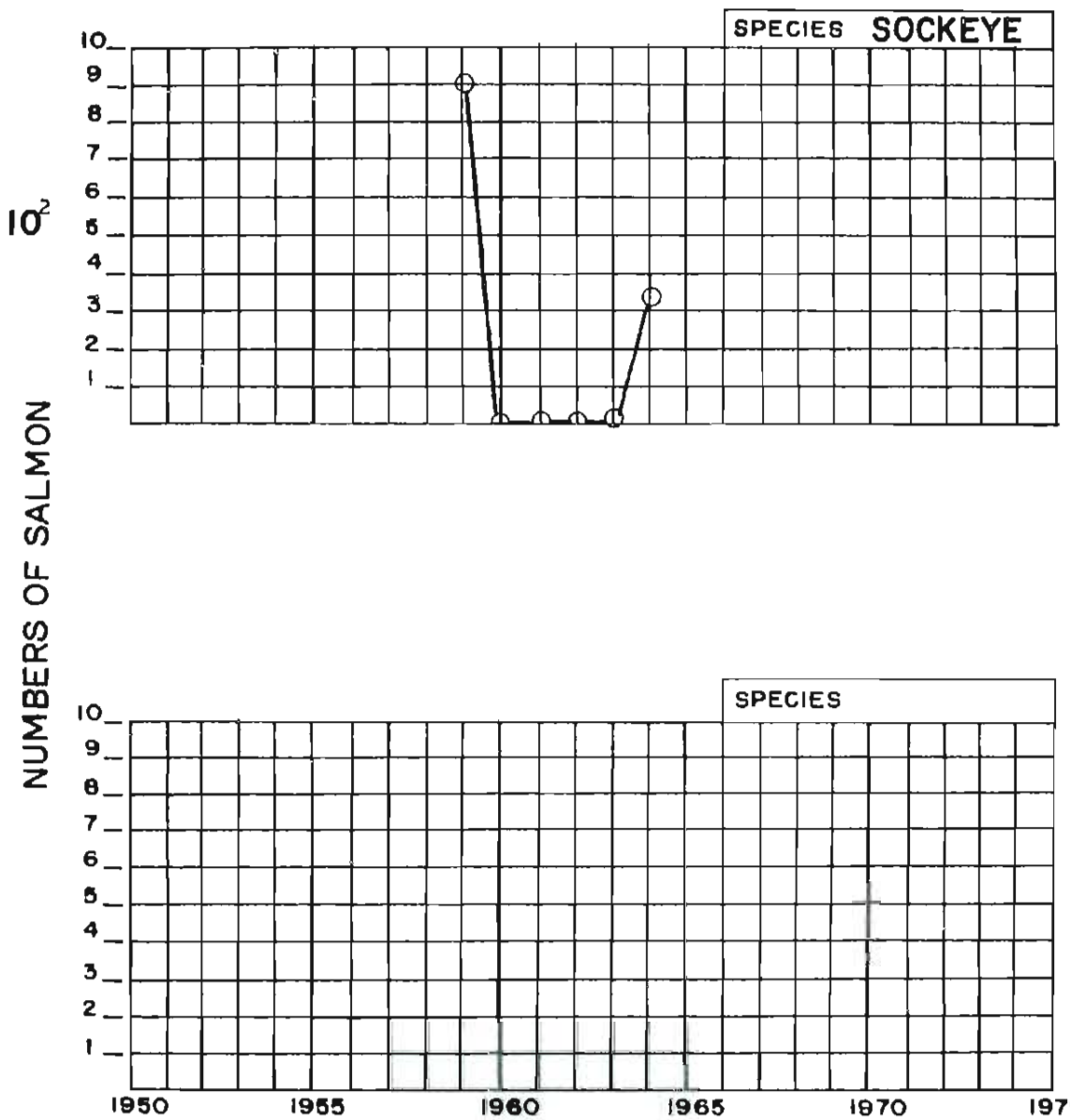
Access route and general remarks: Sometimes has a few sockeye in years of adequate flow. Frequently dry in mid-summer.

TETZALTO CREEK

Year	Sockeye	Pinks	Reference
1959	E - 900 - heavy - 50% ♀ - years		
	of high water only		B.C.16
1964	D - 350 - medium - 52%♀		B.C.16

ANNUAL ESCAPEMENT TO—

TETZALTO CREEK



NAME OF STREAM SUTHERLAND RIVER (G): Beaver R. NUMBER 10-508-18

LOCATION OF MOUTH 54-29 N, 125-11 W. Flows W into S end of Babine L.

Length _____ mi. Width _____ ft. Depth _____ ft. Drainage area _____ sq. mi.

Composition (%): Bedrock _____ Coarse _____ Fine _____ Silt and sand _____

Gradient (fall in ft/000): Rapid _____ Moderate _____ Slow X

Av. discharge _____ cfs, and water temperature _____ °C at spawning time.

Barriers or points of difficult ascent _____

Spawning bed: In use _____ % Unused _____ %: Total _____ sq. yds.

Potential of unused portion of stream: Good _____ Fair _____ Poor _____

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM	SECTIONS OF STREAM USED
Sockeye	
Pink	
Coho	
Spring	
Chum	

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye							
Pink							
Coho							
Spring							
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum

Access route and general remarks: Probably no spawning in trunk stream except at mouth of Shass Cr. which supports a good run of sockeye. Sutherland R. is a sluggish stream meandering for many miles above the lake. Early records probably describe Shass Cr. run.

SUTHERLAND RIVER - BEAVER RIVER

Year	Sockeye	Pinks	Reference
1904	Barricades destroyed - suggests		
	salmon go through river and spawn		"
	in Shass Creek -10 miles up from		"
	mouth		F.R.B.
1908	Run very large -10,478,000 eggs		
	taken for Stuart Lake Hatchery.		"
	Could have got twice as many		Dom.Fish.Rpts.
1909	A small number taken for Stuart		
	Lake Hatchery -2,000,000 eggs		Dom.Fish.Rpts.
1910	Quite a number 3,970,000 eggs		"
	taken for Stuart Lake Hatchery		Dom.Fish.Rpts.
1911	Run very big -more females than		
	males, 7,220,000 eggs taken by		B.C. Prov.
	Stuart Lake		Fish. Reports "
1912	Run poor -3,000,000 eggs taken by		B.C. Prov. "
	Stuart Lake - water low		Fish. Reports
1913	Below average -3,000,000 eggs		
	taken by Stuart Lake Hatchery		Dom.Fish.Rpts.
1914	Below average -no eggs taken -		"
	run too poor		Dom.Fish.Rpts.
1915	Salmon in abundance -no eggs taken		Dom.Fish.Rpts.
1918	Report indicates poor run -no eggs		"
	taken by Stuart Lake & Indians not		B.C. Prov. "
	able to secure food supplies		Fish. Reports
1919	A considerable run -This is based		
	on fish in the Lake		F.R.B. "
1920	Poor run -great many undersized		"
	males		F.R.B.
1921	Fairly well stocked		F.R.B.
1922	Mention large number going through		"
	to Shass Crk. but nothing on		"
	Sutherland River		F.R.B.
1923	Fair to normal run -sexes even		F.R.B.
1924	A good run to Shass Creek- having		"
	passed up Sutherland River		F.R.B. "
1925	Refers to fish passed through to		
	Shass Creek		F.R.B.

SUTHERLAND RIVER - BEAVER RIVER

Year	Sockeye	Pinks	Reference
1926	Up to average		F.R.B.
1928	Heavy - Stuart Lake Indians took		
	12,000		F.R.B.
1929	Better than last year		F.R.B.
1930	Big run up to Grizzly Crk. 15		
	Stuart Lake Indians took 8,500		
	at mouth of Sutherland River,		
	estimate 4,500 went up river.		F.R.B.
1931	Between 500 and 600 on area below		
	Grizzly Creek		F.R.B.
1932	Small number - all reported		
	through to Grizzly Creek		F.R.B.
1934	2,000 - 3 males to 2 females,		
	10% runts		F.R.B.
1935	Many - double last season -		
	better than 1931		F.R.B.
1936	1,000 fish - sexes even - compares		
	to 1931		F.R.B.
1937	Salmon breaking at mouth - none		
	in creek		F.R.B.
1938	Only mentioned as fish passing		
	through		F.R.B.
1940	Only mentioned as fish passing		
	through		F.R.B.
1943	768		F.R.B.
1946	Mentioned only in conjunction		
	with Grizzly Creek		F.R.B.
1947	256		F.R.B.

SUTHERLAND RIVER - BEAVER RIVER

Year	Springs	Coho	Chum	Reference
1928		Medium		F.R.B.
1929		Light run		F.R.B.

NAME OF STREAM SHASS CREEK (G): Grizzly Creek NUMBER 10-50B-18-1

LOCATION OF MOUTH Flows W into Sutherland R. S end of Babine L.

Length 1.5 mi. Width 30 ft. Depth 1.5 ft. Drainage area _____ sq. mi

Composition (%): Bedrock _____ Coarse _____ Fine _____ Silt and sand _____

Gradient (fall in ft/000): Rapid _____ Moderate X Slow _____

Av. discharge _____ cfs, and water temperature 50-55 °F at spawning time.

Barriers or points of difficult ascent 40' falls at 1.5 mi. (beaver dams on Sutherland R. frequently troublesome)

Spawning bed: In use _____ % Unused _____ %: Total _____ sq. yds.

Potential of unused portion of stream: Good _____ Fair _____ Poor _____

Potential of inaccessible portion of stream: Good _____ Fair _____ Poor _____

SPECIES USING STREAM		SECTIONS OF STREAM USED
Sockeye	X	Throughout
Pink		
Coho	X	
Spring		
Chum		

SPECIES	TIME OF ENTRY			TIME OF SPAWNING			RANGE OF ESCAPEMENTS
	Start	Peak	End	Start	Peak	End	(numbers of salmon)
Sockeye				A 20	S 5	S 20	2000-30,000
Pink							
Coho							12-300
Spring							
Chum							

RATING OF PRODUCTIVITY

Sockeye	Pink	Coho	Spring	Chum

Access route and general remarks: Usually reached over an 8-mile trail from SE corner of lake. Fish first ascend Sutherland R. but appear to spawn in it only at confluence with Shass Cr. Heavy bird and bear predation. Sockeye are occasionally fished by people from Takla L. - Fraser R. system.

SHASS CREEK - GRIZZLY CREEK

Year	Sockeye	Pinks	Reference
1912	Very scarce compared to previous		
	years - 3,000,000 eggs taken by		B.C. Prov.
	Stuart Lake Hatchery		Fish. Reports.
1913	Spawning time, lots of fish -		
	3,000,000 eggs taken by Stuart		B.C. Prov.
	Lake Hatchery		Fish. Reports.
1914	Small run - No eggs taken		B.C. Prov. Fish Rpts
1915	Salmon in abundance -no eggs taken		Dom. Fish. Rpts
1916	General scarcity of fish		Dom. Fish. Rpts
1919	Only one dead salmon seen		F.R.B.
1920	No estimate -but high % runts		F.R.B.
1921	Large number -water levels good		F.R.B.
1922	Well stocked - water low		F.R.B.
1923	Fair numbers seen alive and good		
	number spawned		F.R.B.
1924	Many seen - sexes even		F.R.B.
1925	Greatest number seen in three years		
	- males in excess		F.R.B.
1926	15% more than 1925- Twice as many		
	males - no runts		F.R.B.
1927	A good run		F.R.B.
1928	General remark "All streams at		
	head of lake well seeded"		F.R.B.
1929	6,000 in creek -another 1,500 at		
	mouth in Beaver River -sexes even-		
	10% Runts-much better than last		
	year		F.R.B.
1930	Big run		F.R.B.
1931	A good run		F.R.B.
1932	Much lighter than 1928 -sexes even		F.R.B.
1933	1,500-Light run-not as good as 1929		F.R.B.
1934	2,000-10% runts-lighter than 1929		
	or 1930-but better than 1933		F.R.B.
1935	2,000-Medium heavy-lighter than		
	1930 - 60% ♂		F.R.B.
1936	A medium run - sexes even- does		
	not compare with 1929		F.R.B.

SHASS CREEK - GRIZZLY CREEK

Year	Sockeye	Pinks	Reference
1937	About 2,800 Large fish -sexes even		F.R.B.
1938	3,200 - 60% ♂		F.R.B.
1939	11,200		1943. F.R.B.
1940	About 3,000 - 60% ♀		F.R.B.
1941	3,100		1945 F.R.B.
1942	2,100 - 1% Runts		F.R.B.
1943	2,575 - 60% ♀		F.R.B.
1944	5,175 - 60% ♀		F.R.B.
1945	5,000		F.R.B. Ann.Rpt.
1946	3,500		F.R.B. Ann.Rpt.
1947	4,900		F.R.B. Ann.Rpt.
1948	8,800		F.R.B. Ann.Rpt.
1949	1,541-C-Light		F.R.B.
1950	G-3,085		B.C. 16- 1951
1951	G-2,333-Medium-43% ♀- 9% Jacks		B.C. 16
1952	G-Medium -40% ♀		B.C. 16
1953	H-6,000 Medium - sexes even		B.C. 16
1954	G-3,100-Medium - sexes about even		B.C. 16
1955	D-500-Light-50% ♀		B.C. 16
1956	H-5,000-Medium-50% ♀ - 5% Jacks		B.C. 16
1957	H-7,000-Heavy - 50% ♀		B.C. 16
1958	L-30,000 Heavy - 50% ♀		B.C. 16
1959	K-14,000 Heavy - 60% ♀		B.C. 16
1960	K-12,000 Medium-40% ♀ -10% Jacks		B.C. 16
1961	L-30,000 -52% ♀ - 2% Jacks -		
	estimated 6,000 died unspawned		
	due to high temperature		B.C. 16
1962	G-5,000 Medium -47% ♀ - 8% Jacks		B.C. 16
1963	K-14,760 Heavy -42% ♀ -23% Jacks		B.C. 16
1964	H-8,000-Medium -52% ♀		B.C. 16

SHASS CREEK - GRIZZLY CREEK

Year	Springs	Coho	Chum	Reference
1933		A medium run		F.R.B.
1934		A light run		F.R.B.
1935		About same		F.R.B.
1936		Light run		F.R.B.
1938		Medium heavy run		F.R.B.
1951		B-66		B.C. 16
1952		B-Medium		B.C. 16
1953		C-150		B.C. 16
1955		B-100-Light		B.C. 16
1958		C-200-Heavy		B.C. 16
1959		C-150-Medium		B.C. 16
1960		D-300-Medium		B.C. 16
1961		C-100-Medium		B.C. 16
1962		A-12-Light		B.C. 16
1963		A-50-Medium		B.C. 16

ANNUAL ESCAPEMENT TO—

SHASS CREEK