

STATISTICAL REVIEW OF THE ALASKA SALMON FISHERIES PART IV: SOUTHEASTERN ALASKA¹



By WILLIS H. RICH, Ph. D., *Professor of Zoology, Stanford University*, and EDWARD M. BALL,
Assistant, Alaska Service



CONTENTS

	Page		Page
Introduction.....	437	Stikine River.....	553
Yakutat.....	440	West coast of Prince of Wales Island dis-	
Icy Strait.....	449	trict.....	557
Lynn Canal.....	474	Cordova Bay district.....	575
Chatham Strait.....	484	Clarence Strait district.....	587
Frederick Sound.....	502	Ernest Sound district.....	617
Stephens Passage.....	513	Behm Canal district.....	627
West coast of Chichagof and Baranof		Revillagigedo Channel district.....	639
Islands district.....	523	Nakat Bay district.....	651
Peril Strait.....	534	Unallocated.....	656
Summer Strait district.....	538	Total southeastern Alaska.....	657

INTRODUCTION

This review deals with the salmon fisheries of southeastern Alaska in the same way that those of central and western Alaska were treated in parts I, II, and III.² It covers statistically the history of these fisheries from the inception of the salmon industry in 1878 to the end of 1927, a period of 50 years. Data for the 26 years prior to 1904 were obtained from reports by Moser³ and agents of the Treasury Department,⁴ which then had supervision of these fisheries; for the remaining 24 years they were taken from formal statements of the operators now filed in the office of the Bureau of Fisheries at Washington.

For the purpose of this review southeastern Alaska has been divided into 17 districts, relatively distinct geographically and often with individual peculiarities such as seasonal variations in the appearance of the runs, the methods of fishing, the migration routes of the incoming salmon, the relative abundance of the several species,

¹ Approved for publication, Dec. 1, 1932.

² Statistical Review of the Alaska Salmon Fisheries. Pt. I: Bristol Bay and the Alaska Peninsula. By Willis H. Rich and Edward M. Ball. Bulletin, U.S. Bureau of Fisheries, vol. XLIV, 1928 (1929), pp. 41-95, 20 figs. Washington.

Ibid.—Pt. II: Chignik to Resurrection Bay. Bulletin, U.S. Bureau of Fisheries, vol. XLVI, 1930 (1931), pp. 643-712, 11 figs. Washington.

Ibid.—Pt. III: Prince William Sound, Copper River, and Bering River. Bulletin, U.S. Bureau of Fisheries, vol. XLVII, 1931, pp. 187-247, 10 figs. Washington.

³ The Salmon and Salmon Fisheries of Alaska. By Jefferson F. Moser. Bulletin, U.S. Fish Commission, vol. XVIII, 1898 (1899), pp. 1-178. Washington.

Alaska Salmon Investigations in 1900 and 1901. By Jefferson F. Moser. Bulletin, U.S. Fish Commission, vol. XXI, 1901 (1902), pp. 173-398. Washington.

⁴ The reports of the agents of the Treasury Department on the salmon fisheries of Alaska covered the period 1892 to 1904 (except 1893) and appeared as Treasury Department, Senate and House documents. The authors were: 1892, Max Pracht; 1894 and 1895, Joseph Murray; 1896, G. R. Tingle; and 1897 to 1904, H. M. Kutchin.

etc. These districts are listed in the table of contents and a map of each is given in the text with the corresponding discussion.

The nature and imperfections of the data with which we are dealing have been mentioned repeatedly in the preceding reports of this series, but the difficulties encountered in the collection and handling of data from other parts of Alaska have been multiplied manifold in the present study. This is due primarily to the lack of clear distinction between the catches in different sections, in other words, to the fact that the geographical regions (which were the only sort of regions that could be set up) do not and cannot be made to conform to the biological conditions. It is probable that no district in southeastern Alaska, excepting possibly Yakutat, draws its quota of salmon from a single stream or even from a group of streams that can be set down definitely. This is perhaps particularly true of the pinks, chums, and cohos, although it applies more or less to the reds and kings as well. In addition to this difficulty southeastern Alaska is such a large district that confusion in records and the indefiniteness of allocation to the localities in which the fish were caught has been tremendously increased. Thus it has frequently happened that two or more major localities in separate districts were linked together in reporting the catch, making accurate allocation of catches to specific waters wholly impossible. Faulty terminology, confusion of names and the interchange of fish by sale and resale added to the complications. Furthermore the general failure of independent seiners, gill netters, trollers, and trap operators to file reports of their catches in several years increased the difficulties of assembling the data by districts. In several instances coho- and king-salmon catches were reported in pounds instead of fish, thus necessitating estimates of the number of fish handled before such data could be used. Records were often incomplete, resulting in many unallocated catches which, in some instances, aggregated a large proportion of the total catch. And in many cases the catches could not be allocated even to one of the major districts, but had to be set out in a separate table as the unallocated catch of southeastern Alaska. Data are also presented in separate tables, or as a section of the main table for each district, showing the number of coho and king salmon taken by trollers. In a few cases, where the catches were insignificant, this information was given in a footnote below the respective tables.

Records for the earlier years of fishing throughout southeastern Alaska give no reliable indication of the abundance of salmon at any time. Canneries were few, comparatively small, and without the equipment for the rapid handling of fish that is now used in all modern plants; fishing appliances were less effective in the more open waters of the district than they are today, and in consequence a much smaller percentage of the runs was taken. The fluctuations in catches in these earlier years, except of reds, was due to the limited market for the cheaper grades of fish, as canneries were not inclined to pack more than they could sell. This applied to both pinks and chums. Cohos were also affected in that frequently capacity packs of other species were made by some canneries before the cohos came and therefore no efforts were made to take that species. Changes in laws and regulations affected the catches of all species especially after 1923. All of these factors must be considered in the analysis of the catch data for all major districts in southeastern Alaska, if anything like a true understanding of the fluctuations in reported catches is to be reached.

The tables show in addition to catches the number of fishing appliances used in each district. These data also are unsatisfactory, but it is believed that, in general, they are not far from the truth. The following general principles were applied in

allocating gear whenever the records were not clear. In determining the number of seines in operation at least one seine was counted for each locality fished by an operator regardless of the number reported by him, and, if the catch was large in a given locality, the number of seines was increased correspondingly on the basis of an average catch of approximately 20,000 fish per seine. For example, if a company reported using 5 seines and took salmon from 10 localities, it was assumed that the equivalent of 10 seines had been used, the object being to show the number of seines required to make the stated catches if all the localities from which salmon were taken had been fished simultaneously by the fishermen resorting thereto. This procedure was not necessary in respect to traps, as they are fixed appliances. So-called "dummy" traps were not counted. The number of gill nets is believed to agree with the number reported by the operators, which is admittedly incomplete, as no record was available showing the number of nets used by independent fishermen operating their own gear. Likewise no attempt was made to show the number of lines used by trollers, as this class of fishermen consistently failed to submit reports covering their operations.

If the figures presented in this report are compared with those previously published either by the Bureau of Fisheries or by other agencies it will be found that they seldom agree exactly and are sometimes at rather wide variance. Considerable time has been spent in an attempt to reconcile these data with, at least, those previously reported by the Bureau of Fisheries, but without conspicuous success. The causes of these differences are many; but the chief one is the fact that in all such compilations, particularly as regards the older records, estimations and arbitrary allocations have been necessary and these have naturally varied even when made by the same person on the same data but at different times several years apart. Some of the earlier figures published in the administrative reports of the Alaska Division⁸ contained estimates based on customhouse records which have not been considered in these more recent tabulations. Various situations arise in which personal judgment must be used in determining how the data are to be handled—as, for example, in cases in which packers failed to indicate whether the fish they sold to other operators were included or excluded from the reported catch, and a corresponding failure on the part of the purchasers. Unfortunately the basis of such judgments were never made a part of the records. In a comparatively few cases the discrepancies have been traced to simple errors, typographical and other. There seems to be no good reason for assuming that the previously published data are any more reliable than those contained in the present compilation—in fact, in some cases additional data have come in since the earlier tabulations which appear to make the present data the more reliable. All in all it seems probable that these and the previous records can never be made to agree other than by arbitrarily changing the present figures to correspond with the earlier ones; and in view of all the circumstances this seems unwarranted and unnecessary, and in no way likely to improve our conception of the general situation in the salmon fishery of southeastern Alaska.

⁸ These reports comprise an unbroken series, continuing the reports of the agents of the Treasury Department mentioned in footnote 4 and extending from 1905 to the present time. All have appeared as appendixes to the reports of the U. S. Commissioner of Fisheries. The titles and authors were as follows: (1) The Commercial Fisheries of Alaska in 1905, by John N. Cobb. (2) The Fisheries of Alaska in 1906, by John N. Cobb (accompanied by a report on inspection of the Salmon Fisheries by H. M. Kutichin). (3 to 6) Fisheries of Alaska in 1907, 1908, 1909, and 1910, by M. C. Marsh and John N. Cobb. (7 and 8) Fisheries and Fur Industries of Alaska for 1911 and 1912, by B. W. Evermann. (9) Alaska Fishery and Fur-Seal Industries in 1913, by B. W. Evermann. (10 to 13) Alaska Fishery and Fur-Seal Industries in 1914, 1915, 1916, and 1917, by Ward T. Bower and Henry D. Aller. (14 to 23) Alaska Fishery and Fur-Seal Industries in 1918, 1919, 1920, 1921, 1922, 1923, 1924, 1925, 1926, and 1927, by Ward T. Bower.

It is realized fully, particularly in view of the nature of the data, that the retention in the tables of all digits down to units is not justified and has no significance. No excuse is made for this inconsistency except that it does not seem to be a matter of particular importance and will do no harm—unless to the sensibilities of some few statistically minded individuals.

In spite of the unsatisfactory nature of the data it is believed that the records here presented are of real value; and that, in spite of their faults, they show the history of these fisheries, over the period covered, sufficiently well to be useful in the management of the salmon resources of Alaska until such time as more adequate information is available. It can at least be said that these data approximate the best that can be had out of the faulty records of the past.

No attempt has been made in part IV to give a general description of southeastern Alaska as a whole or a general account of the history of its fisheries, although this has been done in the preceding parts of this series. This region, however, is so large and conditions so varied that such an attempt would more likely be confusing than clarifying. Such descriptions and historical accounts will, however, be found with the discussion of each major district.

YAKUTAT

The Yakutat district (fig. 1) extends from the west side of Yakutat Bay to the east side of Dry Bay, a distance of approximately 85 miles along the southern shore of Alaska. Eight important salmon rivers flow into the Gulf of Alaska between the limits of the district, all of which are indicated on the map.

The district was not prospected for fish until after 1900, although the natives of the region had been utilizing salmon for many years and had given interesting accounts of the abundance of fish. Early examination of the physical features of the district led to the conclusion that a cannery, which would of necessity be located on Yakutat Bay, could not be profitably operated on account of the difficulty of transporting salmon from the several rivers from which the supply would be secured. An alternative was the building and operation of a railroad to provide a constant supply of fish. The transportation of salmon by boat from these rivers would require staunch vessels capable of withstanding heavy seas along a coast exposed to the full sweep of the ocean and even were these provided there was no assurance that trips could be made at all times. The outlook was discouraging at first, but in 1901 an attempt was made to pickle salmon at Yakutat, although no record of the number of fish so used has been found. The salteries that first operated here were primarily interested in packing herring. However, in 1902, they put up a few hundred barrels of salmon from catches obtained in Ankau River and Slough. In 1904 a cannery was built and made the first pack of canned salmon in this district. A railroad 9 miles in length was also built, connecting the cannery with the Situk River from which a large part of the salmon were obtained, the balance of the catch coming from Ankau and Ahrnklin Rivers. In time operations were extended until all the rivers eastward of the Alsek were included in the fishing grounds of the Yakutat cannery, and each one made important contributions to the Yakutat pack.

The largest river in the district is the Alsek. It is a turbulent glacial stream, rising in the Yukon Territory of Canada and draining a large, ice-covered section of the country on the northern slope of the coast range of mountains. The other rivers rise on the southern slope of the mountain range and, except the Ankau, Situk, and Italio, are of glacial origin. Dangerous River, probably next in size to the Alsek, is a swift, glacial stream, the outlet of a lake which is forming along the

southern edge of Yakutat Glacier. As a salmon stream it is the least important of them all. The Ahrnklin River comes third in size and is less affected by glaciers than Dangerous River. Situk is but slightly smaller, but it is a clear stream and the outlet of several small lakes. The Italo, Ankau, and Akwe Rivers are considerably smaller but are fairly clear streams.

Situk River is by far the largest producer of red, coho, and pink salmon in the Yakutat district. Alsek River leads in the production of kings and also supplies

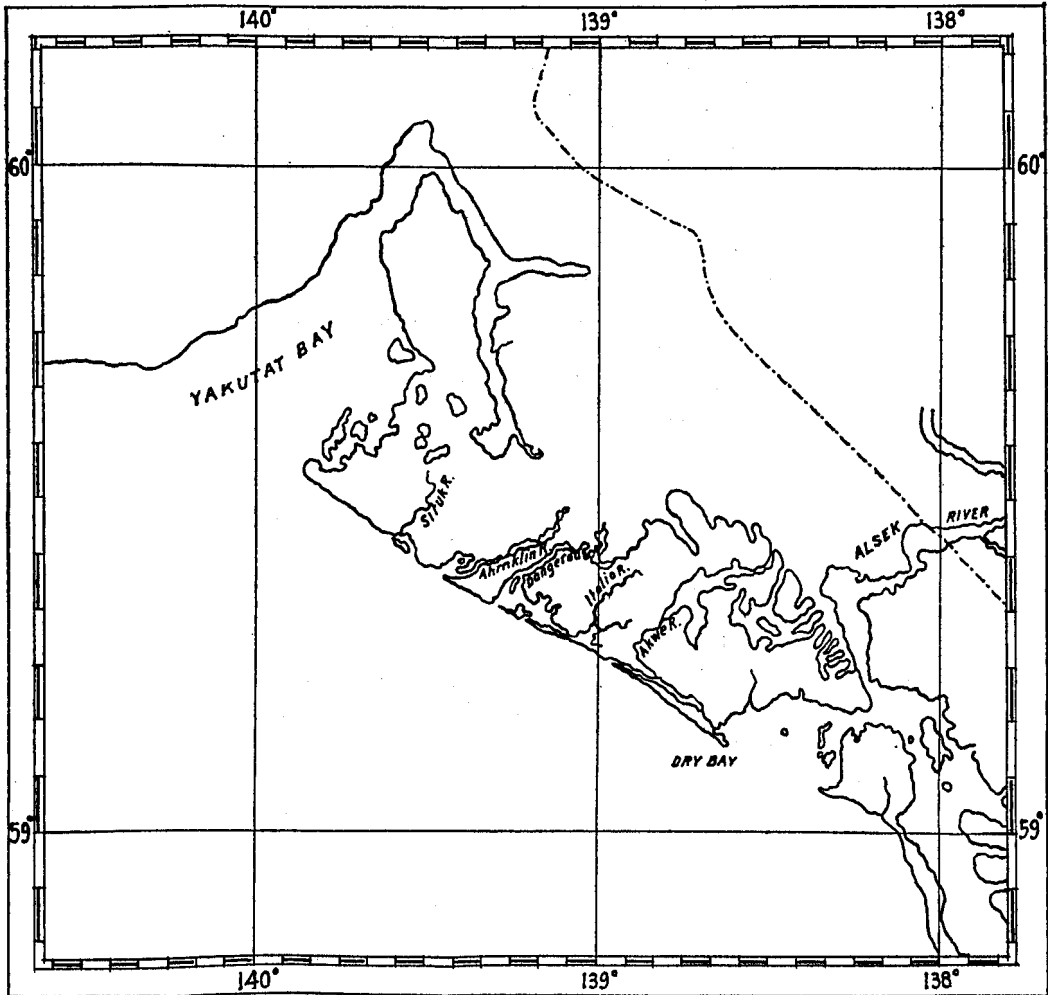


FIGURE 1.—Map of the Yakutat Bay district.

fair catches of reds and cohos. Ahrnklin River has also been a consistent producer of reds and cohos. In fact, all the streams which traverse the glacial moraine between Yakutat and Dry Bays carry moderately good runs of both cohos and reds. Small runs of pinks are found in several of these streams, but the best showing has been made at Humpback Creek, a tributary of Yakutat Bay.

Fishing in the Yakutat district has always been carried on by means of beach seines and gill nets, as all operations are conducted in the rivers and the sloughs which have been formed by the action of the ocean in throwing up bars at the mouths of the several streams, in some cases resulting in the formation of sizable islands.

The fishing grounds, thus protected from heavy surf, can be used uninterruptedly during the entire salmon season. Light-draft boats can be operated in the channels connecting the Ahrnklin and Situk Rivers and the catches from both streams shipped by rail to the cannery, thereby obviating an ocean haul of about 20 miles. Delivery of fish from the more easterly streams can also be made at the same point whenever it is possible to cross the bar at the mouth of Ahrnklin River; otherwise the tenders are obliged to make the run to the cannery. In these quiet waters the fishermen are able to ply their nets without hindrance.

All operations in this field were carried on in accordance with the provisions of the law of 1906 until 1924, when the new fishery law was enacted.⁶ No regulations supplementing the general law were issued prior to 1924, though the question of limiting the fishing in Situk River was discussed at a public hearing in 1916; but no further action was taken, as no evidence of depletion of the runs in that river was then produced. In 1924, after passage of the new law, regulations were promulgated, effective June 21, establishing a weekly closed period of 48 hours in that part of the district west of the 139th meridian of west longitude and closing the section of the district east of the same meridian for 20 days from August 11 to August 31 of each year. This regulation was superseded by a new one in 1925 which closed the entire district from July 20 to August 5. In addition, all fishing in Ankau River and Slough, in Akwe River, and in the "Basin" of Alsek River was prohibited throughout the year. These regulations were continued in effect in 1926, and it was further ordered that no fishing boat would be permitted to carry more than 200 fathoms of gill net. In 1927 the limit of gill nets per boat was raised to 250 fathoms, the weekly closed period was extended to 60 hours, and Dry Bay was closed to all fishing before June 1. The size and number of beach seines was not limited in any of these years; gill nets ranging from 200 to 250 fathoms were permitted without limitation as to number except that no boat should carry more than one net. In the end the really effective regulations in permitting a larger escapement of salmon were those establishing closed periods and closed areas. By them alone was the catch reduced, as the unlimited use of seines and of gill nets not exceeding 250 fathoms in length was not likely to result in a slackened fishing effort. Closed periods were effective in breaking the intensity of fishing and making possible a larger escapement of salmon under these protective measures than otherwise would have been the case.

It is evident from the statistical data presented in table 1 that the catch of red salmon at each stream averaged less after 1924 than it did before that date, but there was no decrease in the number of fathoms of seines and gill nets used as compared with the number of nets employed in several seasons immediately preceding. On the contrary, in 1927 more fathoms of seines were operated than in any season since 1916, and the number of fathoms of gill nets used had been exceeded but four times since 1914 (one of which years was 1925 after the regulations under the new law had become operative). While the catch of reds was reduced, cohos were taken in larger numbers in 1927 than in any other year in the entire history of the district; pinks have been captured in greater quantities in the last 5 years than ever before, and there was no material decline in the catch of kings except at Dry Bay in 1927, a fact traceable, in all probability, to the prohibition of fishing prior to June 1. Chums have never constituted an important element in the commercial fishery in the Yakutat district.

⁶ See pt. I, p. 47 f.f.

TABLE 1.—Salmon caught and fishing appliances used in the Yakutat district, 1902 to 1927

Year	Coho	Chum	Pink	King	Red	Beach seines		Gill nets	
						Number	Fathoms	Number	Fathoms
Alsek River and Dry Bay:									
1908				6,769					
1910				2,340	6,770				
1911	29,891	1,786		316	62,133				
1912	33,028	13,679	26,261	693	28,433				
1913	24,579	1,580	25	2,098	22,013				
1914			10	4,066	11,500				
1915				11,500	1,253				
1916				8,340	16,485				
1917				386	46,838				
1918	44,905		16	14,372	82,578				
1919	38,877			11,708	126,630				
1920	26,030			13,031	76,098				
1921	15,375			22,882	68,120				
1922	22,002			10,683	50,701				
1923	9,092			7,257	40,044				
1924	23,251			14,228	30,070				
1925	27,891		1	19,055	29,821				
1926	20,143	2	177	19,130	36,262				
1927	15,046			16,824	17,394				
	33,539		2	8,153	18,277				
Ankau River and Slough:									
1904	43,788		11,722		41,024				
1905	17,811		96		59,068				
1906	27,497		7,317		32,133				
1907	40,010		26		47,870				
1908	19,742		1,026		55,006				
1909	35,218		603		33,636				
1910	31,173		127		34,750				
1911	39,800		7,612		54,103				
1912	19,395				28,891				
1913	4,766		1,000		17,137				
1914	4,889		404		21,265				
1915	8,553		46,243		16,244				
1916	3,255				13,258				
1917	13,376		1,194		15,681				
1918	3,751		91,762	38	14,299				
1921	7,380		503		9,699				
1922	4,025				23				
1923	859		1,795		17				
1924			3,987		23				
1925	79		881		82				
Ahrnklin River and Slough:									
1904	19,410				30,209				
1905	14,722				7,627				
1906	12,315		2,504		40,080				
1907	17,495		1,052		26,926				
1908	11,690		1,028		63,900				
1909	17,234		1,367		78,081				
1910	49,778		1,096		56,352				
1911	23,629		6,663		130,629				
1912	28,387				113,982				
1913	36,607		1,505		62,489				
1914	39,623		230		65,665				
1915	49,441				54,669				
1916	32,973				28,346				
1917	35,268				39,669				
1918	46,796		1,094	290	33,857				
1919	59,224		837	85	41,110				
1920	50,664		1,384	46	47,266				
1921	31,813		1,593	99	43,171				
1922	25,897		1,197	451	34,905				
1923	21,306		6,901	234	37,540				
1924	16,777		3,266	180	23,396				
1925	23,883	7	330	151	8,474				
1926	15,768		1,005	148	19,058				
1927	66,995		3,034	103	16,858				
Akwe River:									
1910	7,545	325			9,461				
1911	17,215		206	12	11,828				
1912	10,142	96	47	3	10,855				
1913					8,000				
1918	16,708			19	20,299				
1919	20,789			1	16,074				
1920	9,258		78		17,933				
1921	16,362		2	1	10,635				
1922			84	9	10,304				
1923	9,764		1,938	3	7,073				
1924	8,859		237	16	8,024				
Black Sand Island:									
1907	7,160		1,239		17,643				
1908	4,461		1,031		30,144				
1909			1,031		53,489				
1910	6,441		1,642		43,369				
Dangerous River:									
1926	5,312								
1927	10,623		2	2	2,087				
Disenchantment Bay:									
1912			14,628						

TABLE 1.—Salmon caught and fishing appliances used in the Yakutat district, 1902 to 1927—Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Gill nets	
						Number	Fathoms	Number	Fathoms
Divide Head:									
1914	7,848		130		27,074				
1915	8,896				27,866				
Doane River:									
1912	2,456		616	7	5,723				
1920	486		2,837						
East River and Salt Lake:									
1912	5,824	4,691		2,625	18,634				
1920				588	4,282				
Humpback Creek:									
1904			79,723						
1905			19,086						
1910			2,825						
1911	2,911		66,721						
1913			4,900						
1917			57,530						
1922	42		39,423						
1923	79		64,876		445				
1924	1,860		212,407		27				
1925	204	5	69,579		502				
Itallo River:									
1910			3,374		9,531				
1911					4,288				
1912	13,589	61	173		17,744				
1913					20,000				
1916	29,020				26,682				
1917	22,380		6,493		33,168				
1918	28,563		1,565		31,106				
1919	19,941		757		22,457				
1920	23,008		1,571		39,686				
1921	34,545				23,268				
1922	29,087		2,181		22,723				
1923	25,901		4,652		22,750				
1924	19,946		12,669		11,834				
1925	23,437	66	936		11,979				
1926	33,875	4,122	7,751		12,990				
1927	40,679	1,079	16,171		11,191				
Lost River:									
1913	23,499		1,202		24,908				
1914	23,790		776		39,372				
1915	37,062				22,980				
1916	22,570				32,810				
1917	31,453		2,319		25,424				
1918	30,726		1,624	20	20,235				
1919	38,983		994		38,288				
1920	42,209		1,810	39	24,823				
1921	29,552		1,636	60	27,366				
1922	46,342		1,765	50	18,554				
1923	32,708	647	13,025	84	30,553				
1924	30,552		8,482	51	29,301				
1925	24,405	621	3,842	80	16,886				
1926	20,937		3,239	63	17,172				
1927	46,065		11,057	40	15,184				
Monti Bay:									
1912	1,227				7,520				
1916			38,329						
1919	5,391		5,645	14	13,378				
1925	2,110	7	12,337	64	1,088				
1927	11,889		6,849	92	6,425				
Situk River:									
1904	33,342		19,655		70,420				
1905	17,356		26,047		199,969				
1906	40,974		53,428		223,913				
1907	35,947		26,826		238,957				
1908	10,431		21,102	121	271,351				
1909	13,624		15,480		317,463				
1910	37,577		32,759		304,730				
1911	40,108		73,244		243,414				
1912	21,084		3,769		405,737				
1913	47,348		36,820		407,664				
1914	40,144		4,074		389,298				
1915	53,015		111,124	336	295,842				
1916	39,008		3,105	931	285,128				
1917	41,269		25,205	2,499	296,828				
1918	59,464		19,886	746	207,296				
1919	73,860		15,890	231	286,353				
1920	61,280		23,543	736	270,336				
1921	56,094		30,633	1,853	347,754				
1922	65,033		27,912	1,607	244,712				
1923	73,071	5,616	201,238	1,527	225,747				
1924	48,031		69,873	1,162	286,666				
1925	53,424	1,510	15,760	936	119,542				
1926	49,127		15,133	1,703	135,218				
1927	92,537		60,347	1,584	171,648				
States River:									
1921			600						

TABLE 1.—*Salmon caught and fishing appliances used in the Yakutat district, 1902 to 1927*—Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Gill nets	
						Number	Fathoms	Number	Fathoms
Yakutat Bay:									
1906					771				
1907	278		24,719						
1908			29,886		1,449				
1909	1,649				426				
1910	1,887								
1911	1,358		52		1,954				
1912			12,257						
1920	8,873		13,208	8	13,381				
1923	3,380								
1924	1,363		120						
1926	3,473	34	218,763	254	5,564				
1927	1		2,800		5				
Unallocated:									
1902	12,300		35,000	150	52,900				
Total:									
1902	12,300		35,000	150	52,900	5		1	
1904	96,540		111,100		141,653	12		10	
1905	49,859		45,229		266,664	8		2	
1906	80,786		63,249		296,807	6		6	
1907	100,890		53,862		331,396	6		14	
1908	46,324		54,073	6,890	430,850	8	480	26	2,600
1909	67,725		18,461		483,095	5	500	20	2,000
1910	164,292	2,111	41,823	2,340	464,963	13	1,200	92	4,500
1911	158,049	13,679	180,749		508,329	13	1,200	110	5,500
1912	127,283	6,418	31,615	4,753	637,519	15	1,800	182	9,100
1913	112,210		45,437	4,066	562,211	13	1,400	95	9,500
1914	116,284		5,620	11,600	543,927	15	1,800	70	3,500
1915	156,967		187,307	9,176	433,086	12	1,288	60	4,200
1916	126,826		41,434	1,817	435,062	12	1,728	100	5,000
1917	188,651		92,757	16,871	493,348	12	1,200	200	20,000
1918	224,885		115,931	12,821	453,722	10	1,200	141	7,050
1919	244,218		24,123	13,363	493,758	9	990	83	13,275
1920	211,153		44,431	24,299	485,827	10	1,000	144	7,200
1921	197,748		34,967	12,720	512,614	7	700	70	12,250
1922	179,518		72,562	9,457	376,998	7	700	139	7,275
1923	190,319	6,263	294,425	16,093	359,792	13	1,055	161	7,580
1924	155,278		311,047	20,495	395,082	12	1,120	133	7,160
1925	147,685	2,224	103,842	20,443	200,601	9	950	119	12,071
1926	143,538	4,156	245,891	18,992	207,396	8	720	86	7,860
1927	292,328	1,079	100,282	9,974	241,675	8	1,250	48	7,894

NOTE.—No catches were reported in the years not shown in any division of the table. 1 purse seine was reported as used in 1905 and in 1912.

Figures 2 to 8 are graphs of the catches of salmon at Ankau River and Slough, Situk River, Ahrnklin River, Italio River, Akwe River, Alsek River and Dry Bay, and Lost River. Figure 9 is a graph showing the catch of coho and pink salmon in the Yakutat district as a whole and figure 10 shows the catch and trend of the red-salmon fishery in the district, while the percentage fluctuations from the trend⁷ for this species are presented in figure 11.

A careful inspection of these graphs will show a number of interesting things relative to the salmon runs of the Yakutat district. In the first place there appears to be no correlation in size of catch of either cohos or reds (the two most important species here) between different streams, a fact which indicates that both the fisheries and the runs are quite independent. This is true both in respect of the general trends and of the minor fluctuations about these trends. Although graphs have not been made of the catches of the other species it is evident from an examination of the tables that these also show no correlation in the runs in different streams.

Neither have we been able to discover any evidence of periodicity in the runs of any of the species to any of the streams. Even in the case of the pink salmon the fluctuations appear to be erratic and without significance. In many localities elsewhere the pinks show a definite 2-year cycle, a larger run occurring either on the odd or the even year. There is some slight indication of such a cycle in the

⁷ See pt. I, pp. 61-63.

catches of pink salmon in the Ankau and also in the Situk, but it is by no means clearly shown and when apparent appears to prevail for only a relatively few years. Periodicity in the runs of red salmon have been very commonly observed, but is not apparent in the Yakutat district either in the separate streams or when the catches of this species are considered for the whole district. Nothing is known of the age groups making up the run of salmon in any year. It is not known whether the Yakutat reds are 4-year fish or more than that age; nor is it known what differ-

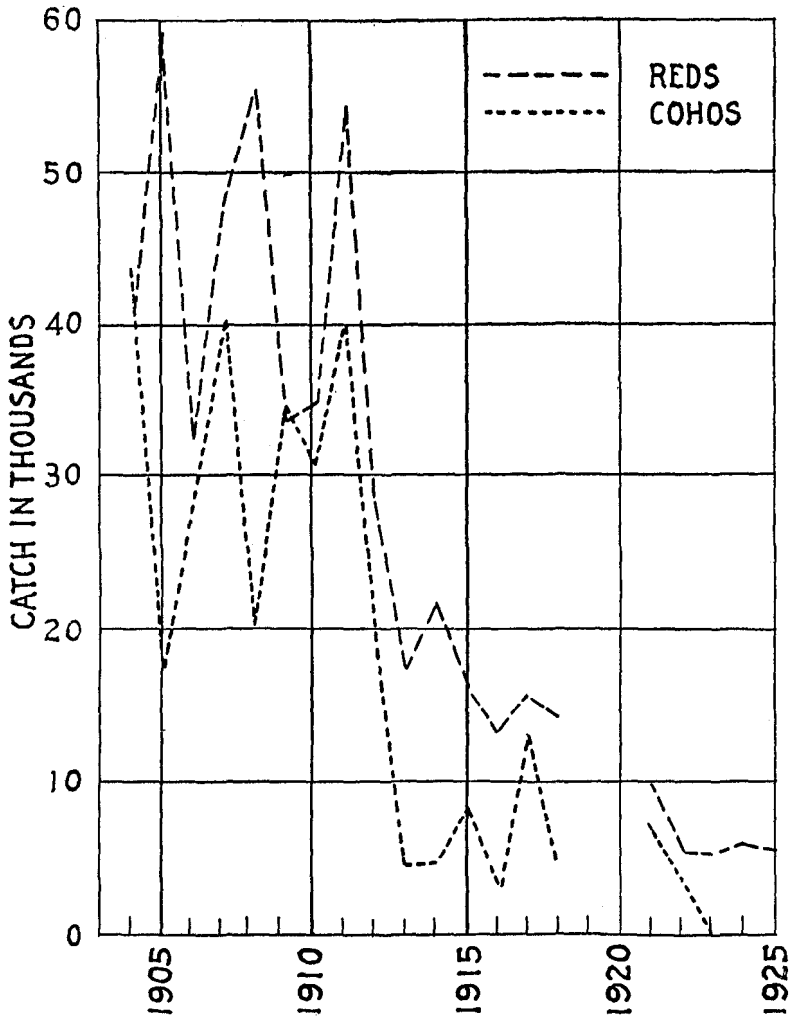


FIGURE 2.—Catch of reds and cohos at Ankau River and Slough.

ence, if any, exists in the age of red salmon of Situk River and those of Ahrnklin River, or the other rivers of the district.

Considering the district as a whole the largest catch of red salmon, which is the most important species in the district, was 637,519. This was made in 1912 by the use of 1,800 fathoms of beach seines and 9,100 fathoms of gill nets. Five years later the catch was 493,348 reds, a decline of more than 22 percent, but the fishing effort had changed by a drop of 33 percent in the number of fathoms of seines and an increase of 119 percent in the number of fathoms of gill nets. The average length of each seine in 1912 was 140 fathoms; in 1917 it was 100 fathoms. In 1912, gill

nets averaged 50 fathoms in length, while in 1917 the average length was 100 fathoms. Comparing these figures with similar ones for 1927, the last year covered by this review, it is found that the average length of seines is 156 fathoms and that of gill nets 164 fathoms. In proportion as the opportunity to fish is restricted, the intensity of fishing has obviously been increased in an effort to maintain the catch and defeat the very object of applied conservation measures. One of the striking things in this connection is the relatively slight deviation from the trend of the catch of red salmon shown in figure 11. These deviations are by no means as great as has been commonly found in other districts. At first sight this would appear to indicate that the supply has been comparatively constant except as affected by the long-time trend. This interpretation, however, is not borne out by an inspection of

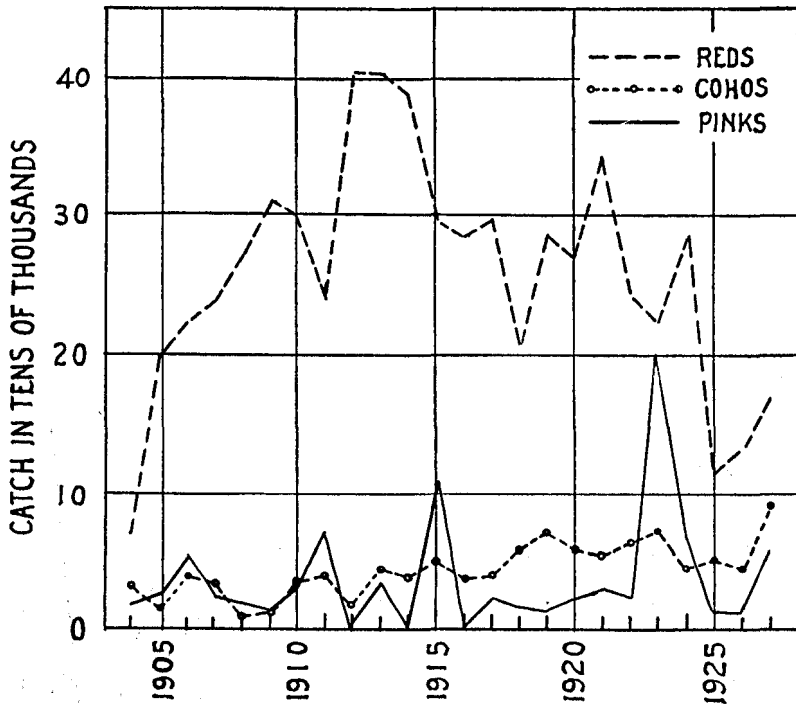


FIGURE 3.—Catch of reds, cohos, and pinks at Situk River.

the data bearing on the catches in the separate rivers. These have fluctuated quite violently but whether from actual changes in the abundance of fish or from changes in the intensity of fishing it is impossible to say. That there were not greater deviations from the trend is surprising, but may have been due to chance or, more probably, to adjustments of fishing effort so that the streams where the better supply of fish were to be found were more heavily fished.

It is certainly true, however, that there is clear evidence of depletion, particularly of the red salmon, in several of the streams and in the district as a whole. The reduced catches during the last few years considered in this review, since the newer conservation measures began in 1924, have doubtless been affected by the regulations; but even before this it is quite apparent that the catches were gradually becoming smaller. The depletion of the runs of both reds and cohos had gone far at the Ankau River as far back as 1913. The Situk has apparently held up well and there is little, if any, evidence that the catches had been reduced materially before

the new regulations became effective. The catches in the 3 years 1925 to 1927 were, however, considerably below the level that had been maintained since 1905. In the Ahrnklin River the catches of red salmon have steadily declined from the peak year of 1911 to 1927. In the Alsek the fluctuations were very wide during the early history of the fishery (perhaps due to faulty data but probably on account of fluctuations in fishing effort) and it is difficult to say whether the catches up to

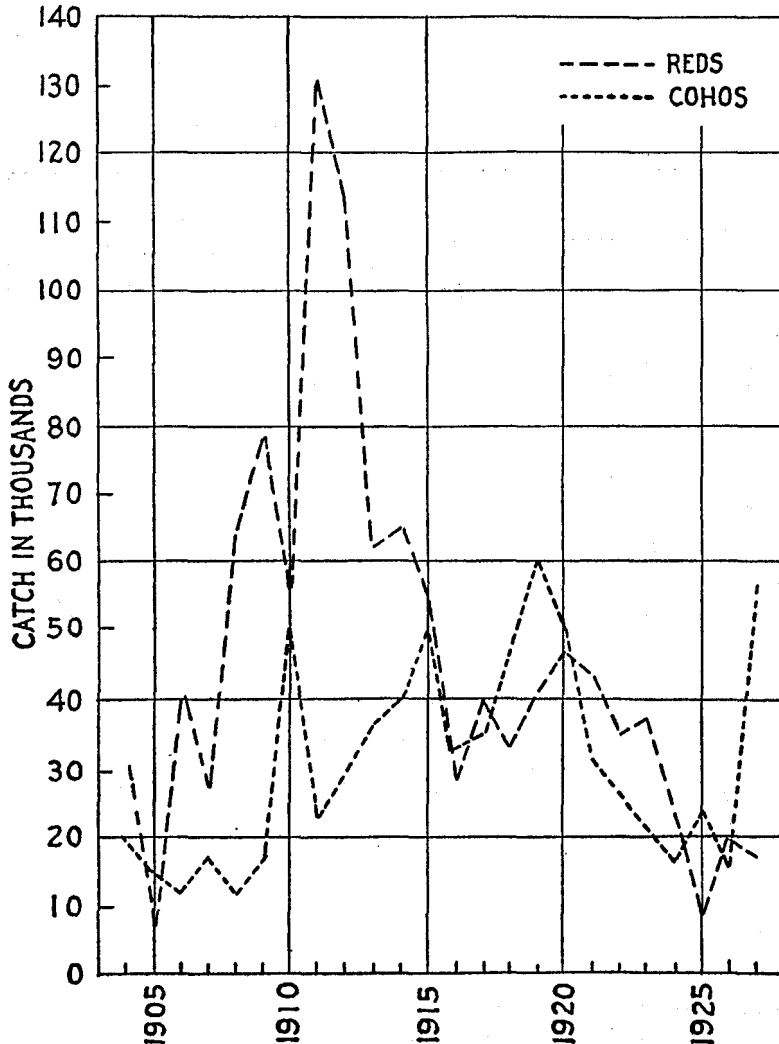


FIGURE 4.—Catch of reds and cohos at Ahrnklin River and Slough.

1925 showed marked reduction or not, although it appears rather probable that they did. The data on the other streams, Italic, Akwe, and Lost Rivers, show no very marked tendencies.

The evidence of depletion in certain of these streams is borne out by the evidence of general depletion in the red-salmon runs of the district as a whole. The data and a moving-average trend are shown in figure 10. From this it is apparent that moderate reduction in catch had already occurred by 1925 at which time the regulations first became really effective. The situation as regards the red-salmon

runs of Yakutat does not appear, however, to be as serious as in many other districts and it may reasonably be expected that the present regulations will prevent serious depletion.

ICY STRAIT

The Icy Strait district includes the coastal waters of southeastern Alaska from Lituya Bay on the west to Point Urey on the east side of the southern entrance to Lisianski Strait and the inland waters of Cross Sound and Icy Strait to a line from Point Couverden on the mainland to a point on the north shore of Chichagof Island about 3 miles west of Point Augusta, with all their tributary bays, inlets, and streams. The boundaries of

the district are definitely indicated on the accompanying map shown as figure 12. Within it are 47 major localities which have been treated separately in

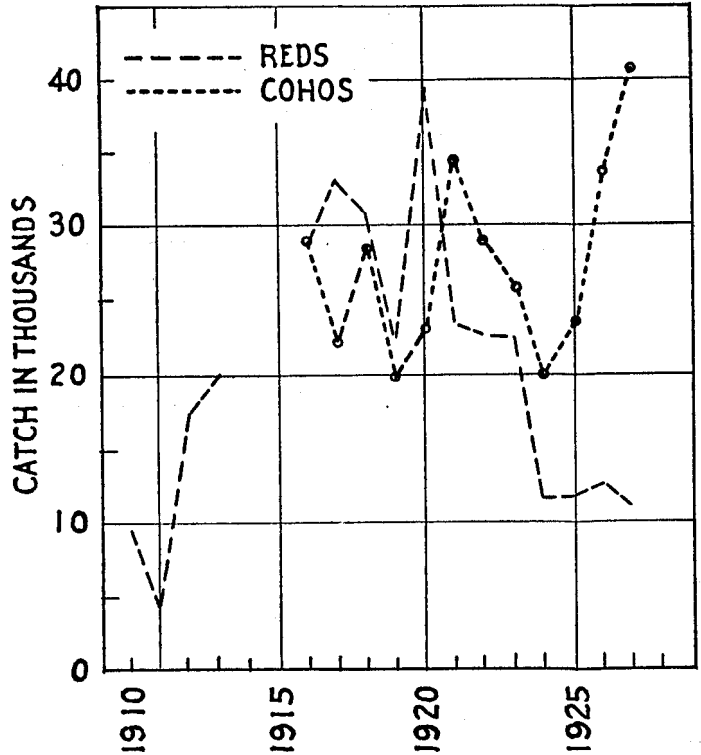


FIGURE 5.—Catch of reds and cohos at Itallo River.

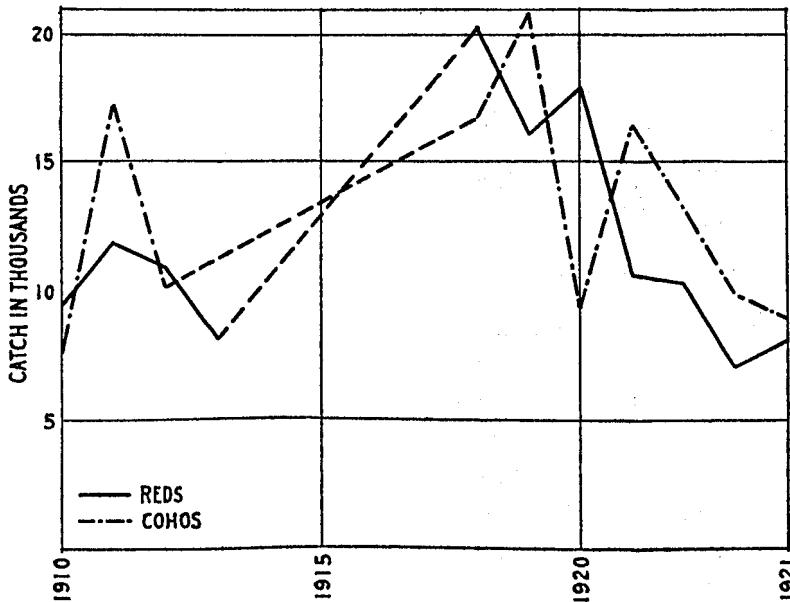


FIGURE 6.—Catch of reds and cohos at Akwe River.

the statistical table. There were 33 other localities mentioned in the records but these have been combined with those that geographically included them or to which they are closely adjacent. In most cases the data for these unimportant localities covered only one or two years, or widely separated years, and therefore had no significance worthy of individual consideration. Moreover,

the catches were usually so small, or made so long ago as to have no present value as separate items; but where localities that have been recently developed and

which give promise of continued exploitation have appeared in the records their identity has been preserved.

According to available information, the canning of salmon began in this district in 1889 at Bartlett Cove on the eastern side of Glacier Bay near the Beardslee group

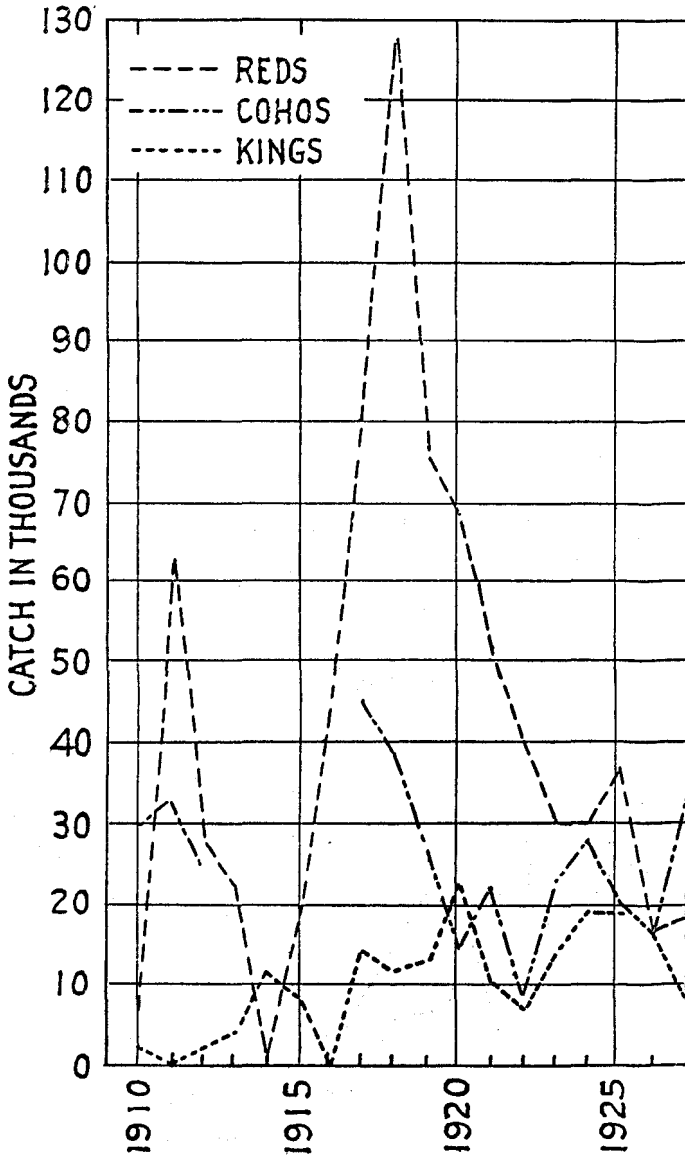


FIGURE 7.—Catch of reds, cohos, and kings at Alsek River and Dry Bay.

of islands. A saltery had previously been operated there but no record of the date of the establishment of the saltery or of the pack it made can now be found. However, the catch probably consisted of a few thousand red salmon taken in the cove directly at the mouth of the creek or actually in the stream. The cannery did not operate after 1891, and from that year to 1899, inclusive, the fisheries of the Icy Strait district seem not to have been exploited.

In 1900, exploitation of these fisheries was resumed and in a few years expanded rapidly so that practically every stream in the district was known and fished. The number of canneries increased rapidly, and the character of the fishery changed from one conducted primarily by means of beach seines and gill nets to one in which there was a preponderant use of traps and purse seines. By 1915, the shores of Icy Strait especially were lined with traps which had then become the most effective appliances in use. Beach seining was not entirely discontinued, but it was chiefly in the hands

of natives whose operations were carried on in the bays near the mouths of streams. Later, with the increase in competition for salmon, larger nets and boats were used and beach seines were largely supplanted by purse seines. The preferred and most successful method of fishing, however, was permanently centered in the operation of traps. Salmon coming in from the ocean through Cross Sound pass close to the conspicuous points of land on both the mainland shores and the islands and these

points constitute advantageous locations for traps. This condition is more pronounced in the section west of Glacier Bay and Mud Bay. East of these bays the shores are more regular and salmon follow them more closely, making trap fishing very productive along the north shore of Chichagof Island, the southern shore of Pleasant Island, and the south shore of the mainland between Excursion Inlet and Point Couverden.

For purposes of review, the district has been divided into three parts, (1) outside localities, (2) Cross Sound and its connecting bays, and (3) Icy Strait proper and its tributaries. The outside localities are Lituya Bay, Dixon Harbor, Surge Bay, Takanis Bay, Hoktaheen Cove, Icy Point, Lisianski Inlet, Lisianski Strait, Stag Bay, and Soapstone Harbor. The runs of salmon to these places, except possibly Lisianski Inlet, are entirely separate and unmixed with the salmon of Cross Sound and Icy Strait. The Cross Sound localities are Port Althorp, Bartlett Cove, Berg Bay, Cross Sound, Dundas Bay, Dundas Point, Goose Island, Gull Cove, Idaho Inlet, Inian Islands, Inian Cove, Inian Pass, James Bay, Lemesurier Island, Mud Bay, North Inian Passage, Salmon Beach, Shaw Island, South Inian Passage, Cape Spencer, Taylor Bay, and Three Hill Island. The Icy Strait localities are Point Adolphus, Division Point, Eagle Point, Excursion Inlet, Port Frederick, Groundhog Bay, Pinta Cove, Pleasant Island, Porpoise Island, Point Sophia, Inner Point Sophia, Spasskaia Harbor, The Sisters, Swanson Harbor, and Whitestone Harbor.

Fishing in these several localities was virtually unrestricted before June 26, 1906, as the only regulation which affected the catch was the order of January 5, 1903, which prohibited fishing until July 1 in all southeastern Alaska. This order was rescinded, however, on April 18, 1904, so that the restriction, whatever its value may have been, was applicable in but one season. It may have reduced somewhat the catch of red salmon in this district in 1903, as that species makes its appearance in June, yet the small amount of fishing gear in use and the few operators engaged in fishing at that time could have taken comparatively few additional salmon had the restriction not been imposed. This is clearly shown by a comparison of the catch in 1903 with that in 1902 when fishing was unregulated and more gear was used than in 1903. When the law of 1906 became effective, the placing of barricades at points in streams where

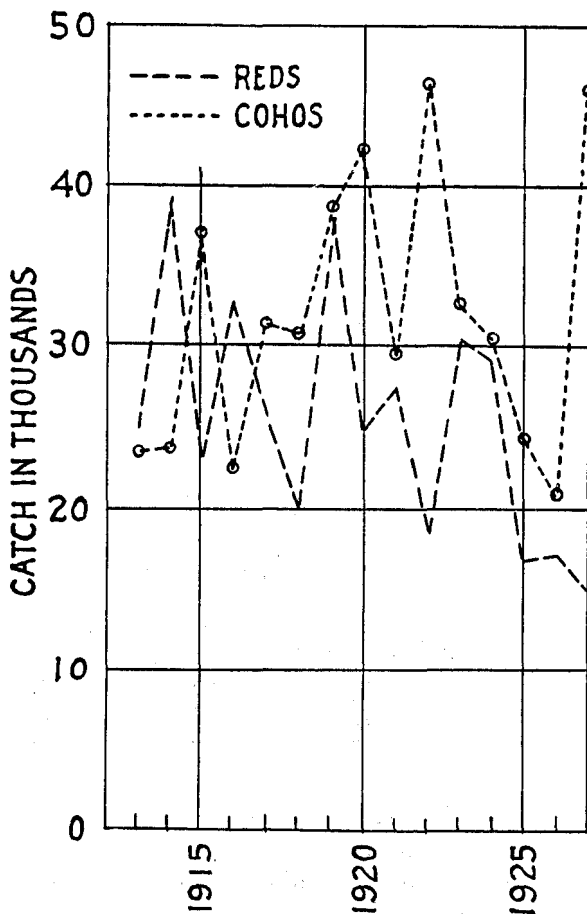


FIGURE 8.—Catch of reds and cohos at Lost River.

the distance from bank to bank was less than 500 feet was made unlawful. Red-salmon streams were also protected against fixed appliances to a distance of 500 yards outside the mouths. The interesting point in this connection is that only red-salmon streams were protected at their mouths. In other words, there was no legal prohibition against operating a trap or any other fixed fishing appliance directly in the mouth of any stream not classed as a red-salmon stream. The same law prohibited the placing of movable fishing gear in any stream, estuary, or lagoon across more than one third of its width, or within 100 yards outside the mouth of any red-salmon stream less than 500 feet in width. The lateral and endwise distance between traps was also prescribed by law. Under these provisions, protection was given very largely to red salmon in so far as restriction of fishing in or at the streams was involved. A weekly closed period of 36 hours in all localities in southeastern Alaska and a daily

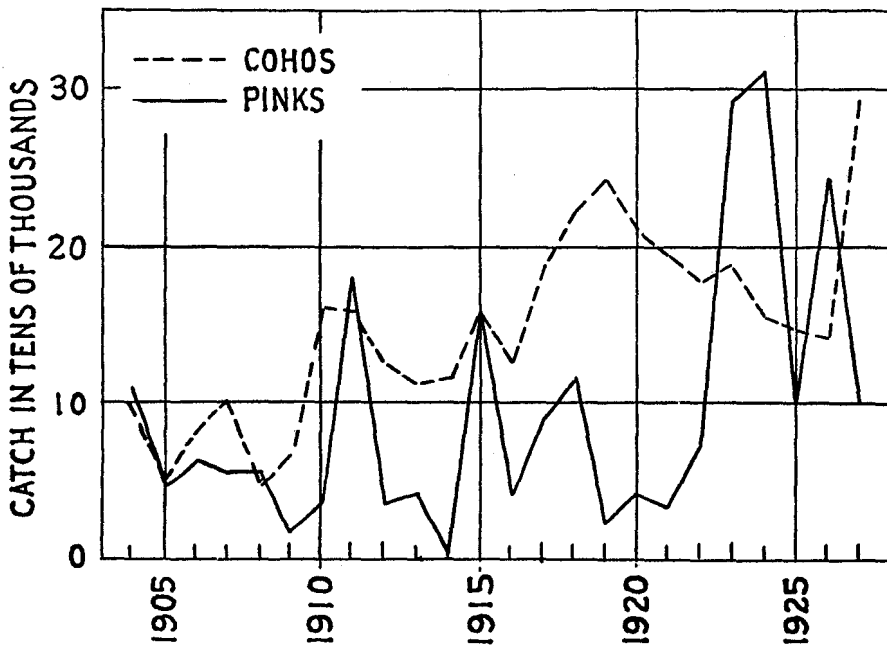


FIGURE 9.—Catch of cohos and pinks in the Yakutat district.

closed period of 12 hours for all streams less than 100 yards in width were provided in the hope that this would increase the opportunities for salmon to ascend to the spawning grounds. Undoubtedly these provisions had a direct effect upon the catches of all species.

On December 21, 1918,⁸ all commercial fishing for salmon in streams less than 500 feet in width and within 200 yards of the mouths of all salmon streams was prohibited; traps and other fixed appliances were not permitted within 500 yards of the mouths of such streams. Thus, for the first time, general regulations affecting indiscriminately all species of salmon were promulgated.

In 1920 the regulations were broadened by extending protection to all salmon streams regardless of width and to a distance of 200 yards outside the mouths of such streams. They also prohibited the operation of fixed fishing appliances within 500

⁸ This order was published in Department of Commerce Circular No. 251, fifth edition, Jan. 14, 1919, but was inadvertently omitted from part I of this review.

yards of the mouths of salmon streams. All streams west of Cape Spencer were protected against all appliances to a distance of 500 yards.

The next change in the regulations was made on January 1, 1922. It prohibited all fishing in the streams and within 500 yards of the mouths of salmon streams, thus rescinding the exceptions in favor of movable appliances provided in the order of 1920.

On June 6, 1924, the new law giving vastly larger powers to the Secretary of Commerce in the protection of the salmon fisheries of Alaska became effective. Its authority was immediately applied to the issuance of regulations designed to secure a

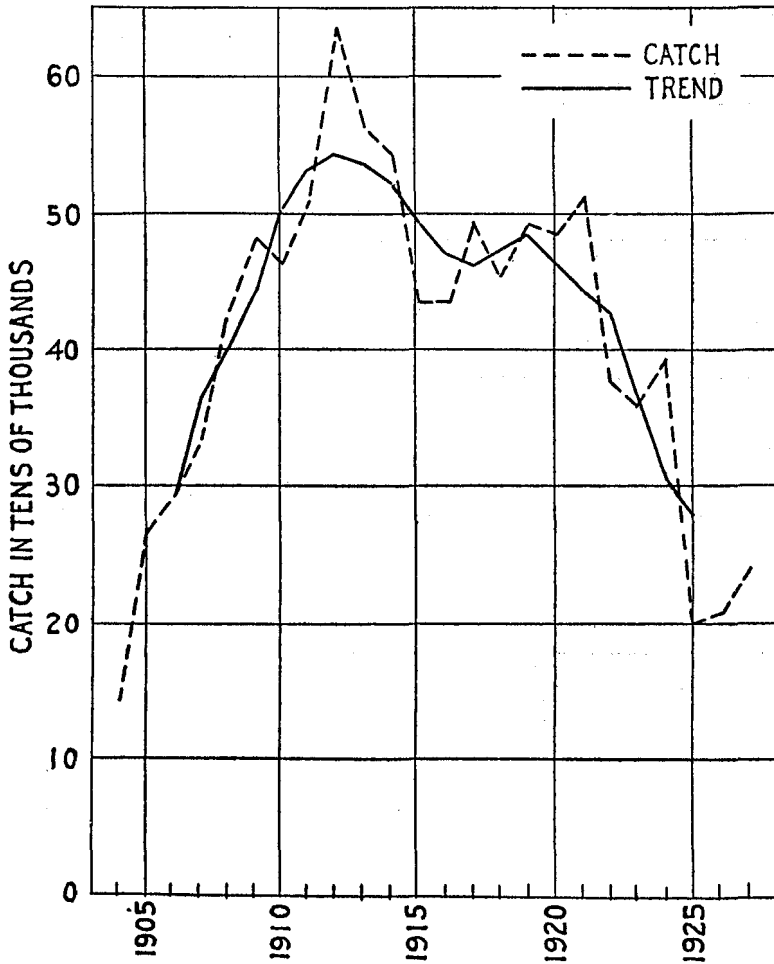


FIGURE 10.—Catch of reds in the Yakutat district.

larger escapement of salmon into the streams. In the Icy Strait district all fishing was prohibited for 20 days, from August 11 to 31.

In 1925 all fishing was prohibited after August 6, except trolling, and gill netting from September 5 to October 15; the distance interval between traps was fixed at not less than $1\frac{1}{2}$ miles; no fishing boat was permitted to carry more than one seine; Port Frederick was partially closed, while Glacier Bay was completely closed.

In 1926 further restrictions were imposed. Gill nets were limited to 200 fathoms in length; purse seines to 250 fathoms; and Dundas Bay north of $58^{\circ} 21'$ was closed.

Regulations for 1927 increased the length of gill nets to 250 fathoms, closed Port Frederick south of Inner Point Sophia, except to gill nets which were permitted to operate to June 1. On April 27, 1927, the order affecting Port Frederick was rescinded in part and the order of 1925 was restored.

In view of the fact that all regulations promulgated before 1924 were more or less general in character, it seems probable that the effect upon the catch was much the same in all localities, but with the application of the more specific regulations in 1924 and subsequent years, certain localities should show a material reduction in catch, more especially the bays in which seining had been done near the mouths of streams. The requirement of a distance interval of $1\frac{1}{2}$ miles between traps probably reduced the catch along some shores but only to make it better in other places, while it was practically without effect upon the catch of traps in isolated positions. The most effective regulations were unquestionably those providing

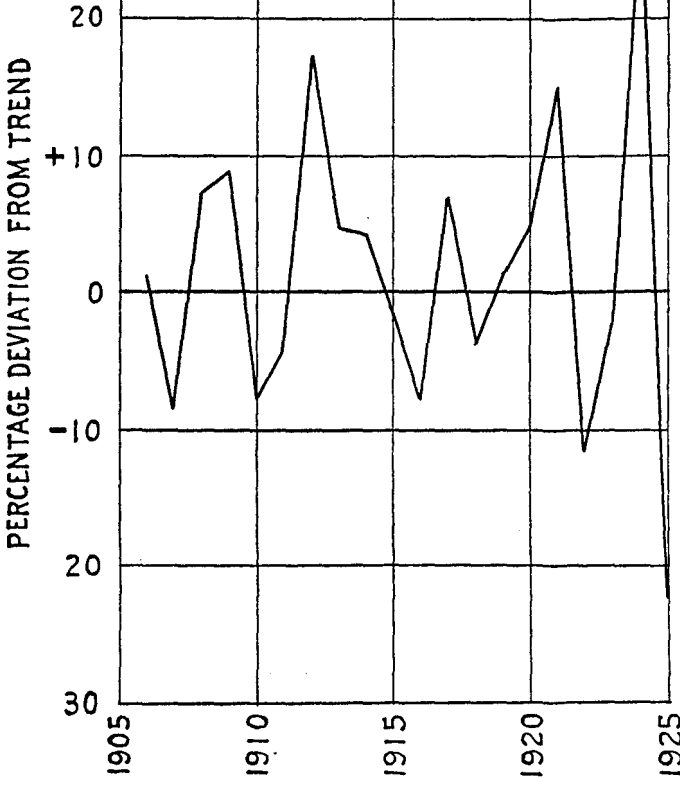


FIGURE 11.—Percentage deviation from trend of catch of red salmon in Yakutat district.

closed periods, especially seasonal closures. The weekly closed periods were probably less effective, as 18 years of unbroken application seems not to have retarded the general decline in the catches.

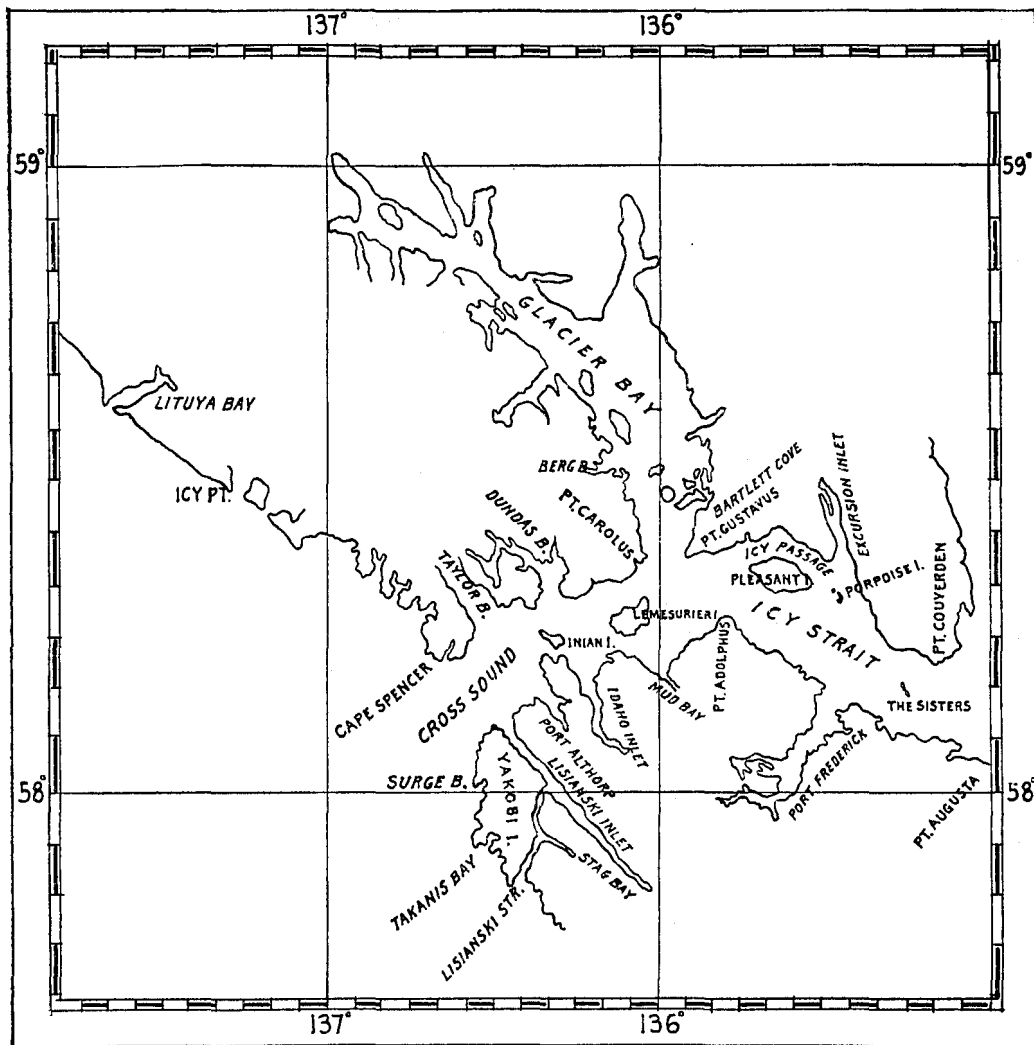


FIGURE 12.—Map of the Icy Strait district.

TABLE 2.—Salmon caught and fishing appliances used in the Icy Strait district, 1899 to 1927

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Adolphus, Point:												
1913	122	518	1,249		189							
1915	389	1,498	15,576	79	1,976							
1917	261	3,541	101,218	32	5,428							
1918	47		152	1	21							
1919	45	1,516	4,548	32	1,216							
1920	474	12,466	43,429	69	7,303							
1923	1,119	21,774	162,868	12	13,185							
1924	5,129	66,022	148,793	45	31,760							
1925	4,390	73,464	220,379		38,004							
1926	7,825	73,320	419,333	9	47,183							
1927	17,232	139,434	446,037	12	40,409							
Althorp, Port:												
1905			9,431									
1908		7,082	3,364									
1909		1,165	46,312									
1910			20,993									
1913	730	4,250	25,022	4	185							

TABLE 2.—Salmon caught and fishing appliances used in the Icy Strait district, 1899 to 1927—Con.

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Althorp, Port—Continued.												
1914	845	3,082	16,351		923							
1915	5,248	20,800	307,471		30,688							
1916	19,463	87,248	567,524	779	58,415							
1917	6,657	53,827	269,889	1,188	21,633							
1918	4,482	120,413	262,780	721	12,735							
1919	2,291	47,826	43,083	224	36,289							
1920	3,135	20,910	23,050	249	3,160							
1921	5,796	3,603	3,830		72,873							
1922	625	5,015	27,375	12	3,059							
1923	449	3,281	78,395	13	4,611							
1924	2	2,986	11,746		652							
1925	899	9,369	27,308	13	2,040							
1926	1,861	11,799	110,423		3,929							
1927	4,815	7,037	100,872	17	5,249							
Bartlett Cove:												
1905	1,546	364	208		9,783							
1906	5,314	371	3,520		11,305							
1907	191		3,404		7,514							
1908	254	674	880		7,990							
1909			149		13,334							
1910	3,358	2,133			8,933							
1911	5,468				21,191							
1912	4,408	1,087	351		9,122							
1913	317	906	4,193		8,729							
1914	3,032	745	74		10,079							
1915		1,264	3,756		12,256							
1917		2,172	978		7,015							
1918	2,844	3,527	1,864		11,460							
1919	2,201	1,167	177	48	2,965							
1920	184	240	301		2,923							
1922	584	298	563	48								
1923		8	336		2,910							
1924	3,615	1	103		1,665							
Berg Bay:												
1922	1,141	87	380		1,327							
1923		7	92	3	1,378							
1924	5	452			37							
Cross Sound:												
1911	6,331		95,582		37,768							
1912	41,653	96	48,481	41	20,411							
1913	5,811	6,730	49,559		15,628							
1914	4,804	27,033	76,322	283	44,051							
1915	4,978	3,354	51,484	381	21,157							
1916	11,589				21,159							
1917	313	13,764	101,054	55	3,073							
1918	1,118	1,556	9,043	12	1,066							
1919	690	1,743	4,797									
1920		657	586		119							
1921		1,023	2,207									
1923	1,271	3,781	27,068	2	9,286							
1924	1	418	34,177		411							
1925	28	2,260	2,395		270							
1926	1	266	2,695		4							
1927	24,670	77	1,411	3	1,380							
Division Point:												
1926	1,935	8,056	111,839		12,744							
1927	1,312	1,489	36,256		3,468							
Dixon Harbor:												
1908					4,253							
1909					2,901							
1912	21	1,785	1,255		1,711							
1913	338	332	1,933	178	1,870							
1914			4	76	3,070							
1915		4,376	230	84	468							
1918	470	31	191									
1920		169	16		657							
1924			778		112							
Dundas Bay:												
1904					10,000							
1905	2,804	86	18		20,168							
1906	5,793	57			11,489							
1907	8,841	307			21,082							
1908	1,619	5,378	42		32,706							
1909	16	3,963	105,274		43,952							
1910	4,568	139			14,215							
1911	2,646	4,995			10,115							
1912	870	3,215	572		10,628							
1913	253	998	30		7,080							
1914	3,340	785	3		15,630							
1915	832	6,501	11,684	300	37,710							
1916	757	3,130	12,892	300	34,419							
1917	12,036	8,215	25,912	77	38,761							
1918	16,493	20,779	29,979	990	51,282							
1919	15,472	21,398	14,298	108	12,731							
1920	19,074	63,896	97,038	73	31,792							

TABLE 2.—Salmon caught and fishing appliances used in the Icy Strait district, 1899 to 1927—Con.

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Trap (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Dundas Bay—Continued.												
1921												
1922	1,696	1,519	1,986									
1923	5,045	4,526	20,175	85								
1924	7,008	34,712	23,851	97								
1925	5,451	32,071	24,577	118								
1926	3,940	33,941	28,794	31								
1927	2,580	6,333	12,437	32								
Dundas Point:												
1922	3,792	6,590	16,540	12	11,070							
1925	2,429	15,921	33,104	4	9,799							
1926	2,412	9,872	41,801	5	5,117							
1927	1,785	3,375	29,385	12	4,836							
Eagle Point:												
1913	9,467	2,294	1,707		423							
1924	2,205	6,031	57,978	57	8,691							
1925	4,382	10,325	45,729	94	9,514							
1926	2,789	14,340	68,028	81	9,867							
1927	3,464	8,365	66,170	322	6,673							
Excursion Inlet:												
1906	418	12,362										
1907		2,025										
1910		69,930										
1911		2,735										
1914	12	1,602			3							
1917	4,965	21,774	76,562	56	6,036							
1918	173	10,662	141		61							
1919	138	8,043	1,106		385							
1920	17,370	143,780	113,204	369	50,722							
1922	1,517	43,569	776		390							
1923	2,039	24,484	24,701		78							
1924	2,397	73,578	17,556	12	2,382							
1925	538	7,428	1,001		3,039							
1926	27	4,678	469		546							
1927	609	4,023	25,586		2,469							
Frederick, Port:												
1905			21,000									
1906	25											
1907			7,375									
1908		95	37,078									
1909			38,332									
1910		3,150										
1911		10,668	205,801									
1912		113,014	16,909		701							
1913	5,095	20,098	127,840		256							
1914	212	36,632	21,034		275							
1915	4,000	28,726	62,811		34							
1917	6,761	63,480	185,473	37	2,453							
1918	5,812	42,235	40,051	4	1,547							
1919	1,886	51,374	24,043	106	2,440							
1920	1,462	28,281	34,094	64	679							
1922	143	2,871	8,694									
1923	226	30,770	144,734	2	2,307							
1924	127	119,808	44,636	9	1,126							
1925	54	45,108	4,698		81							
1926	109	26,680	24,915		442							
1927	4,024	10,122	18,157	398	2,757							
Goose Island:												
1926				355								
1927				424								
Groundhog Bay:												
1916	17,655	12,508	4,248		3,022							
1924	2,552	12,708	55,184	34	10,971							
1925	3,776	22,545	40,494	50	20,286							
1926	2,370	17,650	60,885	19	16,428							
1927	1,150	9,095	38,245	69	12,194							
Gull Cove:												
1913	9,521	9,927	40,937	24	4,968							
1914	1,295	2,696	14,218	323	7,522							
1924	3,119	7,329	83,086	159	9,118							
1925	4,998	14,296	49,933	131	10,591							
1926	6,181	16,085	228,583	195	17,150							
1927	4,313	8,411	100,016	312	8,454							
Hoktaheen Cove:												
1905	270		6,250		8,279							
1906			15,807		11,348							
1907					7,000							
1908			1,325		10,677							
1909			11,311		10,391							
1910					9,896							
1911					7,196							
1912	646	227	52		7,197							
1913	597	1,265	4,760	27	5,344							
1914	699	712	1,374	20	7,686							
1915	4	460	4,129		8,301							

TABLE 2.—Salmon caught and fishing appliances used in the Icy Strait district, 1899 to 1927—Con.

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Hoktaheen Cove—Contd.												
1918	682	162	1,890		2,519							
1919	536	273	218		5,463							
1920	1,644	446	744	7	3,218							
1922		933			653							
1923	303	11	322		5,266							
1924			12		2,310							
1925	2	72	5	2	2,335							
1926	1	38	436	1	1,834							
1927	16	196	311		2,021							
Icy Point:												
1914	4		2	36	2,505							
1915			280	1,529	9,225							
Idaho Inlet:												
1908		172	118									
1912		772	399		354							
1913	9,038	17,847	74,930		5,848							
1914	25	6,609	3,108		1,077							
1917	5,734	11,806	22,832	3	1,465							
1918	1,018	10,845	6,086	1,099	1,178							
1919	96	4,643	581	85	184							
1920	656	13,589	3,370	104	560							
1922	361	3,474	1,909		24							
1923	245	799	2,088		214							
1924	299	14,369	9,449	17	1,596							
1925	35	5,472	4,939		491							
1926	9	3,056	3,338	2	2,708							
1927	20	1,715	2,416	3	75							
Inian Cove:												
1915	601	3,269	36,222	207	4,110							
1916	1,200	3,286	53,825	100	4,141							
1917	5,178	5,194	135,063	68	4,679							
1920	310	16,834	45,706	30	6,232							
1922	4,732	14,315	69,821	6	17,290							
1923	694	4,467	20,239	19	4,834							
1924	2,495	22,384	175,972	1	22,132							
1925	2,103	28,408	45,411	1	5,051							
1926	7,471	47,245	258,089	11	38,908							
1927	4,714	22,812	173,280	18	13,993							
Inian Islands:												
1912	32,285	5,722	12,492		2,501							
1913	2,120	1,343	5,020		4,462							
1914	2,783	5,910	30,103	75	19,622							
1918	13,211	17,569	51,514	2,078	10,249							
1919	185	44,384	96,418	250	18,994							
1920	5,351	20,853	67,185	102	10,832							
1922					2,462							
1923					488							
1924	5,617	44,973	200,636		36,971							
1925	1,685	39,821	58,259		16,614							
1926	3,351	27,356	122,940	9	10,363							
1927	5,211	26,805	113,881	25	15,192							
Inian Pass:												
1926	1,186	6,722	53,058		3,471							
1927	25	63	1,183		82							
James Bay:												
1905			65		281							
1907	970				4,029							
1908	280	55			4,852							
1909					2,021							
1912	1,924	803			3,136							
1913	563				3,086							
1914	1,327	3			5,704							
1915		36			7,752							
1917		53	570		7,071							
1918	3,974	931	240	1	4,831							
1919	5,584	1,798	1,977	16	2,856							
1920	490	1,131	699		2,505							
1923	303	11	73	4	1,051							
1924		63	138	1	1,139							
Lemesurier Island:												
1913			700		290							
1918	956	845	16,944		1,055							
1919	3,459	11,107	50,443	525	8,212							
1920	1,556	26,545	76,847	41	15,680							
1922	2,207	10,675	43,500	200	11,805							
1923	1,022	5,241	89,570		10,186							
1924	1,206	8,119	25,749		6,817							
1925	1,458	6,410	12,231	5	9,128							
1926	2,711	21,258	64,853	17	13,493							
1927	864	5,042	18,107	16	3,531							
Lisianski Inlet:												
1920	208	1,209	8,363		418							
1922	1,545	6,625	15,097									
1923	1,158	3,828	45,008	10	1,700							
1924	76	2,622	28,189		1,349							

TABLE 2.—Salmon caught and fishing appliances used in the Icy Strait district, 1899 to 1927—Con.

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Lisianski Inlet—Contd.												
1925	200	7,297	22,339	12	4,291							
1926	160	2,915	76,659	1	3,184							
1927	827	2,979	69,168	63	2,784							
Lisianski Strait:												
1905			49,479		124							
1906	30		52,523		774							
1907			55,936									
1908		1,816	6,332		942							
1909	872	49	33,917		167							
1910			25,382									
1911		2,499	106,254									
1912	266	593	24,780		98							
1913	6	3,782	63,083		274							
1914	118	1,468	24,697		1,420							
1915	29		33,453		5,862							
1916	1,321	3,869	10,565	153	19,021							
1917		5,000	21,111									
1918	19,573	19,500	164,748	285	9,250							
1919	5,446	15,200	37,145	213	8,789							
1920	4,310	12,335	6,563	60	4,200							
1923	448	1,227	39,842	1	4,905							
1924	10	596	15,003	6	1,398							
Lituya Bay:												
1905	85				795							
1910					7,000							
1911					4,000							
1912	82				1,474							
1913		1,600	570		3,801							
1914					5,015							
1915					6,302							
1917	762				442							
1918	1,855				1,969							
1919				1	196							
1920				6	79,511							
1922	1,351				5,665							
1923	2,017			7	5,716							
1924		17	423		5,047							
1925	24	32	61		945							
1926					1,284							
1927	1,263		4		950							
					2,056							
Mud Bay:												
1912	700	2,924			4							
1913		11	44,043									
1914	9,241	2,750	74		612							
1915		13,516	30,094									
1920	1,094	49,744	80,285	93	14,282							
1924	291	1,485	11,375		628							
1927	16	851	1,010		87							
North Inian Passage:												
1923	4,864	19,295	208,635	30	46,058							
1924			209		18							
1925	502	12,349	32,446	1	4,921							
1926	1,386	11,657	63,678	4	6,393							
1927	227	2,393	12,725		2,721							
Pinta Cove:												
1915	1,429	2,592	27,120		7,320							
1920		871	8,317	2	1,325							
1926	174	2,594	10,983		2,209							
Pleasant Island:												
1904			180,000									
1907		1,000	122,006		17,063							
1908	6,210	6,210	175,402		20,586							
1911	1,230	2,080	4,358		2,060							
1918	30,350	67,450	700		1,600							
1919	66,729	65,495	197,422	34								
1920	33,850	71,804	202,113	105	48,360							
1922	30,057	28,035	188,318	10	54,181							
1923	801	6,459	49,594	28	4,621							
1924	10,684	60,407	292,703	150	76,388							
1925	9,955	56,072	125,665	25	56,037							
1926	7,399	50,675	246,974	274	53,964							
1927	10,635	32,170	217,874	22	42,611							
Porpoise Island:												
1908	12,114	42,073	184,201		6,546							
1922	2,580	2,108	22,627		6,535							
1924	7,072	12,804	49,062		20,160							
1925	3,631	15,503	42,335	6	19,868							
1926	2,579	10,840	74,008	90	17,143							
1927	2,755	4,814	58,430		6,994							
Salmon Beach:												
1924		1,048	80		3,616							
1925			181		1,865							
1926	8	408	731	1	980							
1927		1	35	14	699							

TABLE 2.—*Salmon caught and fishing appliances used in the Icy Strait district, 1899 to 1927—Con.*

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Shaw Island:												
1917	79	1,424	19,544	11	1,391							
1928	915	3,320	17,939	4	1,566							
Soapstone Harbor:												
1908	101	755	2,884		20							
1912	121	894	23		126							
1913			3,615									
1919		79			356							
1924			1,890		452							
1925	3	1,175	608		644							
1926	4	628	2,403		63							
1927	32	1,846	1,447		152							
Sophia, Point:												
1918	252	1,359	27,111		1,390							
1923	4,914	21,016	146,594	201	11,939							
1924	1,446	10,239	29,515	63	3,589							
1925	2,016	19,351	40,268	70	5,784							
1926	820	27,204	54,771	17	2,708							
1927	1,745	17,593	80,424	58	4,140							
Sophia, Inner Point:												
1926	823	22,745	35,281	8	2,073							
1927	225	6,687	22,450	109	107							
South Inian Pass:												
1926	5,625	28,291	145,913	16	20,190							
1927	3,953	4,188	71,137	16	6,415							
Spasskala Harbor:												
1916	5,596	16,076	271,693	390	4,590							
1917	252	24,560	427,155	40	3,923							
1918	3,162	7,069	80,189	86	2,741							
1919	422	2,851	6,741	86	1,533							
1920	2,391	14,203	61,480	43	5,724							
1923	296	1,368	30,992	4	1,140							
1924	1,133	7,631	25,506	43	2,060							
1925	3,000	22,282	32,041	61	5,365							
Spencer, Cape:												
1906					2,301							
1908		71	493		7,369							
1909			1,321		6,564							
1910					9,249							
1911					5,765							
1912		26	762		3,829							
1913	177	855	770		1,423							
1914		206	32		6,610							
1915	1		8,569	80	21,266							
1917	571	6,279	56,027	120	21,072							
1918	366	9,704	9,432	182	11,100							
1919	126	2,673	2,214	1,569	14,241							
1920		221	34		2,698							
1922	2,543	694	3,583	102	2,889							
1923	473	305	731	30	5,636							
1924	1	706	10,120		1,378							
1925	14	1,064	440		1,610							
1926	16	424	5,701		4,091							
1927	29	262	415	10	1,689							
Stag Bay:												
1923	50	219	1,204		90							
1924	5	2,179	3,257		243							
1925	275	4,726	7,822	2	1,779							
1926		1,119	10,080		1,301							
1927	87	689	509		183							
Surge Bay:												
1904					10,000							
1905	2,780		1,445		13,193							
1906	2,907		9,922		22,620							
1907		4,445			48,584							
1908	1,523	153	266		49,260							
1909	207		530		25,530							
1910	990				28,504							
1911	3,047	1,441	1,779		20,341							
1912	483	1,716	1,066		10,233							
1913	1,185	112	1,161		9,409							
1914	1,188	44	27	69	13,609							
1915	31	7	9,409		29,840							
1916	541	3,193	2,834		28,083							
1917	2,984	2,472	7,704	19	22,999							
1918	1,718	2,645	4,257	23	25,662							
1919	2,136	1,775	2,820	9	22,532							
1920	527	1,349	1,301	17	14,780							
1922	4,500	769	2,097	5	23,026							
1923	4,400	450	1,872	1	12,473							
1924	624	4,039	2,596		34,223							
1925	183	3,366	4,852	24	27,322							
1926	217	1,454	6,168	1	25,414							
1927	218	1,345	4,582	3	19,652							

TABLE 2.—Salmon caught and fishing appliances used in the Icy Strait district, 1899 to 1927—Con.

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Swanson Harbor:												
1916	3,500	2,888	38,002		4,079							
1920		3,009	4,657									
1921		1,667										
1922		2,623	8,528									
1925	2,202	6,621	2,658	101	2,184							
Takanis Bay:												
1905	1,803		11,287		8,618							
1906	24		1,948		4,193							
1907					2,087							
1908	819		851		10,401							
1909	401		851		8,329							
1910					12,312							
1911	1,178				4,000							
1912	2,080	406	481		8,611							
1913	792	59	1,031		5,175							
1914	2,453	212	702		10,147							
1915	231		1,402		6,117							
1916	3,738	103	127		1,685							
1917	2,658	1,709	7,702		8,562							
1918	363	66	714		4,151							
1919	161	724	1,180	1	6,995							
1920	403	182	278	6	4,309							
1922	64	2,262	2,412		1,334							
1923	3,953	1,641	4,306		15,703							
1924	3,581	294	1,133		9,899							
1925	30	96	341		4,239							
1926	11	1,286	3,853		8,429							
1927					1,166							
Taylor Bay:												
1904					20,000							
1905	13				11,524							
1906					18,755							
1907					56,267							
1908			853		43,185							
1909	153		5,899		11,765							
1910					7,995							
1911					3,900							
1912	9	138	3,051		6,295							
1913	21	500	39		1,261							
1914		1	1		17,369							
1915			326		4,507							
1918	3	61	71		7,276							
1919		432	7		2,936							
1920		4	145		1,986							
1922	3,590	888	3,020		12,105							
1923	664	63	380	6	25,127							
1924	376	4,647	7,116	13	26,216							
1925		149	44	1	1,889							
1926	1	1	105	1	2,128							
1927		69	549		39							
The Sisters:												
1922	1,011	3,675	33,402	15	4,054							
1923	4,155	10,711	83,686	137	35,891							
1924	1,413	8,205	16,604	25	2,793							
1925	4,378	19,628	41,371	63	24,332							
1927	30	53	132		4							
Three Hill Island:												
1927	5,040	8,013	77,922	7	5,284							
Whitestone Harbor:												
1910			21,727									
1918	686	6,329	45,724		2,533							
1924		15	3,402									
1926	625	13,860	63,240	17	1,703							
Unallocated:												
1889					51,600							
1890					144,000							
1891					91,200							
1900	27,098		65,186	275	151,901							
1901	11,087		189,701	424	96,547							
1902	24,453		485,746		218,084							
1903	37,580		560,176		230,167							
1904	22,000	16,808	256,980		392,262							
1905	27,099	93,783	126,992	21,215	511,510							
1906	101,352	191,727	1,928,814	2,300	292,674							
1907	94,343	115,773	1,589,444	18,201	347,669							
1908	46,481	240,547	2,399,452	2,636	462,353							
1909	49,662	125,125	842,208	1,740	501,557							
1910	76,128	189,731	970,402	270	511,698							
1911	106,174	379,447	1,763,604	2,857	519,300							
1912	150,066	823,567	1,440,750	8,031	731,731							

1 Statistics used in this table for the years 1889, 1890, and 1891 were obtained by taking the pack reported by Moser (1902) and multiplying the number of cases by 10, that being the number of red salmon from this district required to pack a case of forty-eight 1-pound cans, according to Moser's calculations.

2 Data taken from reports of treasury agents.

TABLE 2.—Salmon caught and fishing appliances used in the Icy Strait district, 1899 to 1927—Con.

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Unallocated—Continued.												
1913.....	108,349	311,393	2,840,169	9,923	610,558							
1914.....	283,136	601,462	1,718,694	9,232	1,131,048							
1915.....	98,718	465,973	3,637,092	9,333	554,964							
1916.....	367,724	762,721	4,282,530	7,044	500,947							
1917.....	163,185	535,961	6,141,609	8,196	555,867							
1918.....	167,992	1,060,791	3,551,556	13,996	662,095							
1919.....	166,172	886,335	1,547,296	8,224	594,051							
1920.....	122,354	552,486	1,276,547	5,215	368,824							
1921.....	128,347	215,195	486,242	4,196	186,199							
1922.....	81,811	214,954	1,305,883	2,330	257,240							
1923.....	73,318	214,435	2,066,180	1,184	275,205							
1924.....	79,681	177,112	811,053	3,092	185,572							
1925.....	59,761	222,265	372,251	3,208	192,700							
1926.....	21,358	203,129	714,206	741	160,514							
1927.....	99,445	147,723	644,786	43,645	113,106							
Total:												
1889 1.....					51,600							
1890 1.....					144,000							
1891 1.....					91,200							
1900 2.....	27,098		65,186	275	151,001	14				3		
1901 2.....	11,087		189,701	424	96,547	19				16		2
1902 2.....	24,458		485,746		218,084	25				12		5
1903 2.....	37,560		560,176		239,167	17				3		5
1904.....	22,000	16,808	456,980		432,262			11		2		7
1905.....	56,400	97,233	226,175	21,215	584,275	3		22		2		7
1906.....	115,863	204,517	1,012,534	2,300	375,459	2		16		2		7
1907.....	104,345	123,552	1,778,165	18,201	611,265	2	350	13	2,140	3	300	16
1908.....	69,559	305,081	2,783,541	2,636	661,140	2	220	20	3,300	5	500	25
1909.....	51,158	130,302	1,086,104	1,740	626,511	1	125	17	2,725	8	1,520	12
1910.....	85,044	265,083	1,038,504	270	609,802			24	3,885	6	2,000	21
1911.....	126,074	403,865	2,177,378	2,857	635,726			23	4,500	7	1,800	29
1912.....	240,709	956,985	1,551,424	8,072	818,162	7	750	23	3,725	16	2,550	43
1913.....	149,619	384,820	3,292,361	10,156	686,268	5	550	17	2,725	15	3,000	42
1914.....	318,302	691,852	1,906,840	10,114	1,304,877			18	2,960	7	1,225	61
1915.....	112,491	552,372	4,240,608	11,974	768,068			26	4,120	15	2,000	63
1916.....	433,184	895,022	5,244,240	8,766	679,561			25	3,050	11	600	76
1917.....	212,296	761,231	7,599,403	9,902	712,770			20	3,300	10	1,500	97
1918.....	297,600	1,404,549	4,304,377	19,478	827,768	1	75	40	6,725	100	5,643	107
1919.....	273,775	1,170,656	2,036,515	11,786	822,679	3	250	44	8,850	5	500	115
1920.....	216,843	1,047,192	2,156,358	6,639	608,953	3	175	60	12,430	25	2,500	114
1921.....	134,143	221,488	492,279	4,196	271,138	3	450	21	2,460			17
1922.....	146,450	352,579	1,756,511	2,830	425,725	2	150	28	3,780	20	2,000	29
1923.....	114,227	380,207	3,249,692	1,772	518,006	5	850	50	9,261	20	1,331	61
1924.....	148,170	708,089	2,200,287	3,824	552,789	4	600	59	11,328	13	1,510	54
1925.....	118,402	701,978	1,296,186	3,992	525,391			48	8,960	9	900	35
1926.....	86,300	710,912	3,134,172	1,271	523,110			48	8,235	10	1,400	44
1927.....	203,331	486,117	2,447,409	45,610	345,635			64	12,075	23	1,705	52
By lines (included in above):												
1918.....	101				480							
1921.....					316							
1922.....				1,064								
1923.....					58							
1926.....	218				639							
1927.....	98,459			43,086								

¹ Statistics used in this table for the years 1889, 1890, and 1891 were obtained by taking the pack reported by Moser (1902) and multiplying the number of cases by 10, that being the number of red salmon from this district required to pack a case of forty-eight 1-pound cans, according to Moser's calculations.

² Data taken from reports of treasury agents.

NOTE.—No catches were reported in the years omitted from any division of this table.

Table 2 gives by localities the catch of salmon in the Icy Strait district. Of the outside localities, three are streams of the mainland between Cape Spencer and Cape Fairweather, the most western of which is Lituya Bay. This bay has produced a few thousand salmon, mostly reds, for several years, but never more than 8,000 except in 1919 when the surprising catch of 79,511 reds and 196 kings was reported. The Icy Point stream is unimportant and apparently was fished only in 1914 and 1915, yet in the latter year 1,529 kings were reported. This catch is, however, open to question as there is certainly no stream at Icy Point which under the most favorable conditions would provide a king-salmon run of that magnitude. It is also inconceivable that these fish were taken in ocean fishing from runs to more

distant places. The only explanation seems to be that an error was made in designating the locality.

The easternmost locality on the outside coast of the mainland is Dixon Harbor. It was fished irregularly from 1908 to 1924; all species of salmon were caught in some years but in no case did the total catch in any season exceed 6,000 fish. The runs, small as they were, became commercially valueless in a few years, and the harbor was abandoned, or if catches were made after 1924 they were reported as coming from other localities.

Three small streams on the western slope of Yakobi Island have been fair producers of red salmon, and have been fished regularly since the establishment of a cannery on Dundas Bay. They are tributary to Hoktaheen Cove, Surge Bay, and Takanis Bay. Hoktaheen Cove is the least important as the catch there fell from the relatively high levels maintained prior to 1910 to very low levels in recent years while in 3 years no salmon were reported from the cove. The catch has now declined almost to the vanishing point, a sure indication of depletion. Takanis Bay appears to have been fished each season from 1905 to 1927, except 1921. It produced mostly red salmon, though a few thousand cohos, chums, and pinks also were taken there. The catches have fluctuated noticeably but without indications of periodicity, except as to pinks which were more abundant in the odd years from 1913 to 1923, inclusive. Thereafter, pinks were taken in larger numbers in the even years. In respect of red salmon, the fluctuations in catch are peculiar, being high and low in alternate years from 1907 to 1915, with the peaks of production occurring in the even years. The downward movement continued however in 1916, and in the next few years, or until 1921, the better catches were made in the odd years, a complete reversal of the earlier record. The catch of 1922 was 1,334 reds, the smallest recorded up to that time, but it was followed in 1923 and 1924 by progressively larger catches. This marked the beginning of another period in which the even years took the lead in production. Nothing is known of the age of the red salmon of Takanis Bay. No scales have been studied and the record of the catch gives no indication of the sort of periodicity that would indicate their probable age. The trend of the catch was slightly downward to 1920 but since then it has apparently recovered, notwithstanding the extremely small catch in 1927. The significance of this apparent recovery is not, however, at all clear and it is not improbable that within the next few years the direction of the trend will again be downward.

Surge Bay is the most productive red-salmon locality on Yakobi Island. Omitting 1921, when it was not fished, the catch fell below 10,000 only once—in 1913. There were three peaks in the production of red salmon, the first and highest occurring in 1907 and 1908, the second in 1915, and the third in 1924. Though no catch was reported in 1921, it is probable that the run was small and that the actual abundance was not above the average of the years immediately preceding. Since no fishing was done in 1921 it may be assumed that the escapement of fish to the spawning grounds was larger than usual—if, indeed, the run was approximately the same as in the preceding years. It is possible that the increased production from 1924 to 1926 was the result of this. Unfortunately the routine observations on the spawning grounds which are now a feature of the work of the Bureau of Fisheries were not being made at this early date or we might now be in possession of some very valuable information as to the results to be expected from such an increased escapement as presumably took place in 1920. This bay produces all species of

salmon, but in all the years of its productivity, the percentage of reds in the total catch has ranged from 63 to 100. It is a seine fishery, exploited almost entirely by Indians who have fished with little or no supervision or legal restraint as officers on patrol duty visited the bay infrequently; yet it still produces red salmon in numbers comparable to the catches obtained in the early years of its exploitation, and under far more effective and better enforced laws and regulations than ever before imposed.

Lisianski Inlet and Lisianski Strait form the northwest coast of Chicagof Island and separate it from Yakobi Island. Stag Bay is an arm of Lisianski Strait. According to available data, fishing began in the strait in 1905 and was continued each year through 1920. Apparently no fishing was conducted here in 1921 and 1922, and although it was resumed in 1923, no catches have been reported therefrom since 1924. Fair catches of pink salmon were made regularly in this locality; and in a few years, during the period of intensive fishing on account of the World War, unusually good catches of cohos, chums, and reds were also made. The catches of these three species, however, were insignificant in the first 10 years of fishing and have been unimportant since 1920. Catches of pinks, chums, and reds in Lisianski Inlet, which includes a small catch at Miner Island in 1927, show less violent fluctuations than do those in the strait. Coho catches were more variable, and kings were taken quite irregularly. The presence of the latter species in both Lisianski Strait and Inlet is presumably an indication that these waters are traversed by salmon entering Cross Sound, as it is not likely that the small streams tributary to the strait and inlet support runs of even a few hundred kings. In the same way it is possible to account for the better catches of other species, especially reds, in some years, as bearing a relation to the number of salmon using this passage as a migration route. Had there been any stream in Lisianski Inlet which would produce as many as 19,000 red salmon in a season (which was the approximate catch there in 1916), that fact would certainly have been discovered a decade earlier and development of the locality would have been contemporaneous with that of Surge Bay and other streams in the same region. It is quite probable that traps were used here and intercepted the runs of migrating salmon although there are no definite records to this effect. Salmon were taken from Stag Bay in each season from 1923 to 1927, and all species were included in the catch, with pinks predominating.

Soapstone Harbor is a small indentation on the north end of Yakobi Island. It was fished occasionally from 1908 to 1919, and regularly from 1924 to 1927. All species of salmon, except kings, have been taken there but the catch was invariably small, and possibly included fish from the main runs into Cross Sound.

There are 21 localities in the Cross Sound section of the Icy Strait district which are treated independently in table 2. They include 17 other localities in which small catches were made, or which had been fished but one season. These places will be referred to in the discussion of data for the localities with which they were merged.

Cape Spencer, on the north side of the entrance to Cross Sound, is shown as a separate locality because several thousand red salmon were reported as captured at that point in the 4 years from 1915 to 1919, excluding 1916 in which no catch was reported. The catch in 1920 was small and again in 1921 no catch was reported. In 1922, fishing was resumed and continued through 1927 but with much smaller returns. The catch of other species shows the same peculiarity as was noted in respect to reds, the earlier years being more productive than the later years. One of the outstanding irregularities in the Cape Spencer data, if indeed all of the data are not irregular, is the catch of 1,569 king salmon in 1919, reported by the North-

western Fisheries Co. Not even a closely similar catch of kings was ever made before or has since been made in that locality, and there is no stream near Cape Spencer that could be expected to produce that number of king salmon. No satisfactory explanation of this unusual catch can be given; it may possibly have been made by trollers operating in the vicinity of Cape Spencer, or the name of the locality may have been incorrectly reported. The most reasonable explanation, however, seems to be that the catch came from Alsek River. Various other irregularities in the data from this locality make it apparent that they are not to be considered as reliable.

Taylor Bay, the first indentation of the mainland east of Cape Spencer, produces chiefly red salmon. It is a gill-net fishery, due to the roily condition of the water which is caused by the drainage from Brady Glacier. Available records indicate that fishing began here in 1904 with a catch of 20,000 red salmon and continued with few interruptions during the period covered by this report. The data are peculiar on account of their extreme irregularity, which is unusual in a record that extends over as long a period of time as does this. It seems very unlikely that the great fluctuations in catch reflect abundance, and one can only conclude that the record is so faulty that any attempt at analysis would be useless.

Port Althorp indents the north shore of Chichagof Island a few miles east of Lisianski Inlet. A saltery was located there in 1893 and packed 600 barrels of salmon, presumably reds. No further operations in this locality were reported until 1905. In that year a few thousand pinks were caught. The bay was not fished again until 1908, nor does it appear that any salmon were taken from it in 1911 and 1912. The record is unbroken from 1913 to 1927, large catches being reported in some of the earlier years of this period. A cannery was built on the west shore of Port Althorp in 1918, but the catches from that year on never closely approached the yield in the years just preceding except in 1921 when 72,873 red salmon were reported as coming from those waters—much the largest catch of reds ever recorded. More salmon were taken in Port Althorp in 1916 than in any other year, the peak of production affecting cohos, chums, and pinks. The banner year for reds, as just noted, came 5 years later, while the largest take of kings was recorded in 1917. The "big years" at Port Althorp were 1915, 1916, and 1917. In 1916, a catch of 733,429 salmon was reported from this bay. After 1918, good catches were made but they averaged far below the levels of the preceding decade. There are no apparent cycles in the catches of any species, even the 2-year cycle in the runs of pinks, as observed in some localities in central Alaska, being lacking. These conclusions are of course based upon the assumption that the data are reliable and that all salmon shown as coming from Port Althorp were actually caught in that bay and not in Cross Sound or some other outside locality. The catches of kings from 1916 to 1920 were probably made by trollers operating in Cross Sound or nearby ocean waters and were packed or mild-cured at Port Althorp. Catches made at Georges Island in 1926 were merged with Port Althorp catches for that year.

Cross Sound properly includes Three Hill Island, the Inian Islands, Lemesurier Island, and some localities on the mainland shore between Cape Spencer and Point Carolus, several of which are merely trap locations. Data for these several localities are given in table 2 under the proper names of all localities which were considered sufficiently important to warrant separate treatment. Several other localities were fished occasionally; but the catches were usually small, evidently representing a single seine haul or the results of trap fishing for one season only. These catches were combined with those reported from Cross Sound and cover the following places: Salt

Bay in 1912; Canoe Point in 1913; Deer Bay in 1917; Garden Point in 1917, 1918, and 1920; Grindall Point in 1919; Salmon Bay in 1923; Salmon Beach in 1924; Salt Chuck in 1925; Calamity Point in 1926; and Middle Pass, Salmon Creek, and Pile Trap Cove in 1927. A catch reported from Earl Cove in 1927 was added to the Inian Islands total for that year, and catches from North Passage in 1924 and 1927 were included with those reported from North Inian Passage in the respective years.

Traps were used in this field at points on the shores along which passed the schools of salmon destined to more easterly waters. Prominent points or capes at breaks in the shore line were preferred as trap locations if the tidal currents were favorable. Good catches were commonly made at such places by traps. Purse seines were also fairly effective at some points.

The available data show that fishing began in Cross Sound in 1911 with a fair catch of coho, pink, and red salmon and that catches were made each season except 1922, through 1927. In the earlier years of this period the catch of reds held a moderately even level; but after 1916 striking irregularities were observed, probably due to more exactness in the allocation of catches rather than to irregularities of the runs. Fluctuations in the catch of all species were extremely irregular in this latter period and apparently bear no relation to the size of the runs in any year as indicated by the catches in other and nearby districts. This is exactly what might be expected in a locality of this kind where the catches are taken from migrating fish whose route of travel may possibly change slightly from year to year under the influence of various environmental conditions.

In 1927, a trap, located on the shore of Three Hill Island in Cross Sound, made a catch of 96,271 salmon. Other traps placed along the shores of Inian Islands in that and earlier years evidently have tapped the main runs of salmon to Icy Strait and beyond as the islands have no local runs worth mentioning. It might appear from the catches reported as coming from Inian Cove that runs of considerable magnitude originated in that locality, but such is very certainly not a fact. These catches were made by traps, at the entrance of the cove, from passing schools of salmon. Salmon coming into Cross Sound from the ocean use the several Inian passages in their eastward movement but the main body of fish probably follows the north passage. After passing the Inian Islands, the runs swing to the southward and strike the north shore of Chichagof Island from Gull Cove to Point Adolphus.

Catches of salmon in the Inian Islands section have been uniformly good and in some years exceptionally large catches were made, particularly of pinks. At this point the runs are composed of salmon bound for many localities to the eastward, and the volume of the runs has been reduced, up to this point, only by the deflection of fish into Taylor Bay on the north and Port Althorp on the south. After passing this group of islands the fish bound for Dundas Bay and Idaho Inlet leave the main stream of migration and this further reduces the runs.

Dundas Bay is an irregularly shaped indentation of the mainland north of the Inian Islands. On the eastern side of the bay at the mouth of Dundas River is one of the oldest red-salmon fisheries in the Icy Strait district. No doubt its exploitation began with the establishment of the cannery at Bartlett Cove, but data are not available showing the catch, if any, before 1904. Beginning with that year, this bay has been a steady producer of salmon for 24 years, all species being taken from its waters. Its importance, however, lies particularly in the red-salmon catches and in the fairly constant production of pinks and chums since 1916. Traps were located between the mouth of the river and Dundas Point on the eastern side of the entrance

to the bay; traps were also operated at the point and caught all species of salmon some of which may have been Dundas River fish. Salmon Beach is in the same general locality; small catches in a few years have been taken at that place chiefly by seines. In 1926 and 1927, Dundas Bay was closed to all fishing for salmon north of $58^{\circ} 21'$ north latitude, except with gill nets.

Idaho Inlet indents the north shore of Chichagof Island just south of the Inian Islands. It has little importance as a fishing locality, although all species have been taken there. In 1918 a catch of 1,099 king salmon was reported in the inlet by one company, but this was unquestionably an error as there is little probability that this number of kings ever entered the inlet. Two other companies fishing in the same waters caught no kings at all. In two years, 1917 and 1926, catches were reported from Shaw Island, at the west entrance to Idaho Inlet, representing the results of trap fishing at that point. To what extent these catches were composed of Idaho Inlet fish cannot be determined, but it is not likely that there was such a definite cleavage of runs at this island as to eliminate all except inlet fish. Inasmuch as the streams of the inlet are not known to be particularly productive it is entirely probable that fish from the Icy Strait run were taken at Shaw Island.

Lemesurier Island lies in the center of the eastern end of Cross Sound. Its western and northern shores have been used as fishing grounds for traps in several years with fair results due to the fact that the runs of salmon touch these shores in their eastward migration.

Glacier Bay, a deep indentation of the mainland, nearly 100 miles in length is the outlet of drainage from a wide field of active glaciers. During the annual period of greatest activity, icebergs and smaller blocks of ice are swept out of the bay into Icy Strait and become a real menace to the navigation of vessels passing through those waters. They have often caused damage to fishing by breaking down traps and wrecking seines operated in Cross Sound and Icy Strait. The bay, however, produces few salmon although it has many tributaries which long ago lost their glacial characteristics and should now afford some areas for spawning grounds. Salmon have been reported from three localities within the bay—Bartlett Cove, Berg Bay, and James Bay, but at none of them has the catch of any species except reds exceeded 6,000 in any year. The production of reds has been appreciably higher.

As stated elsewhere in this review, a cannery was erected at Bartlett Cove in 1889. The pack that year consisted of 4,300 cases of salmon, probably all reds, the first to be canned in the Icy Strait district. This plant was operated three seasons, 1889 to 1891, and was then closed and eventually dismantled. About the time it closed, a saltery was opened at the cove and packed a few hundred barrels of salmon. Data are not now available showing the source of the salmon thus utilized, but it is highly probable that the greater part of the catch came from the stream at Bartlett Cove. It was due to the presence of redfish in this stream that the cannery and saltery were located there, it being the custom at that time to establish the packing plant at the most important fishing ground. Catch records for those years are not known now. The earliest recorded catch at Bartlett Cove was made in 1905. From that year to 1918, inclusive, the catch of red salmon ranged from 7,514 to 21,191; from 1919 to 1924, it was less than 3,000 each year catches were reported, there being no record of catches in either 1921 or 1922. These diminished catches are unmistakable signs of depletion as no regulation or restriction of fishing influenced the catch during that period.

The situation at James Bay closely parallels the condition at Bartlett Cove, the catch falling off markedly after 1918. Catches at Berg Bay were also insignificant. In view of the evident depletion of all Glacier Bay salmon runs, as indicated by the reported catches, the bay was closed in 1925 to all commercial fishing for salmon.

On the north shore of Chichagof Island at the eastern entrance to Idaho Inlet is a small bight known as Gull Cove. Into it flows a stream of unknown importance as a producer of salmon; traps have been operated on both sides of the cove, but the one on the north shore caught practically all the salmon that were reported as coming from this locality. The record shows catches for 6 years, 1913, 1914, and from 1924 to 1927. In the last 2 years, large numbers of pinks were caught and several thousand cohos, chums, and reds were also taken. Perhaps not one of these catches was made directly in the cove though the stream presumably supports something of a run of salmon. The presence of considerable numbers of kings and reds in the catches is, however, positive proof that the Gull Cove catches were not taken wholly or even to any large extent from local runs. Salmon passing eastward evidently touch the shore at this point before swinging down the coast toward Mud Bay, and are captured while passing the point where the trap is located. In some respects the data for Mud Bay are similar to those for Gull Cove. The stream at Mud Bay is not regarded as an important salmon stream; and it is certainly not a red-salmon stream, so the catch of 14,282 red salmon recorded for that locality in 1920 in that bay can only be explained by the operation of traps which drew on the main run toward more eastern waters.

The Icy Strait section of the Icy Strait district covers the waters east of a line from Point Adolphus to Point Gustavus to the end of the district at Point Couverden and Point Augusta. The data presented in the table include the catches from 16 major and 10 minor localities and parts of certain catches from other districts for which no segregation was made by the packers. The minor localities are given here, with the year in which the catches were reported from each one, as follows: Icy Passage in 1914 and 1923; Gedney Channel in 1917; Icy Strait and Cross Sound in 1917, 1918, 1919, and 1923; Eagle Bluff and Neck Point in 1918; Soapstone Island in 1920; Flynn Cove in 1924; Riverside in 1926; and Eagle Cove and North Island in 1927. The catches which were divided were reported under the following locality designations: "Icy Strait, Chatham Strait, Peril Strait and Bays" from 1905 to 1919 inclusive; "Icy and Chatham Straits" from 1905 to 1921, inclusive; "Chatham, Peril, and Icy Straits and Bays, and Karheen" in 1921 and 1922; "Icy Strait and Frederick Sound" from 1918 to 1921, inclusive; "Icy Strait and Lynn Canal" in 1919; and "Icy Strait and Stephens Passage" in 1917 and 1919. No uniform rule could be applied in making a division of catches reported under these headings; it was found desirable to make allocations on the basis of local knowledge of the field and scope of operations of each packing company rather than to make an arbitrary division and to assign any constant fraction of the entire catch in each year to the localities involved. Such a procedure is quite unsatisfactory in many ways, particularly when seen from an orthodox statistical viewpoint; however, the desire is to present as complete and accurate picture of the history of these fisheries as is possible with the available information and it has seemed better to attempt such an allocation rather than to throw all catches in which two or more localities have been combined into the unallocated section, which is the only alternative. It is believed that on the whole the general picture will be more complete and significant if these allocations are made on the basis of such information as to local conditions as is now available and which is not likely to improve with the passage of time.

The north shore of Chichagof Island from Point Adolphus to Point Augusta constitutes one of the more important fishing grounds of the Icy Strait section and one in which the operations are confined chiefly to traps. Large catches were also made by traps located along the southern shore of Pleasant Island and on Porpoise Island. Traps were also located along the north, or mainland, shore between Point Gustavus and Excursion Inlet and produced thousands of salmon; but the most fruitful section in the entire Icy Strait district was the mainland shore from Excursion Inlet to Point Couverden, a distance of approximately 20 miles, along which nearly 50 traps were driven in a single season. The catch along that shore has been consistently high, running into the hundreds of thousands and millions of salmon, and easily accounting for 50 percent of the entire catch in the Icy Strait district. At no other section of the coast between Cape Spencer and Point Couverden do salmon strike in such volume as on the Excursion Inlet shore. Several small streams enter the strait along that coast, each of which has its run of salmon, but it is certain that they do not produce the large runs which invariably follow that shore. If the runs were local, the traps nearest to Point Couverden would presumably catch fewer fish than those nearer Excursion Inlet, but that is not the case, as the traps near the end of the peninsula make large catches, although the streams are small and unimportant in that section. The greater part of the runs which are intercepted here is obviously moving on to still more distant streams.

Groundhog Bay is a shallow indentation on the Excursion Inlet shore without significance as a separate locality. It is a name given to a trap location by one company and is not an accepted geographic name, but is used in this review because it serves to identify the place at which certain catches of salmon were made. The more exact the information is in respect to localities the more useful and important it becomes in the consideration of subsequent data covering the same locality.

Division Point is also the name of a trap location between Excursion Inlet and Point Gustavus. Catches were recorded there in 1926 and 1927, and it is probable that catches were made in earlier years but were reported under some more general locality name, probably Icy Strait.

On the south side of Icy Strait, or the north shore of Chichagof Island, are several localities—Point Adolphus, Eagle Point, Point Sophia, Pinta Cove, Spasskaia Harbor, and Whitestone Harbor—at each of which large catches of salmon have been made in some years, showing that a rather heavy migration of salmon follows this shore, not all of which is destined to enter local streams. The fairly high average returns at the several places indicates that a considerable body of salmon reaches the eastern end of Icy Strait, notwithstanding the many traps and nets which obstructed the way and the fact that many salmon traversing Icy Strait enter local spawning streams. In addition to the fish leaving this migration route to enter the streams debouching directly into the strait, Port Frederick on the south and Excursion Inlet on the north draw their respective runs from the main body of eastward-bound salmon.

Port Frederick is the largest bay which indents the north shore of Chichagof Island; its tributary streams provide spawning grounds for pink and chum salmon chiefly, although small catches of other species have been recorded in nearly every year since 1911. The data for this bay include catches made at Humpey Creek in 1917, 1919, and 1920 and from Game Creek, Howard Creek, and Neka Bay in 1918. Salmon catches were first reported from Port Frederick in 1905, but no concentrated fishing effort was made there until 1911, when a catch of 205,801 pinks

was reported, a record which has not since been equaled. The catch of both pinks and chums fluctuated widely, pinks reaching high peaks in 1911, 1917, and 1923, while the catch of chums was especially high in 1912 and again in 1924. In two cases the pink-salmon peaks followed a year in which no catch was recorded, and in the other case it followed a year in which the catch was less than 10,000. The evidence indicates, although not too clearly, that the pinks of this bay were running more heavily on the odd years during this period. After 1924 the catch was doubtless affected by the closure of the bay east of a line from Inner Point Sophia to Game Point and the prohibition of fishing in the head of the bay.

Pleasant Island, Porpoise Islands, and The Sisters are productive areas in the Icy Strait district, affording favorable locations for the operation of traps. The catches at these points came from the runs of migrating salmon which were destined to the tributaries of Chatham Strait and Lynn Canal, the greater part of the reds, kings, and cohos moving northward, while the pinks and chums sought primarily the streams to the southward. These and other facts respecting the migrations of salmon in southeastern Alaska have been shown in a series of reports dealing with tagging experiments in this district.⁹

Excursion Inlet, indenting the mainland on the north side of Icy Strait, is primarily a producer of chums, although it would appear from the data presented in the table that it also has produced other species in considerable numbers, the figures for 1920 being especially in point. However, these catches were probably made along the shore south of the inlet from the runs of salmon passing to the eastward, and should be included with the regular Icy Strait catches. They were reported, however, under the name of Excursion Inlet as being the easiest means of identification of location.

The section of the table headed "Unallocated", includes all catches reported from the Icy Strait district but without reference to particular localities. It obviously includes, as might well be expected, a very large percentage of the total number of fish taken in the district, and it is not unlikely that catches are included which were actually taken outside the area commonly known as Icy Strait. Thus fish taken in Cross Sound and elsewhere were frequently reported as coming from Icy Strait and there is no way in which these errors may now be rectified. Obviously it is pointless to give any consideration to the fluctuations in the unallocated catch. There follows a discussion of the total catch in the Icy Strait district.

The catches in Icy Strait (see fig. 13) have been notably affected by the various economic causes which have been mentioned in the introduction (p. 438) and cannot always be accepted as indices of the relative abundance of salmon in these waters. For example, the catch of chums in 1912 was much greater than in 1911, but this does not necessarily mean that the actual abundance was greater. The true explanation is, doubtless, that there was an increased demand for this species in 1912 resulting in a greater fishing effort and a greater catch. In a general way it appears to be true that, in years in which a small catch of pink salmon was made, the catch of chums was increased. This is, however, particularly true of the period during which the development of the industry, so far as the packing of pinks and chums was concerned, was

⁹ Salmon-tagging Experiments in Alaska, 1924 and 1925, by Willis H. Rich. Bulletin U.S. Bureau of Fisheries, vol. XLII, 1926 (1926), pp. 109-146, Washington.

Ibid.—1926. By Willis H. Rich and Arnie J. Suomela. Bulletin, U.S. Bureau of Fisheries, vol. XLIII, 1927 (1927), pp. 71-104, Washington.

Ibid.—1927 and 1928. By Willis H. Rich and Frederick G. Morton. Bulletin U.S. Bureau of Fisheries, vol. XLV, 1929 (1929), pp. 1-23, Washington.

Ibid.—1930. By Willis H. Rich. Bulletin U.S. Bureau of Fisheries, vol. XLVII, 1931 (1932), pp. 399-406, Washington.

going on. During this period there was evidently a supply of chums greater than any demand that was then made so that in years in which pinks were scarce it was easy to increase the pack of chums. There is considerable evidence of such an interplay of factors, both biological and economic, affecting the catches of these species. The

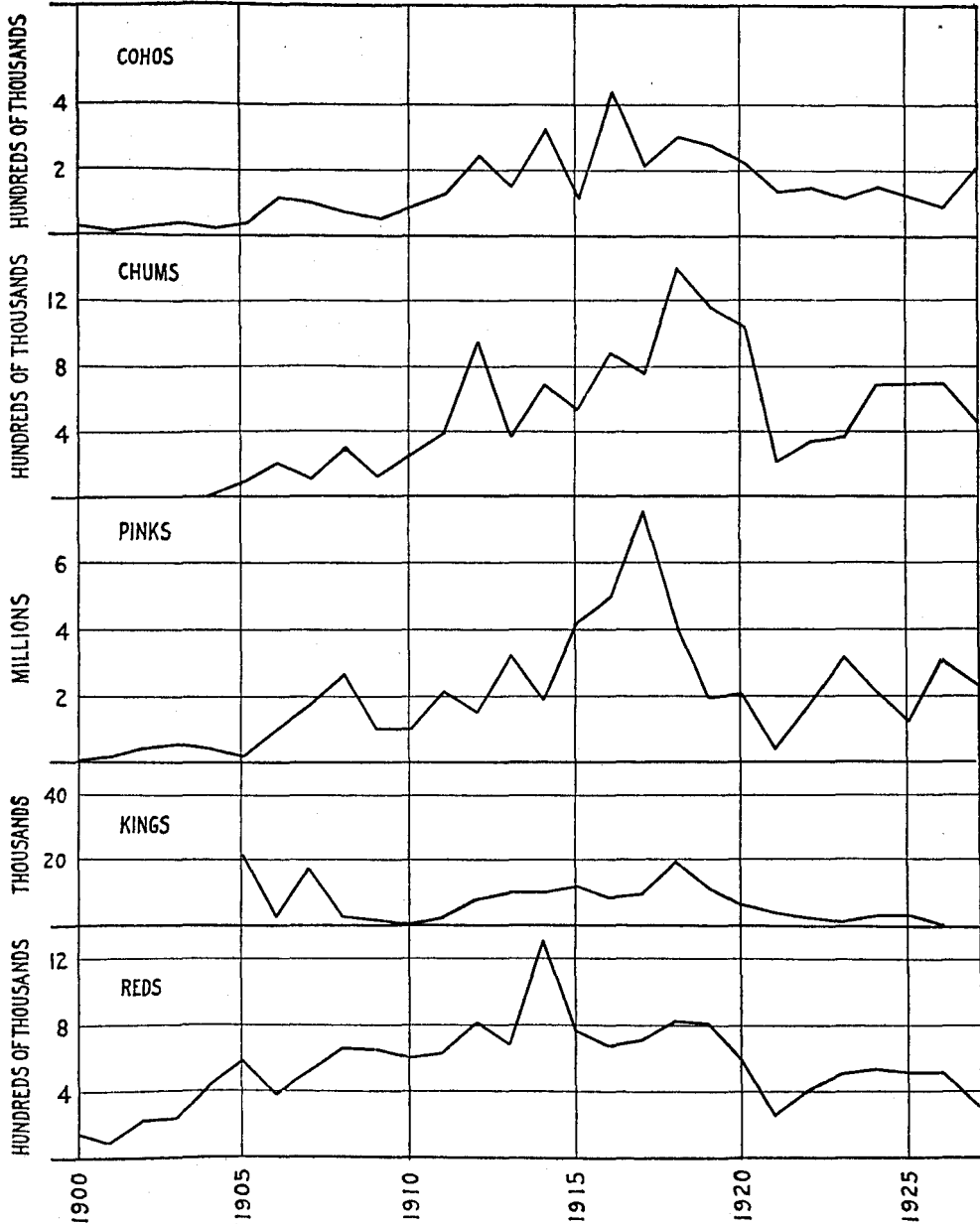


FIGURE 13.—Catch of salmon in the Icy Strait district, 1900 to 1927.

increased demand for chums in 1912 may be ascribed to a relative scarcity of pinks since the catch of pinks in that year was only a little over 1½ million as compared with over 2 million in 1911 and over 3¼ million in 1913. The catch of chums dropped again in 1913 presumably due to this relative abundance of pinks and the low prices which then prevailed for the canned product.

In 1914 again, pinks were not so plentiful and prices were higher, consequently more chums and cohos were used. This happened also to be the best year ever known for reds on Icy Strait. The next year (1915) again brought a heavy run of pinks which enabled canneries to complete their packs before the late run of chums appeared, although the catch of this species was not greatly lowered. Conditions apparently remained about the same in 1916. In 1917 owing, no doubt, to the high prices for canned salmon then prevailing, production was again high, and although the main run of salmon was late in entering Icy Strait, the district produced more pinks that year than ever before or since. Large catches were also made in 1918, especially of chums. In the next 2 years, the catches were smaller and what appear to be the first signs of overfishing became evident in the Icy Strait district. These relatively poor years were followed by a material slackening of operations in 1921, due to economic conditions and the large surplus of pink and chum canned salmon remaining from the packs of 1919 and 1920. Some recovery was apparent in 1922; but even in that year several canneries remained closed while those that did operate limited their packs. At that time some concern was felt over the probable permanent decline of these fisheries. In 1923, however, the catch of pinks improved materially but there was no marked change noted in the abundance of the other species. During the remaining 4 years covered by these records the catch of all species was moderate due in part at least to the conservation measures placed on the fishery in 1924 and subsequently, although it seems probable that depletion may also have been a factor in reducing the catches to a level well below that maintained from 1915 to 1920.

The catch of red salmon showed a rather steady development until it reached a climax in 1914; since then the fishery has declined by two abrupt drops, separated by a few years of moderately steady production. After the sharp falling off from 1918 to 1921, recovery has been slight, being affected somewhat by stricter regulation of commercial fishing. Yet there is little doubt that this fishery shows depletion and that the trend of the catch has been downward since 1914.

Apparently the runs of pink salmon in Icy Strait were not exploited before 1900 and no serious attempt to fish them was made until 1906. It was necessary to establish a market for pink salmon before the fisheries could be developed to their maximum productivity and to create a demand for them before the full use of the available supply could be undertaken. The growth of the industry was gradual through the next 8 years, but from 1915 to 1919 these fisheries, under the stimulus of the World War, were exploited so relentlessly that unprecedented catches were made in the strait until the maximum of over seven and a half million was reached in 1917. Production then fell gradually, apparently chiefly from economic reasons, until the catch of 1921 was less than half a million. This decline was immediately followed by larger catches in the next 6 years which were equal to or above pre-war levels. Although the catch in 1925 might indicate a comparatively poor run of pinks in that year, it was recorded by Bower (*loc. cit.*, 1925, p. 103) that the escapement of salmon into the streams of southeastern Alaska was the best that had been observed in years. The catch in 1924 declined probably for no other reason than that all fishing was prohibited for 20 days in August; in 1925 a similar closed period was enforced and additional restrictions were applied by increasing the distance interval between traps to $1\frac{1}{2}$ miles. This affected fishing in Icy Strait along the shore from Excursion Inlet to Point Couverden more than elsewhere, due to the greater number of traps in that section, but the catch at points unaffected by these regulations raised the total to a level comparable to that of other years and without further change in the regulations

the catch in 1927 in Icy Strait was nearly double that of 1925. However, the catch in 1926, under possibly more stringent regulations, was nearly half again as great as that of 1924. It is of particular interest in this connection to note that while the catch of pinks was reduced in some sections of the strait by the imposition of restrictions on fishing, it was sufficient in other sections to bring the total catch to approximately normal levels and leave no evidence of depletion in this large district.

The catch of chum salmon in the Icy Strait district increased quite steadily from 1904, when the first catch was recorded, to 1918, in which year the catch was nearly one and a half million. The production from 1916 to 1920, inclusive, was fairly steady, averaging over a million fish annually. The break in 1921 resulted in the reduction of the catch to less than half a million fish and in no subsequent year up to 1927 did the catch greatly exceed 700,000. Some of the causes of fluctuations in the catch of chums have already been discussed in connection with the treatment of the catches of pinks. The reduced catch since 1920 is not to be regarded as conclusive evidence of diminished runs since, as has been pointed out above, the chum runs are not ordinarily fished intensively. It seems probable that the abundance in this district has not changed materially since the earlier years.

Cohos are taken in fairly large numbers in Icy Strait, but run much later in the year than do the other species and therefore the catches do not necessarily represent the full value of this fishery as canneries were frequently closed before the runs attained their maximum volume. As measured by the reported catches, the coho fishery reached its highest development in 1916. Since then the catches have been gradually smaller in Icy Strait though cohos were probably just as abundant in 1927 as ever before. The productivity of this locality has probably been somewhat affected by the regulations establishing a closed season during the early part of the coho run in order to protect the end of the pink salmon run.

The king salmon catch in Icy Strait, while never large, was maintained at a fairly constant level for many years down to 1920, but between that date and 1927 it held a notably lower level, although it is impossible to assign a definite cause for this. In 1927, however, the reported catch reached the unprecedented figure of over 45,000 most of which were reported as having been taken by lines in Icy Strait. The streams in the Icy Strait section are small; and so far as is known few, if any, kings are native to them. It is quite certain that the king salmon runs are merely migratory fish bound possibly for the Chilkat and Taku Rivers, or even native to the large rivers farther south, such as the Columbia, which are known to frequent the feeding grounds off the coast of southeastern Alaska.

In summarizing the data for the entire Icy Strait district, certain localities show positive evidence of depleted runs of salmon, especially the bays in the western part of the district; but so far as the runs passing through Cross Sound and Icy Strait are concerned there is little indication of a failing supply of salmon. Although the catches were smaller at the end of the period here reviewed, they were not far below the level of production that might reasonably be expected to be maintained under normal fishing. The intensive fishing, as carried on for a few years, would undoubtedly have worked havoc with the Icy Strait supply of salmon, but fortunately this period was followed by a few years of materially lessened activity permitting reestablishment of such runs as may have been depleted. The only exception is the reduction in the catches of red salmon which can be ascribed in part to depletion in certain local areas and in part to changes in the laws and regulations affecting the fisheries. The

smaller catch in 1927 is not necessarily indication of extreme depletion since the escapement was said to be good.

In general it may be said that there was a marked upward trend of the red salmon catches until 1914, of cohos until 1916, and of pinks until 1917, but since these years the trend has fallen abruptly, its decline being accentuated by the economic depression of 1921. Recovery has been less abrupt than the decline, yet the gains in recent years have been substantial and indicate an eventual rebuilding of the fishery to its original strength.

LYNN CANAL

The Lynn Canal district covers all territorial waters north of a line from Point Couverden eastward to the point at the south side of the entrance to Funter Bay, thence along the watershed of Mansfield Peninsula, northward to Point Retreat, thence to the north end of Shelter Island, and thence to a point on the mainland shore 2 miles north of the mouth of Eagle River. The boundaries of the district are shown in figure 14.

Lynn Canal is a narrow body of water extending northward from the east end of Icy Strait for a distance of approximately 90 miles. It has two important tributaries—Chilkat River and Chilkoot River—both of which enter their respective inlets near the head of the canal. Other localities of the district are of slight importance, except possibly the Mansfield Peninsula shore north of Funter Bay which has been a favored locality for traps, intercepting, as they did, not only the runs of salmon to the Chilkat and Chilkoot Rivers but those to Taku River, a tributary of Stephens Passage, 50 miles southeasterly from Point Retreat.

The history of the Lynn Canal fisheries dates from the opening of a salmon cannery on Chilkat Inlet in 1883. In a few years four canneries were operating in the district, and the runs of salmon at both Chilkat and Chilkoot Inlets were exploited simultaneously. As the industry developed, the field of operations was extended until salmon caught in Icy Strait were being packed at the Chilkat canneries, and fish from Lynn Canal were being canned in the packing plants of Icy Strait, Stephens Passage, and Chatham Strait. Fishing in Chilkat Inlet was done largely by drift gill-netting, but large catches were also made by Indians fishing with gaffs in both the Chilkat and Chilkoot Rivers. In time, traps were located at points along the east shore of the canal and all tributary bays were prospected. Beach seining was tried at the mouth of Chilkoot River, due to its clearer water being less affected by glacial drainage than Chilkat River, but with little success, as the beaches were too rough. Gaffing in the river and set nets in both the river and the lake in the hands of natives probably accounted for the greater part of the salmon taken here during most of the earlier years.

The statistical data here presented were derived from three sources. For the first 11 years the catches were determined by using the pack figures reported by Moser (1902) and assuming 11 fish per case. There is no means of ascertaining the number of salmon of each species used commercially in these years, as Moser's figures give only the total pack of all species; but the entire catch has been considered to have been red salmon, though it is not at all improbable that both cohos and kings were included. If so, however, they certainly constituted only a very minor part of the pack. Moser (1899, p. 126) says, in writing about Taku River, that "As soon as the ice breaks up in the river (usually about May 25) the fishing for king salmon commences and all that are packed at Pyramid Harbor are taken in the Taku, except

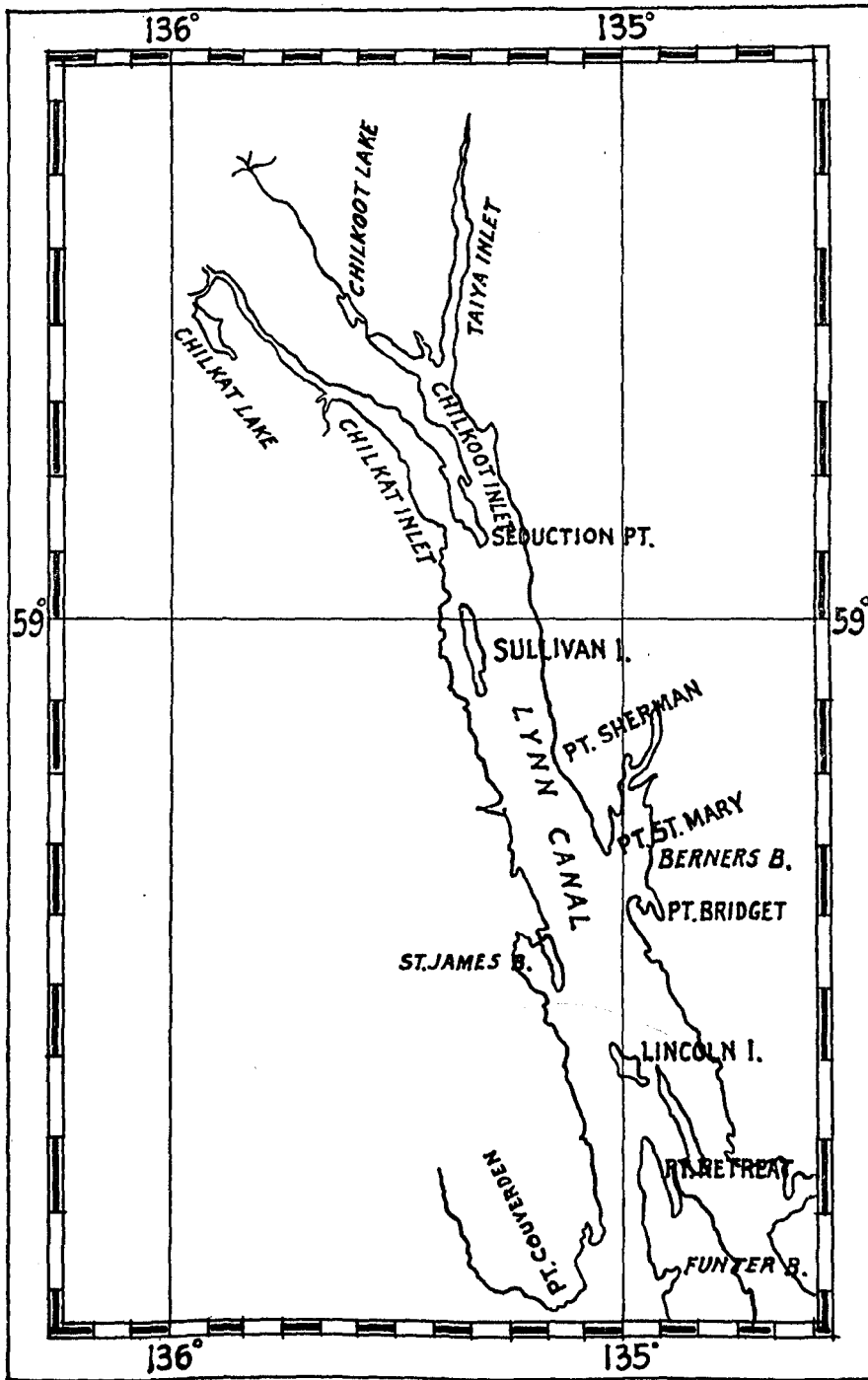


FIGURE 14.—Map of the Lynn Canal district.

a few stragglers that appear around the Chilkat very early in the season, which can hardly be called a run." (Pyramid Harbor is a part of Chilkat Inlet.) While this condition was no doubt true at the time of Moser's investigations, in more recent years king salmon have been taken at various points on Lynn Canal which could hardly have come from the Taku runs.

From 1894 to 1903, a period of 10 years, the reports of the treasury agents in Alaska were drawn upon for catch records, use being made of their figures for each species. Their reports show, however, only the locality where the salmon were packed and not the actual source of the catch. It is unsatisfactory, of course, to have to allocate these catches on such a basis, but there is no other alternative; and it is probable that errors resulting from this are at least partially compensating. In the case of these early years no attempt has been made to allocate catches to smaller geographical units than the districts, so that the early records are always to be found under the "Unallocated" section of the tables for the respective districts.

In the later period, 1904 to 1927, the catch statistics were taken as usual from annual statements required of the packers. Where catches were reported from localities such as "Icy Strait and Lynn Canal", "Lynn Canal and Stephens Passage", "Chatham Strait and Lynn Canal", and the like, it was necessary as before to make an arbitrary division of such catches, relying largely upon personal knowledge of local conditions and the field of operation of the several companies engaged in fishing, together with a general understanding of the relative productivity of the various localities. One company may take 90 percent of its catch from Stephens Passage and 10 percent from Lynn Canal, whereas another packer may take 75 percent of his catch from Lynn Canal and 25 percent from Icy Strait. For such reasons no fixed rule could be followed in the division of these catches; each case had to be decided on its own merits. In other instances, where small catches were reported from places within larger or more important localities, they have not been kept separate but were combined with the catches from the larger fields. Again, in cases where localities were incorrectly named and the names used were obviously intended for something else, the necessary corrections were made without hesitation. As far as possible, the names of waters, points, and islands, as adopted by the United States Coast and Geodetic Survey, have been used in this report, but where this course could not be followed, the names used by the fishermen or packing companies have been accepted without further question. Where two names were given to a single locality, or where the proximity of localities suggested a consolidation of catches at such points, preference was given to the better known name. Localities listed in the table are shown on the map; others are referred to in the discussion of the data.

Fishing at the Chilkat and Chilkoot Rivers was subject only to the general fisheries laws and regulations, which applied throughout Alaska, until special protection was given the runs of salmon here by prohibiting the use of all fishing appliances within 500 yards of the mouths of both rivers on and after January 1, 1919. The regulations of 1925 established a closed season from August 11 to August 31, and those of 1926 also prohibited the use of traps and purse seines in Lynn Canal north of 58° 26' north latitude. In addition, all fishing was prohibited in Chilkat Inlet north of the south end of Kochu Island and in Chilkoot Inlet within 1,000 yards of the mouth of the river except with gill nets from September 5 to October 15 in each year. These regulations closed all the preferred fishing grounds in Chilkat and Chilkoot Inlets and directly affected the catch in those localities. In fact, no salmon have been reported as being taken in Chilkoot Inlet since 1924.

The Lynn Canal district embraces 23 localities, the identity of which has been preserved, although in some cases the catch covers but 1 year, and 24 localities whose catches have been merged with others or divided between the areas named. Table 3 shows the catch of salmon in the Lynn Canal district.

TABLE 3.—Salmon caught and fishing appliances used in the Lynn Canal district, 1883 to 1927

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Berners Bay:												
1919	398	21										
1922	6,408	5,249	11		179							
1923	553	66			5							
1924	95	4,221			512							
1925	4,747	7,720	8		564							
Bridget Cove:												
1911	600	250	250	250	1,000							
1912	1,500	900	400	200	3,000							
1913	500	1,150	2,700	150	3,000							
Bridget Point:												
1922	1,014	2,070	2,308		5,504							
Chilkat Inlet and River:												
1904	9,614	54,308		144	156,529							
1905	22,183	5,000		558	126,571							
1906	17,890	27,879		612	133,472							
1907	74	8,565		2,174	20,243							
1908		11,464		2,134	34,751							
1909		5,047			83,637							
1910				1,500	294,547							
1911	18,047	76,420		899	117,989							
1912		37,182	40	587	90,612							
1913					6,932							
1914	19,080	46,910	533	14	62,584							
1915	1,048	18,920			60,741							
1916	23,564	96,039	21		69,721							
1917	27,513	53,971			98,832							
1918	14,435	102,038	1,694	120	94,623							
1919	29,473	189,273		1,155	60,708							
1920	2,720	23,919	5,731	398	15,014							
1921	624	1,334			15,123							
1922	5,992	38,861		782	11,904							
1923	14,086	107,415	5,019		47,530							
1924	13,102	69,529	840	1,586	34,962							
1925	2,585	6,140			675							
1926	14,057	35,878	1,275		40,651							
1927	22,730	24,797	206		41,835							
Chilkat Island:												
1920	16,451	38,035	11,910		25,618							
1921	18,595	9,515	164		17							
Chilkoot Inlet and River:												
1904			60,000		120,000							
1906	43,376	16,513		1,155	260,174							
1907		6,606	1,547	140	74,476							
1909		5,047			83,537							
1910					68,206							
1911					41,226							
1914					90,185							
1915			2,106		98,205							
1916	1,109		751		71,703							
1917	712				64,001							
1918	6,942	2,917	1,237		28,143							
1919					14,427							
1921	1,779				28,723							
1922	1,686	3,907		197	11,710							
1923	3,491	775			16,086							
1924	1,226	5,195	1,041		23,504							
Clear Point:												
1926	575	7,351	28,558	13	5,051							
Eldred Rock:												
1922	2,883	4,041	1,878	81	11,373							
1925	620	1,380			19,750							
False Point Retreat:												
1923	269	1,116	17,807		1,585							
1924	3,076	10,383	54,208	557	13,683							
1925	6,141	32,053	113,080	67	19,288							
1926	1,334	33,222	39,155	64	18,545							
1927	550	8,340	16,847	55	3,632							
Funter Bay:												
1919	62	2,493	7,099									
1924		6,931	1,172		1							
1925	2,721	22,025	23,951		8,943							
1926	5	16,867	4,565	60	6,593							
1927	755	7,983	17,953		2,598							

TABLE 3.—*Salmon caught and fishing appliances used in the Lynn Canal District, 1883 to 1927—*
Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Hudson Bay:												
1907	2,486	6,983	68,560	1,221	31,780							
1912	570	36,147			463							
1913	1	288										
Kittens, The:												
1922	636	7,712	34,151		6,167							
1927	2,000	4,500	32,258	30	2,000							
Lincoln Island:												
1911	289	740	1,618		816							
1916	4,000	500	1,500	1,500								
1917	82	1,213	25,659	6,159	1,245							
1918		6,176	407		86							
Mansfield Peninsula:												
1910	16,817	24,169	183,622	800	82,131							
1911	15,324	30,403	175,376		52,408							
1912	6,985	35,406	50,805	93	35,163							
1914	16,526	38,752	115,950	180	73,948							
1922		25	25	25	300							
1923	168	1,530	15,600	10	1,120							
1924	6,396	7,812	39,619	12	8,259							
1925	4,540	31,070	40,137	52	30,391							
1926	895	9,976	35,678	71	7,467							
Naked Island:												
1920	5,382	9,892	15,823	124	12,608							
1921	6,868	3,545	48,595		12,148							
1924	2,262	5,828	221		5,324							
1925	1,423	8,103	10,422	22	7,070							
1926	1,000	18,000	45,315	23	9,662							
Retreat, Point:												
1917	2,254	1,672	21,110		2,860							
1918	497	4,318	42,888		1,656							
1920				371								
1922	920	5,247	22,624		9,764							
1923	2,196	4,366	25,554	4	6,331							
1926	690	8,825	27,500	114	6,322							
1927	2,476	5,473	25,244	208	10,670							
St. James Bay:												
1924		2,724	8,215		1							
St. Mary, Point:												
1912		8,594			30,757							
1913	658	3,740	790		26,140							
1914	5,789	12,151	570	26	30,054							
1915	1,488	4,016	987		16,164							
1916	3,960	3,086	464		2,993							
1917	987	989	200		1,345							
1922	5,000	5,114	2,469	353	10,040							
1923	3,626	5,512	4,526	61	11,705							
1924	2,605	2,055	1,367	16	10,404							
Seduction Point:												
1921	9,500	9,290	105	8	9,185							
1923	5,784	45,397	257	155	1,186							
Shelter Island:												
1920				508								
1923	306	2,852	11,556		10							
Sherman, Point:												
1920	7,643	17,649	7,560		16,852							
1921	5,680	2,450	355	34	18,306							
1922	418	936	859	49	2,791							
1923	2,003	10,797	1,357	28	5,576							
1924	3,029	2,824	1,543	108	20,335							
1925	729	971			14,073							
William Henry Bay:												
1924		1,963	8									
Unallocated:												
1883					107,800							
1884					143,000							
1885					26,400							
1886					113,300							
1887					143,000							
1888					212,300							
1889					504,900							
1890					487,300							
1891					578,413							
1892					538,604							
1893					418,916							
1894	11,000			7,000	340,000							
1895	7,028			9,453	310,759							
1896	5,852			10,823	412,519							
1897	11,123			14,796	321,517							
1898	37,228				327,456							
1899	3,934			12,540	484,950							
1900	10,527		2,409	10,691	648,443							
1901	38,013		9,614	7,512	483,569							
1902	63,114		84,192	5,245	788,913							

TABLE 3.—Salmon caught and fishing appliances used in the Lynn Canal district, 1883 to 1927—
Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fath- oms	Number	Fath- oms	Number	Fath- oms	
Unallocated—Continued.												
1903	166,512		147,020	6,293	796,301							
1904	7,216	14,878	68,046	6,770	858,863							
1905	3,300	30,656	1,962		244,924							
1906	107,961	95,879	59,572	1,413	171,866							
1907	14,758	24,620	52,979	10,327	147,379							
1908	24,521	25,691	34,686	313	211,500							
1909		5,046			234,209							
1910	7,155	18,111	4,834	789	97,066							
1911	62,332	127,522	201,064	1,255	135,041							
1912	24,387	104,099	376,440	741	156,692							
1913	11,790	48,311	72,374	767	171,693							
1914	17,822	62,707	72,650	1,117	128,717							
1915	30,635	62,892	112,620	275	114,552							
1916	79,534	136,234	255,774	442	94,480							
1917	73,407	115,892	248,249	839	102,013							
1918	32,146	131,881	96,933	4,392	68,239							
1919	48,410	105,859	53,932	1,484	93,174							
1920	18,098	46,077	63,609	1,550	77,764							
1921	3,314	5,511	19,941		16,452							
1922	8,863	18,639	50,001		45,053							
1923	15,121	71,407	306,720		55,512							
1924	8,851	30,188	31,315	2,584	4,155							
1925	7,631	10,372	4,488	213	5,106							
1926	1,679	9,025	1,045		182							
1927	2,131	11,916	32,600	380	9,800							
Total:												
1883					107,800							
1884					143,000							
1885					26,400							
1886					113,300							
1887					143,000							
1888					212,300							
1889					504,900							
1890					487,300							
1891					578,413							
1892					538,604							
1893					418,946							
1894	11,000			7,000	340,000							
1895	7,023			9,453	310,759							
1896	5,852			10,823	412,519							
1897	11,123			14,796	321,517							
1898	37,228				327,456							
1899	3,934			12,540	484,950							
1900	10,527		2,409	10,691	648,443							
1901	38,013		9,614	7,512	483,569							
1902	63,114		84,192	5,245	788,913							
1903	166,512		147,020	6,293	796,301							
1904	16,830	69,186	128,046	914	1,135,392	2		12		149		3
1905	25,483	35,656	1,962	558	371,495	4		10		79		10
1906	169,227	140,271	59,572	3,180	565,512			1		137		11
1907	17,318	46,780	123,080	19,862	273,878					59	12,750	8
1908	24,521	37,155	34,686	2,447	246,251	2	100	1	75	45	12,100	11
1909		15,140			401,283					41	11,550	5
1910	23,972	42,280	188,456	3,089	541,949	1	75			50	14,250	7
1911	96,592	241,335	378,308	2,404	348,480	1	50	1	100	84	22,150	9
1912	33,442	222,328	427,685	1,621	316,687			2	300	105	29,110	11
1913	12,949	53,489	75,864	917	207,765					80	22,750	10
1914	59,817	160,520	189,703	1,337	385,488			4	525	50	15,000	11
1915	33,171	85,828	115,713	275	289,662					31	9,300	7
1916	112,257	235,859	258,510	1,942	238,897					05	11,400	11
1917	104,955	173,737	295,218	7,051	270,296					47	13,900	15
1918	54,020	246,330	143,159	4,512	192,747			1	150	43	12,500	11
1919	78,343	207,646	61,031	2,639	177,309			14	2,250	32	7,200	10
1920	50,294	135,672	104,633	2,433	147,856			4	610	48	8,495	10
1921	46,360	31,645	69,160	59	123,939					47	11,400	7
1922	33,720	91,861	115,108	735	114,845	2	300	2	320	27	7,700	6
1923	48,263	251,233	448,396	258	146,646			7	1,150	24	6,450	7
1924	40,642	149,653	139,615	4,863	121,140			8	1,720	20	4,000	7
1925	31,117	119,834	192,980	1,029	105,460							
1926	20,235	139,144	183,091	335	94,473					34	6,800	7
1927	30,042	63,009	125,108	673	70,535					50	4,250	8

NOTE.—The catch statistics used in this table from 1833 to 1893, inclusive, were obtained by taking the pack reported by Moser (1902) and multiplying the number of cases by 11 (the number of red salmon from this district which was required to pack a case of 48 one-pound cans, according to Moser's calculations). Data for the years from 1894 to 1903, inclusive, were obtained from the reports of Murray, Tingle, and Kutchin, who were special agents of the Treasury Department in Alaska during those years.

No catch was reported in the years omitted in any part of this table.

This table includes 3 catches of king salmon reported as taken by trollers, as follows: 16,221 in 1907, 879 in 1920, and 675 in 1925.

Perhaps the most striking peculiarity of this district is the apparent preference of the salmon in their northward migration for the eastern shore of the canal. Available data indicate that in 45 years fishing in Lynn Canal, catches along the western shore were limited to operations at St. James Bay and William Henry Bay in 1924, and at Point Howard in 1926, and that these catches included less than 20,000 fish of all species in either year. There is no evidence that any other salmon were taken on this shore south of Chilkat Inlet. Presumably the Chilkat and Chilkoot runs of red salmon enter from the ocean, chiefly through Cross Sound and Icy Strait, although it is possible that some may come in through Chatham Strait and Stephens Passage. The runs strike the west coast of Mansfield Peninsula between Hawk Inlet and Funter Bay, follow it northward to Point Retreat, touch Lincoln Island and the northwest coast of Shelter Island, and thence along the eastern shore of Lynn Canal to Eldred Rock and the Chilkat Islands, at which points the Chilkat runs are deflected to that river while the Chilkoot runs continue along the western shore of Chilkoot Inlet to the river of their origin. After passing Shelter and Lincoln Islands, this route of travel is clearly shown by the catches of traps located on that coast at Bridget Cove, Bridget Point, Point St. Mary, Point Sherman (which includes a catch at Sandspit in 1925), Eldred Rock, and Chilkat Islands. Fishing at these points has not been continuous unless, in the years for which no specific data are available, the catches were simply reported as coming from Lynn Canal.

Funter Bay, indenting Mansfield Peninsula at the south end of Lynn Canal, has produced salmon, chiefly chums and pinks, in 1919 and from 1924 to 1927. A few thousand reds and cohos and a few kings were also reported from this locality. The reports of these catches may all be viewed with considerable doubt. In the first place, if Funter Bay has a local run of salmon, there is little reason to suppose that it was not fished before 1919, as a cannery has been in operation on the bay for more than 30 years. In the second place, if these figures represent catches actually made in Funter Bay, it is difficult to explain why the locality was fished only 5 years and that red salmon, the most desirable species, were not taken in 1919 and only one was caught in 1924. Moreover, all of these catches were reported by companies having canneries some distance from Funter Bay, while the company which is located there, the one most likely to fish the bay if salmon were obtainable, reported none at all. It is probable that these catches came from traps on the shore of Mansfield Peninsula, north and south of Funter Bay.

The Mansfield Peninsula shore has been used for many years as a fishing ground for traps. Salmon were taken at Clear Point, False Point Retreat (which includes catches from "Cove" in 1926 and 1927), the Kittens, Naked Island and Point Retreat, and at several intermediate unnamed points. Traps in these waters take the first toll from the Lynn Canal runs after they leave Icy Strait. They were probably operated each year after their introduction into these waters, but catch records are not continuous, a fact difficult to understand unless salmon from these localities were reported merely as coming from Lynn Canal. A shore that is followed closely by migrating salmon, such as the Mansfield shore, is not apt to be abandoned unless legal prohibitions compel that action.

Berners Bay, the largest indentation on the eastern shore, is not an important producer of salmon. Small lots of cohos and chums were taken there in 5 years from 1919 to 1925, a few hundred reds in 4 years, and a handful of pinks in 2 years. Kings have not been reported at any time. The catch in 1925 includes a small lot of chums

and pinks reported from "Barnes Bay" which was presumably intended for "Berners Bay."

Many deficiencies exist in respect of the details of catches at Chilkat and Chilkoot Rivers. No information is available showing the catches at these rivers before 1904, yet fishing was carried on in both localities from 1883 to 1903. As mentioned above, these data appear in table 3 as unallocated catches. Even in subsequent years, catches were made at these rivers and reported merely as coming from Lynn Canal. Such faulty data are obviously not subject to detailed analysis, and it has been necessary to limit the study of the data to the total catches in Lynn Canal as a whole rather than those of any subdivision of the district. This procedure is not entirely satisfactory since not all of the salmon taken in the southern part of Lynn Canal came from runs to those waters; some were unquestionably destined to the tributaries of the northern part of Stephens Passage and mingled with the runs of Lynn Canal along the shore of Mansfield Peninsula; but, in a general way, the total figures will show the development and present status of the fishery.

The Chilkat catches include salmon reported from "Chilkat and Chilkoot Inlets and Lynn Canal" in 1909 and 1921; from "Chilkat and Lynn Canal" in 1923; and from "Kalhagu Cove, Kelgayu Bay, and Pyramid Harbor" in 1924. Chilkoot catches include fish from "Lynn Canal and Chilkoot Inlet" in 1907; from "Chilkat and Chilkoot Inlets and Lynn Canal" in 1909; from "Chilkoot Pass" in 1923; from "Chilkoot and Mud Bay" in 1923; and from "Flat Bay, Portage Cove and Tanani Bay" in 1924. The unallocated catches include, in addition to the early records, fish reported from "Icy Strait and Lynn Canal" in 1919; from "Lynn Canal and Icy Strait" in 1904; from "Lynn Canal and Chilkoot Inlet" in 1907; from "Chilkat and Chilkoot Inlets and Lynn Canal" in 1909 and 1921; from "Chilkat and Lynn Canal" in 1923; from "Chatham Strait and Lynn Canal" in 1912, 1914, and 1919; from "Lynn Canal and Stephens Passage" in 1923 and 1927; from Point Howard in 1926; and from "Salt Lake" in 1905.

The Chilkat and Chilkoot Rivers are the main source of the runs of red salmon entering Cross Sound. These runs were the first that were exploited in the northern section of southeastern Alaska and were eventually fished far from the streams of their origin. It is important to keep this point in mind in considering the size and condition of the Lynn Canal red-salmon runs. No record showing separately the catch at these two rivers before 1904 is available, nor is it certain that the later catches were accurately segregated. In many instances they were reported only as coming from Lynn Canal. It seems advisable therefore to confine this analysis to the total catch of red salmon in the Lynn Canal district rather than to undertake consideration of the data for each locality separately.

Figure 15 shows graphically the catch and the trend of the catch of red salmon in Lynn Canal for a period of 45 years. There was a gradual building up of catches until about 1904 at which time the exploitation of the fisheries in the Icy Strait district began; but from that year to the end of the period the story is one of a steady decline. On the same graph is shown the catch and trend of the catch of red salmon in Icy Strait; and it is quite apparent that, as the catch increased in Icy Strait, it declined in Lynn Canal. The effect of this shift of the fishery and the change from gill nets and seines to traps was immediately reflected in the poorer catches at Chilkat and Chilkoot Rivers and soon resulted in the permanent closing of the first canneries located on Chilkat Inlet. Although the catch after 1924 was undoubtedly affected by new regulations, it is not likely that there would have been much increase in the

number of reds caught in Lynn Canal without some relaxation in the intensity of fishing in Icy Strait.

Figure 16 shows the deviations of the catches from the trends in both districts. It is evident from this that there has been no marked correlation between the catches of red salmon in the two districts, if the entire period from 1902 to 1925 is considered, although this might have been expected since the catches are drawn from the same runs. There is, however, a definite positive correlation in the last few years of the period—from 1912 to 1925—and a slight negative correlation during the period from 1902 to 1911. The Pearsonian coefficients of correlation (r) have been calculated for these periods and are as follows: (1) For the period 1902–1911, -0.35 ± 0.19 ; for the period 1912–1925, $+0.68 \pm 0.098$; and for the entire period 1902–1925, $+0.013 \pm 0.136$. The positive correlation during the later period is unquestionably significant; the

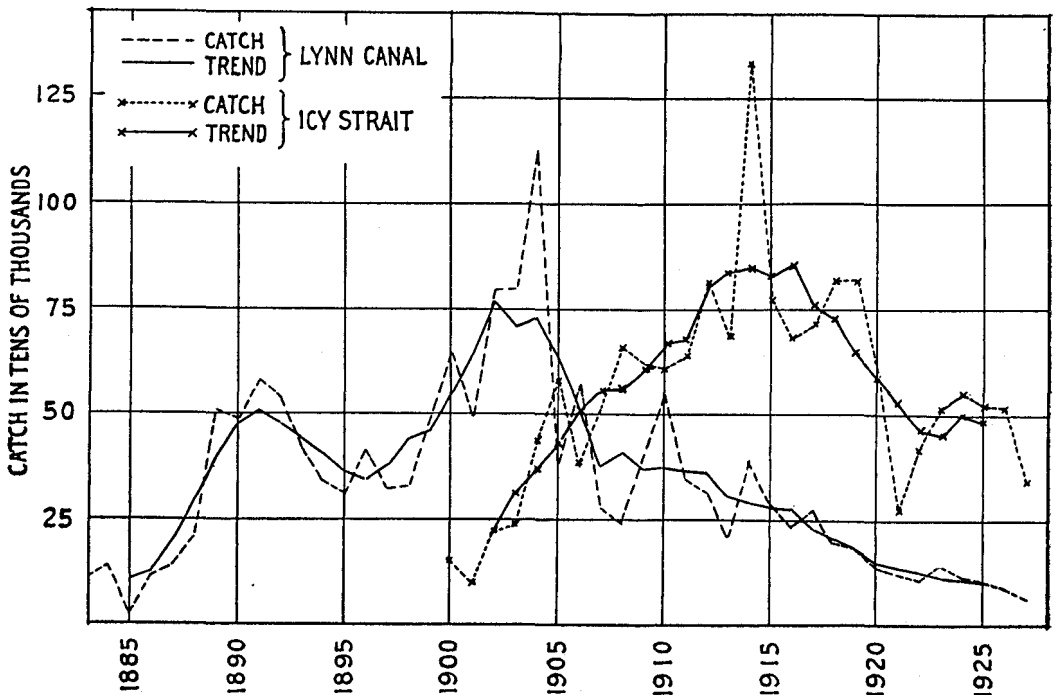


FIGURE 15.—Catch of red salmon in Lynn Canal and Icy Strait.

correlation during the earlier period is of doubtful significance; while the correlation for the entire period has certainly no significance due, obviously, to the combining of a positive with a negative correlation.

The interpretation of these phenomena is difficult; but it is interesting to note that the negative correlations occurred during the period in which the catch in Icy Strait was increasing while that in Lynn Canal was decreasing and that, after the peak of production in Icy Strait had been reached and the catches in both districts were decreasing, the correlation became distinctly positive. This is, of course, just what might have been expected if the trends had not been eliminated, but since the correlations are based on deviations from the trends, the influence of the change in the trends from opposed to parallel should have had no effect. Why there should have been a negative correlation in the early part of this period is very doubtful and we have no explanation to offer. In the case of the more significant positive correla-

tion in the catches since 1912 it appears very probable that this is due to the fact that the fisheries in the two localities draw largely upon the same runs. Economic factors may, however, be partly responsible for this correlation as can be seen from the fact that the deviations from the trends in 1921 were both negative and it is quite certain that the catch in 1921, at least in Icy Strait, was low because of the relaxed fishing effort.

There appears to be no definite cyclic fluctuation in these deviations from the trends. Nothing is known definitely of the typical age at maturity of these Chilkat and Chilkoot red salmon, but even if they should be similar the admixture of two races would, in all probability, wipe out any cycles in abundance even if such were present in the separate races.

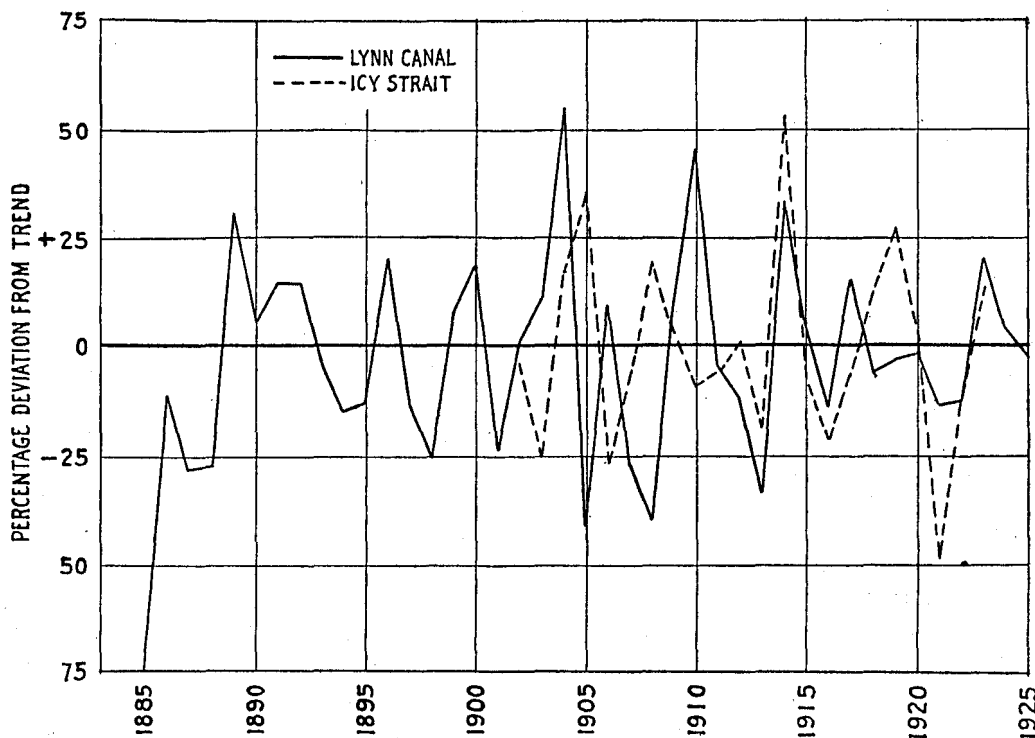


FIGURE 16.—Percentage deviations from trend of catch of red salmon in the Lynn Canal and Icy Strait districts.

Fair catches of pink, chum, coho, and king salmon have been made in Lynn Canal although these species were not as persistently fished as the reds. Cohos and kings were first reported in 1904, but were probably taken and counted as reds from the earliest exploitation of the salmon resources of the district. Rather large catches of kings were reported by the canneries on the canal from 1894 to 1903, but they came mostly from Taku Inlet. The catch of this species by nets has become decidedly insignificant as most of the kings are now taken with lines.

Cohos are taken regularly in this district, and there appears to be no indication that the supply is less abundant than it was 35 years ago. Fluctuations in catches have occurred, good years were followed by poor years, closed seasons, and closed areas have affected fishing, but the catches continue to be as good as they ever were.

Pinks and chums have constituted fairly important fisheries in the district for 20 years or more and are still obtained in quantities which are comparable to those

taken in the early years of exploitation. Unusually good catches have been made in a few years, poor catches have also appeared, but positive signs of depletion are not discernable in the statistical records here considered. That the district will continue to produce fair runs of these species, at least under the present limitations of fishing, appears to be a reasonable assumption.

CHATHAM STRAIT

The Chatham Strait district is bounded on the north by a line from the point at the south entrance of Funter Bay to Point Couverden and thence to Point Augusta, and on the south by a line from Cape Ommaney to Cape Decision; it is separated from Peril Strait by a line from Point Craven to Point Thatcher, and from Frederick Sound by a line from Point Gardner, passing just east of Yasha Island to a point on the shore of Kuiu Island 1 mile north of Kingsmill Point. Chatham Strait has many arms indenting the shores of Admiralty, Chichagof, Baranof, and Kuiu Islands, several of which have been notable producers of pink and chum salmon and have made fair contributions to the catch of the other species. (See fig. 17.)

Yet Chatham Strait, with all its length of more than 200 miles of shore line and numerous bays, has no exceptionally important salmon stream. There are many small streams tributary to the strait some of which support fair runs of fish, but the larger catches have come regularly from the strait, often at considerable distance from a stream. Some of the bays were also fair producers, but none of them approached in productivity the shore of Mansfield Peninsula between Funter Bay and Hawk Inlet, Fishery Point, Kingsmill Point, and the north shore of Tebenkof Bay a few miles eastward of Point Ellis. These larger catches at points several miles from a stream were made by traps which intercepted the main runs of salmon to Lynn Canal, Stephens Passage, and Frederick Sound. The important runs enter Chatham Strait from Icy Strait on the north or directly from the ocean through the southern entrance; small runs may also come through Peril Strait from the west and through Keku Strait from the south. The fish entering from the south tend to follow the Kuiu Island shore and for the most part are bound to the streams of Frederick Sound and Stephens Passage, though some go into the upper part of the strait, as was shown by tagging experiments in 1924 and 1925; but there is probably no significant movement of salmon in that direction north of Point Gardner. The runs from the north, differing from those of the south, show less preference for one side of the strait, as good catches have been made on both the Chichagof and Admiralty shores, but in the long run the shore of Admiralty Island unquestionably is preferred and leads in production.

Baranof and Chichagof Islands are decidedly more mountainous than Admiralty and Kuiu Islands, their streams are much more precipitous, particularly those of Baranof, shorter, and in several cases, seriously obstructed by natural barriers. The areas available for spawning are correspondingly reduced and in consequence these streams never did and never will support a salmon population equal to that of the eastern tributaries of Chatham Strait. All bays on the east coast of Baranof Island are small, Kelp Bay being the largest, and for the most part have only one or two tributaries which are accessible to salmon. The east coast of Chichagof Island is indented by the largest bays of the west side of Chatham Strait. Tenakee Inlet, the largest one, is 40 miles in length and extends in a northwesterly direction beyond the center of the island. It has several fair-sized tributaries which produced large

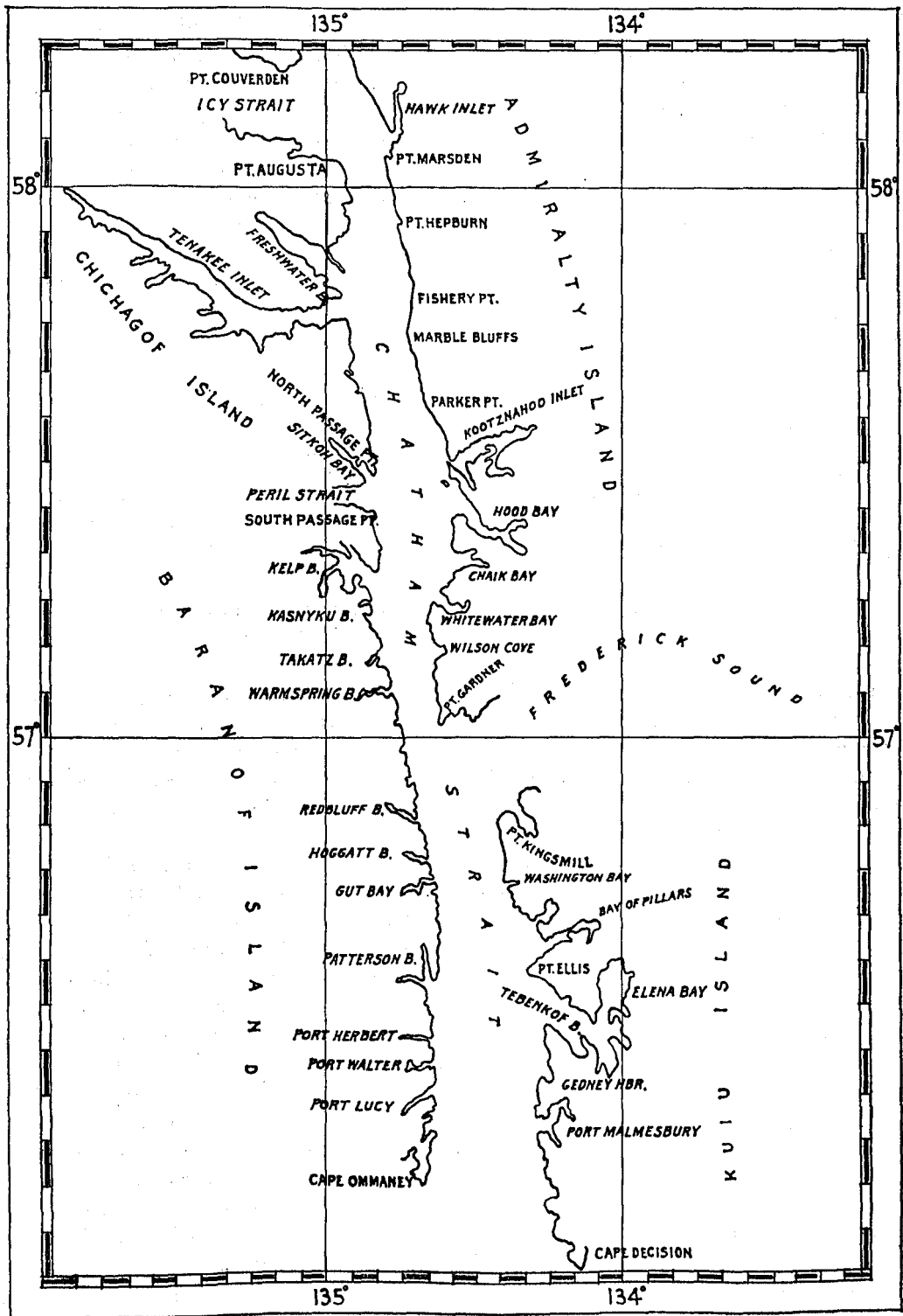


FIGURE 17.—Map of the Chatham Strait district.

catches of pink and chum salmon until the supply was seriously reduced by overfishing. Freshwater Bay is approximately 13 miles in length and receives one red salmon stream through Pavlof Harbor and several pink salmon streams near its head.

The Admiralty Island shore of Chatham Strait is very regular from Funter Bay to Kootznahoo Head, a distance of 50 miles which is broken only by Hawk Inlet at the southern end of Mansfield Peninsula. South of Kootznahoo Head are five indentations which have yielded moderate catches of salmon. These bays are successively smaller as the south end of the island is approached.

The west coast of Kuiu Island is extremely irregular. It is broken by Bay of Pillars and Tebenkof Bay, both rather deep indentations and once important producers of salmon, and by several small bays of lesser importance. In describing the territory fished by the Baranof Packing Co., whose cannery was located at Redfish Bay, Moser (1898, p. 117) reported in 1897 as follows:

The streams are scattered over a territory fished by no other cannery and range on the outer coast from Cape Ommaney to Cross Sound and on both sides of Chatham Strait from Icy Strait to Cape Ommaney. It is one of the hardest fishing routes in Alaska. The streams all lie in unsurveyed districts and as a rule are small and uncertain. A stream that yields 4,000 to 5,000 redfish one year may not have enough the next to feed a native family. A stream in Chatham Strait, fished by this cannery, was prospected secretly and independently one year with great success by different parties. The following year they met at the mouth of the stream with big outfits, neither previously knowing the other's intentions, and where there had been thousands of fish the year before, there was not enough to salt a dozen barrels.

He was speaking of a time when only red salmon were wanted and his observations applied to streams used by that species. It would be interesting now to know the stream to which he referred and to review the history of the fishery at that locality through the 30 years that have intervened since his investigation, but unfortunately he did not record the name of the stream. It appears, however, that even in the early years of salmon exploitation in this district, runs were erratic, and a year of comparative abundance might be followed by a year of great scarcity, a condition which in no way could be attributed to overfishing, as the field had hardly been explored at that time.

Commercial fishing in Chatham Strait seems to date from 1889 with the building of canneries at Pavlof Harbor and at Redfish Bay though it is probable that the Lynn Canal canneries took fish from the upper part of the strait before that year. The canneries in the neighborhood of Sitka may also have taken salmon from Chatham Strait, but there is no positive proof that their operations were extended far beyond the immediate location of the canneries. Apparently the supply of salmon in the northern part of the strait was considered insufficient for the profitable operation of a cannery, or else it was found that a larger supply was more easily obtainable in the southern part of the strait, as the plant at Pavlof Harbor was moved in 1890 to Bay of Pillars. This cannery was burned in 1892, leaving the cannery at Redfish Bay in sole possession of the field until 1900, in which year a few salteries were opened. Through the next several years, however, the number of canneries gradually increased, though the old plants had been abandoned or had been destroyed, until at one time there were 13 canneries located within the district and fully as many more in other districts were taking salmon from its waters. Along with the establishment of more canneries there came a considerable shift in fishing methods, changing from movable gear to fixed appliances. Fishing in the bays continued to be largely in the hands of Indians operating seines, while that in the open waters of the strait was carried on almost

exclusively by the use of traps. Larger catches were made, therefore, in the strait than in the bays.

The growth of the industry in this district was not marked by any sudden developments or increase of activities until 1917 when, under the pressure of extraordinary conditions, through 4 years, 2½ times as many beach seines, 5 times as many purse seines, and 4 times as many traps were employed as had ever before been used, with the one exception that 38 purse seines were operated in 1908. This large increase in appliances raised the catch of all species, except reds, to levels that had not before been reached. With the return to normal world conditions, the speculative operators disappeared, fishing dropped back to its usual level and catches were reduced accordingly. After a year or two of relative inaction, the fisheries again began to receive increasing attention, and in a few seasons the number of seines and traps and the catches again increased in spite of the fact that several bays had been closed to fishing and closed seasons had been provided for extended periods.

The laws and regulations until 1924 were weak and ineffectual in providing even a fair measure of protection for the fisheries, and they had little or no effect in limiting the catch in any locality. The law of 1924, however, was a material forward step in fishery legislation and made it possible to bring complete protection to these fisheries at any time and in any locality. Accordingly, all fishing was prohibited for 20 days in August 1924, and Tenakee Inlet, Freshwater Bay, Whitewater Bay, and Wilson Cove were permanently closed to all commercial fishing for salmon. In 1925, additional closures included the head of the south arm of Chaik Bay, Warm-springs Bay, Basket Bay, south arm of Bay of Pillars, north arm of Tebenkof Bay, Gut Bay, Red Bluff Bay, and Falls Creek Bay. In the waters of Chatham Strait north of the fifty-eighth parallel of north latitude, fishing, except by lines and by gill nets from September 5 to October 15, was prohibited after August 6 to the end of the year. In the waters between the fifty-seventh and fifty-eighth parallels, fishing, except by lines, was prohibited after August 11; in the water south of the fifty-seventh parallel, fishing, except by lines, was prohibited from August 18 to September 24, and after October 15. These seasonal closings were continued in 1926 and 1927, and in 1926 the middle arm and part of the south arm of Kelp Bay were permanently closed. At the same time all streams of Sitkoh Bay were protected to a distance of 1,000 yards.

TABLE 4.—Salmon caught and fishing appliances used in the Chatham Strait district, 1890 to 1927

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Trap (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Northern part:												
Augusta, Point:												
1918	2,215	7,550	63,008	121	5,248							
1919	387	3,334	16,954	155	1,656							
1920	601	3,333	11,491	7	2,775							
1922	731	11,408	32,944	13	2,406							
1923	1,687	2,590	72,939	10	2,352							
1924	1,562	9,717	51,038	40	2,642							
1925	2,905	33,052	81,325	233	8,785							
1926	1,310	30,161	75,429	21	1,231							
1927	1,614	13,962	69,768	92	3,054							
Basket Bay:												
1896					21,175							
1900					61,500							
1904	3,000		40,000		86,000							
1912					2,968							
1918	2,101	28,905	40,723		314							
1920	133	8			892							

TABLE 4.—*Salmon caught and fishing appliances used in the Chatham Strait district, 1890 to 1927*—
Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Northern part—Contd.												
Basket Bay—Con.												
1922	150	152	2,345		523							
1923	25		70		910							
1924	209	316	5,819		221							
1926	1,137	35,657	65,544	18	962							
1927	2,289	36,376	71,413	44	2,340							
Caution, Point:												
1918	905	31,429	65,017		350							
1926	676	15,456	85,544		1,024							
1927	1,804	2,778	17,884	20	298							
Chaik Bay:												
1905		153,300										
1908	389	10,175										
1911	438	6,078										
1916		5,257										
1917	59	79,669	201,530	2	8							
1918	361	25,681	314	3								
1919	4,716	162,505	86,094	28	5,362							
1920	23	66,859	3,776									
1921		11,174	3,148		50							
1922	162	5,731	5,287	52								
1923	3,533	47,683	2,084		8							
1924	2,731	192,169	4,487		5							
1925	358	34,644	24,341		850							
1926	1	29,884	804		137							
1927	74	3,002	962		8							
Cosmos Cove:												
1925	1	230	989									
1926	1	2,240	286		2							
1927	3,139	27,375	67,006	86	1,422							
Dippy Cove:												
1923	1,030	4,131	61,061	32	1,527							
1924	536	11,261	42,159		504							
Distant Point:												
1918	4,340	26,269	76,434	27	2,493							
1922	2,370	11,408	109,774	47	2,554							
1923	2,234	11,897	144,257	40	2,435							
1924	1,411	34,256	77,495		2,448							
1925	1,629	70,760	87,427		1,837							
1926	830	24,853	64,161		837							
1927	4,722	10,414	41,518	46	820							
East Point:												
1919	18,962	15,341	70,650	154	138							
1922	2,782	13,429	34,856	42	2,610							
1923	2,280	6,249	67,872	1	1,043							
1924	3,730	18,520	22,695		1,920							
False Bay:												
1924	138	1,739	11,103		2,053							
1925	1,123	16,263	14,000	67	1,000							
1926	400	18,450	21,235		675							
1927	97	3,478	2,800	80	449							
Favorite Bay:												
1917	2,000											
1918		846	144									
1924		1,747	460		722							
1925	3	4,320	10,100		11							
1926		955										
1927		679	282		3							
Fishery Point:												
1913	2,027	7,032	152,910		2,383							
1914	2,309	4,535	38,215	36	3,145							
1915	747	11,717	536,448		2,687							
1916	5,091	6,213	102,807	1,203	2,375							
1917	4,911	20,408	777,330	60	5,995							
1918	3,837	7,191	78,226		3,165							
1919	3,334	13,504	55,345		2,213							
1920	1,010	6,509	48,300	164	2,573							
1923	7,764	10,169	204,497	26	3,968							
1924	6,764	49,256	314,606	40	1,052							
1925	1,172	5,648	28,008		1,462							
1926	1,787	20,698	103,491	862	4,129							
1927	757	4,526	37,727		1,179							
Freshwater Bay:												
1900					25,000							
1904	4,416											
1912	1,964	2,500	5,000		1,000							
1916	1,165	2,035	4,560		560							
1917	6,285	12,419	125,749	584	179							
1918		52,518	8,044									
1919	6,103	5,957	11,499	13	808							
1920		141										
1923	88	1,293	26,306		30							

TABLE 4.—Salmon caught and fishing appliances used in the Chatham Strait district, 1890 to 1927—
Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Northern part—Contd.												
Hawk Inlet:												
1905		5,000										
1910			35,401									
1911		68	27		189							
1920	5,610	20,392	158,720	26	8,450							
1921		71	896									
1923	1	452	4,492		51							
1924		5,361	26		1							
1925	3,541	46,099	92,570		17,623							
1926	1,565	64,278	83,319		12,282							
1927	2,903	32,547	61,002	95	8,826							
Hepburn, Point:												
1913	1,238	13,347	135,453		3,136							
1914	5,167	6,920	55,630	42	5,275							
1927	2,590	14,515	83,605	32	5,688							
Hood Bay:												
1911	1,160	773										
1912		2,164										
1913	50	323	1,023									
1916	1,161	6,226										
1917	3,764	16,234	40,231		10							
1918	216	82,600	14,094		36							
1919	1,886	65,941	22,264	81	1,295							
1920	45	25,616	4,458	43	5							
1921		4,859	5,920									
1922		3,865	4,628		3							
1923	257	4,556	30,383		2							
1924	1,347	42,827	13,122		1							
1925	11	54,140	22,331		93							
1926	14	54,606	25,110		53							
1927	17	11,463	1,692		17							
Iyoukeen Cove:												
1918	905	28,328	31,042	121	1,720							
1919		2,794	24,972	33	71							
1922	395	16,180	15,103	6	1,011							
1924	106	26,863	15,427		688							
1926	361	13,669	5,761		846							
1927	538	11,790	14,120	205	1,155							
Kasnyku Bay:												
1927	720	1,600	10,730		50							
Kelp Bay:												
1916		2,153	2,146									
1917	1,000	1,691	4,233		1							
1918	50	9,620	9,835		3							
1919	10	18,695	30,137	3	2,314							
1920	275	13,033	13,652	1	100							
1921		861										
1922	548	4,609	21,788	7	1,603							
1923	1,249	4,829	82,660		1,327							
1924	198	22,177	100,681		2,954							
1925	1,113	22,003	75,671		77							
1926	3	3,967	22,421		1							
1927		714	1,569									
Kootznahoo Inlet:												
1918		5,722	5,114		587							
1919	420	837	428		563							
1920					102							
1921	56				3,058							
1922			35		1,291							
1925	2	1,435	0,445		458							
1926		24	3,947		896							
1927		43	85		601							
Lone Tree Islet:												
1927	960	9,656	12,175	6	301							
Marble Bluff:												
1917	3,257	6,807	241,875	88	1,431							
1918	3,213	8,240	106,776		4,066							
1922	1,136	2,907	92,428	80	1,545							
1923	1,617	756	104,482	24	2,334							
1924	9,443	39,690	144,739	898	4,034							
1925	2,257	31,308	65,200	82	3,074							
1926	2,879	50,311	211,835	316	6,434							
1927	1,140	15,103	54,167	129	1,160							
Marsden, Point:												
1922	815	2,420	27,270	65	2,000							
1923	3,802	7,033	102,852	100	8,000							
1924	870	4,780	38,000	250	6,000							
1926	1,000	18,000	63,958	42	9,000							
1927	1,000	5,000	52,800	200	3,000							
Moonshine Point:												
1924	602	15,212	46,723		529							
1926	606	18,100	30,839		410							
1927	1,667	4,338	14,633	7	178							

TABLE 4.—*Salmon caught and fishing appliances used in the Chatham Strait district, 1890 to 1927—*
Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (num ber)
						Num- ber	Fath- oms	Num- ber	Fath- oms	Num- ber	Fath- oms	
Northern part—Contd.												
Morris Reef:												
1924	3,012	23,198	59,123		2,199							
1925	2,000	10,328	80,000		6,000							
1926	2,880	8,000	87,320	160	2,500							
North Passage Point:												
1924	1,491	13,342	29,835	40	2,390							
1925	2,660	39,485	40,257	42	4,676							
1926	1,235	27,328	33,477		82							
1927	642	6,960	13,082	3	821							
Parker Point:												
1916	3,723	2,582	50,855	68	1,488							
1917	9	1,555	1,510	239	419							
1919		668	26,256	78	384							
1922	5		8,161									
1923	166	675	6,395	3	397							
1924	7	1	9,111									
1925	51	4,120	3,700	14	150							
1927	529	7,205	22,178	151	677							
Peninsula Point:												
1920	1,557	12,969	13,189	12	990							
1922	717	6,576	16,721	6	881							
Poison Water:												
1923	38	10	1,527									
1924			4,336									
1926	35	453	1,058		45							
Rocky Bay:												
1925	3,504	54,301	110,537		7,006							
1926	2,000	7,119	129,310		4,705							
Rocky Point:												
1915	199	5,102	15,436	87	3,513							
1918	3,821	4,069	20,607	51	3,381							
1919	4,232	5,778	13,515	134	1,999							
1927	1,178	1,997	14,638	8	166							
Sitkoh Bay:												
1890	2,354				4,902							
1895	1,252				4,260							
1896					15,794							
1897					566							
1900					30,000							
1904			20,000		12,000							
1918	1,306	950	13,160	35	833							
1921	112				552							
1922	3				3,462							
1924	4	625	13,959		234							
1925	4	28	3,911		248							
1926		17	678		337							
1927		2	2		122							
South Passage Point:												
1919		10,313	53,105									
1922	3,370	18,500	49,181	63	3,226							
1923	1,313	6,490	90,674	31	1,416							
1924	9,115	33,567	61,334	40	2,191							
1925	5,587	69,476	118,645	78	14,296							
1926	2,749	95,362	175,008	325	2,927							
1927	3,864	55,869	81,329	125	6,933							
Square Cove:												
1924	3,316	4,050	20,543	6	4,282							
1925	265	1,817	2,345	3	1,770							
1926	1,018	6,484	73,546	70	6,428							
1927	1,231	6,312	47,814	58	3,877							
Tenakee Inlet:												
1909		38,460	115,380									
1912	3,919	5,500	10,000		2,000							
1913	129	400										
1914		4,667	1,569		61							
1916	3,305	19,566	113,368	2	284							
1917	13,997	50,358	483,830	511	3,547							
1918	5,096	401,169	122,169	416	3,795							
1919	4,562	76,754	76,686	68	7,458							
1920	2,856	37,195	17,574	441	949							
1921		78,462	13,891									
1922	123	42,176	35,645		156							
1923	158	6,349	68,220	5	691							
1924	1	6,129	832									
Thatcher Point:												
1923	649	3,160	34,874	1	733							
Village Point:												
1924	2,208	11,207	30,802	22	8,133							
1925	16	101	1,015		1,759							
1926	128	14,246	52,801		225							

TABLE 4.—Salmon caught and fishing appliances used in the Chatham Strait district, 1890 to 1927—Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Northern part—Contd.												
White Rock:												
1904			37,000									
1914					142							
1918	888	24,513	22,713		1,528							
1919	2,114	8,487	36,465	169	2,795							
1924		876	1,443									
1925	2	1,331	3,549		28							
1926		14	1,880		1							
1927		1	66		1							
Whitewater Bay:												
1918	132	12,524	3,653		32							
1919	63	20,806	8,307	2	599							
1920	28	6,526	2,247	23	56							
1923	36	2,162	4,407		126							
Wilson Cove:												
1907		18,503	1,652									
1908		78,053	52,441									
1909		38,495	101,332									
1911		12,701	4,702									
1912		15,602	20,962									
1917	9	8,898	73,406		1							
1918	1,753	79,656	74,406	33	406							
1919	829	30,171	8,545		27							
1920	423	12,035	22,897	43	456							
1921	2,705	10,443	7,557	63	726							
1922	2,740	6,315	23,441		1,403							
1926	553	9,815	40,980		655							
Woody Point:												
1927	3,820	5,617	18,405	45	488							
Unallocated:												
1892					21,875							
1900				100	77,700							
1901	16,923		920,890	629	131,055							
1902	6,000		488,000		128,080							
1903	40,417		239,431		241,175							
1904	22,000	7,000	280,000	600	101,200							
1905	22,324	167,689	330,536		93,664							
1906	26,902	206,643	811,677	923	177,200							
1907	36,245	342,553	1,132,174	4,220	121,394							
1908	21,106	535,954	1,418,825	239	256,619							
1909	20,740	116,577	556,302	974	304,351							
1910	30,594	244,256	473,181	638	150,892							
1911	55,724	418,065	1,302,801	5,383	158,767							
1912	61,224	587,250	1,254,620	8,428	242,996							
1913	40,259	212,851	1,723,345	7,372	203,418							
1914	68,481	325,955	959,725	3,818	215,115							
1915	59,966	198,543	2,154,421	5,308	235,503							
1916	47,377	229,720	1,874,378	1,757	122,974							
1917	75,873	314,899	3,318,157	4,338	259,122							
1918	68,168	962,572	2,139,992	6,188	214,099							
1919	121,938	882,358	1,571,551	24,406	177,870							
1920	74,476	551,020	1,023,242	5,767	156,347							
1921	45,782	408,279	426,707	1,473	87,020							
1922	52,066	156,962	917,076	5,389	79,322							
1923	24,028	114,816	1,098,224	12,797	58,947							
1924	23,460	165,125	561,028	975	75,786							
1925	20,783	299,432	414,865	2,344	82,209							
1926	29,778	325,017	919,992	2,333	83,856							
1927	47,948	215,704	797,253	5,739	58,827							
Total:												
1890	2,354				4,902							
1892					21,875							
1895	1,252				4,260							
1896					36,969							
1897					566							
1900				100	194,200							
1901	16,923		920,890	629	131,055							
1902	6,000		488,000		128,080							
1903	40,417		239,431		241,175							
1904	29,416	7,000	377,000	600	199,200			8				2
1905	22,324	325,989	330,536		93,664	1		17				4
1906	26,902	206,643	811,677	923	177,200			12				3
1907	36,245	361,066	1,133,826	4,220	121,394	1	100	12	1,920			2
1908	21,495	624,182	1,471,266	239	256,619			30	5,600			4
1909	20,740	193,532	773,014	974	304,351			13	2,425			2
1910	30,594	244,256	508,582	638	150,892	1	75	14	2,490			2
1911	57,322	437,685	1,307,530	5,383	158,956	1	75	17	3,000			11
1912	67,107	613,016	1,290,582	8,428	248,964	1	75	16	2,920			14
1913	43,703	233,953	2,012,731	7,372	208,937	2	225	12	2,100			13
1914	75,957	342,077	1,055,139	3,896	223,738			11	1,770			12
1915	60,012	215,362	2,706,305	5,395	241,763			10	1,680			21
1916	61,822	273,752	2,148,114	3,030	127,681			12	1,740			14
1917	111,164	512,838	5,207,851	5,822	270,711			42	6,460			20

TABLE 4.—Salmon caught and fishing appliances used in the Chatham Strait district, 1890 to 1927—Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Northern part—Contd.												
Total—Continued.												
1918	90,307	1,800,361	2,895,471	6,995	242,056	3	300	52	9,250			38
1919	169,556	1,324,143	2,112,773	25,324	205,552	13	1,075	93	18,205			50
1920	87,037	764,636	1,320,424	6,527	173,875	8	400	52	11,710	2	300	59
1921	48,555	514,149	458,179	1,536	91,406	10	800	22	4,160			30
1922	68,113	302,538	1,396,583	5,770	103,996	9	450	35	5,680			16
1923	51,955	235,300	2,208,176	13,070	86,297			35	5,200			37
1924	72,351	734,011	1,680,826	2,311	121,589			30	5,005			35
1925	48,987	802,321	1,290,831	2,863	153,412			26	4,715			35
1926	52,946	895,162	2,379,734	4,147	140,680			20	3,350			36
1927	85,243	509,026	1,610,614	7,171	102,367			29	5,308			45
Southern part:												
Falls Creek Bay:												
1913			874		1,279							
1914	771	1,005	1,564		2,479							
1915	190	90	1,284		3,586							
1919	333	2,187	11,125		9,615							
1920	49	65	3,235	1	3,717							
1921			522		1,810							
1922	116	22	409		3,214							
Gedney Harbor:												
1912	151	1,083	1,822		895							
1913	105	8,048	10,794		125							
1914		234	537									
1915			4,300		119							
1916		2,120										
1917	36	8,193	7,900		18							
1918	47	17,344	13,493		676							
1919		7,365	17,092		357							
1922	5	1,355	166		782							
1925	6	7,987	3,355		352							
1926		250	17		138							
1927	154	1,238	1,249		1,902							
Gut Bay:												
1892	970				1,673							
1893	293				2,766							
1894					630							
1895					6,716							
1896					2,326							
1904					20,000							
1905		15,000			7,000							
1906					2,500							
1908					1,302							
1909					2,703							
1910	600				4,905							
1911	550				4,371							
1912			10		100							
1913					1,723							
1914	36	12			1,777							
1915	68				3,234							
1916	288	9,416	408		12,009							
1917	175				1,087							
1918					1,500							
1919		1,200	8,290		22,572							
1920	438	1,920	960	1	10,402							
1921	97	2	367		7,120							
1922	28	65	802		4,514							
1923					215							
1924	4	662	194		10,551							
Herbert, Port:												
1912	136		4		262							
1913					201							
1914	1				521							
1918		549	411		32							
1922					272							
1924	8	4	131		1,712							
1925	29	789	84		1,111							
1926	64	1,832	313		4,063							
1927	311		2,362		430							
Kingsmill, Point:												
1915	5,995	12,869	401,762	737	19,236							
1918	7,839	109,546	412,486	74	4,617							
1919	13,175	117,531	171,795	413	15,551							
1920	1,400	65,390	123,145	175	5,070							
1922	4,006	21,721	176,008	14	7,098							
1923	6,750	34,810	208,070	30	11,910							
1924	22,081	97,759	640,383	159	16,197							
1925	11,795	124,361	145,601	223	9,095							
1926	11,624	40,637	802,242	43	16,720							
1927	27,036	84,561	307,752	450	9,189							
Malmesbury, Port:												
1907					72							
1908					136							

TABLE 4.—Salmon caught and fishing appliances used in the Chatham Strait district, 1890 to 1927—Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Southern part—Contd.												
Malmesbury, Port—Continued.												
1909					84							
1911			1,168		5,041							
1912	17	2,403	13,656		2,488							
1913	242	597	15,046		1,752							
1914		585	1,436		452							
1915	50	1,337	16,026		544							
1916	167	5,912	2,848		2,404							
1917	12	13,422	34,900		67							
1918	79	5,853	1,678		2,721							
1919	400	19,774	29,189		1,398							
1920	2	12,079	10,028		3,567							
1922	1				221							
1924	469	6,502	10,054		2,001							
1925	9	7,232	10,875		1,618							
1926	193	3,117	20,182		1,752							
1927	27	2,398	2,580		2,022							
Patterson Bay:												
1918	7	6	409		2,173							
1919			3,023									
1923		856	7,628									
1924		1,073	8,580		1							
1925		4,085	1,628									
1927	99	1,244	18,459		158							
Pillars, Bay of:												
1892	3,665				9,842							
1893					2,605							
1894					8,740							
1895	2,836				14,572							
1896	3,607				15,834							
1897	957				11,709							
1898					10,000							
1900					22,500							
1904	12,000	2,000	36,400		14,500							
1905	8,000	16,000	25,000		15,000							
1906	12,500	30,000	25,000		30,000							
1907		40,600			12,000							
1908	13,000	16,600	26,000		17,000							
1909	5,150	18,758	12,000		3,700							
1910	2,000				19,400							
1911	4,000		39,775		12,000							
1912	1,385	10,093	2,032		7,037							
1913	4	5,140	6,448		2,278							
1914	923	5,355	7,753		15,045							
1915		1,927	25,142		12,089							
1916	3,205	16,996	12,534		13,267							
1917	686	14,652	42,618		8,790							
1918	1,195	27,970	24,604		8,854							
1919	1,001	28,856	10,465	1	4,160							
1920	4,021	23,277	9,136	2	3,645							
1921		3	7		4,070							
1922	273	4,680	11,331		6,331							
1923					12,000							
1924	163	16,076	3,426		11,023							
1925	202	84,458	9,701		70							
1926	5	39,892	11,027		13							
1927	13	3,734	686		20							
Red Bluff Bay:												
1904					6,500							
1905					5,000							
1906					5,000							
1907					14,000							
1908			80,000									
1911		14,000	1,000									
1912	16	176	745	12	202							
1913		414	3,972									
1914					96							
1915		175	395		812							
1916	310	797	7,691		7,596							
1917	500											
1918	45	3,160	3,694		2,607							
1919		6,122	8,897									
1920	2	1,113	1,488		2							
1921			310		425							
1923		3	221		129							
1924	1	33	4,296		1							
1927	1	2	13		170							
Tebenkof Bay:												
1892					5,990							
1893					3,529							
1895					730							
1896					1,500							
1897					4,304							

TABLE 4.—Salmon caught and fishing appliances used in the Chatham Strait district, 1890 to 1927—Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Southern part—Contd. Tebenkof Bay—Con.												
1900					7,000							
1904	6,000		50,000		55,000							
1905	9,000	7,000	75,000		30,000							
1906	4,000	8,000	297,000		41,290							
1907	8,540	60,000	274,000		36,000							
1908			243,000		35,000							
1909		12,000	452,100		36,106							
1910	3,500	76,000	200,000		39,554							
1911	9,370	97,736	377,905		30,428							
1912	4,575	93,468	94,928	5	8,134							
1913	1,972	84,826	167,448		4,850							
1914	2,924	43,773	49,018		6,312							
1915	358	4,491	85,727		12,226							
1916	3,285	1,902	42,163	2	9,081							
1917	5,382	75,379	813,992	5	6,472							
1918	13,296	148,043	365,616	999	20,877							
1919	3,374	145,533	88,505	30	3,800							
1920	4,512	90,185	39,526	61	12,628							
1921	16,253	60,253	29,412	1,576	7,208							
1922	22,059	117,974	146,856	311	16,294							
1923	27,987	45,443	365,122	1,340	42,792							
1924	43,661	192,434	329,263	5,387	15,355							
1925	1,770	175,474	77,133	1	1,624							
1926	8,793	94,146	314,958	513	13,033							
1927	8,071	55,906	71,277	98	6,513							
Walter, Port:												
1916		46,548	3,213									
1917		1,038	9,596									
1919			1,343									
1922	4		923									
1927		111	492									
Washington Bay:												
1917	404	15,313	121,136		411							
1924	967	5,892	69,870		967							
1925	521	13,504	25,755	2	1,071							
Unallocated:												
1902	13,500		175,000		50,000							
1903	4,033		4,867		4,000							
1905		4,000	12,000		43,000							
1908		362			9,703							
1911				3,274								
1912	74	69,807	37,557		24,941							
1913	11,961	32,619	100,421	21,598	1,307							
1914	902	256	2,322	16,864	5,307							
1915	3,401	165	6,836	58,313								
1916	62,366	31,488	390,220	107,695	22,928							
1917	79,519	342,432	1,993,133	110,287	12,019							
1918	104,922	633,576	1,921,948	87,465	24,251							
1919	149,637	398,407	1,219,745	190,461	68,063							
1920	51,782	607,482	1,339,895	99,958	53,566							
1921	61,270	22,469	37,449	174,462	2,060							
1922	27,122	1,411	185,131	74,452	2,743							
1923	45,286	20,895	393,201	128,261	6,258							
1924	44,116			373,427								
1925	99,744	155,601	350,326	132,097	27,156							
1926	77,504	75,635	116,248	97,876	8,832							
1927	65,607	10,946	52,856	146,753	11,198							
Total:												
1892	4,635				17,505							
1893	293				8,900							
1894					9,370							
1895	2,836				22,018							
1896	3,007				19,660							
1897	957				16,013							
1898					10,000							
1900					29,500							
1902	13,500		175,000		50,000							
1903	4,033		4,867		4,000							
1904	18,000	2,000	86,400		96,000			6				
1905	17,000	42,000	112,000		100,000			1				
1906	16,500	38,000	322,000		78,790			6			1	
1907	8,540	100,600	274,000		62,072			10	1,600			
1908	13,000	16,962	349,000		63,191			8	1,265			
1909	5,150	30,758	464,100		42,593	6	900	7	1,160			
1910	6,100	76,000	200,000		63,850	4	600	8	1,300			
1911	13,920	111,736	419,848	3,274	51,840	2	320	6	1,025			2
1912	6,354	177,030	151,354	24,958	10,118	4	740	9	1,965			5
1913	14,284	131,644	305,603	21,598	13,515	6	910	9	1,620			
1914	5,557	51,220	62,630	16,864	31,089	3	600	9	1,490			3
1915	10,962	21,054	542,072	59,050	51,846			10	1,570			2
1916	69,621	115,179	459,077	107,697	67,285			10	1,630			5
1917	86,714	470,429	3,023,275	110,292	28,834	7	850	38	6,525			11

TABLE 4.—Salmon caught and fishing appliances used in the Chatham Strait district, 1890 to 1927—Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Southern part—Contd.												
Total—Continued.												
1918	127,430	946,047	2,744,339	88,538	68,308	9	795	32	7,175	4	214	30
1919	167,920	726,975	1,569,469	190,905	125,516	2	100	28	5,725			46
1920	62,206	801,521	1,527,413	94,198	92,597	12	1,700	28	5,590			46
1921	77,620	82,727	68,067	176,038	22,693			6	1,150			6
1922	53,614	147,228	521,126	74,777	41,469			16	2,570			23
1923	80,023	108,007	974,242	129,631	73,304			3	580			11
1924	111,470	320,440	1,366,197	376,973	58,708			30	5,100			8
1925	114,076	573,401	624,758	132,323	41,997			24	4,245			10
1926	98,183	255,500	1,264,987	98,432	44,551			12	2,060			6
1927	101,319	160,140	457,726	147,301	31,602			30	5,462			9
Grand total:												
1890	2,354				4,902							
1892	4,635				39,380							
1893	293				8,900							
1894					9,370							
1895	4,088				26,278							
1896	3,607				56,629							
1897	957				16,579							
1898					10,000							
1900				100	223,700							
1901	16,923		920,890	629	131,055							
1902	19,500		663,000		178,080							
1903	44,450		244,298		245,175							
1904	47,416	9,000	463,400	600	295,200			14				2
1905	39,324	367,989	442,536		193,664	1		18				4
1906	43,402	244,643	1,133,677	923	255,990			18				4
1907	44,785	461,656	1,407,826	4,220	183,466	1	100	22	3,520			2
1908	34,495	641,144	1,820,266	239	319,810			38	6,805			4
1909	25,890	224,290	1,237,114	974	346,944	6	900	20	3,595			2
1910	36,094	320,256	708,582	638	214,751	5	675	22	3,790			2
1911	71,242	549,421	1,727,378	8,667	210,796	3	395	23	4,025			13
1912	73,461	790,046	1,441,936	33,386	268,082	5	815	25	4,885			19
1913	57,987	365,597	2,318,334	28,970	222,452	8	1,135	21	3,720			18
1914	81,514	393,297	1,117,769	20,760	255,727	3	600	20	3,260			15
1915	70,974	236,416	3,248,377	64,445	293,600			20	3,250			23
1916	131,443	388,931	2,607,191	110,727	194,946			22	3,370			19
1917	197,878	983,287	8,291,126	116,114	290,547	7	850	80	13,015			31
1918	226,737	2,746,408	5,635,810	95,533	310,364	12	1,095	84	16,425	4	214	68
1919	337,476	2,051,118	3,682,242	216,229	331,068	15	1,175	121	23,930			96
1920	149,243	1,566,157	2,847,837	100,725	266,472	20	2,100	80	17,300	2	300	105
1921	126,275	596,876	526,246	177,574	114,099	10	800	28	5,310			22
1922	121,727	449,766	1,917,700	80,547	145,465	9	450	51	8,250			53
1923	131,678	343,307	3,182,418	142,701	159,001			38	6,400			48
1924	183,821	1,054,451	3,046,023	379,284	180,297			60	10,105			45
1925	169,063	1,375,812	1,615,589	195,186	195,409			50	8,960			43
1926	151,129	1,150,071	3,644,721	102,579	185,231			32	5,410			42
1927	186,552	669,166	2,068,340	154,472	133,969			59	10,770			54

NOTE.—No catch was reported in the years not shown in any division of this table.

In reviewing the Chatham Strait fisheries, it was found desirable to divide the district into two parts—northern and southern—on account of the distinct runs which enter the strait from opposite directions, the arbitrary line of division being the fifty-seventh parallel of north latitude. Table 4 gives the entire catch of salmon in Chatham Strait from the year of the earliest available records down through 1927. Most of the catches before 1904 were unallocated. The figures given for these years were taken from Moser's reports and the reports of the special agents of the Treasury Department. Several consolidations of catches were made when it appeared that localities had been given different names by the fishery companies, or where names were misspelled. In many cases catches which were reported as having come from two or more districts were allocated to the waters named only after a painstaking examination of the records of each individual operator in each year. The same ratio of division could not be used in each case, yet the allocations were made with due regard to all the information then available. In this way catches that were reported from Chatham Strait and Frederick Sound in 1919 were divided between the two

districts on the basis of the probable catch in each district by the operators concerned. The same procedure was followed in allocating the catches from "Icy Strait, Chatham Strait, Peril Strait and Bays" in 1905 to 1907, and 1909 to 1919; from "Icy Strait and Chatham Strait" in 1905, 1907-1909, 1911, 1915-1921, and 1923; from "Sumner Strait and Whitewater Bay" in 1919; from "Tenakee Inlet and Freshwater Bay" in 1918; and from "Chatham Strait and Tenakee Inlet" in 1918. The catches at Falls Bay in 1919 and 1920, and from Falls Creek in 1914, 1915, and 1921 were combined with the catches from Cascade Bay and shown in the table under the name of Falls Creek Bay; catches from Gypsum Cove were added to those from Iyoukeen Cove; those from Keep Bay with the Kelp Bay catches. Kootznahoo Inlet data include catches from Calico Bay in 1926 and 1927, from Kanalku Bay in 1927, and from Mitchell Bay in 1920 and 1926. The catch reported from South Pass in 1927 was combined with that from South Passage Point; White Rock catches include those from Whiterock Bay in 1925; Point Kingsmill catches were combined with those from Kingsmill Beach and Shore in 1919, 1922, and 1925-1927. Tebenkof Bay catches include those reported from Kuiu Bay in 1904-1907, 1909-1911, 1913-1917, 1922, 1925, and 1926, from Kuku Bay in 1914 and 1917, and from Kuaka Bay in 1905. The unallocated catches also include salmon reported from Cape Gray in 1923, Calheen and Point Wilson in 1919; Angoon in 1927; Drake Sound and Point Ellis in 1925; Killisnoo and Vogel Spit in 1917; Point Deloris in 1924; Soll Bay, Waterfall, and Port Lucy in 1927; Lull Point, Mile Rock, and "K & B" in 1920; Game Cove and Poison Water in 1926; Lagoon in 1904; Baranof Island in 1923 and 1927; Kuiu Island in 1919 and 1920; Elk Point in 1914 and 1920; Boat Harbor in 1916; Port Conclusion in 1913, 1915, 1918, and 1922; and Port Alexander in 1918 and 1920. The unallocated catches also include part of the salmon reported from Frederick Sound, Keku and Chatham Straits and tributaries in 1913; from Saginaw Bay and Chatham Strait in 1912; from Chatham Strait and west coast of Prince of Wales Island in 1919; from Chatham Strait, Frederick Sound, and Stephens Passage in 1923; and from Chatham and Sumner Straits in 1914 and 1918.

In the table are listed 41 localities in the northern part of Chatham Strait from which considerable numbers of salmon have been taken. Of these, 24 are trap locations, 10 of which are on the east shore of Chichagof Island, 1 on the east shore of Baranof Island, and 13 on the west shore of Admiralty Island. The Chichagof locations are Point Augusta, East Point, False Bay, Iyoukeen Cove, Morris Reef, North Passage Point, Peninsula Point, Rocky Bay, South Passage Point, and White Rock; the Baranof location is Point Thatcher; and the Admiralty locations are Point Caution, Distant Point, Fishery Point, Point Hepburn, Lone Tree Islet, Marble Bluff, Point Marsden, Moonshine Point, Parker Point, Rocky Point, Square Cove, Village Point, and Woody Point. Traps were also located at unnamed places on the shores of these islands and in some of the bays, notably Chaik, Freshwater, and Hood Bays, Tenakee Inlet, and Wilson Cove, and augmented the catches in these waters by many thousands of salmon. The catches along the shore of Mansfield Peninsula were also made by traps, but it was not possible to segregate them from other catches which were merely reported as coming from Chatham Strait, so they were included in the unallocated catches of the district, although it is recognized that they constituted a considerable part of such catches. The traps on the east side of the strait made far better catches than those on the west side, showing very definitely that salmon coming from Icy Strait prefer the Admiralty shore, but the bulk of the catch was made north of Kootznahoo Inlet. The records certainly indicate that the traps

between Distant Point and Point Gardner made comparatively small catches, and the farther south they were located the fewer fish they caught. This same condition existed on the west side of the strait, as no large catches have ever been reported from waters south of Kelp Bay. The trap catches are easily recognized by their greater uniformity and the presence of all species, whereas fishing in the bays by seines is characterized by wide fluctuations and intervals during which, apparently, no fishing was conducted.

According to available data, the commercial utilization of salmon in this district began in 1890 at Sitkoh Bay, that being one of the few localities where red salmon were found. A few years later Basket Bay and Freshwater Bay were fished for reds, if, indeed, they were not exploited at the time of the opening of the first cannery in the district. The early records are not complete and allowances must be made, therefore, in any consideration of the data for those years. The period from 1890 to 1900 may well be termed the pioneer days of the salmon industry in this district; canneries and salteries were few; red salmon almost exclusively were sought which necessarily confined fishing to red-salmon streams and involved running hither and yon for a few thousand fish. In time it was evident that there were not enough red salmon available in the entire district to support even one cannery and if a salmon industry were to be successfully established here, it would have to be based on the utilization of the chums and pinks, the most abundant species in these waters. In 1901, nearly 1,000,000 pink salmon were taken in the northern part of Chatham Strait; the first important catch of cohos was also made in that year. Three years later a small catch of chums was made, traps were first used in the strait, and a fishery industry which until now had shown little promise of growth and development at last gave evidence of permanent stability and the once neglected species of salmon became the chief support of the infant industry. The catch did not progress steadily from year to year, but fluctuated according to the number of plants in operation and the amount of gear employed. There had been no intensive fishing and consequently no diminution of the supply of salmon, so that the catches were almost entirely dependent upon the intensity of fishing. Only five known localities were fished in 1904—Basket Bay, Freshwater Bay, Sitkoh Bay, White Rock, and the strait proper. In 1905, catches were reported from Chaik Bay and Hawk Inlet, but four of the localities mentioned in the reports of 1904 were not listed. In the next few years operations expanded, the catch increased, and more seines and traps were employed than ever before. This was followed by a period of regression which lasted two years, but 1911 marked the beginning of a rapid development of the industry and an invasion of new localities which culminated in 1917 in a level of production that has not since been closely approached. It does not follow, however, that this rather intensive fishing was more than the district could safely stand, although some areas may have been measurably depleted, for the catch remained comparatively high in all the years down through 1927, except in 1921, when operations were purposely curtailed. Even in the last four years, with a new law in effect, closed seasons and closed areas established, the catch still maintained a satisfactorily high level commensurable with the known productive strength of the district. This was the situation in regard to all species collectively. Looking at the data for each species separately, it is apparent that the only serious decline has been in the catch of chums, yet it can not be said definitely that this species was in fact less abundant than a decade before. The closed seasons could very easily have reduced the catch in greater proportion than they affected the other species, particularly in those local-

ities where the chums run later than the pinks. Of equal importance in this connection is the fact that the catches from 1921 to 1927 were made with fewer seines and traps than were operated in the preceding years of intensive fishing. Some places in the district show signs of depletion of certain species, as for example, Basket Bay in reds, and Chaik, Kelp, and Sitkoh Bay, and Tenakee Inlet in all species; but aside from these localities there are no definite signs of weakness in the runs of any species. The salmon fisheries of the northern part of the strait, therefore, may be regarded as having held their strength against the exploitation to which they were subjected.

The southern part of the Chatham Strait district includes 12 localities, equally divided between the Kuiu Island and Baranof Island shores, which have produced several thousand salmon of all species through many years, while the strait itself produced yet other large numbers of salmon. The history of its fisheries is similar in some respects to that of the northern part in that it dates from 1892 and shows the exploitation of the runs of red and coho salmon at Gut Bay, Bay of Pillars, and Tebenkof Bay, in the same manner as the red salmon streams of the northern section were fished. Not until 10 years later was any serious effort made to utilize other species, but beginning in 1902, pink salmon were taken and in a few years they became the most important fishery product of the district. The six localities on the Baranof shore are small bays which support insignificant runs of salmon and are fished by seines mainly for the reds that come to these streams, Port Walter and Patterson Bay being the exceptions. Fishing at these localities and at Port Herbert and Falls Creek Bay began much later than it did at Gut Bay and Red Bluff Bay, and it was apparently very irregular as the catch data show intervals of two and three years in which no salmon were taken. Even if these bays were fished each year and the catches allocated only to Chatham Strait, the fact remains indisputable that there are no important fisheries on the east shore of Baranof Island south of Kelp Bay. On the other hand the west shore of Kuiu Island constitutes the most productive field in the southern section of the strait, especially the north shore of Tebenkof Bay and the shore between Washington Bay and Kingsmill Point; but with this difference that the runs at these places are not necessarily local whereas those on the opposite side of Chatham Strait are strictly so. The large catches in both places were made by traps, and while the catches at Tebenkof Bay probably include some salmon that were bound to the streams of that bay, they also with equal probability contained large numbers of salmon that were destined to more northerly waters. The configuration of the shore at this point is such as to lead the runs into the bay before they round Point Ellis and continue their northward journey. It was possible, therefore, for traps on this shore to reach these deflected bodies of salmon and make large catches before the migrating fish left the bay. Salmon taken along Kingsmill beach are also largely moving to more distant localities, chiefly in the Frederick Sound district, a fact that was fully demonstrated by tagging experiments in 1924 and 1925. The Bay of Pillars runs, of course, are not touched by traps at Kingsmill as it is not likely that they compose any part of the migration north of Point Sullivan.

Bay of Pillars was one of the first localities to be fished in the southern part of Chatham Strait, solely for the reason that a tributary of the south arm supported a run of red salmon. It was a steady producer from 1892 to 1924, but after this arm was closed in 1925, due to the evident exhaustion of the run, very few red salmon have since been reported from Bay of Pillars. The falling off in the catch of other species, except chums, is also very evident as the total take of salmon in this bay in 1927 was only 4,455.

Gedney Harbor, Port Malmesbury, and Washington Bay have been uncertain producers but the catches are not materially less in late years than they were when the localities were first fished.

The maximum fishing effort in the southern part of Chatham Strait was reached in the four years from 1917 to 1920 as more seines and traps were used in those years than in any other period of the history of these fisheries. The largest catches of all species, except kings, were made in these years. Viewing the district as a whole, there has been no marked reduction in catches during the period covered by this report, except possibly in the case of red salmon which is probably, in part, the result of the closing of practically every red salmon stream in the district. In addition to the south arm of Bay of Pillars, other closures in 1926 included Gut Bay, Red Bluff Bay and Falls Creek, and the north arm of Tebenkof Bay which is now known as Elena Bay. The catch of chums and pinks was considerably less in later years than it had been for some time, possibly indicating depletion, although allowance should be made for the effect of closed seasons and limitation of fishing appliances on the catch. The runs of pink salmon in this section of the strait, as indicated by the catches, were marked by a peculiar oscillation in that during the earliest years of fishing the largest catches were made in the even years. This period was followed by another period, of 10 years or five cycles, 1908 to 1917, when the odd years were the most productive, which in turn gave way to a reversal of conditions whereby the even years again became the largest producers. The cause of these variations in the cyclic movements of this species is not explainable in the light of available data.

The catch of coho and king salmon continued to be large, that of cohos in 1927 being exceeded but four times in the 35 years that have elapsed since fishing began, and that of kings but three times in the 17 years which cover the history of the king-salmon fishery in this district. The catch of these species was rather insignificant until trollers discovered that the southern part of the strait was an important feeding ground of both kings and cohos, the most productive areas being at the junction of Frederick Sound and Chatham Strait and at Cape Ommaney. Hundreds of trollers resorted to these regions and made phenomenal catches of salmon. They fished for years without the slightest regard for the fishery laws and regulations, assuming that line fishing was not subject to the provisions of the law of 1906. This erroneous idea was exploded in 1923 by the conviction of certain trollers for fishing during the weekly closed season, and since then this type of fishing has conformed in general to the usual regulations. Just what effect this may have in the intensity of troll fishing is rather doubtful—it is at least possible that the actual reduction in intensity is very slight. If the catches were made only in the migration season while the salmon were on their way to the streams instead of generally throughout the year, weekly closed seasons would be of unquestioned benefit in making possible a better escapement than would otherwise result. But where line fishing is prosecuted on the feeding grounds which are populated with salmon as long as food is available, a weekly closed season of a few hours is by no means as certainly an effective measure of conservation.

Table 5 shows the catch of king and coho salmon by lines in the Chatham Strait district. These data are also included in the totals of Table 4.

Figures 18, 19, 20, 21, and 22 show graphically the catch of each species of salmon in the Chatham Strait district. An extremely high peak in production was reached suddenly in respect of each species except reds, that for pinks occurring in 1917, for chums in 1918, for cohos in 1919, and for kings in 1924, but in each case there was an equally rapid drop to normal levels. As has been so frequently noted in this review,

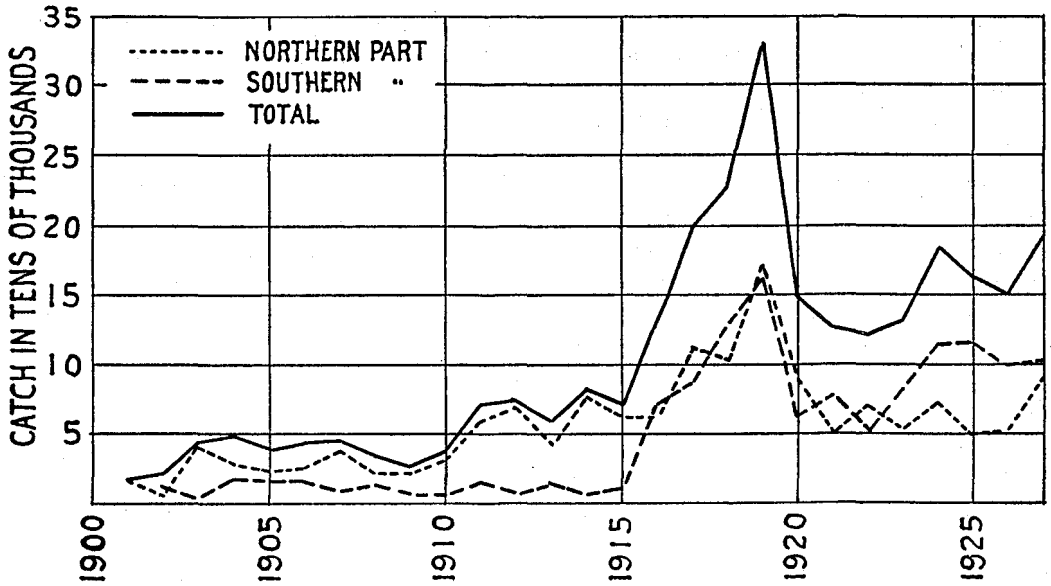


FIGURE 18.—Catch of cohos salmon in the Chatham Strait district, 1900 to 1927.

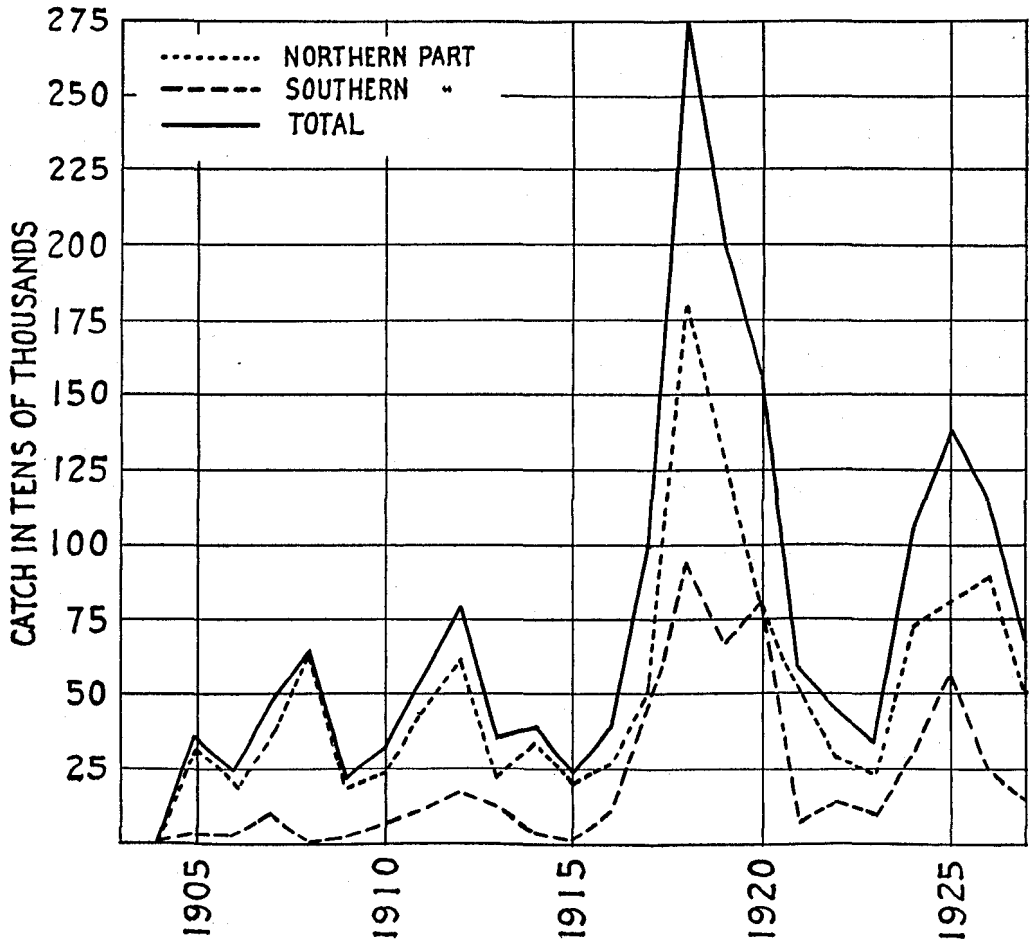


FIGURE 19.—Catch of chum salmon in the Chatham Strait district, 1904 to 1927.

catches were noticeably lower during the years from 1920 to 1923 immediately following the period of intensive fishing and inflated prices for both raw and canned salmon.

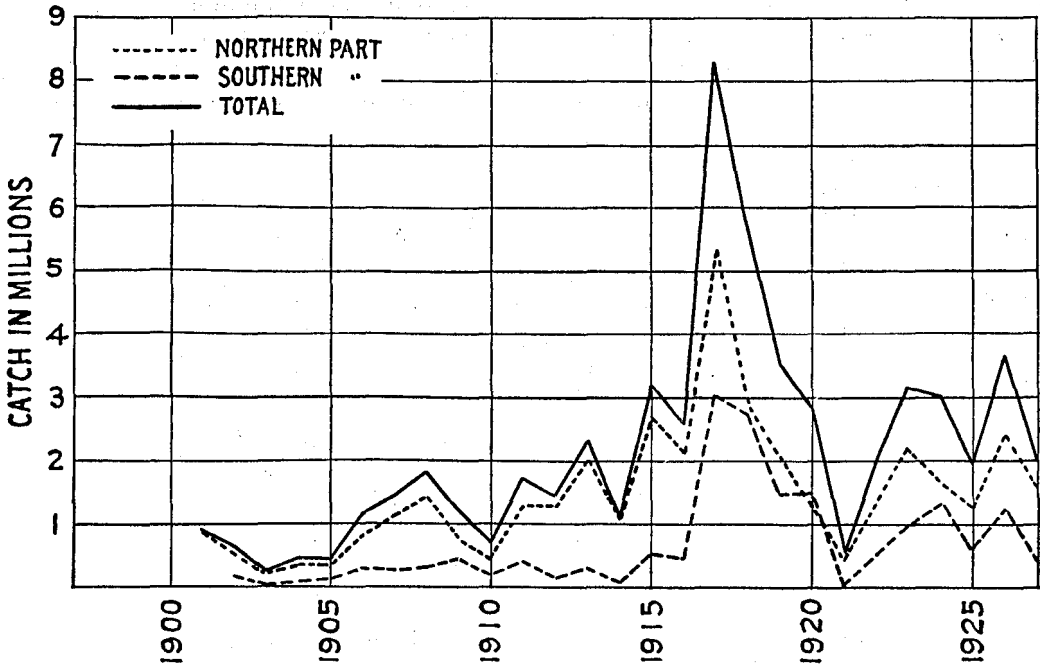


FIGURE 20.—Catch of pink salmon in the Chatham Strait district, 1901 to 1927.

Disregarding these extremes, as representative of abnormal conditions, it is apparent that there was little or no change in the trend of the catches for the decade or more

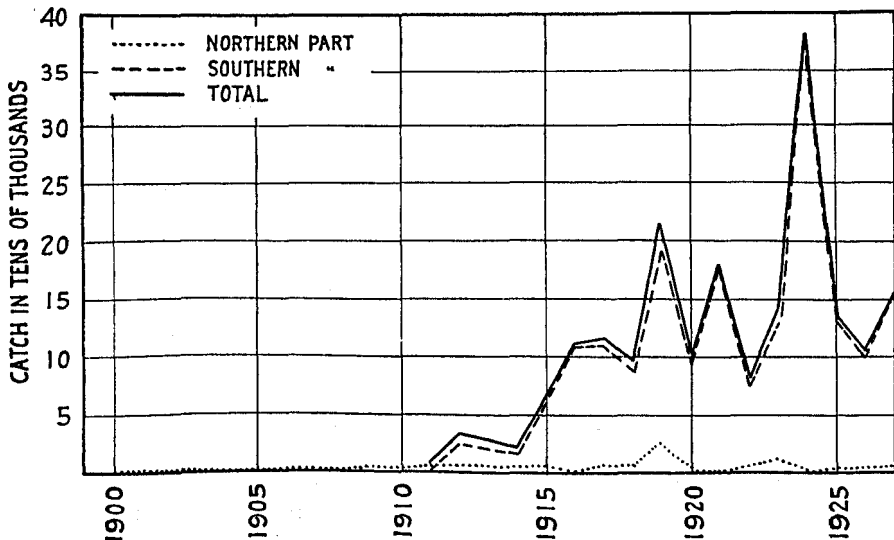


FIGURE 21.—Catch of king salmon in the Chatham Strait district, 1900 to 1927.

just preceding 1927. The graph illustrating the catch of red salmon is interesting in that the trend held a steady upward slope from 1900 until 1921, when it dropped sharply, due to the very limited fishing of that year. The catch improved again in

the next four years but fell off slightly in 1926, and in 1927 it declined more abruptly, touching a point that had been reached but twice in 27 years. This change is traceable to the effect of the regulations which closed areas about the mouths of the most productive red-salmon streams in the district, and may bear no relation to the scarcity or abundance of red salmon at these localities. It is at least possible that, had these regulations not been imposed, the catch of red salmon would quickly have reached

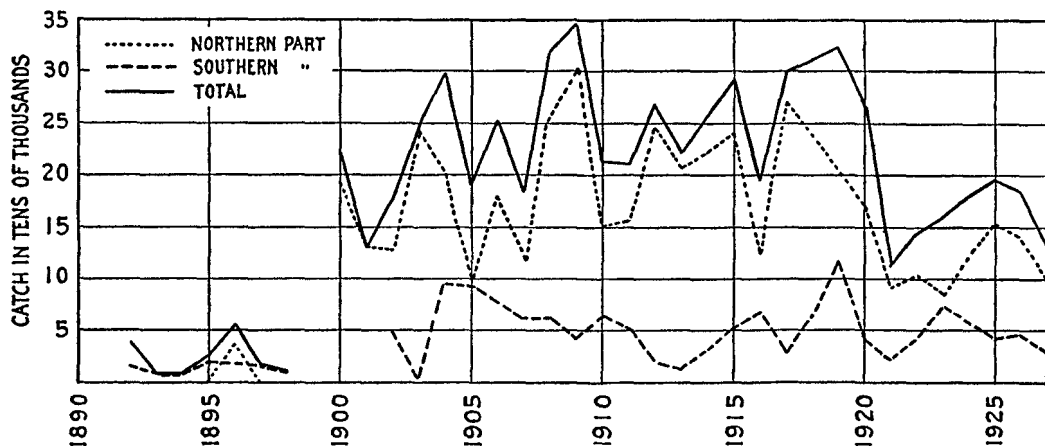


FIGURE 22.—Catch of red salmon in the Chatham Strait district, 1890 to 1927.

the level it had maintained through many years, although how much longer that level could have been maintained is problematical.

TABLE 5.—Salmon caught by lines in the Chatham Strait district, 1911 to 1927

Year	Northern part		Southern part		Total	
	Coho	King	Coho	King	Coho	King
1911				3,274		3,274
1912			74	24,941	24	24,941
1913		152		21,490		21,651
1914			614	16,614	614	16,614
1915			3,401	58,313	3,401	58,313
1916	1,161	154	40,408	107,052	41,569	107,206
1917	4,054	794	67,937	109,852	71,991	110,646
1918		1,999	85,933	86,845	85,933	88,844
1919	1,284	18,947	97,789	189,097	99,073	208,044
1920		441	18,750	89,459	18,750	89,459
1921			58,673	174,366	58,673	174,807
1922		4,571	25,684	74,452	25,684	79,023
1923			35,668	127,797	35,668	128,207
1924	259		44,118	373,427	44,375	373,427
1925	2,478	1,861	78,568	131,457	81,046	133,318
1926	4,543	858	73,903	97,845	78,506	98,703
1927	15,124	3,498	39,731	144,124	54,855	147,622

FREDERICK SOUND

The Frederick Sound district covers the waters of southeastern Alaska east of a line from Point Gardner, the southern extremity of Admiralty Island, to Point Kingsmill on the northwest coast of Kuiu Island and south of a line from Point Pybus to Cape Fanshaw eastward to the north mouth of Stikine River and the south end of Dry Strait, together with all the waters of Keku Strait and Wrangell Narrows north

of $56^{\circ} 40'$ north latitude. Within these boundaries are several bays on the southern coast of Admiralty Island, the northern coast of Kuiu and Kupreanof Islands, and yet others on the mainland between Cape Fanshaw and Stikine River. (See fig. 23.)

The district contains no outstanding salmon streams and no exceptionally large catches have ever been reported from any particular locality, although in the aggregate a few seasons have produced much more than the general average for the period here considered. With few exceptions the larger catches were made by traps distributed along the shores of Admiralty and Kuiu Islands. Catches reported from the bays were made largely by seines.

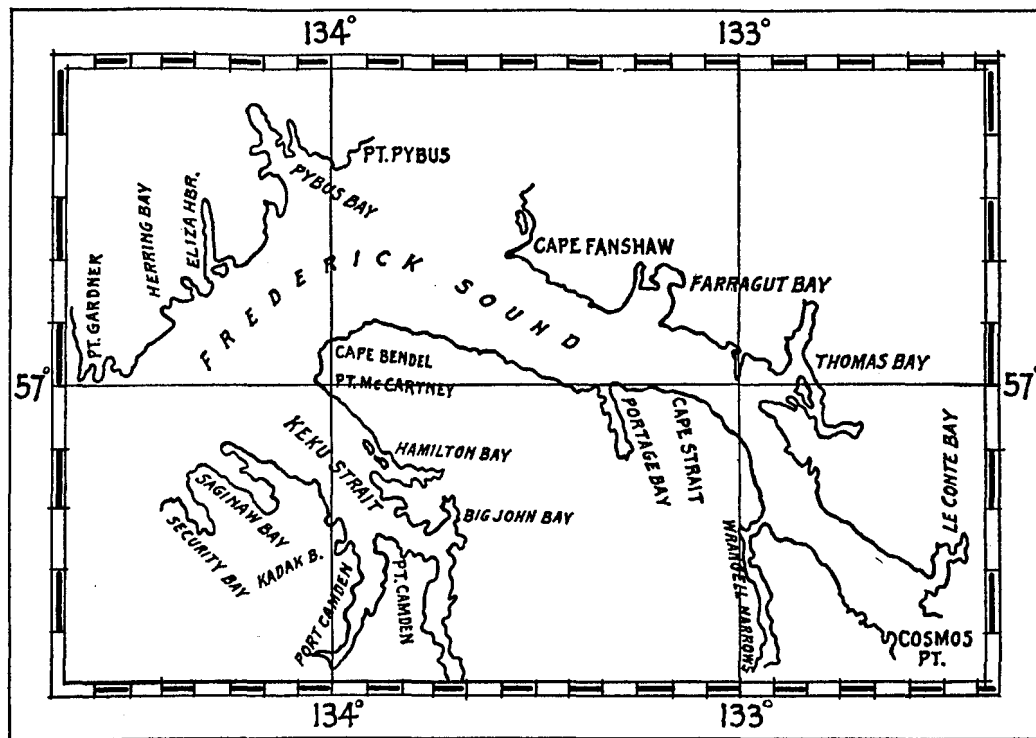


FIGURE 23.—Map of the Frederick Sound district.

Salmon canning in this district commenced in 1900 at a plant on Wrangell Narrows where the town of Petersburg is now located. In 1901 another cannery was established on Wrangell Narrows about 10 miles south of Petersburg. A saltery was opened in the same year at Ideal Cove in Dry Strait near the north mouth of Stikine River. Records of the catch of salmon by these packers do not show the localities in which the fish were caught, although Kutchin, in the Treasury reports for the years 1900, 1901, 1902, and 1903, gives the total number of salmon utilized by each company. Presumably some of these catches were made in the Frederick Sound district, and it is equally probable that some were made in the Sumner Strait district as the plants were located near the boundary of the two districts. No allocation of these catches is attempted, but in order to make the fullest use of available data, they are shown in the following table.

TABLE 6.—*Catch of salmon in the Frederick Sound district, 1900 to 1903*

Year	Coho	Pink	King	Red
1900	15,000	400,000		140,000
1901	38,000	1,007,000	5,269	194,000
1902	1,157	686,836	3,793	110,961
1903	44,364	77,078	181	69,162

Beginning with 1904 and continuing through 1927 all data were taken from formal reports of the operators, but in this district, as in all others of southeastern Alaska, catches from entirely different bodies of water, often widely separated, were frequently combined and reported under a locality name embracing waters in two or more districts. The use of such data necessitated a somewhat arbitrary division of these catches in order that the real value of each district as a salmon-producing area might be shown. The only alternative was to show them as unallocated catches of southeastern Alaska and thus defeat to some extent the object of segregating the data of recognized fishery districts. There were also several catches from localities which have no geographic identification, which of necessity were included in the unallocated totals. A confusion of names was likewise encountered, but in most cases it was possible to make satisfactory corrections. All of these changes will be indicated in the discussion of the data for the different localities.

The catch of salmon in the Frederick Sound district from 1904 to 1927 is shown in tables 7 and 8. Along the Admiralty Island shore between Point Gardner and Point Pybus are nine localities from which fair catches of salmon, mostly pinks and chums, have been taken. Of these, Murder Cove, Carroll Island, Point Brightman, Point Napean, Deepwater Point, Pybus Reef, and Point Pybus were trap locations, those nearer the western entrance of the sound producing the larger number of salmon. The more northerly locations were distinctly less productive, yet the intervening bays, three in number and known as Herring Bay, Eliza Harbor, and Pybus Bay, especially the latter, show catches comparable in size to those of the localities near the western entrance. The data for Pybus Bay, which includes catches from Little Pybus Bay in 1926 and from "Pipers" Bay in 1920 and 1923, indicate that this bay leads all other localities on the Admiralty shore in the production of pinks and chums. Its several streams probably constitute the best spawning areas on the north side of Frederick Sound. Large catches were made in the period of heavy exploitation from 1917 to 1920 and do not show the cyclic fluctuations which were decidedly conspicuous after 1923. The catch of all species in 1927, however, was the smallest reported from Pybus Bay in 10 years and doubtless was due to a scarcity of salmon.

Notwithstanding the occasional poor catches, data for this section of the sound show no definite evidence of depletion of the runs. The trend of the catch since 1920 has been upward and shows no indication of changing in the near future.

TABLE 7.—Salmon catch and fishing appliances used in the Frederick Sound district, 1904 to 1927

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Bay Point:												
1920	807	10,876	33,169		996							
1921	505	6,097	11,213	363	1,163							
1922	960	3,044	29,933	18	2,278							
1923	1,538	3,339	22,316	43	3,286							
1924	306	10,282	45,034	12	2,165							
1927	181	1,272	6,734		395							
Bendel, Cape:												
1915	508	6,956	248,699		1,245							
1917	80	1,366	70,340		50							
1920	35	3,316	7,309	3	82							
1922	1	66	2,384		1							
1924	2,523	14,912	189,715	41	3,093							
1925	549	14,992	27,232	16	946							
1926	1,043	15,889	176,959		2,982							
1927	372	838	4,782		66							
Big Johns Bay:												
1915		613	9,420									
1919	13	2,322	2,786									
1923	24	1,640	1,207		1							
1924	139	26,822	12,381									
1925	6	12,254	2,431									
1926	103	21,994	44,551		5							
1927		2,575	23									
Boulder Point:												
1927	1,150	2,300	6,780	36	2,041							
Brightman, Point:												
1919	562	11,791	10,985		367							
1921	1,161	18,634	12,316	22	380							
1922	1,821	6,133	55,310	7	1,405							
1923	2,370	8,781	90,060		1,297							
1924	1,196	5,836	159,300		789							
1927	4,509	7,785	22,637		745							
Brown Cove:												
1919	1,116	7,756	9,730	28	947							
1922		372	22									
1924		234	2		1							
1925	14	4,468	1,549		1							
Camden, Port:												
1905		75,000										
1906		49,273										
1907		19,656	3,963									
1908	1,598	80,704										
1909	405	5,993	5,892									
1911	177	9,135	4									
1912	39	1,833										
1913	38	30,325	22									
1915		13,827	108,620									
1916	8	62,457	3,940									
1917			2,268									
1918	217	15,376										
1919	432	12,983	1,270		1							
1920	179	41,211	1,760		2							
1922	646	27,179	2,267									
1923		3,043	7									
1924	67	28,976	2,100									
1925	1,216	105,100	2,492		97							
1926	1,188	40,992	13,923									
Carroll Island:												
1926	831	8,481	84,710		978							
1927	1,050	4,696	5,913	33	4							
Deepwater Point:												
1919	209	8,334	11,444		614							
1927	754	2,197	9,997	50	409							
Eliza Harbor:												
1915		4,473	40,311									
1917	19	7,434	84,454		3							
1919	3	2,200	1,205	1	1							
1920		714	181		1							
1922		400	970									
1923	40	217	1,752									
1924		5,006	4,324		1							
1925		689	83									
1926		4,257	2,805									
1927		820	2		1							
Fanshaw, Cape:												
1913				625								
1917		1,202	39,057	3	144							
1918		3,268	2,679									
1919	247	1,910	11,951		317							
1924	1,130	4,940	52,942	40	1,165							
1925	566	6,071	16,452	12	761							
1926	1,607	18,748	148,679	2	3,744							
1927	888	3,430	26,419	82	1,009							

TABLE 7.—*Salmon catch and fishing appliances used in the Frederick Sound district, 1904 to 1927—*
Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (num- ber)
						Num- ber	Fath- oms	Num- ber	Fath- oms	Num- ber	Fath- oms	
Farragut Bay:												
1911		177	230									
1912	676		2,689									
1916					1,286							
1917	25	321	10,826		5							
1918		200										
1919		2,756	2,260		19							
1920			2,373									
1921			238		298							
1922			13		549							
1924		162	3,865									
1926		12,613	5,537		165							
Five Mile Creek:												
1923	6	43	2,240		57							
1924	3	7	7,294		3							
1926		160	164		17							
Hamilton Bay:												
1904	805	6,500										
1908	7,532	258										
1911	1,633	444	67,121									
1914	2,560											
1915	6,998	8,827	19,428									
1916	7,963	25,738	55,475		8							
1917	2,459	12	164									
1918	129											
1919	37	3,127	3,884		203							
1920	16	3,110	667		11							
1922	4,488	13,785	20,631		1							
1923	2,591	2,522	4,650									
1924	999	25,786	26,614	780	8							
1925	42	28,654	2,784		1							
1926	1,956	9,407	77,077		15							
Herring Bay:												
1917	666	32,346	194,500	43	414							
1918		11,495	16,479		3							
1919	159	14,362	10,185		411							
1924		4,001	3,120		1							
1925	12	1,873	100									
1926		509	2,163									
1927	1,367	3,463	7,676	42	423							
Highland, Point:												
1919	1,057	10,272	19,993		2,394							
1922		18	669									
1923	231	838	11,703		354							
1924	593	5,832	125,844		383							
1925	438	3,211	7,539		433							
1926	456	5,695	41,117		628							
1927	790	3,872	22,609	77	740							
Ideal Cove:												
1916		6	2,730		6							
1918	1	579	7,042		78							
1922	1	23	929									
1924	8	2	294									
Kadakes Bay:												
1913	3	1,645	11,886									
1914	1,000											
1922	186	534	9,191									
1923	505	3,110	7,358									
1924	124	8,732	64,657		373							
1925		2,379	1,219									
1926	1,357	12,614	69,244		1							
1927	8	2,786	4,314		6							
Keku Strait, north end:												
1904	17,000											
1905	10,000	7,000										
1906	6,000											
1907	5,000											
1908	9,500											
1909				7,044								
1914		50,000	25,000									
1915	225	2,647	89,362									
1916	1,758											
1917	3,088	9,258	63,700									
1918			11,000									
1919	391	4,486	1,478									
1920	810	4,767	2,835	2	67							
1921		11,411	1,853									
1922	1,754	45,252	48,735		69							
1923	896	15,380	134,067		1,627							
1924	1,062	58,542	62,842		96							
1925	876	64,863	15,223		50							
1926	887	57,319	210,178		222							
1927	126	17,370	2,227		108							

TABLE 7.—Salmon catch and fishing appliances used in the Frederick Sound district, 1904 to 1927—
Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Macartney, Point:												
1919	310	2,864	2,963		219							
1924	1,383	10,357	127,922	7	869							
1925	565	8,256	21,350		560							
1926	477	12,090	66,301		541							
1927	2,320	6,883	44,259	101	647							
Murder Cove:												
1908		20,000										
1912	1,528	6,250	604									
1913	144											
1914		1,035	201									
1915			8,775									
1916		1,565										
1917		8,000	20,000									
1918	5,098	17,462	5,311	4,748	349							
1919	2,716	86,810	71,689	160	3,270							
1920	795	53,541	50,196	45	2,380							
1921		2,595	565									
1924	3,426	29,262	203,621	12	3,493							
1925	2,940	31,659	36,228	15	1,635							
1926	1	888	378									
1927			260									
Napean, Point:												
1919	180	2,778	4,211	7	92							
1920	267	9,861	16,664	2	239							
1926	705	11,252	71,075		553							
1927	775	5,493	4,579		6							
Petersburg Creek:												
1904	4,256		48,752	5	661							
1905	1,724		64,249		1,892							
1906	1,876	8,064	51,017		2,721							
1907	3,912	11,213	71,997		634							
1908	2,205	23,210	101,852	100	805							
1909	1,434	17,862	52,666		3,427							
1910	3,828	5,798	28,394		268							
1911	2,922	1,308	13,723		215							
1912	1,604	3,135	24,853									
1916	580	6,338	123,122	1	736							
1917	1,922	7,386	137,972		1,162							
1918	570	27,404	108,308		2,633							
1920	944	5,222	23,972		510							
1921					52							
1922	287	1,380	2,837		1,912							
1923	117	5,241	11,312		2,567							
1924	608	1,717	63,148		481							
Portage Bay:												
1904	3,856		3,145		8							
1908			15,000									
1910		976	5,626	167	26							
1912	97	4,004	18,582		20							
1914	3,180											
1917	1,158	741	19,878		1							
1918		10,454	30,316		4							
1920	111											
1922		4,629	3,370									
1923	1	939	704									
1924	483	8,131	23,324		9							
1925	19	15,824	2,630									
Pybus Bay:												
1907		25,819										
1912	128	69,983	27,809	4	197							
1915		22,703	110,621									
1916		5,675										
1917	1,532	57,659	403,185	3	4							
1918	858	194,083	348,346	2	69							
1919	999	169,237	55,705	1	1,109							
1920	219	100,460	9,583	7	160							
1921	3	10,955	5,174		54							
1922	251	7,736	18,697		20							
1923	4	2,806	6,774									
1924	228	66,801	75,496		408							
1925	8	21,291	3,803		3							
1926	2,777	113,505	515,428	29	6,444							
1927	1	6,215	653		2							
Pybus, Point:												
1924	3,238	2,022	50,621	42	3,209							
1925	994	17,924	21,529	43	994							
1927	1,449	4,538	15,181	100	538							
Pybus Reef:												
1925	1,122	24,425	31,088	73	1,280							
1926	330	11,766	91,372	6	760							
1927	263	419	1,522		11							

TABLE 7.—Salmon catch and fishing appliances used in the Frederick Sound district, 1904 to 1927—
Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Saginaw Bay:												
1904		22,500										
1905	9,000	75,000										
1906	8,087	113,729										
1907		78,485	86,774									
1908	10	8,121	378,391									
1910		13,361	34,145									
1911		30,701	48,242									
1912		77,726	39,805		9							
1913	1	1,608	2,444									
1914		25,000	10,271		75							
1915		3,417	108,581									
1916	3	4,160	1,376		3							
1917	2	30,334	89,420		165							
1918	1	18,414	23,799		72							
1919	700	24,649	28,079		5	441						
1920	466	19,150	48,153		16	850						
1922	63	4,102	30,138									
1923	50	3,722	16,379		637							
1926	1,679	11,032	169,513	534	1,839							
1927	1,435	4,358	14,392	43	285							
Security Bay:												
1905		82,000										
1907	2,631	9,997										
1908		25,000	60,000									
1910		42,583	129,000									
1911		137,999	107,536									
1912	912	10,714										
1913		1,137	1,052									
1914	2,001	17,849	13,823	3,000								
1915		1,876	41,800	447	4							
1916	7,326	24,720	94,360		3,783							
1917	4,357	53,227	88,690		200							
1918	2,089	70,173	45,800	1	6							
1919	327	23,248	16,053									
1920		13,121	10,083		22							
1922	183	1,075	2,795		103							
1923	71	4,346	16,204		750							
1924	756	41,296	22,706	21,410	2,210							
1925	1,385	96,628	21,116	6	539							
1926	10,934	27,668	223,630	4,295	3,824							
1927	12,729	18,816	58,486	217	2,191							
Strait, Cape:												
1915			22,400									
1917			7,360									
1920			6,582									
1924	1	17	5,722		3							
1926	219	3,896	26,996		68							
1927	195	1,312	1,267		3							
Thomas Bay:												
1917			14,455									
1918	20	90	7,685	1	4,552							
1926		4,753	1,309									
1927		487										
Unallocated:												
1904			7,500									
1905		52,452	17,765		1,947							
1906		60,225	43,393		5,622							
1907		83,051	55,684		4,694							
1908	5,342			8,661								
1909	1,069	44,750	33,533		16,141							
1910		82,710	26,120		12,873							
1911		108,248	186,792		2,850							
1912	9,001	235,064	308,784	15,174	15,107							
1913	3,396	99,860	457,070		158							
1914	12,699	89,705	279,842		936							
1915	9,582	74,899	860,253		3,893							
1916	13,794	105,099	909,212		22,067							
1917	5,031	144,764	1,382,538		440							
1918	14,719	627,034	2,277,908		148							
1919	17,843	485,724	493,284		69							
1920	37,197	297,501	1,001,512		3,012							
1921	39,786	92,686	375,979		5,481							
1922	3,852	53,315	200,555		41							
1923	24,229	68,400	568,332		5,447							
1924	5,755	38,141	281,863		21							
1925	15,865	153,442	197,604		12,134							
1926	17,513	137,636	724,999		150							
1927	5,501	14,234	59,994		1,899							
Total:												
1904	25,917	29,000	59,397	5	669			8		10		
1905	20,724	291,452	82,014		3,839	3				8		
1906	15,963	231,291	94,410		8,343	2				10		
1907	11,543	228,221	218,418		6,328	3	200	12	1,775	3	120	

TABLE 7.—Salmon catch and fishing appliances used in the Frederick Sound district, 1904 to 1927—
Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (num- ber)
						Num- ber	Fath- oms	Num- ber	Fath- oms	Num- ber	Fath- oms	
Total—Continued.												
1908.....	26, 187	157, 293	555, 243	8, 761	805	4	400	21	3, 470			
1909.....	2, 908	68, 605	92, 091	18, 821	19, 568			4	700			
1910.....	3, 828	145, 428	223, 285	13, 040	9, 015			6	1, 050			
1911.....	4, 732	288, 072	423, 648	2, 850	4, 811	15	2, 360	6	975	2	60	2
1912.....	13, 985	408, 760	483, 126	15, 178	15, 333	3	285	28	5, 430	2	200	4
1913.....	3, 582	134, 575	472, 474	7, 783	10, 728			10	1, 550	1	175	6
1914.....	21, 440	183, 589	320, 137	3, 936	14, 742			18	3, 670		175	4
1915.....	17, 313	140, 238	1, 668, 270	4, 340	20, 166			19	2, 890			7
1916.....	31, 432	235, 758	1, 190, 215	1	27, 889	4	260	23	4, 038			6
1917.....	20, 339	354, 050	2, 628, 807	498	14, 680	1	100	60	9, 555	3	325	11
1918.....	24, 302	966, 032	2, 884, 073	4, 900	17, 986	20	2, 708	54	10, 070	6	480	10
1919.....	27, 310	877, 609	750, 155	269	24, 138	24	3, 440	51	10, 020			16
1920.....	41, 846	562, 830	1, 215, 039	3, 087	46, 463	17	2, 825	33	6, 380	2	100	24
1921.....	41, 455	142, 378	407, 338	5, 866	16, 098	4	405	13	2, 550			8
1922.....	14, 493	169, 643	429, 436	66	8, 894			19	3, 275			11
1923.....	32, 673	124, 376	895, 065	5, 490	24, 629			28	4, 125			18
1924.....	24, 088	397, 816	1, 614, 751	22, 365	24, 185			48	7, 965			14
1925.....	26, 616	614, 903	412, 462	12, 299	12, 340			44	7, 305			19
1926.....	44, 063	543, 964	2, 768, 168	5, 016	37, 208			40	6, 855			18
1927.....	35, 863	116, 159	320, 715	2, 680	12, 885			15	2, 670			17

NOTE.—No catch was reported in the years omitted from the several divisions of this table.

TABLE 8.—Catch of coho and king salmon in the Frederick Sound district, by lines, 1908 to 1927
[Included in table 7]

Year	Coho	King	Year	Coho	King
1908.....	1, 329	8, 661	1917.....	1, 028	
1909.....	19	12, 973	1918.....	5, 698	4, 748
1910.....		12, 873	1921.....	40	2, 950
1911.....		2, 850	1923.....	1, 483	4, 903
1912.....		15, 000	1924.....	69	22, 190
1913.....	625		1925.....	7, 130	12, 091
1914.....	4, 066	14, 319	1926.....	16, 247	10, 747
1915.....	50	3, 547	1927.....	6, 950	1, 925

The mainland shore of Frederick Sound has no important fishery. Traps operated between Cape Fanshaw and Bay Point made fair catches in some years, but Brown Cove, Farragut, and Thomas Bay were less productive.

The Mitkof and Kupreanof Islands shores are also relatively unimportant. No streams of consequence are located in these sections, except possibly Petersburg Creek which was fished heavily for several years until the runs were nearly destroyed. This was stopped by the regulations in 1924 and has not since recurred. Traps in the vicinity of Cape Bendel and Point Macartney made good catches, but those at Boulder Point and Cape Strait were poor producers. Even if a part of the catches reported from Portage Bay came from the trap at Boulder Point, which is likely, the situation would not be materially changed. The remaining localities in this part of the sound, namely, Ideal Cove and Five Mile Creek, are relatively unimportant. According to available statistics, fishing was limited to a few seasons and catches were small. Perhaps, however, both localities were fished more regularly than the records show, the catches being reported as from the sound without more definite allocation. It is also probable that a considerable number of salmon were taken from Five Mile Creek by fox farmers on the adjacent Sukoi Islets, of which no record was kept.

Next to the Admiralty shore, the bays on the northwest shore of Kuiu Island and those tributary to the northern part of Keku Strait constitute the most productive section of Frederick Sound. Several fairly large streams entering these bays support good runs of pinks and chums, particularly Security, Saginaw, Kadakes, Hamilton, and Big Johns Bays. The catch in Keku Strait proper also reached sizable proportions, disregarding the possibility of faulty allocation as many of the salmon reported as taken in the strait may well have come from the bays just named. The strait and its bays are fished largely by seines so that it is more than probable that much of the fishing was carried on near the streams and therefore in the bays, as few streams, if any, debouch directly into the strait. The catches in this locality include salmon reported from Keku Islet in 1926 and from Kake Harbor in 1926 and 1927. They also include part of the unallocated catch from Keku Strait and Frederick Sound in 1912 and part from "Frederick Sound, Keku and Chatham Straits" in 1913. It was also necessary to divide the Keku Strait catches between the northern and southern parts of the strait as the southern section is included in the Sumner Strait district. This division affects the data for the years 1904 to 1908, 1912, and 1914 to 1927. The catch at Port Camden in 1926 was increased by the addition of salmon reported in that year from Port "Compton"—a corruption of the correct name. The total for Kadakes Bay was augmented by the inclusion of fish reported from "Kardake Bay" in 1913.

Security Bay and Saginaw Bay both show rather steady production of pinks and chums through 20 years. The larger catches in some years may be accounted for in the operation of traps at the entrance of the bays, but seine fishing was also successfully carried on in these waters. The catch in Saginaw Bay was increased by the inclusion of part of the salmon reported from Saginaw Bay and Chatham Strait in 1912, and that in Security Bay by a division of the salmon reported from Pleasant Bay and Security Bay in 1918.

The unallocated catch in Frederick Sound reached comparatively large totals in several years, due to the failure of the operators to give more exact information as to the places where the salmon were caught. In other cases where definite allocations were made, the catches were small or fishing was not continuous. As no worthwhile purpose could be served in treating them separately, they were included in the unallocated catches of the sound. Catches from the following localities were so treated: Beacon Point, Meade Point, and Harbor Bay in 1925; Meade Point, Cyrus Catt Creek, and Petersburg in 1918; Kupreanof in 1920; Le Conte Bay in 1917 and 1927; Muddy River and Kasheen Bay in 1926; Point Gardner in 1917, 1919, 1920, and 1927; Horgan Point in 1924; Kjeen Bay and Point Kingston in 1912; Donkey Bay in 1927; and Elliott Island in 1924. It was also necessary to divide certain catches reported under the following locality names: "Frederick Sound, Stephens Passage, and Sumner Strait" in 1923; "Icy, Chatham, and Peril Straits and Bays" in 1905 to 1907 and from 1909 to 1919; "Icy Strait and Frederick Sound" in 1918 to 1921; "Keku Strait and Frederick Sound" in 1912; "Kake and Seymour Canal" in 1916; "Frederick Sound, Keku and Chatham Straits and tributaries" in 1913; "Chatham Strait, Frederick Sound, and Stephens Passage" in 1923; "Chatham Strait and Frederick Sound" in 1919; "Frederick Sound, Stephens Passage, and Sumner Strait" in 1923; "Sumner Strait and Frederick Sound" in 1914 and 1920; and "Admiralty Island" in 1919, 1920, and 1924. As was explained in the discussion of other districts and as will be done in reviewing the data for yet other districts, these divisions were based upon the best available information regarding the field of operations of the

packers using such faulty allocations. It is recognized, of course, that general allocations of this kind are made at the expense of other definite localities, the returns from which are therefore lowered.

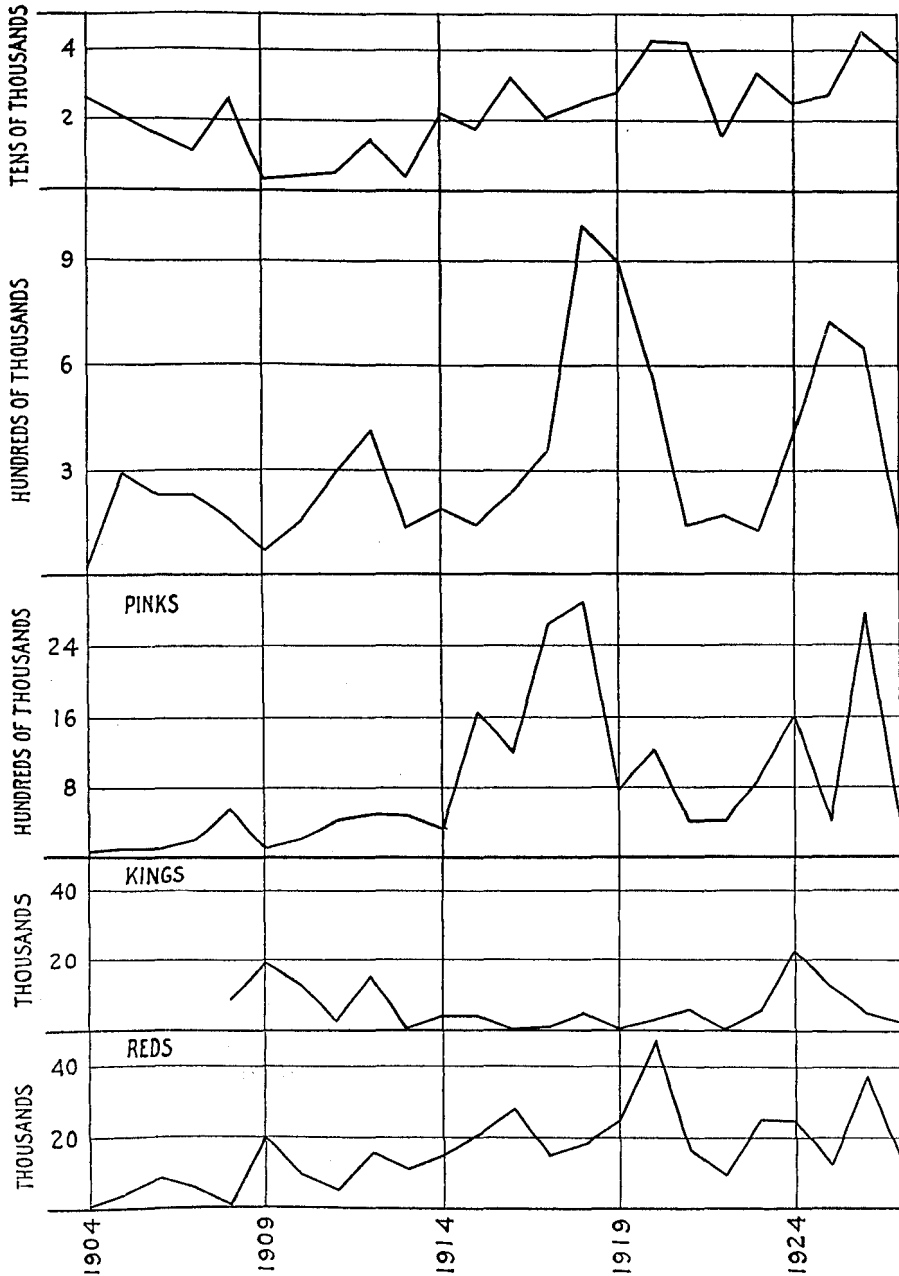


FIGURE 24.—Catch of salmon in the Frederick Sound district, 1904 to 1927.

The total catch of salmon in the Frederick Sound district is shown graphically in figure 24.

Figure 24 shows that the production of cohos has been fairly constant since about 1914 which ended a 5-year period of small catches, and that the number taken in 1926

exceeded the catch in all other years covered by this review. The fact that this was accomplished under more stringent regulation of fishing than had ever before prevailed makes it seem very probable that no depletion of this species has occurred.

The condition of the chum fishery appears less satisfactory as the catches since the economic drop in 1921-1923 have not fully recovered and are still but slightly higher than those of the poor years almost a decade earlier when fishing was far less intensive and when only a few packing plants were in operation. If it were not for the greater restriction of fishing in these later years, there would be reason to assume that the chum fisheries show depletion, especially when viewed in the light of the larger number of seines and traps now in use. The changed regulation of fishing in 1924 and the slackened fishing effort in the few years just preceding upset the continuity of operations and leave no satisfactory basis for an appraisal of the present condition of the fishery. The reported catch of only 116,159 chums in 1927 probably is indicative of a poor run in that year, since it represents a decline of more than 80 percent from the catches in 1925 and 1926 and is the lowest catch on record since 1909.

The development of the pink-salmon fishery was marked by no very large catches until 1915 when 1,668,270 pinks were caught, exceeding by more than 1,000,000 the catch in any earlier year. That was the beginning of a 4-year period of large production which reached a high point in 1918 when 2,800,945 pinks were taken. The decline in the fishing effort of 1919, caused by overproduction in 1917 and 1918, was reflected in the drop of 73 percent in catch in that year. The catch in 1920 was 38 percent larger than in 1919, but it was followed by a decline of 65 percent in 1921, from which there was practically no recovery in 1922. The curve of production moved upward in 1923 and 1924, only to fall to very low levels in 1925 and 1927 while the intervening year of 1926 showed a catch almost equal to that of 1918. Production in the even years increased more rapidly than it fell off in the odd years, but the fluctuations since 1922 indicate that the general conditions as regards the pink-salmon runs is none too stable. At the present rate of regression, the odd years will soon provide very poor runs in the Frederick Sound district. Drastic curtailment of fishing in 1927, by Executive orders, was necessary to provide even a moderate escape-ment, and the wide fluctuations in catches in recent years may presage a failing supply of pinks.

The king-salmon fishery of this district is not important. Fair catches were made in 5 years, perhaps largely as the result of trolling in the western part of the sound. As these catches were made in large part on the feeding grounds of the kings, they cannot be regarded as coming from runs to Frederick Sound. A few kings bound for the Stikine River may pass through this waterway, but the bulk of the Stikine run undoubtedly approaches the river through Sumner Strait and Clarence Strait. The Taku River may also account for some of the kings taken in the sound. The fact that a considerable part of the catch was taken by lines gives no indication that this district supports a run of kings distinctively its own. No streams tributary directly to the waters of the sound have ever been recognized as producers of king salmon.

The district is likewise poor in red-salmon streams. The largest catches ever reported from its waters were 46,463 in 1920 and 37,208 in 1926, while the average for 24 years is less than 20,000. They doubtless came chiefly from runs to other districts which may account for the absence of marked indications of depletion. There is little probability that larger catches of this species will ever be made in this district without a material increase in the number of traps along the migration routes of the incoming salmon.

STEPHENS PASSAGE

The Stephens Passage district covers all the waters of the mainland and the east coast of Admiralty Island between a line from Cape Fanshaw to Pybus Point northward to the southern boundary of the Lynn Canal district across Saginaw Channel from Point Retreat to the north end of Shelter Island and thence to a point on the mainland 2 miles north of Eagle River. (See fig. 25.)

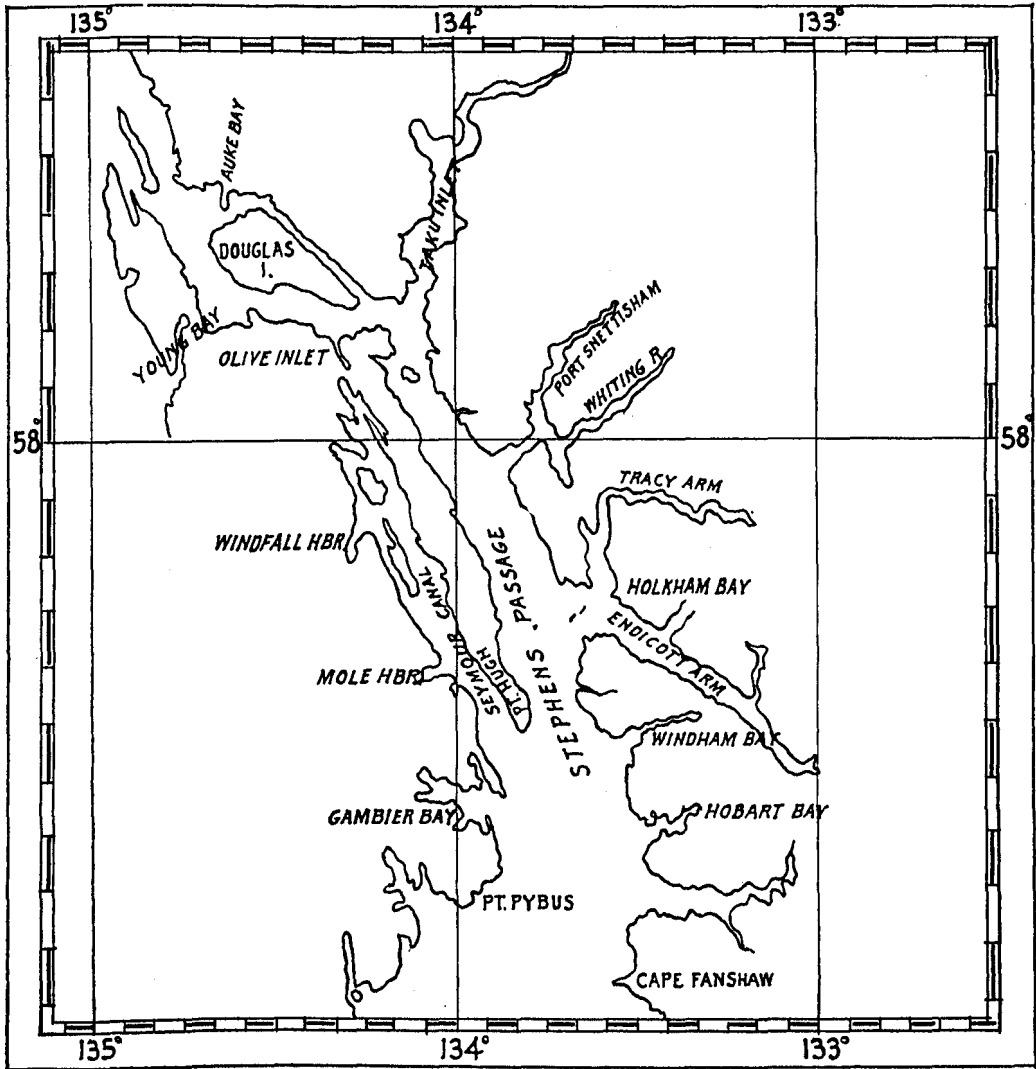


FIGURE 25.—Map of the Stephens Passage district.

The salmon fisheries of this district were first exploited about the time canneries were established on Chilkat Inlet, as catches of king and red salmon from Taku River, the most important stream in the Stephens Passage district, were utilized at those plants. No record of the number of salmon by species, or otherwise, which were taken from this river during the early years is now available, but the Chilkat canneries usually took about 3,500 cases of salmon annually from the Taku until canneries were opened in this district. In 1900, two canneries were built on Stephens Passage

to utilize Taku River salmon, although a saltery had been opened near the head of Taku Inlet in 1897 and operated a few years. During these early years fishery establishments changed hands frequently, and often were operated only one or two seasons, consequently reliable statistics of catches were not always obtained from the packers. All salmon which were taken in Taku Inlet and canned at Chilkat were probably recorded as Chilkat Inlet fish, and it is also likely that similar errors in allocation of catches occurred after the establishment of canneries near Taku, at least during the years that the Chilkat canneries drew on the Taku fisheries for a supply of salmon. Eventually this practice was discontinued.

Prior to 1904 packers were not required to make allocations of catches to definite streams or bays, so that no information is now available to show the source of supply of the salmon used in those earlier years, but in order to make the review as complete as possible by presenting all available data, a separate table, showing as unallocated catches the salmon probably caught in the Stephens Passage district before 1904, is given in table 9. It does not take into consideration the Stephens Passage salmon which were utilized outside of the district.

TABLE 9.—*Catch of salmon in the Stephens Passage district, 1900 to 1903*¹

Year	Coho	Chum	Pink	King	Red
1900.....	16, 292	30, 180	93, 881	22, 653	117, 878
1901.....	110, 135	-----	485, 997	16, 444	199, 924
1902.....	42, 802	-----	587, 979	22, 300	264, 917
1903.....	67, 973	-----	892, 890	2, 284	291, 108

¹ The data for 1900 were obtained from Moser's pack figures, (1902, pp. 260 and 313), by reducing the number of cases reported by him to fish, using his average number of fish per case in making the calculations. Two companies were operating in this field. Moser's averages per case were as follows: Kings, 2.8 and 3; reds, 9; cohos, 7; pinks, 21; and chums, 6.5 and 7. The figures for other years were taken from the reports of the Treasury agents.

From 1904 to 1927 all data used in this report were obtained from formal reports of operators on file at the Bureau of Fisheries in Washington. In several cases catches in this district were combined with catches from other districts and so reported. A division as between districts, therefore, has been made somewhat arbitrarily but as fairly as possible in the light of all information now available, but allocation to definite bays or streams could not be made. Tables 10 and 11 show in detail the catch of salmon in this district. Catches from 26 localities have been given separately, and those from 21 unimportant or undetermined localities were merged with those indicated. Where catches were reported from two localities under one name, as "Pleasant Bay and Security Bay" divisions were made in accordance with our understanding of the extent of operations in each field by the operators concerned. Probably no other course could give a more satisfactory allocation of catches at this time. The only alternative would have been to throw all such catches in with the unallocated catches of the district; but, as in the case cited, where the joined localities were in different districts, this could not be done. It was also necessary in the case of some of the early years to make allocations to the district from the unallocated catches of southeastern Alaska as a whole, due to the failure of the operators to show localities at all. In such cases, allocations were made to the waters in the vicinity of the plants of the packers so reporting.

TABLE 10.—Salmon caught and fishing appliances used in the Stephens Passage district, 1904 to 1927

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Admiralty Cove:												
1926		8,009	1,295									
1927		1,617	12									
Auk Bay:												
1904	1,908	44,028	19,476		8,707							
1905	4,928	3,760			27,533							
1915	72	687	1,168		4,654							
1916	707	531	100		2,290							
1917	73	866	53		456							
1918		2,735	531									
1922	126											
1923	1	258	1,120		702							
1924	528	6,708	302		2,365							
1925	1	1,418	1		140							
1926	2	13,429	5,192		571							
Eagle River:												
1917	5	11,860	6,212		21							
1918	504	7,869	317		3							
1924		2,076	90		451							
1927	1	190	463		2							
False Point Pybus:												
1925		18,287	28,779	48	750							
Fanshaw Bay:												
1920		1	148									
1926	1,023	5,059	110,376		1,404							
Favorite Channel:												
1923	2,009	3,130	2,720		2,814							
1924	134	21,466	387		207							
Fritz Cove:												
1918	1,104	34,887										
1919	131	2,821	381		49							
1926		1,233										
Gambier Bay:												
1907			14,800									
1912	974	27,254	17,725		4							
1913	2		28,829									
1914		10,000	30,000									
1916	894	66,329	97,406		89							
1917	63	88,909	304,714	1	44							
1918	72	127,528	311,877	14	948							
1919	40	82,299	19,031		11							
1920	130	67,938	76,325		4							
1922	19	52,532	42,454		126							
1923	391	22,328	102,112		1							
1924	85	97,949	281,211	2	265							
1925	66	67,813	10,298	1	12							
1926	17	74,676	67,188		21							
1927		2,124	98									
Glass Point:												
1925		6,266	9,614	12	504							
Hobart Bay:												
1907			57,430									
1912		273	46,156									
1916	8	5,282	251,509		3							
1917	3	7,978	64,315	4	8							
1918	5	68,411	103,350	3	16							
1919	98	13,501	6,867	72	355							
1920	322	7,422	27,623	3	245							
1922	21	10,766	26,943		85							
1923		749	151									
1924	29	6,257	40,281		31							
1925		14,518	22,633	1	4							
1926	14	51,696	49,557		151							
1927	233	17,558	13,344		44							
Hobart, Point:												
1919	312	2,665	7,278	20	854							
1922	501	3,271	72,175	16	475							
1923	1,741	5,474	76,607	47	885							
1924	800	8,851	176,070		1,093							
1925	882	17,520	47,344		1,073							
1926	910	16,965	276,662		2,311							
1927	478	2,982	15,049	80	303							
Houghton, Port:												
1910	1,266											
1912	73	4,990	11,222									
1913			12,000									
1914		9,018	55,837									
1916	31	15,806	711,584	20	8							
1917	887	16,252	649,182		819							
1918	292	63,968	326,603		644							
1919	368	16,480	23,827		198							
1920	163	37,474	49,655		72							
1921	364	5,942	37,048		49							
1922	1,309	26,406	211,673		15							
1923	4,193	16,847	220,933		780							
1924	1,062	36,040	473,664		1,681							

TABLE 10.—*Salmon caught and fishing appliances used in the Stephens Passage district, 1904 to 1927—Continued*

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Houghton, Port—Contd.												
1925	438	22,493	59,772		435							
1926	322	40,384	162,542		1,375							
1927	296	5,398	9,660	91	191							
Hugh, Point:												
1926	412	12,841	146,692		741							
Lena Cove:												
1905	500	4,000	3,250		3,000							
1912	36	9,417	3,040		2,873							
1920		109	490		371							
Limestone Inlet:												
1907			39,785									
1912		1,242	5,484									
1913		173	941									
1914		91	4,635									
1917		805	6,044									
1918	404	11,952	99,659		261							
1919	851	4,924			601							
1922			4,500									
1926	1	9,681	28,798		32							
1927	2	1,123	6,308									
Mole Harbor:												
1917		5,985	88,562		39							
1918	10	4,361	27,343	2	8							
1919	5	11,136	8,390		1							
1920		1,655	4,575									
1922		1,389	869									
1924	546	6,969	106,612		396							
1925	204	5,029	8,632		167							
1926	381	16,372	140,838	4	721							
1927	227	2,399	6,482	38	180							
Pleasant Bay:												
1904			23,035									
1905		20,800	30,000									
1908			6,080									
1912	86	834	6,954		1							
1913			3,000									
1914			7,690									
1915	438	23,362	243,799		195							
1916			8,446									
1917		554	12,426		10							
1918	347	10,179	8,925									
1920		479	2,790									
1927	272	2,475	8,427	41	177							
Saginaw Channel:												
1912	29,970	49,621	158,004	1,284	40,107							
1913	23,584	28,032	142,500		754							
1914	20,019	51,473	62,434	1,122	15,205							
1915	22,901	35,662	196,503		381							
1916	37,280	51,663	102,451	197	16,053							
1918		745	602	22								
1920	5,339	7,304	10,029	318	11,241							
Seymour Canal:												
1906	3,000	10,000	60,000									
1912	2,385	20,383	274,459	236	4,199							
1913	968	10,540	103,293	452	1,140							
1914	1,685	13,040	110,359	11	274							
1916	3,404	36,835	407,190		2,302							
1917	252	18,801	229,976	19	949							
1918	1,394	57,695	270,298		85							
1919	906	19,792	32,458	21	3,085							
1920	208	37,384	44,460	2								
1922	250	19,352	38,018		5							
1923	245	31,622	108,245		619							
1924	614	21,137	197,651		970							
1925	670	17,788	20,314	44	306							
1926	36	45,459	135,671		35							
1927	16	19,373	65,133		288							
Shelter Cove:												
1924	16,930	32,066	75,835	1,550	15,870							
1926	375	10,999	20,927	55	4,542							
Snettisham, Port:												
1904	1,060	1,010	525	13	4,465							
1905		643		1	10,250							
1907					8,000							
1908		92	1,061		23,475							
1909					20,000							
1910					20,480							
1912		2,050	5,408		6,948							
1913		758	1,885	9	3,301							
1914		869	6,496	1	4,769							
1915		2,529	5,985		10,327							

TABLE 10.—Salmon caught and fishing appliances used in the Stephens Passage district, 1904 to 1927—Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Snettisham, Port—Contd.												
1918		826	69,718									
1919		9,029	11,706									
1920		620	2,164									
1922		682	5,898	20								
1923		434	1,973									
1924	220	614	1,632									
1926	3	4,037	7,961									
1927		717	8,315									
Taku Inlet:												
1904	13,568	7	128	29,214	50,599							
1905	20,630			22,362	72,353							
1906				2,696	48,724							
1907	41,981	44,770	15,908	10,701	23,937							
1908	32,352	8,286	1,842	10,757	38,862							
1909	36,889			7,384	69,000							
1910	46,397	16,425	500	21,597	58,304							
1911	40,824	38,865	24,661	45,017	34,885							
1912	38,440	45,255	9,059	8,088	19,892							
1913	17,647	8,891	8,635	9,985	14,014							
1914	46,731	32,211	11,043	16,996	20,378							
1915	37,108	17,652	34,355	12,099	30,300							
1916	58,182	58,318	13,902	13,048	16,431							
1917	32,251	19,357	39,272	8,239	32,721							
1918	25,239	6,561		7,781	36,600							
1919	33,350	66,167	50,117	9,713	35,060							
1920	34,076	43,088	24,162	21,977	30,134							
1921	57,047	13,000	40,000	10,049	24,044							
1922	34,882	23,192	8,373	6,474	26,920							
1923	24,845	9,224	12,030	12,900	8,791							
1924	24,825	16,565	19,988	17,088	22,314							
1925	40,066	20,212	13,832	16,232	19,685							
1926	26,536	18,462	20,241	7,801	39,028							
1927	41,160	11,530	37,032	8,177	11,103							
Tee Harbor:												
1904	636	8,441	6,549		3,198							
1908	4,471	1,825	6,187	6	4,471							
1912	1,426	8,174	4,934		2,409							
1914	120	3,550	11									
1915	818	4,941	8,522		4,504							
1916	348	2,034	2,068		1,683							
1917	283	419	648		281							
1918	5	1,076	1,040		329							
1925	69	17,090	1,335		753							
1926	3	25,927	13,737		145							
Windfall Harbor:												
1912		30	21,387									
1914	918											
1919	2	476	3									
1920	1	2,955	8,481									
1922		12,904	13,514									
1923		936	4,404		3							
1924		4,181	14,285									
Windham Bay:												
1907			65,397									
1912		581	59,515									
1913		530	38,548									
1916	307	5,303	481,986		56							
1917		494	18,391		7							
1918	138	54,663	371,715	1	149							
1919	6	225	1,248		15							
1920	13	10,410	59,089	2	47							
1922	2,045	20,774	137,008	20	1,641							
1923	580	2,050	36,935	12	524							
1924	3,152	30,486	565,974	21	4,426							
1925	919	14,723	42,667	19	1,238							
1926	1,981	30,527	416,981	2	3,935							
1927	709	3,737	38,840	16	371							
Young Bay:												
1912	646											
1918		14,321	13,951									
1923		451	902									
1924	519	2,112	5,369		2							
1926	7	22,104	2,470		27							
1927	1	880	46									
Unallocated:												
1904	7,118	9,254	132,345	2,454	18,704							
1905	7,430	39,487	38,686	1,907	27,070							
1906	37,449	29,374	144,447	17,470	39,242							
1907			22,500	8,000	4,800							
1908	9,271	36,400	248,537	7,445	39,684							

TABLE 10.—*Salmon caught and fishing appliances used in the Stephens Passage district, 1904 to 1927—Continued*

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Unallocated—Continued.												
1909.....	16,560	6,562	120,145	9,033	41,389							
1910.....	31,000	61,200	186,500	457	47,000							
1911.....			8,250									
1912.....	292	39,244	16,556		10							
1913.....	1,695		19,320	1,131	1,574							
1914.....	4,067	1,138			626							
1916.....	500	7,472	227,965		6,071							
1917.....	29,634	146,785	1,077,372	4,603	81,516							
1918.....	5,362	185,235	468,988	6,078	4,288							
1919.....	21,305	141,710	97,922	4,687	16,120							
1920.....	13,149	78,489	290,015	2,120	9,018							
1921.....	29,829	44,647	128,062	20,000	17,607							
1922.....	46,505	61,231	135,900	1,305	10,364							
1923.....	32,318	71,642	233,960	16,299	39,070							
1924.....	10,478	16,104	30,210	2,347	4,404							
1925.....	10,489	105,333	94,178	2,951	8,732							
1926.....	1,790	59,017	282,117	821	12,294							
1927.....	4,225	31,191	74,702	381	6,331							
Total:												
1904.....	24,290	63,340	182,058	31,681	85,673	1		2		43		3
1905.....	33,488	68,690	71,936	24,270	140,226	5		4		56		7
1906.....	40,449	39,374	204,447	20,166	87,966	3		3		21		6
1907.....	41,981	44,770	215,820	18,701	36,737	2	150	2	325	5	1,000	
1908.....	46,094	46,693	263,707	18,208	106,492	1	150	1	175	10	1,750	5
1909.....	59,449	6,562	120,145	16,417	130,389							5
1910.....	78,663	77,625	187,000	20,054	125,784	2	150	2	325			4
1911.....	40,824	38,865	32,911	45,017	34,885	4	410	2	250	102	20,000	9
1912.....	74,328	209,348	633,903	9,608	76,443	7	1,000	8	1,500	31	2,700	6
1913.....	43,896	48,924	358,951	12,351	47,329	3	600	7	1,080	30	2,400	6
1914.....	73,540	121,390	288,405	18,130	41,252			7	1,165	52	9,360	4
1915.....	61,337	84,533	490,242	12,480	71,202			4	825			4
1916.....	101,751	249,033	304,607	13,265	44,986			14	2,435	88	9,800	8
1917.....	63,451	319,065	2,497,167	13,685	117,742			21	3,100	115	21,000	11
1918.....	35,621	652,869	2,074,337	14,523	43,858	15	1,520	42	7,605	92	18,200	13
1919.....	57,374	371,215	259,228	14,711	57,188	26	3,570	45	9,090	90	18,000	20
1920.....	53,401	295,328	600,006	24,503	51,665	21	3,325	34	5,966	90	18,000	23
1921.....	87,240	63,589	205,110	30,098	41,987	1	50	10	1,925	91	18,100	5
1922.....	85,658	232,499	697,325	7,850	47,591	9	1,250	28	4,570	59	8,550	9
1923.....	66,323	166,045	802,092	30,038	57,884			17	3,150	17	2,550	10
1924.....	59,922	309,581	1,989,561	21,389	62,389			39	6,825	21	3,150	17
1925.....	53,804	328,490	359,399	19,308	33,799			18	3,020	23	4,600	17
1926.....	34,113	467,077	1,889,245	8,683	76,063			36	6,525	49	9,340	10
1927.....	47,620	103,294	284,211	8,824	27,256			42	7,200	36	6,680	10

NOTE.—No catch was reported in the years not shown in any division of this table.

TABLE 11.—*Catch of coho and king salmon, by lines, in the Stephens Passage district, 1904 to 1924*
[Included in table 10]

Year	Coho	King	Year	Coho	King
1904.....		2,454	1913.....		125
1905.....		1,907	1916.....	300	
1906.....	3,000	17,470	1918.....	400	6,600
1907.....		8,000	1919.....	570	4,475
1908.....		2,465	1920.....		2,094
1909.....		7,600	1922.....		1,012
1910.....		9,163	1923.....		880
1911.....		10,930	1924.....		368
1912.....		2,371			

The most important salmon river in the district is the Taku, a large glacial stream and the outlet of several lakes in the Yukon Territory of Canada. Much of its importance is due to the presence of good runs of king and red salmon, which runs are also important factors in the Icy Strait fisheries. The river enters the head of Taku Inlet, a long narrow indentation of the mainland just north of the fifty-eighth parallel of north latitude, and one of the principal arms of Stephens Passage. The

river carries a large quantity of silt which discolors the water of the inlet for several miles, thus making possible the only important gill-net fishery in the district.

Presumably fishing began at the Taku about 1885 soon after the opening of canneries on Chilkat Inlet and for many years this locality made substantial contributions to the packs of the canneries at the head of Lynn Canal, yet in all those years no segregation of catches was made to show the number of salmon taken from Taku Inlet. Moser (1899, p. 126) says, in reporting on the pack of king salmon by the Chilkat canneries, "all that are packed at Pyramid Harbor are taken in the Taku, except a few stragglers that appear around the Chilkat very early in the season, which can hardly be called a run."

Taku River produces all species of salmon. The catches have been surprisingly uniform by species and from year to year. The largest catch of reds was 72,353 in 1905; of kings, 45,017 in 1911; pinks, 50,117 in 1919; chums, 66,157 in 1919; and cohos, 58,182 in 1916. Such even production, not exceeding 73,000 of any species in 24 years, has no parallel in any other locality. This consistently steady production is illustrated clearly in figure 26. After 1923 the catch of all species was affected by regulations, which in 1924 stopped fishing from August 11 to 31 and those in subsequent years which prohibited fishing from August 6 to September 5 and from October 15 to the end of the year, except gill netting from September 5 to October 15. Fishing was prohibited within 1 mile of the river after June 1924. Although it is improbable that the catch of kings was reduced materially by these regulations, as the run comes early, it is likely that the catch of all other species was considerably affected by these restrictions. There would be no purpose in such regulations if the catch were not reduced.

In assembling the data for Taku Inlet, it was necessary to divide the catches reported from Taku Inlet and Icy Strait in 1910, from Taku Inlet and Port Snettisham in 1919, from Taku and Chilkoot Rivers in 1922, and the unallocated catches of southeastern Alaska in 1906 and 1911. All salmon reported from Taku River from 1913 to 1919 were also included as Taku Inlet fish.

The trend of the catch of cohos maintains an even level almost from the development of the fishery to the end of the period herein treated, and there appears to be no marked change in conditions as a result of the restrictions that were applied in 1924 and in subsequent years. The fishing season, as limited in 1924, apparently caused a slight falling off in catch in that year but the larger catches in 1925 and 1927 again gave the curve a perceptible slope upward.

The catch of chums fluctuated more than that of any other species, and shows a rising trend up to 1918; thereafter it declined in a few years to the lowest point it had reached since 1908.

The pink-salmon fishery of Taku Inlet is relatively unimportant. Apparently little effort was made to take this species before 1911. Even in 1918, when most all other localities were highly productive, no pinks were reported from the inlet. The trend of this fishery reached its highest point in 1919, only to move downward with but one interruption to the low level of 1924. Although the better catches in 1926 and 1927 caused the trend to move upward, there is no indication that the catch will exceed greatly the best catches of the past, which occurred always in odd years.

The trend of the king-salmon catch has maintained a virtually constant level for more than 12 years. Except for the surprisingly large catch of 1911, the pro-

duction has been remarkably uniform. The last two years, 1926 and 1927, were among the poorest seasons this fishery has ever known, but the data disclose no

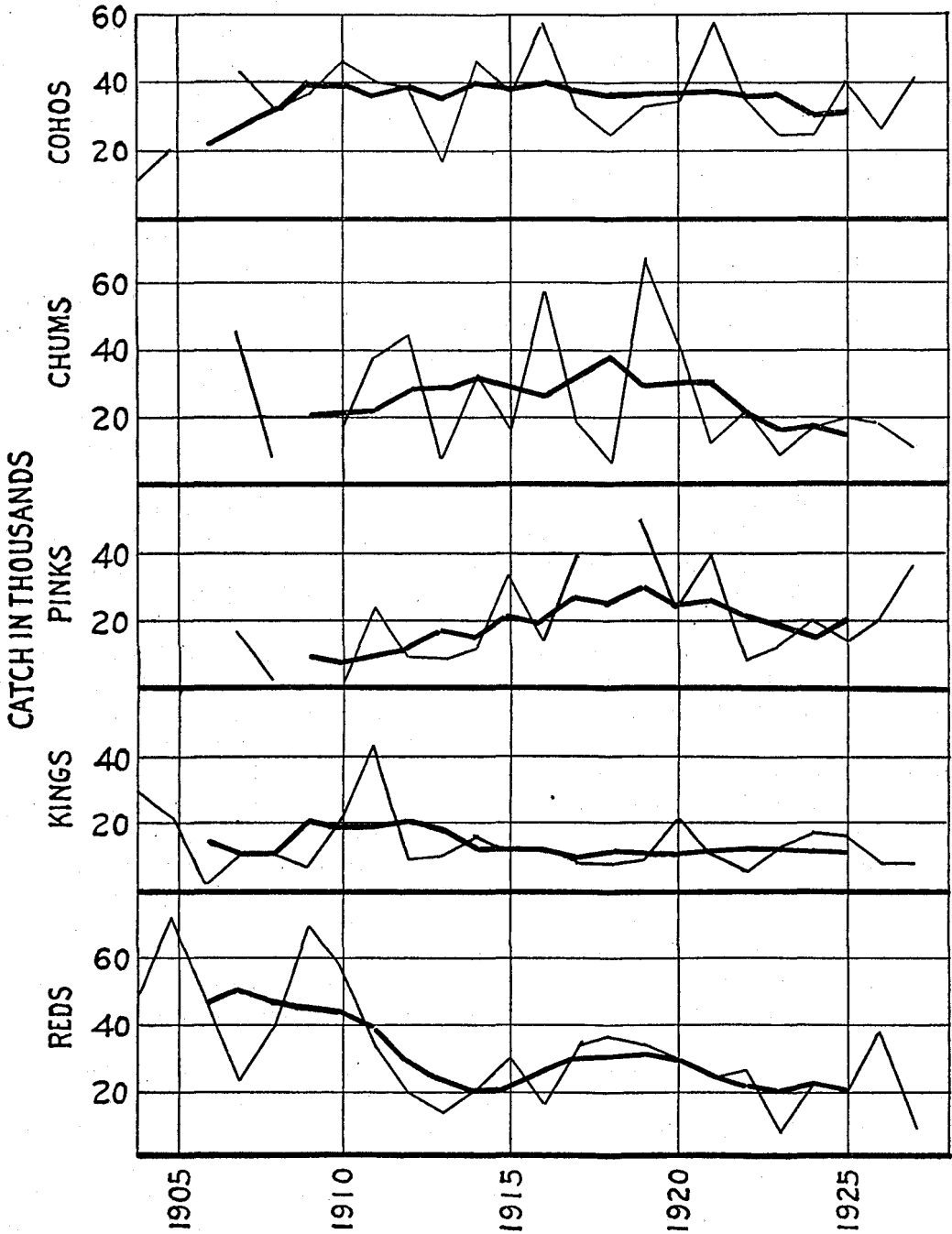


FIGURE 26.—Catch of salmon in Taku Inlet.

positive evidence of a failing supply. The run of kings, as those of all other species, is intercepted at many places before it reaches the inlet so that the real condition of the fishery cannot be determined alone by the catches in the inlet.

This fact is particularly noticeable in the red-salmon fishery, which shows a marked decline since 1910, and the trend of the catch is reaching lower levels as the seasons pass. How much of the Taku run is taken in Icy Strait and the lower part of Lynn Canal is not known, but the decline of this fishery is without much doubt correlated with the increase of fishing in those districts.

The mainland shore of Stephens Passage from Taku Inlet to Cape Fanshaw is indented by five bays of fair size, yet no important fishery has been developed within any one of them. Port Snettisham is the outlet of two large streams—Speel River and Whiting River—both of which support small runs of salmon. In 1900 a cannery was built on the southern shore at a location 2 miles east of Point Styleman and made small packs in 1900 and 1901, obtaining most of its king salmon from Taku Inlet, reds from Port Snettisham, and other species from Limestone Inlet and nearby streams. Considering the size and the number of streams which flow into this bay, it is one of the poorest salmon localities in southeastern Alaska. Since 1910 the annual catch of reds has not exceeded a few thousand, although in earlier years the annual catch was more than 20,000. The catch of all other species has been decidedly insignificant, except in 1918 when 69,718 pinks were reported from these waters. Salmon taken from Speel River in 1913, from Sweetheart Bay in 1918, and part from "Taku Inlet and Port Snettisham" in 1919 were included within the catch from Port Snettisham.

Windham Bay data indicate that an important pink-salmon run originates in that locality, and that chums are also present in fair numbers. The other species are also taken, but in limited numbers. These catches, however, were made chiefly by traps located at the entrance, or just outside the bay, and were probably not entirely of Windham Bay fish. Little fishing has actually been done in the bay. For reasons which have been explained above a part of the catch reported from Frederick Sound, Stephens Passage, and Sumner Strait in 1923 was credited to this locality as was also a part of the unallocated catch of southeastern Alaska in 1922 and 1924.

Hobart Bay has produced a considerable number of pinks and chums since 1912, the larger part of which came from traps located in the vicinity of Point Hobart and on the north side of the entrance to the bay and not actually from the bay. They were, however, reported as Hobart Bay fish to distinguish them from catches made elsewhere in Stephens Passage.

The records show that Port Houghton leads all the localities of this district in the production of pink salmon and holds third place in the yield of chums. This does not mean, however, that the entire catch reported as taken at Port Houghton came from local runs as a large part of it was taken from the general runs of Stephens Passage by traps at the entrance of the bay. The tagging experiments of 1924 at Point Kingsmill on Chatham Strait and at Cape Bendel on Frederick Sound disclosed that the main runs of salmon entering Stephens Passage from Frederick Sound strike the mainland shore between Port Houghton and Windham Bay. Tagged salmon were recaptured by traps along this shore, but there was no evidence that the streams of Port Houghton were providing a large proportion of the runs. On the contrary, it is probable that the runs were dispersed from this shore to all the bays of the eastern shore of the passage, if indeed, a considerable part did not cross the passage again to enter the streams of Admiralty Island. The catch seems to have been only slightly affected by the general regulations applicable in this district, but the orders of 1926 and 1927, closing Sanborn Canal, a small narrow bay on the south side of Port Houghton, may have reduced the catch slightly.

On the Admiralty shore of Stephens Passage are two important localities which have produced good runs of pink and chum salmon. These are Gambier Bay and Seymour Canal of which Pleasant Bay, Mole Harbor, and Windfall Harbor are tributaries. The catches from Gambier Bay probably include salmon caught off the entrance of the bay and therefore may not be exclusively Gambier Bay fish, but the Seymour Canal catches are undoubtedly properly allocated as most of the fishing in those waters was well within the canal. The possibility of error lies only in the division of comparatively inconsequential catches reported from Pleasant Bay and Security Bay in 1918 and from Kake and Seymour Canal in 1916. Due to the purity of these runs, it is possible to make a more detailed analysis of the Seymour Canal catches than can be made in respect of the runs in any other Stephens Passage locality, excepting possibly Taku Inlet. The combined catches of chums and pinks in Seymour Canal, Windfall Harbor, Mole Harbor, and Pleasant Bay, with small catches reported from Oliver Inlet in 1912 and 1913 and from Flaw Point in 1925, are shown graphically in figure 27. Other species are not considered because the catches were too insignificant.

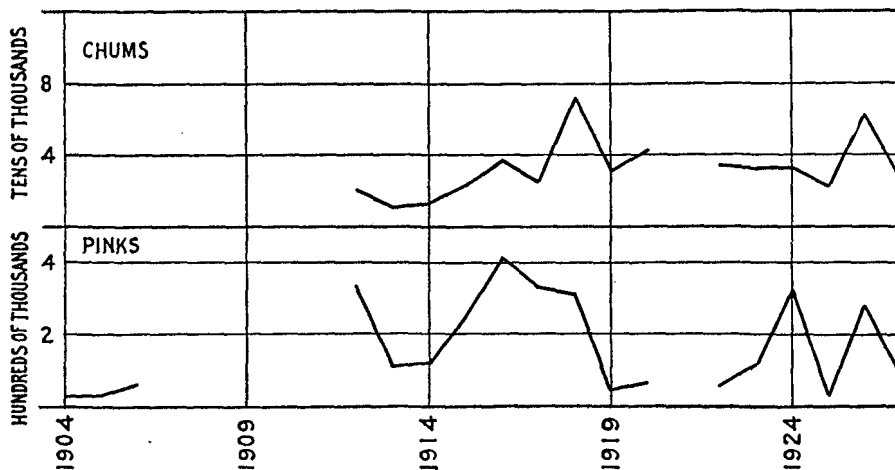


FIGURE 27.—Catch of chum and pink salmon in Seymour Canal, 1904 to 1927.

These graphs indicate that very little fishing was done in Seymour Canal before 1912, due perhaps to the absence of much competition for fish and the ability of the few packing plants then in the district to secure a supply of salmon nearer the canneries. With the establishment of more canneries on Stephens Passage, and an increase in the demand for salmon, Seymour Canal became a profitable field of operations and a consistent producer of pinks and chums until the economic break in 1921 and 1922. As the depression subsided, fishing was resumed, but the rather even production of pink salmon in the earlier years gave way to wide fluctuations which show good yields only in the even years, a condition very generally observed throughout southeastern Alaska. The catches in these years reached approximately the level of earlier good years notwithstanding the restrictions that were imposed in 1924 and subsequent years. The catch of chums since 1921 has held approximately the same level as it did before that time. There appears to be little evidence of depletion in the catches of pinks and chums in Seymour Canal.

Gambier Bay has made important contributions to the catch of chum and pink salmon in the Stephens Passage district, but the catch declined materially after the

permanent closing of the bay west of the one hundred and thirty-fourth meridian in 1925. The largest catch of both chums and pinks was made in 1918. The next 4 years, during which the fishing was less intense, were marked by considerably smaller catches. With the resumption of large-scale fishing in 1923, the catch of pinks again improved, but the catch of chums was even lower than in the preceding years of slackened effort. Available data do not indicate that this was due entirely to a scarcity of chums as there are reasons for thinking that that species was probably not fished intensively in 1923. The catch of both pinks and chums in 1924 closely approached the peaks of 1918, but from 1925 to 1927 the decline was apparently more serious than ever before and almost reached the vanishing point in the last year. It is not likely that this was caused wholly by the closing of the western part of the bay; but it may have been due to a change in the character of the fishing, or to an improper allocation of catches, rather than to depletion of the runs.

In the northern part of the Stephens Passage district are several localities of minor importance which have annually produced some salmon, mostly pinks and chums. The most important of these are Saginaw Channel and Shelter Cove where traps intercepted the runs to Lynn Canal and the passage. Neither of these localities has a fishery distinctively its own as there are no streams of consequence tributary to either. Runs to other waters move through these passages and come within reach of traps along the western shore of Shelter Island.

Two localities, False Point Pybus and Fanshaw Bay, in the southern part of the district, are given separate consideration in the table since good catches have been reported from both places in recent years. The data, however, are insufficient for more than passing notice at this time, but they may be useful in subsequent reviews of these fisheries.

WEST COAST OF CHICHAGOF AND BARANOF ISLANDS DISTRICT

This district covers the waters of the west coast of Chichagof and Baranof Islands from Point Urey southward to Cape Ommaney, with all the islands lying between these extremities. (See fig. 28.) The western shores of both islands are very rugged, particularly that of Baranof, the southwestern shore of which is indented by numerous narrow inlets extending several miles inland almost to the base of the mountain range which traverses the island from end to end. The northwestern section of Chichagof Island is also extremely mountainous even near the coast making a rough irregular shore without deep indentations or large streams. Under such physical conditions it is not surprising that the district embraces no large salmon stream, yet the streams, as small as they are, were among the earliest to be exploited in southeastern Alaska.

Salmon canning began in Alaska in 1878 with the opening of two canneries one of which was located at Old Sitka near the entrance to Katlian Bay about 6 miles north of the present town of Sitka. This plant was operated two seasons, obtaining its supply of fish mainly from Redoubt Lake. The pack in 1878 was 2,757 cases; in 1879 it was 5,855 cases. Thereafter the cannery was idle until it was dismantled in 1882 and the machinery transferred to a new cannery in another district in central Alaska. In 1889, a cannery was opened on Redoubt Bay, about 10 miles south of Sitka, and operated 2 years, making a pack of 4,454 cases in that year and 10,123 cases in 1890. It was moved to Redfish Bay, near the south end of Baranof Island,

in 1891, and operated each year to 1898. Two years later it was dismantled, having been sold to the Alaska Packers Association, and was moved to the Bristol Bay

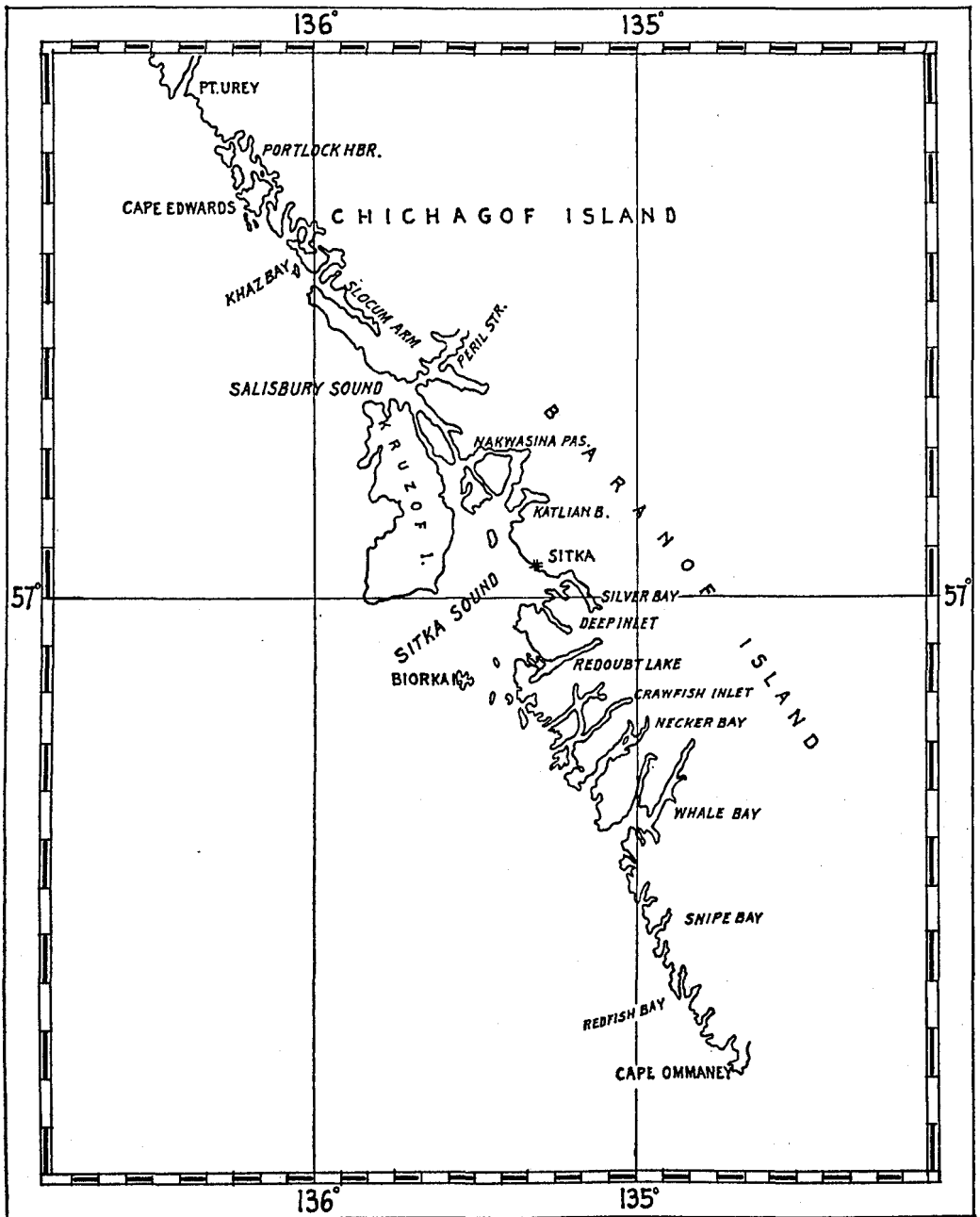


FIGURE 28.—Map of the west coast of Chichagof and Baranof Islands district.

district in western Alaska. The pack in cases during the 8 years it was operated at Redfish Bay is given in table 12.

TABLE 12.—Pack of salmon at Redfish Bay, 1891-98

Year	Pack	Year	Pack	Year	Pack	Year	Pack
1891.....	Cases 7,949	1893.....	Cases 9,889	1895.....	Cases 14,805	1897.....	Cases 14,070
1892.....	10,259	1894.....	11,189	1896.....	15,358	1898.....	12,681

No record of the number of salmon of each species which composed these packs is now available, nor is there any record of the localities that were fished in these years. It is probable that all red salmon streams of the entire west coast of both islands were fished and that some salmon were also obtained from streams tributary to Chatham Strait. In the early history of salmon canning in this district, only red salmon streams were fished and the catch consisted almost wholly of red salmon, the few cohos that were taken being counted as reds. In later years, 2 canneries were built at Sitka and 1 at Ford Arm.

TABLE 13.—Salmon caught and fishing apparatus used in the west coast of Chichagof and Baranof Islands district, 1904 to 1927

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Chichagof Island:												
Black Bay:												
1911.....	617	1,276	11,058		9							
1912.....	1,423	6,634	25,925		380							
1913.....	1,283	14,150	10,160		328							
1915.....	433		19,702									
1916.....	190	21	2,047		13							
1917.....	3,057	33,779	190,452		149							
1918.....	4,329	40,550	146,894	4	6,027							
1919.....		809	429		481							
1920.....	3,594	42,719	15,230		1,688							
1922.....	756	4,137	4,200		4							
1923.....	848	3,502	11,146		374							
1924.....	2	1,884	4,435		53							
1925.....	178	29,360	12,031		2,686							
1926.....	879	23,986	83,744		3,702							
1927.....	726	11,515	12,230		879							
Dry Pass:												
1922.....			659									
1923.....	1,552		10,421									
1924.....	174	2,142	3,391		35							
1927.....	25	6,808	2,850		5							
Edwards, Cape:												
1904.....					59,000							
1905.....	1,993		13,557		23,791							
1906.....					5,585							
1909.....	1,681		308		23,850							
1910.....	4,172	10,210	75,710		9,249							
1911.....	7,957	1	301		21							
1912.....	242	2,411	4,709		1,033							
1913.....	2,119	63	590		140							
1919.....	1,051	2,286	1,051		2,058							
1920.....				17	171							
1922.....	58	20	155		461							
1923.....	9	1,208	5,000		1,441							
1924.....		23	14		340							
1925.....	27	2,093	802		3,944							
1927.....	6	863	317		7							
Falcon Arm:												
1922.....		11	1,442									
1923.....	56	103	6,213		255							
1925.....	8	1,734	6,175		133							
Ford Arm:												
1911.....	3,121	1,793	8,400		4,264							
1912.....	1,837	972	9,034		837							
1913.....	2,395	2,484	1,907		617							
1914.....	524	32	260		363							
1915.....			883		990							
1916.....	1,529	2,610	1,686		2,945							
1917.....	1,863	11,204	25,689		1,837							
1918.....	2,291	3,423	6,453	6	4,876							
1920.....	171	1,585	717		162							
1922.....	645	291	1,494		80							

TABLE 13.—Salmon caught and fishing apparatus used in the west coast of Chichagof and Baranof Islands district, 1904 to 1927—Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Chichagof Island—Contd.												
Salt Lake—Continued.												
1923.....	15	1,733	2,876		393							
1926.....		12	85		1							
1927.....	2		110		3							
Sister Lake:												
1912.....	287	6,251	24,943		532							
1913.....	23	415	318		136							
1914.....	1,614	10,281	4,720		9,116							
1918.....		956	819									
Slocum Arm:												
1911.....	16	3,637	48,123		268							
1912.....	99	4,776	81,483		18							
1913.....		1,437	6,580									
1914.....		4,333	30,502									
1915.....			19,702									
1916.....	793	14,542	37,503		10							
1917.....	538	17,764	296,625		139							
1918.....	1,300	32,608	138,333	8	2,811							
1920.....	2,520	14,112	35,818		1,651							
1922.....	3,484	12,233	41,067	8	478							
1923.....	673	4,477	115,125		1,015							
1924.....	282	11,965	50,762		932							
1925.....	2,013	43,406	82,596	30	16							
1926.....	550	22,280	211,933		6,542							
1927.....	275	11,583	7,183		2,277							
Waterfall Cove:												
1923.....	58	470	43,259		508							
1924.....	3	487	4,709									
1925.....	16	4,415	13,611		9							
1926.....	1	6,061	9,547		1,801							
Unallocated:												
1911.....	471	833	2,862		17							
1912.....	113	1,167	2,142		9							
1914.....	366	944	3,524		13							
1915.....			1,244		1,141							
1923.....	230	5	2,923		194							
1924.....	309	1	3,672									
1925.....	1,737	5,251	2,139	30	103							
1927.....	103	1,305	6,514		280							
Baranof Island:												
Banks, Port:												
1924.....	8	1,165	738		1,695							
1927.....	685	2,574	17		330							
Hayward Strait:												
1920.....	21	458	562	8	103							
1922.....	241	5,724	5,460									
Katlian Bay:												
1918.....	116	6,745	9,012	3								
1920.....	301	38,202	3,158	10	100							
1922.....	101	463	1,514									
1923.....	494	1,834	15,100		793							
1924.....	99	2,425	1,377									
1926.....		393	586		2							
1927.....	172	6,703	2,707		9							
Mud Bay:												
1922.....	131	6,871	6,528									
1923.....	260	1,258	10,620									
1927.....		562	737									
Nakwasina Passage:												
1918.....	927	36,182	127,960									
1919.....	4,920	14,260	17,624	26	7,561							
1920.....	1,521	36,227	2,728	52	6,225							
1922.....	1,426	7,856	6,723									
1923.....	4,841	627	16,742		226							
1924.....	1,004	24,253	34,920		89							
1925.....	6	8,847	4,231									
1926.....	3	9,708	23,163		166							
1927.....	51	6,337	5,111		7							
Necker Bay:												
1906.....					10,100							
1907.....		5	163		13,873							
1911.....					11,259							
1912.....		55	305		4,864							
1913.....					40,079							
1914.....					41,437							
1915.....					13,819							
1916.....	195			24	27,692							
1917.....	377	5	372		7,388							
1918.....					12,768							
1920.....	1	8,586	1,224		15,320							
1921.....					20,262							
1922.....					2,884							
1923.....	399	820	14,890		19,224							

TABLE 13.—*Salmon caught and fishing apparatus used in the west coast of Chichagof and Baranof Islands district, 1904 to 1927—Continued*

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Baranof Island—Continued.												
Necker Bay—Continued.												
1924	1,204	1,357	647									
1925	921					10,253						
1926	3	7	576			20,815						
1927	338	1	63			15,598						
Old Sitka Harbor:												
1918	346	7,027	29,760									
1919	1,462	6,223	3,271	15		824						
1920	108	1,807	881	6		227						
1922		5,292	12,940									
1923	142	164	10,517			1						
1924	658	4,569	19,311			4						
1925	6	8,131	15,371									
1926		141	1,181									
1927		1,094	85			3						
Redfish Bay:												
1904						30,000						
1905						15,000						
1906						15,000						
1907						26,242						
1908						26,000						
1909						19,400						
1910						22,939						
1911						25,358						
1912	2	15				26,169						
1913			39			9,672						
1914	306	4	288			21,050						
1915	476	21	2,616			8,311						
1916	759	244	2,828			19,680						
1917						7,401						
1918	2,117	1,100	844			8,355						
1919	437					8,129						
1920	5	11,619	1,765	76		25,756						
1921	1,000		21			31,581						
1922	773	25	5			17,080						
1923	11	5	107			16,143						
1924	320	1,478	280			35,217						
1925						16,478						
1926						3,842						
1927	1	545	605			253						
Redoubt Bay:												
1904						27,000						
1911	26	4	790			11,375						
1912			50			9,965						
1913						13,390						
1914			956			31,000						
1915						28,628						
1916	23	4	71			8,161						
1917		446	66	5		1,532						
1918						20,253						
1919	2,624	12,631	15,820	67		12,780						
1920	1,673	12,546	1,435	68		17,658						
1921						6,000						
1922	150	326	312			1,148						
1923	16	277	1,673	8		12,141						
1924	337	740	524	123		3,434						
1925				700		2,358						
Silver Bay:												
1923	123	2,326	8,429			67						
1924	28	1,639	15,197			50						
1925	95	1,614	5,059	400								
1927	2	512	298			237						
Sitka Sound:												
1918	2,400	1,000	6,500			70						
1919	5,134	42,148	20,990	33		4,762						
1920	4,024	31,237	6,601			6,672						
1921	6,050					5,122						
1922						5,000						
1923						30,000						
1924	680	1,347	2,145			4,247						
1925	2,211		2,157			18,772						
1926	3,077	749	43			8,593						
1927	39,363	3,559	2,445			3						
St. John Baptist Bay:												
1918		18,017	4,260									
1925	4	1,170	3,808			4						
1927	7	1,924	2,515			4						
Whale Bay:												
1911	1,760	21	214			943						
1912	941	97	40			2,096						
1913					670	39						
1915	452	112	6,230			8,098						
1916	2,679	11	76			7,776						

TABLE 13.—Salmon caught and fishing apparatus used in the west coast of Chichagof and Baranof Island district, 1904 to 1927—Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Baranof Island—Continued.												
Whale Bay—Continued.												
1917	1,765	12,918	26,501		5,183							
1918	3,345	1,035	19,100		7							
1919	2,493	16,447	31,859		42							
1920	885	11,289	1,937		50							
1921	5,028	3,623	41,343									
1922	6,919	1,859	4,131		2							
1923	1,792	760	13,120		2							
1924	1,844	2,214	2,713									
1925	3,288				6							
1926	2,910	248	1,447		35							
1927	1,570	516	1,679									
Unallocated:												
1911	4,603	9,842	20,183		56							
1912	3,174	1,324	3,344		28							
1913	4,488	20,119	28,750		10,811							
1914	5,869	15,626	33,146		16,390							
1915	487											
1916	5,320	18,710	48,355		555							
1917	4,673	30,968	80,698		28,813							
1918	18,962	23,976	2,283		34,227							
1920					376							
1921	5,000											
1922	13,492	58			28,892							
1923	40,994				268,071							
1924	9,572	1,047	63		42,504							
1925	42,581	2,283	2,405		57,625							
1926	51,889	529	445		70,129							
1927	37,510	280	387		82,211							
Total:												
1904					116,000					6		
1905	5,924		16,586		39,680					5		
1906	2,116		2,699		32,089					5		
1907		5	163		41,131					5		
1908	1,177		1,046		30,493					3		
1909	2,751	52	3,673		47,551					3	420	
1910	8,362	10,210	75,710		32,188					5	800	
1911	23,592	34,875	183,979		74,228					13	1,925	10
1912	11,928	30,995	169,332		69,592		7	900		14	2,305	
1913	13,955	53,209	58,581		11,481		8	1,200		4	700	
1914	10,336	37,644	76,162		16,390		1	200		11	1,650	8
1915	3,652	260	56,419							10	1,300	
1916	18,319	44,384	96,483		579					10	1,410	
1917	17,788	136,733	820,355		28,818					12	1,500	
1918	42,417	215,392	525,298		34,264					27	4,555	
1919	18,127	97,473	92,642		183					21	3,450	
1920	18,623	242,949	80,695		12,011		8	400		21	3,475	
1921	17,078	3,623	41,343		5,122					2	300	
1922	34,034	55,077	113,201		31,905					26	4,390	
1923	57,299	22,070	311,830		298,081					23	3,940	
1924	18,125	91,925	175,467		46,874					22	3,630	
1925	54,667	195,481	203,788		78,734					24	3,895	
1926	61,246	105,074	499,518		78,757					22	3,650	5
1927	90,240	95,854	124,701		82,446					25	4,370	

NOTE.—No catch was reported in the years not shown in any division of this table.

The total catch of salmon in this district from 1904 to 1927 is shown in table 13. Earlier catches, as taken from various published reports, are referred to in the discussion of data for the localities affected. This table lists 29 localities, of which 16 are on the Chichagof shore and 13 on the Baranof shore. The most important streams of Chichagof Island are found in Black Bay, Ford Arm, Klag Bay, Lake Anna, Pinta Bay, Porcupine Harbor, Portlock Harbor, and Slocum Arm. Considerable catches were also made at Cape Edwards and Salisbury Sound. Of these several localities, 6 have been fair producers of chum, pink, and red salmon. Considering the size of the streams, large catches of chums and pinks were made in a few years at Black Bay, Klag Bay, and Slocum Arm. Reds and cohos were also taken, but in much smaller quantities, while kings were seldom reported. The largest catch of kings in the Chichagof section was made by trollers at Salisbury Sound in 1925.

Except for phenomenal catches of pinks in 1917 and 1918, Black Bay, which is credited with part of the catch reported from Slocum Arm and Black Bay in 1915, shows no marked change in the production of salmon since the runs in that locality were first exploited. Catches were about as good in 1927 as they were when fishing began in 1911.

The fisheries at Cape Edward, if, indeed, any ever existed at that exposed point on the west coast of Herbert Graves Island, apparently have been almost exhausted. However, it seems improbable that the catches reported from this locality could actually have been made there. They may have come from Portlock Harbor and its tributary bays, but were designated as Cape Edward fish for the simple reason that little attention was given to exact allocation of catches when the fisheries of this region were first utilized. In the same way the cannery, which was built on Ford Arm in 1911, was long known as the Cape Edward cannery, although it was located several miles from the cape.

Klag Bay appears to have been first fished in 1911, coincident with the opening of the Ford Arm cannery, as happened at several other localities on this coast. The catches from this bay include all salmon reported from Fish Camp and half of those from Fish Camp and Lake Anna and from Fish Camp and Sister Lake in 1915. While the total number of salmon from Klag Bay in 1926 and 1927 is somewhat less than the catch in several preceding years, there is no definite indication that the runs are failing. These smaller catches probably were due to a reduced fishing effort, as the Ford Arm cannery was not opened after 1924.

Lake Anna, which is not a lake at all but is an arm of Khaz Bay, shows exceptionally large production of pinks and a fair yield of chums in 1917, while the catch in 1918 was almost nothing. No further catches were reported from this locality until 1926 and 1927, and in both years only a few fish were caught. Why 187,059 pinks were taken in Lake Anna in 1917 and in all other years the catch was less than 3,000 annually, is not explained by the available data, but is probably due to faulty allocation.

Pinta Bay was fished so intermittently, or the catches, if any, were not always correctly reported, as to leave few data for comparative study. If the records as shown in the table are complete, this bay has never provided a valuable run of salmon. The catches were extremely poor in all years, except 1918 and 1922, and even the returns in these better seasons, especially that of 6,600 reds in 1922, are open to question.

Porcupine Harbor has produced more red salmon than any other species, but the catches have not exceeded a few thousand fish in any year. It was one of the first places on the Chichagof coast to be fished, doubtless due to the presence of red salmon, but operations were evidently suspended just before and after 1918 for periods of two and three years respectively, indicating that the runs were seriously reduced by that time. No reds were taken after 1915 until 1922 and no cohos and pinks after 1914 until the same year. The data, covering 18 years fishing, indicates that no important fishery can be established in this locality.

In many respects, Portlock Harbor, apart from its tributary bays, is similar to Porcupine Harbor. Operations have been very irregular and catches small, although more chums and pinks were taken in 1925 than ever before. Data for Salisbury Sound cover 5 years. Exploitation of the fisheries of this locality since 1924 has resulted in the catch of several thousand salmon, mostly chums and pinks. In addition, the catch by a trap at Goloi Island in 1927 should also be included with fish from the

sound, although it is kept separate in the table for future use. To what extent these catches are made from runs to the streams of Peril Strait or the west coast of Baranof Island is not known, but it may be presumed safely that not all of the salmon caught in the sound come from local runs. The streams tributary to the sound are small and doubtless provide comparatively few salmon, as no large catches were made there before 1925.

The most important fisheries of the west coast of Chichagof Island are found in Slocum Arm, including the connecting bays at Ford Arm, Falcon Arm, and Waterfall Cove. Their development began apparently in 1911 with the opening of the Ford Arm cannery and continued through 1927, although no catches were reported in 1919 and 1921. Pinks and chums are the predominant species while reds and cohos are present in about the same proportions as in most all localities on the Chichagof shore. The catch of pinks apparently has fluctuated widely, the largest yield being recorded in 1917. Good catches were also made in 1918, 1923, and 1926, while the intervening years were far less productive, 1927 being next to the poorest year in the history of the fishery. The catch of chums has been more regular than that of pinks, but has dropped markedly since 1925, the year of largest production.

Three localities of minor importance in the Chichagof section, Dry Pass, Salt Lake and Sister Lake, were small producers of all species of salmon except kings.

The unallocated catch of salmon along the Chichagof shore came from Hearst Cove in 1911, 1912, and 1913; Deep Bay in 1927; Stag Bay to Ogden Passage in 1913; Sea Level in 1924; Imperial Passage in 1925; Leo Anchorage in 1915 and 1923; and from Ogden Passage and Small Arm in 1923. In most cases the catches were small and the localities were rarely fished more than one season.

The west coast of Baranof Island has never been a large producer of salmon, although it was one of the first districts to be developed in southeastern Alaska, due to the location of a cannery at Sitka and later at Redfish Bay. The streams are comparatively small, yet some of them have been steady contributors to the catch of salmon through many years. Among these are Redoubt, Necker, Redfish, and Whale Bays. Redfish Bay became better known than the others, probably for the reason that a cannery was erected on its shore in 1891 after the original site of this plant at Redoubt Bay was abandoned. This move brought the cannery nearer to the better fishing grounds on the west coast of Baranof and also made more accessible some important streams tributary to Chatham Strait.

No available records indicate the composition of the packs at Redoubt Bay in 1889 and 1890 or give any information as to the localities where the fish were obtained. Presumably they were mostly red salmon and were taken at the streams already mentioned. Similar information is also lacking in regard to the packs at the Redfish Bay cannery from 1891 to 1898. In 1899 Moser reported the catch at the Redfish Bay stream for several years as given in table 14.

TABLE 14.—*Catch of salmon at Redfish Bay from 1890 to 1897*

Year	Catch	Year	Catch	Year	Catch
1890.....	24,367	1893.....	26,434	1896.....	15,000
1891.....	53,310	1894.....	69,553	1897.....	20,000
1892.....	48,000	1895.....	40,989		

¹ Includes a few cohos.

In addition to these catches, which were supposedly red salmon except as noted, 303 cohos were taken here in 1893 and 1,152 in 1895. It was also reported that this cannery packed 103,541 reds, 10,825 cohos, and 88,849 pinks in 1896; 64,509 reds, 8,351 cohos, and 1,942,028 pinks in 1897; and 139,490 reds in 1898. The difference between these catches of red salmon and those given in table 14 for the same years represents the number of red salmon that came from localities other than Redfish Bay. A company operating at Petersburg took 34,000 red salmon from this bay in 1900. None of these figures appears in table 13, which gives only the catches from 1904 to 1927.

For many years the only catches reported from Redfish Bay were of red salmon. Since 1912 all other species have been taken but not in sufficient quantities to constitute important fisheries. With one exception, a catch of 11,619 chums in 1920, the number of salmon of each species, exclusive of reds, did not exceed 3,000 fish. Fluctuations in the catch of red salmon is shown graphically in figure 29.

Disregarding the rather large catches in the years immediately following the opening of the cannery at Redfish Bay, no marked fluctuations occurred in the catch of red salmon until after 1912. From 1913 to 1919, there were 5 years of extremely poor catches, and 2 years, 1914 and 1916, of fairly good yields. The catch in 1918 includes 149 reds reported from Redfish Cape. The next period, 1920 to 1924,

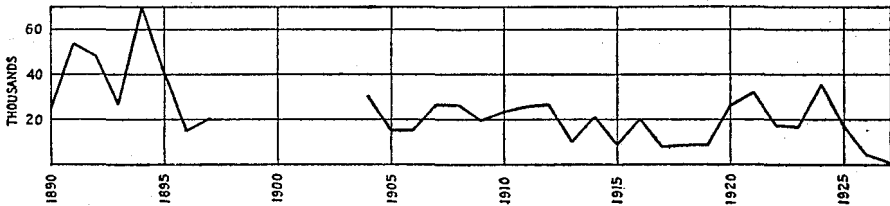


FIGURE 29.—Catch of red salmon at Redfish Bay, 1890 to 1927.

shows catches which compare favorably with the catches from 1904 to 1912 indicating that an appreciable run still survives.

The red-salmon season varies considerably at this bay, the range of the opening date being from June 1 to July 29, and the closing date from August 6 to September 26. In 1924 fishing was prohibited from August 20 to September 9; in the next 3 years the closed season extended from August 18 to September 14; and in 1926 the northern part of the bay was permanently closed. The seasonal closing in 1924 had little or no effect upon the catch as more red salmon were taken that year than in any year since 1895, indicating either an earlier or a larger run. In 1925 the catch was much smaller due, not necessarily to the longer closed season, but possibly to a poor run of salmon. The closing of the northern part of the bay in 1926 easily accounts for the small catches in that and the following year. Further commercial utilization of the red salmon of Redfish Bay seems doubtful under these restrictions as it is not likely that fishing will be profitable in the lower reaches of the bay until the run increases far beyond its present size.

Little is known of the Whale Bay fisheries before 1911, but that locality was probably fished as early as Redfish Bay, chiefly for red and coho salmon. The catch of these species has always been small, except in 1918 and 1919, when nearly three times as many reds were reported taken as ever before or since. No marked reduction is indicated by the available statistics, although the regulations of 1924 and subsequent years were intended to reduce the catch. The closing of Still Harbor

and Port Banks, small bays on the southern side of Whale Bay, could hardly have had much effect upon the catches in this locality. The first catch reported from Still Harbor was 190 reds in 1916; the second was 5,000 cohos in 1921; the third, 1,243 cohos, 468 chums, 56 pinks, and 82 reds in 1924; and the last, 549 cohos and 545 reds in 1925. The catches of cohos were probably made by trollers in offshore fishing who used this harbor as a base of operations and point of delivery to the packing companies.

The situation at Port Banks is somewhat different as all species except kings were taken there in 2 years, 1924 and 1927. No salmon were reported from this locality in 1925 and 1926, but after the closing of the bay in 1927 the catch in that year was still equal to that of 1924. As a measure of conservation, the prohibition of fishing for salmon in Still Harbor and Port Banks would seem to be of doubtful value, as neither locality can support a commercially valuable run of salmon.

Necker Bay is noted for its run of small red salmon. Moser reported in 1899 that "the average number of fish per year taken from this locality by the cannery during the past 9 years is 40,000; the largest number in any 1 year was 105,572. They are fully matured, and run from 28 to 30 to the case, or an average weight of about 2½ pounds per fish." This is the only known record of the productivity of Necker Bay before 1906. Omitting the years from 1908 to 1910 and that of 1919, this bay has been a regular producer of red salmon, and while the catch was fairly consistent, and the average catch per year was considerably lower than that given by Moser for earlier years, there is no evidence in this extended record of red-salmon catches that the run has appreciably changed during the past 20 years. Other species are taken irregularly in Necker Bay but the catches are inconsequential.

Redoubt Bay, into which Redoubt Lake empties, was one of the first fishery localities to be exploited in all Alaska. In the early days of Alaskan exploration and the founding of a settlement at Sitka, the Russians depended very largely upon the red salmon of Redoubt for a supply of fish. The stream was barricaded and fished unrestrictedly without the slightest regard for the preservation of the run of salmon. The inevitable result of this reckless fishing which continued and reached its height several years after Alaska was sold to the United States was the virtual destruction of the salmon runs. Even in 1889 and 1890 the supply of fish was insufficient for the profitable operation of a small cannery and as long ago as 1900 the production of salmon here had dropped almost to the vanishing point. After the approval of the act of Congress of 1906, making barricades in streams unlawful, and giving other protection to the salmon fisheries of Alaska, there was some slight improvement in the run at Redoubt, but with all the protection that was then given and has since been given to this stream, the run has not yet regained its former proportions. In 1926 all fishing in the bay within 1,000 yards of the mouth of the stream was prohibited and thus put an end to fishing in that locality as no salmon have been reported from Redoubt since 1925. In view of its history it seems possible that, under careful control and wise measures of conservation, this stream may again become an important source of red salmon.

Small catches, mostly of chums and pinks, were made infrequently in Hayward Strait, Mud Bay, and St. John Baptist Bay. Katlian Bay (which includes catches from "Katalina Bay" in 1920 and 1924 and from "Katlianski" in 1924), Nakwasina Passage, Old Sitka Harbor, Sitka Sound (which includes catches from De Groff Bay in 1926), Cape Burunof, Olga Strait, Sukoi Inlet, and Whitestone Narrows in 1927,

show considerably larger production of these species. Several thousand king salmon were also taken by trollers in Sitka Sound. The unallocated catches on the west coast of Baranof Island includes small catches from Salisbury Sound in 1916; from Pacific Ocean in 1922, 1923, and 1924; from Puffin Bay in 1917 and 1924; from Still Harbor in 1916, 1921, 1924, and 1925; from "Salisbury Sound to Whale Bay" in 1914; from Baranof Island in 1927; from Hot Springs Bay in 1911, 1912, and 1924; from Crab Bay in 1918 and 1925; from "Cape Edgecomb to Sea Lion Cove" in 1918 and 1927; from Crawfish Inlet in 1920, 1922, and 1924; and from "Sitka to Salisbury Sound" in 1911, 1912, 1913, and 1917. All king and coho salmon which were taken by lines in off-shore fishing from Salisbury Sound to Cape Ommaney are included in the unallocated and total catch sections of table 13. This section of the coast is an important feeding ground of king and coho salmon and constitutes one of the most profitable fields of operations of the trollers whose fishing may be carried on without limitation of season or restriction of gear. The total catch of salmon by lines in the west coast of Chichagof and Baranof Islands district is shown in table 15.

TABLE 15.—*Catch of coho and king salmon in the West Coast of Chichagof and Baranof Islands district, by lines, 1911 to 1927*

[Included in table 13]

Year	Coho	King	Year	Coho	King
1911.....	1,472		1920.....		11,714
1912.....	1,394		1921.....	11,050	5,122
1913.....		10,811	1922.....	9,146	31,887
1914.....		16,390	1923.....	40,994	298,071
1915.....	487		1924.....	8,543	46,874
1916.....	4,531	555	1925.....	48,792	78,127
1917.....	1,558	28,813	1926.....	57,607	78,757
1918.....	17,077	34,227	1927.....	76,869	113,239

NOTE.—No catch was reported in 1919.

PERIL STRAIT

The Peril Strait district embraces all the waters of Chichagof and Baranof Islands between Kakul Narrows at the western entrance of the strait and a line from Point Craven to Point Thatcher at the eastern entrance. (See fig. 30.)

Within these limits are 11 localities from which salmon have been consistently taken, only 1 of which, Rodman Bay, shows any production before 1911. It is likely, however, that some of the other bays were fished much earlier than the recorded data indicate as in the earlier years practically the entire catch in Peril Strait was unallocated. Exploitation of these fisheries doubtless began when canneries were established at Freshwater and Sitkoh Bays, but no records are now available showing the catches in this district before 1904. The known development, however, as disclosed in the reported catches in Peril Strait, dates from 1904 with a catch of 60,000 pinks in Rodman Bay and an unallocated catch of 7,000 reds, probably from Hanus Bay into which flows the outlet of Lake Eva, the only recognized red-salmon stream in the entire district. It is fair to assume that all of the unallocated catches of red salmon in Peril Strait came from this locality. Unfortunately, a very large part of the whole catch of salmon in the Peril Strait district, from 1904 to 1927, was reported without allocation to any of the several bays in that region. As a result of this faulty method of recording catches, Rodman Bay apparently produced no fish after 1904 until 1918, a most unlikely condition when viewed in the light of the

fact that more salmon were taken in that locality in 1904 than in any other section of the strait. Presumably, Rodman Bay was fished regularly but the catches were shown only as coming from the strait. The catch of 60,000 pink salmon in 1904 was never closely approached in any subsequent year. After a lapse of 13 years the catch in 1918 was 2,300 and for the next 4 years it did not exceed 8,000. This period of low production was followed by one of larger catches, culminating in a total of 29,890 in 1925 only to fall again in the last two years. Chum salmon were also taken in Rodman Bay. In the 9 years of fishing, the catches exceed 10,000 in 2 years only, 1925 and 1926, when 90,244 and 20,185, respectively, were caught.

In the 8 years it has been fished, Bradshaw Cove, near the western entrance of the strait, shows a fairly constant production of pinks and chums. Relatively good catches of cohos and reds have also been reported. The record, taken at its face

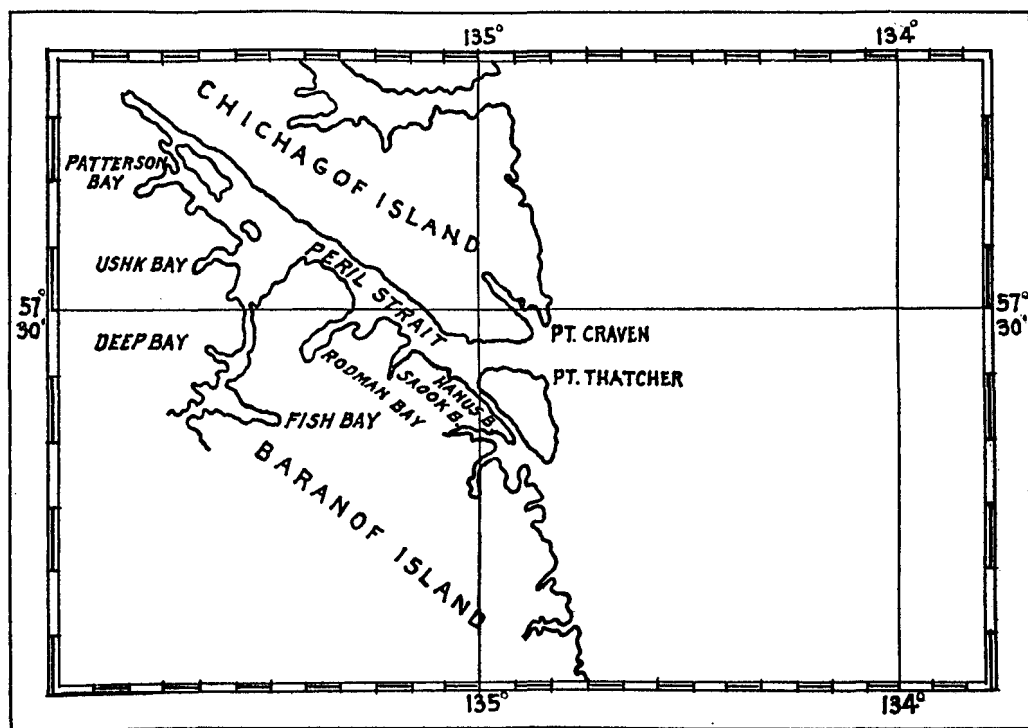


FIGURE 30.—Map of the Peril Strait district.

value, indicates that the best runs of salmon in the Peril Strait district are found at this cove, the catches having been consistently larger here than elsewhere in the district. The cove, however, has no salmon runs of importance, and to that extent statistical data showing catches of salmon in that locality are misleading. These catches were made by a trap at the entrance of the cove so placed that it intercepted the passing runs of salmon. In 1921, the trap was not operated, consequently no salmon were reported as caught here, a fact which emphasizes the conclusion that the cove has no runs distinctively its own. The salmon taken at this point come undoubtedly mainly from runs to other localities. More pinks, kings, and reds were reported taken here than in any other section of the district in the same period. Fish Bay alone produced more cohos and Rodman Bay more chums than Bradshaw Cove.

TABLE 16.—Salmon caught and fishing appliances used in the Peril Strait district, 1904 to 1927—Con.

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Rodman Bay—Continued.												
1920		143	659									
1922			8,000									
1923		750	10,093									
1924	8	5,694	12,112		101							
1925	72	90,244	29,890		110							
1926		20,185	15,607		5							
1927	24	6,458	12,646		53							
Saook Bay:												
1918		6,545										
1923	74	221	13,960									
1924		357	8,482									
1925	2	1,582	16,200		5							
1926		1,722	5,258		16							
1927		677	279									
Ushk Bay:												
1923		82	978									
1924		525	2,482									
1925	17	12,537	5,064		1							
1926		818	3,419		1							
1927	1	79	390									
Unallocated:												
1904					7,000							
1905	854	7,868	16,344		1,772							
1906	679	9,034	32,194		5,116							
1907	1,376	12,458	37,775		4,271							
1909	526	5,293	20,842		13,050							
1910	1,528	12,406	24,031		7,930							
1911	1,824	15,775	37,152		4,182							
1912	755	13,791	18,159		2,640							
1913	758	3,448	44,058		4,636							
1914	1,481	6,546	15,568		6,281							
1915	540	2,530	43,627		4,507							
1916	2,074	6,454	46,733		3,338							
1917	7,324	43,476	68,368		6,067							
1918	4,510	127,337	137,548		2,916							
1919	2,088	39,450	71,482		3,516							
1920	677	15,080	25,581		878							
1921		42,723	33,655									
1922	1,325	6,620	7,624									
1923		487	31,180		2							
1924	5	3,625	15,437									
1925	41	22,875	99,104		14							
1926	160	7,007	49,609		192							
1927	1,547	22,471	49,283	15	2,385							
Total:												
1904			60,000		7,000			3				
1905	854	7,868	16,344		1,772			7				
1906	679	9,034	32,194		5,116			7				
1907	1,376	12,458	37,775		4,271			7	1,120			
1909	526	5,293	20,842		13,050			6	1,200			
1910	1,528	12,406	24,031		7,930			8	1,440			
1911	1,824	15,775	37,152		4,182			8	1,440			
1912	755	13,791	18,159		2,640			5	900			2
1913	758	3,607	45,431		4,636			6	1,100			1
1914	1,481	6,546	15,568		6,281			4	640			
1915	540	2,530	43,627		4,675			4	600			
1916	2,100	6,065	107,259		4,817			6	850			
1917	9,325	45,902	86,545		6,067			13	1,850			2
1918	19,883	174,033	213,581		3,800	3	300	19	3,250			4
1919	7,044	71,637	107,798		5,185	3	150	11	1,890			3
1920	4,943	29,549	108,350		4,548			7	1,130	2	300	5
1921	3,000	42,723	33,655					5	850			2
1922	6,083	10,530	34,923		988	2	100	4	620			1
1923	5,192	13,928	169,164	6	812			12	2,270			
1924	219	23,534	66,521		3,820	2	300	4	600			1
1925	601	223,745	280,038		2,280			14	2,530			1
1926	2,536	72,056	267,006		4,496			11	1,750			2
1927	4,919	38,840	101,004	83	3,433			15	2,850			3

NOTE.—No catch was reported in the years not shown in any division of this table.

Peril Strait has always been known as a pink and chum salmon district. Table 16, showing the catch in the district by localities, discloses that the bulk of the catch consisted of those species, the catch of cohos at Fish Bay being the only exception. Salmon enter the strait from the west through Salisbury Sound and from the east through Chatham Strait. It is probably that a part of the runs coming through the western entrance eventually reach Chatham Strait, but it is not likely that any of

the salmon traveling westward ever go beyond Peril Strait. Fishing in this district has been carried on largely by seines which ranged in number from 3 in 1904 to 19 in 1919 and 15 in 1927. Traps were first used in 1912. Two were operated that year near the eastern entrance and made small catches. Only one was driven in 1913 and none in the next 3 years. The use of traps was resumed in 1917, two being operated, the number increasing to five in 1920, dropping to one in 1922, and none in 1923. Resumption of trap fishing was again gradual until 1927 when three were driven.

Figure 31 shows graphically that the catch of cohos in 1927 was exceeded but six times in 24 years, that the production of chums and pinks in the 3 years from 1925 to 1927 was larger and averaged more than for any similar period in the his-

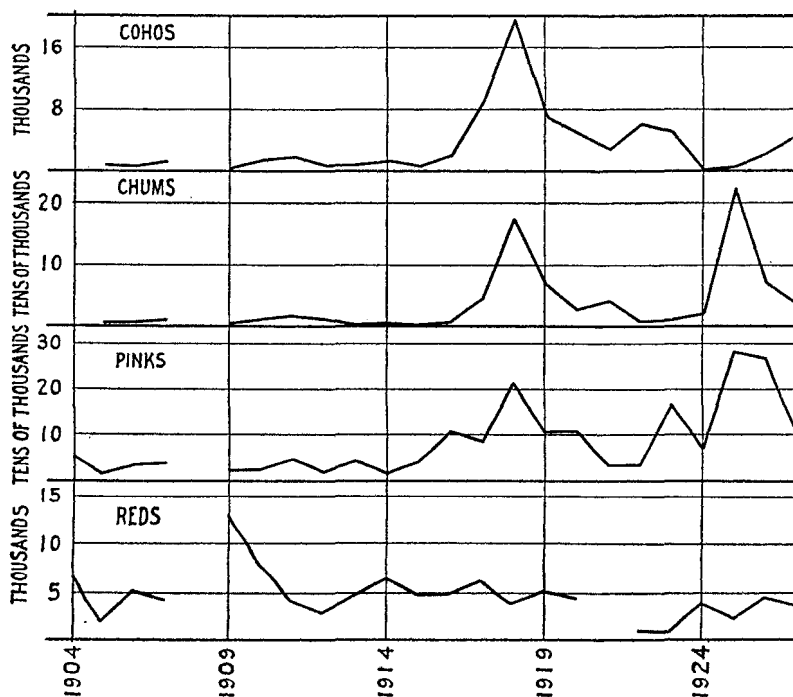


FIGURE 31.—Catch of coho, chum, pink, and red salmon in the Peril Strait district, 1904 to 1927.

tory of the fishery, and that the catch of red salmon in 1927 was below the average for the last 22 years, a difference which may be accounted for by the permanent closing of Hanus Bay in 1925. On the whole the fisheries of Peril Strait appear to be approximately as productive now as ever before although since 1924 all fishing, except trolling, has been prohibited after August 11 in each year.

SUMNER STRAIT DISTRICT

The Sumner Strait district is bounded on the south by a line extending from Cape Decision westward and southward of Coronation Island across Iphigenia Bay south of Warren Island to the southern end of Kosciusko Island at Halibut Harbor; on the north by a line across Keku Strait and Wrangell Narrows at $56^{\circ} 40'$ N. latitude; on the east by a line across Sumner Strait at $132^{\circ} 40'$ W. longitude from Mitkof Island to Zarembo Island. The line of division between Sumner Strait and Clarence Strait extends from Point Colpoys on the north shore of Prince of Wales

Island to McNamara Point on the west shore of Zarembo Island. The total length of the district is approximately 80 miles. The point of division between this district and the west coast of Prince of Wales Island district in El Capitan Passage is at longitude $133^{\circ} 20' W$. (See fig. 32.)

Summer Strait is one of the main migration routes of salmon going to the Stikine River, the northern reaches of Clarence Strait, and to all the streams of the

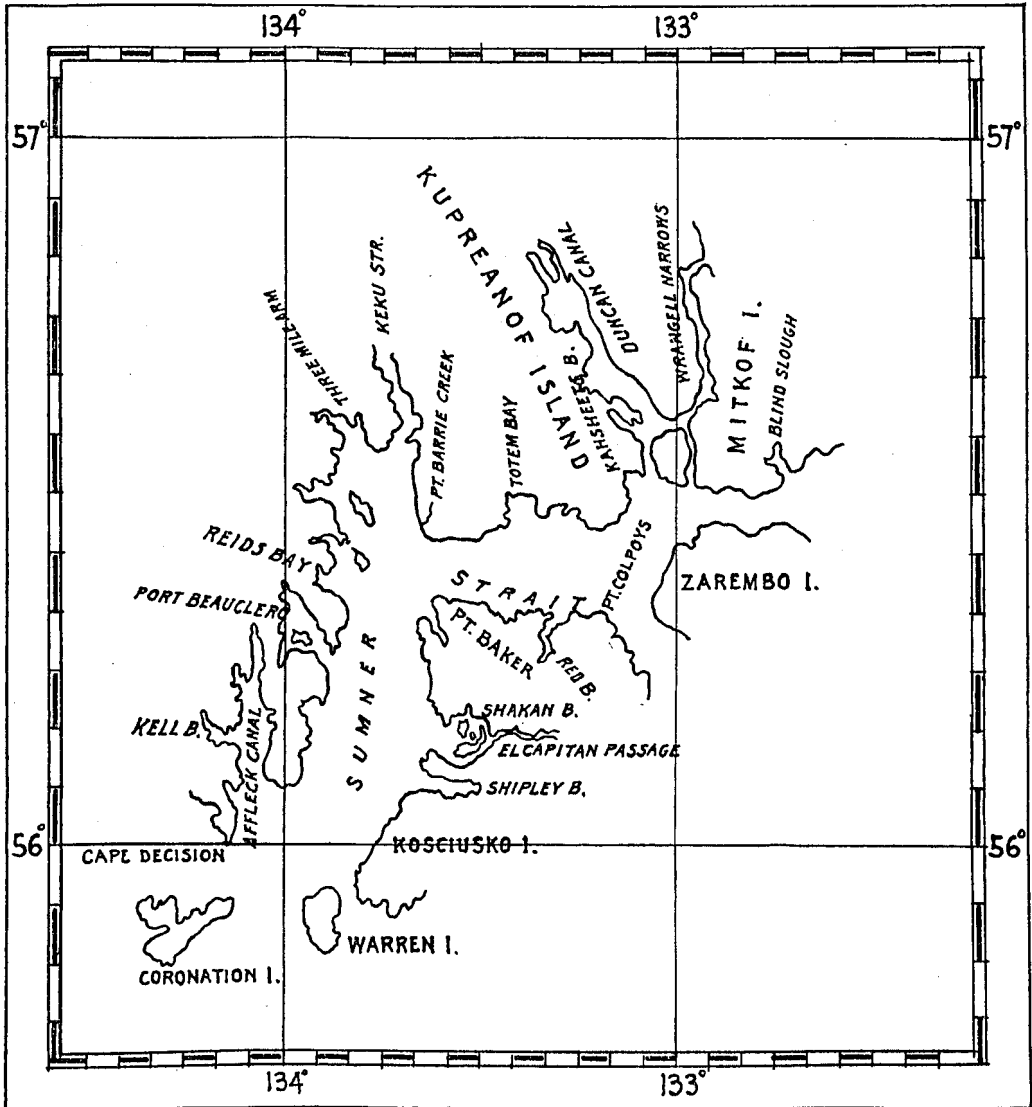


FIGURE 32.—Map of the Summer Strait district.

eastern slope of Kuiu Island, the southern slope of Kupreanof Island, the western part of Kosciusko Island, and the northern part of Prince of Wales Island from Shakan Bay eastward to Point Colpoys.

The Kuiu Island shore is most irregular, being broken by numerous bays from Cape Decision to the south end of Keku Strait. The southern end of this island is, in fact, marked by such deep indentations on both east and west shores as to leave

in several places very narrow isthmuses. Due to these peculiarities, the streams are necessarily short, drain small areas, carry a limited flow of water, and do not maintain large runs of salmon.

The streams of Kupreanof Island and Prince of Wales Island drain considerably larger areas, and under normal conditions, carry a larger volume of water than those of Kuiu Island. For the most part they flow through heavily wooded country much of which is comparatively flat and marshy. It is not an uncommon thing to find streams in these sections that are little more than chains of small lakes. In general the streams are somewhat sluggish, gravel bars are not extensive and are found usually in the lower reaches. Under such conditions, it would be surprising to find large runs of salmon at these localities. Many of the streams, however, are populated by red salmon and to a much larger extent by pinks and chums. The catch of cohos in the district is relatively small; kings are rarely taken.

The history of the salmon industry in this district is not well known, and it is doubtful just when commercial fishing began. It is certain, however, that salmon were taken from these waters by the cannery at Redfish Bay as early as 1892. A cannery at Point Highfield, near Wrangell, began packing in 1889, and while no information is available showing the localities from which its supply of salmon was obtained, it is not unlikely that some streams in this district were fished in that year and regularly thereafter. Between 1899 and 1903 another cannery was opened at Wrangell, three on Wrangell Narrows, and one each at Kell Bay and Shakan, all of which undoubtedly took salmon from Sumner Strait. In all cases where definite allocations were made, such catches have been included in the statistical data for those localities, but after this was done there still remained large unallocated catches in several years which could not be given specific allocation. In order that this record may be as complete as possible, these catches are shown in table 17. All king salmon are omitted, as they can quite properly be included in the Stikine River catches.

TABLE 17.—*Estimated catch of salmon in the Sumner Strait district, 1895 to 1903*

Year	Coho	Pink	Red	Year	Coho	Pink	Red
1895.....	10, 575	22, 487	33, 400	1900.....	33, 345	385, 322	130, 098
1896.....	26, 133	90, 069	30, 884	1901.....	44, 037	1, 216, 542	151, 873
1897.....	14, 645	108, 801	27, 083	1902.....	33, 300	1, 448, 371	122, 514
1898.....	28, 430	72, 268	28, 802	1903.....	91, 085	899, 638	138, 807
1899.....	27, 263	152, 536	37, 188				

In addition to these estimates, red and coho salmon were taken by certain companies and definitely allocated to streams. These data are given in table 18 under the respective years for the following localities: Red Bay, Point Barrie, Shipley Bay, and Kah Sheets Bay.

The Sumner Strait district embraces 44 localities where considerable catches of salmon have been made, 10 of which are on the Kuiu Island shore, 14 on the shore of Prince of Wales Island, 7 on the Kupreanof shore, 3 on the Mitkof shore, 4 on the Coronation and Warren Islands, 5 on Kosciusko Island, and 1 on Zarembo Island. All of these places are shown on either Chart No. 8152 or No. 8200 of the U.S. Coast and Geodetic Survey. Several of them were trap locations, while in others both traps and seines were used. In the first category are Point Amelius, Point Baker, Colpoys Bay, Point Colpoys, Cape Decision, Point Hardscrabble, Pine Point, Cape

Pole, Ruins Point, Twin Island, Warren Channel, and Warren Island; in the latter are Point Barrie, Calder Bay, Shipley Bay, Shakan Bay, and Totem Bay. All other localities in this district were fished chiefly by seines. In correcting errors in the spelling of names and allocation of catches, and in disposing of catches reported from several unknown or unimportant localities, it was necessary to make a number of changes, divisions, and combinations of data to avoid confusion and burdensome detail in the set-up of the table. For these reasons the catch at Point Baird in 1914 was added to that at Point Barrie; that at Bears Paw in 1909 and 1919 and at Bear Creek in 1913 to Bear Harbor catches; that at Calder Creek in 1922 to Calder Bay; that at Aats Bay in 1916, Egg Harbor in 1914, and Carnation Island in 1922 and 1924 to Coronation Island; that at Dry Pass from 1906 to 1927, and from Suter Bay in 1920 and 1924 to Sutter Creek; that at Logger Pass in 1925, Conclusion Harbor in 1923, and Conclusion Island in 1917, 1919, and 1925 to Keku Strait; that at Bluff Island in 1925 and Shipley Bay trap in 1915 to Shipley Bay; that at Shakan Strait in 1909 and 1911-1916 to Shakan Bay; that at Blind Point in 1914, at Falls Creek in 1920, at Scow Bay in 1923, at Cross Creek in 1927, and at Dry Bay from 1918 to 1927 to Wrangell Narrows. Catches reported from Chatham and Sumner Strait in 1914 and 1918, from Sumner Strait and Whitewater Bay in 1919, from Sumner Strait and Frederick Sound in 1914 and 1920, and from Clarence and Sumner Straits in 1913 and 1923 were also divided as equitably as possible and parts were included with the unallocated catches of the district. In addition, catches from 36 other localities were added to the unallocated catches from Sumner Strait. In some cases these places were unknown while in others they were far too general for use as specific localities. They are as follows: Sunshine Harbor in 1908, Rock Stream in 1909, Martin Creek and Reef Bay in 1910, Mountain Creek in 1911, Back Island in 1912, Gill Creek in 1911 and 1913, Seward Point and Warm Cove in 1914, Shoe Bay in 1915, Buoy Bay, Port Baginal and Queen Bay in 1913, Kuiu Island in 1915, 1916, and 1917, Mitkof Island, Hooks Bay, Indian Cove, and Whitewater Pass in 1917, Alvin Bay in 1913 and 1918, Whitestone Creek in 1918, Athletic Islands, Denny Creek, Kam Bay, One Eye, and Sockeye Creek in 1919, Keekan Point, Region, and Will Passage in 1920, Lower Bay and Whitefish Bay in 1921, Sulzer Bay in 1914 and 1922, Baht Harbor in 1923, Totals Creek in 1924, No Name Island in 1920 and 1925, and Aetna Bay in 1926. The total catch of salmon in the Sumner Strait district, as thus determined, is shown in table 18.

TABLE 18.—*Salmon caught and fishing appliances used in the Sumner Strait district, 1892 to 1927*

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Afleck Canal:												
1913.....		3,427	42,868		2							
1915.....	584	3,654	49,378		53							
1917.....	158				102							
1918.....			2,220									
1919.....		2,000										
1920.....	206	23,704	24,310		6							
1921.....	3	10,840	1,627	6	190							
1922.....	13	1,181	22,884									
1923.....	380	10,806	202,741		552							
1924.....	3,897	24,404	335,883		1,583							
1925.....	1,200	21,275	64,842		7							
1926.....	2,296	70,393	150,577		748							
1927.....	467	4,427	5,683		795							

TABLE 18.—*Salmon caught and fishing appliances used in the Sumner Strait district, 1892 to 1927—Con.*

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Amelius, Point:												
1913		328	8,127									
1915	43		1,684									
1919	128	3,022	17,517	47	426							
1920	104	1,912	1,117		248							
1925	1	650	4,802									
Baker, Point:												
1908		10	22		496							
1910	25		34,360									
1912		1,925	6,852									
1914	365				780							
1915	2,144	658	21,835	2,354	11							
1916	48	1,729	2,366									
1917	35	6	5,362		1							
1918	32	79	3,782		2							
1919	1,767	4,782	28,267	31	4,532							
1920	774	1,168	4,739	89	2,055							
1922	1,971	2,212	12,074	134	1,394							
1925	6	1,907	5,969		28							
1926	2,524	1,291	36,300		4,818							
1927	3,781	7,842	46,952		17,930							
Barrio, Point:												
1892					4,467							
1897					692							
1904			39,592		14,538							
1905	1,138		23,586		5,436							
1906	650	2,809	9,121		17,873							
1907		3,689	22,785		9,002							
1908	1,002	1,071	33,878		7,508							
1909	145	774	33,082		11,682							
1910	238	2,363	5,715		10,488							
1911	2,271	5,924	106,918		9,049							
1912	279	1,089	19,504		4,326							
1913	904	348	446		1,825							
1914	4	438	105		3,313							
1915		438	10,362		269							
1916	1,547	3,808	17,477		6,017							
1917	457	1,968	86,447		2,601							
1918	9	9,365	47,951		836							
1919	1,468	26,876	124,002		13,232							
1920	148	10,470	7,141	7	2,280							
1921	356	932	16,302		2,646							
1922	8,083	9,102	103,628	298	7,689							
1923	2,177	3,421	67,404		9,434							
1924	3,443	11,972	42,475	9	8,711							
1925	1,783	6,621	38,507	68	4,765							
1926	5,752	5,692	51,033	10	9,406							
1927	2	117	1,128		996							
Barrier Islands:												
1915		253	4,071									
1918	15	88	2,761									
1927	485	1,281	4,098		711							
Bear Harbor:												
1908			67,404									
1909			6,000									
1910	468	11,470			513							
1912	234	22,153	75,892		12							
1913	14	3,360	82,437									
1915	325	1,161	38,032		3							
1916	363	2,703	1,755		7							
1917	144	10,056	79,168									
1918	129	9,046	32,966									
1919	92	6,526	54,498	2	279							
1920	33	21,267	11,152	1	35							
1921	36	9,649	7,544		128							
1922	155	2,590	5,550		400							
1923	16	605	11,275		10							
1924	226	2,447	70,754		338							
1925	40	6,638	15,444		2							
1926	1,187	12,956	2,452		36							
1927	18	5,560	1,428		91							
Beaulere, Port:												
1907		5,391	115,283		737							
1908	200	33,505	58,805		2,032							
1909		217	11,746		779							
1910	69	1,840			288							
1911		234	9,955		69							
1912	222	16,613	21,701		22							
1913	182	22,198	121,683		1							
1914		343										
1915	88	5,801	102,478		1,532							
1916	2,278	18,354	49,441	4	3,692							
1917	215	14,109	170,872		281							
1918	691	51,569	30,715		2,584							
1919	926	23,001	28,702		937							
1920	160	20,452	4,752		814							

TABLE 18.—Salmon caught and fishing appliances used in the Summer Strait district, 1892 to 1927—Con.

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Beaulclerc, Port—Continued.												
1922	622	12, 108	4, 304		88							
1923	869	17, 510	153, 508		1, 301							
1924	189	10, 720	14, 037		61							
1925	1, 499	55, 352	125, 294		201							
1926	1, 732	13, 821	33, 235		363							
1927	1, 113	4, 728	9, 039		2, 958							
Blind Slough:												
1904	301		1, 149		58							
1910	115											
1911	1, 570	3, 072	13, 000									
1912	7, 805	19, 441	289									
1913	6, 275		69									
1916		2, 242										
1917		3, 568										
1918	146											
1919	143	1, 847	178									
1922	4, 626	17, 917	2, 933		50							
1923	2, 642	9, 514	1, 224		77							
1924	2, 144	22, 151	10, 000		1, 682							
Calder Bay:												
1906		7, 687	50, 400									
1907	109	3, 066	38, 264									
1908	1	11, 926	81, 666									
1909	32	7, 092	20, 308									
1910	152	20, 368	22, 260									
1911		3, 872	60, 291									
1912	1, 809	20, 459	16, 988		93							
1913	939	32, 132	85, 825									
1914	195	19, 655	23, 890		12							
1915	30	3, 786	28, 285		141							
1916	1, 192	14, 116	8, 470		401							
1917	154	33, 633	94, 915		170							
1918	757	20, 838	18, 956	1	56							
1919	105	4, 460	2, 402		189							
1920	174	10, 674	7, 702		752							
1922	3, 913	28, 179	26, 984		509							
1923	21	555	3, 952		401							
1924	28	7, 350	9, 604		20							
1925	964	43, 176	84, 243		333							
1926	382	10, 691	19, 242		911							
1927	55	2, 452	7, 068		1, 926							
Castle River:												
1922	521	1, 039	11									
1923	1, 880	52	14									
1924	466	859	246									
1926	1, 150	561	20		1, 138							
Colpoys, Point: ¹												
1913	9, 062	8, 736	441, 558	334	10, 081							
1916	13, 708	8, 336	83, 954	868	25, 531							
1917	3, 916	8, 539	158, 709	690	12, 291							
1918	21, 955	11, 679	100, 080	1, 436	40, 196							
1919	14, 941	9, 013	288, 872		42, 019							
1920	6, 424	16, 859	39, 916	296	39, 284							
1922	13, 548	9, 101	101, 065	213	19, 170							
1923	9, 112	5, 330	328, 378	8	37, 566							
1924	9, 947	5, 474	69, 228	4	18, 490							
1926	5, 279	4, 132	99, 931		20, 266							
1927	1, 751	2, 078	44, 808	7	11, 430							
Coronation Island:												
1914			1, 136									
1916	136	785	2, 369									
1919		4	4, 834									
1920	1	230	1, 642									
1922	2	20	4, 351		4							
1924	442	13, 991	109, 699		253							
1925	1	725	3, 881		2							
1926	17	1, 077	37, 662		29							
1927	2	1, 284	5, 770		20							
Decision Cape:												
1918	10	71	11, 675		305							
1926	2, 198	2, 197	45, 928		428							
1927	3, 826	8, 158	21, 182	10	3, 092							
Douglas Bay:												
1913	701	6, 683	23, 900		786							
1914		3, 195	678	1	216							
1915					42							
Duncan Canal:												
1904	3, 030		8, 340		18, 713							
1905	1, 238		4, 232		11, 284							
1906	2, 325	16, 359	7, 683		6, 109							
1907		4, 169	621		10, 407							
1908	130	238	905		12, 740							

¹ Includes also catches reported from Colpoys Bay for 1916 to 1919, inclusive.

TABLE 18.—*Salmon caught and fishing appliances used in the Sumner Strait district, 1892 to 1927—Con.*

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Duncan Canal—Continued.												
1909	9	5	92		14,237							
1910		1,441	65		12,529							
1911	5,257	2,708	906		3,154							
1912	7,680	8,324	7,179		2,633							
1914	2,073	5,993	5,249		625							
1916	980				1,793							
1917		534	3		361							
1919	3,709	280	127		61							
1922	3,515	12	23									
1923	98	403	32									
Hardscrabble, Point:												
1923	27	16	1,343		184							
1925	5	1,230	6,773		24							
1927	744	965	6,553		1,418							
Hole in the Wall:												
1906			50,500									
1907	231	903	7,689									
1908	733	2,346	43,809									
1909		2,000	6,000									
1910		1,940	4,100									
1912	504	2,029	27,197		14							
1913	522	715	23,579									
1914	126	727	3,739		1							
1915	89	1,988	12,317		32							
1916	3	213	3									
1917	39	1,611	5,556		16							
1918	570	1,067	4,708	1	269							
1919		335	486									
1926	2,737	2,679	24,917		1,020							
1927	458	1,232	4,367		570							
Kah Sheets Bay:												
1897	1,951				4,118							
1914					715							
1915		350	12,000		2,066							
1917	75	3,256	4,309		3,824							
1918	1,117	2,499	19,106		3,210							
1919	5,213	13,847	1,902		6,587							
1920	2,440	26,600	1,875	16	5,428							
1921	89	2,008	12,737		2,836							
1922	3,081	805	1,865		3,259							
1923	454	546	4,576		3,146							
1924	377	817	128		2,531							
1926	2,922	1,147	472		1,844							
1927	113	2,155	4,037		4,055							
Keku Strait:												
1906	428	1,357	146									
1910		897	1,000									
1911	2,777	4,294	86,890		189							
1912	2,960	13,431	59,689		35							
1913	205	47,198	81,422		108							
1914	117	7,496	1,804		146							
1915	966	8,129	79,203		375							
1916	6,900	72,833	129,832	4	489							
1917	1,832	46,656	421,820	19	1,218							
1918	4,066	78,596	348,744	39	6,830							
1919	2,151	18,208	56,365		1,687							
1920	774	7,134	7,099	4	308							
1922	1,069	23,581	8,784		48							
1923	2,260	2,004	32,255		377							
1924	1,410	40,888	27,837		959							
1925	246	52,986	35,028		687							
1926	722	23,230	23,825		407							
1927	2,234	7,038	4,899		402							
Kell Bay:												
1907	1,870	5,323	24,000									
1908			18,556									
1909	18		76,057									
1910		2,601	37,321		3							
1911	21		43,044									
1912	385	3,620	4,790		13							
1913	577	5,717	106,352									
1914		2,063	14,924		1							
1915	16	1,349	17,423		125							
1916	31	11,872	10,577		1							
1917	58	4,232	102,592		1							
1918	1,141	5,699	30,935		120							
1919	280	18,128	50,150		2,178							
1920	841	18,651	28,907	4	307							
1921	4	5,149	2,418		1							
1922	266	7,880	28,789		12							
1923	15	319	20,272		164							
1924	889	41,039	339,720		1,160							
1925	316	23,263	52,424		133							
1926	121	41,830	72,954		383							
1927	202	1,763	1,146	1	203							

TABLE 18.—Salmon caught and fishing appliances used in the Sumner Strait district, 1892 to 1927—Con.

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (num- ber)
						Num- ber	Fath- oms	Num- ber	Fath- oms	Num- ber	Fath- oms	
Labouchere Bay:												
1920.....	398	927	1,589	6	585							
1925.....		994	4,331									
McArthur, Port:												
1912.....	7	330	6,750		1							
1917.....	29	4	697		1							
1919.....		1	10,306									
Pine Point:												
1922.....	70	4	30		1							
1923.....	45	34	525	2	235							
1925.....	1,219	1,185	31,385		2,880							
Pole, Cape:												
1916.....	87	156	1,998									
1920.....	1	2	5,467		17							
1927.....		202	1									
Protection, Port:												
1914.....	73	442	3,350									
1918.....	9	2,121	13,413		15							
1920.....	196	324	1,537		567							
Red Bay:												
1896.....	4,542				16,348							
1897.....					12,004							
1898.....					24,000							
1900.....					11,243							
1904.....	1,697		30,091		19,697							
1905.....	1,119		5,682		20,393							
1906.....	1,273	28,875	27,874		18,240							
1907.....	174	17,023	1,008		21,628							
1908.....	49	11,473	7,025		28,270							
1909.....	209	19,484	3,511		19,527							
1910.....		25,015	3,844		34,088							
1911.....		7,906	3,455		15,170							
1912.....		8,597	5,384	22	9,898							
1913.....	307	3,275	48,563		9,171							
1914.....	600	2,315	5,753		7,657							
1915.....		727	930		5,683							
1916.....	2,271	2,860	4,271		10,839							
1917.....	3,363	5,424	33,141		12,185							
1918.....	520	4,660	6,493	1	3,581							
1919.....	752	2,584	7,345	4	6,640							
1920.....	1,855	2,996	4,683	45	3,738							
1921.....	35	3,615			553							
1922.....		1,306	2,182		504							
1923.....	101	1,019	2,181	1	18,962							
1924.....	4	82	614		6,850							
1925.....	43	897	1,125		7,693							
Reid Bay:												
1912.....		578	526									
1913.....	4	1,239	34,898		2							
1915.....		163	11,270		4							
1917.....	77	1,038	39,001									
1918.....	1	875	1,297									
1919.....		113	3,438		534							
1920.....		145	9		39							
1922.....	19	255	2,105		37							
1924.....	28	462	1,095		2							
1925.....	1,496	16,276	34,678		656							
1926.....	6	4	1,623		8							
Ruins Point:												
1923.....	3,288	1,690	92,424		14,294							
1924.....	15,742	3,787	41,176		7,293							
1925.....	6,048	7,683	51,845		3,262							
1926.....	12,441	3,160	55,740		3,201							
1927.....	1,478	1,454	9,718	2	2,726							
St. Albans, Point:												
1924.....	113	530	1,427									
1925.....	2	327	4,715									
St. Johns Harbor:												
1916.....	132	328	2,078		156							
1922.....	1,546	211	1,598	25	1,400							
Seclusion Harbor:												
1904.....	4,756											
1905.....	1,849		8,716									
1911.....		125	10,820									
1912.....	184	16	12									
1913.....	187	4,291	17,188									
1914.....		976	276									
1915.....		173	2,632		66							
1916.....	117	2,678	13,851		12							
1917.....	472	36	14,530									
1918.....		591	628		26							
1919.....	92	15,150	42,178		471							
1920.....		5,769										
1922.....	2	412	4,109		2							
1923.....	33	1,845	13,566		10							
1924.....	93	4,378	3,762		74							
1925.....	38	14,968	23,592		105							

TABLE 18.—*Salmon caught and fishing appliances used in the Sumner Strait district, 1892 to 1927—Con.*

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (num- ber)
						Num- ber	Fath- oms	Num- ber	Fath- oms	Num- ber	Fath- oms	
Shakan Bay:												
1906			21,000									
1908			15,540									
1909			6,000									
1911			5,352									
1912		2,413	6,862		58							
1913			2,970		1							
1914		84	3,628									
1915	4	980	13,525		2							
1916	16	4,357	3,744		61							
1918			6,742									
1919	1,063	3,564	15,114		147							
1920	33	2,524	1,837		1							
1922	2,503	18,225	109,669		1,333							
1923	1,808	12,867	166,380		4,361							
1924	1,803	26,064	97,636		2,091							
1925	1,998	8,605	45,289	3	67							
1926	21	2,844	14,041		8							
Shipley Bay:												
1892					6,762							
1893					5,295							
1897					700							
1898					5,000							
1900					12,000							
1904	460				14,688							
1906	315		139,960		9,627							
1907	1	954	17,178		16,323							
1908		3,682	78,206		14,482							
1909	206	271	99,696		15,401							
1910	325	4,488	25,678		19,965							
1911	25	1,750	60,153		21,702							
1912	2,705	1,495	20,655		18,131							
1913	338	1,847	23,013		9,894							
1914	21	337	2,108	12	1,687							
1915	406	1,507	42,203	4	1,313							
1916	528	4,287	11,057	14	5,522							
1917	3,693	20,975	211,806		6,373							
1918	471	5,800	36,097		2,725							
1919	358	7,893	45,217		6,156							
1920	199	4,357	29,767		6,233							
1921			3,118		4,410							
1922	367	5,763	17,087		1,768							
1923	1,055	2,892	64,078		10,886							
1924	8,108	7,075	70,423		14,989							
1925	191	7,207	51,017		4,125							
1926	187	8,203	94,493		1,468							
1927	35	1,771	2,339		455							
Sutter Creek:												
1906		29			1,661							
1907	64	22			3,572							
1908	185		61		3,665							
1909		171			3,192							
1910	400	2,875	32,230		1,977							
1911	424	879	41,316		4,093							
1912	972	6	334		604							
1913	546	698	2,952		1,198							
1914	441	35	504		385							
1915	1	7	113		945							
1916	429	602	315		2,575							
1917	134	6,755	12,963		2,083							
1918	1,340	284	357		2,168							
1919	495	530	996		243							
1920	3	1,060	2,353		402							
1921			277		1,058							
1922	202	12,280	29,406		8,294							
1923	33	670	6,173		1,146							
1924	10	1,436	1,343		493							
1925	32	14,138	54,305		300							
1926	425	705	15,249		28							
Three Mile Arm:												
1912	140	14,089	7,366									
1913		2,522										
1915		2,319	92									
1918	213	600	6,551		3							
1919	336	2,385	5,110									
1920	167	11,613	1,984		64							
1922	44	6,448	14,239		33							
1923	48	825	8,264		12							
1924	340	3,245	4,131		26							
1925	67	22,573	13,300		26							
1926	13	6,225	15,926		3							
1927	19	464	605		27							

TABLE 18.—Salmon caught and fishing appliances used in the Sumner Strait district, 1892 to 1927—Con.

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (num-ber)
						Num-ber	Fath-oms	Num-ber	Fath-oms	Num-ber	Fath-oms	
Totem Bay:												
1904	2,379		24,143		2							
1905	301		437									
1906	839	73	5,997									
1908		363	692									
1910	40	754	911									
1911	49	102	13,541		274							
1913	68	1,122	7,106									
1915	4	18	2,377		20							
1916	27	2,388	5,858	68	628							
1917	363	9,300	9,087		43							
1918	164	9,743	47,962		70							
1919	201	33,623	35,896		184							
1920	484	18,615	7,171		390							
1922	156	487	5,253									
1923	106	1,811	8,869		75							
1924	647	5,266	35,826		465							
1925	451	5,475	17,202	5	653							
1926	4	38	5,674		2							
1927	1	130	145									
Trout Creek:												
1908			25,796									
1909			42,367									
1911		12	52,313									
1912		435	22,139		33							
1914			1,996									
1915	27	53	55,700		9							
1918	5	405	6,435		5							
1920	3	200	3,737		104							
1923			4,883		113							
1924	4,855	2,480	22,844		1,022							
1925	4,088	5,584	73,297		1,257							
1926	113	809	5,304		60							
Twin Island:												
1927	294	1,162	8,555	64	106							
Warren Channel:												
1926	3		8,926		2							
1927	1,126	753	12,760		1,685							
Warren Cove:												
1916	2	870	3,654		9							
1917	42	174	14,371									
1920			6,990									
1927	1	4	179									
Warren Island:												
1914	54	946	6,097									
1915			2,132		164							
1918	15,770	83	9,420	6,236	132							
1919		850	13,528		78							
1920	12	1,167	7,880		70							
1924	1	1	3,687		22							
1925	5	2,148	4,619		391							
1926	23	19	17,080		78							
1927	465	1,418	2,560	7	1,333							
Wrangell Narrows:												
1904	8,858		3,217									
1905	5,863	15,000	20,180									
1906	9,212	3,302	538									
1907	1,296	6,621	400									
1908	1,321	25,991	16,818		146							
1909	1,286	502										
1910	517	4,561	22,164		230							
1911	1,307		1,839									
1912	3,361	4,786	17,962		60							
1913	370		1,960									
1914	5,101		600									
1915		5,991	95,611		2,468							
1916			1,958									
1917	8	742	4,021		168							
1918	162	22,808	69,782		245							
1919	1,594	38,138	17,261		5,103							
1920	2,252	11,220	12,689		239							
1921	5	2,135			1,050							
1922	90	9,324	19,686	1	345							
1923	27	211	4,631		1,040							
1924	238	7,830	64,692		290							
1927	0	1,655	882		853							
Unallocated:												
1904			8,500									
1905	4,590		292,095		57,840							
1907	1,200		5,090		7,803							
1908			6,894									
1909			7,650									
1910		14,952	9,633									
1911		956	39,360									
1912	87	21,147	22,755		1,261							
1913	22	1,288	9,308	1,102	1,074							

TABLE 18.—*Salmon caught and fishing appliances used in the Sumner Strait district 1892, to 1927—Con.*

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (num ber)
						Num- ber	Fath- oms	Num- ber	Fath- oms	Num- ber	Fath- oms	
Unallocated—Continued.												
1914	12,731	110,435	245,447	1,163	55,933							
1915	33,970	39,889	529,010	4,493	51,468							
1916	15,821	21,904	144,019	3,224	11,803							
1917	34,902	37,607	435,802	8,502	9,092							
1918	31,270	43,708	134,176	33,507	16,350							
1919	15,564	63,114	101,605	21,872	13,397							
1920	15,347	150,787	302,246	10,679	21,794							
1921	6,552	6,810	76,161	12,551	18,167							
1922	3,822	1,350	22,946	675	23,990							
1923	9,259	27,774	295,708	1,506	41,537							
1924	2,651	1,954	7,592	2,414	2,017							
1925	25,652	19,158	291,367	10,224	36,662							
1926	12,667	1,852	90,175	2,298	2,253							
1927	21,551	2,730	5,087	31,376	1,599							
Total:												
1892					11,229							
1893					5,295							
1896	4,542				16,348							
1897	1,951				17,514							
1898					29,000							
1900					23,243							
1904	22,335		115,032		67,696	1		8				
1905	16,098	15,000	355,528		94,953	11		8				
1906	15,042	60,462	313,219		53,510	10		6				
1907	4,945	47,768	232,228		69,472			13	2,350			
1908	3,621	90,627	456,677		69,339	1	75	14	2,275	2	230	
1909	1,905	30,516	312,509		64,458	3	280	14	2,375	1	100	
1910	2,349	95,571	199,281		80,081			20	3,795			
1911	13,701	31,924	549,153		53,700			19	4,000			
1912	29,334	162,976	350,829	22	37,194	24	3,455	20	4,205	3	280	2
1913	21,223	147,114	1,166,224	1,526	34,743	18	2,824	11	2,405			2
1914	21,901	155,480	321,894	5,269	67,378	10	1,930	21	3,755	9	605	4
1915	38,697	79,394	1,132,753	6,851	66,781			33	5,448			3
1916	46,616	177,421	499,047	4,182	69,536			32	5,058	9	750	3
1917	50,166	210,283	1,905,472	9,181	50,811			47	8,100	14	1,000	5
1918	80,563	282,274	993,052	41,221	79,728	19	1,705	53	9,365	1	100	4
1919	51,474	300,374	956,316	21,956	105,080	32	3,380	63	12,590			7
1920	33,029	370,827	530,291	11,153	85,745	13	1,325	52	8,323	13	1,040	10
1921	7,080	41,138	120,184	12,551	31,048	3	200	11	1,730	5	1,500	6
1922	50,211	171,792	551,555	1,346	70,379	2	50	40	7,995			7
1923	35,954	102,979	1,494,656	1,517	145,889	3	290	32	5,205	7	375	11
1924	37,096	246,692	1,385,859	2,430	71,422	2	100	67	10,930	5	975	9
1925	47,391	341,047	1,139,274	10,297	64,259			54	8,445			10
1926	54,922	215,656	923,379	2,308	48,908			52	8,505			15
1927	39,927	62,753	210,988	31,467	55,390			32	5,278			22
Caught by lines (included above):												
1912	84											
1913					1,192							
1914	365				780							
1915	21,543				5,419							
1916	5,024				1,536							
1917	34,877				8,502							
1918	23,456				27,536							
1919	15,564				21,869							
1920	262				10,463							
1921	3,710				12,251							
1922	3,550				370							
1923	11,185				34,035							
1924	2,039				2,275							
1925	10,326				9,952							
1927	12,781				31,321							

NOTE.—No catches were reported in the years omitted from each division of this table.

It will be seen from an examination of this table that each locality produced all species of salmon except kings although in several instances the number of reds and cohos was unimportant. The record shows, however, that the distribution was fairly general, and that the first localities fished were those which produced a few thousand red salmon. In this way the streams at Point Barrie, Red, Shipley, and Kah Sheets Bays received early attention. Later the catches included other species which ultimately came to exceed greatly in importance the catches of red salmon although there was no startling diminution in the yield of that species.

Affleck Canal and its arms, Bear Harbor, Kell Bay, and Port McArthur, appears to be the most productive locality as regards pink and chum salmon in the Sumner Strait district notwithstanding the fact that the streams are small. In the long record of its production, 5 years, 1913, 1917, 1923, 1924, and 1926, stand out as exceptionally good pink salmon seasons with 1924 showing a catch of nearly three quarters of a million, approximately three times that in any other year. The catch in 1927, however, dropped to only a little over 8,000 thus reaching an unparalleled low level of production the cause of which cannot be traced. All fishing before 1924 was carried on under the provisions of the law of 1906. In 1924, fishing was prohibited from August 20 to September 9, and yet with this seasonal closing of 20 days the largest catch in the history of the Affleck Canal fisheries was made. In the next 3 years, 1925 to 1927, fishing was prohibited from August 22 to September 14, a period of 24 days, and fishing gear was limited by prescribing the size of seines which could be used. These regulations were continued without change through 1927. A further restriction, prohibiting fishing within 1,000 yards of all streams tributary to Affleck Canal, was imposed in the same year. But the combined effect of all these regulations cannot reasonably account for the apparent serious decline of the pink salmon fisheries as shown in the catches of the two last odd years. A comparison of these catches shows the abruptness of this decline. In 1923 a catch of 234,288 was made; in 1925 the catch was 132,710; and in 1927 it was only 8,256. No explanation of this is found in the unallocated catch of 1927, as the total number of pink salmon in that category for the entire Sumner Strait district was only 5,087. The escapement of salmon in southeastern Alaska in 1925 was conservatively reported as adequate for a satisfactory seeding of the spawning beds while some observers claimed that it was the best they had seen in years. These observations did not apply specifically to the Affleck Canal section but were of general application. The runs of pink salmon were admittedly light in the Sumner Strait district in 1927, streams were low in July and the first part of August and were entered by very few salmon; and there was practically no escapement even after heavy rains later in the season restored the streams to their normal flow. The same condition existed in respect of the chum salmon but not to such a marked degree, as the catches of this species were appreciably smaller in all years than those of pink salmon.

The red salmon stream at Point Barrie enters Keku Strait about 2 miles north of the point. It was probably fished regularly from the year salmon canning began in this section of Alaska, but there is no continuous record of catches until after 1903. Since then it has produced steadily although in some years the catch was extremely light. However, in later years, after fishing was curtailed by laws and regulations the catch has closely approached the average yield when the locality was virgin territory and when fishing was largely in the stream or directly at its mouth. In addition to the seasonal closing, which first became operative in 1924, fishing was restricted in 1926 to waters beyond 1,000 yards of the mouth of the stream, and in 1927 the closed area was extended to 1 mile. These restrictions may have materially reduced fishing in this locality, thus accounting in part for the small catch of all species of salmon here in 1927, yet some allowance must also be made for the effect of the unusual conditions which prevailed throughout the Sumner Strait district in that year. Fair numbers of pink salmon have been reported from Point Barrie, but the catches were marked by wide variability and show no tendency toward 2-year cycles. That these fluctuations were due to natural causes is not necessarily true; to some

extent they may have originated in the exploitation of the runs for commercial purposes.

The catches reported from this locality in some of the later years were not taken entirely from the immediate vicinity of the stream as they include salmon that were captured by a trap near Point Barrie which took fish from the runs to the eastern waters of Sumner Strait. To what extent these data are affected by the inclusion of trap catches cannot be determined, but it may be assumed that the record is fairly accurate in respect to red salmon. The small catches of king salmon at this point presumably came from the Stikine River runs as no kings had been taken in this locality before traps were used. The increased catches of cohos after 1921 may be accounted for in the same way.

The east coast of Kuiu Island is indented by four bays—Port Beauclerc, Reid Bay, Seclusion Harbor, and Three Mile Arm—all of which have made fair contributions to the catch of salmon in this district, chiefly pinks and chums. In each locality wide fluctuations in catches have occurred. At Port Beauclerc, by far the most productive field, all good catches of pinks were made on the odd years although not consecutively. The catches in the intervening seasons, ranging from 1 to 5 years, were undoubtedly comparatively small, indicating either less intensive fishing or smaller runs, but there can be no doubt that, in general, the pinks in this locality show a definite 2-year cycle with the large runs in the odd years. There is no evidence of a diminishing supply. In respect of chums, the variation in catches was not pronounced after 1915 until 1927 when the catch dropped far below any level reached since 1914. With this exception, the records of Port Beauclerc show no apparent reduction in the runs of chums. Coho and red salmon, while never abundant in this locality, are still taken in numbers comparable to those of earlier years, the catch of both species in 1927 having been exceeded only a few times. The situation at Reid Bay and Seclusion Harbor differs little from that at the other localities on this shore of Kuiu Island although the catches have been relatively much smaller; yet in 1925 both places show catches which had been exceeded but once in the history of their fisheries. No salmon were reported from Seclusion Harbor after 1925 and none from Reid Bay after 1926, due undoubtedly to the regulation of 1925 prohibiting fishing within 1,000 yards of the mouths of the streams of both bays.

On the east side of Sumner Strait, indenting the west coasts of Kosciusko and Prince of Wales Islands, are three bays that rank among the best areas in this district. The run of red salmon to Shipley Bay was among the earliest to be exploited in southeastern Alaska. Available records show that it was fished as early as 1892, wholly for red salmon, as no other species was reported from its waters until 1904. Unfortunately, data are incomplete for these earlier years, although it is reasonably certain that salmon were taken here even in the years for which records are not obtainable. Moreover, the catches shown may be only those made by one company so that the full yield is now unknown. From 1904 to 1927 catches were recorded for each year except 1905 when for some unaccountable reason the bay was not listed by any of the packers submitting reports of catches in that year. The production of red salmon held a fairly even level until 1914 when it dropped abruptly to approximately one tenth of the average it had maintained for the preceding decade. No noticeable improvement in the catch was apparent until 1923, 9 years later, when it again approached the level of the earlier productive period. A still better catch was recorded in 1924; but in 1925 it dropped sharply again and shows a progressive decline reaching, in 1927, the lowest point in production of red salmon in the history of the fishery, only

1,468 reds being taken in 1926 and 455 in 1927. It is by no means certain, however, that this decline was due to the depletion of the run. The closed season of 20 days in August and September 1924 and in subsequent years, could have had no effect on the catches as the run of reds was practically over before the middle of August, but the regulation of 1925 closing the bay to all commercial fishing east of a line at 133° 32' 30" west longitude, approximately 2 miles from the stream, is probably responsible for the declining catches. It would also seem that the coho fishery was affected in exactly the same way as the catch dropped from 8,108 in 1924, the largest ever known in Shipley Bay, to 191 in 1925 and 35 in 1927. The pink and chum fisheries were but slightly affected by the closing of the head of the bay as the principal stream for these species is outside the closed area. The catch may have been affected, however, by the seasonal closing of 20 days before the end of the runs, although the catch of chums in 1926 had been exceeded but once in 21 years and that of pinks but three times in 22 years. In the light of the data here considered, no depletion of the Shipley Bay fisheries can be assumed.

As to the other localities referred to, Shakan and Calder Bays together show a good annual yield of pink and chum salmon which has been fairly well sustained for 20 years, the peak being reached in 1923. Since then, the catch has fallen off somewhat but has not dropped much below the production of earlier years. Hole in the Wall is a small inlet about 4 miles north of Shakan Bay. It appears to have been fished regularly from 1906 to 1919, with the exception of 1911, and was then abandoned. It was closed to commercial fishing in 1927. The catches reported from this locality in 1926 and 1927 were taken entirely by a trap outside the hole and presumably consisted largely of salmon from the general Sumner Strait runs rather than from runs to this particular locality.

Due to the fact that Keku Strait lies in two districts, it was necessary to make a somewhat arbitrary division of all catches that were allocated only to the strait. The southern part was therefore credited with the catches reported from Keku Strait by companies whose plants were located on or south of Sumner Strait. This method of allocation is not perfect, but it was used as being the most feasible plan in handling these unsatisfactory raw data. The strait was fished in 1906 and from 1910 to 1927, excepting 1921, the most productive years coming between 1915 and 1919. After this period of unusual demands on the fisheries, the catches became much smaller, falling off to the lowest level they had reached since 1914. The lean years were followed by four seasons of better catches, but 1927 was one of the poorest years ever known in Keku Strait. The fluctuations in catches here have no particular significance, however, in showing any depletion of the runs in this locality, as the strait is one of the routes used by migrating salmon to both northern and southern waters.

Other indentations on the north side of Sumner Strait from Totem Bay to Blind Slough are not important fishery localities although fair catches have been made infrequently at all of them; but for the most part the returns have been extremely variable. Duncan Canal was once highly regarded as a producer of red salmon. The catch of reds in 1904 was 18,713; in 1919 it was 61, while none was taken thereafter until 1926, when 1,138 were caught at Castle River. The same situation exists in respect of all other species, so that it would appear that the canal is now the most seriously depleted salmon area in the Sumner Strait district.

Kah Sheets Bay, just south of the entrance to Duncan Canal, is noted for its red-salmon stream and the remarkably uniform catch that has been made there through many years. In 1897, the catch was 4,118; in 1927 it was 4,055. Data for

several earlier years are lacking and also for 1916 and 1925, but these omissions do not necessarily mean that the locality was not fished regularly through all these years. The fluctuations in catch are not significant of exhaustion of the run as, in 1926, when the catch was comparatively low, it was reported that the escapement was exceptionally large. In addition to red salmon, the streams also produce small runs of cohos, chums, and pinks.

Fishing in Wrangell Narrows and Blind Slough covers a period of more than 20 years; catches varied considerably without definite evidence of periodicity. The catch at Blind Slough in 1924 was the largest ever taken from that locality. In the same year the Narrows produced its third largest catch. At best the runs are small and uncertain so that the closing of these waters from Point Alexander to Prolewy Point in 1925 and subsequent years had no important effect upon the fisheries of Sumner Strait.

Red Bay, a small indentation on the north coast of Prince of Wales Island, is one of the oldest and best known fisheries in this district. Its history is similar to that of Shipley Bay and Point Barrie and began with the exploitation of the red-salmon run not later than 1896. The annual yield of this species was well sustained until 1911. The first indication of a failing supply became apparent in 1912 and this became more marked during the next 3 years. The catch improved somewhat in 1916 and 1917, but it dropped even more sharply in the next few years and reached its lowest point in 1922 when only 504 reds were taken. In 1923, however, the reported catch was 18,962 and compared favorably with the number taken in earlier good years. The catches in 1924 and 1925 were again small, and there is no assurance in the record of these later years that the run will regain its former proportions without curtailment of commercial fishing. The bay is small, and salmon have little chance to escape unless fishing is prohibited for long periods; accordingly it was permanently closed in 1926.

As already noted, traps were operated with fair success at several points on Sumner Strait. Those located at Point Colpoys made the largest catches. According to the statistical data, the first trap was driven in 1913 and made a catch of 470,000 salmon. In 1914, 1915, and 1925 no catches were reported, but the unallocated catches of Sumner Strait in those years reached rather high totals and it is not improbable that the bulk of the salmon thus reported came from Point Colpoys. Except as noted, the record is complete from 1916 to 1927. More red, king, and pink salmon were taken here than at any other point in Sumner Strait although this location is near the eastern end of the district. Probably the kings were bound chiefly to the Stikine River, but the other species were in large part destined to the tributaries of Clarence Strait, a fact that was demonstrated by tagging experiments at Point Colpoys in 1926 and 1927. The catch of all species has declined but more markedly in the case of pinks than the other species. Ruins Point is another locality where fair catches were made by a trap which presumably drew largely upon the runs to Shipley and Shakan Bays. Tagging experiments at this point in 1924 and 1925 showed that salmon released here were subsequently taken in these bays and also that there was a general movement northward and eastward through Sumner Strait, a few recaptures being made far to the southward in Clarence Strait and the waters of British Columbia. The somewhat unusual catches of king salmon reported from Warren Island and Point Baker were made by trollers and bear little or no relation to the localities named. Trollers operate in those sections of the strait where king salmon

feed and report their catches as from the point of delivery to the buyers. There is no king-salmon stream in the entire Sumner Strait district.

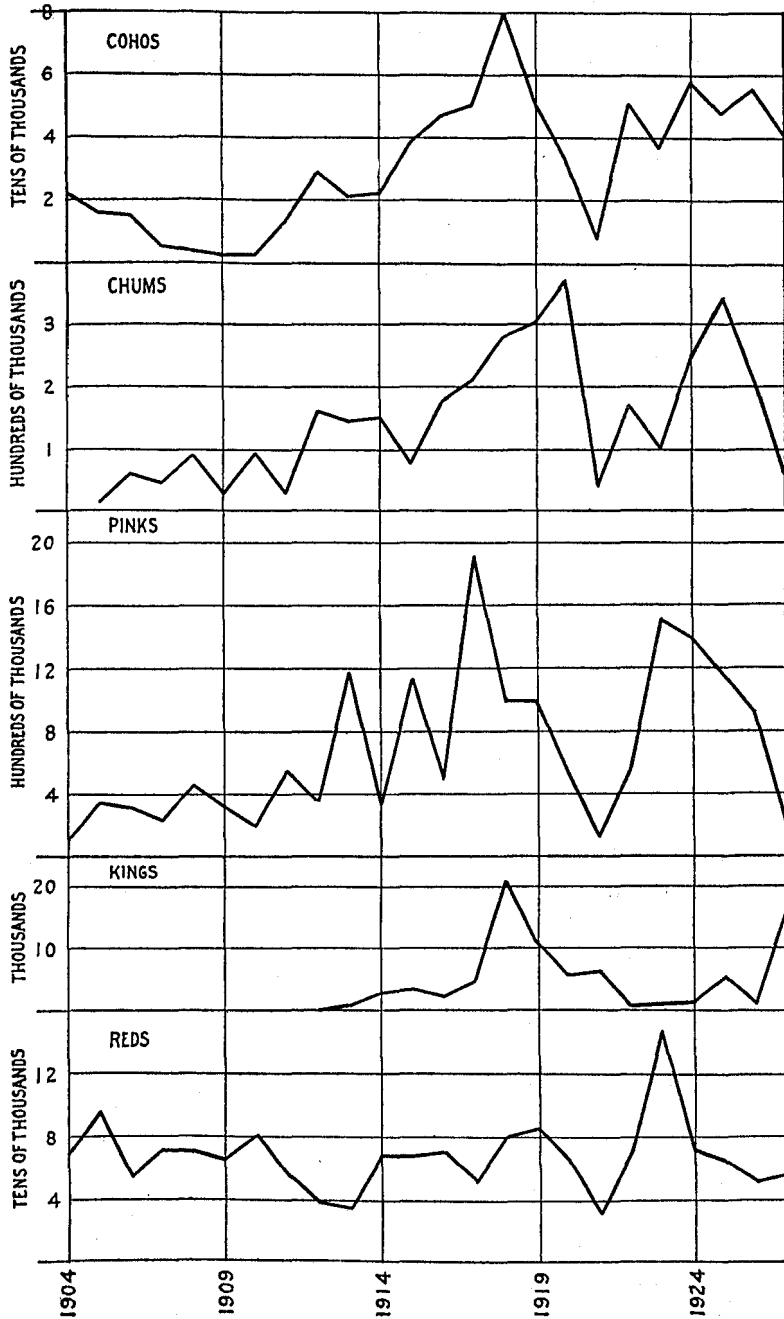


FIGURE 33.—Catch of salmon in the Sumner Strait district, 1904 to 1927.

Sutter Creek is a tributary of Dry Pass which connects Shakan Bay with El Capitan Passage. It supports a small run of red salmon, but the supply apparently had been practically exhausted by 1926. Cohos, chums, and pinks were also taken here, exceptional yields being obtained occasionally, but generally the catches were

not important. Trout Creek is another locality on the west coast of Kosciusko Island, where good catches of pink salmon were made in some years. The record is discontinuous, however, and considerable doubt exists that these larger catches were taken at the stream. It is more probable that they were made by a trap more than a mile from the creek and that the name of the stream was used merely to designate the approximate location of the trap.

The unallocated catches of pink, chum, and red salmon in the Sumner Strait district may be accounted for largely in the operation of traps while those of kings and cohos were taken chiefly by trollers and gill netters fishing in the open waters of the strait and for that reason were not shown as coming from specific localities.

Figure 33 shows graphically the catch of salmon in the Sumner Strait district from 1904 to 1927. The most marked change in the apparent condition of these fisheries was caused by the post-war economic disturbance. It affected all species and reached its lowest level in 1921. The trend of the catches then moved upward again until changing conditions brought about by new laws and regulations from 1924 onward, and the abnormal season of 1927 affected the catch of pink and chum salmon and reduced them to extremely low levels. The other species were not affected to the same extent, nor as suddenly. The production of red salmon is interesting in that it has shown comparatively little fluctuation over a period of almost 30 years.

STIKINE RIVER DISTRICT

The Stikine River district covers the waters of an area which is bounded on the north by a line from Cosmos Point to the point of land on the south side of the entrance to Le Conte Bay, on the west by a line at 132°40' west longitude extending from the southern shore of Mitkof Island to the northern shore of Zarembo Island, on the south by a line from the north side of Deep Bay, on the east coast of Zarembo Island across Stikine Strait to Point Ancon on Woronkofski Island and thence across Zimovia Strait and Eastern Passage to Babbler Point on the mainland. The eastern boundary is the mainland shore from Babbler Point to Le Conte Bay, practically all of which constitutes the mouth of the Stikine. These boundaries were fixed with a view of covering only the gill-net fishing grounds of this river, and, at the same time, of showing something of the relative importance of this fishery. To that end, only salmon taken by seines and gill nets are considered as Stikine River fish. A map of the district is found in figure 34. Dry Strait, the Stikine flats, and the several mouths of the river constitute the fishing grounds.

The Stikine is the largest river in southeastern Alaska. It rises several hundred miles from the coast in the mountains of western Canada and drains a large glaciated area in consequence of which its waters are highly turbid. Only 25 miles of the lower part of the river lie in Alaska.

The size of the river, perhaps, induced some of the early salmon packers in Alaska to locate canneries near the mouth, under the apprehension that the river supported large runs of salmon, and that proximity to the most important fishing ground was a distinct advantage. In a few years it was evident that the Stikine fisheries alone supplied an inadequate number of salmon for a profitable pack. The first cannery was built here in 1887 at a point 8 miles above the mouth of the river; but 2 years later it was moved to Point Highfield, the northern extremity of Wrangell Island. The second cannery was built in 1889 at Gerard Point directly at the mouth of the river. It operated 2 years and was then merged with the plant at Point

Highfield. In 1912 one more cannery was opened at Wrangell, and eventually several salteries, mild curing stations, and fresh-fish dealers located at Wrangell and carried on a brisk trade with the independent gill netters, seiners, and trollers who operated out of that center. As the independent fishermen gradually monopolized the Stikine River fisheries the established companies extended their efforts to other fields and finally discontinued all gill netting in the district. This change led to the almost total disappearance of gill-net catches in the statistical returns made to the

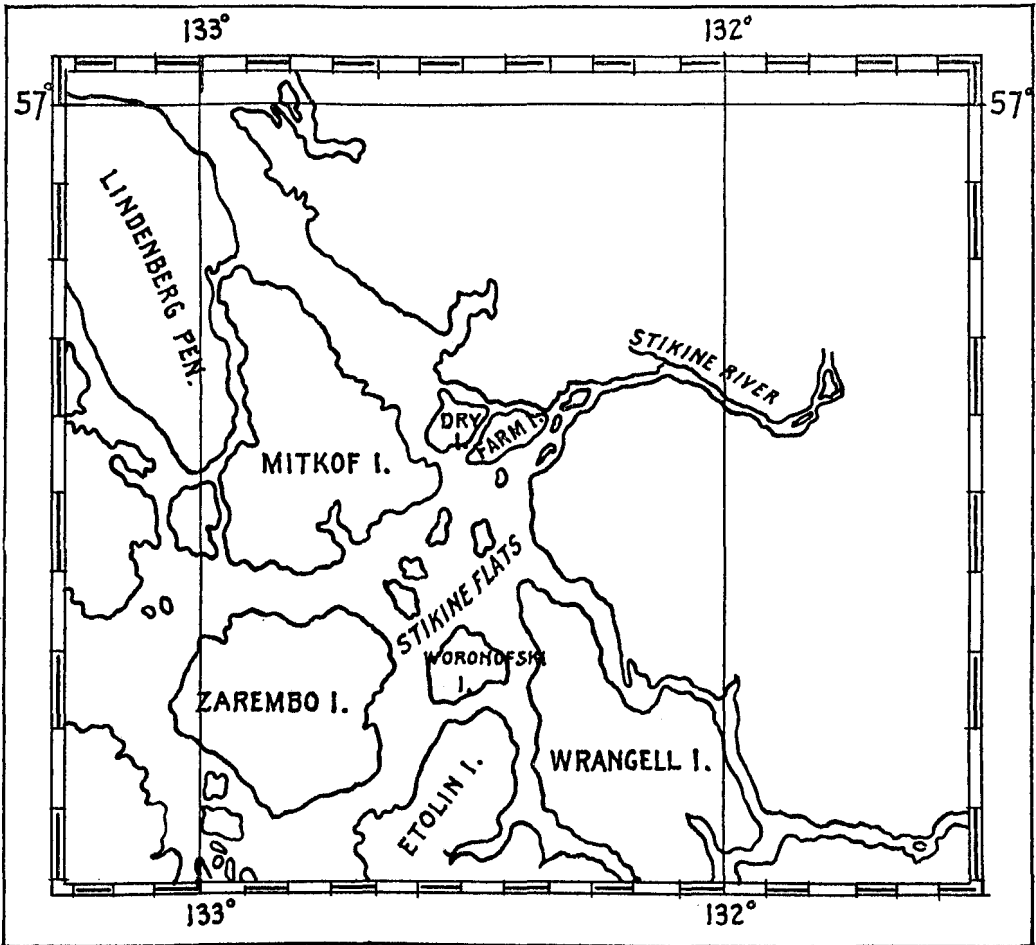


FIGURE 34.—Map of the Stikine River district.

Government. The independent fishermen were operating as many nets as the companies ever did, but they made no report of the number of nets used or the number of fish caught. For this reason no data are available for use in this review showing the number of nets operated in the Stikine district after 1914, except those reported by the packing companies. The catch statistics were obtained only through the companies and dealers. Seines have been used to a limited extent; and traps were tried in 1900 in Dry Strait, at Gerard Point, and in the river, but all of them were complete failures.

TABLE 19.—*Salmon caught and fishing appliances used in the Stikine River district, 1895 to 1927*

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets	
						Number	Fathoms	Number	Fathoms	Number	Fathoms
1895				3,294							
1896	30,000			3,958	30,000						
1897	19,722		20,394	4,680	21,206						
1898				8,565							
1899				12,215							
1901	8,000		7,000	3,269	9,000						
1902	1,157		3,836	3,793	7,961						
1903				181							
1904	31,438		2,082	3,905	29,921	3		2		49	
1905	5,871		25,106	9,270	34,220					41	
1906	14,637	8,563	10,711	2,663	25,292	3				23	
1907	14,868	5,027	8,884	14,871	10,221			2	400	44	7,200
1908	1,600	20,403	49,487	17,572	34,095	1		2	370	93	17,000
1909	15,997	5,614	19,708	22,782	24,470	5	570	1	120	53	10,400
1910	33,233	9,135	7,655	23,113	36,937	3	380	2	300	83	18,800
1911	20,713	5,663	15,119	34,430	22,621			2	380	101	27,650
1912	37,070	1,596	2,331	25,155	5,935			5	980	47	11,450
1913	4,460	19	20,575	30,586	4,987			4	800	39	10,700
1914	24,400	1,076	4,643	11,247	31,183	1	80	5	1,038	16	3,400
1915	13,652	2,502	145,109	6,237	21,184			5	925		
1916	08,104	4,470	89,902	4,853	23,837			5	700		
1917	30,777	24,546	159,473	5,414	55,229			5	1,130		
1918	24,386	5,475	45,107	7,707	6,908			4	800		
1919	44,618	12,010	26,291	12,939	22,898			3	600	1	250
1920	18,265	9,840	2,386	25,216	40,034			2	300		
1921	17,503	1,670	15,467	1,274	13,441						
1922	15,560	1,381	906	13,308	18,662					5	1,400
1923	3,342	3,461	23,972	66,853	33,269					2	700
1924	7,104	4,071	5,860	16,583	32,559						
1925	20,996	5,294	12,612	4,518	21,533						
1926	3,926	7,312	3,530	2,242	5,662						
1927	16,864	1,524	3,332	1,379	4,871						

The total catch of salmon at the Stikine River from 1895 to 1927, omitting 1900, is given in table 19. Moser (1902) gives the catches of the companies at Wrangell in 1900, but makes no segregation of Stikine salmon, so that the data for that year can be used only in the general unallocated catch in southeastern Alaska. There is some doubt as to the reliability of the statistics respecting catches of chums and pinks, which in some years reached surprisingly large totals, particularly in view of the fact that the Stikine is generally understood to have only small runs of these species. The most plausible explanation of these irregularities is that the companies applied the term "Stikine River" to a larger area than that here described and included as Stikine River catches salmon taken from the adjacent waters of Sumner, Stikine, and Zimovia Straits. The catches of coho, king, and red salmon are more nearly correct as these species regularly enter the Stikine and are most heavily fished. There was very slight regulation of fishing in this district before 1925. Beginning in that year, a weekly closed period of 48 hours has been enforced. The length of gill nets was limited to 200 fathoms, but increased to 250 fathoms in the following seasons, and all fishing was prohibited from June 21 to July 5. In 1926 and 1927 the seasonal closing extended from June 10 to June 30, but it did not apply to trolling.

Considering its size, the Stikine River is not a large producer of salmon, and its fishery value suffers by comparison with many smaller streams even in the same general region. Its chief importance lies in the king salmon fishery which, however, cannot be fully estimated without taking into account the effect of trolling throughout the length of Sumner and Clarence Straits and along the west coast of Baranof and Prince of Wales Islands. It is also possible that Stikine king salmon approach the river through Chatham Strait and Frederick Sound, but in smaller numbers than through the southern approaches. In some measure the same conditions affect the

cohos, as they are found with the king salmon on the feeding grounds and constitute fully half the catches of the trollers on these widely scattered fields. The recorded catches in this district do not, therefore, accurately reveal the true condition of the fisheries and the fluctuations in catches at the mouth of the river and the falling off in recent years cannot be taken as definite evidence of serious depletion.

WEST COAST OF PRINCE OF WALES ISLAND DISTRICT

This district embraces all the waters of the west coast of Prince of Wales Island from the boundary of the Sumner Strait district at 133°20' west longitude at the northern end of El Capitan Passage southward to Tlevak Narrows, all the intervening islands, the eastern and southern shores of Kosciusko Island, and the entire west coast of Dall Island to Cape Muzon, comprising a total length of approximately 115 miles. (See fig. 35.) The several passages and channels between the islands, and the many small bays of the region, mark this as probably the most intricate shore in all Alaska. The islands of the district are rugged and for the most part their shores are bold and rocky. No rivers or very large streams are found here. There are innumerable small streams, however, many of which are the outlets of lakes. The salmon runs provide a varied fishery of which the pink salmon is the predominant species.

Salmon canning began in this district in 1878, simultaneously with the beginning of packing at Old Sitka. The first cannery was located at Klawak, superseding a saltery which had existed there for several years, and in 1927 it attained the distinction of having an unbroken record of packing for 50 years. Salmon salting was carried on to a limited extent in other localities soon after this cannery was established, notably at Sarkar Cove, Holbrook Creek, and Shinaku Inlet. No other canneries were built or operated in this district until 1911, when the first floating plant made its appearance and anchored in the vicinity of Waterfall where a cannery was built a few years later. The Klawak cannery was, therefore, the sole occupant of the district for a period of 33 years although canneries in adjacent districts frequently took salmon from the more noted red salmon streams.

Details of the catches from 1878 to 1895, inclusive, are not available, so that there is now no means of knowing how many salmon of each species were taken in these years or the localities from which they came, except as Moser recorded the catches at Klawak and a few other localities from 1886 to 1900 by one company. The pack for these earlier years is shown in table 20.

TABLE 20.—Pack of canned salmon at Klawak from 1878 to 1895

Year	Cases	Year	Cases	Year	Cases
1878.....	5,402	1884.....	6,189	1890.....	10,188
1879.....	6,675	1885.....	8,428	1891.....	9,256
1880.....	6,539	1886.....	7,680	1892.....	10,194
1881.....	8,977	1887.....	9,502	1893.....	12,595
1882.....	11,501	1888.....	12,325	1894.....	14,455
1883.....	8,240	1889.....	11,370	1895.....	12,228

It is probable that these packs were largely, if not wholly, composed of red salmon, and that the larger part of the catches came from the Klawak stream. Not until competition for red salmon developed was much attention given to the other

species, although the pinks were the most abundant and were present at the red salmon streams as well as numerous others.

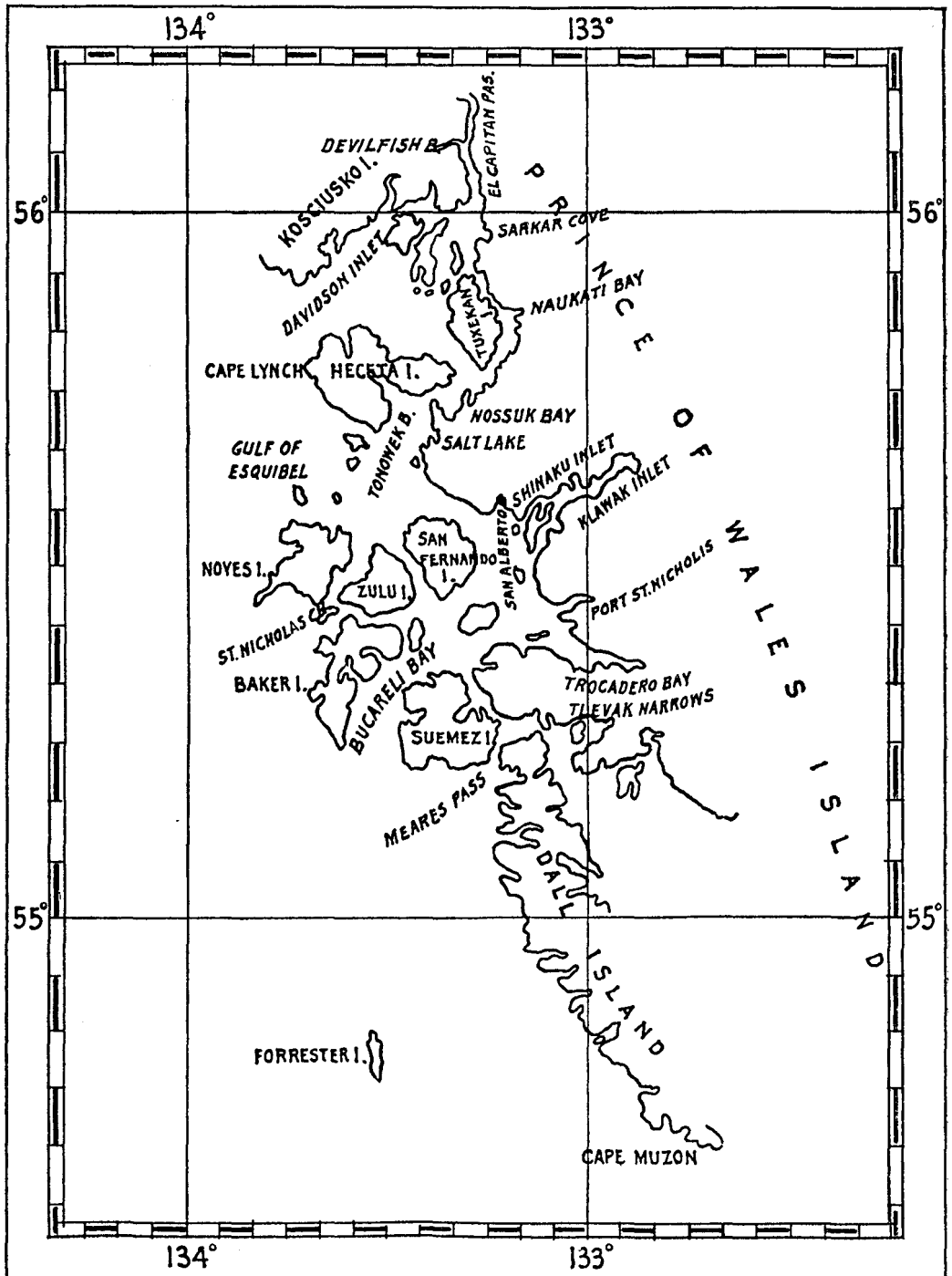


FIGURE 35.—Map of the west coast of Prince of Wales Island district.

The early history of the fisheries of this district indicate that seines and gill nets were used exclusively from 1878 through 1911 and that traps were introduced in

1912 for the first time, 11 being operated that season. No pronounced increase in the number of traps occurred until 1922, while in the same period the number of seines remained fairly constant. After 1924, the number of traps increased steadily from 22 in 1924 to 60 in 1927. In the same period, the number of seines dropped from 73 to 54. These figures indicate a striking change in the character of the fishery, so that what had been exclusively a seine and gill net fishery for many years rapidly became predominantly a trap fishery. The number of canneries had also increased to eight in 1927, with probably an equal number located outside the district which drew upon its resources. Trollers also made their appearance in these waters and in a few years developed coho and king salmon fisheries of considerable importance.

The first regulation of the fisheries beyond that provided in the general law of 1906 was imposed in 1918 by closing to commercial fishing all streams less than 500 feet in width, and prohibiting fishing with movable appliances within 200 yards of the mouths of the streams and with fixed appliances within 500 yards of the mouths. These regulations were continued in 1919 and made applicable to all streams regardless of their width. The next change occurred in 1921 by removing the exception in favor of movable appliances and putting them on the same basis as fixed appliances. After the law of 1924 became effective, a closed season of 61 days was promptly imposed by prohibiting all fishing, except trolling, from midnight August 25 to midnight October 31. In 1925, the seasonal closing covered the entire year except from midnight July 14 to midnight August 22 and from midnight September 14 to midnight October 15. Sarkar Cove was also permanently closed. The regulations of 1926 and 1927 continued the seasonal closings without change and in addition limited the size of seines and permitted the use of traps in certain designated localities. Naukati Bay and approximately 3 miles of the eastern end of Trocadero Bay were included among the areas permanently closed to salmon fishing. In 1927 these closed seasons and areas were maintained with the further prohibition of traps in that part of Tuxekan Passage lying between 55°41' and 55°52' north latitude and in all waters within one half mile of the southern point of Tuxekan Island. All waters within 1 mile of the mouth of Staney Creek were also closed. The probable effect of these regulations will be discussed in connection with the review of the statistical data presented in table 21, showing by localities the total catch of salmon in this district.

TABLE 21.—Salmon caught and fishing appliances used in the west coast of Prince of Wales Island district, 1886 to 1927

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Addington, Cape:												
1925.....	216			1,795								
1926.....	87	12	4,680		267							
1927.....	290	60	2,121	8	3,024							
Anguilla Island												
1926.....	212	468	4,767		336							
Arboleda, Point:												
1924.....	1,496	2,724	70,081		1,876							
1925.....	2,191	16,879	28,781		1,311							
1926.....	1,853	5,239	45,870		703							
Augustine Bay:												
1914.....					190							
1924.....					332							
1926.....					358							
1927.....					208							
Baker Island:												
1912.....		19,062	19,014		1							
1913.....			5,529									
1914.....	329	6,624	7,459		3							

TABLE 21.—*Salmon caught and fishing appliances used in the west coast of Prince of Wales Island district, 1886 to 1927*—Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Baker Island—Continued												
1915	321	8,535	6,915									
1918	57	2,215	4,233									
1919	490	15,529	21,476	50	7							
1920	77	11,319	24,540		9							
1923	309	5,611	20,647		53							
1925	3,553	46,778	59,483	9,511	1,823							
1926	3,084	17,933	66,066	4,799	1,573							
1927	4,791	4,352	20,057	10,252	2,166							
Bartolome, Cape:												
1925	244			1,225								
1926	1,920			1,800								
Bazan, Port:												
1919		120	929		739							
1924	112	220	3,584		315							
Big Salt Lake:												
1919	4,801	18,061	24,694		281							
Blanquizal Island:												
1926	1,576	6,117	70,469		2,263							
1927	473	1,167	9,075		2,028							
Bobs Bay:												
1913			10,756									
1914	118	3,500	7,701									
1926	5	1,785	2,235		22							
1927	1	502	9		5							
Bocas de Finas:												
1915	186											
1922	5,673	7,597	86,415		9,403							
1923	2,437	1,005	38,691		1,234							
1924	794	1,962	12,193	38	2,827							
Bucareil Bay:												
1915		9,761	9,607		35							
1916	2,437	16,991	4,343		7							
1917	1,407	16,738	56,121		11							
1919	13	270	6,926		2							
1922	8,135	63,408	133,793	17,630	51							
1923	35	388	7,096		128							
1924	1,980	66,587	119,394	11,043	1,647							
1925	69	7,200	1,600		500							
1926	1,954	7,437	46,343		1,296							
1927	2,913	2,653	9,564	12	1,629							
Cabras Island:												
1927	166	68	120		156							
Caldera, Port:												
1926	14	1,078	3									
Camp Taylor:												
1907		718	103,285									
1908			27,642									
1909		2,358	96,316									
1910	2		23,139		51							
1911			6,118									
1912	282	785	26,031		16							
1913	78	1,321	4,400									
1914		567	2,068									
1915	7	432	7,661		19							
1920	8	556	1,747		3							
1923		954	1,187		7							
1925	54	10,772	87,274		51							
1926	58	1,299	14,122		49							
1927	42	907	916		28							
Cangrejo, Point:												
1926	254	1,562	10,981		197							
Cap Island:												
1913		2,021	284									
1927	97	357	1,512		74							
Clam Island:												
1922	303	1,572	57,175		2,873							
1923	1,049	1,665	42,239		3,290							
1924	484	2,155	134,007		5,532							
1925	266	1,547	12,518		3,181							
1926	346	2,088	65,482		684							
1927	172	192	427		486							
Cocos, Point:												
1925	1,461	5,984	21,067	4	892							
Craig:												
1920	1,981	16,163	100,387	1,770	2,393							
1921	290	8,581	15,099		32							
1922	2	748	474									
1924	1,306	9,407	36,887		696							
Cruz Island:												
1919	4	2,967	1,154									
Culebra Island:												
1927	161	117	837		130							

TABLE 21.—Salmon caught and fishing appliances used in the west coast of Prince of Wales Island district, 1886 to 1927—Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Dall Island:												
1909	64				1,903							
1911	3		70,772		20							
1913			15,965		63							
1914		3,931	6,465		477							
1915		2,962	10,874									
1916	1,027	7,062	8,928		50							
1917	1,665	22,392	44,193		666							
1918	846	316	1,172		1							
1920	152	4,924	305		1							
1925	2,426	58,467	41,786	587	1,624							
1926	205	8,165	30,578		605							
1927	40	80	300		75							
Davidson Inlet:												
1913			45,000									
1915		1,854	7,930		38							
1917												
1918	665		8,284	135	32							
1926	1,661		3,070									
1927	7	2,091										
Dead Tree Point:												
1920	1,836	3,270	32,373		1,965							
1927	623	734	1,789		703							
Derrumba Landslide:												
1925	3,780	14,302	165,287		4,018							
1927	1,900	1,952	7,054		1,349							
Desconocida, Point:												
1923	5,051	5,721	235,363	5	9,723							
1924	1,827	5,609	51,748		3,571							
1925	1,841	7,857	127,325		1,944							
1926	575	5,194	35,000		725							
1927	1,038	3,134	16,790		2,016							
Devilfish Bay:												
1906			60,390									
1907		2,139	186,503									
1908			12,947									
1909		2,101	80,800									
1911		1,522	169,416									
1912	2	3,115	15,140		11							
1913	19		16,120									
1914		960	2,296		2							
1915	15	538	16,304		11							
1917		2,444	19,500									
1919		74	5,876		4							
1924		6,188			5							
1925	15	1,011	9,330		67							
1926	13	3,864	17,283		43							
1927	9	720	2,432		227							
Dolores, Port:												
1912	91	4,330	1,018		2							
1914	22	4,622	4,556		2							
1918		137	501		6							
1923		38	2,304									
1925	64	1,958	3,538		9							
Eagle Point:												
1923	2,104	1,177	55,616		3,207							
1925	2,077	8,652	83,260		2,094							
Edna Bay:												
1910	61	2,341	56,073		87							
1912	101	589	23,850		10							
1914	1	48	1,578									
1915	40		20,678		133							
1919	64	3,006	15,238		9							
1920	38	14,638	19,282		103							
1922	213	44	6,949		2							
1923	24	3,372	18,800		57							
1924	5,725	9,813	62,188		1,163							
1925	4,162	7,951	109,467		918							
1926	725	4,887	34,142		206							
1927		83	142		3							
El Capitan Passage:												
1904					13,000							
1906			51,300									
1907	274	3,219	30,408		350							
1908		7,046	46,315									
1909		1,445	28,895									
1910		496	31,122									
1911		1,874	158,864									
1912	382	2,500	32,923		491							
1913	130	5,848	33,781		1							
1914	57	484	914		1							
1915	121	1,962	45,763		191							
1916	774	3,600	2,362		60							
1917	233	9,320	48,675		115							
1918	659	5,379	9,005		230							
1919	259	6,222	30,760		392							

TABLE 21.—Salmon caught and fishing appliances used in the west coast of Prince of Wales Island district, 1886 to 1927—Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Ildefonso, Point—Continued												
1919		28	2,629		14							
1924	590	3,717	61,932	20	2,336							
1925	1,333	18,755	72,525		1,207							
1926	592	4,119	62,555		1,126							
1927	197	189	578		277							
Incarnation, Point:												
1926	155	150	1,950		69							
Iphigenia Bay:												
1923		153	6,729									
1924	2,483	9,783	98,450		3,662							
Karheen:												
1914	937	6,513	13,421	53								
1915	56	297	3,273		10							
1917		1,477	1,331		6							
1918	432											
1919	378	21,491	28,508		2,179							
1920	413	9,753	13,621		180							
1921					399							
1922	10,297	133,709	204,584		8,579							
1923	44	293	14,700		63							
1924			495									
1925	267	28,344	87,043		722							
1926	168	141	3		9							
1927	6	1,129	151		1							
Klawak Inlet:												
1886					5,424							
1887					41,180							
1888					62,602							
1889			92,094		19,361							
1890					49,689							
1891					58,006							
1892					40,555							
1893					33,166							
1894					34,722							
1895					40,526							
1896	2,667				37,172							
1897					12,764							
1898	11,604		65,000		36,881							
1899	5,000		53,000		75,000							
1900	500		200,000		31,000							
1904	23,156		130,940		74,437							
1905	9,216		170,506		60,097							
1906	11,506		111,040		43,526							
1907	112	627			40,286							
1908	19,498	17,562	630,631	9,200	33,819							
1909	19,135		551,533		49,520							
1910	6,801	95,562	467,030		61,203							
1911	34,071	34,245	782,042		55,912							
1912	6,964	44,104	80,029		47,521							
1913	4,632	52,861	177,401	79	17,311							
1914	12,071	128,698	283,325	3	28,034							
1915	12,259	96,258	211,921	40	24,922							
1916	17,837	72,770	117,693	102	24,263							
1917	12,905	63,057	604,884	2	30,527							
1918	15,076	36,152	475,092	1,081	36,179							
1919	10,180	194,759	545,327		66,964							
1920	8,004	182,960	111,469	16	35,840							
1921	692	1,641	155,659	5,700	21,474							
1922	9,721	62,520	523,665	94	27,198							
1923	12,805	31,945	361,201		22,803							
1924	2,930	57,276	555,380		30,765							
1925	5,994	143,264	119,554	973	18,469							
1926	7,539	105,233	741,041		10,734							
1927	502	10,473	5,670	8	10,012							
Liscome Bay:												
1925	19	109	3,485		203							
1927		2	5		315							
Little Skookumchuck:												
1909	69		19,627									
Lookout, Cape:												
1918			2,106		645							
1919	21	105	2,014		152							
1923	19	420	5,616		25							
Lulu Island:												
1925		811	1,151		2							
1926		3,630	5,046		4							
Lynch, Cape:												
1914				22								
1915	91	1,113	15,086	169	144							
1916	3,102	5,112	16,919	552	3,539							
1920	11	52	1,029									
1922	621	1,768	18,152		4,732							
1923	667	748	31,171	29	1,383							
1924	2,332	0,246	40,781		3,642							

TABLE 21.—*Salmon caught and fishing appliances used in the west coast of Prince of Wales Island district, 1886 to 1927—Continued*

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
San Juan Bautista Island:												
1916		3,160	726		76							
1925	550	12,100	18,528		632							
1926	665	3,224	28,665	1	561							
San Lorenzo Island:												
1927	157	113	322	14	88							
Santa Cruz, Port:												
1913	31	825	17,760									
1914		2,485	6,559		2							
1915	6	1,340	3,892		90							
1916	3	1,499	685		4							
1922	2	1,672	6,506									
1923	1	250	6,797									
1926	69	2,953	16,814		94							
Santa Gertrudis, Point:												
1927	2,416	1,517	1,756	144	1,081							
Santa Rosalia, Point:												
1927	824	786	2,844	38	556							
Sarheen Cove:												
1907	267	714	77,820		143							
1908	1	105	19,908		206							
1909			6,000									
1910					263							
1911	21		15,113		821							
1913	13	350	10,877									
Sarkar Cove:												
1887					6,470							
1888					6,834							
1889					11,555							
1890	15,331				16,267							
1891	9,033				35,033							
1892	4,700				24,024							
1893					9,797							
1894					12,678							
1895	3,830				11,636							
1896	9,643				20,480							
1897	8,207				21,667							
1898	10,423				24,974							
1899	7,000				36,000							
1900	12,000				26,021							
1901	13,000				11,000							
1902					12,500							
1903	6,000				4,500							
1904	16,953				51,946							
1905	14,250		7,000		33,025							
1906	2,689				31,857							
1907	2,400				34,500							
1908	7,807				33,120							
1909					14,627							
1910	2,975	23	221		16,175							
1911	7,829	12	95,802		69,210							
1912	6,723	532	20,897		28,651							
1913	337		9,038		662							
1914	10	1,449	1,099		4,540							
1915	4	208	5,151		2,866							
1916				1	110							
1917	6,991	2,270	23,681		13,252							
1918	4,340	105	5,217		16,991							
1919	5,260	668	24,144		20,222							
1920	2,814	1,926	5,521		12,640							
1921			10,922		27,242							
1922	1,646	419	8,396		18,052							
1923			2		144							
1924	950	4,184	3,036		12,996							
1925	22	19	28		837							
1926	300	451			400							
1927	121	750	112		1,274							
Sea Otter Harbor:												
1915	59	3,815	5,915	158								
1919	204	1,091	9,867		64							
1922	6	6	1,711		13							
1923	47	2,883	39,896		274							
1924		2,377	7,941		1							
1926	5	2,032	3,100		214							
1927	6	44	92		151							
Sea Otter Sound:												
1908			156,000									
1913	909	4,625	215,870	182	1,181							
1914		470	29,048		367							
1915	3	2,192	76,225		575							
1916			30,190		2,042							
1917	741	6,680	18,168		22							
1918	23											
1919	1,073	19,703	73,521	105	178							

TABLE 21.—Salmon caught and fishing appliances used in the west coast of Prince of Wales Island district, 1886 to 1927—Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Sea Otter Sound—Contd.												
1920	18	1,749	3,462									
1923	1,671	13,747	117,270		1,343							
1924	457	32,505	20,019		871							
1925	217	7,485	25,798		25							
1926	2,301	5,300	30,692		544							
Shinaku Inlet:												
1903	2,100		89,000									
1904	240		7,920									
1912	41	22,179	12		71							
1913	133	1,309	160,670		1,038							
1915	75	5,200	97,685		525							
1920	80	2,119	3,477		48							
1921			8,464		93							
1924	199	13,261	8,126		211							
1925	192	21,081	108,485		114							
1926	32	5,928	13,047		40							
1927	4	1,712	350		14							
Skookumchuck:												
1906			92,000									
1910	570		1,228		602							
1911	428		23,280		194							
1912	558	4,731	11,216		71							
1915			2,065		3							
1919	351	3,511	3,128		211							
1926	5	640	1,393		461							
1927	261	320										
Snail Point:												
1926	189	2,703	13,356		503							
Staney Creek:												
1904	12,276											
1905	12,598											
1907	280											
1908	5,574		50,056		870							
1910	7,420	696	53,991		267							
1911	3,239	527	467,620									
1912	9,959	17,176	66,089		499							
1913	11,816	64,903	176,344	9	504							
1914	809	23,418	4,537		1,048							
1915	1,298	11,269	157,371	13	975							
1916	7,120	13,930	15,755	33	378							
1917	1,505	20,781	59,998		501							
1918	5,093	25,962	16,957		954							
1919	4,912	16,231	119,908		1,420							
1920	1,829	13,922	25,788	6	916							
1921			13,412		108							
1922	3,682	60,835	116,268		286							
1923	5,572	14,187	192,619		1,161							
1924	400	24,453	58,611		1,313							
1925	3,037	33,660	126,846	1	664							
1926	572	23,587	93,191		641							
1927	62	18,304	3,938		753							
Steambont Bay:												
1916	6,167											
1918	14,691		1,984									
1925	133	3,487	3,940	882	12							
Suemez Island:												
1914		4,692	12,318									
1915		1,134	2,414		5							
1916	8	1,312	788									
1917	16	1,653	2,810									
1918	170	2,178	2,060									
1919	5,325	49,752	11,074		1							
1920	434	21,484	26,980		137							
1923	6	470	14,054		17							
1924		1,373	84									
1925	2,361	30,374	117,962		940							
1926	707	2,212	82,002		1,297							
1927	453	184	1,470		192							
Suspiro, Cape:												
1927	180	377	3,912		462							
Tenass Pass:												
1926	1	3,547	81		3							
Tokeen Bay:												
1904	1,029				5,073							
1905	275				1,967							
1906	600		45,000									
1907	1,675	386	221,125		2,520							
1908	477	149	128,585		6,118							
1909	3,840		187,632		5,346							
1910	771	1,473	26,673		6,422							
1911		3	4,204		5,276							
1912		404	3,221		139							
1913	1,044	5,201	48,706		16							

TABLE 21.—*Salmon caught and fishing appliances used in the west coast of Prince of Wales Island district, 1886 to 1927—Continued*

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Tokeen Bay—Continued												
1914	440	1,881	3,722		446							
1915	837	2,205	45,080		1,448							
1916	8	790	1,895		929							
1917	126	93	44									
1918	498	27	1,151									
1919	377	3,817	8,082		19							
1920	276	8,457	2,930		8							
1922	5	770	5,718		1,531							
1923	21	68	1,896		414							
1924	715	33,040	35,416		1,808							
1925	816	43,549	222,727		1,779							
1926	1,339	29,917	53,561		2,993							
1927	136	7,384	4,273		1,379							
Tonowek Bay:												
1908		4,488	10,990									
1912					10,888							
1913	6	63	1,550									
1914		2,108	3,526		2,264							
1915		1,169	16,275		239							
1916	92	1,089	2,384		450							
1919	1,794	1,084	24,157		737							
1922	3,624	53,002	205,465									
1923	768	11,538	50,000		690							
1924	1,115	45,496	33,714		2,062							
1925		10,349	25,216		500							
Tonowek Narrows:												
1926	174		3,932		71							
1927	51	171	946		63							
Tranquil Point:												
1924	2,914	6,271	123,860		2,337							
1925	789	5,606	117,235		3,468							
1927	243	420	612		239							
Trocadero Bay:												
1904	2,519											
1905	3,631											
1906	1,480		210,527									
1907	176	40,163	142,905		9							
1909	8		19,101									
1910	954	200	14,000									
1912	18,084	66,909	412,702	754	8,355							
1913	4,450	24,181	557,444	43	3,807							
1914	6,063	58,178	61,429	1,053	3,500							
1915	925	135,442	42,623		41							
1916	813	68,023	13,886	940	3							
1917	1,400	44,417	106,118									
1918	2,514	20,391	32,997		516							
1919	3,484	51,260	110,458		156							
1920	1,042	25,450	34,710		273							
1921			37,054		9							
1922	449	7,607	55,695		1,044							
1923	7,906	47,139	469,925		5,133							
1924	41	7,993	33,807		58							
1925	5,413	116,899	270,458	880	1,696							
1926	3,858	74,218	296,534		3,702							
1927	1,439	3,085	17,183	8	970							
Turn Point:												
1920	1,946	1,631	56,998	43	2,531							
1923	591	844	29,711		1,239							
Tuxekan Island:												
1919	3,778	1,530	57,817		3,248							
1925	900	9,000	106,712		1,000							
1927	1,943	4,838	29,470	5	1,907							
Tuxekan Passage:												
1906	946											
1910	2	679	10,207		31							
1912	1,047	1,577	23,251	25	666							
1913	910	20,578	198,845	10	1,663							
1914	5,503	11,173	33,283		564							
1915	4,982	13,626	234,090		4,305							
1916	3,918	11,635	23,433	61	3,522							
1918	28	150	112									
1919	211	868	7,674									
1920	2,598	2,389	9,806		31							
1922	145	545	5,410		1,002							
1923	6,330	25,719	201,404		1,815							
1924	2,342	22,906	126,000	164	5,564							
1925	1,005	62,532	186,618		742							
1926	2,779	30,648	228,621		2,642							
1927	22	5,260	2,266		30							
Ulloa Channel:												
1920	3	707	3,388									
1923	535	8,280	123,720		422							
1924		540	1,603									
1926		107	1,689									
1927	926	767	3,082	1	399							

TABLE 21.—Salmon caught and fishing appliances used in the west coast of Prince of Wales Island district, 1886 to 1927—Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Warmbuck Inlet:												
1904					12,202							
1905	2,539				7,819							
1906	1,555		25,743		12,404							
1907					18,036							
1908					7,968							
1909					14,550							
1910					17,035							
1911					12,325							
1912	3,929	14,643	97,472		5,501							
1913	623	5,585	70,793		1,920							
1914					26							
1917					2,227							
1918					5,100							
1919			426		2,777							
1921			72		1,221							
1922	19	239	3,016		15,249							
1923	774	11,684	5,424		690							
1924	651	3,228	32,753		2,894							
1925	15	4,148	13,259		2,795							
1926	937	2,888	1,955		3,250							
1927	508	859	2,399		1,498							
Waterfall:												
1912	16	102	4,904	250								
1914	100	4,594	564									
1915		5,869	7,946									
1917	655	350	628									
1918			2,156									
1920	264	14,828	17,366		233							
1922	72	3,433	4,580		8							
1923	1	625	15,491		1							
1924		1	4		498							
1926	9	660										
Waterfall Bay:												
1913		170	16,804		2							
1919	367	14,336	33,090		497							
1925	1,088	33,546	4,344		4							
1926	47	4,478	3,682		41							
Whale Head Island:												
1912		35	2,240									
Whalekiller Point:												
1924	487	2,750	25,514		1,331							
1925	632	2,708	37,008		540							
White Cliff:												
1927	1,232	1,517	7,104		1,162							
Unallocated:												
1896	5,272		11,286		125,505							
1897	7,753		92,180		89,329							
1898			4,620		41,788							
1899	60,441		133,252		5,090							
1900	19,284		64,367		60,639							
1901	62,197		275,826		156,126							
1902	12,717		640,807		80,517							
1903	27,617		67,662		101,479							
1904					943							
1905	9,157				1,584							
1906	1,500		180,510									
1907	38,728	58,098	435,033	1,000								
1908	1,705	3,005	41,430									
1909	1,500		67,500		10,350							
1910					1,020							
1911	31,997	1,389	194,408		45,222							
1912	48,862	142,557	699,302		84,640							
1913	18,702	6,405	707,362		121,827							
1914	14,172	30,732	66,068		9,733							
1915	20,790	69,761	332,455		72,420							
1916	87,627	215,791	231,744		17,692							
1917	115,568	193,052	1,152,194		55,093							
1918	89,404	238,823	636,349		32,311							
1919	121,766	399,671	1,026,496		50,531							
1920	30,753	356,112	563,793		21,979							
1921	31	50,210	162,741		32,050							
1922	55,908	107,140	623,205		19,261							
1923	28,318	89,608	1,282,530		37,998							
1924	1,989	38,142	221,868									
1925	28,916	124,866	532,111		40,564							
1926	34,327	14,623	5,177		22,352							
1927	2,946	12,582	18,752		4,479							
Total:												
1886					5,424							
1887					47,656							
1888	14,528				69,436							
1899			92,094		30,916							
1890	15,331				65,956							

TABLE 21.—*Salmon caught and fishing appliances used in the west coast of Prince of Wales Island district, 1886 to 1927—Continued*

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (num- ber)
						Num- ber	Fath- oms	Num- ber	Fath- oms	Num- ber	Fath- oms	
Total—Continued												
1891.....	9,033				93,129							
1892.....	4,700				64,579							
1893.....					42,963							
1894.....					47,400							
1895.....	3,830				52,162							
1896.....	17,582		11,286		183,157							
1897.....	15,960		92,180		123,760							
1898.....	22,087		69,620		103,643							
1899.....	62,441		186,252		116,690							
1900.....	31,784		264,367		117,660							
1901.....	65,197		275,826		167,126							
1902.....	12,717		640,807		93,017							
1903.....	45,203		146,602		109,579							
1904.....	57,073		138,860		167,601	1		19				
1905.....	51,666		177,506		94,492	21		2				
1906.....	20,176		816,710		87,787	13		2		1		
1907.....	44,737	115,073	1,276,004	1,000	95,844	18	3,020	6	630	2	110	
1908.....	36,733	34,166	1,188,613	9,200	83,304	17	2,795	4	720	3	185	
1909.....	25,148	5,904	1,128,819	10,350	86,062	18	2,950	4	700	2	300	
1910.....	19,565	111,932	769,349	18,050	92,329	20	3,350	1	293			
1911.....	81,867	41,972	1,993,339	45,222	145,613	11	1,650	11	2,115	5	250	
1912.....	115,819	364,812	1,621,614	109,685	133,040	32	5,330	20	3,692	12	1,320	11
1913.....	60,544	212,673	2,596,303	156,973	64,132	23	3,840	24	3,885	11	775	8
1914.....	60,635	350,217	615,402	115,406	41,848	23	3,860	16	2,660			4
1915.....	64,711	460,292	1,475,264	101,410	68,567	19	2,700	36	5,603	8	575	4
1916.....	159,594	460,869	511,792	22,497	70,178			34	4,700	8	950	4
1917.....	204,509	414,197	2,228,607	88,243	66,856	13	2,030	42	6,345	12	1,025	12
1918.....	167,490	334,377	1,241,460	49,652	109,158	22	3,165	37	6,200	8	650	17
1919.....	187,948	872,536	2,351,619	72,727	144,828	17	2,350	55	10,330	9	1,000	12
1920.....	53,680	711,299	1,095,091	23,814	132,989	13	1,385	49	8,093	9	955	9
1921.....	1,013	60,432	403,423	37,750	80,896	10	1,615	9	1,450	8	800	12
1922.....	101,095	514,194	2,123,160	36,985	111,974			60	9,345			19
1923.....	79,177	291,801	3,602,621	54,202	99,787	2	130	58	9,020	3	180	22
1924.....	45,924	465,640	2,181,431	20,895	107,669			73	11,126			22
1925.....	86,751	1,104,392	3,530,504	77,588	66,250			65	10,620			34
1926.....	93,474	517,490	2,931,112	39,215	58,869			66	10,950			47
1927.....	55,766	123,528	282,323	15,200	51,048			54	8,878			60
By lines (included in above):												
1907.....				1,000								
1908.....				9,200								
1909.....				10,350								
1910.....				18,050								
1911.....	31,092			45,222								
1912.....	17,027			108,640								
1913.....	21,919			146,615								
1914.....	18,948			115,306								
1915.....	41,728			101,184								
1916.....	83,168			21,548								
1917.....	140,461			84,717								
1918.....	90,880			49,019								
1919.....	109,304			72,861								
1920.....	8,180			23,670								
1921.....				37,750								
1922.....	40,878			36,890								
1923.....	20,488			52,900								
1924.....	9,162			20,178								
1925.....	33,077			75,773								
1926.....	34,877			34,392								
1927.....	18,016			14,646								

NOTE.—No catches were reported in the years omitted from each division of this table.

In preparing this table it was necessary to make more or less arbitrary divisions of catches which had been reported under the following designations: "Chatham Strait and west coast of Prince of Wales Island" in 1919; "Chatham Strait, Rocky Bay, and Karheen" in 1923; "Chatham, Peril, and Icy Straits and Bays, and Karheen" in 1921 and 1922; "Icy and Chatham Straits and west coast of Prince of Wales Island" in 1921; "Klawak, Port Santa Cruz, Cape Felix, and Hetta Inlet" in 1912; "Klawak, Sukkwan, Soda Bay, and Sarkar Cove" in 1912; "Klawak, Sukkwan, Soda Bay, and Hetta Inlet" in 1912; "Klawak to Hetta" in 1914; "Cape Ommaney and west coast of Prince of Wales Island" in 1913; "Union Bay, Cape Ommaney, and west coast of Prince of Wales Island" in 1913; "Warmchuck, Hetta, and Klawak" in 1914; "West

coast of Baranof Island, Prince of Wales Island, Tyee, and Chatham Strait" in 1913; "Cape Ommaney and Forrester Island" in 1917; and "Clarence and Sumner Straits, Revillagigedo Channel, and Pacific Ocean" in 1923. These catches were composed of salmon from two or more districts and involved rather large totals, so that it seemed better to divide them in accordance with known facts concerning the field of operations of each company so reporting than to group them as unallocated catches in the whole of southeastern Alaska. In several cases catches from two or more localities within the district were combined by the packing companies; all such data were used without change by including them in the unallocated catch section of the table, as in this way the district receives full credit for the salmon it produced although catches of the individual localities are thereby reduced. These inseparable combinations were reported as follows: "Davidson Inlet, Gulf of Esquibel, and Sea Otter Sound" in 1912; "Forrester, Noyes and San Pedro Islands" in 1913; "Forrester and Noyes Islands" in 1915-17; "Karheen and Warmchuck" in 1914; "Noyes and San Pedro Islands" in 1913, and "Sea Otter Sound, Trocadero Bay, and Pacific Ocean" in 1912.

The table shows the catches at 115 known localities, many of which are of comparatively recent development while others were among the first to be fished. In several cases the data are fragmentary, representing catches in 1 or 2 years only or in rather widely separated years. The table, therefore, presents all the known facts in respect of these places. Some of them were trap locations and others were trolling grounds. The scattered catches in such places may have little significance, but are presented for the sake of completeness and in view of their possible later significance.

Among the more productive localities where fishing has been maintained through a long period of years, Klawak Inlet stands out as the most interesting in the entire district on account of the fact that it has been fished longest and has shown the greatest yield. Unfortunately the complete history of this fishery cannot be given, as no catch statistics are available before 1886 and none in the three years from 1901 to 1903. It is known that a saltery was operated at Klawak for several years before the cannery was opened in 1878 and that for nearly 2 decades the catch consisted largely of red salmon, as no other species appears to have been recorded from this stream until 1898, except 92,094 pinks in 1889 and 2,667 cohos in 1896. These species were undoubtedly always obtainable here, but no commercial use was made of them by the cannery at that time. The Klawak stream was never regarded as a large producer of red salmon, but it maintained for many years a fairly constant catch in spite of the rather intensive fishing that had centered there.

A pink salmon fishery of considerable importance was developed at Klawak after 1898 and the catch of cohos and chums also reached fairly high levels. King salmon were reported first in 1908, when 9,200 were alleged to have been taken. Large catches of kings were also recorded in 1918, 1921, and 1925; none of these was made at the creek, but came from outside waters and were delivered at Klawak for mild curing. The other catches of kings were probably taken in traps along the shore between Craig and Klawak Island. The stream has no king salmon run, though stragglers are occasionally found among the other schools of salmon. The catch of salmon in Klawak Inlet is shown graphically in figure 36.

The catch of red salmon shows the first marked decline in 1925, when it dropped about 40 percent below the catch of the preceding season. A further decrease occurred in 1926, bringing the catch down to 10,734, and in 1927 the catch was 10,012, the lowest figure it had reached since 1886. While positive proof is lacking, it is probable

that these diminished catches were due at least in part to the seasonal closing and limitation of gear noted above, for it was reported that the escapement of salmon was large in all streams of the west coast of Prince of Wales Island in 1927. The runs of pinks and chums were good in 1926, large catches coming from Klawak Inlet, but there was apparently an almost total failure of these fisheries a year later. The catch of both species had fluctuated considerably over a long period, yet never in the history of Klawak had the catch of pinks been so low, while that of chums had dropped to a lower level but once since 1909.

In view of its long record of 41 years as a producer of salmon, Sarkar Cove merits more than passing notice. The first recorded catch was made here in 1887 and consisted entirely of red salmon, and, with one exception (1905), it produced only

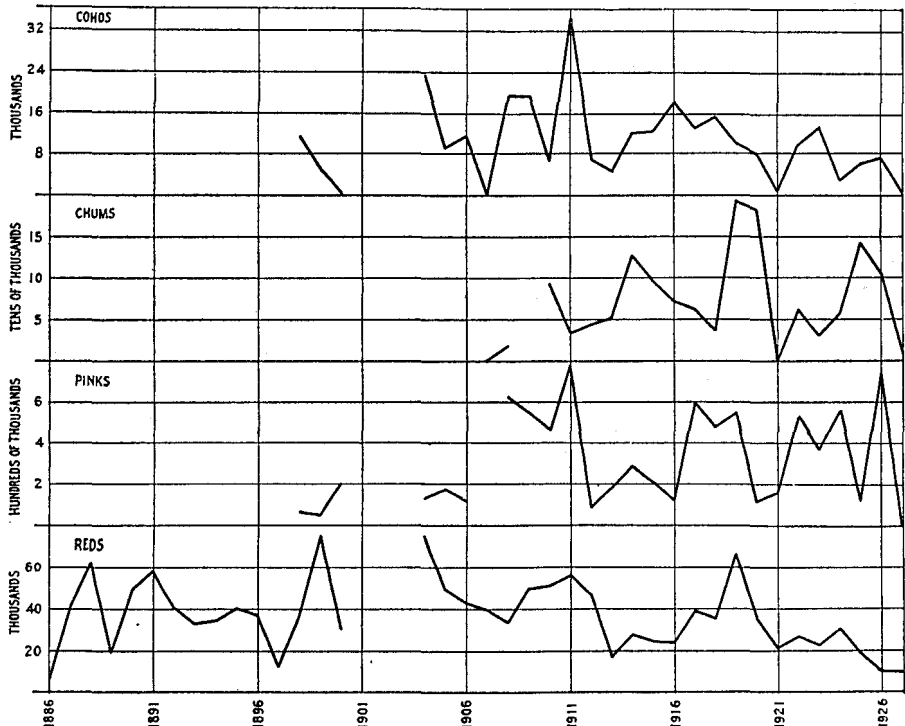


FIGURE 36.—Catch of salmon in Klawak Inlet, 1886 to 1927.

reds and cohos for 23 years. During this period, fishing was carried on near the mouth of the stream or directly in the stream, and at one time a trap was driven across the creek and probably maintained for several seasons, supposedly closing the stream completely to the ascent of salmon. To what extent such fishing prevented the escapement of salmon to the spawning grounds up stream is not known, but it would certainly greatly reduce the number. It is surprising, then, that under these conditions the run was not totally destroyed, and yet there was no marked evidence of depletion until 1913. In 1916 the catch dropped to 110 red and 1 king salmon. During the next 6 years considerably better catches were made, but again in 1923, the run was almost a total failure. The fishery had evidently reached a precarious condition and it was necessary, therefore, in the interest of conservation, to prohibit all commercial fishing in the cove for an indefinite period. That action was taken in 1925.

The unallocated catches of all species in this district are unavoidably large, due to the failure of those engaged in fishing to make correct allocations. It was an easy matter to cover all localities by the simple statement that the fish came from the west coast of Prince of Wales Island, leaving the data thus supplied without value in showing the condition of a fishery at any particular place. On account of this grouping of catches, probably no locality shows a complete record of the salmon it produced. In almost every case gaps occur which cannot now be filled. It was also necessary to include in these unallocated figures catches reported from 42 unknown localities, such as "Nuckleen", "Nuckwell Bay", "Orr Inlet", "Scheley Bay", "Silber Bay", "Sierra Harbor", "Silvers Island", "Snail Bay", "Soucha Bay", and the like. Discussion of the data must obviously be confined largely to the total catch of the district.

Salmon approach the streams of this coast through Davidson Inlet, the channels connecting the Gulf of Esquibel and the ocean, Bucareli Bay, and Meares Passage. Some may come south through El Capitan Passage, while yet others may enter through Tlevak Narrows at the southern end of the district, but it is doubtful if any considerable number use these entrances, else there would have developed a greater concentration of fishing effort at those places. Salmon using the northern gateway probably disperse to the streams of Sea Otter Sound, Tuxekan, and El Capitan Passage; those entering through the other gateways seem to converge and move into Klawak and Shinaku Inlets, although a considerable body diverges into Trocadero Bay. Fishing along the shores of the islands lying between these localities and the ocean takes the first toll from these runs and serves to emphasize the outstanding position of these few localities in the production of salmon in this district.

The final section of the table gives by years the number of coho and king salmon which were caught by trollers operating in this district, although these catches had already been included in other sections of the table. The object of this separation was to give an approximation, at least, of the importance of line fishing.

Figure 37 shows graphically the catch of salmon by species in the entire district. The pink salmon catches showed in general an upward trend from 1900 to the last year herein considered, 1927. They developed with special rapidity between 1905 and 1913 corresponding to the influx of more fishing appliances and the opening of new canneries. Then followed a period of 3 years in which catches were considerably lower, but since that time the trend has been noticeably upward with the exception of the small catch of 1921, when the fishing effort was much reduced, and the exceptionally poor run of 1927, when the catch reached the lowest point since 1905. A material increase in the number of traps could not provide a normal catch; the shortage undoubtedly was due to an actual scarcity of salmon, and since the streams were low, concern was felt for the runs 2 years later. The seriousness of the situation being recognized, all waters of the district were closed on August 18, 4 days earlier than the date fixed in the original order, and the open season from September 14 to October 15 was eliminated, making possible the escapement of such runs as might subsequently appear.

The chum salmon fishery is of more recent development. Once begun, the catches increased rapidly and quite regularly until the suspension of fishing in 1921, which was brought about by the collapse of the market for the cheaper grades of salmon. With the resumption of fishing in 1922, the catch improved, and 3 years later reached a peak far above any previous high level, only to fall with alarming

abruptness in 1926 and 1927, due in part to the shortening of the fishing season and in part to a real scarcity of fish.

Exploitation of the runs of coho salmon began in 1888, but only moderate catches were made previous to 1898, in which year the first substantial improvement was noted. For several years the catch fluctuated between 12,000 and 65,000, but with an increase in the number of trollers and the discovery of good fishing grounds around Forrester and Noyes Islands larger catches resulted consistently, and in 4 years, 1916 to 1919, all previous records for high production were broken. The slump in 1920 and 1921 doubtless was due to economic causes and to the low prices then offered

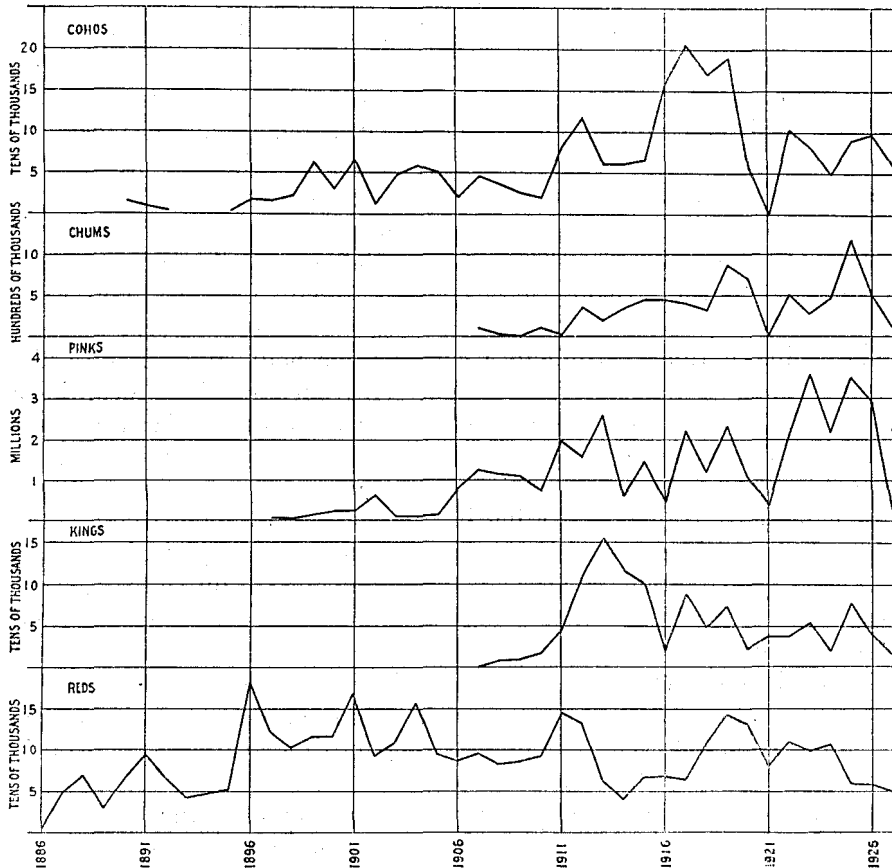


FIGURE 37.—Catch of salmon in the west coast of Prince of Wales Island district, 1886 to 1927.

for fresh fish rather than to a decreased supply of cohos. During these years of extraordinarily heavy yields, the bulk of the catches were made by trollers whose operations were exempt from the seasonal limitations applicable to all other methods of fishing. If the market for fresh fish had not suffered the same demoralization that affected the market for canned salmon there is little doubt that the trollers would have conducted their fishing as usual and that results would have been equally good. During the period 1922 to 1927 the catches of cohos have been fair, but not equal to those of the period just preceding 1921.

In large measure the same situation existed in respect of the king-salmon fishery. Large catches were made from 1912 to 1915, but in subsequent years the trend fell

rapidly until 1927, which was marked by the smallest catch that had been made since 1909. The king-salmon fishery extends quite generally over the district, but the nearby ocean waters between Iphigenia Bay and Dixon Entrance have been the most productive fields. It is conducted primarily by trolling, delivery of catches being made to buyers for the fresh-fish dealers and the cold-storage companies. Statistical reports are not made by the fishermen, but come from the dealers, who frequently are unable to give exact information as to the localities in which the fish were caught. They know in a general way that the catches were made on the west coast of Prince of Wales Island, and that fish from Sumner and Chatham Straits and the west coast of Baranof Island are sometimes included. It is also known that the king salmon of these coastal waters are not all destined to the streams of Alaska, and probably none to the streams of this district, but are members of several populations, probably representing runs to the rivers of the mainland from the Columbia River northward. This wide dispersion of king salmon from these localities was shown by an experiment in 1927 when 382 troll-caught kings were tagged and released off the west coast of Baranof Island. Of the 38 recaptured, 22 were taken at the Columbia River, approximately 1,000 miles south of the point where they were first taken.¹⁰ It is evident therefore that the trollers are making their catches from schools of salmon which are feeding along the coast of the archipelago of southeastern Alaska, and that the effect of their operations upon the runs to rivers in Alaska is not determinable from the statistical data here considered.

The catch of red salmon reached its highest level in 1896, coincident with the opening of a cannery at Hunter Bay in an adjoining southerly district. Since that year there have been 4 fairly good seasons at irregular intervals but with decreasing catches. The poorest catch occurred in 1914. It reached a lower point than had been touched since 1889, but the larger catches in later years have not changed the general trend of the fishery. From 1919 to 1927 the catches have become steadily poorer, indicating continued depletion. Measures have been applied to protect the runs, but insufficient time has elapsed since they were adopted to prove their efficacy.

CORDOVA BAY DISTRICT

The Cordova Bay district covers the waters of the west coast of Prince of Wales Island and the east coast of Dall Island from Tlevak Narrows southward to a line from Cape Muzon to Surf Point. Many small bays indent the shores of these islands and also the shores of the smaller islands lying between them. Figure 38 is a map of this district.

The islands are mountainous and heavily wooded with spruce and hemlock; the streams are small, probably none being more than 6 miles in length, and many have their source in small lakes, especially on Prince of Wales Island.

This region produces all species of salmon in considerable numbers, except kings, and catches have been fairly well sustained through more than 30 years. The early history of its fisheries was never recorded beyond the data arranged by Moser, who reported in 1898 that salmon were taken from these waters for the cannery at Klawak

¹⁰ No account of these tagging experiments has yet been published, but similar experiments were carried on by Canadian authorities off the coast of British Columbia and gave very much the same results. The following reports on these experiments have been published: (1) Pacific Salmon Migration: Report on the tagging operations in 1925. By H. Chas. Williamson. Contributions to Canadian Biology and Fisheries, N.S. III, no. 9, 1927. Toronto. (2) Ibid: Report on the tagging operations in 1926, with additional returns from the operations of 1925. By H. Chas. Williamson. Cont. Can. Biol. and Fish., N.S. IV, no. 29, 1929. Toronto. (3) Ibid: The tagging operations at Quatsino and Kyuquot in 1927, with additional returns from the operations of 1925 and 1926. By H. Chas. Williamson. Bull. Biol. Bd. Canada, no. 26, 1932. Ottawa.

and that a saltery was operated at Hunter Bay prior to the establishment of a cannery at that place. This cannery was built in 1896, which year marks the beginning of the exploitation of runs of salmon, chiefly reds, in many localities of the Cordova Bay district that had not heretofore been fished, although the stream at Hetta Inlet had been fished regularly by the Klawak cannery for 10 years preceding this later development. Salteries were opened at Nutkwa Inlet and at Sukkwan in 1896, at Kasook Inlet in 1897, and at Copper Harbor in 1899, all of which appear to have ceased operat-

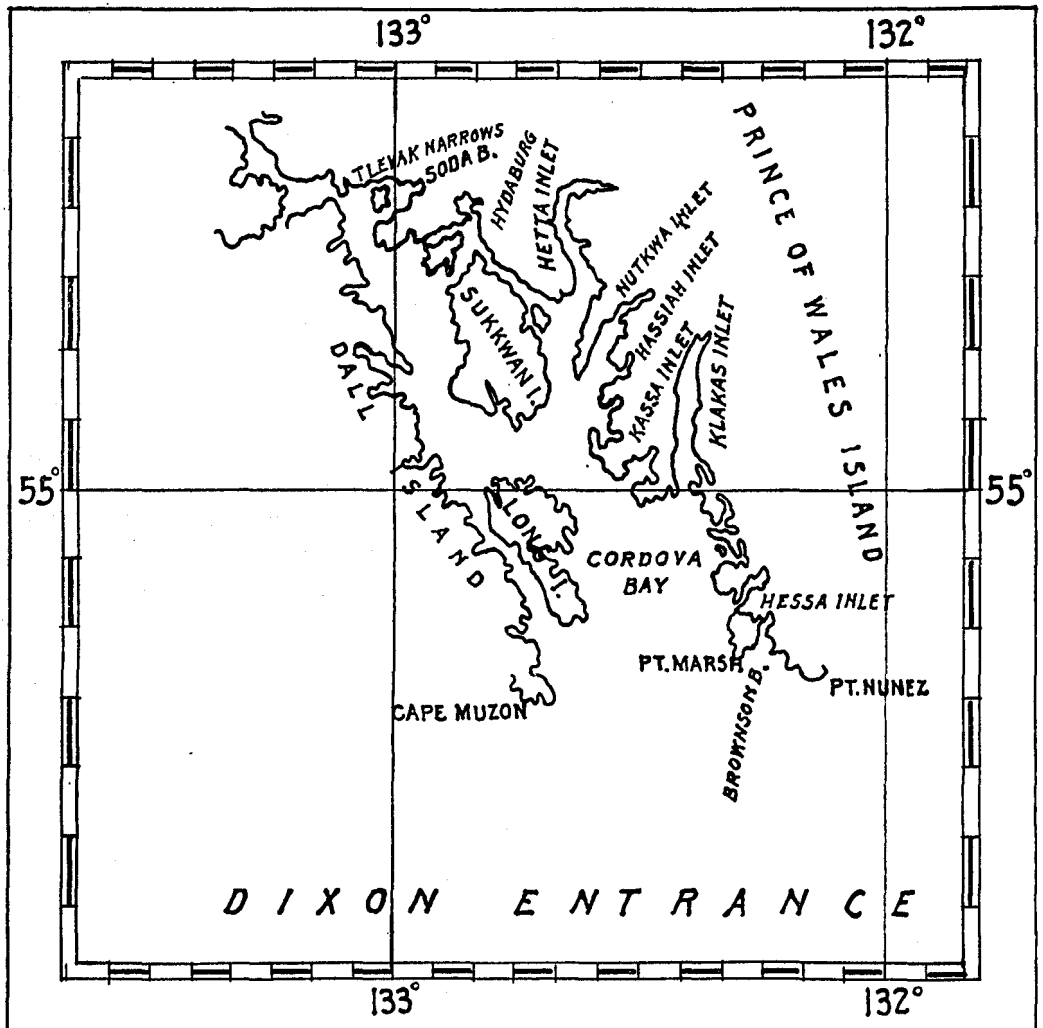


FIGURE 38.—Map of the Cordova Bay district.

ing before 1907. The Hunter Bay cannery was closed in 1904, 1905, and 1906, and occasionally in subsequent years. No increase in the number of packing plants or in the utilization of salmon occurred until 1912, when a cannery was built at Rose Inlet. The opening of this cannery resulted in the development of several new localities and a considerably larger catch of pink salmon than had ever before been made here. In 1921, the year of greatest depression the salmon canning industry has ever known, the plants at Hunter Bay and Rose Inlet were not opened, but a small new plant was

TABLE 22.—*Salmon caught and fishing appliances used in the Cordova Bay district, 1887 to 1927—Continued*

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Num-ber	Fath-oms	Num-ber	Fath-oms	Num-ber	Fath-oms	
Breezy Bay—Continued												
1923	145	2,503	15,861		30							
1924	22	330	6,707		7							
1925		1,798	30		1							
Brownson Bay:												
1911			80		707							
1918	1		20		731							
1924	38		3,009		102							
1925	41	23	16		30							
1926	10	1	954		604							
1927	741	2,501	15,678		3,605							
Canoe Pass:												
1908	68											
1909			8,000									
1912		14	9,430									
1913	1	987	3,420		1							
1923	10	38	8,660		148							
Coco Harbor:												
1907		200	3,000									
1908		1,053	24,567									
1910			6,440									
1911			7,408		6							
1912	204	2,254	148		2							
1916	5	157										
1918	62	2,319	33									
1919	144	1,144	375									
1923	486	10,931	106,734		108							
1924		29	1,772		34							
1925	236	55,711	39,691		38							
1926	332	30,823	40,507		97							
1927	76	163	792		63							
Copper Harbor:												
1900	2,000				6,000							
1901	7,500				5,000							
1902	1,000				600							
1907	4	64	9,947		29							
1908	278	1,731	30,848		341							
1909	239	691	40,605		16							
1910			13,904		156							
1911			76,638		3							
1912			13,884									
1913		28	7,358		68							
1916	153	307	1,585	2	1,018							
1919	38	1,077	5,597		360							
Datzkoo Harbor:												
1907		300	8,000									
1924	19	222	4,002		20							
1925		433	57									
1926		14	931									
Deer Bay:												
1907	701	2,756	148,824		109							
1908	317	10,492	109,313		642							
1909	542	451	67,753		15							
1910	72	921	46,369									
1911			96,205		558							
1912	629	11,858	60,882		39							
1913	157	650	8,414		7							
1914	24	1,265	2,009									
1915	34	1,075	6,407		23							
1916	7	2,181	1,537		8							
1918	27	160	44									
1919	12	3,394	16,399		33							
1923	9	119	3,821		5							
Dunbar Inlet:												
1907	200	400	3,000									
1910	46		23,558									
1914	1		1,798		3							
1916	204	2,796			4							
1919	99	1,933	37,857		17							
1923	24	367	9,786									
1924		2	2,595									
1925	5	7,096	10,318		1							
1926	176	3,546	7,983									
1927	6	125	434									
Ek Inlet:												
1896					8,088							
1897	473		25,400		9,213							
1905		372	11,989		4,413							
1909		220	21,969		4,752							
1910	490	20	20,601		6,684							
1911	67	31	18,689		3,917							
1912	1,500	407	62,177		6,917							
1914		422	4		903							
1915	4	300	1,635		70							

TABLE 22.—Salmon caught and fishing appliances used in the Cordova Bay district, 1887 to 1927—
Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (num- ber)
						Num- ber	Fath- oms	Num- ber	Fath- oms	Num- ber	Fath- oms	
Eek Inlet—Continued												
1916	692	3,127	6,476	36	2,656							
1918	257				2,009							
1919		50	430		3,000							
1923	75	1,863	3,766		2							
Eek Point:												
1916	2	2			1,068							
1918	311	185	481		2,550							
1919	7	227	13,039		69							
1922	495	2,236	112,840		2,703							
1923	42	282	98,177		608							
1924	792	2,184	39,852		994							
1926	17	386	2,607		87							
1927	405	450	6,249		641							
Grace Harbor:												
1907	400	1,000	10,000	64								
1909	150	200	9,500	75								
1910			17,333									
1911	1		15,130		44							
1916	150	71	355		4							
1923	4	4,181	2,976		1							
1924	3	531	1,370									
1925		8	532									
1926	202	11,872	11,464		28							
Halibut Nose:												
1919	4	44	1,418		5							
1922	71	616	1,680		9							
1923	34	818	4,897		1							
1924	1,546	4,312	30,296		1,813							
1925	1,214	10,250	36,507		316							
1927	9	9	172		3							
Hassiah Inlet:												
1907	1,220	1,900	22,166		1,803							
1908	191	1,793										
1909	984	1,452	22,776		25							
1910	53		11,573		230							
1914	196	16,217	24,004		2,484							
1915					2,065							
1916	13	2,448			1							
1925	40	82	168		822							
1926	22	17	535		76							
1927	1	4	6		148							
Hessa Inlet:												
1904					4,000							
1905					4,230							
1908	2,654	657	21,414		2,511							
1909	423		10,405		1,590							
1910	709		14,959		1,257							
1911	1,076	8	74,029		3,953							
1912	910	5,716	48,691		1,104							
1913			20,000		100							
1915	520	1,203	12,456		403							
1916	1,460	1,106	10,080		1,104							
1917	504	1,394	17,587		1,761							
1918	1,473	4,712	7,924		1,901							
1922	98	1,013	16,070		206							
1924	495	1,677	12,509		434							
1925	390	10,577	42,105		3,035							
1926	335	4,101	10,624		334							
Hetta Inlet:												
1887					24,022							
1888					47,468							
1889					48,585							
1890					59,673							
1891					1,089							
1892					51,479							
1893					10,586							
1894					47,709							
1895					78,464							
1896					201,299							
1897	12,964		28,196		199,776							
1898	290		25,000		179,109							
1899	539		229,556		250,834							
1900			68,216		138,733							
1904	2,201				51,654							
1905	1,437				53,045							
1906			10,826		42,741							
1907	1,311	1,254	50,419		18,616							
1908	364	3,631	66,511		37,315							
1909	1,440	672	59,999		54,270							
1910	165	2,977	50,744		28,365							
1911	2,007	4,002	86,305		51,747							
1912	7,264	29,433	242,506		61,139							
1913	554	3,425	235,518		48,600							
1914	1,526	43,030	52,687		66,277							

TABLE 22.—*Salmon caught and fishing appliances used in the Cordova Bay district, 1887 to 1927—Continued*

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Hetta Inlet—Continued												
1915	959	22,403	196,608		61,371							
1916	741	26,935	31,993	7	11,297							
1917	2,161	59,375	112,875	35	32,691							
1918	1,868	10,052	12,977		26,008							
1919	339	9,152	38,028		34,188							
1920	511	9,815	13,977	1	37,485							
1921	687	350	48,471		13,801							
1922	101	1,818	83,784		18,938							
1923	165	3,552	194,059		19,770							
1924	80	7,102	32,607		2,101							
High Point:												
1925	25	13,680	5,243		8							
1926	9	593	1,098		5							
1927	477	489	5,597		882							
Howkan Narrows:												
1912	2,808		88,647									
1913			7,311									
1914	475	5,006	18,759		224							
1915	818	5,277	42,402									
1919	1,367	18,451	116,018		977							
1923	247	1,401	22,352		56							
1924	126	1,291	7,618		116							
1925		2,236	31									
Hunter Bay:												
1896	13,481		85,782		7,618							
1897			44,501		3,848							
1904			100,000		21,000							
1905	4,292				43,933							
1906					14,372							
1907	1,270	586	15,662		13,006							
1908	3,265	323	73,288		7,288							
1909	894	322	50,983		4,254							
1910	5,419	363	34,624		10,608							
1911	2,371	18	173,600		11,681							
1912	3,485	2,344	126,331		8,797							
1913		288	218,617		2,103							
1914	394	3,890	17,616		762							
1915	167	291	12,737		7,077							
1916	5,428	6,201	112,676		7,913							
1917	676	917	14,792	1	5,953							
1918	1,489	637	75,303		9,553							
1919	2,736	4,528	198,785		7,800							
1920	1,175	30,269	90,445		5,695							
1921			26,395		8,369							
1922	4,057	13,217	230,846		11,224							
1923	2,076	4,393	97,878		4,010							
1924	2,607	4,816	52,461		6,760							
1925	146	1,287	9,146		2,149							
1926	767	1,105	45,908		2,439							
1927	176	23	325		1,269							
Hydaburg Bay:												
1912	1,230	6,157	45,032		897							
1913	854	12,914	36,662		25							
1914	5,152	27,727	13,686		1,423							
1915	1,447	48,136	69,916		236							
1916	4,477	29,271	8,417		291							
1917	2,659	30,918	92,015		180							
1918	946	1,659	774									
1919	19,128	148,884	80,789		3,144							
1920	123	23,807	3,618		524							
1921			28,807		48							
1922	3,737	20,336	131,959		373							
1923	6,285	99,298	1,177,904		6,748							
1924	544	13,385	12,042		68							
1925	4,795	71,227	80,385		8,279							
1926	4,849	13,812	33,644		290							
Jackson Island:												
1912	51	1,838	3,722									
1913		218	7,106									
1918	8		1									
1919	8	353	4,327		778							
1923	12	367	9,609		9							
1925	416	10,717	1,749		48							
1926	3	16	3,066		7							
Kaigani Point:												
1923	719	462	118,047		775							
1924	936	3,572	56,482		1,227							
1926	1,632	2,882	34,502		927							
Kaigani Strait:												
1912	3,000	13,930	200,000		1,152							
1913			210,000		570							
1914	1,162											
1915					611							

TABLE 22.—Salmon caught and fishing appliances used in the Cordova Bay district, 1887 to 1927—
Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fath-oms	Number	Fath-oms	Number	Fath-oms	
Kaigani Strait—Continued												
1917	1,825	9,313	187,127		25							
1919	6	252	3,327		18							
1925	220	1,421	12,038		117							
1926	603	2,423	19,606		344							
1927	1,808	1,367	15,068		2,644							
Kasook Inlet:												
1888					1,829							
1896					1,340							
1897					2,415							
1908					831							
1910	241	435	4,938		244							
1911	88		9,614		1,307							
1912					3,000							
1914	7				110							
1918	1,168				38							
1919	7	2,256	12,826		67							
1922	237	5,178	36,348		750							
1923	144	1,074	35,358		1,031							
1925	301	5,462	37,427		1,347							
1926		120	1,233		139							
1927	521	508	14,628		1,214							
Kassa Inlet:												
1912					4,964							
1913		114	36,956		511							
1916	8	293	958		51							
1919		248	2,203									
1923	17	207	6,532		479							
1925	1,336	21,565	157,928		3,654							
1926	475	1,950	32,700		550							
1927	560	311	1,641		655							
Keete Inlet:												
1907	1,293	3,649	21,254		199							
1908	204	4,788	34,980		80							
1909	1,135	2,337	88,533		1,072							
1910	385	3,853	60,411		166							
1911	947	8,111	13,841		49							
1912	1,832	25,100	4,461									
1913		6,014	52,913		857							
1914	10	3,331	2,634		30							
1915	248	8,556	11,624		168							
1916	875	12,572	721		57							
1918	1,494	10,019	1,181		91							
1919	242	6,866	6,259		6							
1920		2,364	302									
1922	318	12,699	1,540		164							
1923	1,052	7,255	204,077	7	1,315							
1925	822	25,344	125,114		1,024							
1926	2,781	71,190	92,760		1,571							
1927	370	749	3,998		676							
Klaskas Inlet:												
1887					9,330							
1896	2,667		32,469		7,314							
1897			108,031		23,350							
1904					15,000							
1905		750			6,720							
1907	1,190	4,553	77,068		9,507							
1908	848	2,375	114,006		11,559							
1909	1,049	1,860	105,766		4,149							
1910	124	1,402	77,127		3,976							
1911	60	98	100,093		3,291							
1912	1,629	7,110	97,686		2,386							
1913		6,851	61,272		804							
1914	332	31,106	60,097		10,180							
1915	1,105	25,075	109,510		12,327							
1916	1,348	6,805	21,353		4,791							
1917	1,818	13,772	43,237		10,014							
1918	2,237	15,864	11,598		7,732							
1919	871	22,255	152,492		1,824							
1920	839	27,319	18,249		1,026							
1922	584	16,439	61,060		4,679							
1923	967	3,500	154,813		1,111							
1924	707	31,620	69,092		2,490							
1925	1,068	34,419	143,729		2,029							
1926	721	27,597	56,762		2,580							
1927	387	349	1,370		466							
Leading Point:												
1927	109	41	179		111							
Lime Point:												
1910		3,100										
1911		6	24,000		241							
1912			12,228									
1914	59	8,599	20,390		350							

TABLE 22.—Salmon caught and fishing appliances used in the Cordova Bay district, 1887 to 1927—
Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (num- ber)
						Num- ber	Fath- oms	Num- ber	Fath- oms	Num- ber	Fath- oms	
Rose Inlet:												
1913	186		6,693		5							
1914	5											
1915			6,168		3							
1917	186	1,118	805		38							
1918				65								
1920	58	991	14,439		314							
1922	107		27,560									
1923	11	320	15,491		12							
1924	1,274	15,515	57,127		176							
1925		108										
1926	7	214	4,088		41							
Ruth Bay:												
1918		205	15									
Saltery Point:												
1927	218	767	3,852		196							
Sawmill Cove:												
1907		100	3,000									
1910	160		10,323									
1914	57	655	939									
1916	56	60			2							
1917	523											
1923	137	460	49,973		86							
1925	116	3,884	13,627									
1926	319	100										
1927	6	5	247									
Seal Bay:												
1907			400									
1924		50	1,660									
Shipwreck Point:												
1926	20	200	400		10							
1927	1,403	1,079	5,670	3	2,047							
Shoe Rock:												
1922	551	2,908	123									
Soda Bay:												
1904	5,594											
1905	1,288											
1906	1,231											
1910	1,000											
1912	380	10,301	20,584		135							
1913	219	386	8,696		14							
1914	2,328	30,105	20,608		50							
1915	1,113	67,725	45,849		107							
1916	1,247	24,455	3,448		189							
1917	1,409	21,342	46,728	4	191							
1918	321	10,071	6,611		2							
1919	3,747	35,597	138,603		311							
1920	33	7,052	2,964		14							
1922	313	2,635	5,509		108							
1923	1,010	5,736	54,805		317							
1924	1,183	37,201	24,833		90							
1925	572	33,141	34,990		44							
1926	2,217	43,742	54,184		521							
1927	419	2,100	1,162		119							
Sukkwan Island:												
1912		5,000	100,000									
1918	993	865	2,600									
1924	1,433	3,225	51,764		960							
1925	1,484	14,444	56,202		924							
1926	1,293	5,070	102,742		1,598							
1927	1,562	2,335	18,642	2	2,645							
Sukkwan Strait:												
1890	4,403											
1896	4,830											
1897	3,924											
1904	14,600											
1905	12,027											
1906	8,819											
1907	5,274	556	7,976		1,242							
1908	3,439	11,052	24,979		22							
1909	2,334	348	40,885									
1910	3,140	1,306	31,217									
1911	2,292	6,329	17,837		247							
1912	1,590	30,785	49,241	317	718							
1913		980	124,186									
1914	4,983	88,140	122,460		324							
1915	1,367	42,766	170,311									
1916	2,041	23,613	6,157		677							
1917	3,457	24,006	35,172		56							
1918 ¹	5,030	10,687	30,763	2,304	1,373							

¹ The catch in this year includes 4,988 cohos and 2,360 kings that were taken by trollers.

TABLE 22.—*Salmon caught and fishing appliances used in the Cordova Bay district, 1887 to 1927—Continued*

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Sukkwai Strait—Continued												
1919	79	12,572	102,462	1	1,114							
1923	25	495	22,118		32							
1924			32,385									
1925	3,963	59,900	141,545		606							
1926	1,576	24,755	20,498		953							
1927	664	1,346	7,775		948							
Sulzer:												
1907	585		5,000									
1908	192	5,663	43,815		21							
1910	30	517	64,338									
1911	104	623	43,211		53							
1912	1,933	13,830	59,292		8							
1915		1,040	10,130									
1916	204	12,591	2,237		14							
1917	181	7,560	4,141		7							
1918	421	309	184		13							
1919	6	2,853	22,750		244							
1920	24	1,952	13,926		26							
1923	23	419	40,820		469							
Tah Bay:												
1908	1,435											
1909	315	146	5,614		19							
1910	228											
1911	193		1,089									
1912			6,859									
1913		989	19,848									
1914	37	551	2,792		56							
1916	662	975	1,307		6							
1918	446	113	263									
1924	334	790	11,017		677							
Tlevak Narrows:												
1906			92,000									
1914		1,823	3,615									
1915		743										
Tlevak Strait:												
1915	2,310	38,561	164,346									
1916		34,169	38,067	9	2,253							
1917	1,160	47,762	42,131		117							
1918	14	16,302	25,856		226							
1922	165	3,426	4,751		768							
1923	2,362	12,485	200,666		496							
1924	813	42,965	52,975		669							
1927	173	450	505		11							
Turn Point:												
1918		1	1,432		107							
1927	461	292	1,315	1	530							
Vesta Bay:												
1925	564	24,152	8,503		4							
1926	5	1,883	6									
View Cove:												
1926		823	5,830		2							
1927	3	292	19									
Webster, Point:												
1912	594	493	34,648	29	928							
1913	701		15,613		489							
1914			559		1							
1922	55	844	19									
1924	2,840	6,938	91,951		4,447							
1925	1,212	11,816	81,320		839							
1926	1,213	3,923	92,917		1,962							
1927	710	752	4,315		1,195							
Unallocated:												
1896	9,168		2,887		39,508							
1897	19,538		99,030		18,316							
1898	62,441		161,252		16,690							
1899	52,155		352,330		28,240							
1900	36,630		889,787		30,198							
1901	26,138		766,400		82,642							
1902	19,000		902,000		150,000							
1903	80,000		522,000		120,000							
1905			160,000									
1908	800	2,500	37,400									
1909	125											
1910	1,304	457	36,754		106							
1911	2	158	16,098		979							
1912	3,850	19,058	54,249	263	734							
1913		264	11,126									
1914	1,557	36,289	89,071									
1915		3,681	4,462									
1916	80	34	2,914		188							
1917	685	20,100	145,453		939							
1918	9,515	44,936	98,603		3,934							

TABLE 22.—Salmon caught and fishing appliances used in the Cordova Bay district, 1887 to 1927—
Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fath- oms	Number	Fath- oms	Number	Fath- oms	
Unallocated—Continued												
1919	10,595	47,637	497,088		18,516							
1920	2,328	151,195	77,685		22,244							
1922	1,867	27,080	15,905		12							
1923	1,160	496	31,570		268							
1924	1,952	5,375	128,406	7	19,777							
1925	2,166	34,557	40,922		766							
1926	1,881	49,720	171,618		1,964							
1927	1,285	2,392	13,710		6,832							
Total:												
1887					33,352							
1888					49,297							
1889					48,585							
1890	4,403				59,673							
1891					1,089							
1892					51,479							
1893					10,586							
1894					40,709							
1895					78,464							
1896	39,578		121,638		266,677							
1897	44,985		325,614		256,898							
1898	62,731		186,252		195,799							
1899	52,694		581,886		279,074							
1900	38,630		948,003		174,931							
1901	33,638		766,400		87,642							
1902	20,000		902,000		156,000							
1903	80,000		522,000		120,000							
1904	25,432		100,000		102,654	3		4				
1905	19,044	750	160,000		107,928	8						
1906	10,050		102,826		57,113	5						
1907	15,535	18,592	406,491	64	44,544	2	230	10	1,750	1	100	
1908	17,804	61,103	649,822		66,091	12	2,710	2	4,400	1	200	1
1909	10,361	11,194	684,352	75	70,709	5	660	8	1,400			
1910	14,686	16,473	697,811		53,572	2	300	8	2,345			
1911	10,203	20,401	792,705		78,783	2	300	8	1,320			
1912	35,522	201,483	1,511,894	609	88,151	7	1,130	33	6,195			3
1913	2,872	37,497	1,245,943		55,184	2	150	26	4,392			1
1914	20,206	327,113	607,128		84,601			34	4,430	8	825	1
1915	13,946	302,837	1,089,714		88,871			35	5,750	3	375	2
1916	24,482	228,921	743,018	55	40,258			32	5,240	15	750	4
1917	24,466	319,105	980,204	40	53,659			26	4,530	6	1,148	6
1918	31,935	158,066	459,882	2,459	64,978	4	600	32	5,063	13	2,000	5
1919	40,163	365,529	1,794,572	1	85,763	12	900	46	9,160	14	1,400	4
1920	6,119	352,955	245,336	11	69,497			21	3,665			2
1921	697	395	107,855		22,745	6	910			8	800	1
1922	19,389	158,327	1,522,619		51,852			35	5,800	5	500	3
1923	22,455	178,124	3,607,004	7	49,006			50	8,270	5	500	8
1924	29,984	234,944	1,385,256	7	60,816			40	6,510	6	600	14
1925	28,373	542,330	1,777,918	1	38,190			42	7,440	7	700	18
1926	31,008	336,634	1,285,422		29,823			50	8,538			23
1927	17,862	32,263	205,408	25	36,322			26	4,535			36

NOTE.—No catch was reported in the years omitted from each division of this table.

The catch of salmon in the Cordova Bay district is shown in table 22, which comprises 65 localities whose identity has been preserved, and one section presenting the unallocated catches of the district which include salmon reported from 28 unidentified localities, such as "Bruce," "Cadez Bay," "Chasqua," "Hassan Bay," "Jim Spoon Place," "Jumbo Creek," "Keith," "Klakas Nephew," "McKau Inlet," "Prince Point," "Puegh Bay," "Point Simmons," "Sixmile Creek," "Spoons Church," and several more equally obscure places. Other combinations of catches were made, as follows: Those at Captain Johns Creek and Captain Johns Bay were added to Dunbar Inlet catches; those at "Cogo" Harbor and "Kakoo" Bay were included with the catches at Coco Harbor; Howkan Island and Howkan Channel catches were combined with Howkan Narrows fish; Dog Salmon Bay catches were included with fish from Hessa Inlet; Kassa Inlet and Hassa Inlet were regarded as the same and the catches are shown under the name of the latter; Daykoo Harbor and Daykoo catches appear under the name of Little Daykoo; "Dutch Kenii Bay" was changed to McLeod Bay;

the catches at Soda Bay and Soda Harbor are given under the name of the latter; and an arbitrary division of the catch reported from "Klawak, Sakar Cove, Tonowek Bay, and Hetta Inlet" in 1912 was divided so that one fourth of the catch was credited to Hetta Inlet.

Almost nothing is known of the movement of salmon into these waters, whether they come from the north through Tlevak Narrows or from the south through Dixon Entrance. If the location of traps in the district can be accepted as a safe criterion, it may be assumed that the largest body of salmon enters from the south and strikes for the streams of Prince of Wales Island. The greater number of traps are located along that shore and at the southern entrance to the straits between the larger islands. If the bulk of the runs came from the north, it is reasonable to assume that fishing would be concentrated at Tlevak Narrows, that more traps would be located in the northern part of Tlevak Strait than 30 miles south of it, and that the

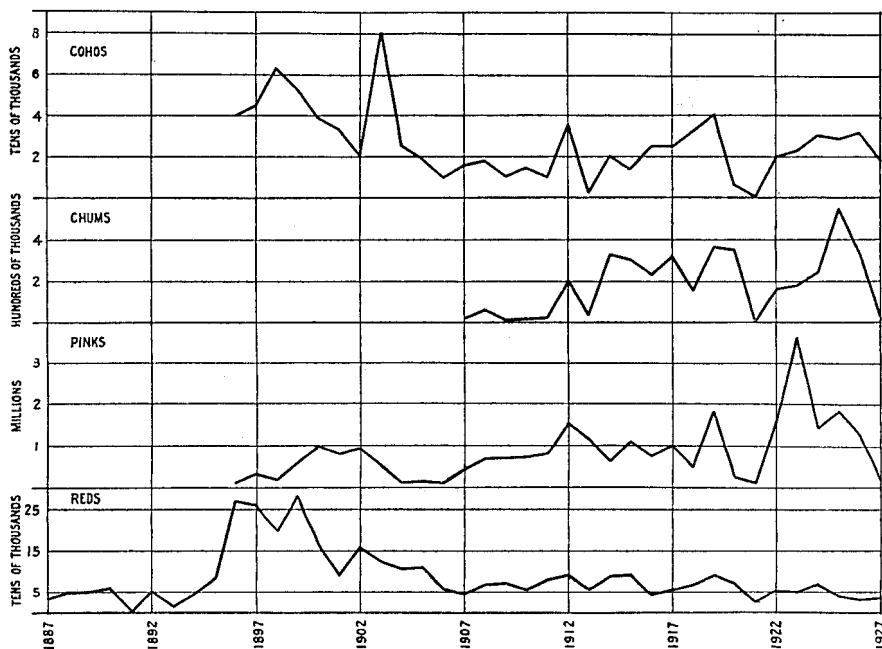


FIGURE 39.—Catch of salmon in the Cordova Bay district, 1887 to 1927.

largest catches would be made in that region. The absence of these is at least negative evidence that the incoming salmon do not enter through Tlevak Narrows in any considerable numbers.

Figure 39 shows graphically the catch of all salmon, except kings, in this district as far as data were available. The curve of production for each species has its own peculiarities. In respect of red salmon, the apparent extraordinary yields in five years (1896 to 1900), may be due in part to faulty data, as it would seem likely that if these large catches were possible when the district was but slightly developed, similar ones would be made again as the fishing effort kept step with the increase in canneries and the greater demand for salmon, considering the undeveloped condition of the district at that time and during the next 10 years. Although there has been no startling change in the trend of the red-salmon catches since more intensive fishing began in 1912, the curve is steadily downward. This species, however, is not an

important element in the fisheries of Cordova Bay. The smaller catches in the last 3 years are accounted for by the prohibition of fishing in Hetta Inlet since 1924, that being the most productive red-salmon locality in the district.

The catch of pink salmon shows a more even trend than that of the other species. In 1923 this district, among others, had a phenomenal run of pinks which made possible the largest catch in its history, being double that of any other year. Four years later it had the poorest run ever known in that section. These extremes seem to be due entirely to biological factors, as no satisfactory explanation of a superabundance of pinks in one year and an abnormal scarcity in another can be found in the economic conditions that might then have affected the industry. The small catches in 1920 and 1921 were due to causes entirely different from those existing in 1927, being in no sense biological upsets but induced largely by an inactive market for pink salmon.

The chum fishery is of comparatively later development than those of the other species and the trend of the catches has been decidedly upward, the high point in 1925 being far above the yield in any previous year. The catch in 1926 was also good, having been exceeded but three times in the history of the fishery. For reasons already assigned, the catch in 1927 was the smallest on record, excepting that of 1921, when little fishing was done.

The catch of cohos shows marked irregularities, the earliest years being the most productive. From 1904 to 1911 this fishery became relatively unimportant, but thereafter rather wide fluctuations in catches occurred. The good years were followed by the precipitous drops of the poor years, and these were succeeded by a gradual improvement in catches. These recurring evidences of strength, weakness, and recovery are interesting peculiarities of this fishery but are probably not indications of depletion.

King salmon are rarely taken in this district. The reported catch of 2,360 in Sukkwan Strait in 1918 is open to question as being an error in allocation. It was made by trollers and was doubtless reported by the purchaser as coming from the point of delivery rather than the fishing grounds.

CLARENCE STRAIT DISTRICT

The Clarence Strait district covers the waters of the east coast of Prince of Wales Island from Point Colpoys on the north to Surf Point on the south, Stikine Strait and Chichagof Pass, the waters of the west coast of Etolin Island and of Cleveland Peninsula, between Lemesurier Point and Caamano Point; the waters of Gravina Island, except Tongass Narrows; the waters of the western and southern shores of Annette Island, between Walden Point and Annette Point, and the waters of Duke Island, west of a line from Cape Northumberland across Felice Strait to Annette Point, and those of all the smaller islands lying within these boundaries. (See fig. 40.) It is a large district, approximately 132 miles in length, and for many years it has been the field of important salmon fisheries and intensive fishing. The labyrinth of bays and the hundreds of streams present ideal conditions for the production of salmon and have made possible an annual commercial catch aggregating millions of fish. Some sections of the shore have no deep and intricate indentations but they form equally important fishing grounds on which yet other millions of salmon have been caught during their migrations.

The development of these fisheries began commercially with the salting of red salmon at Karta Bay before 1888, and at Cholmondeley Sound, Thorne Bay, Tolstoi

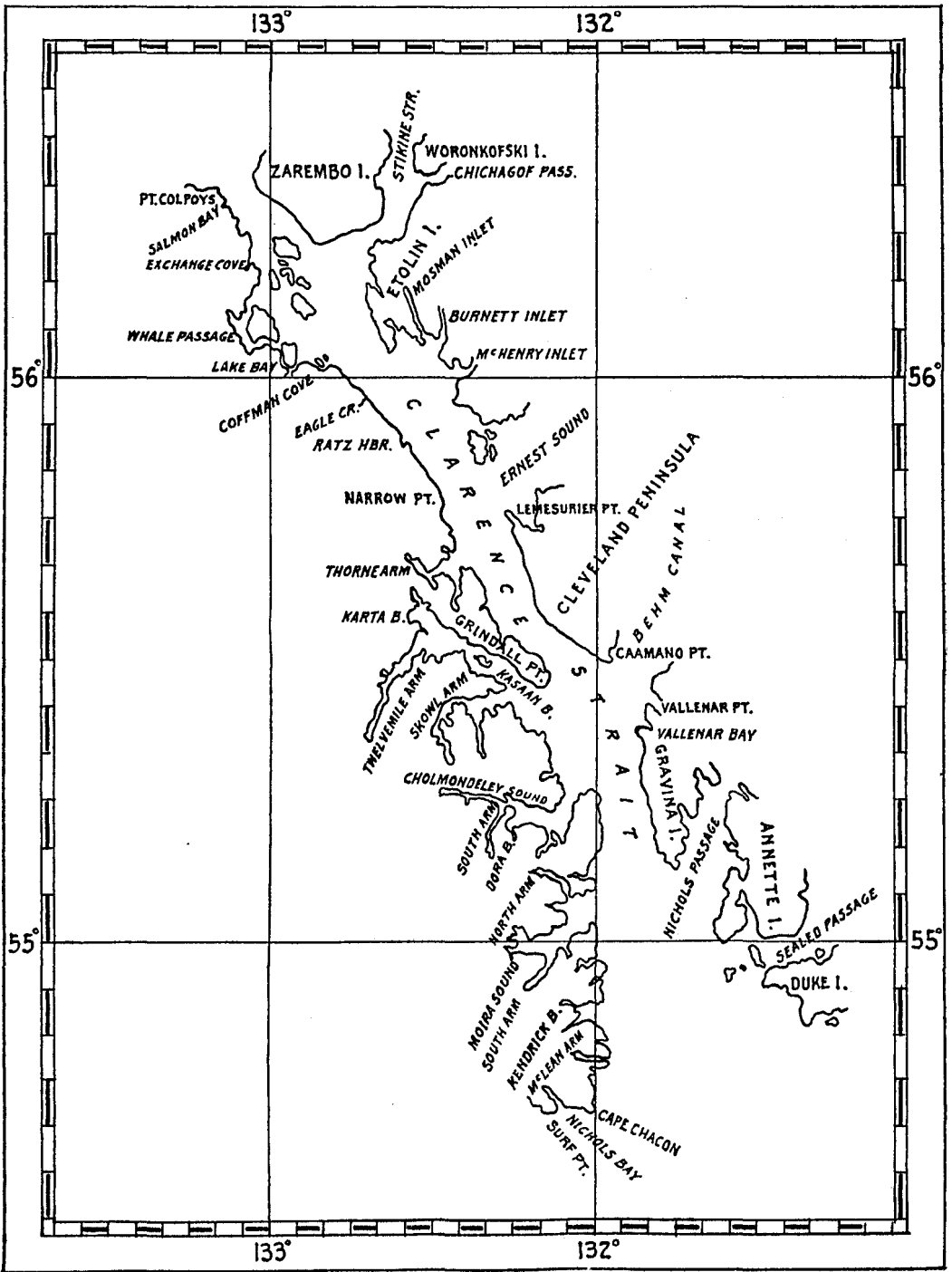


FIGURE 40.—Map of the Clarence Strait district.

Bay, and Moira Sound a few years later. The exact year in which these operations commenced is not known, but in a general way salmon salting antedated salmon canning by several years in these localities. According to Moser, the first salmon for canning were taken at Karta Bay in 1888 and packed at Loring. In time, the salteries were abandoned or gave way to canneries in all of these several localities, except Thorne and Tolstoi Bays. During the intervening years the entire catches went to canneries outside of the Clarence Strait district. The first cannery on Clarence Strait was located at Lake Bay. It was followed by the establishment of canneries on Kasaan Bay, Cholmondeley Sound, Moira Sound, and at Metlakatla, the latter coming as a result of the presidential proclamation in 1896, creating the Annette Island Fishery Reservation for the benefit of the Tsimpsean Indians who, under the leadership of William Duncan, had moved in a body from British Columbia, and the Alaskan natives who might settle on Annette Island. In this period of development, exploitation of the fisheries centered at the streams where red and coho salmon were obtainable, the chronological order of development being as follows: 1888, Karta Bay; 1889, Kasaan Bay, Thorne Bay; 1892, Johnson Cove, Port Johnson, Kegan Cove, Moira Sound, Tamgas Harbor; 1894, Dora Bay; 1896, Lake Bay, Meyers Chuck, Salmon Bay, Whale Passage, Kina Cove, Skowl Arm, and Nichols Bay.

All of these streams except those at Meyers Chuck on Cleveland Peninsula and Tamgas Harbor on Annette Island are located on Prince of Wales Island. In 1900 a floating saltery was operated at Kasaan Bay and prepared chum salmon for Japanese markets.

The growth of the industry, however, was not dependent upon the utilization of red salmon as it was soon discovered that the chief fishery resource of the district consisted of its large supply of pink salmon which were widely distributed in these waters. Utilization of this species was almost contemporaneous with the packing of red salmon and in a few years the production of pinks exceeded the combined pack of all other species. The industry expanded rapidly, new fishing grounds were opened and the fishing effort was constantly increased until Clarence Strait became one of the most highly developed and productive districts in all of Alaska. It was also discovered that salmon enter the strait both from the north and from the south and that the schools followed rather definite routes in their migrations. Runs of large volume struck the western shore of Gravina Island and Cleveland Peninsula, a circumstance that led to intensive trap fishing in those localities. In time, traps fairly lined both sides of Clarence Strait, more especially in the southern part. Purse seines were used in all localities where salmon congregated and trolling was followed in the more open waters of the district. The peak of production was reached in 1923 with a catch of all species of approximately 13,000,000 salmon, which was over one fourth of the total catch in southeastern Alaska that year and approximately one sixth of the entire catch in Alaska. Actually, the relative productivity of this district was somewhat greater than these figures indicate on account of large unallocated catches in 1923, a large proportion of which unquestionably came from this district.

TABLE 23.—Salmon caught and fishing appliances used in the Clarence Strait district, 1888 to 1927

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Northern part:												
Abraham Island:												
1919	4, 116	3, 451	94, 003		8, 360							
1920	2, 418	4, 695	43, 788	13	3, 418							
1927	154	193	2, 943		968							
Barnes Point:												
1914		14, 501	52, 549									
1923	4, 401	1, 717	110, 624		5, 641							
1924	4, 229	2, 330	45, 314	33	11, 800							
1925	605	2, 056	31, 851		513							
1926	1, 350	1, 015	22, 033	3	1, 490							
1927	552	633	9, 266	37	4, 399							
Bonita Passage:												
1919	540	3, 621	53, 538		1, 452							
1920	171	4, 654	14, 589	1	577							
1925	44	1, 330	4, 821		102							
1926	86	1, 520	10, 081		235							
1927	116	1, 385	6, 451		118							
Burnett Inlet:												
1908			2, 560									
1912			72, 000									
1914		1, 133	1, 570		8							
1918				160								
1923		300	10, 000									
1924	10	6, 500	7, 500		40							
1925	334	6, 072	59, 434		646							
1926	217	3, 123	35, 005		421							
1927	17	353	580		22							
Coffman Cove:												
1909	1, 000	5, 000	10, 000									
1907	2, 000	231	5, 000		1, 000							
1908	2, 000	700	5, 000									
1909	69	3, 163	9, 280									
1910	109	1, 123	12, 432									
1911	921	1, 147	10, 118									
1912	242	652	1, 669									
1913	1, 114	2, 072	8, 850									
1914			20, 661		48							
1915	898	1, 271	21, 688		354							
1917	19	217	805		1							
1918		2, 200										
1919	44	81	147									
1920		347										
1922	189	3, 080	15		44							
1924	40	566	1, 016		4							
1926	2, 248	2, 918	26, 973	3	4, 024							
1927	876	1, 174	12, 989	68	4, 920							
Eagle Creek:												
1904	1, 351		51, 334	13	15, 747							
1905	12, 325	28, 293	77, 146		16, 576							
1906	2, 254	7, 951	98, 094	21	16, 782							
1907	1, 096	2, 333	43, 441	2	11, 809							
1908	46	7, 649	3, 077		3, 949							
1909	68	1, 947	38, 526		1, 678							
1910	2, 613	25, 823	33, 153	14	12, 057							
1911	5, 340	26, 509	142, 136	6	7, 488							
1912	3, 893	27, 806	88, 117		12, 242							
1913		340	4, 309		196							
1914		1, 073	21, 177		2, 087							
1915	2, 231	22, 470	97, 018		7, 328							
1916	2, 043	66, 977	78, 130		3, 445							
1917	5, 772	17, 253	10, 378		4							
1918	5, 210	103, 392	265, 662	6, 650	12, 395							
1919	14, 956	70, 418	109, 080		21, 038							
1920	5, 050	59, 786	145, 103	198	14, 688							
1921	4, 764	6, 466	40, 518	19	10, 187							
1922	5, 607	26, 621	228, 258	2, 913	5, 648							
1923	5, 987	48, 784	328, 671	3	13, 200							
1924	6, 124	13, 710	118, 840	9	15, 779							
1925	3, 445	20, 201	215, 356	190	12, 183							
1926	5, 100	42, 402	203, 202	54	22, 024							
1927	1, 453	2, 190	17, 267	350	16, 086							
Etolin Island:												
1914	1, 011	14, 409	134, 149		720							
1915	118	2, 708	62, 217		973							
1916	1, 504	47, 450	186, 659		976							
1917	470	158	8, 660									
1919	830	70, 819	90, 608	6	6, 977							
1920	386	45, 124	26, 678	6	1, 888							
1923		100	5, 000									
1925	2, 091	4, 517	168, 022		6, 395							
1926	1, 505	1, 155	43, 307		4, 618							

TABLE 23.—Salmon caught and fishing appliances used in the Clarence Strait district, 1888 to 1927—Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Northern part—Continued												
Exchange Cove:												
1908	1,621	5,000	7,588									
1912		3,305	3,770		820							
1913	345	3,891	2,094		133							
1914	258	1,547	3,513		17							
1915	441	1,585	11,693		248							
1916	95	2,076	2,636									
1917	735	6,334	22,964									
1918	47	1,323	8,735									
1919	86	1,146	4,309		100							
1922	589	4,583	27,793		547							
1923	504	579	2,663		38							
1924	444	728	1,721		18							
1925	34	5,015	8,773		197							
1926	421	4,696	20,076		434							
1927	260	329	460		608							
False Island:												
1915	770	408	50,117	3	1,815							
1925	2,442	13,991	150,078	221	5,092							
1926	2,065	9,327	207,317	113	4,181							
1927	1,471	4,170	22,733	180	3,166							
Figgins Point:												
1916	1,885	1,513	30,071	38	1,399							
1926	2,954	9,005	118,008		3,172							
1927	744	644	698	9	1,707							
Harrington Point:												
1920	113	155	124		3							
1926	576	901	22,495		1,795							
1927	432	675	4,622	15	2,658							
Kelp Point:												
1916	830	675	16,136		1,966							
1926	239	844	19,006	2	1,168							
1927	119	404	3,917		210							
Lake Bay:												
1896	58,145											
1897	47,534											
1905	22,000		2,500		3,000							
1906	20,000	1,000	1,000		1,000							
1907	15,000	5,000	5,000		8,000							
1908	17,832	378	6,090		9,259							
1909	4,981	1,125	6,026	5	4,176							
1910	4,228	11,233	718		5,783							
1911	25,832	10,328	117,724		10,043							
1912	29,656	3,509	19,460		1,431							
1913	10,303	10,728	54,218		9,659							
1914	14,562	12,240	15,864		22,432							
1915	23,948	5,143	48,255		18,561							
1916	15,317	9,131	5,552		9,254							
1917	8,779	6,176	40,997		5,060							
1918	4,692				2,099							
1920	2,810	8,731	4,599	35	5,011							
1922	224	55	102		23							
1923	4,012	2,832	8,551		487							
1924	950	2,571	6,596		350							
1926	75	270	807		14							
1927	46	86	205		40							
Lemesurier Point:												
1911	7	1,899	160,368		6,844							
1914	215	8,727	83,561	47	14,022							
1915	3,031	6,379	204,107	323	5,695							
1916	3,514	4,370	82,933	230	4,565							
1917	78	811	24,557	4	358							
1918	4,731	6,741	224,556	401	6,758							
1920	675	5,690	83,180	209	5,669							
1922	2,500	2,375	45,800	48	2,237							
1923	4,057	6,270	113,927	195	7,562							
1924	2,356	4,707	43,823	52	5,031							
1925	853	2,380	101,236		3,362							
1926	392	904	26,436	24	2,342							
1927	669	1,425	8,825	268	1,996							
Lincoln Rock:												
1916	2,350	2,800	34,000		1,567							
1917		699	15,704									
1919	1,764	1,280			1,767							
1922	5,000	3,000	90,000	1,282	3,000							
1923	3,406	1,080	128,188		2,484							
1924	4,117	11,958	92,715		9,759							
1925	1,198	2,461	59,436		3,493							
1926	845	703	28,593	1	2,118							
1927	512	731	11,795		3,486							

TABLE 23.—*Salmon caught and fishing appliances used in the Clarence Strait district, 1888 to 1927—Continued*

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Northern part—Continued												
Luck Point:												
1917	3	628										
1920	1,044	3,144	24,517	240	3,929							
1922			405		1							
1923	1,112	1,126	68,239		2,930							
1924	196	256	8,385		262							
1925	426	1,976	55,870		1,458							
Lyman Anchorage:												
1908			32,800									
1912	431	114	32,397									
1914	2	852	7,565		5							
1915	625	9,061	74,613		448							
1916	21	651	3,489		5							
1917	74	2,338	18,116		21							
1919		226	4,232		185							
1923	137	3,702	20,516		29							
1926	945	2,251	42,740		1,762							
1927	432	432	1,395	15	2,463							
Lyman Point:												
1925	208	2,332	60,478		492							
1926	935	3,631	59,841		1,332							
1927	439	215	172	15	1,830							
McNamara Point:												
1924	1,422	884	4,212	58	3,250							
1925	933	1,006	31,855		1,874							
1926	139	161	1,795		821							
Marsh Island:												
1919	1,609	1,822	38,138	9	4,096							
1920	413	754	2,726	50	1,565							
1923	2,459	824	131,060		3,170							
1924	2,743	1,159	24,123	15	5,411							
1925	3,309	5,365	309,099	4	12,546							
1926	291	275	7,148	1	1,470							
1927	282	233	425	5	1,685							
McHenry Anchorage:												
1921	88		4,039									
1924	125	423	1,516	7	249							
1926	1	722	156		2							
1927	6	1,958	666		82							
McHenry Inlet:												
1913	60	6,784	46,456		898							
1914		21,682	245,081		3,314							
1915	1,210	5,105	132,461		2,933							
1917	35	1,691	3,248		267							
1918	5	2,384	2,685		415							
1920		242	49		146							
1921		3,978	861		782							
1922	1,113	2,212	27,911		1,540							
1923	369	1,619	31,246		309							
1924	422	16,175	70,338		1,391							
1925	12	8,233	13,237		503							
1926	21	6,932	9,178		1,318							
1927		1,163	239		20							
Meyers Chuck:												
1896	1,408				4,651							
1897	2,250		9,874		4,700							
1898	256		11,499		6,838							
1899			8,760		3,211							
1906	150	29	22,809		9,104							
1907	4	23	692		139							
1908	13	28	2,991		1,691							
1909	1,016	11	24,688		3,293							
1910	981	413	11,090		438							
1911	2,000		2,343		8,205							
1915	2,527	7,156	133,733		3,414							
1916	45	1,087	15,174		1,203							
1919	2,412	4,263	78,380	13	3,639							
1920	878	3,835	22,731	42	1,305							
1922	2,573	2,025	45,390	20	2,022							
1923	88	208	6,848		9							
1924	611	1,955	19,734		954							
1925	1,836	14,890	219,517		3,789							
1926	14	79	509		23							
1927	200	500	4,385	1	338							
Meyers Island:												
1925	55		800									
1926	916	3,036	49,189		2,211							
1927	1,029	1,033	20,123		933							
Misery Island:												
1924	1,111	2,062	32,129		629							
1926	622	988	29,933		2,143							
1927	889	815	15,284		611							

TABLE 23.—Salmon caught and fishing appliances used in the Clarence Strait district, 1888 to 1927—Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Northern part—Continued												
Mosman Inlet:												
1908			2,300									
1909	756	4,405	58,032									
1910	1,232	4,572	63,274		2,341							
1911	154	6,024	54,926									
1912	1,668	20,819	179,586		440							
1913	28	3,272	5,383		44							
1914	149	29,814	53,659		35							
1915	101	4,155	62,957		120							
1917	15	1,595	5,956									
1918	44	846	1,475									
1919		7,101	11,192		29							
1921	698	6,186	47,545		268							
1922	219	30,671	52,989		1,047							
1923	118	3,078	53,572		795							
1924	336	17,090	28,625		794							
1925	42	42,631	64,576		35							
1926	35	12,294	25,898	2	109							
1927	46	8,661	2,647		66							
Narrow Point:												
1907			20,000									
1915	129	380	27,371	4	146							
1916	183	4,335	9,556		11							
1917	1,808	3,687	115,906	2	713							
1918	1,571	2,095	28,590	1	1,242							
1919		15	1,051		3							
1920	22	467	1,982		391							
1922	3,930	4,169	92,519	5	3,359							
1923	1,758	3,532	55,031		2,511							
1924	7,837	4,951	78,187	4	11,447							
1925	2,225	9,871	228,836	60	5,179							
1926	683	1,427	45,717	40	4,023							
1927	1,519	3,168	17,692	18	5,533							
Nesbitt, Point:												
1918	3,598	3,449	131,632	22	1,707							
1919	559	650	6,509		958							
1920	1,955	2,401	8,452		1,427							
1922	1,750	5,620	31,742	6	1,500							
1926	6,015	3,831	66,921		17,137							
1927	3,714	1,633	28,450	3	16,656							
Niblack Point:												
1912	1,595	2,085	129,306		2,714							
1913	1,325	5,562	212,960	4	4,167							
1914	72	5,725	37,156	7	3,823							
1915	2,748	4,602	154,256	240	4,206							
1916	3,747	5,041	87,376	398	4,554							
1918	5,538	15,837	304,715	1,467	12,212							
1919	7,739	22,335	217,950	107	26,229							
1920	2,712	29,638	103,897	813	9,579							
1922	7,184	18,432	258,221	607	9,115							
1923	12,533	13,129	388,293	127	15,660							
1924	3,976	14,218	172,321	11	7,091							
1924	3,006	23,818	196,023	390	5,082							
1925	2,363	7,293	184,950	38	7,264							
1927	1,340	1,241	13,586	148	3,105							
Northwest Cove:												
1913	891	2,188	188,007		4,533							
1914	613	9,813	131,373		20,759							
1915	1,534	5,044	341,884		11,225							
1916	2,195	4,691	46,031		10,274							
1917	1,364	3,292	156,671		4,018							
1918	1,625	4,903	120,970		7,097							
1919	3,554	6,171	219,944		11,416							
1920	838	6,210	34,743		3,323							
1922	1,954	3,576	54,129	28	4,346							
1924	1,382	380	9,651		2,326							
1927	118	120	445	2	241							
Onslow Island:												
1918	749	7,854	114,368		4,628							
1919	2,702	9,419	106,499		5,068							
1920	528	4,320	38,392		1,725							
1922	650	2,417	15,186		1,000							
1923	1,857	5,382	107,585		3,522							
1924	2,433	12,944	43,557		3,237							
1925	1,329	4,980	169,190		4,530							
1926	1,880	3,070	97,950	45	3,640							
1927	931	2,063	20,952		2,093							
Quiet Harbor:												
1912	46	22	103,510		40							
1913					741							
1914		71	4,671		38							
1915		1,056	24,370		4							

TABLE 23.—*Salmon caught and fishing appliances used in the Clarence Strait district, 1888 to 1927—Continued*

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (num- ber)
						Num- ber	Fath- oms	Num- ber	Fath- oms	Num- ber	Fath- oms	
Northern part—Continued												
Quiet Harbor—Contd.												
1916	4	13	825		3							
1917	4,238	8,144	194,813	143	6,168							
1918	746	3,216	28,430	165	3,382							
1919	1,414	2,523	9,844	2	2,184							
1920	1,827	6,250	10,000	966	2,922							
1925	52	187	5,994		33							
1926	18	54	1,705		166							
Ratz Harbor:												
1905	1,000		50,000		100							
1906	1,057	2,884	45,170		955							
1907	3,109	1,466	261,023		2,498							
1909	185	943	300,220									
1910	884	1,755	111,146		1,126							
1911	466	3,367	88,185		92							
1912	3,049	1,950	140,076		3,971							
1913	653	5,109	115,645		807							
1914	43	1,897	36,278		179							
1915	1,614	5,031	290,656		1,659							
1916	237	2,367	83,813	3	386							
1917	1,048	87,951	439,312	4	7,926							
1918	306	9,928	58,571	5	177							
1919	951	9,460	22,872		213							
1920	294	12,974	37,930		875							
1921	163	5,233	42,765		627							
1922	251	566	12,806		18							
1923	1,404	819	68,023		791							
1925	43	1,541	12,398		64							
1926	2,615	3,153	93,559		5,881							
1927	497	775	11,049		879							
Rocky Bay:												
1904	3,788		40,723		2,589							
1905	1,831		40,407		3,851							
1906	1,000	1,000	10,000		2,000							
1907		100	20,000		5,000							
1908	1,400		46		1,562							
1909	1,717	139	25,499		2,132							
1910	6,783			7	8,457							
1911	1,379	1,078	95,460		7,155							
1912	6,773	14,726	140,631		1,141							
1913		188	3,124		310							
1914		2,000	12,000		700							
1915	1,002	1,784	54,568		1,982							
1917	42	131	5,187	7	27							
1918	29	553	5,066		171							
1921			43		137							
1922	30	5,504	22,507		5,002							
1925	35	458	7,291		406							
1926			205		454							
1927	2	4	220		72							
Salmon Bay:												
1896	2,682				19,725							
1897					15,012							
1898					22,000							
1899					25,401							
1900					33,290							
1904	444		4,890		33,285							
1905	2,838		7,204		49,025							
1906	3,008	12,801	19,132		45,198							
1907	2,874	7,747	8,558		86,019							
1908	3,440	2,412	12,032		35,477							
1909	15	2,678	871		43,035							
1910	5,738	3,626	4,120	165	14,201							
1911	316	517	11,426		10,307							
1912	54	257	4,424	16	41,413							
1913		54	54		9,192							
1914		83			3,519							
1915	125	408	7,476	2	23,421							
1916	65	266	6,351		17,620							
1917	474	1,921	8,416		28,600							
1918	213	203	11,741	1	29,736							
1919	16,879	37,124	34,968		29,777							
1920	1,064	16,932	3,813		21,152							
1921	522	268	4,642		3,930							
1922	909	1,603	13,396	38	6,598							
1923	624	934	8,841		39,184							
1924	162	1,406	10,663		16,817							
1926	15	21	850		365							
Screen Island:												
1917		165	6,579		58							
1921	2,324	2,545	60,993		2,783							
1923	2,265	466	134,017		1,345							
1924	1,879	1,836	24,911		3,042							

TABLE 23.—Salmon caught and fishing appliances used in the Clarence Strait district, 1888 to 1927—Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Northern part—Continued												
Screen Island—Contd.												
1925	1,401	3,605	116,959		4,095							
1926	782	1,165	33,648		2,490							
1927	339	446	6,402		1,777							
Ship Island:												
1911	2,982	2,751	327,360		9,332							
1912	1,746	6,251	270,723	5	11,590							
1913	1,684	1,374	369,459		9,159							
1914	2,513	16,491	218,547	1	57,788							
1915	3,522	5,737	111,461	82	2,982							
1916	8,460	13,860	243,442	281	13,437							
1917	13,814	44,970	384,813	210	14,003							
1918	15,520	35,933	560,266	711	21,141							
1919	35,048	66,753	757,334	1	26,364							
1920	4,063	29,648	185,685	202	10,228							
1921	4,529	10,413	124,460	72	3,186							
1922	23,324	37,856	493,488	156	18,277							
1923	17,979	27,970	649,163	3	21,083							
1924	19,374	69,252	543,895	573	27,901							
1925	11,241	33,309	527,609	446	23,932							
1926	7,347	22,034	316,021	833	18,892							
1927	6,227	11,573	98,409	694	22,187							
Skookum Jim Creek:												
1919	1,230	8,369	117,705		4,481							
1922	5,728	4,431	84,399	230	2,890							
1923	5,345	7,584	109,956	57	10,426							
Snow Passage:												
1912		248	10,071		565							
1915	4,135	950	20,176	2,128	2,506							
1916	4	470	8									
1917	37	6	7,202		1							
1918	157	246	6,475		43							
1922	452		2,421	184	7							
1924	3,760	713	22,913	13	2,549							
1925	4,649	4,946	144,230		6,985							
1926	4,910	4,135	108,766	1	15,212							
1927	1,436	684	13,140	200	9,064							
Split Island:												
1915	159	597	56,711		1,773							
1917	841	1,091	89,865		1,773							
1918	191	724	22,987		541							
Stanhope Point:												
1922	4,000	2,000	46,000	35	2,000							
1923	3,587	2,490	112,451	96	4,353							
1925	2,288	5,389	89,673	3	4,429							
1926	1,213	1,080	32,928	30	2,165							
Steamer Bay:												
1904	27		38,490									
1907		1,340	32,654									
1908	1,000	504	27,000									
1909	1,331	1,336	37,907									
1910	1,785	8,968	35,229		810							
1911	247	6,186	51,055		3							
1912	383	3,696	30,939		18							
1913	1,372	3,228	56,769		1,694							
1914		757	11,170		63							
1915	470	13,179	101,573		1,657							
1916	201	3,341	13,797		36							
1917	197	11,698	29,960		52							
1918	816	3,059	13,754		709							
1920	922	5,552	16,588		1,880							
1921	246	15	1,586		3							
1922	2,280	2,589	19,762	804	650							
1924	1,693	2,249	16,370	5	4,325							
1925	951	11,928	111,053	1	2,004							
1926	1,637	2,995	56,294	10	4,270							
1927	836	1,549	12,421	26	4,757							
Steamer Rocks:												
1918	106	2,517	40,387		1,614							
1919	1,015	3,422	31,358		2,485							
1925	770	3,694	111,376		4,641							
1926	1,216	1,798	45,399		5,419							
1927	409	520	2,853	30	1,413							
Stikine Strait:												
1913		2,016										
1917	35	1	9,071									
1918	3,598	3,449	131,632	22	1,707							
1919	8,131											
1923			1,103	10,000								
1925	2,453	3,143	171,420		3,263							
1926	1,176	4,896	20,936		5,426							
1927	1,778	2,748	13,588	131	3,734							

TABLE 23.—Salmon caught and fishing appliances used in the Clarence Strait district, 1888 to 1927—Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Northern part—Continued												
Thorne Bay:												
1889												
1890	17,000											
1891	11,698											
1896	25,000		80,000									
1908	2,500	2,500	55,400									
1909	3,266	396	28,855									
1910	47	7	43,052									
1911	1,845	5,204	36,662									
1912	6,126	23,684	135,467									
1913	1,418	4,716	62,714									
1914	4,498	16,540	10,176									
1915	11,177	49,964	148,276	1	1,000							
1916	5,169	17,833	119,492	9	467							
1917	24,608	18,391	80,854	3	21,793							
1918	17,549	40,366	384,970	35	2,343							
1919	19,740	103,441	66,478	23	4,492							
1920	95	127	121		179							
1922	2,637	6,695	57,961		208							
1923	2,822	3,935	19,083		281							
Three Island:												
1926	625	2,773	28,625		1,658							
1927	945	2,376	18,094	1	2,034							
Three Way Passage:												
1924	2,596	1,624	23,079	232	3,377							
1927	161	399	3,638	2	787							
Tolstoi Bay:												
1906	913	5,789	30,677		14							
1907	1,568	801	20,223		1,860							
1908	7,433	9,118	125,860		530							
1911	78		498									
1912	717	3,208	20,225									
1913	178	6,526	52,276		45							
1914	325	18,708	23,790		88							
1915	1,352	6,776	25,310		159							
1916	1,542	13,137	124,409	1	1,306							
1917	360	18,994	27,354	11	104							
1918	145	3,282	17,984		150							
1919	20	4,790	7,732	4	643							
1920		92	1,300		70							
1922	6	415	413		2							
1923	73	86	8,916		232							
1924	199	1,010	2,896	1	652							
1926	43	991	2,414		6							
Tolstoi Point												
1920	568	4,215	16,727		445							
1923	73	25	5,165		232							
1925	327	2,354	42,454		908							
1926	1,343	4,665	32,325		1,810							
1927	33	996	893		23							
Whale Passage:												
1896	2,050											
1897			225,000									
1905	9,067	750	118,111		1,000							
1906	2,212	6,763	103,995									
1907	895	12,507	136,551									
1908	1,200	5,000	220,000		856							
1909	6,746	26,441	140,710	77	261							
1910	934	7,153	206,888	2	1,233							
1911	4,460	4,593	179,857		881							
1912	5,243	9,656	145,209		3,516							
1913	4,733	31,339	224,455		2,067							
1914	3,167	8,416	84,174		42							
1915	7,752	12,181	199,715		1,612							
1916	9,537	15,060	263,423		647							
1917	2,209	16,514	364,081		506							
1918	2,574	10,750	281,363		1,621							
1919	5,204	40,961	151,925	1	4,981							
1920	1,698	21,144	56,687	1	5,832							
1922	6,301	17,453	221,185	2	1,998							
1923	4,339	8,651	306,074		580							
1924	4,269	7,983	124,279		1,240							
1925	631	9,628	95,183		177							
1926	4,059	10,506	113,135		970							
1927	896	2,832	14,447	10	6,751							
Windfall Harbor:												
1910			16,834									
1913		657	9,455		1							
1914	53	596	7,139		11							
1915	23	174	3,793		48							
1916		1	459									
1917			14,445									
1918	20	2,282	10,274	1	4,552							

TABLE 23.—Salmon caught and fishing appliances used in the Clarence Strait district, 1888 to 1927—Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Northern part—Continued												
Windfall Harbor—Con.												
1923	1	355	17									
1926	605	4,949	56,708		1,231							
1927	229	1,165	2,140	19	808							
Zarembo Island:												
1914		27	1,343									
1918		45	166									
1919	91	164	4,289		731							
1920	2,520	2,280	11,178	44	2,188							
1927	943	544	9,174	12	3,841							
Unallocated:												
1905			7,000									
1906	83	9,669	71,826		38							
1907	26	5	12,380									
1908			10,788		4							
1911	10		508		933							
1912			124,800	15,000								
1913	2,971	42,343	657,503		2,693							
1914	2,352	8,974	131,142	40	20,032							
1915	3,847	8,477	214,511		10,881							
1916	6,119	27,491	210,050	384	17,001							
1917	8,246	67,684	565,082	2,700	12,044							
1918	6,993	75,025	568,545	207	23,469							
1919	4,085	27,868	160,029	5	7,133							
1920	10,277	103,263	391,792	19	32,504							
1921	18,433	45,531	441,158		13,848							
1922	258	1,974	31,122		447							
1923	9,081	8,324	729,779		21,810							
1924	4,408	4,950	26,049	15	7,494							
1925	2,711	20,286	299,721	102	6,903							
1926	2,588	10,201	153,828	57	11,779							
1927	3,106	4,986	43,693	71	16,477							
Total:												
1889					10,790							
1890	17,000				35,516							
1891	11,698				14,466							
1896	89,285		80,000		29,375							
1897	49,834		234,874		19,712							
1898	250		11,499		28,838							
1899			8,760		28,612							
1900					33,290							
1904	5,610		135,437	13	51,621	8		21				
1905	49,061	29,043	302,368		73,552	1		19				
1906	31,675	52,886	412,693	21	75,091	11		23				
1907	26,572	31,553	565,522	2	116,325			21	3,440			
1908	38,485	33,289	513,442		53,328			23	3,635			3
1909	20,150	42,584	670,614	82	54,587	1	100	17	2,045			5
1910	25,334	64,673	537,936	188	46,437	1	150	17	3,175			5
1911	40,087	69,603	1,278,626	6	61,283	1	80	27	5,315	1	250	5
1912	61,622	121,988	1,652,380	15,021	80,212	3	400	33	7,185			5
1913	27,075	132,387	2,073,731	4	47,021	2	200	42	8,000			11
1914	29,833	196,076	1,348,311	95	150,040			32	6,550	2	300	14
1915	75,489	181,781	2,680,966	2,783	107,222	1	150	38	7,110			16
1916	65,067	244,645	1,663,821	1,344	90,122			60	11,358			21
1917	75,301	322,510	2,651,096	3,084	103,497			48	10,120			18
1918	76,683	342,602	3,341,008	9,908	130,909			68	14,030			25
1919	134,719	507,884	2,399,114	171	174,801			51	10,335			32
1920	43,841	382,670	1,287,371	2,830	132,819			48	8,695			24
1921	31,767	80,635	768,640	91	35,749			16	3,550			34
1922	79,678	189,822	1,975,980	6,448	73,496			56	9,215			5
1923	90,389	155,901	3,722,602	10,481	168,724			38	6,600			19
1924	79,204	206,590	1,605,357	1,018	147,209			40	7,155			31
1925	51,879	271,593	3,875,449	1,418	125,296			44	9,140			29
1926	63,124	200,413	2,477,500	1,257	169,500			105	21,000			44
1927	36,233	69,224	479,373	2,330	150,644			23	4,100			58
By lines (included in above):												
1912					15,000							
1915	1,724				2,014							
1918	2,860				6,650							
1922					2,335							
1923					10,000							
Southern part:												
Adams Point:												
1919	1	222	5,090		42							
1925	65		571		1,976							
1926	2,073	1,813	27,243		3,117							
1927	576	1,236	2,291	15	1,853							
Annette Island:												
1904	840		9,664		25,198							
1905	2,140		11,226		21,977							
1906	1,776	242	24,808		14,394							
1907	3,083	66	20,207		9,240							

TABLE 23.—*Salmon caught and fishing appliances used in the Clarence Strait district, 1888 to 1927—Continued*

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Southern part—Continued												
Annette Island—Con.												
1908	3,234	488	33,068		14,657							
1909	3,124		53,839		20,597							
1910	1,665	52	5,113		22,604							
1911	1,497	122	14,087		12,034							
1913	54	2,513	27,594		943							
1914	1,262	45,454	162,233		2,310							
1915	2,000	8,000	74,000		4,488							
1916	1	13	500		161							
1917	7,605	22,793	193,093	51	7,782							
1918	782	3,875	183,387		851							
1919	17,727	130,939	910,334	1,933	37,072							
1920	4,943	137,911	902,687	668	34,604							
1921	10,545	53,570	930,864	77	19,812							
1922	193	672	15,492		4,281							
1923	3	277	12,642		69							
1924	41	2,400	3,824		18							
1926	16	673	3,092		19							
1927	20	39	359		21							
Bostwick Inlet:												
1904	223		32,246		160							
1907	956	350	44,189									
1908	2,038	851	55,082		840							
1910	2,126	4,696	25,133									
1911	1,303	11,452	46,159		1,867							
1912	2,782	20,373	29,678									
1913			12,715		13							
1914		3,972	8,665		25							
1915			30,000									
1916	9	238	213		55							
1918	2,141	5,770	124,971	55	1,397							
1919	1,495	14,034	107,078	52	5,040							
1921	181	673	18,032		273							
1922	3,741	14,828	117,664	144	4,499							
1923	3,492	5,420	107,566	52	3,304							
1924	1,016	28,556	109,794	39	4,040							
1925	2,447	26,241	149,490	143	2,336							
1926	3,580	11,484	179,470	190	3,732							
1927	646	1,868	9,545	53	1,943							
Bronaugh Island:												
1925	1,549	5,643	129,136	5	2,709							
1926	1,200	2,379	174,910	4	3,165							
1927	236	495	3,441	6	783							
Caamano Point:												
1908	1,681	4,706	263,572		6,775							
1909	714	58,557	236,292		6,806							
1910	3,489	31,106	313,412		19,390							
1911	1,039	8,765	729,245	19	23,791							
1912	4,121	7,596	777,549	2	11,192							
1913	960	1,850	108,700		1,756							
1914	288	2,417	35,233		3,141							
1915	1,562	8,636	305,184		7,380							
1916	2,770	9,220	76,300		7,747							
1917	3,000	8,986	110,000		4,893							
1918	4,380	11,387	353,105	25	7,553							
1919	3,999	19,014	158,892	34	14,751							
1920	1,539	23,905	82,786	17	9,490							
1922	3,097	12,072	129,490	16	3,315							
1923	5,544	8,122	335,571	44	9,734							
1924	2,444	14,398	247,148	11	7,889							
1925	1,093	8,632	142,570	16	2,565							
1926	4,083	14,412	300,015	119	12,432							
1927	1,642	3,469	31,842	26	5,376							
Cedar Point:												
1922		65	7,000									
1923	2,271	6,385	259,121	67	6,904							
1925	1,326	11,834	145,678	169	3,042							
1926	1,255	7,346	264,850	84	4,234							
1927	639	2,817	33,457	333	4,902							
Chacon, Cape:												
1909	156		678		2,609							
1915	2	607	2,346		2							
1917	5,630	16,100	432,185	51	8,204							
1918	38,945	29,765	788,657	691	44,662							
1919	42,360	67,902	1,186,484	686	105,660							
1920	11,863	72,415	705,397	9,848	68,167							
1921	9,377	5,841	209,544	15	57,560							
1922	24,510	51,971	856,976	0,008	22,591							
1923	25,844	28,984	1,224,756	315	26,847							
1924	22,791	66,186	958,037	87	38,795							
1925	15,314	69,388	1,195,808	1,843	30,042							
1926	11,038	7,852	251,407	1,622	5,249							
1927	5,803	3,598	25,917	964	3,720							

TABLE 23.—Salmon caught and fishing appliances used in the Clarence Strait district, 1888 to 1927—Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Southern part—Continued												
Chasina Point:												
1918	1,106	4,133	9,300		434							
1919	2,223	12,701	110,473	32	3,251							
1920	191	1,146	3,554	22	815							
1922	1,514	12,701	99,295	7	2,443							
1923	768	6,085	68,855	43	1,804							
1924	1,643	8,301	75,995		3,989							
1927	615	3,064	2,648		984							
Chester, Port:												
1910	32	900	10,808		20,951							
1911			614		1,177							
1912	1,686		23,230		291							
1913	142		73,303		4,237							
1922	197	82	781	3	868							
1924	2,468	19,896	275,899	148	5,733							
1925	16	5,050	1,132		662							
1926	423	471	410		375							
Chichagof Bay:												
1908	90		700		268							
1918			3,000									
1924		21	1,841		78							
1925	451	12,390	97,502		1,358							
1926	507	1,820	55,865		1,017							
1927	604		154		1,476							
Cholmondeley Sound:												
1904		71,500	117,000		1,569							
1905	560	168,000	98,500		120							
1906	2,055	148,256	210,482		620							
1907	9,789	62,810	308,386		600							
1908	5,140	139,999	451,279	7,548	9,119							
1909	45	14,000	120,500									
1910	557	78,428	476,790		884							
1911	16,907	423,126	1,135,184		19,701							
1912	9,236	963,478	682,769		6,209							
1913	3,175	472,478	508,625		1,409							
1914	4,569	655,803	229,314		2,818							
1915	12,453	326,681	343,312		19,381							
1916	7,112	296,219	65,712		7,527							
1917	6,201	639,278	360,765	6	6,802							
1918	5,480	201,162	119,777	1	2,090							
1919	6,416	269,981	194,489	85	6,416							
1920	485	72,424	50,426	10	2,016							
1921	5,277	158,427	20,884									
1922	1,676	94,340	28,099		1,438							
1923	5,588	82,321	103,748		1,761							
1924	1,822	294,652	100,110		1,070							
1925	2,407	198,839	188,470	1	3,584							
1926	3,072	88,668	58,281	79	1,966							
1927	95	1,304	702	18	582							
Clover Bay:												
1904			50,000									
1907			126,625		600							
1908			50,000									
1910	921	18	106,076									
1911	174	615	83,735		111							
1912	366	5,435	25,703		2							
1913	70		27,727		1,073							
1914	190	8,339	6,544		297							
1915	1,000	11,410	162,491	1	1,090							
1916	794	3,271	39,054		49							
1917	73	329	12,411		32							
1918	62	1,083	2,778		133							
1919	1	1,086	16,474		132							
1922	625	2,820	89,901		2,282							
1923	1,318	20,072	9,411		87							
1924	441	936	4,148	21	2,423							
1925	45	1,102	334		143							
1926	3	30	747		12							
1927	113	164	259		147							
Clover Point:												
1920	259	3,654	11,677	5	1,520							
1926	245	7,021	18,300		736							
Coal Bay:												
1907	817	277	105,857									
1910		1,600	119,804		4,468							
1911	507		26,713		182							
1912	698		12,769		59							
1913	74	970	12,093		127							
1914		151	287									
1925	492	2,008	5,373		135							
Cow Island:												
1926	990	2,114	100,860		2,973							
1927	580	2,160	4,432	4	2,306							

TABLE 23.—*Salmon caught and fishing appliances used in the Clarence Strait district, 1888 to 1927—Continued*

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Trap (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Southern part—Continued												
Dall Head:												
1913	445	202	21,845		764							
1914	68	1,143	7,642		1,823							
1915	10,903	9,330	171,891	205	15,749							
1918	8,104	7,857	243,591	95	6,991							
1919	5,479	15,929	145,569	132	7,894							
1920	4,074	32,370	161,677	240	8,196							
1922	24,567	37,344	567,276	339	13,609							
1923	33,318	105,339	1,380,093	147	44,063							
1924	19,521	45,680	706,285	224	31,616							
1925	19,086	32,732	541,098	361	13,569							
1926	7,789	15,288	581,671	158	11,898							
1927	3,873	11,075	51,974	759	9,935							
Davison Point:												
1922	4,948	3,337	142,000	88	4,988							
1923	3,280	5,051	259,945	46	7,990							
1924	1,886	11,841	122,890	115	4,901							
1925	564	3,577	55,841	32	1,300							
1927	922	3,554	34,125	680	7,888							
Doctor Point:												
1919		2,375	286									
1926	11,961	95,954	345,243	109	13,456							
Dora Bay:												
1894	281		9,810		6,972							
1896	44		8,914		5,695							
1897	600		3,800		9,000							
1904			3,868		14,637							
1905	2,154		14,649		12,743							
1906	2,241	24,034	14,689		6,604							
1907	1,191	7,410	7,053		3,386							
1909	1,411		7,411		2,214							
1910	3,961	124	67,408		6,991							
1911	1,682	2	2,515		3,387							
1912	652	11,656	3,847		1,565							
1913	41		15,741		3,802							
1914	415	3,271	7,461		8,893							
1915	69	4,183	10,784		4,768							
1916	180	6,775	623		3,437							
1917	4	2,275	2,445		142							
1918	397	3,640	3,232		4,676							
1919	27	3,417	1,044		1,524							
1920	15	110	4		78							
1922	817	2,928	23,349	5	900							
1923		121	3,118		1							
1924	38	2,075	2,919		612							
Driest Point:												
1923	1,809	4,750	121,629	65	3,873							
1924	281	2,980	25,320	30	837							
1925	566	4,324	53,528	60	1,393							
1926	595	3,272	117,167	49	2,031							
1927	55	490	3,611	107	863							
Duke Island:												
1904	1,078				4,693							
1905	609				5,980							
1906	844	3	1,084		3,581							
1907	1,600	5	2,265		6,505							
1908	2,755	786	4,829		8,797							
1909	1,853		3,491		6,420							
1910	377		1,856		9,199							
1911	1,359				8,548							
1912	1,163	324	30,754		7,701							
1915			5,696		382							
1917	56	1,845	6,274		944							
1918	86	874	3,575		220							
1920	492	2,571	27,405		1,557							
1922	168	199	253		73							
1923	201	986	28,573		607							
1924	6	7,130										
Gardner Bay:												
1926	414	375	18,402		313							
Grant Cove:												
1919	1,030	3,716	62,837		2,254							
1923	1,472	5,933	9,482	1	461							
1925	1,025	8,709	103,602		1,966							
1926	407	570	20,453		765							
1927	501	1,009	3,660	11	2,072							
Gravina Island:												
1911	147	1,024	24,461		825							
1913	5,150	1,281	333,722		4,635							
1914	3,036	25,481	371,315		33,112							
1915	3,526	20,044	619,987		16,565							
1916	21,095	29,069	354,095	1,044	23,434							
1917	12,442	50,231	279,362	90	12,604							

TABLE 23.—Salmon caught and fishing appliances used in the Clarence Strait district, 1888 to 1927—Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Trap (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Southern part—Continued												
Gravina Island—Con.												
1918	14, 120	30, 457	581, 624	515	18, 874							
1919	9, 456	24, 781	332, 831		25, 708							
1920	2, 416	15, 959	127, 668	339	10, 165							
1922	7, 727	13, 315	240, 323	127	8, 024							
1923	14, 454	28, 063	390, 009	42	17, 348							
1924	9, 277	92, 318	793, 347	127	28, 760							
1925	12, 302	69, 524	810, 261	1, 288	18, 025							
1926	5, 643	26, 103	667, 471	252	11, 849							
1927	4, 104	10, 856	73, 097	561	14, 105							
Grindall Island:												
1923	10, 617	16, 158	190, 551	80	15, 451							
1924	4, 357	10, 129	60, 731	177	15, 847							
1925	640	2, 330	31, 198	30	600							
1926	2, 448	8, 556	98, 751	8	10, 064							
1927	1, 733	10, 483	18, 391	39	5, 513							
Grindall Passage:												
1909			142, 019									
1915	254	4, 589	31, 983		1, 087							
1916	920	2, 183	11, 856		1, 990							
1922		363	12, 264									
1923	954	1, 779	72, 823		1, 189							
1924	589	2, 640	32, 654		811							
Grindall Point:												
1914	6	12, 400	100									
1916	4, 498	10, 691	96, 601	1, 149	6, 110							
1917	322	668	24, 821		252							
1918	5, 276	11, 788	164, 546	871	6, 763							
1919	6, 324	6, 985	62, 626		6, 865							
1920	1, 752	10, 780	84, 806	431	5, 471							
1922	6, 036	6, 131	89, 170	251	4, 306							
1923	1, 680	5, 770	44, 274	218	678							
1924	749	2, 811	61, 203	2	2, 009							
1925	3, 998	20, 801	186, 830	428	14, 779							
Halibut Creek:												
1911	207											
1912	26		3, 005		59							
1913	766	102	10, 414		13							
1914	43	328	732		10							
1915	5	530	19, 241		59							
1916	227				23							
1917	412				23							
1918	237	2	1, 060		400							
1919	50		611		141							
1920	697	29, 996	50, 305		5, 085							
1922	1, 836	7, 823	130, 804	3	1, 740							
1923	5, 276	11, 551	171, 465	54	8, 290							
1924	1, 608	6, 766	57, 959	2	2, 362							
1927	94	23	69		103							
Hall Cove:												
1919			29		323							
1922	197	14	7, 208		591							
1923	262	888	7, 227		659							
1924	19	172	2, 054		1, 713							
1925	5		47		625							
1927	104	326	724	50	175							
Hemlock Island:												
1904	477		20, 453									
1905			2, 950									
1913			3, 943									
1914			13, 978									
1922	2	242										
1923	21	257	148		18							
1924		521										
1925		453										
1926	237	6, 245	267		6							
Harris Creek:												
1914	19	56, 372	10, 413		37							
1916	1, 429	180										
1918	161	17, 840	33, 611	15	244							
1919	108	10, 354	3, 012		19							
1920		5, 721	486									
Hidden Bay:												
1924	48	1, 312	5		3							
1926	89	83	4, 117		277							
Hollis Creek:												
1914	44	73, 659	54, 514		176							
1916	34	7, 123	11, 224		50							
1917	2, 349	6, 728	39, 652		98							
1918	345	29, 345	27, 197	1	795							
Hotspur Island:												
1923	914	1, 668	47, 816		894							
1924	1, 238	4, 513	93, 404		2, 493							
1925	549	1, 535	25, 295		743							
1926	427	1, 333	62, 828		1, 058							
1927	354	681	2, 940	2	812							

TABLE 23.—Salmon caught and fishing appliances used in the Clarence Strait district, 1888 to 1927—Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Southern part—Continued												
Ingraham Bay:												
1913	27		4,153									
1914		653	626		2							
1915	5	539	3,489		2							
1916	114											
1919	54	2,312	1,642		11							
1926	425	902	23,897		261							
1927	186	762	1,401		769							
Island Point:												
1911		1,470	34,221		32							
1916	16	678	292		4							
1917	11	614	218		4							
1920	1,967	10,201	16,928		2,764							
1921	12,739	90,695	367,887	922	16,548							
1922	5,982	16,010	176,740	92	4,912							
1923	1,764	3,425	118,303		1,503							
1924	11,414	79,007	509,730	109	26,091							
1925	790	10,727	150,408		2,304							
1926	3,174	20,137	148,235	2	4,567							
1927	2,819	10,615	16,170	721	8,937							
Johnson Cove:												
1892	40		357		4,482							
1893			15,329		4,119							
1894			4,083		11,863							
1895			3,287		15,558							
1896	260		14,352		10,798							
1897	2,521		54,765		8,428							
1904			4,841		9,136							
1907					5,480							
1908					2,100							
1910	1,901	1,025	16,306		3,889							
1911	25	13	12,392		3,128							
1912	203	1,570	32,011		1,095							
1913			887		679							
1915	29	725	6,922		6							
1916	61	75	920		507							
1919	126	988	780									
1924	18	10,979										
1927	17	45	541		244							
Johnson, Port:												
1892	1,310				8,434							
1893			1,754		17,154							
1894	2,329				15,525							
1895	1,979		1,465		17,874							
1896	1,900		8,000		21,700							
1897	2,957		10,016		26,310							
1898	4,324		15,596		14,279							
1899	399		11,223		25,018							
1900	343		11,758		19,036							
1904	3,019		7,016		13,710							
1905	3,579		21,589		9,731							
1906	3,152	4,370	23,874		20,097							
1907	2,063	130	5,840		28,481							
1908	2,853	939	3,403		13,579							
1909	1,501	1,193			1,053							
1910	1,297	197	9,406		26,530							
1911	693		17,756		8,087							
1912	1,265	3,563	21,855		14,642							
1913	977	2,790	36,999		12,142							
1914	588	4,259	9,890		33,372							
1915	351	5,164	38,742		5,171							
1916	2,459	2,213	1,513		9,350							
1917	400	7,062	23,657		7,437							
1918	337	2,299	3,294		6,096							
1919	208	3,673	18,791		845							
1920	987	15,451	39,802		7,841							
1922	207	2,136	2,092		7,296							
1923	1,345	2,218	46,454		5,902							
1924	490	3,101	19,647		9,018							
1925	716	6,272	34,779	6	6,251							
1926	519	8,297	234		165							
Karta Bay:												
1888	1,739				30,020							
1889	6,027				14,217							
1890					42,788							
1891					68,876							
1895	1,826				5,631							
1896					84,545							
1897	2,500		36,000		23,000							
1898	14,855		25,680		106,876							
1899	4,000		114,743		55,730							
1900	6,224		185,676		63,305							
1904					1,586							

TABLE 23.—Salmon caught and fishing appliances used in the Clarence Strait district, 1888 to 1927—Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Southern part—Continued												
Karta Bay—Contd.												
1906	4,000	7,100	276,200		107,061							
1907	5,802	16,503	102,497		64,309							
1908	146	6,764	19,780		3,200							
1909	1,632	44	48,539		55,800							
1910	3,966	410,826	96,690		87,330							
1911	5,508	187,141	238,187	70	47,232							
1912	13,359	283,564	434,417		27,825							
1913	627	128,979	182,822		20,322							
1914	3,696	422,205	147,216	2	44,132							
1915	4,255	155,890	39,787		15,837							
1916	3,810	84,790	50,544	7	16,538							
1917	2,478	52,310	29,560	98	17,386							
1918	1,139	13,918	48,335	1	13,894							
1919	3,054	81,911	68,173		12,144							
1920	125	50,900	24,182		4,418							
1921	991	1,181	23,697		672							
1922	946	25,589	178,040		9,306							
1923	1,487	63,368	40,104	2	1,543							
1924	2,473	155,017	142,936	3	7,036							
Kasaan Bay:												
1889	5,219				1,304							
1905		130,000	24,000									
1906	800	9,000	27,000									
1907			125,287									
1908	7,346	46,788	371,770		35,234							
1910		28,590	115,387									
1911	2,164	1,014	40,348		82							
1912	2,455	1,304	83,251	1	2,528							
1913	1,682	11,375	81,148		272							
1914	942	222,289	52,245		810							
1915	37	11,201	18,515		68							
1916	731	54,210	1,666	1,046	11							
1917	2,796	62,027	72,548		146							
1918	3,392	46,356	90,925	10	3,452							
1919	673	23,956	13,445		172							
1920	1,036	201,917	19,600		570							
1921	423	480	34,581		12,450							
1922	1,664	27,092	53,252	46	1,128							
1923	5,819	76,023	202,757	41	1,759							
1924	1,039	37,538	105,166		1,462							
1925	5,064	86,998	383,767	7	4,679							
1926	5,906	121,802	167,503		2,791							
1927	1,586	11,615	6,232	23	2,263							
Kegan Cove:												
1892	191				16,795							
1893	324		6,365		10,265							
1894	362				18,739							
1895					27,950							
1896	384		5,446		29,775							
1897	840		47,500		23,231							
1904	1,652		17,632		24,096							
1906	1,099	857	19,184		9,475							
1907			17,683		5,009							
1908					6,790							
1911	59		86,697		5,820							
1912	3,363	42,585	59,716		13,703							
1913	981	6,323	57,320		3,648							
1914					984							
1915	97	6,760	34,602		11,582							
1919	1	18,787	18,666		1,950							
1924		221	46,984		28							
1926	217	9,376	232		14							
1927	6	50	50		200							
Kendrick Bay:												
1912		2,304	14,387									
1913	28		20,665		4							
1914	309	1,158	3,585		87							
1915	32	1,892	7,114		107							
1916	186				34							
1917	1	561	993									
1922	6	632	5,490		5							
1923	103	169	8,194		40							
1925		160										
1926	412	2,184	40,808		874							
1927	828	1,927	6,597	13	3,227							
Kina Cove:												
1896					2,018							
1897	470		15,000		1,590							
1898	2,291		5,754		774							
1907	817	277	105,857									
1910	394		15,076		48							
1911	514	2,509	34,566		1,439							

TABLE 23.—Salmon caught and fishing appliances used in the Clarence Strait district, 1888 to 1927—Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Southern part—Continued												
Kina Cove—Contd.												
1912	138	2,652	20,967		371							
1913	25	400	6,707		222							
1914	23	1,041	6,921		39							
1915	3	311	3,310		10							
1918	3	3	6,075		355							
1919		23	133		340							
Kitkun Bay:												
1910		18,000	33,398									
1912	528	13,371	5,427									
1913	583	24,775	48,055		37							
1914		1,297	1,265		21							
1915	79	9,750	19,793		347							
1916	65	13,626	299		26							
1918	184	3,023	9,895	66	171							
1919		1,755	695		11							
1922		410										
1924	59	4,258										
Lancaster Cove:												
1912	94	2,529	15,871		85							
1913	1		2,415		1							
1914	30	8,814	16		7							
1915	194	9,696	36,844		152							
1916	132	22,709	3,130		80							
1917	55	13,494	3,486		39							
1918	5	22	64									
1919		1,375	506		5							
1926	224	1,540	6,968	3	294							
McKenzie Inlet:												
1915	202	10,443	51,502		304							
1916	788	40,011	5,807		309							
1917	69	20,278	12,659		55							
1918	110	17,941	711		72							
1919	3	2,481	1,492		3							
1920		1,405	4									
McLean Arm:												
1907	316		13,035									
1908	368		2,021									
1911	1,410	2,468	46,067									
1913		87	12,365		178							
1914	28	2,347	2,232		49							
1915	187	909	26,307		149							
1916	155	10,230	8,347		93							
1922	15	148	4,119		19							
1923	15	58	578		42							
1925	379	2,413	97,677		1,122							
1926	16	30	3,464		216							
McLean Point:												
1925	1,644	14,295	240,694	9	4,721							
1926	341	916	141,311		1,301							
1927	142	315	2,876	1	164							
Menefee Anchorage:												
1908	44	103	960		257							
1915		196	3,210									
1922	766	1,814	17,006	5	724							
1923	875	2,287	55,497		680							
1924	670	1,490	6,669		267							
1925	273	844	11,179		225							
1926	174	1,384	6,666		116							
Moira Sound:												
1892			2,965		3,168							
1893			10,485		6,671							
1894	1,002		808		8,346							
1895			772		14,653							
1896	102		11,864		12,885							
1897	595		7,771		36,934							
1904			22,275		31,784							
1905	8,247		65,314		46,564							
1906	3,058	18,511	35,556		24,044							
1907	5,178	82,350	383,666		23,977							
1908	3,519	20,865	81,642		81,766							
1909	1,744	538	279,876		64,761							
1910	6,120	43,915	211,816		34,925							
1911	7,479	37,256	491,694		29,193							
1912	5,597	41,260	440,847		19,132							
1913	2,420	60,385	206,737		15,168							
1914	5,095	166,067	111,155		59,403							
1915	3,618	114,824	127,444		31,932							
1916	7,926	132,028	82,142		48,994							
1917	5,814	176,707	225,235	1	12,900							
1918	5,519	100,122	77,043	1	40,593							
1919	6,598	279,328	406,023	1	41,271							
1920	2,355	209,614	56,092		10,235							

TABLE 23.—Salmon caught and fishing appliances used in the Clarence Strait district, 1888 to 1927—Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fath-oms	Number	Fath-oms	Number	Fath-oms	
Southern part—Continued												
Moira Sound—Contd.												
1921					4,000							
1922	4,095	143,516	163,330		18,930							
1923	8,787	204,986	398,835	9	14,909							
1924	2,577	276,099	97,479	1	17,002							
1925	1,299	70,453	111,986	9	5,657							
1926	4,103	64,988	205,503		6,976							
1927	692	1,091	2,438	17	2,393							
Nelson Cove:												
1918	7,096	6,607	154,947	122	3,323							
1919	3,868	8,993	100,726	165	7,741							
1920	1,500	16,975	76,975	50	3,977							
1922	2,426	4,023	58,327	99	1,386							
1923	2,026	3,944	104,967	18	2,326							
1924	2,764	6,959	68,055	83	3,849							
1925	2,548	4,559	55,545	14	1,588							
1926	2,563	6,110	229,231	17	4,706							
1927	1,864	3,061	23,381	411	4,847							
Nichols Bay:												
1896	550				31,192							
1897	1,313		54,772		11,218							
1904					9,000							
1905					21,384							
1906					9,929							
1907	809	501	20,552		8,459							
1908	420		6,730		15,134							
1909					14,670							
1910	276		11,869		14,939							
1911	3,098	2,573	63,805		3,791							
1912	3,790	4,010	65,824		8,468							
1913	507	781	52,076		1,375							
1914		389	4,248		459							
1915	337	9,185	23,930		3,741							
1916	1,706	389	4,211		1,616							
1917	100	1,440	3,335	5	5,544							
1918	591	233	1,957		730							
1919	9	7,212	29,434		1,496							
1920					177							
1923	1,006	100	4,118									
1924	2,227	4,661	123,687	14	3,216							
1925	469	4,105	101,118		2,038							
1926	1,357	1,954	104,564		2,131							
1927	1,749	2,935	18,726	38	3,255							
Nichols Passage:												
1900		164	4,616									
1912	1,686		23,230		291							
1914	798	2,356	25,471		3,710							
1915	2,200	14,620	272,770		9,000							
1916	3,636	7,947	93,753	4	5,212							
1917	2,975	8,955	192,231	65	4,236							
1918	953	4,591	257,386	116	2,470							
1919		125	970		10							
1920	1,002	11,011	65,780	9	2,873							
1922	9,328	32,859	598,940	512	14,367							
1923	3,334	8,822	247,045	176	6,662							
1924	442	1,136	57,432	6	928							
1925	281	1,984	24,923	1	586							
1926	1,041	5,855	178,113	119	3,203							
1927	1,661	3,854	26,197	251	3,881							
Percy Islands:												
1923	3,747	12,982	119,111	3	5,067							
1924	3,004	3,722	39,752	3	2,627							
1925	1,047	4,804	45,625	13	1,917							
1926	12	43	6,253		182							
1927	878	2,527	6,064	3	3,400							
Polk Inlet:												
1915	890	15,806	64,550		1,262							
1916	1,125	21,905	9,116		349							
1917	734	18,484	22,261		88							
1918	393	13,377	2,072		142							
1919	578	22,601	80,591		239							
1920		840	1		19							
1923	81	705	14,521		171							
1924	143	507	615		43							
Polk Island:												
1926	400	2,041	41,908		679							
1927	185	300	441	8	364							
Sandy Point:												
1914	1	214										
1919	12	4,029	45									
1924	579	4,970	56,687	8	882							
1925	703	6,251	11,650		1,411							
1926	4	24	244	2	51							
1927	14	148	149	1	115							

TABLE 23.—*Salmon caught and fishing appliances used in the Clarence Strait district, 1888 to 1927—Continued*

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Trap (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Southern part—Continued												
Seal Cove:												
1914	15	1,046	2,001									
1915	522		50,000									
1917	4,913	3,823	73,706	700	4,000							
1918		40	4,222									
1919	2,050	7,570	83,475	150	7,500							
1920		1,396	1,560									
1921	3,500	8,000	55,000	130	5,500							
1922	2,796	763	14,796	10	1,814							
1923	2,673	4,279	48,594	486	3,144							
1924	2,734	13,093	75,981		2,756							
1925	6,547	14,762	57,926	20	2,244							
1926	912	5,347	74,992		2,874							
Sealed Passage:												
1916		3,113	58,232	41	1,247							
1917	2,400	13,385	58,120	72	2,767							
1918	3,535	7,868	223,556	54	4,641							
1919	702	2,618	40,463		2,213							
1920	1,061	90,064	5,638	110	3,769							
1922	1,988	4,585	124,065		2,073							
1923	214	793	15,440	96	550							
1924	4,210	14,531	225,964	76	5,841							
1926	2,238	5,639	194,142	209	7,727							
Skowl Arm:												
1896	3,850				4,620							
1897	1,300				4,770							
1905			41,000		8,000							
1906	4,000	14,950	275,000		7,200							
1907	1,361	1,074	207,420		3,488							
1908	2,919	2,670	475,378		5,841							
1909			84,000									
1910	2,353	15,105	303,836		5,668							
1911	3,413	49,263	422,945		5,710							
1912	4,135	32,134	284,070		3,110							
1913	1,722	14,172	284,153		2,062							
1914	970	151,861	239,788	2	4,740							
1915	1,226	48,687	253,286		2,403							
1916	1,745	41,436	13,650		717							
1917	2,169	127,166	184,287		957							
1918	567	12,018	20,926	1	671							
1919	2,235	87,280	111,756		2,229							
1920	54	9,838	13,091		785							
1922	72	2,587	13,133		110							
1923	2,024	23,600	108,139	62	155							
1924	1,429	29,180	38,020		723							
1925	5	174	414		3							
1926	1	1,042	1,000		1							
1927	291	944	417		315							
Skowl Point:												
1914	562	4,721	68,805		6,367							
1922	49	739	2,576		4							
1924	258	1,170	28,559		401							
1925	888	29,035	157,824	6	1,539							
1926	1,034	10,145	84,541		1,506							
1927	300	2,295	705		767							
South Vallenar Point:												
1908	99	276	50,700		280							
1912	24,175	49,453	1,495,040	55	48,574							
1913	1,126	4,681	267,521		4,472							
1914	6,967	59,581	272,523		10,578							
1915	1,489	7,796	210,423		5,184							
1918	3,238	7,945	220,674	186	5,658							
1919	797	5,477	35,358	223	5,104							
1920	749	11,522	58,127	279	3,222							
1922	16,102	42,671	605,455	363	19,104							
1923	5,210	10,189	248,731	90	15,511							
1924	2,438	7,540	55,402	54	16,345							
1926	1,591	1,536	82,132	4	1,705							
Stone Rock Bay:												
1915	11	109	5,452		25							
1918	2,355	1,835	46,162		1,866							
1919	703	1,623	12,372		427							
Streets Island:												
1918	3,129	13,360	244,070	343	8,030							
1919	6,147	74,375	471,383	79	31,224							
1920	1,786	25,244	92,939	4	5,868							
1921	9,366	14,391	161,652		9,101							
1922	9,060	23,947	492,120	6	9,826							
1923	6,385	13,337	395,112	69	11,196							
1924	5,229	21,210	234,954	5	7,533							
1925	1,651	15,002	126,788	7	3,483							
1926	4,270	18,140	202,295	45	7,204							
1927	1,120	6,100	4,096	210	3,384							

SOUTHEASTERN ALASKA SALMON STATISTICS

TABLE 23.—Salmon caught and fishing appliances used in the Clarence Strait district, 1888 to 1927—Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Southern part—Continued												
Sunny Point:												
1906	409	5,027										
1908	553	67,740	13,446		30							
1909	69		65,194		51							
1910			17,680									
1911	5	255	44,316		123							
1913	70	4,174	115,652		319							
1914	389	67,354	17,156		1,895							
1915	307	7,814	70,051									
1918	6	3,890	8,737		132							
1919	2	1,087	667		9							
1923	450	3,424	38,661		382							
1924	218	263	9,754		244							
1927	8	23										
Tamgas Harbor:												
1892					6,114							
1893			3,543		2,328							
1894			2,686		12,032							
1895			5,449		12,367							
1896			2,982		8,795							
1897	40		21,918		13,430							
1898			4,151		22,678							
1899	282		29,115		11,026							
1900	300		17,743		9,517							
1904	800		21,081		20,437							
1905	34		10,877		22,921							
1906	874	1,803	16,845		13,350							
1907	795	1,450	39,599		9,981							
1908	1,244	7,843	14,266		11,029							
1909			5,226		7,742							
1910			4,601		8,382							
1911	1,378		41,686		12,711							
1913					479							
1914		266	2,001		8,010							
1918		19	2,180		30							
1922	142	250	1,230		259							
1923	205	1,471	16,604		997							
1924	180	2,996	21,355		1,675							
1925	18	206	419		942							
1926	178	1,053	15,723		657							
Twelve Mile Arm:												
1906		800	36,000		1,900							
1907	590	921	22,700									
1908	2,560	2,658	44,574									
1910	915	74	88,940									
1911	1,701	30,688	84,014		207							
1912	1,601	20,837	156,924		1,040							
1913	14	11,874	47,108		147							
1914	231	200,441	157,130		134							
1915	582	74,276	80,301		838							
1916	3,781	40,063	98,602		3,044							
1917	2,313	36,687	95,873	1	1,067							
1918	2,146	20,629	18,265		282							
1919	206	40,215	48,058		1,188							
1920	35	11,596	4,708		48							
1922	456	11,148	31,356		133							
1923	439	15,788	42,201	1	154							
1924	110	33,211	45,211	4	285							
1925	75	13,957	14,914		28							
1926	18	6,852	52,600		46							
1927	3	13,614	330		1							
Vallenar Bay:												
1904	159		2,278		2							
1910			3,307									
1912			45,066		653							
1913			3,270		6							
1914	2,018	17,272	247,634		21,996							
1917	66	362	3,862									
1918	1,552	15,198	134,656		4,227							
1919	6	832	6,488		7							
1920	324	1,100	11,079		1,192							
1922	3,079	2,404	43,592		9							
1923	14,285	10,161	396,170	247	11,476							
1924		1,876	1,348									
1925	445	4,388	70,484		986							
1926	205	1,376	42,373		12							
1927	169	480	3,403	13	415							
Vallenar Point:												
1913			6,854									
1914	27	2,112	30,391		1,726							
1919	1,029	4,899	80,078		3,092							
1921	2,329	1,663	86,913		1,110							
1924	151	3,910	12,950		566							
1925	4,159	13,090	222,608	200	6,763							
1926	324	1,629	8,798		274							
1927	1,065	3,797	16,727	13	4,559							

TABLE 23.—*Salmon caught and fishing appliances used in the Clarence Strait district, 1888 to 1927—Continued*

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Trap (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Southern part—Continued												
Walden Rock:												
1924	1,267	13,147	180,876	177	4,869							
1925	1,609	13,909	181,708	188	4,544							
1926	667	4,324	154,890	77	2,066							
1927	56	417	3,577	88	580							
Wedge Island:												
1916	1,489	5,543	9,364		963							
1922	1	57	1,690									
1923	97	12	5,451		117							
1924	62	2,437	2,291		848							
1926	54	142	615		85							
1927	150	37	197		117							
Unallocated:												
1904	29,077	10,184	367,323		158,733							
1905	7,148		217,552		151,390							
1906	15,556	18,540	280,324		103,093							
1910	1,967			24,610	2,200							
1911	69	2,107	471,415		842							
1912	7,878	11,907	524,075	300	25,171							
1913	3,617	4,686	433,373		588							
1914	2,353	8,974	131,143	40	20,032							
1915	14,186	45,965	1,164,196		232							
1916	15,045	57,035	307,760		387							
1917	35,410	116,587	1,519,384	2,597	55,588							
1918	25,402	55,875	1,401,353		363							
1919	28,291	120,989	912,621		366							
1920	20,755	508,312	997,626		373							
1921	3,414	22,432	139,528									
1922	3,953	5,070	8,643	10,025	3,198							
1923	1,922	2,284	55,084		1,322							
1924	10,264	64,599	295,084	445	27,416							
1925	11,657	134,975	428,272		400							
1926	14,061	57,710	713,242	9,278	21,546							
1927	4,005	12,080	62,230	3,414	22,073							
Total:												
1888	1,739				30,020							
1889	11,246				15,521							
1890					42,788							
1891					68,876							
1892	1,541		3,322		38,993							
1893	524		37,476		40,537							
1894	3,974		17,387		73,477							
1895	3,805		10,973		94,023							
1896	7,090		51,558		212,023							
1897	13,136		251,542		157,821							
1898	21,470		51,181		144,607							
1899	4,681		155,081		91,774							
1900	6,867		215,177		91,858							
1904	37,325	81,684	675,677		314,741	5		23		8		1
1905	24,471	298,000	507,657		300,810	2		17				
1906	40,704	253,657	1,245,462		321,438	1		27				
1907	35,143	174,130	1,725,718		169,515	1	185	29	5,225			
1908	37,009	309,476	1,943,200	7,548	215,696	2	240	40	6,885	1	40	
1909	12,249	74,332	1,057,065		182,723	1	80	16	2,880			3
1910	32,317	643,566	2,051,712	24,610	268,398			46	9,360			5
1911	52,338	764,157	4,193,362	89	100,020	3	480	50	10,025			15
1912	90,997	1,621,965	5,322,282	358	193,766			74	15,050			5
1913	25,184	754,878	3,031,702	588	83,922	1	70	70	14,055			9
1914	34,982	2,235,487	2,448,023	44	271,165			100	20,475			15
1915	62,703	946,578	4,395,464	438	205,567			88	17,800			12
1916	84,019	903,073	1,405,526	3,678	157,171			77	15,345			26
1917	100,798	1,409,175	3,982,423	3,737	153,989			67	13,860			38
1918	143,274	706,148	5,620,911	3,532	224,180			125	24,900			30
1919	154,048	1,398,952	5,851,990	3,938	397,982			114	26,000			50
1920	62,463	1,586,348	3,693,360	12,405	259,004			60	12,015			48
1921	58,142	357,353	2,048,582	1,144	128,370			11	2,100			15
1922	145,074	610,282	5,153,367	18,168	172,066			75	14,370			40
1923	183,469	820,011	7,580,094	2,474	237,640			64	12,700			46
1924	128,741	1,425,131	6,237,715	1,979	297,939			105	20,615			45
1925	106,207	940,090	6,394,578	5,325	171,466			72	12,670			74
1926	104,936	666,410	6,264,366	12,443	165,433			187	37,545			90
1927	43,053	137,743	506,592	8,848	131,828			19	3,800			114
By lines (included in above):												
1908					7,548							
1910					24,610							
1913					588							
1916					1,046							
1920					9,700							
1922	3,000				15,798							
1924	34											
1925	1,227				1,615							
1926	2,338				10,746							
1927	68				3,757							

TABLE 23.—Salmon caught and fishing appliances used in the Clarence Strait district, 1888 to 1927—Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Grand total:												
1888.....	1,739				30,020							
1889.....	11,246				26,311							
1890.....	17,000				78,304							
1891.....	11,698				83,332							
1892.....	1,541		3,322		38,993							
1893.....	524		37,476		40,537							
1894.....	3,974		17,387		73,477							
1895.....	3,805		10,973		94,023							
1896.....	96,375		131,558		241,399							
1897.....	62,970		486,416		177,533							
1898.....	21,726		62,680		173,445							
1899.....	4,681		163,841		120,386							
1900.....	6,867		215,177		125,148							
1904.....	42,935	81,684	811,114	13	366,362	13				10		1
1905.....	73,532	327,043	810,025		374,362	3				2		
1906.....	72,439	306,543	1,658,155	21	396,529	12						
1907.....	61,715	205,683	2,291,240	2	285,840	1	185	50	8,665			
1908.....	75,494	342,765	2,456,042	7,548	260,024	2	240	63	10,520	1	40	3
1909.....	32,399	116,916	1,727,679	82	237,310	2	180	27	4,925			5
1910.....	57,651	708,239	2,589,648	24,798	314,835	1	150	63	12,535	1	250	10
1911.....	98,425	833,700	5,471,988	65	251,303	4	560	77	15,340			10
1912.....	152,619	1,043,953	6,974,062	15,379	273,978	3	400	107	22,235			26
1913.....	52,259	887,265	5,105,433	592	130,943	3	270	112	22,655			23
1914.....	64,815	2,431,563	3,796,334	139	421,205	1	150	132	27,025	2	300	31
1915.....	138,192	1,128,359	7,076,430	3,221	312,789			126	24,919			33
1916.....	149,086	1,148,018	3,069,347	5,022	247,293			137	26,703			44
1917.....	176,099	1,731,685	6,633,519	6,821	257,468			115	23,980			63
1918.....	219,957	1,048,750	8,961,919	13,440	364,089			193	38,930			62
1919.....	288,767	1,906,836	8,251,104	4,109	572,783			165	36,335			74
1920.....	106,304	1,969,018	4,980,731	15,244	391,823			108	20,710			82
1921.....	89,909	437,988	2,817,222	1,235	164,119			27	6,650			20
1922.....	224,752	800,204	7,129,347	24,606	245,562			131	23,585			59
1923.....	273,858	975,912	11,302,696	12,955	396,364			102	19,300			77
1924.....	207,945	1,631,721	7,843,072	2,997	445,148			144	27,770			74
1925.....	153,086	1,211,683	10,270,027	6,743	296,762			116	21,180			118
1926.....	168,060	866,823	8,741,866	13,700	334,933			292	58,545			148
1927.....	79,286	206,967	985,965	11,178	282,472			42	7,990			183

NOTE.—No catches were reported in the years not shown in any division of this table.

Table 23 shows in detail the known catches of salmon in the Clarence Strait district. For statistical purposes the district was divided into two parts—northern and southern—the dividing line extending from a point on Cleveland Peninsula $\frac{1}{2}$ mile east of Niblack Point directly across the strait to a point 3 miles northwest of the southern extremity of Grindall Point on Prince of Wales Island. This line of division was selected because tagging experiments have shown that, in general, the fish taken north of this line enter the strait from the north, while those south of the line enter through the southern entrance to Clarence Strait. The results of tagging experiments in several places in 1924 and subsequent years indicate that an appreciable number of salmon cross this line, but the bulk of the runs in both sections are probably dispersed largely to the streams nearby and to those of the contiguous districts.

The table lists 53 localities in the northern part of the district, the most important of which are Eagle Creek, Etolin Island, Lake Bay, Lemesurier Point, Meyers Chuck, Mosman Inlet, Narrow Point, Niblack Point, Northwest Cove, Onslow Island, Ratz Harbor, Salmon Bay, Ship Island, Steamer Bay, Throne Bay, Tolstoi Bay, and Whale Passage. The unallocated catches in this part of the strait include salmon from 26 minor or unknown localities, as follows: Rocky Point, Barnes Bay, Cadays Creek, Big Bay, Blashke, Center Island, Clarence Pass, Tom Ka Days Bay, Dewey Anchorage, Indian Creek, Kindergarten Bay, Meridian Rock, Point Stevenson, Snug Anchorage, West Island, Forss Cove, Codeys Bay, Thom Cadez Bay, Fire Island, Kamano Island, Mabel Island, Olsen Cove, Rays Island, Stickson Bay, East Island, and Gull Point.

Other combinations were made as follows: "Coffman Island" catches were added to those from Coffman Cove; "Exchange Creek" to Exchange Cove; "Meyers Creek" to Meyers Chuck; "Nesbitt Reef" to Point Nesbitt; "Jim Creek No. 6" and "Jim Creek" to Skookum Jim Creek; "Steamboat Bay" to Steamer Bay. Stikine Strait catches include those reported from Deep Bay, South Beach, Round Point, and Steamer Point.

The localities in which traps were used naturally stand out as the largest producers of salmon in this part of the district. Eagle Creek, as one of these places, attracts attention in that hundreds of thousands of salmon have been reported as from that stream. The data include, however, the catches by traps a mile or more on either side of the mouth of the stream, the elimination of which would reduce the actual catches at the creek to considerably smaller totals. The creek has no estuary but empties into Clarence Strait from a bold shore which affords no protected area for schooling salmon, so that catches by seines are comparatively small. The traps not only take Eagle Creek fish but intercept salmon that are bound to other streams and thus complicate the data and easily convey false impressions in regard to the Eagle Creek fishery. Segregation of such catches are obviously desirable but could not be made with the available information. The reported catches of king salmon in 1918 and 1922 were certainly not taken at Eagle Creek, but for the most part were made by trollers fishing in the northern part of Clarence Strait in the general vicinity of the creek. These faults of allocation were allowed to stand as reported because they at least fixed the place of capture in the northern part of the strait. Most of the catches along the western shore of Etolin Island from Ernest Point to Point Harrington, exclusive of the bays, were made by traps, as is easily recognizable by the catch of king salmon, whereas the places fished by seines show few or no kings, as may be seen by referring to the data for Exchange Cove, McHenry Inlet, Mosman Inlet, Rocky Bay, Salmon Bay, and Whale Passage.

The shore of Cleveland Peninsula between Niblack Point and Lemesurier Point is the most important area in this district for trap fishing. Large catches were made at Niblack Point, Ship Island, and Northwest Cove. These include appreciable numbers of red salmon and give some indication of the extent to which the runs of this species are fished before reaching their final destination, although no information is available to show the localities to which these runs are headed. It seems fairly certain, however, that the few small streams of this shore are not their ultimate objective. If the movement is northward, they are bound probably to Ernest Sound; if southward, to Behm Canal.

The most important red-salmon stream tributary to the northern part of Clarence Strait empties into Salmon Bay. Although it was barricaded regularly for years and abused by reckless fishing at its mouth in a later period, the run survived and showed no serious diminution before 1921, while, in fact, the catch in 1923 was larger than it had been in 11 years. On January 1, 1926, the bay was closed to all fishing for salmon, thus terminating a fishery that had existed for more than 30 years.

The data here presented do not indicate definitely depletion of the fisheries at any locality. Various laws and regulations have had their effect upon catches near the streams, and closed seasons reduced the catches generally throughout the district. In places where the trend of the catches appeared to be approaching dangerous levels special regulations were applied. Barnes Lake and tributary waters were closed on January 1, 1916. On June 21, 1924, Thorne and Tolstoi Bays were closed. The

areas within 1,000 yards of all streams tributary to Whale Passage and the head of McHenry Inlet were closed on January 1, 1925, and on January 1, 1927, the waters within 1 mile of the head of Rocky Bay were also closed. It is not apparent that these closures reduced even slightly the catch in this section of the district. Good catches of all species have been made each year since the economic crisis of 1921. More pink salmon were taken in 1923 and 1925 than ever before, and the catch in 1926 was the largest in any even year except 1918; it was also reported officially that the escapement of salmon into the streams in 1925 was exceptionally heavy and that it was satisfactory in 1926. Large escapements and large catches occurring at the same time are obviously indications of a favorable condition of the fishery.

The table lists 71 localities in the southern part of the Clarence Strait district which have been reported as producers of considerable numbers of salmon. The most important one in point of early exploitation and production of red salmon is Karta Bay, an arm of Kasaan Bay, into which flows Karta River, a wonderful stream in several respects, being 4 miles in length and the outlet of a chain of lakes. For many years this fishery was claimed as a possessory right by the Indian chief Skowl who handed it down to Baronovich, his son-in-law, who operated a saltery at the mouth of the river. In 1888 the catch at this fishery was packed at the Loring cannery and from then on it is likely that the Karta Bay catches were used almost entirely at the canneries. Chum and pink salmon fisheries were also developed here. Cohos have been taken in limited numbers from the beginning of fishing at Karta. After 1910 the catch of red salmon declined rather steadily, and a few years later chums and pinks fell off abruptly, although there was some recovery after 1921. Karta Bay was closed on January 1, 1925.

Kasaan Bay, in addition to the fisheries of Karta Bay, has yet other important fisheries in the bay proper and in Twelve Mile Arm while Kina Cove and Coal Bay have produced sizable runs. Kina Cove was fished for red salmon as early as 1896. The catch from the bay includes salmon reported from several minor localities, as follows: Daisy Island, Kasaan Point, High Island, Logging Camp, Long Island, Long Island Creek, Morgan Beach, Morgans Creek, Morgans Cabin, Morgan Cove, Mount Andrew, Patterson Island, Round Island, Salt Chuck, Sonihart Creek, Sunihat Creek, Sunnyhart Point, and Trollers Cove.

If the data correctly represent conditions at Coal Bay and Kina Cove these localities have been seriously depleted; but if the Kasaan Bay catches include fish from these places, which is not unlikely, there is no means of determining the true condition of the runs here. No catches were reported from Kina Cove after 1919 and none from Coal Bay since 1925. Kasaan Bay as a single district, however, shows large catches of pink salmon in recent years and a fair production of chums.

Cholmondeley Sound has been a large producer of pink and chum salmon, the catch in 1911 exceeding 1,500,000. Thereafter pinks were less abundant, but the yield of chums was well sustained until 1920 which year marks the beginning of a period of much smaller catches of all species, unmistakable evidence of depletion. This led to the closing of Dora Bay on January 1, 1925, and of Sunny Cove on January 1, 1926. Included in the catches of the sound are salmon reported from the following localities: Chomly Point, Divide Head, Hump Island, North Arm, West Arm, South Arm, Babe Island, and Skin Island. In addition, parts of the catches reported from "Behm Canal, Boca de Quadra, and Cholmondeley Sound" in 1911, from "Cholmondeley Sound and Clover Bay" in 1907, and from "Cholmondeley Sound and Moira Sound" in 1919, were allocated to this locality.

Moira Sound and its many arms constitute an important fishing ground in the Clarence Strait district. Available data show that salmon were first taken there in 1892 and that it has produced steadily down to 1927, omitting 6 years from 1898 to 1903 when stream statistics were not collected. Several small streams provide runs of red salmon, the more prominent of which are those at Johnson and Kegan Cove. Both localities were fished exhaustively until measures of conservation were applied, first at Johnson Cove by prohibition of all fishing within 1,000 yards of the mouths of the salmon streams after January 1, 1926, and then at Kegan Cove by complete closure on January 1, 1927. South Arm and Frederick Cove were closed on January 1, 1925, to conserve the runs of pink and chum salmon which were then being fished rather intensively and exhaustively. These fisheries do not show depletion as conclusively as at some other localities in the Clarence Strait district.

The Moira Sound catches include salmon reported from Black Point, North Arm, South Arm, and Nowiskay; those from Kegan Cove include fish from "Regan" Cove.

Fair catches were made in Skowl Arm during the earlier years, but after 1915 they fell off at an alarming rate. This led to the closing of the arm west of Old Kasaan Village and Khayyam Point on January 1, 1925.

Three highly productive areas in this part of the district are Caamano Point, Cape Chacon, and Gravina Island, in all of which traps were used extensively. More salmon were taken at Cape Chacon in the 4 years, 1922-25, than in any other period of similar length in its history, but a tremendous drop in catches occurred in 1926, a year of exceptional production in many localities in this region, and 1927 was an even poorer year. The small catches in 1926 are not understood, as traps at Cape Chacon have always been regarded as occupying advantageous positions for the interception of salmon entering Clarence Strait from Dixon Entrance. The runs of salmon in 1927 were extremely small, a fact that easily accounts for the poor catches in that year. Data for this locality include all salmon that were reported from Landslide, Old Landslide, New Landslide, and Cape Shakan.

Caamano Point at the southern end of Cleveland Peninsula is the northerly point of entrance to Behm Canal. Since 1912 the catches in this locality show wide fluctuations and a falling trend during a period that was marked by a directly opposite tendency in other localities in this same district. The significance of this is doubtful but it is likely that it is the result of changes in the allocation of catches, although it may be the result of depletion or the effect of increased fishing effort in localities past which the salmon must go in order to reach the northern entrance to Behm Canal.

The west coast of Gravina Island shows very large catches during the last 15 years due wholly to the intensive fishing with traps along that shore, which is followed closely by the salmon migrating northward in Clarence Strait. In addition to catches simply reported as from Gravina Island large numbers were caught at Dall Head, Nelson Cove, Grant Cove, South Vallenar Point, Vallenar Bay, and Vallenar Point. Only a small part of the fish captured in this region is presumed to be going to the small and relatively unimportant streams on Gravina Island. The catches undoubtedly consist largely of fish that are bound to Behm Canal, Ernest Sound, and the northerly waters of Clarence Strait. The Grant Cove catches include fish reported from "Grant Creek" and from "Six Shooter Grant"; Vallenar Bay totals include catches at South Vallenar Bay and "Volmer Bay."

Other combinations of catches in this part of Clarence Strait were made as follows: Chichagof Bay totals include fish from Chichagof and from Chichagof Point; Annette Island fish from Tain; Johnson Cove salmon from Johnson Chuck and Johnson Creek; Nichols Bay data include a catch reported from Bean Island; Nichols Passage catches were increased by the inclusion of fish from Blank Inlet, Blank Point, Bostwick Point, Dall Bay, Gravina Point, and Metlakatla; Tamgas Harbor and Sextant Point catches were combined under the name of the former; and Skowl Arm catches include the salmon reported from Dolion Mine, Shore Bay, and Tom Skowl Place.

The unavoidably large unallocated catches in the southern part of Clarence Strait were augmented further by including therewith the catches from 23 minor or

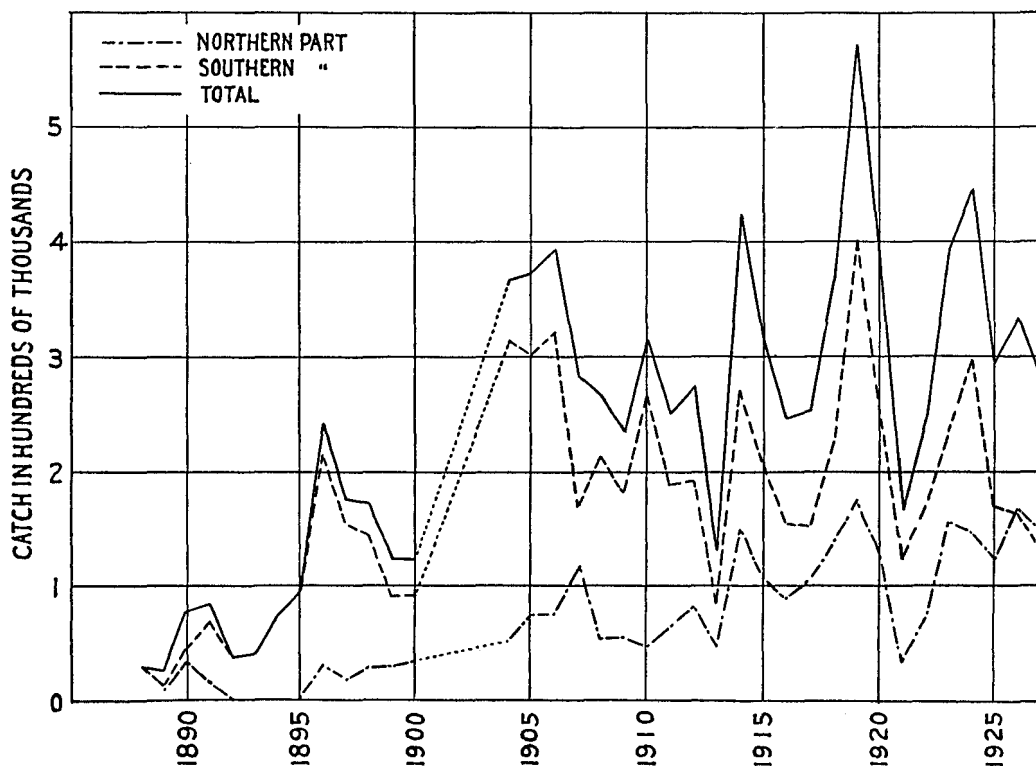


FIGURE 41.—Catch of red salmon in the Clarence Strait district, 1888 to 1927.

undetermined localities, as follows: Perry Jenkins Trap No. 1, Coal Creek, Brendable Trap, West Arm, Whiterock, Steve Selig, Prince of Wales Island, Luke Point, Hundred Thousand Creek, Granville Pass, Island Bay, Twenty Thousand Bank, South Arm, Perry Point, McKinley, Whitestone Creek, Mohaney Creek, Point McCartney, Mallard Bay, Guard Island, Little Dall Island, Point Nunez, and Windy Point. In addition, a division of certain catches that were reported from "Loring and vicinity" in 3 years, 1904 to 1906, increased the unallocated figures in those years.

Figure 41 shows graphically the total catch of red salmon in the Clarence Strait district and the subtotals for the northern and southern parts. Leaving aside the catches previous to 1904 it appears that the production of this species in the southern part has not changed markedly during the period 1904-27. The peak was reached

in 1919, but there was no material decline in catches until 1925, a result which was probably brought about by the closing of practically every locality in which red salmon were taken in this section of the district. The catches in the northern part, however, show a distinct upward trend which is reflected in the more moderate upward trend in the total catches in this district. Previous to 1926 the aggregate catch in the northern part was always well below that of the southern part but in both 1926 and 1927 the catch in the northern part slightly exceeded that of the southern part. No definite reasons can be assigned for this shift in the relative importance of the red-salmon fisheries in the two parts of Clarence Strait. So far as can be seen there has been no corresponding shift in the relative intensity of fishing. Gear, especially the

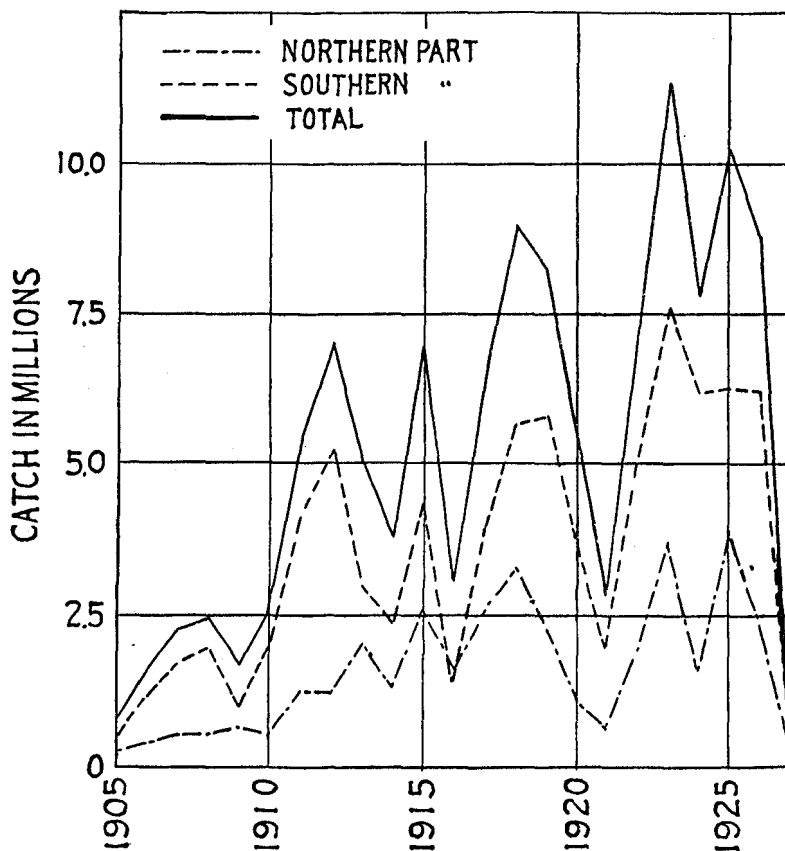


FIGURE 42.—Catch of pink salmon in the Clarence Strait district, 1904 to 1927.

number of traps, has increased rapidly throughout the period 1904-27 but about equally in the northern and southern sections. It is not known whether the fisheries in the two sections draw upon the same runs of fish or not but if they do the continued encroachment of the northern fisheries must ultimately result in the reduction of the catches in the southern part of the strait.

The unallocated catches of pink salmon in these waters has reached tremendous totals. During the period 1892-1917 inclusive the unallocated catches aggregated over 34 millions and during the 10-year period 1918-27 nearly 50 millions, 27 million of these coming in the last 5 years notwithstanding the fact that the catch in 1927 was only 506,592 and that during this period fishing was more restricted by closed waters, closed seasons, and limitations of gear than it had been in all the preceding years of

the history of the industry. Partly on account of these large unallocated catches it is impossible to make a detailed analysis of the catch, but the figures for the district as a whole are interesting. The catches from 1904 to 1927 are shown graphically in figure 42. With the exception of 3 years in which the catch was exceptionally low the general trend has been upward in both the southern and northern part. The small catch of 1921 was, as has been repeatedly pointed out, due to economic conditions. That of 1927, however, was unquestionably due to poor runs—a condition which prevailed generally throughout southeastern Alaska. The catches of pink salmon in the southern part of the strait have been consistently higher than those in the northern part, falling below in only 1 year—1916.

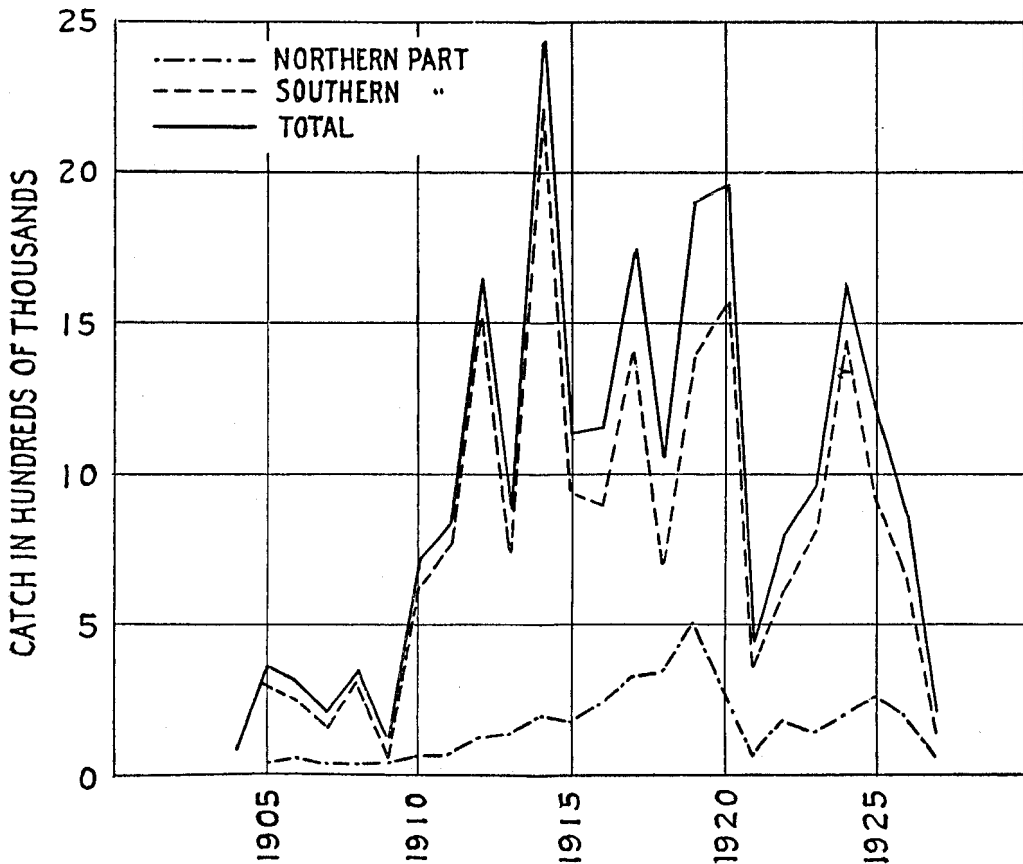


FIGURE 43.—Catch of chum salmon in the Clarence Strait district, 1904 to 1927.

The catches of chum salmon fluctuated widely and abruptly throughout the entire period for which data are available, but it is doubtful that there were corresponding variations in the runs since this species was not especially sought after in the years when pink salmon were abundant. Figure 43 shows the catches from 1904 to 1927. It is very clear that the southern part of Clarence Strait is much more productive of chums than is the northern part, the difference being much more marked than in the case of the pinks. The catch of this species has apparently not yet fully recovered from the drop in production that occurred in 1921 as the average catch in the period 1922–27 is distinctly below that of 1910–20 in both parts. It is doubtful, however, that this is indicative of real depletion for the reason given above.

The catch of cohos has increased tremendously during the period under consideration as shown in figure 44. There was no great difference in the northern and southern parts of the strait up to about 1920, but since then the catches in the south have averaged approximately twice those in the north—just the reverse of the conditions with respect to the red salmon.

The catches of king salmon have never been large and, so far as our records go, have been very irregular. It is interesting to note that there have been periods in which years characterized by very good catches of kings alternated with years in which the catch was very small, and that in every case the large catches were made on even years. This is suggestive of some sort of an association between the king and pink salmon fishery (since the pinks are exclusively 2-year fish) but no such association can at present be pointed out.

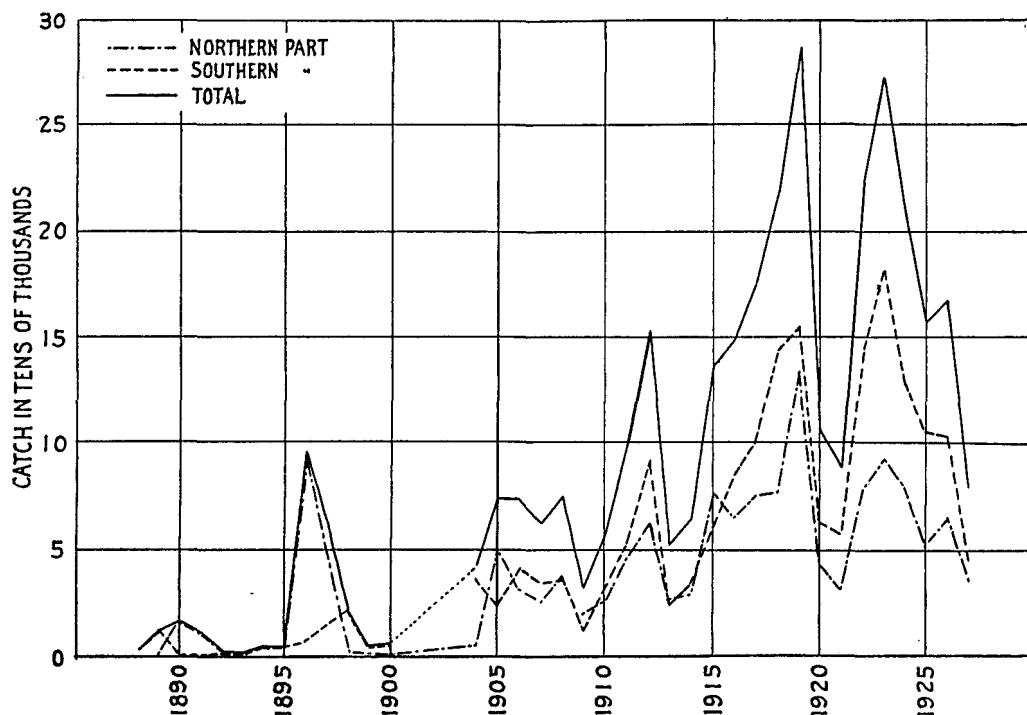


FIGURE 44.—Catch of coho salmon in the Clarence Strait district, 1888 to 1927.

The Clarence Strait district as a whole surpasses all other districts in southeastern Alaska in the total production of salmon. The only indication of weakness in its fisheries is shown in the catches in 1927, a year of poor runs generally in the southeastern area. The fishing effort in 1927 was certainly not lower than in previous years, as 183 traps and 42 seines were operated as compared with 118 traps and 116 seines in 1925, yet the total catch in this district was only a little over 1½ millions as compared with nearly 12 millions in 1925. The catches of kings, cohos, and reds were not materially lower but those of the other species were far below their normal levels. Just why there should have been poor runs of pinks and chums in the same year is problematical, but there can be no doubt that the fact is of biological significance. It is well known, of course, that the pinks are exclusively 2-year fish while the chums vary mainly from 3 to 5 years in age at maturity. Poor runs of both species coming in the same year may have been merely coincidence; but if not it

would seem to indicate that conditions in the ocean had affected their survival since it is unlikely that unfavorable conditions in fresh water would have been so distributed over a number of years as to have brought about this result. The facts that both species make the seaward migration as soon as they come out of the gravel in which the eggs are laid, that they spend practically all their lives in the sea and have somewhat similar feeding habits, lend some support to the hypothesis that the coincidence of poor runs may be the result of oceanic conditions affecting the survival of both species equally.

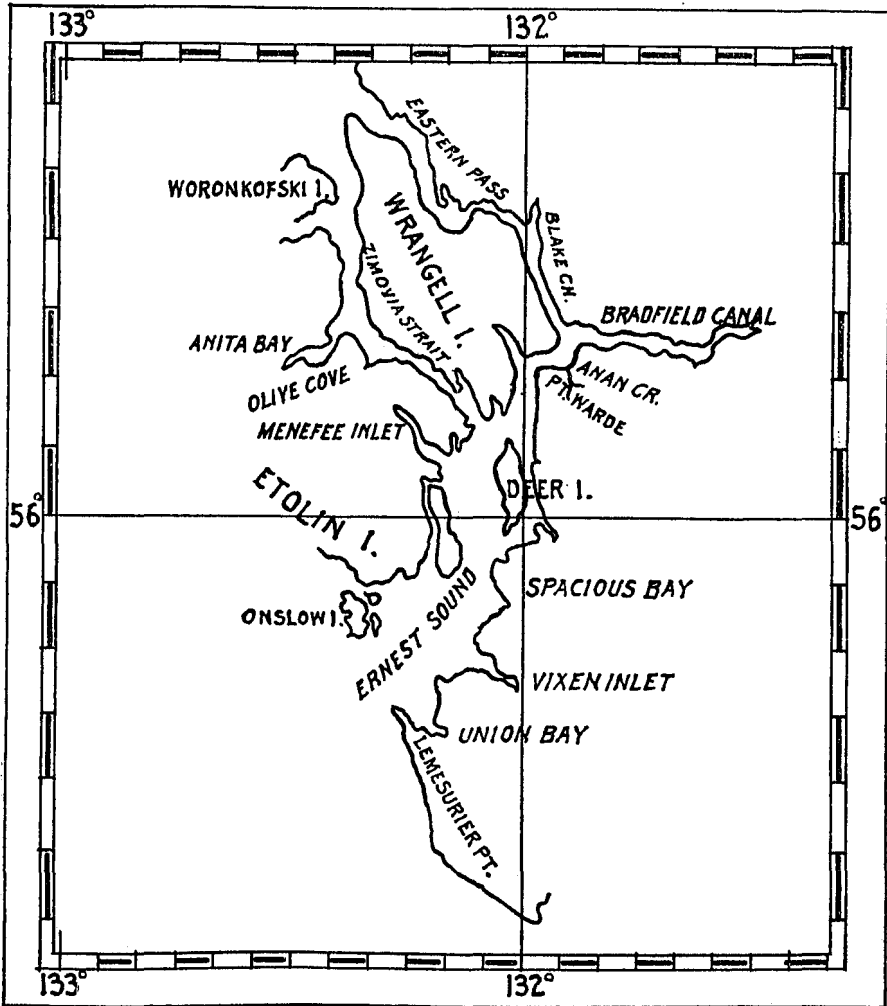


FIGURE 45.—Map of the Ernest Sound district.

ERNEST SOUND DISTRICT

This district includes the waters northerly and easterly of a line from Lemesurier Point to Ernest Point, thence across Onslow Island to the southern extremity of Etolin Island, thence along the watershed of that island to its northern extremity, and thence across Chichagof Pass to East Point on Woronkofski Island and the boundary of the Stikine River district across the northern end of Zimovia Strait and Eastern Passage. (See fig. 45.)

Many small streams are tributary to the several bays, inlets, and coves of the district and support small runs of salmon. The few large streams of the district are tributary to Bradfield Canal, easterly of the intersection of Blake Channel, but they support only small runs of salmon. Anan Creek, one of the most noted pink-salmon streams of southeastern Alaska, is located in this district.

It is not known when commercial fishing began here. Available records indicate that salmon were taken from these waters for canning purposes as early as 1895, and presumably as early as 1887, the year of the opening of a cannery at Gerard Point near the mouth of the Stikine River, but here, as in nearly all other districts, the canneries were preceded by salteries, the operations of which were not recorded, leaving the date of the inception of the industry doubtful. The salteries were primarily interested in pickling red salmon and the first canneries centered their attention on the same species exploiting the runs to streams in the immediate vicinity of Wrangell. When utilization of the other species commenced, fishing became quite general throughout the district and brought about the establishment of canneries at Union Bay, Santa Anna Inlet, and Point Warde, while plants in adjacent districts extended their operations into this field.

TABLE 24.—*Salmon caught and fishing appliances used in the Ernest Sound district, 1896 to 1927*

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Aaron Creek:												
1907.....	350	2,854	21,855	218	144							
1913.....			7,100									
1917.....	14	74	13		1							
Anan Creek:												
1897.....			375,000									
1905.....					200							
1906.....		35,184	23,651	98	33							
1907.....	1,620	11,489	891,194	1,036	1,789							
1908.....	124	37	155,083	50	1,009							
1909.....	616	2,377	1,033,490	829	54							
1910.....	2,088	20,747	640,536	24	75							
1911.....	1,108	39,453	855,711	228	216							
1912.....	281	4,739	290,701	345	337							
1913.....	55	2,333	277,192	4	160							
1914.....	392	6,172	148,735	1	377							
1915.....	214	13,721	410,813	52	1,258							
1916.....	741	5,960	319,697	62	803							
1917.....	814	14,931	100,192	91	1,303							
1918.....	521	11,511	204,028	31	2,208							
1919.....	837	2,459	104,878	59	1,643							
1920.....	14	474	2,983	3	327							
1921.....	46	167	49,543		320							
1922.....	1,742	9,982	213,094	110	2,716							
1923.....	1,993	8,646	461,992	28	9,137							
1924.....	286	4,500	90,424	39	1,265							
1925.....	488	14,647	176,343	145	1,813							
Anita Bay:												
1907.....		959	1,892		14							
1908.....		400			4							
1910.....	12	475	6,388									
1911.....	93	925	43,802		3,101							
1912.....	82	9,203	13,063		65							
1913.....	8	2,744	14,546		10							
1914.....		7,144	9,259		301							
1915.....		4,827	13,248		1,058							
1916.....	64	5,842	29,750	3	1,994							
1917.....	23	3,380	9,219		407							
1918.....	55	17,834	11,893		2,288							
1919.....	1	1,163	2,156		592							
1920.....	55	1,776	637		354							
1922.....	448	1,517	16,980		593							
1923.....	61	1,284	12,524		3,467							
Blake Channel:												
1916.....	387	2,014	21,876	47	48							
1917.....		1,612	285	6	32							
1918.....		194	1,979		2							

TABLE 24.—Salmon caught and fishing appliances used in the Ernest Sound district, 1896 to 1927—Con.

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Bradfield Canal:												
1912.....	1,684	1,928	46,998									
1915.....	20	3,561	81,100									
1916.....	946	1,590	68,601		74							
1917.....	1,997	11,154	40,926		84							
1918.....	199	30,521	68,898		58							
1919.....	402	2,614	30,340		48	1,327						
1920.....	13											
1923.....	872	287	8,812									
1924.....	47	8,073	17,245		1	474						
1925.....	654	3,634	53,500		30	1,872						
1926.....	465	5,387	60,069		34	2,648						
Brownson Island:												
1925.....	1,247	11,582	107,581			2,217						
1926.....	604	5,158	42,006			1,763						
1927.....	188	1,586	5,052		11	185						
Canoe Passage:												
1907.....	54	5,703	39,036		4							
1908.....	142	80	28,487			13						
1909.....	23	45	7,860									
1910.....	241		20,330			12						
1911.....	636	294	128,729			260						
1912.....	608	9,873	42,119		186	104						
1913.....		2,292	35,650			51						
1914.....	188	4,271	35,465			389						
1918.....	50	107	2,822		10							
1919.....		230	338									
1921.....	115	90	7,531			5						
1922.....	2	189	2,858			1						
1923.....	103	113	38,999			264						
1924.....	15	2,518	1,381			6						
1925.....	7	3,654	7,812			171						
1927.....	88	941	4,660			31						
Crittenden Creek:												
1915.....	67	6	11,135			4						
1916.....	1		658									
1923.....	184	12	7,268			1						
Deer Island:												
1908.....						1						
1915.....		54	600			100						
1916.....	7	146	4,238			4						
1919.....				200								
1926.....		1	45									
Eagle Point:												
1925.....	449	2,145	31,345			272						
Eastern Passage:												
1915.....		535	12,419			11						
Eaton Point:												
1914.....		947	9,378			171						
1919.....		135	1,409			162						
1920.....		333	1,301			118						
1923.....	258	2,010	63,814			570						
1924.....	62	1,830	7,798		17	175						
1925.....	1,066	11,654	151,990		14	2,106						
1926.....	1,115	9,073	92,239		10	5,692						
1927.....	1,222	3,952	53,104		149	2,185						
Emerald Bay:												
1910.....	5		14,212			20						
1911.....		11	9,921			2						
1912.....	108	145	21,734			28						
1913.....		389	36,049			175						
1914.....		2,682	17,910			130						
1915.....	19	242	8,434			119						
1916.....	5	336	9,631		3	20						
1917.....	15	348	27,888			36						
1918.....	53	125	477									
1920.....	7		1,334			5						
1922.....	4	15	2,352			5						
1923.....	285	613	57,211		1	304						
1924.....	14	1,216	2,847			24						
1925.....	1,031	10,011	136,807			2,121						
1926.....		115	258			6						
1927.....	391	1,322	16,231		17	680						
Fools Inlet:												
1907.....	427		34,213									
1908.....	26	53	56,323		1	166						
1909.....	7	12	22,976			5						
1910.....	935		9,379		1	11						
1911.....		14	7,108			2						
1912.....	426	53	27,472			68						
1914.....		6	3,521			1						
1916.....	1	318	7,631		3	33						
1918.....	6	62	10,447			23						
1920.....		685	10,100			3						
1922.....	35	643	30,535			50						
1927.....	1	6	96			1						

TABLE 24.—*Salmon caught and fishing appliances used in the Ernest Sound district, 1896 to 1927—Con.*

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Frosty Bay:												
1910	1		3,790	1	1							
1911	2	97	56,646		74							
1912	19	21	15,243		47							
1913		39	10,207		6							
1914		667	7,013	1	35							
1915		173	3,153	1	28							
1916	1	5	1,782		9							
1918		67	340	2	14							
1921	35	40	6,369									
1922	43	406	27,032		641							
1923	33	386	30,449		64							
1924	19	541	3,943		38							
1925	18	708	9,065	48	107							
Konks Creek:												
1907		314	3,165		2,469							
1908					1,020							
1909			55		1,060							
1910			237		3,010							
1916	36	525	2,505		1,401							
1917	33	525	4,290		1,998							
1918		109	435		1,009							
1920		692			35							
1921			1,593		370							
1922	68	206	863		516							
1923	7	21	692		1,752							
1924	11	2,413	278		6,134							
Kuakan Point:												
1927	16	276	2,470	3	75							
Menefee Inlet:												
1906	11	12,734	11,322									
1907	7	2,764	4,519		4							
1910	1,041	43	33,581		99							
1911	925	1,760	202,096		146							
1912	314	339	34,927		163							
1913		224	21,626		41							
1914	560	6,672	7,423		46							
1915		1,882	1,876		32							
1916	133	29	1,527		2							
1917	53	4,432	13,491	7	74							
1918	4	5,615	3,337		23							
1919	1	2,137	1,994		10							
1920	1,270	9,026	44,299	100	5,100							
1922	25	1,001	1,620		20							
1924	29	14,542	8,624	9	101							
1925	1	3,805	1,169		16							
1927		720	262									
Mill Creek:												
1919		14	305		95							
Olive Cove:												
1904			36,000									
1905	1,500		60,000									
1906	1,000		1,500									
1907	450		38,000									
1908	1,800		57,000									
1909	1,500		15,000									
1910			51,500									
1912	334	294	25,237		382							
1914		808	68,335		43							
1915	332	3,879	72,726		849							
1916	308	1,143	160,852		78							
1919	104	1,965	15,618	11	1,585							
1920	33	1,450	3,160	13	537							
1921		15	3,025		256							
1922	1	580	10,548		102							
1923	18	2	876		669							
1925	3	33	5,222		8							
Santa Anna Inlet:												
1906	146		4,336									
1907	243	19	7,608	7								
1908	443	2	9,552		35							
1911	1,216		7,058		2							
1912	2,004	4	6,381		10							
1913		320	10,256		45							
1914		2	2,726		37							
1915	180		3,570		125							
1916	345	20	7,996		40							
1917	26	1	312		10							
1918	182		663		13							
1920		410	1,265		73							
1923	6	2	1,612		7							
1925	1	133	3,960									
1927	1	64	176		2							

TABLE 24.—Salmon caught and fishing appliances used in the Ernest Sound district, 1896 to 1927—Con.

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Seward Passage:												
1912	5		2,297									
1918		1,076	2,758	1	18							
1919	2	64	1,965	16	37							
1921	20	29	6,881		245							
1923	60	211	22,750	2	904							
1924	1,110	21,556	208,452	74	2,388							
1925	111	1,208	25,483	3	160							
1926	158	3,789	34,645	17	1,365							
1927	110	1,599	9,683	62	451							
Snake Creek:												
1915	16	1,737										
1916		6	2,010		1							
1917	1	2,956	57,363	8	86							
1918		1,018	21,324		248							
1921	1,568	553	38,065		1,229							
1922		38	3,705		16							
1923		103	1,924		33							
1925	47	575	29,108		84							
1926	19	170	1,216		85							
Southeast Cove:												
1907	44	11	5,195									
1909	16	5	2,424									
1910	49		2,512		19							
1911		5	8,166		40							
1912	247	95	17,252		151							
1913	136	3,733	146,053		1,287							
1914		1,084	14,609		768							
1916		2	48									
1921			1,122		16							
1922	139	404	37,752		927							
1925		57	1,077		22							
Southwest Cove:												
1908	43		4,574		39							
Stones Island:												
1922		161	2,192		1							
1926	5	216	568		2							
1927		136	122									
Sunny Bay:												
1907	130	650	114,573		284							
1908	138	83	67,622		90							
1909	2		37,500		14							
1910	27		46,834		72							
1911		262	68,884		97							
1912	85	436	24,883		6							
1913		376	47,662		352							
1914		4,928	68,523	2	925							
1915	252	7,626	166,214	24	3,595							
1916	111	1,689	43,913		423							
1917	628	7,443	95,472	4	1,274							
1918	311	3,760	73,433	2	1,043							
1919	53	1,205	18,289	10	509							
1920	26	201	7,091		65							
1922	10	185	5,827		27							
1923	23	45	4,236		70							
1924	24	370	3,406		35							
1925	61	5,016	34,983	5	245							
1926	76	1,571	4,713		66							
1927	53	786	5,115	8	92							
Thoms Place:												
1897	1,902		42,169		17,138							
1898	5,000				10,000							
1900	7,651		74,000		24,661							
1906		580	3,249		22,177							
1907	2,652	310	79,067		20,057							
1908	9	89	11,062	7	12,926							
1909		11	7,753		7,985							
1910			2,923		3,246							
1911	264	274	69,872		10,259							
1912	9,058	3,074	158,691		30,953							
1913	385	1,220	43,167		10,663							
1914	228	2,127	19,506		10,857							
1915	480	1,006	63,957		13,807							
1916	278	224	19,459	1	4,125							
1917		1,485	6,860		4,817							
1918	225	16,913	31,658	5	6,596							
1919	605	2,673	21,049		14,870							
1920	1	345	1,840	1	3,553							
1921			599		1,337							
1922	52	414	10,800	37	2,920							
1923		2	904		5,046							
1924			74		1,472							

TABLE 24.—*Salmon caught and fishing appliances used in the Ernest Sound district, 1896 to 1927—Con.*

Year	Cobo	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Union Bay:												
1896	1,408				4,651							
1897	2,250		9,874		4,700							
1904	19		20,739		415							
1905	1,889		10,386									
1906	77	15	14,512									
1907	2,079	4,079	198,797	2	780							
1908	663	110	80,854	2	2,868							
1909	1,032	8	80,407		1,634							
1910	3,652	30	32,487		119							
1911	1,430	1,339	35,418		37							
1912	1,079	533	92,032		1,382							
1913	443	1,835	139,470		738							
1914	2,486	6,928	113,067		8,411							
1915	1,778	2,790	160,230	2	5,009							
1916	1,344	4,087	65,383	72	3,021							
1917	3,236	8,234	236,833	775	5,355							
1918	579	9,492	26,487	400	918							
1919	9,828	19,356	301,014	4,616	17,536							
1920	6,775	74,368	166,955	223	15,161							
1921	1,270	3,398	21,064		15,126							
1922	6,794	6,914	139,946	363	6,120							
1923	7,367	10,489	373,800	63	15,116							
1924	6,777	11,367	93,732	88	13,746							
1925	9,205	20,451	285,870	38	8,254							
1926	2,457	3,515	92,550	86	12,682							
1927	1,837	4,552	34,154	53	4,336							
Union Point:												
1923	5,247	1,808	138,597		2,022							
1924	1,662	3,605	43,625		2,964							
1925	516	4,013	68,553	4	1,189							
1926	927	3,552	51,543	8	6,897							
1927	609	1,271	26,624		1,079							
Vixen Harbor:												
1924	105	833	4,134		72							
Vixen Inlet:												
1907	180		47,750									
1908	71	370	39,329		15							
1909	3		30,434		13							
1910	3,616	2,903	141,066	119	2,790							
1911	1,234	2,179	171,361	15	6,325							
1912	3,488	1,008	79,270		1,930							
1913	1,984	3,900	179,031		2,598							
1914	834	9,016	97,360	22	6,922							
1915	1,449	2,788	101,957		4,132							
1916	1,008	1,683	46,556	65	1,865							
1917	1,389	3,693	91,567	72	1,272							
1918	150	652	8,787	78	238							
1919	1,259	7,203	40,577	13	2,677							
1920	96	371	3,388	36	286							
1922	11	807	2,122		3							
1923	1,280	3,024	64,734	4	1,617							
1924	481	4,902	22,745	5	1,417							
1925	108	1,303	29,619	5	359							
1926	171	1,362	17,945	11	2,762							
1927	69	615	3,815	4	226							
Vixen Point:												
1906	435	462	94,995									
1926		13	868		4							
Warde, Point:												
1906		3,769	7,520	3	16							
1907	151	1,501	58,422	20	170							
1908	23	69	15,187	1	25							
1909	47	851	114,649	26	173							
1910	31	6,173	199,421	24	289							
1911	130	12,485	632,737	41	7,511							
1912	7	14,892	171,714	13	4,624							
1913	299	14,208	433,308	27	732							
1914	630	31,391	190,848	28	2,205							
1915	680	19,407	472,779	96	4,248							
1916	193	6,249	170,962	123	2,913							
1917	964	18,087	64,129	17	1,233							
1918	259	8,943	112,408	26	1,467							
1919	387	3,667	92,082	32	3,219							
1920	128	3,950	15,966	68	867							
1921	162	3,576	78,426	6	2,235							
1922	2,448	15,994	248,339	43	2,899							
1923	916	6,511	181,690	16	4,552							
1924	1,575	17,014	99,775	58	1,749							
1925	16	1,567	19,579		155							
1926	22	1,141	10,728	5	425							
1927	41	1,127	4,397	38	139							

TABLE 24.—Salmon caught and fishing appliances used in the Ernest Sound district, 1896 to 1927—Con.

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Watkins Point:												
1925	67	183	5,004		65							
1926	166	2,536	28,676	28	2,041							
1927	188	1,720	16,028	91	635							
Zimovia Strait:												
1912			9,125		434							
1913			5,537									
1914	71	1,498	14,606		7,997							
1915	14	98	22,218		3,339							
1916	268	1,799	72,202		3,509							
1917	85	5,295	139,653	2	2,328							
1918	709	1,266	44,829		3,552							
1919	408	8,884	16,240	7	13,673							
1920	181	27	292		13							
1921			3,707		370							
1922		199	3,063									
1927		6	3		49							
Unallocated:												
1906	195	462	98,919		9							
1907	69	7	38,892		44							
1908	146	81	43,475		14							
1909	16	3,238	78,917		390							
1910	2,474		30,243	22	1,254							
1911	290	4,818	120,887		5,564							
1912	4,929	83,765	405,712	28	47							
1913	62	369	17,866	170	3,382							
1914		2,042	2,089	10	5,319							
1915	1,260	22,311	370,418	2	9,911							
1916	3,135	7,677	270,657	75	302							
1917	244	7,656	175,457	3	3,403							
1918	2,944	21,985	161,057	3	762							
1919	41	4,802	5,590	3	4,624							
1920	510	31,874	67,376	134	2,631							
1922	7	66	10,027	2	15							
1923		62	1,349		1,865							
1924	2,401	12,907	101,669		3,659							
1925	857	23,926	203,170	158	3,274							
1926	376	2,969	49,208	54	3,342							
1927	477	6,710	48,860	58								
Total:												
1896	1,408				4,651							
1897	4,242		417,043		21,838							
1898	5,000				10,000							
1900	7,651		74,000		24,661							
1904	19		56,739		415	1		7				
1905	3,389		70,386		200	2		2				
1906	1,884	53,206	260,004	111	22,226	3		13		6		1
1907	3,366	30,680	1,584,110	1,287	25,720	9	1,200	8	1,100			1
1908	3,628	1,333	568,548	61	18,255	4	620	8	1,220			3
1909	3,262	6,547	1,431,365	855	10,952	1	150	10	1,920			1
1910	14,172	30,461	1,235,448	191	10,153	2	200	13	2,305			1
1911	7,328	63,916	2,418,396	284	29,416	3	420	13	2,285			4
1912	25,418	130,402	1,484,851	572	46,490	8	970	25	5,970			9
1913	3,372	33,982	1,424,719	201	16,905	3	450	17	3,600			6
1914	5,389	88,355	820,378	64	43,055	3	450	27	5,200			3
1915	6,689	81,370	1,928,477	177	38,966			28	5,560			8
1916	9,312	41,344	1,327,934	523	30,558			32	6,929			12
1917	9,522	91,306	1,063,950	1,069	20,682			26	5,540			6
1918	6,247	131,250	788,060	616	23,537	11	1,180	24	4,595			5
1919	13,928	58,571	653,853	5,015	58,697	10	860	24	5,625			6
1920	9,102	125,998	317,987	578	31,121	2	60	26	4,490			14
1921	3,216	7,868	217,925	6	6,512	2	120	8	2,075			
1922	11,838	39,720	769,655	555	20,188			24	4,195			5
1923	18,713	35,633	1,476,230	112	44,037			25	4,440			8
1924	14,618	108,196	709,552	291	33,925	1	150	39	7,455			9
1925	15,953	120,305	1,387,240	450	24,895			28	5,546			18
1926	6,561	40,568	487,877	262	39,612			38	7,295			19
1927	5,291	27,389	230,852	494	13,508			11	1,790			18
By lines (included in above):												
1913					170							
1918					400							
1919	257			4,811								

NOTE.—No catch was reported in the years not shown in any division of this table.

Table 24 gives the catch by localities from 1896 to 1927, a broken record for the earlier years, but the most complete statement that could be prepared at this time. In a few instances it was advisable to make rather arbitrary divisions of catches where two or more places were joined as a single locality and where somewhat general terms

were used such as "Wrangell and vicinity." As the industry became stabilized and the requirements of law in such matters became better known and understood, these faults were in large part corrected. Not all of them disappeared, however, as even down to the present time errors of this kind persist. In other cases much of the purse seining in later years was done in the wider waters of the district, such as Ernest Sound and Bradfield Canal, and it was therefore impracticable to make more exact allocation of these catches. It was also deemed proper to combine the insignificant catches at Ham Island with those from Blake Channel, those from Bradfield Canal-Aere Creek with Bradfield Canal, those from Snake Bay with Snake Creek, and those from Bear Creek with Union Bay fish. The unallocated catches of the district comprise all salmon reported from Ernest Sound and several small catches from the following localities: Midway Bay, Boulder Cove, Alelof Bay, Buster Bay, Ham and Deer Islands, Smiths Bay, Jobs Inlet, Smoky Bay, Bobs Cove, Winchester Bay, Pats Creek, Thenis Bay, Emerald Island, Campbell River, Ulaf Bay, Ole Bay, Fogus Bay, Clay Creek, Sanco Bay, Canadastee, and Andrews Creek.

The table lists 36 localities as productive fishing areas of the Ernest Sound district. A few places may be regarded as unimportant, although they may have some value in showing that there are certain localities which have produced only limited numbers of salmon; yet others were trap locations which were occupied but a few seasons and then abandoned as being outside the migration route of the incoming salmon. In some cases the data were limited to catches in 2 or 3 years, covering localities whose importance as productive centers can only be determined by subsequent events. For that reason these catches have been kept separate.

Among the more important streams the most outstanding is Anan Creek, which in all probability produces a large percentage of the pink-salmon catch in the entire district. Anan is famed in the annals of Alaskan salmon lore and occupies a position in southeastern Alaska similar to that of Karluk River in the whole of Alaska. The data in table 24 show no exceptional returns from Anan, but when one includes the catches from Point Warde and from Bradfield Canal, a large proportion of which belonged to the Anan runs, the figures become impressive. Even then the real magnitude of these runs is not comprehended without making some allowance for the number of Anan salmon that are captured by fishing appliances along the shore of Cleveland Peninsula between Union Bay and Point Warde. Anan Creek is not a large stream, being much smaller than several other tributaries of Bradfield Canal and Blake Channel, but what it lacks in size is more than offset by other features, such as exceptionally fine areas for spawning fish, thus giving it unusual prominence as a salmon stream. Due to the ease of fishing at Anan Creek, the runs of salmon were relentlessly attacked. It became evident that the permanency of this valuable fishery might be jeopardized in a few years unless special protection were given to the runs of salmon. Accordingly an order was issued, effective January 1, 1913, closing Anan Creek, its lagoon, lakes, and tributary waters, together with the area within 500 yards of the mouth of the stream. On January 1, 1926, another order became effective, prohibiting fishing within 1 mile of the mouth of the creek, thus eliminating a trap which had stood for years close to the 500-yard line and obstructed the movement of fish into the stream. Since then no catches have been reported from Anan, but the Anan runs continue to make material contributions to the catches of the district through the operation of appliances in the lower waters of the sound.

Catch data for Anan show peculiar fluctuations, in that during the early history of fishing there the heavier runs came in the odd years, the peak being reached in 1909. Thereafter the catch declined progressively until 1914. It improved somewhat in the next 4 years, but dropped again in 1920 to the lowest figure in the history of the Anan fishery, which may have been due to a slackened fishing effort or to an actual scarcity of salmon. Following 1921, the catches improved in 1922 and 1923, but 2 years later the respective cycles were less than half as productive. This decline may be attributed in some degree to more stringent regulation of fishing, yet there still remains convincing evidence in these data that the runs had been reduced. How far the regulations now in effect may go toward restoring the runs to their former proportions cannot be foretold, although they have made possible an escapement of salmon probably sufficient to reestablish this fishery in a few years.

All species of salmon are caught at Anan Creek but no special significance attaches to any species except the pink salmon.

Anita Bay, Olive Cove, and Thoms Place, tributary to Zimovia Strait, are localities in which pink salmon chiefly are taken. The streams are small and empty into protected waters where fishing is subject to no interruption by storms or surf. Relaxation of fishing seldom occurs during the continuance of the runs in such places and in consequence overfishing often results. While the runs were never large at any of these places, there was a substantial decline in the catches during the last 10 years. This was more marked at Olive Cove and Thoms Place than at Anita Bay. The closing order of June 21, 1924, stopped fishing in all three localities, although the data for Olive Cove indicate that the order was disregarded in 1925. The stream at Thoms Place was estimated by Moser to be capable of producing 20,000 red salmon and 5,000 cohos annually. It was fished as early as 1897 and for several years did produce approximately that number of reds, but since 1916 the catch has exceeded 10,000 only once, while the average yield for 9 years, 1916 to 1925, was less than 5,000. This stream produced slightly more than 40 percent of the total red-salmon catch in the Ernest Sound district from 1897 to 1924, the total for the period being 239,465 for the stream as compared with 588,509 for the district.

Several small bays, indenting the western shore of Cleveland Peninsula, support good runs of pink salmon and produce a few thousand chums, cohos, and reds, but in practically every case the catch data contain questionable items. Occasionally trap catches were reported from the bays, when in reality they came only from the vicinity of the bays. This situation is clearly indicated in the Emerald Bay data for 1925, if, indeed, the catch was not similarly affected in other years. Union Bay and Vixen Inlet data are likewise faulty in that they include salmon caught by traps at the entrance of the bays from the general runs of the sound. The southern shore of Union Bay was a favorable locality for trap fishing, due to the preference of the migrating salmon for that shore as they swing into Ernest Sound from Clarence Strait from both northerly and southerly directions. The eastern shore of Etolin Island is far less productive, having smaller streams and fewer bays, although Menefee Inlet, Southwest Cove, Canoe Passage, and Fools Inlet are fairly important localities. The data for these localities have peculiarities like those on the opposite side of the sound, a case in point being the catches reported from Menefee Inlet in 1920, particularly in the number of king salmon and red salmon alleged to have been taken there. These faults in data affect the individual localities but not the catches in the district as a whole.

The total catches in the Ernest Sound district are shown graphically in figure 46. It appears that the catch of red salmon has maintained a fairly even trend for approximately 20 years, omitting 1921 and 1927, years in which unusual conditions prevailed. Depletion in certain localities was offset by larger catches in other places so that the totals have not been appreciably changed. The catch of king salmon likewise shows little fluctuation, the large catch in 1919 coming mainly from trollers who ordinarily do not allocate their catches in detail but for some reason did so in that year.

Wide fluctuations mark the catches of chums and pinks and both show the exceptional drop in 1927 which has been frequently mentioned as general throughout southeastern Alaska. With respect to chums these variations do not appear to be particularly significant, as, since 1921, the maximum catches, at least, have been about the same as those preceding this period and the general average not much lower.

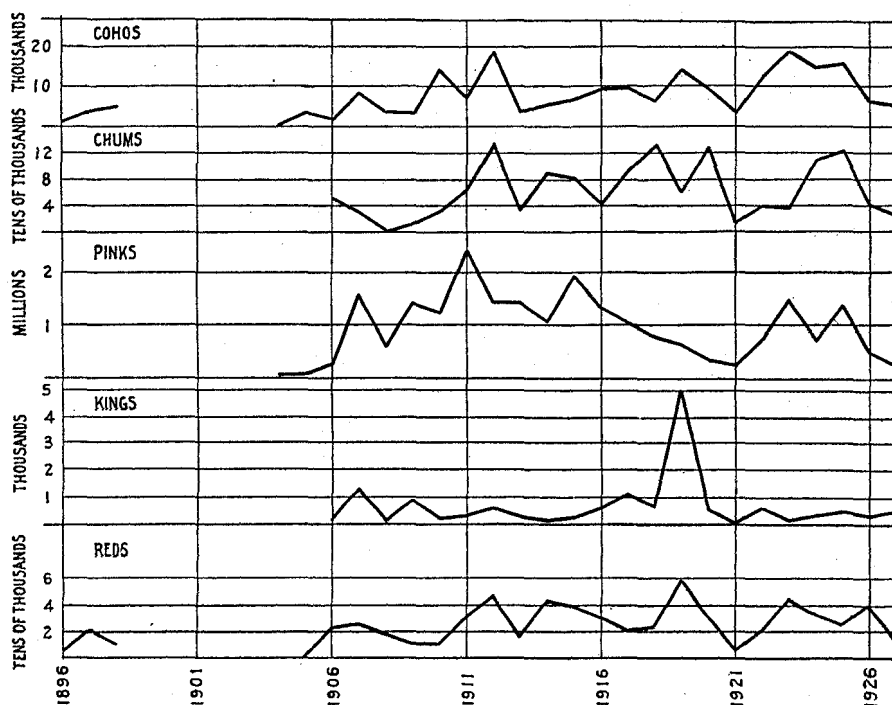


FIGURE 46.—Catch of salmon in the Ernest Sound district, 1896 to 1927.

The catches of pinks, however, maintained a noticeably lower level during the period 1922–27. Part of this doubtless can be accounted for as the result of the prohibition of fishing in some localities, but it is not all traceable to such causes; some reduction in abundance is quite clearly indicated.

The escapements into Anan Creek have been recorded by means of weir counts since 1925 and show marked reduction during the 3 years between 1925 and 1927. In 1925 the count of pink salmon through the weir in Anan Creek was 261,339 in 1926 it was 121,780; and in 1927 only 44,936. It is reasonable to assume that the situation at Anan was typical of conditions at other streams of the district, although probably less serious, for, as already indicated, Anan benefited from special protection which made possible a larger escapement of salmon into the stream than otherwise would have been the case. Less protection being accorded the other streams, the escapement, doubtless, was relatively smaller.

The condition of a fishery such as this is necessarily gaged primarily by the commercial catch of salmon and not by the number of fish that ascend the streams. If the catch remains fairly constant year after year without increased fishing effort, the fishery may be regarded as stable and balanced. An increased escapement without change in other conditions would mean larger runs, but when both the escapement and the catch decline steadily with an increased fishing effort there can be little doubt that the fishery is being depleted. That seems to have been the state of the Ernest Sound pink-salmon fishery at the end of 1927.

The catch of cohos in Ernest Sound shows, in general, a gradual increase throughout the period 1896-1927. The greatest recorded catch was made in 1912 but in spite of this and a very good catch in 1910 it is apparent that the trend has been upward and

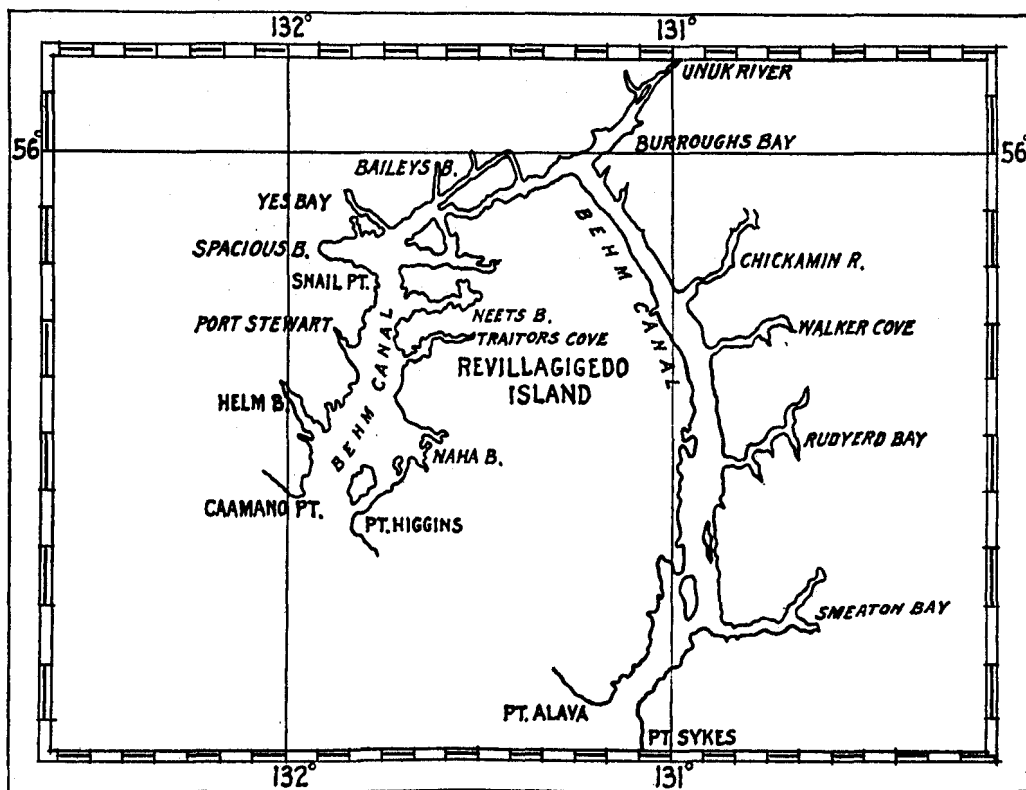


FIGURE 47.—Map of the Behm Canal district.

that the catches during the last decade herein considered have averaged well above those of the earlier years. This is due doubtless to the fact that the main run of cohos comes later in the season than the run of any other species so that, as the demand has increased, it has been easy to meet it by extending the period during which fishing is actively carried on.

BEHM CANAL DISTRICT

The Behm Canal district (see fig. 47) covers all the waters of the canal and its tributaries inside of a line across the northern entrance from Cape Caamano to Point Higgins and a line across the southern entrance from Point Alava to a point on the mainland shore 2 miles south of Point Sykes. The canal is a narrow body of water

separating Revillagigedo Island from the mainland and surrounding the island on all sides except the southwest coast between Point Higgins and Point Alava. It is divided naturally into two parts, eastern and western, the point of division being at the north end of Revillagigedo Island where the "canal" narrows to barely a half mile in width. At its northern extremity is Burroughs Bay into which empties the Unuk River, one of the larger streams of southeastern Alaska, southerly of which and 18 miles distant is the Chickamin River, a sizable stream also flowing from the mainland. Three narrow arms—Walker Cove, Rudyerd Bay, and Smeaton Bay—indent the mainland as tributaries of the eastern part of the canal. The eastern shore of Revillagigedo Island is very regular, being broken only by a few short bays. In contrast with this, the western shore of the island is marked by several conspicuous bays, and the shore of Cleveland Peninsula is similarly indented by bays of varying depth. Except as already noted, the streams of the district are small, yet several of them have been large producers of salmon.

Salmon canning in the Behm Canal district began about 1888 at three places—Burroughs Bay, Yes Bay, and Naha Bay—although fishing had been carried on at these localities for several years before the canneries were opened, the catches being prepared as pickled salmon. About 10 years later, fishing was extended to Helm Bay and Checats Cove where runs of red salmon were discovered. Throughout these early years of fishing the catches were largely unallocated. Allocated records became available for the first time in 1904 and the data compiled for that and subsequent years is fairly reliable.

TABLE 25.—*Salmon caught and fishing appliances used in the Behm Canal district, 1887-1927*

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Anchor Pass:												
1917	8	5,933	5,383	11	38							
1918		14	1,008		1							
1924	7	111	8,633		161							
Ape Point:												
1926	98	436	25,127		340							
1927	110	1,048	6,523		201							
Balley Bay:												
1907			2,000									
1908	42	20	7,728									
1910			6,212									
1911		295	12,901	4	177							
1918		80	1,008		1							
1922		26	4,265		2							
1925	364	4,013	19,189		1,414							
1926	118	485	3,375	1	274							
Bell Island:												
1914	93	502	637		333							
1919	1	174	890									
1920		2,750	1,844		4							
1922		52	2,811		58							
1923	3	1,083	12,020		87							
1924	1	2,102	2,096		8							
1925	52	456										
Betton Island:												
1919		731	290		3							
1925	1,008	7,548	151,841	2	1,884							
1927	237	667	5,802	13	821							
Bluff Point:												
1913	49	2,228										
1918	719	7,793	97,020	16	3,128							
1919	526	7,138	39,094	11	11,712							
1920	19	786	1,844	16	430							
1922	541	6,104	41,834	92	4,719							
1923	393	1,010	9,738	11	774							
Bond Bay:												
1922	395	3,477	28,801	8	185							
1923	111	41	7,582		117							
1924	2,556	4,667	90,492	2	4,748							
1925	2,680	11,502	167,375	144	4,057							
1926	2,181	7,223	145,037	3	2,949							
1927	676	2,061	11,005	30	1,782							

TABLE 25.—Salmon caught and fishing appliances used in the Behm Canal district, 1887-1927—Con.

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Burroughs Bay:												
1907	5,913				139							
1908	15,523	3,388										
1909	17,342	3,000										
1910	26,981	10,646										
1911	25,530	4,947	43									
1917	3	3,889	2,334		19							
1919	141	1,967	3,055	50	547							
1920	500	3,086	6,461		25							
1922	9	36	4,555									
1923		188	10,250									
1924	18	1,088	31,906		353							
Bushy Point:												
1913	109	2,472										
1918	56	2,182	47,215	15	63							
1920	8	2,338	2,260		62							
1924	7	256	7,808	1	254							
1926	341	2,574	61,614	6	1,963							
1927	353	2,466	8,267	31	2,094							
Checats Cove:												
1895					9,680							
1896					10,712							
1897	489	821	20,682		15,229							
1898	2,157		24,168		19,821							
1899	6,071		32,382		11,816							
1900	3,994		13,591		4,165							
1904			8,685		13,782							
1906			171		2,378							
1910			378		1,649							
1912	231	266	4,510		367							
1913					1,203							
1914	2	222	3,585		5							
1915		2	739		9,000							
1916	1,060				3,000							
1917		865	6,511									
1919		107	2,318		2,204							
1923	420	771	41,530		259							
1924	284	859	34,121	40	1,852							
1925	72	960	3,329	20	253							
1926	1	376	1,675		68							
Chickamin River:												
1904			5,510		5,008							
1907	7,709		150		563							
1908	10,804	1,484	20,469		274							
1909	13,000	2,000										
1910	18,989	3,193										
1911	12,130	999	7,017		729							
1912	10,924	472	105									
1914	122	7										
1915	50	3,992	198,679	21	318							
1916		3,149	20,600		176							
1917		5	1,025		1							
1918	1,584	51,514	280,044	230	1,210							
1919	3,587	30,670	64,810	900	2,762							
1920	484	17,414	72,158	355	1,401							
1922	1,927	3,636	50,162	4	230							
1923	415	12,220	102,239	223	799							
1924	13	3,697	25,446	25	108							
1925	40	1,789	54,135	6	97							
1926	6	1,233	8,264	13	102							
1927		71	2,542									
Chin Point:												
1926	206	516	20,860	3	818							
1927	105	557	4,724	4	1,857							
Clover Passage:												
1908			65,000									
1914	722	6,901	97,436		7,785							
1915	14	1,898	5,596		4							
1916	838	1,472	20,942	21	1,149							
1917	293	5,896	4,348		129							
1918	1,168	4,207	70,908		548							
1919		194	1,082		30							
1920	133	6,048	35,637	15	1,840							
1921	6		3,009		6							
1922	98	3,548	21,603		327							
1923	1,307	1,275	51,463		1,030							
1924	824	2,171	133,264		2,323							
1925	1,175	4,503	67,842	53	821							
1926	231	1,983	38,406	1	552							
1927	159	315	1,582	14	405							
Cow Creek:												
1908	13		330									
1911		15	6,270	2	2							
1912		691	4,845		92							
1915	4	316	9,832		24							

TABLE 25.—*Salmon caught and fishing appliances used in the Behm Canal district, 1887-1927*—Con.

Year	Coho	Ohum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Cow Creek—Continued												
1919		78	194									
1920		448	2,720		12							
1922	128	2,450	49,761	18	50							
1923	12	3,243	10,015	21	17							
1924	8	267	13,164	2	26							
1925		117	4,227		6							
Deep Bay:												
1912			50,829		424							
1913	4	952	25,941		6							
1916	27	1,265	10,336		433							
1917	20	1,765	28,488		118							
1918	4	470	5,263									
1919	54	14,596	4,303		70							
1920		5	28		2							
1922	17	1	4,995		1,318							
1924	1	1,033	1,559		6							
Escape Point:												
1925		2	45		2							
1927	335	1,254	8,264	27	1,181							
Eva, Point:												
1926	41	746	11,902	19	355							
1927	14	355	336	18	40							
Fish Point:												
1924	7	103	12,260	13	39							
Fox Point:												
1925	1,696	10,100	94,319		1,890							
1926	413	5,130	34,802		969							
1927	164	1,610	7,628		858							
Francis, Point:												
1926	36	205	9,140		84							
1927	25	487	1,690		232							
Gedney Pass:												
1924	121	2,094	47,970	1	994							
1926	5	29	611		7							
Grant Island:												
1922	518	824	25,715		597							
1925	301	750	52,659		942							
1926	45	275	10,295	1	630							
1927			25		10							
Helm Bay:												
1896	1,031				6,681							
1897	700				6,000							
1906					1,177							
1907	424		61,530		4,136							
1908	958	7	17,993		2,621							
1909	5		20,105		60,041							
1910			782		4,488							
1911	2	83	20,094		3,520							
1912	2,758	1,535	59,734		1,312							
1913	10		1,109		315							
1914	5	13	1,296		84							
1915	21	20	34,381		466							
1916	7	34	3,046		21							
1917		17	7,485		25							
1918	4	29	13,251		5							
1919		204	6,438		529							
1920	10	243	8,973		149							
1922		282	2,737		50							
1923	126	671	13,460		276							
1924	442	3,286	65,181		1,718							
1925	83	698	36,447		443							
1926	324	1,488	63,307		1,324							
1927	531	2,025	25,400		3,262							
Herman Creek:												
1915	8	12,589	79,067		218							
1916		4,648	8,587		119							
1918	12	621	1,185		8							
1919	1	2,624	1,831	32								
1920		259	335		1							
1922	14	1,774	19,405	3	55							
1923	17	1,155	2,702	5	27							
Higgins, Point:												
1907	79	137	412,413		1,101							
1908	690	310	170,100		2,539							
1909	181	19,210	195,659		4,590							
1910	515	7,870	120,690		4,450							
1911	1,074	1,314	197,396		5,528							
1912			14,600									
1914	2	2,297	30,642		825							
1918		12	2,997		26							
1923	171	2,273	5,080		34							
1925	1,673	5,957	136,070	21	2,404							
1926	1,177	5,640	120,065	13	2,486							
1927	501	1,384	9,824	33	1,560							

TABLE 25.—Salmon caught and fishing appliances used in the Behm Canal district, 1887-1927—Con.

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Hot Springs Bay:												
1907			20,000									
1908	31	21	3,742		85							
1910			3,386									
1911		124	21,460	3	101							
1912	7	59	5,407									
1913			25,544		7							
1915	8	9,224	29,646		70							
1916		11	2,984		3							
1917	280	67	12,343									
1918	59	3,326	19,065		232							
1919	6	769	6,008		30							
1922	27	2,380	16,386	9	83							
1923	4	60	6,156		141							
1924	4	155	15,311		73							
Indian Point:												
1911	6,857	9,118	172,500		10,131							
1913	360	453	28,000		346							
1926	619	1,549	62,638	19	2,456							
1927	329	1,306	10,716	46	3,624							
Moser Bay:												
1907			39,105									
1908	1,272	1,508	33,153									
1910	1,667	6	57,634		15							
1912	3,046	1,617										
1913		87	602									
1918	2	951	648									
1922		1,609	415									
1923	2	142	2,883									
Naha Bay:												
1887					74,483							
1888					75,204							
1889					75,834							
1890	4,827				67,659							
1891	3,013				96,396							
1892	4,495				22,416							
1893					46,116							
1894					56,490							
1895			340,969		14,733							
1896			361,738		43,782							
1897			130,000		16,000							
1898	5,000		150,000		18,377							
1899	1,000		189,650		13,176							
1900	2,000		150,000		15,224							
1910	500	9,000	28,000		8,000							
1911	3,605				42,700							
1918	61	1,603	12,651	250	10							
1919	4	1,921	2,251		1							
1922		324	3,315									
1923	7	78	3,457		7							
Nects Bay:												
1910			7,955									
1911		132	19,482		459							
1912	4	269	16,257									
1913		1	1,300		2							
1918		393	51									
1922	3	583	1									
1923	43	94	8,583		168							
1924	377	7,077	81,233	1	2,613							
1925	65	594	15,738		194							
1926	28	77	2,351		31							
Nelson, Point:												
1923	449	1,136	1,383		41							
1924	46	862	1,728		27							
1926	189	2,800	22,417	53	1,372							
1927	37	777	2,381	37	525							
New Eddystone Island:												
1912	985	3,873	123,121	134	1,088							
1914		101	102	8	29							
1915	90	172	26,299		243							
1919	1,047	1,088	11,653	5	260							
1925	4	1,778	2,231		2							
Princess Bay:												
1917	581	155	5,035		13							
1919	22	297	3,034									
1920			68		2							
1922	90	99	13,095		9							
1923	104	1,042	16,913		315							
1926		486	778		5							
Pup Island:												
1913	184	3,800	93,255		344							
1914	609	16,047	42,725		4,932							
1915	1,554	13,984	225,188									
Raymond Cove:												
1918	21	2	1,882									
1926	171	918	21,134	2	386							

TABLE 25.—Salmon caught and fishing appliances used in the Behm Canal district, 1887—1927—Con.

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Roe Point:												
1909	3,134	17,524	151,042		1,368							
1910	11,147	31,061	250,331		41,110							
1911	65	502	194,849		7,836							
1918	235	703	34,852		136							
1919		20	1,534		37							
1922	90	99	13,095		9							
1923	2,447	8,585	111,928	198	2,848							
1924	1,439	16,444	73,547	23	6,063							
1925	1,396	18,202	120,650	172	2,416							
1926	1,672	16,445	193,365	235	8,734							
1927	228	6,214	18,612	99	1,870							
Rudyard Bay:												
1913	304		327,720		2							
1914		5,600	20,506									
1915		5,229	98,755	1	10							
1916		7,000	12,000									
1917	1,289	493	5,009									
1918	2,632	5,806	26,714		14							
1919	457	8,427	13,895	4	670							
1920	12	4,123	34,055	26	186							
1922	868	12,246	147,179	13	356							
1923	1,578	17,478	152,288	55	1,993							
1924	42	7,300	41,943	9	386							
1925	12	1,036	2,781	4	92							
1926	311	763	1,486	51	182							
Sandy Beach:												
1913	101	3,621	578,995		22,147							
1918	776	4,934	110,825	25	4,589							
1919	390	7,000	42,443		8,301							
1920	317	15,403	29,094	6	4,274							
1922		13	1,015		151							
1923	756	1,784	42,803		1,839							
1924	695	3,532	43,391	1	2,698							
1925	174	1,159	4,709		328							
1926	36	118	575	1	91							
Short Bay:												
1907			135,000									
1908	169	1,224	82,338									
1909		2,500	33,000									
1910		2,391	48,910									
1911	23	1,289	30,792		41							
1912	5	735	41,117		35							
1913		1,093	24,148									
1914	33	5,435	8,443		10							
1915	614	3,215	54,161		22							
1916		1,786	4,959		9							
1917	104	902	3,563									
1918	510	5,156	104,783	1	171							
1919	3	1,374	5,976		449							
1920		852	2,318		59							
1922	730	1,625	21,819		169							
1923	12	3,185	17,203		197							
1924	22	2,529	37,032	1	310							
1925	3	1,057	4,015		14							
Shrimp Bay:												
1907			20,000									
1908	31	158	5,726									
1911		301	16,500		107							
1912		277	28,349		90							
1913			990									
1918		24	166									
1922	3	716	2,075		10							
1923		456	7,805		116							
1924	21	146	8,965		3							
Smeaton Bay:												
1904	353		9,439									
1907			1,579		1,112							
1910	35		1,308									
1911		850	23,548		28							
1912	3,664	7,932	213,064		5,841							
1913	28	1,480	1,277,613		607							
1914		20,577	35,895		308							
1915	1,923	43,378	423,206	188	2,999							
1916	1,000	50,657	26,267	3								
1917	5,376	63,319	114,196	73	1,411							
1918	109	10,618	137,674	10	1,756							
1919	758	42,927	87,823	98	3,282							
1920	68	16,739	58,786	17	969							
1922	4,457	137,517	445,763	79	3,582							
1923	6,987	109,751	624,680	126	9,019							
1924	3,059	197,451	530,086	241	9,456							
1925	1,901	117,528	384,851	404	5,368							
1926	1,665	23,200	75,591	227	2,842							
1927	16	435	5,558	127	115							

TABLE 25.—Salmon caught and fishing appliances used in the Behm Canal district, 1887-1927—Con.

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Smugglers Cove:												
1912	26	30	8,094									
1917	4,061	4,039	100,175	71	4,120							
1918	211	65	3,917									
1924	271	2,432	14,165	3	1,323							
1925	33	1,385	8,996		164							
1926	267	1,294	45,907	2	785							
1927	64	224	2,114		282							
Snall Point:												
1907			25,000									
1908	163	260	31,072		855							
1910	2,385	15,501	83,060		2,453							
1915			580		2							
1924		77	1,008		561							
1925	75	1,473	3,757	2	126							
1926	369	1,199	11,758	1	583							
1927	52	141	90	15	154							
Spacious Bay:												
1907			10,570									
1908	101	143	4,865		2,042							
1909	1,038	1,256	59,052		10,334							
1910	980	1,067			7,272							
1911	10,180	4,008	144,040		46,906							
1912	1,930	2,508	90,126		5,148							
1913	12		2,774									
1914		107	1,601		69							
1915		17	7,324		81							
1916		554	8,719		3,853							
1918	251	447	27,461		270							
1919	9	1,936	13,909	3	7,241							
1920			35		401							
1922	29	130	24,778		555							
1923	18	585	26,586		1,131							
1924	132	4,744	43,433	1	8,690							
1925	8	579	23,344		1,011							
1926	42	704	18,606		5,121							
1927	13	159	700	1	1,294							
Stewart, Port:												
1908	80	577	25,315									
1911		120	11,771		63							
1912	244	54	13,224									
1915		177	8,822		9							
1918	108	89	5,960		45							
1920	2	293	2,252		25							
1923		169	6,720		5							
1924	20	3,462	31,239		128							
1925		97	3,460		112							
1926		259	407		11							
Survey Point:												
1911	5,193	7,691	380,214		15,482							
1912	4,064	5,685	353,783		7,224							
1913	766	560	224,500		2,340							
1914	1,799	15,104	220,058		19,628							
1915	1,255	6,941	243,543		5,900							
1916	460	1,330	15,930		2,188							
1917	2,000	9,000	70,000		10,896							
1918	205	404	13,424		249							
1919	1,110	3,337	30,821		3,888							
1920	576	1,955	19,686		2,118							
1922	907	1,595	53,790		1,218							
1926	590	1,233	96,895	6	1,612							
1927	247	1,046	6,680	5	652							
Syble Point:												
1918	1,198	4,811	110,658	13	3,297							
1919	339	4,282	25,421	3	9,900							
1920	397	17,700	34,959	17	5,604							
1922	992	8,553	80,021	41	5,525							
1923	272	1,080	7,485	12	365							
1924	83	354	4,818		114							
1927	578	402	6,048	5	1,651							
Sykes, Point:												
1916	1,230	240	2,600		496							
1918	122	492	31,553		160							
1919	1,100	6,522	40,990	900	2,960							
1920	2,928	29,676	125,407	1,984	12,799							
1921	14,180	45,894	524,952	1,416	5,152							
1922	6,191	18,984	520,321	32	9,275							
1923	22,393	61,750	493,171	803	18,038							
1924	3,926	106,099	236,616	2,150	11,066							
1925	5,015	66,974	234,926	907	7,860							
1926	1,439	18,371	149,176	357	8,998							
1927	621	7,243	22,294	116	5,436							
Tatoosh Point:												
1926	8	34	1,119		14							
1927	22	58	422	2	59							

TABLE 25.—*Salmon caught and fishing appliances used in the Behm Canal district, 1887-1927—Con.*

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Tatoosh Rocks:												
1923	165	189	9,475	5	241							
1925	367	1,581	13,630	31	463							
1926	973	1,970	188,550		4,046							
1927	318	871	7,677	9	1,106							
Traitors Cove:												
1907			26,000									
1908	196	9,614	128,873		116							
1909		16,000	49,000									
1910	55	9,174	85,534		2							
1911		3,633	16,123		59							
1912	66	11,056	198,916		147							
1913		2,242	19,112		1							
1914	6	25,402	12,254		62							
1915	1	7,779	18,907		42							
1916	68	8,267	22,550		419							
1917	330	12,376	17,833		110							
1918	797	14,741	100,927		823							
1919	49	37,895	54,107		856							
1920	220	64,852	37,489	3	1,594							
1922	545	17,248	101,086		188							
1923	1,379	12,360	123,106	2	2,208							
1924	458	23,106	169,344	1	3,333							
1925	247	7,161	99,626		1,688							
1926	621	6,329	52,741	3	2,009							
1927	124	7,498	3,090	13	1,516							
Trollop Point:												
1910	411	230	32,591	4	300							
1927	58	2,329	3,463	94	592							
Trunk Island:												
1911	57	340	15,726		240							
1924		18	209		8							
1925	262	753	49,864		455							
1926	90	248	11,679	2	109							
Unuk River:												
1910	9,000	5,081	21,218									
1911	7,645	66	2,085									
1912	26,768	8,977	11,858	44	212							
1913	686	3,516										
1914	3,303	1,914			2							
1915	2,915	2,945	3,281		160							
1916	330	8,762	2,338	13	78							
1917	3,853	8,097	10,749		77							
1918	7,515	6,086	14,288	4	36							
1919	1,991	9,169	427	30	393							
1920	102	1,918	10,437		56							
1922	2,066	2,273										
1923		22	530	1								
1924	826	209										
1926	1,369	1,033	689	12	6							
1927	2	1,345	6,947	24	55							
Walker Cove:												
1914	9	3,997	38,403									
1915		3,500	60,000									
1916		5,509	10,173									
1917	921	5,139	3		525							
1919	788	12,053	11,216	5	683							
1920	102	12,057	42,056	69	1,323							
1922	245	6,682	5,825		4							
1923	184	10,865	15,013	21	168							
1924		121										
Wasp Point:												
1926	445	6,064	47,112	24	1,079							
1927	88	2,717	7,695	34	917							
Winstanley Island:												
1910	320	83	8,950	146	276							
1925	131	1,327	5,559	2	321							
Yes Bay:												
1893					26,292							
1894					21,541							
1895					42,007							
1896					46,706							
1897	9,511	5,862	185,608		60,900							
1898	6,413		45,000		44,271							
1899	6,300	500	75,000		69,000							
1900	7,700	2,250	60,000		80,000							
1904			16,768		19,679							
1906	1,500				18,000							
1907		352	95,579		31,599							
1908	2,163	871	39,451		47,233							
1909	45	537	56,124		85,598							
1910	1,366	6,430	155,991		139,143							
1911		5,850	155,974	61	81,750							
1912	33	227	8,630		1,014							

TABLE 25.—Salmon caught and fishing appliances used in the Behm Canal district, 1887-1927—Con.

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps number
						Number	Number	Number	Fathoms	Number	Fathoms	
Yes Bay—Continued												
1913	22	514	42,091		337							
1914	55	547	479		17							
1918	1	177	5,237		11							
1919		256	921		283							
1922					2,526							
1923	2	20	906		72							
1924	2	95	4,227		539							
1925	50	1,506	8,813		61							
1926	175	154	506	6	205							
Unallocated:												
1904	27,690	10,184	367,323		157,697							
1905	7,147		217,551		151,389							
1906	15,556	20,540	321,123		103,093							
1907			75,000									
1908		137	2,203		610							
1909		8,499	88,000	120	12,070							
1910	290	222	10,493		61							
1911	5,655	7,369	397,725	50	19,792							
1912	8,026	32,881	1,027,092	201	70,331							
1913	2,018	12,178	593,695	52	4,696							
1914	1,997	142,595	284,635	234	20,429							
1915	9,438	63,152	1,086,333	484	31,017							
1916	7,322	60,177	254,915	718	17,608							
1917	17,775	128,995	534,463	1,222	18,530							
1918	22,677	128,334	1,487,752	1,593	20,546							
1919	65	19,874	61,424	7	1,530							
1920	1,259	60,031	175,010	168	5,301							
1921	16,319	7,600	71,470		1,253							
1922	974	10,795	162,647	6	2,606							
1923	369	16,178	108,412	28	6,391							
1924	632	13,051	118,490		2,001							
1925	421	6,829	17,832	83	461							
1926	3,228	11,932	185,722	102	5,885							
1927	794	7,048	30,436	227	14,148							
Total:												
1887					74,483							
1888					75,204							
1889					75,834							
1890	4,827				67,659							
1891	3,013				96,396							
1892	4,495				22,416							
1893					72,408							
1894					78,031							
1895			340,969		66,420							
1896	1,931		361,738		107,831							
1897	10,700	6,683	336,290		98,129							
1898	13,570		219,168		82,469							
1899	13,371	500	297,032		93,992							
1900	13,694	2,250	223,591		99,389							
1904	28,043	10,184	407,725		196,146	5		15		10		2
1905	7,147		217,551		151,389	2		9		1		1
1906	17,056	20,540	321,294		124,648	3		14		1		1
1907	14,125	489	923,926		38,650	2	300	14	2,940	3	250	2
1908	32,236	19,731	645,358		56,375	1	150	12	2,350			3
1909	34,745	70,526	651,982	120	174,001			13	2,560			6
1910	74,641	102,055	924,313	150	209,228			18	4,040	4	900	5
1911	78,049	49,046	1,855,520	120	235,641	1	300	15	3,330	6	300	6
1912	62,748	79,144	2,272,611	379	93,325			19	4,825			14
1913	4,703	35,577	3,268,289	52	32,353			20	4,150			11
1914	8,757	247,368	793,991	242	54,518			22	5,100			14
1915	17,895	178,530	2,614,339	694	50,585			30	5,930			13
1916	12,282	154,861	427,006	755	29,552			18	4,205			11
1917	37,794	250,952	923,943	1,377	36,012			34	7,290	3	500	15
1918	41,037	256,084	2,749,887	2,167	37,341			55	12,115	3	600	19
1919	12,451	217,630	538,158	2,048	58,600			42	8,380	5	1,200	9
1920	7,137	258,976	703,918	2,676	38,637			29	6,331			9
1921	30,505	53,494	599,431	1,416	6,411			1	150			2
1922	21,834	245,680	1,869,680	305	33,827			47	9,550			7
1923	40,146	270,808	2,054,565	1,511	48,713			71	14,575			13
1924	16,344	410,988	1,936,685	2,516	62,037			58	11,690			16
1925	19,308	278,502	1,792,260	1,851	35,359			42	8,680			29
1926	19,530	125,519	1,758,182	1,162	59,433			51	10,720			44
1927	6,812	54,113	228,515	1,033	48,209			7	1,450			43

NOTE.—No catches were reported in the years not shown in any division of this table. Included in this table are 50 king salmon in 1913 and 250 in 1918 that were taken by trollers.

Table 25 shows the catch of salmon in the Behm Canal district. It lists the recorded catches from 58 localities besides a large unallocated catch comprising data from 23 additional localities which were not of sufficient importance to be shown separately and all salmon which were reported merely from Behm Canal. Parts of the catches reported from Loring and vicinity in 1904, 1905, and 1906 are also included in the unallocated section. The minor localities were as follows: Blind Pass, Brow Point, Brownly Bay, Cove Inlet, Claude Point, Cove Point, Hassler Pass, Herman Bay, Humpback Bay, Humpback Creek, Hump Bay, Hump Creek, Ice Point, Neah Bay, Point Whaley, Saks Cove, Salt Lake, Shoalwater Pass, Swedish Meadows, Trunk Creek, Wadding Cove, White Point, and Wold Creek.

Several combinations of catches were made where names were apparently incorrectly spelled. Thus it was assumed that "Cheater Cove" was intended for Checats Cove; "Rodrick Bay," "Rogers Bay," and "Rudgers Bay" were meant for Rudyerd Bay; "Traders Cove" for Traitors Cove; "Mesh Bay" and "Meash Bay" for Neets Bay; Clover Passage and Hump Island catches were combined under the name of the Clover Passage; Smeaton Bay catches include part of the fish reported from "Smeaton Bay and Checats Cove," from "Smeaton Bay, Boca de Quadra, and George Inlet," and all salmon from Wilson Arm. Bell Island catches include small lots of salmon reported from Behm Narrows and Bell Arm.

The Behm Canal fisheries were first exploited at those streams which supplied red salmon, Naha Bay, Yes Bay, and Checats Cove being the more important. At this time practically all fishing was carried on by means of seines operated near the mouths of the streams. With the introduction of traps much of the fishing was transferred to the open waters of the canal at points where the fish passed close to the shore in their migration to the streams. As the number of traps increased the catches in the canal proper became larger and finally exceeded those from the bays.

Salmon enter Behm Canal through both entrances. Those using the northern entrance probably approach it chiefly from the south through Clarence Strait; those coming to the eastern part of the canal pass through the southern entrance from Revillagigedo Channel. Available information shows that the Behm Canal runs come mainly from southern waters. The tagging experiments in Sumner Strait in 1924 and subsequent years disclosed that some salmon came to the canal from the northwest through Sumner and Clarence Straits, but the movement from that direction was far less significant than that from the south as shown by the results of tagging on the west coast of Gravina Island, at Cape Fox, and at Cape Chacon. After the runs enter the canal there is probably little or no mingling of those using the northern entrance with those coming through the southern entrance. Trap fishing is concentrated at both entrances and the largest catches are made in these sections of the canal.

In the first 8 years of salmon fishing in this district only red and coho salmon were utilized; chiefly reds, as cohos were reported in 3 years only. Pink salmon were canned first in 1895, and since then have formed the principal product of this region. Two years later a catch of chums was reported, but this species was unimportant until after 1908. King salmon were taken at Burroughs Bay and other parts of Behm Canal long before catches were recorded, although the data here considered indicate that none was caught until 1909.

The omissions of the earlier years and the incorrect allocation of catches in later years have made it impossible to show with much accuracy the total production of this

district. In many cases fish from the canal were reported in combination with catches from Clarence Strait and other adjacent waters, and for that reason had to be treated generally as unallocated catches from southeastern Alaska. The catches in the several listed localities in the district are also confused and incomplete, which accounts for the large totals in the section of the table showing unallocated catches. Again, there are lapses in the records for almost every locality that was fished before 1925, so that in general the records are incomplete. Discussion of the statistical data must be limited, therefore, to the total catch records in the district.

The fishery regulations have restricted the field of operations in certain localities and prohibited fishing entirely, except by trolling, for definite periods. On February 1, 1906, Yes Bay reservation was created by an Executive order which closed the bay to all commercial fishing for salmon. On June 21, 1924, Yes Bay was protected further by the prohibition of fishing within 1,000 yards of Bluff Point and Syble Point at the entrance of the bay. On January 1, 1913, Naha Bay and its tributary waters were closed inside of a line from Loring Point to House Point. The entire bay was closed by the order of June 21, 1924. Walker Cove was also closed at the same time. By progressive steps, the general regulations effective each year from January 1, 1919, to June 21, 1924, closed all streams in southeastern Alaska and prohibited fishing by any means within 500 yards of the mouths of the streams. These regulations were superseded by the law of June 6, 1924, and the regulations laid down under the authority of that act of Congress. The important change thus made provided for a closed season of 20 days from August 20 to September 9 in certain waters south of the fifty-seventh parallel of north latitude, of which Behm Canal was a part. A slight modification in the date of the midseason closed period was made in the regulations which were effective after 1924, but other restrictions were added limiting the size of nets, extending the distance interval between traps, suspending all fishing, except trolling, after October 15, closing Wilson and Bakewell Arms of Smeaton Bay, part of the north arm of Rudyerd Bay, the estuary at the mouth of Chickamin River, Shrimp Bay, Traitors Cove Lagoon, and opening Naha Bay west of the longitude of Cod Point, but continuing the closure of Long Arm and Moser Bay, which were covered by the original Naha Bay closing order. The enforcement of these regulations reduced the catches in these designated waters very perceptibly, but apparently it had little effect upon the total catch in the district, as an increase in the number of traps from 16 to 44 in 2 years was sufficient to maintain the level of production.

All species of salmon were taken in Behm Canal and the catches are shown graphically in figure 48. Reds came chiefly from Naha and Yes Bays, but smaller catches were made at Checats Cove, Helm Bay, Spacious Bay, Traitors Cove, and Smeaton Bay, while unimportant catches were reported from many other localities. Exceptional catches were made in a few years due, apparently, to better than average runs at Yes Bay. After the closing of Yes and Naha Bays to insure an escapement of salmon for artificial propagation at the fish-cultural stations located on lakes tributary to these waters, a marked reduction in catch occurred. The largest catches were made between 1904 and 1912; previous to 1900 the catches had been fair, averaging about 80,000 each year. Since 1912 the average catch has been much lower, approximately 50,000, and shows no marked change between 1913 and 1927.

No large catches of king salmon have ever been definitely allocated to Behm Canal. The best catches of this species were made by traps near Point Sykes at the southern entrance. Stragglers were taken at several localities, but no distinct run was evident

except at Smeaton Bay. Trollers probably made considerable catches in the canal but failed to allocate their catches. Inasmuch as king salmon are found on the feeding grounds, often far from the streams they will eventually ascend to spawn, the lack of complete catch records for a given district is not a serious matter, as the presence of kings in many localities does not constitute a run in the sense that they are approaching a definite stream. Often the schools are composed of salmon of different ages and from several runs, so that catches of king salmon in Behm Canal do not necessarily mean that they were exclusively Behm Canal fish. This condition exists in respect of kings perhaps more than to any other species, and the fluctuations in catches are meaningless in determining the increase or decrease of runs in all such places.

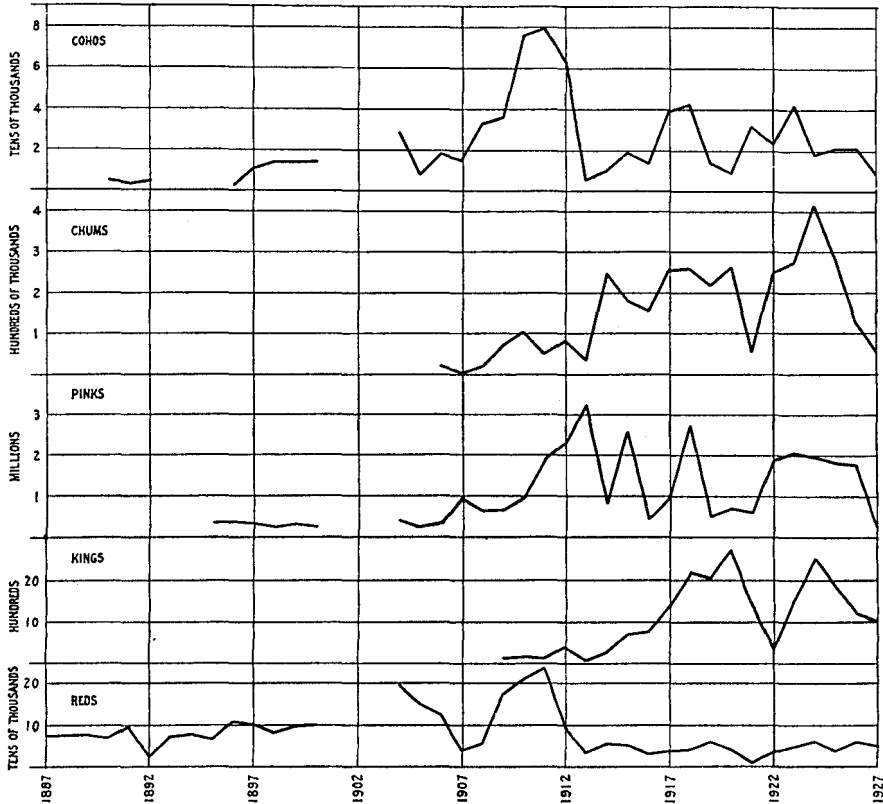


FIGURE 48.—Catch of salmon in the Behm Canal district, 1887-1927.

The pink salmon fisheries have yielded fairly large catches in some years and extremely poor ones in other years, but without the definite recurring biennial variations which were observed in some other districts. From 1922 to 1926, a period of 5 years, catches were fairly uniform, but 1927 shows the smallest return the district had known in 20 years, indicating beyond question a real scarcity of pink salmon. The total catch was only 228,515, notwithstanding that 43 traps were located in the canal that season. With this exception, the fishery has shown no evidence of decline in recent years and appears in fact to be even more productive, although the regulation of fishing in this period was more drastic than ever before.

The chum fishery produces annually a few hundred thousand salmon. Since 1913 the trend has been almost level except as it dropped in 1921 and 1927 on account of conditions which have been repeatedly mentioned.

Cohos have been reported from Behm Canal since 1895. The catch is marked by wide fluctuations, the high peaks occurring in 1911, 1918, and 1923, and the low points in 1905, 1913, 1920, and 1927. The real condition of this fishery, however, is not shown in the data presented, as no doubt exists that many cohos were taken in Behm Canal by trollers who made no allocations of their catches.

As measured by these incomplete data, the fisheries of Behm Canal show no material decline in production during a long period. Certain localities undoubtedly

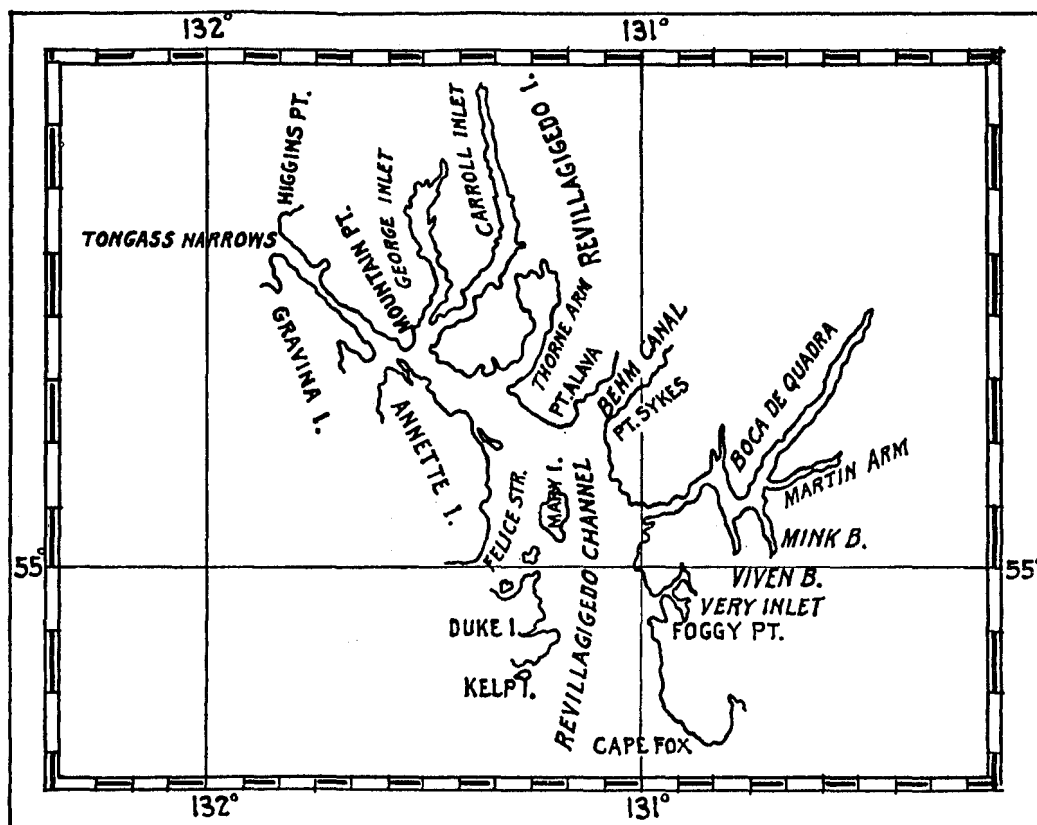


FIGURE 49.—Map of the Revillagigedo Channel district.

have been depleted to some degree, but the development of fisheries in new places has counterbalanced these losses and maintained the yield at a fairly constant level.

REVILLAGIGEDO CHANNEL DISTRICT

This district covers all waters southerly and easterly of a line from Point Higgins to Vallenar Point at the northern end of Gravina Island to the international boundary in Dixon Entrance exclusive of any part of Nichols Passage southwesterly of a line from Gravina Point to Walden Point and any part of Felice Strait westerly of a line from Annette Island to Duke Island along a meridian at $131^{\circ}28'$ W. longitude, and all waters west of a true north and south line from Cape Northumberland on Duke

Island to the southern limit of the district. A line due south from Cape Fox forms the eastern boundary of the district in Dixon Entrance. The eastern boundary at the southern entrance to Behm Canal is defined by a line from Point Alava to a point on the mainland shore 2 miles south of Point Sykes. It is a small district, barely 62 miles in length, and in the main embraces the waters of Tongass Narrows, Felice Strait, and Revillagigedo Channel and their tributary bays and streams. (See fig. 49.)

Four rather long bays or inlets indent the eastern shore of the district, while numerous smaller bodies of water break the shores of Annette and Duke Islands, all of which contain the outlets of salmon streams.

The earliest recorded catches of salmon in this district were made at Kah Shakes Cove and George Inlet in 1892. In the next 3 years fisheries were opened, in the order named, at Annette Island, Ketchikan Creek, and Boca de Quadra, and in 1897 at Ward Cove. Apparently no other localities were fished until after 1900. No stream statistics are available for the years 1901 to 1903, inclusive, but it is probable that most of the localities listed for the first time in 1904 were fished during the 3 years for which data could not be obtained.

The first cannery in this district was located on Boca de Quadra in 1883, where it was operated until 1886. It was then moved to Ketchikan and continued to pack salmon until 1889, when it burned. In 1896, another cannery was opened on Mink Arm of Boca de Quadra, and is still in existence. The third cannery was located at Ketchikan in 1900, and it likewise is still in operation. From 1889 to 1902, three salteries were opened on Boca de Quadra and operated for varying lengths of time. One was also built on Tongass Narrows in 1902, but was operated only during that season. This constitutes the early history of the salmon industry in this district as far as it concerns the plants within the district, although canneries in adjacent districts took salmon from these waters. From this beginning, the salmon-canning business grew rapidly and in a few years made Ketchikan the most important fishery point in Alaska, there being a concentration of canneries, salteries, and freezing plants at this port, which later developed a large export trade in fresh fish.

TABLE 26.—*Salmon caught and fishing appliances used in the Revillagigedo Channel district, 1892 to 1927*

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Alava, Point:												
1912	4,000	2,000	120,000		4,000							
1916	1,025	7,422	53,056		2,941							
1917	6,708	37,295	229,414		3,041							
1918	1,466	2,877	95,550		1,761							
1919	728	2,111	38,911		4,719							
1920	1,063	6,047	46,096		3,214							
1922	5,089	14,295	223,238		6,639							
1923	38	24	659		18							
1924	796	12,742	41,674	7	1,101							
1925	1,035	11,736	78,235		1,590							
1926	1,269	10,056	130,860	116	3,435							
1927	465	4,893	14,405	50	2,071							
Annette Bay:												
1911	2,814	8,171	22,314		271							
1912	1,182	6,380	73,220		5,945							
Annette Island:												
1893			140,000									
1896			68,000									
1897			20,000									
1911	1,898	3,515	20,348									
1922	417	315	18,681		255							
1923	2	1,443	187		2							
1924	47	28,455	2,828		21							

TABLE 26.—Salmon caught and fishing appliances used in the Revillagigedo Channel district, 1892 to 1927—Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Annette Point:												
1919		658	2,136		27							
1922	227	1,675	10,923		505							
1923	111	3,667	22,003		540							
1924	12	3,088	24,274		444							
1925	130	9,891	31,232		531							
1926	1,248	36,803	18,648		838							
Black Island:												
1912	5,048	4,078	73,892		4,572							
1913	697	203	270,605		2,804							
1914	1,635	8,388	109,059	35	3,933							
1915	9,835	36,844	566,926	14	25,727							
1916	1,182	15,500	50,818	138	5,704							
1917	5,512	41,000	145,297	90	6,200							
1918	3,318	29,847	279,372	81	8,052							
1919	2,577	41,803	129,519		10,612							
1922	8,894	15,006	231,850	91	7,535							
1923	4,281	10,007	185,258	2	6,040							
1924	4,412	57,166	153,852	182	7,800							
1925	789	8,956	55,683	209	2,461							
1926	159	1,047	10,956	15	636							
1927	68	997	873	2	105							
Boca de Quadra:												
1895					97,000							
1896					137,000							
1897					65,000							
1898	5,664		100,000		98,138							
1899	4,522		301,000		106,232							
1900			223,000		174,614							
1904			232,748		53,523							
1906			36,959		86,580							
1907	11,016	8,095	1,010,941		209,799							
1908	12,500	31,167	671,696		88,629							
1909	2,697	1,238	542,933		42,804							
1910	10,025	30,574	152,927		92,600							
1911	7,553	45,454	666,268		118,202							
1912	8,037	33,452	776,285		45,959							
1913	1,165	3,405	1,069,722		17,528							
1914	3,319	58,292	411,206		20,275							
1915	7,488	39,150	306,562		26,876							
1916	4,798	47,871	305,861		21,625							
1917	7,588	121,342	119,665	165	16,867							
1918	3,588	62,534	802,332	373	14,872							
1919	899	25,636	198,720	113	10,263							
1920	674	28,000	106,298	521	8,027							
1921		3	51,171		1,020							
1922	1,298	18,929	493,996	56	9,230							
1923	1,277	42,477	78,492	8	5,549							
1924	1,364	440,771	235,518	205	12,627							
1925	1,014	132,123	126,969	774	5,637							
1926	3,442	17,800	51,378	426	22,644							
1927	68	2,907	2,815	225	2,483							
Bold Island:												
1916	1,667	12,638	135,397		6,068							
1917	1,499	13,653	93,805		3,767							
1918	536	4,156	117,728		2,400							
1919	2,068	7,872	89,242		4,858							
1920	865	5,845	56,277		2,483							
1921	128	383	32,681		165							
1922	1,200	6,867	49,872	14	1,782							
1923	2,070	2,744	44,886	32	1,568							
1924	1,150	15,375	41,780		2,470							
1925	2,353	11,094	84,430	27	2,784							
1926	963	14,600	77,965	61	7,801							
1927	202	2,641	6,542	160	1,507							
Breakwater North:												
1925	1,567	4,529	42,306	10	3,736							
1926	843	2,659	60,758	12	4,798							
1927	279	1,840	7,839	20	1,064							
Breakwater South:												
1925	1,860	6,884	38,189	63	4,710							
1926	734	2,971	40,761	18	6,035							
1927	311	2,208	10,976	28	1,533							
Carroll Inlet:												
1904			15,150		456							
1907			675									
1908			251,360									
1910	124		48,979		311							
1911	3,024	642	124,327		1,240							
1913	85		43,313		129							
1914	150	17,792	90,799		821							
1915		74	3,474		10							
1916	44	11,893	38,030		167							
1917	767	25,444	104,653		2,534							

TABLE 26.—*Salmon caught and fishing appliances used in the Revillagigedo Channel district, 1892 to 1927—Continued*

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Carroll Inlet—Continued.												
1918	433	10,426	57,358		832							
1919	1,154	41,019	47,721	10	892							
1920	225	47,747	49,052		1,340							
1921	38	2,018	27,815									
1922	555	47,136	99,915	8	456							
1923	3,148	28,321	178,567		4,510							
1924	306	77,835	79,843	23	3,393							
1925	447	36,629	51,709	35	907							
1926	435	15,436	86,440	10	1,385							
1927	125	363	1,985	10	372							
Coho Cove:												
1917	5,009	4,042	61,451		2							
1922	1,796	7,181	101,423		3,488							
1923	1,570	9,194	147,116		2,888							
Cone Point:												
1919	4,771	3,010	37,984		5,397							
1925	786	10,499	82,060		500							
1926	315	2,368	59,522		3,195							
1927	396	1,846	5,501		895							
Crab Bay:												
1922	3,335	35,159	144,675	33	4,246							
1923	3,580	51,642	214,516	71	7,531							
1924	1,164	25,015	150,462	13	3,644							
1925	864	25,056	98,762	19	2,435							
1926	1,835	19,606	129,740	70	5,601							
1927	205	1,622	8,656	39	1,409							
De Long Islands:												
1924	979	4,111	48,214		1,952							
1925	1,419	4,753	38,857	7	3,148							
1926	492	3,506	40,841	20	3,515							
1927	168	936	2,890	4	594							
Duke Island:												
1911			2,328		1,629							
1918	1,019	3,571	34,084		2,613							
1922	519	2,777	8,000	1	208							
1923	331	1,014	20,177		1,103							
1924	22,369	9,081	70,046	239	9,743							
1925	2,343	3,640	24,760	48	1,902							
1926	6,874	26,402	109,487	85	9,222							
1927	4,610	9,028	21,480	1,458	7,894							
Duke Point:												
1925	17,644	15,038	129,333	730	6,962							
1926	4,031	5,323	85,722		2,769							
Felice Strait:												
1913			7,412		1,686							
1916	294	378	16,535		2,628							
1917	2,000	5,006	11,660	10	68							
1918		21	3,519		51							
1920	139	451	2,444		11							
1922	5	1,136	227		318							
1924	39	41	4,512		93							
1926	223	1,670	9,757									
1927	62	169	446	130								
Flag Point:												
1926	6,752	2,591	32,861	76	3,923							
Foggy Bay:												
1904	3,920		1,766		366							
1908	1,190	3	27,205		676							
1910	1,697		12,858		236							
1911	1,037		9,979		15							
1913	60	3,602	35,849		576							
1915	425	6	36,910		610							
1916	300	117	14,753		243							
1917	435	34	570		49							
1918	157	18	30,262		6,076							
1919	346	2,551	81,552	19	2,250							
1922	2,594	3,084	144,783	1	599							
1923	225	139	17,391		20,370							
1924	6,137	38,915	280,718	1,159	2,209							
1925	687	2,504	40,981	1	30,082							
1926	5,477	35,461	373,100	1,676	206							
1927	4	118	439									
Foggy Point:												
1920	1,132	4,262	69,344	88	5,585							
1922	9,961	28,242	379,986	797	10,562							
1923	15,747	33,716	680,227	1,050	37,216							
1924	10,522	59,418	279,977	434	44,504							
1925	8,579	19,921	194,099	721	4,750							
1927	2,158	10,671	42,265	1,540	9,441							
George Inlet:												
1892			4,875		9,061							
1893			9,518		3,191							
1894	1,426		11,247		3,219							
1895	854		7,905		3,787							

TABLE 26.—Salmon caught and fishing appliances used in the Revillagigedo Channel district, 1892 to 1927—Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Nadzaheen Cove—Contd.												
1908	75	3,369	3,813									
1909		605	2,292									
1910	23	618	26,113									
1911	2,631	7,558	31,569		6,260							
1912			1,414									
1913			2,800									
1924		143	1,056		15							
Orca Point:												
1919	4	274	2,819	1	264							
1927	114	504	2,087		618							
Slate Island:												
1911	8,421	12,402	489,656		31,427							
1912	2,248	6,428	292,890		12,142							
1913	300	260	388,096		5,003							
1914	1,861	14,436	108,253		6,786							
1916	886	16,554	135,111		6,949							
1917	9,230	64,485	246,028	223	12,449							
1918	5,185	18,770	462,314	93	12,085							
1919	4,184	23,474	170,487	30	15,229							
1920	1,882	32,451	101,368	109	7,395							
1922	9,309	36,764	572,409	128	12,559							
1923	8,824	35,571	377,649	147	11,990							
1924	5,604	118,379	162,938	119	12,083							
1925	3,958	41,417	192,879	94	6,680							
1926	4,494	27,504	196,209	342	18,466							
1927	999	9,068	32,740	640	6,419							
Thorne Arm:												
1906			830		504							
1910	128											
1913		7,522	43,127									
1914	142	189	18,284		5							
1915	110		39,624		141							
1916	10											
1917	2,124	4,578	64,222		2,577							
1918	1,395	4,315	105,777	5	1,001							
1919	468	5,667	26,326	1	1,792							
1920	851	10,644	26,223		205							
1921	1	1,826	9,722		1							
1922	241	6,506	22,478		94							
1923	1,912	22,649	161,384	6	1,882							
1924	570	11,407	143,636		1,667							
1925	1,207	23,486	129,844	19	1,466							
1926	1,714	23,640	136,595	30	2,378							
1927	124	1,277	5,376	52	409							
Tongass Narrows:												
1906		392	15,668									
1909	293	77	37,726		512							
1910			4,825									
1911	2,588	1,316	79,231		931							
1912	8,600	4,262	276,874	400	11,471							
1913	101	490	133,303		2,872							
1914	1,816	16,592	129,139		7,772							
1915	2,739	19,380	299,693		12,984							
1916	4,418	11,066	89,542		4,986							
1917	5,743	11,492	155,338	97	1,154							
1918	3,400	15,651	328,871	92	3,594							
1919	1,156	10,608	88,609	18	4,830							
1920	1,785	21,169	133,799		8,215							
1921	16	326	24,111									
1922	202	4,261	47,059		768							
1923	254	688	139,365	32	509							
1924	206	2,474	27,258	12	626							
1925	198	2,765	28,315	10	499							
1926	626	3,540	46,938	12	424							
1927	276	972	4,350	21	1,105							
Tree Point:												
1919	1,290	10,320	179,061		17,017							
1920	5,372	54,887	168,963	165	22,458							
1922	21,962	13,326	376,350		15,742							
1923	16,896	36,769	768,832	9	36,643							
1924	11,935	22,356	354,100		32,113							
1925	2,820	10,155	51,029	76	6,226							
1926	2,455	17,201	228,853	85	18,432							
1927	991	6,853	33,106	876	6,960							
Very Inlet:												
1918	120	836	87,123		164							
1919	147	66	23,332		135							
1920			2,195									
1922	168	2,166	23,509		176							
1923	596	5,991	47,881		575							
1924	12	984	4,361	1	438							

TABLE 26.—*Salmon caught and fishing appliances used in the Revillagigedo Channel district, 1892 to 1927—Continued*

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Ward Cove:												
1897	600		11,000		1,500							
1898	743		34,935		1,535							
1899	1,000		15,000		1,000							
1900	1,179		52,511		873							
1904			1,153		44							
1906	1,037	230	21,918		1,960							
1910	461	175	17,752		709							
1912	92	62	9,403		514							
1913			1,513									
1916	238	780	73		30							
1917	603	167	2,222		17							
1918	207	24	958		125							
1919	202	878	1,860		36							
1920		589	1,805		289							
1921					2							
1922	165	1,034	4,407		9							
1923	92	340	8,895		43							
1925	290	335	4,742		44							
1926	2	46	162		5							
1927	40											
Unallocated:												
1904	27,691	10,184	367,323		157,697							
1905	7,148		217,552		151,390							
1906	15,556	18,540	280,324		103,093							
1908				8,800								
1910	1,307	5,456	9,946									
1912	2,079	7,496	60,416		132							
1913	1,745	7,836	221,982		599	9,995						
1914	5,986	20,762	282,542		306	25,983						
1915	14,470	25,970	506,891		688	42,410						
1916	5,465	27,553	161,029		899	20,285						
1917	13,012	75,556	256,831	1,848		20,246						
1918	23,093	96,181	1,127,371	3,476		33,065						
1919	4,433	35,176	242,562		237	20,685						
1920	7,475	76,177	403,743		174	30,645						
1921	9,087	1,543	160,306			915						
1922	7,925	14,959	163,465		48	5,641						
1923	7,668			1,309								
1924	1,646	5,073	54,036		58	3,349						
1925	5,119	19,191	133,251		355	11,785						
1926	4,954	14,263	161,640		78	18,224						
1927	201	3,235	5,697		38	1,157						
Total:												
1892			4,875		18,279							
1893			149,518		17,590							
1894	1,426		511,247		13,798							
1895	854		253,905		116,968							
1896	531		369,576		139,142							
1897	600		540,000		74,500							
1898	6,407		134,935		113,998							
1899	5,522		316,000		182,232							
1900	3,537		314,596		198,036							
1904	34,000	10,184	749,925		222,540	7	13					
1905	7,148		243,662		151,390		1					
1906	17,906	23,614	370,961		206,089	3	14					
1907	16,117	14,081	1,329,877		221,076	3	385	22	4,175	2	675	2
1908	14,424	43,119	1,002,387	8,800	103,883	2	325	16	3,180			1
1909	3,650	1,920	728,487		50,460	1	175	8	1,620			3
1910	18,633	45,870	403,565		108,113	2	135	14	2,890	11	1,650	2
1911	40,313	89,244	1,867,677		189,218			18	3,910	3	150	3
1912	52,974	82,504	2,330,022	529	113,368	8	550	16	3,275	1	300	10
1913	7,160	20,937	2,892,921		50,787			24	4,925			6
1914	16,897	165,894	1,823,870		463	77,881		21	4,150			9
1915	38,128	136,712	2,036,245		875	118,759		19	3,675	3	300	12
1916	24,997	172,870	1,158,968	1,474	78,598			17	3,005			19
1917	66,931	445,974	1,748,745	2,464	79,214	2	200	40	7,950	2	400	23
1918	52,616	277,359	3,867,290	4,126	87,200	1	70	42	7,810			26
1919	30,076	263,877	1,676,156		855	126,504	5	350	45	8,365		23
1920	28,275	352,994	1,530,561	1,442	121,033			36	7,002	2	165	44
1921	9,274	6,123	344,766		4,165			8	925			5
1922	92,042	341,590	3,583,465	1,624	103,768			55	10,580			23
1923	91,337	427,237	3,951,230	2,979	145,912			63	12,585			31
1924	86,659	1,105,401	2,741,353	2,686	193,318			90	18,010			31
1925	63,996	587,662	2,122,121	3,333	88,240			63	12,585			36
1926	58,020	355,847	2,588,202	3,714	195,654			76	16,250	5	1,000	48
1927	14,521	76,944	249,217	6,975	58,366			18	3,736			46
By lines (included in above):												
1908				8,800								
1923	7,668			1,309								
1924	215			55								
1925	242			36								
1926				83								

NOTE.—No catches were reported in the years not shown in any division of this table.

Table 26 shows the number of salmon that was reported as caught in the Revillagigedo Channel district from 1892 to 1927. It contains data for 44 localities and gives the unallocated catches of the district in an additional section. Certain catches were combined as follows: Black Island and Black Islet under the name first used; Boca de Quadra catches include fish from Breezy Cove, Badger Bay, Sockeye Creek, and a part of the salmon reported from "Boca de Quadra, Behm Canal, and Chomly Sound" in 1911, part from "Smeaton Bay, Boca de Quadra, and George Inlet" in 1915; and part from "Smeaton Bay, Behm Canal, and Boca de Quadra" in 1912; "Bald Island" catches were added to those from Bold Island; salmon from "Carr Inlet," "Carl Bay," and Gnat Cove were counted as Carroll Inlet catches; Cone Island catches were combined with those from Cone Point; Felice Strait data include fish from Dog Island, Cat Island, and Pond Bay; Nasaler Harbor salmon were added to those from Hassler Harbor; and Cape Fox Village catches were combined with those from Kirk Point. The unallocated catches were increased by the inclusion of the salmon from 15 minor localities, as follows: Dixon Entrance, Nettie Island, Tongass George Creek, Custom House Cove, Hill Creek, Sandy Bay, Gravina Point, White Reef, George Inlet No. 8, Quadra Point, Seal Cove, Niquette Point, Cascade Inlet, George Inlet Packing Co. trap no. 1, and Morse Cove.

The runs of salmon in the Revillagigedo Channel district come mainly from Dixon Entrance and strike the shore in large numbers at many points between Tree Point near Cape Fox and Mountain Point on the west side of the entrance to George Inlet. Large catches were made by traps in these localities, as shown by the data for Point Alava, Black Island, Bold Island, Foggy Bay, Foggy Point, Kah Shakes Cove, Kah Shakes Point, Slate Island, Tongass Narrows, and Tree Point. These data show clearly that a heavy migration moves northward along this entire shore and that the catches were substantially as large in the northern part of the district as they were in the southern part. Moreover, large numbers of salmon left this route of migration to enter Boca de Quadra, Thorne Arm, Carroll Inlet, and George Inlet. Fairly large catches were also made along the eastern shore of Annette Island.

The fisheries in very few localities in this district are sufficiently distinct and separate from the general fisheries of the district as to make individual consideration of them worth while at this time. Of those which are fairly distinct, that of Boca de Quadra is the most important. Fishing began here with the exploitation of the red salmon at Sockeye Creek. In 1898 coho and pink salmon were taken for the first time. Eight years later chums were taken, but kings were not reported from this locality before 1917, the catches always being small and probably made by traps at the entrance of the bay. The catch of reds, cohos, pinks, and chums is shown graphically in Figure 50.

This graph shows that the red-salmon fishery was most productive in the period from 1895 to 1912. A sharp decline came in 1912 and 1913, which brought the catch from an average of approximately 100,000 down to about 20,000. In 1918 a further decline took place, and from then to 1927 the annual catch has averaged less than 10,000. The reduction of the catches probably resulted in part from the closing of all waters within 500 yards of the mouth of Sockeye Creek on January 1, 1916, in order to conserve the runs for fish-cultural purposes, since the Northwestern Fisheries Co. was then and is still operating a hatchery on a tributary of Hugh Smith Lake, of which Sockeye Creek is the outlet. This is the only stream tributary to Boca de Quadra that supports an appreciable run of red salmon. On January 1, 1925, this

locality was protected further by the prohibition of fishing within 1 mile of the mouth of the creek.

The pink-salmon fishery reached its maximum production in 1913. With the exceptions of 1918 and 1922, the catches since then have been relatively small, indicating depletion unless the reduction can be traced to the effect of trap fishing along the coast from Kah Shakes Point to Tree Point. The tagging experiments near Cape Fox in 1926 demonstrated conclusively that traps in that locality caught a high percentage of Boca de Quadra red and pink salmon. It is a reasonable conclusion, therefore, that traps at Foggy Point and Kah Shakes Point did likewise. Therefore,

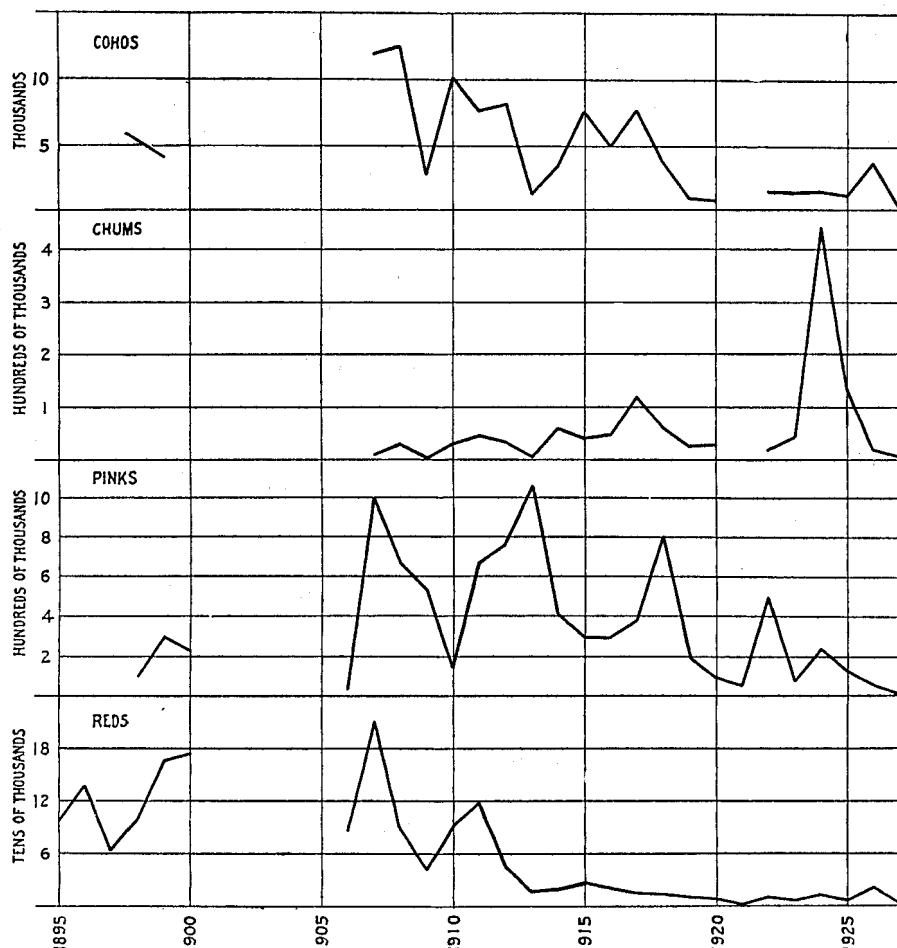


FIGURE 50.—Catch of coho, chum, pink, and red salmon in Boca de Quadra, 1895 to 1927.

while the data unquestionably show that fewer pink salmon were captured in Boca de Quadra after 1913 than before that year, they cannot be taken as convincing proof of depletion of the fishery. The decline may be correlated with the increase in the number of traps in this section of the Revillagigedo Channel district, since all of them doubtless draw upon these runs.

The catch of chums has shown wide and apparently inexplicable fluctuations. The peak of production occurred in 1924, but since then the catch has dropped rapidly until fewer than 3,000 were reported as taken in Boca de Quadra in 1927. Prior to this the catch had been fairly uniform from 1908 to 1920, although a very small catch

was made in 1913, and 1917 saw one of the best catches ever made in this locality. It has been pointed out above, however, that the catch of chums is, in general, affected by numerous economic factors so that the fluctuations here noted may have no biological significance.

The coho fishery is not especially important. The largest catches were made in the years from 1907 to 1912. Since 1917 this fishery has produced less than 2,000 cohos annually, except in 1926, when 3,442 were taken.

Carroll Inlet produces fair runs of pink and chum salmon and small numbers of the other species. All species were more abundant in the 6-year period from 1922 to 1927 than in any earlier period of similar length in the history of the fisheries here.

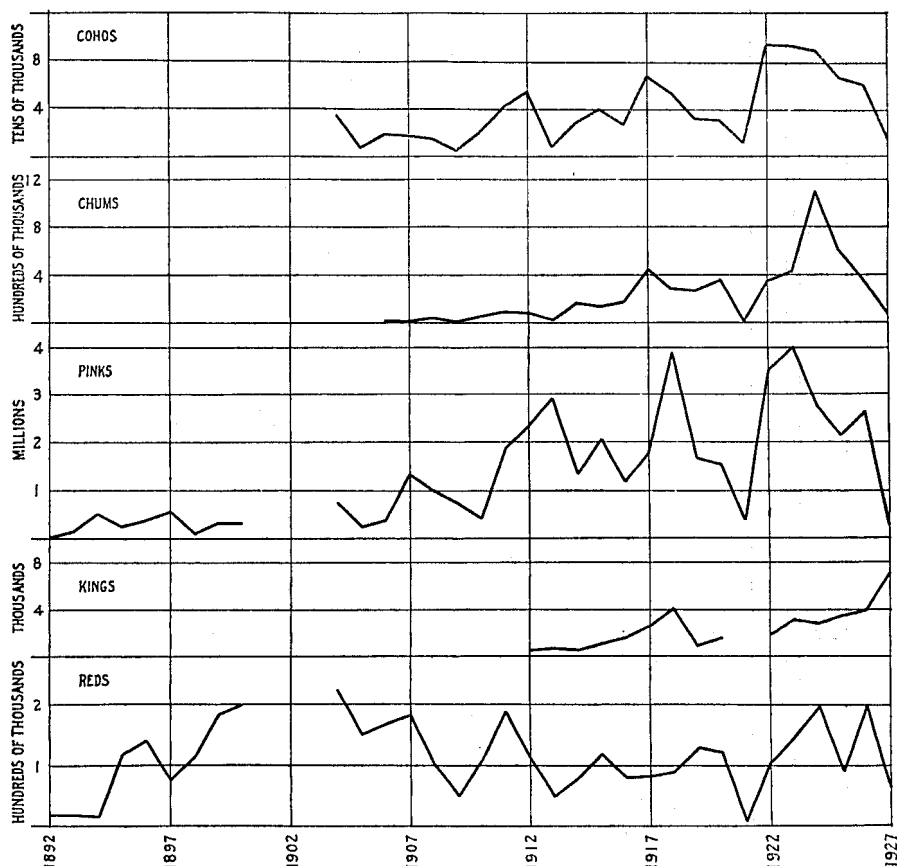


FIGURE 51.—Catch of salmon in the Revillagigedo Channel district, 1892 to 1927.

The earlier records are, however, incomplete, as no data were available for 1909 and 1912, which may occasion some doubt as to the productiveness of the respective periods, but, be that as it may, the Carroll Inlet fisheries appear to have suffered no depletion in the 23 years that they have been exploited.

George Inlet was fished as early as 1892 for its red salmon. The catch, always small, was consistent until 1916, when it fell off to less than half the previous figures, and has not increased subsequently, except in 1919, when the catch approached the level of the best years in the early development of this fishery. The catch in 1919, however, is open to question, as in the same year 392 king salmon were reported from this locality, although in all the earlier years of fishing in the inlet kings apparently

had not been taken. Presumably an error was made in allocating to the inlet fish taken by traps in outside waters. The catches of pink, chum, and coho salmon all

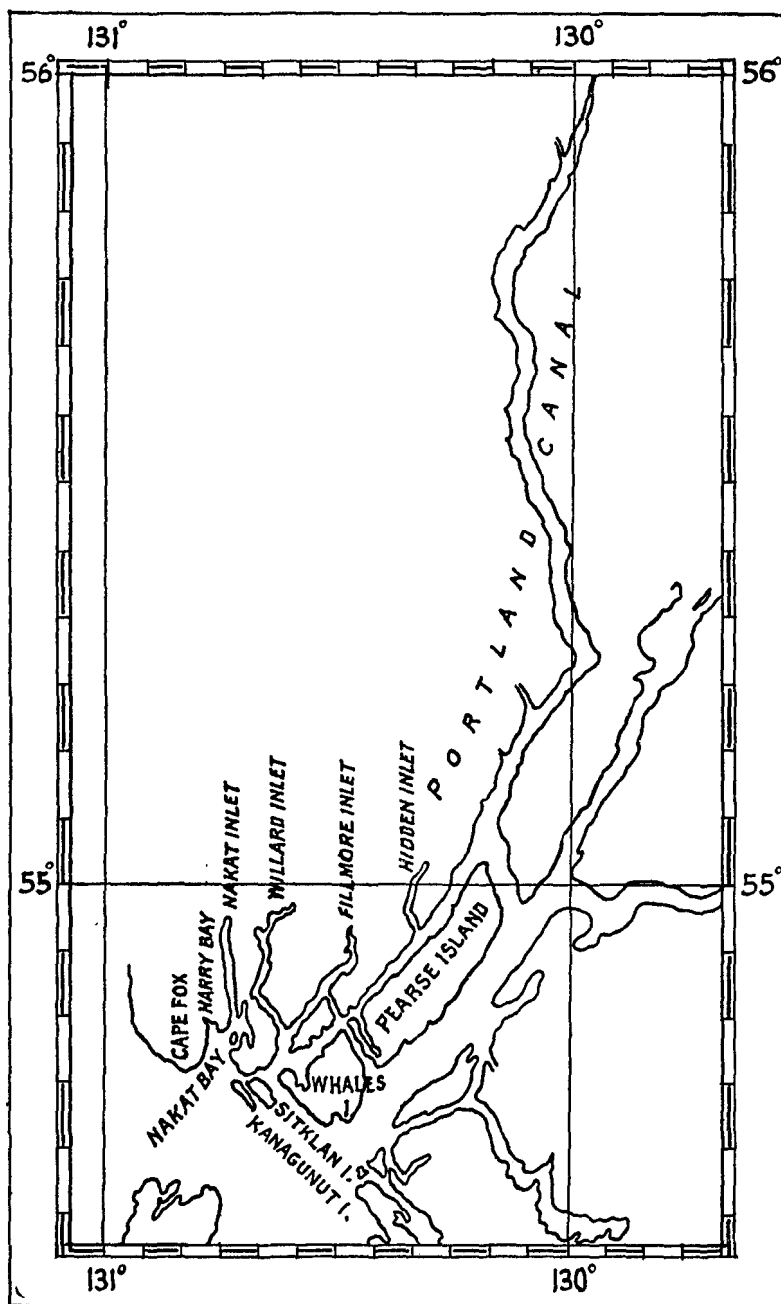


FIGURE 52.—Map of the Nakat Bay district.

show improvement in recent years down to 1926, but in that year and in 1927 they were smaller, a condition that may have been brought about to some extent by the closing of the inlet north of Tsa Cove and Bat Point on January 1, 1925.

The fisheries of Thorne Arm reached their highest productiveness in the four years from 1923 to 1926. Apparently there was some change in the character of the fishing, as this sudden increase in the catches and the evenness of the trend through these years indicate a considerable trap fishery in this locality in that period.

The salmon fisheries of the Revillagigedo Channel district in its entirety appear to be in a flourishing condition as late as 1927. In fact there was no period in the complete history of the district when all species of salmon, except reds, were taken in larger number than in the five years from 1922 to 1926. Although this period was also fairly productive of red salmon, this species was more abundant from 1900 to 1908 than in any later period. The many restrictions that were applied to fishing in the shortening of the season, the closing of certain areas, and the limitation in size of nets did not appreciably reduce the catches, but they undoubtedly held the production down to lower levels than otherwise would have been recorded. The catches are shown graphically in figure 51.

NAKAT BAY DISTRICT

The Nakat Bay district covers the waters between Cape Fox and the head of Portland Canal, a narrow body of water which, with Pearse Canal, extends inland in a northerly direction approximately 90 miles and forms the boundary between the southeastern extremity of Alaska and Canada. (See fig. 52.) The streams of the district are small and tributary to Nakat, Willard, and Fillmore Inlets and Portland Canal southward from Tombstone Bay. These localities have been fished chiefly by seines, while the mainland shore between Cape Fox and Harry Bay and the southern shores of Sitklan and Kanagunut Islands were fished largely by traps.

It appears from available data that fishing commenced in this district at Nakat Bay in 1906, at Sandfly Bay in 1907, and at Fillmore Inlet in 1908. All salmon from this district, except possibly some small lots that may have been pickled, were packed at plants in other districts until 1911, when a cannery was built on Hidden Inlet. Another cannery was opened on Nakat Harbor in 1912. Thereafter until both canneries were destroyed by fire in 1920, the catches went mostly to these plants, but as these canneries were not rebuilt the catches in this district have since been packed elsewhere.

TABLE 27.—Salmon caught and fishing appliances used in the Nakat Bay district, 1906 to 1927

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Boat Rock:												
1920.....		30,000	2,000		1,000							
1922.....	1,840	1,897	51,769		459							
1923.....	2,824	4,320	93,192	35	4,704							
1924.....	2,042	7,517	116,272	23	5,549							
1925.....	1,917	16,706	94,264	55	5,202							
1926.....	811	8,641	30,846		8,967							
1927.....	225	3,609	7,181	167	1,567							
Dixon Entrance:												
1912.....		12	16,422		406							
1924.....	139	103	6,382	4	478							
1926.....	200	6,040	6,406		890							
Fox, Cape:												
1912.....	1,461	1,486	42,080		2,068							
1917.....	3,580	7,238	33,452	123	1,388							
1918.....	2,149	4,518	131,472		2,966							
1919.....	2,827	13,403	109,060	30	14,945							
1920.....	2,574	7,912	88,202	14	6,701							
1921.....	90	45	6,062		12							
1922.....	6,803	4,162	218,411		6,620							
1923.....	2,046	7,230	104,182		6,411							
1924.....	4,992	16,118	209,981	150	13,139							

TABLE 27.—*Salmon caught and fishing appliances used in the Nakat Bay district, 1906 to 1927—*
Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (num- ber)
						Num- ber	Fath- oms	Num- ber	Fath- oms	Num- ber	Fath- oms	
Fox, Cape—Continued												
1925.....	9,121	43,498	158,700	412	16,315							
1926.....	2,265	6,832	113,742	733	16,211							
1927.....	1,339	11,405	35,957	361	7,171							
Fillmore Inlet:												
1908.....	200	1,029	58,847		281							
1911.....	2,242	2,762	95,552		6,102							
1912.....	1,118	5,373	167,367		576							
1914.....	1,081	14,491	136,442									
1915.....	147	6,221	240,148		7,568							
1916.....		231	352		916							
1917.....	1,391	25,434	174,141	4	4,113							
1918.....	448	14,720	134,425	16	1,690							
1919.....	83	6,907	22,450		568							
1920.....	107	4,512	35,372		394							
1922.....	486	12,481	228,671		484							
1923.....	821	23,950	94,528		2,036							
1924.....	233	17,308	278,238	1	724							
1925.....	19	7,849	8,269		310							
1926.....	50	6,709	40,182	7	1,741							
1927.....		79	2,605		75							
Fools Point:												
1926.....		1,136	2,199		4							
Gamut Point:												
1925.....	1,936	11,538	40,952	71	4,320							
Garnet Point:												
1926.....	1,221	10,430	75,941	34	8,559							
1927.....		525	5,085		435							
Harry Bay:												
1912.....	625	432	69,147		1,500							
1914.....	525	429	8,311		186							
1917.....	81	572	33,017		77							
1918.....	106	72	15,847		2							
1919.....	16	46	4,912									
1922.....	7	357	23,081									
1925.....	200	7,000	12,200	25	100							
Hidden Inlet:												
1911.....	1,000	900	150,000	4								
1912.....	500	7,796	205,658		7							
1916.....	457	693	46,692		19							
1917.....	1,543	97,730	41,163		920							
1918.....	68	22,933	38,331		64							
1919.....		6,279	17,560	1	41							
1920.....	6	607	12,611	3	358							
1922.....		590	3,962									
1923.....	20	24,238	124,180	1	223							
1924.....	16	36,452	47,018		26							
1925.....		13,210	105									
Kanagunut Island:												
1917.....	5,271	11,463	248,444	389	10,975							
1918.....	7,036	13,901	291,137	56	5,407							
1919.....	12,014	31,026	262,375	1,250	38,707							
1920.....	6,472	82,301	226,366	411	17,281							
1922.....	7,160	5,615	251,715	206	7,858							
1923.....	12,137	22,560	433,550	303	20,190							
1924.....	5,226	27,880	271,262	51	17,999							
1925.....	5,344	30,816	154,420	157	12,997							
1926.....	2,181	20,184	176,500	21	15,844							
1927.....	1,910	8,561	57,555	182	8,310							
Lincoln Channel:												
1923.....		2,483	24									
Lord Island:												
1918.....		502	2,591		90							
1927.....	161	1,535	2,982	58	1,614							
Nakat Bay:												
1918.....	2,083											
1919.....	525	1,884	27,227	13	3,308							
1923.....	454	3,092	52,860		1,246							
1924.....	1,020	11,012	152,191	1	4,272							
1925.....	556	5,589	23,432	1	1,195							
1927.....	76	1,236	11,353	7	849							
Nakat Inlet:												
1906.....			5,040		8,260							
1907.....			2,405		17,043							
1908.....	240	1,733	43,371		29,983							
1909.....	142		12,277		3,148							
1910.....	95	1,705	4,223		28,444							
1911.....	792	1,557	42,163		19,463							
1912.....	917	573	35,968		11,533							
1914.....					4,415							
1915.....	129	3,779	188,714		7,071							
1916.....	269	1,673	10,473		2,194							
1917.....	232	959	2,858		2							

TABLE 27.—Salmon caught and fishing appliances used in the Nakat Bay district, 1906 to 1927—
Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Nakat Inlet—Continued												
1918	42	109	9,176		415							
1919			1,767		634							
1920	5	5,991	1,808		2,828							
1922	312	6,942	3,870		1,278							
1923	927	17,450	30,237	1	1,852							
1924	2,729	22,046	305,291	1	8,965							
1925	628	14,375	52,513	25	2,665							
1926	152	9,094	25,569	1	636							
1927	24	1,245	8,138	2	439							
Pearse Canal:												
1912		67	153									
1918		5,154	10,576	9	99							
1919		935	1,594									
1920	180	12,576	42,768	152	240							
1922	486	4,113	101,039		340							
1923	314	9,314	85,841		107							
1924	244	3,720	90,033		396							
1925	69	3,245	1,783	208	27							
1926	3	485	5,723		15							
1927	45	283	1,944	3	194							
Portland Canal:												
1912	1,000	1,400	19,000									
1916	5,478	49,531	714,244		2,529							
1917	14,654	57,879	360,741	300	18,533							
1918	1,965	26,931	161,183	399	4,617							
1919	3,485	2,441	7,042		337							
1920		990	1,878	30								
1922			1,161									
1923	36	1,807	6,742		264							
1924	16	5,053	6,299		2							
1927		140	1,670	2								
Sandfly Bay:												
1907		114		4								
1917	590	26,268	41,552									
1918		6,934	13,648	5	63							
1919		1,200	2,750									
1923	31	1,846	46,934									
Sitklan Island:												
1917	930	3,172	26,647	61	991							
1918		3,654	58,035		719							
1919	1,139	5,501	41,188	60	5,660							
1920	931	31,783	7,291	9	901							
1925	594	5,036	20,153	8	1,367							
1926	3,250	9,735	41,979		4,536							
1927	526	3,283	29,994	71	508							
Tombstone Bay:												
1916		1,173	3,157		58							
1917	4,000	67,516	95,371	2								
1918	1,994	92,693	38,308	83	28							
1919	62	45,763	21,796									
1920	3	15,066	16,744	2	3							
1922	161	20,229	50,034									
1923	416	31,475	193,627		88							
1924	90	14,714	136,152		418							
1925	5	34,109	5,890		3							
1926	12	29,318	30,775	50	26							
1927	2	758	5,516		3							
Tongass Island:												
1923	5	18	761		512							
1926	2	86	468		118							
1927	125	1,475	12,214	21	1,420							
Tongass Passage:												
1916	120	277	6,473		242							
1925	936	8,897	46,572	8	2,172							
1927	41	294	2,301	2	347							
Willard Inlet:												
1912		805	35,252		181							
1915	28	5,091	64,731		140							
1916		95	56		35							
1918	92	512	6,236									
1919		3,406	2,645									
1922	13	652	29,878									
1923	4	1,219	0,418		76							
1924	19	5,377	93,309		61							
1925		330	237		7							
1926	101	3,719	14,015	13	1,573							
Unallocated:												
1909	360		87,000		1,500							
1913		8,800	378,328		2,009							
1919	236	3,882	18,780		748							
1925		246		287								
1927					213							

TABLE 27.—Salmon caught and fishing appliances used in the Nakat Bay district, 1906–1927—
Continued

Year	Coho	Chum	Pink	King	Red	Beach seines		Purse seines		Gill nets		Traps (number)
						Number	Fathoms	Number	Fathoms	Number	Fathoms	
Total:												
1906.....			5,040		8,200			1				
1907.....		114	2,405		17,043			1	200			
1908.....	440	2,782	102,218		30,264			3	570			
1909.....	502		99,277		4,648			2	355			1
1910.....	95	1,705	4,223		28,444			2	370			
1911.....	4,034	5,219	287,715	4	25,565			4	700			
1912.....	5,621	17,944	591,947		16,271			11	2,375	5	500	4
1913.....		8,800	378,328		2,009			5	750			
1914.....	1,606	14,910	144,753		4,601			8	1,200	4	200	
1915.....	304	15,091	493,593		14,779			15	2,480			1
1916.....	6,324	53,673	781,447		5,993			29	5,010			2
1917.....	32,281	298,231	1,057,386	879	36,999			21	4,250			5
1918.....	15,083	192,633	912,965		568	16,160	2	22	4,445			12
1919.....	20,387	122,673	542,046	1,354	64,948			16	2,875			21
1920.....	10,258	191,738	438,040	615	29,706			10	2,200			11
1921.....	90	45	5,062		12			1	250			
1922.....	17,268	57,038	943,591		206	17,039		9	1,500			8
1923.....	19,835	151,008	1,273,076		340	43,709		8	1,400			3
1924.....	16,766	167,300	1,707,428		231	52,029		17	1,985			14
1925.....	21,325	203,044	628,490		1,237	46,680		5	1,000			22
1926.....	10,347	112,409	570,345		859	59,120		11	2,045			15
1927.....	4,474	34,428	184,525		876	23,145		5	930			16

NOTE.—No catches were reported in the years not shown in any division of this table.

Table 27 gives the entire catch in the Nakat Bay district. It lists 22 localities, 11 of which have been fairly large producers of salmon. Here, as in other districts, certain combinations of catches seemed advisable; they are as follows: Cape Fox catches include salmon that were taken at Cape Fox Island; Fillmore Inlet was credited with half of the salmon reported jointly from "Fillmore Inlet and Nakat Inlet" in 1915, the other half being included with the fish from Nakat Inlet; Slim Island fish were added to those from Harry Bay; Monday Bay salmon were counted in the catches at Nakat Bay; Portland Canal data include fish that were caught at Halibut Bay and at Breezy Point. The unallocated catches were increased further by the addition of all salmon that were reported from Nakat Island, Tongass Village, Sunday Bay, and Port Tongass. The entire catch in this district in 1913 was reported as coming from "Nakat, Hidden, Fillmore, and Willard Inlets" and is shown, therefore, in the unallocated section of the table.

There were three periods of marked development of these fisheries. The first period began in 1911 with the establishment of the Hidden Inlet cannery and reached a peak in 1912 when a cannery at Nakat Harbor was put into operation. During the next 2 years smaller catches were made. In 1915 the second period began and culminated in a much larger production of all species in 1917, the total yield being 1,425,776 salmon. The catches of pink salmon dropped regularly in the next 4 years, but wide fluctuations occurred in respect of the other species. King and red salmon were taken in larger numbers in 1919 than ever before; chums dropped in 2 years but recovered in 1920; and cohos were more abundant in 1919, but not equal to the catch in 1917. The third period began in 1922 and progressed in the next 2 years until a total catch of 1,943,754 salmon was made, the increase being due to a greater number of pinks that were caught in 1924, a new high level for this species. Kings, cohos, and chums were taken in much smaller quantities than in 1917, the year of the second peak of production, but they reached comparable levels in 1925. There was a sharp falling off in the catches of cohos, chums, and kings in 1926, while that of pinks was far less severe. On the other hand, the take of red salmon increased

and closely approached the level of 1919. The catch of all species, except kings, dropped abruptly in 1927.

The smaller catches after 1924 were caused in part, at least, by the prohibition of fishing for a period of 27 days from August 18 to September 14 in each year, by

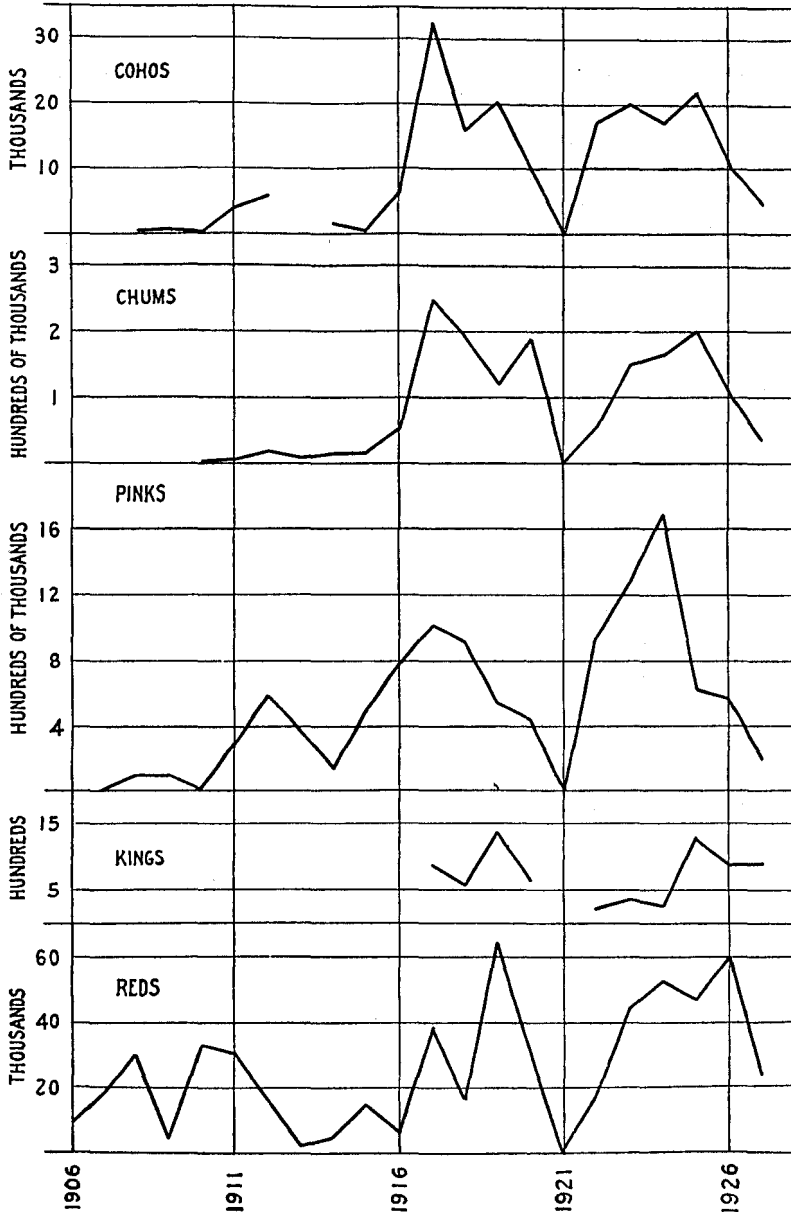


FIGURE 53.—Catch of salmon in the Nakat Bay district, 1906 to 1927.

the limitation of the size of nets, by the elimination of some traps, and by the closing of the waters of Hidden Inlet north of 55° N. latitude on January 1, 1925, and of Fillmore Inlet east of 130° 30' W. longitude on January 1, 1927.

There seems to be little reason to doubt that the main runs of salmon to these fisheries come through Dixon Entrance rather than through Clarence Strait. Tagging

experiments near Tree Point in 1926 showed that out of 308 recaptured red salmon 27 were reported from the Nakat Bay district, 54 were taken in British Columbian waters, 192 from Revillagigedo Channel localities, 24 from Behm Canal, 10 from Clarence Strait, and 1 from Chatham Strait, thus demonstrating that the red-salmon runs along this shore are moving northward, 227, or 74 percent having been recaptured north of the place of tagging. Of the 81 fish that were taken south of Tree Point, one third of them came from Alaskan waters, chiefly from traps on the southern shore of Kanagunut Island, the remaining two thirds being reported from Canadian waters. This experiment also covered the tagging of cohos, pinks, and chums. Of the 41 cohos that were recaptured, approximately 50 percent came from the waters of British Columbia, while 7 percent were reported from the Nakat Bay district. Only 1 pink salmon out of 26 that were retaken came from this district; it was caught at Cape Fox. More than 7 percent of the tagged chums were retaken in the district, the greater part of which came from traps at Garnet Point on Kanagunut Island.

The data for the Nakat Bay district are shown graphically in figure 53 and show no serious decline in the productiveness of these fisheries. When viewed in the light of the restrictions which have been imposed here there is little reason to assume that any real change has occurred.

UNALLOCATED

Table 28 gives the unallocated catch of salmon in southeastern Alaska as a whole. These data represent the catches that were reported by many operators who gave no information as to the localities from which the fish were taken, thus making it wholly impossible to show a definite allocation. In practically all of the tables showing the catch by districts a section was included giving the unallocated catch in each particular district, none of which is included in this table.

TABLE 28.—Unallocated catch of salmon in southeastern Alaska, 1893 to 1927

Year	Coho	Chum	Pink	King	Red	Year	Coho	Chum	Pink	King	Red
1893	256,000			6,000	127,000	1923	110,980	168,080	1,730,917	155,546	71,949
1894	331,000			6,000	117,000	1924	102,193	156,498	589,576	288,274	31,835
1895	589,551				148,242	1925	153,728	168,359	821,662	223,073	26,341
1896	39,999	2,938	634,023	3,058	114,284	1926	195,650	334,696	293,656	173,825	27,767
1897	94,529		1,154,627	5,759		1927	152,239	26,343	10,457	253,812	4,409
1898	122,760	27,732	888,646	8,364	191,641	Caught by lines (in-					
1899	138,030	6,500	1,367,463	12,284	268,809	cluded in above):					
1900	175,767	30,702	2,214,020	5,668	261,899	1905				2,434	
1901	108,582		5,355,659	5,527	388,886	1906				12,720	
1902	82,215		5,286,118	2,476	582,592	1907				10,930	
1903	279,844		3,908,391	30,000	553,959	1908				18,798	
1904	42,588	68,992	1,355,749		59,286	1909				41,628	
1905	3,000	449,300	97,812	13,300		1910				69,837	
1906	21,565	32,401	574,672	12,720	12,034	1911				4,868	
1907			83,610	10,930	5,189	1912	5,118			180,840	
1908	23,523	21,212	960,012	18,798	18,200	1913	20,025			84,395	
1909			135,000	41,628		1914	2,860			123,332	
1910	8,657		106,326	69,837	2,100	1915	63,061			55,709	
1911	24,276	54,879	1,006,366	4,868	43,691	1916	30,878			79,113	
1912	6,426	18,837	113,350	180,840	5,850	1917	12,100			18,687	
1913	25,650	31,692	530,338	93,800	9,843	1918	31,607			102,214	
1914	7,479	66,610	204,789	123,943	2,676	1919	58,700			199,610	
1915	81,876	105,476	2,338,833	59,737	72,917	1920	109,632			96,474	
1916	129,588	240,429	1,481,950	80,101	76,031	1921	55,855			155,916	
1917	22,168	291,510	1,309,788	18,825	18,331	1922	56,861			131,772	
1918	63,687	230,687	3,370,023	103,356	92,636	1923	24,260			155,542	
1919	70,526	211,099	519,042	199,070	49,218	1924	92,212			288,155	
1920	129,536	390,146	1,119,735	97,317	95,536	1925	142,218			216,680	
1921	98,982	135,457	1,294,071	156,443	25,984	1926	152,851			155,622	
1922	83,213	36,729	370,682	132,527	40,296	1927	69,815			250,949	

NOTE.—The data for 3 years, 1893 to 1895, are incomplete as they represent the catches by 1 company only. No other records were available.

TOTAL SOUTHEASTERN ALASKA

Although southeastern Alaska includes many regions in which the salmon runs are more or less distinct and which have been treated separately above, it is of interest to look at the district as a whole and to try to form some idea of the development and present tendencies of its salmon fisheries. The data are presented in tables 29 and 30.

TABLE 29.—Total catch of salmon in southeastern Alaska, 1883 to 1927

Year	Coho	Chum	Pink	King	Red	Year	Coho	Chum	Pink	King	Red
1883					107,800	1906	650,220	1,374,459	7,036,374	42,084	2,620,860
1884					143,000	1907	502,646	1,354,929	11,973,899	89,149	2,201,071
1885					26,400	1908	457,860	1,824,637	13,592,326	101,160	2,544,671
1886					118,724	1909	332,376	699,381	9,497,508	113,886	2,701,461
1887					298,491	1910	646,065	1,996,840	9,425,310	175,604	2,986,886
1888	16,267				436,257	1911	901,838	2,784,721	21,408,907	147,168	2,896,988
1889	11,246		92,094		738,146	1912	1,099,442	5,342,331	22,011,191	405,780	3,018,060
1890	43,915				886,734	1913	577,189	2,459,777	25,295,606	353,110	2,218,591
1891	23,744				943,559	1914	914,809	5,444,154	12,567,376	339,004	3,501,203
1892	15,371		8,197		784,959	1915	870,535	3,593,040	30,351,380	281,962	2,825,543
1893	256,817		186,994	6,000	744,225	1916	1,687,607	4,741,634	19,940,350	256,082	2,381,350
1894	347,400		528,634	13,000	719,845	1917	1,469,396	6,851,774	40,327,465	327,292	2,622,899
1895	609,156		605,847	12,747	893,316	1918	1,029,366	9,352,573	39,287,711	411,435	2,821,199
1896	241,405	2,938	1,629,819	18,739	1,572,687	1919	1,804,005	9,268,489	24,330,891	679,921	3,262,799
1897	267,739	6,683	3,372,664	25,235	1,129,474	1920	1,148,051	8,613,368	18,121,431	351,789	2,743,624
1898	291,509	27,732	1,561,301	16,929	1,237,451	1921	911,568	1,846,832	7,735,444	446,310	1,498,933
1899	280,679	7,000	2,912,474	37,039	1,550,811	1922	1,258,885	3,728,616	24,001,889	344,852	1,900,123
1900	297,555	32,952	4,321,349	16,734	2,049,011	1923	1,342,071	3,912,562	39,879,249	790,461	2,410,357
1901	281,440		7,525,090	17,361	1,363,825	1924	1,214,898	7,266,500	30,029,343	836,004	2,506,115
1902	235,461		8,100,699	11,664	2,076,647	1925	1,211,862	8,188,085	28,246,398	600,102	1,843,518
1903	653,569		5,528,547	42,474	2,060,581	1926	1,184,658	6,105,808	32,193,383	452,920	2,044,708
1904	517,856	358,378	5,178,207	37,118	3,416,470	1927	1,284,537	2,219,770	8,163,332	627,201	1,444,563
1905	398,981	1,660,981	3,060,353	68,613	2,610,549						

TABLE 30.—Fishing appliances used in southeastern Alaska, 1904 to 1927

Year	Beach seines		Purse seines		Gill nets		Traps (number)	Year	Beach seines		Purse seines		Gill nets		Traps (number)
	Number	Fathoms	Number	Fathoms	Number	Fathoms			Number	Fathoms	Number	Fathoms	Number	Fathoms	
1904	49		168		281		18	1916	16	1,988	436	77,363	296	29,250	219
1905	71		133		192		29	1917	35	4,380	563	101,645	412	60,798	302
1906	65		157		208		30	1918	120	13,708	729	138,153	411	48,037	363
1907	49	6,120	186	31,865	136	22,505	31	1919	156	17,415	766	153,740	239	42,825	416
1908	57	8,265	208	35,970	186	34,605	58	1920	107	12,605	572	108,405	337	39,055	474
1909	47	6,490	137	24,600	125	25,870	38	1921	46	5,250	144	25,615	229	44,850	107
1910	51	6,615	208	40,163	247	42,350	53	1922	24	3,000	568	97,755	255	27,425	241
1911	57	7,645	243	46,595	430	78,560	85	1923	23	2,325	590	105,091	239	10,666	320
1912	126	17,385	362	72,797	404	57,510	164	1924	21	2,270	768	137,649	198	17,395	325
1913	86	12,419	308	68,437	271	49,300	142	1925	9	950	613	110,166	168	18,271	409
1914	57	9,070	368	68,428	227	34,790	166	1926	8	720	825	155,273	189	26,900	483
1915	31	3,988	410	73,326	120	10,750	180	1927	8	1,260	415	75,122	157	20,509	676

In any consideration of the condition of a fishery it is important to know as much as possible of the changes in fishing effort. In the case of the salmon fisheries of southeastern Alaska, however, there have been such great and general changes in the nature of the gear used as to make any reliable evaluation of the changes in fishing effort virtually impossible. Some of these changes are apparent in the data presented in table 30 and in the accompanying figure (fig. 54), but these refer only to the number of units of each kind of gear that have been employed and give no notion of the great changes in effectiveness that have come about. There has probably been little change in effectiveness of beach seines and gill nets but these are, on the whole, of relatively slight importance in southeastern Alaska. Traps and purse seines account at present for a very large percentage of the total catch in this district and both of these forms of

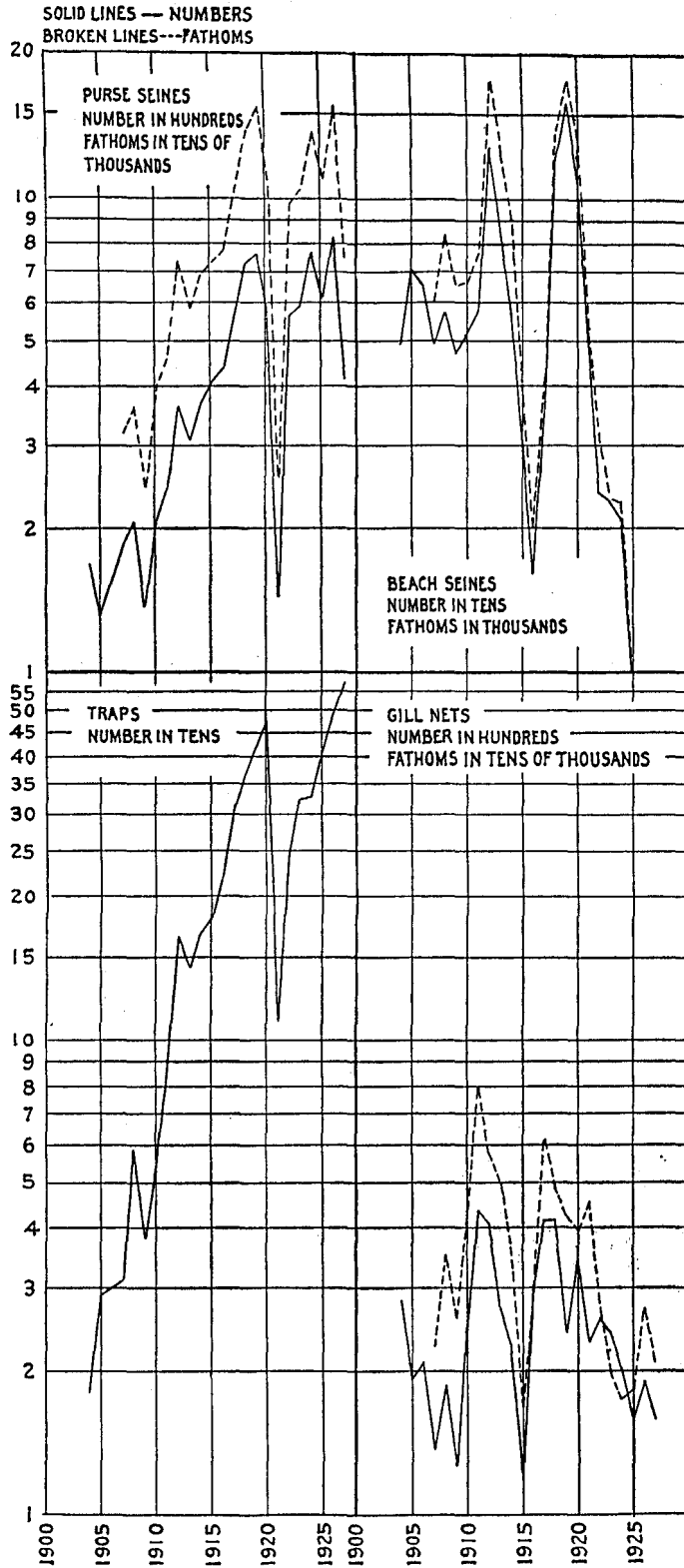


FIGURE 54.—Gear used in southeastern Alaska, 1904 to 1927.

gear have undergone marked development during the period under consideration. In the case of purse seines there has been, perhaps, not so much change in the character and effectiveness of the nets themselves as in the boats from which they are operated. In general these boats are larger and much better powered now than in the earlier years in spite of recent regulations which have limited the size of boats which may be used in purse seining. In the case of traps, improved construction has made it possible to operate successfully this apparatus in exposed positions that could not possibly have been used before and the development of the floating trap has made trap operations possible in places where pile traps could not be driven. Some of these improvements are reflected in the increased number of traps, but there have been general improvements in trap construction which have probably effected the relative efficiency of practically all traps in the district and which cannot possibly be measured. It is safe to say, however, that both traps and purse seines have been increasing gradually in effectiveness as fishing units.

The changes that have taken place in respect of the types of gear used have been notable. They are shown graphically in figure 54 as ratio diagrams so that the relative changes in the use of the different forms will be clearly shown. (In a ratio diagram of this sort equal slopes indicate equal relative changes.) It is apparent that the number of beach seines and gill nets in use has been greatly reduced in recent years while the number of traps and purse seines steadily and rapidly increased from 1904 to 1920. The reduced fishing effort in 1921, which has been mentioned repeatedly above, is shown clearly by the greatly reduced number of all forms of gear in use in that year. Since 1921 the number of purse seines used, up to 1927, was about the same as in the years 1916 to 1920, and the number of traps increased regularly until more were operated in 1926 and 1927 than in any previous year.

While it is clear enough that important changes have taken place in the character of these fisheries it is obviously impossible, with the data at hand, to arrive at any satisfactory conclusion as to the effect that these changes have had upon the real intensity of fishing. There can be no doubt that this intensity has increased enormously, but the lack of any information as to the relative effectiveness of the different types of gear, of the relative effectiveness of the same type of gear at different times, and of the effect of competition between units of gear as the number has increased make it quite impossible to measure the changes in intensity of fishing as a whole.

Turning now to a consideration of the total catch of each species in southeastern Alaska it is apparent that different tendencies are shown by the different species. The total catches are shown graphically in figure 55 which, like the graph showing the changes in gear, is presented as a ratio chart so that relative changes may be correctly inferred.

The catch of red salmon increased rapidly between 1885 and 1890 and formed by far the most important product of the fishery up to about 1895. For the next 10 years the catch of this species continued to increase and then for 15 years, up to and including 1920, maintained a fairly constant level; 1921, as usual, showed a greatly reduced catch and from 1922 to 1927 the average catch was not much more than half that for the period 1905-20. The catches since 1921 doubtless have been affected somewhat by the regulations, but in view of the undoubted increase in the intensity of fishing, the fact that the catch of other species was increasing rapidly during the time (1905-20) that the catch of reds was relatively constant and that the

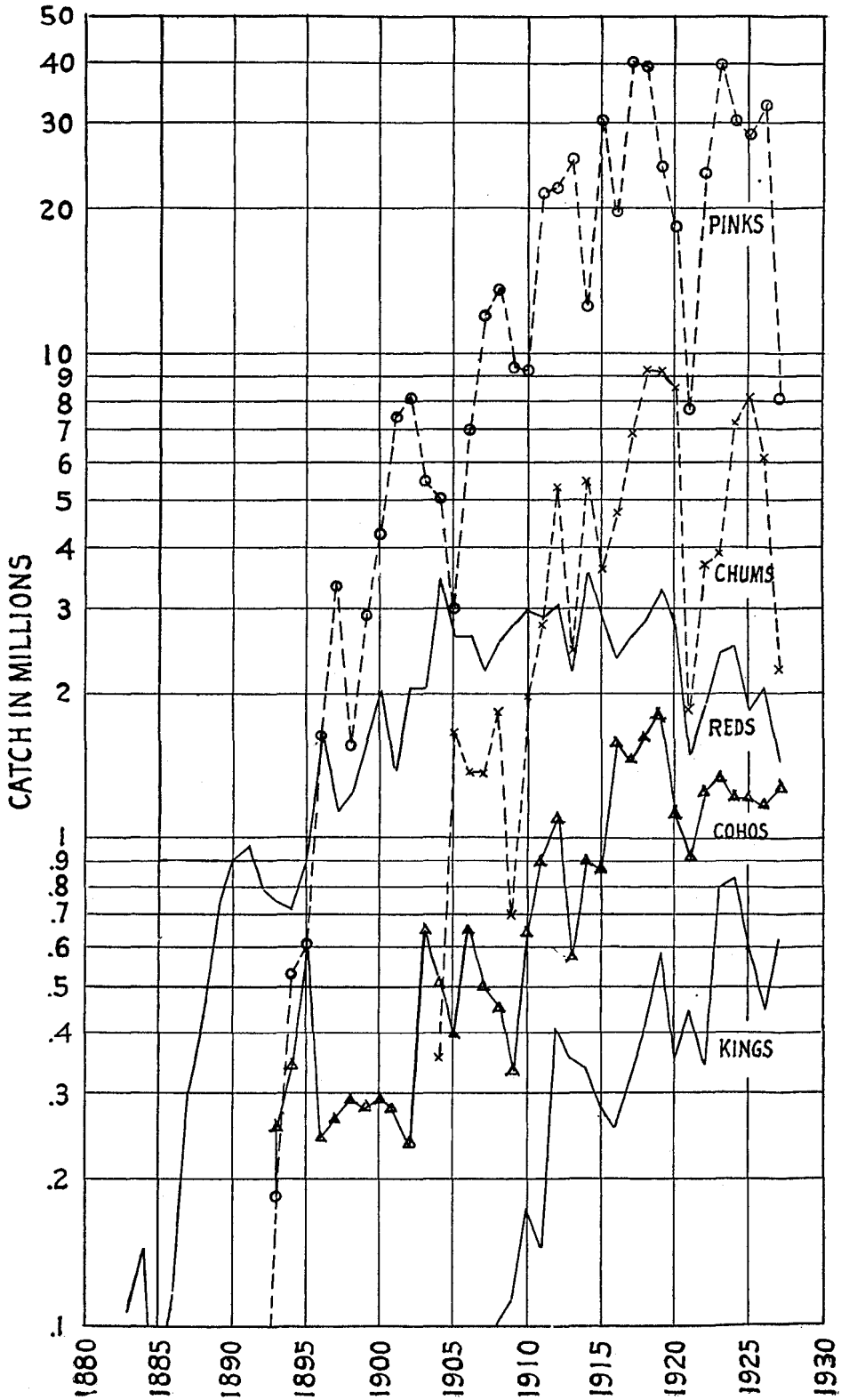


FIGURE 55.—Catch of salmon in southeastern Alaska, 1883 to 1927.

catch of other species since 1921 has shown no similar decrease there can be little doubt that the red-salmon runs of southeastern Alaska are depleted.

The catches of pinks and chums show a very similar growth. Pinks did not become an important element in the catch until about 1895 and chums not until about 10 years later. Once these two species appeared in the catch, however, their importance increased with great rapidity. More pinks have been taken than of any other species in every year since 1895 and, with the exception of pinks, more chums have been taken than of any other species in every year since 1911. The increase in the catch of these two species continued with minor fluctuations up to about 1917 and 1918, and since then has remained fairly constant except for the 2 poor years of 1921 and 1927.

There is some evidence of a negative correlation between the catches of these two species, in other words there appears to be a tendency for the catch of chums to be smaller in years when many pinks are taken, and vice versa. From a study of the selling prices of these two species¹¹ it is clear that the prices of chums and pinks are parallel—chums running usually only 5 or 10 cents lower than pinks, and it would appear as though pinks and chums were interchangeable in the market. If this be true the catches of each might be regulated, in part at least, by the abundance of the other species. It seems probable, however, that the catch of chums is regulated by the abundance of pinks rather than the reverse since pinks are slightly more valuable and tend, on the whole, to run somewhat earlier in the season.

The tendencies toward a negative correlation show chiefly in certain parts of the curves—that is, 1911–16 and 1922–26. These are the only parts of the curve that have not obviously been disturbed by known factors: The period from 1904–10 was one in which the fisheries for these species were developing and the available supply obviously greatly exceeded the demand. The catches in 1917 and 1918 were tremendously increased by the extraordinary war-time demands; in 1921 the catch was greatly reduced as a result of low prevailing prices and a large “carry over” from 1919 and 1920, when the pack had been large in spite of the reduced demand following the close of the war, and in 1927 the runs of both species were exceedingly poor for unknown but probably biological reasons. On account of the fragmentary nature of these data it has not seemed desirable to attempt a statistical analysis of this apparent negative correlation—we here merely point out the probable existence of such a relationship.

The catch of cohos shows a fairly steady increase from about 1895 to 1920 and remained remarkably constant during the last 6 years here considered, 1922 to 1927, inclusive. The catches during these 6 years have been slightly lower than during the war-time years from 1916 to 1919, but, with this exception, have been greater than at any previous time in the history of the fisheries. On account of the fact that this species tends to run later in the year than any other it is, generally speaking, not as intensively fished and the resources have evidently been able to provide for the gradually increasing demand.

A still different condition exists in respect of the king salmon. The catches have continued to increase quite rapidly throughout the period under discussion. Previous to 1912 the total catch in any year did not exceed 200,000, but since that time it has increased quite regularly and has only twice—in 1915 and 1916—fallen below 300,000.

¹¹ As shown by the “opening prices” tabulated in the various editions of the Annual Statistical Number of the Pacific Fisherman and in Pacific Salmon Fisheries by John N. Cobb, 4th edition, Report of the U.S. Commissioner of Fisheries for 1930 (1930), pp. 400–704, Washington.

This constant increase in the catch of this species has been due undoubtedly to a corresponding increase in the amount of trolling, in which type of fishing kings and cohos are taken almost exclusively. It has been mentioned above (p. 575) that tagging experiments have shown that many of the kings taken by troll off the coast of southeastern Alaska and British Columbia are native to the Columbia River and to a lesser extent to the rivers farther south. It is impossible to say to what extent local races enter into the catch, but there can be little doubt that the southern fish, particularly those of the Columbia River, form an important element in the catch and have made possible this constant increase. Under such conditions the conservation of this species in southeastern Alaska is not at all a local matter, but is intimately involved with the troll fishery off the coasts of British Columbia, Washington, Oregon, and California, as well as the important fisheries in the Columbia River.

The Columbia is undoubtedly the most productive stream in the world so far as king or chinook salmon are concerned and evidently dominates the catch throughout at least the northern part of the western coast. The Columbia River runs have been fished intensively for many decades and show unmistakable signs of depletion in spite of artificial propagation which is probably unparalleled in extent and efficiency; the spawning areas have been greatly reduced by the erection of dams and the drain on the resources has been gradually increased by the development of the fishery in the river and more recently by the increase in trolling. The future seems doubtful and a continuation of the increase in the catch of kings in southeastern Alaska seems most unlikely, although certainly there is no indication of reduced catches in the data herein considered. If this valuable fishery resource is to be preserved, however, a complete and detailed study of all the influences that bear upon the maintenance of the Columbia River kings should be undertaken without delay.

INDEX

[Roman numerals indicate the several parts which compose this review]

	Page		Page
Auron Creek.....	IV: 618	Babbler Point.....	IV: 553
Auta Bay.....	IV: 641	Babe Island.....	IV: 611
Abercrombie Canyon.....	I: 49, 51. III: 240, 241, 243	Back Island.....	IV: 541
Abraham Island.....	IV: 690	Badger Bay.....	IV: 647
Acheredin Bay.....	I: 45, 92, 94	Raginal, Port.....	IV: 541
Adams Point.....	IV: 697	Baht Harbor.....	IV: 541
Addington, Cape.....	IV: 659	Bailey Bay.....	IV: 628
Admiralty Cove.....	IV: 615	Bainbridge Passage.....	III: 192, 204
Admiralty Island.....	IV: 484, 486, 490, 502, 503, 504	Baird, Point.....	IV: 541
Adolphus, Point.....	IV: 451, 455, 466, 468, 469	Baker Island.....	IV: 559, 560
Aere Creek.....	IV: 624	Baker, Point.....	IV: 540, 542, 552
Aetna Bay.....	IV: 641	Bakewell Arm.....	IV: 637
Affleck Canal.....	IV: 541, 549	Balboa Bay.....	I: 92, 94
Afognak.....	II: 653, 654, 677	Bald Island.....	IV: 647
Afognak Bay.....	II: 674, 682-684	Baldy Bay.....	IV: 577
Afognak Fisheries Reservation.....	II: 677	Banks, Port.....	IV: 527, 533
Afognak Island.....	II: 663, 675, 677, 678, 680, 681, 683, 688, 690, 691	Baranof Island.....	IV: 484, 496, 498, 523, 531, 534, 556, 575
Afognak Reservation.....	I: 49, 51. II: 677	Baranof Packing Co.....	IV: 486
Afognak Village.....	II: 677	Barber Point.....	II: 694
Agriculture, Department of.....	I: 49, 50	Barling Bay.....	II: 685, 691
Ahrnklin River.....	IV: 440-443, 445, 446, 448	Barn Cove.....	I: 93
Akun Cove.....	I: 80	Barnes Bay.....	IV: 481, 609
Akwe River.....	IV: 441-443, 445, 448	Barnes Lake.....	I: 49, 50. IV: 610
Alaska Commercial Co.....	II: 683	Barnes, Point.....	IV: 590
Alaska, Gulf of.....	IV: 440	Baronovich.....	IV: 611
Alaska Improvement Co.....	II: 661	Barrie, Point.....	IV: 540-542, 548-550, 552
Alaska Packers Association.....	II: 645, 662, 664. III: 247. IV: 524	Barrier Islands, Sumner Strait.....	IV: 542
Alaska Peninsula.....	I: 84, 92. II: 652	Bartlett Cove.....	IV: 450, 451, 450, 466-468
Alaska Peninsula Fisheries Reservation.....	I: 51, 52, 81. II: 645	Bartolome, Cape.....	IV: 560
Alaska Peninsula Reservation.....	I: 52	Basket Bay.....	IV: 487, 488, 497, 498
Alava, Point.....	IV: 627, 628, 640, 647	Bat Point.....	IV: 650
Albatross.....	II: 684, 685	Bay Point.....	I: 93
Alder Grove.....	IV: 577	Bay Point.....	IV: 505, 509
Alelof Bay.....	IV: 624	Bazan Port.....	IV: 560
Aleutian Islands.....	I: 79	Beacon Point.....	IV: 510
Aleutian Islands Reservation.....	I: 49, 51	Bean Island.....	IV: 613
Alexander, Point.....	IV: 552	Bear Bay.....	I: 81
Alexander, Port.....	IV: 496	Bear Bay, Sergius Narrows.....	IV: 536
Alliak.....	II: 647, 653, 659, 662	Bear Cape.....	III: 232
Alliak Bay.....	II: 654-657, 659, 662	Bear Cove.....	II: 695, 702
Alliak, Capo.....	II: 660	Bear Cove.....	III: 227
Alliak and Moser Bays.....	II: 655, 657, 659	Bear Creek.....	II: 712
Alsek River.....	IV: 440, 442, 443, 445, 448, 465	Bear Creek, Affleck Canal.....	IV: 641
Althorn, Port.....	IV: 451, 455, 465, 466	Bear Creek, Union Bay.....	IV: 624
Amelius, Point.....	IV: 540, 542	Beardelee Group of Islands.....	IV: 450
American Bay.....	IV: 577	Bear Harbor.....	IV: 541, 542, 549
Anan Creek.....	I: 49, 50. IV: 618, 624-626	Bear River.....	I: 74, 75
Anchor Bay.....	III: 202, 232	Bears Paw.....	IV: 541
Anchor Cove.....	III: 225	Bear Trap.....	II: 698
Anchor Pass.....	IV: 628	Bear Trap Bay.....	III: 200, 228
Anchor Point.....	II: 692-695, 702, 706, 709, 711	Beattie.....	III: 214
Ancon, Point.....	IV: 553	Beaulere, Port.....	IV: 542, 543, 550
Anderson Bay.....	III: 200, 227, 228	Beaver Inlet.....	I: 80
Andreafski.....	I: 50	Behm Canal.....	IV: 610, 612, 627, 636-640, 656
Andrew, Mount.....	IV: 611	Behm Narrows.....	IV: 636
Andrews Creek.....	IV: 624	Belkofski Bay.....	I: 80, 81, 83, 87
Anesum.....	II: 694	Bell Arm.....	IV: 636
Angoon.....	IV: 496	Bell Island.....	IV: 628, 636
Anguilla Island.....	IV: 559	Beluga River.....	II: 693, 698
Aniakelak Bay.....	II: 645-651	Bendel, Cape.....	IV: 505, 509, 521
Anita Bay.....	IV: 618, 625	Berg Bay.....	IV: 451, 456, 467, 468
Ankau River.....	IV: 440-443, 445-447	Bering Glacier.....	III: 246
Ankau Slough.....	IV: 440, 442, 443, 445	Bering Lake.....	III: 246
Anna, Lake.....	IV: 526, 529, 530	Bering River.....	I: 50, 51. III: 245-247
Annette Bay.....	IV: 640	Bering Sea.....	I: 47-49
Annette Island.....	IV: 587, 589, 597, 598, 613, 639, 640, 647	Berners Bay.....	IV: 477, 480
Annette Island Fishery Reserve.....	I: 49. IV: 589	Bettles Bay.....	III: 194, 214
Annette Point.....	IV: 587, 641	Betton Island.....	IV: 628
Anton Bay.....	II: 682, 684	Bidarka Point.....	III: 199, 222, 225
Ape Point.....	IV: 628	Big Bay, Shuyak Island.....	II: 679
Arboleda, Point.....	IV: 559	Big Bay.....	IV: 609
Arch Point.....	I: 80, 81, 87	Big Fred Bay.....	III: 227
Athletic Islands.....	IV: 541	Big Johns Bay.....	IV: 505, 510
Augusta, Point.....	IV: 449, 468, 469, 484, 487, 496	Big Salt Lake.....	IV: 560
Augustine Bay.....	IV: 559	Big Softuk Bar.....	III: 241
Auk Bay.....	IV: 515	Billys Hole.....	III: 188, 197, 220, 221, 235
Aurora.....	II: 694	Biological Survey, Bureau of.....	I: 49, 51
Ayagulik.....	II: 665	Black Bay.....	II: 227
Ayakulik.....	II: 650, 665	Black Bay.....	IV: 525, 529, 530
Ayakulik River.....	II: 660	Black Island.....	IV: 641, 647
		Black Islet.....	IV: 647

	Page		Page
Black Point.....	IV: 612	Cape Fox Island.....	IV: 654
Black Sand Island.....	IV: 443	Cape Fox Village.....	IV: 647
Blackstone Bay.....	III: 214	Captain Johns Bay.....	IV: 585
Blackstone Glacier.....	III: 214	Captain Johns Creek.....	IV: 585
Blake Channel.....	IV: 618, 624	Carl Bay.....	IV: 647
Blanket Island.....	IV: 577	Carnation Island.....	IV: 541
Blank Inlet.....	IV: 613	Carolus, Point.....	IV: 465
Blank Point.....	IV: 613	Carr Inlet.....	IV: 647
Blanquizar Island.....	IV: 560	Carroll Inlet.....	IV: 641, 642, 647, 649
Blashke.....	IV: 609	Carroll Island.....	IV: 504, 505
Bligh Island.....	III: 198, 222, 223	Cascade Bay.....	IV: 496
Blind Pass.....	IV: 636	Cascade Inlet.....	IV: 647
Blind Point.....	IV: 541	Castle River.....	IV: 543, 551
Blind Slough.....	IV: 543, 551, 552	Cat Island.....	IV: 647
Bluff Point.....	IV: 541	Caution, Point.....	IV: 488, 496
Bluff Point, Behm Canal.....	II: 695, 702, 706, 709	Cedar Bay.....	III: 196, 218, 220
Boat Harbor.....	IV: 628, 637	Cedar Point.....	IV: 598
Boat Rock.....	IV: 496	Center Island.....	IV: 609
Bobs Bay.....	IV: 651	Chacon, Cape.....	IV: 598, 612, 636
Bobs Cove.....	IV: 560	Chaddock, R. E.....	I: 57, 61
Boca de Quadra.....	I: 49. IV: 636, 640, 641, 647, 648	Chaik Bay.....	IV: 487, 488, 496-498
Bocas de Finis.....	IV: 560	Chalmers, Port.....	III: 194, 213
Bold Island.....	IV: 641, 647	Chasina Point.....	IV: 599
Bomb Point.....	III: 227	Chasqua.....	IV: 585
Bond Bay.....	IV: 628	Chatham, Port.....	II: 695
Bonita Passage.....	IV: 590	Chatham Strait.....	IV: 470, 474, 480, 484, 486, 487, 495-499, 510, 521, 525, 531, 537, 541, 556, 575, 609, 656
Bostwick Inlet.....	IV: 598	Cheaters Cove.....	IV: 636
Bostwick Point.....	IV: 613	Checats Cove.....	IV: 628, 629
Boswell Bay.....	III: 241	Chenega.....	III: 204, 205
Boulder Bay.....	III: 225	Chenega Creek.....	III: 192, 197, 204
Boulder Cove.....	IV: 624	Chenega Island.....	III: 192, 204, 205
Boulder Point.....	II: 698	Chenega Passage.....	III: 192, 204, 205
Boulder Point.....	IV: 505, 509	Cheniga.....	III: 210
Bower, Ward T.....	I: 68, 69. II: 667, 668, 709. IV: 472	Chernorski Harbor.....	I: 80
Bradfield Canal.....	IV: 618, 619, 624	Chester, Port.....	IV: 599
Bradshaw Cove.....	IV: 535, 536	Chichagof, Clarence Strait.....	IV: 613
Brady Glacier.....	IV: 465	Chichagof Bay.....	IV: 599, 613
Breakwater, North.....	IV: 641	Chichagof Island.....	IV: 449, 451, 464, 465, 466, 468, 469, 496, 523, 529, 531, 534
Breakwater, South.....	IV: 641	Chichagof Pass.....	IV: 587, 617
Breezy Bay.....	IV: 577, 578	Chichagof Point.....	IV: 613
Breezy Cove.....	IV: 647	Chichamin River.....	IV: 628, 629, 637
Breezy Point.....	IV: 654	Chiefs Bay.....	III: 232
Brendable Trap.....	IV: 613	Chignik.....	II: 645, 647-650, 652, 656, 658, 661, 665
Bridget Cove.....	IV: 477, 480	Chignik Bay.....	II: 645, 646, 650, 651
Bridget Point.....	IV: 477, 480	Chignik Bay and Lagoon.....	II: 646, 650
Brightman, Point.....	IV: 504, 505	Chignik Lagoon.....	II: 645
Bristol Bay.....	I: 42, 45, 51, 53-57, 59-65, 68-71, 74-76, 84, 86, 89, 95. II: 649, 658. IV: 524	Chignik River.....	II: 645, 648
British Columbia.....	IV: 552, 589, 650, 662	Chilkat.....	I: 50. IV: 514
Broad Island.....	IV: 536	Chilkat Inlet.....	IV: 474, 476, 480, 513, 519
Bronaugh Island.....	IV: 598	Chilkat Inlet and River.....	IV: 477
Brow Point.....	IV: 636	Chilkat Island.....	IV: 477, 480
Brown Cove.....	IV: 505, 509	Chilkat River.....	IV: 473, 474, 476, 481, 519
Brownly Bay.....	IV: 636	Chilkoot.....	I: 50
Brownson Bay.....	IV: 578	Chilkoot Inlet.....	IV: 476, 480
Brownson Island.....	IV: 619	Chilkoot Inlet and River.....	IV: 477
Bruce.....	IV: 585	Chilkoot Pass.....	IV: 481
Bruin Bay.....	II: 695	Chilkoot River.....	IV: 474, 476, 481, 519
Bucareli Bay.....	IV: 560, 573	China Poot Lagoon.....	II: 695, 702
Buoy Bay.....	IV: 541	Chiniak Bay.....	II: 684, 685, 687, 688, 689, 691
Burnett Inlet.....	IV: 590	Chinik Inlet.....	I: 51
Burroughs Bay.....	IV: 628, 629, 636	Chinilna.....	II: 694, 695
Burunof, Cape.....	IV: 533	Chinitna Bay.....	II: 695, 711
Bushy Point.....	IV: 629	Chin Point.....	IV: 629
Buskin Lake.....	II: 688	Cholmondeley Sound.....	IV: 587, 589, 598, 611
Buskin River.....	II: 685, 688, 691	North Arm.....	IV: 611
Buster Bay.....	IV: 624	South Arm.....	IV: 611
		West Arm.....	IV: 611
Caamano Point.....	IV: 587, 598, 612, 627	Chomly Point.....	IV: 611
Cabras Island.....	IV: 560	Chuitna River.....	II: 694
Cadays Creek.....	IV: 609	Chuit River.....	II: 693, 694, 698, 707, 709
Cadez Bay.....	IV: 585	Clam Gulch.....	II: 695, 706
Cairn Point.....	II: 698	Clam Island.....	IV: 560
Calamity Point.....	IV: 466	Clarence Pass.....	IV: 609
Caldera, Port.....	IV: 560	Clarence Strait.....	IV: 612, 538, 539, 552, 556, 587, 589, 610, 612, 614, 615, 625, 636, 637, 655, 656
Calder Bay.....	IV: 541, 543, 551	Claude Point.....	IV: 636
Calder Creek.....	IV: 541	Clay Creek.....	IV: 624
Calheen.....	IV: 496	Clear, Cape.....	III: 194, 211, 212, 232
Calico Bay.....	IV: 496	Clear Point.....	IV: 477, 480
California.....	IV: 662	Clear River.....	I: 50
California Fish and Game Commission.....	I: 77	Cleveland Peninsula.....	IV: 587, 589, 609, 610, 612, 624, 625, 628
Camden, Port.....	IV: 505, 510	Clover Bay.....	IV: 599
Camel Rock.....	II: 682, 684	Clover Passage.....	IV: 629, 636
Campbell River.....	IV: 624	Coal Bay, Clarence Strait.....	IV: 599, 611
Camp Taylor.....	IV: 560	Coal Creek.....	IV: 613
Canada.....	IV: 553, 651	Coal Harbor.....	I: 93
Canadastee.....	IV: 624	Cobb, John N.....	I: 73, 75, 77, 91, 94
Cangrejo, Point.....	IV: 560	Cochrane Bay.....	III: 194, 214
Canoe Pass.....	IV: 578	Coco Harbor.....	IV: 578, 585
Canoe Passage.....	III: 200, 223	Cocos, Point.....	IV: 560
Canoe Passage.....	IV: 619, 625	Codeys Bay.....	IV: 609
Canoe Point.....	IV: 466	Cod Point.....	IV: 637
Cap Island.....	IV: 560		

	Page		Page
Coffman Cove.....	IV: 590, 610	Deloris, Point.....	IV: 496
Coffman Island.....	IV: 610	Demetra & Co.....	II: 702
Coghill Bay.....	III: 214	Denny Creek.....	IV: 541
Coghill Lake.....	III: 214	Derrumba Landslide.....	IV: 561
Coghill Point.....	III: 214	Desconocida, Point.....	IV: 561
Coghill River.....	III: 188, 194, 214, 217	Devilfish Bay.....	IV: 561
Cogo Harbor.....	IV: 585	Devels Bay.....	II: 679
Coho Cove.....	IV: 642	Devils Cove.....	III: 227
Cold Bay.....	I: 80, 81, 83, 87	Dewey Anchorage.....	IV: 609
College Fiord.....	III: 214	Diamond Creek.....	II: 695
Colms Passage.....	III: 214	Dippy Cove.....	IV: 488
Colpovs Bay.....	IV: 540	Disenchantment Bay.....	IV: 443
Colpovs Point.....	IV: 538-540, 543, 552, 587	Distant Point.....	IV: 488, 496, 497
Columbia Bay.....	III: 220	Divide Head, Yakutat.....	IV: 444
Columbia River.....	IV: 473, 575, 662	Divide Head, Clarence Strait.....	IV: 611
Columbia River Packers Association.....	II: 645	Division Point.....	IV: 451, 456, 469
Comfort Cove.....	III: 227	Dixon Entrance.....	IV: 675, 680, 612, 639, 640, 647, 651, 655
Commerce, Department of.....	I: 44, 49-51	Dixon Harbor.....	IV: 451, 456, 463
Commerce and Labor, Department of.....	I: 48, 49	Doane River.....	IV: 444
Commissioner of Fisheries.....	I: 47, 48	Doctor Bay.....	II: 682, 684
Conclusion Harbor.....	IV: 541	Doctor Point.....	IV: 600
Conclusion Island.....	IV: 541	Dogfish Bay.....	II: 697
Conclusion, Port.....	IV: 496	Dog Island.....	IV: 647
Cone Island.....	IV: 647	Dog Salmon Bay.....	IV: 585
Cone Point.....	IV: 642, 647	Dolton Mine.....	IV: 613
Constantine Harbor.....	III: 232	Dolores, Port.....	IV: 561
Controller Bay.....	III: 240, 245, 247	Donkey Bay.....	IV: 610
Cook Inlet.....	I: 47-51. II: 691, 693, 694, 701-711. III: 187, 240	Dora Bay.....	IV: 589, 600, 611
Cooper Creek.....	II: 605, 702	Double Bay.....	III: 200, 228
Copper Harbor.....	IV: 576, 577, 578	Douglass, A. E.....	I: 67
Copper River.....	I: 49-51. III: 228, 233, 237, 238-243, 246	Douglas Bay.....	IV: 543
Copper River Delta.....	I: 48, 49. III: 233	Douglas, Cape.....	II: 652, 654, 692, 693
Copper River Flats.....	III: 241	Douglas Island.....	II: 652, 654
Copper River & Northwestern Ry.....	III: 189, 240	Drake Sound.....	IV: 496
Cordova.....	III: 189, 206, 213, 230, 240, 246	Drier Bay.....	III: 192, 205
Cordova Bay.....	IV: 575, 587	Driest Point.....	IV: 600
Corea Bend.....	II: 694	Drift River.....	II: 693
Coronation Island.....	IV: 538, 540, 541, 543	Dry Bay, Yakutat district.....	IV: 440-443, 445
Cosmos Cove.....	IV: 488	Dry Bay, Wrangell Narrows.....	IV: 541
Cottonwood.....	II: 698	Dry Pass, Chichagof Island.....	IV: 525, 531
Cottonwood Point.....	III: 239, 241	Dry Pass, Prince of Wales Island.....	IV: 541
Couverden, Point.....	IV: 449, 451, 468, 469, 472, 474, 484	Dry Strait, Frederick Sound.....	IV: 502, 503, 553, 555
Cove Inlet.....	IV: 636	Duko Island.....	IV: 600, 639, 640, 642
Cove Point.....	IV: 636	Duke Point.....	IV: 587
Cow Creek.....	IV: 629, 630	Dunbar Inlet.....	IV: 578
Cow Island.....	IV: 599	Duncan, William.....	IV: 589
Cow Pen.....	III: 219	Duncan Canal.....	IV: 543, 544, 551
Crab Bay.....	IV: 534	Dundas Bay.....	IV: 451, 453, 456, 457, 463, 466, 467
Crab Bay, Annette Island.....	IV: 642	Dundas Point.....	IV: 451, 457, 466
Crafton Island.....	III: 210	Dundas River.....	IV: 466
Craig.....	IV: 560	Dutch Kenit Bay.....	IV: 585
Craven, Point.....	IV: 484, 534	Eagle Bluff.....	IV: 468
Crawfish Inlet.....	IV: 534	Eagle Cove.....	IV: 468
Crittenden Creek.....	IV: 619	Eagle Creek.....	IV: 590, 609, 610
Cross Creek.....	IV: 541	Eagle Harbor, Shumagin Islands.....	I: 93
Cross Sound.....	IV: 449-451, 456, 464-468, 470, 473, 480, 481, 486	Eagle Harbor, Kodiak Island.....	II: 687, 688
Cruz Island.....	IV: 500	Eaglek Bay.....	III: 196, 214, 217
Culebra Island.....	IV: 560	Eagle Point, Icy Strait.....	IV: 451, 457, 469
Culross Bay.....	III: 214	Eagle Point, West Coast Prince of Wales Island.....	IV: 561
Culross Island.....	III: 214, 215	Eagle Point.....	IV: 619
Culross Passage.....	III: 194, 195, 214-216	Eagle River, Lynn Canal.....	IV: 474, 515
Culross, Point.....	III: 195, 215	Earl Cove.....	IV: 466
Custom House Cove.....	IV: 647	East Arm, Uganik Bay.....	II: 674, 676
Cyrus Cats Creek.....	IV: 510	East Bight.....	I: 93
Daisy Island.....	IV: 611	Eastern Passage.....	IV: 553, 617, 619
Dall Bay.....	IV: 613	East Foreland.....	II: 692, 694, 698, 702, 706, 710
Dall Head.....	IV: 600, 612	East Island.....	IV: 609
Dall Island.....	IV: 557, 561, 575	East Point.....	IV: 488, 496
Danger Bay.....	II: 682, 684	East Point, Woronkofski Island.....	IV: 617
Dangerous Cape.....	II: 695	East River.....	IV: 444
Dangerous Passage.....	III: 210	East Shore.....	II: 702
Dangerous River.....	IV: 440, 441, 443	Eaton Point.....	IV: 619
Datzkoo Harbor.....	IV: 578	Ebayek.....	III: 217
Davidson Inlet.....	IV: 561, 573	Edgecomb, Cape.....	IV: 534
Davison Point.....	IV: 600	Edna Bay.....	IV: 661
Daykoo.....	IV: 585	Edward, Cape.....	IV: 525, 529, 530
Daykoo Harbor.....	IV: 585	Eek Inlet.....	IV: 578, 579
Dead Bay.....	II: 655, 657, 659	Eek Point.....	IV: 577, 579
Deadmans Bay.....	II: 656	Egegik.....	I: 51, 54, 59, 61, 62, 64, 65, 69, 70
Dead Tree Point.....	IV: 561	Egg Harbor.....	IV: 541
Decision, Cape.....	IV: 484, 538, 539, 540, 543	Egg Island.....	III: 241
Deep Bay, Chichagof Island.....	IV: 531	El Capitan Passage.....	IV: 539, 557, 561, 562, 573
Deep Bay, Sergius Narrows.....	IV: 536	Eldrad Rock.....	IV: 477, 480
Deep Bay, Zarembo Island.....	IV: 553, 610	Eleanor Island.....	III: 204, 211, 214
Deep Bay, Behm Canal.....	IV: 630	Eleanor, Point.....	III: 204, 214
Deep Creek.....	II: 695, 706	Elena Bay.....	IV: 499
Deepwater Point.....	IV: 504, 505	Eleven Mile Creek.....	IV: 662
Deer Bay.....	IV: 466	Elizabeth, Cape.....	II: 692, 703
Deer Bay, Hetta Inlet.....	IV: 577, 578	Eliza Harbor.....	IV: 504, 505
Deer Island.....	I: 82, 83, 87	Elk Point.....	IV: 496
Deer Island.....	IV: 619, 624	Ellamar Bay.....	III: 223
De Groff Bay.....	IV: 633	Ellihott Island.....	IV: 510
De Long Islands.....	IV: 642	Ellis, Point.....	IV: 484, 496, 498

	Page		Page
Emerald Bay	IV: 619, 625	Freshwater Bay	IV: 486-488, 496, 497, 534
Emerald Island	IV: 624	Frick Cove	IV: 536
English Bay, Kodiak Island	II: 688	Fritz Cove	IV: 515
English Bay, Cook Inlet	II: 695	Frosty Bay	IV: 620
English Bay, Prince William Sound	III: 232	Funter Bay	IV: 474, 477, 480, 484, 486
Entry Cove	III: 214		
Ernest Point	IV: 610	Galena Bay	III: 198, 223
Ernest Sound	IV: 612, 617, 624, 625	Gambler Bay	IV: 515, 523
Escape Point	IV: 630	Game Creek	IV: 462
Eshamy	III: 188, 204-210	Game Cove	IV: 499
Eshamy Bay	III: 205, 208, 210	Game Point	IV: 476
Eshamy Bay and Lagoon	III: 192, 205	Gamut Point	IV: 650
Eshamy Creek	III: 206, 220, 235	Gandil River	I: 51, III: 242
Eshamy Lagoon	III: 196, 209, 238	Garden Cove	III: 236
Eshamy Passage	III: 210	Garden Point	IV: 462
Esquibel, Gulf of	IV: 562, 573	Gardner Bay	IV: 606
Esquibel Island	IV: 562	Gardner, Point	IV: 484, 497, 502, 504, 510
Essowah Creek	IV: 562	Garnet Point	IV: 652, 650
Esther Island	III: 215, 217	Gedney Channel	IV: 466
Esther Passage	III: 195, 241, 215	Gedney Harbor	IV: 492, 498
Estrella, Port	IV: 562	Gedney Pass	IV: 639
Etches, Port	III: 202, 232	George Inlet	IV: 636, 640, 642, 643, 647, 640
Etolin Island	IV: 587, 590, 609, 610, 617, 625	Georges Island	IV: 469
Eva, Lake	IV: 534	Gerard Point	IV: 554, 555, 615
Eva, Point	IV: 630	Gibson Bay	II: 689
Exchange Cove	IV: 691, 610	Gilbert, Charles H.	I: 65-67, 73, 74, 84, 89, II: 658, 666-668
Exchange Creek	IV: 610	Gill, Creek	IV: 547
Excursion Inlet	IV: 451, 457, 469, 470, 472	Glacier Bay	III: 194, 211
Eyak Lake	I: 49, 50, 56, III: 189, 240-243	Glacier Bay	IV: 450, 451, 453, 467, 462
Eyak River	III: 238, 241, 243	Glacier Island	III: 228
		Glacier River	III: 238, 241, 240
Fairfield, Cape	III: 187, 204	Glacier Spit	II: 696, 702
Fairmont	III: 220	Glass Point	IV: 512
Fairweather, Cape	IV: 462	Gnat Cove	IV: 645
Falcon Arm	IV: 525, 531	Goloi Island	IV: 528, 537
Falls Bay	III: 192, 208, 210	Goose Bay	II: 698, 700
Falls Bay	IV: 496	Goose Bay	III: 212
Falls Creek, Wrangell Narrows	IV: 541	Goose Neck Harbor	IV: 565
Falls Creek, Chatham Strait	IV: 496, 499	Goose Island	III: 227
Falls Creek Bay	IV: 487, 492, 496, 498	Goose Island, Icy Strait	IV: 451, 457
Falmouth Harbor	I: 93	Government Rock	III: 229
False Bay	IV: 488, 496	Grace Harbor	IV: 574
False Island	IV: 591	Graham, Port	II: 699, 709
False Pass	I: 80, 81, 84	Granite Bay	III: 192, 208, 200
False Point Pybus	IV: 515	Granite Cove	III: 224
False Point Retreat	IV: 480, 523	Granite Point	II: 690
Fanshaw Bay	IV: 515, 523	Granite Point	III: 196, 218, 222
Fanshaw, Cape	IV: 502, 503, 505, 509, 521	Grant Cove	IV: 600, 612
Farragut Bay	IV: 506, 509	Grant Creek	IV: 610
Favorite Bay	IV: 488	Grant Island	IV: 694
Favorite Channel	IV: 515	Granville Pass	IV: 613
Felice Strait	IV: 587, 639, 640, 642, 647	Gravina Island	III: 227
Felix, Cape	IV: 562	Gravina Island, Clarence Strait	IV: 587,
Fidalgo, Port	III: 192, 199, 225, 226, 227, 229		589, 600, 601, 612, 636, 637
Figgins Point	IV: 591	Gravina Point	III: 200, 228, 229
Fillmore Inlet	IV: 651, 652, 654, 655	Gravina Point, Clarence Strait	IV: 613, 639, 647
Fire Island	IV: 609	Gravina, Port	III: 200, 227, 231
Fish Bay	III: 199, 226	Gray, Cape	IV: 496
Fish Bay	IV: 535, 536, 537	Gray, N.	II: 664
Fish Camp	IV: 530	Green Island	III: 211, 213
Fish Cove	IV: 536	Grindall Island	IV: 601
Fish Creek	II: 702	Grindall Passage	IV: 601
Fish Egg Island	IV: 562	Grindall Point	IV: 466, 601, 609
Fisheries, Bureau of	I: 45, 53, II: 647, III: 233, IV: 437, 439, 463, 514	Groundhog Bay	IV: 456, 457, 469
		Guard Island	IV: 613
Fishery Point	IV: 484, 488, 496	Gull Cove	IV: 451, 457, 466, 468
Fish Point	IV: 630	Gull Point	IV: 609
Five Mile Creek	IV: 506, 509	Gustavus, Point	IV: 468, 469
Flag Point	IV: 642	Qut Bay	IV: 487, 492, 498, 499
Flat Bay	IV: 481	Gypsum Cove	IV: 496
Flat Island	II: 695, 696, 706		
Flaw Point	IV: 522	Halibut Bay	IV: 654
Flemming Island	III: 210	Halibut Cove	II: 699, 702
Flores, Cape	IV: 562	Halibut Creek	IV: 601
Flynn Cove	IV: 468	Halibut Harbor	IV: 638, 562
Foggy Bay	IV: 642, 647	Halibut Nose	IV: 579
Foggy Point	IV: 642, 647, 648	Hall Cove	IV: 601
Fogus Bay	IV: 624	Hallo Bay	II: 652
Fools Inlet	IV: 619, 625	Ham Island	IV: 624
Fools Point	IV: 652	Hamilton Bay	IV: 606, 510
Ford Arm	IV: 526, 526, 529, 530, 531	Hanning Bay	III: 194, 212
Forrester Island	IV: 562, 574	Hanus Bay	IV: 634, 536
Forss Cove	IV: 609	Hanus Point	IV: 636, 538
Fox, Cape	IV: 636, 640, 647, 648, 651, 652, 654, 656	Harbor Bay	IV: 510
Fox Point	IV: 630	Harbor Point	IV: 643
Francis, Point	IV: 630	Hardscrabble, Point	IV: 640, 644
Frazier River	I: 64, 67, II: 604	Harriet Point	II: 693
Frazier River Canyon	I: 67	Harrington, Point	IV: 691, 610
Frederick Cove	IV: 612	Harris Creek	IV: 601
Frederick, Port	IV: 451, 453, 454, 457, 469	Harrisons Lagoon	III: 214
Frederick Sound	IV: 484, 495, 496, 498, 499, 502-504, 509, 510, 512, 521, 541, 556	Harry Bay	IV: 651, 652, 654
		Hassa Inlet	IV: 585
Freemantle, Point	III: 191, 220, 222	Hassan Bay	IV: 585
French Pete	II: 694	Hassiah Inlet	IV: 579

INDEX

667

	Page		Page
Hassler Harbor	IV: 643, 647	Igushik	I: 54
Hassler Pass	IV: 636	Ikatan Bay	I: 80, 82, 84-89, 95
Hawk Inlet	IV: 480, 484, 486, 489, 497	Ikolik, Cape	II: 662
Hawkins Bay	III: 210	Idefonso, Point	IV: 562, 563
Hawkins Cut-off	III: 200, 228, 229	Imperial Passage	IV: 531
Hawkins Island	III: 227-229, 231	Incarnation, Point	IV: 563
Hayward Strait	IV: 527, 533	Indian Cove	IV: 541
Hearigans Lagoon	III: 214	Indian Creek	IV: 609
Hearst Cove	VI: 531	Indian Point	IV: 631
Heceta Island	IV: 562	Ingot Island	III: 204, 211
Heiden, Port	I: 73	Ingraham Bay	IV: 602
Helen, Point	III: 204	Inian Cove	IV: 451, 458, 466
Hell Fire Creek	III: 227	Inian Islands	IV: 451, 458, 466-467
Hells Hole	III: 227	Inian Pass	IV: 451, 458
Helm Bay	IV: 628, 630, 637	International Fisheries Commission	I: 77
Hemlock Island	IV: 601	Iphigenia Bay	IV: 538, 56, 575
Hepburn, Point	IV: 489, 496	Irish Cove	III: 199, 226
Herbert Graves Island	IV: 530	Island Bay	IV: 613
Herbert, Port	IV: 492, 498	Island Point	IV: 602
Hermagos Islands	IV: 562	Isles, Bay of	III: 193, 211, 238
Herman Bay	IV: 636	Italian Flats	III: 241
Herman Creek	IV: 630	Island River	IV: 440, 441, 444, 448
Herring Bay	IV: 504, 506	Ivanof Bay	I: 45, 92, 94
Hessa Inlet	IV: 579, 585	Iyoukeen Cove	IV: 480, 496
Hetta	III: 180	Izbut Bay	II: 677, 682-684
Hetta Creek	I: 48, 50		
Hetta Inlet	IV: 570, 577, 579, 580, 586, 587	Jack Bay	III: 198, 223
Hidden Bay	IV: 601	Jackpot Bay	III: 188, 192, 193, 209, 235
Hidden Inlet	IV: 651, 652, 655	Jackson Cove	III: 220
Higgins, Point	IV: 627, 628, 630, 639	Jackson Island	IV: 580
Highfield, Point	IV: 540, 554	James Bay	IV: 451, 458, 467, 468
High Island	IV: 611	Jim Creek	IV: 610
Highland, Point	IV: 506	Jim Spoon Place	IV: 585
Highlands	II: 694	Jobs Inlet	IV: 624
High Point	IV: 580	Johnson Chuck	IV: 613
Hill Creek	IV: 647	Johnson Cove, Prince William Sound	III: 220
Hinchinbrook, Cape	III: 232	Johnson Cove, Clarence Strait	IV: 589, 602, 612, 613
Hinchinbrook Entrance	III: 236	Johnson Creek	IV: 613
Hinchinbrook Island	III: 227-229, 232, 236	Johnson, Port	IV: 589, 602
Hobart Bay	IV: 515, 521	Johnstone Point	III: 200, 228, 229
Hobart, Point	IV: 515, 521	Jonah Bay	III: 218
Hobo Bay	III: 214	Jumbo Creek	IV: 585
Hobron, Port	II: 685		
Hoktaheen Cove	IV: 451, 457, 458, 463	Kachemak Bay	II: 694, 696, 701, 702, 706, 709
Holbrook Creek	IV: 557, 562	Kadakes Bay	IV: 506, 510
Hole in the Wall	IV: 544	Kaflia Bay	II: 652-654
Hollis Creek	IV: 601	Kaguyak	II: 665
Holmes, Harlan B.	II: 649	Kaguyak Bay	II: 685, 691
Homer Bay	II: 694	Kah Shakes Cove	IV: 640, 643, 647
Homer Spit	II: 694, 696, 702	Kah Shakes Point	IV: 643, 647, 648
Hood Bay	IV: 489, 496	Kah Shakes Shore	IV: 643
Hook Bay	II: 645-647, 649-651	Kah Sheets Bay	IV: 540, 544, 548, 551
Hooks Bay	IV: 541	Kaigani Point	IV: 580
Hooniah Sound	IV: 536	Kaigani Strait	IV: 580, 581
Horigan Point	IV: 510	Kaikoff Bay	III: 232
Horn, Cape	III: 234	Kake Harbor	IV: 510
Horse Marine	II: 657	Kakoo Bay	IV: 485
Hot Springs Bay, Baranof Island	IV: 534	Kakul Narrows	IV: 534
Hot Springs Bay, Behm Canal	IV: 631	Kalotka Bay	I: 80
Hot Spur Island	IV: 601	Kalgin Island	II: 696, 707
Houghton, Port	IV: 515, 516, 521	Kalhagu Cove	IV: 481
House Point	I: 49, IV: 637	Kalifonski	II: 694, 696, 706
Howard Creek	IV: 469	Kalsin Bay	II: 685, 688
Howard, Point	IV: 480	Kamano Island	IV: 609
Howkan Channel	IV: 585	Kam Bay	IV: 541
Howkan Island	IV: 585	Kamishak Bay	II: 696
Howkan Narrows	IV: 580, 585	Kanagunut Island	IV: 651, 652, 656
Hudson Bay	IV: 478	Kanalku Bay	IV: 496
Hugh, Point	IV: 516	Kanes Head	II: 712
Hugh Smith Lake	IV: 647	Karheen	IV: 503
Hummer Bay	III: 195, 215	Karluk	I: 50, 52, II: 647, 652, 655, 658, 661, 662, 664-671, 673-677, 689, 705
Humpback Bay	II: 687	Karluk Beach	II: 662, 668-670
Humpback Bay	IV: 636	Karluk canneries	I: 656
Humpback Creek	I: 49	Karluk, Cape	II: 660, 667
Humpback Creek, Yakutat	IV: 441, 444	Karluk Lagoon	II: 664
Humpback Creek, Behm Canal	IV: 636	Karluk Lake	II: 664
Hump Bay	IV: 636	Karluk River	I: 51, II: 604, 665, 668-670, 675, 676, IV: 624
Hump Creek	IV: 636	Karluk River and Lagoon	I: 49
Humpsey Creek, Port Frederick	IV: 469	Karluk Spit	II: 664
Hump Island, Cholmondeley Sound	IV: 611	Karluk Strait	II: 681
Hump Island, Behm Canal	IV: 636	Karta Bay	IV: 587, 589, 602, 603, 611
Humpy Point	II: 604	Karta River	IV: 611
Hundred Thousand Creek	IV: 613	Kasaan Bay	IV: 589, 603, 611
Hunter Bay	IV: 575, 576, 580	Kasaan Point	IV: 611
Hyadburg Bay	IV: 580	Kasakofsky Bay	II: 687
Hydens Bay	IV: 636	Kashega Bay	I: 80
		Kasheen Bay	IV: 510
Iakaloff Bay	II: 696	Kasilof	II: 704
Ice Point	IV: 636	Kasilof, Cape	II: 694, 696, 706
Icy Passage	IV: 488	Kasilof Highland	II: 694
Icy Point	IV: 451, 458, 462	Kasilof River	II: 692, 694, 706, 707
Icy Strait	IV: 440-451, 466-470, 472-474, 480, 482, 484, 486, 496, 519, 521	Kasnyku Bay	IV: 489
Idaho Inlet	IV: 451, 458, 460-468	Kasook Inlet	IV: 570, 577, 581
Ideal Cove	IV: 503, 506, 509		

	Page		Page
Kassa Inlet.....	IV: 581, 685	Lagoon, Chatham Strait.....	IV: 496
Katanie.....	II: 684	Laida Creek.....	II: 697, 706
Katalina Bay.....	IV: 533	Lake Bay.....	IV: 589, 591, 609
Katlian Bay.....	IV: 523, 527, 533	Lancaster Cove.....	IV: 604
Katlianski.....	IV: 533	Landlocked Bay.....	III: 225
Katmai.....	II: 653	Landslide.....	IV: 612
Katmai Volcano.....	II: 678, 683	Larsen Bay.....	II: 664, 667
Katnu River.....	II: 693	Latouche Passage.....	III: 193, 209
Keekan Point.....	IV: 541	Leading Point.....	IV: 581
Keep Bay.....	IV: 496	Le Conte Bay.....	IV: 510, 553
Keete Inlet.....	IV: 581	Lemesurier Island.....	IV: 451, 458, 465, 467
Kegan Cove.....	IV: 589, 603, 612	Lemesurier Point.....	IV: 587, 591, 609, 610, 617
Keith.....	IV: 585	Lena Bay.....	II: 682
Keku Islet.....	IV: 510	Lena Cove.....	IV: 516
Keku Strait.....	IV: 484, 496, 502, 506, 510, 538, 539, 541, 544, 549, 551	Leo Anchorage.....	IV: 531
Kelgayu Bay.....	IV: 481	Lime Point.....	IV: 581, 582
Kell Bay.....	IV: 540, 544, 549	Limestone Inlet.....	IV: 516
Kelp Bay.....	IV: 484, 487, 489, 496-498	Lincoln Channel.....	IV: 652
Kelp Island, Revillagigedo Channel.....	IV: 643	Lincoln Island.....	IV: 478, 480
Kelp Point.....	IV: 591	Lincoln Rock, Clarence Strait.....	IV: 591
Kenai.....	II: 703, 704	Liscome Bay.....	IV: 503
Kenai Beaches.....	II: 694	Lisianski Inlet.....	IV: 451, 458, 459, 464, 465
Kenai River.....	II: 692, 694, 696, 706, 707	Lisianski Strait.....	IV: 449, 451, 459, 464
Kendrook Bay.....	IV: 603	Little Afognak.....	II: 677, 684
Ketchikan Creek.....	IV: 640, 643, 644	Little Afognak Bay.....	II: 682, 683
Ketchikan.....	IV: 640	Little Bay.....	III: 210
Kayyam Point.....	IV: 612	Little Campbell Creek.....	II: 702
Khaz Bay.....	IV: 530	Little Dall Island.....	IV: 613
Kiavak Bay.....	II: 691	Little Daykoo.....	IV: 582, 585
Killuda.....	II: 690	Little Harbor.....	I: 93
Killuda Bay.....	II: 684, 686, 688, 690, 691	Little River.....	II: 662, 665, 671-676
Killisnoo.....	IV: 496	Little River.....	III: 241
Kina Cove.....	IV: 589, 603, 604, 611	Little Pybus Bay.....	IV: 504
Kindergarten Bay.....	IV: 609	Little Skookumchuck.....	IV: 563
King Cove.....	I: 80, 82, 88	Little Susitna River.....	II: 693
King Cove Lagoon.....	I: 88	Lituya Bay.....	IV: 449, 451, 459, 462
King Salmon Bay.....	III: 234	Logging Camp.....	IV: 611
King Salmon River.....	I: 51	Logger Pass.....	IV: 541
Kinkik.....	III: 218	Lone Tree Islet.....	IV: 439, 496
Kingsmill Beach.....	IV: 496, 498	Long Arm.....	IV: 637
Kingsmill Shore.....	IV: 496	Long Bay.....	III: 195, 215
Kingsmill Point.....	IV: 484, 492, 496, 498, 502, 521	Long Bay.....	III: 197, 220, 221
Kingston, Point.....	IV: 510	Long Beach.....	II: 676
Kirk Point.....	IV: 644, 647	Long Island, Cordova Bay.....	IV: 582
Kitkun Bay.....	IV: 604	Long Island, Kasaan Bay.....	IV: 611
Kittens, The.....	IV: 478, 480	Long Island Creek.....	IV: 611
Kiupalik Island.....	II: 662, 664	Lookout, Cape.....	IV: 563
Kizbuyak Bay.....	II: 682, 684	Lord Island.....	IV: 652
Kjeen Bay.....	IV: 510	Loring.....	IV: 589
Klag Bay.....	IV: 526, 529, 530	Loring Point.....	I: 49, IV: 637
Kiakas Inlet.....	IV: 580	Lost River.....	IV: 444, 445, 448
Klakas Nephew.....	IV: 585	Louise Cove.....	IV: 536
Klawak.....	I: 41, IV: 557, 571, 572, 575	Low Cape.....	II: 660, 662
Klawak Inlet.....	IV: 563, 571, 572, 573	Low Point.....	III; 198, 223
Klawak Island.....	IV: 571	Lower Bay.....	IV: 541
Knight Island.....	III: 191, 204, 210, 211, 213	Low River.....	III: 223
Knight Island Passage.....	III: 205	Luck Point.....	IV: 592
Knik Arm.....	II: 692, 702, 703	Lucky Cove.....	IV: 644
Knik River.....	II: 692	Lucky, Port.....	IV: 496
Knowles Head.....	III: 201, 225, 229	Luke Point.....	IV: 613
Kochu Island.....	IV: 476	Lull Point.....	IV: 490
Kodiak.....	II: 654, 676-678, 687, 688, 690	Lulu Island.....	IV: 563
Kodiak and Afognak Islands.....	II: 654	Lyman Anchorage.....	IV: 592
Kodiak Island.....	II: 655, 657, 659, 660, 662, 664, 667, 668, 671, 674-676, 680, 681, 683-685, 688, 690-692	Lyman Point.....	IV: 592
Kokinhenik.....	III: 241	Lynch, Cape.....	IV: 563
Kokinhenik Island.....	III: 240, 246	Lynch, Canal.....	IV: 470, 474, 476, 477, 480-484, 486, 519, 521, 523
Konks Creek.....	IV: 620	Mabel Island.....	IV: 582, 609
Kootznahoo Head.....	IV: 486, 496	Macartney, Point.....	IV: 507, 509
Kootznahoo Inlet.....	IV: 489, 496	Macdonald Spit.....	II: 697, 702
Korovin Island.....	I: 93	Mackenzie, Point.....	II: 693, 698
Kosciusko Island.....	IV: 538-540, 550, 557	Macleod Harbor.....	III: 194, 212, 213
Koyuktolik Bay.....	II: 697	Main Bay.....	III: 193, 209
Kuaka Bay.....	IV: 496	Makaka Point.....	III: 201, 229
Kuakan Point.....	IV: 620	Makushin Bay.....	I: 80
Kuiu Bay.....	IV: 496	Malina.....	II: 677, 678, 679
Kuiu Island.....	IV: 484, 486, 496, 498, 502, 503, 510, 539, 540, 541, 550	Malina Creek.....	II: 678
Kujulik Bay.....	II: 645-647, 649-651	Mallard Bay.....	IV: 613
Kukak Bay.....	II: 654	Malmesbury, Port.....	IV: 492, 493, 499
Kuku Bay.....	IV: 496	Manhattan Arm.....	IV: 564
Kuliuk, Cape.....	II: 671	Mansfield Peninsula.....	IV: 474, 478, 480, 481, 484, 486, 496
Kupreanof Point.....	I: 92	Marble Bluff.....	IV: 489, 496
Kupreanof Strait.....	II: 671-674	Marble Creek.....	IV: 564
Kupreanof Island.....	IV: 503, 509, 530, 540	Markwa Bay.....	II: 684
Kuskokwim River.....	I: 51	Marmot Bay.....	II: 677, 681, 683, 688
Kustatan.....	II: 698, 707	Marsden, Point.....	IV: 489, 496
Kustatan River.....	II: 693	Marsha Bay.....	III: 211, 213
Kutechin, Howard M.....	II: 645, 646, 665, 666, 705	Marsh Island.....	IV: 502
Kvichak River.....	I: 54, 55, 58, 59, 64, 65, 68-72, 84, 86	Marten Arm.....	IV: 644
Kwain Bay.....	IV: 644	Martin Creek.....	IV: 541
Kwikluak Pass.....	I: 50	Martin, George C.....	II: 653
Labouchere Bay.....	IV: 545	Martin, Point.....	III: 238, 241, 245
Ladd.....	II: 694, 707	Martin River.....	III: 238, 240-243
		Mary Island.....	IV: 644
		Matanaska Bay.....	II: 688

	Page
Matanuska River	II: 692
McArthur, Port	IV: 545, 549
McCartey, Point	IV: 613
McClure Bay	III: 195, 216
McFarland Island	IV: 552
McHenry Anchorage	IV: 592
McHenry Inlet	IV: 592, 610, 611
McKan Inlet	IV: 585
McKenzie Inlet	IV: 604
McKinley	II: 698
McKinley	IV: 613
McLean Arm	IV: 604
McLeod Bay	IV: 582, 585
McManus Beach	II: 702
McNamara Point	IV: 539, 592
Meade Point	IV: 510
Meares Passage	IV: 564, 573
Meash Bay	IV: 636
Mellon Rock	IV: 582
Menefee Anchorage	IV: 604
Menefee Inlet	IV: 620, 625
Meno Creek	I: 93
Meridian Rock	IV: 609
Mesh Bay	IV: 636
Metlakatla	IV: 589, 613
Meyers Chuck	IV: 589, 592, 609, 610
Meyers Creek	IV: 610
Meyers Island	IV: 592
Middle Bay	II: 686, 688
Middle Pass	IV: 466
Midway Bay	IV: 624
Mile 55	III: 240
Mile Rock	IV: 496
Miles Lake	I: 49, 50. III: 240, 241, 243
Mill Creek	IV: 620
Mine Bay	III: 234
Miner Island	IV: 464
Miners River	III: 188, 196, 218-220, 235
Mink Arm	IV: 640
Mink Bay	IV: 644
Mink Harbor	III: 195, 216
Misery Island	IV: 592
Mitchell Bay	IV: 596
Mitkof Island	IV: 509, 538, 541, 553
Mohaney Creek	IV: 613
Moira Sound	IV: 589, 604, 605, 612
South Arm	IV: 612
North Arm	IV: 612
Mole Harbor	IV: 516, 522
Mole, Port	III: 234
Moller, Port	I: 73-76
Monday Bay	IV: 651
Monks Bay	II: 686, 687
Montague Island	III: 191, 211-213, 223, 232, 236, 238
Montague Point	III: 191, 211-213, 222, 232
Montague Strait	III: 204, 211, 212, 236, 238
Monti Bay	IV: 444
Moonsbine Point	IV: 489, 496
Moose	II: 694
Moose Point	II: 694, 698, 706
Moose Trap	II: 694
Morgan Beach	IV: 611
Morgan Cove	IV: 611
Morgans Cabin	IV: 611
Morgans Creek	IV: 611
Morris Reef	IV: 400, 496
Morse Cove	IV: 647
Morzbovoi Bay	I: 81, 82, 84-86, 88, 89, 95
Moser Bay, Kodiak Island	II: 655-657
Moser Bay, Behm Canal	IV: 631, 637
Moser, Jefferson F.	I: 63
II: 645-647, 654, 660, 661, 663, 665, 667, 703. III: 189, 191, 204, 209, 218, 233, 247. IV: 437, 474, 479, 486, 519, 531, 633, 556, 557, 575, 589, 625.	
Mosuan Inlet	IV: 593, 609, 610
Mountain Creek	IV: 541
Mountain Point	IV: 644, 647
Mountain Slough	III: 241
Mud Bay, Icy Strait	IV: 451, 459, 468
Mud Bay, Baranof Island	IV: 527, 533
Muddy River	IV: 510
Mummy Bay	III: 210
Murder Cove	IV: 504, 507
Muzon, Cape	IV: 557, 575, 582

	Page
Naked Islands	III: 218
Naknek River	I: 51, 54
Nakwasina Passage	IV: 527, 533
Napean, Point	IV: 504, 507
Narrow Point	IV: 593, 609
Nasalar Harbor	IV: 647
Naukait Bay	IV: 559, 564
Neah Bay	IV: 636
Necker Bay	IV: 527, 528, 531, 533
Neck Point	IV: 468
Neets Bay	IV: 631, 636
Neka Bay	IV: 469
Nellie Juan, Port	III: 195, 204, 214, 216
Nelson Cove	IV: 605, 612
Nelson Lagoon	I: 76-79
Nelson, Point	IV: 631
Nelson River	I: 76, 79
Nelsons Lagoon	III: 227
Nelsons Cove	II: 687
Nesbitt, Point	IV: 593, 610
Nesbitt Reef	IV: 610
Nettle Island	IV: 647
New Eddystone Island	IV: 631
Nowenham, Cape	I: 50
New Landslide	IV: 612
Newman Bay	II: 687
Niblack Point	IV: 593, 609, 610
Nicholaski Spit	I: 80, 82, 89
Nichols Bay	IV: 589, 604, 613
Nichols Passage	IV: 605, 613, 639
Nikishka	II: 698, 699, 706
Nikolai River	II: 693, 699
Nikolski Creek	I: 80
Nimlichik	II: 694, 697, 706
Niquette Point	IV: 647
No Name Island	IV: 541
North Arm, Cholmondeley Sound	IV: 611
North Arm, Moira Sound	IV: 612
North Bay	IV: 577, 582
North Cape	II: 681
Northeast Bight	I: 93
North Foreland	II: 693
North Inian Passage	IV: 451, 459, 466
North Island	IV: 468
North Pass, Cordova Bay	IV: 582
North Passage	IV: 466
North Passage Point	IV: 490, 496
Northwest Cove	IV: 593, 609, 610
Northwestern Fisheries Company	II: 645, 662, 664. IV: 464, 647
Northumberland, Cape	IV: 557, 639
Nossuk Bay	IV: 564
Nowell, Point	III: 193, 204, 209
Nowiskay	IV: 612
Noyes Island	IV: 564, 574
Nubble Point	II: 706
Nuchek	III: 232
Nuneez, Point	IV: 613
Nushagak	I: 50, 51, 58-65, 70-73, 84, 86
Nushagak Bay	I: 54. II: 706
Nushagak River	I: 49, 53-55, 68
Nutechek	III: 232
Nutkwa Inlet	IV: 576, 582
Nutkwa Lagoon	IV: 577
Odlak	III: 189, 206, 240, 246
Ogden Passage	IV: 531
Okalee Spit	III: 245, 247
Old Harbor	II: 685
Old Kasnan Village	IV: 612
Old Landslide	IV: 612
Old Sitka	IV: 523, 557
Old Sitka Harbor	IV: 528, 533
Ole Bay	IV: 624
Olga Bay	II: 654-657, 659-661, 666
Olga Strait, Kodiak Island	II: 654, 657
Olga Strait, Baranof Island	IV: 533
Olive Cove	IV: 620, 625
Oliver Inlet	IV: 522
Olsen Bay	III: 201, 230
Olsen Cove	IV: 609
One Bay	III: 234
One Eye	IV: 541
O'Malley, Henry	I: 65, 73, 74
Ommancey, Cape	IV: 484, 486, 499, 523, 534
Onslow Island	IV: 598, 609, 617
Orea	III: 206, 232, 240, 246
Orea Bay	III: 201, 227-231
Orea Inlet	III: 227, 239, 240
Orea Point	IV: 645
Oregon	IV: 622
Orloff, Ivan	II: 653
Orzenoi	I: 92
Orzinski Bay	I: 45, 92-94
Outlet Cape	II: 668

	Page		Page
Pacific Ocean	IV: 534	Red Bluff	I: 95
Pacific Packing Company	III: 233	Red Bluff Bay	IV: 487, 493, 498, 499
Pacific Steam Whaling Company	III: 190	Red Cove	I: 45, 92, 93, 95
Paddy Bay	III: 210	Redfish Bay	IV: 486, 523-525, 528, 531, 532, 540
Palisade Island	IV: 504	Redfish Cape	IV: 532
Palm Bay	IV: 582	Red Fox Bay	II: 679
Paramanof Bay	II: 677-679	Red Head	III: 227
Parker Point	IV: 490, 496	Redoubt Bay	IV: 523, 528, 531, 533
Passage Canal	III: 214	Redoubt Lake	IV: 523
Patterson Bay, Chatham Strait	IV: 493, 498	Red River	II: 655, 656, 660-666, 670, 671, 674, 675
Patterson Bay, Peril Strait	IV: 536	Reef	II: 694
Patterson Island	IV: 611	Reef Bay	IV: 541
Pats Creek	IV: 624	Refugio, Port	IV: 564
Pavlof Bay	I: 80-82, 87, 89, 90	Regan Cove	IV: 612
Pavlof Harbor	IV: 486	Region	IV: 541
Pearse Canal	IV: 651, 653	Reid Bay	IV: 545, 550
Pearson	I: 95	Remedios, Point	IV: 565
Peninsula Point	IV: 490, 496	Resurrection Bay	II: 711, 712
Perey Islands	IV: 605	Resurrection River	II: 712
Peril Strait	IV: 484, 531, 534-538	Retreat, Point	IV: 474, 478, 480
Perenosa Bay	II: 679	Revillagigedo Channel	IV: 636, 640
Perry Passage	III: 214	Revillagigedo Island	IV: 628
Perry Point	IV: 613	Riverside	IV: 468
Petersburg	IV: 503, 532	Robe Lake	III: 223, 224
Petersburg Creek	IV: 507, 509, 510	Robe River	III: 224
Pichet Bay	III: 214	Rocky Bay, Prince William Sound	III: 202, 232
Pigot Bay	III: 195, 214, 216	Rocky Bay	II: 701
Pigot, Point	III: 214, 216	Rocky Bay, Chatham Strait	IV: 490, 496
Pile Trap Cove	IV: 460	Rocky Bay, Clarence Strait	IV: 594, 610, 611
Pillars, Bay of	IV: 480, 493, 498	Rocky Point, Kodiak Island	II: 672, 675
South Arm	IV: 487, 499	Rocky Point, Cook Inlet	II: 697, 703
Pine Point	IV: 540, 545	Rocky Point, Prince William Sound	III: 211, 213
Pinta Bay	IV: 526, 529	Rocky Point, Chatham Strait	IV: 490, 496
Pinta Cove	IV: 451, 459, 460	Rocky Point, Clarence Strait	IV: 609
Pipers Bay	IV: 504	Rock Stream	IV: 541
Pleasant Bay	IV: 510, 516, 522	Rodman Bay	IV: 534-537
Pleasant Island	IV: 451, 459, 469, 470	Rodrick Bay	IV: 636
Poison Cove	IV: 536	Roe Point	IV: 632
Poison Water	IV: 490, 496	Rogers Bay	IV: 636
Pole, Cape	IV: 541, 545	Roller Bay	IV: 565
Polk Inlet	IV: 605	Rosary, Point	IV: 565
Polk Island	IV: 605	Rose Inlet	IV: 576, 583
Polly Creek	II: 702	Round Island	IV: 611
Pond Bay	IV: 582, 647	Round Point	IV: 610
Popof Island	I: 92	Rubber Boot	III: 204
Popof Strait	I: 92, 93, 95	Rubberboot Creek	III: 205, 206
Porcupine	II: 697, 706	Rudgers Bay	IV: 636
Porcupine Harbor	IV: 520, 529, 530	Rudyerd Bay	IV: 628, 632, 637
Porcupine Point	III: 199, 226	Ruins Point	IV: 641, 645, 652
Porpoise Island	IV: 451, 459, 469, 470	Russia	I: 41
Portage Bay	II: 656, 657, 659	Russian Harbor	II: 686
Portage Bay, Kodiak Island	II: 687	Russian Point	II: 695
Portage Bay, Prince William Sound	III: 214	Russians	II: 664, IV: 533
Portage Bay, Frederick Sound	I: 507, 509	Ruth Bay	IV: 583
Portage Bay, Prince of Wales Island	IV: 577, 582	Saginaw Bay	IV: 496, 508, 510
Portage Cove	IV: 481	Saginaw Channel	IV: 516, 623
Portillo Channel	IV: 564	St. Albans, Point	IV: 545
Portland Canal	IV: 651, 653, 654	St. Ignace Island	IV: 565
Portlock Harbor	IV: 526, 529, 530	St. James Bay	IV: 478, 480
Portuguese Point	II: 702	St. John Baptist Bay	IV: 528, 533
Possession, Point	II: 692, 699, 706, 709	St. Johns Harbor	IV: 545
Potato Point	III: 198, 223, 224	St. Joseph Island	IV: 665
Pracht, Max	I: 53, II: 645	St. Mary, Point	IV: 478, 480
Prince of Wales Island	IV: 496, 539-540, 550, 552, 556, 557, 572, 575, 586, 587, 589, 613	St. Matthew Bay	III: 201, 227, 231
Prince of Wales Passage	III: 193, 210	St. Nicholas Channel	IV: 565
Prince Point	IV: 685	St. Nicholas, Port	IV: 565
Princess Bay	IV: 631	St. Paul Harbor	IV: 686, 688
Prince William Sound	I: 45, 47, II: 691, 711, III: 187, 190, 191, 203, 204, 209, 212-214, 217, 219, 221, 222, 225-228, 230, 233-241	St. Philip Island	IV: 565
Prolewy, Point	IV: 552	Sakie Bay	IV: 565
Protection, Port	IV: 545	Saks Cove	IV: 636
Providence, Cape	II: 652	Salamato	II: 697, 706
Providence, Point	IV: 564	Salisbury Sound	IV: 526, 529, 530, 534, 537
Puegh Bay	IV: 585	Salmon Bay	IV: 466, 589, 594, 609, 610
Puffin Bay	IV: 534	Salmon Beach	IV: 451, 459, 466, 467
Pup Island	IV: 631	Salmon Creek	II: 673
Pybus Bay	IV: 504, 507	Salmon Creek	IV: 466
Pybus, Point	IV: 502, 504	Salt Bay	IV: 465
Pybus Reef	IV: 504, 507	Salt Chuck, Icy Strait	IV: 466
Pyramid Harbor	IV: 474, 476, 481, 519	Salt Chuck, Clarence Strait	IV: 611
Quadra	III: 190	Saltery Point	IV: 483
Quadra Point	IV: 647	Salt Lake, Yakutat	IV: 544
Queen Bay	IV: 541	Salt Lake, Chichagof Island	IV: 526, 527, 531
Quiet Harbor	IV: 593, 594	Salt Lake, Prince of Wales Island	IV: 565
Raspberry Island	II: 674, 677	Salt Lake, Behm Canal	I: 82, 83, 90-92
Raspberry Strait	II: 679	Sanak Island	I: 82, 83, 90-92
Ratz Harbor	IV: 594, 609	San Alberto Bay	IV: 565
Raymond Cove	IV: 631	San Antonio, Point	IV: 565
Rays Island	IV: 609	San Antonio, Port	IV: 565
Real Marina, Port	IV: 564	Sanborn Canal	IV: 521
Red Bay	IV: 540, 545, 548, 552	Sanborn Harbor	I: 93
		San Christoval Channel	IV: 565
		Sanco Bay	IV: 624
		Sandfly Bay	IV: 651, 653
		Sand Island	III: 241

	Page		Page
Sandspit.....	IV: 480	Skookum Jim Creek.....	IV: 595, 610
Sandy Bay.....	IV: 647	Skowl Arm.....	IV: 589, 606, 612, 613
Sandy Beach.....	IV: 632	Skowl Point.....	IV: 606
Sandy Point.....	III: 211, 213	Slate Island.....	IV: 645, 647
Sandy Point.....	IV: 605	Sleepy Bay.....	III: 210
Sandy River.....	I: 74	Slide.....	II: 604, 606
San Fernando Island.....	IV: 565	Slim Island.....	IV: 654
San Francisco, Point.....	IV: 565	Slocum Arm.....	IV: 527, 529
San Juan Bautista Island.....	IV: 566	Smeaton Bay.....	IV: 628, 632, 636-638
San Lorenzo Island.....	IV: 566	Smith Island.....	III: 211
Santa Anna Inlet.....	IV: 618, 620	Smiths Bay.....	IV: 624
Santa Cruz, Port.....	IV: 566	Smoky Bay.....	IV: 624
Santa Gertrudis, Point.....	IV: 566	Smugglers Cove, Behm Canal.....	IV: 633
Santa Rosalia, Point.....	IV: 566	Snag Point.....	III: 241
Saook Bay.....	IV: 537	Snail Point.....	IV: 567
Sarheen Cove.....	IV: 566	Snail Point, Behm Canal.....	IV: 633
Sarkar Cove.....	IV: 557, 559, 566, 572	Snake Bay.....	IV: 624
Sawmill Bay.....	III: 198, 223, 224	Snake Creek.....	IV: 621, 624
Sawmill Cove.....	IV: 583	Snake River.....	I: 54
Scharck Lagoon.....	II: 652	Snettisham, Port.....	IV: 516, 517, 519, 521
Scow Bay.....	IV: 541	Snow Passage.....	IV: 595
Screen Island.....	IV: 594, 595	Snug Anchorage.....	IV: 609
Sea Bay.....	III: 234	Snug Corner Cove.....	III: 225
Seal Bay.....	II: 677-679	Snug Harbor.....	II: 694
Seal Bay.....	IV: 583	Soapstone Harbor.....	IV: 451, 460, 464
Seal Cove.....	IV: 606	Soapstone Island.....	IV: 468
Seal Cove.....	IV: 647	Sockeye Creek.....	I: 49, 50, IV: 541, 647
Sealed Passage.....	IV: 606	Soda Bay.....	IV: 583, 586
Sea Level.....	IV: 531	Soda Harbor.....	IV: 586
Sea Lion Cove.....	IV: 534	Softuk Bar.....	III: 241
Sea Otter Harbor.....	IV: 566	Soldiers River.....	II: 687
Sea Otter Sound.....	IV: 566, 567, 573	Soll Bay.....	IV: 496
Seclusion Harbor.....	IV: 545, 550	Sonibart Creek.....	IV: 611
Secretary of Commerce.....	I: 47, 49, 51, IV: 453	Sophia, Inner Point.....	IV: 451, 454, 460, 470
Secretary of Commerce and Labor.....	I: 49	Sophia, Point.....	IV: 451, 460, 469
Securly Bay.....	IV: 508, 510, 522	South Arm, Cholmondeley Sound.....	IV: 611
Seduction Point.....	IV: 478	South Arm, Molra Sound.....	IV: 612
Seldovia Bay.....	II: 697, 702, 709	South Beach.....	IV: 610
Seven Mile Beach.....	II: 672, 675, 676	Southeast Cove.....	IV: 621
Seven Sisters.....	III: 232	South Inian Passage.....	IV: 451, 460
Seward.....	II: 712	South Pass.....	IV: 496
Seward Bay.....	III: 234	South Passage Point.....	IV: 400, 496
Seward Passage.....	IV: 621	South Vallenaar Bay.....	IV: 612
Seward Point.....	IV: 541	South Vallenaar Point.....	IV: 606, 612
Sextant Point.....	IV: 613	Southeast Cove.....	IV: 621, 625
Feymour Canal.....	IV: 516, 522	Southwestern Peninsula Fisheries Reservation.....	I: 51, 52
Shafka Cove.....	II: 687	Spacious Bay.....	IV: 633, 637
Shakan.....	IV: 540	Spasskaia Harbor.....	IV: 451, 460, 469
Shakan Bay.....	IV: 539, 541, 546, 551, 552	Spearman.....	I: 95
Shakan, Cape.....	IV: 612	Speel River.....	IV: 521
Shakan Strait.....	IV: 541	Spencer, Cape.....	I: 50, 51, IV: 451, 453, 460, 462, 464, 465, 469
Shaw Island.....	IV: 451, 460, 467	Spridon Bay.....	II: 672, 676
Shearwater Bay.....	II: 686, 690	Split Island.....	IV: 595
Sheep Bay.....	III: 201, 230	Spouos Chuck.....	IV: 585
Sheep Point.....	III: 227	Spruce Island.....	II: 681, 683-685, 687
Shelikof Strait.....	II: 652, 668, 672, 673, 675, 676, 678	Square Cove.....	IV: 490, 496
Shelter Bay.....	III: 202, 227, 232	Squire Island.....	III: 193, 210
Shelter Cove.....	IV: 516, 522, 523	Stag Bay.....	IV: 451, 460, 464, 551
Shelter Island.....	IV: 474, 478, 480, 523	Staney Creek.....	IV: 559, 567
Sherman, Point.....	IV: 478, 480	Starhope, Point.....	IV: 595
Shinuka Inlet.....	IV: 557, 567, 573	Starboard Inlet.....	III: 234
Ship Island.....	IV: 595, 609, 610	Starichkof.....	II: 697, 706
Shipley Bay.....	IV: 540, 541, 546, 548, 550, 551	States River.....	IV: 444
Shipwreck Point.....	IV: 583	Steamboat Bay.....	IV: 567, 595
Shoalwater Pass.....	IV: 636	Steamer Bay.....	IV: 609, 610
Shoe Bay.....	IV: 541	Steamer Point.....	IV: 610
Shoe Rock.....	IV: 533	Steamer Rocks.....	IV: 595
Shore Bay.....	IV: 613	Steele, Point.....	III: 227
Short Bay.....	IV: 632	Stephens Passage.....	IV: 474, 480, 481, 484, 496, 513, 518, 521, 522, 523
Shoup Bay.....	III: 223	Stepovak Bay.....	I: 92, 93
Shrimp Bay.....	IV: 632, 637	Stevenson, Point.....	IV: 609
Shumagin Islands.....	I: 45, 46, 80, 93	Stewart, Port.....	IV: 633
Shuyak Bay.....	II: 679	Stickson Bay.....	IV: 609
Shuyak Island.....	II: 668, 677	Stikine River.....	IV: 502, 503, 512, 539, 540, 550, 552, 553, 556, 617, 621
Shuyak Strait.....	II: 680	Stikine Strait.....	IV: 553, 556, 587, 595, 610
Silver Bay.....	IV: 528	Still Harbor.....	IV: 532-534
Silver Salmon Bay.....	II: 657, 658	Stockdale Harbor.....	III: 194, 213
Simmons, Point.....	IV: 585	Stone Rock Bay.....	IV: 606
Simpson Bay.....	III: 201, 227, 230	Stones Island.....	IV: 621
Sister Lake.....	IV: 527, 531	Strait, Cape.....	IV: 508, 509
Sisters, The.....	II: 694, 697	Streets Island.....	IV: 606
Sisters, The.....	IV: 451, 461, 470	Sturgeon River.....	II: 660, 661
Sitka.....	IV: 486, 523, 531	Styelman, Point.....	IV: 521
Sitkalidak Island.....	II: 685	Suckling, Cape.....	III: 245
Sitkalidak Strait.....	II: 684-688, 690, 691	Suermez Island.....	IV: 567
Sitka Sound.....	IV: 528, 534	Sukkwan.....	IV: 576
Sitklan Island.....	IV: 651, 653	Sukkwan Island.....	IV: 583
Sitkoh Bay.....	IV: 487, 490, 497, 498, 534	Sukkwan Strait.....	IV: 583, 544, 587
Sitkum Bay.....	II: 647	Sukoi Islets.....	IV: 509
Situk River.....	IV: 440-442, 444-447	Sukoi Inlet.....	IV: 532
Siwash Bay.....	III: 219	Sullivan, Point.....	IV: 498
Sixmile Creek.....	IV: 585	Sulzer.....	IV: 577, 584
Six Shooter Grant.....	IV: 612	Sulzer Bay.....	IV: 541
Skin Island.....	IV: 611	Sumner Strait.....	IV: 496, 512, 521, 538-541, 550-552, 556, 575, 636
Skookumchuck.....	IV: 567	Sunday Bay.....	IV: 654

	Page		Page
Suni-hat Creek	IV: 611	Trunk Island	IV: 634
Sunny Bay	III: 199, 226, 227	Tsa Cove	IV: 650
Sunny Bay	IV: 621	Tsimpsean Indians	IV: 589
Sunny Cove	IV: 611	Turnagain Arm	II: 602
Sunnyhart Point	IV: 611	Turn Point	IV: 668
Sunny Point	IV: 607	Turn Point, Cordova Bay	IV: 584
Sunshine Harbor	IV: 541	Tutka Bay	II: 697, 702
Surf Point	IV: 575, 587	Tuxedni Harbor	II: 694, 698, 711
Surge Bay	IV: 451, 460, 463, 464	Tuxekan Island	IV: 559, 568
Surprise Cove	III: 214	Tuxekan Passage	IV: 559, 568, 573
Survey Point	IV: 633	Twelvemile Arm	IV: 607, 611
Susitna River	II: 693	Twenty Thousand Bank	IV: 613
Suspiro, Cape	IV: 567	Twin Island	IV: 540, 547
Suter Bay	IV: 541	Two Moon Bay	III: 225
Sutter Creek	IV: 541, 546, 553	Tyonic	II: 698
Swanson Creek	II: 699	Tyonek	II: 699, 707, 711
Swanson Harbor	IV: 451, 461	Tyonik	II: 694
Swanson Lagoon	I: 80	Ugak Bay	II: 684, 686-691
Swedish Meadows	IV: 636	Uganik	II: 661, 665, 666, 673, 674, 689
Sweetheart Bay	IV: 521	Uganik Bay	II: 662, 665, 668, 672-677
Syble Point	IV: 633, 637	Uganik cannery	II: 690
Sycamore Bay	II: 686, 688	Uganik Creek	II: 655
Sykes, Point	IV: 627, 633, 637, 640	Uganik River	II: 671, 675
Tah Bay	IV: 584	Ugashik River	I: 51-54, 56, 59-62, 64, 65, 69, 70
Tain	IV: 613	Ugat, Cape	II: 671, 673, 676
Takanis Bay	IV: 451, 461, 463	Ulfat Bay	IV: 624
Taku Inlet	IV: 483, 514, 517-519, 521, 522	Ulloa Channel	IV: 568
Taku River	IV: 473, 474, 512, 513, 519	Unakwik Inlet	III: 196, 217, 219, 220, 228
Tamgas Harbor	IV: 589, 607, 613	Unakwik Point	III: 219
Tanani Bay	IV: 481	Unalaska Bay	I: 80
Tanglefoot	II: 664	Unga Island	I: 89, 92
Tanner, Z. L.	II: 685	Unga Strait	I: 92, 93
Tatoosh Point	IV: 633	Unimack Bay	III: 234
Tatoosh Rocks	IV: 634	Union Bay	IV: 618, 622, 624, 625
Taylor Bay	IV: 451, 461, 465, 466	Union Point	IV: 622
Tebenkof Bay	IV: 484, 486, 487, 493, 494, 496, 498, 499	United States Coast and Geodetic Survey	II: 694, IV: 476
Tee Harbor	IV: 517	Unuk River	IV: 628, 634
Tenakee Inlet	IV: 484, 487, 490, 496, 498	Urey, Point	IV: 449, 523
Tenass Pass	IV: 567	Urllia Bay	I: 80
Terror Bay	II: 672, 676	Ura	II: 702
Thatcher, Point	IV: 484, 490, 496, 534	Ushk Bay	IV: 537
Thenis Bay	IV: 624	Uyak	II: 656, 666, 674, 676
Theodore River	II: 693	Uyak Bay	II: 652, 654, 667, 673, 676
Thin Point	I: 81, 83, 91, III: 240, 246	Uyak, Cape	II: 667, 668, 671
Thin Point Lagoon	I: 81	Uzinki	II: 678, 685, 688
Thomas Bay	IV: 508, 509	Uzinki Bay	II: 685-687
Thom Cadez Bay	IV: 609	Uzinki Narrows	II: 681, 684, 685
Thompson, Seton H.	II: 706, III: 212, 236, 245	Valdez	III: 206
Thompson, W. F.	I: 77	Valdez Arm	III: 188, 198, 223, 224, 234, 235
Thoms Place	IV: 621, 625	Valdez Narrows	III: 223, 224
Thorne Arm	IV: 645, 647, 651	Valdez, Port	III: 188, 198, 223, 224
Thorne Bay	IV: 587, 589, 596, 609, 610	Vallenar Bay	IV: 607, 612
Three Hill Island	IV: 451, 461, 465, 466	Vallenar Point	IV: 607, 612, 639
Three Island	IV: 596	Vesta Bay	IV: 584
Three Mile Arm	IV: 546, 550	Viet Inlet	IV: 645
Three Mile Creek	II: 693, 699, 709, 711	Viekoda Bay	II: 673, 676
Three Saints Bay	II: 685, 687	View Cove	IV: 584
Three Way Passage	IV: 596	Village	II: 694
Thumb Bay	III: 193, 210	Village Point	IV: 490, 496
Tingle, George R.	II: 645, III: 233	Vixen Harbor	IV: 622
Tlevak Narrows	IV: 557, 568, 575, 584, 586	Vixen Inlet	IV: 622, 625
Tlevak Strait	IV: 584, 586	Vixen Point	IV: 622
Todals Creek	IV: 541	Vogel Spit	IV: 496
Tokeen Bay	IV: 567, 568	Volcano Bay	I: 80, 81, 83, 90
Tolstol Bay	IV: 587, 589, 596, 609, 610	Volmer Bay	IV: 612
Tolstol, Point	IV: 596	Wadding Cove	IV: 636
Tombstone Bay	IV: 651, 653	Wahnaya Bay	III: 232
Tom Ka Days Bay	IV: 609	Walden Point	IV: 587, 639
Toms Bay	III: 227	Walden Rock	IV: 608
Tom Skowl Place	IV: 613	Walker Cove	IV: 628, 634, 637
Tom Thumb Bay	III: 225	Walker, Port	IV: 494, 498
Tongass George Creek	IV: 647	Ward Cove	IV: 640, 646
Tongass Island	IV: 653	Warde, Point	IV: 618, 622, 624
Tongass Narrows	IV: 587, 640, 645, 647	Warmchuck Inlet	IV: 569
Tongass Passage	IV: 653	Warm Cove	IV: 541
Tongass, Port	IV: 654	Warm Springs Bay	IV: 487
Tongass Village	IV: 654	Warren Channel	IV: 541, 547
Tonki Bay	II: 680	Warren Cove	IV: 547
Tonki Cape	II: 677, 681	Warren Island	IV: 538, 540, 541, 547, 552
Tonowek Bay	IV: 568	Washington	II: 665
Tonowek Narrows	IV: 568	Washington	IV: 663
Totem Bay	IV: 541, 547, 551	Washington Bay	IV: 494, 498, 499
Traders Cove	IV: 636	Wasp Point	IV: 634
Trading Bay	II: 699	Waterfall, Kodiak Island	II: 664, 666
Traitors Cove	IV: 634, 636, 637	Waterfall, Chatham Strait	IV: 496
Traitors Cove Lagoon	IV: 637	Waterfall, Prince of Wales Island	IV: 557, 569
Tranquil Point	IV: 568	Waterfall Bay	IV: 569
Tree Point	IV: 437, 645, 647, 648, 656	Waterfall Cove	IV: 527
Trinity, Cape	II: 654, 684	Waterfalls	II: 698
Trocadero Bay	IV: 559, 567, 573	Watkins Point	IV: 623
Trollers Cove	IV: 611	Webster, Point	IV: 584
Trollop, Point	IV: 634	Wedge Island	IV: 607
Trout Creek	IV: 547, 553	Wells Bay	III: 196, 218, 220
Trunk Creek	IV: 636	Wells Passage	III: 214

	Page		Page
Wells, Port.....	III: 192, 195, 214, 215, 217	Wilson, Point.....	IV: 496
West Arm, Cholmondeley Sound.....	IV: 611	Winchester Bay.....	IV: 624
West Arm.....	IV: 613	Windfall Harbor, Seymour Canal.....	IV: 517, 522
West Foreland.....	II: 693, 694, 699, 702, 704	Windfall Harbor, Clarence Strait.....	IV: 596, 597
West Island.....	IV: 609	Windham Bay.....	IV: 517, 521
West Point.....	II: 702	Wingham Island.....	III: 240, 246
Whale Bay.....	III: 193, 210	Winslow Bay.....	I: 80
Whale Bay.....	IV: 528, 529, 531-534	Winstanley Island.....	IV: 634
Whale Head Island.....	IV: 568	Windy Bay.....	III: 201, 202, 231
Whale Island.....	II: 681, 683	Windy Point.....	IV: 613
Whalekiller Point.....	IV: 568	Wold Creek.....	IV: 636
Whalen Bay.....	III: 199, 226	Womens Bay.....	II: 687, 688
Whale Passage.....	IV: 589, 596, 609-611	Wooded Islet.....	II: 683
Whaley, Point.....	IV: 636	Wood River.....	VI: 49, 50, 54, 68
White Cliff.....	IV: 538	Woody Point.....	IV: 491, 496
Whitefish Bay.....	IV: 541	Woronkofski Island.....	IV: 553, 617
White Point.....	IV: 636	Woronzof, Point.....	II: 699
White Reef.....	IV: 647	Wosnesenski Island.....	I: 93
White Rock, Chatham Strait.....	IV: 491, 496, 497	Wrangell.....	IV: 540, 555, 556, 618
Whiterock, Clarence Strait.....	IV: 496, 613	Wrangell Island.....	IV: 554
Whiterock Bay.....	IV: 496	Wrangell Narrows.....	IV: 502, 503, 538, 540, 541, 547, 552
White Rock Beach.....	II: 702	Yackat Bay.....	III: 234
Whitestone Creek, Clarence Strait.....	IV: 613	Yakobi Island.....	IV: 463, 464
Whitestone Creek.....	IV: 541	Yakutat.....	IV: 438, 440
Whitestone Harbor.....	IV: 461, 461, 469	Yakutat Bay.....	III: 240, IV: 440, 441, 445
Whitestone Narrows.....	IV: 533	Yakutat Glacier.....	IV: 441
Whitewater Bay.....	IV: 487, 491, 541	Yasha Island.....	IV: 484
Whitewater Pass.....	IV: 541	Yes Bay.....	IV: 628, 634-637
Whiting River.....	IV: 521	Young Bay.....	IV: 517
Whitshed, Cape.....	I: 50	Yukon River.....	I: 50
Whitshed, Point.....	III: 187, 227, 238, 241	Yukon Territory of Canada.....	IV: 440, 518
Wide Bay.....	II: 652	Zachar Bay.....	II: 673, 676
Willard Inlet.....	IV: 651, 653	Zaikof Bay.....	III: 202, 232
William Henry Bay.....	IV: 478, 480	Zarembo Island.....	IV: 538-540, 553, 597
Will Passage.....	IV: 541	Zimovia Strait.....	IV: 553, 556, 617, 623, 625
Wilson Arm.....	IV: 636, 637		
Wilson Cove.....	IV: 487, 491, 496		