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SALMON CATCHES AND ESCAPEMENTS TO THE TRANSBOUNDARY RIVERS IN 1987

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EXECUTIVE SUMMARY

Final estimates of the catch and escapement for Pacific salmon returning to the transboundary Stikine, Taku, and Alsek rivers are presented and compared with historic patterns. Conduct of U.S. and Canadian fisheries with respect to opening dates, days, and number of units of gear is also presented.

The abundances of the various species of Pacific salmon to the Stikine River in 1987 differed from those of recent years. The Stikine River sockeye salmon run was estimated to be only 43,000 of which 15,000 were harvested and 28,000 escaped to spawn. The U.S. catch was estimated to be 3,800 and the Canadian catch was 9,600. The spawning escapement of 7,000 to Tahltan Lake was less than desired despite reduced fishing effort. The estimated non-Tahltan escapement of 21,000 was within the desired range. Spring fishery restrictions remained in effect this year for chinook salmon and spawning escapement appeared greater than that observed in recent years. For Stikine coho salmon, estimates of U.S. marine catch are not available. The Canadian commercial catch of coho salmon was 5,700 which is greater than the last two years but slightly less than the 1980 to 1986 average. The Stikine River runs of pink and chum salmon are typically very small. In 1987, Canadian catches of these two species were below the 1980 to 1986 average.

The 1987 total return of Taku river sockeye salmon was 141,000 including a catch of 68,000 and an estimated escapement of 73,000. While the run of Taku River sockeye salmon was less than expected, catches were close to the 1980 to 1986 averages. The total spawning escapement of Taku River sockeye salmon was within the desired goal range; however, there was a poor return of the Tatsamenie stock. Spring fishery restrictions remained in effect to protect Taku chinook salmon. The Canadian harvest of 127 large chinook salmon was less than the 1980 to 1986 average of 314. Counts of large adult spawners in two index areas were approximately equal to the 1980 to 1986 average. Concern for high harvest rates of Taku coho and chum salmon in the marine gill net fishery prompted restrictions to both fishing time and area. The catch of 35,200 coho salmon in the District 111 gill net fishery was slightly above average, as was the Canadian coho harvest of 5,600. An estimate of coho spawning escapement made using mark-recapture techniques for the first time was 35,000 to 40,000. Although the estimate is imprecise, sufficient numbers

of coho salmon appeared to escape the fishery to assure conservation. No estimates of Taku coho salmon harvested outside the near-terminal area are available. The Canadian catch of 2,300 Taku chum salmon was approximately one-half the 1980 to 1986 average. The magnitude of the escapement of chum salmon is unknown. The return of Taku pink salmon appeared to be large, as were returns to other systems in the area and to the hatchery in Juneau. The District 111 catches of 356,000 was almost twice that of the 1980 to 1986 average, while the Canadian catch of 6,300 was slightly below the 1980 to 1986 average. The estimated escapement of Taku pink salmon, based on mark-recapture analysis, was 740,00 to 870,000.

In the Alsek River, the predicted strong return of sockeye salmon materialized in the early run, but not in the late run. Regulations protecting the early-run sockeye salmon were again implemented in Canada. The U.S. commercial catch of 11,300 sockeye was less than one-half the 1980 to 1986 average with the majority of fish taken during the first few weeks of the fishery. Sockeye escapements have been monitored at a weir on the Klukshu River since 1976 and the count for 1987 was approximately one-half the 1976 to 1986 average. Spring fishery restrictions continued on the Alsek River to protect chinook salmon. The escapement of 2,600 chinook salmon to the Klukshu River weir was slightly above the 1980 to 1986 average. The U.S. inriver coho salmon catch of 2,500 was only about one-third that of the 1980 to 1986 average; however, fishing effort was also very low. The coho escapement of 200 to the Klukshu River weir was approximately one half the 1980 to 1986 average. However, this is only a partial count of the escapement as the weir is removed prior to completion of the run.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDIX TABLES

LIST OF APPENDIX TABLES
(continued)

LIST OF APPENDIX TABLES
(continued)

INTRODUCTION

This report includes 1987 catch and escapement data for Pacific salmon returning to the transboundary Stikine, Taku and Alsek Rivers. Catch and effort data, by management week (U.S. statistical week), are presented for each river for both U.S. and Canadian fisheries. Sockeye runs to the three rivers are reconstructed using harvest data and spawning escapement estimates. Spawning escapement data for all species are reported using available weir counts and other escapement survey estimates. In 1987, no annex provisions were in effect to regulate harvest sharing of Stikine and Taku sockeye and coho salmon.

STIKINE RIVER

Stikine River salmon are harvested by U.S. gill net fisheries in Alaska Districts 106 and 108, Canadian lower and upper river commercial fisheries and Canadian subsistence fisheries (Figure 1). Catch and effort data for these fisheries, by week, for 1987 are given in Appendix A. Yearly totals for historical years as well as 1987 are given in Appendix B. Test fisheries' catch and effort data from Districts 106 and 108 and from inriver are also given in these appendices; as well as stock proportions for the various fisheries, weir escapement counts, and smolt counts. Catches of unknown quantity are taken in Alaskan troll fisheries. Sport fisheries near Wrangell and Petersburg harvest some Stikine River salmon. A sport fishery also exists in the Canadian portion of the river and the catches from this fishery are thought to be low.

Fishing Effort

In both District 106 and 108 the total number of days the fishery was open during 1987 was below average. In District 106 the fishery was open 20 days in 1987 versus a 30 day average opening for 1980 to 1986 and a 34 day average for 1964 to 1986. In District 108 the fishery was open 13 days in 1987 versus a 16 day average opening for 1980 to 1986 and a 28 day average for 1964 to 1986.

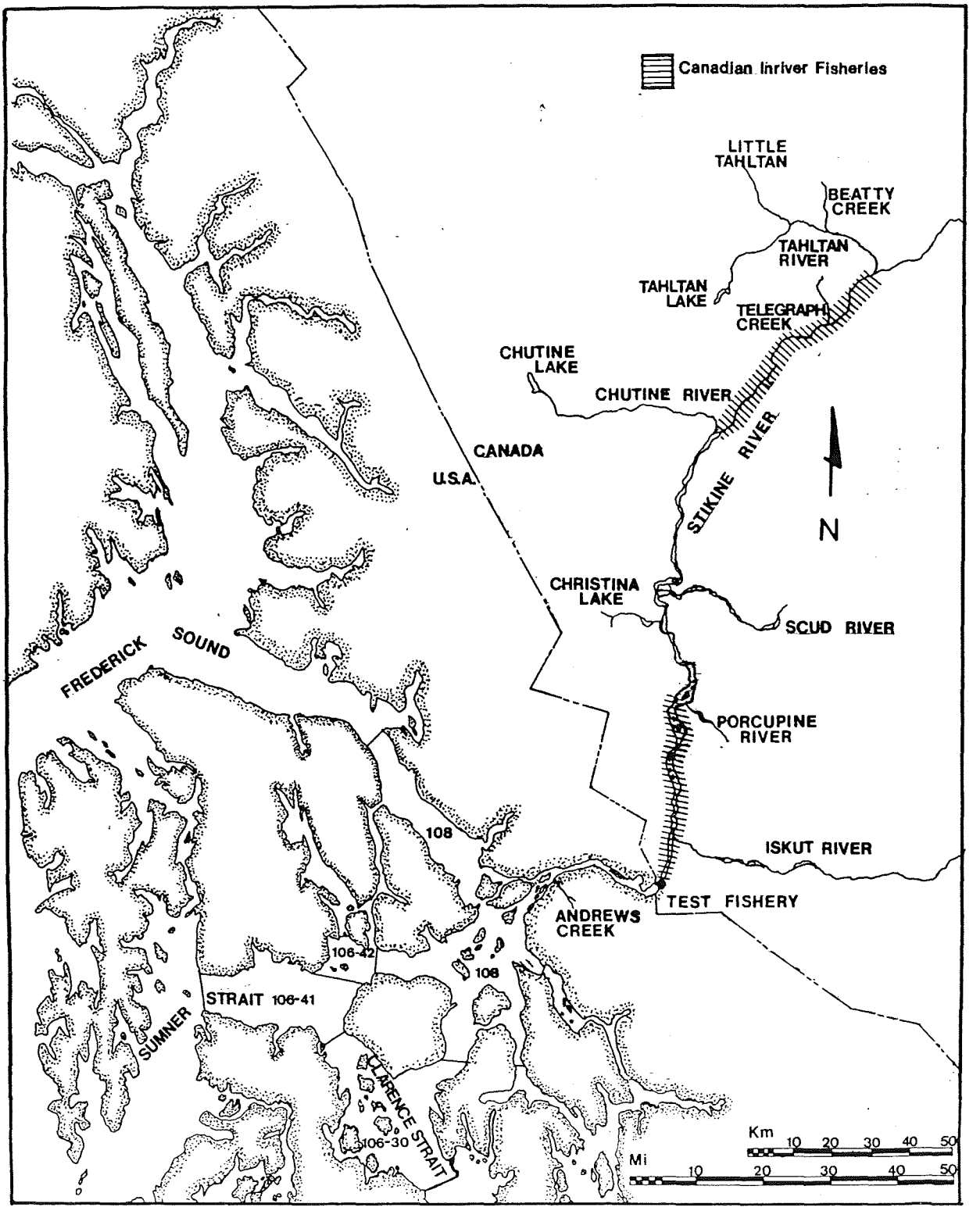

Figure 1. Map of the Stikine River and U.S. fishing districts off the mouth of the river.

The fishing season started June 21 in both districts. The number of boats participating in the District 106 fishery was greater than usual in the early part of the season but fell below average towards the end of the season. Fishing in District 108 was restricted each week to conserve various salmon stocks and effort was lower than usual throughout the entire season. Total boat-days for the season was less than historical averages in both districts (Figure 2).

The Canadian lower river commercial fishery commenced June 29 and was open for a total of 20 days during the season. This is approximately half the 1980 to 1986 average of 39 days. Fishing effort in boat-days was also almost half the historical average (Figure 2). Fishing effort in the upper river commercial fishery was greater in 1987 than in previous years.

A test fishery to assess stock strength and composition was conducted in Canada near the international border from mid-June to mid-October. Increased fishing effort was put into this test fishery over previous years in order to increase sample sizes for run timing estimation.

The U.S. operated test fisheries in District 106 in Sumner Strait and in District 108 in Frederick Sound to assess stock strength. These test fisheries ran for six weeks from mid-June to late July. There was also a gill net efficiency evaluation test fishery conducted in District 106 during the months of July and August. The U.S. also operated a set net test fishery in the mouth of the Stikine River from June 28 to August 8 to collect stock composition data.

Sockeye

Based upon a parent year (1982) escapement of 28,257 sockeye salmon to Tahltan Lake, the total run (Tahltan and non-Tahltan stocks) to the Stikine River in 1987 was forecast to be slightly above average (1980-1986 average equals 113,068). The run which materialized was estimated to be 43,323 of which 15,344 were harvested by U.S. and Canadian fisheries and 27,979 escaped to spawn (Table 1).

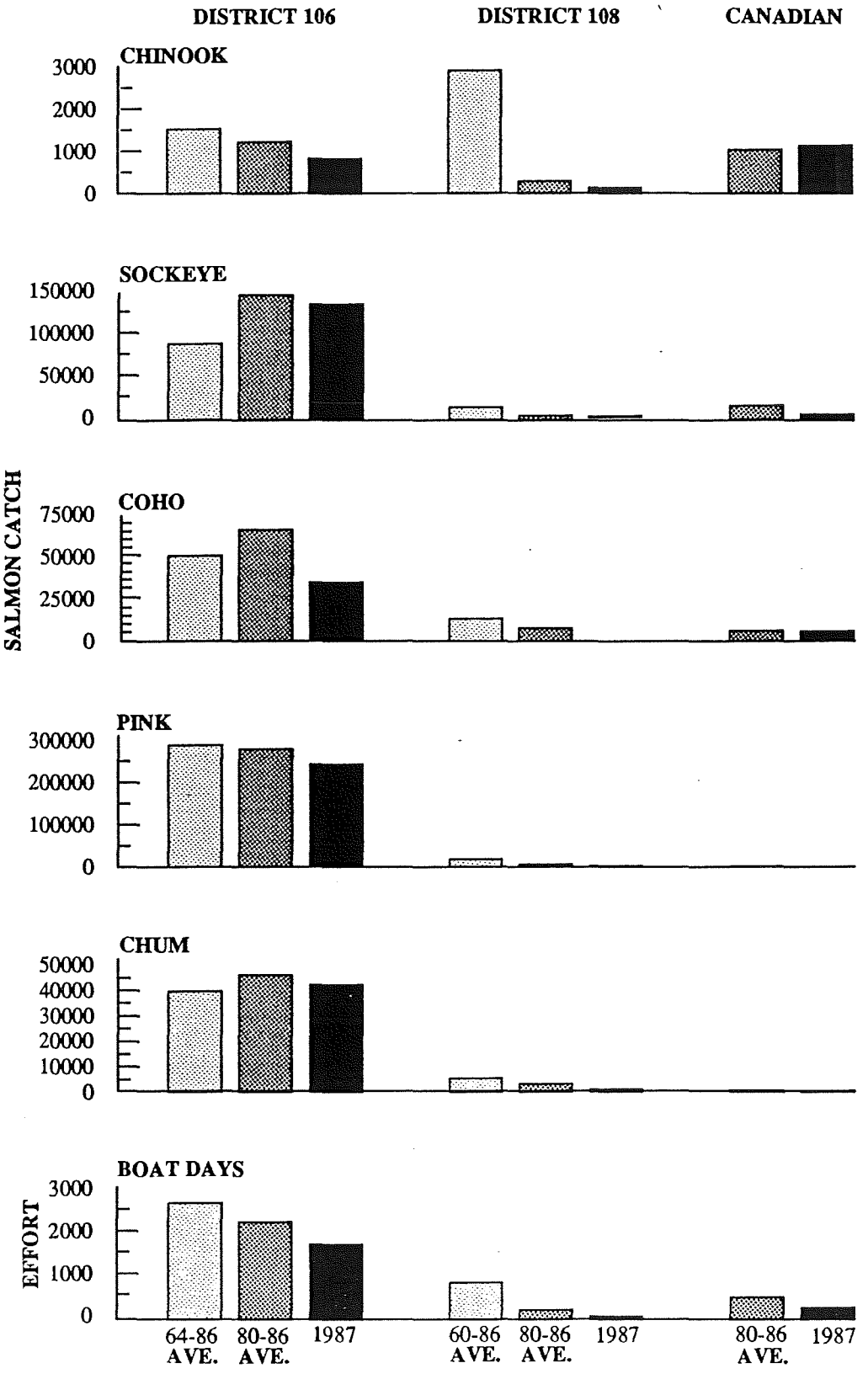

Figure 2. Average catches and fishing efforts compared with 1987 values for the District 106, District 108, and the Canadian lower Stikine River commercial fishery.

Table 1. Run reconstruction of Stikine River sockeye salmon for 1987. The Tahltan escapement is counted at a weir; catches are known and stock proportions are estimated; the proportion of Tahltan stock in the inriver run is determined from the inriver test fishery using the drift gill net for total sockeye run timing estimates and both the drift and set gill net for weekly stock compositions; the rest of the table is filled in by appropriate addition or subtraction.

	Tahltan	Non-Tahltan	Total
Escapement	6,958	21,021	27,979
Canadian Harvest			
Indian Food	2,681	298	2,979
Upper Commercial	448	50	498
Lower Commercial	1,380	4,758	6,138
Total	4,509	5,106	9,615
% of Harvest	68%	75%	72%
Test Fishery Catch	455	1,213	1,688
Inriver Run	11,922	27,340	39,262
District Harvest			
106-41&42	1,155	258	1,413
106-30	221	710	931
108	710	707	1,417
Total	2,086	1,675	3,761
% of Harvest	32%	25%	28%
Test Fisheries Catch	168	132	299
Total Run	14,176	29,147	43,323
Escapement Goal Range	20,000-40,000	20,000-40,000	
Total Allowable Catch	0	0-9,147	

The 1987 District 106 total sockeye harvest of 136,427 is approximately 50% above the 1964-1986 average of 89,546, but is slightly less than the 1980 to 1986 average of 147,853 (Figure 2). In contrast, the District 108 sockeye harvest of 1,620 is far below the 1964 to 1986 average and approximately one-third the 1980 to 1986 average of 5,212 (Figure 2). Scale pattern analysis indicates that 3,761 (3%) of the 138,047 sockeye salmon harvested in Districts 106 and 108 were of Stikine River origin. Of these, 1,675 were Tahltan stock and 2,086 were non-Tahltan stocks.

The Canadian lower river commercial fishery caught 6,138 sockeye salmon compared to an average of 16,738 over the previous seven years (Figure 2); 1,380 (22%) of these were of Tahltan Lake origin. Total harvest of sockeye

salmon in the upper river commercial fishery and the Indian food fishery was 3,477. Ninety percent of the upper river harvest is assumed to be Tahltan stock giving a harvest of 3,129 for this stock in the upper river.

Of the total estimated harvest of Stikine River sockeye salmon (excluding test fishery catch) Canadian fishermen harvested 9,615 (72%) while U.S. fishermen harvested 3,761 (28%) (Table 1).

The weir count of 6,958 for Tahltan sockeye salmon is well below the lower limit (20,000) of the desired green range of the escapement goal and is also less than the lower limit (18,000) of the acceptable yellow range[1]. Based on analysis of test fishery catch-per-unit-effort and stock composition data, the escapement of non-Tahltan stocks was estimated to be 21,021 (Table 1). This is within the desired (green) escapement range of 20,000 to 40,000 fish.

Chinook

The total run of chinook salmon to the Stikine River in 1987 was predicted to be above average. The District 106 and 108 drift gill net fisheries harvested 836 and 149 chinook salmon, respectively. Both of these catches are below the 1980 to 1986 averages (Figure 2). To minimize the incidental harvest of maturing spring-run chinook salmon, the area around the river mouth was closed to fishing during the first two weeks of the fishing season, from June 21 to July 4. In District 106, immature chinook salmon were predominate in catches and were caught incidentally during fisheries directed at other species; these chinook salmon originate from a variety of stocks.

Harvest of chinook salmon within the Canadian lower and upper commercial fisheries and in the Indian food fishery included 444 jacks and 2,201 large adult fish. Catches of chinook salmon were greater than the average (1980-1986) for each of the three fisheries (Figure 2). Above average catches occurred in the commercial fishery despite a relatively late opening date, restricted mesh sizes and very limited fishing time early in the season. This is consistent with the relatively strong return of chinook to the Stikine River in 1987 as evidenced by above average spawning escapements. Approximately, 40% of the 909 large chinook salmon caught in the lower river

[1] Escapement goals for Stikine River sockeye salmon are presented in "Stikine River Sockeye Salmon Management Plan, 1987" prepared by the Transboundary Technical Committee.

commercial fishery and approximately 40 fish caught in the test fishery were purchased by a private firm and held in pens until ripe. Upon maturation, gametes were taken from these fish and fertilized. The eggs were incubated to the eyed-stage and then shipped to a mariculture operation on Vancouver Island.

Based on aerial survey counts of large (3- and 4-ocean age) fish, the escapement of chinook salmon in the Stikine river appeared to be greater than that observed in recent years. An aerial count of 2,706 fish on the Little Tahltan River in 1987 is 116% more than that counted in 1986. The count of 4,781 large adult chinook salmon at Little Tahltan weir in 1987 is greater than the count in either 1986 or 1985.

Coho

Management emphasis in Districts 106 and 108 changed from pink to coho salmon during statistical week 35 (beginning August 23). A single day of fishing was permitted during the first week of the coho management period in both districts to test the strength of the return. In District 108, effort was low while catch per unit of effort was average to below average. In District 106, coho catch per unit of effort was average (excluding hatchery contribution). The total coho catch in District 106 of 34,534 is 30% below the 1964 to 1986 average and 47% below the 1980 to 1986 average (Figure 2). Most of this harvest (69%) occurred prior to directed management for coho salmon. Coded-wire tag information for District 106 indicates hatchery coho salmon contributed 5,500 fish (16%) of the total harvest. The District 108 coho harvest of 1,015 was well below the 1980 to 1986 average (Figure 2).

The Canadian coho harvest of 5,728 in the lower river commercial fishery was three percent below the 1980 to 1986 average (Figure 2). The coho escapement estimate, generated by Canada from a test drift gill net fishery, was 7,300 fish. This estimate is based on the ratio of test minus commercially caught sockeye salmon to test minus commercially caught coho salmon. The cumulative catch of coho salmon in the test fishery was 31 percent of the cumulative catch of sockeye salmon in the test fishery.

Pink

A below average pink salmon return was predicted for District 108. Pink salmon harvests in District 108 fell below both the 1964 to 1986 average and the 1980 to 1986 average (Figure 2). Escapements in Frederick Sound were near average while escapement throughout the remainder of District 108 fell below goals. The pink salmon catch in the Canadian lower river commercial fishery (646) was also below average.

Chum

The District 108 chum salmon harvest of 949 is substantially below both the 1964 to 1986 average (5,433) and the 1980 to 1986 average (3,090) (Figure 2). The poor catch is primarily a result of restricted fishing time in Frederick Sound imposed to conserve sockeye salmon. The chum catch in the Canadian lower river commercial fishery (432) was slightly below the 1980 to 1986 average of 620 fish.

TAKU RIVER

Taku River salmon are taken by the U.S. in troll fisheries in Southeast Alaska, in commercial and test drift gill net fisheries in Alaska District 111, in Alaska District 112 and 114 seine net fisheries, and in the Juneau area sport fishery. Canadian fisheries for Taku River salmon include inriver commercial and test gill net, Induan food and sport fisheries. The Taku River and U.S. fishing districts off the mouth of the river are shown in Figure 3. Weekly catch and effort data for the U.S. District 111 and Canadian inriver fisheries are presented in Appendix C and historical annual data are presented in Appendix D. Test fisheries catch and effort data, stock proportions in the fisheries, escapement counts, and mark-recapture estimates of the sockeye salmon run are also given in these appendices.

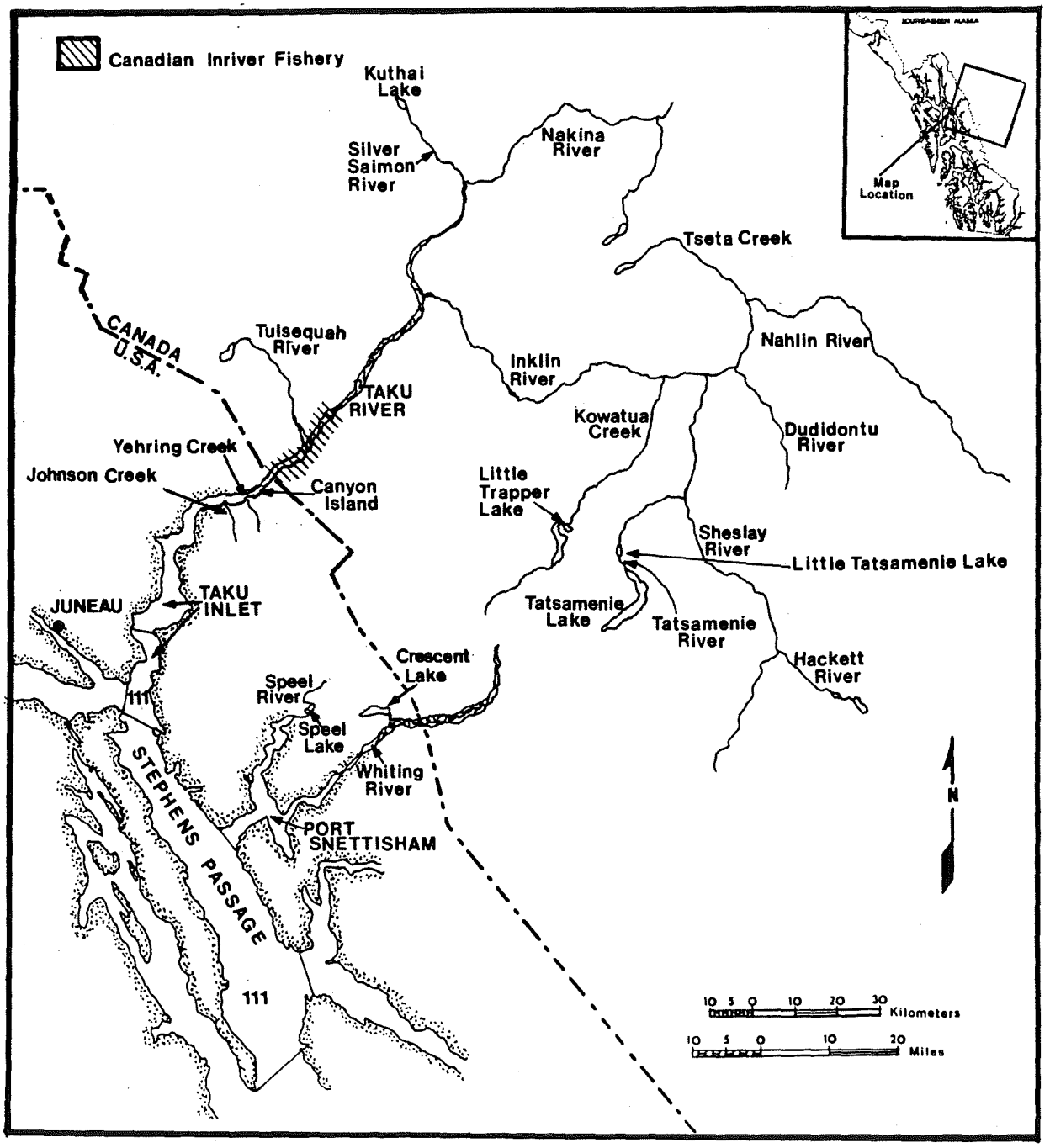

Figure 3. Map of the Taku River and U.S. fishing districts off the mouth of the river.

Fishing Effort

The District 111 drift gill net fishery was opened from 21 June to 28 September; fishing time totaled 35.75 days. This represents 89% of the average annual fishing time allowed from 1980 to 1986. Fishing effort (boat-days) for the 1987 season was slightly greater than past averages (Figure 4). The number of boats fishing during the summer sockeye season (weeks 26 to 33, June 21 to August 11) ranged from 50 to 97, while the number of boats in the fall fishery (weeks 34 to 40, August 16 to September 27) ranged from 5 to 153. A test fishery was conducted during the summer and fall fishing seasons to compare the efficiency of different types of gill nets. Two boats each fished one day per week from July 5 to August 1 (weeks 28 through 31) and from August 23 to September 19 (weeks 35 through 38).

The Canadian inriver fishery was opened from 29 June to 24 September, for a total of 26.2 days. The number of fishermen varied from 5 to 13 each week. Total effort was 15% below the historical average (Figure 4). A gill net test fishery was conducted from 27 July to 16 October to provide an index of coho and chum salmon abundance. One boat made 10 standardized drifts each day when the commercial fishery was closed.

Sockeye

Based on results from the Canyon Island mark-recapture program and scale pattern analysis of District 111 catches, the estimate for the total Taku River sockeye return for 1987 was 141,579 fish (Table 2). This is 36% below the preseason forecast of 221,000 sockeye salmon. The District 111 and Canadian inriver gill net catch included 53,581 (80%) and 13,554 (20%) sockeye salmon, respectively, of Taku River origin. These figures exclude the Alaskan test fishery catch of 1,030 Taku sockeye salmon and the Canadian test fishery catch of 237. The total sockeye spawning escapement to the Taku River is then estimated at 73,339 (Table 2). This falls within the interim escapement goal range of 71,000 to 80,000. In addition to Taku River sockeye salmon, the District 111 drift gill net commercial and test fisheries harvested an estimated 21,038 sockeye salmon returning to Speel and Crescent Lakes in Port Snettisham. This represents 28% of the total District 111 sockeye catch.

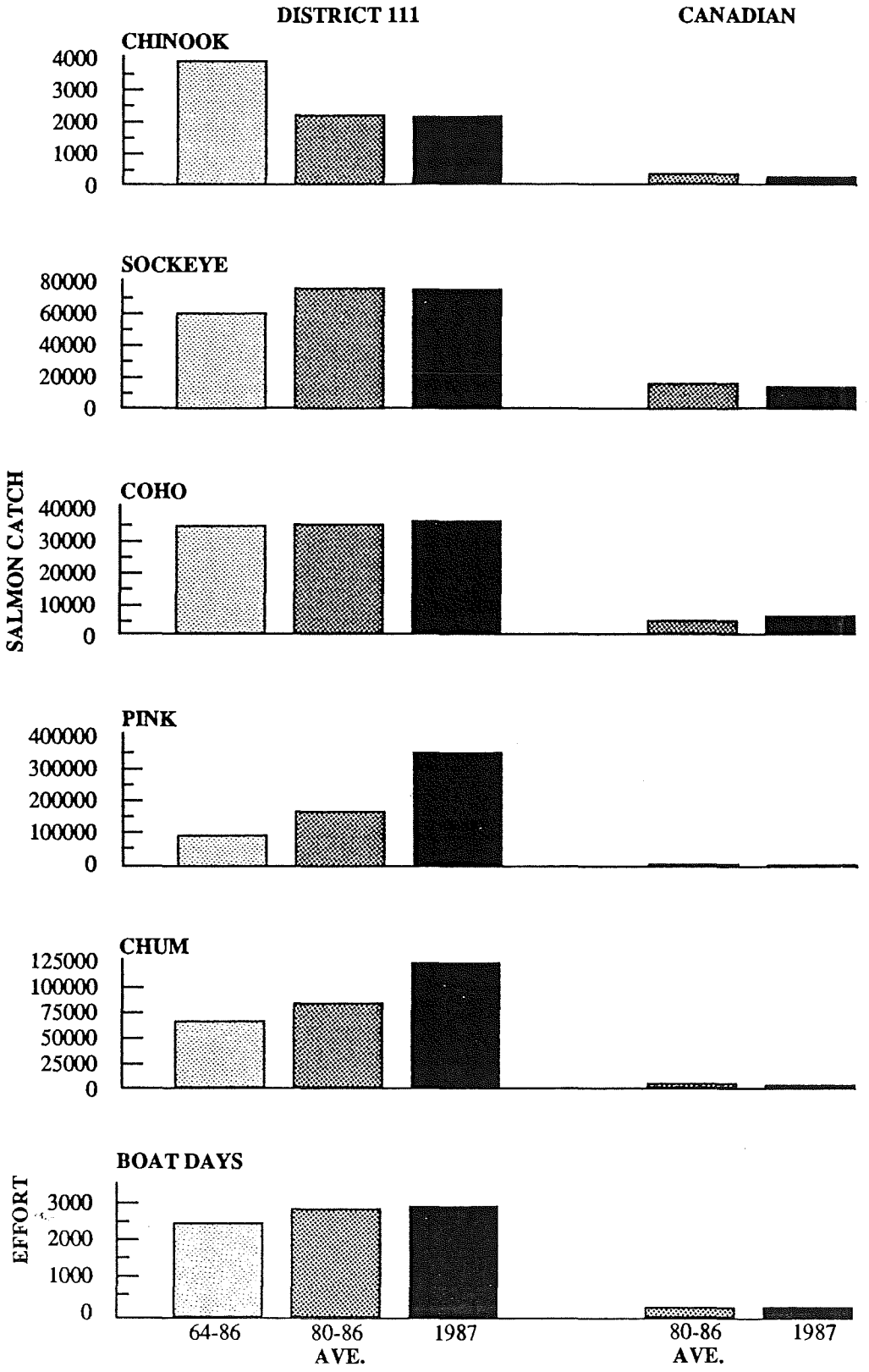

Figure 4. Average catches and fishing efforts compared with 1987 values for the District 111 and Taku River fisheries.

Table 2. Run reconstruction for Taku River and Port Snettisham sockeye salmon for 1987. Inriver run is determined from a mark-recapture study. Escapement is equal to inriver run minus Canadian commercial and test fishery harvest. Total run equals inriver run plus U.S. commercial and test fishery harvest.

	Taku	Snettisham	Total	% Snettisham
Escapement	73,339	17,158		
Canadian Harvest				
Inriver commercial	13,554			
% of Harvest	20%			
Inriver test fish.	237			
Inriver Run	87,130			
U.S. Harvest [a]				
Dist. 111 commercial	53,419	21,038	74,457	28%
% of Harvest	80%			
Dist. 111 test fish[b]	1,030	401	1,431	28%
Total Run	141,579			
Taku Escapement Goal Range	71,000-80,000			
Total Allowable Catch	61,579-70,579			

a. Does not include possible interception of Taku sockeye in Alaska districts 112 and 114 pink salmon purse seine fishery.
b. Stock composition estimates for commercial harvest were applied to test fishery harvest.

Based on scale pattern analysis, four distinct sockeye stocks can be recognized within the Taku River. Of these, only the Trapper and Tatsamenie Lake stocks are counted through weirs for escapement estimation. The Trapper Lake escapement of 12,007 compares closely with the 1983 to 1986 average of 12,229; however, the Tatsamenie Lake count of only 2,794 fish is 77% below the 1985 and 1986 average of 12,192 fish. The poor Tatsamenie sockeye run strength was reflected early in the season by stock composition estimates based on scale samples taken in the District 111 gill net fishery and the Canyon Island fishwheels.

Despite a total closure of Port Snettisham to fishing from 21 June to 17 August, the combined Speel Lake and Crescent Lake sockeye escapement of 17,158 was only half of the escapement target of 34,000 (12,000 Speel plus 22,000 Crescent). The Speel Lake weir count of 9,319 was slightly better than the 1983-1986 average of 8,295, while the Crescent Lake count of 7,839 was 15% below the average weir count for the same period.

Chinook

The District 111 drift gill net fishery harvested 2,105 chinook salmon in 1987. Although this is an average chinook harvest for the 1980 to 1986 period (Figure 4), a larger than average proportion of the harvest was comprised of immature fish. Night closures were imposed between July 5 and 18 (weeks 28 and 29) to minimize catches of immature fish. In addition, the fishing area above Jaw Point was closed during the first two weeks of the fishery (week 26 and 27) to protect mature Taku River chinook salmon.

The Canadian harvest of 233 chinook salmon was below the 1980 to 1986 average harvest of 322 (Figure 4). Incidental harvests were minimized by the relatively late fishery opening date, restricted mesh sizes, and limited fishing time allowed early in the season.

The maximum number of large adult (3- and 4-ocean age) chinook salmon observed during aerial surveys of the Nakina and Nahlin Rivers was 4,028 fish. This escapement is 74% of the 1986 count and is 87% of the 1980 to 1986 average of 4,219 fish.

Coho

The District 111 drift gill net coho catch of 35,173 is slightly above the 1980 to 1986 average of 34,111 fish and the 1964 to 1986 average of 33,642 fish (Figure 4). Maximum weekly coho catches occurred in Taku Inlet during the period August 23 to 31 (weeks 35 and 36) when weekly effort levels were above average. Although weekly coho catches and catch-per-unit-effort levels were average during this time, the test fishing vessels indicated very few coho and chum salmon were passing through the District 111 gill net area during the closed periods. Consequently, to conserve coho and chum salmon, area and time restrictions were imposed on the fishery from 6 to 29 September.

The Canadian harvest of 5,599 coho salmon exceeded the 1980 to 1986 average harvest of 3,909 fish (Figure 4). Test fisheries, conducted in District 111 and in Canadian portions of the Taku River, took 542 and 815 coho salmon, respectively.

The estimated coho escapement past the Canadian fishery was approximately 35,000 to 40,000 fish based on a mark-recapture study. However, this estimate is likely conservative because tagging was terminated prior to the end of the run. Based on test fishery data, the mark-recapture study included approximately 70 percent of the coho migration. Low water and slow currents precluded capture of coho salmon for tagging after September 20.

Pink

Based on the extremely large 1985 parent year escapement of pink salmon into the Taku River, the 1987 return was forecast to be large. This year's pink catch of 355,725 in District 111 is about twice the 1980 to 1986 average (Figure 4). The catch in this area is comprised of Taku River, Stephens Passage, and hatchery stocks. Additional fishing time or areas were not allowed in Taku Inlet or upper Stephens Passage to harvest this large return. Lower Stephens Passage was open, however, from July 26 to August 5 (weeks 31 and 32) for a total of nine days to harvest surplus pink salmon returns destined for streams in lower Stephens Passage and Seymour Canal.

From the mark-recapture study conducted at Canyon Island, the estimated pink salmon escapement was between 740,000 to 870,000. This range represents estimates from two analytical methods, both of which have broad confidence intervals associated with them.

Chum

The commercial chum salmon harvest in District 111 was 121,862 fish (Figure 4), representing the third highest catch in the district since 1964. This harvest was comprised of summer and fall runs. Since 1984, the Snettisham hatchery has significantly increased its contribution of summer chum salmon to the fishery. Coded wire tag return data indicate that, of the 57,418 summer chum salmon caught prior to August 18, approximately 13,000 were of hatchery origin.

The strong return of hatchery chum salmon to District 111 during July 19 to 25 (week 30) triggered an additional 24 hour fishing period. During this extension, fishing was restricted to Stephens Passage, south of Graves Point, in order to minimize the catch of Taku origin sockeye salmon.

The fall fishery harvests chum and coho salmon originating in the Taku River system and chum salmon returning to Port Snettisham. The total fall chum harvest 64,444 fish is the highest since 1980. However, 57% of the catch was taken in Stephens Passage and Port Snettisham, indicating the primary run strength was returning to Port Snettisham. Extremely poor test fish catches from inside Taku Inlet supported this conclusion. Consequently, fishing time was reduced to 24 hours per week, and Taku Inlet was closed north of a line from Greely to Cooper Points beginning in statistical week 37 (September 6).

The Canadian commercial fishery harvested 2,270 chum salmon. This number is substantially below the 1980 to 1986 average of 4,087 fish (Figure 4). The District 111 and Canadian inriver test fisheries harvested 1,598 and 743 chum salmon, respectively. Canadian catches include released fish.

Escapement of chum salmon to the Taku River in 1987 is not known. High water conditions in the fall hampered aerial surveys and no population estimate was generated from the adult mark-recapture program.

ALSEK RIVER

Fisheries for Alsek River salmon include an Alaskan set net fishery in Dry Bay at the mouth of the Alsek and Canadian Indian food and sport fisheries in the upper Tatshenshini River drainage (Figure 5). Sockeye and coho salmon are the target species in the Dry Bay fishery, with small numbers of chinook and chum salmon taken incidentally. Unknown, but presumed small, numbers of Alsek River salmon are taken incidentally in Yakutat area fisheries. Sockeye and chinook salmon are target species in the Canadian fisheries. Catch and effort data from the U.S. Alsek River fishery and the Canadian inriver sport and Indian food fisheries are presented in Appendix E, as well as escapement counts.

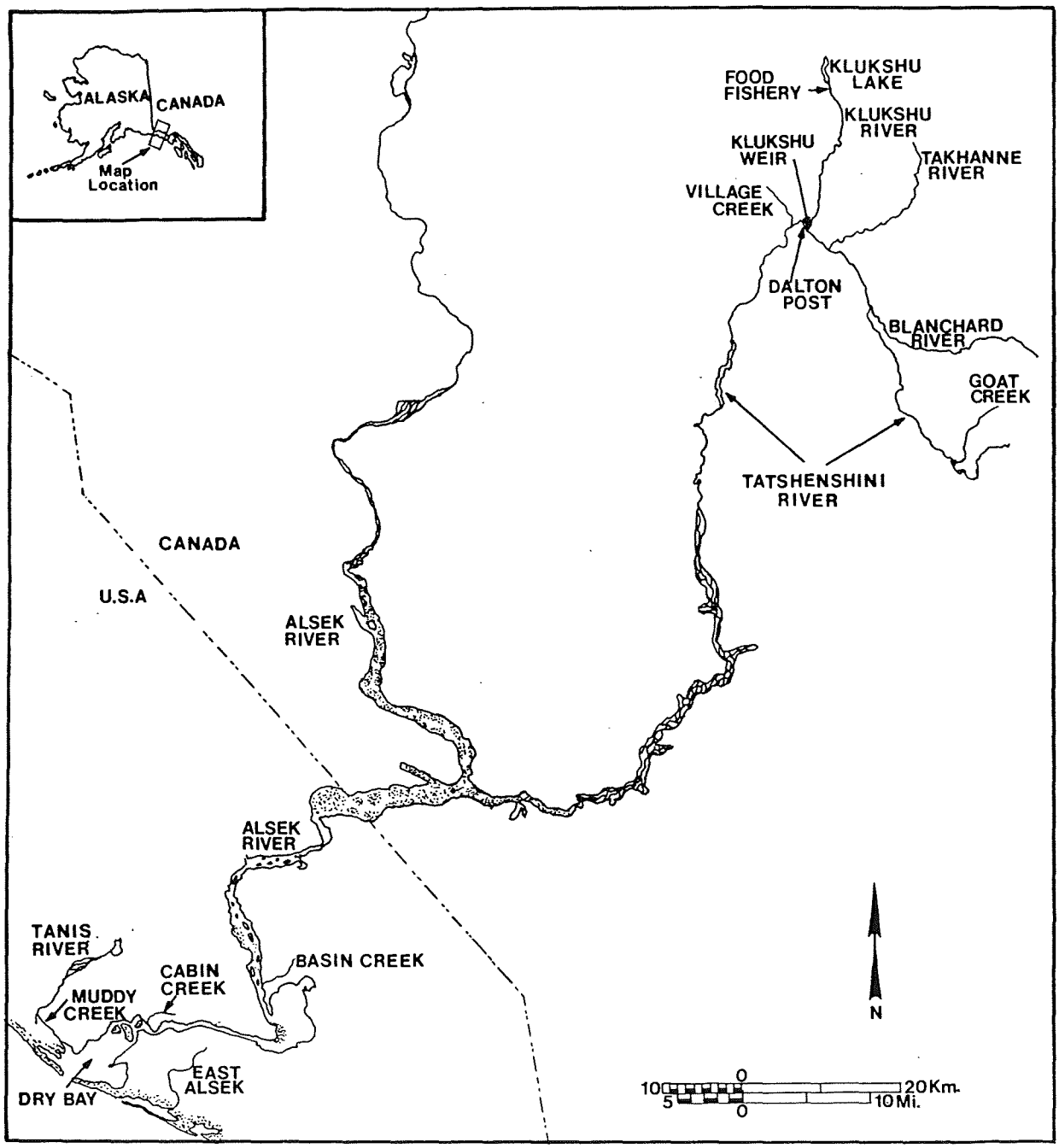

Figure 5. Map of the Alsek River.

Sockeye

Management objectives for the Alsek River include rebuilding the early portion of the Klukshu River stock and allowing a total sockeye escapement to the Klukshu River of 20,000 to 30,000 fish. Based on parent year escapements, the 1987 return of early and late run Alsek sockeye salmon was expected to be above average; however, the actual total return was disappointing.

The early portion of the run appeared strong, as the Dry Bay fishery catches were high in early weeks. Catches are usually greatest during weeks 27 to 31; in 1987 the catches were greatest during week 25. Of the total Dry Bay catch of 11,281 sockeye salmon, more than 50 percent were taken during the first three weeks of the fishery. The sockeye fishery was closed July 12 (week 30). The total catch of sockeye salmon was 46% of the 1980 to 1986 average (Figure 6).

The sockeye harvests in the Canadian Indian food and sport fisheries were 1,158 and 383 fish, respectively. These represent 51% and 75% of the 1980 to 1986 averages of 2,264 and 513 fish, respectively, for the two fisheries (Figure 6). Canadian closures to protect early sockeye salmon runs were implemented again in 1987; hence the poor catches for the year.

The Klukshu River weir escapement of 10,504 sockeye salmon was the lowest recorded since the weir was installed in 1976. The early run portion of the escapement, that arriving before August 15, was 3,269 fish, an increase of approximately 17 percent over the 1980 to 1986 average; the late portion of the run, 7,235 fish, was less than half the 1980 to 1986 average. While the early portion of the run was greater than in the previous three years, it was only 42 percent of the parent year (1972) escapement of 7,758 fish.

Chinook

Chinook spawning escapements in the Klukshu index tributary of the Alsek River for the principal brood years of the 1987 return (1981 to 1983) were about average. However, chinook returns to the Alsek River have in recent years been below expectations. The 1987 fishing season in the Dry Bay area was opened on June 8 for one-half day in order to test the strength of the early sockeye run. This opening was one week earlier than the fishery had opened since 1983, but one week later than that allowed by regulation. The Dry Bay chinook catch in 1987 was 347 fish, 69% of the 1980 to 1986 average (Figure 6).

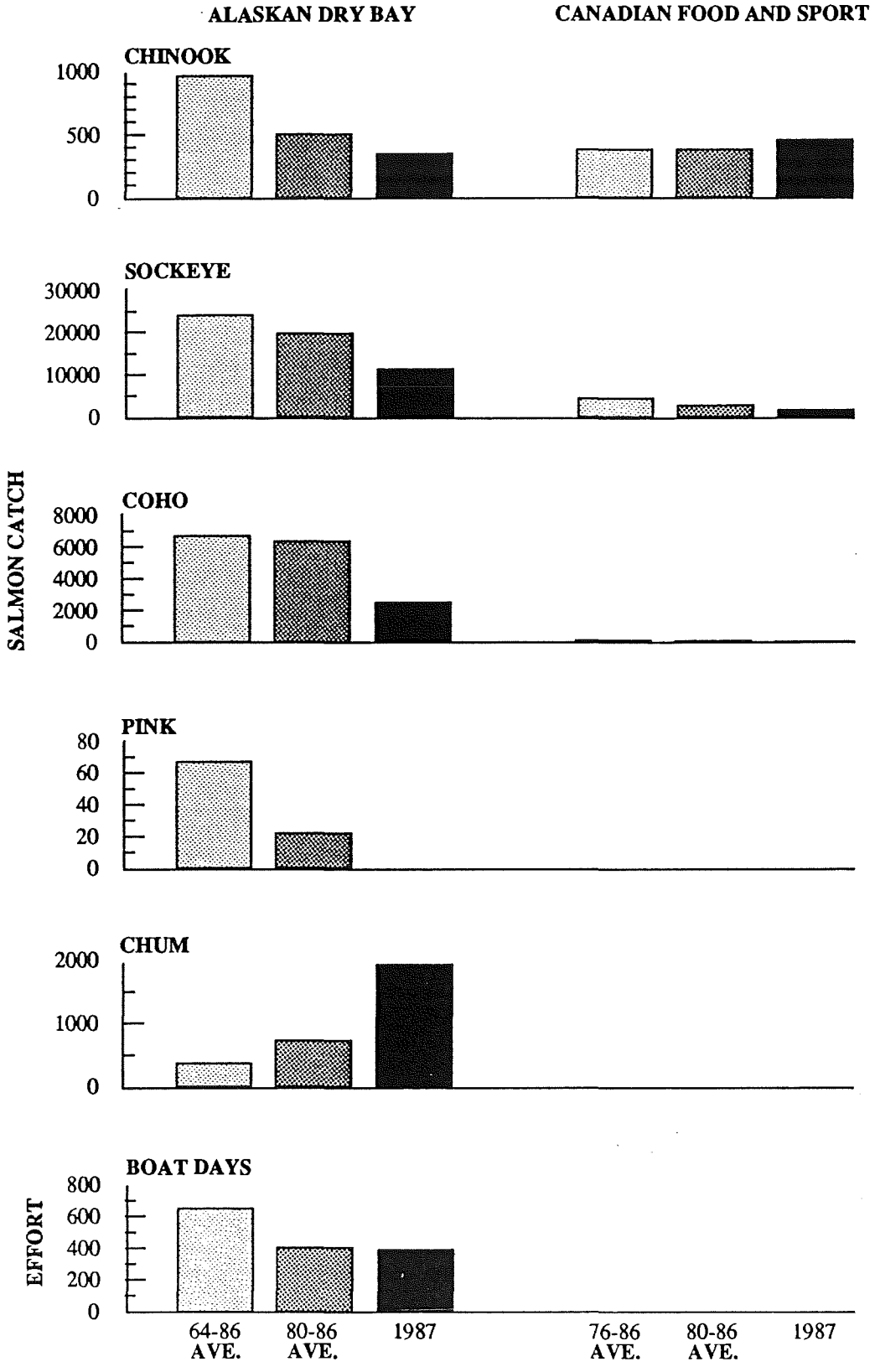

Figure 6. Average catches and fishing efforts compared with 1987 values for the Alsek River fisheries.

Chinook catches in the Canadian sport and Indian food fisheries were 327 and 125 fish, respectively. The combined catch is slightly above the average combined catch (Figure 6).

The escapement of chinook salmon to the Klukshu River was 2,616 fish, slightly exceeding both the 1976 to 1986 average of 2,482 fish and the 1980 to 1986 average of 2,214 fish.

Coho

The U.S. Alsek River coho harvest of 2,517 fish represents only 40% of the 1980 to 1986 average (Figure 6). The low catch is believed to be largely due to the reduced fishing effort rather than poor fish abundance. Fishing effort during the fall season in this area was extremely low because of good fishing in the nearby East River.

Approximately 23 coho salmon were harvested by Canadian anglers in the vicinity of the Klukshu weir. The Canadian Indian food fishery did not harvest any coho salmon.

The escapement of coho salmon to the Klukshu River weir was 202 fish. This represents 34 percent of the 1980 to 1986 average weir count. Since the weir was dismantled in mid-October, before the coho run was completed, the escapement count is incomplete.

APPENDIX A. Stikine River data for 1987

Appendix Table A.1. Subdistrict 106-41 and -42, Sumner Strait, weekly catch and effort data, 1987, for the drift gill net fishery.

Week	Start Date	Catch					Effort	
		Chinook	Sockeye	Coho	Pink	Chum	Boats	Days
26	6/21	131	3,845	253	543	418	66	2
27	6/28	107	7,514	639	5,951	875	72	2
28	7/05	52	15,175	1,526	19,476	1,566	73	2
29	7/12	34	13,761	2,032	21,374	3,066	82	2
30	7/19	25	14,031	1,923	18,814	4,186	45	2
31	7/26	10	10,232	2,267	12,553	4,419	48	2
32	8/02	33	11,075	3,170	25,322	5,778	48	2
33	8/09	12	3,444	1,238	12,630	1,986	39	1
34	8/16	-	-	-	-	-	-	0
35	8/23	2	72	1,386	343	1,009	21	1
36	8/30	4	13	1,281	40	595	10	1
37	9/06	9	2	1,032	11	732	12	1
38	9/13	22	1	1,029	2	1,247	14	2
Total		441	79,165	17,776	117,059	25,877		20
Total effort in boat-days								978

Data from Run Time 10-13-88.

Appendix Table A.2. Stock proportions of sockeye catch from Subdistrict 106-41 and -42, Sumner Strait, for 1987 for the drift gill net fishery. Stock proportions are determined from scale pattern analysis; Alaskan stocks consist of Alaska group I and Alaska group II, the Canadian stock is from the Nass and Skeena Rivers combined, and the Stikine River stocks are Tahltan Lake and all remaining stocks grouped as Non-Tahltan. Tahltan Lake and Non-Tahltan stocks are kept separate in order to permit run reconstruction.

Week	Alaska	Canada	Tahltan	Non-Tahltan	Stikine (Tahltan+Non-Tahltan)
26	0.91	0.08	0.013	0.000	0.013
27	0.85	0.13	0.013	0.000	0.013
28	0.62	0.33	0.051	0.003	0.054
29	0.87	0.12	0.008	0.000	0.008
30	0.90	0.07	0.008	0.015	0.023
31	0.88	0.12	0.000	0.000	0.000
32	0.79	0.21	0.000	0.000	0.000
33	0.79	0.21	0.000	0.000	0.000
34	0.79	0.21	0.000	0.000	0.000
35	0.79	0.21	0.000	0.000	0.000
36	0.79	0.21	0.000	0.000	0.000
37	0.79	0.21	0.000	0.000	0.000
38	0.79	0.21	0.000	0.000	0.000

Appendix Table A.3. Sockeye catch by stock group from Subdistrict 106-41 and -42, Sumner Strait, for 1987 for the drift gill net fishery.

Week	Alaska	Canada	Tahltan	Non-Tahltan	Stikine (Tahltan+ Non-Tahltan)	Total
26	3,505	289	51	0	51	3,845
27	6,418	996	100	0	100	7,514
28	9,396	4,962	774	43	817	15,175
29	12,016	1,629	116	0	116	13,761
30	12,659	1,043	114	215	329	14,031
31	8,986	1,246	0	0	0	10,232
32	8,800	2,275	0	0	0	11,075
33	2,732	712	0	0	0	3,444
34		--no fishing--				
35	57	15	0	0	0	72
36	10	3	0	0	0	13
37	2	0	0	0	0	2
38	1	0	0	0	0	1
Total	64,582	13,170	1,155	258	1,413	79,165

Appendix Table A.4. Subdistrict 106-30, Clarence Strait, weekly catch and effort data, 1987, for the drift gill net fishery.

Week	Start Date	Catch					Effort	
		Chinook	Sockeye	Coho	Pink	Chum	Boats	Days
26	6/21	40	1,304	78	65	81	29	2
27	6/28	45	2,918	343	1,582	165	36	2
28	7/05	62	5,570	990	6,411	322	32	2
29	7/12	33	8,525	1,220	17,850	850	74	2
30	7/19	25	10,640	1,848	18,335	1,136	41	2
31	7/26	23	12,766	1,961	21,853	2,179	49	2
32	8/02	36	11,953	2,624	39,674	3,390	64	2
33	8/09	102	3,316	1,680	16,950	2,137	51	1
34	8/16	-	-	-	-	-	-	0
35	8/23	4	189	2,020	2,174	1,053	25	1
36	8/30	3	69	1,343	1,383	1,027	24	1
37	9/06	14	4	1,156	122	2,088	15	1
38	9/13	8	8	1,495	24	1,720	17	2
Total		395	57,262	16,758	126,423	16,148		20
Total effort in boat-days								799

Data from Run Time 10-13-88.

Appendix Table A.5. Stock proportions of sockeye catch from Subdistrict 106-30, Clarence Strait, for 1987 for the drift gill net fishery. Stock proportions are determined from scale pattern analysis; Alaskan stocks consist of Alaska group I and Alaska group II, the Canadian stock is from the Nass and Skeena Rivers combined, and the Stikine River stocks are Tahltan Lake and all remaining stocks grouped as Non-Tahltan. Tahltan Lake and Non-Tahltan stocks are kept separate in order to permit run reconstruction.

Week	Alaska	Canada	Tahltan	Non-Tahltan	Stikine (Tahltan+Non-Tahltan)
26	0.86	0.03	0.104	0.011	0.114
27	0.88	0.12	0.001	0.000	0.001
28	0.85	0.14	0.001	0.003	0.004
29	0.80	0.12	0.009	0.068	0.077
30	0.89	0.11	0.000	0.000	0.000
31	0.81	0.19	0.000	0.000	0.000
32	0.86	0.14	0.000	0.000	0.000
33	0.84	0.13	0.000	0.028	0.028
34	0.84	0.13	0.000	0.028	0.028
35	0.84	0.13	0.000	0.028	0.028
36	0.84	0.13	0.000	0.028	0.028
37	0.84	0.13	0.000	0.028	0.028
38	0.84	0.13	0.000	0.028	0.028

Appendix Table A.6. Sockeye catch by stock groups from Subdistrict 106-30, Clarence Strait, for 1987 for the drift gill net fishery.

Week	Alaska	Canada	Tahltan	Non-Tahltan	Stikine (Tahltan+ Non-Tahltan)	Total
26	1,122	33	135	14	149	1,304
27	2,556	358	4	0	4	2,918
28	4,745	805	6	14	20	5,570
29	6,834	1,035	76	580	656	8,525
30	9,493	1,147	0	0	0	10,640
31	10,283	2,483	0	0	0	12,766
32	10,270	1,683	0	0	0	11,953
33	2,782	440	0	94	94	3,316
34		--no fishing--				
35	159	25	0	5	5	189
36	58	9	0	2	2	69
37	3	1	0	0	0	4
38	7	1	0	0	0	8
Total	48,311	8,020	221	710	931	57,262

Appendix Table A.7. District 106 weekly catch and effort data, 1987, for the drift gill net fishery (excluding Blind Slough terminal hatchery area).

Week	Start Date	Catch					Effort	
		Chinook	Sockeye	Coho	Pink	Chum	Boats	Days
26	6/21	171	5,149	331	608	499	95	2
27	6/28	152	10,432	982	7,533	1,040	108	2
28	7/05	114	20,745	2,516	25,887	1,888	105	2
29	7/12	67	22,286	3,252	39,224	3,916	156	2
30	7/19	50	24,671	3,771	37,149	5,322	86	2
31	7/26	33	22,998	4,228	34,406	6,598	97	2
32	8/02	69	23,028	5,794	64,996	9,168	112	2
33	8/09	114	6,760	2,918	29,580	4,123	90	1
34	8/16	-	-	-	-	-	-	0
35	8/23	6	261	3,406	2,517	2,062	46	1
36	8/30	7	82	2,624	1,423	1,622	34	1
37	9/06	23	6	2,188	133	2,820	27	1
38	9/13	30	9	2,524	26	2,967	31	2
Total		836	136,427	34,534	243,482	42,025		20
Total effort in boat-days								1777

Data from Run Time 10-13-88.

Appendix Table A.8. Stock proportions of sockeye catch from District 106 for 1987 for the drift gill net fishery. Stock proportions are determined from scale pattern analysis; Alaskan stocks consist of Alaska group I and Alaska group II, the Canadian stock is from the Nass and Skeena Rivers combined, and the Stikine River stocks are Tahltan Lake and all remaining stocks grouped as Non-Tahltan. Tahltan Lake and Non-Tahltan stocks are kept separate in order to permit run reconstruction.

Week	Alaska	Canada	Tahltan	Non-Tahltan	Stikine (Tahltan+Non-Tahltan)
26	0.90	0.06	0.036	0.003	0.039
27	0.86	0.13	0.010	0.000	0.010
28	0.68	0.28	0.038	0.003	0.040
29	0.85	0.12	0.009	0.026	0.035
30	0.90	0.09	0.005	0.009	0.013
31	0.84	0.16	0.000	0.000	0.000
32	0.83	0.17	0.000	0.000	0.000
33	0.82	0.17	0.000	0.014	0.014
34	0.82	0.16	0.000	0.017	0.017
35	0.83	0.15	0.000	0.021	0.021
36	0.83	0.14	0.000	0.024	0.024
37	0.82	0.16	0.000	0.019	0.019
38	0.83	0.14	0.000	0.025	0.025

Appendix Table A.9. Sockeye catch by stock groups from District 106 for 1987 for the drift gill net fishery.

Week	Alaska	Canada	Tahltan	Non-Tahltan	Stikine (Tahltan+ Non-Tahltan)	Total
26	4,627	322	186	14	200	5,149
27	8,974	1,354	104	0	104	10,432
28	14,141	5,767	780	57	837	20,745
29	18,850	2,664	192	580	772	22,286
30	22,152	2,190	114	215	329	24,671
31	19,269	3,729	0	0	0	22,998
32	19,070	3,958	0	0	0	23,028
33	5,514	1,152	0	94	94	6,760
34		--no fishing--				
35	216	40	0	5	5	261
36	68	12	0	2	2	82
37	5	1	0	0	0	6
38	8	1	0	0	0	9
Total	112,893	21,190	1,376	968	2,344	136,427

Appendix Table A.10. District 108 weekly catch and effort data, 1987, for the drift gill net fishery (excluding Ohmer Creek terminal hatchery area).

Week	Start Date	Catch					Effort	
		Chinook	Sockeye	Coho	Pink	Chum	Boats	Days
26	6/21	32	189	6	4	15	7	2
27	6/28	13	245	3	84	46	5	2
28	7/05	93	759	7	348	39	10	2
29	7/12	6	423	4	2,889	603	5	2
30	7/19							0
31	7/26							0
32	8/02							0
33	8/09							0
34	8/16							0
35	8/23	0	2	49	2	18	1	1
36	8/30	1	1	218	3	18	4	1
37	9/06	3	1	239	0	11	4	1
38	9/13	1	0	489	1	199	9	2
Total		149	1,620	1,015	3,331	949		13
Total effort in boat-days								81

Data from Run Time 10-13-88.

Appendix Table A.11. Stock proportions and numbers of sockeye salmon in catch from District 108 for 1987 for the drift gill net fishery. Stock proportions are determined from scale pattern analysis using averages from 1985 and 1986 commercial and test fish data. The ratio of Tahltan to Non-Tahltan Stikine stocks could not be determined except for week 29 when Tahltan represented 50.8% of the Stikine sockeye salmon. For purposed of run reconstruction a 1:1 ratio was assumed for other weeks.

Week	Proportions			Catch
	Alaskan	Canadian	Stikine	Stikine Sockeye
26	0.15	0	0.85	160
27	0.11	0	0.89	219
28	0.10	0	0.90	684
29	0.17	0	0.83	351
35-37	0.23	0.01	0.76	3
Total				1,417

Appendix Table A.12. Canadian lower Stikine River commercial fishery weekly catch and effort data, 1987.

Week	Start Date	Catch						Effort	
		Chinook		Sockeye	Coho	Pink	Chum	Boats	Days
		Jacks	Adults						
27	6/28	58	299	179	0	0	1	15	1
28	7/05	81	258	169	0	0	1	16	1
29	7/12	62	227	926	0	25	7	16	1
30	7/19	23	67	1,084	0	171	9	16	1
31	7/26	2	22	441	3	63	15	16	1
32	8/02	14	28	2,452	20	232	136	16	2
33	8/09	2	7	549	161	90	52	17	1
34	8/16	0	1	248	359	54	32	15	1
35	8/23	0	0	76	417	7	41	14	1
36	8/30	0	0	0	404	0	38	15	2
37	9/06	0	0	8	2,287	4	79	15	3
38	9/13	0	0	6	1,201	0	20	14	2
39	9/20	0	0	0	876	0	1	9	3
Total		242	909	6,138	5,728	646	432		20
Total effort in boat-days									287

Appendix Table A.13. Proportions, catch, and catch-per-unit-effort (CPUE) by stock, based on scale pattern analysis, for the sockeye catch from the Canadian lower Stikine River commercial fishery, 1987.

Week	Proportions Tahltan		Proportion Non-Tahltan	Catch	
	Egg Diam.	SPA	SPA	Tahltan	Non-Tahltan
27	0.84	0.74	0.26	133	46
28	0.88	0.88	0.12	148	21
29	0.59	0.66	0.34	615	311
30	0.20	0.24	0.76	264	820
31	0.00	0.11	0.89	50	391
32	0.05	0.05	0.95	125	2,327
33	0.09	0.04	0.96	22	527
34	0.00	0.07	0.93	16	232
35	0.07	0.08	0.92	6	70
36		0.08	0.92	0	0
37		0.08	0.92	1	7
38		0.08	0.92	0	6
39		0.08	0.92	0	0
Total				1,380	4,758

Appendix Table A.14. Canadian upper Stikine River commercial fishery weekly catch and effort data, 1987. Ninety percent of the sockeye salmon are assumed to be of Tahltan origin.

Start Week	Date	Catch						Effort	
		Chinook		Sockeye	Coho	Pink	Chum	Boats	Days
		Jacks	Adults						
27	6/28	0	25	1	0	0	0	2	1
28	7/05	0	21	0	0	0	0	2	1
29	7/12	19	24	31	0	0	0	2	1
30	7/19	0	14	209	0	0	0	4	1
31	7/26	0	20	99	0	0	0	4	1
32	8/02	0	1	137	0	0	19	2	1
33	8/09	0	4	21	0	0	0	4	1
Total		19	109	498	0	0	19		7
Total effort in boat-days									20

Appendix Table A.15. Telegraph Creek food fishery weekly catch and effort data, 1987. Ninety percent of the sockeye salmon are assumed to be of Tahltan origin.

Start Week	Date	Catch						Effort
		Chinook		Sockeye	Coho	Pink	Chum	Days
		Jacks	Adults					
23	5/31	0	4	0	0	0	0	7
24	6/07	2	27	0	0	0	0	7
25	6/14	24	186	3	0	0	0	7
26	6/21	18	91	2	0	0	0	7
27	6/28	0	44	0	0	0	0	7
28	7/05	60	252	56	0	0	0	7
29	7/12	51	300	638	0	0	0	7
30	7/19	6	164	969	0	0	0	7
31	7/26	10	66	586	0	0	0	7
32	8/02	6	40	636	2	0	8	7
33	8/09	6	9	89	1	0	0	7
Total		183	1,183	2,979	3	0	8	

Appendix Table A.16. Lower Stikine River test fishery weekly catch and effort data, 1987.

Week	Start Date	Catch					Effort
		Chinook	Sockeye	Coho	Pink	Chum	# Drifts or Sets
DRIFT GILL NET							
26	6/21	46	8	0	0	0	60
27	6/28	12	5	0	0	0	60
28	7/05	37	56	0	0	0	60
29	7/12	25	71	0	1	6	60
30	7/19	5	100	0	44	7	60
31	7/26	1	69	1	13	13	60
32	8/02	1	38	2	22	8	50
33	8/09	1	31	8	22	8	60
34	8/16	0	6	25	1	6	60
35	8/23	0	1	30	7	8	60
36	8/30	0	0	36	1	3	50
37	9/06	0	0	19	0	2	40
38	9/13	0	0	25	0	0	50
39	9/20	0	0	14	0	0	40
40	9/27	0	0	1	0	0	40
41	10/04	0	0	1	0	0	35
Total		128	385	162	111	61	845
SET GILL NET							
26	6/21	9	23	0	0	0	4
27	6/28	14	24	0	0	0	9
28	7/05	15	153	0	5	2	10
29	7/12	11	218	0	18	4	10
30	7/19	7	193	0	151	13	10
31	7/26	1	214	2	187	40	10
32	8/02	0	231	17	123	43	8
33	8/09	3	132	83	58	48	10
34	8/16	1	78	124	30	26	10
35	8/23	0	12	100	12	4	10
36	8/30	0	4	186	3	8	10
37	9/06	0	1	108	0	5	8
Total		61	1,283	620	587	193	109

Appendix Table A.17. Proportions of Tahltan stock by week found in the lower Stikine River test fishery catch as determined by scale pattern analysis (SPA), genetic-parasitic-age analysis (GPA), and egg diameter analysis (EGG). SPA and GPA analyses were conducted on the same sample of fish. An average proportion based on SPA and GPA is then given for both Tahltan and Non-Tahltan stocks.

Week	EGG	#Females Sampled	Proportion SPA	GPA	Sample Size	Average Prop. Tahltan	Non-Tahltan
26	0.88	17	0.87	0.64	27	0.75	0.25
27	0.71	21	0.87	0.54	29	0.70	0.30
28	0.76	109	0.78	0.68	203	0.73	0.27
29	0.46	162	0.58	0.44	290	0.51	0.49
30	0.19	156	0.28	0.22	269	0.25	0.75
31	0.06	159	0.09	0.03	280	0.06	0.94
32	0.04	157	0.09	0.06	263	0.08	0.92
33	0.01	97	0.006	0.010	161	0.008	0.99
34	0.60	35					
35	0.11	9					
34-41			0.000	0.010	81	0.005	0.995

Appendix Table A.18. Proportions, catch, and catch-per-unit-effort (CPUE) by stock for the sockeye catch from the lower Stikine river test fishery, 1987. Run timing is determined from CPUE.

	Proportions		Catch		CPUE			
Week	Tahltan	Non-Tahltan	Tahltan	Non-Tahltan	Tahltan	Non-Tahltan	Stikine	Tahltan Run Timing
DRIFT GILL NET								
26	0.75	0.25	6	2	0.10	0.03	0.13	0.015
27	0.70	0.30	4	1	0.06	0.02	0.08	0.009
28	0.73	0.27	41	15	0.68	0.25	0.93	0.104
29	0.51	0.49	36	35	0.60	0.58	1.18	0.092
30	0.25	0.75	25	75	0.42	1.25	1.67	0.064
31	0.06	0.94	4	65	0.07	1.08	1.15	0.010
32	0.08	0.92	3	35	0.06	0.70	0.76	0.009
33	0.008	0.992	0	31	0.00	0.51	0.52	0.001
34	0.005	0.995	0	6	0.00	0.10	0.10	0.000
35	0.005	0.995	0	1	0.00	0.02	0.02	0.000
36	0.005	0.995	0	0	0.00	0.00	0.00	0.000
37	0.005	0.995	0	0	0.00	0.00	0.00	0.000
38	0.005	0.995	0	0	0.00	0.00	0.00	0.000
39	0.005	0.995	0	0	0.00	0.00	0.00	0.000
40	0.005	0.995	0	0	0.00	0.00	0.00	0.000
41	0.005	0.995	0	0	0.00	0.00	0.00	0.000
Total			119	266	1.99	4.56	6.54	0.304
SET GILL NET								
26	0.75	0.25	17	6	4.33	1.42	5.75	
27	0.70	0.30	17	7	1.88	0.79	2.67	
28	0.73	0.27	111	42	11.13	4.17	15.30	
29	0.51	0.49	111	107	11.08	10.72	21.80	
30	0.25	0.75	48	145	4.82	14.48	19.30	
31	0.06	0.94	13	201	1.27	20.13	21.40	
32	0.08	0.92	18	213	2.21	26.67	28.88	
33	0.008	0.992	1	131	0.11	13.09	13.20	
34	0.005	0.995	0	78	0.04	7.76	7.80	
35	0.005	0.995	0	12	0.01	1.19	1.20	
36	0.005	0.995	0	4	0.00	0.40	0.40	
37	0.005	0.995	0	1	0.00	0.12	0.13	
Total			336	947	36.87	100.95	137.82	

Appendix Table A.19. District 106 test fishery weekly catch and effort data, 1987.

Week	Start Date	Catch					Effort	
		Chinook	Sockeye	Coho	Pink	Chum	Boats	Hours
25	6/14	3	102	7	8	2	2	16.95
26	6/21	6	142	4	63	11	2	17.61
27	6/28	4	440	20	370	33	2	17.88
28	7/05	4	521	48	1,461	29	4	93.24
29	7/12	4	487	94	700	91	4	97.78
30	7/19	2	485	66	617	115	4	100.22
31	7/26	0	457	82	826	144	4	95.76
32	8/02						-no fishing-	
33	8/09						-no fishing-	
34	8/16	0	20	121	11	75	2	88.35
35	8/23	0	5	264	12	138	2	156.94
36	8/30	0	0	92	3	91	2	83.41
Total		23	2,659	798	4,071	729		768.14

Appendix Table A.20. District 108 test fishery weekly catch and effort data, 1987.

Week	Start Date	Catch					Effort	
		Chinook	Sockeye	Coho	Pink	Chum	Boats	Hours
25	6/14	7	8	0	0	0	1	11.80
26	6/21	13	18	0	0	4	1	11.25
27	6/28	5	32	0	33	38	1	11.25
28	7/05	1	79	0	227	42	1	11.07
29	7/12	2	79	0	706	105	1	11.25
30	7/19	1	40	3	665	210	1	11.25
31	7/26	1	34	10	326	89	1	9.00
Total		30	290	13	1,957	488		76.87

Appendix Table A.21. Stikine River sockeye catch by stock from the District 106 (Sumner Strait) and District 108 test fisheries, 1987. Stock proportions from the respective commercial fisheries were used.

	District 106			District 108		
Week	Tahltan	Non-Tahltan	Stikine	Tahltan	Non-Tahltan	Stikine
25	1	0	1	3	3	6
26	2	0	2	8	8	15
27	6	0	6	14	14	29
28	27	1	28	36	36	71
29	4	0	4	33	32	46
30	4	7	11	15	15	30
31	0	0	0	15	15	30
32	0	0	0			
33	0	0	0			
34	0	0	0			
35	0	0	0			
36	0	0	0			
Total	44	9	53	124	123	247

Appendix Table A.22. Mouth of the Stikine River test fishery weekly catch and effort data, 1987.

		Catch					Effort
Week	Start Date	Chinook	Sockeye	Coho	Pink	Chum	Hours
27	6/28	2	2	0	0	0	105
28	7/05	2	6	0	8	1	145
29	7/12	5	24	0	101	11	170.5
30	7/19	2	5	0	100	4	154.5
31	7/26	0	6	0	113	13	129.75
32	8/02	0	4	0	89	20	73
Total		11	47	0	411	49	777.75

Appendix Table A.23. Daily weir counts of sockeye salmon at Tahltan Lake, 1987.

Date	Daily Count	-Cumulative- Count	%	Date	Daily Count	-Cumulative- Count	%
07/21	1	1	0.0	08/09	423	5502	79.1
22	0	1	0.0	10	217	5719	82.2
23	6	7	0.1	11	208	5927	85.2
24	16	23	0.3	12	185	6112	87.8
25	714	737	10.6	13	177	6289	90.4
26	684	1421	20.4	14	132	6421	92.3
27	281	1702	24.5	15	177	6598	94.8
28	105	1807	26.0	16	76	6674	95.9
29	17	1824	26.2	17	25	6699	96.3
30	62	1886	27.1	18	45	6744	96.9
31	416	2302	33.1	19	18	6762	97.2
08/01	485	2787	40.1	20	76	6838	98.3
02	510	3297	47.4	21	50	6888	99.0
03	170	3467	49.8	22	12	6900	99.2
04	95	3562	51.2	23	24	6924	99.5
05	324	3886	55.8	24	11	6935	99.7
06	392	4278	61.5	25	10	6945	99.8
07	298	4576	65.8	26	5	6950	99.9
08	503	5079	73.0	27	8	6958	100.0

Appendix Table A.24. Daily weir counts of chinook salmon at Little Tahltan River, 1987.

	Adult Chinook			Jacks		
Date	Daily Count	--Cumulative-- Count	Percent	Daily Count	--Cumulative-- Count	Percent
28-Jun	----------weir installed----------					
29-Jun	0	0	0.00	0	0	0.00
30-Jun	0	0	0.00	0	0	0.00
01-Jul	0	0	0.00	0	0	0.00
02-Jul	0	0	0.00	0	0	0.00
03-Jul	0	0	0.00	4	4	1.10
04-Jul	28	28	0.59	4	8	2.20
05-Jul	34	62	1.30	4	12	3.30
06-Jul	1	63	1.32	0	12	3.30
07-Jul	7	70	1.46	0	12	3.30
08-Jul	39	109	2.28	2	14	3.85
09-Jul	24	133	2.78	6	20	5.49
10-Jul	8	141	2.95	2	22	6.04
11-Jul	0	141	2.95	0	22	6.04
12-Jul	8	149	3.12	0	22	6.04
13-Jul	2	151	3.16	2	24	6.59
14-Jul	4	155	3.24	0	24	6.59
15-Jul	44	199	4.16	0	24	6.59
16-Jul	74	273	5.71	1	25	6.87
17-Jul	47	320	6.69	2	27	7.42
18-Jul	236	556	11.63	10	37	10.16
19-Jul	468	1024	21.42	18	55	15.11
20-Jul	509	1533	32.06	40	95	26.10
21-Jul	137	1670	34.93	4	99	27.20
22-Jul	294	1964	41.08	11	110	30.22
23-Jul	362	2326	48.65	11	121	33.24
24-Jul	192	2518	52.67	23	144	39.56
25-Jul	196	2714	56.77	25	169	46.43
26-Jul	289	3003	62.81	21	190	52.20
27-Jul	137	3140	65.68	14	204	56.04
28-Jul	82	3222	67.39	10	214	58.79
29-Jul	233	3455	72.27	22	236	64.84
30-Jul	236	3691	77.20	19	255	70.05
31-Jul	212	3903	81.64	7	262	71.98
01-Aug	106	4009	83.85	8	270	74.18
02-Aug	296	4305	90.04	14	284	78.02
03-Aug	151	4456	93.20	24	308	84.62
04-Aug	51	4507	94.27	17	325	89.29
05-Aug	5	4512	94.37	2	327	89.84
06-Aug	79	4591	96.03	6	333	91.48
07-Aug	53	4644	97.13	5	338	92.86
08-Aug	3	4647	97.20	1	339	93.13
09-Aug	47	4694	98.18	14	353	96.98
10-Aug	18	4712	98.56	4	357	98.08
11-Aug	16	4728	98.89	2	359	98.63
12-Aug	9	4737	99.08	0	359	98.63
13-Aug	7	4744	99.23	1	360	98.90
14-Aug	25	4769	99.75	2	362	99.45
15-Aug	8	4777	99.92	2	364	100.00
16-Aug	4	4781	100.00	0	364	100.00
17-Aug	0	4781	100.00	0	364	100.00
18-Aug	0	4781	100.00	0	364	100.00
19-Aug	0	4781	100.00	0	364	100.00

Appendix Table A.25. Daily sockeye smolt counts, cumulative counts, and percent passage at Tahltan Lake, 1987.

Date	Count	Cumul.	Percent	Date	Count	Cumul.	Percent
5/15	1	1	0.00	6/16	238	806542	99.52
16	0	1	0.00	17	591	807133	99.59
17	1	2	0.00	18	32	807165	99.60
18	178	180	0.02	19	328	807493	99.64
19	55	235	0.03	20	81	807574	99.65
20	12185	12420	1.53	21	46	807620	99.65
21	11917	24337	3.00	22	119	807739	99.67
22	267099	291436	35.96	23	122	807861	99.68
23	307690	599126	73.93	24	72	807933	99.69
24	135868	734994	90.69	25	11	807944	99.69
25	13989	748983	92.42	26	29	807973	99.70
26	13577	762560	94.09	27	55	808028	99.70
27	3719	766279	94.55	28	28	808056	99.71
28	2463	768742	94.86	29	35	808091	99.71
29	12042	780784	96.34	30	709	808800	99.80
30	1847	782631	96.57	7/01	651	809451	99.88
31	396	783027	96.62	2	124	809575	99.89
6/01	413	783440	96.67	3	204	809779	99.92
2	5311	788751	97.32	4	144	809923	99.94
3	1942	790693	97.56	5	55	809978	99.94
4	1510	792203	97.75	6	45	810023	99.95
5	487	792690	97.81	7	61	810084	99.96
6	1390	794080	97.98	8	35	810119	99.96
7	4404	798484	98.53	9	12	810131	99.96
8	933	799417	98.64	10	129	810260	99.98
9	489	799906	98.70	11	50	810310	99.98
10	1113	801019	98.84	12	43	810353	99.99
11	235	801254	98.87	13	21	810374	99.99
12	549	801803	98.94	14	6	810380	99.99
13	619	802422	99.01	15	17	810397	100.00
14	2906	805328	99.37	16	35	810432	100.00
15	976	806304	99.49				

APPENDIX B. Stikine River historical annual data

Appendix Table B.1. Subdistrict 106-41 and -42, Sumner Strait, annual catch and effort data, 1964-1987, for the drift gill net fishery.

Year	Catch					Effort	
	Chinook	Sockeye	Coho	Pink	Chum	Boat-Days	Days Open
1964	316	52,943	27,338	183,402	22,913	2,344	49
1965	679	58,736	30,570	162,271	15,763	1,658	50.75
1966	690	65,721	30,792	96,287	24,235	2,080	74.25
1967	668	60,148	10,573	52,284	19,626	1,463	27
1968	1,010	50,212	46,111	82,012	39,001	2,997	52
1969	747	46,282	6,557	92,102	6,395	1,147	31
1970	420	26,812	15,153	29,102	18,092	905	41
1971	671	33,991	24,727	283,739	19,329	1,619	50
1972	1,747	74,745	60,827	40,644	46,511	2,152	41
1973	1,540	55,254	24,921	160,297	62,486	2,253	26
1974	1,342	46,760	28,889	57,296	38,045	1,579	28
1975	467	19,319	4,650	29,340	7,762	515	17
1976	237	9,319	10,367	20,251	2,301	366	19
1977	202	47,408	1,819	51,038	4,240	447	17
1978	274	1,422	26,762	9,546	3,142	389	26.5
1979	458	34,807	12,087	176,395	16,816	952	25
1980	205	48,430	10,826	16,966	15,162	596	16
1981	598	132,359	13,158	218,359	25,994	1,732	25
1982	648	121,220	21,387	10,343	11,896	1,083	22
1983	268	28,153	41,196	74,347	13,001	875	32
1984	136	27,372	19,124	99,807	28,461	587	32
1985	549	172,088	50,655	319,379	45,566	1,726	38
1986	421	85,247	104,328	105,347	48,471	1,896	32
AVERAGES							
1964-86	621	56,467	27,079	103,068	23,270	1,364	34
1980-86	404	87,838	37,239	120,650	26,936	1,214	28
1987	441	79,165	17,776	117,059	25,877	978	20

Data from Run Time 10-13-88.

Appendix Table B.2. Stock proportions and catch of sockeye salmon from Subdistrict 106-41 and -42, Sumner Strait, 1984-1987, for the drift gill net fishery.

Year	Alaska	Canada	Tahltan	Non-Tahltan	Stikine
PROPORTIONS					
1985	0.48	0.40	0.11	0.01	0.12
1986	0.66	0.31	0.02	0.01	0.03
1987	0.82	0.17	0.01	0.00	0.02
CATCH					
1985	82,563	68,962	18,801	1,762	20,563
1986	56,462	26,214	2,070	501	2,571
1987	64,582	13,170	1,155	258	1,413

Appendix Table B.3. Subdistrict 106-30, Clarence Strait, annual catch and effort data, 1964-1987, for the drift gill net fishery.

Year	Catch					Effort	
	Chinook	Sockeye	Coho	Pink	Chum	Boat-Days	Days Open
1964	1,766	23,598	37,316	259,684	21,305	3,039	49
1965	1,123	29,013	45,158	463,577	11,895	2,849	50.75
1966	975	24,126	32,031	304,645	16,521	2,898	74.25
1967	650	26,237	7,097	39,325	6,744	1,048	27
1968	306	14,459	21,040	87,095	22,365	1,968	52
1969	289	24,061	4,191	104,998	4,511	1,026	31
1970	365	15,966	20,317	65,790	14,139	1,025	41
1971	665	19,211	23,358	244,236	18,351	1,517	50
1972	826	26,593	32,600	48,823	25,871	1,276	41
1973	391	16,741	13,526	143,324	25,243	1,303	26
1974	696	10,482	16,825	47,041	12,258	712	28
1975	2,120	12,732	26,312	173,675	16,206	1,159	8.5
1976	147	6,162	8,759	119,188	4,567	527	21
1977	469	19,615	6,582	368,069	9,060	940	21
1978	2,408	40,152	28,816	215,169	13,403	1,148	16
1979	2,262	31,566	15,996	471,817	18,691	1,848	25
1980	375	58,988	5,754	28,594	11,107	749	25
1981	967	50,546	9,453	216,909	8,577	1,321	26
1982	1,000	72,140	10,284	15,141	6,719	647	21
1983	299	20,789	21,234	133,820	7,143	589	37
1984	756	64,281	22,235	243,448	41,797	1,236	24
1985	1,141	92,899	40,565	265,567	24,095	1,372	36
1986	1,283	60,462	90,584	203,137	33,818	1,664	31
AVERAGES							
1964-86	925	33,079	23,480	185,351	16,278	1,385	33
1980-86	832	60,015	28,587	158,088	19,037	1,083	29
1987	395	57,262	16,758	126,423	16,148	799	20

Data from Run Time 10-13-88.

Appendix Table B.4. Stock proportions and catch of sockeye salmon from Subdistrict 106-30, Clarence Strait, 1985-1987, for the drift gill net fishery.

Year	Alaska	Canada	Tahltan	Non-Tahltan	Stikine
PROPORTIONS					
1985	0.48	0.45	0.06	0.01	0.07
1986	0.73	0.27	0.00	0.00	0.00
1987	0.84	0.14	0.00	0.01	0.02
CATCH					
1985	44,351	42,053	5,244	1,251	6,495
1986	43,875	16,471	11	105	116
1987	48,311	8,020	221	710	931

Appendix Table B.5. District 106 annual catch and effort data, 1964-1987, for the drift gill net fishery (excluding Blind Slough terminal hatchery area).

Year	Catch					Effort	
	Chinook	Sockeye	Coho	Pink	Chum	Boat-Days	Days Open
1964	2,082	76,541	64,654	443,086	44,218	5,383	49
1965	1,802	87,749	75,728	625,848	27,658	4,506	50.75
1966	1,665	89,847	62,823	400,932	40,756	4,978	74.25
1967	1,318	86,385	17,670	91,609	26,370	2,511	27
1968	1,316	64,671	67,151	169,107	61,366	4,964	52
1969	1,036	70,343	10,748	197,100	10,906	2,173	31
1970	785	42,778	35,470	94,892	32,231	1,930	41
1971	1,336	53,202	48,085	527,975	37,680	3,136	50
1972	2,573	101,338	93,427	89,467	72,382	3,428	41
1973	1,931	71,995	38,447	303,621	87,729	3,556	26
1974	2,038	57,242	45,714	104,337	50,303	2,291	28
1975	2,587	32,051	30,962	203,015	23,968	1,674	17
1976	384	15,481	19,126	139,439	6,868	893	21
1977	671	67,023	8,401	419,107	13,300	1,387	21
1978	2,682	41,574	55,578	224,715	16,545	1,537	26.5
1979	2,720	66,373	28,083	648,212	35,507	2,800	25
1980	580	107,418	16,580	45,560	26,269	1,345	25
1981	1,565	182,905	22,611	435,268	34,571	3,053	26
1982	1,648	193,360	31,671	25,484	18,615	1,730	22
1983	567	48,942	62,430	208,167	20,144	1,464	37
1984	892	91,653	41,359	343,255	70,258	1,823	32
1985	1,690	264,987	91,220	584,946	69,661	3,098	38
1986	1,704	145,709	194,912	308,484	82,289	3,560	32
AVERAGES							
1964-86	1,547	89,546	50,559	288,419	39,548	2,749	34
1980-86	1,235	147,853	65,826	278,738	45,972	2,296	30
1987	836	136,427	34,534	243,482	42,025	1,777	20

Data from Run Time 10-13-88.

Appendix Table B.6. Stock proportions and catch of sockeye salmon from District 106, 1982-1987, for the drift gill net fishery.

Year	Alaska	Canada	Tahltan	Non-Tahltan	Stikine
PROPORTIONS					
1982	0.49	0.32			0.19
1983	0.67	0.22	0.10	0.01	0.12
1984	0.66	0.27	0.03	0.04	0.07
1985	0.48	0.42	0.09	0.01	0.10
1986	0.59	0.39	0.02	0.01	0.02
1987	0.83	0.16	0.01	0.01	0.02
CATCH					
1982	94,061	61,714			37,585
1983	32,670	10,611	5,030	632	5,662
1984	60,278	24,624	2,673	4,078	6,751
1985	127,201	110,720	24,097	2,969	27,066
1986	85,887	56,279	2,744	799	3,543
1987	112,893	21,190	1,376	968	2,344

Appendix Table B.7. District 108 annual catch and effort data, 1964-1987, for the drift gill net fishery (excluding Ohmer Creek terminal hatchery area).

Year	Catch					Effort	
	Chinook	Sockeye	Coho	Pink	Chum	Boat-Days	Days Open
1964	2,911	20,299	29,388	114,555	10,771	3,416	62
1965	3,106	21,419	8,301	4,729	2,480	960	48
1966	4,516	36,710	16,493	61,908	17,730	1,841	62
1967	6,372	29,226	6,747	4,713	5,955	1,193	40
1968	4,604	14,594	36,407	91,028	14,537	3,114	61
1969	5,023	19,210	5,823	11,884	2,312	858	37
1970	3,207	15,120	18,403	20,523	12,305	1,180	41
1971	3,717	18,143	14,876	21,806	4,665	892	42
1972	9,332	51,734	38,520	17,153	17,363	1,922	49
1973	9,254	21,387	5,837	6,585	6,680	1,042	21
1974	8,199	2,428	16,021	4,188	2,107	550	16
1975[a]	1,534	0	0	0	1	n/a	8
1976	1,123	18	6,056	722	124	130	10
1977	1,443	48,374	14,405	16,253	4,233	740	19
1978	531	56	32,650	1,157	1,001	608	12
1979	91	2,158	234	13,478	1,064	100	5
1980	631	14,053	2,946	7,224	6,910	327	22
1981	283	8,833	1,403	1,466	3,594	177	9
1982	1,033	6,886	19,971	16,988	741	508	21
1983	47	178	15,484	4,171	675	266	17
1984	14	1,290	5,141	4,960	1,892	34	5
1985	20	1,060	1,926	5,325	1,892	50	14
1986	102	4,185	7,439	4,901	5,928	216	25
Averages							
1964-86	2,917	14,668	13,238	18,944	5,433	915	28
1980-86	304	5,212	7,759	6,434	3,090	225	16
1987	149	1,620	1,015	3,331	949	81	13

Data from Run Time 10-13-88.
a. Open for chinook fishing only.

Appendix Table B.8. Stock proportions and catch of sockeye salmon from District 108, 1986-1987, for the drift gill net fishery.

Year	Alaska	Canada	Tahltan	Non-Tahltan	Stikine
PROPORTIONS					
1986	0.21	0.02	0.09	0.68	0.78
1987	0.13	0.00	0.44	0.42	0.87
CATCH					
1986	863	70	392	2,861	3,252
1987	203	0	710	707	1,417

Appendix Table B.9. Canadian lower Stikine River commercial fishery annual catch and effort data, 1979-1987.

Year	Catch							Effort	
	Chinook[a]		Sockeye	Coho	Pink	Chum	Steel-head	Boat-Days	Days Open
	Jacks	Adults							
1979[b]	63	712	10,534	10,720	1,994	424	264	n/a	42
1980		1,488	18,119	6,629	736	771	362	701	41
1981		664	21,551	2,667	3,713	1,128	280	522	32
1982		1,693	15,397	15,904	1,782	722	828	1,093	71
1983	430	492	15,857	6,170	1,043	274	667	458	54
1984[c]									
1985	91	256	17,093	2,172	2,321	532	231	145.5	22.5
1986	365	806	12,411	2,278	107	295	192	239	13.5
Average: 1980-86		1,048[d]	16,738	5,970	1,617	620	427	526	39
1987	242	909	6,138	5,728	646	432	217	287	20

a. jacks not counted separately from adults from 1980-1982.
b. catches include upper river commercial catch, therefore, not included in averages.
c. no commercial openings.
d. chinook average includes both adults and jacks.

Appendix Table B.10. Stock proportion and catch of sockeye salmon from the Canadian lower Stikine River commercial fishery, 1979-1987.

Year	Proportion		Catch	
	Tahltan	Non-Tahltan	Tahltan	Non-Tahltan
1979[a]	0.43	0.57	4,561	5,973
1980[a]	0.31	0.69	5,599	12,520
1981[a]	0.48	0.52	10,258	11,293
1982[a]	0.62	0.38	9,608	5,789
1983[a]	0.42	0.58	6,692	9,165
1984[b]				
1985[c]	0.62	0.38	10,649	6,444
1986[d]	0.49	0.51	6,069	6,342
Average 1980-86	0.49	0.51	8,146	8,592
1987[d]	0.22	0.78	1,380	4,758

a. Stock identification based on circuli counts.
b. No commercial fishing.
c. Stock identification based on scale pattern analysis.
d. Stock identification based on an average of scale pattern analysis and genetic analysis.

Appendix Table B.11. Canadian upper Stikine River commercial fishery annual catch and effort data, 1975-1987.

Year	Catch						Effort	
	Chinook[a]		Sockeye	Coho	Pink	Chum	Steel-head	Boat-Days	Days Open
	Jacks	Adults							
1975		178	270	45	0	0	0		
1976		236	733	13	0	0	0		
1977		62	1,975	0	0	0	0		
1978		100	1,500	0	0	0	0		
1979[b]									
1980		156	700	40	20	0	0		
1981		154	769	0	0	0	0	11	5
1982		76	195	0	0	0	0	8	4
1983		75	614	0	0	4	1	10	8
1984[c]									
1985		62	1,084	0	0	0	0	14	6
1986	41	104	815	0	0	0	0	19	7
Averages:[d]									
1975-86		130	866	10	2	0	0		
1980-86		120	696	7	3	1	0	12.4	6
1987	19	109	498	0	0	19	0	20	7

a. jacks not counted separately from adults from 1975-1985.
b. catches included with lower river commercial catch, not included in averages.
c. no commercial openings.
d. chinook averages include both jacks and large adults.

Appendix Table B.12. Canadian Telegraph Creek food fishery annual catch data, 1972-1987.

Year	Chinook[a] Jacks	Chinook[a] Adults	Sockeye	Coho	Pink	Chum	Steelhead
1972			230	0	0	0	0
1973		200	3,670	0	0	0	0
1974			3,500	0	0	0	0
1975		1,024	1,982	5	0	0	0
1976		924	2,911	0	0	0	0
1977		100	4,335	0	0	0	0
1978		400	3,500	0	0	0	0
1979		850	3,000	0	0	0	0
1980		587	2,100	0	0	0	0
1981		740	5,304	8	144	0	4
1982		618	4,948	40	60	0	0
1983		1,066	4,649	3	77	26	46
1984		702	5,327	1	62	0	2
1985	94	793	7,287	4	35	4	9
1986	569	1,026	4,208	2	1	12	2
Averages:[b]							
1972-86		646	3,797	4	25	3	4
1980-86		885	4,832	8	54	6	9
1987	183	1,183	2,979	3	0	8	2

a. jacks were not counted separately from adults from 1972-1985.
b. chinook averages include both jacks and large adults.

Appendix Table B.13. Total Canadian Stikine River commercial and food fishery annual catch data, 1972-1987.

Year	Chinook	Sockeye	Coho	Pink	Chum	Steelhead
1972		230	0	0	0	0
1973	200	3,670	0	0	0	0
1974		3,500	0	0	0	0
1975	1,202	2,252	50	0	0	0
1976	1,160	3,644	13	0	0	0
1977	162	6,310	0	0	0	0
1978	500	5,000	0	0	0	0
1979	1,625	13,534	10,720	1,994	424	264
1980	2,231	20,919	6,669	756	771	362
1981	1,558	27,624	2,675	3,857	1,128	284
1982	2,387	20,540	15,944	1,842	722	828
1983	2,063	21,120	6,173	1,120	304	714
1984[a]	702	5,327	1	62	0	2
1985	1,296	25,464	2,175	2,356	536	240
1986	2,911	17,434	2,280	108	307	194
Averages:[b]						
1972-86	1,200	11,771	3,113	806	279	193
1980-86	1,878	19,775	5,131	1,443	538	375
1987	2,645	9,615	5,731	646	459	219

a. no commercial openings.
b. chinook averages include both jacks and large adults.

Appendix Table B.14. Catches from inriver test fisheries, 1984-1987.

Year	Fishery	Chinook	Sockeye	Coho	Pink	Chum	Drifts/Sets
1984	US Sonar						
1985	Can.Drift		1,340				
1986	US Sonar						
1986	Can.Drift	27	412	226	8	25	405
1987	Joint Drift	128	385	162	111	61	845
1987	Joint Set	61	1,283	620	587	193	109

Note: Blanks to be filled in by next year's report.

Appendix Table B.15. Annual weir counts and timing of arrival of sockeye salmon at Tahltan Lake, 1959-1987.

Year	Date Weir Installed	First Sockeye Arrive	Date % Passed Weir		Total Sockeye Escapement
			50%	90%	
1959	30-Jun	02-Aug	12-Aug	16-Aug	4,311
1960	15-Jul	02-Aug	24-Aug	27-Aug	6,387
1961	20-Jul	09-Aug	11-Aug	15-Aug	16,619
1962	01-Aug[a]	02-Aug	05-Aug	08-Aug	14,508
1963	03-Aug	–[b]			1,780
1964	23-Jul	26-Jul	14-Aug	25-Aug	18,353
1965[c]	19-Jul	18-Jul	02-Sep	07-Sep	1,471
1966	12-Jul	03-Aug	13-Aug	21-Aug	21,580
1967	11-Jul	14-Jul	21-Jul	28-Jul	38,801
1968	11-Jul	21-Jul	25-Jul	08-Aug	19,726
1969	07-Jul	11-Jul	18-Jul	31-Jul	11,805
1970	05-Jul	25-Jul	01-Aug	11-Aug	8,419
1971	12-Jul	19-Jul	28-Jul	12-Aug	18,523
1972	13-Jul	13-Jul	19-Jul	31-Aug	52,545
1973	10-Jul	24-Jul	30-Jul	07-Aug	2,877
1974	03-Jul	28-Jul	03-Aug	17-Aug	8,101
1975	10-Jul	25-Jul	08-Aug	17-Aug	8,159
1976	16-Jul	29-Jul	01-Aug	06-Aug	24,111
1977	06-Jul	11-Jul	16-Jul	10-Aug	42,960
1978	10-Jul	10-Jul	20-Jul	29-Jul	22,788
1979	09-Jul	23-Jul	01-Aug	11-Aug	10,211
1980	04-Jul	15-Jul	22-Jul	12-Aug	11,018
1981	30-Jun	16-Jul	26-Jul	03-Aug	50,790
1982	02-Jul	10-Jul	19-Jul	29-Jul	28,257
1983	27-Jun	05-Jul	22-Jul	05-Aug	21,256
1984	20-Jun	19-Jul	24-Jul	03-Aug	32,777
1985	28-Jun	18-Jul	31-Jul	06-Aug	67,326
1986	10-Jul	26-Jul	04-Aug	11-Aug	20,280
AVERAGES					
1959-86	09-Jul	21-Jul	31-Jul	11-Aug	20,919
1980-86	30-Jun	15-Jul	25-Jul	05-Aug	33,101
1987	14-Jul	21-Jul	04-Aug	13-Aug	6,958

a. Question as to date installed.
b. Daily counts not available.
c. A land slide occurred blocking stream for a while.

Appendix Table B.16. Annual weir counts and timing of arrival of chinook salmon at Little Tahltan River, 1985-1987.

		Large Adults				Jacks			
Year	Weir In	First Arrival	50% Passed	90% Passed	Total Count	First Arrival	50% Passed	90% Passed	Total Count
1985	03-Jul	04-Jul	30-Jul	06-Aug	3,146	04-Jul	31-Jul	10-Aug	413
1986	28-Jun	29-Jun	21-Jul	05-Aug	2,893	03-Jul	25-Jul	06-Aug	572
1987	28-Jun	04-Jul	24-Jul	02-Aug	4,781	03-Jul	26-Jul	06-Aug	364

Appendix Table B.17. Sockeye smolt counts at Tahltan Lake, 1984-87.

Year	First Arrival	50%	90%	100%	Total Count
1984	11-May	23-May	06-Jun	11-Jul	219,702
1985	23-May	31-May	28-May	05-Jul	613,531
1986	10-May	31-May	07-Jun	15-Jul	244,330
1987	15-May	23-May	24-May	16-Jul	810,432

Appendix Table B.18. Stikine River sockeye run size, 1979-1987. Canadian inriver run estimates are based on PGA; U.S. estimates, on SPA. The 1986 and 1987 estimates are based on combined PGA and SPA. Total run size equals the average inriver run size plus the marine catch. Estimates of marine catch of Stikine sockeye salmon for 1979-1981 are based on average stock compositions from 1982-1986.

	Inriver Run Estimates				
Year	Canada	U.S.	Average	Marine Catch	Total Run Size
ALL SOCKEYE SALMON					
1979		34,116	34,116	8,299	42,415
1980		62,744	62,744	23,206	85,950
1981		138,503	138,503	27,538	166,041
1982		68,442	68,442	43,094	111,536
1983	66,000	65,719	65,860	5,804	71,664
1984	84,544	59,169	71,857	7,783	79,639
1985	207,739	137,695	172,717	29,937	202,654
1986			63,548	10,446	73,994
AVERAGE					
1979-86			84,723	19,513	104,236
1980-86			91,953	21,115	113,068
1987			39,262	4,060	43,323
TAHLTAN STOCK					
1979		14,772	14,772	5,076	19,848
1980		19,137	19,137	11,239	30,376
1981		65,789	65,789	16,189	81,978
1982		42,297	42,297	24,785	67,082
1983	27,921	32,137	30,029	5,101	35,130
1984	33,277	37,572	35,425	3,189	38,614
1985	75,306	85,509	80,408	26,088	106,495
1986			28,549	5,279	33,828
AVERAGE					
1979-86			39,550	12,118	51,669
1980-86			43,090	13,124	56,215
1987			11,922	2,253	14,176

APPENDIX C. Taku River data for 1987

Appendix Table C.1. District 111 commercial drift gill net fishery weekly catch and effort data for 1987.

Week	Start Date	Catch					Effort	
		Chinook	Sockeye	Coho	Pink	Chum	Boats	Days
26	6/21	494	2,621	99	893	328	51	3
27	6/28	539	6,845	315	17,534	2,593	71	3
28	7/05	170	5,437	220	35,958	6,170	78	2.25
29	7/12	16	12,744	115	45,325	2,769	76	1.5
30	7/19	249	15,457	1,309	118,446	25,521	118	3
31	7/26	122	14,035	2,064	92,419	13,551	137	5
32	8/02	73	9,521	1,687	28,109	3,135	61	4
33	8/09	59	4,142	2,878	10,846	3,391	54	3
34	8/16	102	1,990	2,416	5,046	5,785	86	2
35	8/23	149	1,414	9,239	1,076	25,039	124	2
36	8/30	84	211	8,491	72	19,057	155	2
37	9/06	41	34	4,731	1	11,021	72	2
38	9/13	7	3	824	0	2,109	19	1
39	9/20	0	3	626	0	1,273	10	1
40	9/27	0	0	159	0	120	5	1
Total		2,105	74,457	35,173	355,725	121,862		35.75
Total effort in boat-days								3,009

Data from Run Time 10-13-88.

Appendix Table C.2. District 111 test drift gill net fishery weekly catch and effort data for 1987.

Week	Start Date	Catch					Effort	
		Chinook	Sockeye	Coho	Pink	Chum	Boats	Days
28	7/05	0	166	4	1,218	77	2	1
29	7/12	0	544	22	1,152	160	2	1
30	7/19	0	392	8	1,663	166	2	1
31	7/26	0	317	35	902	74	2	1
35	8/23	0	5	35	0	177	2	1
36	8/30	0	4	178	0	217	2	1
37	9/06	0	2	104	0	245	2	1
38	9/13	0	1	156	0	482	2	1
Total		0	1,431	542	4,935	1,598		8

Appendix Table C.3. Proportions of Taku sockeye stocks harvested in the District 111 commercial drift gill net fishery, 1987. Stock proportions are determined from scale pattern analysis. The remaining portion of the harvest is from Port Snettisham systems.

Week	Kuthai	L.Trapper	Mainstem	L.Tatsamenie	Total
26	0.62	0.00	0.35	0.01	0.98
27	0.31	0.22	0.34	0.04	0.90
28	0.10	0.35	0.39	0.05	0.88
29	0.07	0.59	0.24	0.06	0.95
30	0.04	0.18	0.18	0.01	0.41
31	0.00	0.08	0.50	0.04	0.62
32	0.02	0.16	0.51	0.00	0.69
33	0.00	0.15	0.64	0.05	0.84
34-39	0.00	0.00	0.69	0.04	0.73
Total	0.08	0.23	0.38	0.03	0.72

Appendix Table C.4. Catch of Taku sockeye stocks in the District 111 commercial drift gill net fishery, 1987.

Week	Kuthai	L.Trapper	Mainstem	L.Tatsamenie	Total
26	1,613	0	924	36	2,563
27	2,132	1,482	2,299	225	5,594
28	526	1,889	2,095	294	4,804
29	851	7,523	2,995	712	13,242
30	674	2,756	2,813	160	6,403
31	0	1,182	6,984	516	8,682
32	205	1,508	4,844	0	6,557
33	0	628	2,662	192	3,482
34	0	0	1,379	75	1,454
35	0	0	980	53	1,033
36	0	0	146	8	154
37	0	0	24	1	25
38	0	0	2	0	2
39	0	0	2	0	2
Total	6,001	16,968	28,148	2,301	53,419

Appendix Table C.5. Catch of Taku sockeye stocks in the District 111 test gill net fishery, 1987. Stock proportions from the commercial fishery (Table C.3) were used to estimate catch by stock in the test fishery.

Week	Kuthai	L.Trapper	Mainstem	L.Tatsamenie	Total
28	16	58	64	9	147
29	36	321	128	30	516
30	17	70	71	4	162
31	0	27	158	12	196
35	0	1	3	0	4
36	0	0	3	0	3
37	0	0	1	0	1
38	0	0	1	0	1
Total	69	476	429	56	1,030

Appendix Table C.6. Canadian Taku River commercial gill net fishery weekly catch and effort data for 1987.

Week	Start Date	Catch						Effort	
		Chinook Jacks	Chinook Adults	Sockeye	Coho	Pink	Chum	Steel-head	Boats	Days
27	6/29	18	37	178	0	24	0	3	11	1
28	7/06	54	39	508	2	622	0	0	13	1
29	7/13	26	26	782	15	4,423	0	0	13	2
30	7/20	6	18	4,621	160	1,115	5	0	12	3
31	7/27	0	1	751	77	0	0	0	12	2
32	8/03	2	5	4,118	768	61	15	0	12	4
33	8/10	0	1	1,577	625	5	19	11	13	2
34	8/17	0	0	624	596	0	16	18	13	1
35	8/24	0	0	195	385	0	36	9	12	1
36	8/31	0	0	148	1,017	0	152	17	12	2
37	9/07	0	0	30	587	0	472	29	11	2
38	9/14	0	0	16	524	0	831	67	5	2.2
39	9/21	0	0	6	843	0	724	69	5	3
Total		106	127	13,554	5,599	6,250	2,270	223	13	26.2
Total effort in boat-days										281

Appendix Table C.7. Proportions of stock for the sockeye catch from the Canadian commercial Taku River fishery, 1987. Stock proportions are determined from scale pattern analysis.

Week	Kuthai	L.Trapper	Mainstem	L.Tatsamenie
27	0.41	0.21	0.34	0.04
28	0.41	0.21	0.34	0.04
29	0.17	0.62	0.21	0.00
30	0.08	0.29	0.58	0.05
31	0.02	0.16	0.76	0.06
32	0.02	0.15	0.65	0.19
33	0.00	0.00	0.93	0.07
34-39	0.00	0.00	1.00	0.00
Total	0.06	0.20	0.65	0.09

Appendix Table C.8. Sockeye catch by stock for the Canadian Taku River commercial fishery, 1987.

Week	Kuthai	L.Trapper	Mainstem	L.Tatsamenie
27	72	37	61	8
28	206	106	174	22
29	234	487	161	0
30	348	1,357	2,669	247
31	14	122	572	43
32	60	619	2,675	764
33	0	0	1,462	115
34	0	0	624	0
35	0	0	195	0
36	0	0	148	0
37	0	0	30	0
38	0	0	16	0
39	0	0	6	0
Total	834	2,728	8,793	1,199

Appendix Table C.9. Canadian Taku River test fishery weekly catch and effort data, 1987.

Week	Start Date	Catch					Effort
		Chinook	Sockeye	Coho	Pink	Chum	#Drifts
31	7/27	0	59	4	16	0	40
32	8/03	2	51	11	10	1	30
33	8/10	0	38	50	7	4	50
34	8/17	0	59	78	2	5	60
35	8/24	0	11	52	0	3	50
36	8/31	0	8	122	0	52	50
37	9/07	0	2	17	0	17	50
38	9/14	0	6	52	0	204	45
39	9/21	0	2	99	0	185	40
40	9/27	1	1	201	0	191	70
41	10/04	0	0	99	0	63	70
42	10/11	0	0	22	0	18	30
Total		3	237	807	35	743	585

Appendix Table C.10. Catch by stock for sockeye salmon harvested in the Canadian Taku River test fishery, 1987. Stock proportions from the commercial fishery (Appendix Table C.7) were used to determine catch by stock.

Week	Kuthai	L.Trapper	Mainstem	L.Tatsamenie
31	1	10	45	3
32	1	8	33	9
33	0	0	35	3
34	0	0	59	0
35	0	0	11	0
36	0	0	8	0
37	0	0	2	0
38	0	0	6	0
39	0	0	2	0
40-42	0	0	1	0
Total	2	17	202	16

Appendix Table C.11. Mark-recapture estimates of the Taku River sockeye salmon run by week, 1987. Escapement is determined by subtracting off the Canadian inriver harvest from the inriver run.

Week	Start Date	Inriver Run	Canadian Harvest[a]	Escapement
27	6/28	4,888	178	4,710
28	7/05	7,862	508	7,354
29	7/12	9,980	782	9,198
30	7/19	26,364	4,621	21,743
31	7/26	12,371	810	11,561
32	8/02	14,929	4,169	10,760
33-39	8/09	10,736	2,723	8,013
Total		87,130	13,791	73,339

a. Commercial and test fisheries.

APPENDIX D. Taku River historical annual data

Appendix Table D.1. District 111 annual catch and effort data, 1964-1987, for the drift gill net fishery.

Year	Catch					Effort	
	Chinook	Sockeye	Coho	Pink	Chum	Boat-Days	Days Open
1964	2,509	34,140	29,315	26,593	12,853	1,752	56
1965	4,170	27,569	32,667	2,768	11,533	1,461	63
1966	4,829	33,925	26,065	23,833	35,133	1,708	64
1967	5,417	17,735	40,391	12,372	22,834	1,792	53
1968	4,904	19,501	39,103	67,365	21,890	2,686	60
1969	6,986	41,169	10,802	73,927	15,049	1,552	41.5
1970	3,357	50,922	44,960	197,017	110,390	3,214	53
1971	6,958	66,181	41,830	31,484	91,145	3,004	55
1972	10,955	80,404	49,780	144,339	147,957	3,831	50
1973	9,799	85,317	35,453	58,186	109,245	3,532	38
1974	2,905	38,676	38,661	57,732	86,687	2,710	27.5
1975	2,182	32,513	1,185	9,567	2,678	1,240	15.5
1976	1,757	61,749	41,729	14,962	81,803	2,152	25
1977	1,068	70,097	54,917	88,578	61,102	2,603	27
1978	1,926	55,398	31,944	51,385	36,254	2,406	24
1979	3,702	122,376	16,192	152,410	61,200	2,493	28.83
1980	2,422	123,117	41,515	295,553	192,750	4,451	30.92
1981	1,720	49,765	26,803	255,029	76,092	2,862	30
1982	3,057	83,479	29,072	109,385	37,310	2,639	35.5
1983	888	31,627	21,443	66,080	15,188	1,411	34
1984	1,773	77,233	33,836	145,949	86,741	3,139	66.5
1985	2,651	88,192	55,597	311,248	106,720	3,888	48
1986	2,606	73,061	30,512	16,568	58,792	2,164	32.5
AVERAGES							
1964-86	3,850	59,311	33,642	96,189	64,406	2,552	42
1980-86	2,160	75,211	34,111	171,402	81,942	2,936	40
1987	2,105	74,457	35,173	355,725	121,862	3,009	35.75

Data from Run Time 10-13-88.

Appendix Table D.2. Proportion and catch of Taku sockeye salmon in the District 111 gill net fishery sockeye harvest, 1983-1987.

Year	Proportion	Catch
1983	0.76	23,878
1984	0.76	58,543
1985	0.84	73,905
1986	0.83	60,933
Average	0.80	54,315
1987	0.72	53,419

Appendix Table D.3. Taku River annual catch and effort data, 1979-1987, for the Canadian drift gill net fishery.

Year	Catch						Effort	
	Chinook Jacks	Chinook Adults	Sockeye	Coho	Pink	Chum	Steel-head	Boat-Days	Days Open
1979		97	13,578	6,006	13,661	15,474	254	599	50
1980		225	22,602	6,405	26,821	18,516	457	479	39
1981		159	10,922	3,607	10,771	5,591	108	243	31.25
1982		54	3,144	51	202	3	1	38	13
1983	400	156	17,056	8,390	1,874	1,760	213	390	64
1984	221	294	27,242	5,357	6,964	2,492	367	288	30
1985	24	326	14,244	1,770	3,373	136	32	178	16
1986	77	275	14,739	1,783	58	110	48	148	17
AVERAGE									
1979-86		287	15,441	4,171	7,966	5,510	185	295	33
1980-86		314	15,707	3,909	7,152	4,087	175	252	30
1987	106	127	13,554	5,599	6,250	2,270	223	281	26

Appendix Table D.4. Salmon counts at Taku River and Port Snettisham weirs, 1983-1987.

	Sockeye					Coho[a]	
Year	Trapper	Tatsam.	Hackett	Speel	Crescent	Tatsam.	Hackett
1983	7,402			10,484	19,422		
1984	13,084			9,764	6,707		
1985	14,889	13,015	2,308	7,073	7,249	106	1,031
1986	13,820	11,368	1,004	5,857	3,414	80	2,723
AVERAGE	12,299	12,192	1,657	8,295	9,198	93	1,877
1987	12,007	2,794	910	9,319	7,839	173	1,715

a. Weir was removed prior to end of coho run.

Appendix Table D.5. Aerial survey escapement counts of chinook salmon during periods of maximum spawning density in selected Taku River tributaries, 1977-1987.

Year	Nakina	Nahlin	Combined
1977	3,850	650	4,500
1978	1,620	624	2,244
1979	2,110	857	2,967
1980	4,500	1,531	6,031
1981	5,110	2,945	8,055
1982	2,533	1,246	3,779
1983	968	391	1,359
1984	1,887	951	2,838
1985	2,647	2,236	4,883
1986	3,868	1,612	5,480
Average			
1977-1986	2,909	1,304	4,214
1980-1986	3,073	1,559	4,632
1987	2,906	1,122	4,028

Appendix Table D.6. Taku River sockeye run reconstruction, 1983-1987. Total run equals U.S. catch plus inriver run. Catches include commercial and test fishery catches.

Year	Canadian Catch	Escape-ment	Inriver Run	U.S. Catch	Total Run
1984	27,242	106,172	133,414	58,543	191,957
1985	14,244	103,916	118,160	73,905	192,045
1986	14,739	90,370	105,109	60,933	166,042
AVERAGE 1984-86	18,742	100,153	118,894	64,460	183,354
1987	13,791	73,339	87,130	54,449	141,579

APPENDIX E. Alsek River data

Appendix Table E.1. Alaskan Alsek River set gill net fishery weekly catch and effort data, 1987.

Week	Start Date	Catch					Effort	
		Chinook	Sockeye	Coho	Pink	Chum	Boats	Days
24	6/07	16	407	0	0	0	18	0.5
25	6/14	206	3,508	0	0	0	24	2
26	6/21	106	2,341	0	0	0	27	3
27	6/28	17	1,298	0	0	0	23	2
28	7/05	0	1,185	0	0	1	18	1
29	7/12	1	1,225	0	0	1	18	2
30	7/19							0
31	7/26	0	388	0	0	0	3	1
32	8/02	0	427	0	0	0	4	1
33	8/09	0	344	6	0	4	7	1
34	8/16	0	113	26	0	5	4	3
35	8/23	0	28	68	0	4	5	3
36	8/30	1	7	44	0	4	4	3
37	9/06	0	1	2	0	0	1	4
38	9/13	0	9	733	0	440	9	4
39	9/20	0	0	959	0	753	7	4
40	9/27	0	0	679	0	712	5	4
Total		347	11,281	2,517	0	1,924		40.5
Total effort in boat-days								388

Data from Run Time 10-13-88.

Appendix Table E.2. Alaskan Alsek River set gill net fishery annual catch and effort data, 1964-1987.

Year	Catch					Effort	
	Chinook	Sockeye	Coho	Pink	Chum	Boat-Days	Days Open
1964	591	14,127	9,760	144	367	592	72
1965	719	28,487	9,638	10	72	1016	72
1966	934	29,091	2,688	22	240	500	68
1967	225	11,108	10,090	107	30	600	68
1968	215	26,918	10,586	82	240	664	68
1969	685	29,259	2,493	38	61	807	61
1970	1,128	22,654	2,188	6	26	670	52.25
1971	1,222	25,314	4,730	3	120	764	60.5
1972	1,827	18,717	7,296	37	280	640	65
1973	1,757	26,523	4,395	26	283	894	52
1974	1,162	16,747	7,046	13	107	699	46
1975	1,379	13,842	2,230	16	261	738	58
1976	512	19,741	4,883	0	368	550	58.5
1977	1,402	40,780	11,817	689	483	893	57
1978	2,441	50,580	13,913	59	233	948	57
1979	2,525	41,449	6,158	142	263	1146	51
1980	1,382	25,589	7,863	21	1,005	794	42
1981	779	23,697	10,096	65	816	96	40
1982	532	27,389	6,534	6	358	497	36
1983	93	17,890	5,253	20	432	458	38
1984	46	12,751	7,867	23	1,608	429	33
1985	213	5,940	5,622	3	427	33	33
1986	478	24,791	1,344	13	462	517	34
AVERAGES							
1964-86	967	34,060	6,717	67	371	650	53
1980-86	503	19,721	6,368	22	730	403	37
1987	347	11,281	2,517	0	1,924	388	40.5

Appendix Table E.3. Canadian Indian food and sport catch of Alsek-Tatshenshini salmon, 1976-1987.

	Chinook			Sockeye			Coho		
Year	Food	Sport	Total	Food	Sport	Total	Food	Sport	Total
1976	125	200	325	3,750	600	4,350	0	100	100
1977	250	300	550	11,350	500	11,850	0	200	200
1978	300	300	600	7,850	500	8,350	0	200	200
1979	130	650	780	5,260	750	6,010	0	100	100
1980	150	200	350	900	600	1,500	0	200	200
1981	150	315	465	1,900	808	2,708	0	109	109
1982	400	224	624	4,800	755	5,555	0	109	109
1983	300	312	612	2,475	732	3,207	0	16	16
1984	100	475	575	2,500	289	2,789	0	20	20
1985	175	250	425	1,361	100	1,461	50	100	150
1986	102	165	267	1,914	307	2,221	0	9	9
AVERAGE									
76-86	198	308	507	4,005	540	4,546	5	106	110
80-86	197	277	474	2,264	513	2,777	7	80	88
1987	125	365	490	1,158	383	1,541	0	49	49

Appendix Table E.4. Klukshu River weir counts of chinook, sockeye, and coho salmon, 1976-1987.

Year	Chinook	Sockeye			Coho[b]
		Early[a]	Late	Total	
1976	1,278	181	11,510	11,691	1,572
1977	3,144	8,931	17,860	26,791	2,758
1978	2,976	2,508	24,359	26,867	30
1979	4,404	977	11,334	12,311	175
1980	2,637	1,008	10,742	11,750	704
1981	2,113	997	19,351	20,348	1,170
1982	2,369	7,758	25,941	33,699	189
1983	2,537	6,047	14,445	20,492	303
1984	1,672	2,769	9,958	12,727	1,402
1985	1,458	539	18,081	18,620	350
1986	2,709	416	24,434	24,850	71
AVERAGE					
76-86	2,482	2,921	17,092	20,013	793
80-86	2,214	2,791	17,565	20,355	598
1987	2,616	3,269	7,235	10,504	202

a. Count is up to and including August 15.
b. Weir was removed prior to end of coho run.

Appendix Table E.5. Escapement counts by electric counter at Village Creek, 1986-1987.

Year	Sockeye
1986	2,021
1987[a]	1,850

a. incomplete count due to machine malfunction.