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TRANSBOUNDARY TECHNICAL
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TRANSBOUNDARY RIVER SALMON PRODUCTION, HARVEST AND ESCAPEMENT ESTIMATES, 1992.

REPORT TCTR (93)-3.

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EXECUTIVE SUMMARY

Estimates of catches and escapements of Pacific salmon returning to the transboundary Stikine, Taku, and Alsek rivers for 1992 are presented and compared with historical patterns. Relevant information pertaining to the management of appropriate U.S. and Canadian fisheries is presented and the use of inseason management models is discussed.

The 1992 Stikine sockeye run was estimated at 231,900 fish, of which 106,600 fish were harvested in various fisheries and 125,300 escaped to spawn. Both total run and catch were the highest recorded since 1982 when stock identification techniques were first used for marine catches and the escapement was the second highest estimated for the 1982 to 1992 period. The estimated U.S. marine commercial and test fishery catches of Stikine sockeye salmon were 76,400 and 1,000 fish, respectively; the Canadian inriver commercial, Indian food, and test fishery catches were 21,900, 4,400, and 3,000 fish, respectively. The preseason forecast of the run was 127,300 sockeye salmon. In 1992 the Stikine Management Model correctly predicted a larger than average run for the Tahltan stock and for the entire Stikine sockeye run. Weekly inseason model forecasts ranged from 151,800 to 229,300 sockeye salmon; the final inseason prediction was 225,100 fish. The model underpredicted the total run size early in the season but consistently improved throughout the season. Both Canada and the U.S. harvested less than the Total Allowable Catch (TAC) allowed under the Pacific Salmon Treaty. The escapement to Tahltan Lake was 60,000 fish, 137% above the 1982 to 1991 average, and above the 20,000 to 40,000 goal range. The estimated escapement of 65,400 non-Tahltan Stikine sockeye salmon was also above the escapement goal range for this stock group of 20,000 to 40,000.

The chinook catch in Canadian commercial and food fisheries in the Stikine River was 2,100 fish, 90% of the 1982 to 1991 average, with approximately 50% harvested in commercial fisheries and 50% harvested in the Indian food fishery. An additional 900 chinook salmon were taken in the Canadian inriver test fishery. The U.S. marine catch of chinook salmon in the District 106 and 108 mixed stock gill net fisheries was 2,300 fish, approximately 26% above the 1982 to 1991 average catch. The chinook spawning escapement through the Little Tahltan River weir in 1992 was 6,600 large adults, 46% above the 1982 to 1991 average and 25% above the joint U.S./Canada escapement goal of 5,300 for the Little Tahltan tributary.

The U.S. marine harvest of Stikine River coho salmon is not known since there is no stock identification program in place; however, total mixed stock coho catches in District 106 and 108 were more than three and two and one-half times the 1982 to 1991 averages, respectively. Alaskan hatchery fish comprised approximately 34% (100,000 fish) of the combined coho harvest from the two districts. The Canadian inriver coho catch was 1,900, less than the treaty entitlement of 4,000 fish. Aerial survey escapement counts of coho salmon were above the 1984 to 1991 averages in most systems.

The Stikine River runs of pink and chum salmon are typically very small. In 1992, Canadian catches of these two species were approximately 100 and 200 fish, respectively. This is approximately 15% and 52% of the 1982 to 1991 averages for pink and chum salmon, respectively.

The 1992 total Taku sockeye run was estimated at 286,500 fish and included an estimated catch of 154,300 fish and an escapement of 132,200 fish. The run, catch, and escapement were all the highest recorded since 1984 when stock identification and run reconstruction were first used. The U.S. District 111 commercial gillnet harvest of Taku sockeye stocks, estimated by analysis of scale pattern and brain parasite incidence, was 122,400. An additional 2,000 sockeye were taken in the U.S. inriver personal use fishery. Canadian inriver commercial, Indian food fishery, and test fishery catches were 29,500, 250, and 40 fish, respectively. The Pacific Salmon Treaty defines harvest sharing of Taku River sockeye salmon as 18% of the TAC to Canada and 82% to the U.S. Since the escapement goal is expressed as a range, 71,000 to 80,000 fish, the resulting TAC is also expressed as a range. In 1992, Canada took 14% and the U.S. took 58% to 60% of the TAC. The estimated spawning escapement for Taku sockeye salmon exceeded the upper level of the escapement goal range by 65%.

The chinook catch in the Canadian commercial fishery in the Taku River was 1,600 fish, about three times the 1982 to 1991 average. The chinook catch in the U.S. District 111 mixed stock fishery was 2,300 fish, equal to the 1982 to 1991 average. Above average escapements were observed in all of the Taku River chinook index tributaries in 1992. The combined aerial survey count of six index tributaries was 11,100 fish, which is 54% above the 1982 to 1991 average of 7,200 fish, but below the revised index escapement goal of 13,200 chinook salmon.

The Taku coho run was strong in 1992. The U.S. harvest of 172,700 coho salmon in the District 111 mixed stock fishery was a record, and over three times larger than the 1982 to 1991 average. The DIPAC Hatchery near Juneau contributed an estimated 26% of the District 111 harvest, or approximately 45,500 fish. The Canadian inriver commercial and food fishery catch was 4,300 coho salmon, above the Treaty limit of 3,000 fish. An additional 1,300 coho salmon were taken in the Canadian inriver test fishery. The inriver run size past the Canyon Island research site was estimated by mark-recapture studies to have been 50,200 through September 5. Low river levels after this point prevented a total-season mark-recapture estimate from being developed. An above-border run size estimate of 90,200-113,700 was derived by using late-season District 111 gillnet fishery CPUE to expand the mark-recapture estimate. An above-border run of this size is 20-52% above the 1987-1991 average. The interim above-border escapement goal range is 27,500 to 35,000 coho salmon. The U.S. National Marine Fisheries Service, with assistance from ADF&G and DFO, captured and radio tagged 444 coho salmon at tidewater and at Canyon Island. Migratory timing and distribution throughout the drainage were estimated by aerial surveys and remote data recording stations.

The catch of pink salmon in District 111 was 314,400 fish, was approximately three times the 1982 to 1990 even year average catch. The escapement of pink salmon to the Taku River was not estimated in 1992.

The catch of chum salmon in the District 111 fishery was 112,500 fish, composed of 97,700 summer run fish (prior to mid-August) and 14,800 fall run fish. The catch of summer chum salmon was composed of coastal Alaskan wild and hatchery stocks and was 71% above the 1982 to 1991 average, but below the 1990 and 1991 harvests. The catch of fall chum salmon was composed of wild Taku River and Port Snettisham stocks and was only 46% of the 1982 to 1991 average. The Canadian inriver catch of chum salmon was below average at just seven fish reported.

The sockeye run to the Alsek River was slightly above average as indicated by above average catches, an average escapement count at the Klukshu River weir, and an above average escapement count at Village Creek. The U.S. Dry Bay catch was 19,300 sockeye salmon, 25% above the 1982 to 1991 average catch. The Canadian sport fishery catch of 600 sockeye was 49% above the previous 10-year average and the inriver Indian food fishery catch of 2,600 sockeye was 15% above the 1982-1991 average. The count of 20,200 sockeye salmon through the Klukshu weir was about equal to the 1982 to 1991 average; however the early run of 11,800 fish was a record and the late run of 8,400 was the second lowest recorded since 1976.

The chinook run to the Alsek River was below average. The U.S. Dry Bay catch of 300 fish was 29% above the 1982 to 1991 average. The combined Canadian sport and Indian food fishery catch of 300 fish was 46% of the 1982 to 1991 average. The chinook count of 1,400 fish through the Klukshu River weir was 61% of the 1982 to 1991 average of 2,200 fish, and below the Klukshu River escapement goal of 4,700 chinook salmon. Aerial survey index counts were the lowest recorded since 1982.

The coho run to the Alsek River was below average. The U.S. Dry Bay catch of 3,300 fish was 70% of the 1982 to 1991 average while the combined Canadian inriver Indian food and sport fishery catch of 200 fish was 61% above the 1982 to 1991 average. The Klukshu weir count of 1,100 coho salmon was 70% of the 1982 to 1991 average.

INTRODUCTION

This report presents estimates of the 1992 catch and escapement data for Pacific salmon runs to the transboundary Stikine, Taku, and Alsek rivers and discusses management actions taken by the U.S. and Canada during the season. Catch and effort data are presented by management week (U.S. statistical week) for each river for both U.S. and Canadian fisheries. Spawning escapement data for most species are reported from weir counts or other escapement monitoring techniques. Sockeye runs to the three rivers are reconstructed using harvest data and spawning escapement estimates.

STIKINE RIVER

Stikine River salmon are harvested by U.S. gillnet fisheries in Alaskan Districts 106 and 108, by Canadian commercial gillnet fisheries located in the lower and upper Stikine River, and by a Canadian Indian food fishery in the upper portion of the river (Figure 1). Additional catches of unknown quantity are taken in U.S. troll and seine fisheries and in sport fisheries near Wrangell and Petersburg. A sport fishery also exists in the Canadian portion of the Stikine drainage.

Harvest Regulations and the Joint Management Model

The harvest and management of Stikine River salmon stocks for the period 1988 to 1992 is governed by Annex IV, Chapter I, of the Pacific Salmon Treaty as negotiated by the Pacific Salmon Commission in February of 1988. Sharing arrangements for sockeye salmon are:

Total Allowable Catch		Canadian Allowable Catch	
From	To	Minimum	Maximum
0	0	4,000	4,000
1	20,000	10,000	15,000
20,001	60,000	15,000	20,000
60,001	Infinity	20,000	30,000

Under this annex the U.S. is allowed to catch the remainder of the total allowable sockeye catch after the Canadian allowable catch is subtracted from the total. However, even when the calculated total allowable catch (TAC) for the U.S. is low or zero, incidental catches of Stikine sockeye salmon are allowed in District 106. In addition, Canada is restricted to an annual catch of 4,000 coho salmon. This schedule,

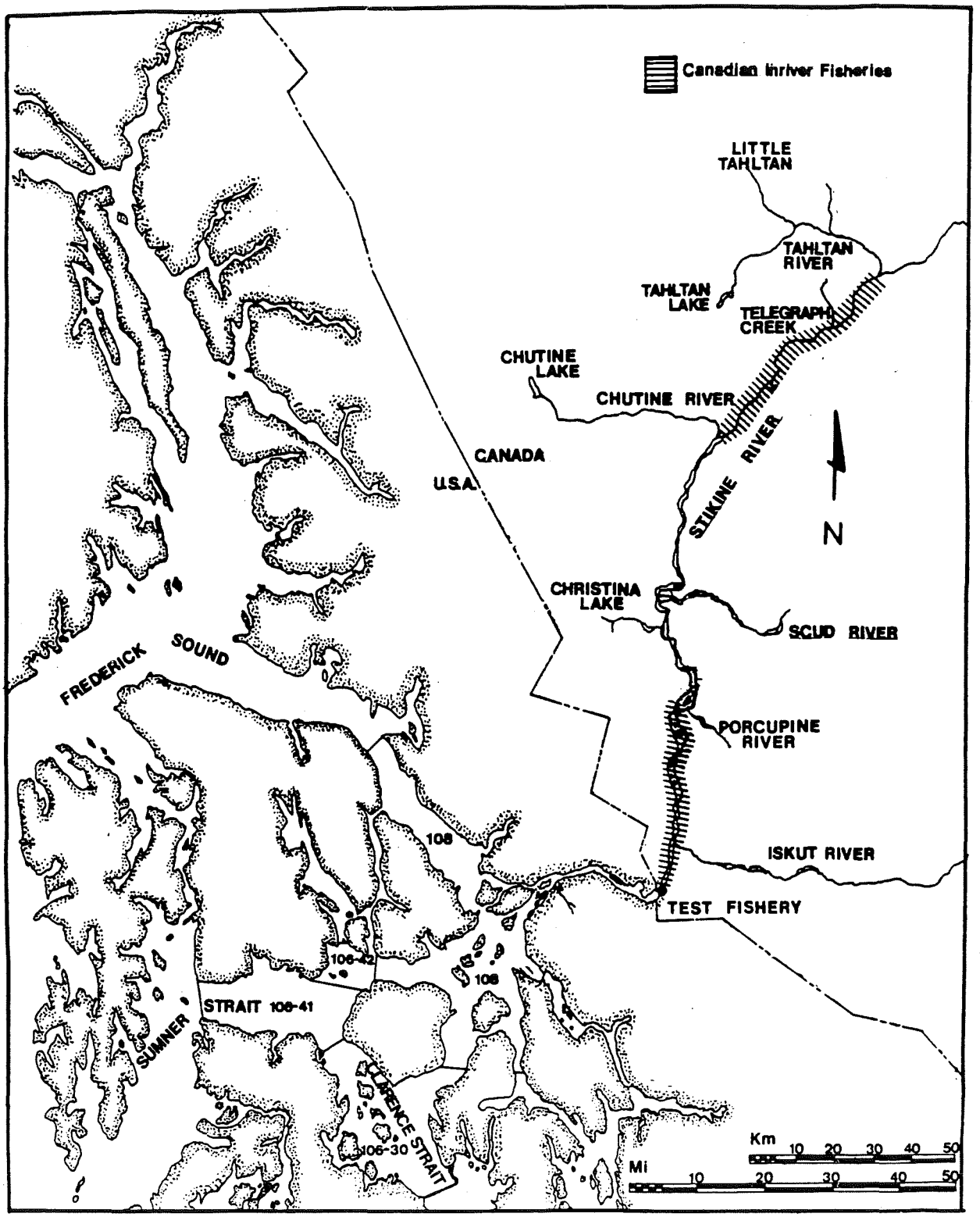

Figure 1. The Stikine River and principal U.S. and Canadian fishing areas.

which is conditionally in effect until 1992, is tied to a commitment of the Parties to continue a cooperative sockeye enhancement program begun in 1989.

Prior to the 1992 season, the Transboundary Technical Committee updated the management plan and determined new parameters for input into the inseason run forecast model, referred to as the Stikine Management Model (SMM). Details regarding these subjects appear in: ***Salmon Management and Enhancement Plans for the Stikine, Taku, and Alsek rivers, 1992, Pacific Salmon Commission Transboundary Technical Committee Report TCTR (92)-2, June 1992.*** As required by the annex, a preseason forecast of the total Stikine sockeye run was made to guide the initial fishing patterns of U.S. and Canadian fisheries. In 1992, the preseason forecast was used during statistical weeks 26 (June 21 to June 27) and 27 (June 28 to July 04). Beginning the first full week of July, inseason forecasts of total run size and TAC, produced by the SMM and based on catch-per-unit-effort (CPUE) data, were used to assist in determining weekly fishing plans (Table 1). The weekly inputs to the model included: the catch, effort and stock composition (proportion Tahltan) in the Canadian lower river commercial fishery; the upper river catch in the Indian food fishery (IFF) and upper river commercial fishery; the catch, effort and stock composition in Sub-district 106-41; and, the catch and stock composition in District 108 and Sub-district 106-30. The U.S. fishing regime for District 108 as written in the annex is based on TAC and the cumulative catch in District 106.

Table 1. Weekly forecasts of run size and total allowable catch for Stikine River sockeye salmon as determined inseason by the Stikine Management Model, 1992.

Week	Start Date	Forecasts		U.S. Fishing Regime			Canada TAC	Cumulative Catch	
		Run Size	TAC	6	8	TAC		U.S.	Canada
Model Runs Generated by the U.S.									
26	21-Jun	127,338	67,338	I	D	37,338	30,000	5,917	0
27	28-Jun	127,338	67,338	I	D	37,338	30,000	18,294	1,111
28	05-Jul	151,772	91,772	I	D	61,772	30,000	37,481	1,811
29	12-Jul	169,019	109,019	I	D	79,019	30,000	47,455	10,272
30	19-Jul	194,678	134,678	I	D	104,678	30,000	67,201	16,630
31	26-Jul	221,358	161,358	I	D	131,358	30,000	76,243	20,758
32	02-Aug	208,343	148,343	I	D	118,343	30,000	82,055	25,541
33	09-Aug	213,846	153,846	I	D	123,846	30,000	82,055	25,541
Model Runs Generated by Canada									
26	21-Jun	127,338	67,338	I	D	37,338	30,000	9,937	0
27	28-Jun	127,388	67,338	I	D	37,388	30,000	20,337	1,121
28	05-Jul	166,588	106,588	I	D	76,588	30,000	37,481	7,445
29	12-Jul	202,620	142,620	I	D	112,620	30,000	47,167	11,293
30	19-Jul	192,463	132,463	I	D	102,463	30,000	73,345	17,567
31	26-Jul	229,284	169,284	I	D	139,284	30,000	75,814	20,642
32	02-Aug	207,257	147,257	I	D	117,257	30,000	82,055	24,497
33	09-Aug	213,873	153,873	I	D	123,873	30,000	82,862	25,083
34	16-Aug	216,484	156,484	I	D	126,484	30,000	82,862	26,051
35	23-Aug	214,100	154,100	I	D	124,100	30,000	82,862	25,158
Final		225,125	165,125			135,125	30,000	84,833	26,262

I = Indicates indirect fishery allowed; D = Indicates directed fishery allowed.

The preseason forecast of 127,338 returning Stikine sockeye salmon was 32% above the 1982 to 1991 average run size of 96,432 sockeye (Appendix B.31). Inseason predictions of total run ranged from 151,772 to 229,284 sockeye salmon; U.S. and Canadian weekly predictions varied slightly because different catch figures and stock compositions were input into the model by each country (Table 1). The peak U.S. and Canadian forecasts occurred during statistical week 31 (week beginning July 26) and were the result of strong runs of both the Tahltan and non-Tahltan components. By the end of the fishing season, the SMM predicted a total run of 225,125 Stikine sockeye salmon with a total TAC of 165,125 fish, a Canadian TAC of 30,000 sockeye salmon, and a U.S. TAC of 135,125 fish. Excluding test fishery catches, Canadian fishermen caught 26,284 sockeye salmon, and the U.S. harvested an estimated 76,379 Stikine River sockeye salmon.

The SMM also predicts the Tahltan portion of the run independently from the total run forecasts. Estimates of the Tahltan run ranged from 93,227 fish in week 28 to 112,284 fish in week 29, compared to the preseason forecast of 55,912 sockeye salmon. The final inseason estimate of the Tahltan escapement was 43,427 fish, 28% below the actual Tahltan Lake weir count of 59,907 sockeye salmon.

U.S. Fisheries

The 1992 harvest in the District 106 commercial gillnet fishery included 1,355 chinook, 203,104 sockeye, 298,740 coho, 94,209 pink, and 140,834 chum salmon (Appendix A.7). District 106 catches of chinook and pink salmon were below the 1982 to 1991 averages while sockeye catches were above average (Appendix B.5). The record catches of coho and chum salmon were three and two times the average, respectively (Figure 2). In the District 108 fishery, 967 chinook, 52,717 sockeye, 22,127 coho, 66,451 pink, and 15,451 chum salmon were harvested (Appendix A.10). District 108 catches of all salmon species were above the 1982 to 1991 averages (Appendix B.7). Chinook and coho salmon catches were more than twice the averages, while sockeye, pink, and chum catches were greater than 8, 6, and 3 times the averages, respectively (Figure 2). A test fishery was conducted in District 108 to help managers ascertain the run strength of various salmon species inseason. No test fisheries were conducted in District 106. Annual commercial and test fishery catches from 1964 to 1992 for these fisheries are provided in Appendix Tables B.1 through B.16. Catches of each species in Districts 106 and 108 consist of fish of mixed stock origin; the contribution of Stikine River stocks is estimated only for sockeye salmon.

Scale pattern analysis was used to estimate stock composition in the U.S. marine catches. The estimated proportion of the District 106 sockeye catch composed of Stikine River origin was the highest since 1982 (Figure 3). The Sumner Strait fishery (Subdistricts 106-41 & 42) harvested 25,958 Stikine sockeye salmon (Appendix A.3), 18% of the total sockeye harvest in that subdistrict; the Clarence Strait fishery (Subdistrict 106-30) took 9,004 Stikine fish (Appendix A.6), 16% of the catch in that subdistrict; and the District 108 fishery, near the mouth of the Stikine River, harvested 41,417 Stikine fish (Appendix A.11), 79% of the District 108 catch. An estimated 76,379 Stikine sockeye salmon were taken in commercial gillnet fisheries from both districts.

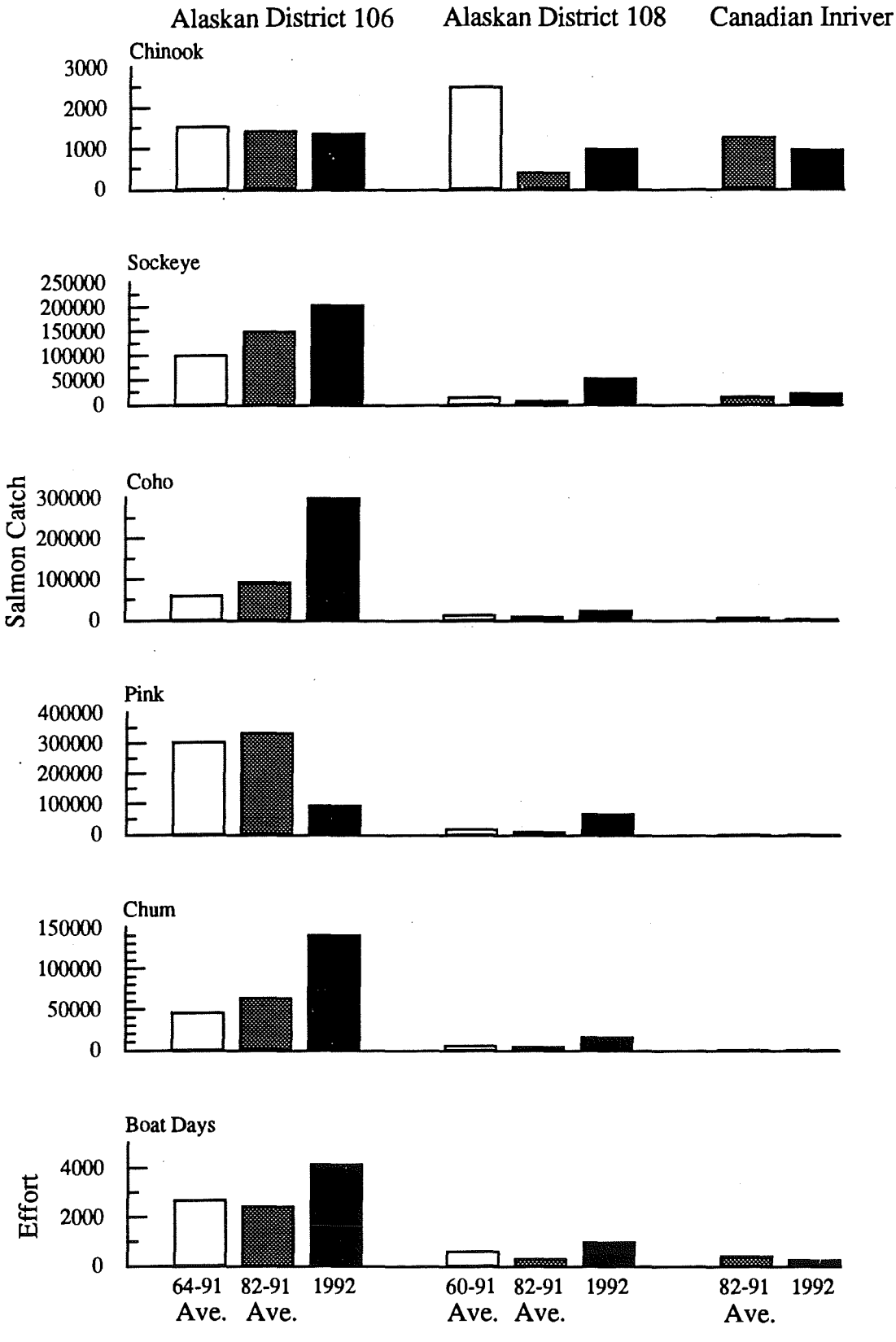

Figure 2. Average catches and fishing efforts compared with 1992 values for the Alaskan Districts 106 and 108 and for the Canadian commercial fisheries in the Stikine River.

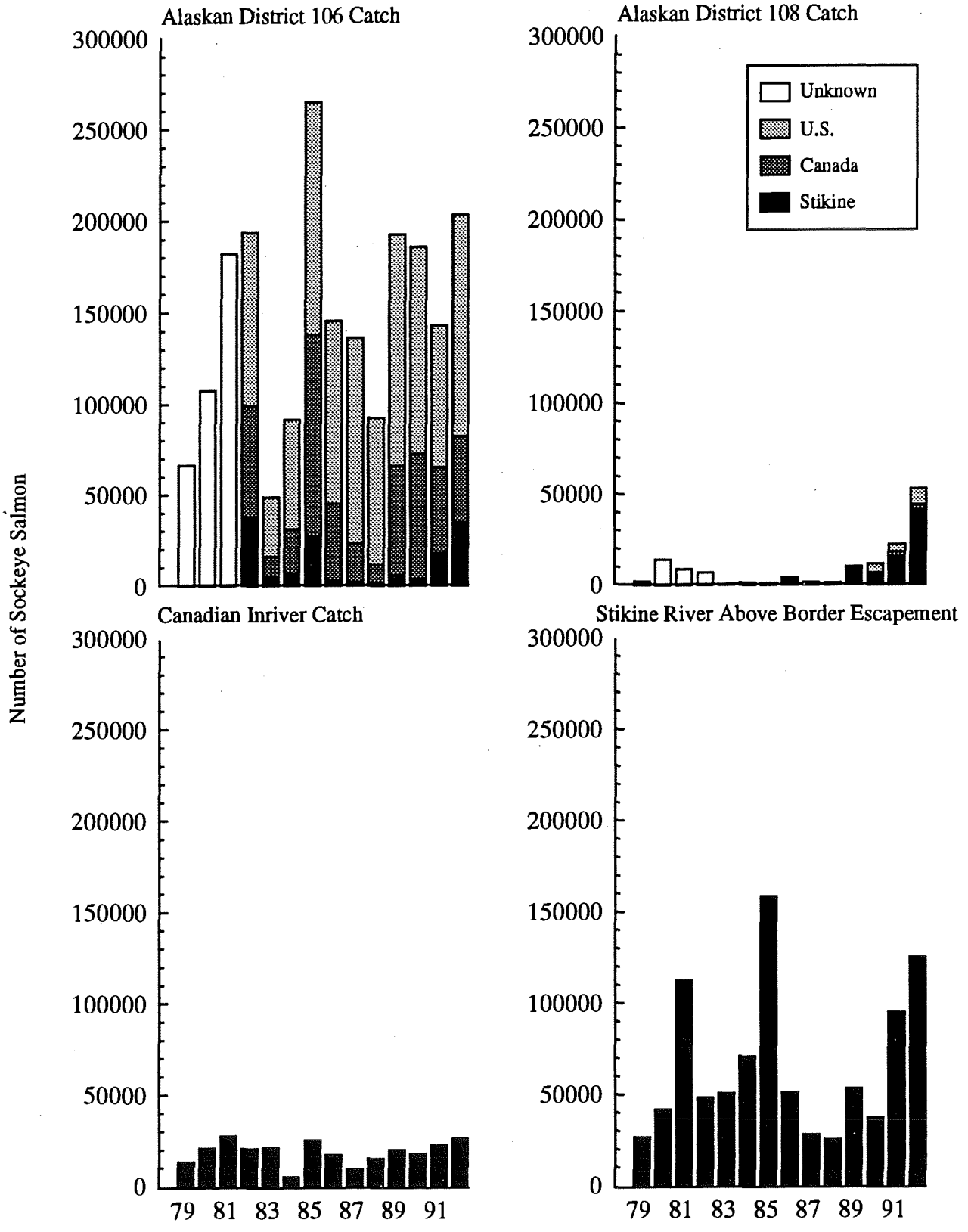

Figure 3. Sockeye catches for the Alaskan Districts 106 and 108 and the combined Canadian fisheries in the Stikine River and Stikine sockeye escapements, 1979-1992. Effort is for commercial fisheries only.

The 1992 fishing season in Districts 106 and 108 began on June 21 and continued until October 3. During the first week of the fishery (statistical week 26, June 21 to June 27), both District 106 and 108 were open for two days. The initial opening in District 106 is normally two days and any decision to extend fishing is based on fishery catch rates estimated by management biologists on site in the fishery. The initial District 108 opening was based on the preseason Stikine River sockeye forecast of 127,338 fish. Preliminary scale information and above average sockeye catches during the first week, of approximately 100 sockeye per boat, indicated a good run to the Stikine River so the fishing time for week 27 was set for three days. Due to high sockeye CPUE of over 100 sockeye per boat-day in District 106 during the first two days of the week 27 fishery, both districts were extended for an additional day. During the next four weeks (statistical weeks 28 through 31, July 5 to August 1) the SMM consistently indicated a very strong run to the Stikine River and the sockeye catches remained above average in both districts (Table 1, Appendix A.7). During the third through sixth weeks of the fishery both districts were open for three days each week and in each of these weeks District 108 was reopened later in the week for an additional two days. This management approach was used to provide sufficient fishing time to optimize the harvest of the large run of Stikine River sockeye salmon and limit the harvest of local island stocks in District 106 while maximizing the harvest of Stikine River stocks later in the week in District 108. By the seventh week (statistical week 32, August 2 to 8) of the fishery both districts were initially open two days to protect the smaller local stocks in District 106 while District 108 was reopened later in the week for three days because the SMM showed a U.S. TAC of 148,343 while only 82,055 Stikine River sockeye salmon were estimated to have been harvested by that time.

The District 106 gillnet fishery normally changes from sockeye to pink salmon management by statistical week 33 (August 9 to August 15). This season the pink salmon catch prior to week 33 in District 106 was substantially below the 1982 to 1991 even-year average of 213,416 fish. The low catch was due mainly to the lower than expected run of pinks to the district and the low price, which prompted a majority of the fleet to use large mesh nets and target on the larger chum and coho salmon. The District 108 pink salmon catch, however, was above the previous five-even-year average of 8,177 fish (Appendix B.7). The larger than average catch in District 108 was primarily due to good runs of pink salmon in Frederick Sound and the higher than average effort in the fishery. The fisheries were open for two days per week in weeks 33 and 34 when the fisheries were managed for pink salmon.

Coho salmon management in the District 106 gillnet fishery usually commences during late August or early September. During the tenth week of the fishery (statistical week 35; August 23 to August 29) the management emphasis changed from pink to coho salmon. Early season coho indicators in both the drift gillnet and troll fisheries indicated very good runs to Southeast Alaska. The openings for statistical weeks 36 through 39, August 30 to September 23, were set for three days each week due to the higher than average coho CPUE and high Alaska hatchery contribution. An estimated 34% of the District 106 and 29% of the District 108 harvests of coho salmon were from Alaskan hatcheries (coded wire tag estimates).

During the 1992 season, the gillnet fishery in District 106 was open for a total of 40 days (Appendix A.7), and in District 108 for 51 days (Appendix A.10). These were above the 1982 to 1991 averages of 29 and 22 days, respectively. District 106 fishing effort in numbers of vessels was greater than average throughout the season and was very high during the last six weeks of the fishery due to the high abundance and large catches of coho salmon. The greatest number of boat-days occurred in week 27

while the greatest number of boats fishing occurred at the end of the peak sockeye fishing during the last week in July in week 31 (126 permits), and during week 36 (128 permits), at the peak of coho fishing during the last week in August. Because of the extremely strong coho and chum runs the effort of 4,227 boat-days in District 106 was 74% higher than the 1982 to 1991 average (Appendix B.5; Figure 2). District 108 effort was higher than average due to the extended fishing time allowed to harvest the large run of Stikine sockeye and late running coho salmon. The 1,029 boat-days fished in District 108 was more than three times the 1982 to 1991 average of 296 boat-days (Appendix B.7; Figure 2). Most of the boats fishing during the mid-week openings in District 108 did not fish the entire opening so the effort in boat-days was adjusted to better reflect the time actually fished during these openings. For this reason the boat-days given in Appendix B.7 is less than that obtained by multiplying the number of permits fishing by the number of days the fishery was open.

Canadian Fisheries

Catches from the combined Canadian commercial and Indian food gillnet fisheries in the Stikine River in 1992 included: 1,840 large chinook, 239 jack chinook, 26,284 sockeye, 1,855 coho, 122 pink, 231 chum salmon, and 132 steelhead (Figures 3 and 4 and Appendix A.14 to A.18). The sockeye salmon catch was the second highest on record, whereas, the catches of all other species were below average (1982-1991) (Appendix B.21).

A test fishery was conducted again in the lower Stikine River, just upstream from the Canada/U.S. border, to determine migratory timing and stock composition of the sockeye run. Test fishery catches included: 614 large chinook, 182 jack chinook, 2,958 sockeye, 268 coho, 69 pink, and 66 chum salmon, and 26 steelhead (Appendix A.18).

Lower Stikine Commercial Fishery

The Canadian fishery in the lower Stikine harvested 873 large chinook, 89 jack chinook, 21,031 sockeye, 1,850 coho, 122 pink, 231 chum salmon, and 129 steelhead in 1992 (Appendix A.14). The sockeye catch was 47% above the 1982 to 1991 average of 14,326 sockeye (Appendix B.17) and was the second highest on record. Catches of all other species were below average.

The fishery commenced at noon on Monday, June 29 (statistical week 27), with a two day opening. Based on the preseason total run forecast of 127,338 sockeye salmon and a Canadian TAC of 30,000 sockeye, the guideline catch for week 27 was 3,290 sockeye. The sockeye catch and CPUE for the first week of the season were both well above respective previous ten-year averages, in fact the CPUE was 131% above average. High water and deteriorating fishing conditions towards the end of the second day prevented an extension of the opening. As a result, the week's catch was about 2,200 sockeye below the target for the week. The total run forecast based on week 27 inputs of catch, effort and stock composition data to the SMM was 166,588 sockeye; the Canadian TAC remained at 30,000 fish.

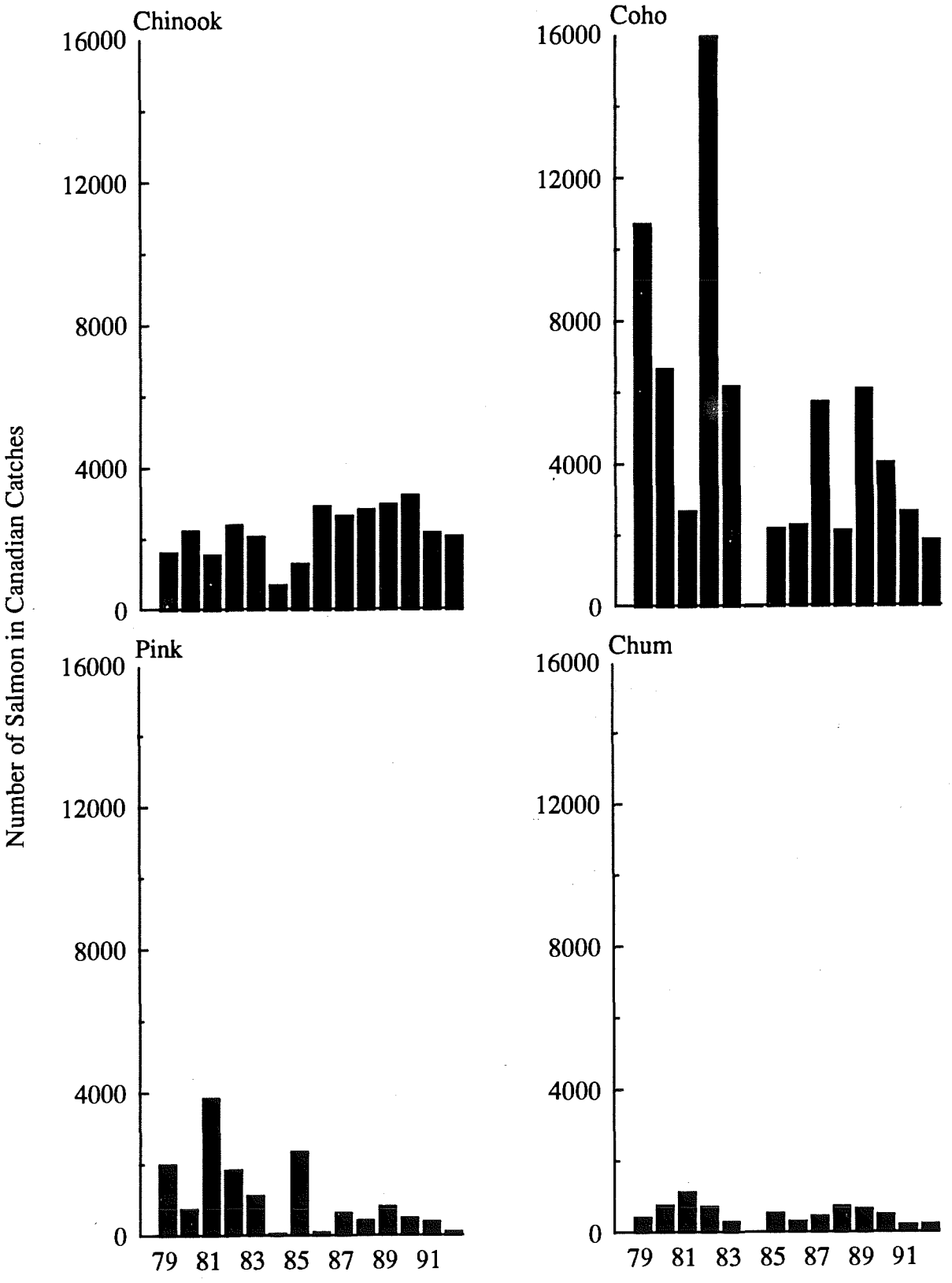

Figure 4. Catches of chinook, coho, pink, and chum salmon in the combined Canadian fisheries in the Stikine River, 1979-1992.

Above average test fishing catches of sockeye, above average commercial sockeye CPUE in the previous week, and a below average number of fishers, lead to a scheduled four day opening in week 28 (July 6-10). Record high CPUE values for the first three days prompted a 24 hour extension bringing the total days fished in week 28 to five. The sockeye catch and CPUE were records for the week and were 229% and 150% above the 1982 to 1991 averages. The SMM forecast increased to 202,620 sockeye salmon, with a near record Tahltan stock forecast of more than 125,000 fish. The cumulative catch after week 28 was 7,445 vs. the guideline of 6,300 sockeye salmon (Table 1).

Despite a record high CPUE in the lower Stikine test fishery prior to the opening, the initial fishing period in week 29 was posted for three days from July 13 to 16 to keep the harvest in line with the guideline. Fishing time was subsequently increased to a total of five days due to near record sockeye CPUE. Catches and effort for the initial three days were hampered somewhat by increasing water levels and a processing backlog from the previous week's record catch. Inputs from week 29 data resulted in a SMM total run forecast of 192,463 sockeye and a Tahltan run of about 103,000 fish. The contribution of the Tahltan stock to the lower river fishery dropped off to 57% this week, down from 85% in the previous week.

Fishing success remained excellent during week 30, and a record CPUE for the week was again achieved. Fishing time was increased from three to four days (July 20-24) and did not extend further due to consideration for the guideline cumulative catch which stood at 15,000 sockeye; the actual catch to date by the end of week 30 was approximately 800 fish above this guideline. The highest forecast of the season occurred from the week 30 data inputs; a total run of 229,284 sockeye of which 107,606 were estimated to be of Tahltan origin. The estimated Tahltan contribution dropped to 26% this week.

The fishery during week 31 was open for a total of five days (July 27-August 01), two days more than the initial posting. The sockeye CPUE after the first three days was 30% above average and the catch was lagging somewhat below the guideline target for the week, therefore, a two day extension was given. By the end of the week, the cumulative catch was within 500 sockeye of the weekly guideline. The SMM continued to forecast a total run in excess of 200,000 sockeye and a season TAC for Canada of 30,000 sockeye salmon.

In the next week, week 32, the sockeye strength was still above average and a two day extension to the scheduled three day fishery (August 3-6) was given to keep the harvest in line with the guideline. Catches dropped off after the first three days due, in part, to high water levels. As a result, only one permit holder fished day four, and no fishing occurred on the last day of this week. The cumulative catch fell approximately 1,100 sockeye behind the guideline cumulative catch for week 32, and from this week to the end of the season, fell progressively further behind as the sockeye run came to an end. Fishing time remained at four to five days per week through the end of the sockeye season and the number of fishermen dwindled to two.

With a final SMM sockeye run forecast of 225,125 fish, the TAC for the Canadian inriver fisheries was 30,000 sockeye, as it had been consistently throughout the season. Allowing for the harvest of 5,250 sockeye in upper Stikine fisheries, the total allowable lower Stikine catch was 24,750 sockeye. The actual catch was 3,719 sockeye below this target.

It was evident by July 20 that a near record or record escapement was headed towards Tahltan Lake. A request was made to allow a terminal harvest at Tahltan Lake to keep the escapement within the desired 20,000-40,000 fish range and prevent excessive spawners from reaching the spawning grounds. This request was discussed with ADF&G after which it was decided to approve a terminal fishery on July 24 under an *"Excess Salmon To Spawning Requirements License (ESSR)"* with the understanding that: a) a target escapement of 40,000 sockeye would be maintained; b) ADF&G was welcome to observe the terminal fishing operation; and c) profits from the sale of fish would go back into the Stikine salmon resources in some way. Unfortunately, the terminal fishing operation did not materialize due to logistical problems, the lack of sufficient lead time to organize a cost effective mode of transportation of sockeye from Tahltan Lake to markets, and marketing problems associated with a labor strike in B.C.

Management emphasis usually switches to coho towards the end of August. Low weekly effort levels (less than six fishers) prompted the scheduling of extended fishing periods (five days per week from August 31 through September 20 and seven days per week after September 20) when only one fisher remained on the river. However, the actual number of days fished varied from this schedule; the actual number of days fished during weeks 36, week 38 and week 39 was four days. In general, the coho run strength based on commercial CPUE appeared average to below average, with run peaks occurring in week 36 (August 31-September 06) and week 38 (September 14-20). The season total coho catch was 1,855 which included 1,850 coho in the lower Stikine commercial fishery and 5 coho in the IFF. The total harvest was 2,145 below the target of 4,000 Stikine coho.

Twenty permit holders participated in the fishery throughout the season with an average of only four people present each week, about 25% of the usual number. The total effort in terms of boat-days was 236, 38% below the 1982 to 1991 average of 380 boat-days. The lower effort level in 1992 was primarily due to the absence of the Tahltan Tribal Council commercial permit holders. Each fisher was allowed the use of one gillnet with a maximum length of 135 meters. A delayed opening to June 29 and a maximum mesh size restriction of 146 mm (to July 15) was implemented to reduce the incidental catch of chinook salmon. As in past years, both drift and set netting techniques were utilized.

Upper Stikine Commercial Fishery

A small commercial fishery has existed near Telegraph Creek on the upper Stikine River since 1975. The catch recorded in 1992 was 56 large chinook salmon, compared to the 1982 to 1991 average of 100 large chinook, 19 jack chinook salmon, and 822 sockeye, 40% above the 1982 to 1991 average catch of 587 fish, and (Appendices A.17 and B.19). The fishing effort was similar to that in previous years with one to three people fishing one day per week until mid-July, then up to four days per week for the balance of the season. The additional time fished in the latter half of the season was the result of the near record Tahltan Lake sockeye run.

Indian Food Fishery

The Indian food fishery, centered around Telegraph Creek, harvested 911 large chinook, 131 jack chinook, 4,431 sockeye, 5 coho salmon, and 3 steelhead. The chinook catch was 3% below the 1982 to 1991 average of 1,076 fish and the sockeye harvest was 7% above average. Weekly catches in 1992 and annual catches since 1975 are listed in Appendices A.18 and B.20, respectively, for the Stikine Indian food fishery.

Escapement

Sockeye

A total of 59,907 sockeye was counted through the Tahltan Lake weir in 1992 which was 137% above the 1982 to 1991 average of 25,277 sockeye, and well above the escapement goal range of 20,000 to 40,000 fish (Appendix B.25). This was the second highest count since 1959 when the weir program began. Of the total number of fish enumerated through the weir, 1,847 females and 1,847 males were taken for hatchery brood-stock, leaving a spawning escapement of 56,213 fish. The final inseason SMM indication of Tahltan escapement was 43,427 sockeye salmon, 28% below the actual weir count.

The total spawning escapement for the non-Tahltan stock group is estimated indirectly by computing the ratio of Tahltan to non-Tahltan components in the total inriver sockeye run from stock identification data collected in the lower river commercial and test fisheries. The ratio is applied to the estimated inriver Tahltan run size to develop an estimate of the total inriver non-Tahltan run size. The non-Tahltan escapement is estimated by subtracting the estimated catches of non-Tahltan sockeye in the Canadian fisheries. The estimate of non-Tahltan escapement is 65,392 sockeye based on egg diameter data to estimate inriver stock composition of catches, and inriver test fishery CPUE data to give run timing. This estimate was 79% above the 1982 to 1991 average non-Tahltan escapement of 36,524 fish. The final estimate derived inseason from the SMM was 69,386 sockeye.

Aerial surveys of non-Tahltan sockeye escapement index areas indicated above average numbers of spawners in 1992 (Appendix B.26). The 1992 cumulative index count of 1,723 sockeye was 96% above the 1984 to 1991 average of 880 fish. These surveys do not include all spawning populations; the index represents the combined counts from up to eight spawning areas.

Chinook

This was the eighth consecutive year of the operation of an adult chinook enumeration weir on the Little Tahltan River. The 1992 count of 6,627 large chinook was 46% above the 1985 to 1991 average of 4,528 large fish, and was above the Little Tahltan escapement goal of 5,300 chinook (Appendix B.28). This was the second highest weir count on record for Little Tahltan. The count of jacks was 131, 37% of the 1985 to 1991 average of 358 fish. Daily counts from the 1992 program are presented in Appendix A.24.

Results from aerial surveys conducted on Stikine River tributaries also indicated an above average chinook escapement in 1992 (Appendix B.29). Counts for 1992 were: Little Tahltan River, 3,607 chinook versus the 1982 to 1991 average of 2,008 chinook; Beatty Creek, 362 chinook compared to the average of 284 chinook; Tahltan River, 1,891 chinook versus the average of 1,923 chinook; and Andrew Creek, 778 chinook versus the average of 566 chinook (Figure 5).

Coho

The lower Stikine River test fishery ended on statistical week 36 (week ending September 05) which precluded complete coverage of the coho run. From historical test fishery catch records, 1986 to 1990, approximately 75% of the coho run migrated through the lower river by the end of week 36. The cumulative coho test fishery CPUE was expanded (3.23/0.75) and the calculated cumulative coho CPUE was expressed as a percentage of the total cumulative sockeye CPUE of 14.52. The inriver coho run was estimated to be 30% that of the inriver sockeye run size of 154,539 fish, or 45,837 coho salmon. Subtracting the combined inriver catch of 1,855 coho in the Canadian commercial and Indian food fishery, and 268 coho taken in the inriver test fishery, gives an estimated total coho escapement of 43,714 fish, which is within the interim escapement goal range of 30,000 to 50,000 coho. Results from an aerial survey conducted on Stikine River tributaries indicated an above average escapement of coho salmon. A total of 3,688 coho salmon was observed compared to the 1984 to 1991 average of 2,502 fish (Appendix B.30).

Stikine Sockeye Run Reconstruction

The estimated Stikine sockeye run was 231,927 fish of which 104,895 were of Tahltan Lake origin and 127,031 were non-Tahltan fish (Table 2). The 1992 total run estimate, based on inriver egg diameter stock separation data, scale pattern analyses of samples collected in Districts 106 and 108, and catch and escapement data, was the highest on record and was 2.4 times the 1982 to 1991 average run size of 96,432 sockeye salmon. The 1982 to 1991 average run sizes of Tahltan and non-Tahltan stock components were 44,719 and 51,713 sockeye salmon, respectively.

The estimated run sizes were well above the preseason forecasts for a total run of 127,338, a Tahltan run of 55,912 sockeye and a non-Tahltan run of 71,426 sockeye. For the Tahltan run, the sibling forecast of 80,962 fish was closer than the smolt-recruit forecast to the actual run size although it was only 77% of the postseason estimate. For the non-Tahltan stock the sibling forecast of 96,782 fish out-performed the spawner-recruit forecast recruitment data and represented 76% of the postseason run size estimate.

The better than expected Stikine River sockeye run sizes in 1992 was due to exceptional marine survival, as indicated by the large run of Tahltan Lake adults from the smolt counts of 580,574 in 1989 and 610,407 in 1990. The Tahltan smolt-to-adult survival was approximately 21%, compared to the 1984 to 1988 average of 5%.

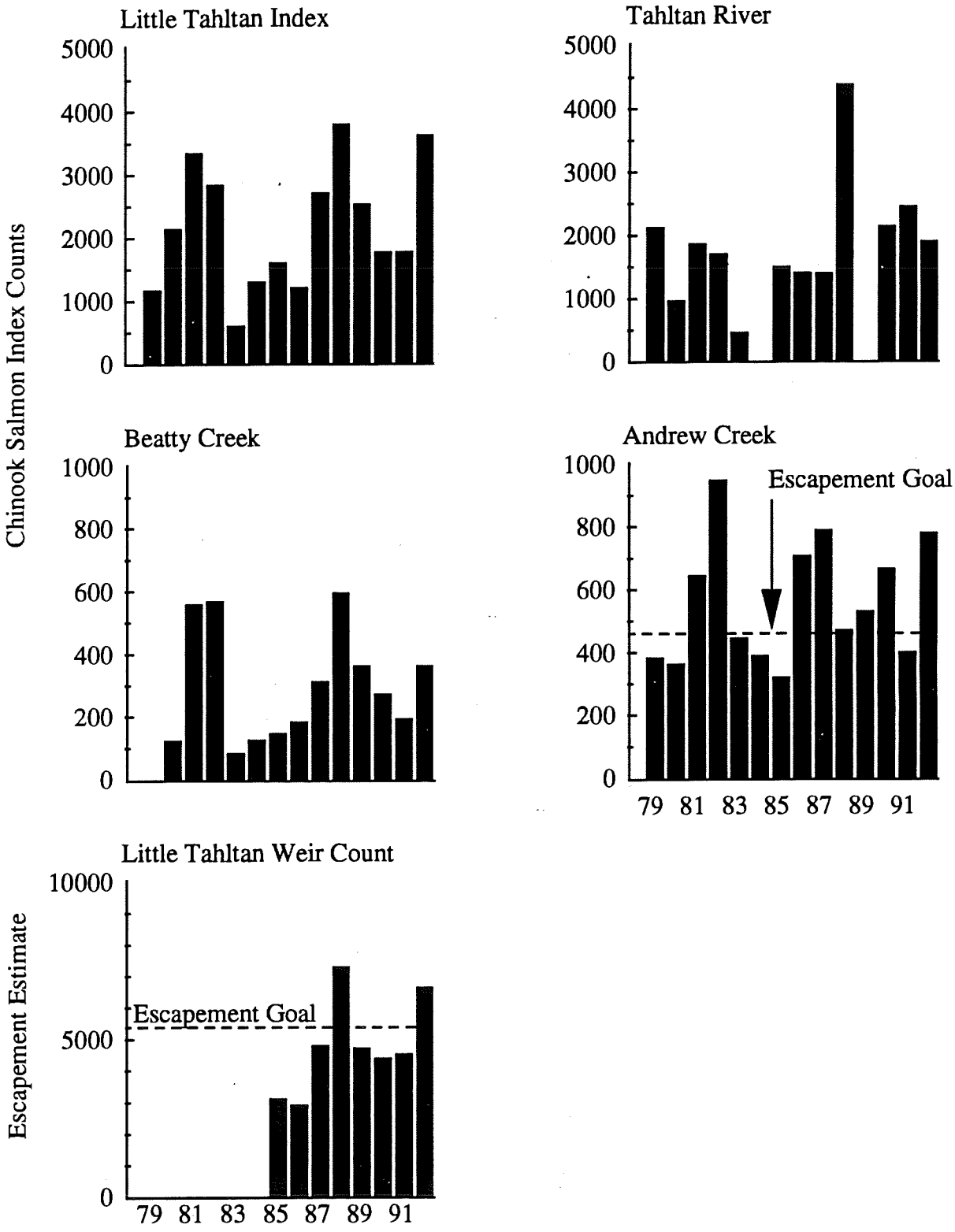

Figure 5. Chinook salmon weir counts and index escapement estimates for major spawning areas and for the entire Stikine River, 1979–1992.

The SMM appeared to be successful in forecasting the total run size this season. The final SMM forecast of the total run size, 225,125 sockeye salmon, was 3% below the postseason estimate of a total run of 231,924 fish. The SMM was reviewed and updated to include 1992 data for making predictions during the 1993 season.

Table 2. Run reconstruction for Stikine sockeye salmon, 1992. Numbers may not sum due to rounding.

	Tahltan	non-Tahltan	Total
Escapement	59,907	65,392	125,299
Canadian Harvest			
Indian Food	3,988	443	4,431
Upper Commercial	740	82	822
Lower Commercial	10,132	10,897	21,031
Total	14,862	11,422	26,284
% Harvest	35%	19%	26%
Test Fishery Catch	1,912	1,046	2,958
Inriver Run	76,681	77,860	154,542
U.S. Harvest[a]			
106-41&42	12,957	13,001	25,958
106-30	1,226	7,778	9,004
108	13,599	27,818	41,417
Total	27,782	48,597	76,379
% Harvest	65%	81%	74%
Test Fishery Catch	432	574	1,006
Total Run	104,895	127,031	231,927
Escapement Goal			
Minimum	20,000	20,000	40,000
Maximum	40,000	40,000	80,000
Total Allowable Catch			
Minimum	64,895	87,031	151,927
Maximum	84,895	107,031	191,927
Actual Catch	44,988	61,639	106,627

[a] U.S. harvest estimate differs from Joint Interception Committee estimate because no estimates are made for catches other than the listed fisheries.

The 1992 Tahltan sockeye smolt count totaled 1,555,026 fish and originated primarily from the 1990 spawning escapement of 11,625 sockeye (the 1990 Tahltan weir count of 14,927 sockeye minus the 3,302 fish taken for brood stock) and the 1991 fry plant of 3,585,000 fish. Otoliths extracted from a random sample of smolts from the 1992 emigration indicated that there were 750,702 (48%) wild smolt and 804,324 (52%) hatchery smolt in the outmigration.

TAKU RIVER

Taku River salmon are harvested in the U.S. gillnet fishery in District 111, the Southeast Alaska seine and troll fisheries, the Juneau area sport fishery and a Taku inriver personal use fishery (Figure 6). Canadian fisheries for Taku River salmon include a commercial gillnet fishery located in the river near the U.S./Canada border, a sport fishery, and an Indian food fishery.

Harvest Regulations

The 1988 to 1992 harvest and management of Taku River salmon stocks is governed by Annex IV, Chapter 1, of the Pacific Salmon Treaty as negotiated at the February 1988 meeting of the Pacific Salmon Commission. The annex allows Canada to harvest 18% of the TAC of sockeye salmon originating in Canadian portions of the Taku River, 3,000 coho salmon, and incidental catches of other species. This regime is conditional on the Parties proceeding with a cooperative sockeye enhancement program which began in 1990 and was continued through 1992.

Prior to the 1992 fishing season, the Transboundary Technical Committee met to exchange management plans for the Taku River. The results from this exchange are documented in: ***Salmon Management and Enhancement Plans for the Stikine, Taku, and Alsek rivers, 1992, Pacific Salmon Commission Transboundary Technical Committee Report TCTR (92)-2, June 1992.***

U.S. Fisheries

The District 111 drift gillnet fishery was opened June 21 and closed on September 29, for a total of 50 fishing days (Appendix C.1). Only 43 of these days were open to harvest fish in Taku Inlet. The balance of the fishing time was provided to harvest fish in Stephens Passage and Speel Arm, inside Port Snettisham. Fishing time was 23% above the 1982 to 1991 average of 40.5 days, primarily as a result of fishing time extensions for pink salmon in Section 11-C and a return to a normal 3-day opening during the fall coho fishery. Fishing effort, 4,550 boat-days, in District 111 for 1992 was 76% above the 1982 to 1991 average (Appendix D.1).

Catches in the District 111 drift gillnet fishery were among the largest in the history of the fishery, with records set for sockeye and coho salmon, and near records for pink salmon and summer chum salmon (Figure 7, Appendix D.1). The harvest included 2,341 chinook, 135,411 sockeye, 172,662 coho, 314,445 pink, and 112,527 chum salmon (Appendix C.1). Catches of sockeye and fall chum salmon were comprised primarily of mixed wild stocks from the Taku River, Port Snettisham, and drainages in lower Stephens Passage. Catches of chinook, pink, summer chum, and coho salmon were comprised of both wild stocks and local hatchery stocks. In addition to the commercial fishery, a small gillnet test fishery was conducted inside Port Snettisham from July 8 to August 5. The purpose of the study was to monitor

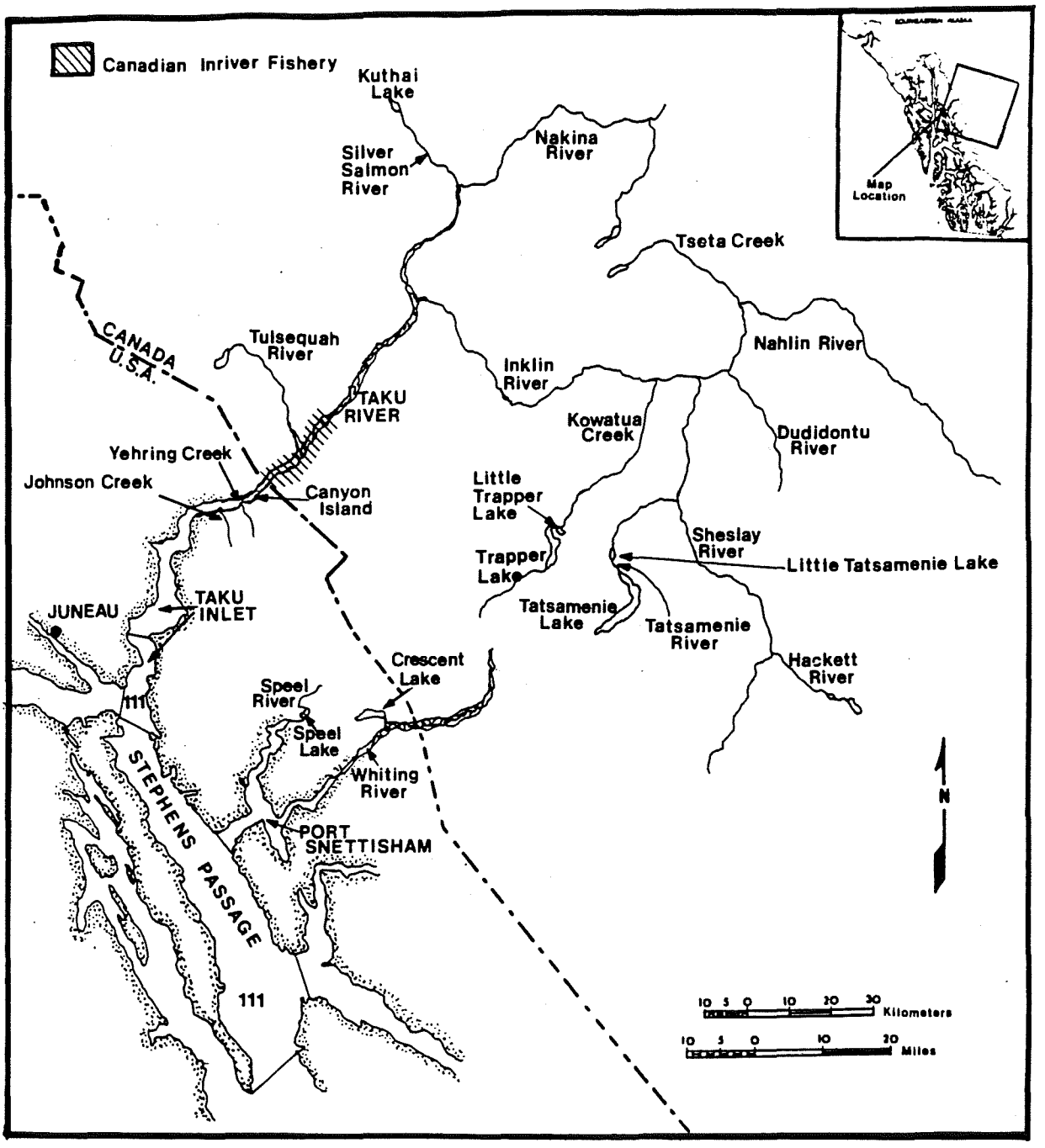

Figure 6. The Taku River and principal U.S. and Canadian fishing areas.

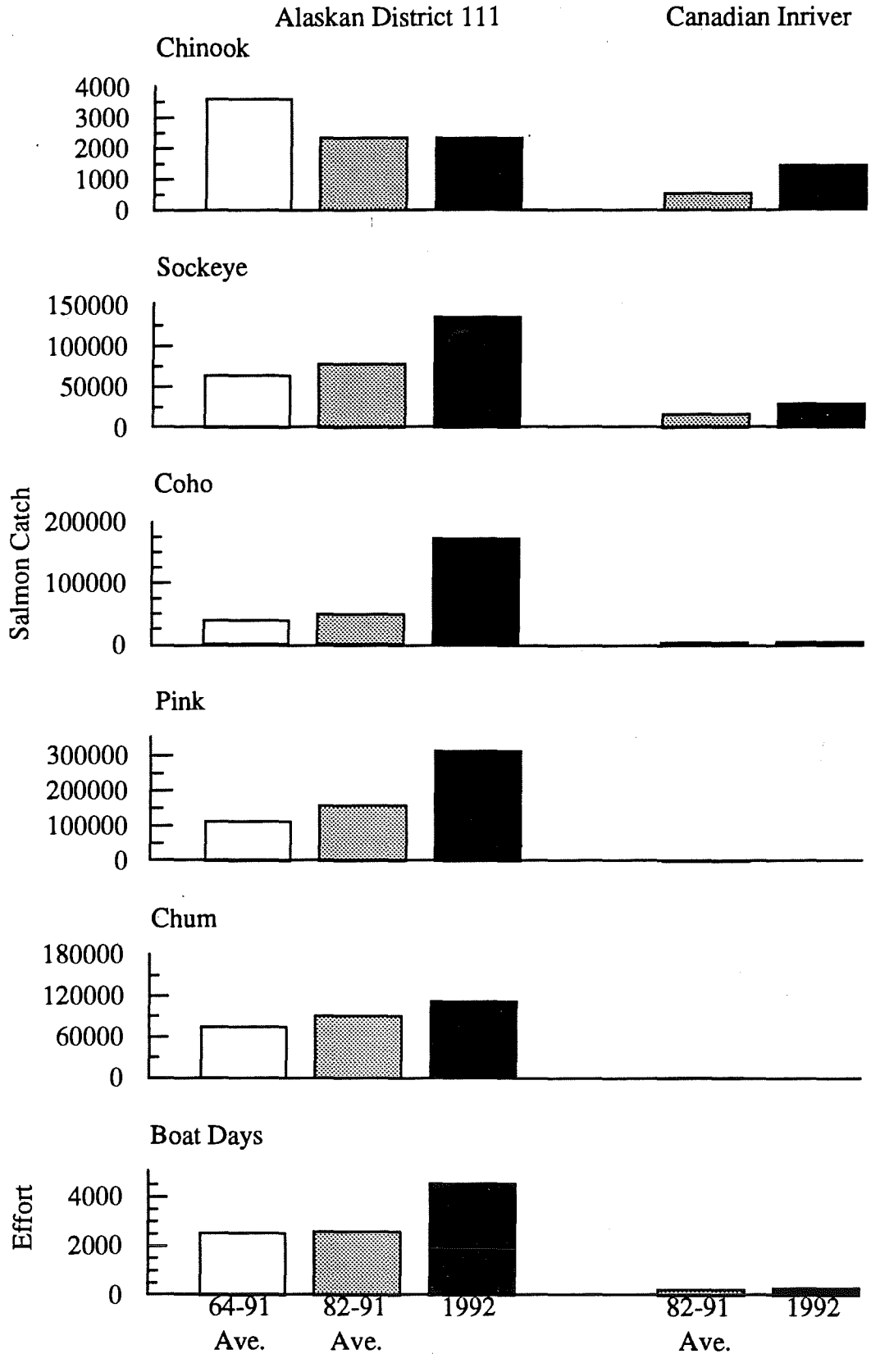

Figure 7. Average catches and fishing efforts compared with 1992 values for the Alaskan District 111 commercial fishery and the Canadian commercial fishery in the Taku River.

sockeye abundance in Gilbert Bay and at the mouth of the Whiting River. Catches during this five-week test fishery totalled 2 chinook, 42 sockeye, 216 pink, and 21 chum salmon (Appendix C.2).

The chinook salmon harvest of 2,341 fish equalled the 1982 to 1991 average and was comprised primarily of small immature chinook. Historically the majority of spawner chinook harvest occurs within the first three weeks of the fishery. An estimated 30% (695 fish) of the catch was from hatchery releases, primarily from Juneau area enhancement projects. Fishery openings in Speel Arm to harvest excess chinook spawners returning to Snettisham Hatchery contributed 110 spawners.

The sockeye harvest of 135,411 fish was the largest sockeye catch on record, 74% above the 1982 to 1991 average, and 7% above the previous record of 126,884 sockeye salmon, set in 1990. Sockeye catches were distributed between Taku Inlet (103,238 fish), Stephens Passage (28,073 fish), Speel Arm (2,742 fish) and Lower Stephens Passage (1,358 fish). Although both Taku River and Port Snettisham sockeye stocks are found in the Taku Inlet and Stephens Passage, it is assumed that Stephens Passage catches are comprised of a higher proportion of Port Snettisham stocks.

In-season scale pattern stock composition estimates were not made in 1992. A combined analysis of scale patterns and brain parasite (*Myxobolus arcticus)* incidence was performed postseasonally to estimate the stock compositions of sockeye salmon catches in District 111. Approximately 90% of the catch (122,439 fish) was estimated to be of Taku River origin, with the remainder (12,972 fish) being of Port Snettisham origin. The Taku River mainstem stock group contributed an estimated 45% of the catch (60,231 fish), followed by Little Trapper Lake (22%; 29,801 fish), Tatsamenie Lake system (19%; 25,840 fish), Speel Lake (6%; 8,053 fish), Kuthai Lake (5%; 6,578 fish) and Crescent Lake (4%; 4,908 fish) stocks.

The summer chum run was the third largest on record since hatchery returns of summer chum salmon began in 1984. The total summer chum catch of 97,725 fish (i.e. the District 111 chum harvest through statistical week 33; through August 14 in 1992) was 71% above the 1982 to 1991 average, but below the 1990 and 1991 harvests. The majority of the catch of summer chum salmon is believed to have been of hatchery origin, however reliable CWT-based estimates are not available to quantify the contribution of hatchery stocks.

In contrast to the summer chum salmon run, the fall chum salmon run was poor in 1992. The total fall chum salmon harvest (i.e. chum salmon caught after statistical week 33) was 14,802 fish. This is only 46% of the 1982 to 1991 average and is the fifth smallest fall chum salmon harvest on record. Chum salmon taken in the fall in District 111 are exclusively wild chum stocks from the Taku River and Port Snettisham.

The District 111 pink salmon harvest of 314,445 fish is the second largest catch on record and almost three times the 1982 to 1990 even year average of 116,541 fish. Large catches were a result of excellent pink salmon runs to the Taku River, Stephens Passage streams and DIPAC hatchery.

The total coho salmon catch of 172,662 fish is the largest harvest on record, 37% above the previous record set last year of 126,436 coho salmon, and over three times the 1982 to 1991 average. The exceptional harvest resulted from large wild coho salmon runs to the Taku River and hatchery fish to the

DIPAC facility near Juneau. The estimated DIPAC contribution to the District 111 gillnet catch is approximately 45,474 fish, or 26% of the coho catch.

Except for one four-day opening in statistical week 33 (August 10-14), Taku Inlet was opened for three days a week for the entire summer season (prior to August 16). Extensions were considered as early as statistical week 29, because of the large sockeye catches and high fish wheel CPUE, but were not made in order to assure sufficient escapement into Tatsamenie Lake. An additional 24 hours of fishing time was provided during statistical week 33, after the majority of the Tatsamenie sockeye stocks were believed to have passed, in an effort to increase the District 111 sockeye catch percentage of the TAC. In an effort to harvest excess Port Snettisham hatchery chum salmon returning to Port Snettisham and Limestone Inlet, an additional 24 hours was allowed in Stephens Passage, south of Circle Point, during statistical week 28. This area was restricted to a minimum mesh size of six inches during this week in order to target chum salmon and minimize interceptions of the Port Snettisham sockeye salmon stocks.

Section 111-C was opened during statistical weeks 31 through 34 (July 26 to August 21) for a total of 19 days in an effort to harvest the strong pink runs in lower Stephens Passage. Twenty four boats fished the area, catching a total of 26 chinook, 1,358 sockeye, 962 coho, 31,125 pink, and 2,346 chum salmon. The majority of the catch occurred during statistical weeks 31 and 32.

Speel Arm, in Port Snettisham, was opened for 5 weeks during the 1992 summer season. Two additional days beyond the standard 3-day opening were provided during each of statistical weeks 26 and 27 to harvest chinook salmon returning to Port Snettisham hatchery. These fish were excess to hatchery brood stock needs. Speel Arm was again open from statistical weeks 32 to 34 to harvest Speel Lake sockeye when the Speel Lake weir count indicated the sockeye escapement would exceed the escapement goal.

Fall management was initiated on August 18 (statistical week 34), when the District 111 gillnet fishery was opened for three days. The coho catches at this time were above average while the chum catches were below average. Fishing time was restricted to two days beginning August 23 (statistical week 35) to conserve chum salmon. Fishing time remained at two days during the next week (statistical week 36) due to the below average chum run, despite increasing coho CPUE. The coho harvest jumped to a record weekly catch of 22,722 during statistical week 36. ADF&G responded to the increasing coho CPUE by initiating a 3-day opening the following week (statistical week 37). The 3-day weekly fishing schedule was maintained during the next two weeks as coho CPUE remained exceptionally high. The weekly harvests during this 3-week period were 38,848, 44,218, and 25,921 coho salmon respectively. These were the largest coho catches ever recorded for these weeks, and were five to ten times the 1982 to 1991 weekly averages. Contribution of hatchery stocks of coho salmon peaked during these weeks. Fishing time was reduced to two days during statistical week 40, when the previous week's catch indicated the peak of the run had passed. Only 2,701 coho were harvested during statistical week 40. The District 111 drift gillnet fishery was closed for the season on September 29.

Several other fisheries in District 111 harvested transboundary river stocks. The personal use fishery located in U.S. portions of the Taku River harvested an estimated 37 chinook, 2,031 sockeye, 147 coho, and 170 pink salmon (Appendix D.4). The spring sport fishery near the mouth of the Taku River harvested an estimated 630 mature wild spawners between mid-April and mid-June. A number of stocks

are thought to contribute to the fishery, including those from the Taku, Chilkat, King Salmon and Unuk rivers, and local hatchery stocks; however, the majority of the mature fish are believed to be of Taku River origin. The purse seine fishery in Chatham Strait was opened north of Point Marsden during the month of July because pink salmon test fishery catches were high and pink salmon escapements into Lynn Canal and Stephens Passage were strong. The fishery was opened for one 15-hour opening on July 23, and harvested 2 chinook, 12,529 sockeye, 864 coho, 218,873 pink and 18,673 chum salmon.

Canadian Fisheries

The Taku River commercial fishery harvested 1,445 large chinook, 147 jack chinook (fish less than 2.27 kg), 29,472 sockeye, 4,077 coho, 0 pink, 7 chum salmon, and 15 steelhead in 1992 (Appendix C.5). The sockeye catch was the highest on record and was 77% above the 1982-1991 average of approximately 16,671 sockeye salmon. The catch of large chinook was a record, 157% above the 1983 to 1991 average of 563 fish, whereas, the catch of jack chinook salmon was 77% of the 1983 to 1991 average of 190 jack chinook salmon. The coho catch was 15% above average, whereas, pink, chum and steelhead catches were below average (Figure 7, Appendix D.5). The fishery was open for a total of 27 days, similar to the 1982 to 1991 average. The seasonal fishing effort was 291 boat-days compared to the 1982 to 1991 average of 236 boat-days.

In addition to the commercial catches, the Indian food fishery harvested 121 chinook, 250 sockeye, 187 coho and 16 steelhead in 1992.

The Taku River Tlingit First Nation, in cooperation with DFO, conducted a creel census of the Nakina River sport fishery in 1992. This was the first year that this program has operated. Data has not yet been analyzed, however preliminary information suggests that the fishing activity was limited early in the season due to exceptionally high water levels.

The commercial fishery commenced at noon on Monday, June 22, (statistical week 26) for a scheduled opening of two days. Below average sockeye CPUE resulted in a fishery closure after 48 hours. Sockeye catches and CPUE remained below average during the following three weeks when poor fishing conditions resulted from very high water conditions. Weekly fishing times in this period varied from one day (June 29) to four days (July 6-9), however, the four-day fishery in week 28 was interrupted by a flood caused by the sudden discharge of Tulsequah Lake beneath a glacier at its outlet.

The first inseason projection of the total run was made in week 29 on July 17 at which time a total run of 168,000 sockeye salmon was forecast, close to the Canadian preseason forecast of 169,000 sockeye (Table 3). According to average run timing, the guideline cumulative Canadian catch through week 29 was 7,200 sockeye; the actual catch to date was approximately 500 fish below this target.

Table 3. Canadian inseason forecasts of total run size, TAC, and Canadian TAC and catch of Taku sockeye salmon, 1992.

Statistical Week	Canadian Total Run	Cumulative TAC	TAC	Catch
Preseason	169,000	94,000	16,920	
29	168,488	93,488	16,828	6,746
30	261,800	186,800	33,624	15,397
31	246,777	171,777	30,920	19,698
32	251,385	176,385	31,749	24,271
33	251,385	176,385	31,749	29,051
34	251,385	176,385	31,749	29,082
Final	251,385	176,385	31,749	29,472

The three-day fishery in week 30 (July 20-23) was exceptional producing a record weekly sockeye catch of 8,700 fish and a record sockeye CPUE which was 139% above the 1982 to 1991 average for this week. Additional fishing time was considered, however, a backlog in fish handling lead to a closure after 72 hours. Record daily and weekly fishwheel catches occurred in the joint Canada/U.S. mark-recapture program at Canyon Island also during this week. Not surprisingly, the Taku sockeye run forecast jumped to approximately 262,000 sockeye salmon (Table 3).

Fishing time was extended from the three-day initial posting, to four days in week 31 (July 27-31) in response to above average sockeye run strength, as indicated by the commercial CPUE and the Canyon Island fishwheel catches, and to the guideline harvest for the week. The sockeye CPUE in the commercial fishery was 46% above average and the Canyon Island fishwheel catches were well above average, roughly 200 sockeye salmon per day. The run forecast declined to 247,000 sockeye salmon and the TAC forecast was 167,000 to 176,000 fish. The guideline cumulative catch through this week was approximately 24,300 and the week ended with the actual catch 4,600 fish below this target.

A three-day fishery was again scheduled for week 32 (August 3-6) and sockeye catches and CPUE in both the commercial fishery and Canyon Island fishwheels continued to be well above average. Fishing time would have been extended, however radio problems resulted in no communication between Whitehorse and the fishery during the third day of fishing; therefore the fishery closed as scheduled and the cumulative catch remained approximately 3,800 below target. The final inseason run forecast was made at the end of week 32 indicating a total Taku sockeye run of 251,400 fish, a TAC of 171,400 to 180,400 fish and a Canadian season catch target of to 30,900 to 32,500 sockeye salmon.

A 24-hour extension was given to the scheduled three-day opening in week 33 (August 10-13) due to above average sockeye CPUE which was approximately 100 sockeye per boat-day after 2.5 days based on interviews with fishermen. The CPUE continued at this level throughout the opening. Up until this point of the season, incidental coho catches had been well above average, so much so that the 3,000 coho salmon quota was surpassed in this opening. However, at this time there was still a significant shortfall in the Canadian sockeye catch and, therefore, fishing was allowed to continue after week 33 to target on sockeye salmon which were still abundant.

The fishery in week 34 was posted for 48 hours to test the sockeye run strength relative to coho abundance. Unfortunately, another Tulsequah flood occurred on the day before the opening and fishing essentially ended after the first 24 hours due to poor fishing conditions. The final fishing period of the season occurred in week 35, a two-day opening from August 23-25. The sockeye CPUE in this week was still above average and the sockeye-to-coho ratio was still greater than one.

Based on ADF&G analysis of scale patterns, the Taku River mainstem stock group comprised an estimated 57% (16,764 fish) of the inriver commercial catch. The Little Trapper Lake stock contributed an estimated 24% (7,085 fish) of the catch, while the Tatsamenie and Kuthai lake stocks contributed an estimated 10% (2,924 fish) and 9% (2,699 fish) of the sockeye catch, respectively.

Based on the postseason total run size estimate of 286,473 Taku River sockeye salmon, the TAC was estimated to be 206,473 to 215,473 sockeye salmon of which Canadian fishers were entitled to harvest 37,165 to 38,785 sockeye, ie. 18% of the TAC. The actual harvest (29,722 fish) was estimated at 7,443 to 9,063 fish below this target representing about 14% of the TAC.

The combined commercial and Indian food fishery catch of coho salmon was 4,214 fish which was above the Annex provision of 3,000 fish. The quota was exceeded due to above average incidental catches of coho during the directed sockeye fishery; there was no directed fishery on coho salmon.

As in recent years, both set and drift gillnetting techniques were utilized with the majority of the catch taken in drift gillnets. Mesh sizes were restricted to less than 146 mm through mid-July to minimize the incidental catch of chinook salmon. In addition to this gear, one fishwheel was used by a commercial fisher.

Escapement

Sockeye

The total spawning escapement of sockeye salmon in the Canadian portion of the Taku drainage was estimated from the joint Canada/U.S. mark-recapture program. Counting weirs at Little Trapper and Little Tatsamenie lakes and, to some extent, the Nakina River carcass weir, provided information on the distribution and timing of discrete spawning stocks within the watershed. In 1992, an additional sockeye enumeration program was conducted at Kuthai Lake by the Taku River Tlingit First Nation.

The Taku River sockeye spawning escapement estimate of 132,243 fish (Appendix C.10) was the highest recorded since the joint U.S./Canada mark-recapture program began in 1984. This exceeded the 1984 to 1991 average of 95,076 sockeye by 39%, and was 65% above the upper limit of the interim escapement goal range of 71,000 to 80,000 sockeye salmon (Figure 8 and Appendix D.8).

The sockeye escapement through the Little Trapper Lake weir was 14,372 fish (Appendix C.12), the second highest count on record, and was 14% higher than the 1983 to 1991 average of 12,648 fish.

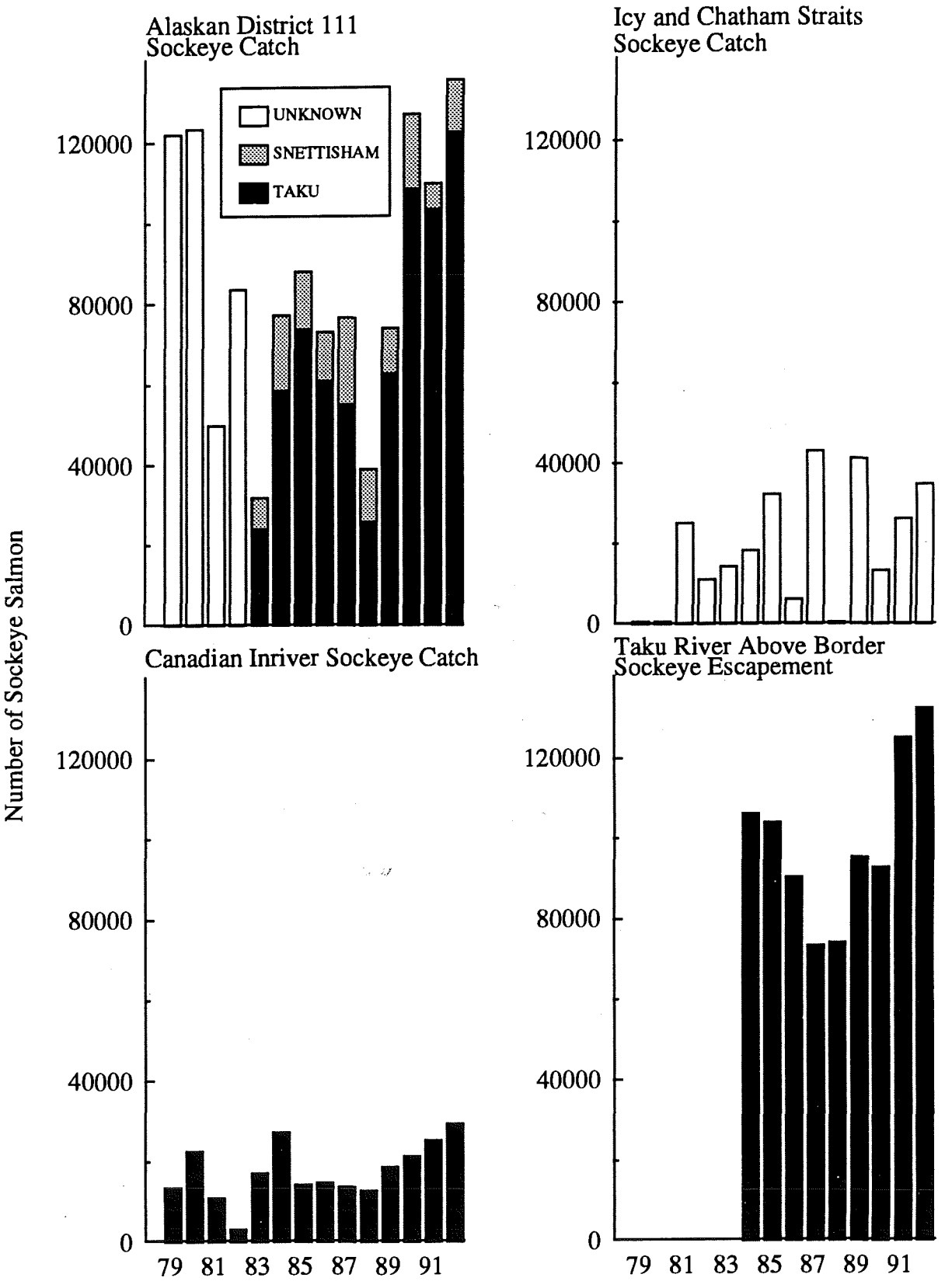

Figure 8. Sockeye catches for the Alaskan District 111, the Icy and Chatham Straits, and the combined Canadian fisheries in the Taku River and Taku sockeye escapements, 1979-1992.

The sockeye escapement through the Little Tatsamenie Lake weir was 6,576 sockeye salmon (Appendix C.11), close to the 1985 to 1991 average of 6,650 fish. Compared to the principal brood year escapements in 1987 and 1988 of 2,794 and 2,063 sockeye, respectively, the 1992 sockeye escapement to this system was a marked improvement.

Sockeye salmon were counted through three other weirs in the Taku River drainage, however complete counts were not obtained at any of these sites. The Nakina River weir was operated primarily to collect chinook salmon carcasses for biological sampling, however 804 upstream-migrating sockeye salmon were counted through the fence (Appendix C.13). The Nahlin River weir was not installed until the sockeye salmon run past the weir site was well underway. Therefore the Nahlin River weir count of 297 sockeye salmon (Appendix C.14) was an underestimate of the number of fish passing the weir site. The sockeye count through the Kuthai Lake weir was 1,400 fish, although this was considered to be an incomplete count since the weir was removed before the sockeye migration into the lake had finished (Appendix C.15). Previous weir counts at Kuthai Lake were 1,658 sockeye in 1980 and 2,299 sockeye in 1981.

Sockeye escapement estimates for Speel and Crescent lakes, waterbodies which drain into Port Snettisham, surpassed the escapement goals set for these systems. The Speel Lake escapement of 9,439 fish (Appendix C.14), determined by weir enumeration, was 15% above the 1983 to 1991 average of 8,229 fish (Appendix D.8).

The Crescent Lake weir count was 7,745 sockeye salmon. However, due to a serious problem of fish passing through the Crescent Lake weir uncounted, as was noted in previous years, a program initiated in 1991 to assess the magnitude of the uncounted portion of the escapement was continued in 1992. Virtually all of the sockeye salmon that were counted at the weir were marked with distinct fin clips and released upstream of the weir. Surveys of spawning grounds above the weir were conducted by foot during which sockeye were captured and examined for marks. Approximately one in three sockeye examined on the spawning grounds were marked. The mark-recapture estimate of the Crescent Lake sockeye escapement was 22,674 fish, exceeding the interim escapement goal of 22,000 sockeye. The accuracy of historical Crescent Lake weir counts is questionable given the results of the mark-recapture programs in 1991 and 1992. Therefore, comparisons of estimates since 1991 to prior weir counts may be misleading.

Chinook

Above average chinook escapements were observed in all of the Taku River tributaries surveyed in 1992. The total chinook aerial escapement index count was 11,058 chinook which was 54% above the 1982 to 1991 average of 7,176 fish, but below the index escapement goal of 13,200 chinook (Figure 9). The 1992 combined count was the second highest recorded since the aerial survey indices were standardized in 1974. The index consists of peak aerial counts from the Nahlin, Nakina, Kowatua, Tatsatua and Dudidontu rivers and Tseta Creek (Appendix D.9).

A total of 720 chinook was counted at the Little Tatsamenie Lake weir, similar to the 1985-1991 average of 645 fish.

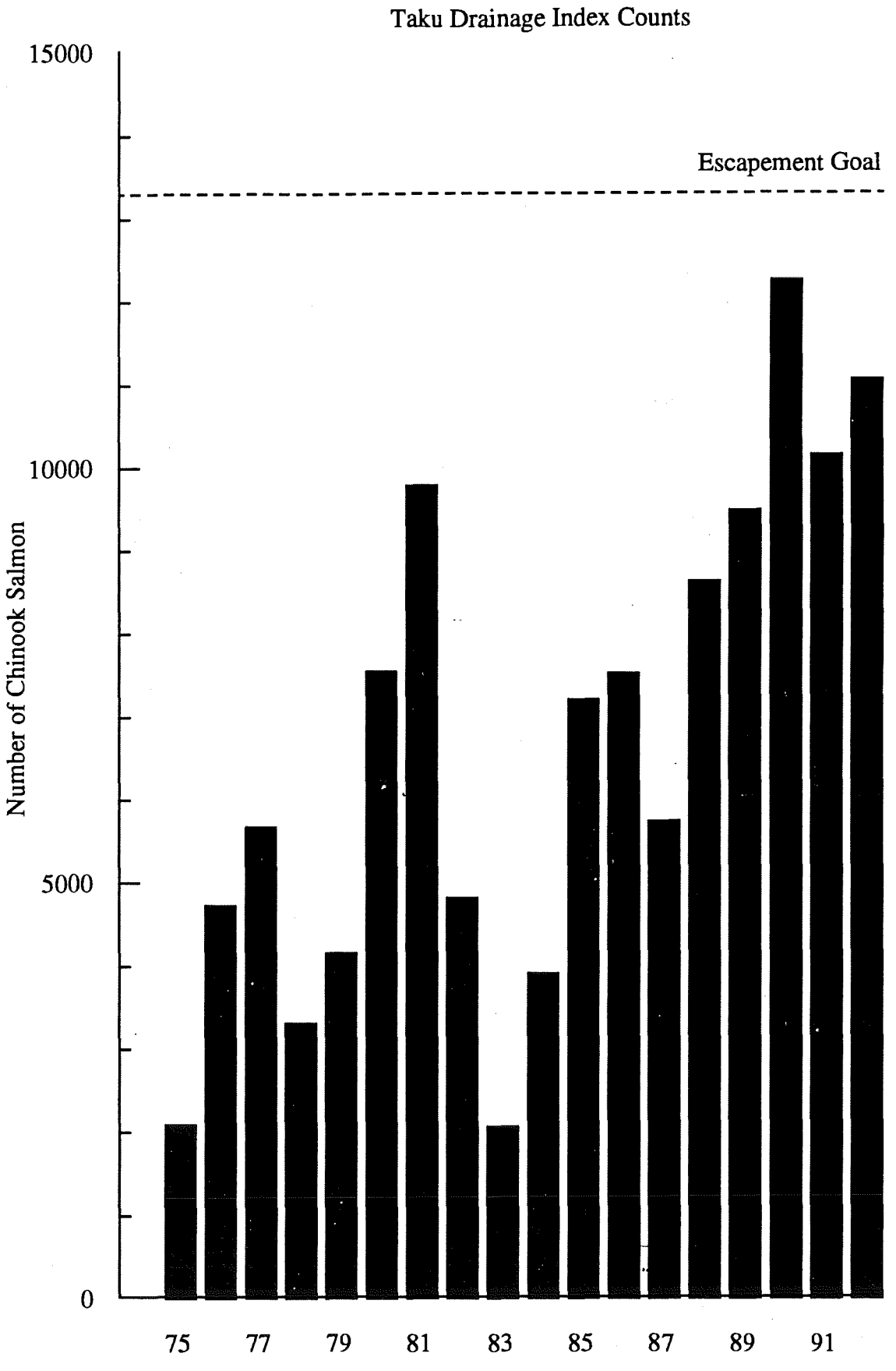

Figure 9. Taku River chinook index escapement counts, 1975-1992.

Age composition data of the Nakina River chinook run was collected again in 1992, at the Nakina River carcass weir which has been in continuous operation since 1973. Altogether, 899 female and 2,774 male carcasses were sampled in 1992.

Coho

Efforts were made to continue the joint U.S./Canada mark-recapture program through the entire coho salmon run by modifying one of the Canyon Island fish wheels to a three-basket design. The modifications were made to improve the effectiveness of the fish wheel at low water levels which have been problematic for the two-basket fish wheels in previous years. Unfortunately, the program was hampered by exceptionally low water levels throughout the months of September and October. During most of this period the fish wheels were rendered ineffective as a method of live-capturing coho salmon for tag deployment.

Results of the mark-recapture studies indicated an estimated 50,249 coho salmon (95% confidence interval of 29,226 to 71,272 fish; Appendix C.10) migrated past Canyon Island by end of statistical week 36 (September 5). The total above-border run size is not accurately known, but can be estimated by expanding the mark-recapture estimate by the proportion of the CPUE in the District 111 fishery which occurred after the tagging program ended. The calculation is dependent on the amount of time it takes coho salmon to migrate from District 111 to the tagging site. Assuming it takes fish an average of one week to travel the distance, the estimated above-border run size would be 90,165 and the escapement would be 84,624. Assuming an average travel time of 1.5 weeks, the above-border run size estimate would be 113,696 with an escapement of 178,145 coho salmon. The interim above-border escapement goal range is 27,500 to 35,000 coho salmon.

The U.S. National Marine Fisheries Service (NMFS) conducted the first of a two year study to obtain detailed information on stock structure, migration timing, and spawning distribution of Taku River coho salmon. A total of 444 adult coho salmon were tagged with radio transmitters; 355 were applied at Taku Point and 89 at Canyon Island. The fish were tracked throughout the drainage by a system of remote automatic data recording stations (Figure 6). The system is a result of several years of development and testing by the NMFS. Information on movement patterns in the mainstem above and below the U.S./Canada border was collected by aerial tracking surveys.

The count of coho salmon through the Little Tatsamenie Lake weir was 730 fish, 32% above the 1985 to 1991 average of 552 coho salmon.

The Taku River Tlingit First Nation operated a coho salmon enumeration weir on the Nahlin River, however the program was discontinued approximately four weeks earlier than planned due to budget limitations. A total of 720 coho salmon was counted through the weir, and 250 fish were holding below the weir when it was removed on September 9.

Pink

There was no program to directly estimate the escapement of Taku River pink salmon in 1992, since 1992 was not a peak cycle year for this species. Generally, even-year pink salmon runs to the Taku River are much weaker than the dominant odd-year runs. A total of 9,251 pink salmon was captured at the Canyon Island fish wheels compared to the 1986 to 1990 even-year average of 8,199 pink salmon.

Chum

As with pink salmon, there was no program to estimate the system wide escapement of chum salmon in 1992. Low chum catches and CPUE in both the Canyon Island fish wheels and the inriver test fishery suggested that there was a poor chum salmon run. The chum salmon catch and catch per unit effort in the test fishery were lower than that for steelhead.

Sockeye Run Reconstruction

The estimated total Taku sockeye salmon run was 286,473 fish (Table 4). This represents the largest run since total run statistics have been tabulated (1984) and is 57% above the 1984-1991 average of 183,008 fish. The total Taku sockeye catch in the U.S. District 111 and Canadian inriver fisheries was 154,230 fish and the escapement was 132,243 fish, for an overall exploitation rate of 54%. The escapement was 65% above the upper level of the escapement goal range of 71,000 to 80,000 fish.

The U.S. District 111 and inriver personal use harvest of 124,470 fish represented 81% of the harvest and the Canadian inriver harvest of 29,760 fish (includes test fishery catch of 38 fish) was 19% of the harvest. Based on the escapement goal range, the TAC was 206,473 to 215,473 sockeye salmon. The U.S. harvested an estimated 58% to 60% of the TAC and Canada harvested 14% of the TAC. In addition, an estimated 12,972 Port Snettisham sockeye salmon were harvested in District 111, while an estimated 32,113 fish escaped into Crescent and Speel lakes.

Table 4. Taku sockeye salmon run reconstruction, 1992. Estimates do not include spawning escapements below the U.S./Canada border.

	Taku Stocks	Snettisham Stocks
Escapement	132,243	32,113[a]
Canadian Harvest		
Commercial	29,472	
Food Fishery	250	
Total	29,722	
% Harvest	19.3%	
Test Fishery Catch	38	
Above Border Run	162,003	
U.S. Harvest[b]		
District 111	122,439	12,972
Personal Use	2,031	
Total	124,470	
% Harvest	80.7%	
Test Fishery Catch		42
Total Run	286,473	45,127
Taku Harvest Plan	Minimum	Maximum
Escapement Goal	71,000	80,000
TAC	215,473	206,473
Canadian portion	0.138	0.144
U.S. Portion	0.578	0.603

[a] Weir count from Speel Lake and mark-recapture estimate from Crescent Lake.

[b] U.S. harvest estimate differs from Joint Interception Committee estimate because no estimates are made for catches other than the listed fisheries.

ALSEK RIVER

Alsek River salmon stocks contribute to the U.S. commercial gillnet fisheries located in Dry Bay, at the mouth of the Alsek River (Figure 10). Some salmon of Alsek origin may also be taken in U.S. commercial gillnet and troll fisheries in the Yakutat area. No commercial fishery exists in the Canadian portions of the Alsek River drainage, although Indian food and recreational fisheries occur in the Tatshenshini River and some of its headwater tributaries (Figure 10).

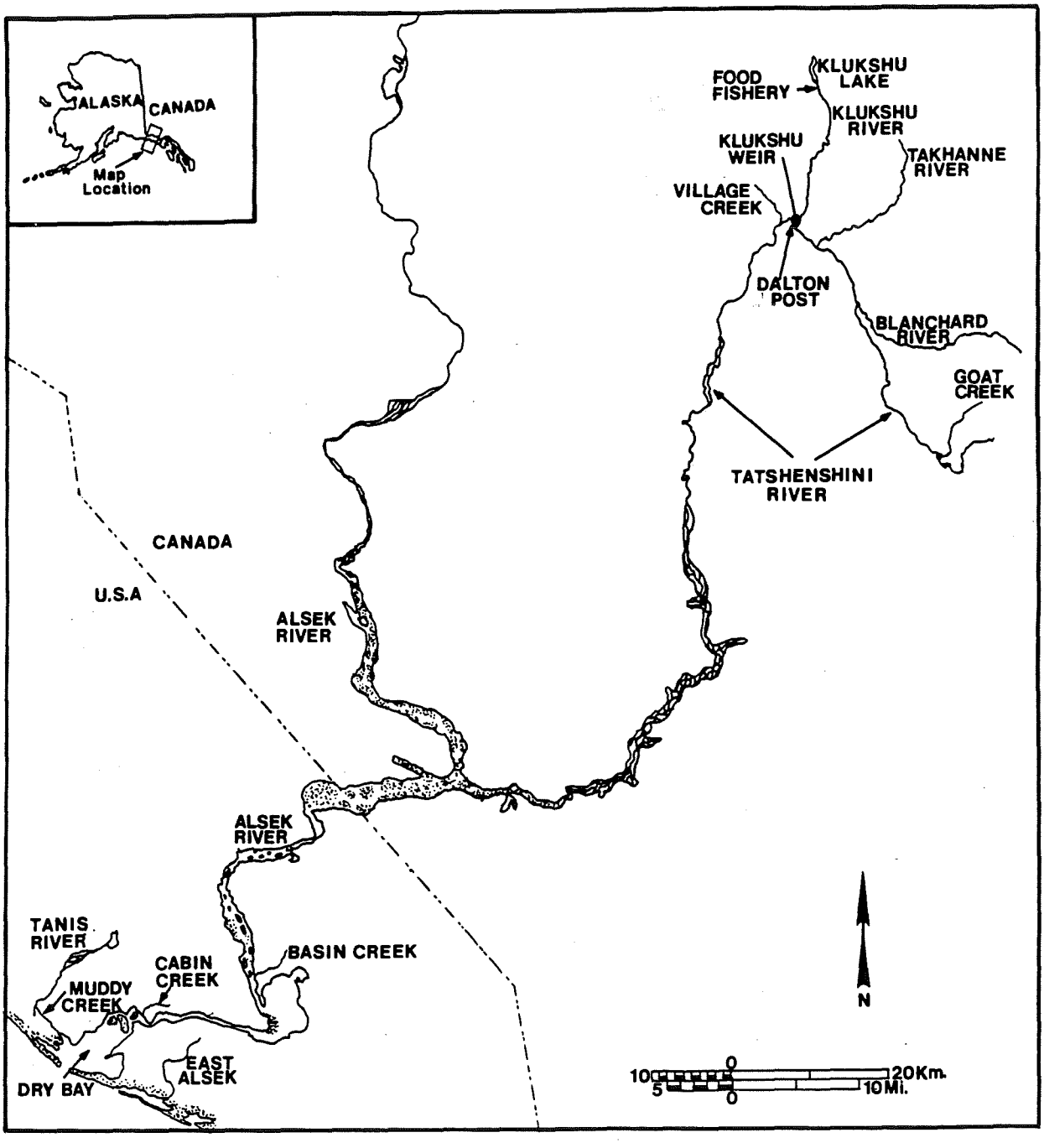

Figure 10. The Alsek River and principal U.S. and Canadian fishing areas.

Harvest Regulations

Although catch sharing of Alsek salmon stocks between Canada and the U.S. has not been specified, Annex IV does call for a cooperative attempt to rebuild depressed chinook and early-run sockeye stocks. Interim escapement goal ranges for Alsek sockeye and coho salmon have been set by the Transboundary Technical Committee at 33,000 to 58,000 sockeye, and 5,400 to 25,000 coho salmon. Instead of a system-wide chinook escapement goal, a revised goal has been established which is now expressed in terms of Klukshu stocks only; 4,700 chinook salmon. This revision, which was made in the fall of 1991, was made to eliminate the uncertainty over expansion factors which had no scientific backing.

U.S. Fisheries

Catch and Effort

The U.S. Dry Bay commercial set gillnet fishery harvested 301 chinook, 19,310 sockeye, 3,310 coho, 1 pink, and 136 chum salmon (Appendix E.1). The harvest of sockeye salmon was 25% above the 1982-1991 average. The catch of chinook salmon was 29% above the 1982-1991 average, while the coho, pink, and chum catches were below average (Figure 11 and Appendix E.4).

Preseason expectations were for an above average run of early run sockeye salmon, an average run of chinook salmon, and a below average run of late run sockeye salmon. As in recent years, the initial opening of the fishery was delayed from the traditional opening on the first Monday in June in order to conserve chinook and early run sockeye salmon. The fishery began this year on a Thursday (June 11), since the standard Monday opening date conflicted with a halibut opening.

The initial fishing period was for one day. Sockeye catch and CPUE levels justified two days of fishing during the next week. By the end of the second week of fishing it was apparent that the early run of sockeye salmon was strong, and three days fishing were allowed during statistical week 26, when 5,832 sockeye salmon were taken (the second highest catch for this week since 1979). Because of the expectation for a poor late run of sockeye salmon, fishing was reduced to two days per week for the next three weeks. Fishing time was increased to three days during statistical week 30 (July 19 to 25) due to continued high abundance model predictions and above average CPUE. Fishing time was limited to two days during statistical week 31, the last week of July. Effort levels dropped considerably by late July due to the movement of most fishers to harvest the strong East River run, so more fishing time was allowed for the next several weeks. Three days fishing were allowed through the coho season, with weekly effort levels varying from one to six permits.

The U.S. Dry Bay fishery typically catches few Alsek chinook salmon. With the delayed opening of the fishery in recent years, most of the chinook run passes through Dry Bay prior to the initial opening. In addition, a 6-inch maximum mesh restriction through early July has been in effect since 1987, effectively eliminating the use of chinook gear.

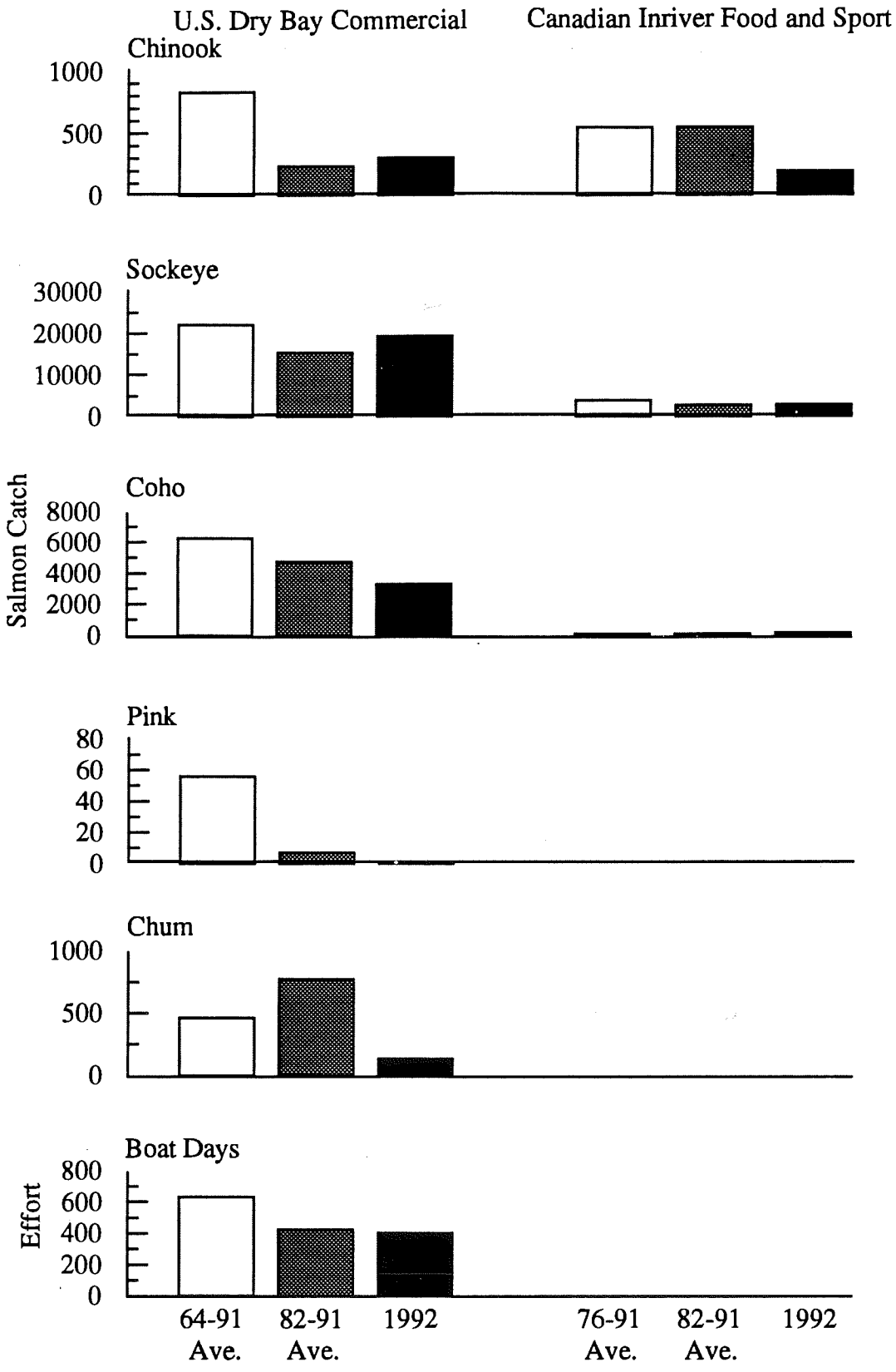

Figure 11. Average catches and fishing efforts compared with 1992 values for the Alaskan Dry Bay commercial fishery and the Canadian combined food and recreational fisheries in the Alsek River.

Sockeye Management Model

ADF&G managers have used a model (Harvest Rate Model) to assist in managing the Alsek sockeye harvest since 1984. This model has worked well in predicting the total season catch and index run size (catch + Klukshu escapement). In 1990, a second model (Multiple Regression Model) was developed and the two models have been used since. Both models provided accurate predictions in 1990 and in 1991, and were useful in managing the fishery. The multiple regression model proved more accurate at predicting the total Dry Bay sockeye catch and index run size (Dry Bay catch + Klukshu weir count) than the harvest rate model in 1992. The regression model predicted the total catch fairly well throughout the season; all weekly predictions were within 20% of the total catch and the final inseason estimate was 3% below the actual catch. Both models overestimated the index run size, with final inseason estimates exceeding the actual index run size by 12% to 18% (Table 5).

Table 5. Inseason U.S. forecasts of the total 1992 Alsek River catch, Klukshu River weir count, and total index run size (catch + Klukshu weir count) using two predictive models.

		Harvest Rate Model			Multiple Regression Model		
Stat. Week	Start Date	Total Catch	Klukshu Weir Count	Index Run	Total Catch	Klukshu Weir Count	Index Run
27	28-Jun	36,427	42,613	79,040	23,253	34,183	57,436
28	05-Jul	30,271	36,187	66,458	23,235	38,784	62,019
29	12-Jul	25,664	30,930	56,594	21,163	27,955	49,118
30	19-Jul	23,964	28,254	52,218	21,058	26,800	47,858
31	26-Jul	20,826	25,783	46,609	18,686	25,467	44,153
Actual	19,310	20,215	39,525	19,310	20,215	39,525	

Canadian Fisheries

The center of Indian food fishing activity in the Alsek drainage occurs at the Champagne/Aishihik Indian village of Klukshu, on the Haines Road, about 60 km south of Haines Junction. Salmon are harvested by means of gaff and traditional fish traps as the fish migrate up the Klukshu River into Klukshu Lake. Gaff fisheries also exist on Village Creek, Goat Creek, and Blanchard River. As in recent years, management actions were taken to conserve chinook and early run sockeye stocks. The initial fishing plan for the period prior to August 15 allowed only elders to fish by means of fish-traps for 1.25 days per week. After August 15, fishing by traps was to be allowed 3.25 days per week.

The gaff fishery was open six days per week in all areas to September 5; however, gaffing for sockeye salmon in the Klukshu River was prohibited prior to July 25, except by elders who were allowed to fish

for sockeye salmon 1.25 days each week during this period. The sockeye closure was initially scheduled to be in effect until August 15; however, a record early run resulted in the opening of the sockeye gaff fishery to non-elders for six days per week on July 25. Commencing September 5, the gaff fishery was not restricted.

The Indian food fishery harvested an estimated 148 chinook and 2,592 sockeye salmon. Primarily due to high and turbid water conditions during July, the chinook catch was only 68% of the 1982 to 1991 average of 219 fish. The sockeye catch was 15% above the 1982 to 1991 average of 2,246 fish. The food fishery catch data was summarized weekly from daily catch statistics gathered inseason. Weekly catches and annual comparisons appear in Appendices E.2 and E.6.

The majority of the sport fishing effort on this drainage occurs on the Tatshenshini River, at and just downstream of the mouth of the Klukshu River in the vicinity of the abandoned settlement of Dalton Post. The retention of sockeye salmon in the recreational fishery was prohibited prior to July 25 to protect early runs. In recent years, sockeye non-retention was in effect until August 15; however, sockeye fishing was permitted earlier in 1992 due to the strong early run. The chinook daily catch and possession limits were one and two, respectively; the overall daily catch and possession limits for salmon were increased from two and four to five and ten respectively to allow an increased sockeye salmon harvest, but subject to the chinook limits. Sport fishing in Dalton Post area was open from 6:00 am Saturday to 12:00 noon Tuesday each week. After September 4 the fishery was open seven days per week. The headwater areas within the drainage, upstream of the British Columbia - Yukon border, were closed for the season to protect spawning chinook salmon.

The recreational fishery harvested an estimated 103 chinook, 582 sockeye and 213 coho salmon. Compared to 1982 to 1991 average sport catches, the chinook catch was 32% of average, the sockeye catch was 49% above average, and the coho catch was 61% above average. The catch data was derived from a creel census program conducted in the Dalton Post area by the Klukshu weir personnel. Additional catch data was collected in other areas/tributaries by a DFO guardian. Weekly estimates and annual comparisons are listed in Appendices E.2 and E.6.

Escapement

It is currently not possible to accurately assess whether the system-wide escapement goals for Alsek sockeye and coho salmon are being met because total drainage enumeration programs are not established. A large but unknown and presumably variable proportion of the escapement of each species is enumerated at the weir on the Klukshu River. Current escapement monitoring programs including the Klukshu weir, Village Creek electronic counter, and aerial surveys do, however, allow annual comparisons of escapement indices. The most reliable comparative escapement index for Alsek drainage salmon stocks is the Klukshu River weir count.

Sockeye

A total of 20,215 sockeye salmon was counted through the Klukshu weir in 1992 and consisted of a record 11,791 early run fish (count through August 15), and 8,424 late run sockeye salmon (Figure 12). The early run count was over four times the 1982 to 1991 average of 2,802 fish, but the late run count was only 49% of average and was the second lowest count on record. The estimated Village Creek sockeye escapement was a record 11,485 fish. Comparative counts for these and other index Alsek tributaries appear in Appendix E.7 and Appendix E.8.

Aerial surveys of tributaries on the U.S. side of the border were limited in 1992. A total of 350 sockeye was seen in the Tanis River, 20% of the 1985 to 1991 average of 1,747 fish (Appendix E.8). However, the peak count of 1,000 sockeye salmon in Basin Creek was 45% above the average of 691 fish.

Chinook

The most reliable comparative escapement index for Alsek drainage is the Klukshu weir count. The chinook weir count in 1992 of 1,366 fish was 61% of the 1982 to 1991 average of 2,226 fish (Figure 13 and Appendix E.7) and below the escapement goal of 4,700 fish.

Aerial surveys were again conducted in 1992 for several other index streams and were lowest observed for all tributaries since 1984. The count of 77 fish in the Takhanne River was 35% of the 1985 to 1991 average of 217 fish, the count of 16 chinook salmon in Goat Creek was 25% of the average of 63 fish, and the count of 86 chinook salmon in the Blanchard River was 23% of the average of 379 fish (Appendix E.9).

Coho

Although it is presumed that the Klukshu weir count of coho salmon is incomplete and does not include fish that migrate after mid-October, the 1992 count of 1,145 fish was 70% of the 1982 to 1991 average of 1,637 fish (Figure 14 and Appendix E.7).

Aerial surveys for coho salmon in U.S. tributaries to the Alsek River were again limited in 1992, but a total of 1,010 fish observed was near the 1982 to 1991 average of 1,091 fish (Appendix E.10).

Run Reconstruction

Expectations for the sockeye run in 1992 were for an above average early run and a below average late run. The overall sockeye run developed about as expected, with a combined U.S. and Canadian total sockeye harvest near average and an average count of 20,215 fish through the Klukshu weir (Table 6). However, the early run was much larger than expected and the late run was weaker than expected. The

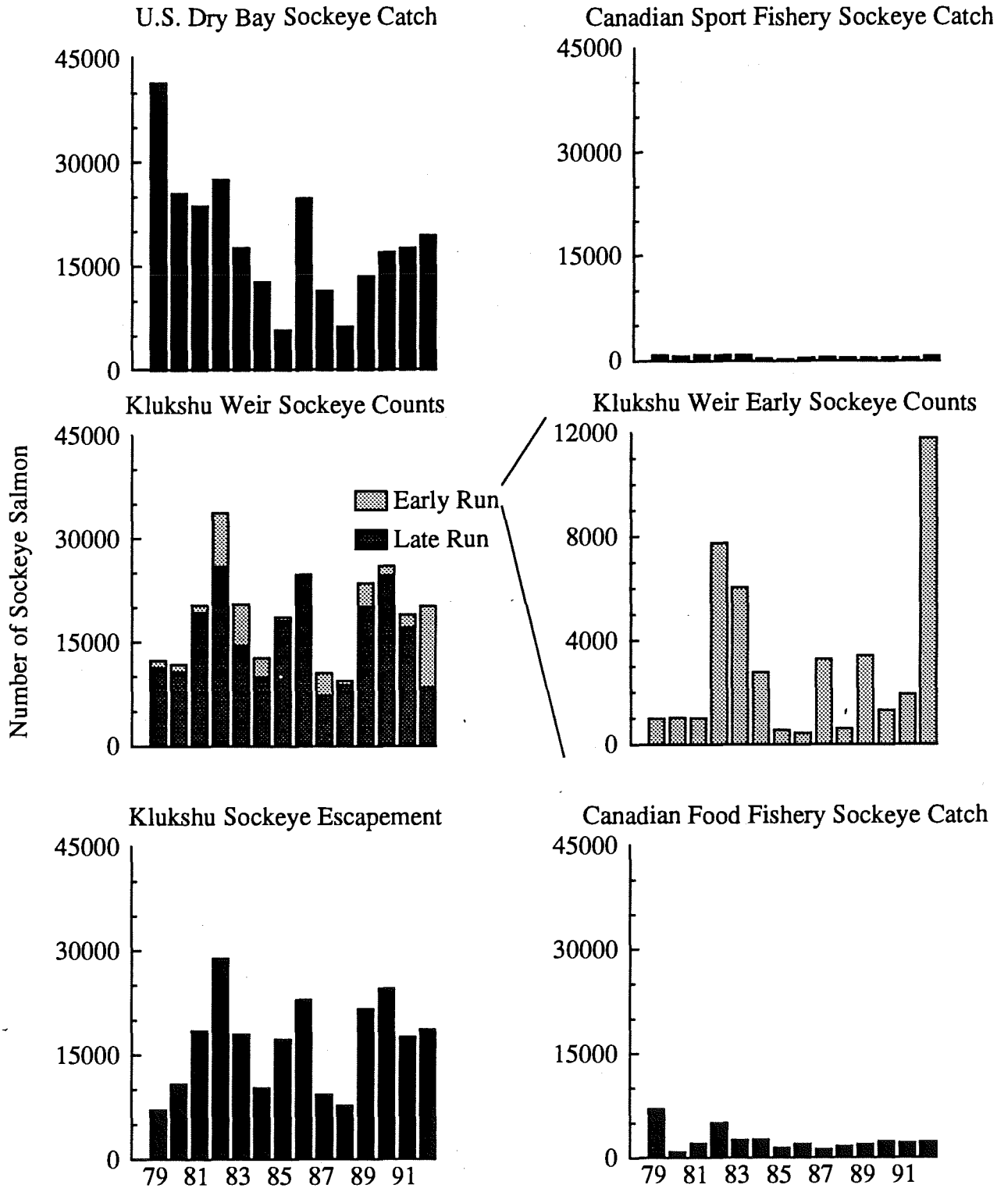

Figure 12. Alsek sockeye catches and weir counts, 1979–1992.

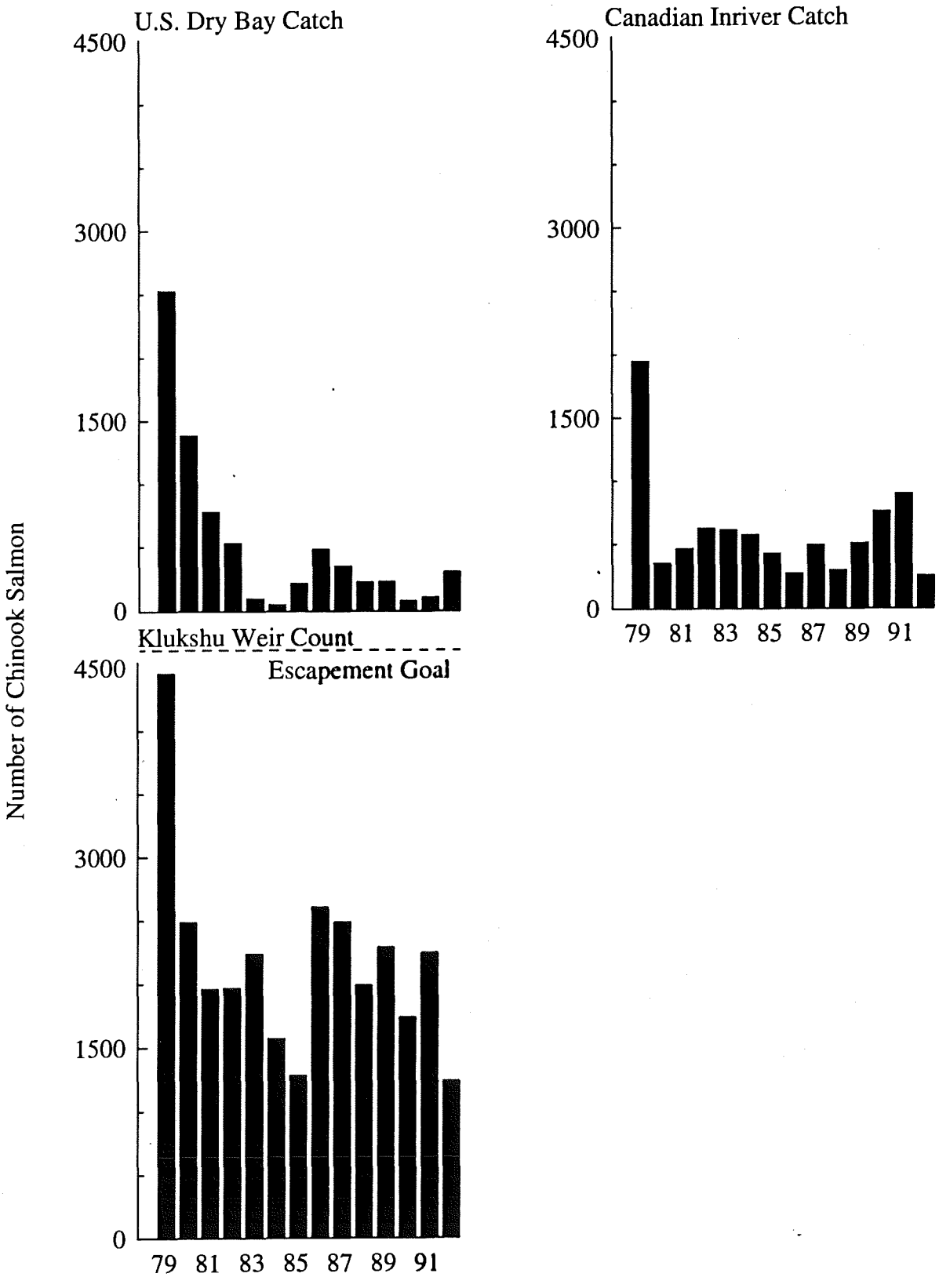

Figure 13. Alsek chinook catches and weir counts, 1979-1992.

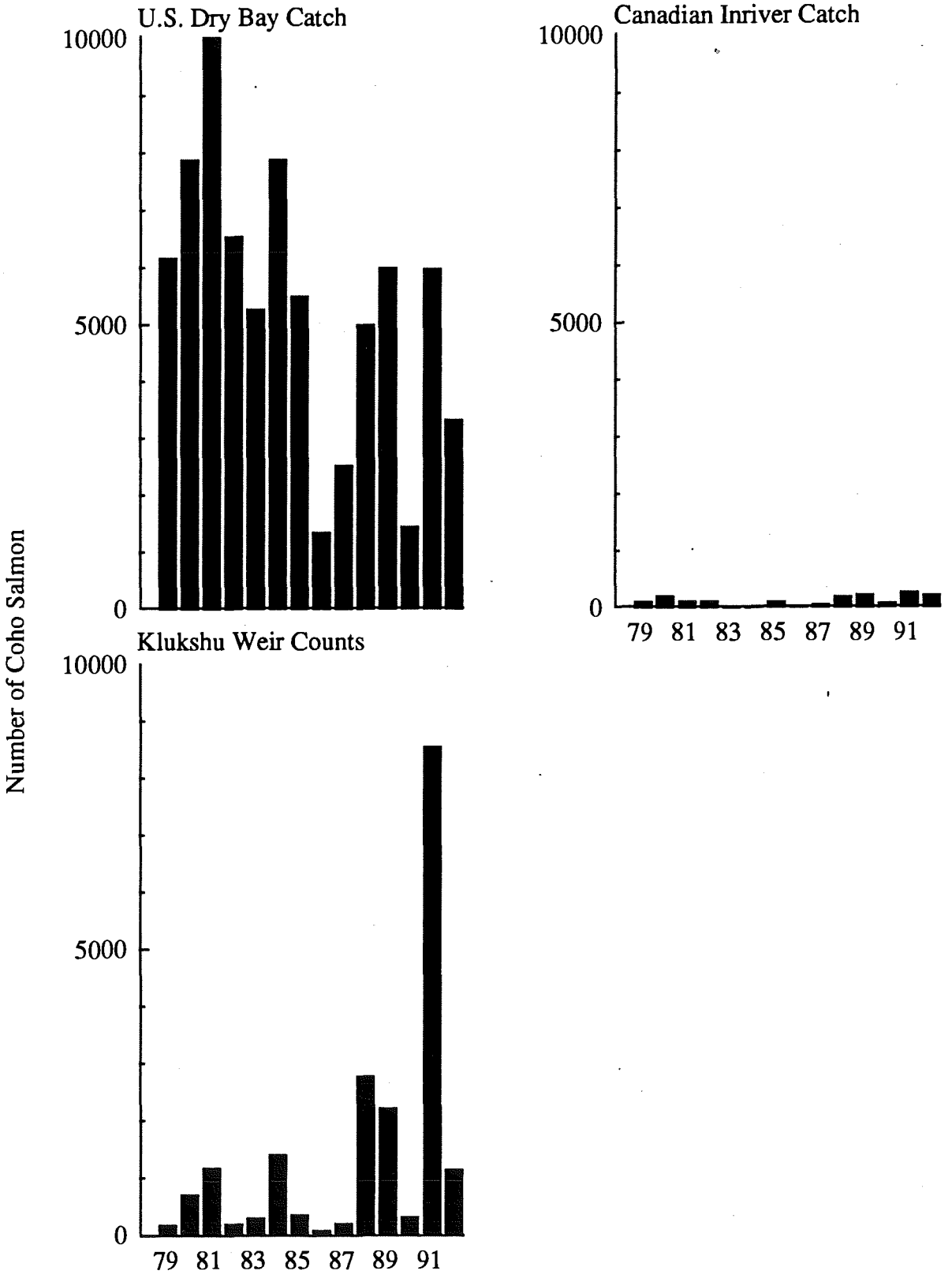

Figure 14. Alsek coho catches and weir counts, 1979-1992. The weir count for coho is incomplete since the weir is dismantled before the entire coho run has passed.

early run count through the Klukshu weir was a record 11,791 fish but the late run count of 8,424 was the second lowest count on record.

Estimates of the Klukshu contribution to the total Alsek River drainage sockeye run vary from 37%, as estimated from an ADF&G mark-recapture study in 1983, to 60%, based on Canadian fishery managers' professional judgement. An estimate of the total escapement to the Alsek River can be obtained by dividing the Klukshu weir count by the estimated percent Klukshu contribution and then subtracting the sport and Indian food fishery catches. The estimated escapement added to the U.S. and Canadian catches yields an estimate of the total Alsek run size. Using the 37% to 60% contribution range, the estimated sockeye escapement in the Alsek River was on the order of 31,000 to 52,000 fish and the estimated total run size was on the order of 50,000 to 71,000. The total sockeye run size in 1992 was undoubtedly higher than the lower end of this range, however, since summation of Canadian and U.S. catches and escapement counts totaled 53,400 fish. The interim escapement goal for the Alsek River is from 33,000 (U.S.) to 58,000 (Canada) fish.

Table 6. Catch and Klukshu index escapement data for Alsek sockeye, chinook, and coho salmon for 1992.

	Sockeye	Chinook	Coho
Escapement Index[a]			
Klukshu Weir Count	20,215	1,366	1,145
Klukshu Escapement[b]	18,717	1,242	
Harvest[c]			
U.S. Commercial	19,310	301	3,310
U.S. Subsistence	37	5	44
Canadian Sport	582	103	213
Canadian Indian Food	2,592	148	0
Total	22,521	557	3,567

[a] Klukshu River salmon stocks represent an assumed large and variable portion of the total Alsek River salmon escapement.

[b] Most of the Canadian Indian food fishery occurs above the Klukshu weir, therefore catches above the weir are subtracted from weir counts to represent the spawning escapement.

[c] U.S. harvest estimate differs from Joint Interception Committee estimate because no estimates are made for catches other than the listed fisheries.

APPENDICES

Appendix A.1. Weekly salmon catch and effort in the Alaskan Subdistrict 106-41 and -42 (Sumner Strait) commercial drift gillnet fishery, 1992.

Week	Start Date	Catch					Effort			
		Chinook	Sockeye	Coho	Pink	Chum	Permits	Days	Permit Days	
26	21-Jun	232	6,401	788	51	1,745	57	2	114	
27	28-Jun	128	29,978	3,749	2,580	5,747	68	4	272	
28	05-Jul	61	23,497	3,848	1,379	8,417	72	3	216	
29	12-Jul	37	26,397	4,305	2,046	12,128	79	3	237	
30	19-Jul	49	24,546	4,777	4,133	21,512	79	3	237	
31	26-Jul	53	19,790	7,355	3,408	16,801	94	3	282	
32	02-Aug	1	7,266	3,670	4,288	6,946	61	2	122	
33	09-Aug	2	3,937	6,014	7,523	4,848	48	2	96	
34	16-Aug	4	1,872	6,020	7,269	3,657	44	2	88	
35	23-Aug	128	2,339	24,809	4,789	7,952	74	2	148	
36	30-Aug	6	434	39,085	872	5,822	73	3	219	
37	06-Sep	12	75	37,616	98	2,961	73	3	219	
38	13-Sep	23	12	30,158	28	1,825	62	3	186	
39	20-Sep	7	14	17,088	1	859	54	3	162	
40	27-Sep	0	0	1,518	0	43	16	2	32	
Total			743	146,558	190,800	38,465	101,263	954	40	2,630

Appendix A.2. Weekly stock proportions of sockeye salmon harvested in the Alaskan Subdistrict 106-41 and -42 (Sumner Strait) commercial drift gillnet fishery, 1992. Data based on scale pattern analysis (SPA).

Week	Alaska	Canada	Stikine		
			Tahltan	non-Tahltan	Total
26	0.256	0.246	0.438	0.060	0.498
27	0.297	0.370	0.180	0.153	0.333
28	0.582	0.213	0.140	0.064	0.205
29	0.781	0.158	0.030	0.030	0.061
30	0.769	0.177	0.010	0.044	0.054
31	0.634	0.237	0.016	0.113	0.129
32	0.700	0.199	0.012	0.090	0.101
33	0.545	0.197	0.000	0.258	0.258
34	0.446	0.386	0.000	0.169	0.169
35	0.349	0.505	0.000	0.146	0.146
36	0.349	0.505	0.000	0.146	0.146
37	0.349	0.505	0.000	0.146	0.146
38	0.349	0.505	0.000	0.146	0.146
39	0.349	0.505	0.000	0.146	0.146
Total	0.582	0.241	0.088	0.089	0.177

Appendix A.3. Weekly stock-specific catch of sockeye salmon in the Alaskan Subdistrict 106-41 and -42 (Sumner Strait) commercial drift gillnet fishery, 1992. Data based on SPA.

Week	Alaska	Canada	Stikine		
			Tahltan	non-Tahltan	Total
26	1,637	1,577	2,804	383	3,187
27	8,917	11,081	5,403	4,577	9,980
28	13,682	5,008	3,297	1,510	4,807
29	20,626	4,161	805	805	1,610
30	18,865	4,345	249	1,087	1,336
31	12,543	4,696	314	2,237	2,551
32	5,083	1,447	85	651	736
33	2,146	777	0	1,014	1,014
34	834	722	0	316	316
35	815	1,181	0	343	343
36	151	219	0	64	64
37	26	38	0	11	11
38	4	6	0	2	2
39	5	7	0	2	2
Total	85,335	35,265	12,957	13,001	25,958

Appendix A.4. Weekly salmon catch and effort in the Alaskan Subdistrict 106-30 (Clarence Strait) commercial drift gillnet fishery, 1992.

		Catch					Effort		
Week	Start Date	Chinook	Sockeye	Coho	Pink	Chum	Permits	Days	Permit Days
26	21-Jun	89	1,722	494	90	749	27	2	54
27	28-Jun	163	7,282	1,738	1,049	1,201	32	4	128
28	05-Jul	166	12,942	4,008	2,386	3,073	45	3	135
29	12-Jul	29	6,885	1,905	2,470	2,592	40	3	120
30	19-Jul	35	10,804	2,175	3,106	4,067	40	3	120
31	26-Jul	18	6,165	1,866	3,104	3,830	32	3	96
32	02-Aug	10	4,353	2,339	4,651	3,153	58	2	116
33	09-Aug	1	3,187	4,169	16,334	3,395	36	2	72
34	16-Aug	15	1,294	2,823	9,801	3,003	37	2	74
35	23-Aug	6	1,345	5,491	8,693	1,856	34	2	68
36	30-Aug	14	502	21,255	3,474	4,131	56	3	168
37	06-Sep	19	41	17,102	508	3,676	44	3	132
38	13-Sep	30	17	19,653	78	2,898	53	3	159
39	20-Sep	17	7	22,399	0	1,922	49	3	147
40	27-Sep	0	0	523	0	25	7	2	14
Total		612	56,546	107,940	55,744	39,571	590	40	1,603

Appendix A.5. Weekly stock proportions of sockeye salmon harvested in the Alaskan Subdistrict 106-30 (Clarence Strait) commercial drift gillnet fishery, 1992. Data based on SPA.

			Stikine		
Week	Alaska	Canada	Tahltan	non-Tahltan	Total
26	0.679	0.211	0.062	0.048	0.110
27	0.442	0.349	0.037	0.172	0.208
28	0.579	0.219	0.046	0.156	0.202
29	0.694	0.101	0.008	0.197	0.205
30	0.799	0.147	0.010	0.043	0.054
31	0.647	0.206	0.011	0.137	0.148
32	0.610	0.162	0.005	0.223	0.229
33	0.632	0.241	0.000	0.127	0.127
34	0.551	0.315	0.000	0.134	0.134
35	0.497	0.395	0.000	0.107	0.107
36	0.497	0.395	0.000	0.107	0.107
37	0.497	0.395	0.000	0.107	0.107
38	0.497	0.395	0.000	0.107	0.107
39	0.497	0.395	0.000	0.107	0.107
Total	0.630	0.211	0.022	0.138	0.159

Appendix A.6. Weekly stock-specific catch of sockeye salmon in the Alaskan Subdistrict 106-30 (Clarence Strait) commercial drift gillnet fishery, 1992. Data based on SPA.

			Stikine		
Week	Alaska	Canada	Tahltan	non-Tahltan	Total
26	1,169	364	107	82	189
27	3,220	2,544	269	1,249	1,518
28	7,491	2,833	594	2,024	2,618
29	4,777	696	54	1,358	1,412
30	8,635	1,589	112	468	580
31	3,987	1,268	67	843	910
32	2,654	704	23	972	995
33	2,015	768	0	404	404
34	713	408	0	173	173
35	669	532	0	144	144
36	250	198	0	54	54
37	20	16	0	4	4
38	8	7	0	2	2
39	3	3	0	1	1
Total	35,612	11,930	1,226	7,778	9,004

Appendix A.7. Weekly salmon catch in the Alaskan District 106 commercial drift gillnet fisheries, 1992. Catches do not include Blind Slough terminal area harvests. Effort may be less than the sum of effort from 106-41 & -42 and 106-30 since some boats fished in more than one subdistrict.

		Catch					Effort		
Week	Start Date	Chinook	Sockeye	Coho	Pink	Chum	Permits	Days	Permit Days
26	21-Jun	321	8,123	1,282	141	2,494	84	2	168
27	28-Jun	291	37,260	5,487	3,629	6,948	100	4	400
28	05-Jul	227	36,439	7,856	3,765	11,490	117	3	351
29	12-Jul	66	33,282	6,210	4,516	14,720	119	3	357
30	19-Jul	84	35,350	6,952	7,239	25,579	119	3	357
31	26-Jul	71	25,955	9,221	6,512	20,631	126	3	378
32	02-Aug	11	11,619	6,009	8,939	10,099	119	2	238
33	09-Aug	3	7,124	10,183	23,857	8,243	84	2	168
34	16-Aug	19	3,166	8,843	17,070	6,660	81	2	162
35	23-Aug	134	3,684	30,300	13,482	9,808	108	2	216
36	30-Aug	20	936	60,340	4,346	9,953	128	3	384
37	06-Sep	31	116	54,718	606	6,637	117	3	351
38	13-Sep	53	29	49,811	106	4,723	115	3	345
39	20-Sep	24	21	39,487	1	2,781	102	3	306
40	27-Sep	0	0	2,041	0	68	23	2	46
Total		1,355	203,104	298,740	94,209	140,834	1,542	40	4,227

Appendix A.8. Weekly stock proportions of sockeye salmon harvested in the Alaskan District 106 commercial drift gillnet fisheries, 1992. Data based on SPA.

			Stikine		
Week	Alaska	Canada	Tahltan	non-Tahltan	Total
26	0.345	0.239	0.358	0.057	0.416
27	0.326	0.366	0.152	0.156	0.309
28	0.581	0.215	0.107	0.097	0.204
29	0.763	0.146	0.026	0.065	0.091
30	0.778	0.168	0.010	0.044	0.054
31	0.637	0.230	0.015	0.119	0.133
32	0.666	0.185	0.009	0.140	0.149
33	0.584	0.217	0.000	0.199	0.199
34	0.489	0.357	0.000	0.154	0.154
35	0.403	0.465	0.000	0.132	0.132
36	0.428	0.446	0.000	0.125	0.125
37	0.401	0.466	0.000	0.133	0.133
38	0.436	0.441	0.000	0.123	0.123
39	0.398	0.468	0.000	0.133	0.133
Total	0.595	0.232	0.070	0.102	0.172

Appendix A.9. Weekly stock-specific catch of sockeye salmon in the Alaskan District 106 commercial drift gillnet fisheries, 1992. Catches do not include Blind Slough terminal area harvests. Data based on SPA.

			Stikine		
Week	Alaska	Canada	Tahltan	non-Tahltan	Total
26	2,806	1,941	2,911	465	3,376
27	12,137	13,625	5,672	5,826	11,498
28	21,173	7,841	3,891	3,534	7,425
29	25,403	4,857	859	2,163	3,022
30	27,500	5,934	361	1,555	1,916
31	16,530	5,964	381	3,080	3,461
32	7,737	2,151	108	1,623	1,731
33	4,161	1,545	0	1,418	1,418
34	1,547	1,130	0	489	489
35	1,484	1,713	0	487	487
36	401	418	0	117	117
37	47	54	0	15	15
38	13	13	0	4	4
39	8	10	0	3	3
Total	120,947	47,195	14,183	20,779	34,962

Numbers may not sum due to rounding error.

Appendix A.10. Weekly salmon catch and effort in the Alaskan District 108 commercial drift gillnet fishery, 1992. Catches do not include Ohmer Creek terminal area harvests. The permit days are adjusted for boats which did not fish the entire opening and are less than the sum of the permits times days open.

		Catch					Effort		
Week	Start Date	Chinook	Sockeye	Coho	Pink	Chum	Permits	Days	Permit Days
26	21-Jun	296	3,666	95	3	261	25	2	50
27	28-Jun	212	7,597	194	811	557	33	4	140
28	05-Jul	263	12,699	189	2,779	1,275	69	5	135
29	12-Jul	93	11,569	440	7,759	3,939	63	5	129
30	19-Jul	37	10,512	440	16,420	4,161	67	5	126
31	26-Jul	35	4,391	711	11,610	2,684	35	5	83
32	02-Aug	5	1,852	1,056	21,940	1,364	30	5	56
33	09-Aug	1	287	423	2,953	225	8	2	16
34	16-Aug	1	58	313	1,092	56	5	2	10
35	23-Aug	5	56	1,750	713	101	16	2	32
36	30-Aug	11	16	3,174	342	71	11	3	33
37	06-Sep	0	7	4,884	9	224	22	3	66
38	13-Sep	5	3	3,358	8	176	15	3	45
39	20-Sep	3	4	3,796	0	284	16	3	48
40	27-Sep	0	0	1,304	12	73	30	2	60
Total		967	52,717	22,127	66,451	15,451	445	51	1,029

Appendix A.11. Weekly stock proportions and stock-specific catch of sockeye salmon in the Alaskan District 108 commercial drift gillnet fishery, 1992. Catches do not include Ohmer Creek terminal area harvests. Data based on SPA.

			Stikine		
Week	Alaska	Canada	Tahltan	non-Tahltan	Total
Proportions					
26	0.090	0.191	0.583	0.136	0.719
27	0.151	0.038	0.591	0.220	0.811
28	0.146	0.010	0.389	0.455	0.844
29	0.279	0.065	0.121	0.535	0.655
30	0.102	0.047	0.058	0.794	0.852
31	0.132	0.063	0.003	0.802	0.805
32	0.128	0.008	0.004	0.861	0.864
33	0.364	0.095	0.005	0.536	0.541
34	0.364	0.095	0.005	0.536	0.541
35	0.364	0.095	0.005	0.536	0.541
36	0.364	0.095	0.005	0.536	0.541
37	0.364	0.095	0.005	0.536	0.541
38	0.364	0.095	0.005	0.536	0.541
39	0.364	0.095	0.005	0.536	0.541
Total	0.163	0.051	0.258	0.528	0.786
Catch					
26	329	702	2,137	498	2,635
27	1,148	286	4,491	1,672	6,163
28	1,853	128	4,946	5,772	10,718
29	3,233	755	1,395	6,186	7,581
30	1,067	493	610	8,342	8,952
31	580	277	11	3,523	3,534
32	237	14	7	1,594	1,601
33	105	27	1	154	155
34	21	6	0	31	31
35	20	5	0	30	30
36	6	2	0	9	9
37	3	1	0	4	4
38	1	0	0	2	2
39	1	0	0	2	2
Total	8,604	2,696	13,599	27,818	41,417

Appendix A.12. Weekly salmon catch and effort in the Alaskan District 108 test fishery, 1992.

Week	Start Date	Catch					Effort		
		Chinook	Sockeye	Coho	Pink	Chum	Boats	Hours	Boat Days
25	14-Jun	10	41	0	0	1	1	11.25	0.47
26	21-Jun	10	243	0	0	2	1	11.25	0.47
27	28-Jun	4	263	0	26	3	1	11.25	0.47
28	05-Jul	0	182	0	45	26	1	7.75	0.32
29	12-Jul	0	227	1	137	45	1	11.25	0.47
30	19-Jul	1	226	2	377	75	1	14.25	0.59
31	26-Jul	1	117	20	270	100	1	12.00	0.50
Total		26	1,299	23	855	252	7	79.00	3.29

Appendix A.13. Stock compositions and stock-specific catch of sockeye salmon in the Alaskan District 108 test fishery, 1992. Stock compositions from weekly commercial fishery catches were applied to weekly test fishery catches. Data based on SPA.

			Stikine		
	Alaska	Canada	Tahltan	non-Tahltan	Total
Proportions					
25	0.090	0.191	0.583	0.136	0.719
26	0.090	0.191	0.583	0.136	0.719
27	0.151	0.038	0.591	0.220	0.811
28	0.146	0.010	0.389	0.455	0.844
29	0.279	0.065	0.121	0.535	0.655
30	0.102	0.047	0.058	0.794	0.852
31	0.132	0.063	0.003	0.802	0.805
Total	0.149	0.076	0.333	0.442	0.775
Catch					
25	4	8	24	6	29
26	22	47	142	33	175
27	40	10	155	58	213
28	27	2	71	83	154
29	63	15	27	121	149
30	23	11	13	179	192
31	15	7	0	94	94
Total	194	99	432	574	1,006

Appendix A.14. Weekly salmon and steelhead trout catch and effort in the Canadian commercial fishery in the lower Stikine River, 1992.

		Catch							Effort		
Week	Start Date	Chinook Jacks	Chinook Large	Sockeye	Coho	Pink	Chum	Steel-head	Permits	Days	Permit Days
27	28-Jun	18	167	1,111	0	6	0	3	5.00	2.0	10.0
28	05-Jul	63	423	6,321	0	8	13	3	8.16	5.0	40.8
29	12-Jul	5	205	4,465	2	13	17	1	6.20	5.0	31.0
30	19-Jul	3	46	3,943	7	34	24	10	5.94	4.0	23.8
31	26-Jul	0	13	2,902	13	15	48	14	6.57	5.0	32.9
32	02-Aug	0	14	1,245	53	7	37	13	3.40	4.0	13.6
33	09-Aug	0	4	821	263	21	51	22	3.80	5.0	19.0
34	16-Aug	0	0	100	87	7	17	12	2.00	4.0	8.0
35	23-Aug	0	0	104	365	11	20	38	5.75	4.0	23.0
36	30-Aug	0	1	13	412	0	1	11	2.40	4.0	9.6
37	06-Sep	0	0	6	366	0	1	0	3.20	5.0	16.0
38	13-Sep	0	0	0	266	0	2	2	1.39	4.0	5.6
39	20-Sep	0	0	0	16	0	0	0	0.57	4.0	2.3
Total		89	873	21,031	1,850	122	231	129		55	235.5

Appendix A.15. Weekly sockeye salmon stock proportions and catch by stock in the Canadian commercial fishery in the lower Stikine River, 1992. Sex specific age compositions were calculated and the stock composition of the females sampled for egg diameters was expanded to the catch by age.

		Catch		CPUE		
Week	Proportion Tahltan	Tahltan	non-Tahltan	Tahltan	non-Tahltan	Total
27	0.874	971	140	97.101	13.999	111.100
28	0.775	4,899	1,422	120.068	34.858	154.926
29	0.548	2,447	2,018	78.930	65.103	144.032
30	0.241	950	2,993	39.994	125.957	165.951
31	0.256	743	2,159	22.615	65.726	88.341
32	0.087	108	1,137	6.371	66.864	73.235
33	0.019	16	805	0.821	42.390	43.211
34	0.000	0	100	0.000	12.500	12.500
35	0.000	0	104	0.000	4.522	4.522
36	0.000	0	13	0.000	1.083	1.083
37	0.000	0	6	0.000	0.375	0.375
Total		10,134	10,897	365.901	433.376	799.277
Proportion		0.482	0.518			

Appendix A.16. Weekly salmon and steelhead trout catch and effort in the Canadian commercial fishery in the upper Stikine River, 1992. It is assumed that 90% of the sockeye catch is of Tahltan origin.

		Catch							Effort		
		Chinook						Steel-			Permit
Week	Start Date	Jacks	Large	Sockeye	Coho	Pink	Chum	head	Permits	Days	Days
28	05-Jul	0	25	2	0	0	0	0	2.0	1.0	2.0
29	12-Jul	12	15	120	0	0	0	0	1.0	1.0	1.0
30	19-Jul	1	4	277	0	0	0	0	3.0	3.0	3.0
31	26-Jul	6	12	398	0	0	0	0	3.0	4.0	12.0
32	02-Aug	0	0	0	0	0	0	0	0.0	0.0	0.0
33	09-Aug	0	0	25	0	0	0	0	1.0	4.0	4.0
Total		19	56	822	0	0	0	0	10.0	13.0	28.0

Appendix A.17. Weekly salmon and steelhead trout catch and effort in the Canadian Indian food fishery located at Telegraph Creek, on the Stikine River, 1992. It is assumed that 90% of the sockeye catch is of Tahltan origin.

		Catch							Effort		
		Chinook						Steel-			Permit
Week	Start Date	Jacks	Large	Sockeye	Coho	Pink	Chum	head	Permits	Days	Days
24	07-Jun[a]		42								
25	14-Jun										
26	21-Jun	8	26	0	0	0	0	0	1.0	3	3
27	28-Jun	4	59	7	0	0	0	0	3.0	3	9
28	05-Jul	44	430	202	0	0	0	0	8.0	7	56
29	12-Jul	44	211	1,616	0	0	0	0	10.0	7	70
30	19-Jul	22	80	1,162	0	0	0	0	10.0	7	70
31	26-Jul	1	24	863	0	0	0	0	7.0	7	49
32	02-Aug	8	30	449	2	0	0	0	5.0	7	35
33	09-Aug	0	9	122	3	0	0	0	2.0	7	14
34	16-Aug	0	0	7	0	0	0	0	1.0	1	1
35	23-Aug	0	0	0	0	0	0	0	0.0	0	0
36	30-Aug	0	0	3	0	0	0	3	1.0	1	1
Total		131	911	4,431	5	0	0	3	48.0	50	308.0

[a] Reported catch through June 1. No effort available for this time period.

Appendix A.18. Weekly salmon and steelhead trout catch and effort in the Canadian test fishery in the Stikine River, 1992.

Week	Start Date	Chinook	Sockeye	Coho	Pink	Chum	Steel-head	# Drifts/ Set Hours
Drift gill net								
26	21-Jun	98	52	0	0	0	0	57
27	28-Jun	33	66	0	0	2	0	50
28	05-Jul	17	55	0	0	0	0	20
29	12-Jul	7	46	0	0	0	0	20
30	19-Jul	3	71	0	1	2	0	30
31	26-Jul	2	35	0	0	1	0	20
32	02-Aug	2	29	2	1	4	1	20
33	09-Aug	0	22	10	2	3	0	20
34	16-Aug	0	15	22	6	7	4	30
35	23-Aug	0	2	25	2	4	1	30
36	30-Aug	0	0	16	1	0	1	15
Total		162	393	75	13	23	7	312
Set gill net								
25	14-Jun							
26	21-Jun	44	261	0	0	0	0	263.8
27	28-Jun	22	507	0	0	0	0	215.7
28	05-Jul	11	275	0	1	0	0	70.0
29	12-Jul	3	231	0	0	4	0	70.1
30	19-Jul	2	236	0	3	2	0	119.2
31	26-Jul	0	106	0	2	4	0	72.4
32	02-Aug	0	161	5	0	5	0	72.0
33	09-Aug	0	103	21	14	7	1	72.0
34	16-Aug	1	59	61	23	10	6	97.9
35	23-Aug	0	24	70	9	9	10	126.1
36	30-Aug	0	8	36	4	2	2	70.2
Total		83	1,971	193	56	43	19	1249.4
Additional Drifts								
25	14-Jun							
26	21-Jun	489	233	0	0	0	0	55
27	28-Jun	30	72	0	0	0	0	8
28	05-Jul	14	123	0	0	0	0	8
29	12-Jul	18	138	0	0	0	0	10
30	19-Jul	0	4	0	0	0	0	1
31	26-Jul	0	24	0	0	0	0	3
Total		551	594	0	0	0	0	85
Total Test Catch		796	2,958	268	69	66	26	

Appendix A.19. Weekly sockeye salmon stock proportions in the Stikine River test fishery, 1992. Sex specific age compositions were calculated and the smoothed stock composition of the females sampled for egg diameters was expanded to the catch by age.

Week	Sample Size	Tahltan	non-Tahltan
26	177	0.927	0.073
27	291	0.931	0.069
28	175	0.846	0.154
29	154	0.571	0.429
30	164	0.256	0.744
31	68	0.221	0.779
32	103	0.184	0.816
33	77	0.078	0.922
34	18	0.278	0.722
35	18	0.056	0.944
36	4	0.250	0.750
	1,249		

Appendix A.20. Weekly catch, CPUE, and migratory timing of Tahltan and non-Tahltan sockeye stocks in the Stikine River test fishery, 1992. Sex specific age compositions were calculated and the smoothed stock composition of the females sampled for egg diameters was expanded to the catch by age.

	Catch		CPUE			Migratory Timing	
Week	Tahltan	non-Tahltan	Tahltan	non-Tahltan	Total	Tahltan	non-Tahltan
Drift gill net							
26	48	4	0.846	0.067	0.912	0.058	0.005
27	61	5	1.229	0.091	1.320	0.085	0.006
28	47	8	2.327	0.424	2.750	0.160	0.029
29	26	20	1.313	0.987	2.300	0.090	0.068
30	18	53	0.606	1.761	2.367	0.042	0.121
31	8	27	0.387	1.363	1.750	0.027	0.094
32	5	24	0.267	1.183	1.450	0.018	0.082
33	2	20	0.086	1.014	1.100	0.006	0.070
34	4	11	0.139	0.361	0.500	0.010	0.025
35	0	2	0.004	0.063	0.067	0.000	0.004
36	0	0	0.000	0.000	0.000	0.000	0.000
Total	220	173	7.202	7.313	14.516		
Proportion	0.559	0.441		Proportion of run		0.496	0.504
Set gill net							
26	242	19	0.917	0.072	0.990	0.049	0.004
27	472	35	2.188	0.162	2.350	0.118	0.009
28	233	42	3.325	0.605	3.930	0.179	0.033
29	132	99	1.882	1.414	3.296	0.101	0.076
30	60	176	0.507	1.473	1.980	0.027	0.079
31	23	83	0.324	1.141	1.464	0.017	0.061
32	30	131	0.412	1.825	2.237	0.022	0.098
33	8	95	0.112	1.319	1.430	0.006	0.071
34	16	43	0.167	0.435	0.602	0.009	0.023
35	1	23	0.011	0.180	0.190	0.001	0.010
36	2	6	0.029	0.086	0.114	0.002	0.005
Total	1220	751	9.872	8.711	18.584	0.531	0.469
Proportion	0.619	0.381					
Additional Drifts [a]							
26	216	17	3.789	0.298	4.088	0.190	0.015
27	67	5	1.341	0.099	1.440	0.067	0.005
28	104	19	5.203	0.947	6.150	0.261	0.048
29	79	59	3.940	2.960	6.900	0.198	0.149
30	1	3	0.034	0.099	0.133	0.002	0.005
31	5	19	0.265	0.935	1.200	0.013	0.047
Total	472	122	14.572	5.339	19.911	0.732	0.268
Proportio	0.795	0.205					

[a] Catch was apportioned based on samples from standard drift catch.

Appendix A.21. Daily counts of adult sockeye salmon passing through Tahltan weir, 1992.

Date	Count	Cumulative Count	Cumulative Percent	Date	Count	Cumulative Count	Cumulative Percent
10-Jul	0	0	0.0	07-Aug	299	57,254	95.6
11-Jul	0	0	0.0	08-Aug	278	57,532	96.0
12-Jul	0	0	0.0	09-Aug	286	57,818	96.5
13-Jul	0	0	0.0	10-Aug	335	58,153	97.1
14-Jul	0	0	0.0	11-Aug	187	58,340	97.4
15-Jul	0	0	0.0	12-Aug	156	58,496	97.6
16-Jul	0	0	0.0	13-Aug	117	58,613	97.8
17-Jul	0	0	0.0	14-Aug	123	58,736	98.0
18-Jul	3	3	0.0	15-Aug	94	58,830	98.2
19-Jul	6	9	0.0	16-Aug	217	59,047	98.6
20-Jul	508	517	0.9	17-Aug	70	59,117	98.7
21-Jul	2,655	3,172	5.3	18-Aug	87	59,204	98.8
22-Jul	6,435	9,607	16.0	19-Aug	76	59,280	99.0
23-Jul	7,608	17,215	28.7	20-Aug	115	59,395	99.1
24-Jul	8,933	26,148	43.6	21-Aug	126	59,521	99.4
25-Jul	6,324	32,472	54.2	22-Aug	66	59,587	99.5
26-Jul	4,644	37,116	62.0	23-Aug	79	59,666	99.6
27-Jul	3,980	41,096	68.6	24-Aug	36	59,702	99.7
28-Jul	4473	45,569	76.1	25-Aug	77	59,779	99.8
29-Jul	2474	48,043	80.2	26-Aug	19	59,798	99.8
30-Jul	1362	49,405	82.5	27-Aug	5	59,803	99.8
31-Jul	1312	50,717	84.7	28-Aug	1	59,804	99.8
01-Aug	986	51,703	86.3	29-Aug	23	59,827	99.9
02-Aug	1,127	52,830	88.2	30-Aug	63	59,890	100.0
03-Aug	1145	53,975	90.1	31-Aug	12	59,902	100.0
04-Aug	857	54,832	91.5	01-Sep	5	59,907	100.0
05-Aug	640	55,472	92.6	02-Sep	0	59,907	100.0
06-Aug	676	56,148	93.7	03-Sep	0	59,907	100.0
07-Aug	807	56,955	95.1				
Total Counted						59,907	
Adjustments						-3,694 [a]	
Total Spawners						56,213	

[a] Totals of 1,847 females and 1,847 males were taken for broodstock.

Appendix A.22. Daily counts of sockeye salmon smolt migrating through Tahltan Lake smolt weir, 1992.

Date	Count	Cumulative Count	Cumulative Percent	Date	Count	Cumulative Count	Cumulative Percent
07-May	0	0	0.0	28-May	13,437	1,451,092	93.3
07-May	0	0	0.0	29-May	4,455	1,455,547	93.6
08-May	0	0	0.0	30-May	18,027	1,473,574	94.8
09-May	0	0	0.0	31-May	1,049	1,474,623	94.8
10-May	0	0	0.0	01-Jun	2,242	1,476,865	95.0
11-May	0	0	0.0	02-Jun	8,411	1,485,276	95.5
12-May	0	0	0.0	03-Jun	3,936	1,489,212	95.8
13-May	1,000	1,000	0.1	04-Jun	4,267	1,493,479	96.0
14-May	2,081	3,081	0.2	05-Jun	4,522	1,498,001	96.3
15-May	12,564	15,645	1.0	06-Jun	5351	1,503,352	96.7
16-May	334,092	349,737	22.5	07-Jun	609	1,503,961	96.7
17-May	64,337	414,074	26.6	08-Jun	555	1,504,516	96.8
18-May	50,193	464,267	29.9	09-Jun	4,218	1,508,734	97.0
19-May	54,931	519,198	33.4	10-Jun	1,799	1,510,533	97.1
20-May	84,949	604,147	38.9	11-Jun	3,058	1,513,591	97.3
21-May	328,524	932,671	60.0	12-Jun	1,481	1,515,072	97.4
22-May	363,494	1,296,165	83.4	13-Jun	610	1,515,682	97.5
23-May	23,614	1,319,779	84.9	14-Jun	468	1,516,150	97.5
24-May	8,210	1,327,989	85.4				
25-May	2,252	1,330,241	85.5				
26-May	43,697	1,373,938	88.4	Adjust.a/	38,876		
27-May	63,717	1,437,655	92.5	Total		1,555,026	100.0

[a] Based on historical migratory timing, 97.5% of the smolt outmigration has occurred by June 14. The estimated total smolt run in 1992 was (1,516,150/0.975)=1,555,026 fish.

Appendix A.23. Daily counts of adult chinook salmon passing through Little Tahltan weir, 1992.

	Large Chinook			Chinook Jacks		
		Cumulative			Cumulative	
Date	Count	Count	Percent	Count	Count	Percent
24-Jun	----------weir installed----------					
25-Jun	0	0	0.00	0	0	0.00
26-Jun	0	0	0.00	0	0	0.00
27-Jun	0	0	0.00	0	0	0.00
28-Jun	0	0	0.00	0	0	0.00
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	0	0	0.00
04-Jul	5	5	0.08	0	0	0.00
05-Jul	7	12	0.18	0	0	0.00
06-Jul	0	12	0.18	0	0	0.00
07-Jul	0	12	0.18	0	0	0.00
08-Jul	0	12	0.18	0	0	0.00
09-Jul	8	20	0.30	0	0	0.00
10-Jul	6	26	0.39	0	0	0.00
11-Jul	9	35	0.53	0	0	0.00
12-Jul	188	223	3.37	4	4	3.05
13-Jul	198	421	6.35	4	8	6.11
14-Jul	22	443	6.68	0	8	6.11
15-Jul	168	611	9.22	0	8	6.11
16-Jul	636	1,247	18.82	6	14	10.69
17-Jul	368	1,615	24.37	7	21	16.03
18-Jul	394	2,009	30.32	6	27	20.61
19-Jul	595	2,604	39.29	8	35	26.72
20-Jul	308	2,912	43.94	7	42	32.06
21-Jul	754	3,666	55.32	14	56	42.75
22-Jul	561	4,227	63.78	10	66	50.38
23-Jul	197	4,424	66.76	6	72	54.96
24-Jul	646	5,070	76.51	13	85	64.89
25-Jul	133	5,203	78.51	6	91	69.47
26-Jul	251	5,454	82.30	9	100	76.34
27-Jul	227	5,681	85.73	2	102	77.86
28-Jul	114	5,795	87.45	2	104	79.39
29-Jul	111	5,906	89.12	7	111	84.73
30-Jul	164	6,070	91.59	7	118	90.08
31-Jul	18	6,088	91.87	2	120	91.60
01-Aug	31	6,119	92.33	2	122	93.13
02-Aug	73	6,192	93.44	0	122	93.13
03-Aug	293	6,485	97.86	4	126	96.18
04-Aug	12	6,497	98.04	1	127	96.95
05-Aug	13	6,510	98.23	0	127	96.95
06-Aug	77	6,587	99.40	2	129	98.47
07-Aug	0	6,587	99.40	0	129	98.47
08-Aug	14	6,601	99.61	0	129	98.47
09-Aug	21	6,622	99.92	2	131	100.00
10-Aug	0	6,622	99.92	0	131	100.00
11-Aug	4	6,626	99.98	0	131	100.00
12-Aug	0	6,626	99.98	0	131	100.00
13-Aug	1	6,627	100.00	0	131	100.00
14-Aug	0	6,627	100.00	0	131	100.00
15-Aug	0	6,627	100.00	0	131	100.00
16-Aug	0	6,627	100.00	0	131	100.00
Total Counted		6,627			131	
Adjustments		-12				
Total Spawners		6,615			131	

Appendix B.1. Salmon catch and effort in the Alaskan Subdistrict 106-41 and -42 (Sumner Strait) commercial drift gillnet fishery, 1964-1992.

	Catch					Effort	
Year	Chinook	Sockeye	Coho	Pink	Chum	Permit 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	51
1966	690	65,721	30,792	96,287	24,235	2,080	74
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	607	46,258	6,094	92,075	6,393	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	27
1979	458	34,807	12,087	176,395	16,816	952	25
1980	205	48,434	10,894	17,072	15,162	596	16
1981	598	132,293	13,161	220,194	25,682	1,732	25
1982	648	121,556	21,376	10,338	11,911	1,083	22
1983	268	28,153	41,208	74,347	13,001	875	32
1984	136	27,372	19,124	99,807	28,461	587	32
1985	548	172,088	50,577	319,379	45,566	1,726	38
1986	421	85,247	104,328	105,347	48,471	1,896	32
1987	441	79,165	17,776	117,059	25,877	978	20
1988	452	57,337	6,349	10,894	42,210	815	18
1989	581	107,886	55,671	418,044	40,156	1,716	34
1990	759	104,922	94,502	84,543	42,474	1,827	34
1991	857	88,723	136,798	64,182	84,970	2,118	39
Averages							
64-91	616	62,037	33,337	109,542	27,521	1,386	33
82-91	511	87,245	54,771	130,394	38,310	1,362	30
1992	743	146,558	190,800	38,465	101,263	2,630	40

Appendix B.2. Stock proportions and catches of sockeye salmon in the Alaskan Subdistrict 106-41 and -42 (Sumner Strait) commercial drift gillnet fishery, 1985-1992. Data based on SPA.

			Stikine		
Year	Alaska	Canada	Tahltan	non-Tahltan	Total
Proportions					
1985	0.480	0.401	0.109	0.010	0.119
1986	0.662	0.308	0.024	0.006	0.030
1987	0.816	0.166	0.015	0.003	0.018
1988	0.868	0.112	0.019	0.001	0.020
1989	0.653	0.303	0.009	0.036	0.044
1990	0.579	0.395	0.008	0.018	0.026
1991	0.460	0.377	0.129	0.034	0.163
Averages					
85-91	0.646	0.294	0.045	0.015	0.060
1992	0.582	0.241	0.088	0.089	0.177
Catches					
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
1988	49,776	6,426	1,071	64	1,135
1989	70,436	32,663	957	3,830	4,787
1990	60,795	41,415	801	1,911	2,712
1991	40,832	33,406	11,459	3,026	14,485
Averages					
85-91	60,778	31,751	5,188	1,622	6,809
1992	85,335	35,265	12,957	13,001	25,958

Appendix B.3. Salmon catch and effort in the Alaskan Subdistrict 106-30 (Clarence Strait) commercial drift gillnet fishery, 1964-1992.

	Catch					Effort	
Year	Chinook	Sockeye	Coho	Pink	Chum	Permit Days	Days Open
1964	1,766	23,598	37,316	259,684	21,305	3,039	49.00
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	27.00
1968	306	14,459	21,040	87,095	22,365	1,968	52.00
1969	270	24,060	4,186	104,998	4,510	1,026	31.00
1970	365	15,966	20,317	65,790	14,139	1,025	41.00
1971	665	19,211	23,358	244,236	18,351	1,517	50.00
1972	826	26,593	32,600	48,823	25,871	1,276	41.00
1973	391	16,741	13,526	143,324	25,243	1,303	26.00
1974	584	10,586	16,762	47,107	12,264	712	28.00
1975	2,120	12,732	26,312	173,675	16,206	1,159	8.50
1976	147	6,162	8,759	119,188	4,567	527	21.00
1977	469	19,615	6,582	368,069	9,060	940	21.00
1978	2,408	40,152	28,816	215,169	13,403	1,148	16.00
1979	2,262	31,566	15,996	471,817	18,691	1,848	25.00
1980	375	58,988	5,772	28,594	11,115	749	25.00
1981	967	49,708	9,453	217,379	8,614	1,321	26.00
1982	1,000	72,140	10,288	15,141	6,719	647	21.00
1983	299	20,689	21,234	133,943	7,143	589	37.00
1984	756	64,281	22,235	243,448	41,797	1,236	24.00
1985	1,141	92,899	40,565	265,567	24,095	1,372	36.00
1986	1,283	60,462	90,584	203,137	33,818	1,664	31.00
1987	395	57,262	16,758	126,423	16,148	799	20.00
1988	652	35,192	6,754	58,605	27,410	682	19.00
1989	963	84,848	36,715	683,150	27,195	1,583	34.00
1990	1,348	80,883	69,709	234,643	30,758	1,676	34.00
1991	1,209	54,389	61,005	68,557	38,760	1,505	39.00
Averages							
64-91	918	38,306	26,105	194,111	18,382	1,361	32.41
82-91	905	62,305	37,585	203,261	25,384	1,175	29.50
1992	612	56,546	107,940	55,744	39,571	1,603	40.00

Appendix B.4. Stock proportions and catches of sockeye salmon in the Alaskan Subdistrict 106-30 (Clarence Strait) commercial drift gillnet fishery, 1985-1992. Data based on SPA.

			Stikine		
Year	Alaska	Canada	Tahltan	non-Tahltan	Total
Proportions					
1985	0.477	0.453	0.056	0.013	0.070
1986	0.726	0.272	0.000	0.002	0.002
1987	0.844	0.140	0.004	0.012	0.016
1988	0.883	0.095	0.021	0.000	0.021
1989	0.662	0.322	0.002	0.015	0.016
1990	0.645	0.340	0.001	0.013	0.015
1991	0.683	0.257	0.052	0.008	0.060
Average					
85-91	0.703	0.268	0.019	0.009	0.029
1992	0.630	0.211	0.022	0.138	0.159
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
1988	31,092	3,358	742	0	742
1989	56,167	27,296	154	1,231	1,385
1990	52,188	27,506	114	1,075	1,189
1991	37,164	13,971	2,804	450	3,255
Average					
85-91	44,735	19,811	1,327	689	2,016
1992	35,612	11,930	1,226	7,778	9,004

Appendix B.5. Salmon catch and effort in the Alaskan District 106 commercial drift gillnet fisheries, 1964-1992. Catches do not include Blind Slough terminal area harvests. Effort may be less than the sum of effort from 106-41/42 and 106-30 since some boats fished in more than one subdistrict.

	Catch					Effort	
Year	Chinook	Sockeye	Coho	Pink	Chum	Permit Days	Days Open
1964	2,082	76,541	64,654	443,086	44,218	5,383	49.00
1965	1,802	87,749	75,728	625,848	27,658	4,507	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	27.00
1968	1,316	64,671	67,151	169,107	61,366	4,965	52.00
1969	877	70,318	10,280	197,073	10,903	2,112	31.00
1970	785	42,778	35,470	94,892	32,231	1,863	41.00
1971	1,336	53,202	48,085	527,975	37,680	2,774	47.00
1972	2,573	101,338	93,427	89,467	72,382	3,311	41.00
1973	1,931	71,995	38,447	303,621	87,729	3,300	26.00
1974	1,926	57,346	45,651	104,403	50,309	2,177	28.00
1975	2,587	32,051	30,962	203,015	23,968	1,781	18.00
1976	384	15,481	19,126	139,439	6,868	922	22.00
1977	671	67,023	8,401	419,107	13,300	1,381	28.00
1978	2,682	41,574	55,578	224,715	16,545	1,567	27.10
1979	2,720	66,373	28,083	648,212	35,507	2,784	31.40
1980	580	107,422	16,666	45,666	26,277	1,329	25.00
1981	1,565	182,001	22,614	437,573	34,296	2,928	26.00
1982	1,648	193,696	31,664	25,479	18,630	1,659	22.50
1983	567	48,842	62,442	208,290	20,144	1,422	31.40
1984	892	91,653	41,359	343,255	70,258	1,783	31.40
1985	1,689	264,987	91,142	584,946	69,661	2,625	31.40
1986	1,704	145,709	194,912	308,484	82,289	3,446	31.40
1987	836	136,427	34,534	243,482	42,025	1,726	19.50
1988	1,104	92,529	13,103	69,499	69,620	1,460	18.50
1989	1,544	192,734	92,386	1101194	67,351	3,080	32.40
1990	2,107	185,805	164,211	319,186	73,232	3,440	33.40
1991	2,066	143,112	197,803	132,739	123,730	3,642	39.00
Averages							
64-91	1,534	100,342	59,442	303,653	45,904	2,673	33.41
82-91	1,416	149,549	92,356	333,655	63,694	2,428	29.09
1992	1,355	203,104	298,740	94,209	140,834	4,227	40.00

Appendix B.6. Stock proportions and catches of sockeye salmon in the Alaskan District 106 commercial drift gillnet fisheries, 1982-1992. Catches do not include Blind Slough terminal area harvests. Data based on SPA.

			Stikine		
Year	Alaska	Canada	Tahltan	non-Tahltan	Total
Proportions					
1982	0.486	0.319			0.194
1983	0.668	0.217	0.103	0.013	0.116
1984	0.658	0.269	0.029	0.044	0.074
1985	0.479	0.419	0.091	0.011	0.102
1986	0.689	0.293	0.014	0.004	0.018
1987	0.827	0.155	0.010	0.007	0.017
1988	0.874	0.106	0.020	0.001	0.020
1989	0.657	0.311	0.006	0.026	0.032
1990	0.608	0.371	0.005	0.016	0.021
1991	0.545	0.331	0.100	0.024	0.124
Averages					
83-91	0.667	0.275	0.042	0.016	0.058
1992	0.595	0.232	0.070	0.102	0.172
Catches					
1982	94,225	61,821			37,650
1983	32,603	10,589	5,020	631	5,650
1984	60,278	24,624	2,673	4,078	6,751
1985	126,914	111,015	24,045	3,013	27,058
1986	100,337	42,685	2,081	606	2,687
1987	112,893	21,190	1,376	968	2,344
1988	80,868	9,784	1,813	64	1,877
1989	126,603	59,959	1,111	5,061	6,172
1990	112,983	68,921	915	2,986	3,901
1991	77,996	47,376	14,263	3,476	17,740
Averages					
83-91	92,386	44,016	5,922	2,320	8,242
1992	120,947	47,195	14,183	20,779	34,962

Appendix B.7. Salmon catch and effort in the Alaskan District 108 commercial drift gillnet fishery, 1964-1992. Catches do not include Ohmer Creek terminal area harvests. Permit days are adjusted for boats which did not fish the entire opening and may total less than the sum of the permits times days open.

	Catch					Effort	
Year	Chinook	Sockeye	Coho	Pink	Chum	Permit Days	Days Open
1964	2,911	20,299	29,388	114,555	10,771		62.0
1965	3,106	21,419	8,301	4,729	2,480		48.0
1966	4,516	36,710	16,493	61,908	17,730		62.0
1967	6,372	29,226	6,747	4,713	5,955		40.0
1968	4,604	14,594	36,407	91,028	14,537		61.0
1969	5,021	19,209	5,790	11,877	2,312	967	46.0
1970	3,207	15,120	18,403	20,523	12,305	1,222	51.0
1971	3,717	18,143	14,876	21,806	4,665	1,070	57.0
1972	9,332	51,734	38,520	17,153	17,363	2,095	64.0
1973	9,254	21,387	5,837	6,585	6,680	1,519	39.0
1974	8,199	2,428	16,021	4,188	2,107	1,178	28.5
1975	1,534	0	0	0	1	258	8.0
1976	1,123	18	6,056	722	124	372	19.0
1977	1,443	48,374	14,405	16,253	4,233	742	23.0
1978	531	56	32,650	1,157	1,001	565	12.0
1979	91	2,158	234	13,478	1,064	94	5.0
1980	631	14,053	2,946	7,224	6,910	327	22.0
1981	283	8,833	1,403	1,466	3,594	177	9.0
1982	1,033	6,911	19,971	16,988	741	494	21.0
1983	47	178	15,369	4,171	675	263	17.0
1984	14	1,290	5,141	4,960	1,892	56	8.6
1985	20	1,060	1,926	5,325	1,892	70	14.0
1986	102	4,185	7,439	4,901	5,928	246	25.0
1987	149	1,620	1,015	3,331	949	81	13.0
1988	206	1,246	12	144	3,109	66	8.0
1989	310	10,083	4,261	27,640	3,375	216	28.0
1990	557	11,574	8,218	13,822	9,382	359	34.0
1991	1,504	22,275	15,864	10,935	11,402	1,114	48.5
Averages							
64-91	2,493	13,721	11,918	17,557	5,471	589	31.2
82-91	394	6,042	7,922	9,222	3,935	296	21.7
1992	967	52,717	22,127	66,451	15,451	1,029	51.0

Appendix B.8. Stock proportions and catches of sockeye salmon in the Alaskan District 108 commercial drift gillnet fishery, 1985-1992. Catches do not include Ohmer Creek terminal area harvests. Data based on SPA.

			Stikine		
Year	Alaska	Canada	Tahltan	non-Tahltan	Total
Proportions					
1985	0.064	0.000	0.292	0.644	0.936
1986	0.206	0.017	0.094	0.683	0.777
1987[a]	0.125	0.000	0.438	0.437	0.875
1988	0.213	0.039	0.178	0.571	0.749
1989	0.117	0.054	0.034	0.795	0.829
1990	0.395	0.128	0.111	0.366	0.477
1991	0.173	0.118	0.395	0.314	0.709
Averages					
85-91	0.185	0.051	0.220	0.544	0.765
1992	0.163	0.051	0.258	0.528	0.786
Catch					
1985	68	0	310	683	992
1986	862	71	393	2,858	3,252
1987	203	0	710	708	1,418
1988	265	48	222	711	933
1989	1,180	545	341	8,017	8,358
1990	4,576	1,479	1,280	4,239	5,519
1991	3,859	2,622	8,807	6,987	15,794
Averages					
85-91	1,573	681	1,723	3,458	5,181
1992	8,604	2,696	13,599	27,818	41,417

[a] There was no data available to determine the ratio of Tahltan to non-Tahltan Stikine stocks; a 1:1 ratio was assumed.

Appendix B.9. Salmon catch in the Alaskan Subdistrict 106-41 (Sumner Strait) test fishery, 1984-1992.

Year	Catch					Boat Hours
	Chinook	Sockeye	Coho	Pink	Chum	
1984	13	1,370	101	975	793	142.51
1985	16	4,345	301	3,230	746	156.31
1986	23	982	177	60	248	99.45
1987	24	2,659	799	4,117	741	508.10
1988	11	1,020	89	137	772	121.00
1989	11	2,043	275	6,069	856	60.20
1990	13	2,256	432	372	552	7.00
1991	There was no test fishery in 1991					
1992	There was no test fishery in 1992					

Appendix B.10. Stock proportions and catches of sockeye salmon in the Alaskan Subdistrict 106-41 and -42 (Sumner Strait) test fishery, 1984-1992. Data based on SPA.

Year			Stikine		
	Alaska	Canada	Tahltan	non-Tahltan	Total
Proportions					
1984	0.658	0.269	0.029	0.044	0.074
1985	0.480	0.401	0.109	0.010	0.119
1986	0.834	0.149	0.008	0.009	0.017
1987	0.816	0.166	0.015	0.003	0.018
1988	0.868	0.098	0.034	0.000	0.034
1989	0.624	0.304	0.017	0.056	0.072
1990	0.548	0.416	0.014	0.022	0.035
1991	There was no test fishery in 1991				
1992	There was no test fishery in 1992				
Catch					
1984	901	368	40	61	101
1985	2,085	1,741	475	44	519
1986	819	146	8	9	17
1987	2,169	442	39	9	47
1988	886	100	35	0	35
1989	1,274	621	34	114	148
1990	1,237	939	31	49	80
1991	There was no test fishery in 1991				
1992	There was no test fishery in 1992				

Appendix B.11. Salmon catch and effort in the Alaskan Subdistrict 106-30 (Clarence Strait) test fishery, 1986-1992.

Year	Catch					Boat Hours
	Chinook	Sockeye	Coho	Pink	Chum	
1986	24	363	95	80	58	23.25
1987	1	899	589	1,705	467	384.00
1988	10	16	412	112	598	119.70
1989	4	37	464	431	329	
1990	There was no test fishery in 1990					
1991	There was no test fishery in 1991					
1992	There was no test fishery in 1992					

Appendix B.12. Stock proportions and catches of sockeye salmon in the Alaskan Subdistrict 106-30 (Clarence Strait) test fishery, 1986-1992. Data based on SPA.

Year	Alaska	Canada	Stikine		
			Tahltan	non-Tahltan	Total
Proportions					
1986	0.726	0.272	0.000	0.002	0.002
1987	0.844	0.140	0.004	0.012	0.016
1988	0.746	0.254	0.000	0.000	0.000
1989	0.514	0.486	0.000	0.000	0.000
1990	There was no test fishery in 1990				
1991	There was no test fishery in 1991				
1992	There was no test fishery in 1992				
Catches					
1986	263	99	0	1	1
1987	758	126	3	11	15
1988	12	4	0	0	0
1989	19	18	0	0	0
1990	There was no test fishery in 1990				
1991	There was no test fishery in 1991				
1992	There was no test fishery in 1992				

Appendix B.13. Salmon catch and effort in the Alaskan District 106 test fisheries, 1984-1992.

Year	Catch					Boat Hours
	Chinook	Sockeye	Coho	Pink	Chum	
1984	13	1,370	101	975	793	142.51
1985	16	4,345	301	3,230	746	156.31
1986	47	1,345	272	140	306	122.70
1987	25	3,558	1,388	5,822	1,208	892.10
1988	21	1,036	501	249	1,370	240.70
1989	15	2,080	739	6,500	1,185	60.20
1990	13	2,256	432	372	552	7.00
1991	There were no test fisheries in 1991					
1992	There were no test fisheries in 1992					

Appendix B.14. Stock proportions and catches of sockeye salmon in the Alaskan District 106 test fisheries, 1984-1992. Data based on SPA.

Year	Alaska	Canada	Stikine		
			Tahltan	non-Tahltan	Total
Proportions					
1984	0.658	0.269	0.029	0.044	0.074
1985	0.480	0.401	0.109	0.010	0.119
1986	0.805	0.182	0.006	0.007	0.013
1987	0.823	0.160	0.012	0.006	0.017
1988	0.867	0.100	0.033	0.000	0.033
1989	0.622	0.307	0.016	0.055	0.071
1990	0.548	0.416	0.014	0.022	0.035
1991	There were no test fisheries in 1991				
1992	There were no test fisheries in 1992				
Catch					
1984	901	368	40	61	101
1985	2,085	1,741	475	44	519
1986	1,082	245	8	9	17
1987	2,928	568	42	20	62
1988	898	104	35	0	35
1989	1,293	639	34	114	148
1990	1,237	939	31	49	80
1991	There were no test fisheries in 1991				
1992	There were no test fisheries in 1992				

Appendix B.15. Salmon catch and effort in the Alaskan District 108 test fishery, 1984-1992.

Year	Catch					Boat Hours
	Chinook	Sockeye	Coho	Pink	Chum	
1984	37	641	11	822	813	
1985	33	1,258	11	465	381	71.67
1986	79	564	3	36	315	72.15
1987	30	290	13	1,957	488	76.87
1988	65	451	9	1,091	1,009	126.83
1989	15	1,038	45	2,459	283	63.47
1990	19	866	45	942	643	7.00
1991	21	893	18	390	455	154.99
Averages 84-91	37	750	19	1,020	548	81.85
1992	26	1299	23	855	252	79.00

Appendix B.16. Stock proportions and catches of sockeye salmon in the Alaskan District 108 test fishery, 1985-1992. Data based on SPA.

Year	Alaska	Canada	Stikine		
			Tahltan	non-Tahltan	Total
Proportions					
1985	0.064	0.000	0.292	0.644	0.936
1986	0.134	0.044	0.486	0.336	0.822
1987	0.125	0.000	0.438	0.437	0.875
1988	0.205	0.049	0.132	0.614	0.746
1989	0.132	0.084	0.072	0.712	0.784
1990	0.417	0.172	0.094	0.318	0.411
1991	0.128	0.128	0.494	0.251	0.745
Averages 85-91	0.172	0.068	0.287	0.473	0.760
1992	0.149	0.076	0.333	0.442	0.774
Catch					
1985	81	0	367	810	1,177
1986	76	25	274	190	464
1987	36	0	127	127	254
1988	93	22	59	277	336
1989	137	87	75	739	814
1990	361	149	81	275	356
1991	114	114	441	224	665
Averages 85-91	128	57	204	377	581
1992	194	99	432	574	1,006

Numbers may not sum due to rounding.

Appendix B.17. Salmon and steelhead trout catch and effort in the Canadian commercial fishery in the lower Stikine River, 1979-1992.

	Catch							Effort	
	Chinook							Permit	
Year	Jacks	Large	Sockeye	Coho	Pink	Chum	Steelhead	Days	Days
1979[a]	63	712	10,534	10,720	1,994	424	264	56.0	42.0
1980		1,488	18,119	6,629	736	771	362	668.0	41.0
1981		664	21,551	2,667	3,713	1,128	280	522.0	32.0
1982		1,693	15,397	15,904	1,782	722	828	1,063.0	71.0
1983	430	492	15,857	6,170	1,043	274	667	434.0	54.0
1984[b]									
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	239.0	13.5
1987	242	909	6,138	5,728	646	432	217	287.0	20.0
1988	201	1,007	12,766	2,112	418	730	258	320.0	26.5
1989	157	1,537	17,179	6,092	825	674	127	325.0	23.0
1990	680	1,569	14,530	4,020	496	499	188	328.0	29.0
1991	318	641	17,563	2,638	394	208	71	282.4	39.0
Averages[c]									
79-91		1,193	14,928	5,594	1,206	557	307	447.5	34.5
82-91		1,266	14,326	5,235	892	485	309	380.4	33.2
1992	89	873	21,031	1,850	122	231	129	235.5	55.0

[a] The lower river commercial catch in 1979 includes the upper river commercial catch.
[b] There was no commercial fishery in 1984.
[c] Chinook average is for jacks and large fish combined.

Appendix B.18. Sockeye salmon stock proportions and catch by stock in the Canadian commercial fishery in the lower Stikine River, 1979-1992. Stock compositions based on: scale circuli counts 1979-1983, SPA in 1985; average of SPA and GPA 1986; SPA in 1987 and 1988; and egg diameter in 1989-1992.

	Proportions		Catch	
Year	Tahltan	non-Tahltan	Tahltan	non-Tahltan
1979	0.433	0.567	4,561	5,973
1980	0.309	0.691	5,599	12,520
1981	0.476	0.524	10,258	11,293
1982	0.624	0.376	9,608	5,789
1983	0.422	0.578	6,692	9,165
1984[a]				
1985	0.623	0.377	10,649	6,444
1986	0.489	0.511	6,069	6,342
1987	0.225	0.775	1,380	4,758
1988	0.161	0.839	2,062	10,704
1989	0.164	0.836	2,813	14,366
1990	0.346	0.654	5,029	9,501
1991	0.634	0.366	11,136	6,427
Averages				
79-91	0.409	0.591	6,321	8,607
82-91	0.410	0.590	6,160	8,166
1992	0.482	0.518	10,134	10,897

[a] There was no commercial fishery in 1984.

Appendix B.19. Salmon and steelhead trout catch and effort in the Canadian commercial fishery in the upper Stikine River, 1975-1992.

	Catch							Effort	
	Chinook							Permit	
Year	Jacks	Large	Sockeye	Coho	Pink	Chum	Steelhead	Days	Days
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 [a]									
1980		156	700	40	20	0	0		
1981		154	769	0	0	0	0	11.0	5.0
1982		76	195	0	0	0	0	8.0	4.0
1983		75	614	0	0	4	1	10.0	8.0
1984 [b]									
1985		62	1,084	0	0	0	0	14.0	6.0
1986	41	104	815	0	0	0	0	19.0	7.0
1987	19	109	498	0	0	19	0	20.0	7.0
1988	46	175	348	0	0	0	0	21.5	6.5
1989	17	54	493	0	0	0	0	14.0	7.0
1990	20	48	472	0	0	0	0	15.0	7.0
1991	32	117	761	0	0	0	0	13.0	6.0
Averages [c]									
75-91		118	748	7	1	2	0		
82-91		100	587	0	0	3	0	14.9	6.5
1992	19	56	822	0	0	0	0	28.0	13.0

[a] Catches in 1979 were included in the lower river commercial catches.
[b] There was no commercial fishery in 1984.
[c] Chinook averages are for jacks and large fish combined.

Appendix B.20. Salmon and steelhead trout catch in the Canadian Indian food fishery located at Telegraph Creek, on the Stikine River, 1972-1992.

	Catch						
	Chinook						
Year	Jacks	Large	Sockeye	Coho	Pink	Chum	Steelhead
1972			4,373	0	0	0	0
1973		200	3,670	0	0	0	0
1974		0	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	4,697	100	144	0	4
1982		618	4,948	200	60	0	0
1983	215	851	4,649	40	77	26	46
1984	59	643	5,327	1	62	0	2
1985	94	793	7,287	3	35	4	9
1986	569	1,026	4,208	2	0	12	2
1987	183	1,183	2,979	3	0	8	2
1988	197	1,178	2,177	5	0	3	3
1989	115	1,078	2,360	6	0	0	0
1990	259	633	3,022	17	0	0	11
1991	310	753	4,439	10	0	0	10
Averages [a]							
72-91		776	3,773	20	19	3	4
82-91		1,076	4,140	9	23	5	8
1992	131	911	4,431	5	0	0	3

[a] Chinook averages are for jacks and large fish combined.

Appendix B.21. Salmon and steelhead trout catch in the combined Canadian net fisheries in the Stikine River, 1972-1992.

Year	Chinook Jacks	Chinook Large	Sockeye	Coho	Pink	Chum	Steel-head
1972	0	0	4,373	0	0	0	0
1973	0	200	3,670	0	0	0	0
1974	0	100	3,500	0	0	0	0
1975	0	1,202	2,252	50	0	0	0
1976	0	1,160	3,644	13	0	0	0
1977	0	162	6,310	0	0	0	0
1978	0	500	5,000	0	0	0	0
1979	63	1,562	13,534	10,720	1,994	424	264
1980	0	2,231	20,919	6,769	756	771	362
1981	0	1,404	27,017	2,867	3,857	1,128	284
1982	0	2,387	20,540	15,944	1,842	722	828
1983	645	1,418	21,120	6,173	1,120	304	714
1984[a]	59	643	5,327	1	62	0	2
1985	185	1,111	25,464	2,175	2,356	536	240
1986	975	1,936	17,434	2,280	107	307	194
1987	444	2,201	9,615	5,731	646	459	219
1988	444	2,360	15,291	2,117	418	733	261
1989	289	2,669	20,032	6,098	825	674	127
1990	959	2,250	18,024	4,037	496	499	199
1991	660	1,511	22,763	2,648	394	208	71
Averages [b]							
72-91		1,587	13,291	3,381	744	338	188
82-91		2,315	17,561	4,720	827	444	286
1992	239	1,840	26,284	1,855	122	231	132

[a] There was no commercial fishery in 1984.
[b] Chinook averages are for jacks and large fish combined.

Appendix B.22. Salmon and steelhead trout catches and effort in Canadian test fisheries in the Stikine River, 1985-1992.

Year	Fishery	Chinook Jacks	Chinook Large	Sockeye	Coho	Pink	Chum	Steelhead	Effort Drift=# Set=hr.
1985	C. Set			1,340					
1986	C. Drift	12	27	412	226	8	25		405
1987	J. Drift	[a]	128	385	162	111	61		845
	J. Set	19	61	1,283	620	587	193		1,456
1988	J. Drift	14	168	325	75	9	33	7	720
	J. Set	15	101	922	130	23	65	14	1,380
1989	C. Drift	4	116	364	242	41	46	5	870
	C. Set	20	101	1,243	502	249	103	17	1,392
1990	C. Drift	6	167	447	134	5	29	6	673
	C. Set	12	64	1,493	271	42	48	18	1,212
1991	C. Drift	1	90	503	118	37	30	3	509
	C. Set	15	77	1,872	127	197	48	1	1,668
1992	C. Drift	27	135	393	75	13	23	7	312
	C. Set	21	62	1,971	193	56	43	19	1,249
	C. Add.	134	417	594	0	0	0	0	85

[a] 1987 jack chinook catch is for both set and drift nets.

Appendix B.23. Sockeye salmon stock proportions and catch by stock in the test fishery in the lower Stikine River, 1985-1992. Stock compositions based on: SPA 1985; average of SPA and GPA 1986-1988; Egg diameter 1989-1992.

Year	Catch Tahltan		Proportion Tahltan		Average Proportion [a]	
	U.S.	Canada	U.S.	Canada	Tahltan	non-Tahltan
1985	560	439	0.418	0.328	0.372	0.628
1986	164	127	0.398	0.308	0.352	0.648
1987	513	397	0.308	0.238	0.273	0.727
1988	408	295	0.327	0.237	0.282	0.718
1989		414		0.258	0.258	0.742
1990		822		0.454	0.454	0.546
1991		1443		0.608	0.608	0.392
1992		1912		0.646	0.646	0.354

[a] Average proportions are from averages of weekly estimates.

Appendix B.24. Estimated proportion of inriver run comprised of Tahltan and non-Tahltan sockeye stocks, 1979-1992. Stock compositions based on: scale circuli counts 1979-1983, SPA in 1985; average of SPA and GPA 1986-1988; and egg diameter analysis in 1989-1992.

Year	Tahltan		Average [a]	
	U.S.	Canada	Tahltan	non-Tahltan
1979	0.433		0.433	0.567
1980	0.305		0.305	0.695
1981	0.475		0.475	0.525
1982	0.618		0.618	0.382
1983	0.489	0.423	0.456	0.544
1984	0.635	0.394	0.493	0.507
1985	0.621	0.363	0.466	0.534
1986	0.398	0.500	0.449	0.551
1987	0.338	0.257	0.304	0.696
1988	0.209	0.122	0.172	0.828
1989		0.188	0.188	0.812
1990		0.417	0.417	0.583
1991		0.561	0.561	0.439
Averages				
79-91			0.410	0.590
82-91			0.412	0.588
1992		0.496	0.496	0.504

[a] Average proportions are from averages of weekly stock composition and migratory timing (from drift test fishery) estimates.

Appendix B.25. Counts of adult sockeye salmon migrating through Tahltan Lake weir, 1959-1992.

Year	Weir Installed	Date of Arrival			Total Count	No. Taken	
		First	50%	90%		Broodstock and Other	Natural Spawners
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[a]	01-Aug	02-Aug	05-Aug	08-Aug	14,508		
1963[b]	03-Aug				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		
1987	14-Jul	21-Jul	04-Aug	13-Aug	6,958		
1988	16-Jul	16-Jul	06-Aug	14-Aug	2,536		
1989	07-Jul	09-Jul	01-Aug	14-Aug	8,316	2,210	6,106
1990	06-Jul	15-Jul	26-Jul	03-Aug	14,927	3,302	11,625
1991	15-Jul	17-Jul	25-Jul	07-Aug	50,135	3,552	46,583
Averages							
59-91	10-Jul	20-Jul	31-Jul	11-Aug	20,261		
82-91	05-Jul	15-Jul	28-Jul	07-Aug	25,277		
1992	10-Jul	18-Jul	25-Jul	03-Aug	59,907	3,694	56,213

[a] Question as to date weir installed.
[b] Daily counts unavailable.
[c] A slide occurred blocking the entrance for a while.

Appendix B.26. Aerial survey counts of non-Tahltan sockeye stocks in the Stikine River drainage, 1984-1992. The index represents the combined counts from eight spawning areas.

Year	Escapement Index
1984	2,329
1985	1,136
1986	571
1987	691
1988	376
1989	809
1990	743
1991	387
Averages 84-91	880
1992	1,723

Appendix B.27. Estimates of sockeye salmon smolt migrating through Tahltan Lake smolt weir, 1984-1992.

Year	Weir Installed	Date of Arrival First	50%	90%	Total Estimate	Natural Smolt	Enhanced Smolt
1984	10-May	11-May	23-May	06-Jun	218,702		
1985	25-Apr	23-May	31-May	28-May	613,531		
1986	08-May	10-May	31-May	07-Jun	244,330		
1987[a]	07-May	15-May	23-May	24-May	810,432		
1988	01-May	08-May	20-May	06-Jun	1,170,136		
1989	05-May	08-May	22-May	06-Jun	580,574		
1990[b]	05-May	15-May	29-May	05-Jun	610,407		
1991[c]	05-May	14-May	21-May	30-May	1,487,265	1,220,397	266,868
Averages 84-91	04-May	13-May	25-May	02-Jun	716,922		
1992[d]	07-May	13-May	21-May	27-May	1,555,026	750,702	804,324

[a] Estimate includes approximately 30,000 mortalities from overcrowding on 5/22, 1987.
[b] Estimate of 595,147 on June 14 expanded by average % of outmigration by date (97.5%) from historical data.
[c] Estimate of 1,439,673 on June 13 expanded by average % of outmigration by date (96.8%) from historical data.
[d] Estimate of 1,516,150 on June 14 expanded by average % of outmigration by date (97.5%) from historical data.

Appendix B.28. Weir counts of chinook salmon at Little Tahltan River, 1985-1992.

Year	Weir Installed	First Arrival	50% Arrival	90% Arrival	Total Count	No. Taken Broodstock and Other	Natural Spawners	Total Natural Spawners
Large Chinook								
1985	03-Jul	04-Jul	30-Jul	06-Aug	3,114		3,114	
1986	28-Jun	29-Jun	21-Jul	05-Aug	2,891		2,891	
1987	28-Jun	04-Jul	24-Jul	02-Aug	4,783		4,783	
1988	26-Jun	27-Jun	18-Jul	03-Aug	7,292		7,292	
1989	25-Jun	26-Jun	23-Jul	02-Aug	4,715		4,715	
1990	22-Jun	29-Jun	23-Jul	04-Aug	4,392		4,392	
1991	23-Jun	25-Jun	20-Jul	03-Aug	4,506		4,506	
Averages								
85-91	26-Jun	29-Jun	22-Jul	03-Aug	4,528		4,528	
1992	24-Jun	04-Jul	21-Jul	30-Jul	6,627	12	6,615	
Jack Chinook (fish <600 mm poh length)								
1985	03-Jul	04-Jul	31-Jul	10-Aug	316			3,430
1986	28-Jun	03-Jul	25-Jul	06-Aug	572			3,463
1987	28-Jun	03-Jul	26-Jul	06-Aug	365			5,148
1988	26-Jun	27-Jun	17-Jul	02-Aug	327			7,619
1989	25-Jun	26-Jun	23-Jul	02-Aug	199			4,914
1990	22-Jun	05-Jul	22-Jul	30-Jul	417			4,809
1991	23-Jun	03-Jul	24-Jul	07-Aug	313			4,819
Averages								
85-91	26-Jun	01-Jul	24-Jul	04-Aug	358			4,886
1992	24-Jun	12-Jul	22-Jul	30-Jul	131			6,746

Appendix B.29. Index counts of Stikine chinook escapements, 1979-1992. Counts do not include jacks (fish less than 600mm mef length).

Year	Little Tahltan Weir	Little Tahltan Aerial	Tahltan Aerial	Beatty Aerial	Andrew Foot
1979		1,166	2,118		382 [ab]
1980		2,137	960	122	363 [ab]
1981		3,334	1,852	558	644 [ab]
1982		2,830	1,690	567	947 [ab]
1983		594	453	83	444 [ab]
1984		1,294		126	389 [ab]
1985	3,114	1,598	1,490	147	319
1986	2,891	1,201	1,400	183	707
1987	4,783	2,706	1,390	312	788 [c]
1988	7,292	3,796	4,384	593	470
1989	4,715	2,527	[d]	362	530
1990	4,392	1,765	2,134	271	664
1991	4,506	1,768	2,445	193	400 [e]
Averages					
79-91		2,055	1,847	293	542
82-91	4,528	2,008	1,923	284	566
1992	6,627 [b]	3,607	1,891	362	778 [c]

[a] Numbers are weir counts.
[b] Count includes fish later removed for broodstock.
[c] Helicopter survey
[d] Not surveyed due to poor visibility.
[e] Fixed wing survey.

Appendix B.30. Index counts of Stikine coho salmon escapements, 1984-1992.

Year and Date	Katete South	Katete North	Craig	Jekill	Verret	Bronson Slough	Scud Slough	Porcupine	Christina	Total
1984 10/30	147	313	0	0	15	42				517
1985 10/25	590	1,217	735		39	0	924	365		3,870
1988 10/28	32	227	[a]	[a]	175		97	53	0	584
1989 10/29	336	896	992	[a]	848	120	707	90	55	4,044
1990 10/30	94	548	810		494		664	430		3,040
1991	302	878	985		218		221	352		2,956
1984-1991 Aug.	250	680	704	0	298	54	523	258	28	2,502
1992	295	1,346	949		320		462	316		3,688

[a] Poor observation conditions.

Appendix B.31. Stikine River sockeye salmon run size, 1979-1992. Catches include test fishery catches. Numbers may not sum due to rounding.

	Inriver run size estimates						
Year	Canada	U.S.	Average[a]	Inriver Catch	Escapement	Marine Catch	Total Run
1979		40,353	40,353	13,534	26,819	8,299	48,652
1980		62,743	62,743	20,919	41,824	23,206	85,949
1981		140,029	138,879	27,017	111,862	27,538	166,417
1982		68,761	68,761	20,540	48,221	43,415	112,176
1983	77,260	66,838	71,683	21,120	50,563	5,799	77,482
1984	95,454	59,168	76,211	5,327	70,884	7,928	84,139
1985	237,261	138,498	184,747	26,804	157,943	29,747	214,494
1986			69,036	17,846	51,190	6,420	75,456
1987			39,264	11,283	27,981	4,077	43,342
1988			41,915	16,538	25,377	3,181	45,096
1989			75,054	21,639	53,415	15,492	90,546
1990			57,386	19,964	37,422	9,856	67,242
1991			120,152	25,138	95,014	34,199	154,351
Averages							
79-91			80,476	19,051	61,424	16,858	97,334
82-91			80,421	18,620	61,801	16,011	96,432
1992			154,542	29,242	125,299	77,385	231,927
Tahltan sockeye run size							
1979			17,472	7,261	10,211	5,076	22,548
1980			19,137	8,119	11,018	11,239	30,376
1981			66,968	15,178	50,790	16,189	82,157
1982			42,493	14,236	28,257	24,785	67,278
1983			32,684	11,428	21,256	5,094	37,778
1984			37,571	4,794	32,777	3,251	40,822
1985			86,008	18,682	67,326	25,197	111,205
1986			31,015	10,735	20,280	2,757	33,771
1987			11,923	4,965	6,958	2,255	14,178
1988			7,222	4,686	2,536	2,129	9,351
1989			14,110	5,794	8,316	1,561	15,671
1990			23,923	8,996	14,927	2,307	26,230
1991			67,394	17,259	50,135	23,511	90,905
Averages							
79-91			35,148	10,164	24,984	9,642	44,790
82-91			35,434	10,158	25,277	9,285	44,719
1992			76,681	16,774	59,907	28,214	104,895
Non-Tahltan sockeye run size							
1979			22,880	6,273	16,608	3,223	26,103
1980			43,606	12,800	30,806	11,967	55,573
1981			72,911	11,839	61,072	11,349	84,260
1982			26,267	6,304	19,964	18,630	44,898
1983			38,999	9,692	29,307	705	39,704
1984			38,640	533	38,107	4,677	43,317
1985			98,739	8,122	90,617	4,550	103,289
1986			38,022	7,111	30,910	3,663	41,685
1987			27,342	6,318	21,023	1,822	29,164
1988			34,693	11,852	22,841	1,052	35,745
1989			60,944	15,845	45,099	13,931	74,875
1990			33,464	10,968	22,495	7,549	41,013
1991			52,758	7,879	44,879	10,687	63,446
Averages							
79-91			45,328	8,887	36,441	7,216	52,544
82-91			44,987	8,462	36,524	6,727	51,713
1992			77,860	12,468	65,392	49,171	127,031

[a] The averages for 1983-1985 are averages of weekly run timing estimates as well as stock composition estimates and are not simple averages of total estimates for the season.

Appendix C.1. Weekly salmon catch and effort in the Alaskan District 111 commercial drift gillnet fishery, 1992.

Week	Start Date	Catch					Effort		
		Chinook	Sockeye	Coho	Pink	Chum	Boats	Days Open	Boat Days
26	21-Jun	552	3,098	212	78	828	42	3.0	126
27	28-Jun	530	11,604	120	2,481	4,489	73	3.0	219
28	05-Jul	415	20,390	104	6,047	7,010	82	4.0	328
29	12-Jul	250	23,919	692	24,248	17,575	87	3.0	261
30	19-Jul	189	22,949	1,256	43,388	35,691	110	3.0	330
31	26-Jul	146	19,961	1,558	84,114	19,633	106	5.0	530
32	02-Aug	160	15,838	4,005	60,979	7,319	85	5.0	425
33	09-Aug	36	11,522	7,756	60,075	5,180	94	4.0	376
34	16-Aug	18	3,411	6,384	28,379	2,360	80	5.0	400
35	23-Aug	16	1,887	16,165	4,306	3,748	87	2.0	174
36	30-Aug	2	489	22,722	278	4,140	80	2.0	160
37	06-Sep	10	257	38,848	70	2,536	120	3.0	360
38	13-Sep	6	66	44,218	2	1,560	131	3.0	393
39	20-Sep	8	19	25,921	0	409	130	3.0	390
40	27-Sep	3	1	2,701	0	49	39	2.0	78
Total		2,341	135,411	172,662	314,445	112,527	210	50.0	4,550

Appendix C.2. Weekly salmon catch and effort in the Alaskan District 111 test fishery, 1992. The fishery occurred entirely within Port Snettisham.

Week	Start Date	Catch				
		Chinook	Sockeye	Coho	Pink	Chum
28	05-Jul	1	8	0	1	0
29	12-Jul	0	13	0	8	5
30	19-Jul	1	1	0	24	5
31	26-Jul	0	16	0	56	7
32	02-Aug	0	4	0	127	4
Total		2	42	0	216	21

Not all fish caught were sold, therefore, fish ticket catch totals are incorrect.

Appendix C.3. Weekly stock proportions of sockeye salmon harvested in the Alaskan District 111 commercial drift gillnet fishery, 1992. Data based on analysis of scale patterns and brain parasite incidence.

Week	Kuthai	Little Trapper	Mainstem	Little Tatsamenie	Total Taku	Crescent	Speel	Total Snettisham
26	0.406	0.145	0.419	0.008	0.978	0.011	0.011	0.022
27	0.254	0.405	0.318	0.008	0.985	0.005	0.010	0.015
28	0.088	0.471	0.228	0.169	0.956	0.028	0.016	0.044
29	0.006	0.311	0.347	0.252	0.916	0.067	0.017	0.084
30	0.006	0.153	0.622	0.162	0.943	0.005	0.052	0.057
31	0.009	0.157	0.558	0.169	0.893	0.036	0.071	0.107
32	0.003	0.062	0.516	0.277	0.858	0.071	0.071	0.142
33	0.002	0.000	0.493	0.271	0.766	0.039	0.195	0.234
34	0.002	0.000	0.493	0.271	0.766	0.039	0.195	0.234
35	0.002	0.000	0.493	0.271	0.766	0.039	0.195	0.234
36	0.002	0.000	0.493	0.271	0.766	0.039	0.195	0.234
37	0.002	0.000	0.493	0.271	0.766	0.039	0.195	0.234
38	0.002	0.000	0.493	0.271	0.766	0.039	0.195	0.234
39	0.002	0.000	0.493	0.271	0.766	0.039	0.195	0.234
40	0.002	0.000	0.493	0.271	0.766	0.039	0.195	0.234
Total	0.048	0.220	0.445	0.191	0.904	0.036	0.060	0.096

Appendix C.4. Weekly stock-specific catch of Taku sockeye salmon harvested in the Alaskan District 111 commercial drift gillnet fishery, 1992. Data based on analysis of scale patterns and brain parasite incidence.

Week	Kuthai	Little Trapper	Mainstem	Little Tatsamenie	Total Taku	Crescent	Speel	Total Snettisham
26	1,258	449	1,298	25	3,030	34	34	68
27	2,947	4,700	3,690	93	11,430	58	116	174
28	1,794	9,604	4,649	3,446	19,493	571	326	897
29	144	7,439	8,300	6,028	21,910	1,603	407	2,009
30	138	3,511	14,274	3,718	21,641	115	1,193	1,308
31	180	3,134	11,138	3,373	17,825	719	1,417	2,136
32	48	982	8,172	4,387	13,589	1,124	1,124	2,249
33	23	0	5,680	3,122	8,826	449	2,247	2,696
34	7	0	1,682	924	2,613	133	665	798
35	4	0	930	511	1,445	74	368	442
36	1	0	241	133	375	19	95	114
37	1	0	127	70	197	10	50	60
38	0	0	33	18	51	3	13	15
39	0	0	9	5	15	1	4	4
40	0	0	0	0	1	0	0	0
Total	6,543	29,818	60,224	25,853	122,439	4,912	8,060	12,972

Appendix C.5. Weekly salmon and steelhead trout catch and effort in the Canadian commercial fishery in the Taku River, 1992.

		Catch							Effort		
		Chinook									
Week	Start Date	Jacks	Large	Sockeye	Coho	Pink	Chum	Steel-head	Average Permits	Days Open	Permit Days
26	21-Jun	60	801	714	0	0	0	1	10.50	2.0	21.0
27	28-Jun	17	191	734	0	0	0	0	14.00	1.0	14.0
28	05-Jul	42	286	2,143	1	0	0	0	11.50	4.0	46.0
29	12-Jul	18	130	3,155	58	0	0	0	14.00	3.0	42.0
30	19-Jul	10	23	8,651	650	0	0	0	12.33	3.0	37.0
31	26-Jul	0	9	4,301	498	0	0	0	8.50	4.0	34.0
32	02-Aug	0	1	4,573	991	0	0	3	11.00	3.0	33.0
33	09-Aug	0	4	4,780	1,532	0	7	8	11.75	4.0	47.0
34	16-Aug	0	0	31	65	0	0	0	3.00	1.0	3.0
35	23-Aug	0	0	390	282	0	0	3	10.00	2.0	14.0
Total		147	1,445	29,472	4,077	0	7	15	106.58	27.0	291.0

Appendix C.6. Weekly stock proportions of sockeye salmon harvested the Canadian commercial fishery in the Taku River, 1992. Data based on SPA.

Week	Kuthai	Little Trapper	Mainstem	Little Tatsamenie
26	0.522	0.197	0.277	0.004
27	0.526	0.176	0.297	0.001
28	0.253	0.507	0.168	0.072
29	0.189	0.453	0.242	0.116
30	0.041	0.294	0.610	0.055
31	0.045	0.213	0.687	0.055
32	0.027	0.129	0.749	0.095
33	0.025	0.048	0.686	0.241
34	0.025	0.048	0.686	0.241
35	0.025	0.048	0.686	0.241
Total	0.092	0.240	0.569	0.099

Appendix C.7. Weekly stock-specific catch of sockeye salmon in the Canadian commercial fishery in the Taku River, 1992. Data based on SPA.

Week	Kuthai	Little Trapper	Mainstem	Little Tatsamenie
26	373	141	198	3
27	386	129	218	1
28	542	1,087	360	154
29	596	1,429	764	366
30	355	2,543	5,277	476
31	194	916	2,955	237
32	123	590	3,425	434
33	120	229	3,279	1,152
34	1	1	21	7
35	10	19	268	94
Total	2,699	7,085	16,764	2,924

Appendix C.8. Weekly salmon and steelhead trout catch and effort in the Canadian test fishery in the Taku River, 1992.

Week	Start Date	Chinook	Sockeye	Coho	Pink	Chum	Steelhead
35	23-Aug		12	47		10	0
36	30-Aug		19	189		9	4
37	06-Sep		3	207		8	2
38	13-Sep		4	276		24	7
39	20-Sep			129		10	4
40	27-Sep			234		10	19
41	04-Oct			165		5	36
42	11-Oct			30		0	16
Total		0	38	1,277	0	76	88

Appendix C.9. Weekly stock specific-catch of sockeye salmon in the Canadian test fishery in the Taku River, 1992. Data based on SPA, weekly stock proportions assumed the same as the commercial catch.

Week	Kuthai	Little Trapper	Mainstem	Little Tatsamenie
35	0	1	8	3
36	0	1	13	5
37	0	0	2	1
38	0	0	3	1
Total	1	2	26	9

Appendix C.10. Mark-recapture estimate of above border run of sockeye and coho salmon in the Taku River, 1992.

Tagging Week	Start Date	Above Border Run	Canadian Harvests: Commercial	Test	Food[a]	Above Border Escapement
Sockeye						
26-28	21-Jun	34,136	3,591	0		30,545
29	12-Jul	20,389	3,155	0		17,234
30	19-Jul	52,737	8,651	0		44,086
31	26-Jul	13,635	4,301	0		9,334
32	02-Aug	21,148	4,573	0		16,575
33-38	09-Aug	19,958	5,201	38		14,719
Total Number		162,003	29,472	38	250	132,243
95% C.I.		(149,263 - 174,743)				
Coho						
28-29	05-Jul	3,298	709			2,589
30	19-Jul	1,714	498			1,216
31	26-Jul	10,040	1,007			9,033
32	02-Aug	4,824	1,550			3,274
33-34	09-Aug	2,440	313			2,127
35-36	23-Aug	27,933	0	236		27,697
37-42	06-Sep			1,041		
Total Number[b]		50,249	4,077	1,277	187	44,708
95% C.I.		(29,226 - 71,272)				

[a] Food fishery catch by week not available.

[b] Run size estimate covers run only through September 5 (statistical week 36). The total season above-border run size was estimated by expanding the mark-recapture estimate by the porportion of the CPUE in the District 111 fishery which occurred after the tagging program ended. Depending on the lag time assumed between the District 111 fishery and the tagging site, the estimated above-border run size was between 90,165 and 113,686 and the escapement was between 84,624 and 108,145.

Appendix C.11. Daily counts of salmon passing through Little Tatsamenie weir, 1992.

Date	Jack Chinook Count	Large Chinook			Sockeye			Coho		
		Count	Cum.	Percent	Count	Cum.	Percent	Count	Cum.	Percent
30-Jul	0	0	0	0.0	0	0	0.0	0	0	0.0
31-Jul	0	0	0	0.0	0	0	0.0	0	0	0.0
01-Aug	0	0	0	0.0	0	0	0.0	0	0	0.0
02-Aug	0	0	0	0.0	0	0	0.0	0	0	0.0
03-Aug	0	0	0	0.0	0	0	0.0	0	0	0.0
04-Aug	0	0	0	0.0	0	0	0.0	0	0	0.0
05-Aug	0	0	0	0.0	0	0	0.0	0	0	0.0
06-Aug	0	0	0	0.0	0	0	0.0	0	0	0.0
07-Aug	2	57	57	7.9	11	11	0.2	0	0	0.0
08-Aug	2	59	116	16.1	15	26	0.4	0	0	0.0
09-Aug	1	3	119	16.5	13	39	0.6	0	0	0.0
10-Aug	7	136	255	35.4	20	59	0.9	0	0	0.0
11-Aug	9	27	282	39.2	4	63	1.0	0	0	0.0
12-Aug	1	28	310	43.1	38	101	1.5	0	0	0.0
13-Aug	5	58	368	51.1	89	190	2.9	0	0	0.0
14-Aug	10	63	431	59.9	117	307	4.7	0	0	0.0
15-Aug	3	37	468	65.0	86	393	6.0	0	0	0.0
16-Aug	2	22	490	68.1	232	625	9.6	0	0	0.0
17-Aug	6	87	577	80.1	230	855	13.1	0	0	0.0
18-Aug	2	9	586	81.4	141	996	15.2	0	0	0.0
19-Aug	3	25	611	84.9	190	1,186	18.1	0	0	0.0
20-Aug	2	45	656	91.1	153	1,339	20.5	0	0	0.0
21-Aug	3	20	676	93.9	52	1,391	21.3	0	0	0.0
22-Aug	0	7	683	94.9	205	1,596	24.4	0	0	0.0
23-Aug	0	19	702	97.5	263	1,859	28.4	0	0	0.0
24-Aug	0	3	705	97.9	209	2,068	31.6	0	0	0.0
25-Aug	0	0	705	97.9	328	2,396	36.7	0	0	0.0
26-Aug	1	1	706	98.1	387	2,783	42.6	0	0	0.0
27-Aug	2	3	709	98.5	260	3,043	46.6	2	2	0.6
28-Aug	0	2	711	98.8	146	3,189	48.8	2	4	1.1
29-Aug	0	2	713	99.0	155	3,344	51.2	0	4	1.1
30-Aug	0	0	713	99.0	161	3,505	53.6	2	6	1.7
31-Aug	0	4	717	99.6	135	3,640	55.7	1	7	2.0
01-Sep	0	3	720	100.0	114	3,754	57.4	2	9	2.6
02-Sep	0	0	720	100.0	258	4,012	61.4	2	11	3.1
03-Sep	0	0	720	100.0	134	4,146	63.4	4	15	4.3
04-Sep	0	0	720	100.0	225	4,371	66.9	3	18	5.1
05-Sep	0	0	720	100.0	127	4,498	68.8	3	21	6.0
06-Sep	0	0	720	100.0	148	4,646	71.1	0	21	6.0
07-Sep	0	0	720	100.0	311	4,957	75.8	3	24	6.9
08-Sep	0	0	720	100.0	218	5,175	79.2	5	29	8.3
09-Sep	0	0	720	100.0	141	5,316	81.3	2	31	8.9
10-Sep	0	0	720	100.0	138	5,454	83.4	9	40	11.4
11-Sep	0	0	720	100.0	167	5,621	86.0	4	44	12.6
12-Sep	0	0	720	100.0	105	5,726	87.6	5	49	14.0
13-Sep	0	0	720	100.0	105	5,831	89.2	0	49	14.0
14-Sep	0	0	720	100.0	106	5,937	90.8	0	49	14.0
15-Sep	0	0	720	100.0	84	6,021	92.1	1	50	14.3
16-Sep	0	0	720	100.0	51	6,072	92.9	1	51	14.6
17-Sep	0	0	720	100.0	54	6,126	93.7	0	51	14.6
18-Sep	0	0	720	100.0	27	6,153	94.1	4	55	15.7
19-Sep	0	0	720	100.0	33	6,186	94.6	6	61	17.4
20-Sep	0	0	720	100.0	75	6,261	95.8	6	67	19.1
21-Sep	0	0	720	100.0	23	6,284	96.1	6	73	20.9
22-Sep	0	0	720	100.0	70	6,354	97.2	9	82	23.4
23-Sep	0	0	720	100.0	9	6,363	97.4	8	90	25.7
24-Sep	0	0	720	100.0	6	6,369	97.4	9	99	28.3
25-Sep	0	0	720	100.0	9	6,378	97.6	8	107	30.6
26-Sep	0	0	720	100.0	13	6,391	97.8	5	112	32.0
27-Sep	0	0	720	100.0	13	6,404	98.0	1	113	32.3
28-Sep	0	0	720	100.0	18	6,422	98.3	1	114	32.6
29-Sep	0	0	720	100.0	15	6,437	98.5	7	121	34.6
30-Sep	0	0	720	100.0	8	6,445	98.6	10	131	37.4
01-Oct	0	0	720	100.0	19	6,464	98.9	9	140	40.0
02-Oct	0	0	720	100.0	10	6,474	99.1	24	164	46.9
03-Oct	0	0	720	100.0	9	6,483	99.2	14	178	50.9
04-Oct	0	0	720	100.0	8	6,491	99.3	10	188	53.7
05-Oct	0	0	720	100.0	8	6,499	99.4	5	193	55.1
06-Oct	0	0	720	100.0	7	6,506	99.5	8	201	57.4
07-Oct	0	0	720	100.0	1	6,507	99.6	8	209	59.7
08-Oct	0	0	720	100.0	5	6,512	99.6	10	219	62.6
09-Oct	0	0	720	100.0	7	6,519	99.7	29	248	70.9
10-Oct	0	0	720	100.0	2	6,521	99.8	51	299	85.4
11-Oct	0	0	720	100.0	5	6,526	99.8	14	313	89.4
12-Oct	0	0	720	100.0	3	6,529	99.9	5	318	90.9
13-Oct	0	0	720	100.0	4	6,533	100.0	7	325	92.9
14-Oct	0	0	720	100.0	3	6,536	100.0	9	334	95.4
15-Oct	0	0	720	100.0	0	6,536	100.0	16	350	100.0
Counts	61	720			6,536			350		
Adjustments										
Below Weir					40			380		
Broodstock					-895 [a]					
Spawners	61	720			5,681			730		

[a] Broodstock included 435 females and 356 males spawned and 67 female and 37 male mortalities.

Appendix C.12. Daily counts of salmon passing through Little Trapper Lake weir, 1992.

Date	Sockeye		
	Count	Cum.	Percent
21-Jul	----Weir Installed----		
22-Jul	0	0	0.0
23-Jul	0	0	0.0
24-Jul	0	0	0.0
25-Jul	0	0	0.0
26-Jul	0	0	0.0
27-Jul	0	0	0.0
28-Jul	0	0	0.0
29-Jul	0	0	0.0
30-Jul	0	0	0.0
31-Jul	0	0	0.0
01-Aug	0	0	0.0
02-Aug	1	1	0.0
03-Aug	16	17	0.1
04-Aug	132	149	1.0
05-Aug	836	985	6.9
06-Aug	808	1,793	12.5
07-Aug	526	2,319	16.1
08-Aug	705	3,024	21.0
09-Aug	438	3,462	24.1
10-Aug	425	3,887	27.0
11-Aug	512	4,399	30.6
12-Aug	487	4,886	34.0
13-Aug	1009	5,895	41.0
14-Aug	702	6,597	45.9
15-Aug	875	7,472	52.0
16-Aug	652	8,124	56.5
17-Aug	1198	9,322	64.9
18-Aug	901	10,223	71.1
19-Aug	511	10,734	74.7
20-Aug	443	11,177	77.8
21-Aug	232	11,409	79.4
22-Aug	225	11,634	80.9
23-Aug	191	11,825	82.3
24-Aug	174	11,999	83.5
25-Aug	312	12,311	85.7
26-Aug	500	12,811	89.1
27-Aug	331	13,142	91.4
28-Aug	232	13,374	93.1
29-Aug	159	13,533	94.2
30-Aug	125	13,658	95.0
31-Aug	172	13,830	96.2
01-Sep	120	13,950	97.1
02-Sep	107	14,057	97.8
03-Sep	102	14,159	98.5
04-Sep	69	14,228	99.0
05-Sep	37	14,265	99.3
06-Sep	15	14,280	99.4
07-Sep	39	14,319	99.6
08-Sep	24	14,343	99.8
09-Sep	29	14,372	100.0
10-Sep	0	14,372	100.0
11-Sep	0	14,372	100.0
12-Sep	---- Weir Dismantled----		
Count		14,372	
Broodstock [a]		-1,640	
Spawners		12,732	

[a] Broodstock included 784 males and 784 females spawned and 34 male and 38 female mortalities.

Appendix C.13. Daily counts of salmon passing through Nakina River weir, 1992. These counts represent only a portion of the run above the Nakina River weir because the weir is installed after an unknown portion of the escapement has already passed.

Date	Jack Chinook Count	Large Chinook [a]			Sockeye			Pink		
		Count	Cum.	Percent	Count	Cum.	Percent	Count	Cum.	Percent
02-Aug		116	116	23.9	9	9	1.1	418	418	38.4
03-Aug		65	181	37.2	20	29	3.6	201	619	56.8
04-Aug		111	292	60.1	11	40	5.0	279	898	82.5
05-Aug		19	311	64.0	7	47	5.8	78	976	89.6
06-Aug		35	346	71.2	7	54	6.7	54	1,030	94.6
07-Aug		31	377	77.6	7	61	7.6	20	1,050	96.4
08-Aug		8	385	79.2	3	64	8.0	4	1,054	96.8
09-Aug		29	414	85.2	4	68	8.5	13	1,067	98.0
10-Aug		36	450	92.6	11	79	9.8	8	1,075	98.7
11-Aug		11	461	94.9	14	93	11.6	4	1,079	99.1
12-Aug		3	464	95.5	1	94	11.7	2	1,081	99.3
13-Aug		2	466	95.9	8	102	12.7	3	1,084	99.5
14-Aug		5	471	96.9	5	107	13.3	0	1,084	99.5
15-Aug		8	479	98.6	16	123	15.3	3	1,087	99.8
16-Aug		6	485	99.8	57	180	22.4	2	1,089	100.0
17-Aug		0	485	99.8	7	187	23.3	0	1,089	100.0
18-Aug		1	486	100.0	19	206	25.6	0	1,089	100.0
19-Aug		0	486	100.0	33	239	29.7	0	1,089	100.0
20-Aug		0	486	100.0	0	239	29.7	0	1,089	100.0
21-Aug		0	486	100.0	5	244	30.3	0	1,089	100.0
22-Aug		0	486	100.0	113	357	44.4	0	1,089	100.0
23-Aug		0	486	100.0	215	572	71.1	0	1,089	100.0
24-Aug		0	486	100.0	100	672	83.6	0	1,089	100.0
25-Aug		0	486	100.0	132	804	100.0	0	1,089	100.0
26-Aug		0	486	100.0	0	804	100.0	0	1,089	100.0
27-Aug		0	486	100.0	0	804	100.0	0	1,089	100.0
Totals		486			804			1,089		

[a] Large chinook are defined as fish of > 600 POH length.

Appendix C.14. Daily counts of salmon passing through the Nahlin River weir, 1992. These counts represent an unknown portion of the run above the weir because the weir was not operated throughout the run.

Date	Jack Chinook Count	Large Chinook			Sockeye			Coho		
		Count	Cum.	Percent	Count	Cum.	Percent	Count	Cum.	Percent
04-Aug	0	0	0	0.0	9	9	3.0	0	0	0.0
05-Aug	0	1	1	7.7	17	26	8.8	0	0	0.0
06-Aug	0	2	3	23.1	25	51	17.2	0	0	0.0
07-Aug	0	0	3	23.1	0	51	17.2	0	0	0.0
08-Aug	0	6	9	69.2	22	73	24.6	2	2	0.3
09-Aug	0	0	9	69.2	0	73	24.6	0	2	0.3
10-Aug	0	2	11	84.6	107	180	60.6	2	4	0.6
11-Aug	0	1	12	92.3	19	199	67.0	6	10	1.4
12-Aug	0	0	12	92.3	22	221	74.4	5	15	2.1
13-Aug	0	0	12	92.3	7	228	76.8	3	18	2.5
14-Aug	0	0	12	92.3	6	234	78.8	9	27	3.8
15-Aug	0	0	12	92.3	4	238	80.1	3	30	4.2
16-Aug	0	0	12	92.3	5	243	81.8	2	32	4.4
17-Aug	0	0	12	92.3	9	252	84.8	13	45	6.3
18-Aug	0	0	12	92.3	10	262	88.2	8	53	7.4
19-Aug	0	1	13	100.0	12	274	92.3	39	92	12.8
20-Aug	0	0	13	100.0	1	275	92.6	25	117	16.3
21-Aug	0	0	13	100.0	2	277	93.3	7	124	17.2
22-Aug	0	0	13	100.0	8	285	96.0	47	171	23.8
23-Aug	0	0	13	100.0	3	288	97.0	5	176	24.4
24-Aug	0	0	13	100.0	4	292	98.3	48	224	31.1
25-Aug	0	0	13	100.0	1	293	98.7	113	337	46.8
26-Aug	0	0	13	100.0	1	294	99.0	12	349	48.5
27-Aug	0	0	13	100.0	0	294	99.0	13	362	50.3
28-Aug	0	0	13	100.0	0	294	99.0	20	382	53.1
29-Aug	0	0	13	100.0	0	294	99.0	11	393	54.6
30-Aug	0	0	13	100.0	0	294	99.0	9	402	55.8
31-Aug	0	0	13	100.0	0	294	99.0	84	486	67.5
01-Sep	0	0	13	100.0	0	294	99.0	20	506	70.3
02-Sep	0	0	13	100.0	0	294	99.0	24	530	73.6
03-Sep	0	0	13	100.0	1	295	99.3	23	553	76.8
04-Sep	0	0	13	100.0	2	297	100.0	10	563	78.2
05-Sep	0	0	13	100.0	0	297	100.0	18	581	80.7
06-Sep	0	0	13	100.0	0	297	100.0	23	604	83.9
07-Sep	0	0	13	100.0	0	297	100.0	7	611	84.9
08-Sep	0	0	13	100.0	0	297	100.0	36	647	89.9
09-Sep	0	0	13	100.0	0	297	100.0	73	720	100.0
Counts	0	13			297			720		
Adjustments [a]								250		
Spawners		13			297			970		

[a] Number of fish holding below the weir when it was pulled.

Appendix C.15. Daily counts of salmon passing through the Kuthai Lake weir, 1992. Actual escapement may have been higher than counts because the weir was was not operated throughout the run.

	Sockeye		
Date	Count	Cum.	Percent
24-Jul	0	0	0.0
25-Jul	4	4	0.3
26-Jul	3	7	0.5
27-Jul	13	20	1.4
28-Jul	155	175	12.0
29-Jul	153	328	22.5
30-Jul	23	351	24.1
31-Jul	51	402	27.6
01-Aug	74	476	32.7
02-Aug	71	547	37.5
03-Aug	95	642	44.1
04-Aug	89	731	50.2
05-Aug	105	836	57.4
06-Aug	52	888	60.9
07-Aug	63	951	65.3
08-Aug	85	1,036	71.1
09-Aug	205	1,241	85.2
10-Aug	62	1,303	89.4
11-Aug	45	1,348	92.5
12-Aug	35	1,383	94.9
13-Aug	44	1,427	97.9
14-Aug	15	1,442	99.0
15-Aug	15	1,457	100.0
Total		1,457	

Appendix C.16. Daily counts of salmon passing through Speel Lake weir, 1992.

	Sockeye		
Date	Count	Cum.	Percent
15-Jul	Weir Installed		
16-Jul	2	2	0.02
17-Jul	5	7	0.07
18-Jul	1	8	0.08
19-Jul	11	19	0.20
20-Jul	4	23	0.24
21-Jul	2	25	0.26
22-Jul	1	26	0.28
23-Jul	39	65	0.69
24-Jul	84	149	1.58
25-Jul	132	281	2.98
26-Jul	104	385	4.08
27-Jul	91	476	5.04
28-Jul	2,367	2,843	30.12
29-Jul	99	2,942	31.17
30-Jul	78	3,020	31.99
31-Jul	364	3,384	35.85
01-Aug	707	4,091	43.34
02-Aug	368	4,459	47.24
03-Aug	892	5,351	56.69
04-Aug	217	5,568	58.99
05-Aug	588	6,156	65.22
06-Aug	289	6,445	68.28
07-Aug	136	6,581	69.72
08-Aug	20	6,601	69.93
09-Aug	252	6,853	72.60
10-Aug	56	6,909	73.20
11-Aug	77	6,986	74.01
12-Aug	371	7,357	77.94
13-Aug	286	7,643	80.97
14-Aug	85	7,728	81.87
15-Aug	77	7,805	82.69
16-Aug	326	8,131	86.14
17-Aug	71	8,202	86.89
18-Aug	31	8,233	87.22
19-Aug	28	8,261	87.52
20-Aug	164	8,425	89.26
21-Aug	219	8,644	91.58
22-Aug	278	8,922	94.52
23-Aug	130	9,052	95.90
24-Aug	156	9,208	97.55
25-Aug	171	9,379	99.36
26-Aug	60	9,439	100.00
Count		9,439	
Broodstock		-1,303	
Spawners		8,136	

Appendix C.17. Daily counts of salmon passing through Crescent Lake weir, 1992. The actual escapements are higher due to fish passage during times water was over the top of the weir. The sockeye escapement was estimated by a mark-recapture study.

	Sockeye			Coho			Chum			Pink		
Date	Count	Cum.	Percent	Count	Cum.	Percent	Count	Cum.	Percent	Count	Cum.	Percent
13-Jul	Weir Installed											
14-Jul	6	6	0.1	0	0	0.0	0	0	0.0	0	0	0.0
15-Jul	18	24	0.3	0	0	0.0	0	0	0.0	1	1	0.0
16-Jul	80	104	1.3	0	0	0.0	0	0	0.0	2	3	0.1
17-Jul	48	152	2.0	0	0	0.0	2	2	0.5	1	4	0.1
18-Jul	87	239	3.1	0	0	0.0	2	4	0.9	5	9	0.2
19-Jul	131	370	4.8	0	0	0.0	1	5	1.2	12	21	0.4
20-Jul	137	507	6.5	0	0	0.0	3	8	1.9	8	29	0.6
21-Jul	332	839	10.8	0	0	0.0	1	9	2.1	12	41	0.8
22-Jul	198	1,037	13.4	0	0	0.0	1	10	2.3	27	68	1.4
23-Jul	282	1,319	17.0	0	0	0.0	0	10	2.3	22	90	1.8
24-Jul	143	1,462	18.9	0	0	0.0	3	13	3.0	31	121	2.5
25-Jul	334	1,796	23.2	0	0	0.0	3	16	3.7	34	155	3.2
26-Jul	152	1,948	25.2	0	0	0.0	3	19	4.4	25	180	3.7
27-Jul	93	2,041	26.4	0	0	0.0	0	19	4.4	55	235	4.8
28-Jul	268	2,309	29.8	0	0	0.0	4	23	5.4	65	300	6.1
29-Jul	320	2,629	33.9	0	0	0.0	14	37	8.6	68	368	7.5
30-Jul	390	3,019	39.0	0	0	0.0	4	41	9.6	60	428	8.7
31-Jul	384	3,403	43.9	0	0	0.0	2	43	10.0	110	538	10.9
01-Aug	294	3,697	47.7	0	0	0.0	10	53	12.4	156	694	14.1
02-Aug	192	3,889	50.2	0	0	0.0	12	65	15.2	102	796	16.2
03-Aug	280	4,169	53.8	0	0	0.0	6	71	16.6	107	903	18.4
04-Aug	201	4,370	56.4	0	0	0.0	9	80	18.7	80	983	20.0
05-Aug	324	4,694	60.6	0	0	0.0	3	83	19.4	63	1,046	21.3
06-Aug	330	5,024	64.9	0	0	0.0	6	89	20.8	66	1,112	22.6
07-Aug	295	5,319	68.7	0	0	0.0	3	92	21.5	149	1,261	25.6
08-Aug	219	5,538	71.5	0	0	0.0	1	93	21.7	178	1,439	29.3
09-Aug	111	5,649	72.9	0	0	0.0	2	95	22.2	123	1,562	31.8
10-Aug	132	5,781	74.6	1	1	1.4	5	100	23.4	193	1,755	35.7
11-Aug	108	5,889	76.0	0	1	1.4	4	104	24.3	155	1,910	38.8
12-Aug	326	6,215	80.2	1	2	2.7	9	113	26.4	279	2,189	44.5
13-Aug	346	6,561	84.7	0	2	2.7	5	118	27.6	126	2,315	47.1
14-Aug	395	6,956	89.8	1	3	4.1	13	131	30.6	247	2,562	52.1
15-Aug	72	7,028	90.7	1	4	5.5	8	139	32.5	292	2,854	58.0
16-Aug	280	7,308	94.4	2	6	8.2	12	151	35.3	104	2,958	60.2
17-Aug	0	7,308	94.4	0	6	8.2	0	151	35.3	0	2,958	60.2
18-Aug	0	7,308	94.4	0	6	8.2	0	151	35.3	0	2,958	60.2
19-Aug	9	7,317	94.5	2	8	11.0	13	164	38.3	83	3,041	61.8
20-Aug	26	7,343	94.8	0	8	11.0	10	174	40.7	318	3,359	68.3
21-Aug	55	7,398	95.5	1	9	12.3	8	182	42.5	310	3,669	74.6
22-Aug	33	7,431	95.9	4	13	17.8	15	197	46.0	299	3,968	80.7
23-Aug	45	7,476	96.5	5	18	24.7	18	215	50.2	234	4,202	85.5
24-Aug	56	7,532	97.2	4	22	30.1	20	235	54.9	265	4,467	90.8
25-Aug	84	7,616	98.3	18	40	54.8	75	310	72.4	168	4,635	94.3
26-Aug	98	7,714	99.6	27	67	91.8	81	391	91.4	195	4,830	98.2
27-Aug	31	7,745	100.0	6	73	100.0	37	428	100.0	87	4,917	100.0
Counts		7,745			73			428			4,917	
M-R Estimate		22,674										
Broodstock		-825										
Escapement		21,849										

Appendix D.1. Salmon catches and effort in the Alaskan District 111 commercial drift gillnet fishery, 1964-1992. Days open are for the entire district and include openings to harvest spawner chinook salmon 1964-1975. Boat-days prior to 1969 are not comparable to boat-days from 1969-1992.

	Catch					Effort	
Year	Chinook	Sockeye	Coho	Pink	Chum	Boat Days	Days Open
1964	2,509	34,140	29,315	26,593	12,853		56.00
1965	4,170	27,569	32,667	2,768	11,533		63.00
1966	4,829	33,925	26,065	23,833	35,133		64.00
1967	5,417	17,735	40,391	12,372	22,834		53.00
1968	4,904	19,501	39,103	67,365	21,890		60.00
1969	6,986	41,169	10,802	73,927	15,049	1,461	41.50
1970	3,357	50,922	44,960	197,017	110,390	2,688	53.00
1971	6,958	66,181	41,830	31,484	91,145	2,914	55.00
1972	10,955	80,404	49,780	144,339	147,957	3,100	51.00
1973	9,799	85,317	35,453	58,186	109,245	3,316	41.00
1974	2,908	38,670	38,667	57,731	86,687	2,237	29.50
1975	2,182	32,513	1,185	9,567	2,678	1,089	15.50
1976	1,757	61,749	41,729	14,962	81,803	1,939	25.00
1977	1,068	70,097	54,917	88,578	61,102	2,284	27.00
1978	1,926	55,398	31,944	51,385	36,254	2,176	26.00
1979	3,701	122,148	16,194	152,836	61,197	2,235	28.83
1980	2,251	123,451	41,677	296,572	192,647	4,080	30.92
1981	1,721	49,942	26,711	254,856	76,438	2,660	30.00
1982	3,057	83,625	29,072	109,297	37,608	2,437	35.50
1983	888	31,821	21,455	66,239	15,264	1,274	33.00
1984	1,773	77,233	33,836	145,971	86,741	2,690	52.50
1985	2,636	88,077	55,597	311,248	106,720	3,102	48.00
1986	2,584	73,061	30,512	16,568	58,792	2,102	32.83
1987	2,076	75,212	35,219	363,439	121,660	2,514	34.75
1988	1,779	38,923	44,881	157,831	139,578	2,146	32.00
1989	1,811	74,019	51,812	180,597	36,977	2,333	41.00
1990	3,480	126,884	67,530	153,036	145,799	3,202	38.33
1991	3,217	109,877	126,436	74,183	161,175	4,103	57.00
Averages							
64-91	3,596	63,913	39,276	112,242	74,541	2,525	41.26
82-91	2,330	77,873	49,635	157,841	91,031	2,590	40.49
1992	2,341	135,411	172,662	314,445	112,527	4,550	50.00

Appendix D.2. Stock proportions and catches of sockeye salmon in the Alaskan District 111 commercial drift gillnet fishery, 1983-1992. Data based on SPA and brain parasite incidence (1992).

Year	Kuthai	Little Trapper	Mainstem	Little Tatsamenie	Total Taku	Crescent	Speel	Total Snettisham
Proportions								
1983					0.755			0.245
1984					0.758			0.242
1985					0.838			0.162
1986	0.061	0.266	0.303	0.204	0.834	0.090	0.076	0.166
1987	0.078	0.234	0.376	0.031	0.720	0.157	0.123	0.280
1988	0.118	0.158	0.305	0.082	0.663	0.266	0.071	0.337
1989 [a]	0.077	0.616		0.156	0.848	0.051	0.100	0.152
1990	0.036	0.197	0.336	0.286	0.855	0.112	0.033	0.145
1991	0.039	0.297	0.373	0.232	0.941	0.059	0.000	0.059
Averages [b]	0.067	0.230	0.339	0.167	0.801	0.137	0.060	0.199
1992	0.048	0.220	0.445	0.191	0.904	0.036	0.060	0.096
Catches								
1983					24,025			7,796
1984					58,543			18,690
1985					73,809			14,268
1986	4,489	19,441	22,104	14,900	60,934	6,610	5,516	12,127
1987	5,893	17,594	28,286	2,352	54,124	11,814	9,274	21,088
1988	4,598	6,153	11,865	3,194	25,811	10,365	2,748	13,112
1989 [a]	5,696	45,573		11,536	62,805	3,789	7,425	11,214
1990	4,539	24,952	42,676	36,332	108,499	14,242	4,143	18,385
1991	4,295	32,685	40,957	25,475	103,412	6,465	0	6,465
Averages [b]	4,763	20,165	29,178	16,451	63,551	9,899	4,336	13,683
1992	6,543	29,818	60,224	25,853	122,439	4,912	8,060	12,972

[a] The Trapper and Mainstem groups were combined in the 1989 analysis.
[b] Averages for individual stocks do not include 1989.

Appendix D.3. Proportion of Taku River sockeye salmon in the Alaskan District 111 commercial drift gillnet catch, 1983-1992. Data based on SPA and brain parasite incidence (1992).

Year	25	26	27	28	29	30	31	32	33	34	Total
1983		0.996	0.842	0.819	0.663	0.527	0.836	0.534	0.719	0.759	0.755
1984	0.970	0.956	0.843	0.670	0.588	0.712	0.728	0.809	0.726		0.758
1985	0.999	0.986	0.928	0.974	0.868	0.706	0.737	0.826	0.801		0.838
1986	0.938	0.953	0.873	0.880	0.852	0.777	0.851	0.757	0.893	0.739	0.834
1987		0.982	0.901	0.884	0.948	0.414	0.619	0.689	0.841	0.731	0.718
1988		0.964	0.886	0.889	0.510	0.643	0.677	0.528	0.478	0.346	0.663
1989	0.943	0.989	0.979	0.852	0.835	0.641	0.681	0.919	0.676		0.848
1990	0.874	0.935	0.904	0.773	0.782	0.863	0.943	0.939	0.878	0.862	0.855
1991	0.988	0.979	0.953	0.979	0.951	0.933	0.936	0.890	0.885	0.875	0.941
Average 83-91	0.952	0.971	0.901	0.858	0.777	0.691	0.779	0.766	0.766	0.719	0.801
1992		0.978	0.985	0.956	0.916	0.943	0.893	0.858	0.766	0.766	0.904

Appendix D.4. Salmon catch in the U.S. subsistence and personal use fisheries in the Taku River, 1967-1992. The subsistence fishery was open 1967 to 1976 and 1985 and the personal use fishery was open 1989 to 1992.

	Catch				
Year	Chinook	Sockeye	Coho	Pink	Chum
1967	0	103	221	9	25
1968	3	41	196	19	10
1969	0	122	8	11	0
1970	0	304	0	20	8
1971	0	512	0	42	0
1972	0	554	0	103	7
1973	0	1,227	0	64	14
1974	0	1,431	0	118	5
1975	0	170	0	3	0
1976	0	351	4	22	0
1985	0	924	35	19	1
1989	33	749	73	765	25
1990	52	1,560	206	130	92
1991	47	1,475	120	188	4
Averages					
All	10	680	62	108	14
85-91	33	1,177	109	276	31
1992	37	2,031	147	170	0

Appendix D.5. Salmon and steelhead trout catch and effort in the Canadian commercial fishery in the Taku River, 1979-1992.

	Catch							Effort	
	Chinook								
Year	Jacks	Large	Sockeye	Coho	Pink	Chum	Steelhead	Boat Days	Days Open
1979		97	13,578	6,006	13,661	15,474	254	599.0	50.00
1980		225	22,602	6,405	26,821	18,516	457	476.0	39.00
1981		159	10,922	3,607	10,771	5,591	108	242.8	31.25
1982		54	3,144	51	202	3	1	38.0	13.00
1983	400	156	17,056	8,390	1,874	1,760	213	390.0	64.00
1984	221	294	27,242	5,357	6,964	2,492	367	288.0	30.00
1985	24	326	14,244	1,770	3,373	136	32	178.0	16.00
1986	77	275	14,739	1,783	58	110	48	148.0	17.00
1987	106	127	13,554	5,599	6,250	2,270	223	280.0	26.00
1988	186	555	12,014	3,123	1,030	733	86	185.4	14.70
1989	139	895	18,545	2,876	695	42	24	270.6	25.30
1990	128	1,258	21,100	3,207	378	12	22	295.2	28.30
1991	432	1,177	25,067	3,415	296	2	5	284.0	25.00
Averages [a]									
79-91		475	16,447	3,968	5,567	3,626	142	282.7	29.20
82-91		538	16,671	3,557	2,112	756	102	235.7	25.93
1992	147	1,445	29,472	4,077	0	7	15	291.0	27.00

[a] Chinook averages are for large fish and jacks combined.

Appendix D.6. Sockeye salmon stock proportions and catch by stock in the Canadian commercial fishery on the Taku River, 1986-1992. Data based on SPA.

	Year	Kuthai	Little Trapper	Mainstem	Little Tatsamenie
Proportions					
	1986	0.111	0.397	0.350	0.143
	1987	0.062	0.201	0.649	0.088
	1988	0.143	0.417	0.343	0.098
	1989 [a]	0.053	0.744		0.203
	1990	0.112	0.388	0.338	0.163
	1991	0.064	0.308	0.452	0.176
Averages					
	86-91 [b]	0.098	0.342	0.426	0.134
	1992	0.092	0.240	0.569	0.099
Catch					
	1986	1,629	5,855	5,152	2,103
	1987	834	2,728	8,793	1,199
	1988	1,715	5,005	4,122	1,172
	1989 [a]	990	13,792		3,763
	1990	2,355	8,183	7,131	3,431
	1991	1,601	7,721	11,327	4,418
Averages					
	86-91 [b]	1,627	5,898	7,305	2,465
	1992	2,699	7,085	16,764	2,924

[a] The Trapper and Mainstem groups were combined in the 1989 analysis.
[b] Averages do not include 1989.

Appendix D.7. Salmon and steelhead trout catch in the Canadian test fishery in the Taku River, 1987-1992.

	Catch					
Year	Chinook	Sockeye	Coho	Pink	Chum	Steelhead
1987		237	807			
1988	72	708	422	52	222	14
1989	31	207	1,011	0	13	26
1990	48	285	472	0	0	20
1991	0	163	2,004	3	295	41
Averages						
87-91	38	320	943	14	133	25
1992	0	38	1,277	0	76	88

Appendix D.8. Sockeye salmon escapement estimates of Taku River and Port Snettisham stocks, 1980-1992. Spawners equals escapement to weir minus fish taken for broodstock.

	Taku Above Border[a]		Little Trapper		Little Tatsamenie		Hackett	Kuthai Lake	Nahlin River	Crescent		Speel	
	Run	Escapement	Escape.	Spawners	Escape.	Spawners	Weir	Weir	Weir	Escape.	Spawners	Escape.	Spawners
1980								1,658					
1981								2,299					
1982													
1983			7,402[b]	7,402						19,422	19,422	10,484	10,484
1984	133,414	106,122	13,084	13,084						6,707	6,707	9,764	9,764
1985	118,160	103,749	14,889[b]	14,889	13,093	13,093	2,309			7,249	7,249	7,073	7,006
1986	105,109	90,170	13,820	13,820	11,446	11,446	1,004			3,414	3,414	5,857	5,457
1987	87,130	73,243	12,007[b]	12,007	2,794	2,794	910			7,839	7,839	9,319	9,319
1988	87,028	74,061	10,637	10,637	2,063	2,063	516		133[c]	1,199[d]	1,199	969	710
1989	114,068	95,263	9,606	9,606	3,039	3,039				1,109[d]	775	12,229	10,114
1990	114,254	92,869	9,443	7,777	5,736	4,929			2,515	1,262[d]	757	18,064[d]	16,867
1991	150,507	125,127	22,942	21,001	8,381	7,585				9,208[a]	8,666	299	299
Averages													
80-91	113,709	95,076	12,648	12,247	6,650	6,421	1,185	1,979		6,379	6,225	8,229	7,780
1992	162,003	132,243	14,372	12,732	6,576	5,681		1,457[c]	297[c]	22,674[a]	21,849	9,439	8,136

[a] Mark-recapture estimates.
[b] Weir count plus spawning ground survey.
[c] Weir counts are incomplete.
[d] Counts may be low due to uncounted fish passage past weir.

Appendix D.9. Aerial survey index escapement counts of large (3-ocean and older) Taku River chinook salmon and estimated escapements of large chinook salmon to the entire Taku drainage, 1975-1992.

Year	Kowatua	Tatsatua	Dudidontu	Tseta	Nakina	Nahlin	Total Index Count
1975			15		1,800	274	2,089
1976	341	620	40		3,000	725	4,726
1977	580	573	18		3,850	650	5,671
1978	490	550	0	21	1,620	624	3,305
1979	430	750	9		2,110	857	4,156
1980	450	905	158		4,500	1,531	7,544
1981	560	839	74	258	5,110	2,945	9,786
1982	289	387	130	228	2,533	1,246	4,813
1983	171	236	117	179	968	391	2,062
1984	279	616		176[a]	1,887	951[b]	3,909
1985	699	848	475	303	2,647	2,236	7,208
1986	548	886	413	193	3,868	1,612	7,520
1987	570	678	287	180	2,906	1,122	5,743
1988	1,010	1,272	243	66	4,500	1,535	8,626
1989	601	1,228	204	494	5,141	1,812	9,480
1990	614	1,068	820	172	7,917	1,658	12,249
1991	570	1,164	804	224	5,610	1,781	10,153
Averages							
75-91	513	789	238	208	3,527	1,291	6,414
82-91	535	838	388	222	3,798	1,434	7,176
1992	782	1,624	768	313	5,750	1,821	11,058

[a] Partial survey.
[b] Extrapolated results.

Appendix D.10. Taku River (above border) coho salmon salmon run size, 1987-1992.

Year	Canadian Catch: Commercial	Food	Test	Above Border: Escapement	Run
1987	5,599	113	807	55,457	61,976 [a]
1988	3,123	98	422	39,450	43,093 [b]
1989	2,876	146	1,011	56,808	60,841 [c]
1990	3,207	6	472	72,196	75,881 [d]
1991	3,415	20	2,004	127,484	132,923
Averages 87-91	3,644	68	943	70,279	74,943
1992	4,077	187	1,277	84,624-108,145	90,165-113,686[e]

[a] Mark-recapture estimate through 9/20 was 43,570. Run through 10/05 estimated using inriver test fish CPUE.
[b] Mark-recapture estimate through 9/18.
[c] Mark-recapture estimate through 10/01.
[d] A second method of estimating the above-border run by expanding test fishery CPUE yielded an estimate of 85,053 coho salmon.
[e] Mark-recapture estimate of inriver run size through September 5 was 50,249. District 111 CPUE was used to extrapolate total season above-border run size and escapement. These are presented as ranges depending on the lag time assumed between District 111 and the tagging site.

Appendix D.11. Escapement counts of Taku River coho salmon, 1984-1992. Counts are for age-.1 fish and do not include jacks.

Year	Yehring Creek Weir	Yehring Creek Aerial	Sockeye Creek Aerial	Johnson Creek Ar/Foot	Fish Creek Aerial	Flannigan Slough Aerial	Tatsamenie River Weir	Hackett River Weir	Dudidontu River Aerial	Upper Nahlin R. Aerial	Upper Nahlin R. Weir
1984		2,900	275	235	700	1,480					
1985		560	740	150	1,000	2,320	201[b]	1,031			
1986	2,116 [a]	1,200	183	70	65	1,095	344	2,723	108	318	
1987	1,627 [a]	590	1,040	150	250	2,100	173[b]	1,715	276	165	
1988	1,423	685	660	500	1,280	1,241 [c]	663[a]	1,260	367	694	1,322
1989	1,570 [d]	600	400	400	760	1,464	712[a]		115	322	
1990	2,522 [d]	220	230	0	250	414 [c]	669		25	256	
1991		500	360	120	460	1,370	1,101		458	176 [e]	
Averages 84-91	1,852	907	486	203	596	1,436	552	1,682	225	273	
1992		1,200 [f]	550 [f]	52	478	1,288	730				970[ab]

[a] Weir count combined with spawning ground count.
[b] Incomplete weir count.
[c] Count is an average of surveys by different observers.
[d] Includes mark-recapture estimate.
[e] Poor survey conditions.
[f] Foot survey.

Appendix D.12. Taku River sockeye salmon run size, 1984-1992. Run estimate does not include spawning escapements below the U.S./Canada border.

Year	Canadian Catch			Escapement	Above Border Run	U.S. Catch[a]	Total Run
	Commercial	Food	Test				
1984	27,242	50		106,122	133,414	58,543	191,957
1985	14,244	167		103,749	118,160	74,733	192,893
1986	14,739	200		90,170	105,109	60,934	166,043
1987	13,554	96	237	73,243	87,130	55,154	142,284
1988	12,014	245	708	74,061	87,028	25,811	112,839
1989	18,545	53	207	95,263	114,068	63,554	177,622
1990	21,100	89	285	92,780	114,254	110,059	224,313
1991	25,067	150	163	125,127	150,507	105,606	256,113
Averages 84-91	18,313	131	320	95,064	113,709	69,299	183,008
1992	29,472	250	38	132,243	162,003	124,470	286,473

[a] Includes subsistence, personel use, and test fishery catches.

Appendix E.1. Weekly salmon catch and effort in the U.S. commercial fishery in the Alsek River, 1992.

Week	Start Date	Catch					Effort		
		Chinook	Sockeye	Coho	Pink	Chum	Boats	Days Open	Boat Days
24	07-Jun	204	1,950				20	1	20
25	14-Jun	64	2,140	0	0	0	26	2	52
26	21-Jun	27	5,832	0	0	0	23	3	69
27	28-Jun	4	1,844	0	0	0	22	2	44
28	05-Jul	1	2,068	0	1	0	20	2	40
29	12-Jul	0	1,667	0	0	3	20	2	40
30	19-Jul	1	2,472	0	0	2	18	3	54
31	26-Jul	0	458	0	0	1	3	2	6
32	02-Aug	0	395	0	0	0	[a]	4	[a]
33	09-Aug	0	219	39	0	1	[a]	4	[a]
34	16-Aug	0	144	91	0	8	[a]	3	[a]
35	23-Aug	0	54	213	0	35	[a]	3	[a]
36	30-Aug	0	26	910	0	56	6	3	18
37	06-Sep	0	39	474	0	3	3	3	9
38	13-Sep	0	2	1,268	0	25	6	3	18
39	20-Sep	0	0	278	0	2	[a]	3	[a]
40	27-Sep	0	0	37	0	0	[a]	3	[a]
Total		301	19,310	3,310	1	136		46.0	404

[a] Effort is not listed by week but is included in the season total.

Appendix E.2. Weekly salmon catch and effort in the Canadian food and sport fisheries in the Alsek River, 1992.

Week	Date	Chinook				Sockeye				Coho		
		Sport	Release	Food	Total[a]	Sport	Release	Food	Total[a]	Sport	Release	Food
24	09-Jun											
25	16-Jun	0	0	2	2	0	1	0	0	0	0	0
26	23-Jun	6	0	0	6	0	1	0	0	0	0	0
27	30-Jun	1	0	0	1	0	3	1	1	0	0	0
28	07-Jul	18	45	2	20	0	16	27	27	0	0	0
29	14-Jul	33	89	3	36	0	36	39	39	0	0	0
30	21-Jul	27	64	34	61	21	42	67	88	0	0	0
31	28-Jul	10	0	10	20	14	2	144	158	0	0	0
32	04-Aug	4	0	13	17	10	5	78	88	0	0	0
33	11-Aug	1	0	12	13	18	8	102	120	0	0	0
34	18-Aug	1	0	11	12	25	1	357	382	0	0	0
35	25-Aug	0	0	1	1	37	24	537	574	0	0	0
36	01-Sep	0	0	0	0	74	9	459	533	0	0	0
37	08-Sep	1	0	2	3	193	32	355	548	4	1	0
38	15-Sep	1	0	0	1	38	7	15	53	14	1	0
39	22-Sep	0	0	1	1	82	33	45	127	37	31	0
40	29-Sep	0	0	0	0	63	50	30	93	87	36	0
41	06-Oct	0	0		0	7	9		7	71	4	0
42	13-Oct											
Totals[b]		103	198	91	194	582	279	2,256	2,838	213	73	0
Adjusted estimates for entire season		103	198	148	251	582	279	2,592	3,174	213	73	0

[a] Does not include released fish.
[b] The total food fish catch above the Klukshu Weir was 88 chinook and 1,464 sockeye salmon.

Appendix E.3. Daily counts of salmon passing through Klukshu River weir, 1992.

Date	Chinook [a]			Sockeye			Coho		
		Cumulative			Cumulative			Cumulative	
	Daily	Daily	Prop.	Daily	Daily	Prop.	Daily	Daily	Prop.
04-Jun	0	0	0.000	0	0	0.000	0	0	0.000
05-Jun	0	0	0.000	0	0	0.000	0	0	0.000
06-Jun	0	0	0.000	0	0	0.000	0	0	0.000
07-Jun	1	1	0.001	0	0	0.000	0	0	0.000
08-Jun	0	1	0.001	0	0	0.000	0	0	0.000
09-Jun	1	2	0.001	0	0	0.000	0	0	0.000
10-Jun	2	4	0.003	0	0	0.000	0	0	0.000
11-Jun	0	4	0.003	0	0	0.000	0	0	0.000
12-Jun	1	5	0.004	0	0	0.000	0	0	0.000
13-Jun	1	6	0.004	1	1	0.000	0	0	0.000
14-Jun	0	6	0.004	0	1	0.000	0	0	0.000
15-Jun	0	6	0.004	0	1	0.000	0	0	0.000
16-Jun	1	7	0.005	1	2	0.000	0	0	0.000
17-Jun	0	7	0.005	1	3	0.000	0	0	0.000
18-Jun	0	7	0.005	0	3	0.000	0	0	0.000
19-Jun	0	7	0.005	0	3	0.000	0	0	0.000
20-Jun	1	8	0.006	0	3	0.000	0	0	0.000
21-Jun	0	8	0.006	0	3	0.000	0	0	0.000
22-Jun	2	10	0.007	0	3	0.000	0	0	0.000
23-Jun	2	12	0.009	1	4	0.000	0	0	0.000
24-Jun	2	14	0.010	1	5	0.000	0	0	0.000
25-Jun	3	17	0.012	1	6	0.000	0	0	0.000
26-Jun	1	18	0.013	2	8	0.000	0	0	0.000
27-Jun	0	18	0.013	1	9	0.000	0	0	0.000
28-Jun	0	18	0.013	3	12	0.001	0	0	0.000
29-Jun	2	20	0.015	9	21	0.001	0	0	0.000
30-Jun	1	21	0.015	11	32	0.002	0	0	0.000
01-Jul	2	23	0.017	26	58	0.003	0	0	0.000
02-Jul	11	34	0.025	100	158	0.008	0	0	0.000
03-Jul	11	45	0.033	51	209	0.010	0	0	0.000
04-Jul	15	60	0.044	94	303	0.015	0	0	0.000
05-Jul	9	69	0.051	29	332	0.016	0	0	0.000
06-Jul	10	79	0.058	35	367	0.018	0	0	0.000
07-Jul	38	117	0.086	98	465	0.023	0	0	0.000
08-Jul	17	134	0.098	253	718	0.036	0	0	0.000
09-Jul	25	159	0.116	303	1,021	0.051	0	0	0.000
10-Jul	76	235	0.172	313	1,334	0.066	0	0	0.000
11-Jul	97	332	0.243	292	1,626	0.080	0	0	0.000
12-Jul	28	360	0.264	164	1,790	0.089	0	0	0.000
13-Jul	51	411	0.301	472	2,262	0.112	0	0	0.000
14-Jul	25	436	0.319	185	2,447	0.121	0	0	0.000
15-Jul	58	494	0.362	144	2,591	0.128	0	0	0.000
16-Jul	59	553	0.405	41	2,632	0.130	0	0	0.000
17-Jul	468	1,021	0.747	597	3,229	0.160	0	0	0.000
18-Jul	36	1,057	0.774	420	3,649	0.181	0	0	0.000
19-Jul	20	1,077	0.788	214	3,863	0.191	0	0	0.000
20-Jul	19	1,096	0.802	460	4,323	0.214	0	0	0.000
21-Jul	15	1,111	0.813	282	4,605	0.228	0	0	0.000
22-Jul	18	1,129	0.827	335	4,940	0.244	0	0	0.000
23-Jul	22	1,151	0.843	330	5,270	0.261	0	0	0.000
24-Jul	22	1,173	0.859	562	5,832	0.288	0	0	0.000
25-Jul	16	1,189	0.870	326	6,158	0.305	0	0	0.000
26-Jul	13	1,202	0.880	491	6,649	0.329	0	0	0.000
27-Jul	26	1,228	0.899	668	7,317	0.362	0	0	0.000
28-Jul	31	1,259	0.922	346	7,663	0.379	0	0	0.000
29-Jul	12	1,271	0.930	362	8,025	0.397	0	0	0.000
30-Jul	7	1,278	0.936	333	8,358	0.413	0	0	0.000
31-Jul	9	1,287	0.942	86	8,444	0.418	0	0	0.000
01-Aug	8	1,295	0.948	87	8,531	0.422	0	0	0.000
02-Aug	8	1,303	0.954	311	8,842	0.437	0	0	0.000
03-Aug	8	1,311	0.960	969	9,811	0.485	0	0	0.000
04-Aug	10	1,321	0.967	244	10,055	0.497	0	0	0.000
05-Aug	6	1,327	0.971	85	10,140	0.502	0	0	0.000
06-Aug	5	1,332	0.975	358	10,498	0.519	0	0	0.000
07-Aug	5	1,337	0.979	27	10,525	0.521	0	0	0.000
08-Aug	0	1,337	0.979	33	10,558	0.522	0	0	0.000
09-Aug	1	1,338	0.980	405	10,963	0.542	0	0	0.000
10-Aug	6	1,344	0.984	273	11,236	0.556	0	0	0.000
11-Aug	1	1,345	0.985	68	11,304	0.559	0	0	0.000
12-Aug	1	1,346	0.985	48	11,352	0.562	0	0	0.000
13-Aug	0	1,346	0.985	419	11,771	0.582	0	0	0.000
14-Aug	0	1,346	0.985	17	11,788	0.583	0	0	0.000
15-Aug	1	1,347	0.986	3	11,791	0.583	0	0	0.000
16-Aug	1	1,348	0.987	2	11,793	0.583	0	0	0.000
17-Aug	2	1,350	0.988	640	12,433	0.615	0	0	0.000
18-Aug	1	1,351	0.989	157	12,590	0.623	0	0	0.000
19-Aug	0	1,351	0.989	311	12,901	0.638	0	0	0.000
20-Aug	1	1,352	0.990	81	12,982	0.642	0	0	0.000
21-Aug	0	1,352	0.990	340	13,322	0.659	0	0	0.000
22-Aug	1	1,353	0.990	40	13,362	0.661	0	0	0.000
23-Aug	2	1,355	0.992	700	14,062	0.696	0	0	0.000
24-Aug	0	1,355	0.992	566	14,628	0.724	0	0	0.000
25-Aug	5	1,360	0.996	895	15,523	0.768	0	0	0.000
26-Aug	0	1,360	0.996	383	15,906	0.787	0	0	0.000
27-Aug	0	1,360	0.996	75	15,981	0.791	0	0	0.000
28-Aug	0	1,360	0.996	80	16,061	0.795	0	0	0.000
29-Aug	0	1,360	0.996	11	16,072	0.795	0	0	0.000
30-Aug	0	1,360	0.996	404	16,476	0.815	0	0	0.000
31-Aug	0	1,360	0.996	348	16,824	0.832	0	0	0.000
01-Sep	3	1,363	0.998	1,539	18,363	0.908	0	0	0.000
02-Sep	0	1,363	0.998	170	18,533	0.917	0	0	0.000
03-Sep	1	1,364	0.999	3	18,536	0.917	0	0	0.000
04-Sep	0	1,364	0.999	12	18,548	0.918	0	0	0.000
05-Sep	0	1,364	0.999	146	18,694	0.925	0	0	0.000
06-Sep	0	1,364	0.999	1	18,695	0.925	0	0	0.000
07-Sep	0	1,364	0.999	6	18,701	0.925	0	0	0.000
08-Sep	0	1,364	0.999	328	19,029	0.941	0	0	0.000
09-Sep	0	1,364	0.999	6	19,035	0.942	0	0	0.000
10-Sep	0	1,364	0.999	60	19,095	0.945	0	0	0.000
11-Sep	0	1,364	0.999	228	19,323	0.956	0	0	0.000
12-Sep	1	1,365	0.999	108	19,431	0.961	0	0	0.000
13-Sep	0	1,365	0.999	135	19,566	0.968	0	0	0.000
14-Sep	0	1,365	0.999	31	19,597	0.969	0	0	0.000
15-Sep	1	1,366	1.000	173	19,770	0.978	0	0	0.000
16-Sep	0	1,366	1.000	84	19,854	0.982	0	0	0.000

Date	Chinook [a] Daily	Chinook [a] Cumulative Daily	Chinook [a] Cumulative Prop.	Sockeye Daily	Sockeye Cumulative Daily	Sockeye Cumulative Prop.	Coho Daily	Coho Cumulative Daily	Coho Cumulative Prop.
17-Sep	0	1,366	1.000	5	19,859	0.982	1	1	0.001
18-Sep	0	1,366	1.000	70	19,929	0.986	0	1	0.001
19-Sep	0	1,366	1.000	43	19,972	0.988	1	2	0.002
20-Sep	0	1,366	1.000	1	19,973	0.988	1	3	0.003
21-Sep	0	1,366	1.000	6	19,979	0.988	2	5	0.004
22-Sep	0	1,366	1.000	0	19,979	0.988	0	5	0.004
23-Sep	0	1,366	1.000	0	19,979	0.988	0	5	0.004
24-Sep	0	1,366	1.000	0	19,979	0.988	0	5	0.004
25-Sep	0	1,366	1.000	0	19,979	0.988	0	5	0.004
26-Sep	0	1,366	1.000	0	19,979	0.988	0	5	0.004
27-Sep	0	1,366	1.000	2	19,981	0.988	0	5	0.004
28-Sep	0	1,366	1.000	4	19,985	0.989	1	6	0.005
29-Sep	0	1,366	1.000	0	19,985	0.989	0	6	0.005
30-Sep	0	1,366	1.000	0	19,985	0.989	0	6	0.005
01-Oct	0	1,366	1.000	58	20,043	0.991	341	347	0.303
02-Oct	0	1,366	1.000	142	20,185	0.999	446	793	0.693
03-Oct	0	1,366	1.000	4	20,189	0.999	108	901	0.787
04-Oct	0	1,366	1.000	26	20,215	1.000	244	1,145	1.000
Totals		1,366			20,215			1,145	
Adjustments									
Broodstock		36			34				
Catch		88			1,464				
Total Escapement		1,242			18,717			1,145	

[a] Jack chinook included in the counts.

Appendix E.4. Salmon catch and effort in the U.S. commercial fishery in the Alsek River, 1964-1992.

Year	Catch					Effort	
	Chinook	Sockeye	Coho	Pink	Chum	Boat Days	Days Open
1964	591	14,127	9,760	144	367	592	68.00
1965	719	28,487	9,638	10	72	1,016	72.00
1966	934	29,091	2,688	22	240	500	64.00
1967	225	11,108	10,090	107	30	600	68.00
1968	215	26,918	10,586	82	240	664	68.00
1969	685	29,259	2,493	38	61	807	61.00
1970	1,128	22,654	2,188	6	26	670	52.25
1971	1,222	25,314	4,730	3	120	794	60.50
1972	1,827	18,717	7,296	37	280	640	65.00
1973	1,757	26,523	4,395	26	283	894	52.00
1974	1,162	16,747	7,046	13	107	699	46.00
1975	1,379	13,842	2,230	16	261	738	58.00
1976	512	19,741	4,883	0	368	550	58.50
1977	1,402	40,780	11,817	689	483	882	57.00
1978	2,441	50,580	13,913	59	233	929	57.00
1979	2,525	41,449	6,158	142	263	1,110	51.00
1980	1,382	25,522	7,863	21	1,005	792	42.00
1981	779	23,641	10,232	65	816	585	40.00
1982	532	27,423	6,534	6	358	555	33.00
1983	93	17,637	5,253	20	432	479	38.00
1984	46	12,751	7,867	23	1,608	429	33.00
1985	213	5,792	5,490	3	427	279	33.00
1986	481	24,791	1,344	13	462	517	34.00
1987	347	11,393	2,517	0	1,924	388	40.50
1988	223	6,286	4,986	7	907	324	34.00
1989	228	13,513	5,972	2	1,031	364	35.50
1990	78	17,013	1,437	0	495	374	38.00
1991	103	17,542	5,956	0	103	530	49.00
Averages							
64-91	830	22,094	6,263	56	464	632	50.29
82-91	234	15,414	4,736	7	775	424	36.80
1992	301	19,310	3,310	1	136	404	46.00

Appendix E.5. Salmon catch in the U.S. subsistence and personal use fisheries in the Alsek River, 1976-1992. [a]

Year	Catch		
	Chinook	Sockeye	Coho
1976	13	51	5
1977	18	113	0
1978			
1979	80	35	70
1980	57	41	62
1981	32	50	74
1982	87	75	50
1983	31	25	50
1984			
1985	16	95	0
1986	22	241	45
1987	27	173	31
1988	13	148	9
1989	20	131	34
1990	85	144	12
1991	38	104	0
Averages			
76-91	39	102	32
82-91	38	126	26
1992	15	37	44

[a] Reported catches on returned fishing permits.

Appendix E.6. Salmon catches in the Canadian food and sport fisheries in the Alsek River, 1976-1992.

	Chinook			Sockeye			Coho		
Year	Food	Sport	Total	Food	Sport	Total	Food	Sport	Total
1976	150	200	350	4,000	600	4,600	0	100	100
1977	350	300	650	10,000	500	10,500	0	200	200
1978	350	300	650	8,000	500	8,500	0	200	200
1979	1,300	650	1,950	7,000	750	7,750	0	100	100
1980	150	200	350	800	600	1,400	0	200	200
1981	150	315	465	2,000	808	2,808	0	109	109
1982	400	224	624	5,000	755	5,755	0	109	109
1983	300	312	612	2,550	732	3,282	0	16	16
1984	100	475	575	2,600	289	2,889	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
1987	125	367	492	1,158	383	1,541	0	49	49
1988	43	249	292	1,604	322	1,926	0	192	192
1989	234	272	506	1,851	319	2,170	0	227	227
1990	202	555	757	2,314	392	2,706	0	75	75
1991	509	388	897	2,111	303	2,414	217	260	477
Averages									
76-91	290	326	616	3,391	479	3,870	17	123	140
82-91	219	326	545	2,246	390	2,637	27	106	132
1992	148	103	251	2,592	582	3,174	0	213	213

Appendix E.7. Klukshu River weir counts of chinook, sockeye, and coho salmon, 1976-1992. The escapement count equals the weir count minus the food fishery catch minus fish taken for broad stock.

	Chinook [a]		Sockeye				Coho [c]	
Year	Count	Escape.	Early [b]	Late	Total	Escape.	Count	Escape.
1976	1,278	1,153	181	11,510	11,691	7,941	1,572	
1977	3,144	2,894	8,931	17,860	26,791	15,441	2,758	
1978	2,976	2,676	2,508	24,359	26,867	19,017	30	
1979	4,404	4,454	977	11,334	12,311	7,051	175	
1980	2,637	2,487	1,008	10,742	11,750	10,850	704	
1981	2,113	1,963	997	19,351	20,348	18,448	1,170	
1982	2,369	1,969	7,758	25,941	33,699	28,899	189	
1983	2,537	2,237	6,047	14,445	20,492	18,017	303	
1984	1,672	1,572	2,769	9,958	12,727	10,227	1,402	
1985	1,458	1,283	539	18,081	18,620	17,259	350	
1986	2,709	2,607	416	24,434	24,850	22,936	71	
1987	2,616	2,491	3,269	7,235	10,504	9,346	202	
1988	2,037	1,994	585	8,756	9,341	7,737	2,774	
1989	2,456	2,289	3,400	20,142	23,542	21,636	2,219	
1990	1,915	1,742	1,316	24,679	25,995	24,607	315	
1991	2,489	2,248	1,924	17,053	18,977	17,645	8,540	8,478
Averages								
76-91	2,426	2,254	2,664	16,618	19,282	16,066	1,423	
82-91	2,226	2,043	2,802	17,072	19,875	17,831	1,637	
1992	1,366	1,242	11,791	8,424	20,215	18,717	1,145	1,145

[a] Counts include jack chinook salmon.
[b] Includes sockeye counts up to and including August 15.
[c] Weir was removed prior to the end of the coho run.
[d] The chinook and sockeye escapements into Klukshu Lake are calculated from the weir count minus fish harvested above the weir site minus brood stock taken. The remainder of the food fishery harvest occured below the weir, at Village Creek, and Blanchard and Takhanne rivers.

Appendix E.8. Alsek River sockeye counts from U.S. and Canadian aerial surveys and from the electronic counter at Village Creek, 1985-1992.

	U.S. Aerial Surveys [a]				Canadian Aerial Surveys [b]		
Year	Basin Creek	Cabin Creek	Muddy Creek	Tanis River	Tatshenshini River	Neskataheen Lake	Village Creek Counter
1985	2,600			2,200			
1986	100		300	2,700	536	750	1,490
1987	350	220		1,600			1,875
1988	500			750	433	456	433 [c]
1989	320			680	1,689	1,700	9,569
1990	275	300		3,500			7,500 [d]
1991				800			5,670 [e]
Averages 85-91	691	260	300	1,747	886	969	4,423
1992	1,000	10		350			11,485 [f]

[a] Surveys not made every year at each tributary.
[b] Includes several streams from Lo-Fog to Goat Creek.
[c] Incomplete count due to machine malfunction.
[d] Estimated count based on absolute electronic records (5,313) and the total number of non-operational days.
[e] Estimated count based on absolute electronic records (3,981) and the total number of non-operational days.
[f] Counts were estimated during the non-operational days by averaging the counts recorded three days before and three days after malfunction.

Appendix E.9. Aerial survey index counts of Alsek chinook salmon escapements, 1984-1992.

Year	Blanchard River	Takhanne River	Goat Creek
1984	304	158	28
1985	232	184	
1986	556	358	142
1987	624	295	85
1988	437	169	54
1989	[a]	158	34
1990	[a]	325	32
1991	121	86	63
Averages 84-91	379	217	63
1992	86	77	16

[a] Not surveyed due to poor visiblilty.

Appendix E.10. Aerial survey counts of coho salmon from U.S. lower Alsek River tributaries, 1985 - 1992.

Year	Combined U.S. Tributary Counts
1985	450
1986	1,100
1987	100
1988	1,900
1989	1,990
1990	1,600
1991	500 [a]
Averages 85-91	1,091
1992	1,010 [a]

[a] Few systems surveyed.