PACIFIC SALMON COMMISSION
TRANSBOUNDARY TECHNICAL
COMMITTEE REPORT

FINAL ESTIMATES OF TRANSBOUNDARY RIVER SALMON PRODUCTION, HARVEST AND ESCAPEMENT AND A REVIEW OF JOINT ENHANCEMENT ACTIVITIES IN 2018

REPORT TCTR (21) -02

July, 2021

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ACRONYMS

ADF&G	Alaska Department of Fish and Game
AC	Allowable Catch
AF	Aboriginal Fishery
BLC	Base Level Catch
CAFN	Champagne Aishihik First Nation
CCPH	Cumulative Catch per Hour
CPUE	Catch per unit effort
CWT	Coded Wire Tag
DFO	Department of Fisheries and Oceans (Canada)
DIPAC	Douglas Island Pink and Chum (Private Hatchery)
ESSR	Excess Salmon to Spawning Requirement (surplus fishery license)
FBD	Fish per boat day
GSI	Genetic Stock Identification
IHNV	Infectious Hematopoietic Necrosis (a virus which infects sockeye salmon)
LCM	Latent Class Model
MEF	Mid Eye Fork (fish length measurement)
MR	Mark–Recapture
MSY	Maximum Sustained Yield
POH	Post-Orbital-Hyperal (fish length measurement)
PSC	Pacific Salmon Commission
PST	Pacific Salmon Treaty
SCMM	Stikine Chinook Management Model
SHA	Special Harvest Area
SMM	Stikine Management Model
SPA	Scale Pattern Analysis
SW	Statistical Week
TAC	Total Allowable Catch
TMR	Thermal Mark Recovery
TRTFN	Taku River Tlingit First Nation
TBR	Transboundary River
TTC	Transboundary Technical Committee
YSC	Yukon Salmon Committee

CALENDAR OF STATISTICAL WEEKS

SW	Date		SW	Date	
	Begin	End		Begin	End
1	1-Jan	6-Jan	28	8-Jul	14-Jul
2	7-Jan	13-Jan	29	15-Jul	21-Jul
3	14-Jan	20-Jan	30	22-Jul	28-Jul
4	21-Jan	27-Jan	31	29-Jul	4-Aug
5	28-Jan	3-Feb	32	5-Aug	11-Aug
6	4-Feb	10-Feb	33	12-Aug	18-Aug
7	11-Feb	17-Feb	34	19-Aug	25-Aug
8	18-Feb	24-Feb	35	26-Aug	1-Sep
9	25-Feb	3-Mar	36	2-Sep	8-Sep
10	4-Mar	10-Mar	37	9-Sep	15-Sep
11	11-Mar	17-Mar	38	16-Sep	22-Sep
12	18-Mar	24-Mar	39	23-Sep	29-Sep
13	25-Mar	31-Mar	40	30-Sep	6-Oct
14	1-Apr	7-Apr	41	7-Oct	13-Oct
15	8-Apr	14-Apr	42	14-Oct	20-Oct
16	15-Apr	21-Apr	43	21-Oct	27-Oct
17	22-Apr	28-Apr	44	28-Oct	3-Nov
18	29-Apr	5-May	45	4-Nov	10-Nov
19	6-May	12-May	46	11-Nov	17-Nov
20	13-May	19-May	47	18-Nov	24-Nov
21	20-May	26-May	48	25-Nov	1-Dec
22	27-May	2-Jun	49	2-Dec	8-Dec
23	3-Jun	9-Jun	50	9-Dec	15-Dec
24	10-Jun	16-Jun	51	16-Dec	22-Dec
25	17-Jun	23-Jun	52	23-Dec	29-Dec
26	24-Jun	30-Jun	53	30-Dec	31-Dec
27	1-Jul	7-Jul			

EXECUTIVE SUMMARY

Final estimates of harvests and escapements of Pacific salmon returning to the transboundary Stikine, Taku, and Alsek rivers in 2018 are presented and compared with historical patterns. Average, unless defined otherwise, refers to the most recent 10-year average (2008–2017). Relevant information pertaining to the management of appropriate U.S. and Canadian fisheries is presented and the use of inseason management models is discussed. Preliminary results from TBR sockeye salmon *Oncorhynchus nerka* enhancement projects are also reviewed.

Stikine River

The postseason estimate of the 2018 Stikine River sockeye salmon terminal run was 64,500 fish, of which approximately 33,100 fish were harvested in various fisheries including assessment/test fisheries. An estimated 31,500 Stikine River fish escaped to spawn; 1,900 fish were removed for broodstock, and an estimated 1,100 fish migrated to the barrier in the Tuya River and were not harvested. The terminal run was below average and the harvest was below average (even when Tuya was excluded). The Tahltan Lake sockeye salmon total weir count of 16,600 fish was below the goal range of 18,000 to 30,000 fish. The estimated spawning escapement of 13,800 mainstem Stikine River sockeye salmon was below the goal range of 20,000 to 40,000 fish. The estimated U.S. commercial harvest of Stikine River sockeye salmon in Districts 106 and 108, including the Stikine River subsistence fishery, was 9,000 fish. The sockeye salmon harvest in the Canadian inriver commercial was 16,900 fish and the AF harvest was 5,400 fish. The inriver test fisheries harvested 1,300 sockeye salmon. Weekly inseason run projections from the SMM ranged from 118,600 to 125,300 sockeye salmon; the final inseason model prediction was 123,000 fish, with a TAC of 65,000 fish. The postseason terminal run estimate was 64,500 fish and an AC estimate of 6,700 Stikine River sockeye salmon for each country, Canada harvested 320% and the U.S. harvested 126% of their respective TACs.

The estimated 2018 Stikine River large Chinook salmon terminal run was 8,810 fish, above border run was 8,770 fish, and spawning escapement was 8,360 fish; below both the escapement goal target of 17,400 fish and the escapement goal range 14,000 to 28,000 fish. The run was one of the lowest on record and the harvests were well below average. The Little Tahltan River large Chinook salmon escapement of 450 fish was well below the Canadian escapement target of 3,300 fish and below the lower bound of the Canadian target range of 2,700 to 5,300 fish. The estimated incidental U.S. commercial harvest of Stikine River Chinook salmon in Districts 108 gillnet, test, troll, subsistence, and sport fisheries was 40 large fish.

The 2018 run size of Stikine River coho salmon cannot be quantified. The Canadian inriver commercial harvest was 3,800 coho salmon. The U.S. mixed stock coho salmon harvest in District 106 was 112,000 fish (31% Alaska hatchery) and District 108 was 8,800 fish (33% Alaska hatchery).

Taku River

The estimate of the 2018 Taku River sockeye salmon terminal run is 164,400 fish unadjusted and 143,900 fish adjusted; 159,700 wild fish unadjusted and 139,100 wild fish adjusted; and 4,800 hatchery fish. The U.S. harvested 26,000 wild fish, Canada harvested 17,000 wild fish, and the estimated above border spawning escapement was 116,700 unadjusted and 96,100 adjusted wild sockeye salmon. The terminal run size and wild fish escapement was below average and above the goal range of 71,000 to 80,000 fish. The U.S. and Canada harvested an estimated 38% (50% adjusted) and 101% (130% adjusted) of their respective ACs calculated using an 80%/20% U.S./Canada harvest sharing split based on enhanced fish production.

The estimated 2018 Taku River large Chinook salmon terminal run was 7,440 fish, above border run was 7,390 fish, and spawning escapement was 7,270 fish; below both the escapement point goal of 25,500 fish and the escapement goal range 19,000 to 36,000 fish. The run was the lowest on record and the harvests were well below average. The total harvest of large Chinook salmon in the Canadian commercial fishery in the Taku River was 0 fish, due to the nonretention license requirement and the AF harvest was 10 fish. The estimated incidental U.S. commercial harvest of Taku River Chinook salmon in Districts 111 gillnet, troll, personal use, and sport fisheries was 50 large fish.

The estimated above border run of Taku River coho salmon in 2018 is 60,700 fish, which was 65% of average. The Canadian inriver commercial harvest was 9,500 coho salmon. After all Canadian harvests are subtracted from the above border run the above border spawning escapement is estimated at 51,200 coho salmon, slightly above the bottom end of the escapement goal range of 50,000 to 90,000 fish. The U.S. harvest of 35,600 coho salmon in the traditional District 111 mixed stock fishery was near average. Alaskan hatcheries contributed an estimated 13,900 fish, or 39% of the District 111 harvest.

Alsek River

The 2018 Alsek River harvest of 1,400 sockeye salmon in the U.S. commercial fishery was below average. There was no harvest of sockeye salmon in the Canadian inriver recreational or Aboriginal food fishery. The Klukshu River weir count of 7,100 sockeye salmon was below average and the escapement of 7,000 fish was below the escapement goal range of 7,500 to 11,000 fish.

The 1,100 Chinook salmon counted through the Klukshu River weir was average and the estimated escapement (1,100 fish) was within the escapement goal range of 800 to 1,200 Chinook salmon. The U.S. Dry Bay harvest of 88 large Chinook salmon was below average. There was no harvest of Chinook salmon in the Canadian inriver recreational or Aboriginal food fishery.

Current stock assessment programs prevent an accurate comparison of the Alsek River coho salmon run with historical runs. There was minimal effort during the U.S. Dry Bay coho salmon fishery and harvest figures are negligible. The Canadian recreational and Aboriginal fisheries harvested no coho salmon. The Klukshu River enumeration program does not provide a complete enumeration of coho salmon into this system since it is removed before the run is complete.

Enhancement

In 2018, eggs and milt were collected from sockeye salmon at Tahltan and Tatsamenie lakes. Canada revised the Tahltan Lake egg-take goal from 5.0 million to 2.5 million sockeye salmon eggs based on estimated escapement into Tahltan Lake and trying to maintain the Treaty guideline of 1:1 enhanced to wild smolt production. It is noted elsewhere in this report that the complete escapement into Tahltan Lake was not enumerated due to forest fire evacuations during a large portion of the run timing. An estimated 2.5 million eggs were collected at Tahltan Lake and delivered to Snettisham Hatchery. The egg-take goal at Tatsamenie Lake was 2.5 million eggs. An estimated 2.5 million eggs were collected at Tatamenie Lake and delivered to Snettisham Hatchery.

In 2018, the egg-take goal at Little Trapper Lake was 0.5 million sockeye salmon eggs. The egg take did not occur due to an unusually low escapement during the early portion of the run and low proportion of females observed at the Little Trapper weir. A larger escapement eventually materialized but the female component was still unusually low, approximately 19%.

In 2018, outplants of brood year 2017 sockeye salmon fry were as follows: 2.6 million fry into Tahltan Lake; 1.4 million fry were released directly to Tatsamenie Lake and 371,000 fry were released into net pens for the extended rearing experiment in Tatsamenie Lake; and 188,000 fry were released into Trapper Lake. Green-egg to planted-fry survivals were 68%, 75% and 67% for Tahltan, Tatsamenie and Trapper lakes; respectively.

Adult sockeye salmon otoliths were processed inseason by the ADF&G otolith lab to estimate weekly contribution of fish from U.S./Canada TBR fry planting programs to District 106, 108, and 111 drift gillnet fisheries and to Canadian lower commercial and test fisheries in the Stikine and Taku rivers. Postseason estimates of stocked fish to Alaskan harvests were 2,580 Stikine River fish to District 106 and 108, and 1,510 Taku River fish to District 111. Postseason estimates of stocked fish to Canadian fisheries included 9,800 fish to Stikine River fisheries and 2,400 fish to the Taku River fisheries.

INTRODUCTION

This report presents final postseason estimates of the 2018 harvest and escapement data for Pacific salmon runs to the transboundary Stikine, Taku, and Alsek rivers and describes management actions taken during the season. Harvest and effort data are presented by 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. Joint enhancement activities on the Stikine and Taku rivers are also summarized.

The TTC met prior to the season to update joint management, stock assessment and enhancement plans and determine preseason forecasts and outlooks for run strengths and initial TAC estimates for the various species and rivers. The results of this meeting are summarized in: PSC TTC, TCTR (18)-1 Salmon Management and Enhancement Plans for the Stikine, Taku and Alsek Rivers, 2018.

Run reconstruction analyses are conducted on the sockeye salmon *Oncorhynchus nerka* and Chinook salmon *O. tshawytscha* runs to the Stikine and Taku rivers and to the Taku River for coho salmon *O. kisutch* for the purpose of evaluating the stocks and the fisheries managed for these stocks. No estimates of marine harvest are made for Alaskan fisheries outside of District 106 and 108 for Stikine River stocks, District 111 for Taku River stocks and Subdistrict 182-30 & 31 for Alsek River stocks.

STIKINE RIVER

Stikine River salmon are harvested by U.S. commercial drift gillnet and troll fisheries as well as recreational and subsistence fisheries in Alaskan Districts 106 and 108, by Canadian commercial gillnet and assessment/test fisheries located in the lower and upper Stikine River, and by a Canadian AF in the upper portion of the river (Figure 1). In addition, Canadian terminal area fisheries are occasionally operated in the lower Tuya River and/or at Tahltan Lake when escapements are estimated to include excess salmon to spawning requirements (ESSR). A recreational fishery also exists in the Canadian sections of the Stikine River drainage. In 1995, a U.S. personal use fishery was established in the lower Stikine River; no harvests were reported in this fishery in 1995 through 2000. Approximately 30 sockeye salmon were harvested in 2001, and the personal use fishery on the Stikine River was not open in 2002 and 2003. A U.S. subsistence fishery was opened in 2004 for sockeye salmon and in 2005 for Chinook and coho salmon.

In 1993, the U.S. spring experimental troll fishery near Wrangell was expanded to include two new areas in portions of District 106 and 108 to target hatchery Chinook salmon. In 1998 an additional area was included in a portion of District 108. The three areas in District 108 and one area in District 6 have remained unchanged and have opened in the absence of District 108 directed Stikine River Chinook salmon fisheries.

In May 2014, a landslide occurred near the mouth of the Tahltan River. The landslide deposited approximately 8,000 m^3 of debris into the river which may have restricted access to Tahltan River Chinook and sockeye salmon spawning sites until mid-July 2014. For the 2014 season, Canada estimated that approximately 70% and 7% of the Chinook and

sockeye salmon respectively failed to access their traditional spawning grounds located above the landslide. In March 2015 select boulders at the landslide were demolished using an industrial expansion compound set into drill holes within the boulders. The resulting fragments were displaced downstream by manual labor and by the erosional effects of the spring freshet. The exercise resulted in an increase in the channel width, ridding the site of a "pinch point" where it was observed that salmon struggled in their attempts to ascend the river in 2014. In 2015, Chinook salmon were observed attempting to negotiate the landslide from late May to late June with successful passage confirmed June 28 and after (on average approximately 50% of the fish enter the Tahltan River by late June). In 2015 during very low flow regimes, some sockeye salmon were observed being rejected from the landslide channel; moreover, several sockeye salmon carcasses were observed below the landslide. In 2016 and 2017, water levels were generally conducive to fish passage and Chinook and sockeye salmon were observed successfully passing the landslide. In winter 2017/2018 significant work was completed at the landslide site to complete an engineered plan to improve fish passage. This work completed drilling and blasting of large instream debris during safe and stable winter months by uncovering the target boulders from the snow and ice. The intent was to increase the width of the channel to lower velocities, resulting in improved fish passage and decrease the size of target boulders to sizes the river could mobilize promoting further gradual erosion of the debris. Extremely low water conditions in 2018 and monitoring indicated Chinook and sockeye salmon passage was not delayed significantly.

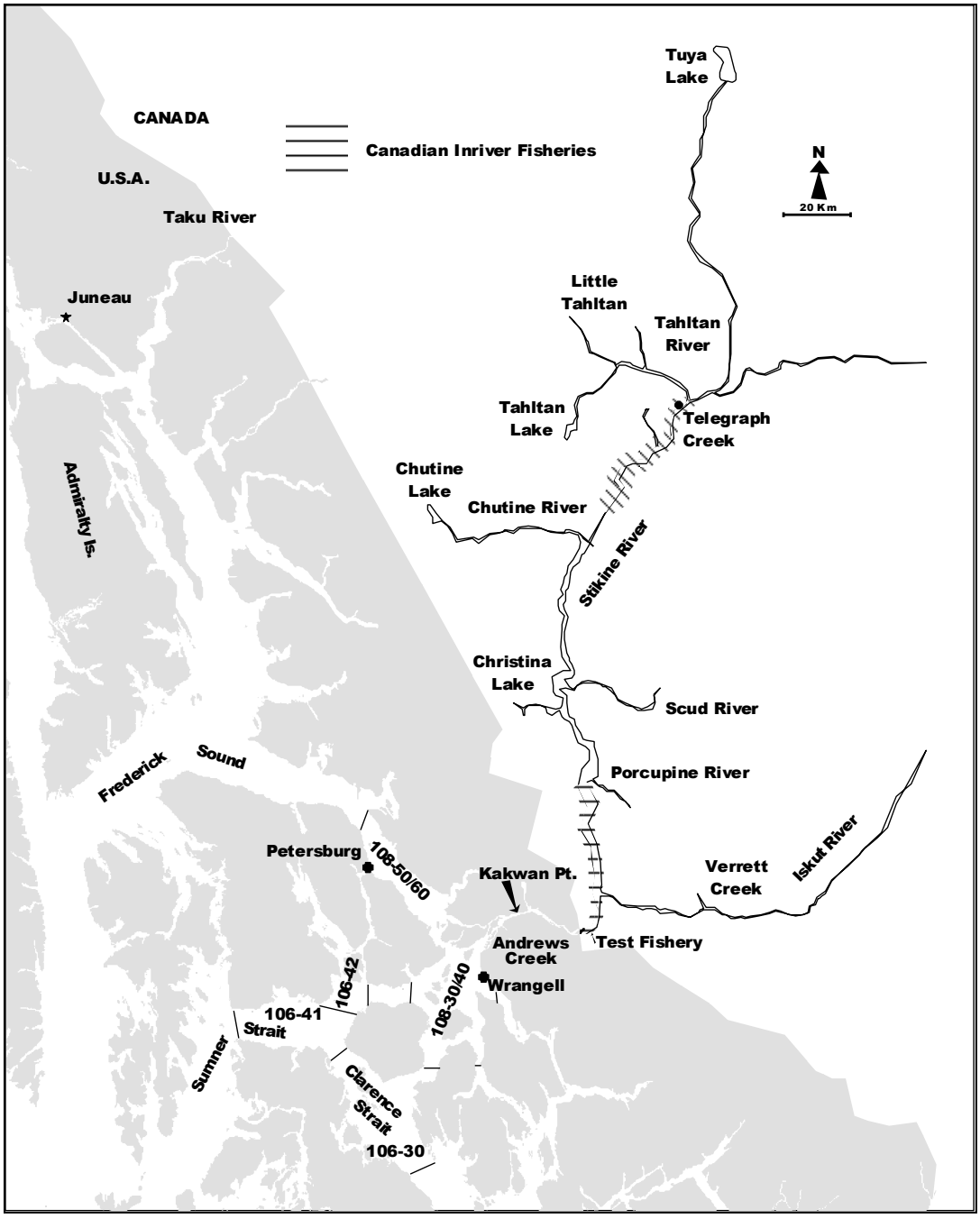

Figure 1. The Stikine River and principal U.S. and Canadian fishing areas.

Harvest Regulations and the Joint Management Model

Fishing arrangements in place for salmon originating from the Canadian portion of the Stikine River watershed are provided in Annex IV, Chapter 1 of the PST and can be found at: http://www.psc.org/pubs/treaty.pdf. These arrangements include: directed fisheries for Chinook salmon; continuation of a U.S. subsistence fishery on Chinook, sockeye, and coho salmon stocks within the U.S. section of the Stikine River; continuation of coho salmon harvest shares; and, a sockeye salmon harvest sharing arrangement based on the estimated production of enhanced fish.

The TTC meets prior to the season to update joint management and enhancement plans, develop run forecasts, and determine new parameters for input into the inseason Chinook and sockeye salmon run projection models. The Chinook salmon model is referred to as the SCMM and serves as a key management tool governing weekly fishing regimes for Stikine River Chinook salmon. The SCMM is complemented inseason with a concurrent MR study and other inriver assessment methods. The sockeye salmon model is referred to as the SMM. The SMM was complemented inseason with concurrent inriver run size estimates based on fishery performance against historical fishery performance and run size estimates.

Chinook Salmon

The SCMM model described above is based on the linear regression (correlation) between weekly cumulative CPUE of large Chinook salmon at the tagging site, located near the mouth of the Stikine River, and inriver run size based on MR studies conducted in 1996–2017. The CPUE and run size data sets (CPUE vs. run size) are significantly correlated, although there are statistical challenges with the SCMM at low CPUE levels such as those seen in 2018 as they lie outside of the established relationship. Generalized inseason model estimates were generated commencing in SW 20 but were primarily for information purposes as there were no directed inriver commercial fisheries (Table 1). Traditional MR estimates based on the cumulative ratio of tagged-to-untagged fish observed in the inriver commercial fishery were unavailable due to low catch rates during the first event and no retention in the commercial fisheries (second event). The SCMM was the only available indication of run strength during the Chinook salmon reporting period. In order to abide by Annex IV, Chapter1, Paragraph 3(a)(3)(vii), which obliges the Parties to apportion their overall TAC by historical weekly run timing, weekly fishery openings were announced based on weekly guideline harvests.

The preseason run size estimate of 6,900 large Chinook salmon was below the threshold run size limit of 28,100 fish (Table 1); hence, there were no directed Chinook salmon fisheries in the U.S. and Canada. The threshold number is the sum of the midpoint escapement goal (21,000 fish) + the Canadian BLC (2,300 fish) + the U.S. BLC (3,400 fish) + the inriver assessment/test fishery harvest (1,400 fish). In conjunction with the AC associated with the directed fishery, both U.S. and Canada are permitted a base level catch harvested as bycatch taken in the course of the targeted sockeye salmon net fisheries and Chinook salmon taken in traditional recreational fisheries. In response to conservation

concerns for Chinook salmon in 2018, the Canadian directed sockeye salmon fishery opening was delayed by one week (to SW 26) to avoid Chinook salmon bycatch, and once the sockeye fishery opened, fishermen were required to release all Chinook salmon bycatch.

Table 1. Stikine River large Chinook salmon run size based on the Stikine Chinook Management Model and MR estimates, and other methods, and weekly inseason harvest estimates from the District 108 gillnet, sport, troll, and subsistence fisheries and the inriver assessment/test, Canadian gillnet, and sport fisheries, 2018.

	Terminal Run	
SW	Estimate	Method
19	6,900	Preseason
20	6,900	Preseason
21	<14,000	SCMM
22	<14,000	SCMM
23	<14,000	SCMM
24	<14,000	SCMM
25	<14,000	SCMM
26	<14,000	SCMM
27	<14,000	SCMM
28	<14,000	SCMM
29	<14,000	SCMM

The preseason forecast for the Stikine River large Chinook salmon terminal run was approximately 6,900 large Chinook salmon (Table 1), which indicated a run size characterized as well below average. Joint Canadian and U.S. inseason predictions of terminal run size were all less than 14,000 large Chinook salmon (Table 1). Project biologists used the daily catch and effort data transmitted from the Kakwan Point tagging site to make weekly run projections based on the SCMM model. Joint weekly run size estimates were calculated on Wednesday or Thursday of the current week. Given the very low run strength and paucity of spaghetti tags recovered inseason, managers used the preseason forecast during SW 19–20 and used only the SCMM to generate a directional estimate (i.e. <14,000) weekly through the remainder of the Chinook salmon reporting period. Point estimates were not statistically defensible due to the inseason model data lying outside of the established relationship to CPUE and run size as determined by the MR. The first inseason estimate was generated in SW 21.

Sockeye Salmon

The preseason forecast for the Stikine River sockeye salmon run was approximately 160,900 fish (Table 2) and was characterized as an average run. The forecast included approximately 46,300 wild Tahltan sockeye salmon, 66,100 enhanced Tahltan fish, 12,900 enhanced Tuya sockeye salmon, and 35,500 mainstem sockeye salmon. The preseason forecast was used for management purposes from SW 25 to 27 and the SMM was used

beginning in SW 28. The Canadian lower river commercial fishery opening was delayed for one week from SW 25 to SW 26 to address Chinook salmon conservation concerns.

Starting in SW 28, weekly inputs of the harvest, effort, and stock composition were entered into the SMM to provide weekly forecasts of run size and TAC. Specific inputs include proportion Tahltan/Tuya from egg diameters, proportion enhanced Tuya from thermal mark analyses of otoliths in the Canadian lower river test (when in operation) and commercial fisheries; the upper river harvest in the AF and upper river commercial fishery; the catch, effort and assumed stock composition in Subdistrict 106-41 (Sumner Strait), Subdistrict 106-30 (Clarence Strait), and District 108.

The SMM provides inseason projections of the Stikine River sockeye salmon run, including the Tahltan stock (wild and enhanced combined), the stocked Tuya stock, and the mainstem stocks. The SMM predicts run size for each week of the fisheries using linear regression of historical stock specific harvest data and cumulative CPUE. It breaks the stock proportions in District 106 and 108 harvests, using historical postseason scale pattern analysis (SPA), into triggers of run size for Tahltan and Mainstem; the averages used each week depended upon whether the run was judged to be below average (0–40,000 fish), average (40,000–80,000 fish), or above average (+80,000 fish). The SMM for 2018 was based on CPUE data from 1994 to 2017 from the Alaska District 106 fishery and the Canadian commercial fishery in the lower river and from the lower Stikine River test fishery from 1986 to 2004. The enhanced Tuya and Tahltan stock proportions are adjusted inseason based on the analysis of otolith samples taken in Districts 106 and 108 harvests.

Generally, the SMM has used the Canadian Lower River Commercial (LRCF) fishery CPUE to estimate the inriver run size; however, the Lower River Test fishery CPUE data was available to enter into the SMM model to compare and contrast the respective run sizes generated from each of the inputs. In 2018 the upper commercial fishing zone (Flood fishery) was not opened for harvest; in years that it is opened, the harvest and effort from this area are excluded from the CPUE and not used in the model estimate. The annual weekly CPUE values were adjusted in order to make the current year data comparable with historical CPUE. For example, during 1979–1994 and 2000–2004, 2010–2016, only one net per license was permitted, while in 1996–1999 and 2005–2009 two nets per license were allowed. Only one net was permitted in the 2018 fishing season.

The Stikine Forecasting Management Model (SFMM) was also used in season, as decided by the TTC. The SFMM and test results were summarized in: PSC Technical report No. 38 Stikine Sockeye Salmon Management Model: Improving Management Uncertainty. This model was based on a second order polynomial relationship between weekly cumulative harvest or CPUE in District 106-41 and yearly run size. Triggers of run size for the Tahltan stock were ≤98,000 fish or >98,000 fish in the District 106-41 fishery, and 0, <46,000 fish, or >175,000 fish in the District 108 fishery. Triggers were not used for the mainstem stock. Additional model runs using cumulative harvest or CPUE in the District 108 sockeye salmon area was also tested. The sockeye salmon area harvest and CPUE in District 108 does not include 108-20 and 108-10 fishing areas, or midweek openings.

Table 2. Weekly forecasts of run size, total allowable harvest for Stikine River sockeye salmon, and cumulative Stikine River harvest as estimated inseason by the Stikine Management Model and other methods, 2018.

	Terminal		TAC			Cumulative Harvest	
SW	Estimate	Method	Total	U.S.	Canada	U.S.	Canada
Model runs Canada							
26		Preseason Forecast					1,801
27		Preseason Forecast					8,057
28	118,592	SMM	56,314	28,157	28,157		13,739
29	125,329	SMM	65,335	32,667	32,667		17,664
30	125,224	SMM	66,014	33,007	33,007		20,849
31	123,292	SMM	64,098	32,049	32,049		21,408
32	120,996	SMM	61,735	30,867	30,867		22,008
33	123,938	SMM	64,665	32,333	32,333		22,228
34		SMM					22,329
Model runs U.S.							
25		Preseason Forecast					
26		Preseason Forecast					
27		Preseason Forecast					
28	118,592	SMM	56,314	28,157	28,157	1,494	
29	125,329	SMM	65,335	32,667	32,667	3,859	
30	125,224	SMM	66,014	33,007	33,007	5,699	
31	123,292	SMM	64,098	32,049	32,049	6,745	
32	120,996	SMM	61,735	30,867	30,867	7,251	
33	123,938	SMM	64,665	32,333	32,333	7,386	
Postseason Estimate			14,222	7,111	7,111	9,038	22,737

Harvest does not include test fishery

Table 3. Terminal run reconstruction for Stikine River sockeye salmon, 2018.

Table 3. Run reconstruction for Stikine sockeye salmon, 20xx.

				Total	Tahltan	
	All Tahltan	Mainstem	Tuya	Stikine	EnhancedTahltan	NaturalOriginTahltan
Total Count[a]	16,557	13,762	1,173	31,492	8,273	8,284
Observed weir count	9,854					
estimated expansion at weir	6,703				3,340	3,363
Broodstock	1,878				936	942
Excess[c]			1,173			
Tahltan weir Biological Samples	207			207	127	80
ESSR Harvest[b]	0			0		
Natural Origin	14,472				7,210	7,262
Canadian Harvest						
Aboriginal	5,227	108	80	5,415	1,502	3,725
Upper Commercial	392	8	7	407	84	309
Lower Commercial	10,999	5,318	598	16,915	6,991	4,007
Total	16,617	5,435	685	22,737	8,577	8,041
% Harvest					37.7%	35.4%
Test Fishery Removals	678	621	13	1,312	476	201
Tuya Test	0	0	0	0	0	0
All above border removals/harvest	17,295	6,056	698	24,049	9,053	8,242
(plus biological samples)	17,502	6,056	698	24,256		
Above Border Run	33,852	19,818	1,871	55,541	20,665	19,890
U.S. Harvest[a]						
106-41&42	1,301	994	136	2,431	704	598
106-30	78	479	12	569	12	66
108	1,843	2,272	102	4,217	885	958
Subsistence	1,056	618	58	1,732	671	385
Total	4,278	4,363	309	8,950	2,272	2,006
% Harvest					25.4%	22.4%
Test FisheryRemovals	0	0	0	0	0	0
Terminal Run	38,130	24,181	2,180	64,491	22,937	21,896
Escapement Goal	24,000	30,000	0			
Terminal Excessd			1,411			
Total TAC	13,452	0	769	14,222		
Total Harvest[e]	21,573	10,419	1,007	32,999		
Canada TAC	6,726	0	385	7,111		
Actual Harvest[fg]	16,617	5,435	685	22,737		
% of total TAC	247%		178%	320%		
U.S. TAC	6,726	0	385	7,111		
Actual Harvest[fg]	4,278	4,363	309	8,950		
% of total TAC	64%		80%	126%		

[a] Total count of fish pass the traditional fisheries.

[b] Harvest allowed in terminal areas under the Excess Salmon to Spawning Requirement license.

[c] Fish returning to the Tuya system are not able to access the lake where they originated due to velocity barriers.

[d] The number of Tuya fish that should be passed through traditional fisheries in order to harvest the Tuya stock at the same rate as the Tahltan stock to ensure adequate spawning escapement for Tahltan fish.

[e] Includes traditional, ESSR, and test fishery Harvestes.

[f] Does not include ESSR or test fishery Harvestes.

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

U.S. Fisheries

The 2018 District 106 drift gillnet fishery was open for 41 days from June 17 through September 25. Total fishing time was below average (47 days). Weekly participation was below average for most of the sockeye salmon management period from SW 25 through SW 31, above average during the pink salmon management period (SWs 32 through 34) and the first half of the coho salmon management period (SWs 35 through 37), then fell to below average for the last two weeks of the season (SWs 38 and 39). The number of permits ranged between 99 permits fished in SW 37 to 18 permits fished in SW 39. Total season effort of 2,663 boat days was below average (2,705 boat days).

Total salmon harvest in the District 106 drift gillnet fishery was below average and included 3,247 Chinook, 25,203 sockeye, 112,000 coho, 348,277 pink, and 176,392 chum salmon. Chinook, pink, and chum salmon harvests were above average, while the sockeye, and coho salmon harvests were below average. An estimated 1,543 Chinook salmon (48%) of the District 106 harvest were of Alaska hatchery origin. An estimated 3,000 Stikine River sockeye salmon were harvested in District 106, approximately 12% of the harvest. An estimated 34,256 coho salmon (31%) of the District 106 harvest were of Alaska hatchery origin.

Stikine River sockeye salmon harvests in the two fishing areas of District 106 were markedly different. In the Sumner Strait fishery (Subdistrict 106-41) 14,675 sockeye salmon were harvested, of which 2,431 fish were estimated to be Stikine River sockeye salmon and contributed 17% of the total sockeye salmon harvest in that subdistrict. In the Clarence Strait fishery (Subdistrict 106-30), 10,528 sockeye salmon were harvested, of which an estimated 569 fish were estimated to be Stikine River sockeye salmon and contributed 5% of the total sockeye salmon harvest in that subdistrict.

The District 108 drift gillnet fishery was opened for a total of 40 days starting July 1. Total fishing time was below average (50 days), excluding years with directed Chinook salmon fishing, and closed concurrently with District 106 on September 25. Participation in District 108 was below average most weeks, except for SWs 29, 30, and 32. The total season effort of 1,064 boat days was below average (1,907 boat days).

Total salmon harvest in the District 108 drift gillnet fishery was below average and included 2,649 Chinook, 5,731 sockeye, 8,823 coho, 15,643 pink, and 133,812 chum salmon. Harvests of all five species were below their respective averages. Large Chinook salmon through SW 29 totaled 852 fish, of which 5 were identified as above the border Stikine River origin through GSI. Of the sockeye salmon harvest, an estimated 4,217 Stikine River sockeye salmon were harvested, which contributed 74% of the District 108 sockeye salmon harvest. An estimated 2,870 fish (33%) of the District 108 coho salmon harvest were of Alaska hatchery origin.

The Stikine River Chinook salmon preseason forecast of 6,900 fish was insufficient to allow for directed fisheries. In District 108, restrictions implemented in the gillnet fishery to reduce harvests of Stikine River Chinook salmon included a three week delay of the

initial opening, area restrictions through SW 28, and mesh restrictions were implemented through SW 29. Due to recent and expected poor performance of Chinook salmon runs throughout SE Alaska, restrictions in the District 106 fishery were implemented as well. The District 106 opening was delayed one week, and a six-inch maximum mesh restriction was in place for the first three openings.

In 2018, U.S. subsistence fisheries targeting sockeye and coho salmon occurred on the Stikine River. The directed subsistence Chinook salmon fishery was not opened. Subsistence fishing was restricted to federally qualified users, required a permit issued by the USFS, and was limited to the U.S./Canadian border to marine waters at the mouth of the Stikine River. Fishing in "clearwater" tributaries, side channels, or at stock assessment sites was also prohibited. Annual guideline harvest levels were 600 sockeye and 400 coho salmon. Allowable gear for the fishery included dipnets, spears, gaffs, rod and reel, beach seine, and gillnets not exceeding 15 fathoms in length with mesh size no larger than 5½ inches. A total of 8 Chinook salmon was harvested incidentally during the subsistence sockeye salmon fishery through SW 29. Subsistence fishing was allowed from June 21 through July 31 to target sockeye salmon and from August 1 through October 1 to target coho salmon. In 2018, a total of 117 permits were issued and the estimated harvests included 22 large Chinook, 1,732 sockeye, and 57 coho salmon.

U.S. harvest of large Stikine River Chinook salmon in all District 108 fisheries were minimal and well below the U.S. BLC. The estimated harvest of large Stikine River Chinook salmon by the District 108 drift gillnet fishery through SW 29 was 5 fish based on GSI. The District 108 Spring Troll fishery was closed for 2018. Commercial trolling opened in District 108 for the Summer Troll fishery on July 1 with nonretention of Chinook salmon in effect; however, no vessels fished in District 108. The District 108 sport fishery implemented nonretention of Chinook salmon from April 1 through July 15. Harvest of Stikine River Chinook salmon in the sport fishery was estimated to be 12 fish. Cumulative U.S. District 108 base level fishery harvest by all gear groups through SW 29 was estimated to be 39 fish, well below the U.S. BLC of 3,400 large Stikine River Chinook salmon.

The Stikine River sockeye salmon preseason forecast indicated an above average terminal run size of 160,900 fish, with a resulting U.S. AC of 51,000 fish (Table 2). Preseason forecasts were the primary basis of management during SWs 25 through 27. Inseason estimates of terminal run sizes were first produced on a weekly basis beginning in SW 27 and were used from SW 28 through the end of season with the final inseason estimate being produced in SW 33. Inseason abundance estimates were variable and ranged between 125,000 and 66,000 sockeye salmon. The postseason Stikine River sockeye salmon run estimate of 64,491 fish resulted in an U.S. AC of 7,111 sockeye salmon. The total U.S. harvest was estimated to be 8,950 fish, based on GSI analysis (Table 3).

District 106 opened at 12:00 noon on Sunday, June 17, for an initial 2-day period with a six-inch maximum gillnet mesh restriction in place. On the grounds surveys indicated low sockeye salmon abundance and no additional fishing time occurred. Effort was comprised of 17 boats in Clarence Strait (106-30) and 36 boats in Sumner Strait (106-41). An

estimated 221 Stikine River sockeye salmon were harvested in the District 106 drift gillnet fishery in SW 25.

In SW 26, District 106 opened at 12:00 noon on Sunday, June 24, for an initial 2-day period with a six-inch maximum gillnet mesh restriction in place. On the grounds surveys indicated continued below average harvest rates of sockeye salmon. Additionally, effort decreased to below average. Given effort levels and surplus fish in the AC from the preseason forecast, a 24-hour extension occurred. Effort was 26 boats in Clarence Strait (106-30) and 19 boats in Sumner Strait (106-41). An estimated 690 Stikine River sockeye salmon were harvested in the District 106 drift gillnet fishery in SW 26.

Districts 106 and 108 opened for an initial 3 days in SW 27 (July 1–July 7) with a six-inch mesh restriction in both districts. Additionally, an expanded area off the Stikine River delta in District 108 was closed. Effort and sockeye salmon harvests were below average in both districts. There was Stikine sockeye salmon AC available for the U.S., but the opening was limited to three days due to Chinook salmon conservation concerns. An estimated 1,697 Stikine River sockeye salmon were harvested this week with the majority (1,189 fish) being harvested in District 108. During SW 27, 12 boats fished in Sumner Strait (106-41), 25 boats fished in Clarence Strait (106-30), and 16 boats fished in District 108.

During SW 28 (July 8–July 14), Districts 106 and 108 were opened for an initial 3 days. The first inseason forecast of Stikine River sockeye salmon terminal run size generated this week was 118,600 fish, which resulted in a U.S. AC of 28,157 fish and was considerably below the preseason forecasts (Table 2). On the grounds surveys of the gillnet fleet in both districts continued to indicate below average effort and sockeye salmon abundance in both districts. Given the AC associated with the inseason forecast of Stikine River sockeye salmon, low effort, and associated harvest levels observed during the surveys, an additional 1-day midweek opening in District 108 occurred. The U.S. cumulative harvest of Stikine River sockeye salmon through SW 28 was estimated to be 4,018 fish. Effort included 19 boats in Clarence Strait (106-30), 19 boats in Sumner Strait (106-41), and 35 boats in District 108.

Districts 106 and 108 were opened for an initial 2 days during SW 29 (July 15–July 21). Opening time for District 106 was limited to 2 days for SWs 29 through 31 due to McDonald Lake sockeye salmon concerns. Effort remained below average in District 106 with 20 boats in Clarence Strait (106-30) and 22 boats in Sumner Strait (106-41). Harvest rates of sockeye salmon in both subdistricts remained below average. Effort in District 108 increased to above average with 58 boats making landings. However, most of the fleet continued to target hatchery chum salmon in District 108. Surveys of fishermen targeting sockeye salmon in District 108 indicated that harvest rates of sockeye salmon continued to be below average. The SMM assessment provided a slight increase with a projected run size of 125,300 sockeye salmon, which resulted in a U.S. AC of 32,700 fish (Table 2). District 108 opened for an additional 2-day midweek opening to harvest available surplus Stikine River sockeye salmon. An estimated 1,195 Stikine River sockeye salmon were harvested in SW 29 with a cumulative harvest of 5,213 fish.

Both districts were open for an initial 2 days during SW 30 (July 22–July 28). Run size estimates and the corresponding U.S. AC produced by the SMM decreased substantially in SW 30 with a projected run size of 66,000 fish, which resulted in a U.S. AC of 16,400 fish (Table 2). Due to the available U.S. AC, District 108 opened for a 1-day midweek opening. An estimated 1,259 Stikine River sockeye salmon were harvested by U.S. fisheries this week with a cumulative harvest of 6,472 fish. Effort included: 46 boats in Clarence Strait (106-30), 78 boats in Sumner Strait (106-41), and 65 boats in District 108.

Sockeye salmon harvest fell sharply during SW 31 (July 29–August 4) and continued to decline each week until the end of the season. This was the final week of sockeye salmon management. Both districts were open for an initial 2 days. The inseason forecast for SW 31 estimated a terminal run size of 123,300 Stikine River sockeye salmon with an available U.S. AC of 32,000 fish. The cumulative U.S. harvest of Stikine River sockeye salmon this week was 6,860 fish. On-the-grounds surveys indicated that sockeye salmon harvest rates were below average in both districts with above average effort in District 106 and below average in District 108. Additionally, historical run timing for Stikine River sockeye salmon indicated the remainder of the run was comprised primarily of mainstem fish. Recent model runs indicated a below average return of the mainstem run coupled with very little surplus in the mainstem portion of the AC. With poor sockeye salmon harvest rates and mainstem AC concerns, no additional time occurred. Effort included: 50 boats fishing in Clarence Strait (106-30), 42 boats in Sumner Strait (106-41), and 48 boats in District 108. An estimated 331 Stikine River sockeye salmon were harvested in the District 106 and 108 drift gillnet fisheries through the remainder of the season.

During SWs 32 through 34 (August 6–August 25), both Districts 106 and 108 were managed based on pink salmon abundance. That portion of Section 6-D in District 106 along the Etolin Island shoreline was closed to gillnet fishing from SW 32 through SW 35 by regulation. Three day openings occurred in SWs 32 through 34. Effort was near average in SWs 32 and 33, but was above average in District 106 and below average in District 8 for SW 34.

Beginning in SW 35 (August 26–September 1), management emphasis transitioned to wild coho salmon abundance. Prior to the switch to coho salmon management, 44,877 coho salmon, approximately 40% of the total District 106 harvest, had been harvested. The hatchery contribution was approximately 7,683 fish in District 106 prior to SW 35 and was comprised primarily of releases from Neck Lake. During the coho salmon management period, coho salmon harvests were below average in District 106 with an estimated harvest of 26,572 hatchery fish and 40,551 wild coho salmon. Harvest of wild coho salmon in District 108 was also below average with an estimated harvest of 5,953 fish for the season. Open time ranged from four days in SW 37 to two days in SW 39 (Table 15). The 2018 drift gillnet season concluded at noon on Tuesday, September 25, in both districts.

Canadian Fisheries

Annual harvests from the combined Canadian commercial, Aboriginal gillnet and recreational fisheries in the Stikine River in 2018 included 165 large Chinook, 456 nonlarge Chinook, 22,237 sockeye, 3,803 coho, 526 chum, and 94 pink salmon. The

test/terminal area fishery designed to target on Tuya bound fish at a site located in the mainstem Stikine River between the mouth of the Tahltan and the mouth of the Tuya River was not prosecuted in 2018.

The harvest of large and nonlarge Chinook salmon was well below average due to the poor return and the retention restrictions in place in most fisheries. The sockeye and coho salmon harvests were also below average. The preliminary estimate of the total contribution of sockeye salmon from the Canada/U.S. fry-stocking program to the combined Canadian Aboriginal and commercial fisheries was 9,261 fish, 41% of the catch.

The Chinook salmon assessment fishery was not conducted in 2018, in response to the poor preseason forecast and the decision to maximize the number of fish returning to the spawning grounds. A sockeye salmon test fishery was conducted for stock assessment purposes in the lower Stikine River from 20 June to 24 August, 2018. The test fishery was located immediately upstream from the Canada/U.S. border. Test fishery catches totaled 1,312 sockeye, 118 coho, 97 pink, 99 chum salmon, plus 21 large, 37 nonlarge Chinook salmon and 54 steelhead trout which were all released. The objectives of the sockeye salmon test fishery were similar to those in previous years: to provide inseason catch, stock ID and effort data for input, if necessary, into the SMM to estimate the inriver run size; and, to determine migratory timing and stock composition of the sockeye salmon run for use in the postseason estimations of the inriver sockeye salmon run.

The coho salmon test fishery was not conducted in the lower Stikine River in 2018.

Lower Stikine River Commercial Fishery

The Canadian commercial fishery on the lower Stikine River harvested 16,915 sockeye, 3,685 coho, 94 pink, and 526 chum salmon. A total of 476 large Chinook, 636 nonlarge Chinook, 407 pink, and 164 chum salmon, as well as 307 steelhead trout, were released in 2018. For 2018, there was no directed Chinook salmon fishery. All Chinook salmon caught incidentally in the directed sockeye and coho salmon fisheries (SWs 26–36) were released. The harvests of both sockeye and coho salmon were below average. Without a directed Chinook salmon fishery, the overall poor abundance of Chinook salmon, and the management measures implemented during the sockeye salmon fishery which were intended to reduce incidental catch of Chinook salmon, the fishery impact on large and nonlarge Chinook salmon was minimal.

Typically, the effort in the directed Chinook salmon fishery averages a total of 168 licence days but, as in 2017, there was no commercial Chinook fishery in 2018. Sockeye salmon were targeted for a total of 159 licence days, below the average of 303 licence days. The coho salmon fishery was opened for a total of 131 licence days, above the average of 104 licence days.

The stock composition of the lower river sockeye salmon harvest was 6,991 enhanced Tahltan fish, which accounted for 41% of the sockeye salmon harvest; 4,007 wild Tahltan sockeye salmon accounting for 35% of the harvest; 5,435 mainstem fish accounting for

24% of the harvest; and, 598 enhanced Tuya sockeye salmon accounted for 4% of the harvest (Table 3).

Typically, weekly Chinook and sockeye salmon guideline harvests, based on SCMM, SMM and MR forecasts of the TAC apportioned by average run timing and domestic and international allocation agreements, are developed each week to guide management decisions during the Chinook and sockeye salmon seasons. For 2018, weekly inseason run projections for Chinook salmon were not made as assessment information was largely absent due to the poor run size (which meant poor catches at Kakwan Point – influenced the SCMM) and the decision to limit all Chinook salmon harvest; therefore, reducing the likelihood that sufficient tags would be recovered to provide for inseason MR estimates. In most years, after SW 25, for the purpose of managing the lower river catch, 800 large Chinook salmon are allocated to the upper Stikine River fisheries. The allocation consists of 100, 20, and 680 large Chinook salmon in the recreational, upper commercial and Aboriginal fisheries, respectively. In 2018, the allocation of Chinook salmon to the respective fisheries was not made as restrictions were put in place to eliminate the harvest of Chinook salmon in all fisheries, specifically, the release of all Chinook caught. A total of 8,000 sockeye salmon was allocated to the upper Stikine River commercial and AF. The remaining balance of the sockeye salmon TAC was allocated to the lower Stikine River commercial fishery. Particular attention was directed at the inriver run and escapement projections of the various sockeye salmon stock groupings. From SW 26 through SW 30, management emphasis was on the Tahltan and Tuya lake sockeye salmon stock groupings, after which time the sole focus was the management of mainstem sockeye salmon stocks through the end of the sockeye salmon fishery in SW 34. Unlike past years prior to 2015, the switch to the mainstem sockeye management commenced in SW 31 versus SW 30. This action was in response to the continued relative strength of the Tahltan sockeye stock groupings beyond SW 29. The coho salmon management regime began on SW 35.

The preseason forecast of 6,900 large Chinook salmon was far below the treaty agreed to threshold run size of 28,100 fish that would trigger a directed fishery. Therefore, a targeted commercial fishery was not prosecuted by Canada in 2018. In response to the poor Chinook salmon forecast and inseason escapement concerns, Canada made the decision to implement restrictions/modifications to the management of the directed sockeye salmon fishery in the lower Stikine River. If Chinook salmon escapement had not been a concern in 2018, the directed sockeye fishery would have opened on 17 June (SW 25) but in response to the Chinook salmon situation, the sockeye fishery did not commence until 26 June (SW 26) to allow for the majority of the Chinook salmon return to pass through the lower Stikine River. Additionally, licence holders were required to release all Chinook salmon that were incidentally caught in the sockeye salmon fishery. Openings in SW 26 were restricted to the daylight period to allow for set gillnet use with a maximum of 30 minute soak times before picking the net in an effort to facilitate the release of healthy large Chinook salmon. The maximum mesh size for the directed sockeye salmon fishing period was kept at 14.0 cms (~5.5 inch) until the start of the coho salmon management period (SW 35) to further reduce interceptions and avoid gilling large Chinook salmon.

Annex IV, Chapter 1, paragraph 4 of the PST prescribes that either Party takes corrective action in the event that a Party exceeds its catch allocation in any three of five consecutive years. In 2017, fisheries management actions based on bilaterally agreed to inseason run size information resulted in Canada exceeding its sockeye salmon allocation for the third time in the last five years. In response, Canada reviewed its management actions for 2017 in relation to the stock assessment information available during the fishing season. It was found that the preseason forecast was significantly higher than the postseason run estimate, resulting in early season fishing opportunity (SW26–27) that led Canada to exceed its weekly guidelines. Once inseason information became available, run projections dropped significantly but still exceeded the postseason run estimate which further exacerbated Canada's ability to manage within its AC. Through the review, it was found that Canada exceeded the appropriate amount of fishing time by approximately 20% during the Tahltan sockeye salmon management period and approximately 50% during the mainstem sockeye salmon management period.

In an attempt to align the Canadian harvest with its allocation in 2018, Canada was to implement the following measures based on anticipated fishing conditions (water levels) and effort (11 licences) being similar to 2017:

- preseason forecast adjusted to reflect the recent observed smolt to adult survival rates for Tahltan sockeye salmon – used to inform management in SW26–27;
- for SW28–34, when inseason run projections were at or below the preseason forecast, commercial openings were to be reduced by approximately 20% for the Tahltan stock and by approximately 50% for the mainstem stock management periods;
- when inseason run projections exceeded the preseason forecast, the commercial fishery was to be adjusted to reflect a normal fishery.

(Note: some of the catch figures listed in the following narrative may not match the final catch records listed in the tables. This is due to slight changes in the catches as a result of a postseason check of the catch slips, updated stock composition information, and assessment of Chinook salmon large versus nonlarge size ratios.)

In SW 26, the fishery opened (delayed by nine days) for sockeye salmon, which was centered on the Tahltan stock group and was expected to remain so until SW 29. Fishers were permitted one net only and the commercial fishing area remained the same as recent years, which was from the Canada/U.S. border upstream to a location near the mouth of the Porcupine River. The area included the lower 10 km reach of the Iskut River. The use of set gillnets was permitted as along as net checks occurred no less than every 30 minutes. In order to facilitate the requirement, openings were restricted to daylight periods only to ensure fisher safety. The overall Canadian sockeye salmon AC of 52,600 fish including approximately 43,900 Tahltan Lake sockeye salmon, 6,300 Tuya Lake sockeye salmon and 2,300 mainstem sockeye salmon was based on the preseason run size expectation of 160,900 fish.

The fishery was posted for an initial 18 hrs period commencing Tuesday 0500hrs, 26 June (SW 26). The guideline catch for sockeye salmon was 6,000 fish (including ~4,600 Tahltan Lake sockeye salmon). Based on room in the guideline harvest and in keeping with the Paragraph 4 measures noted above, the decision was made to extend the fishery for an 18 hrs periods and then a final 7 hrs period. Catch rates for the week were close to average (above average for the Tahltan stock) and resulted in a catch of 1,782 sockeye salmon, including ~1,500 Tahltan Lake sockeye salmon. A total of 186 large Chinook salmon were encountered and released. The sockeye salmon harvest was comprised of 85% Tahltan, 9% Tuya, and 7% mainstem stocks. The Tahltan sockeye salmon fbd was 87 versus an average of 59 fbd.

The fishery was posted for an initial 48 hrs period in SW 27 with a sockeye salmon guideline harvest of 10,400 fish, including 9,000 Tahltan Lake sockeye salmon, based on the preseason forecast. The fishing conditions were very good due to below average and stable water levels. The day 1 catch was about 1,400 fish and the opening was extended to 72 hours. The final catches for the week consisted of 5,160 sockeye salmon; including ~4,300 Tahltan Lake origin fish. A total of 153 large Chinook were encountered and released. The weekly sockeye salmon harvest was comprised of 84% Tahltan, 4% Tuya, and 13% mainstem sockeye salmon. The Tahltan sockeye salmon fbd was 131, above the average of 116.

The run size generated from the SMM in SW 27 was 119,000 sockeye salmon and included ~58,000 Tahltan Lake origin fish; these figures were well below the preseason forecasts. The SW 28 the fishery was posted for an initial 24 hrs period with a guideline harvest of ~3,800 sockeye salmon including ~2,300 Tahltan Lake sockeye salmon. Catch rates were slightly above average and the fishery was extended 24 hours. The catch for the week consisted of 3,905 sockeye salmon, including a harvest of ~3,400 Tahltan Lake sockeye salmon. The harvest of Tahltan sockeye salmon was above the guideline. The stock composition was 88% Tahltan, 2% Tuya, and 10% mainstem sockeye salmon. The week's Tahltan Lake sockeye salmon fbd of 155 was above average (103). Week 28 marks the historical peak of the Tahltan Lake sockeye salmon through the fishery; catches to date indicated the run timing appeared to be normal.

In SW 29 the fishery was posted for an initial 24 hrs opening with a guideline harvest of 4,000 sockeye salmon, including 3,000 Tahltan sockeye salmon. The SW 28 run size estimate indicated a run size of approximately 125,000 sockeye salmon. The Tahltan Lake component was estimated at 73,000 fish, still below the preseason forecast but consistent with inseason information to date. The fishery was extended by 24 hours based on room in the Tahltan Lake weekly guideline harvest. This week's effort yielded a harvest 2,213 sockeye salmon. The Tahltan Lake sockeye salmon harvest of 1,682 fish was below the guideline. The weekly sockeye salmon harvest was comprised of 76% Tahltan, 2% Tuya, and 22% mainstem fish. Historically SW 29 marked the end of the Tahltan Lake sockeye salmon management regime; however, given the relative strength of Tahltan sockeye salmon (Tuya fish to a lesser degree), it was decided that Tahltan sockeye salmon abundance would govern management decisions into SW 30 as has been the case in recent years.

In SW 30 the fishery management regime remained focused on Tahltan Lake sockeye salmon abundance. The fishery was posted for an initial 24 hrs period with a guideline harvest of ~3,300 sockeye salmon, including 2,200 Tahltan Lake fish. The terminal run estimate made in SW 29 had remained steady at 125,000 sockeye salmon, of which 78,000 were Tahltan fish, and 36,000 were mainstem fish. Based on a day 1 hail, an extension of 24 hours was posted. The harvest for the week was 2,030 sockeye salmon, including a Tahltan Lake sockeye salmon harvest of 1,204 fish, below the weekly guideline. The weekly sockeye salmon harvest was comprised of 59% Tahltan, 3% Tuya, and 38% mainstem sockeye salmon. The Tahltan Lake sockeye salmon fbd was about average (46 vs. 49 fbd), whereas the mainstem sockeye salmon fbd of 29 fish was below the average of 59 fish for this period, suggesting that the mainstem sockeye salmon return was below the forecast (35,500 fish). The fishery was conducted under below average but rising water levels.

In SW 31, management decisions switched from a focus on Tahltan Lake sockeye salmon abundance to the abundance of mainstem sockeye salmon. The fishery was posted for an initial 24 hrs opening with a guideline harvest of ~1,500 sockeye salmon of which ~250 were mainstem sockeye salmon. The SW 30 SMM run size projection was ~123,000 sockeye salmon; the mainstem component, ~34,000 fish, was close to the preseason expectation. The fishery was extended 24 hours resulting in a weekly harvest of 496 sockeye salmon, including 427 mainstem fish. The harvest was comprised of 13% Tahltan, 1% Tuya, and 86% mainstem sockeye salmon. The mainstem sockeye salmon fbd of 27 was below the average of 58 fbd.

In SW 32, the fishery was posted for 24 hrs period with a guideline harvest of 116 mainstem sockeye salmon. The TAC was based on an overall run size projection of ~121,000 sockeye salmon including 32,000 mainstem sockeye salmon generated by the SMM which was similar to the previous estimate. The fishery was extended by 24 hours. The fishery was conducted under slightly below average water levels and harvested 600 sockeye salmon, including a mainstem sockeye salmon catch of 449 fish. The mainstem sockeye salmon fbd was 45 versus an average of 53 fbd. Effort was down from 11 licences, at the start of the season, to 5 licences.

In both SW 33 and 34, the fishery was held to a 24 hour period. Terminal run projections made by the SMM in SW 32 had remained steady at ~124,000 sockeye salmon with ~35,000 of those being mainstem fish. Catch rates for mainstem sockeye salmon were close to average in SW 33 (30 fbd versus 33 fbd) but dropped to well below average in SW 34 (11 fbd versus 27 fbd). Fishing conditions were good with below average water levels. Effort was 6 licences in SW 33 and 7 licences in SW 34. No Tahltan or Tuya fish were identified in harvests after this week. By the end of SW 34, Canada had harvested ~12,400 Tahltan sockeye salmon which was well below the AC of ~21,000 fish. The harvest of mainstem sockeye salmon to date, ~3,600 fish, was above the AC of ~1,600.

In SW 35, the fishery was opened for an initial 72 hours with the management objective focused on coho salmon abundance. A total of 7 licences were fished. The guideline harvest

on coho salmon was 5,000 fish for the season with the intention of spreading the harvest over SW 35 and 36. The CPUE in the commercial fishery was 26 fbd, below the average of 37 fbd. After 2 days of fishing, the fishery was extended for an additional 24 hrs. The harvest was 1,361 coho and 202 sockeye salmon.

In SW 36, the fishery was opened for an initial 96 hrs period. An average of 8.5 licences fished each day. After 2 days the fishery was projected to be within the 5,000 directed coho salmon target and an additional 48 hrs of fishing time was provided, resulting in a weekly harvest of 1,482 coho and 177 sockeye salmon.

The final week of the fishery, SW 37, was opened for 96 hours and extended 24 hours. A total of 7 licences fished, for the first four days of the opening; there was not effort on the final day. The fishing activity yielded a harvest of 481 coho and 29 sockeye salmon. The season total coho salmon harvest was 3,685 fish, 361 of which were taken in the course of the sockeye salmon fishery and, therefore, not counted toward the 5,000 fish allocation as prescribed in the PST.

Upper Stikine River Commercial Fishery

A small commercial fishery has existed near Telegraph Creek on the upper Stikine River since 1975. A total of 407 sockeye salmon and no Chinook salmon were caught in 2018, which was below the averages. The fishing effort of 4 boat days fished was below average. Generally, fishery openings were based on the lower Stikine commercial fishery openings, lagged one week. However, no fishing occurred after SW 30 (ending July 28) due to the Telegraph Creek area wildfire.

Aboriginal Fishery

The upper Stikine AF fishery, which is located near Telegraph Creek, B.C., harvested 165 large Chinook, 456 nonlarge Chinook and 5,415 sockeye salmon in 2018. The harvest of large Chinook salmon was well below average. The harvest of sockeye salmon was below average. The harvest was largely comprised of Tahltan Lake sockeye salmon run. Fishing conditions were good; effort was about average until the end of July at which time it dropped to zero due to the area wildfires. Typically about 88% of the sockeye salmon harvest takes place prior to August.

Recreational Fishery

The Stikine River salmon recreational fishery targets primarily Chinook salmon and its principal fishing location is located at the mouth of the Tahltan River. Minor sport fishing activities occur in upper reaches of the Tahltan River and in some tributaries of the Iskut River, including Verrett and Craig rivers. In 2018, there was no harvest of large Chinook salmon in the recreational fishery. Restrictions were in place starting 07 May that did not permit the retention of Chinook salmon (all sizes) in the waters of the Stikine River. Additionally, the Tahltan River was closed to salmon fishing until further notice effective June 01 in an attempt to protect spawning Chinook salmon. Access to the fishing sites near

the mouth of the Tahltan River was restricted by the Tahltan First Nation Chief and Council in order to limit recreational harvest on Little Tahltan River bound Chinook salmon.

Escapement

Sockeye Salmon

Significant forest fire activity in the Stikine River drainage affected sockeye salmon escapement projects in 2018. There was a forced evacuation of the Tahltan Lake DFO camp and escapement weir project on August 5th due to nearby fire activity. The crew was allowed back into camp on August 12th evening, but were again evacuated on August 17th, after which the weir crew was unable to return before the end of the sockeye salmon run. The weir was opened to fish passage at all times the camp was evacuated, which left an unknown portion of sockeye salmon escapement into Tahltan Lake uncounted. A total of 9,854 sockeye salmon were counted into Tahltan Lake during weir operations, and the estimate was expanded by the 2015–2017 average of run timing (40%) remaining when weir pulled at the first evacuation on August 5th was used to estimate an additional 6,703 sockeye salmon that may have entered the lake. This provides a total 2018 Tahltan Lake sockeye salmon escapement estimate of 16,557 fish.

The total Tahltan Lake sockeye salmon escapement estimate of 16,557 fish is below the average weir count of 25,933 fish, and is below the escapement goal range of 18,000 to 30,000 fish. An estimated 9,053 fish (50% of the escapement– broodstock estimate) originated from the enhancement program, which was similar to the 56% contribution observed in smolts leaving the lake in 2015; the principal smolt year contributing to the 2018 return. A total of 1,878 sockeye salmon were collected for broodstock and 207 fish (males only) were collected for stock identification purposes at the weir resulting in a natural spawning escapement of 14,472 sockeye salmon to Tahltan Lake.

Significant remediation work was completed at the Tahltan River landslide in March 2018. The site was monitored for fish passage in 2018, and passage was achieved for both Chinook and sockeye salmon migrating to their respective spawning grounds above the landslide. Ongoing monitoring is proposed to ensure that passage remains possible at all water levels. Given the record low water flows in summer 2018, Decheeka Falls, which is located at the top end of a small canyon above the Little Tahltan River confluence with the Tahltan River, may have been a passage challenge at times. The site opportunistically observed from six helicopter overflights throughout the season, with one site visit in mid-October. Sockeye salmon were observed holding below the site in mid-September, but the effect of this challenge on sockeye salmon returns is not well understood or quantifiable.

The spawning escapements for the mainstem and Tuya stock groups are calculated using stock identification, test fishery, and inriver commercial harvest data. The mainstem sockeye salmon escapement estimate was 13,7662 fish, well below the average escapement, well below the target escapement of 30,000 fish, and below the escapement goal range of 20,000 to 40,000 fish. The Tuya excess estimate was 1,173 sockeye salmon.

Aerial survey counts of mainstem sockeye salmon were well below average in 2018 which is to be expected given the low escapement estimate of mainstem fish.

Chinook Salmon

In order to assess inriver Chinook salmon abundance in 2018, a MR study was conducted concurrently with the SCMM. Inseason MR estimates for large Chinook salmon were not calculated in 2018 due to the low number of marks deployed and Chinook retention not being permitted in inriver fisheries. The postseason Stikine River spawning escapement estimate of 8,355 large Chinook salmon is based on tag recoveries from Chinook salmon released in directed sockeye commercial fisheries, the Aboriginal fisheries, and Little Tahltan video weir observations. This was well below the average escapement of 16,359 large fish, and below the escapement goal range of 14,000 to 28,000 large Chinook salmon.

The 2018 Chinook salmon escapement enumerated at the Little Tahltan River weir was 453 large fish and 413 nonlarge Chinook salmon. This escapement of large Chinook salmon in the Little Tahltan River was below the average of 1,059 fish and well below the lower end of the Canadian escapement target range of 2,700 to 5,300 large fish. This was the twelfth consecutive year that the Canadian escapement target range was not reached.

The Little Tahltan River weir count represented approximately 5% of the total Stikine River large Chinook salmon escapement, near the average weir count contribution of 6%. Note that this average has declined significantly in the last ten years and over the project history has ranged from 1% to 34% of the estimated escapement.

Lower water flows and observation of successful Chinook salmon passage at the site of the 2014 Tahltan River landslide suggest that the landslide was not a migration barrier in 2018.

No sampling took place at Verrett Creek in 2018 due to low abundance and poor sampling conditions.

The Chinook salmon aerial surveys took place on July 30 and August 02, under very poor conditions. Some sites were inaccessible due to nearby forest fire activity and related smoke, and water turbidity was high in other areas. Counts were very low in areas that were able to be surveyed.

Coho Salmon

The annual coho salmon aerial survey was conducted on November 6 under excellent viewing conditions with very low water encountered at a number of sites. The total count of coho salmon observed at six index sites was 1,994 fish, slightly above average. The inseason weekly CPUE of coho salmon from the lower Stikine River Canadian commercial fishery was also above average.

A coho salmon drift gillnet test fishery was not conducted in 2018.

Sockeye Salmon Run Reconstruction

As detailed above, forest fire activity in the Stikine River drainage impacted sockeye salmon monitoring projects in 2018. As such, the escapement number for Tahltan Lake sockeye was partially estimated (methods described above) and will be verified in 2020 when this brood year's emigrating smolts are enumerated. This may modify the current estimate.

The postseason estimate of the terminal Stikine River sockeye salmon run was 64,491 fish. Of this number, approximately 38,130 fish were of Tahltan Lake origin (wild & enhanced), 2,180 fish were of Tuya origin (enhanced fry from Tahltan broodstock stocked into Tuya Lake), and 24,181 fish were mainstem (Table 3). These estimates are based on postseason data, including otolith recovery and GSI analysis in the U.S. Districts 106 and 108 harvests, harvest data from the inriver Canadian commercial, Aboriginal, and test fisheries, and escapement data. Inriver stock composition data are from inseason egg diameter and inseason and postseason otolith analysis. The 2018 terminal run was well below average and well below the preseason forecast of 160,900 fish

TAKU RIVER

Taku River salmon are harvested by U.S. commercial drift gillnet and troll fisheries as well as recreational and inriver personal use fisheries in Alaskan District 111. In Canada, a commercial gillnet fishery extends from the international border upstream for approximately 18km, with Aboriginal and recreational fisheries also harvesting Taku River salmon (Figure 2).

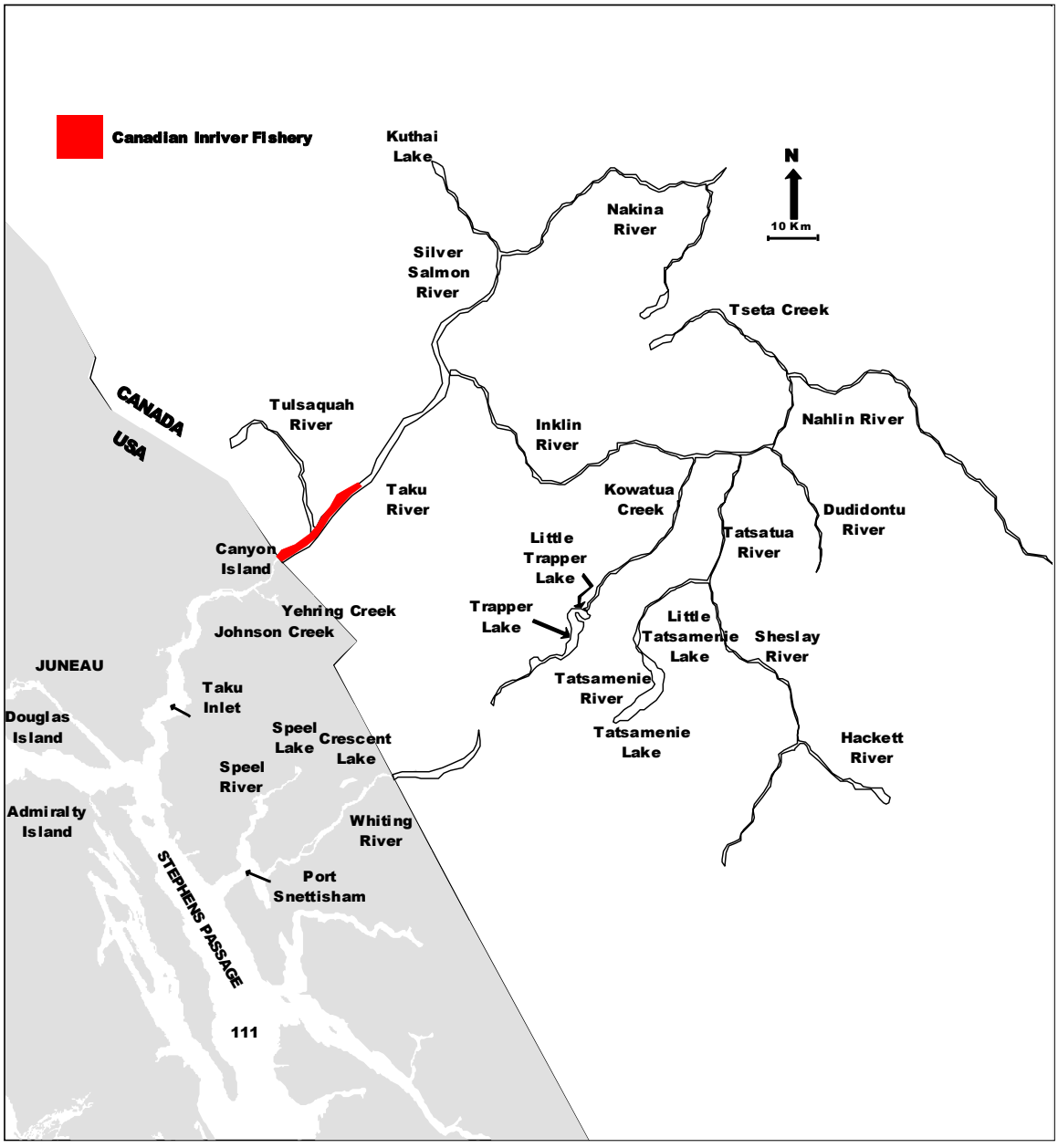

Figure 2. The Taku River and principal U.S. and Canadian fishing areas.

Harvest Sharing and Joint Management Models

Fishing arrangements in place for salmon originating from the Canadian portion of the Taku River watershed are provided in Annex IV, Chapter 1 of the PST and can be found at: http://www.psc.org/pubs/treaty.pdf. These arrangements include directed fisheries and harvest shares based on run size for Taku River Chinook and coho salmon stocks and directed fisheries for sockeye salmon with harvest sharing arrangements based on the documented production of enhanced fish.

The TTC met prior to the season to update joint management and enhancement plans, develop run size forecasts, and determine new parameters for input into the inseason Chinook, sockeye, and coho salmon run size projection models.

Chinook Salmon

A bilateral review of the escapement goal for Taku River large Chinook salmon completed in early 2009 resulted in a revised escapement goal range of 19,000 to 36,000 fish.

Weekly Chinook salmon run size and AC projections based on historical run timing, are used to guide the management of U.S. and Canada fisheries. These are determined by a formula based on the preseason Taku River Chinook salmon run forecast early in the season, and revised inseason based on the inseason run projection estimates generated from the Canyon Island MR project.

Table 4. Taku River large Chinook salmon run size based on CPUE (methods similar to the Stikine Chinook Management Model), and other methods, and weekly inseason harvest estimates from the District 111 drift gillnet, sport, troll, and subsistence fisheries and the inriver assessment/test, Canadian gillnet, and sport fisheries, 2018.

	Terminal Run	
SW	Estimate	SW
19	4,700	19
20	4,700	20
21	<19,000	21
22	<19,000	22
23	<19,000	23
24	<19,000	24
25	<19,000	25
26	<19,000	26
27	<19,000	27
28	<19,000	28
29	<19,000	29

The 2018 preseason terminal run forecast of 4,700 Taku River large Chinook salmon provided no AC for directed fisheries for either country. Taku River Chinook salmon forecast model was reduced to account for model error over the past 5 years. An additional

consideration for reducing the model forecast was the general poor performance of Chinook salmon stocks in recent years throughout northern British Columbia and Alaska. This 2018 forecast is the lowest Chinook salmon forecast on record, and far below the average run size of 26,000 fish.

No Chinook salmon inriver assessment fishery was conducted because of the low preseason forecast, however drifted tangle nets were used near the confluence of the Wright River to spaghetti and radio tag fish to allow for a spawning grounds MR estimate and potentially give some sense of inseason run abundance based on catch rates. Traditional inseason MR estimates based on the cumulative ratio of tagged-to-untagged fish observed in the inriver commercial fishery were unavailable due to low catch rates during the first event and no Chinook retention permitted in directed commercial fisheries (second event). With no reliable way of estimating inseason run size, both countries managed their early season sockeye salmon fisheries based off the preseason Chinook salmon forecast.

Sockeye Salmon

For sockeye salmon weekly inriver population estimates from the joint MR program are used to project the inseason run size of all fish. As the season progresses, sufficient data is acquired from the inriver MR program to make weekly estimates of the inriver run size using the Canyon Island fish wheels as event 1 and the Canadian inriver fishery as event 2. Historical migratory timing and fishery harvest data are used to project the Taku River sockeye salmon terminal run size and TAC, and otolith analysis of the U.S. and Canadian harvests are used to project the enhanced component of the run which determines the parties respective ACs.

The 2018 preseason terminal run forecast of 160,000 Taku River wild sockeye salmon was below the recent 10-year average of 180,000 fish. This was a stock-recruitment model forecast that was adjusted using the recent 10-year model error (22%) for the first time in 2018.

Approximately 5,400 enhanced fish from Tatsamenie Lake were forecasted, well below the average Tatsamenie enhanced run size of 9,500 fish. Based on the treaty arrangement, an enhanced run of 5,001–15,000 fish requires the TAC to be split 79% to the U.S and 21% to Canada with management based on weekly estimates of the TAC of wild fish. Subtracting the escapement target of 75,000 wild sockeye salmon from the forecast of 159,900 fish resulted in an overall TAC of 84,900 fish; 79% to the U.S. equaling 67,100 fish, and 21% to Canada equaling 17,800 fish.

The preseason forecast was used for management purposes in the early SWs. Generally, inseason inriver run projections were highly variable in the first four weeks ranging from approximately 76,000 fish to 163,000 fish and stabilized towards the end of the season around 130,000 fish.

Table 5. Weekly projections of terminal run size, total allowable harvest, and cumulative harvest by country of Taku River sockeye salmon for 2018.

	Terminal		TAC			Canada	Cumulative Harvest	
SW	Estimate	Method	Total	U.S.	Canada	Surplus AC	U.S.	Canada
Model runs generated by Canada								
25								
26	159,900		84,900		17,829	0		238
27	159,900		84,900		17,829	0		799
28	159,900		84,900		17,829	593		2,781
29	157,668		82,668		17,360	0		5,334
30	140,034		65,034		13,657	0		11,445
31	158,704		83,704		17,578	261		13,725
32	171,811		96,811		20,330	0		14,410
33	157,744		82,744		17,376	0		14,968
34								
Model runs generated by the U.S.								
25	160,000	Preseason	85,000	67,150	17,850		26,761	
26	160,000	Preseason	85,000	67,150	17,850		26,055	
27	98,858		23,858	18,848	5,010		23,113	
28	188,222		113,222	89,446	23,777		28,007	
29	170,920		95,920	75,776	20,143		41,920	
30	210,172		135,172	106,786	28,386		47,632	
31	200,379		125,379	99,050	26,330		43,082	
32	176,518		101,518	80,199	21,319		42,387	
33	169,898		94,898	74,969	19,929		41,570	
34								

Table 6. Taku River sockeye salmon run reconstruction, 2018. Estimates do not include spawning escapements below the U.S./Canada border.

U.S. harvest estimate differs from Joint Interception Committee estimate because no estimates are made for harvest other than the listed fisheries.
Total escapement includes a small number of non-Taku River enhanced fish

	Taku			Taku--adjusted			Non-Taku Enhanced	
	Total	Natural origin	Enhanced	Total	Natural origin	Enhanced	US	Stikine
Escapement	119,033	116,658	2,376	98,465	96,089	2,376		
Canadian Harvest								
Commercial	17,948	17,024	923	17,948	17,024	923	0	26
Aboriginal Fishery	14	13	1	14	13	1		
Total	17,962	17,038	924	17,962	17,038	924		
Test Fishery harvest	0	0	0	0	0	0		
Above Border Run estimate	136,995	133,695	3,300	116,427	113,127	3,300		
U.S. Harvest								
District 111 Gillnet	25,902	24,472	1,431	25,902	24,472	1,431	33,804	152
Personal Use	1,612	1,527	85	1,612	1,527	85		
Total	27,514	25,999	1,516	27,514	25,999	1,516		
Test Fishery harvest	0							
Terminal Run	164,509	159,694	4,815	143,941	139,126	4,815		
Escapement Goal	75,000	75,000		75,000	75,000			
TAC	89,509	84,694		68,941	64,126			
Canada								
Harvest Share	20%	20%		20%	20%			
Canada AC	17,902	16,939		13,788	12,825			
Surplus Allowable	0	0		0	0			
Canada AC + Surplus	17,902	16,939		13,788	12,825			
Actual harvest	17,962	17,038		17,962	17,038			
U.S.								
Harvest Share	80%	80%		80%	80%			
US AC	71,608	67,755		55,153	51,300			
Actual harvest	27,514	25,999		27,514	25,999			

Coho Salmon

In early 2015, an escapement goal range of 50,000 to 90,000 Taku River coho salmon with a 70,000 fish point goal was adopted. The U.S. management intent in 2018 was to pass 75,000 coho salmon above the border to provide for escapement and a 5,000 fish assessment fishery. Interim harvest sharing arrangements agreed to in 2018 allowed Canada to harvest any fish surplus to the 70,000 fish escapement point goal.

Inseason run estimates are generated using MR methodology. Tags are applied in event 1 from Canyon Island fish wheels or set gillnets. Event 2 consists of fish inspected in the inriver commercial or assessment fisheries upstream of the U.S./Canada border. Inriver run abundance estimates are projected based on average run timing past Canyon Island.

The 2018 preseason terminal run forecast of 81,000 Taku River coho salmon was below the average terminal run of 123,000 fish. The 2018 forecast was generated using the relationship between the CPUE in smolt tagging and the total run estimates seen over the past twenty-years. Based on the bilaterally agreed to escapement goal of 70,000 fish (range: 50,000 – 90,000 fish), the U.S. intent

was to manage its fisheries to target a minimum above border run of approximately 75,000 coho salmon. A directed Canadian harvest of 5,000 fish would be permitted starting in SW 34 for assessment purposes. Canada was also permitted to harvest all coho salmon in excess of 70,000 fish plus the fish allocated for assessment purposes. Generally, the inseason inriver run estimates remained between 75,000 to 80,000 fish from SWs 33 through 37, with the exception of SW 34 which increased significantly to 95,000 fish, and then fell sharply in SWs 38 and 39.

U.S. Fisheries

The traditional District 111 commercial drift gillnet salmon fishery was open for a total of 44 days from June 17 through September 24, 2018. The harvest totaled 740 Chinook, 68,100 sockeye, 35,600 coho, 23,200 pink, and 517,100 chum salmon. Harvests of all species were below average. The traditional fishery does not include harvests from the Speel Arm Special Harvest Area (SHA) inside Port Snettisham. This hatchery access fishery was opened in SW 32 and closed in SW 37 resulting in an additional harvest of 24,800 sockeye salmon and minor harvests of other salmon species.

The 2018 season was the nineteenth year of adult sockeye salmon returns to the Snettisham Hatchery inside Port Snettisham. These fish contributed to the traditional harvests in Taku Inlet, Stephens Passage, and the entrance of Port Snettisham, the latter being open from SW 31–39. This was the fourth year of full production for DIPAC's revitalized enhanced coho salmon program and the proportion of these fish in the total District 111 gillnet coho salmon harvest was one of the largest to date. Hatchery stocks contributed substantially to the harvests of sockeye, coho, and chum salmon and more minimally to the harvest of Chinook salmon.

In 2018, the Alaska Board of Fisheries adopted a regulation increasing the sockeye salmon possession and annual limits for the U.S. Taku River personal use fishery to 10 fish for a household of one person and 20 fish for a household of two or more persons. The estimated personal use harvest of Taku River sockeye salmon in 2018 is 1,500 fish.

Management actions in the District 111 drift gillnet fishery due to Chinook salmon conservation concerns occurred in the first five directed sockeye salmon openings with two-day openings in Taku Inlet in SWs 25 through 28, significant area closures including most of Taku Inlet and waters extending further south and west in SWs 25 and 26, a closure north of Point Cooper in SW 27, and north of Jaw Point in SWs 28 and 29. A six-inch maximum mesh size restriction and night closures (10 p.m. to 4 a.m.) were in place throughout the district in SWs 25 through 27. Commercial spring troll fisheries throughout the region were limited to select outer coastal areas, near hatchery facilities/release sites, in THAs, and in areas that have been identified as having low proportional harvest of wild SEAK/Yakutat Chinook salmon. Nonretention of Chinook salmon in the sport fishery was in effect in northern inside waters from April 1 through June 14. The personal use sockeye salmon fishery on the U.S. side of the Taku River was also delayed by more than two weeks starting on July 16. The 2018 District 111 drift gillnet Chinook salmon harvest in the SWs 25–29 TBR accounting period was 480 fish of which 54% were large fish. Postseason GSI analysis indicates that 11.8% of the District 111 drift gillnet large Chinook salmon harvest (31 fish) was of Taku River origin through SW 29. The Juneau area sport harvest of Taku

River large Chinook salmon was estimated at 9 fish during the same period based on GSI analysis. The preliminary MR estimate of Taku River spawning escapement is approximately 7,270 large Chinook salmon.

The traditional District 111 sockeye salmon harvest of 68,100 fish was 66% of average with correspondingly low weekly CPUE throughout the season. Snettisham Hatchery sockeye salmon returns began to contribute to the traditional fishery in SW 27 and otolith sampling occurred through SW 35 in Taku Inlet and through SW 33 in Stephens Passage. Of the total traditional District 111 sockeye salmon harvest, 62% occurred in and around Taku Inlet (average is 70%), 30% occurred in Stephens Passage south of Circle Point (average is 23%) and 8% occurred in Port Snettisham (average is 7%). The contributions of Taku River wild, Taku River enhanced, Port Snettisham enhanced, and other sockeye salmon stocks were derived from estimates based inseason on otolith analysis and postseason from estimates based on GSI and otolith analyses. The postseason GSI based stock composition of the harvest of sockeye salmon in the traditional District 111 drift gillnet fishery is 24,500 (39%) wild Taku River, 1,430 (2%) enhanced Tatsamenie and King Salmon lakes, 33,800 (54%) Snettisham Hatchery fish, and 3,200 (5%) domestic wild fish.

Opportunity to target returning Snettisham Hatchery sockeye salmon inside Port Snettisham began in SW 31 with a 24-hour opening, starting August 1, in the entrance of Port Snettisham (111-34) due to a large pulse of Speel Lake wild sockeye salmon through the weir and another sizeable group of fish observed in the stream below the weir. The minimum mesh size restriction south of Circle Point, in place since SW 28 to conserve Speel and Crescent Lake wild sockeye salmon was removed at the same time. In SW 32, the Speel Arm SHA was opened along with the rest of Section 11-B on Sunday, August 5 due to continued significant escapement through the weir and fish observed below the weir. This was the second earliest opening (it opened on August 3 in 2003) of the SHA since the 2000 season when sizeable returns of enhanced sockeye salmon to Snettisham Hatchery began. The Speel Arm SHA remained open continuously from August 5 through September 12 and a total of 24,750 sockeye salmon were harvested from the SHA with all but a few thousand taken in SWs 32 and 33.

Coho salmon stocks harvested in District 111 include returns to the Taku River, Port Snettisham, Stephens Passage, and local Juneau area streams, as well as Alaskan hatchery release sites. The 2018 preseason terminal run forecast of 81,000 Taku River coho salmon was below the average terminal run of 123,000 fish. The traditional District 111 coho salmon harvest of 35,600 fish was 97% of average and was comprised of a large proportion of hatchery fish. Hatchery coho salmon, mainly returning to DIPAC release sites in Gastineau Channel, first appeared in the District 111 harvest in SW 33 and made up as much as 66% of the weekly harvest in SW 37. CWT analyses indicate hatchery coho salmon contributed approximately 13,900 fish or 39% of the 2018 District 111 drift gillnet harvest.

Management of the District 111 drift gillnet fishery is based on Taku River wild sockeye salmon abundance in SWs 25–33 and on Taku River wild coho salmon abundance in SWs

34–42. The 2018 fishery began by regulation in SW 25. Management actions were limited to imposing restrictions in time, area, and gear. Because there is no bilaterally agreed forecast for Taku River sockeye salmon, early season management of the District 111 fishery is based on fishery CPUE and Canyon Island fish wheel catches. As the fishing season progresses, sufficient data is acquired to estimate the inriver run size from the inriver MR program and to use that estimate in conjunction with historical migratory timing and fishery harvest data to project the season's Taku River sockeye salmon terminal run size. In the first week of sockeye salmon management starting June 17, Taku Inlet and Stephens Passage were opened with restrictions in time, area, and gear due to Chinook salmon conservation concerns. The opening was limited to two days with a six-inch maximum mesh size restriction, night closures in effect from 10 p.m. to 4 a.m., and an area restriction closing waters in Taku Inlet north of Point Greely and west of a line of longitude running mid-inlet from the latitude of Point Greely to a point where it intersects with the Admiralty Island shoreline south of Grand Island. Effort was approximately 90% of average for the week with 28 boats fishing. The sockeye salmon harvest was 12%, and the CPUE was 14% of average. TBR enhanced sockeye salmon of King Salmon Lake origin made up 2% of the Taku Inlet harvest. The total Chinook salmon harvest was 66 fish with zero fish estimated as Taku River origin large fish based on inseason CWT analysis and ASL sampling.

District 111 was again opened for two days in SW 26 with the same restrictions throughout the district as the previous opening to minimize Chinook salmon interception. The two-day opening was largely for Chinook salmon conservation but also reflected concerns over early Taku River sockeye salmon stocks, particularly the Kuthai Lake stock. The two days of fishing in the district was approximately 70% of average for the week. Sixty-four boats, 132% of average, harvested 89 Chinook salmon of which an estimated 4 fish were Taku River large fish based on inseason CWT analysis and ASL sampling. The sockeye salmon harvest and CPUE were 35% and 37% of average, respectively. TBR enhanced sockeye salmon of predominantly King Salmon Lake origin made up 5% of the Taku Inlet harvest.

District 111 was again opened for two days in SW 27 with no additional time granted. Chinook salmon conservation measures were slightly reduced this week with open waters extended north to the latitude of Point Cooper. However, the maximum mesh size restriction and night closures remained in place throughout the opening. The two days fishing was open in the district was 65% of average. Due to increasing enhanced chum salmon abundance, effort increased from the previous week to 119 boats, 180% of average. Ninety-six Chinook salmon were harvested this week, of which an estimated zero fish were Taku River large fish based on inseason CWT analysis and ASL sampling. Sockeye salmon harvest and CPUE remained similar to the previous week at 37% and 32% of average, respectively. Otolith analysis revealed that 11% of the sockeye salmon harvest from Taku Inlet, and 50% from Stephens Passage, were of Snettisham Hatchery origin. TBR enhanced sockeye salmon of predominantly King Salmon Lake, but also Tatsamenie Lake, origins made up 6% of the Taku Inlet harvest which was the highest weekly proportion of TBR enhanced fish for the season. A Taku River sockeye salmon run size estimate was not produced this week, but Canyon Island fish wheel sockeye salmon catch rates were average to above average.

The initial opening for SW 28 was again two days in District 111 with a one-day extension granted in Stephens Passage for a total of three days south of Circle Point. Taku Inlet remained at two days of fishing, but the maximum mesh size restriction and night closures were rescinded for this opening and the northern line was moved up to Jaw Point. A six-inch minimum mesh size restriction was implemented south of Circle Point in Stephens Passage, which would stay in place until SW 31, to minimize harvest of Port Snettisham wild sockeye salmon returns while still allowing opportunity to target enhanced chum salmon. The three days fishing was open in the district was 103% of average. One hundred fifty-four boats, the highest weekly effort of the season and 155% of average, harvested 133 Chinook salmon, of which an estimated 29 fish were Taku River large fish based on inseason CWT analysis and ASL sampling. Sockeye salmon harvest and CPUE were 69% and 46% of their respective averages. Otolith analysis revealed that 34% of the sockeye salmon harvest from Taku Inlet, and 65% from Stephens Passage, were of Snettisham Hatchery origin. TBR enhanced sockeye salmon of Tatsamenie and King Salmon lakes origin made up 4% of the Taku Inlet harvest. The first bilateral Taku River sockeye salmon run size estimate was produced this week and projected an inriver run of 75,700 fish.

Fishing time for SW 29 was set initially at three days in both Taku Inlet and Stephens Passage with Taku River sockeye salmon run size indicators both in District 111 and inriver showing increased abundance. The Jaw Point line in upper Taku Inlet remained in place for this opening as a Chinook salmon conservation measure. A one-day extension in Stephens Passage, with the minimum mesh size restriction, was granted for a total of an above-average four days of fishing in the district. The three days of fishing in Taku Inlet was the first above-average weekly period of the season there. Effort decreased slightly from the previous week with 150 boats making landings, 125% of average. Ninety-six Chinook salmon were harvested this week, of which an estimated 18 fish were Taku River large fish based on inseason CWT analysis and ASL sampling. The sockeye salmon harvest for the opening was 114% of average while CPUE was 58% of average. Otolith analysis revealed that 57% of the sockeye salmon harvest from Taku Inlet, and 79% from Stephens Passage, were of Snettisham Hatchery origin. TBR enhanced sockeye salmon of Tatsamenie and/or King Salmon lakes origin made up 2% and 1% of the harvest in Taku Inlet and Stephens Passage, respectively. This was the only opening of the season where TBR enhanced fish were represented in Stephens Passage. The weekly Taku River sockeye salmon inriver run size projection increased significantly from the previous week to 160,200 fish.

Fishing time for SW 30 was a repeat of the previous week with an initial three days in Taku Inlet and Stephens Passage followed by a one-day extension in Stephens Passage for a total of four days of fishing in the district, 129% of average for the week. The upper line in Taku Inlet was returned to the normal line just off the river flats. Effort fell from the previous week to 123 boats, 99% of average for the week. Sockeye salmon harvest was 97% of average while CPUE was 73% of average, and the 18,600 fish harvested this week was the highest traditional weekly harvest of the season. Otolith analysis revealed that 53% of the sockeye salmon harvested in Taku Inlet were of Snettisham Hatchery origin. TBR enhanced sockeye salmon of Tatsamenie and King Salmon lakes origin made up 2% of the

harvest in Taku Inlet. The weekly Taku River sockeye salmon inriver run size projection was similar to the previous week at 162,500 fish.

Fishing time for SW 31 was again initially three days in Taku Inlet and Stephens Passage. With two consecutive solid weekly Taku River sockeye salmon run size projections and effort in the district beginning to focus on the south end due to a significant pulse of sockeye salmon escapement into Speel Lake, both Taku Inlet and Stephens Passage were extended for an additional day for an above average total of four days of fishing for the week. The entrance to Port Snettisham (111-34) was also opened for the 24-hour extension and the minimum mesh size restriction south of Circle Point was rescinded. Most of the fleet moved south to fish the extension period as sockeye salmon escapement was rapidly progressing through the Speel Lake weir and fishermen wanted to stage themselves for a possible Speel Arm SHA opening. Effort decreased from the previous week to 75 boats, 72% of average, due mostly to a drop in enhanced chum salmon abundance. Sockeye salmon harvest and CPUE were 59% and 72% of their respective averages. Otolith analysis revealed that 47% of the sockeye salmon harvested in Taku Inlet were of Snettisham Hatchery origin. TBR enhanced sockeye salmon of Tatsamenie and King Salmon lakes origin made up 4% of the harvest in Taku Inlet. The weekly Taku River sockeye salmon inriver run size projection remained consistent with the previous two weeks at 157,300 fish.

Fishing time for SW 32 was initially three days in Taku Inlet and Stephens Passage (including the entrance of Port Snettisham), and the Speel Arm SHA also opened in conjunction with the remainder of the district drawing most of the early effort. Effort dropped markedly as enhanced sockeye salmon harvests in the Speel Arm SHA were not huge, and those who had been sticking around just for this opportunity departed the district. Stephens Passage and the entrance to Port Snettisham were extended for an additional day while the Speel Arm SHA was opened until further notice (the SHA would remain open until September 12) to allow continued targeting of enhanced Snettisham Hatchery sockeye salmon. Taku Inlet remained at three days with sockeye salmon CPUE rapidly declining there after the first day for the small number of boats fishing. The total fishing time of four days in the district was above average. Effort fell slightly from the previous week to 68 boats, 86% of average. Traditional (not including the Speel Arm SHA) sockeye salmon harvest and CPUE were both 47% of their respective averages. Otolith analysis indicated that 27% of the sockeye salmon harvest from Taku Inlet and 90% from Stephens Passage were of Snettisham Hatchery origin. TBR enhanced sockeye salmon did not contribute to any of the sampled harvests in Taku Inlet or Stephens Passage. The weekly Taku River sockeye salmon inriver run size projection fell from the previous week to 134,100 fish.

Fishing time for SW 33 was reduced to two days in Taku Inlet based on a falling Taku River sockeye salmon run size estimate and an apparent lack of Tatsamenie Lake fish. Stephens Passage and the entrance of Port Snettisham opened for three days and no extension was granted. The total fishing time of three days in the district was below average. Effort fell significantly from the previous opening to 25 boats, 33% of the average for the week. Sockeye salmon harvest and CPUE were 24% and 89% of their respective averages. Otolith analysis indicated that 87% of the sockeye salmon harvest from Stephens

Passage were of Snettisham Hatchery origin. The weekly Taku River sockeye salmon inriver run size projection decreased again from the previous week to 128,300 fish, and with approximately 90% of the run historically through Canyon Island at this juncture in the season, it appeared that the upper end of the spawning objective goal range would be exceeded. This was the last week of the sockeye salmon management period in District 111 with coho salmon management starting in SW 34. The first Taku River coho salmon inriver run estimate was produced this week and expanded by average run timing projected an above border run of 75,100 fish, slightly above the escapement point goal.

The fall drift gillnet season in District 111 occurred over six weeks, beginning on August 20 in SW 34, and ending on September 24 in SW 39. During this time, management in District 111 switched from being driven by Taku River sockeye to Taku River coho salmon abundance.

Fishing time for SW 34 was initially two days in Taku Inlet, Stephens Passage, and the entrance to Port Snettisham and each area was extended for an additional day, for three total days of fishing, based on above average coho salmon catch rates in the district. A well below average 28 boats made landings in the traditional fishery for the week. The sockeye salmon harvest was 38% of average, while CPUE was 60% of average. Otolith analysis indicated that 70% of the sockeye salmon harvest from Taku Inlet were of Snettisham Hatchery origin while TBR enhanced sockeye salmon made up less than 1% of the Taku Inlet harvest. The coho salmon harvest and CPUE were 112% and 174% of average, respectively. CWT analysis indicated that 52% of the coho salmon harvest for the week was comprised of Alaska hatchery fish. The proportion of hatchery coho salmon in the District 111 gillnet harvest this season was likely as high as it has ever been and was driven nearly entirely by DIPAC fish returning to Gastineau Channel. The second Taku River coho salmon inriver run estimate was produced this week and expanded by average run timing projected an above border run of 95,000 fish, a significant increase from the previous week.

Fishing time for SW 35 was again initially set at two days throughout the district with an extension granted for an additional day, for three total days of fishing, due to above average coho salmon catch rates. A total of 24 boats made landings throughout the opening, 56% of average, with all but a couple boats fishing in Taku Inlet. Otolith analysis indicated that 85% of the sockeye salmon harvest from Taku Inlet were of Snettisham Hatchery origin. This was the last week of sockeye salmon otolith sampling for the season in District 111. Coho salmon harvest and CPUE were respectively 99% and 188% of average. CWT analysis indicated that 41% of the coho salmon harvest for the week was comprised of Alaska hatchery fish. The projected inriver run estimate for Taku River coho salmon decreased from the previous week to 80,500 fish.

Fishing time for SW 36 was initially set at three days throughout the district. An extension granted an additional day due to above average catch rates, for a total of four days of fishing for the week. A total of 34 boats, 82% of average, made landings with coho salmon harvest and CPUE at 177% and 185% of average, respectively. CWT analysis indicated that 41% of the coho salmon harvest for the week was comprised of Alaska hatchery fish.

Approximately halfway through the historical coho salmon run timing at Canyon Island, the inriver stock assessment project was significantly altered with low water levels causing in an event 1 gear switch from fish wheels to gillnets. The weekly Taku River coho salmon inriver run projection again dropped from the previous week to 75,400 fish, nearly identical to the first inseason estimate.

Fishing time for SW 37 was again initially set at three days throughout the district but no extension was granted due to falling coho salmon CPUE throughout the opening. Effort remained at 34 boats, 96% of average, and the coho salmon harvest was 118% of average while CPUE was 160% of average. CWT analysis indicated that 66% of the coho salmon harvest was comprised of Alaska hatchery fish, the highest weekly proportion of the season. The weekly Taku River coho salmon inriver run projection increased slightly from the previous week to 76,800 fish.

Fishing time for SW 38 was reduced to two days throughout the district with coho salmon abundance dropping off throughout the previous opening. No extension was granted with declining CPUE over the two-day fishery. Effort dropped to 28 boats, 109% of average, with the coho salmon harvest 62% of average while CPUE was right at average. CWT analysis indicated that Alaska hatchery fish contributed 32% to the weekly coho salmon harvest. The weekly Taku River coho salmon inriver run projection fell from the previous week to 71,300 fish.

Fishing time for SW 39 was reduced to one day throughout the district, signaling the likely end of the season. Effort dropped to seven boats, 46% of average, with coho salmon harvest and CPUE at 7% and 59% of average, respectively. CWT analysis showed a 22% contribution from Alaska hatchery fish for the week. The weekly Taku River coho salmon inriver run projection fell again from the previous week to 64,100 fish. This was the last opening of the season in District 111 and fishing ended at noon on Monday, September 24.

The 2018 District 111 fall chum salmon harvest in SWs 34–39 was 47% of the fall fishing period average. Escapement numbers for Taku River chum salmon are unknown; however, the number of chum salmon caught by the fish wheels at Canyon Island can be used as an index of escapement. The 2018 fish wheel catch of 32 chum salmon (Fish Wheel 1 and 2 only) was the lowest ever recorded. Comparisons to historical data are not as straightforward for the 2018 season as fish wheel operation times were altered significantly in efforts to address the sockeye salmon dropout rate in the MR project. This resulted in the wheels not spinning 24-hours a day as they had in the past. However, chum salmon returning to the Taku River were obviously at very low abundance.

The District 111 traditional drift gillnet pink salmon harvest of approximately 23,000 fish was 15% of average. Escapement numbers for Taku River pink salmon are unknown; however, the number of pink salmon caught by the fish wheels at Canyon Island can be used as an index of escapement. The 2018 total of 1,604 pink salmon caught in the fish wheels (Fish Wheel 1 and 2 only) was 117% of the 2016 parent-year catch, 18% of the 1998-2016 even-year average, and is the second lowest catch recorded. The pink salmon escapement to the Taku River is characterized as below average.

Several other fisheries in the Juneau area harvested transboundary Taku River salmon stocks in 2018. Several Chinook salmon stocks are known to contribute to the Juneau area sport fishery, including wild fish from the Chilkat River, as well as hatchery stocks, but the major contributor of large, wild fish is the Taku River. Of the Chinook salmon harvested in the sport fishery, 9 fish were estimated to be of Taku River origin through SW 29 based on postseason GSI analysis. Personal use permits were used to harvest an estimated 1,600 Taku River sockeye salmon along with an estimated incidental harvest of 10 Taku River large Chinook salmon. The District 111 Amalga Harbor SHA common property purse seine fishery, northwest of Juneau, was conducted for the seventh consecutive season to target returning DIPAC enhanced summer chum salmon. There were four total openings in 2018, occurring on Thursdays in July, each lasting nine hours. Some portion of the incidental sockeye salmon harvest from these fisheries is assumed to be of Taku River origin, but the magnitude of the contribution is unknown. GSI analysis of the 2013 and 2014 harvests averaged 35% Taku River origin. No GSI analysis was conducted in 2018. Incidental sockeye salmon harvest in the 2018 Amalga Harbor purse seine fishery was 2,300 fish. Otolith analysis indicated that 48% were enhanced fish of DIPAC origin, and 1.4% were enhanced fish of TBR origin.

Canadian Fisheries

The Taku River commercial fishery harvest was 17,974 sockeye and 9,503 coho salmon in 2018. No Chinook were harvested. Sockeye salmon originating from Taku fry plants contributed an estimated 923 fish to the harvest, comprising 5.1% of the total commercial sockeye salmon harvest. As a result of poor preseason run forecasts and lack of inseason information, there was no directed commercial Chinook salmon fishery in 2018 and all incidental catches in commercial fisheries for sockeye salmon were released. In addition, the Chinook salmon assessment fishery did not occur in 2018. Harvest of sockeye and coho salmon were slightly below and above average respectively. There were 38 days of fishing which was well below average. The seasonal fishing effort of 237 boat days was also well below average. As is typical, both set and drift gillnets were used, with the majority of the harvest taken in drift gillnets. The maximum allowable mesh size was 14.0 cm (5.5 inches) for the early part of the season to minimize the incidental catch of Chinook salmon. This was subsequently increased to 20.4 cm (8.0 inches).

In addition to the commercial fishery harvest, 19 nonlarge Chinook, 7 large Chinook, 14 sockeye, and 2 coho salmon were harvested in the Aboriginal fishery. All but one of the Chinook salmon was harvested from the Nakina River. On average, 88 large Chinook, 13 nonlarge Chinook, 162 sockeye and 127 coho salmon are harvested annually in the Aboriginal fishery.

As a result of the preseason forecast being well below the goal range, retention of Chinook salmon of any size was not permitted in the recreational fishery effective May 7, 2018. Complete recreational harvest figures are not available, but the harvests of other salmon species are thought to have been negligible.

At a run size of this magnitude, factoring in the MSY escapement point target of 25,500 fish, there was no AC for either the U.S. or Canada based on the preseason forecast and therefore, a directed Chinook salmon fishery was not prosecuted.

Typically, the inseason management of Taku River Chinook salmon depends on abundance estimates generated from the joint MR program in the lower Taku River with tags being applied below the border and recoveries being made in the Canadian assessment and/or commercial fisheries. In recent years, when the preseason forecast or inseason projections have indicated no AC, the commercial fishery has operated in an assessment mode and served as the test fishery identified in the PST agreement. In 2018, as in 2017, the preseason forecast was so low that the assessment fishery did not occur. As such, the preseason forecast was used to make necessary adjustments in the other fisheries with the intention of eliminating the harvest of Chinook salmon.

Due to the poor large Chinook salmon forecast (coupled with ongoing Kuthai Lake sockeye concerns), the start of the directed commercial fishery for sockeye salmon was delayed by nine days. The first opening was noon Tuesday, June 26 (SW26) and this was held to a 24-hour period. Additional measures were also implemented based on Chinook salmon considerations. As per the 2018 Taku River commercial conditions of licence, the harvest of Chinook salmon was not permitted. In addition, the use of set gillnets was not permitted for the first commercial opening (SW26) to allow for the release of healthy Chinook salmon. A maximum mesh size restriction of 140 mm (approximately 5.5 inches) was in effect through SW29 (ending July 21). The second opening was also kept short, i.e. was limited to 48-hours only.

The preseason forecast of 159,900 wild Taku sockeye salmon with an enhanced run size forecast of 9,500 fish provided Canada with a 21% share of the TAC, with management based on weekly estimates of the TAC of wild fish. Subtracting the escapement target of 75,000 wild sockeye salmon from the forecast of 159,900 fish resulted in an overall preseason TAC of 84,900 fish; 21% of that was approximately 17,800 fish.

The forecast for the run of wild Tatsamenie fish was 13,200 fish, above the average of approximately 9,400 fish. The egg-take goal for the 2018 season was based on a target of 30% of the escapement up to a maximum of 2.5 million eggs. During SWs 31–33 (July 29–August 18), management attention focused on Tatsamenie sockeye salmon to ensure an adequate number of sockeye salmon escaped to Tatsamenie Lake to support wild production and egg-take objectives.

As in past years, guideline harvests were developed each week for both sockeye and coho salmon fisheries to guide management decisions so that: a) the catch was consistent with conservation and Treaty goals; and b) management was responsive to changes in projections of abundance (i.e., abundance-based management).

Fishing periods were set with a view to achieving weekly guideline harvests. Extensions to weekly fishing periods were considered if the weekly guidelines were not achieved. For both drift and set gillnets, net length was restricted to a maximum of 36.6 m (120 ft.); mesh

sizes were restricted to between 100 mm (4 inches) and 204 mm (8 inches) except for the period prior to July 22 (SW 30) when the maximum permissible was 140 mm (5.5 inches) to reduce the bycatch of Chinook salmon.

The following summarizes the fishery management on a weekly basis and generally captures harvest estimates and stock assessment information made inseason. Sockeye salmon harvests in relation to run projections are for wild fish; CPUE data is for wild and enhanced fish combined. Guideline harvests presented in Table 8 are based on run projections made the previous week; additionally, those identified in the verbiage were generally based on the previous week's run projection. Harvests in verbiage may differ slightly from those in Table 8 as they reflect inseason information. Weekly enhanced contributions to the overall harvest are based on calculations made inseason. Guidelines identified in Table. 8 were set using a 21:79 harvest split for the entire sockeye salmon management period.

The management plan indicated that the sockeye salmon fishery would be delayed over a week and commence at noon Tuesday, June 26 (SW26) restricted to a maximum of a 48-hour period due to the poor large Chinook salmon forecast and the low return observed at Kuthai Lake over the last ten-years including the 2013 brood year. Additional modifications were made to address Chinook salmon management concerns. For 2018, as per the Taku River commercial conditions of licence, the harvest of Chinook salmon was not permitted. In addition, for the first commercial opening, fishing gear was restricted to drift nets (i.e. set gillnets were not permitted) in order to allow for the release of Chinook salmon. A maximum mesh size restriction of 140 mm (approximately 5.5 inches) was in effect through SW29 (ending July 21).

The weekly guideline for SW 26 based on the preseason forecast was 1,005 wild fish (Table 8). Weekly effort included four licenses, which was below average. Based on a 20-hour hail, the CPUE of 62 fbd was close to the weekly average of 64 fbd. Water levels dropped rapidly over the course of the opening from average to well below average. The fishery opened on one day. No extension was allowed in light of the sockeye salmon catch rates (factoring in favourable water levels) and Chinook salmon bycatch. The one day opening resulted in a weekly harvest of 247 sockeye salmon.

The fishery was opened for 2 days in statistical week 27 (July 1–July 7). The set gillnet restriction was lifted however, as noted above, licence conditions did not permit retention of Chinook salmon for the duration of the fishing season. The weekly guideline harvest for the week, based on the preseason forecast, was 1,277 sockeye salmon. Seven licenses fished during this opening and CPUE was 44 fbd, below the weekly average of 60 fbd. As a result of the lower than average CPUE, no extensions occurred. Water levels rose from well below average to average for the fishing period. Weekly catch totals were 559 wild sockeye salmon. In addition, 59 enhanced sockeye salmon (49 King Salmon Lake origin and ten Stikine River origin) were harvested.

Table 7. Canadian inseason forecasts of terminal run size, total allowable catch (TAC), and spawning escapement of wild Taku River sockeye salmon, 2018.

SW	Terminal Run	TAC	Projected Escapement	Canadian AC	Weekly Guideline	Surplus AC*	Actual Catch
26	159,900	84,900	75,000	17,829	1,005	0	238
27	159,900	84,900	75,000	17,829	1,277	0	561
28	159,900	84,900	75,000	17,829	1,790	593	1,982
29	157,668	82,668	137,405	17,360	2,027	0	2,553
30	140,034	65,034	111,365	13,657	2,017	0	6,111
31	158,704	83,704	118,140	17,578	2,545	261	2,280
32	171,811	96,811	126,731	20,330	2,332	0	685
33	157,744	82,744	113,629	17,376	984	0	558

Note: Terminal run assessments and weekly guidelines based on previous week's run size projections. *Surplus AC was calculated using the final estimate for each SW.

In statistical week 28 (July 8–14), the fishery was initially opened for two days. Based on the preseason forecast, the weekly guideline was set at ~1,800 sockeye salmon. Based on above average harvest rates on Day 1 (117 versus 66 fbd) the opening was extended for 24 hours. The weekly harvest was 1,986 wild sockeye salmon (plus 184 enhanced sockeye salmon of King Salmon Lake origin). A total of 32 large Chinook salmon were released. Weekly licenses fishing averaged 7.3. Water levels were below long term averages. The weekly sockeye salmon CPUE was 99 fbd and was above the average for SW 28 of 66 fbd. The run projection made after the close of the fishery in SW 28 was 157,668 fish; this projection was close to the preseason run projection.

Using the previous week's projection, the weekly guideline for SW 29 (July 16–22) was 2,027 sockeye salmon. An opening of two days was initially posted. The harvest for day 1 was 765 sockeye and a 1 day extension was added. Water levels were well below average but rising for days 1 and 2. The CPUE for SW 29 (124 fbd) was well above average (89 fbd). The weekly harvest was 2,531 sockeye salmon (plus 171 enhanced sockeye salmon mostly from King Salmon and Tatsamenie origin). The number of licenses fishing for the week once again averaged 7.3, which was below the average of 7.7. A run projection of 140,034 fish, made after the end of the fishery, was below the estimate generated the previous week.

The fishery in statistical week 30 (July 22–28) was opened on 2-days. In light of strong harvest rates and good fish wheel catches, the fishery was opened for two additional 24-hour periods. The weekly guideline was set at 2,017 sockeye salmon. River levels were below average to start the week but increased to average by day 3. The weekly CPUE (196 fbd) was well above average (123 fbd). The weekly harvest was 5,830 wild and 163 enhanced fish, which were mostly of Tatsamenie origin. The cumulative sockeye salmon harvest after week 30 was ~11,200 wild fish, slightly above the cumulative guideline of ~10,400 fish. The number of licenses that fished in SW 30 was 8.0, close to the average of 8.6. After day 3 of the fishery, a run projection of 158,704 fish was made which was above the SW 29 estimate and close to the preseason forecast.

For SW 31 (July 29–August 4), the weekly guideline was set at ~2,500 sockeye salmon based on run outlook from SW 30. The initial opening was two days. The fishing period was extended by 24 hours as a result of near average harvest rates, and was extended an additional day as harvest rates continued to improve. Run projections made during the openings suggested an increasing run size. The weekly harvest rate (109 fbd) was below average (127 fbd), and an average of 7.3 licenses fished. The weekly catch was 4,923 wild and 487 enhanced Tatsamenie fish. The river level was slightly above average. The final weekly run projection was 171,811, another increase over the previous week.

The fishery in statistical week 32 (August 5-11) was initially opened for 2-days. The weekly guideline was ~2,300 fish based on the final run projection in SW 31. The combined harvest for days 1 and 2 was ~700 fish and a one day extension was added. Water levels were slightly above average, and then spiked on day 3. This peak was the result of high water in the Tulsequah River leading to poor fishing success. The weekly CPUE was 34 fbd, compared to an average of 119 fbd, for 8.7 licenses. The weekly harvest was 685 wild and 56 enhanced Tatsamenie sockeye salmon. Licenses fished were 7.3 versus an average of 8.9 for the week. The terminal run projection made after day 3, 157,744 sockeye salmon, was back down to the preseason forecast level.

Statistical week 33 (August 12–18) started with a weekly guideline harvest of ~1,000 fish and an opening of 2 days. Harvest rates for day 1 were less than half of average despite falling water levels from the Tulsequah flood which had peaked about 2 days earlier. A hail on the morning of day 2 indicated a harvest of only 180 sockeye salmon; consequently, the fishery was held to 2 days. Licenses fished were 8.0, compared to a weekly average of 8.4. Catches were similar to those of week 32, with only 558 wild and 33 enhanced Tatsamenie sockeye harvested.

Statistical week 33 marked the end of the directed sockeye salmon fishery. The run projection after SW 33 was 145,516 wild fish and was lower than the preseason forecast of 159,900 fish; the cumulative weekly inseason guideline was ~13,500 fish at a 21% harvest share. The actual harvest of wild fish was 14,967 fish. The escapement projection was ~104,000 wild fish and was above the goal range of 71,000 to 80,000 fish.

Adding the wild sockeye salmon taken in the directed coho salmon fishery (2,181 fish) increased the total commercial harvest to 17,025 wild fish. The inseason harvest estimate of enhanced Taku River sockeye salmon was 923 fish which included 416 fish from King Salmon Lake and 508 fish from Tatsamenie Lake. A small number (26) of Stikine enhanced origin fish were also harvested.

Postseason figures for the above are presented in the Sockeye Salmon Run Reconstruction section.

Based on the terminal run forecast of Taku River coho salmon in 2018 a directed Canadian harvest of 5,000 fish was permitted starting in SW 34 for assessment purposes. Canada was also permitted to harvest all coho salmon in excess of 70,000 fish plus the fish allocated for assessment purposes.

Statistical week 34 (August 19–25) was open for 2-days based on the inriver projection of approximately 75,000 fish. Above average coho harvest rates after day one resulted in a 24-hour extension. Hharvest rates for the week (63 fbd) were above average (52 fbd) but sockeye salmon harvests (50 fbd) were average (52 fbd). Fishing conditions were excellent, with record low water levels. The number of licenses was above average (8 licenses compared to the SW 34 average of ~7). A total of 1,513 coho salmon were landed plus ~1,200 sockeye salmon (including 39 enhanced Tatsamenie fish). The MR estimate after day 3 indicated that 29,256 fish had crossed the border; this projected to an inriver run of 94,987 fish, above both the projection made in SW 33 and the preseason forecast.

Statistical week 35 (August 26–September 1) was opened for 2-days based on the inriver projection of ~95,000 fish. The opening was extended for two additional 24-hour periods to meet a coho salmon guideline of ~1,300 fish. Coho salmon harvest rates for the week were slightly below average (56 fbd compared to average of 66 fbd). A coho salmon run projection made after day 4 (80,500 fish) was lower than the SW 34 projection but matched the preseason forecast. Water levels were near average, and 7.5 licenses fished for the week. A total of 1,676 coho salmon and 552 sockeye salmon were harvested (including 48 enhanced Tatsamenie fish).

Statistical week 36 (September 2–8) was opened on 2-days based on the SW 35 inriver projection of ~81,000 fish and extended an additional 2-days. Coho salmon harvest rates for the week were above average (94 fbd compared to an average of 74 fbd), and sockeye salmon continued with poor harvest rates for the time of the year (18 fbd compared to an average of 53 fbd). Water levels started below average and continued to drop rapidly over the course of the week. Six licenses fished for the week which was close to the average of between 5 and 6 licenses. A total of 2,262 coho salmon and ~ 300 wild sockeye salmon were harvested (plus 30 enhanced Tatsamenie fish). The coho salmon run projection made at the close of SW 36 was 75,425 fish.

Statistical week 37 (September 9–15) was opened for 2-days based on this projection. The opening was extended for two days with only two licenses fishing. Water levels were again extremely low and generally dropping over the course of the fishery. Coho salmon harvest rates were above average (155 fbd versus 54 fbd), and sockeye salmon harvests remained high and well above the average for this time of year (13 fbd compared to an average of 27 fbd). A coho salmon inriver run projection made after day 4 (76,838 fish) was similar to the SW 36 estimate. A total of 1,243 coho salmon and 82 sockeye salmon were harvested (including 7 enhanced Tatsamenie fish).

Statistical week 38 (September 16–October 13) was posted for 2-days and no extensions were granted. Again, only 2 licenses fished. A total of 551 coho salmon and 29 sockeye salmon were caught. Coho salmon CPUE was 138 fbd vs an average of 118 fbd. Water levels as identified at Canyon Island were record low and below the gauge. SW 38 marked the end of the directed coho salmon fishery. The coho salmon inriver run projection made after closing was 71,275 fish. The harvest prior to SW 34 was 2,258 fish. SW 34–38 harvest was 7,245 coho salmon, resulting in a season total of 9,503 fish.

Escapement

Sockeye Salmon

The above border run size of sockeye salmon into the Canadian portion of the Taku River drainage is estimated from a joint Canada/U.S. MR program that has been operated annually since 1984. There were significant improvements made to the operational plan for the MR program in 2018, largely focused on improved holding and handling practices for fish captured in the fishwheels.

Escapement projects conducted by Canada provide information on the abundance of discrete lake spawning stocks within the watershed. Traditional counting weirs were operated by DFO at Little Trapper and Tatsamenie lakes, and video counting weirs were piloted by the TRTFN at Kuthai and King Salmon lakes.

Spawning escapement is estimated by subtracting the inriver harvest from the above border run size estimate. The postseason estimates of the above border run in 2018 is 136,995 unadjusted and adjusted 116,427 fish; subtracting the inriver harvest of 17,962 Taku fish (17,948 commercial and 14 Aboriginal fish) estimates that 119,033 unadjusted and adjusted 98,465 sockeye salmon reached the spawning grounds. The Taku River wild spawning escapement was slightly above average, and above the interim escapement goal range of 71,000 to 80,000 wild sockeye salmon. The Canyon Island catch in the fish wheels was 3,239 sockeye salmon

The sockeye salmon count through the Kuthai Lake video weir was 13 fish; a nearly complete run failure in 2018. Kuthai fish appeared present in the lower Taku River run in reasonable numbers (will be confirmed by GSI results to come), and spaghetti tagging and radio telemetry projects show that many Kuthai Lake destined fish reached the lower Silver Salmon River (the tributary to Kuthai Lake). However, low water levels in the Silver Salmon River created passage issues in the lower canyon. TRTFN observations of unsuccessful fish jump attempts at the passage challenges, which combined with telemetry results that show no tagged fish succeeding in passage, support the weir data that show a run failure due to passage issues. These passage challenges are not new and have been monitored for several years by TRTFN, but the low water and reduced flows in 2018 exacerbated the challenges. TRTFN has been implementing small ongoing restoration projects incrementally addressing identified passage challenges since 2016, but the major challenges were not addressed prior to 2018. Additional restoration work planned for the spring of 2018 was completed in fall 2018 at what is believed to be one of the significant challenges that prevented migration in 2018, but it remains unknown if passage will be assured in future years at a range of flows. The 2018 count was well below the average of 907 fish and 1% of the primary brood year (2013) escapement estimate of 1,195 fish.

The King Salmon Lake weir count of 3,180 fish was above the average of 2,450 fish and 356% of the primary brood year (2014) escapement estimate of 894 fish. Based on thermal mark data, 27% of the run was enhanced fish.

The Little Trapper Lake weir count was 8,249 sockeye salmon was above average and 170% of the 2013 primary brood year count of 4,840 fish. The overall run timing was average, but something appeared so hold many fish up early in the run, with a large pulse of fish arriving late on August 19 and 20. Also of note in 2018 at Little Trapper Lake was the significantly skewed sex ratio of returning sockeye salmon; females comprised only 19% of the run. Because of the late arrival of most fish and the low female proportion, no fish were removed for broodstock in 2018.

The Tatsamenie Lake weir count was 5,086 sockeye salmon below the average of 11,207 fish and the 2013 primary brood year count of 10,246 fish. The run started about one week late with two peaks, one on August 27 and another September 7–11. Based on thermal mark data 29% of the run was enhanced fish. There was a total of 1,700 fish removals which included 1,295 fish for broodstock, 9 fish mortalities, and 396 fish held and released unspawned.

Chinook Salmon

Spawning escapement of Chinook salmon in the Canadian portion of the Taku drainage was estimated from the joint Canada/U.S. MR program. Spaghetti and radio tag application took place from April 28 through June 30 using a drift gillnet to capture fish in the lower river near the Wright River just downstream of the U.S./Canada border. Catches in the drift gillnet accounted for 100% of the tags applied to all size Chinook salmon. There was no inseason event 2 component in 2018 since no assessment fishery or directed fishing for Chinook salmon was permitted due to the low preseason forecast. Also, Chinook salmon were required to be released in the inriver commercial sockeye salmon fishery because of low abundance. Spawning ground sampling occurred in July through September on the Nakina, Tatsatua, Kowatua, Nahlin, and Dudidontu rivers, as well as on Tseta Creek. In addition, a sonar weir was operated from June 1–July 27 on the lower Nahlin River to enumerate large Chinook salmon passing upriver. An insufficient number of large Chinook salmon spaghetti tags were recovered in the combined spawning grounds sample to generate a MR abundance estimate for large Chinook salmon.

The 2018 postseason Chinook salmon escapement estimate of 7,271 large fish was generated using radio tags applied in the lower river drift gillnet as Event 1, and only included radio tags that reached known spawning locations. Event 2 recapture combined the Nahlin sonar count and relevant spawning ground samples. This estimate is well below the average escapement of 21,619 large fish, and well below the escapement goal range of 19,000 to 36,000 large Chinook salmon.

Aerial surveys of large Chinook salmon to the five escapement index areas were as follows: Nakina 765 fish; Kowatua 202 fish; Tatsamenie 121 fish; Dudidontu 363 fish; and Nahlin 268 fish; all sites were below average. Viewing conditions were excellent with very low and clear water for all surveys and the total peak count of 1,719 large Chinook salmon which expands to 8,939 large fish using an expansion factor of 5.2.

Coho Salmon

Spawning escapement of coho salmon in the Canadian portion of the Taku drainage was estimated from the joint Canada/U.S. MR program. Tag application occurred from July 4 (SW 27) until September 28 (SW 39) and recovery occurred until October 4 (SW 40). Tag application was conducted at the CYI fishwheels until September 2, augmented by gillnetting from September 8 to 28. The tag recovery effort consisted of Canadian commercial fisheries followed by test fishery which commenced September 22 (SW 38). In 2018, the test fishery was a live release set gillnet program operated by DFO cooperatively with the TRTFN that caught and released 244 coho salmon.

The postseason inriver MR estimate is 60,678 fish. Taking into account the inriver harvest of 9,505 fish (9,503 commercial and 2 Aboriginal fish) the spawning escapement estimate was 51,173 fish. This was below the average escapement (86,569 fish) and within the biological escapement goal range of 50,000–90,000 fish.

Pink Salmon

There is no program to estimate the escapement of Taku River pink salmon; however, the Canyon Island fish wheels were used as an index of escapement. A total of 1,604 pink salmon were captured in 2018. This is below the even year average.

Chum Salmon

Chum salmon escapement numbers to the Taku River are unknown; however, the numbers of fall chum captured by the fish wheels at Canyon Island were used as an index of escapement. A total of 32 chum salmon were captured in 2018; below average.

Sockeye Salmon Run Reconstruction

An estimated 24,472 wild and 1,431 enhanced Taku sockeye salmon were harvested in the traditional U.S. District 111 drift gillnet fishery. This estimate was made by postseason GSI and otolith analysis. An additional 1,527 wild and 85 sockeye salmon were estimated to have been taken in the U.S. inriver personal use fishery. The estimated total U.S. harvest of Taku sockeye salmon is 25,999 wild and 1,516 enhanced fish (Table 4).

In the Canadian commercial fishery, the postseason harvest estimate of Taku sockeye salmon is 17,024 wild, 508 enhanced Tatsamenie Lake, and 416 enhanced King Salmon Lake fish. Also, harvested was 26 from the Stikine River enhanced fish, and 0 fish from U.S. domestic stocks; total Canadian commercial harvest was 17,974 (17,948 Taku fish and 26 non-Taku enhanced fish). An estimated 0 wild and 0 enhanced sockeye salmon were taken in the Canadian Aboriginal fishery. Therefore, the estimated Canadian treaty harvest of Taku sockeye salmon is 17,024 wild and 923 enhanced fish (Table 4). The coho test fishery did not harvest any sockeye salmon.

The postseason estimate of the above border run size of sockeye salmon, based on the joint Canada/U.S. MR program is 136,995 fish unadjusted estimate and 116,427 fish adjusted.

Deducting the Canadian inriver harvest noted above from the above border run estimate results in an estimated escapement of 119,033 fish unadjusted estimate and 98,465 fish adjusted estimate; 116,658 wild fish unadjusted estimate and 96,089 wild fish adjusted. The escapement of Taku River sockeye salmon originating from the fry planting program was estimated to be 2,376 fish from broodstock otoliths collected at Tatsamenie and King Salmon lakes. The terminal run of Taku River sockeye salmon is estimated at 164,509 fish unadjusted estimate and 143,941 fish adjusted estimate; 159,694 wild fish unadjusted estimate and 139,126 wild fish adjusted estimate and 4,815 enhanced fish. Based on the escapement goal of 75,000 wild fish, the wild TAC was 84,694 fish unadjusted estimate and wild TAC was 64,216 adjusted fish; combining wild and enhanced terminal run the TAC was 89,509 fish unadjusted estimate and TAC 68,941 fish adjusted. The harvest sharing agreement based on total terminal enhanced run was 80% U.S. and 20% Canada.

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 3). Unknown quantities of Alsek River origin fish may also be taken in the 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 Aboriginal and recreational fisheries occur in the Tatshenshini River and some of its headwater tributaries (Figure 3).

Harvest Regulations & Management Objectives

Although harvest sharing of Alsek River salmon stocks between Canada and the U.S. has not yet been specified, Annex IV does call for the development and implementation of cooperative abundance-based management plans and programs for Alsek River Chinook and sockeye salmon. In February 2013, the bilateral TTC and bilateral TBR Panel agreed to the revised biological escapement goals for Alsek River Chinook and sockeye salmon. These were Alsek River Chinook salmon MSY target of 4,700 fish (escapement goal range 3,500–5,300 fish), Klukshu River Chinook salmon MSY target of 1,000 fish (escapement goal range of 800–1,200 fish), Alsek River sockeye salmon MSY target of 29,700 fish (escapement goal range of 24,000–33,500 fish), and Klukshu River sockeye salmon MSY target of 9,700 fish (escapement goal range 7,500–11,000 fish). Since 1976 the principle escapement monitoring tool for Chinook and sockeye salmon stocks on the Alsek River is the Klukshu River salmon counts, a project operated by DFO in cooperation with the CAFN. MR programs to estimate the total inriver abundance and the portion of escapement contributed by Klukshu stocks operated from 1997 to 2005 for Chinook salmon, and from 2000 to 2005 for sockeye salmon. Currently, total Alsek River run estimates for sockeye salmon are generated using Dry Bay commercial sample GSI analysis to expand the Klukshu River counts.

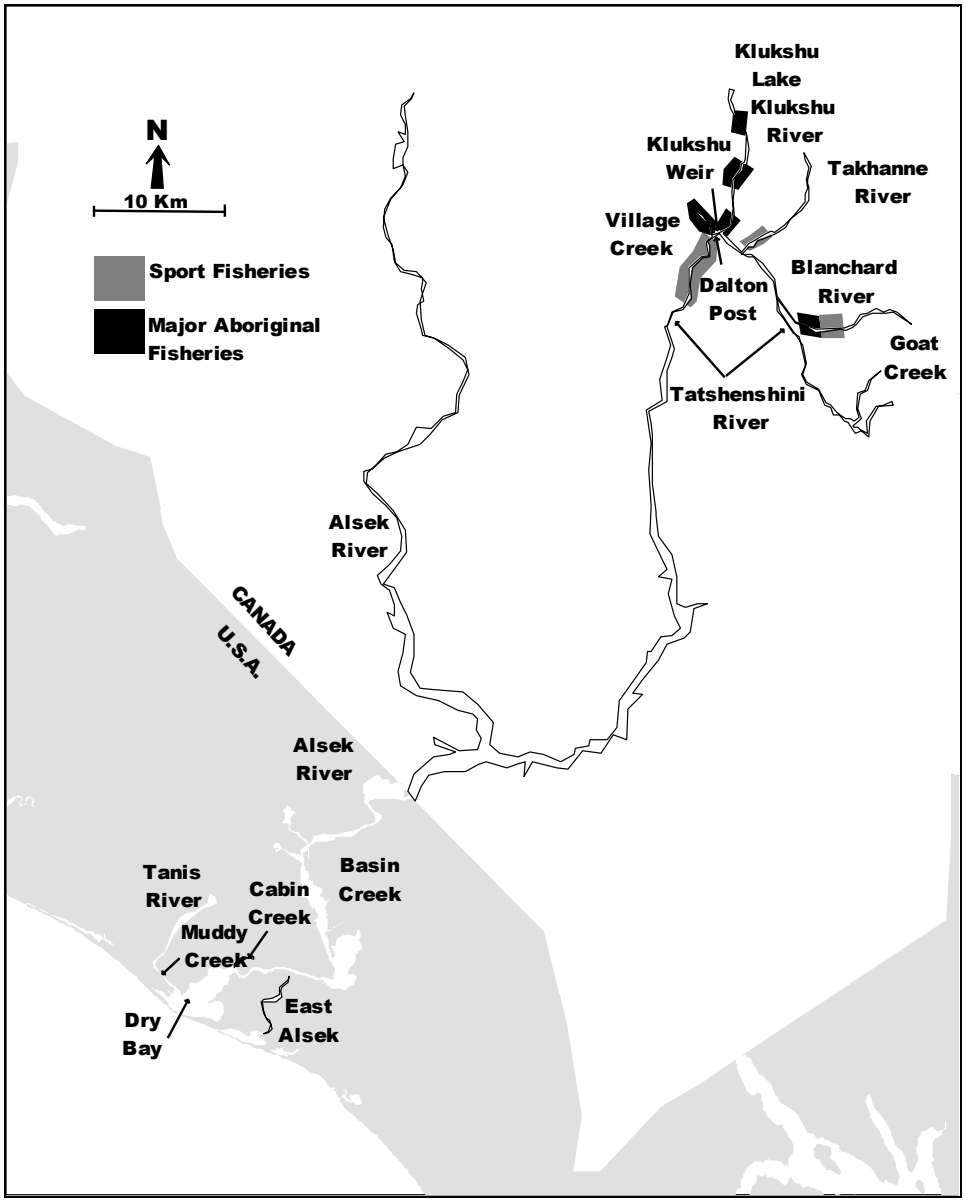

Figure 3. The Alsek River and principal U.S. and Canadian fishing areas.

Preseason Forecasts

The preseason forecast for Klukshu River Chinook salmon escapement in 2018 was 700–1,250 fish. These forecasts are below the average of approximately 1,400 fish and bracket the escapement goal range of 800–1,200 Chinook salmon. Two models were used in forecasting: a sibling model (700 fish) and a stock recruit model (1,250 fish). The sibling model uses 2017 returns of age 4 (BY 2013) and age 5 (BY 2012) Chinook salmon to predict the returns of age 5 (BY 2013) and age 6 (BY 2012) in 2018 using the relationships observed between age classes over the past ten years corrected with the 5-year average (2013–2017) model error. The stock recruit model forecast is based on 23 years of Klukshu

Chinook production data and was discounted using the 5-year average (2013–2017) model error (45%).

The 2018 Alsek River sockeye salmon run was expected to be approximately 28,200 fish; this was well below the average run size estimate of approximately 76,000 sockeye salmon. The outlook for 2018 was based on a predicted run of 6,500 Klukshu River sockeye salmon, well below the average of approximately 14,000 fish, and just below the Klukshu River escapement goal of 7,500 to 11,000 sockeye salmon. The forecast was derived from the latest Klukshu River stock-recruitment data and a Klukshu River contribution to the total run of 23% (2011 Eggers et al.), based on MR results (2000–2004) and run size estimates using GSI (2005–2006, 2011). Principal contributing brood years were 2013 (Klukshu River escapement of 3,792 sockeye salmon) and 2014 (Klukshu River escapement of 12,148 sockeye salmon).

Information from coho salmon partial escapement counts at the Klukshu River in 2014 (341 fish) and 2015 (1,810 fish) suggested the 2018 run would be above the recent average of approximately 2,300 coho salmon.

U.S. Fisheries

Preseason expectations were for below average Chinook and sockeye salmon runs. These projections were based on parent-year escapements to the Klukshu River. In 2018, the Alsek River recorded a below average run for sockeye salmon and the lower bound of Klukshu River escapement goal range was not attained. Chinook salmon runs were also below average in 2018, however the escapement goal as measured at the Klukshu River was achieved.

As a Chinook salmon conservation measure, the 2018 Alsek River commercial set gillnet fishery was delayed by two weeks in 2018. The fishery opened for 24-hours on Sunday, June 17 (SW 25). Traditionally, inseason management decisions were made by monitoring fishery performance data and comparing it to historical CPUE for a given opening to adjust time and area openings. Further restrictions were implemented in the fishery this year due to extremely poor sockeye salmon returns to the Yakutat District. The Alsek River commercial fishery did not open during SW 27 as an area-wide sockeye salmon conservation measure. The fishery reopened during SW 28 for 12 hours and closed again SW 29. Chinook and sockeye salmon harvests were both below average throughout the duration of the directed sockeye salmon fishery. The total number of individual permits fished during the season was 10, which was below the 10-year average of 17 permits. Peak sockeye salmon harvest occurred during SW 30 with 10 permits harvesting 471 fish. Effort started to decline by SW 31 and by SW 33 coho salmon management strategies were in place. Coho salmon are targeted starting in mid-August and effort typically drops during the fall due to or lack of pilots and aircrafts to transport the product to town. Fishing times remained at three days per week throughout the duration of the coho salmon season. Nearly three weeks of extreme flooding made for poor fishing conditions which resulted in virtually no fishing effort or coho salmon harvest in 2018. The commercial fishing season closed on October 10.

The 2018 Dry Bay commercial set gillnet fishery harvested 88 Chinook, 1,363 sockeye, and two coho salmon (Table 9). There was no chum or pink salmon harvested. A test fishery for Chinook salmon was conducted in the Alaska portion of the Alsek River in 2005–2008 and from 2011–2012. Test fishing ceased in 2014.

Canadian Fisheries

Due to the below average and well below average preseason forecasts for Klukshu River Chinook and sockeye salmon respectively, reinforced by low early inseason numbers, the CAFN passed a no-fishing resolution for its members in July. As a result no salmon were harvested in the Aboriginal fishery in 2018. The recent average catches are 61 Chinook, 1,034 sockeye, and 4 coho salmon.

Similarly, the Tatshenshini River recreational fishery was not permitted to retain Chinook or sockeye salmon. In addition, catch and release angling for Chinook salmon was discouraged due to the low abundance. The recreational fishery was opened for coho salmon with harvest limits of 2 per day and 4 in possession. An estimated 7 Chinook and 0 sockeye salmon were caught and subsequently released. There were no reports of coho salmon harvest although this is considered incomplete as fishing may have taken place after monitoring had ceased.

Management of salmon in Yukon is a shared responsibility between DFO and the Yukon Salmon Sub-Committee (YSSC). The YSSC was established in 1995 pursuant to the Comprehensive Land Claim Umbrella Final Agreement between the Government of Canada, the Council for Yukon Indians and the Government of the Yukon. The Committee is a public board consisting of ten members, 70% of which are appointed by Yukon First Nations. Two CAFN members sit on the YSSC. Although the Committee currently operates by consensus, the voting structure of the Committee is organized so that, should a vote be necessary, 50% of the votes reside with appointees of Yukon First Nations.

Table 8. Klukshu River harvest and escapement for the Chinook and sockeye salmon and Alsek River harvest for Chinook and sockeye salmon for 2018.

	Chinook	Sockeye
Klukshu River[a]		
Weir count	1,087	7,143
Harvest at/above weir	0	0
Escapement	1,087	7,143
Harvest[b]		
U.S. Commercial	88	1,363
U.S. Subsistence/P.U.	28	142
U.S. Test		
Canadian Aboriginal	0	0
Canadian Recreational	0	0
Alsek River		
Not enough US fishing to get sufficient samples to produce estimate		

a Klukshu River salmon stocks represent an assumed large and variable portion of the total Alsek River salmon escapement.
b U.S. harvest estimate differs from Joint Interception Committee estimate because no estimates are made for harvest other than the listed fisheries.

The 2018 Alsek-Tatshenshini management plan, adopted by CAFN, YSSC, and DFO, was based on the escapement objectives described in the Harvest Regulations & Management Objectives section above. For Chinook salmon and early run sockeye salmon management, the Klukshu River counts were reviewed in mid-July to determine if changes to the recreational fishery were warranted. Run projections for both Chinook and sockeye salmon remained poor resulting in no change to the non-retention restrictions. The status of the sockeye salmon was also reviewed in late August and no changes were made to the non-retention restriction due to the sockeye salmon run projection being below the minimum escapement goal. Other key elements of the plan are described below.

The center of Aboriginal fishing activity in the Alsek River drainage occurs at the CAFN village of Klukshu, on the Haines Road, about 60 km south of Haines Junction. Salmon are harvested by means of gaff, small gillnets, sport rods, and traditional fish traps as the fish migrate up the Klukshu River and into Klukshu Lake. The fishing plan for the Aboriginal fishery in the Klukshu River and adjacent areas allowed for fishing by any means (as established in the communal license) 7 days a week. Conservation thresholds that might invoke restrictions in the Aboriginal fishery were projected Klukshu River counts of < 800 Chinook, < 1,500 early, and < 7,500 total sockeye salmon. Fishing also occurs on Village Creek and in the headwaters of the Tatshenshini River and tributaries thereof (Goat Creek,

Stanley Creek, Parton River, and the Blanchard River). The plan did not restrict the fishery other than to reserve harvests of Chinook salmon at Goat Creek, Stanley Creek, and the Parton River for elders only. However, as noted above, a no-fishing resolution for Chinook and sockeye salmon was passed by CAFN in July.

The majority of the recreational fishing effort in the Alsek River drainage occurs in 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 management plan prohibited the retention of Chinook and sockeye salmon in the recreational fishery due to conservation concerns. For coho salmon, the daily catch and possession limits were two and four fish, respectively. Recreational fishing for coho salmon was permitted in the Tatshenshini River seven days a week. Conservation thresholds that had the potential to invoke lifting of restrictions in the recreational fishery were projected Klukshu River counts significantly greater than 1,000 Chinook, 4,500 early run sockeye salmon and 10,500 early / late run combined sockeye salmon.

A mandatory Yukon Salmon Conservation Catch Card (YSCCC), introduced by the YSSC in 1999, was required by all recreational salmon fishers in 2018. The purpose of the YSCCC is to improve harvest estimates and to serve as a statistical base to ascertain the importance of salmon to the Yukon recreational fishery. Anglers are required to report their catch via email or mail by the late fall. Information requested includes the number, sex, size, date and location of salmon caught and released.

Since 2001, CAFN has imposed a fishing area closure from the Klukshu River bridge crossing upstream to the assessment site to allow for better staging opportunities for salmon in the vicinity of the Klukshu/Tatshenshini rivers confluence.

Escapement

Alsek River drainagewide abundance programs are being investigated for Chinook and sockeye salmon stocks as part of the development of abundance-based management regimes and to accurately assess whether the current escapement goals are appropriate and if so, are being achieved. At this time, there are no programs in place to estimate the drainage-wide coho salmon escapement.

The most reliable long-term comparative escapement index for Alsek River drainage salmon stocks are the Klukshu River counts. A large and annually variable proportion of the drainagewide escapement of each species is enumerated at Klukshu River, where video enumeration systems have been implemented since 2016. Video enumeration has been implemented on Village Creek since 2014. These video enumeration projects allow salmon passage 24 hours per day and alleviate concerns over impeding and/or handling salmon during periods of low abundance. In 2018 we also implemented a trial snorkel survey on Takhanne River to enumerate Chinook salmon. This project was successful and is recommended for future inclusion in monitoring.

Sockeye Salmon

In 2018, the Klukshu River sockeye salmon count was 7,143 fish and the escapement estimate was 7,143 fish, below the escapement goal range of 7,500 to 11,000 fish. The count of 91 early run fish (count through August 15) was below the average of 2,611 fish as was the count of 6,944 late run fish with an average of 7,976 fish. The sockeye salmon count at Village Creek was 97 fish; this was well below average.

Chinook Salmon

In 2018, the Klukshu River Chinook salmon count was 1,087 fish and the escapement estimate was 1,087 fish. This escapement estimate is above the target midpoint of the escapement goal range of 800 to 1,200 Klukshu Chinook salmon.

Coho Salmon

The Klukshu River coho salmon count prior to project end was 728 fish. As in past years, this does not serve as a reliable run strength indicator as the project ends during the coho salmon run to the Klukshu River. This number is below the recent average of 2,318 fish.

ENHANCEMENT ACTIVITIES

Egg Collection

In 2018, sockeye salmon eggs were collected at Tahltan Lake on the Stikine River for the thirtieth year, Tatsamenie Lake system on the Taku River for the twenty-nineth year of this program.

Tahltan Lake

In 2018, Tahltan Fisheries were contracted to perform the egg take. The egg-take goal was set at 5.0 million eggs in the approved Stikine River Enhancement Plan. Canadian technical staff lowered the egg-take goal to 2.5 million eggs due to low escapement and treaty stocking guidelines not to exceed a 1:1 ratio of enhanced to wild smolt out-migrating from the lake. A total of 894 females and 938 males were spawned over the course of 7 egg-take days conducted from September 12th to 24th. This produced a preliminary estimate of 2.5 million sockeye salmon eggs for delivery to Snettisham Hatchery in Alaska (based on an estimated fecundity of 2,800 eggs per female). No egg shipments were delayed due to weather, which is a first for the project. The egg survival at Snettisham Hatchery to 100 CTU was 92%.

Tatsamenie Lake

In 2018, Metla Environmental was contracted to collect eggs at Tatsamenie Lake. Broodstock was captured near the assessment weir at the outlet of Tatsamenie Lake and held until ripe. Escapement through the weir was below average at 4,936 sockeye salmon. The egg-take goal was set at 2.5 million eggs in the approved Taku Enhancement Production Plan. A total of 670 females were spawned over the course of 5 egg-take days conducted from September 19th to October 8th. 3 of the egg shipments were delivered the following day due to weather. An estimated 2.5 million sockeye salmon eggs were delivered to Snettisham Hatchery. Average egg survival to 100 CTU was 79%.

Little Trapper Lake

In 2018, Metla Environmental Ltd was funded through the Northern Fund to collect 500,000 sockeye salmon eggs at Little Trapper Lake for subsequent release to Trapper Lake. The resulting fry were to be used to evaluate passage of returning adults to the barrier location between Little Trapper and Trapper Lake that is to be modified as part of the development of an enhancement program. The egg take did not occur due to an unusually low escapement early in the run and an unusually low proportion of females. A larger escapement eventually materialized but the female component was still unusually low, approximately 19%. Egg takes completed in 2016 and 2017 are expected to result in sockeye returns for passage evaluation in 2020 through 2022.

King Salmon Lake

Taku River Tlingit Fisheries conducted a project to test the feasibility of using King Salmon Lake to produce sockeye salmon. In 2012 and 2014, sockeye salmon eggs were collected in King Salmon Lake, sent to Snettisham Hatchery for incubation and the resulting fry were back planted into the lake. In 2018 the return of King Salmon sockeye salmon was recorded at the weir near the lake at 3,180 with more potentially held up at a barrier downstream on King Salmon Creek. A site visit by DFO and TRT on Aug 11 confirmed this to be a log jam that was first noticed as a result of radio tag surveys completed in 2018 by ADFG. Currently the 2014 brood year of enhanced fish are determined to be a substantial portion of the run at approximately 27%.

Incubation, Thermal Marking, and Fry Plants

Snettisham Hatchery is operated by DIPAC, a private aquaculture organization in Juneau. A cooperative agreement between ADF&G and DIPAC provides for Snettisham Hatchery to serve the needs of the joint TBR enhancement projects.

Egg incubation and thermal-marking at Snettisham Hatchery went smoothly in 2017/2018. In 2018, brood year 2017 fry were transported to the appropriate systems from May 29th to June5th. There were no IHNV losses of the 2017 brood year.

Tahltan Lake

In 2018, a total of 2.6 million sockeye salmon fry were stocked back into Tahltan Lake. These fish were from eggs collected in Tahltan Lake in the fall of 2017. Survival from green-egg to stocking fry was 68%. Fry stocking took place on May 30 th to June5th.

Tuya Lake

Fry planting into Tuya Lake has been discontinued since 2014 due to Canadian domestic concerns.

Tatsamenie Lake

In 2018, a total of 1.48 million sockeye salmon fry were stocked in Tatsamenie Lake. These fish were from eggs collected at Tatsamenie Lake in the fall of 2017. Survival from green-egg to stocked fry was 75%. Approximately 1.26 million sockeye salmon fry were released directly into the lake on May 29th to May 31st. As a result of losing the onshore rearing water source in 2017 through a natural flood event of the creek the 2018 plan was to trial an in lake net pen rearing strategy from start to finish of the rearing duration. On May 29 and 30, approximately 214,000 sockeye salmon fry were flown to the lake and placed in four net pens. On June 28, all fry were released at approximately 2.1 grams meeting the intent to rear fry to a smaller size than previously however achieving faster growth in the lake environment. This resulted in the targeted earlier release timing of fry near late June. Full evaluation of the success of extended rearing will not be available until these fish return as adults.

Trapper Lake

In 2018, a total of 187,000 sockeye salmon fry were stocked into Trapper Lake. These fish were from eggs collected in Little Trapper Lake in the fall of 2017. Survival from green-egg to stocking fry was 67%. Fry stocking took place on May 29 th.

Sockeye Supplementation Evaluation Surveys

Acoustic, Trawl, Beach Seine and Limnological Sampling

Standard limnological surveys were conducted at Tatsamenie and Tahltan lakes. No surveys were conducted on Tuya or Trapper lakes. No hydroacoustic surveys were conducted in 2017.

Thermal Mark Laboratories

ADF&G Thermal Mark Laboratory

During the 2018 season, the ADF&G Thermal Mark Lab processed 12,217 sockeye salmon otoliths collected by ADF&G and DFO staff as part of the U.S./Canada fry-stocking evaluation program. These collections came from commercial and test fisheries in both

U.S. and Canadian waters on the Taku and Stikine rivers over a 14-week period. The laboratory provided estimates on hatchery contributions for 79 distinct sample collections. Estimates of the percentage of hatchery fish contributed to commercial fishery catches were provided to ADF&G and DFO fishery managers 24 to 48 hours after samples arrived at the lab.

Postseason estimates of stocked fish to Alaskan harvests were 2,600 Stikine River fish to District 106 and 108, and 1,500 Taku River fish to District 111. Postseason estimates of stocked fish to Canadian fisheries included 9,300 fish to Stikine River fisheries and 900 fish to the Taku River fisheries.

Canadian Thermal Mark Laboratory

Subsamples of juvenile and adult otolith samples collected at the study lakes during the 2018 season are being analyzed at the DFO thermal mark lab in Whitehorse.

APPENDICES

Standards

All 2018 are considered final
Large Chinook salmon are MEF length ≥ 660 mm
Unless otherwise stated Chinook salmon are large
Test fisheries for Chinook salmon became commercial assessment/test fisheries starting in 2004
Data not available to estimate harvests of Alaska Hatchery pink and chum salmon
All harvest of Tahltan and Tatsamenie lake sockeye salmon, unless otherwise noted, include both wild and hatchery fish.

Bold numbers are incomplete or interpolated numbers

Italicized numbers are used when the GSI estimates do not meet acceptable levels of precision and accuracy agreed upon by the TTC (April 2013): to estimate the proportion of mixtures within 10% of the true mixture 90% of the time.

Appendix A. 1. Weekly harvest estimates of Chinook salmon in the US gillnet, troll, recreational, and subsistence fisheries in District 108, 2018.

ONLY weekly reference see the historcial Appendix B3 for final postseason estimate. All weekly estimates of large Stikine Chinook salmon are based on ASL and CWT data (small expansions may lead to negative numbers)

	Subsistence--Stikine		D108 sport			D108 gillnet				D108 troll			US total large
SW	Large	Nonlarge	Large total	Large non-Stikine	Large Stikine	Nonlarge	Large total	Large non-Stikine	Large Stikine	Large total	Large non-Stikine	Large Stikine	Stikine harvest
18			0		0								0
19			0		0				0				0
20			0		0				0				0
21			0		0				0				0
22			0		0				0				0
23			0		0				0				0
24			0	0	0				0				0
25	0	3	0	0	0				0				0
26	2	16	0	0	0				0				2
27	9	19	0	0	0	86	140	0	140				149
28	9	24	6	0	6	946	477	572	-95				-80
29	2	4	6	0	6	281	235	166	69				77
Total	22	66	12	0	12	1,313	852	738	114	0	0	0	148

Appendix A. 2. Weekly catch and harvest of Chinook salmon in the Canadian commercial, Telegraph Aboriginal, and recreational fishery in the Stikine River, 2018.

	LRCF													Canada total	large
	Kept		Released		Estimatedmortality (50%)		URCF		Aboriginal Telegraph		Tahltan sport fishery			large Stikine	released
SW	Large	Nonlarge	Large	Nonlarge	Large	Nonlarge	Large	Nonlarge	Large	Nonlarge	Retained	Released	Total	harvest	mortality
19														0	0
20														0	0
21														0	0
22														0	0
23														0	0
24														0	0
25					0	0			3	13				3	0
26			186	240	93	120			34	119				127	93
27			153	228	77	114			32	92				109	77
28			62	91	31	46			35	90				66	31
29			52	54	26	27			28	98				54	26
30			18	14	9	7			30	43				39	9
31			3	6	2	3			3	1				5	2
32			1	2	1	1								1	1
33			1	1	1	1								1	1
34					0	0								0	0
35					0	0								0	0
36					0	0								0	0
37														0	0
Total ke	0	0	476	636	238	318	0	0	165	456	0	0	0	403	238

Appendix A. 3. Weekly catch and harvest of Chinook salmon in the Canadian test fisheries in the Stikine River, 2018.

	Test Fishery										Total Release			
	Drift		Set		Test Released		Test Estimated mortality (50%)		Commercial license		Large Fish		Nonlarge Fish	
SW	Large	Nonlarge	Large	Nonlarge	Large	Nonlarge	Large	Nonlarge	Large	Nonlarge	Catch	Mortality	Catch	Mortality
19											0	0	0	0
20											0	0	0	0
21											0	0	0	0
22											0	0	0	0
23											0	0	0	0
24											0	0	0	0
25					6	12	3	6			6	3	12	6
26					10.00	13.0	5	7			10	5	13	7
27					1.00	6.0	1	3			1	1	6	3
28					3.00	5.0	2	3			3	2	5	3
29						1.0	0	1			0	0	1	1
30							0	0			0	0	0	0
31					1.00		1	0			1	1	0	0
32											0	0	0	0
33											0	0	0	0
34											0	0	0	0
35											0	0	0	0
36											0	0	0	0
37											0	0	0	0
38											0	0	0	0
39											0	0	0	0
40											0	0	0	0
41											0	0	0	0
42											0	0	0	0
Total	0	0	0	0	21	37	11	19	0	0	21	11	37	19

Appendix A. 4. Weekly harvest of sockeye salmon in the Alaskan District 106 and 108 fisheries, 2018.

SW	Subsistence	D106 Total	D106-30	D106-41/42	D108	
22-24						
25	48	447	50	397		
26	178	1,946	613	1,333		
27	531	2,097	860	1,237		1,276
28	413	2,937	750	2,187		1,404
29	375	2,647	926	1,721		1,184
30	137	3,817	1,954	1,863		1,125
31	31	3,569	1,668	1,901		404
32	9	3,002	1,544	1,458		212
33	0	2,367	847	1,520		63
34	10	1,423	706	717		17
35	0	733	471	262		30
36	0	152	102	50		9
37	0	56	31	25		6
38	0	5	2	3		1
39	0	5	4	1		0
40	0	0				
41	0	0				
Total	1,732	25,203	10,528	14,675	5,731	

Appendix A. 5. Weekly stock proportions of sockeye salmon harvested in the Alaskan D106 commercial drift gillnet fishery, 2018.

Estimates derived from GSI estimates for subdistricts 10641/42 and 106-30; see Appendices G. 1 and G. 2. for GSI details.

		Stikine					
SW	Other	All Tahltan	Tuya	Mainstem	Total	Tahltan Enhance	WildTahltan
25	0.506	0.257	0.027	0.210	0.494	0.152	0.105
26	0.645	0.264	0.026	0.064	0.355	0.163	0.101
27	0.758	0.146	0.015	0.081	0.242	0.082	0.063
28	0.823	0.088	0.011	0.078	0.177	0.031	0.057
29	0.866	0.033	0.001	0.100	0.134	0.005	0.028
30	0.918	0.010	0.002	0.070	0.082	0.009	0.001
31	0.963	0.007	0.001	0.029	0.037	0.001	0.007
32	0.967	0.008	0.001	0.025	0.033	0.004	0.004
33	0.991	0.002	0.001	0.006	0.009	0.001	0.001
34	0.934	0.003	0.001	0.063	0.066	0.001	0.002
35	0.952	0.004	0.002	0.042	0.048	0.002	0.002
36	0.950	0.004	0.002	0.043	0.050	0.002	0.002
37	0.957	0.004	0.002	0.037	0.043	0.002	0.002
38	0.967	0.004	0.001	0.028	0.033	0.001	0.002
39	0.943	0.004	0.002	0.051	0.057	0.002	0.002
Total	0.881	0.055	0.006	0.058	0.119		
25	226	115	12	94	221	68	47
26	1,256	514	51	125	690	317	197
27	1,589	306	32	170	508	173	133
28	2,416	258	33	230	521	91	167
29	2,291	88	2	266	356	14	74
30	3,504	38	9	266	313	33	5
31	3,436	27	2	104	133	2	24
32	2,903	23	2	74	99	12	11
33	2,347	4	2	14	20	2	2
34	1,328	4	2	89	95	2	2
35	698	3	1	31	35	1	2
36	144	1	0	7	8	0	0
37	54	0	0	2	2	0	0
38	5	0	0	0	0	0	0
39	5	0	0	0	0	0	0
Total	22,203	1,380	148	1,473	3,000	716	664

Appendix A. 6. Weekly stock proportions of sockeye salmon harvested in the Alaskan Subdistrict 106-41/42 (Sumner Strait) commercial drift gillnet fishery, 2018.

Estimates based on mean GSI; see Appendix G. 1 for GSI details.

		Stikine					
SW	Other	All Tahltan	Tuya	Mainstem	Total	Tahltan Enhance	WildTahltan
25	0.454	0.286	0.030	0.230	0.546	0.171	0.115
26	0.521	0.372	0.037	0.071	0.479	0.237	0.135
27	0.659	0.242	**0.025**	**0.074**	0.341	**0.139**	**0.103**
28	0.797	0.112	0.014	0.077	0.203	0.041	0.071
29	0.833	0.044	0.001	0.123	0.167	0.008	0.036
30	0.897	0.018	0.004	0.081	0.103	0.017	0.001
31	0.953	0.007	0.001	0.039	0.047	0.001	0.007
32	0.963	0.014	0.001	0.023	0.037	0.007	0.006
33	0.989	0.002	0.001	0.008	0.011	0.001	0.001
34	0.906	0.003	0.001	0.090	0.094	0.001	0.002
35	0.990	0.003	0.001	0.006	0.010	0.001	0.002
36	0.990	0.003	**0.001**	**0.006**	0.010	**0.001**	**0.002**
37	0.990	0.003	**0.001**	**0.006**	0.010	**0.001**	**0.002**
38	0.990	0.003	**0.001**	**0.006**	0.010	**0.001**	**0.002**
39	0.990	0.003	**0.001**	**0.006**	0.010	**0.001**	**0.002**
Total	0.834	0.089	0.009	0.068	0.166	0.048	0.041
25	180	113	12	91	217	68	46
26	694	496	49	94	639	316	180
27	815	299	31	91	422	172	127
28	1,743	244	31	169	444	89	155
29	1,434	75	1	211	287	13	62
30	1,671	34	8	150	192	32	2
31	1,812	14	1	74	89	1	13
32	1,403	20	1	34	55	11	9
33	1,504	3	1	13	16	1	2
34	650	2	1	65	67	1	1
35	259	1	0	2	3	0	1
36	50	0	0	0	0	0	0
37	25	0	0	0	0	0	0
38	3	0	0	0	0	0	0
39	1	0	0	0	0	0	0
Total	12,244	1,301	136	994	2,431	704	598

Appendix A. 7. Weekly stock proportions of sockeye salmon harvested in the Alaskan Subdistrict 106-30 (Clarence Strait) commercial drift gillnet fishery, 2018.

Estimates based on mean GSI; see Appendix G. 2 for GSI details.

		Stikine					
SW	Other	All Tahltan	Tuya	Mainstem	Total	Tahltan Enhance	WildTahltan
25	0.916	0.030	**0.002**	**0.051**	0.084	**0.002**	**0.027**
26	0.916	0.030	0.002	0.051	0.084	0.002	0.027
27	0.900	0.008	0.001	0.091	0.100	0.001	0.007
28	0.897	0.018	0.002	0.082	0.103	0.002	0.016
29	0.926	0.014	0.001	0.059	0.074	0.001	0.013
30	0.938	0.002	0.001	0.060	0.062	0.001	0.001
31	0.974	0.007	0.001	0.018	0.026	0.001	0.007
32	0.971	0.002	0.001	0.026	0.029	0.001	0.001
33	0.995	0.002	0.001	0.002	0.005	0.001	0.001
34	0.962	0.003	0.001	0.035	0.038	0.001	0.001
35	0.931	0.005	0.002	0.062	0.069	0.002	0.002
36	0.931	0.005	**0.002**	**0.062**	0.069	**0.002**	**0.002**
37	0.931	0.005	**0.002**	**0.062**	0.069	**0.002**	**0.002**
38	0.931	0.005	**0.002**	**0.062**	0.069	**0.002**	**0.002**
39	0.931	0.005	**0.002**	**0.062**	0.069	**0.002**	**0.002**
Total	0.946	0.007	0.001	0.045	0.054	0.001	0.006
25	46	1	0	3	4	0	1
26	562	18	2	31	51	2	17
27	774	7	1	78	86	1	6
28	673	14	2	61	77	2	12
29	858	13	1	54	68	1	12
30	1,833	3	1	116	121	1	2
31	1,625	12	1	30	43	1	11
32	1,499	3	1	41	45	1	2
33	843	2	1	2	4	1	1
34	679	2	1	24	27	1	1
35	438	2	1	29	33	1	1
36	95	0	0	6	7	0	0
37	29	0	0	2	2	0	0
38	2	0	0	0	0	0	0
39	4	0	0	0	0	0	0
Total	9,959	78	12	479	569	12	66

Appendix A. 8. Weekly stock proportions sockeye salmon harvested in the Alaskan District 108 commercial drift gillnet fishery, 2018.

Estimates based on mean GSI; see Appendix G. 3 for GSI details.

		Stikine					
SW	Other	All Tahltan	Tuya	Mainstem	Total	Tahltan Enhance	WildTahltan
25							
26							
27	0.069	0.689	*0.019*	*0.223*	0.931	*0.299*	*0.390*
28	0.366	0.301	0.025	0.308	0.634	0.150	0.150
29	0.291	0.271	0.015	0.422	0.709	0.149	0.122
30	0.159	0.145	0.015	0.681	0.841	0.074	0.071
31	0.361	0.088	0.004	0.546	0.639	0.057	0.031
32	0.718	0.061	*0.019*	*0.202*	0.282	*0.026*	*0.036*
33	0.718	0.061	***0.019***	***0.202***	0.282	*0.026*	*0.036*
34	0.718	0.061	***0.019***	***0.202***	0.282	*0.026*	*0.036*
35	0.718	0.061	***0.019***	***0.202***	0.282	*0.026*	*0.036*
36	0.718	0.061	***0.019***	***0.202***	0.282	***0.026***	***0.036***
37	0.718	0.061	***0.019***	***0.202***	0.282	***0.026***	***0.036***
38	0.718	0.061	***0.019***	***0.202***	0.282	***0.026***	***0.036***
39	0.718	0.061	***0.019***	***0.202***	0.282	***0.026***	***0.036***
Total	0.264	0.322	0.018	0.397	0.736	0.154	0.167
25	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0
27	88	879	25	285	1,188	382	498
28	514	422	35	433	890	211	211
29	345	321	18	500	839	177	144
30	179	163	17	766	946	84	80
31	146	36	2	221	258	23	13
32	152	13	4	43	60	5	8
33	45	4	1	13	18	2	2
34	12	1	0	3	5	0	1
35	22	2	1	6	8	1	1
36	6	1	0	2	3	0	0
37	4	0	0	1	2	0	0
38	1	0	0	0	0	0	0
39	0	0	0	0	0	0	0
Total	1,514	1,843	102	2,272	4,217	885	958

Appendix A. 9. Weekly sockeye salmon harvest and effort in the Canadian commercial and assessment fisheries in the lower Stikine River, 2018.

	LRCF					Telegraph	Drift Net Test		Set Net Test		Commercial	Test
SW	Harvest	Permits	Days	Permit days	URCF	Aboriginal	harvest	# drifts	harvest	hours	License/assessment	Total
19				0.0								0
20				0.0								0
21				0.0								0
22				0.0								0
23				0.0								0
24				0.0								0
25				0.0		1	2	28	8	24		10
26	1,782	9.7	1.8	17.5		18	43	28	164	48		207
27	5,160	11.0	3.0	33.0		1,096	28	28	144	48		172
28	3,905	11.0	2.0	22.0	206	1,571	32	28	237	72		269
29	2,213	11.0	2.0	22.0	32	1,680	33	28	209	64		242
30	2,030	8.7	3.0	26.1	169	986	20	28	178	72		198
31	496	8.0	2.0	16.0		63	22	28	79	48		101
32	600	5.0	2.0	10.0			10	28	29	48		39
33	220	6.0	1.0	6.0			10	28	30	48		40
34	101	7.0	1.0	7.0			5	28	29	48		34
35	202	7.4	7.0	51.8								0
36	177	8.5	6.0	51.0								0
37	29	7	4	28.0								0
38												0
39												0
Total	16,915		34.8	290.4	407	5,415	205	280	1,107	520	0	1,312

Appendix A. 10. Weekly sockeye salmon stock proportions and harvest by stock in the Canadian commercial fishery in the lower Stikine River, 2018.

Estimates were based on GSI and otolith marks

	Porportion					Harvest				
SW	Small Egg	AllTahltan	Tuya	Mainstem	TahltanEnhance	AllTahltan	Tuya	Mainstem	WildTahltan	TahltanEnhance
19						0	0	0	0	0
20						0	0	0	0	0
21						0	0	0	0	0
22						0	0	0	0	0
23						0	0	0	0	0
24						0	0	0	0	0
25						0	0	0	0	0
26	0.925	0.815	0.097	0.088	0.463	1,452	173	157	628	825
27	0.874	0.792	0.044	0.165	0.501	4,085	226	849	1,498	2,587
28	0.901	0.840	0.031	0.129	0.449	3,279	121	505	1,525	1,754
29	0.784	0.532	0.015	0.453	0.403	1,177	33	1,003	286	891
30	0.619	0.347	0.020	0.633	0.371	705	41	1,284	-49	754
31	0.140	0.167	0.000	0.833	0.151	83	0	413	8	75
32	0.252	0.284	0.005	0.711	0.152	171	3	426	80	91
33	0.191	0.200	0.000	0.800	0.064	44	0	176	30	14
34	0.214	0.000	0.010	0.990	0.010	0	1	100	-1	1
35	0.000	0.016	0.000	0.984	0.000	3	0	199	3	0
36	0.000	0.000	0.000	1.000	0.000	0	0	177	0	0
37	0.000	0.000	0.000	1.000	0.000	0	0	29	0	0
Total						10,999	598	5,318	4,007	6,991
Proportion						0.650	0.035	0.314	0.237	0.413

	Harvest/Effort below Porcupine		CPUE						
Week	Sockeye	Permit Day	Total	Small Egg	AllTahltan	Tuya	Mainstem	WildTahltan	TahltanEnhance
19									
20									
21									
22									
23									
24									
25									
26	1,782	17.5	102.062	94.407	83.168	9.903	8.991	35.944	47.224
27	5,160	33.0	156.364	136.594	123.789	6.848	25.726	45.395	78.394
28	3,905	22.0	177.500	159.854	149.058	5.503	22.939	69.335	79.723
29	2,213	22.0	100.591	78.895	53.508	1.501	45.581	13.017	40.491
30	2,030	26.1	77.778	48.148	26.995	1.571	49.212	-1.894	28.889
31	496	16.0	31.000	4.326	5.167	0.000	25.833	0.479	4.688
32	600	10.0	60.000	15.135	17.057	0.300	42.643	7.957	9.100
33	220	6.0	36.667	7.000	7.333	0.000	29.333	5.000	2.333
34	101	7.0	14.429	3.092	0.000	0.143	14.286	-0.143	0.143
35	202	51.8	3.900	0.000	0.062	0.000	3.838	0.062	0.000
36	177	51.0	3.471	0.000	0.000	0.000	3.471	0.000	0.000
37	29	28.0	1.036	0.000	0.000	0.000	1.036	0.000	0.000
Total			764.80	547.45	466.14	25.77	272.89	175.15	290.98
Proportion				0.716	0.609	0.034	0.357	0.229	0.380

Appendix A. 11. Harvest by stock and week for sockeye salmon in the Canadian upper river commercial and Aboriginal fisheries in the Stikine River, 2018.

	Stock				
SW	All Tahltan	Tuya	Mainstem	WildTahltan	TahltanEnhance
Proportion by stock for upper river fisheries					
24				0.000	
25	0.963	0.017	0.020	0.378	0.585
26	0.963	0.017	0.020	0.378	0.585
27	0.963	0.017	0.020	0.378	0.585
28	0.955	0.025	0.020	0.629	0.326
29	0.972	0.008	0.020	0.813	0.159
30	0.972	0.008	0.020	0.905	0.067
31	0.972	0.008	0.020	0.905	0.067
32	1.000			1.000	
33	1.000			1.000	
34	1.000			1.000	
Total					
Harvest by stock for upper river commercial fishery					
27	0	0	0	0	0
28	197	5	4	130	67
29	31	0	1	26	5
30	164	1	3	153	11
31	0	0	0	0	0
32	0	0	0	0	0
Total	392	7	8	309	84
Harvest by stock for Telegraph Aboriginal fishery					
24	0	0	0	0	0
25	1	0	0	0	1
26	17	0	0	7	11
27	1,055	19	22	414	641
28	1,500	39	31	988	512
29	1,633	13	34	1,366	267
30	958	8	20	892	66
31	61	1	1	57	4
32	0	0	0	0	0
33	0	0	0	0	0
34	0	0	0	0	0
35	0	0	0	0	0
Total	5,227	80	108	3,725	1,502

Appendix A. 12. Weekly harvest, CPUE, and migratory timing of Tahltan, Tuya, and mainstem sockeye salmon stocks in the Stikine River test fishery, 2018.

Sex specific age compositions were and the stock composition of the females sampled for egg diameters was expanded to the harvest by age.
If no fishery, a proxy in SW 25-27 was based on the rate of change from the LRCC.

		Proportions				Harvest				CPUE				Migratory Timing		
SW	small egg	AllTahltan	Tuya	Mainstem	TahltanEnhance	AllTahltan	Tuya	Mainstem	TahltanEnhance	AllTahltan	Tuya	Mainstem	Total	AllTahltan	Tuya	Mainstem
Drift gillnet																
25	0.857	1.000	0.000	0.000	0.300	2	0	0	1	0.071	0.000	0.000	0.071	0.010	0.000	0.000
26	0.955	0.716	0.019	0.265	0.524	31	1	11	23	1.100	0.028	0.408	1.536	0.150	0.004	0.056
27	0.940	0.676	0.010	0.314	0.468	19	0	9	13	0.676	0.010	0.314	1.000	0.092	0.001	0.043
28	0.814	0.586	0.007	0.407	0.478	19	0	13	15	0.670	0.009	0.465	1.143	0.091	0.001	0.063
29	0.673	0.549	0.012	0.439	0.354	18	0	14	12	0.647	0.014	0.517	1.179	0.088	0.002	0.071
30	0.447	0.405	0.010	0.585	0.261	8	0	12	5	0.289	0.007	0.418	0.714	0.040	0.001	0.057
31	0.326	0.243	0.010	0.748	0.140	5	0	16	3	0.191	0.008	0.587	0.786	0.026	0.001	0.080
32	0.259	0.098	0.000	0.902	0.081	1	0	9	1	0.035	0.000	0.322	0.357	0.005	0.000	0.044
33	0.048	0.079	0.000	0.921	0.026	1	0	9	0	0.028	0.000	0.329	0.357	0.004	0.000	0.045
34	0.154	0.029	0.000	0.971	0.000	0	0	5	0	0.005	0.000	0.173	0.179	0.001	0.000	0.024
35																
Total						104	2	99	73	3.712	0.076	3.533	7.321			
Proportion						0.507	0.010	0.483						0.507	0.010	0.483
Set gillnet																
25		1.000	0.000	0.000	0.300	8	0	0	2	0.333	0.000	0.000	0.333	0.017	0.000	0.000
26		0.716	0.019	0.265	0.524	117	3	44	86	2.447	0.063	0.907	3.417	0.127	0.003	0.047
27		0.676	0.010	0.314	0.468	97	1	45	67	2.029	0.029	0.943	3.000	0.105	0.001	0.049
28		0.586	0.007	0.407	0.478	139	2	96	113	1.928	0.025	1.339	3.292	0.100	0.001	0.070
29		0.549	0.012	0.439	0.354	115	3	92	74	1.793	0.040	1.432	3.266	0.093	0.002	0.074
30		0.405	0.010	0.585	0.261	72	2	104	47	1.002	0.025	1.445	2.472	0.052	0.001	0.075
31		0.243	0.010	0.748	0.140	19	1	59	11	0.399	0.016	1.230	1.646	0.021	0.001	0.064
32		0.098	0.000	0.902	0.081	3	0	26	2	0.059	0.000	0.545	0.604	0.003	0.000	0.028
33		0.079	0.000	0.921	0.026	2	0	28	1	0.049	0.000	0.576	0.625	0.003	0.000	0.030
34		0.029	0.000	0.971	0.000	1	0	28	0	0.017	0.000	0.587	0.604	0.001	0.000	0.030
35																
Total						574	11	522	404	10.06	0.20	9.00	19.26			
Proportion						0.518	0.010	0.471						0.522	0.010	0.468
Total Test Fishery Harvest																
25		1.000	0.000	0.000	0.300	10	0	0	3							
26		0.716	0.019	0.265	0.524	148	4	55	109							
27		0.676	0.010	0.314	0.468	116	2	54	81							
28		0.586	0.007	0.407	0.478	158	2	109	128							
29		0.549	0.012	0.439	0.354	133	3	106	86							
30		0.405	0.010	0.585	0.261	80	2	116	52							
31		0.243	0.010	0.748	0.140	25	1	76	14							
32		0.098	0.000	0.902	0.081	4	0	35	3							
33		0.079	0.000	0.921	0.026	3	0	37	1							
34		0.029	0.000	0.971	0.000	1	0	33	0							
35		0.000	0.000	0.000	0.000	0	0	0	0							
Total						678	13	621	476							
Proportion						0.517	0.010	0.473	0.363							

AllTahltan harvest		TahltanEnhan	WildTahltn
25	1.000	0.300	0.700
26	0.716	0.524	0.192
27	0.676	0.468	0.208
28	0.586	0.478	0.108
29	0.549	0.354	0.195
30	0.405	0.261	0.144
31	0.243	0.140	0.103
32	0.098	0.081	0.016
33	0.079	0.026	0.053
34	0.000	0.000	0.000
35	0.000	0.000	0.000

Appendix A. 14. Weekly coho salmon harvest in the Alaskan District 106 and 108 fisheries, 2018.

	D106					D108			Subsistence
SW	Hatchery	Wild	Total	106-41/42	106-30	Hatchery	Wild	Total	harvest
25	79	201	280	221	59			0	0
26	396	1,511	1,907	828	1,079			0	0
27	680	1,702	2,382	1,167	1,215	0	64	64	4
28	978	2,654	3,632	2,072	1,560	0	260	260	0
29	955	1,080	2,035	1,150	885	7	151	158	8
30	523	1,996	2,519	877	1,642	0	171	171	4
31	437	4,673	5,110	2,431	2,679	48	260	308	0
32	828	8,612	9,440	5,690	3,750	116	1,104	1,220	0
33	1,300	7,490	8,790	5,254	3,536	170	646	816	10
34	1,508	7,274	8,782	4,740	4,042	579	358	937	0
35	3,172	10,426	13,598	5,771	7,827	56	943	999	13
36	10,768	15,691	26,459	11,045	15,414	683	949	1,632	6
37	10,228	10,132	20,360	6,043	14,317	909	788	1,697	0
38	2,282	3,518	5,800	1,847	3,953	302	182	484	8
39	122	784	906	116	790	0	77	77	1
40			0					0	3
41			0					0	0
Total	34,256	77,744	112,000	49,252	62,748	2,870	5,953	8,823	57

Appendix A. 15. Weekly harvest of coho salmon in the Canadian lower river commercial fishery and test fisheries 2018.

		Test			
SW	LRCF	Drift	Set	Additional	Total
19					
20					
21					
22					
23					
24					
25		0	0		
26		0	0		0
27		0	0		0
28		0	0		0
29	2	0	0		2
30	16	0	0		16
31	6	1	5		12
32	24	2	9		35
33	81	14	26		121
34	232	15	46		293
35	1,361				1,361
36	1,482				1,482
37	481				481
38					
39					
40					
41					
42					
Total	3,685	32	86	0	3,803

Appendix A. 16. Weekly salmon effort in the Alaskan District 106 and 108 fisheries, 2018.

Effort may be less than the sum of effort from 106-41&42 and 106-30 because some boats fished in more than one subdistrict.

		D106			106-41/42			106-30			D108		
SW	Start Date	Permits	Days	Permit Days	Permits	Days	Permit Days	Permits	Days	Permit Days	Permits	Days	Permit Days
25	16-Jun	52	2.0	104	36	2.0	72	17	2.0	34			
26	23-Jun	44	3.0	132	19	3.0	57	26	3.0	78			
27	30-Jun	37	3.0	111	12	3.0	36	25	3.0	75	16	3.0	48
28	7-Jul	38	3.0	114	19	3.0	57	19	3.0	57	35	4.0	111
29	14-Jul	42	2.0	84	22	2.0	44	20	2.0	40	58	4.0	156
30	21-Jul	69	2.0	138	25	2.0	50	46	2.0	92	78	3.0	172
31	28-Jul	87	2.0	174	42	2.0	84	50	2.0	100	48	2.0	96
32	4-Aug	74	3.0	222	39	3.0	117	35	3.0	105	54	3.0	162
33	11-Aug	72	3.0	216	37	3.0	111	36	3.0	108	38	3.0	114
34	18-Aug	72	3.0	216	42	3.0	126	32	3.0	96	16	3.0	48
35	25-Aug	82	3.0	246	38	3.0	114	45	3.0	135	11	3.0	33
36	1-Sep	95	3.0	285	45	3.0	135	53	3.0	159	13	3.0	39
37	8-Sep	99	4.0	396	41	4.0	164	62	4.0	248	12	4.0	48
38	15-Sep	63	3.0	189	23	3.0	69	41	3.0	123	11	3.0	33
39	22-Sep	18	2.0	36	3	2.0	6	15	2.0	30	2	2.0	4
40	29-Sep			0			0			0			
41	6-Oct			0			0			0			
Total			41	2,663		41	1,242		41	1,480		40	1,064

Appendix A. 17. Weekly salmon effort in the Canadian fisheries in the Stikine River, 2018.

		Commercial license			Test fishery			LRCF			URCF			Telegraph Aboriginal			Test	
SW	Start Date	Permits	Days	Permit Days	Permits	Days	Permit Days	Permits	Days	Permit Days	Permits	Days	Permit Days	# Drifts	Set hours
19	5-May																	
20	12-May																	
21	19-May																	
22	26-May																	
23	2-Jun																	
24	9-Jun																	
25	16-Jun													1	3.0	2	28	24.0
26	23-Jun							9.70	1.8	17		1.0		4	7.0	29	28	48.0
27	30-Jun							11.00	3.0	33		1.0		13	7.0	88	28	48.0
28	7-Jul							11.00	2.0	22	1.0	2.0	2	21.3	7.0	149	28	72.0
29	14-Jul							11.00	2.0	22	1.0	2.0	2	19.4	7.0	136	28	64.0
30	21-Jul							8.70	3.0	26	3.0	2.0		18.4	7.0	129	28	72.0
31	28-Jul							8.00	2.0	16				7.0	1.0	7	28	48.0
32	4-Aug							5.00	2.0	10							28	48.0
33	11-Aug							6.00	1.0	6							28	48.0
34	18-Aug							7.00	1.0	7							28	48.0
35	25-Aug							7.40	7.0	52								
36	1-Sep							8.50	6.0	51								
37	8-Sep							7.00	4.0	28								
38	15-Sep																	
39	22-Sep																	
40	29-Sep																	
41	6-Oct																	
42	13-Oct																	
Total			0.0	0.0		34.8	290.4		8.0	4.0		39.0	539.8	280.0	520.0

Appendix A. 19. Daily counts of adult sockeye salmon passing through Tahltan Lake weir, 2018.

Exvacuated due to fires (ND=No data)

		Cumulative				Cumulative	
Date	Count [a]	Count	Percent	Date	Count	Count	Percent
7-Jul	weir in			13-Aug	5	9,391	
8-Jul	0	0		14-Aug	149	9,540	
9-Jul	0	0		15-Aug	278	9,818	
10-Jul	0	0		16-Aug	0	9,818	
11-Jul	0	0		17-Aug	36	9,854	
12-Jul	0	0		18-Aug	ND		
13-Jul	0	0		19-Aug	ND		
14-Jul	0	0		20-Aug	ND		
15-Jul	258	258		21-Aug	ND		
16-Jul	1,055	1,313		22-Aug	ND		
17-Jul	397	1,710		23-Aug	ND		
18-Jul	198	1,908		24-Aug	ND		
19-Jul	0	1,908		25-Aug	ND		
20-Jul	252	2,160		26-Aug	ND		
21-Jul	162	2,322		27-Aug	ND		
22-Jul	462	2,784		28-Aug	ND		
23-Jul	621	3,405		29-Aug	ND		
24-Jul	291	3,696		30-Aug	ND		
25-Jul	2,076	5,772		31-Aug	ND		
26-Jul	870	6,642		1-Sep	ND		
27-Jul	724	7,366		2-Sep	ND		
28-Jul	569	7,935		3-Sep	ND		
29-Jul	305	8,240		4-Sep	ND		
30-Jul	392	8,632		5-Sep	ND		
31-Jul	208	8,840		6-Sep	ND		
1-Aug	120	8,960		7-Sep	ND		
2-Aug	416	9,376		8-Sep	ND		
3-Aug	0	9,376		9-Sep			
4-Aug	7	9,383		10-Sep			
5-Aug	3	9,386		11-Sep			
6-Aug	ND			12-Sep			
7-Aug	ND			13-Sep			
8-Aug	ND			14-Sep			
9-Aug	ND			15-Sep			
10-Aug	ND			16-Sep			
11-Aug	ND			17-Sep			
12-Aug	ND			18-Sep			

	% enhanced	Enhanced	Wild	Total
Total Counted		4,910	4,944	9,854
Fish removed for broodstock	0.498	936	942	1,878
Fish removed for otolith samples	0.611	127	80	207
Total Spawners		3,847	3,922	

Appendix A. 20. Daily counts of sockeye salmon smolt migrating through Tahltan Lake smolt weir, 2018.

		Cumulative				Cumulative	
Date	Count	Count	Percent	Date	Count	Count	Percent
4-May	Wier in						
5-May	0	0	0.00%				
6-May	0	0	0.00%	2-Jun	30,248	809,555	79.76%
7-May	2	2	0.00%	3-Jun	80,852	890,407	87.73%
8-May	25	27	0.00%	4-Jun	2,871	893,278	88.01%
9-May	249	276	0.03%	5-Jun	65,522	958,800	94.47%
10-May	63	339	0.03%	6-Jun	13,342	972,142	95.78%
11-May	1,499	1,838	0.18%	7-Jun	11,333	983,475	96.90%
12-May	24,702	26,540	2.61%	8-Jun	12,692	996,167	98.15%
13-May	3,053	29,593	2.92%	9-Jun	10,775	1,006,942	99.21%
14-May	1,558	31,151	3.07%	10-Jun	7,135	1,014,077	99.91%
15-May	8,998	40,149	3.96%	11-Jun	898	1,014,975	100.00%
16-May	117	40,266	3.97%	11-Jun	weir pulled		
17-May	9,550	49,816	4.91%				
18-May	19,458	69,274	6.83%				
19-May	9,448	78,722	7.76%				
20-May	68,342	147,064	14.49%				
21-May	140,467	287,531	28.33%				
22-May	166,423	453,954	44.73%				
23-May	27,572	481,526	47.44%	enhanced	wild		
24-May	153,521	635,047	62.57%	0.627	0.373		
25-May	63,379	698,426	68.81%				
26-May	33,483	731,909	72.11%				
27-May	7,469	739,378	72.85%				
28-May	3,590	742,968	73.20%				
29-May	14,716	757,684	74.65%				
30-May	8,141	765,825	75.45%				
31-May	328	766,153	75.48%	Wild	378,733		
1-Jun	13,154	779,307	76.78%	Hatchery	636,242		
Total					1,014,975		

Appendix A. 21. Daily counts of adult Chinook salmon passing through Little Tahltan weir, 2018.

	Large Chinook			nonlarge Chinook		
		Cumulative			Cumulative	
Date	Count	Count	Percent	Count	Count	Percent
23-Jun						
23-Jun					0	0.00%
24-Jun	weir in				0	0.00%
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%
1-Jul	0	0	0.00%	1	1	0.24%
2-Jul	2	2	0.44%	0	1	0.24%
3-Jul	1	3	0.66%	0	1	0.24%
4-Jul	1	4	0.88%	0	1	0.24%
5-Jul	9	13	2.87%	6	7	1.69%
6-Jul	1	14	3.09%	4	11	2.66%
7-Jul	2	16	3.53%	5	16	3.87%
8-Jul	2	18	3.97%	2	18	4.36%
9-Jul	8	26	5.74%	4	22	5.33%
10-Jul	9	35	7.73%	11	33	7.99%
11-Jul	16	51	11.26%	8	41	9.93%
12-Jul	2	53	11.70%	3	44	10.65%
13-Jul	5	58	12.80%	3	47	11.38%
14-Jul	3	61	13.47%	6	53	12.83%
15-Jul	3	64	14.13%	2	55	13.32%
16-Jul	4	68	15.01%	5	60	14.53%
17-Jul	0	68	15.01%	2	62	15.01%
18-Jul	45	113	24.94%	7	69	16.71%
19-Jul	12	125	27.59%	8	77	18.64%
20-Jul	5	130	28.70%	8	85	20.58%
21-Jul	32	162	35.76%	21	106	25.67%
22-Jul	39	201	44.37%	31	137	33.17%
23-Jul	24	225	49.67%	11	148	35.84%
24-Jul	29	254	56.07%	17	165	39.95%
25-Jul	18	272	60.04%	16	181	43.83%
26-Jul	12	284	62.69%	12	193	46.73%
27-Jul	18	302	66.67%	17	210	50.85%
28-Jul	41	343	75.72%	53	263	63.68%
29-Jul	12	355	78.37%	19	282	68.28%
30-Jul	10	365	80.57%	17	299	72.40%
31-Jul	9	374	82.56%	14	313	75.79%
1-Aug	32	406	89.62%	24	337	81.60%
2-Aug	7	413	91.17%	20	357	86.44%
3-Aug	1	414	91.39%	7	364	88.14%
4-Aug	36	450	99.34%	38	402	97.34%
5-Aug	3	453	100.00%	11	413	100.00%
6-Aug	camera out-weir opened					

15-Sep	weir out					
Total Counted		453			413	
Broodstock		0			0	
Escapement		453			413	

Appendix B. 1. Historic salmon harvest and effort in the Alaskan District 106 commercial gillnet fishery, 1960–2018.

	Harvest							Effort
							Days	Permit
Year	Chinook	Sockeye	Coho	Pink	Chum	Boats	Open	Days
1960	46	10,354	336	1,246	502			
1961	416	20,614	14,934	124,236	64,479			
1962	1,308	47,033	42,276	256,620	59,119			
1963	1,560	80,767	52,103	514,596	90,103			
1964	2,082	76,541	64,654	443,086	44,218			
1965	1,802	87,749	75,728	625,848	27,658			
1966	1,665	89,847	62,823	400,932	40,756			
1967	1,318	86,385	17,670	91,609	26,370			
1968	1,316	64,671	67,151	169,107	61,366			
1969	877	70,484	10,305	198,785	10,930	127	31.0	2,111
1970	782	42,809	35,188	95,173	32,245	113	41.0	1,863
1971	1,336	53,262	48,085	528,737	37,682	166	50.0	2,773
1972	2,548	101,958	92,283	89,510	72,389	204	42.0	3,320
1973	1,961	72,025	38,447	304,536	87,704	245	26.0	3,299
1974	1,929	57,498	45,595	104,596	50,402	272	28.0	2,178
1975	2,587	32,099	30,962	203,031	24,047	168	17.0	1,648
1976	386	15,493	19,126	139,641	6,868	135	22.0	827
1977	671	67,394	8,389	422,955	13,311	168	28.0	1,381
1978	2,682	41,574	55,578	224,715	16,545	158	26.5	1,509
1979	2,720	66,373	31,454	648,212	35,507	238	25.0	2,702
1980	580	107,422	16,666	45,662	26,291	169	25.0	1,324
1981	1,565	182,001	22,614	437,573	34,296	221	26.0	2,925
1982	1,648	193,801	31,584	25,533	18,646	174	23.0	1,699
1983	567	48,842	62,442	208,290	20,144	140	32.0	1,452
1984	892	91,653	41,359	343,255	70,303	152	32.0	1,814
1985	1,687	264,987	91,188	584,953	69,673	186	32.0	2,672
1986	1,704	145,709	194,912	308,484	82,289	237	32.0	3,509
1987	836	136,427	34,534	243,482	42,025	199	20.0	1,766
1988	1,104	92,529	13,103	69,559	69,620	196	19.0	1,494
1989	1,544	192,734	92,385	1,101,194	67,351	185	34.0	3,221
1990	2,108	185,805	164,235	319,186	73,232	219	34.0	3,501
1991	2,055	144,104	198,160	133,566	124,630	213	39.0	3,620
1992	1,355	203,155	298,935	94,248	140,468	206	40.0	4,229
1993	992	205,955	231,038	537,960	134,601	239	38.0	4,352
1994	754	211,048	267,862	179,994	176,026	230	43.0	4,467
1995	951	207,298	170,561	448,163	300,078	187	34.0	3,656
1996	644	311,100	223,640	188,035	283,290	212	46.0	5,289
1997	1,075	168,518	77,550	789,051	186,456	202	39.0	3,667
1998	518	113,435	273,197	502,655	332,022	184	43.0	4,397
1999	518	104,835	203,301	491,179	448,409	199	49.0	4,854
2000	1,220	90,076	96,207	156,619	199,836	168	33.0	2,408
2001	1,138	164,013	188,465	825,447	283,462	183	50.0	3,853
2002	446	56,135	226,560	82,951	112,541	154	47.0	2,683
2003	422	116,904	212,057	470,697	300,253	157	59.0	3,803
2004	2,735	116,259	138,631	245,237	110,574	151	55.0	2,735
2005	1,572	110,192	114,440	461,187	198,564	152	53.0	2,963
2006	1,948	91,980	69,015	149,907	268,436	143	45.0	2,035
2007	2,144	92,481	80,573	383,355	297,998	153	49.0	2,740
2008	1,619	30,533	116,074	90,217	102,156	144	46.0	2,195
2009	2,138	111,984	144,569	143,589	287,707	170	45.0	3,252
2010	2,473	112,450	225,550	309,795	97,948	180	47.0	3,161
2011	3,008	146,069	117,860	337,169	158,096	164	41.0	2,647
2012	1,853	45,466	121,418	129,646	104,307	133	40.0	1,929
2013	2,202	49,223	160,659	474,551	94,260	146	62.0	3,276
2014	2,092	58,430	286,815	415,392	106,243	143	58.0	3,280
2015	2,723	121,921	112,561	224,816	232,390	130	47.0	2,402
2016	2,094	106,649	122,101	358,309	130,236	138	47.0	2,642
2017	1,521	45,005	49,382	302,033	234,349	149	41.0	2,263
2018	3,247	25,203	112,000	348,277	176,392	151	41.0	2,663
60-17	1,490	106,242	105,264	313,795	117,610	178	38	2,812
08-17	2,172	82,773	145,699	278,552	154,769	150	47	2,705

Appendix B. 2 Historic salmon harvest and effort in the Alaskan District 108 commercial gillnet fishery, 1962–2018.

	Harvest					Effort		
Year	Chinook	Sockeye	Coho	Pink	Chum	Boats	Days Open	Permit Days
1962	618	4,430	3,921	2,889	2,035			
1963	1,431	9,979	11,612	10,198	11,024			
1964	2,911	20,299	29,388	114,555	10,771			
1965	3,106	21,419	8,301	4,729	2,480			
1966	4,516	36,710	16,493	61,908	17,730			
1967	6,372	29,226	6,747	4,713	5,955			
1968	4,604	14,594	36,407	91,028	14,537			
1969	5,021	19,211	5,791	11,962	2,318	85	55	1,084
1970	3,199	15,121	18,529	20,523	12,304	94	54	1,222
1971	3,717	18,143	14,876	22,216	4,665	85	57	1,061
1972	9,342	51,725	38,440	17,197	17,442	146	64	2,094
1973	9,254	21,393	5,837	6,585	6,680	155	39	1,519
1974	8,199	2,428	16,021	4,188	2,107	140	31	1,240
1975	1,529	0	0	0	1	58	8	257
1976	1,123	18	6,074	722	124	70	20	372
1977	1,443	48,385	14,424	16,318	4,233	106	23	742
1978	531	56	32,650	1,157	1,001	112	12	565
1979	91	2,158	234	13,478	1,064	25	5	94
1980	631	14,053	2,946	7,224	6,910	62	22	327
1981	283	8,833	1,403	1,466	3,594	53	11	217
1982	1,052	7,136	20,003	16,174	734	96	21	494
1983	47	178	15,369	4,171	675	45	17	260
1984	14	1,290	5,141	4,960	1,892	15	16	88
1985	20	1,060	1,926	5,325	1,892	17	13	45
1986	102	4,185	7,439	4,901	5,928	48	25	216
1987	149	1,620	1,015	3,331	949	25	13	81
1988	206	1,246	12	144	3,109	21	8	60
1989	310	10,083	4,261	27,640	3,375	46	29	223
1990	557	11,574	8,218	13,822	9,382	55	34	359
1991	1,366	17,987	15,629	6,406	5,977	117	49	636
1992	967	52,717	22,127	66,742	15,458	135	51	1,247
1993	1,628	76,874	14,307	39,661	22,504	157	48	1,569
1994	1,996	97,224	44,891	35,405	27,658	179	58	2,198
1995	1,702	76,756	17,834	37,788	54,296	158	50	1,768
1996	1,717	154,150	19,059	37,651	135,623	190	57	2,393
1997	2,566	93,039	2,140	65,745	38,913	173	44	1,808
1998	460	22,031	19,206	39,246	41,057	119	45	947
1999	1,049	36,601	28,437	48,552	117,196	150	54	1,675
2000	1,671	15,833	5,651	9,497	40,337	100	35	606
2001	7	610	10,731	11,012	5,397	59	34	377
2002	25	208	21,131	4,578	2,017	42	30	323
2003	312	42,158	38,795	76,113	51,701	100	56	1,270
2004	7,410	103,392	26,617	20,439	37,996	124	53	1,830
2005	26,970	99,465	42,203	106,395	150,121	161	78	4,239
2006	30,033	61,298	34,430	56,810	343,827	160	64	3,437
2007	17,463	70,580	19,880	39,872	177,573	147	56	2,586
2008	14,599	35,679	34,479	18,105	81,876	171	58	2,895
2009	2,830	36,680	30,860	27,010	190,800	151	47	1,932
2010	2,359	32,737	42,772	58,610	51,005	146	45	1,382
2011	5,321	51,478	20,720	65,022	142,526	150	41	1,671
2012	8,027	21,997	20,100	16,374	240,569	128	43	1,642
2013	10,817	20,609	43,669	116,026	103,365	127	60	2,334
2014	8,023	19,808	30,184	33,830	84,771	107	62	1,501
2015	13,845	22,896	30,153	35,926	166,009	124	50	1,992
2016	10,024	70,143	22,146	35,250	200,653	141	58	2,342
2017	3,817	14,282	13,592	49,027	177,119	122	43	1,382
2018	2,649	5,731	8,823	15,643	133,812	103	40	1,064
60-17	4,418	30,782	17,950	29,475	51,094	106	40	1,237
08-17	7,966	32,631	28,868	45,518	143,869	137	51	1,907

Appendix B. 3. District 108 total Chinook salmon estimates in the US gillnet, troll, recreational, and subsistence fisheries, 2005–2018.

See Appendix B4 for estimates of large Stikine fish.

	Subsistence		Sport		Drift Gillnet			Troll	
Year	Large	nonlarge	Large	Large non-Stikine	Large	Large non-Stikine	nonlarge	Large	Large non-Stikine
2005	15	8	3,242	240	23,932	1,690	2,636	5,014	684
2006	37	17	4,058	1,028	26,864	4,717	2,951	2,915	1,021
2007	28	15	3,881	608	14,421	4,716	2,787	2,459	646
2008	26	6	1,984	632	12,682	5,667	1,673	1,742	131
2009	31	19	907	146	1,901	1,264	601	312	519
2010	53	18	1,072	107	1,107	759	978	946	519
2011	61	20	1,273	210	2,801	1,690	1,831	631	168
2012	46	20	1,396	286	4,884	2,869	2,825	859	353
2013	41	36	1,297	125	6,676	4,503	3,733	680	246
2014	44	28	1,968	352	4,753	4,616	2,704	1,585	908
2015	34	19	1,739	693	8,020	8,361	4,640	684	340
2016	20	26	1,442	227	4,824	4,126	4,232	1,028	460
2017	14	43	656	406	2,221	2,149	1,107	115	80
2018	22	66	12	0	852	738	1,313	0	0
Averages									
08-17	37	24	1,373	318	4,987	3,600	2,432	858	372

Appendix B. 4. Annual estimates of Stikine River large Chinook salmon in the U.S. gillnet, troll, recreational, and subsistence and estimates of Stikine River bound Chinook salmon in District 108, 2005–2018.

GSI used for sport and gillnet. Troll is based on GSI 2005-2008 and CWT 2009-present.
For detailed GSI stock comp estimates see Appendix G. 5.

		D108 Large Stikine Chinook			Total Large
Year	Subsistence	Sport	Gillnet	Troll	Stikine Chinook
2010		0.546	0.215		
2011		0.509	0.346		
2012		0.423	0.248		
2013		0.490	0.068		
2014		0.354	0.043		
2015		0.449	0.047		
2016		0.304	0.220		
2017		0.212	0.008		
2018		CWT estimate	0.006		
Average 10-17		0.411	0.149		
2005	15	3,665	21,233	2,969	27,882
2006	37	3,346	17,259	1,418	22,060
2007	36	2,218	7,057	1,574	10,885
2008	26	1,453	4,905	951	7,335
2009	31	887	244	188	1,350
2010	53	586	238	427	1,303
2011	61	648	970	463	2,142
2012	46	591	1,209	506	2,353
2013	41	636	455	434	1,566
2014	44	697	204	677	1,622
2015	34	781	379	306	1,500
2016	20	438	1,060	190	1,707
2017	14	139	19	35	207
2018	22	**12**	5	0	39

Appendix B. 5. Chinook salmon harvest in the Alaskan District 106 and 108 test fisheries, 1984–2018.

Table only includes years when test fisheries were operated.

	Large Chinook			
Year	Total 106	106-41/42	106-30	108
1984	13	13		37
1985	16	16		33
1986	47	23	24	79
1987	25	24	1	30
1988	21	11	10	65
1989	15	11	4	15
1990	13	13		19
1991				21
1992				26
1993				30
1994	0	0		

1998				0
1999				29
2000				21

2009				113

Appendix B. 6. Chinook salmon catch and harvest in the Canadian commercial and recreational fisheries in the Stikine River, 1979–2018.

	LRCF						URCF		Telegraph Aboriginal		Tahltan sport fishery		Total			
			Large		NonLarge								Large Fish		Nonlarge Fish	
Year	Large	Nonlarge	Released	mortality	Released	mortality	Large	Nonlarge	Large	Nonlarge	Large	Nonlarge	Harvest	Mortality	Harvest	Mortality
1972													0	0	0	0
1973									200				200	0	0	0
1974									100				100	0	0	0
1975							178		1,024				1,202	0	0	0
1976							236		924				1,160	0	0	0
1977							62		100				162	0	0	0
1978							100		400				500	0	0	0
1979[b]	712	63							850		74	10	1,636	0	73	0
1980	1,488						156		587		136	18	2,367	0	18	0
1981	664						154		586		213	28	1,617	0	28	0
1982	1,693						76		618		181	24	2,568	0	24	0
1983	492	430					75		851	215	38	5	1,456	0	650	0
1984[c]									643	59	83	11	726	0	70	0
1985	256	91					62		793	94	92	12	1,203	0	197	0
1986	806	365					104	41	1,026	569	93	12	2,029	0	987	0
1987	909	242					109	19	1,183	183	138	18	2,339	0	462	0
1988	1,007	201					175	46	1,178	197	204	27	2,564	0	471	0
1989	1,537	157					54	17	1,078	115	132	18	2,801	0	307	0
1990	1,569	680					48	20	633	259	129	17	2,379	0	976	0
1991	641	318					117	32	753	310	129	17	1,640	0	677	0
1992	873	89					56	19	911	131	181	24	2,021	0	263	0
1993	830	164					44	2	929	142	386	52	2,189	0	360	0
1994	1,016	158					76	1	698	191	218	29	2,008	0	379	0
1995	1,067	599					9	17	570	244	107	14	1,753	0	874	0
1996	1,708	221					41	44	722	156	162	22	2,633	0	443	0
1997	3,283	186					45	6	1,155	94	188	25	4,671	0	311	0
1998	1,614	328					12	0	538	95	165	22	2,329	0	445	0
1999	2,127	789					24	12	765	463	166	22	3,082	0	1,286	0
2000	1,970	240					7	2	1,109	386	226	30	3,312	0	658	0
2001	826	59					0	0	665	44	190	12	1,681	0	115	0
2002	433	209					2	3	927	366	420	46	1,782	0	624	0
2003	695	672					19	12	682	373	167	46	1,563	0	1,103	0
2004	2,481	2,070					0	1	1,425	497	91	18	3,997	0	2,586	0
2005	19,070	1,181					28	1	800	94	118		20,016	0	1,276	0
2006	15,098	1,955					22	1	616	122	40		15,776	0	2,078	0
2007	10,131	1,469					10	25	364	233	0		10,505	0	1,727	0
2008	7,051	908					40	9	769	150	46		7,906	0	1,067	0
2009	1,587	498	339	170	153	77	11	26	496	136	20		2,114	170	660	77
2010	1,209	698	64	32	56	28	16	48	512	232	50		1,787	32	978	28
2011	1,737	1,260	58	29	100	50	2	14	515	218	53	23	2,307	29	1,515	50
2012	4,054	1,043	10	5	53	27	6	0	513	170	64		4,637	5	1,213	27
2013	1,086	815	1	1	37	19	8	0	809	508	50		1,953	1	1,323	19
2014	896	511	15	8	8	4	0	0	1,020	103	50	0	1,966	8	614	4
2015	3,134	1,339	0	0	0	0	1	0	1,022	198	76	25	4,233	0	1,562	0
2016	2,116	655	0	0	0	0	0	0	615	139	0	0	2,731	0	794	0
2017	312	610	258	129	9	5	0	0	281	178	0	0	593	129	788	5
2018	0	0	476	238	636	318	0	0	165	456	0	0	165	238	456	318
Averages																
85-17	2,822	630					35	13	790	224	126		3,773		882	
08-17	2,318	834					8	10	655	203	41		3,023	37	1,051	21

Appendix B. 7. Chinook salmon catch and harvest in inriver test fisheries in the Stikine River, 1985–2018.

	Total Test														Total			
	Drift		Set		Additional drift		Released		stimated mortality (50%		Commercial license		Tuya		Large Fish		Nonlarge Fish	
Year	Large	Nonlarge	Large	Nonlarge	Large	Nonlarge	Large	Nonlarge	Large	Nonlarge	Large	Nonlarge	Large	Nonlarge	Catch/harvest	Mortality	Catch/harvest	Mortality
1985															0	0	0	0
1986	27	12													27	0	12	0
1987	128		61												189	0	0	0
1988	168	14	101	15											269	0	29	0
1989	116	4	101	20											217	0	24	0
1990	167	6	64	12											231	0	18	0
1991	90	1	77	15											167	0	16	0
1992	135	27	62	21	417	134									614	0	182	0
1993	94	11	85	11	389	65									568	0	87	0
1994	43	4	74	34	178	40									295	0	78	0
1995	18	13	61	35	169	136									248	0	184	0
1996	42	5	64	40	192	31									298	0	76	0
1997	30	7													30	0	7	0
1998	25	11													25	0	11	0
1999	53	43	49	16	751	38									853	0	97	0
2000	59	4	87	0	787	14									933	0	18	0
2001	128	3	56	7	1,652	49									1,836	0	59	0
2002	63	50	48	56	1,545	217									1,656	0	323	0
2003	64	62	14	91	1,225	617									1,303	0	770	0
2004	29	41	22	39	0	0									51	0	80	0
2005	14	8	19	13	0	0									33	0	21	0
2006	0	0	0	0	0	0									0	0	0	0
2007	2	0	3	0	0	0									5	0	0	0
2008	7	2	6	8	0	0							13		26	0	10	0
2009	3	0	0	0	0	0							29		32	0	0	0
2010	2	0	3	1	0	0					1,364	140	8	8	1,377	0	149	0
2011	22	28	0	1	0	0					799	219	13	6	834	0	254	0
2012	54	31	8	8	0	0					467	49	44	5	573	0	93	0
2013	6	4	4	8	0	0					1,406	268	1	19	1,417	0	299	0
2014	18	12	5	6	0	0					1,319	127	19	5	1,361	0	150	0
2015	22	23	3	36	0	0					0	0			25	0	59	0
2016	16	12	5	4	0	0					483	39			504	0	55	0
2017	7	13	3	10	0	0					0	0			10	0	23	0
2018	0	0	0	0	0	0	21	37	11	19	0	0			0	11	0	19
Averages																		
85-17	52	15	37	18	304	56									500		100	
08-17	16	13	4	8	0	0									616		109	

Appendix B. 8. Index counts of Stikine River large Chinook salmon escapements, 1979–2018.

Inriver run and escapement generated from mark-recapture studies, inriver and marine harvest as reported in ADF&G fisheries data series reports
Total run from jointly accepted US and Canadian harvest estimates. Terminal run includes only harvest in the Stikine River and District 108.

	Above border run		Canadian	Inriver		U.S.	Terminal	% to	Little Tahltan		Tahltan	Beatty	Andrew	Andrew
Year	ark-recapt	Telemetry	harvest	leased mortalit	Escapement	harvest	Run	ittle Tahltar	Weir	Aerial	Aerial	Aerial	Creek	Comments
1979										1,166	2,118		327	Weir inc. broodstock
1980										2,137	960	122	282	Weir inc. broodstock
1981										3,334	1,852	558	536	Weir inc. broodstock
1982										2,830	1,690	567	672	Weir inc. broodstock
1983										594	453	83	366	Weir inc. broodstock
1984										1,294		126	389	Weir inc. broodstock
1985									3,114	1,598	1,490	147	624	Foot
1986									2,891	1,201	1,400	183	1,381	Foot
1987									4,783	2,706	1,390	312	1,537	Heli
1988									7,292	3,796	4,384	593	1,100	Foot
1989									4,715	2,527		362	1,034	Aerial
1990									4,392	1,755	2,134	271	1,295	Foot
1991									4,506	1,768	2,445	193	780	Aerial
1992									6,627	3,607	1,891	362	1,517	Heli
1993									11,437	4,010	2,249	757	2,067	Foot
1994									6,373	2,422		184	1,115	Heli
1995									3,072	1,117	696	152	669	Foot
1996	31,718		2,931	0	28,787			0.167	4,821	1,920	772	218	653	Heli
1997	31,509		4,701	0	26,808			0.207	5,547	1,907	260	218	571	Foot
1998	28,133		2,354	0	25,779			0.189	4,873	1,385	587	125	950	Foot
1999	23,716		3,935	0	19,781			0.239	4,733	1,379			1,180	Aerial
2000	30,301		4,245	0	26,056			0.254	6,631	2,720			1,346	Aerial
2001	66,646		3,517	0	63,129			0.154	9,730	4,258			2,055	Aerial
2002	53,893		3,438	0	50,455	3,587	57,480	0.148	7,476	Missed peak survey time due to			1,708	Aerial
2003	49,881		2,866	0	47,015	3,895	53,776	0.138	6,492	1,903			1,160	Foot
2004	52,538		4,048	0	48,490	9,599	62,137	0.338	16,381	6,014			2,991	Foot
2005	59,885		20,049	0	39,836	27,882	87,767	0.182	7,253				1,979	Foot
2006	40,181		15,776	0	24,405	22,060	62,241	0.158	3,860				2,124	Foot
2007	25,069		10,510	0	14,559	10,885	35,954	0.039	562				1,736	Aerial
2008	26,284		7,932	0	18,352	7,335	33,619	0.145	2,663				981	Heli
2009	15,118		2,146	170	12,803	1,350	16,468	0.175	2,245				628	Aerial
2010	18,312		3,164	32	15,116	1,303	19,615	0.070	1,057				1,205	Heli
2011	17,652		3,141	29	14,482	2,142	19,794	0.073	1,058				936	Foot
2012	27,542		5,210	5	22,327	2,353	29,895	0.032	720				587	Heli
2013	20,154		3,370	1	16,784	1,566	21,720	0.052	878				920	Foot
2014[a]	27,701		3,327	8	24,367	1,622	29,323	0.007	169	121	514	15	1,261	Foot
2015	25,855		4,258	0	21,597	1,500	27,355	0.021	450	179	53	30	796	Foot
2016	13,789		3,235	0	10,554	1,707	15,496	0.087	921	107	95	25	402	Foot
2017	7,938		603	129	7,206	207	8,145	0.059	428				349	Foot
2018		8,768	165	249	8,355	39	8,807	0.054	453	16		17	482	Foot
Averages														
08-17	20,035		3,639	37	16,359	2,108	22,143	0	1,059				807	

[a]escapement includes an estimate of mortality that occurred at the Tahltan landslide: (24,459*0.5335(prop. Tahltan Chinook)*0.70(mortality at landslide)=9,134

Appendix B. 9. General stock proportions and harvest of sockeye salmon in the Alaskan commercial gillnet fishery; District 106 & 108, 1982–2018.

Estimates based on SPA 1982-2011; GSI 2012 to present.

	D106		D106-41/42		D106-30		D108	
Year	Other	Total Stikine	Other	Total Stikine	Other	Total Stikine	Other	Total Stikine
1982	0.806	0.194						
1983	0.884	0.116						
1984	0.926	0.074						
1985	0.898	0.102	0.881	0.119	0.930	0.070	0.064	0.936
1986	0.982	0.018	0.970	0.030	0.998	0.002	0.223	0.777
1987	0.983	0.017	0.982	0.018	0.984	0.016	0.125	0.875
1988	0.980	0.020	0.980	0.020	0.979	0.021	0.251	0.749
1989	0.968	0.032	0.956	0.044	0.984	0.016	0.171	0.829
1990	0.979	0.021	0.974	0.026	0.985	0.015	0.523	0.477
1991	0.876	0.124	0.837	0.163	0.940	0.060	0.291	0.709
1992	0.828	0.172	0.823	0.177	0.841	0.159	0.214	0.786
1993	0.738	0.262	0.696	0.304	0.808	0.192	0.345	0.655
1994	0.833	0.167	0.802	0.198	0.925	0.075	0.534	0.466
1995	0.876	0.124	0.851	0.149	0.921	0.079	0.339	0.661
1996	0.799	0.201	0.724	0.276	0.990	0.010	0.184	0.816
1997	0.847	0.153	0.807	0.193	0.944	0.056	0.188	0.812
1998	0.905	0.095	0.887	0.113	0.947	0.053	0.223	0.777
1999	0.763	0.237	0.719	0.281	0.867	0.133	0.180	0.820
2000	0.876	0.124	0.833	0.167	0.954	0.046	0.331	0.669
2001	0.857	0.143	0.829	0.171	0.901	0.099	0.874	0.126
2002	0.856	0.144	0.831	0.169	0.915	0.085	0.995	0.005
2003	0.838	0.162	0.796	0.204	0.971	0.029	0.345	0.655
2004	0.721	0.279	0.641	0.359	0.948	0.053	0.131	0.869
2005	0.791	0.209	0.744	0.256	0.939	0.061	0.306	0.694
2006	0.726	0.274	0.602	0.398	0.941	0.059	0.197	0.803
2007	0.591	0.409	0.493	0.507	0.943	0.057	0.312	0.688
2008	0.445	0.555	0.328	0.672	0.691	0.309	0.199	0.801
2009	0.618	0.382	0.540	0.460	0.832	0.168	0.183	0.817
2010	0.877	0.123	0.792	0.208	0.970	0.030	0.233	0.767
2011	0.790	0.211	0.691	0.309	0.956	0.044	0.197	0.803
2012	0.809	0.191	0.728	0.272	0.961	0.039	0.150	0.850
2013	0.754	0.246	0.655	0.345	0.939	0.061	0.254	0.746
2014	0.885	0.115	0.815	0.185	0.976	0.024	0.210	0.790
2015	0.885	0.115	0.817	0.183	0.979	0.021	0.297	0.703
2016	0.797	0.203	0.718	0.282	0.966	0.034	0.150	0.850
2017	0.782	0.218	0.681	0.319	0.957	0.043	0.153	0.847
2018	0.881	0.119	0.834	0.166	0.946	0.054	0.264	0.736
Averages								
83-17	0.827	0.173	0.770	0.230	0.933	0.067	0.284	0.716
08-17	0.764	0.236	0.677	0.323	0.923	0.077	0.203	0.797
1982	156,130	37,671						
1983	43,192	5,650						
1984	84,902	6,751						
1985	237,929	27,058	151,525	20,563	86,404	6,495	68	992
1986	143,022	2,687	82,676	2,571	60,346	116	933	3,252
1987	134,083	2,344	77,752	1,413	56,331	931	203	1,418
1988	90,652	1,877	56,202	1,135	34,450	742	313	933
1989	186,562	6,172	103,099	4,787	83,463	1,385	1,725	8,358
1990	181,904	3,901	102,210	2,712	79,694	1,189	6,055	5,519
1991	126,240	17,864	74,767	14,588	51,473	3,277	5,233	12,754
1992	168,184	34,971	120,641	25,967	47,543	9,004	11,300	41,417
1993	151,918	54,037	90,421	39,438	61,497	14,599	26,500	50,374
1994	175,801	35,247	126,312	31,214	49,489	4,033	51,965	45,259
1995	181,619	25,679	113,848	19,865	67,771	5,814	26,015	50,741
1996	248,492	62,608	162,016	61,768	86,476	840	28,373	125,777
1997	142,766	25,752	95,719	22,956	47,047	2,796	17,533	75,506
1998	102,701	10,734	70,140	8,912	32,561	1,822	4,917	17,114
1999	80,026	24,809	52,717	20,608	27,313	4,197	6,578	30,023
2000	78,931	11,145	48,202	9,661	30,729	1,484	5,245	10,588
2001	140,590	23,423	82,215	17,004	58,375	6,419	533	77
2002	48,060	8,075	32,415	6,615	15,645	1,460	207	1
2003	97,984	18,920	70,483	18,112	27,501	808	14,526	27,632
2004	83,793	32,467	55,055	30,874	28,738	1,593	13,511	89,882
2005	87,144	23,048	62,221	21,426	24,923	1,622	30,403	69,062
2006	66,791	25,189	35,144	23,215	31,647	1,975	12,061	49,237
2007	54,625	37,855	35,691	36,720	18,934	1,136	22,027	48,554
2008	13,590	16,943	6,766	13,886	6,824	3,057	7,108	28,571
2009	69,179	42,805	44,431	37,795	24,749	5,009	6,712	29,968
2010	98,563	13,887	46,831	12,274	51,732	1,613	7,631	25,106
2011	115,324	30,765	63,576	28,380	51,748	2,385	10,127	41,351
2012	36,761	8,705	21,665	8,090	15,096	615	3,301	18,693
2013	37,109	12,114	21,030	11,070	16,079	1,044	5,243	15,366
2014	51,720	6,710	26,791	6,087	24,929	623	4,162	15,643
2015	107,892	14,028	57,830	12,947	50,063	1,080	6,809	16,087
2016	84,955	21,694	52,395	20,559	32,560	1,135	10,521	59,622
2017	35,216	9,789	19,372	9,072	15,844	717	2,189	12,093
2018	22,203	3,000	12,244	2,431	9,959	569	1,514	4,217
Averages								
83-17	109,565	20,649	68,550	18,251	42,363	2,758	10,607	31,120
08-17	65,031	17,744	36,069	16,016	28,962	1,728	6,380	26,250

Appendix B. 10. Stikine River stock proportions and harvest of sockeye salmon in the Alaskan commercial gillnet fishery; Districts 106 & 108, 1982–2018.

Estimates based on SPA 1982-2011; GSI 2012 to present.

	D106			D106-41/42			D106-30			D108		
Year	All Tahltan	Mainstem	Tuya	All Tahltan	Mainstem	Tuya	All Tahltan	Mainstem	Tuya	All Tahltan	Mainstem	Tuya
1982												
1983	0.103	0.013										
1984	0.029	0.044										
1985	0.091	0.011		0.109	0.010		0.056	0.013		0.292	0.644	
1986	0.014	0.004		0.024	0.006		0.000	0.002		0.094	0.683	
1987	0.010	0.007		0.015	0.003		0.004	0.012		0.438	0.437	
1988	0.020	0.001		0.019	0.001		0.021	0.000		0.178	0.571	
1989	0.006	0.026		0.009	0.036		0.002	0.015		0.034	0.795	
1990	0.005	0.016		0.008	0.018		0.001	0.013		0.111	0.366	
1991	0.100	0.024		0.129	0.034		0.052	0.008		0.395	0.314	
1992	0.070	0.102		0.088	0.089		0.022	0.138		0.258	0.528	
1993	0.098	0.164		0.134	0.169		0.036	0.156		0.256	0.399	
1994	0.142	0.025		0.166	0.032		0.069	0.006		0.362	0.103	
1995	0.081	0.043	0.001	0.099	0.048	0.001	0.047	0.032	0.000	0.455	0.200	0.006
1996	0.166	0.007	0.028	0.228	0.009	0.039	0.008	0.001	0.001	0.622	0.125	0.069
1997	0.058	0.016	0.079	0.079	0.014	0.101	0.009	0.021	0.026	0.362	0.189	0.261
1998	0.015	0.000	0.080	0.017	0.000	0.096	0.010	0.000	0.043	0.189	0.343	0.244
1999	0.057	0.118	0.061	0.074	0.128	0.079	0.018	0.095	0.020	0.414	0.205	0.201
2000	0.020	0.019	0.085	0.028	0.023	0.116	0.007	0.012	0.027	0.132	0.275	0.261
2001	0.039	0.025	0.079	0.032	0.028	0.112	0.049	0.021	0.029	0.000	0.121	0.005
2002	0.037	0.035	0.072	0.049	0.034	0.087	0.009	0.037	0.039	0.000	0.005	0.000
2003	0.075	0.035	0.053	0.097	0.040	0.068	0.005	0.019	0.005	0.179	0.414	0.062
2004	0.241	0.018	0.020	0.315	0.018	0.026	0.031	0.017	0.005	0.613	0.239	0.018
2005	0.182	0.027	0.000	0.227	0.029	0.000	0.041	0.020	0.000	0.437	0.257	0.000
2006	0.203	0.016	0.056	0.304	0.016	0.078	0.027	0.015	0.017	0.588	0.135	0.081
2007	0.322	0.005	0.082	0.403	0.005	0.099	0.028	0.007	0.021	0.474	0.067	0.147
2008	0.165	0.152	0.238	0.168	0.169	0.336	0.158	0.118	0.033	0.352	0.159	0.291
2009	0.215	0.077	0.090	0.287	0.068	0.104	0.016	0.103	0.050	0.360	0.232	0.225
2010	0.047	0.026	0.051	0.084	0.036	0.088	0.005	0.015	0.011	0.356	0.234	0.178
2011	0.094	0.050	0.066	0.146	0.065	0.098	0.005	0.025	0.013	0.445	0.216	0.142
2012	0.046	0.072	0.073	0.070	0.091	0.111	0.002	0.034	0.003	0.171	0.475	0.204
2013	0.068	0.118	0.060	0.099	0.156	0.089	0.008	0.047	0.007	0.180	0.440	0.125
2014	0.053	0.031	0.031	0.090	0.043	0.053	0.006	0.015	0.003	0.335	0.315	0.140
2015	0.038	0.030	0.046	0.064	0.041	0.077	0.002	0.015	0.004	0.294	0.276	0.132
2016	0.119	0.044	0.040	0.172	0.052	0.058	0.006	0.027	0.001	0.583	0.145	0.123
2017	0.154	0.043	0.020	0.237	0.053	0.029	0.013	0.027	0.004	0.465	0.331	0.051
2018	0.055	0.058	0.006	0.089	0.068	0.009	0.007	0.045	0.001	0.322	0.397	0.018
Averages												
83-17	0.091	0.041	0.061	0.123	0.047	0.085	0.023	0.033	0.016	0.316	0.310	0.129
08-17	0.100	0.064	0.072	0.142	0.077	0.104	0.022	0.043	0.013	0.354	0.282	0.161
1982												
1983	5,020	631										
1984	2,673	4,078										
1985	24,045	3,013		18,801	1,762		5,244	1,251		310	683	
1986	2,081	606		2,070	501		11	105		393	2,858	
1987	1,376	968		1,155	258		221	710		710	708	
1988	1,813	64		1,071	64		742	0		222	711	
1989	1,111	5,061		957	3,830		154	1,231		341	8,017	
1990	915	2,986		801	1,911		114	1,075		1,280	4,239	
1991	14,364	3,501		11,541	3,048		2,823	453		7,112	5,642	
1992	14,187	20,784		12,961	13,005		1,226	7,778		13,599	27,818	
1993	20,204	33,833		17,446	21,992		2,758	11,841		19,688	30,686	
1994	29,876	5,371		26,164	5,050		3,712	321		35,222	10,037	
1995	16,715	8,839	125	13,292	6,448	125	3,423	2,391	0	34,950	15,330	461
1996	51,598	2,189	8,821	50,924	2,113	8,731	674	76	90	95,837	19,319	10,621
1997	9,764	2,756	13,232	9,327	1,692	11,937	437	1,064	1,295	33,644	17,574	24,288
1998	1,678	36	9,020	1,326	31	7,555	352	5	1,465	4,170	7,561	5,383
1999	5,986	12,399	6,424	5,421	9,405	5,782	563	2,993	641	15,156	7,497	7,371
2000	1,827	1,706	7,612	1,617	1,317	6,727	210	389	885	2,097	4,353	4,138
2001	6,339	4,119	12,965	3,164	2,777	11,063	3,175	1,342	1,902	0	74	3
2002	2,055	1,962	4,058	1,896	1,325	3,394	159	637	664	0	1	0
2003	8,736	4,039	6,145	8,595	3,501	6,016	141	538	129	7,562	17,455	2,615
2004	28,027	2,058	2,382	27,098	1,532	2,244	929	526	138	63,347	24,666	1,869
2005	20,080	2,968	0	18,979	2,447	0	1,101	521	0	43,467	25,595	0
2006	18,640	1,427	5,122	17,729	933	4,553	911	494	569	36,021	8,272	4,944
2007	29,759	484	7,612	29,196	342	7,182	563	142	430	33,439	4,716	10,398
2008	5,031	4,651	7,261	3,467	3,483	6,936	1,564	1,168	325	12,547	5,659	10,365
2009	24,085	8,640	10,080	23,623	5,583	8,589	462	3,057	1,491	13,188	8,508	8,271
2010	5,231	2,882	5,775	4,959	2,105	5,210	272	776	565	11,645	7,651	5,811
2011	13,750	7,323	9,693	13,454	5,954	8,972	296	1,368	721	22,916	11,127	7,307
2012	2,108	3,259	3,338	2,079	2,718	3,292	29	541	46	3,760	10,443	4,492
2013	3,326	5,810	2,978	3,192	5,013	2,866	134	797	112	3,720	9,065	2,582
2014	3,103	1,792	1,815	2,954	1,399	1,734	149	394	80	6,631	6,231	2,781
2015	4,676	3,699	5,652	4,562	2,925	5,460	114	773	193	6,728	6,326	3,033
2016	12,733	4,673	4,287	12,532	3,765	4,262	202	908	26	40,868	10,148	8,605
2017	6,943	1,953	893	6,732	1,511	830	211	443	63	6,637	4,730	727
2018	1,380	1,473	148	1,301	994	136	78	479	12	1,843	2,272	102
Averages												
83-17	11,424	4,873	5,882	10,881	3,629	5,368	1,002	1,397	514	17,491	9,809	5,481
08-17	8,099	4,468	5,177	7,755	3,446	4,815	343	1,022	362	12,864	7,989	5,397

Appendix B. 11. Tahltan sockeye salmon stock proportions and harvest of in the Alaskan commercial gillnet fishery; Districts 106 & 108, 1994–2018.

Estimates based on SPA through 2011; GSI 2012 to present.

	D106			D106-41/42			D106-30			D108		
Year	All Tahltan	TahltanEnhance	WildTahltan	All Tahltan	TahltanEnhance	WildTahltan	All Tahltan	TahltanEnhance	WildTahltan	All Tahltan	TahltanEnhance	WildTahltan
1994	0.142	0.033	0.108	0.166	0.040	0.127	0.069	0.015	0.055	0.362	0.116	0.246
1995	0.081	0.036	0.044	0.099	0.051	0.049	0.047	0.010	0.036	0.455	0.257	0.198
1996	0.166	0.019	0.147	0.228	0.025	0.203	0.008	0.002	0.006	0.622	0.070	0.552
1997	0.058	0.021	0.037	0.079	0.023	0.056	0.009	0.015	-0.006	0.362	0.102	0.260
1998	0.015	0.002	0.013	0.017	0.003	0.014	0.010	0.000	0.010	0.189	0.008	0.182
1999	0.057	0.003	0.054	0.074	0.004	0.070	0.018	0.001	0.017	0.414	0.024	0.390
2000	0.020	0.003	0.017	0.028	0.004	0.024	0.007	0.000	0.007	0.132	0.032	0.100
2001	0.039	0.010	0.029	0.032	0.015	0.017	0.049	0.002	0.047	0.000	0.000	0.000
2002	0.037	0.012	0.024	0.049	0.017	0.031	0.009	0.000	0.009	0.000	0.000	0.000
2003	0.075	0.036	0.039	0.097	0.047	0.050	0.005	0.001	0.004	0.179	0.087	0.092
2004	0.241	0.097	0.144	0.315	0.125	0.191	0.031	0.020	0.011	0.613	0.252	0.361
2005	0.182	0.094	0.088	0.227	0.123	0.104	0.041	0.002	0.039	0.437	0.258	0.179
2006	0.203	0.113	0.090	0.304	0.174	0.130	0.027	0.007	0.020	0.588	0.331	0.257
2007	0.322	0.200	0.122	0.403	0.251	0.152	0.028	0.015	0.013	0.474	0.324	0.150
2008	0.165	0.073	0.091	0.168	0.106	0.062	0.158	0.004	0.154	0.352	0.165	0.186
2009	0.215	0.063	0.152	0.287	0.084	0.203	0.016	0.004	0.012	0.360	0.097	0.262
2010	0.047	0.019	0.027	0.084	0.034	0.049	0.005	0.002	0.003	0.356	0.143	0.213
2011	0.094	0.051	0.043	0.146	0.079	0.067	0.005	0.003	0.003	0.445	0.191	0.254
2012	0.046	0.019	0.028	0.070	0.028	0.042	0.002	0.002	0.000	0.171	0.062	0.109
2013	0.068	0.032	0.035	0.099	0.048	0.051	0.008	0.002	0.006	0.180	0.093	0.088
2014	0.053	0.027	0.027	0.090	0.044	0.046	0.006	0.004	0.002	0.335	0.176	0.159
2015	0.038	0.016	0.023	0.064	0.026	0.038	0.002	0.001	0.001	0.294	0.130	0.164
2016	0.119	0.042	0.078	0.172	0.060	0.111	0.006	0.002	0.004	0.583	0.190	0.392
2017	0.154	0.053	0.101	0.237	0.081	0.156	0.013	0.006	0.007	0.465	0.174	0.291
2018	0.055	0.028	0.026	0.089	0.048	0.041	0.007	0.001	0.006	0.322	0.154	0.167
Averages												
94-17	0.110	0.045	0.065	0.147	0.062	0.085	0.024	0.005	0.019	0.349	0.137	0.212
08-17	0.100	0.039	0.060	0.142	0.059	0.083	0.022	0.003	0.019	0.354	0.142	0.212
1994	29,876	7,019	22,857	26,164	6,230	19,934	3,712	789	2,923	35,222	11,286	23,936
1995	16,715	7,533	9,182	13,292	6,778	6,514	3,423	755	2,668	34,950	19,726	15,224
1996	51,598	5,772	45,826	50,924	5,584	45,340	674	188	486	95,837	10,796	85,041
1997	9,764	3,483	6,281	9,327	2,733	6,594	437	750	-313	33,644	9,500	24,144
1998	1,678	201	1,477	1,326	201	1,125	352	0	352	4,170	170	4,000
1999	5,986	288	5,698	5,421	266	5,155	563	22	541	15,156	877	14,279
2000	1,827	254	1,573	1,617	254	1,363	210	0	210	2,097	506	1,591
2001	6,339	1,592	4,747	3,164	1,441	1,723	3,175	151	3,024	0	0	0
2002	2,055	680	1,375	1,896	680	1,216	159	0	159	0	0	0
2003	8,736	4,186	4,550	8,595	4,161	4,434	141	25	116	7,562	3,666	3,896
2004	28,027	11,306	16,721	27,098	10,713	16,385	929	593	336	63,347	26,073	37,274
2005	20,080	10,356	9,724	18,979	10,292	8,687	1,101	64	1,037	43,467	25,614	17,853
2006	18,640	10,363	8,277	17,729	10,126	7,603	911	237	674	36,021	20,259	15,762
2007	29,759	18,506	11,253	29,196	18,198	10,998	563	308	255	33,439	22,867	10,572
2008	5,031	2,240	2,791	3,467	2,196	1,271	1,564	44	1,520	12,547	5,899	6,648
2009	24,085	7,053	17,032	23,623	6,938	16,685	462	115	346	13,188	3,560	9,628
2010	5,231	2,140	3,091	4,959	2,035	2,924	272	105	167	11,645	4,665	6,980
2011	13,750	7,449	6,301	13,454	7,300	6,155	296	150	146	22,916	9,834	13,083
2012	2,108	852	1,256	2,079	824	1,255	29	28	1	3,760	1,372	2,388
2013	3,326	1,583	1,743	3,192	1,551	1,640	134	32	102	3,720	1,909	1,811
2014	3,103	1,553	1,550	2,954	1,446	1,508	149	107	42	6,631	3,484	3,147
2015	4,676	1,920	2,756	4,562	1,862	2,700	114	58	56	6,728	2,968	3,760
2016	12,733	4,452	8,282	12,532	4,401	8,131	202	51	151	40,868	13,355	27,514
2017	6,943	2,398	4,545	6,732	2,301	4,431	211	97	114	6,637	2,485	4,153
2018	1,380	716	664	1,301	704	598	78	12	66	1,843	885	958
Averages												
94-17	13,003	4,716	8,287	12,178	4,521	7,657	824	195	630	22,231	8,370	13,862
08-17	8,099	3,164	4,935	7,755	3,085	4,670	343	79	265	12,864	4,953	7,911

Appendix B. 12. Stikine River sockeye salmon harvest in the U.S. Subsistence fishery, 2004–2018.

Stocks were proportioned based on using inriver stock comps										
	Stikine									
Year	All Tahltan	Mainstem	Tuya	Total	All Tahltan	Mainstem	Tuya	Tahltan	Enhance	Wild Tahltan
2004	0.664	0.311	0.026	243	161	75	6	65		96
2005	0.662	0.318	0.020	252	167	80	5	77		90
2006	0.672	0.185	0.144	390	262	72	56	146		116
2007	0.541	0.294	0.165	244	132	72	40	67		65
2008	0.385	0.289	0.326	428	165	124	139	80		85
2009	0.541	0.215	0.244	723	391	156	176	101		290
2010	0.417	0.294	0.289	1,653	689	485	479	184		505
2011	0.467	0.328	0.205	1,741	814	571	356	309		505
2012	0.246	0.492	0.262	1,302	320	641	341	113		207
2013	0.346	0.489	0.166	1,655	572	809	274	231		341
2014	0.523	0.223	0.255	1,527	798	340	389	381		418
2015	0.435	0.286	0.279	1,844	803	527	515	277		525
2016	0.611	0.245	0.144	2,126	1,298	521	307	383		916
2017	0.647	0.254	0.099	1,727	1,118	439	170	429		689
2018	0.609	0.357	0.034	1,732	1,056	618	58	671		385

Appendix B. 13. Stock proportions of sockeye salmon in the Alaskan District 106 and 108 test fisheries, 1984–2018.

Table only includes years when test fisheries were operated and data based on SPA

			Stikine					
Year	Alaska	Canada	All Tahltan	Tuya	Mainstem	Total	TahltanEnhance	WildTahltan
Sub-district 106-41 (Sumner Strait) 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		

1994	0.500	0.250	0.250		0.000	0.250	0.083	0.167
Sub-district 106-41 (Sumner Strait) harvest								
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		

1994	6	3	3		0	3		
Sub-district 106-30 (Clarence Strait) 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		
Subdistrict 106-30 (Clarence Strait) harvest								
1986	263	99	0		1	1		
1987	758	126	3		11	15		
1988	12	4	0		0	0		
1989	19	18	0		0	0		
District 106 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		

1994	0.500	0.250	0.250		0.000	0.250	0.000	0.250
District 106 harvest								
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		

1994	6	3	3		0	3	0	3
District 108 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		
1992	0.149	0.076	0.333		0.442	0.774		
1993	0.168	0.109	0.475		0.248	0.719		

1998	0.064	0.041	0.353	0.438	0.104	0.895	0.016	0.336
1999	0.162	0.019	0.481	0.298	0.041	0.820	0.028	0.453
2000	0.110	0.116	0.302	0.321	0.150	0.774	0.062	0.240
District 108 harvest								
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		
1992	194	99	432		574	1,006		
1993	51	33	144		75	219		

1998	224	145	1,238	1,538	365	3,141	57	1,181
1999	776	89	2,309	1,430	197	3,936	135	2,174
2000	516	544	1,416	1,505	705	3,626	291	1,125

Appendix B. 14. All harvest in of sockeye salmon in Canadian commercial and assessment fisheries, 1972–2018.

All Tuya Area fish considered to be Tuya fish.

	Commercial/FN				Test					Tahltan Area		Tuya Area	
Year	LRCF	URCF	Telegraph Aboriginal	Total Canadian treaty harvest	Drift Net	Set Net	Additional Drifts	Tuya Assesment	Test total	ESSR	Oto samples	ESSR	Oto samples
1972			4,373	4,373									
1973			3,670	3,670									
1974			3,500	3,500									
1975		270	1,982	2,252									
1976		733	2,911	3,644									
1977		1,975	4,335	6,310									
1978		1,500	3,500	5,000									
1979a	10,534		3,000	13,534									
1980	18,119	700	2,100	20,919									
1981	21,551	769	4,697	27,017									
1982	15,397	195	4,948	20,540									
1983	15,857	614	4,649	21,120									
1984			5,327	5,327									
1985	17,093	1,084	7,287	25,464		1,340			1,340				
1986	12,411	815	4,208	17,434	412				412				
1987	6,138	498	2,979	9,615	385	1,283			1,668				
1988	12,766	348	2,177	15,291	325	922			1,247				
1989	17,179	493	2,360	20,032	364	1,243			1,607				
1990	14,530	472	3,022	18,024	447	1,493			1,940				
1991	17,563	761	4,439	22,763	503	1,872			2,375				
1992	21,031	822	4,431	26,284	393	1,971	594		2,958				
1993	38,464	1,692	7,041	47,197	440	1,384	1,925		3,749	1,752		0	
1994	38,462	2,466	4,167	45,095	179	414	840		1,433	6,852		0	
1995	45,622	2,355	5,490	53,467	297	850	1,423		2,570	10,740		0	
1996	66,262	1,101	6,918	74,281	262	338	712		1,312	14,339		216	
1997	56,995	2,199	6,365	65,559	245				245		378	2,015	
1998	37,310	907	5,586	43,803	190				190		390	6,103	
1999	32,556	625	4,874	38,055	410	803	4,683		5,896		429	2,822	
2000	20,472	889	6,107	27,468	374	1,015	989		2,378		406	1,283	
2001	19,872	487	5,241	25,600	967	2,223	91		3,281		50	0	410
2002	10,420	484	6,390	17,294	744	3,540	128		4,412		400	0	501
2003	51,735	454	6,595	58,784	997	2,173	186		3,356		400	7,031	0
2004	77,530	626	6,862	85,018	420	918	0		1,338		420	1,675	0
2005	79,952	605	5,333	85,890	339	1,312	0		1,651		400	0	148
2006	95,791	520	5,094	101,405	299	629	0		928		400	0	0
2007	56,913	912	2,188	60,013	435	673	0		1,108		200	0	151
2008	28,636	505	4,510	33,651	241	870	0	1,955	3,066		100		280
2009	39,409	2,476	5,148	47,033	250	1,092	0	2,144	3,486		349		214
2010	42,049	1,215	7,276	50,540	304	1,450	3	2,792	4,549		158		224
2011	47,575	972	6,893	55,440	590	2,525	21	2,878	6,014		340		153
2012	25,939	468	4,000	30,407	638	1,139	19	2,306	4,102		224		189
2013	24,290	876	7,528	32,694	294	1,008	24	2,144	3,470		0		207
2014	30,487	548	9,951	40,986	362	1,410	15	883	2,670		400		0
2015	51,660	202	8,184	60,046	468	1,397	0		1,865		0		0
2016	75,739	333	10,644	86,716	460	1,287	13		1,760		173		0
2017	32,849	322	8,578	41,749	276	1,632	0		1,908		0		0
2018	16,915	407	5,415	22,737	205	1,107	0		1,312		207		0
Averages													
85-17	37,748	895	5,693	44,336	416	1,340			2,433				
08-17	39,863	792	7,271	47,926	388	1,381			3,289				

[a] The lower river commercial Harvest in 1979 includes the upper river commercial harvest

Appendix B. 15. Sockeye salmon stock proportions and harvest by stock in the Canadian commercial and assessment fishery in the Stikine River, 1979–2018.

Stock compositions based on: scale circuli counts 1970-1983; SPA in 1985; average of SPA and GPA 1986; SPA in 1987 and 1988;
and egg diameter and otolith thermal marks in 1989-2011. Tuya stock comp comes from sampling at this terminal fishing site, except in 2013; used 2012 as a proxy.

	LRCF			URCF			Telegraph Aboriginal			LRTF			Tuya Assessment		
Year	All Tahltan	Mainstem	Tuya	All Tahltan	Mainstem	Tuya	All Tahltan	Mainstem	Tuya	All Tahltan	Mainstem	Tuya	All Tahltan	Mainstem	Tuya
1972							0.900	0.100							
1973							0.900	0.100							
1974							0.900	0.100							
1975				0.900	0.100		0.900	0.100							
1976				0.900	0.100		0.900	0.100							
1977				0.900	0.100		0.900	0.100							
1978				0.900	0.100		0.900	0.100							
1979	0.433	0.567					0.900	0.100							
1980	0.309	0.691		0.900	0.100		0.900	0.100							
1981	0.476	0.524		0.900	0.100		0.900	0.100							
1982	0.624	0.376		0.900	0.100		0.900	0.100							
1983	0.422	0.578		0.900	0.100		0.900	0.100							
1984							0.900	0.100							
1985	0.623	0.377		0.900	0.100		0.900	0.100		0.372	0.628				
1986	0.489	0.511		0.900	0.100		0.900	0.100		0.352	0.648				
1987	0.225	0.775		0.900	0.100		0.900	0.100		0.273	0.727				
1988	0.161	0.839		0.900	0.100		0.900	0.100		0.282	0.718				
1989	0.164	0.836		0.900	0.100		0.900	0.100		0.258	0.742				
1990	0.346	0.654		0.900	0.100		0.900	0.100		0.454	0.546				
1991	0.634	0.366		0.900	0.100		0.900	0.100		0.608	0.392				
1992	0.482	0.518		0.900	0.100		0.900	0.100		0.646	0.354				
1993	0.537	0.463		0.900	0.100		0.900	0.100		0.583	0.417				
1994	0.616	0.384		0.900	0.100		0.900	0.100		0.857	0.143				
1995	0.676	0.304	0.020	0.900	0.075	0.025	0.900	0.075	0.025	0.803	0.189	0.008			
1996	0.537	0.350	0.113	0.858	0.005	0.136	0.839	0.021	0.141	0.667	0.245	0.088			
1997	0.356	0.372	0.272	0.524	0.097	0.379	0.521	0.101	0.378	0.396	0.384	0.220			
1998	0.335	0.313	0.352	0.400	0.030	0.570	0.421	0.023	0.555	0.368	0.363	0.268			
1999	0.576	0.183	0.241	0.574	0.096	0.330	0.623	0.085	0.292	0.514	0.221	0.265			
2000	0.252	0.350	0.397	0.252	0.094	0.654	0.284	0.063	0.653	0.254	0.333	0.413			
2001	0.175	0.599	0.226	0.437	0.092	0.470	0.342	0.097	0.561	0.208	0.510	0.282			
2002	0.320	0.552	0.128	0.376	0.128	0.496	0.422	0.084	0.494	0.391	0.451	0.157			
2003	0.427	0.412	0.161	0.696	0.084	0.220	0.605	0.157	0.238	0.448	0.424	0.128			
2004	0.707	0.276	0.016	0.861	0.072	0.067	0.909	0.002	0.089	0.512	0.455	0.033			
2005	0.761	0.221	0.018	0.962	0.017	0.021	0.956	0.031	0.013	0.542	0.453	0.005			
2006	0.747	0.075	0.178	0.852	0.015	0.133	0.780	0.089	0.131	0.355	0.631	0.014			
2007	0.635	0.173	0.191	0.658	0.299	0.043	0.643	0.316	0.042	0.262	0.662	0.076			
2008	0.470	0.141	0.389	0.719	0.095	0.186	0.729	0.088	0.183	0.385	0.348	0.266	0.278	0.233	0.489
2009	0.601	0.149	0.250	0.668	0.029	0.303	0.686	0.033	0.281	0.323	0.490	0.187	0.220	0.067	0.714
2010	0.456	0.188	0.356	0.565	0.007	0.428	0.570	0.017	0.413	0.258	0.634	0.108	0.427	0.061	0.512
2011	0.495	0.293	0.212	0.678	0.034	0.288	0.670	0.046	0.284	0.268	0.578	0.154	0.343	0.089	0.568
2012	0.274	0.476	0.250	0.460	0.011	0.529	0.475	0.033	0.491	0.242	0.443	0.315	0.091	0.026	0.883
2013	0.347	0.460	0.193	0.578	0.143	0.279	0.505	0.205	0.290	0.236	0.748	0.016	0.136	0.142	0.722
2014	0.547	0.210	0.243	0.564	0.057	0.379	0.584	0.064	0.353	0.450	0.306	0.243	0.490	0.030	0.480
2015	0.444	0.266	0.290	0.587	0.035	0.378	0.584	0.020	0.396	0.516	0.172	0.312			
2016	0.687	0.147	0.166	0.812	0.002	0.186	0.804	0.002	0.194	0.539	0.279	0.182			
2017	0.695	0.193	0.113	0.633	0.079	0.288	0.596	0.062	0.342	0.665	0.281	0.054			
2018	0.650	0.314	0.035	0.963	0.020	0.017	0.965	0.020	0.015	0.517	0.473	0.010			
Averages															
79-16	0.475	0.399	0.208	0.736	0.081	0.295	0.740	0.085	0.297						
07-16	0.501	0.252	0.246	0.626	0.049	0.324	0.620	0.057	0.323	0.388	0.428	0.184			
1972							3,936	437							
1973							3,303	367							
1974							3,150	350							
1975				243	27		1,784	198							
1976				660	73		2,620	291							
1977				1,778	198		3,902	434							
1978				1,350	150		3,150	350							
1979	4,561	5,973					2,700	300							
1980	5,599	12,520		630	70		1,890	210							
1981	10,258	11,293		692	77		4,227	470							
1982	9,608	5,789		176	20		4,453	495							
1983	6,692	9,165		553	61		4,184	465							
1984							4,794	533							
1985	10,649	6,444		976	108		6,558	729		499	841				
1986	6,069	6,342		734	82		3,787	421		145	267				
1987	1,380	4,758		448	50		2,681	298		455	1,213				
1988	2,062	10,704		313	35		1,959	218		352	895				
1989	2,813	14,366		444	49		2,124	236		415	1,192				
1990	5,029	9,501		425	47		2,720	302		881	1,059				
1991	11,136	6,427		685	76		3,995	444		1,443	932				
1992	10,134	10,897		740	82		3,988	443		1,912	1,046				
1993	20,662	17,802		1,523	169		6,337	704		2,184	1,565				
1994	23,678	14,784		2,219	247		3,750	417		1,228	205				
1995	30,848	13,881	893	2,120	176	60	4,941	410	139	2,064	486	20			
1996	35,584	23,213	7,465	945	6	150	5,802	144	972	875	321	116			
1997	20,269	21,213	15,513	1,152	213	834	3,318	644	2,403	97	94	54			
1998	12,498	11,675	13,137	363	27	517	2,352	131	3,103	70	69	51			
1999	18,742	5,952	7,862	359	60	206	3,038	413	1,423	3,031	1,301	1,564			
2000	5,165	7,171	8,136	224	84	581	1,733	385	3,989	605	791	982			
2001	3,482	11,907	4,483	213	45	229	1,795	507	2,939	684	1,673	924			
2002	3,335	5,750	1,335	182	62	240	2,697	538	3,155	1,726	1,992	694			
2003	22,067	21,333	8,335	316	38	100	3,987	1,037	1,571	1,505	1,423	428			
2004	54,841	21,415	1,276	539	45	42	6,240	14	608	686	608	44			
2005	60,881	17,634	1,437	582	10	13	5,099	163	71	895	748	8			
2006	71,573	7,139	17,079	443	8	69	3,974	452	668	329	586	13			
2007	36,167	9,855	10,891	600	273	39	1,406	691	91	290	734	84			
2008	13,455	4,028	11,153	363	48	94	3,287	398	825	428	387	296	543	455	956
2009	23,666	5,891	9,852	1,654	73	749	3,530	169	1,449	434	657	251	471	144	1,530
2010	19,185	7,899	14,965	687	9	520	4,145	127	3,004	453	1,114	190	1,192	171	1,429
2011	23,530	13,939	10,106	659	33	280	4,620	316	1,957	841	1,813	482	988	257	1,634
2012	7,102	12,352	6,485	215	5	248	1,901	133	1,966	434	796	566	210	60	2,036
2013	8,430	11,182	4,679	506	126	244	3,804	1,540	2,183	313	992	21	292	305	1,547
2014	16,678	6,391	7,418	309	31	207	5,809	634	3,508	805	547	435	433	26	424
2015	22,924	13,736	15,000	119	7	76	4,780	165	3,239	962	321	582			
2016	52,021	11,151	12,568	270	1	62	8,561	21	2,062	949	492	320			
2017	22,823	6,325	3,701	204	25	93	5,111	534	2,933	1,270	536	103			
2018	10,999	5,318	598	392	8	7	5,227	108	80	678	621	13			
Averages															
79-17	18,831	10,995	8,425	637	70	246	3,899	417							
08-17	20,981	9,289	9,593	499	36	257	4,555	404	2,313	689	766	324			

Appendix B. 16. Tahltan sockeye salmon stock proportions and harvest by stock in the Canadian commercial and assessment fishery in the Stikine River, 1979–2018.

Stock compositions based on: scale circuli counts 1970-1983; SPA in 1985; average of SPA and GPA 1986; stock comp comes from direct sampling of respective fisheries

	LRCF			URCF			Telegraph Aboriginal			LRTF			Tuya Assessment		
Year	All Tahltan	Tahltan Enhanc	Wild Tahlt	All Tahltan	Tahltan Enhanc	Wild Tahltan	All Tahltan	Tahltan Enhance	Wild Tahltan	All Tahltan	Tahltan Enhance	Wild Tahltan	All Tahltan	Tahltan Enhance	Wild Tahltan
1994	0.616	0.000	0.616	0.900	0.128	0.772	0.900	0.128	0.772	0.857	0.000	0.857			
1995	0.676	0.195	0.481	0.900	0.260	0.640	0.900	0.260	0.640	0.803	0.284	0.519			
1996	0.537	0.066	0.471	0.858	0.110	0.748	0.839	0.126	0.713	0.667	0.082	0.585			
1997	0.356	0.072	0.284	0.524	0.108	0.416	0.521	0.108	0.413	0.396	0.082	0.314			
1998	0.335	0.020	0.315	0.400	0.030	0.370	0.421	0.022	0.399	0.368	0.021	0.347			
1999	0.576	0.021	0.554	0.574	0.005	0.570	0.623	0.028	0.596	0.514	0.019	0.495			
2000	0.252	0.039	0.213	0.252	0.000	0.252	0.284	0.009	0.275	0.254	0.040	0.215			
2001	0.175	0.032	0.143	0.437	0.133	0.304	0.342	0.065	0.277	0.208	0.038	0.171			
2002	0.320	0.074	0.246	0.376	0.087	0.289	0.422	0.095	0.327	0.391	0.091	0.300			
2003	0.427	0.131	0.296	0.696	0.214	0.482	0.605	0.201	0.403	0.448	0.111	0.337			
2004	0.707	0.285	0.422	0.861	0.380	0.481	0.909	0.371	0.538	0.512	0.207	0.305			
2005	0.761	0.352	0.409	0.962	0.240	0.722	0.956	0.235	0.721	0.542	0.198	0.344			
2006	0.747	0.416	0.331	0.852	0.421	0.431	0.780	0.382	0.398	0.355	0.197	0.158			
2007	0.635	0.321	0.315	0.658	0.235	0.423	0.643	0.237	0.406	0.262	0.105	0.157			
2008	0.470	0.228	0.242	0.719	0.121	0.598	0.729	0.121	0.608	0.385	0.183	0.203	0.278	0.122	0.156
2009	0.601	0.155	0.445	0.668	0.158	0.511	0.686	0.143	0.542	0.323	0.093	0.230	0.220	0.038	0.182
2010	0.456	0.122	0.334	0.565	0.221	0.345	0.570	0.227	0.342	0.258	0.060	0.198	0.427	0.190	0.237
2011	0.495	0.188	0.307	0.678	0.240	0.438	0.670	0.223	0.447	0.268	0.115	0.153	0.343	0.127	0.216
2012	0.274	0.096	0.177	0.460	0.152	0.308	0.475	0.173	0.302	0.242	0.115	0.127	0.091	0.037	0.054
2013	0.347	0.140	0.207	0.578	0.227	0.351	0.505	0.216	0.289	0.236	0.029	0.207	0.136	0.067	0.069
2014	0.547	0.261	0.286	0.564	0.233	0.332	0.584	0.238	0.346	0.450	0.199	0.252	0.490	0.120	0.370
2015	0.444	0.153	0.290	0.587	0.242	0.345	0.584	0.225	0.359	0.516	0.207	0.309			
2016	0.687	0.202	0.484	0.812	0.223	0.589	0.804	0.238	0.567	0.539	0.185	0.353			
2017	0.695	0.267	0.428	0.633	0.087	0.546	0.596	0.099	0.497	0.665	0.279	0.387			
2018	0.650	0.413	0.237	0.963	0.205	0.758	0.965	0.277	0.688	0.517	0.363	0.153			
Averages															
07-16	0.496	0.187	0.309	0.629	0.205	0.424	0.625	0.204	0.421	0.348	0.129	0.219			
1994	23,678	0	23,678	2,219	315	1,904	3,750	533	3,217	1,228	0	1,228			
1995	30,848	8,912	21,936	2,120	612	1,508	4,941	1,427	3,514	2,064	729	1,335			
1996	35,584	4,387	31,197	945	121	824	5,802	871	4,931	875	108	767			
1997	20,269	4,094	16,175	1,152	238	914	3,318	687	2,631	97	20	77			
1998	12,498	747	11,751	363	27	336	2,352	125	2,227	70	4	66			
1999	18,742	696	18,046	359	3	356	3,038	135	2,903	3,031	113	2,918			
2000	5,165	801	4,364	224	0	224	1,733	52	1,681	605	94	511			
2001	3,482	632	2,850	213	65	148	1,795	341	1,454	684	124	560			
2002	3,335	776	2,559	182	42	140	2,697	605	2,092	1,726	402	1,324			
2003	22,067	6,763	15,304	316	97	219	3,987	1,328	2,659	1,505	374	1,131			
2004	54,841	22,124	32,717	539	238	301	6,240	2,549	3,691	686	277	409			
2005	60,881	28,174	32,707	582	145	437	5,099	1,254	3,845	895	327	568			
2006	71,573	39,888	31,685	443	219	224	3,974	1,946	2,028	329	183	146			
2007	36,167	18,266	17,901	600	214	386	1,406	518	888	290	116	174			
2008	13,455	6,533	6,922	363	61	302	3,287	547	2,740	428	203	225	543	239	304
2009	23,666	6,124	17,542	1,654	390	1,264	3,530	738	2,791	434	125	309	471	81	390
2010	19,185	5,126	14,059	687	268	419	4,145	1,654	2,490	453	105	348	1,192	530	662
2011	23,530	8,924	14,606	659	234	425	4,620	1,540	3,080	841	361	480	988	365	622
2012	7,102	2,498	4,604	215	71	144	1,901	692	1,209	434	206	228	210	86	124
2013	8,430	3,401	5,028	506	199	307	3,804	1,628	2,176	313	38	275	292	143	149
2014	16,678	7,953	8,725	309	127	182	5,809	2,369	3,440	805	355	450	433	106	327
2015	22,924	7,922	15,002	119	49	70	4,780	1,839	2,941	962	385	577			
2016	52,021	15,332	36,688	270	74	196	8,561	2,529	6,031	949	326	622			
2017	22,823	8,763	14,060	204	28	176	5,111	847	4,264	1,270	532	738			
2018	10,999	6,991	4,007	392	84	309	5,227	1,502	3,725	678	476	201			
Averages															
08-17	20,981	7,258	13,724	499	150	349	4,555	1,438	3,116	689	264	425			

Appendix B. 17. Tahltan Lake weir data with enhanced and wild Tahltan fish, 1979–2018.

	Weir count			Actual escapement			Broodstock taken			Sockeye otolith samples			Wild spawners		
Year	Total	TahltanEnhance	WildTahltan	Total	TahltanEnhance	WildTahltan	Total	TahltanEnhance	WildTahltan	Total	TahltanEnhance	WildTahltan	Total	TahltanEnhance	WildTahltan
1979	10,211			10,211											
1980	11,018			11,018											
1981	50,790			50,790											
1982	28,257			28,257											
1983	21,256			21,256											
1984	32,777			32,777											
1985	67,326			67,326											
1986	20,280			20,280											
1987	6,958			6,958											
1988	2,536			2,536											
1989	8,316			8,316			2,210								
1990	14,927			14,927			3,302								
1991	50,135			50,135			3,552								
1992	59,907			59,907			3,694								
1993	53,362	1,167	52,195	51,610	1,129	50,481	4,506	99	4,407				47,104	1,030	46,074
1994	46,363	7,919	38,444	39,511	6,749	32,762	3,378	577	2,801				36,133	6,172	29,961
1995	42,317	15,997	26,320	31,577	11,937	19,640	4,902	1,853	3,049				26,675	10,084	16,591
1996	52,500	6,121	46,379	38,161	4,449	33,712	4,402	513	3,889				33,759	3,936	29,823
1997	12,483	2,521	9,962	12,105	2,445	9,660	2,294	463	1,831	378	76	302	9,811	1,982	7,829
1998	12,658	717	11,941	12,268	691	11,577	3,099	75	3,024	390	26	364	9,169	616	8,553
1999	10,748	719	10,029	10,319	690	9,629	2,870	193	2,677	429	29	400	7,449	497	6,952
2000	6,076	1,230	4,846	5,670	1,148	4,522	1,717	347	1,370	406	82	324	3,953	801	3,152
2001	14,811	5,865	8,946	14,761	5,845	8,916	2,386	945	1,441	50	20	30	12,375	4,900	7,475
2002	17,740	5,212	12,528	17,340	5,097	12,243	3,051	1,298	1,753	400	115	285	14,289	3,799	10,490
2003	53,933	23,595	30,338	53,533	23,420	30,113	3,946	1,726	2,220	400	175	225	49,587	21,694	27,893
2004	63,372	31,439	31,933	62,952	31,244	31,708	4,243	1,250	2,993	420	195	225	58,709	29,994	28,715
2005	43,446	17,928	25,518	43,046	17,770	25,276	3,424	1,350	2,074	400	158	242	39,622	16,420	23,202
2006	53,855	25,966	27,889	53,455	25,772	27,683	3,403	1,646	1,757	400	194	206	50,052	24,126	25,926
2007	21,074	8,966	12,108	20,874	8,881	11,993	2,839	1,208	1,631	200	85	115	18,035	7,673	10,362
2008	10,516	5,344	5,172	10,416	5,295	5,121	2,364	1,152	1,212	100	49	51	8,052	4,143	3,909
2009	30,673	5,030	25,643	30,324	4,971	25,353	3,011	930	2,081	349	59	290	27,313	4,041	23,272
2010	22,860	9,670	13,190	22,702	9,596	13,106	4,484	1,807	2,677	158	74	84	18,218	7,789	10,429
2011	34,588	12,123	22,465	34,248	12,017	22,231	4,559	1,769	2,790	340	106	234	29,689	10,248	19,441
2012	13,687	5,851	7,836	13,463	5,764	7,699	3,949	1,836	2,113	224	87	137	9,514	3,928	5,586
2013	15,828	8,026	7,802	15,828	8,026	7,802	3,196	1,643	1,553	0	0	0	12,632	6,383	6,249
2014	40,145	19,189	20,956	39,745	18,998	20,747	2,881	1,622	1,259	400	191	209	36,864	17,376	19,488
2015	33,159	16,204	16,955	33,159	16,204	16,955	3,871	1,892	1,979	0	0	0	29,288	14,312	14,976
2016	38,631	14,969	23,665	38,458	14,917	23,544	4,315	1,672	2,643	173	52	121	34,143	13,245	20,901
2017	19,241	10,044	9,197	19,241	10,044	9,197	2,909	1,518	1,391	0	0	0	16,332	8,525	7,807
2018	9,854	8,273	8,284	16,350	8,146	8,204	1,878	936	942	207	127	80	14,472	7,210	7,262
Averages															
08-17	25,933	10,645	15,288	25,758	10,583	15,176	3,554	1,584	1,970	174	62	113	22,205	8,999	13,206

[a] excludes an estimated mortality of 3,970 Tahltan Lake sockeye as a result of the Tahltan River rockslide.

Appendix B. 18. Sockeye salmon harvest by stock in the Stikine River under Canadian ESSR licenses, 1992–2018.

	Tahltan Area ESSR License			Tuya Area ESSR		
Year	All Tahltan	TahltanEnhance	WildTahltan	Tuya	Total	otolith samples
1993	1,752	38	1,714		0	
1994	6,852	1,170	5,682		0	
1995	10,740	4,060	6,680		0	
1996	14,339	1,672	12,667	216	14,555	
1997				2,015	2,015	
1998				6,103	6,103	
1999				2,822	2,822	
2000				1,283	1,283	
2001					0	410
2002					0	501
2003				7,031	7,031	
2004				1,675	1,675	
2005					0	148
2006					0	0
2007					0	151
2008						280
2009						214
2010						224
2011						153
2012						189
2013						207
2014						0
2015						
2016						
2017						

Appendix B. 19. Estimated proportion of inriver run comprised of Tahltan, Tuya, and mainstem sockeye salmon, 1979–2018.

In 1979-1988, there were US estimates and 1983-1988, they overlapped with estimates from Canada and the All tahltan estimate was oftened averaged. The estimates are from the LRCF, test, or average of LRCF and Test.

Year	All Tahltan	Mainstem	Tuya	Type
1979	0.433	0.567		
1980	0.305	0.695		
1981	0.475	0.525		
1982	0.618	0.382		
1983	0.456	0.544		
1984	0.493	0.507		
1985	0.466	0.534		
1986	0.449	0.551		
1987	0.304	0.696		
1988	0.172	0.828		
1989	0.188	0.812		
1990	0.417	0.583		
1991	0.561	0.439		
1992	0.496	0.504		
1993	0.477	0.523		
1994	0.606	0.394		LRCF
1995	0.578	0.406	0.016	LRCF
1996	0.519	0.377	0.104	LRCF
1997	0.297	0.474	0.229	LRCF
1998	0.309	0.344	0.348	LRCF
1999	0.545	0.209	0.245	LRCF
2000	0.260	0.349	0.391	LRCF
2001	0.202	0.530	0.268	test
2002	0.360	0.498	0.141	test
2003	0.421	0.421	0.158	test
2004	0.664	0.311	0.026	LRCF
2005	0.662	0.318	0.020	LRCF
2006	0.672	0.185	0.144	LRCF
2007	0.541	0.294	0.165	LRCF
2008	0.385	0.289	0.326	LRCF
2009	0.541	0.215	0.244	average
2010	0.417	0.294	0.289	average
2011	0.467	0.328	0.205	LRCF
2012	0.246	0.492	0.262	average
2013	0.346	0.489	0.166	average
2014	0.523	0.223	0.255	average
2015	0.435	0.286	0.279	LRCF
2016	0.611	0.245	0.144	LRCF
2017	0.647	0.254	0.099	LRCF
2018	0.609	0.357	0.034	LRCF
Averages				
79-17	0.450	0.434		
08-17	0.462	0.311	0.227	

Appendix B. 20. Aerial survey counts of Mainstem sockeye salmon stocks in the Stikine River drainage, 1984–2018.

The index represents the combined counts from eight spawning areas.

Year	Chutine River	Scud River	Porcupine Slough	Christina Creek	Craig River	Bronson Slough	Verrett River	Verrett Slough	Escapement Index
1984	526	769	69	130	102		640		2,236
1985	253	282	69	67	27		383		1,081
1986	139	151	6	0	0		270		566
1987	6	490	62	6	30		103		697
1988	14	219	22	7	0		114		376
1989	29	269	133	10	60	60	180	68	809
1990	24	301	31	4	0	0	301	82	743
1991	0	100	61		7	32	179	8	387
1992	164	1,242	90	50	17	138	163	22	1,886
1993	57	321	141	28	2	79	107	142	877
1994	267	292	66			62	147	114	948
1995	13	260	11			72	47	31	434
1996	134	351	149			27	54	338	1,053
1997	204	271	25			12	116	32	660
1998	230	246	89			9	183	135	892
1999	56	301	64			54	98	78	651
2000	47	86	86			32	0	90	341
2001	601	2,037	268			163	217	232	3,518
2002	239	216	95			13	353	0	916
2003	240	71	239			0	54	0	604
2004	245	262	56			0	85	0	648
2005	66	124	111			23	158	76	558
2006	276	288	59			0	140	180	943
2007	0	17	34	0		3	45	21	120
2008	83	41	33	0		0	15	231	403
2009	51	45	0			0	17	0	113
2010	103	300	187	0		0	310	217	1,117
2011			No Surveys Conducted						0
2012	0	0	15			aborted	aborted	aborted	15
2013	2	22	151			6	16	94	291
2014	52	332	22			0	172	67	645
2015			high dirty water--all spawning areas						
2016	2	16	6			0	46	6	76
2017	141	5	13			0	57	17	233
2018	19	9	4			No Survey	49	38	119
Averages									
84-17	133	304	77			30	154	88	753
08-17	54	95	53			1	90	90	321

Appendix B. 21. Stikine River sockeye salmon run size, 1979–2018.

Harvest includes test and assesment fisheries and otolith samples and escapement includes fish later captured for broodstock

	All Tahltan					Stikine Mainstem					All Tahltan + Mainstem				
Year	Above border Run	Canadian Harvest	Escapement	U.S. Harvest	Terminal Run	Above border Run	Canadian Harvest	Escapement	U.S. Harvest	Terminal Run	Above border Run	Canadian Harvest	Escapement	U.S. Harvest	Terminal Run
1979	17,472	7,261	10,211	5,076	22,548	22,880	6,273	16,608	3,223	26,103	40,353	13,534	26,819	8,299	48,652
1980	19,137	8,119	11,018	11,239	30,376	43,606	12,800	30,806	11,967	55,573	62,743	20,919	41,824	23,206	85,949
1981	65,968	15,178	50,790	16,189	82,157	72,911	11,839	61,072	11,349	84,260	138,879	27,017	111,862	27,538	166,417
1982	42,493	14,236	28,257	20,981	63,474	26,267	6,304	19,964	21,501	47,768	68,761	20,540	48,221	42,482	111,243
1983	32,684	11,428	21,256	5,075	37,759	38,999	9,692	29,307	699	39,698	71,683	21,120	50,563	5,774	77,457
1984	37,571	4,794	32,777	3,114	40,685	38,640	533	38,107	4,636	43,276	76,211	5,327	70,884	7,750	83,961
1985	86,008	18,682	67,326	25,197	111,205	98,739	8,122	90,617	4,550	103,289	184,747	26,804	157,943	29,747	214,494
1986	31,015	10,735	20,280	2,757	33,771	38,022	7,111	30,910	3,663	41,685	69,036	17,846	51,190	6,420	75,456
1987	11,923	4,965	6,958	2,255	14,178	27,342	6,318	21,023	1,822	29,164	39,264	11,283	27,981	4,077	43,342
1988	7,222	4,686	2,536	2,129	9,351	34,693	11,852	22,841	1,052	35,745	41,915	16,538	25,377	3,181	45,096
1989	14,111	5,795	8,316	1,561	15,672	60,947	15,844	45,103	13,931	74,878	75,058	21,639	53,419	15,492	90,550
1990	23,982	9,055	14,927	2,307	26,289	33,547	10,909	22,638	7,549	41,096	57,529	19,964	37,565	9,856	67,385
1991	67,394	17,259	50,135	21,916	89,311	52,759	7,879	44,880	9,368	62,126	120,153	25,138	95,015	31,284	151,437
1992	76,680	16,773	59,907	28,218	104,899	77,861	12,469	65,392	49,176	127,037	154,541	29,242	125,299	77,394	231,935
1993	84,068	32,458	51,610	40,036	124,104	92,033	20,240	71,792	64,594	156,627	176,100	52,698	123,402	104,630	280,730
1994	77,239	37,728	39,511	65,101	142,340	50,288	15,652	34,636	15,408	65,696	127,527	53,380	74,147	80,509	208,036
1995	82,290	50,713	31,577	51,665	133,955	57,802	14,953	42,850	24,169	81,971	140,092	65,665	74,427	75,834	215,926
1996	95,706	57,545	38,161	147,435	243,141	69,536	23,684	45,852	21,508	91,044	165,242	81,229	84,013	168,943	334,185
1997	37,319	25,214	12,105	43,408	80,727	59,600	22,164	37,436	20,330	79,930	96,919	47,378	49,541	63,738	160,657
1998	27,941	15,673	12,268	7,086	35,027	31,077	11,902	19,175	7,962	39,039	59,018	27,575	31,443	15,048	74,066
1999	35,918	25,599	10,319	23,449	59,367	13,797	7,726	6,071	20,092	33,889	49,715	33,325	16,390	43,541	93,256
2000	13,803	8,133	5,670	5,340	19,143	18,563	8,431	10,132	6,764	25,327	32,366	16,564	15,802	12,104	44,470
2001	20,985	6,224	14,761	6,339	27,324	54,987	14,132	40,855	4,193	59,180	75,972	20,356	55,616	10,532	86,504
2002	25,680	8,340	17,340	2,055	27,735	35,496	8,342	27,154	1,963	37,459	61,176	16,682	44,494	4,018	65,194
2003	81,808	28,275	53,533	16,298	98,106	81,803	23,831	57,972	21,494	103,297	163,611	52,106	111,505	37,792	201,403
2004	125,677	62,725	62,952	91,535	217,213	58,809	22,080	36,728	26,799	85,608	184,486	84,806	99,680	118,335	302,821
2005	110,903	67,857	43,046	63,714	174,617	53,343	18,555	34,788	28,517	81,860	164,245	86,412	77,834	92,231	256,476
2006	130,174	76,719	53,455	54,923	185,097	35,788	8,185	27,603	9,772	45,560	165,962	84,904	81,058	64,695	230,657
2007	59,537	38,663	20,874	63,330	122,867	32,418	11,553	20,865	5,274	37,692	91,955	50,216	41,739	68,604	160,559
2008	28,592	18,176	10,416	17,743	46,335	21,494	5,316	16,178	10,434	31,928	50,087	23,493	26,594	28,177	78,264
2009	60,428	30,104	30,324	37,664	98,092	24,082	6,933	17,148	17,304	41,385	84,509	37,037	47,472	54,968	139,477
2010	48,521	25,819	22,702	17,565	66,086	34,152	9,320	24,831	11,018	45,169	82,672	35,139	47,533	28,583	111,255
2011	65,226	30,978	34,248	37,480	102,706	45,750	16,357	29,393	19,021	64,771	110,977	47,335	63,641	56,501	167,477
2012	23,550	10,087	13,463	6,188	29,738	47,158	13,347	33,812	14,340	61,498	70,708	23,433	47,275	20,528	91,236
2013	29,173	13,345	15,828	7,618	36,791	41,236	14,144	27,091	15,684	56,920	70,408	27,489	42,919	23,302	93,710
2014	67,673	24,434	43,239	10,533	78,206	23,828	7,630	16,197	8,363	32,191	91,501	32,064	59,436	18,896	110,397
2015	61,944	28,785	33,159	12,207	74,151	40,661	14,229	26,432	10,552	51,212	102,605	43,014	59,591	22,759	125,363
2016	100,431	61,973	38,458	54,900	155,331	40,310	11,665	28,646	15,343	55,653	140,742	73,638	67,104	70,243	210,984
2017	48,649	29,408	19,241	14,698	63,347	19,098	7,420	11,678	7,122	26,220	67,747	36,828	30,919	21,820	89,566
2018	33,852	17,502	16,350	4,278	38,130	19,818	6,056	13,762	4,363	24,181	53,670	23,558	30,112	8,641	62,311
Averages															
79-17	53,254	24,716	28,537	26,829	80,083	44,880	11,942	32,938	14,167	59,047	98,134	36,658	61,475	40,996	139,129
08-17	53,419	27,311	26,108	21,660	75,078	33,777	10,636	23,141	12,918	46,695	87,196	37,947	49,248	34,578	121,773

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	Stikine River					Tuya				
Year	Above border Run	Canadian Harvest	Escapement	U.S. Harvest	Terminal Run	Above border Run	Canadian Harvest	Excess	U.S. Harvest	Terminal Run
1979	40,353	13,534	26,819	8,299	48,652					
1980	62,743	20,919	41,824	23,206	85,949					
1981	138,879	27,017	111,862	27,538	166,417					
1982	68,761	20,540	48,221	42,482	111,243					
1983	71,683	21,120	50,563	5,774	77,457					
1984	76,211	5,327	70,884	7,750	83,961					
1985	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	75,058	21,639	53,419	15,492	90,550					
1990	57,529	19,964	37,565	9,856	67,385					
1991	120,153	25,138	95,015	31,284	151,437					
1992	154,541	29,242	125,299	77,394	231,935					
1993	176,100	52,698	123,402	104,630	280,730					
1994	127,527	53,380	74,147	80,509	208,036					
1995	142,308	66,777	75,531	76,420	218,728	2,216	1,112	1,104	586	2,802
1996	184,400	90,148	94,252	188,385	372,785	19,158	8,919	10,239	19,442	38,600
1997	125,657	68,197	57,460	101,258	226,915	28,738	20,819	7,919	37,520	66,258
1998	90,459	50,486	39,973	30,989	121,448	31,442	22,911	8,531	15,941	47,383
1999	65,879	47,202	18,677	58,765	124,644	16,165	13,877	2,288	15,224	31,389
2000	53,145	31,535	21,610	25,359	78,504	20,779	14,971	5,808	13,255	34,034
2001	103,755	29,341	74,414	23,500	127,255	27,783	8,985	18,798	12,968	40,751
2002	71,253	22,607	48,646	8,076	79,329	10,078	5,925	4,153	4,058	14,136
2003	194,425	69,571	124,854	46,552	240,977	30,814	17,465	13,349	8,760	39,574
2004	189,395	88,451	100,944	122,592	311,987	4,909	3,645	1,264	4,257	9,166
2005	167,570	88,089	79,482	92,362	259,932	3,325	1,677	1,648	131	3,456
2006	193,768	102,733	91,035	74,817	268,585	27,806	17,829	9,977	10,122	37,928
2007	110,132	61,472	48,660	86,654	196,786	18,176	11,256	6,920	18,050	36,227
2008	74,267	37,097	37,170	45,942	120,209	24,180	13,604	10,576	17,765	41,945
2009	111,780	51,082	60,699	73,495	185,275	27,271	14,044	13,226	18,527	45,798
2010	116,354	55,471	60,883	40,647	157,001	33,682	20,332	13,350	12,064	45,746
2011	139,541	61,947	77,594	73,857	213,399	28,565	14,612	13,953	17,356	45,921
2012	95,840	34,922	60,918	28,700	124,540	25,132	11,489	13,643	8,172	33,304
2013	84,380	36,371	48,009	29,136	113,515	13,972	8,882	5,090	5,833	19,805
2014	122,759	44,056	78,703	23,881	146,640	31,259	11,992	19,267	4,984	36,243
2015	142,334	61,911	80,423	31,958	174,292	39,729	18,897	20,832	9,200	48,929
2016	164,451	88,649	75,802	83,441	247,892	23,709	15,011	8,698	13,199	36,908
2017	75,159	43,657	31,502	23,609	98,768	7,412	6,829	583	1,790	9,202
2018	55,541	24,256	31,285	8,950	64,491	1,871	698	1,173	309	2,180
Averages										
79-17	111,799	43,976	67,822	48,537	160,336					
08-17	116,184	53,298	62,886	51,771	167,955	26,567	14,012	12,556	12,515	39,083

Appendix B. 22. Tahltan wild and enhanced sockeye salmon run size, 1994–2018.

	All Tahltan					Enhanced Tahltan					Wild Tahltan				
Year	Above border Run	Canadian Harvest	Escapement	U.S. Harvest	Terminal Run	Above border Run	Canadian Harvest	Escapement	U.S. Harvest	Terminal Run	Above border Run	Canadian Harvest	Escapement	U.S. Harvest	Terminal Run
1994	77,239	37,728	39,511	65,101	142,340	8,767	2,018	6,749	18,305	27,072	68,471	35,709	32,762	46,793	115,264
1995	82,290	50,713	31,577	51,665	133,955	27,677	15,740	11,937	27,259	54,936	54,612	34,972	19,640	24,406	79,018
1996	95,706	57,545	38,161	147,435	243,141	11,608	7,159	4,449	16,568	28,176	84,098	50,386	33,712	130,867	214,965
1997	37,319	25,214	12,105	43,408	80,727	7,560	5,115	2,445	12,983	20,543	29,759	20,099	9,660	30,425	60,184
1998	27,941	15,673	12,268	7,086	35,027	1,620	929	691	428	2,048	26,321	14,744	11,577	6,658	32,979
1999	35,918	25,599	10,319	23,449	59,367	1,666	976	690	1,300	2,966	34,252	24,623	9,629	22,149	56,401
2000	13,803	8,133	5,670	5,340	19,143	2,177	1,029	1,148	1,051	3,228	11,626	7,104	4,522	4,289	15,915
2001	20,985	6,224	14,761	6,339	27,324	7,027	1,182	5,845	1,592	8,619	13,958	5,042	8,916	4,747	18,705
2002	25,680	8,340	17,340	2,055	27,735	7,037	1,940	5,097	680	7,717	18,643	6,400	12,243	1,375	20,018
2003	81,808	28,275	53,533	16,298	98,106	32,157	8,737	23,420	7,852	40,009	49,651	19,538	30,113	8,446	58,097
2004	125,677	62,725	62,952	91,535	217,213	56,627	25,383	31,244	37,444	94,071	69,050	37,342	31,708	54,091	123,142
2005	110,903	67,857	43,046	63,714	174,617	47,828	30,058	17,770	36,047	83,875	63,075	37,799	25,276	27,667	90,741
2006	130,174	76,719	53,455	54,923	185,097	68,202	42,430	25,772	30,768	98,970	61,972	34,289	27,683	24,155	86,127
2007	59,537	38,663	20,874	63,330	122,867	28,080	19,199	8,881	41,440	69,520	31,457	19,464	11,993	21,890	53,347
2008	28,592	18,176	10,416	17,743	46,335	12,927	7,632	5,295	8,219	21,146	15,666	10,544	5,121	9,524	25,190
2009	60,428	30,104	30,324	37,664	98,092	12,489	7,518	4,971	10,714	23,203	47,939	22,586	25,353	26,950	74,889
2010	48,521	25,819	22,702	17,565	66,086	17,353	7,757	9,596	6,990	24,342	31,168	18,062	13,106	10,575	41,743
2011	65,226	30,978	34,248	37,480	102,706	23,547	11,530	12,017	17,592	41,138	41,680	19,449	22,231	19,888	61,568
2012	23,550	10,087	13,463	6,188	29,738	9,404	3,640	5,764	2,337	11,740	14,146	6,447	7,699	3,851	17,998
2013	29,173	13,345	15,828	7,618	36,791	13,435	5,409	8,026	3,723	17,158	15,738	7,935	7,802	3,895	19,633
2014	67,673	24,434	43,239	10,533	78,206	30,100	11,102	18,998	5,418	35,518	34,079	13,332	20,747	5,115	39,194
2015	61,944	28,785	33,159	12,207	74,151	26,399	10,195	16,204	5,165	31,564	35,545	18,590	16,955	7,042	42,587
2016	100,431	61,973	38,458	54,900	155,331	33,232	18,314	14,917	18,189	51,421	67,203	43,659	23,544	36,711	103,913
2017	48,649	29,408	19,241	14,698	63,347	20,214	10,170	10,044	5,311	25,526	28,435	19,237	9,197	9,386	37,821
2018	33,852	17,502	16,350	4,278	38,130	17,326	9,179	8,146	2,272	19,597	16,527	8,323	8,204	2,006	18,533
Averages															
08-17	53,419	27,311	26,108	21,660	75,078	19,910	9,327	10,583	8,366	28,276	33,160	17,984	15,176	13,294	46,454

Appendix B. 23. Coho salmon harvest in the Alaskan District 106 and 108 test fisheries, 1984–2018.

Table only includes years when test fisheries were operated.

Year	106-41/42	106-30	Total 106	108
1984	101		1,370	11
1985	301		4,345	11
1986	177		1,345	3
1987	799	95	3,558	13
1988	89	589	1,036	9
1989	275	412	2,080	45
1990	432	464	2,256	45
1991				18
1992				23
1993				0
1994			12	
---				142
1998				217
1999				140
2000				

2009				0

Appendix B. 24. Annual harvest of coho salmon in the Canadian lower and upper river commercial, Telegraph Aboriginal and the Canadian test fisheries, 1979–2018.

	Commercial				Telegraph	Canada total	Test			
Year	LRCF	Before SW 35	SW 35 to end	URCF	Aboriginal	Stikine harvest	drift	set	additional	test total
1972					0	0				0
1973					0	0				0
1974					0	0				0
1975				45	5	50				0
1976				13	0	13				0
1977				0	0	0				0
1978				0	0	0				0
1979	10,720				0	10,720				0
1980	6,629			40	100	6,769				0
1981	2,667			0	200	2,867				0
1982	15,904			0	40	15,944				0
1983	6,170			0	3	6,173				0
1984					1	1				0
1985	2,172			0	3	2,175				0
1986	2,278			0	2	2,280	226			226
1987	5,728			0	3	5,731	162	620		782
1988	2,112			0	5	2,117	75	130		205
1989	6,092			0	6	6,098	242	502		744
1990	4,020			0	17	4,037	134	271		405
1991	2,638			0	10	2,648	118	127		245
1992	1,850			0	5	1,855	75	193	0	268
1993	2,616			0	0	2,616	37	136	2	175
1994	3,377			0	4	3,381	71	0	0	71
1995	3,418			0	0	3,418	35	166	26	227
1996	1,402			0	2	1,404	55	0	0	55
1997	401			0	0	401	11			11
1998	726			0	0	0	207			207
1999	181	76	105	0	0	181	312	64	16	392
2000	298	235	63	0	3	301	60	181	195	436
2001	233	99	134	0	0	233	257	1,078	426	1,761
2002	82	82	0	0	0	82	306	1,323	1,116	2,745
2003	190	135	55	0	0	190	291	525	883	1,699
2004	271	242	29	0	4	275	352	135	0	487
2005	276	276	0	0	0	276	444	271	0	715
2006	72	72	0	0	0	72	343	181	0	524
2007	50	45	0	0	2	47	89	99	0	188
2008	2,398	61	2,337	0	0	2,398	321	216	0	537
2009	5,981	898	5,061	0	0	5,959	348	146	0	494
2010	5,301	349	4,952	0	0	5,301	488	253	0	741
2011	5,821	1,015	4,703	0	0	5,718	280	130	0	410
2012	6,188	440	5,748	0	0	6,188	393	43	0	436
2013	6,757	1,922	4,835	0	0	6,757	249	1,094	0	1,343
2014	5,409	417	4,992	0	0	5,409	83	259	0	342
2015	5,619	696	4,923	0	0	5,619	21	12	0	33
2016	5,346	389	4,957	0	0	5,346	36	104	0	140
2017	5,502	519	4,983	0	0	5,502	2	10	0	12
2018	3,685	361	3,324	0	0	3,685	32	86	0	118
Averages										
85-17	2,873			0	2	2,849	191	285	111	517
08-17	5,432			0	0	5,420	222	227	0	449

Appendix B. 25. Index counts of Stikine River coho salmon escapements, 1984–2018.

Missing data due to poor survey conditions.

Year	Date	Katete West	Katete	Craig	Verrett	Bronson Slough	Scud Slough	Porcupine Slough	Christina	Total
1984	10/30	147	313	0	15	42				517
1985	10/25	590	1,217	735	39	0	924	365		3,870
1988	10/28	32	227		175		97	53	0	584
1989	10/29	336	896	992	848	120	707	90	55	4,044
1990	10/30	94	548	810	494		664	430		3,040
1991	10/29	302	878	985	218		221	352		2,956
1992	10/29	295	1,346	949	320		462	316		3,688
1993	10/30						206	324		
1994	11/1-2	28	652	1,026	466		448	1,105		3,725
1995	10/30	211	208	1,419	574		621	719		3,752
1996	10/30	163	232	205	549		630	1,466		3,245
1997	11/01	2	0	19	116		272	648		1,057
1998	10/30	14	63	141	282		143	450		1,093
1999	11/05	163	773	891	490		661	894		3,872
2000	11/2-3				5		95	206		306
2001	11/2-3	207	1,401	3,121	708		1,571	397		7,405
2002	11/05	806	2,642	4,488	1,695		1,389	1,626		12,646
2003										
2004[a]	11/03	78	762	19	959		173	1,009		3,000
2005	10/31	300	1,195	444	353		218	689		3,199
2006	11/02	350	543	675	403		95	147		2,213
2007	11/10	66	190	567	240		153	341		1,557
2008[b]	11/01-05			535	501		86	25		1,147
2009	11/02	212	698	475	257		16	617		2,275
2010	11/03[a]	37	237	31	363		130	953		1,751
2011	11/04	182	689	459	309		437	468		2,542
2012	11/05[c]	aborted	aborted	aborted	aborted		3	336		
2013	11/05	449	191	675	249		23	53		1,640
2014	11/06	7	255	212	74		138	509		1,195
2015	11/07	15	168	608	66		61	263		1,181
2016	11/03	0	0	10	152		90	40		292
2017	11/2	246	538	570	189		36	77		1,656
2018	11/6	463	185	736	22		128	460		1,994
Average										
84-17		197	625	780	383		359	499		2,740
08-17		143	347	397	240		102	334		1,520

[a] Veiwing conditions at the Craig River site were poor in 2004 and 2010.

[b] West Katete and Katete not survey due to inclement weather

[c] aborted to due ice condtions and inclement weather

Appendix B. 26. Effort in the Canadian fisheries, including assessment fisheries in the Stikine River, 1979–2018.

Chinook assessment/test fishery prosecuted with the commercial fleet								
	Commercial license		LRCF		URCF		Test Fisheries	
	Chinook assessment						standard test fisheries	
Year	Days	Permit Days	Days	Permit Days	Days	Permit Days	# of Drift	Set hours
1979			42.0	756.0				
1980			41.0	668.0				
1981			32.0	522.0	5.0	11.0		
1982			71.0	1,063.0	4.0	8.0		
1983			54.0	434.0	8.0	10.0		
1984				no fisheries				
1985			22.5	145.5	6.0	14.0		
1986			13.5	239.0	7.0	19.0	405	
1987			20.0	287.0	7.0	20.0	845	1,456
1988			26.5	320.0	6.5	21.5	720	1,380
1989			23.0	325.0	7.0	14.0	870	1,392
1990			29.0	328.0	7.0	15.0	673	1,212
1991			39.0	282.4	6.0	13.0	509	1,668
1992			55.0	235.4	13.0	28.0	312	1,249
1993			58.0	483.8	22.0	48.0	304	1,224
1994			74.0	430.1	50.0	68.0	175	456
1995			59.0	534.0	25.0	54.0	285	888
1996			81.0	439.2	59.0	75.0	245	312
1997			89.0	569.4	29.0	42.0	210	
1998			46.5	374.0	19.0	19.0	820	
1999			31.0	261.3	18.0	19.0	1,006	1,577
2000			23.3	227.0	9.3	19.8	694	3,715
2001			23.0	173.0	4.0	6.0	883	2,688
2002			21.0	169.0	9.0	12.0	898	2,845
2003			28.8	275.2	10.0	10.0	660	1,116
2004			43.0	431.0	11.0	11.0	778	524
2005			72.0	803.0	13.0	13.0	780	396
2006			68.7	775.1	15.0	15.0	720	312
2007			67.5	767.4	17.0	17.0	224	336
2008			55.0	566.0	13.0	13.0	730	396
2009			57.5	563.0	27.0	28.0	771	342
2010	8	94	37.3	349.0	12.0	15.0	860	468
2011	3	57	44.7	641.4	9.0	12.0	882	335
2012	1	18	36.6	19.6	6.0	12.0	936	239
2013	9	100	25.4	430.8	6.0	6.0	294	408
2014	8	94	28.2	280.0	4.0	4.0	315	696
2015	0	0	31.0	530.0	9.0	4.0	308	192
2016	1	18	46.9	696.0	18.0	3.0	322	396
2017	0	0	29.8	316.7	8.0	8.0	168	228
2018	0	0	34.8	290.4	8.0	4.0	280	520
Averages								
85-17			43	402	15	21	581	981
08-17			39	439	11	11	559	370

Appendix B. 27. Counts of adult sockeye salmon migrating through Tahltan Lake weir, 1959–2018.

2014- Estimated 9% sockeye salmon mortality due to the landslide with an ajustment made for increase harvest in AF fishery. Used a 10 year harvest rate of 12% of the AF times the estimated 9% mortality.
2018 the weir was pulled early for fires in the area; estimate was expanded by the 2015–2017 average of run timing (40%) remaining when weir pulled.

	Weir	Date of Arrival			Weir		Total	Total		Samples	Otolith	Spawners			Estimated Expansion		
Year	Installed	First	50%	90%	Pulled	Observed	Count	escapement	Broodstock	or ESSR	Samples	Total	Enhanced	Wild	Total	Enhanced	Wild
1959	30-Jun	2-Aug	12-Aug	16-Aug			4,311	4,311									
1960	15-Jul	2-Aug	24-Aug	27-Aug			6,387	6,387									
1961	20-Jul	9-Aug	11-Aug	15-Aug			16,619	16,619									
1962	1-Aug	2-Aug	5-Aug	8-Aug			14,508	14,508									
1963	3-Aug						1,780	1,780									
1964	23-Jul	26-Jul	14-Aug	25-Aug			18,353	18,353									
1965[a]	19-Jul	18-Jul	2-Sep	7-Sep			1,471	1,471									
1966	12-Jul	3-Aug	13-Aug	21-Aug			21,580	21,580									
1967	11-Jul	14-Jul	21-Jul	28-Jul			38,801	38,801									
1968	11-Jul	21-Jul	25-Jul	8-Aug			19,726	19,726									
1969	7-Jul	11-Jul	18-Jul	31-Jul			11,805	11,805									
1970	5-Jul	25-Jul	1-Aug	11-Aug			8,419	8,419									
1971	12-Jul	19-Jul	28-Jul	12-Aug			18,523	18,523									
1972	13-Jul	13-Jul	19-Jul	31-Aug	21-Aug		52,545	52,545									
1973	10-Jul	24-Jul	30-Jul	7-Aug	1-Sep		2,877	2,877									
1974	3-Jul	28-Jul	3-Aug	17-Aug	13-Sep		8,101	8,101									
1975	10-Jul	25-Jul	8-Aug	17-Aug	28-Aug		8,159	8,159									
1976	16-Jul	29-Jul	1-Aug	6-Aug	24-Aug		24,111	24,111									
1977	6-Jul	11-Jul	16-Jul	10-Aug	25-Aug		42,960	42,960									
1978	10-Jul	10-Jul	20-Jul	29-Jul	26-Aug		22,788	22,788									
1979	9-Jul	23-Jul	1-Aug	11-Aug	31-Aug		10,211	10,211									
1980	4-Jul	15-Jul	22-Jul	12-Aug	3-Sep		11,018	11,018									
1981	30-Jun	16-Jul	26-Jul	3-Aug	8-Sep		50,790	50,790									
1982	2-Jul	10-Jul	19-Jul	29-Jul	4-Sep		28,257	28,257									
1983	27-Jun	5-Jul	22-Jul	5-Aug	7-Sep		21,256	21,256									
1984	20-Jun	19-Jul	24-Jul	3-Aug	29-Aug		32,777	32,777									
1985	28-Jun	18-Jul	31-Jul	6-Aug	5-Sep		67,326	67,326									
1986	10-Jul	26-Jul	4-Aug	11-Aug	4-Sep		20,280	20,280									
1987	14-Jul	21-Jul	4-Aug	13-Aug	27-Aug		6,958	6,958									
1988	16-Jul	16-Jul	6-Aug	14-Aug	29-Aug		2,536	2,536									
1989	7-Jul	9-Jul	1-Aug	14-Aug	4-Sep		8,316	8,316	2,210			6,106					
1990	6-Jul	15-Jul	26-Jul	3-Aug	28-Aug		14,927	14,927	3,302			11,625					
1991	30-Jun	17-Jul	25-Jul	7-Aug	5-Sep		50,135	50,135	3,552			46,583					
1992	9-Jul	18-Jul	25-Jul	3-Aug	2-Sep		59,907	59,907	3,694			56,213					
1993	7-Jul	10-Jul	28-Jul	10-Aug	11-Sep		53,362	51,610	4,506	1,752		47,104	1,030	46,074			
1994	7-Jul	14-Jul	30-Jul	9-Aug	7-Sep		46,363	39,511	3,378	6,852		36,133	6,172	29,961			
1995	8-Jul	9-Jul	24-Jul	12-Aug	16-Sep		42,317	31,577	4,902	10,740		26,675	10,084	16,591			
1996	6-Jul	14-Jul	22-Jul	04-Aug	10-Sep		52,500	38,161	4,402	14,339		33,759	3,936	29,823			
1997	9-Jul	15-Jul	25-Jul	26-Aug	26-Sep		12,483	12,105	2,294		378	9,811	1,982	7,829			
1998	9-Jul	11-Jul	25-Jul	26-Aug	17-Sep		12,658	12,268	3,099		390	9,169	616	8,553			
1999	10-Jul	19-Jul	31-Jul	13-Aug	15-Sep		10,748	10,319	2,870		429	7,449	497	6,952			
2000	9-Jul	21-Jul	25-Jul	03-Aug	4-Sep		6,076	5,670	1,717		406	3,953	801	3,152			
2001	08-Jul	19-Jul	31-Jul	09-Aug	14-Sep		14,811	14,761	2,386		50	12,375	4,900	7,475			
2002	07-Jul	12-Jul	25-Jul	08-Aug	14-Sep		17,740	17,340	3,051		400	14,289	3,799	10,490			
2003	07-Jul	11-Jul	29-Jul	08-Aug	18-Sep		53,933	53,533	3,946		400	49,587	21,694	27,893			
2004	07-Jul	12-Jul	25-Jul	10-Aug	15-Sep		63,372	62,952	4,243		420	58,709	29,994	28,715			
2005	07-Jul	11-Jul	04-Aug	25-Aug	15-Sep		43,446	43,046	3,424		400	39,622	16,420	23,202			
2006	09-Jul	12-Jul	27-Jul	20-Aug	13-Sep		53,855	53,455	3,403		400	50,052	24,126	25,926			
2007	09-Jul	20-Jul	08-Aug	19-Aug	15-Sep		21,074	20,874	2,839		200	18,035	7,673	10,362			
2008	13-Jul	21-Jul	30-Jul	10-Aug	18-Sep		10,516	10,416	2,364		100	8,052	4,143	3,909			
2009	09-Jul	13-Jul	18-Jul	04-Aug	14-Sep		30,673	30,324	3,011		349	27,313	4,041	23,272			
2010	07-Jul	10-Jul	29-Jul	12-Aug	15-Sep		22,860	22,702	4,484		158	18,218	7,789	10,429			
2011	09-Jul	13-Jul	18-Jul	07-Aug	15-Sep		34,588	34,248	4,559		340	29,689	10,248	19,441			
2012	09-Jul	16-Jul	24-Jul	08-Aug	30-Aug		13,687	13,463	3,949		224	9,514	3,928	5,586			
2013	07-Jul	16-Jul	20-Jul	02-Aug	08-Sep		15,828	15,828	3,196		0	12,632	6,383	6,249			
2014	16-Jul	22-Jul	25-Jul	31-Jul	11-Sep		40,145	39,745	2,881		400	36,864	17,376	19,488	3,494	1,656	1,838
2015	09-Jul	15-Jul	07-Aug	23-Aug	13-Sep		33,159	33,159	3,871		0	29,288	14,312	14,976			
2016	07-Jul	11-Jul	05-Aug	22-Aug	12-Sep		38,631	38,458	4,315		173	34,146	13,245	20,901			
2017	07-Jul	14-Jul	05-Aug	31-Aug	18-Sep		19,241	19,241	2,909		0	16,332	8,525	7,807			
2018	07-Jul	15-Jul			09-Sep		9,854	16,350	1,878		207	14,472	7,210	7,262	6,703	3,340	3,363
Averages																	
59-17	09-Jul	17-Jul	29-Jul	11-Aug	07-Sep		25,298	24,632									
08-17	09-Jul	15-Jul	27-Jul	11-Aug	12-Sep		25,933	25,758	3,554		174	22,205	8,999	13,206			

Appendix B. 28. Estimates of sockeye salmon smolt migrating through Tahltan Lake smolt weir, 1984–2018.

	Weir	Date of Arrival			Total	Total	Date and	Smolt	
Year	Installed	First	50%	90%	Count	Estimate	Expansion	Wild	Enhanced
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]		15-May	29-May	05-Jun	595,147	610,407	6/14 97.5%		
1991[c]	05-May	14-May	21-May	30-May	1,439,676	1,487,265	6/13 96.8%	1,220,397	266,868
1992[d]	07-May	13-May	21-May	27-May	1,516,150	1,555,026	6/14 97.5%	750,702	804,324
1993	07-May	11-May	17-May	22-May		3,255,045		2,855,562	399,483
1994	08-May	08-May	16-May	12-Jun		915,119		620,809	294,310
1995	05-May	06-May	13-May	11-Jun		822,284		767,027	55,257
1996	11-May	11-May	20-May	25-May		1,559,236		1,408,020	151,216
1997	07-May	11-May	23-May	30-May		518,202		348,685	169,517
1998	07-May	08-May	25-May	05-Jun		540,866		326,420	214,446
1999	06-May	10-May	09-Jun	15-Jun		762,033		468,488	293,545
2000	07-May	09-May	22-May	17-Jun		619,274		355,618	263,656
2001	06-May	07-May	24-May	18-Jun		1,495,642		841,268	654,374
2002	06-May	14-May	27-May	12-Jun		1,873,598		1,042,435	831,163
2003	06-May	11-May	29-May	06-Jun		1,960,480		979,442	981,038
2004	06-May	10-May	21-May	25-May		2,116,701		825,513	1,291,188
2005	06-May	07-May	17-May	25-May		1,843,804		943,929	899,875
2006	06-May	10-May	25-May	02-Jun		2,195,266		1,773,062	422,204
2007	06-May	16-May	21-May	28-May		1,055,114		644,987	410,127
2008	06-May	12-May	23-May	02-Jun		1,402,995		870,295	532,700
2009	06-May	14-May	26-May	01-Jun		746,045		484,929	261,116
2010	06-May	10-May	23-May	07-Jun		557,532		306,344	251,188
2011	07-May	17-May	26-May	01-Jun		1,632,119		960,531	671,588
2012	10-May	13-May	25-May	02-Jun		639,473		324,876	314,597
2013	08-May	10-May	23-May	28-May		2,387,669		1,671,368	716,301
2014	11-May	16-May	24-May	30-May	1,461,359	1,531,823	6/05 95.4%	980,367	551,456
2015	07-May	12-May	20-May	26-May	2,096,350	2,123,168		966,041	1,157,127
2016	06-May	10-May	18-May	24-May	2,094,592	2,094,592		1,019,421	1,075,171
2017	04-May	07-May	28-May	03-Jun	2,461,675	2,461,675		1,186,954	1,274,721
2018	06-May	11-May	19-May	25-May	1,014,975	1,014,975		378,733	636,242
Averages									
84-17	27-Jan	11-May	23-May	02-Jun		1,305,887		923,833	563,280
08-17	07-May	12-May	23-May	31-May		1,557,709		877,113	680,596

[a] Estimate includes approximately 30,000 mortalities from overcrowding on May 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. 29. Weir counts of Chinook salmon at Little Tahltan River, 1985–2018.

Year	Weir Installed	Date of Arrival First	50%	90%	Total Count	Broodstock and Other	Wild Spawners	Landslide mortality
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	
1992	24-Jun	04-Jul	21-Jul	30-Jul	6,627	-12	6,615	
1993	20-Jun	21-Jun	16-Jul	28-Jul	11,449	-12	11,437	
1994	18-Jun	28-Jun	22-Jul	02-Aug	6,387	-14	6,373	
1995	17-Jun	20-Jun	17-Jul	04-Aug	3,072	0	3,072	
1996	17-Jun	26-Jun	16-Jul	30-Jul	4,821	0	4,821	
1997	14-Jun	22-Jun	16-Jul	29-Jul	5,557	-10	5,547	
1998	13-Jun	19-Jun	14-Jul	29-Jul	4,879	-6	4,873	
1999	18-Jun	27-Jun	19-Jul	1-Aug	4,738	-5	4,733	
2000	19-Jun	23-Jun	21-Jul	5-Aug	6,640	-9	6,631	
2001	20-Jun	23-Jun	18-Jul	2-Aug	9,738	-8	9,730	
2002	20-Jun	23-Jun	18-Jul	27-Jul	7,490	-14	7,476	
2003	20-Jun	20-Jun	19-Jul	6-Aug	6,492	0	6,492	
2004	18-Jun	19-Jun	20-Jul	31-Jul	16,381	0	16,381	
2005	19-Jun	21-Jun	22-Jul	4-Aug	7,387	0	7,387	
2006	20-Jun	26-Jun	21-Jul	29-Jul	3,860	0	3,860	
2007	4-Jul	10-Jul	29-Jul	4-Aug	562	0	562	
2008	19-Jun	6-Jul	26-Jul	4-Aug	2,663	0	2,663	
2009	19-Jun	3-Jul	19-Jul	4-Aug	2,245	0	2,245	
2010	19-Jun	22-Jun	23-Jul	2-Aug	1,057	0	1,057	
2011	19-Jun	22-Jun	23-Jul	2-Aug	1,753	0	1,753	
2012	27-Jun	7-Jul	26-Jul	5-Aug	720	0	720	
2013	20-Jun	9-Jul	27-Jul	5-Aug	878	0	878	
2014	23-Jun	18-Jul	28-Jul	31-Jul	169		169	394
2015	19-Jun	14-Jul	24-Jul	27-Jul	450		450	
2016	22-Jun	8-Jul	28-Jul	5-Aug	921		921	
2017	23-Jun	23-Jun	18-Jul	6-Aug	428		428	
2018	23-Jun	23-Jun	18-Jul	31-Jul	453		453	
Averages								
85-17	21-Jun	28-Jun	21-Jul	02-Aug	12-May		4,514	
08-17	21-Jun	04-Jul	24-Jul	02-Aug	01-Feb		1,128	
nonlarge Chinook								
1985	03-Jul	04-Jul	31-Jul	10-Aug	316		316	
1986	28-Jun	03-Jul	25-Jul	06-Aug	572		572	
1987	28-Jun	03-Jul	26-Jul	06-Aug	365		365	
1988	26-Jun	27-Jun	17-Jul	02-Aug	327		327	
1989	25-Jun	26-Jun	23-Jul	02-Aug	199		199	
1990	22-Jun	05-Jul	22-Jul	30-Jul	417		417	
1991	23-Jun	03-Jul	24-Jul	07-Aug	313		313	
1992	24-Jun	12-Jul	22-Jul	30-Jul	131		131	
1993	20-Jun	30-Jun	14-Jul	01-Aug	60		60	
1994	18-Jun	02-Jul	22-Jul	05-Aug	121		121	
1995	17-Jun	22-Jun	28-Jul	10-Aug	135		135	
1996	17-Jun	12-Jul	25-Jul	05-Aug	22		22	
1997	14-Jun	26-Jun	21-Jul	1-Aug	54		54	
1998	13-Jun	26-Jun	20-Jul	7-Aug	37		37	
1999	18-Jun	1-Jul	23-Jul	6-Aug	202		202	
2000	19-Jun	23-Jun	20-Jul	5-Aug	108		108	
2001	20-Jun	23-Jun	27-Jul	3-Aug	269		269	
2002	20-Jun	26-Jun	21-Jul	7-Aug	618		618	
2003	20-Jun	30-Jun	21-Jul	5-Aug	334		334	
2004	18-Jun	21-Jun	19-Jul	31-Jul	250		250	
2005	19-Jun	29-Jun	23-Jul	4-Aug	231		231	
2006	20-Jun	7-Jul	23-Jul	5-Aug	93		93	
2007	04-Jul	15-Jul	29-Jul	1-Aug	12		12	
2008	19-Jun	14-Jul	25-Jul	29-Jul	139		139	
2009	19-Jun	9-Jul	19-Jul	4-Aug	99		99	
2010	19-Jun	7-Jul	26-Jul	4-Aug	221		221	
2011	27-Jun	7-Jul	26-Jul	4-Aug	194		194	
2012	27-Jun	11-Jul	18-Jul	27-Jul	51		51	
2013	20-Jun	13-Jul	27-Jul	3-Aug	183		183	
2014[a]	23-Jun	18-Jul	28-Jul	31-Jul	39		39	91
2015	19-Jun	14-Jul	24-Jul	27-Jul	490		490	
2016	22-Jun	9-Jul	28-Jul	6-Aug	318		318	
2017	23-Jun	26-Jun	26-Jul	7-Aug	311		311	
2018	24-Jun	1-Jul	27-Jul	4-Aug	413		413	
Averages								
85-17	21-Jun	03-Jul	23-Jul	03-Aug	06-Aug		219	
08-17	21-Jun	09-Jul	24-Jul	01-Aug	22-Jul		205	

[a]Landslide mortality estimate of Little Tahltan Chinook salmon 70% of reduction of 12% of harvest in FN fishery

Appendix C. 1. Weekly Chinook salmon estimates in the U.S. fisheries in D111, 2018.

ONLY weekly reference see the historcial Appendix D3 for final postseason estimate. All weekly estimates of Taku River large Chinook salmon are based on ASL and CWT data (small expansions may lead to negative numbers)

	PU	D111sport			D111 gillnet				D111 troll			US large	Amalga Seine
SW	LargeTaku	Largetotal	Large non-Taku	Large Taku	Nonlarge	Large total	Large non-Taku	Large Taku	Largetotal	Large non-Taku	LargeTaku	Taku	non-Taku
18		0		0									
19		0		0									
20		0		0									
21		0		0									
22		0		0									
23		0		0									
24		96	133	-37									
25		412	186	226	55	11	28	-17					
26		216	185	31	41	48	44	4					
27		256	0	256	50	46	59	-13					
28		184	145	39	60	73	44	29					7
29		80	97	-17	14	82	66	16					
Total	11	1,244	746	498	220	260	241	19	0	0	0	0	7

Appendix C. 2. Weekly Chinook salmon abundance estimates of above border run and harvest in the Canadian fisheries in the Taku River 2018.

	Above	Commercial-Kept		Commercial-released		Estimated mortality (50%)		Assesment/Test fishery		Aboriginal			Total large	Spawning
SW	Border Run	Large	nonlarge	Large	nonlarge	Large	nonlarge	Large	nonlarge	Large	nonlarge	Rec	Harvest	Escapement
19													0	
20													0	
21													0	
22													0	
23													0	
24													0	
25													0	
26				76	62	38	31						76	
27				51	27	26	14						51	
28				42	31	21	16						42	
29				22	21	11	11						22	
30				18	13	9	7						18	
31				8	1	4	1						8	
32				3	1	2	1						3	
33				1	2	1	1							
34														
35														
Inseason Estimate				221	158	111	79	0	0					
Postseason estimate														
	7,375					111	79			7	19	0	118	7,271

Appendix C. 3. Weekly sockeye salmon harvest of Alaskan D111 traditional and terminal hatchery access common property commercial drift gillnet fishery, 2018.

	D111 Commercial drift gillnet						
	Gillnet	Traditional StatArea specific harvests				Speel Arm SHA	Amalga Seine
SW	D111 Total	111-32	111-31/90	111-20	111-34	111-33	111-55
25	244	227	17				
26	1,100	966	134				
27	1,721	1,454	267				514
28	6,208	4,159	2,049				841
29	17,058	11,840	5,218				917
30	18,588	13,117	5,471				28
31	9,934	5,937	2,421		1,576		
32	19,124	1,973	3,216		3,010	10,925	
33	11,718	643	1,101		428	9,546	
34	5,586	1,104	620		65	3,797	
35	1,377	775	114			488	
36	196	185				11	
37	31	31					
38	3	3					
39	1	1					
40	0						
41	0						
Total	92,889	42,415	20,628	0	5,079	24,767	2,300

Appendix C. 4. Weekly stock proportions of sockeye salmon harvested in the Alaskan District 111 traditional commercial drift gillnet fishery, 2018.

Does not inlcude Port Snettisham harvests. Taku River wild stock composition estimates are based on GSI; see Appendix G. 4 for GSI details.

	D111 Commercial gillnet											
	Taku harvest proportions											
			Tatsamenie		King Salmon	Taku	Total	Wild Snet/	U.S.	Stikine	Total	Total
SW	Taku Lakes	Mainstem	Wild	Enhanced	Enhanced	Wild	Taku	wild other	Enhanced	Enhanced	Enhanced	Wild
25	0.433	0.527	0.002	0.001	0.016	0.962	0.980	0.017	0.002	0.002	0.021	0.979
26	*0.548*	*0.385*	*0.002*	*0.000*	*0.049*	0.936	0.985	*0.007*	*0.000*	*0.008*	0.057	0.943
27	*0.383*	*0.334*	*0.014*	*0.011*	*0.049*	0.731	0.791	*0.049*	*0.149*	*0.011*	0.220	0.780
28	0.192	0.286	0.014	0.013	0.012	0.492	0.517	0.058	0.419	0.006	0.450	0.550
29	0.095	0.185	0.031	0.017	0.002	0.310	0.329	0.040	0.631	0.000	0.649	0.351
30	*0.092*	*0.232*	*0.089*	*0.020*	*0.003*	0.412	0.435	*0.043*	*0.519*	*0.003*	0.545	0.455
31	*0.067*	*0.268*	*0.116*	*0.030*	*0.005*	0.451	0.486	*0.055*	*0.459*	*0.000*	0.494	0.506
32	0.005	0.159	0.064	0.004	0.004	0.228	0.237	0.097	0.662	0.004	0.675	0.325
33	0.005	0.159	0.064	0.004	0.004	0.228	0.237	0.097	0.662	0.004	0.675	0.325
34	0.009	0.130	0.113	0.006	0.000	0.252	0.258	0.061	0.680	0.000	0.687	0.313
35	0.011	0.074	0.048	0.007	0.000	0.133	0.140	0.015	0.841	0.004	0.852	0.148
36	**0.011**	**0.074**	**0.048**	**0.007**	**0.000**	0.133	0.140	**0.015**	**0.841**	**0.004**	0.852	0.148
37	**0.011**	**0.074**	**0.048**	**0.007**	**0.000**	0.133	0.140	**0.015**	**0.841**	**0.004**	0.852	0.148
38	**0.011**	**0.074**	**0.048**	**0.007**	**0.000**	0.133	0.140	**0.015**	**0.841**	**0.004**	0.852	0.148
39	**0.011**	**0.074**	**0.048**	**0.007**	**0.000**	0.133	0.140	**0.015**	**0.841**	**0.004**	0.852	0.148
40	**0.011**	**0.074**	**0.048**	**0.007**	**0.000**	0.133	0.140	**0.015**	**0.841**	**0.004**	0.852	0.148
41	**0.011**	**0.074**	**0.048**	**0.007**	**0.000**	0.133	0.140	**0.015**	**0.841**	**0.004**	0.852	0.148
Total	0.103	0.222	0.063	0.017	0.006	0.388	0.411	0.051	0.536	0.002	0.561	0.439
25	106	129	0	0	4	235	239	4	0	0	5	239
26	603	424	2	0	54	1,029	1,083	8	0	9	63	1,037
27	660	575	24	19	85	1,258	1,362	85	256	19	378	1,343
28	1,190	1,777	87	83	73	3,054	3,210	359	2,603	35	2,795	3,413
29	1,617	3,152	526	287	28	5,295	5,610	686	10,759	4	11,077	5,981
30	1,709	4,307	1,652	372	53	7,667	8,093	791	9,653	51	10,129	8,459
31	561	2,238	972	249	43	3,770	4,062	456	3,839	2	4,132	4,226
32	27	826	332	23	23	1,184	1,230	504	3,435	21	3,501	1,688
33	9	278	111	8	8	398	413	169	1,154	7	1,177	567
34	15	223	196	11	1	434	445	106	1,172	1	1,185	539
35	10	66	42	6	0	118	125	13	748	3	757	132
36	2	14	9	1	0	25	26	3	156	1	158	27
37	0	2	1	0	0	4	4	0	26	0	26	5
38	0	0	0	0	0	0	0	0	3	0	3	0
39	0	0	0	0	0	0	0	0	1	0	1	0
40	0	0	0	0	0	0	0	0	0	0	0	0
41	0	0	0	0	0	0	0	0	0	0	0	0
Total	6,508	14,010	3,954	1,060	370	24,472	25,902	3,184	33,804	152	35,387	27,656

Appendix C. 5. Weekly sockeye salmon abundance estimates of above border run and harvest in the Canadian fisheries in the Taku River, 2018.

SW	Above Border Run	Commercial All	Commercial Taku	Assesment/ Test	Aboriginal	Above Border Escapement
22						
23						
24						
25					4	
26		252	252			
27	14,390	619	619			
28	43,081	2,170	2,170			
29	50,156	2,724	2,724		6	
30	76,838	6,274	6,274			
31	98,513	2,422	2,422		2	
32	113,417	741	741			
33	111,902	591	591			
34		1,201	1,201		2	
35		552	552			
36		317	317			
37		82	82			
38		29	29			
39						
40						
Postseaso	135,351	17,974	17,974	0	14	117,363
Expanded	136,995	17,974	17,974	0	14	119,007
adjusted	116,427	17,974	17,974		14	98,439

Appendix C. 6. Estimates of wild and enhanced sockeye salmon stock harvested in the Canadian commercial fishery in the Taku River by week, 2018.

Enhanced estimates based on harvest expanations of thermally marked fish.

SW	King Salmon Enhanced	Tatsamenie Enhanced	Stikine Enhanced	US Enhanced	Taku Wild	King Salmon Enhanced	Tatsamenie Enhanced	Stikine Enhanced	US Enhanced	Taku Wild
26	0.052	0.000	0.005	0.000	0.943	13	0	1	0	238
27	0.084	0.000	0.010	0.000	0.906	52	0	6	0	561
28	0.086	0.000	0.000	0.000	0.914	188	0	0	0	1,982
29	0.042	0.016	0.005	0.000	0.937	114	43	14	0	2,553
30	0.005	0.021	0.000	0.000	0.974	33	131	0	0	6,111
31	0.005	0.053	0.000	0.000	0.941	13	129	0	0	2,280
32	0.000	0.069	0.006	0.000	0.925	0	51	4	0	685
33	0.006	0.051	0.000	0.000	0.944	3	30	0	0	558
34	0.000	0.033	0.000	0.000	0.967	0	39	0	0	1,162
35	0.000	0.087	0.000	0.000	0.913	0	48	0	0	504
36	0.000	0.093	0.000	0.000	0.907	0	30	0	0	287
37	0.000	0.086	0.000	0.000	0.914	0	7	0	0	75
38	0.000	0.000	0.000	0.000	1.000	0	0	0	0	29
Total	0.023	0.028	0.001	0.000	0.947	416	508	26	0	17,024

Appendix C. 7. Weekly coho salmon harvest in the traditional Alaskan District 111 and StatArea 111-32 (Taku Inlet), commercial drift gillnet fishery, 2018.

	D111 Total			111-32
SW	Total	Hatchery	Wild	Total
25	6		6	6
26	8		8	6
27	19		19	17
28	53		53	49
29	376		376	274
30	1,724		1,724	1,163
31	1,775		1,775	1,339
32	1,565		1,565	856
33	727	106	621	494
34	3,098	1,603	1,495	2,274
35	4,471	1,834	2,637	4,164
36	12,252	5,043	7,209	12,252
37	6,633	4,360	2,273	6,237
38	2,736	883	1,853	2,736
39	165	37	128	165
40			0	
41			0	
Total	35,608	13,866	21,742	32,032

Appendix C. 8. Weekly coho salmon abundance estimates of above border run and harvest in the Canadian fisheries in the Taku River, 2018.

	Above border	Harvest				Above border
SW	Run	Commercial	Aboriginal	Recreational	Assesment/test	Escapement
18						
19						
20						
21						
22						
23						
24						
25						
26		1				
27		3				
28		90				
29		224				
30		711				
31		347				
32		330	1			
33	15,894	552				
34	29,256	1,513	1			
35	33,173	1,676				
36	37,417	2,262				
37	52,038	1,243				
38	56,698	551				
39	57,628					
40	60,678					
41						
42						
Before SW34		2,258				
SW34 to end		7,245				
Postseason Estimate	60,678	9,503	2	0	0	51,173

Appendix C. 9. Weekly effort in the Alaskan traditional District 111 and StatArea 111–32 (Taku Inlet), commercial drift gillnet fishery, 2018.

		D111			D111-32		
SW	Start Date	Boats	Days Open	Boat Days	Boats	Days Open	Boat Days
25	17-Jun	28	2.0	56	25	2.0	50
26	24-Jun	64	2.0	128	56	2.0	112
27	1-Jul	119	2.0	238	104	2.0	208
28	8-Jul	154	3.0	462	121	2.0	242
29	15-Jul	150	4.0	600	94	3.0	282
30	22-Jul	123	4.0	492	88	3.0	264
31	29-Jul	75	4.0	300	44	4.0	176
32	5-Aug	68	4.0	272	29	3.0	87
33	12-Aug	25	3.0	75	16	2.0	32
34	20-Aug	28	3.0	84	20	3.0	60
35	26-Aug	24	3.0	72	23	3.0	69
36	2-Sep	34	4.0	136	34	4.0	136
37	9-Sep	34	3.0	102	32	3.0	96
38	16-Sep	28	2.0	56	28	2.0	56
39	23-Sep	7	1.0	7	7	1.0	7
40	30-Sep			0			0
41	7-Oct			0			0
Total			44.0	3,080		39.0	1,877

Appendix C. 10. Weekly effort in the Canadian commercial and assessment fisheries in the Taku River, 2018.

		Commercial			Assesment/test		
SW	Start Date	Average Permits	Days Fished	Permit Days	Average Permits	Days Fished	Permit Days
18	29-Apr						
19	6-May						
20	13-May						
21	20-May						
22	27-May						
23	3-Jun						
24	10-Jun						
25	17-Jun						
26	24-Jun	4.00	1.00	4.00			
27	1-Jul	6.50	2.00	13.00			
28	8-Jul	6.33	3.00	19.00			
29	15-Jul	6.67	3.00	20.00			
30	22-Jul	8.00	4.00	32.00			
31	29-Jul	7.33	3.00	22.00			
32	5-Aug	7.00	3.00	21.00			
33	12-Aug	8.00	2.00	16.00			
34	19-Aug	8.00	3.00	24.00			
35	26-Aug	7.50	4.00	30.00			
36	2-Sep	6.00	4.00	24.00			
37	9-Sep	2.00	4.00	8.00			
38	16-Sep	2.00	2.00	4.00			
39	23-Sep						
40	30-Sep						
41	7-Oct						
Total			38	237		0	0

Appendix C. 11. Daily counts of adult sockeye salmon passing through Tatsamenie Lake weir, 2018.

Date	Count	Cumulative Count	Cumulative Percent
9-Aug	Weir installed		
10-Aug	0	0	0.0
11-Aug	0	0	0.0
12-Aug	0	0	0.0
13-Aug	0	0	0.0
14-Aug	0	0	0.0
15-Aug	0	0	0.0
16-Aug	0	0	0.0
17-Aug	0	0	0.0
18-Aug	0	0	0.0
19-Aug	0	0	0.0
20-Aug	0	0	0.0
21-Aug	11	11	0.2
22-Aug	113	124	2.4
23-Aug	107	231	4.5
24-Aug	162	393	7.7
25-Aug	268	661	13.0
26-Aug	58	719	14.1
27-Aug	450	1,169	23.0
28-Aug	51	1,220	24.0
29-Aug	182	1,402	27.6
30-Aug	91	1,493	29.4
31-Aug	146	1,639	32.2
1-Sep	27	1,666	32.8
2-Sep	140	1,806	35.5
3-Sep	46	1,852	36.4
4-Sep	87	1,939	38.1
5-Sep	148	2,087	41.0
6-Sep	70	2,157	42.4
7-Sep	351	2,508	49.3
8-Sep	227	2,735	53.8
9-Sep	110	2,845	55.9
10-Sep	23	2,868	56.4
11-Sep	385	3,253	64.0
12-Sep	130	3,383	66.5
13-Sep	120	3,503	68.9
14-Sep	235	3,738	73.5
15-Sep	223	3,961	77.9
16-Sep	59	4,020	79.0
17-Sep	259	4,279	84.1
18-Sep	30	4,309	84.7
19-Sep	19	4,328	85.1
20-Sep	21	4,349	85.5
21-Sep	19	4,368	85.9
22-Sep	156	4,524	89.0
23-Sep	93	4,617	90.8
24-Sep	1	4,618	90.8
25-Sep	112	4,730	93.0
26-Sep	44	4,774	93.9
27-Sep	120	4,894	96.2
28-Sep	11	4,905	96.4
29-Sep	7	4,912	96.6
30-Sep	6	4,918	96.7
1-Oct	18	4,936	97.1
2-Oct	0	4,936	97.1
6-Oct	Weir removed		

	Total	Wild	enhanced
Holding below weir	150		
Weir count	5,086	3,614	1,472
Outlet spawners			
carcass otolith samples	0		
broodstock otolith samples	394	280	114
Broodstock a	1,304	927	377
Natural Spawners	3,782	2,688	1,094

A Broodstock included 670 females and 625 males from which gametes were collected,
5 female and 4 male mortalities, and 325 females and 71 males which were held and released unspawned.
The spawning success of the released fish is not known.

Appendix C. 12. Daily counts of adult sockeye salmon passing through Little Trapper Lake weir, 2018.

		Cumulative	
Date	Count	Count	Percent
22-Jul	Weir installed		
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	67	67	0.8
31-Jul	151	218	2.6
1-Aug	275	493	6.0
2-Aug	143	636	7.7
3-Aug	66	702	8.5
4-Aug	363	1,065	12.9
5-Aug	88	1,153	14.0
6-Aug	11	1,164	14.1
7-Aug	40	1,204	14.6
8-Aug	3	1,207	14.6
9-Aug	101	1,308	15.9
10-Aug	107	1,415	17.2
11-Aug	117	1,532	18.6
12-Aug	44	1,576	19.1
13-Aug	35	1,611	19.5
14-Aug	150	1,761	21.3
15-Aug	21	1,782	21.6
16-Aug	96	1,878	22.8
17-Aug	34	1,912	23.2
18-Aug	3	1,915	23.2
19-Aug	1,200	3,115	37.8
20-Aug	1,270	4,385	53.2
21-Aug	997	5,382	65.2
22-Aug	637	6,019	73.0
23-Aug	560	6,579	79.8
24-Aug	173	6,752	81.9
25-Aug	316	7,068	85.7
26-Aug	172	7,240	87.8
27-Aug	133	7,373	89.4
28-Aug	120	7,493	90.8
29-Aug	57	7,550	91.5
30-Aug	56	7,606	92.2
31-Aug	57	7,663	92.9
1-Sep	37	7,700	93.3
2-Sep	57	7,757	94.0
3-Sep	10	7,767	94.2
4-Sep	71	7,838	95.0
5-Sep	86	7,924	96.1
6-Sep	42	7,966	96.6
7-Sep	11	7,977	96.7
8-Sep	5	7,982	96.8
9-Sep	100	8,082	98.0
10-Sep	1	8,083	98.0
11-Sep	45	8,128	98.5
12-Sep	121	8,249	100.0
14-Sep	Weir removed		

	Total	Wild enhanced
Holding below weir	0	
Escapement to lake	8,249	
Outlet spawners	0	
otolith samples	0	
Broodstock	0	
Natural Spawners	8,249	

Appendix C. 13. Daily counts of adult sockeye salmon passing through the King Salmon Lake weir, 2018.

		Cumulative	
Date	Count	Count	Percent
8-Jul	Weir installed		
12-Jul	18	18	0.5
13-Jul	21	39	1.2
14-Jul	19	58	1.7
15-Jul	77	135	4.0
16-Jul	30	165	4.9
17-Jul	58	223	6.6
18-Jul	41	264	7.8
19-Jul	116	380	11.3
20-Jul	29	409	12.1
21-Jul	284	693	20.5
22-Jul	221	914	27.1
23-Jul	295	1,209	35.8
24-Jul	1,582	2,791	82.7
25-Jul	0	2,791	82.7
26-Jul	1	2,792	82.7
27-Jul	21	2,813	83.3
28-Jul	0	2,813	83.3
29-Jul	0	2,813	83.3
30-Jul	0	2,813	83.3
31-Jul	0	2,813	83.3
1-Aug	40	2,853	84.5
2-Aug	0	2,853	84.5
3-Aug	0	2,853	84.5
4-Aug	20	2,873	85.1
5-Aug	0	2,873	85.1
6-Aug	50	2,923	86.6
7-Aug	0	2,923	86.6
8-Aug	0	2,923	86.6
9-Aug	30	2,953	87.5
10-Aug	0	2,953	87.5
11-Aug	3	2,956	87.6
12-Aug	0	2,956	87.6
13-Aug	0	2,956	87.6
14-Aug	0	2,956	87.6
15-Aug	7	2,963	87.8
16-Aug	20	2,983	88.4
17-Aug	0	2,983	88.4
18-Aug	0	2,983	88.4
19-Aug	0	2,983	88.4
20-Aug	0	2,983	88.4
21-Aug	0	2,983	88.4
22-Aug	0	2,983	88.4
23-Aug	24	3,007	89.1
24-Aug	185	3,192	94.6
25-Aug	92	3,284	97.3
26-Aug	0	3,284	97.3
27-Aug	52	3,336	98.8
28-Aug	15	3,351	99.3
29-Aug	0	3,351	99.3
30-Aug	0	3,351	99.3
31-Aug	0	3,351	99.3
1-Sep	5	3,356	99.4
2-Sep	19	3,375	100.0
3-Sep	0	3,375	100.0
4-Sep	Weir removed		
Total	3,375		
Escapement to lake		3,375	
Broodstock			
Spawners		3,375	
Helicopter survey			

Appendix C. 14. Daily counts of adult sockeye salmon passing through the Kuthai Lake weir, 2018.

		Cumulative	
Date	Count	Count	Percent
8-Jul	Weir installed		
9-Jul	0	0	0.0
10-Jul	0	0	0.0
11-Jul	0	0	0.0
12-Jul	0	0	0.0
13-Jul	0	0	0.0
14-Jul	0	0	0.0
15-Jul	0	0	0.0
16-Jul	0	0	0.0
17-Jul	0	0	0.0
18-Jul	0	0	0.0
19-Jul	0	0	0.0
20-Jul	0	0	0.0
21-Jul	0	0	0.0
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
1-Aug	0	0	0.0
2-Aug	0	0	0.0
3-Aug	0	0	0.0
4-Aug	1	1	7.7
5-Aug	3	4	30.8
6-Aug	8	12	92.3
7-Aug	0	12	92.3
8-Aug	0	12	92.3
9-Aug	0	12	92.3
10-Aug	0	12	92.3
11-Aug	0	12	92.3
12-Aug	0	12	92.3
13-Aug	0	12	92.3
14-Aug	0	12	92.3
15-Aug	0	12	92.3
16-Aug	0	12	92.3
17-Aug	0	12	92.3
18-Aug	0	12	92.3
19-Aug	0	12	92.3
20-Aug	0	12	92.3
21-Aug	0	12	92.3
22-Aug	0	12	92.3
23-Aug	0	12	92.3
24-Aug	0	12	92.3
25-Aug	0	12	92.3
26-Aug	0	12	92.3
27-Aug	0	12	92.3
28-Aug	0	12	92.3
29-Aug	0	12	92.3
30-Aug	0	12	92.3
31-Aug	1	13	100.0
1-Sep	0	13	100.0
2-Sep	0	13	100.0
3-Sep	0	13	100.0
4-Sep	0	13	100.0
5-Sep	Weir removed		
Total count		13	
Harvest above weir			
Escapement		13	

Appendix C. 15. Daily counts of large Chinook salmon carcasses at the Nakina River weir, 2018.

	Count (all sizes)				Cumulative Count		Size (sex combined)		
Date	Female	Male	Unknown	Combined	Count	Percent	Large	nonlarge	unknown
3-Aug				0	0	0.0			
4-Aug				0	0	0.0			
5-Aug				0	0	0.0			
6-Aug				0	0	0.0			
7-Aug				0	0	0.0			
8-Aug				0	0	0.0			
9-Aug				0	0	0.0			
10-Aug				0	0	0.0			
11-Aug				0	0	0.0			
12-Aug	1	1		2	2	2.7	1	1	
13-Aug		2		2	4	5.4		2	
14-Aug		1		1	5	6.8		1	
15-Aug	1	1		2	7	9.5	1	1	
16-Aug		4		4	11	14.9	1	3	
17-Aug		11		11	22	29.7	2	9	
18-Aug	1	3		4	26	35.1	3	1	
19-Aug	1	3		4	30	40.5	1	3	
20-Aug		8	1	9	39	52.7		8	1
21-Aug	1	13	1	15	54	73.0	1	14	
22-Aug	1	5		6	60	81.1	1	5	
23-Aug		6		6	66	89.2		6	
24-Aug		2		2	68	91.9		2	
25-Aug	1	3		4	72	97.3	1	3	
26-Aug	1	1		2	74	100.0	1	1	
27-Aug	Weir removed								
Total	8	64	2	74			13	60	1

Appendix D. 1. All historic harvest and effort of salmon in the D111 gillnet fishery, 1960–2018.

Year	Chinook	Sockeye	Coho	Pink	Chum	Boat Days	Days open
1960	8,810	42,819	22,374	33,155	41,852		60
1961	7,434	45,981	15,486	41,455	24,433		62
1962	5,931	36,745	15,661	17,280	20,635		52
1963	2,652	24,119	10,855	21,692	20,114		54
1964	2,509	34,140	29,315	26,593	12,853		56
1965	4,170	27,569	32,667	2,768	11,533		63
1966	4,829	33,925	26,065	23,833	35,133		64
1967	5,417	17,735	40,391	12,372	22,834		53
1968	4,904	19,501	39,103	67,365	21,890		60
1969	6,986	41,222	10,802	74,178	15,046	1,518	42
1970	3,357	50,862	44,569	196,237	110,621	2,688	53
1971	6,945	66,261	41,588	31,296	90,964	3,053	55
1972	10,949	80,911	49,609	144,237	148,432	3,103	51
1973	9,799	85,402	35,453	58,186	109,245	3,286	41
1974	2,908	38,726	38,667	57,820	86,692	2,315	30
1975	2,182	32,550	1,185	9,567	2,678	1,084	16
1976	1,757	62,174	41,664	14,977	81,972	1,914	25
1977	1,068	72,030	54,929	88,904	60,964	2,258	27
1978	1,926	55,398	31,944	51,385	36,254	2,174	26
1979	3,701	122,148	16,194	152,836	61,194	2,269	29
1980	2,251	123,451	41,677	296,622	192,793	4,123	31
1981	1,721	49,942	26,711	254,856	76,438	2,687	30
1982	3,014	83,722	29,073	109,270	37,584	2,433	36
1983	888	31,821	21,455	66,239	15,264	1,274	33
1984	1,773	77,233	33,836	145,971	86,764	2,757	53
1985	2,632	88,093	55,518	311,305	106,900	3,264	48
1986	2,584	73,061	30,512	16,568	58,792	2,129	33
1987	2,076	75,212	35,219	363,439	121,660	2,514	35
1988	1,777	38,901	44,818	157,732	140,038	2,135	32
1989	1,811	74,019	51,812	180,639	36,979	2,333	41
1990	3,480	126,884	67,530	153,126	145,799	3,188	38
1991	3,214	109,471	126,576	74,170	160,422	4,145	57
1992	2,341	135,411	172,662	314,445	112,527	4,550	50
1993	7,159	171,427	65,539	29,216	167,902	3,827	43
1994	5,047	105,893	188,501	401,525	214,171	5,078	66
1995	4,660	103,362	83,606	41,228	349,949	4,034	49
1996	2,659	199,014	33,633	12,660	354,463	3,229	46
1997	2,804	94,745	3,515	51,424	176,864	2,107	33
1998	794	69,677	28,713	168,283	296,111	3,070	48
1999	1,949	79,686	17,608	59,316	429,359	2,841	59
2000	1,154	185,956	7,828	58,696	669,994	2,919	40
2001	1,698	293,043	22,646	123,026	237,122	4,731	54
2002	1,850	204,103	40,464	78,624	231,936	4,095	62
2003	1,467	238,160	24,338	114,166	170,874	3,977	78
2004	2,345	283,756	45,769	154,640	131,757	3,342	63
2005	23,301	106,048	21,289	182,778	93,700	3,734	68
2006	11,261	262,527	60,145	191,992	382,952	4,052	89
2007	1,452	112,241	22,394	100,375	590,169	3,505	64
2008	2,193	116,693	37,349	90,162	774,095	3,116	49
2009	6,800	62,070	36,615	56,801	918,350	3,438	62
2010	1,685	76,607	62,241	132,785	488,898	2,832	54
2011	2,510	163,896	28,574	344,766	667,929	3,481	46
2012	1,291	140,898	24,115	193,969	566,741	2,608	43
2013	1,224	207,231	51,441	127,343	726,849	3,655	62
2014	1,471	126,738	54,186	29,190	291,409	3,343	65
2015	1,150	83,431	23,572	296,575	475,456	2,391	44
2016	595	215,049	35,037	46,604	448,284	2,850	56
2017	1,086	113,818	16,002	230,243	885,694	3,384	43
2018	783	92,889	35,930	24,300	517,812	3,080	44
average							
60-17	3,698	101,464	40,880	118,740	224,971	3,037	
08-17	2,001	130,643	36,913	154,844	624,371	3,110	

Appendix D. 2. District 111 total Chinook salmon harvest in the US gillnet, sport, and personal use fisheries, 2005–2018.

Reference only mostly based on CWT--See Appendix D3 for estimates of Taku River large Chinook salmon.

	PU	Sport		Drift Gillnet		
Year	Large	Large	Large non-Taku	Large	Large non-Taku	nonlarge
2005	32	2,967		17,952	850	5,056
2006	18	2,396		10,233	808	948
2007	22	1,411		616	32	619
2008	46	1,255		920	332	893
2009	25	1,287		5,673	814	886
2010	36	2,173	849	975	235	308
2011	48	1,261	198	641	86	941
2012	34	1,407	449	762	68	309
2013	20	2,171	1,327	473	90	496
2014	21	2,045	927	769	124	375
2015	29	953		493	82	392
2016	30	1,081	444	212	80	157
2017	1	1,120	1,240	309	73	566
2018	11	1,244	746	260	241	220
Averages						
08-17	28				183	540

Appendix D. 3. Annual estimates of Taku River large Chinook salmon in the D111 fisheries, 2005–2018.

Estimates based on GSI for gillnet and sport; troll is CWT.
For detailed GSI stock comp estimates see Appendix G. 6.

Year	PU	Sport	Gillnet	Troll	Total large Taku
2010		0.453	0.539		
2011		0.454	0.809		
2012		0.494	0.876		
2013		0.125	0.753		
2014		0.396	0.635		
2015		0.486	0.592		
2016		0.587	*0.749*		
2017		0.031	*0.464*		
2018		0.007	0.118		
Average 10-17		0.38	0.68		
2005	32	2,476	16,490	21	19,019
2006	18	2,048	9,257	11	11,334
2007	22	1,034	303	0	1,359
2008	46	632	445	0	1,123
2009	25	673	4,609	2	5,309
2010	36	984	526	0	1,546
2011	48	573	518	0	1,139
2012	34	695	668	8	1,405
2013	20	271	356	0	648
2014	21	810	489	0	1,320
2015	29	463	292	0	784
2016	30	635	*159*	0	824
2017	1	34	*143*	0	179
2018	11	9	31	0	50
Averages 08-17	28	619	773	1	1,421

Appendix D. 4. Annual Chinook Salmon harvest in the Canadian fisheries in the Taku River, 1979–2018.

	Commerical		Commerical mortality		Aboriginal		Assesment/Test			Rec	Total
Year	Large	nonlarge	Large	nonlarge	Large	nonlarge	Large	nonlarge	released large	Large	All Large
1979	97									300	397
1980	225				85					300	610
1981	159									300	459
1982	54									300	354
1983	156	400			9					300	465
1984	294	221			0					300	594
1985	326	24			4					300	630
1986	275	77			10					300	585
1987	127	106			0					300	427
1988	555	186			27		72			300	954
1989	895	139			6		31			300	1,232
1990	1,258	128			0		48			300	1,606
1991	1,177	432			0		0			300	1,477
1992	1,445	147			121		0			300	1,866
1993	1,619	171			25		0			300	1,944
1994	2,065	235			119		There was no Canadian coho test fishery			300	2,484
1995	1,577	298			70		There was no Canadian coho test fishery			105	1,752
1996	3,331	144			63		There was no Canadian coho test fishery			105	3,499
1997	2,731	84			103					105	2,939
1998	1,107	227			60		There was no Canadian coho test fishery			105	1,272
1999	908	257			50		577	2	181	105	1,640
2000	1,576	87			50		1,312	87	439	105	3,043
2001	1,458	118			125		1,175	229	871	105	2,863
2002	1,561	291			37		1,311	355	1,132	105	3,014
2003	1,894	547			277	237	1,403	397		105	3,679
2004	2,082	335			277	116	1,489	294		105	3,953
2005	7,399	821			212		0	0		105	7,716
2006	7,377	207			222		630	9		105	8,334
2007	874	426			167	16	1,396	302		105	2,542
2008	913	330			1		1,399	139		105	2,418
2009	6,759	1,137			172	0	0	0		105	7,036
2010	5,238	700			126	0	0	0		105	5,469
2011	2,342	514			150	21	680	134		105	3,277
2012	1,930	479			67	14	863	114		105	2,965
2013	579	653			54	16	There were no assesment/test fisheries			105	738
2014	1,041	579			96	16	1,230	62		105	2,472
2015	868	305			117	12	1,357	87		105	2,447
2016	508	195			91	10	1,021	144		10	1,630
2017	246	88			4	31	0	0		0	250
2018	0	0	111	79	7	19	0	0		0	118
Averages											
85-17	1,941	317			88					158	2,671
08-17	1,936	491			95	14	795	98		87	2,840

Appendix D. 5. Taku River large Chinook salmon run size, 1979–2018.

Run estimate does not include spawning escapements below the U.S./Canada border. U.S. harvest estimates after 2004 are based on GSI (gillnet and sport fish) and CWT (troll) and harvest in the fisheries between SW 18-29.

	Above Border M-R							Above Border		
	Spawning			Confidence Intervals		Canadian	Inriver	Run	U.S.	Terminal
Year	Escapement	adjusted	Method	Lower	Upper	Catch/Harvest	released mortality	Estimate	Harvest	Run
1989	40,329		Mark-recapture	29,263	51,395	1,232		41,561		
1990	52,142		Mark-recapture	33,863	70,421	1,606		53,748		
1991	51,645		Aerial expansion	17,072	86,218	1,477		53,122		
1992	55,889		Aerial expansion	18,475	93,303	1,866		57,755		
1993	66,125		Aerial expansion	21,858	110,392	1,944		68,069		
1994	48,368		Aerial expansion	15,989	80,747	2,484		50,852		
1995	33,805		Medium expansior	23,887	43,723	1,752		35,557	6,263	41,820
1996	79,019		Mark-recapture	61,285	96,753	3,499		82,518	6,280	88,798
1997	114,938		Mark-recapture	79,878	149,998	2,939		117,877	8,325	126,202
1998	31,039		Aerial expansion	10,255	51,823	1,272		32,311	2,605	34,916
1999	16,786		Mark-recapture	10,571	23,001	1,640		18,426	4,019	22,445
2000	34,997		Mark-recapture	24,407	45,587	3,043		38,040	3,472	41,512
2001	46,644		Mark-recapture	33,383	59,905	2,863		49,507	3,883	53,390
2002	55,044		Mark-recapture	33,313	76,775	3,014		58,058	3,282	61,340
2003	36,435		Mark-recapture	23,293	49,577	3,679		40,114	2,768	42,882
2004	75,032		Mark-recapture	54,883	95,181	3,953		78,985	3,696	82,681
2005	38,599		Mark-recapture	28,980	48,219	7,716		46,315	19,019	65,334
2006	42,191		Mark-recapture	31,343	53,040	8,334		50,525	11,334	61,859
2007	14,749		Mark-recapture	8,326	21,172	2,542		17,291	1,359	18,650
2008	26,645		Mark-recapture	20,744	32,545	2,418		29,063	1,123	30,186
2009	22,761		Mark-recapture	17,134	28,388	7,036		29,797	5,309	35,106
2010	28,769		Mark-recapture	23,840	33,698	5,469		34,238	1,546	35,784
2011	27,523		Medium expansior	19,411	35,635	3,277		30,800	1,139	31,939
2012	19,538		Medium expansior	15,007	23,851	2,965		22,503	1,405	23,908
2013	18,002		Aerial expansion	4,500	31,504	738		18,740	648	19,388
2014	23,532		Mark-recapture	19,187	27,877	2,472		26,004	1,320	27,324
2015	28,827		Mark-recapture	20,853	36,848	2,447		31,274	784	32,058
2016	12,381		Mark-recapture	9,513	15,249	1,630		14,011	824	14,835
2017		8,214	Mark-recapture	6,679	9,749	250		8,464	179	8,643
2018		7,271	Mark-recapture	5,745	8,798	7	111	7,389	50	7,439
Averages										
95-17	36,325					3,259		39,583	3,938	43,522
08-17	21,619					2,870		24,489	1,428	25,917

Appendix D. 6. Aerial survey index escapement counts of large (3-ocean and older) Taku River Chinook salmon, 1975–2018.

Year	Kowatua	Tatsamenie	Dudidontu	Tseta	Nakina[a]		Nahlin	Total Index Count without Tseta
					added fish for index 4	Total fish		
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		21		1,620	624	3,284
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	9,528
1982	289	387	130	228		2,533	1,246	4,585
1983	171	236	117	179		968	391	1,883
1984	279	616		**176**		1,887	**951**	3,733
1985	699	848	475	303		2,647	2,236	6,905
1986	548	886	413	193		3,868	1,612	7,327
1987	570	678	287	180		2,906	1,122	5,563
1988	1,010	1,272	243	66		4,500	1,535	8,560
1989	601	1,228	204	494		5,141	1,812	8,986
1990	614	1,068	820	172		7,917	1,658	12,077
1991	570	1,164	804	224		5,610	1,781	9,929
1992	782	1,624	768	313		5,750	1,821	10,745
1993	1,584	1,491	1,020	491		6,490	2,128	12,713
1994	410	1,106	573	614		4,792	2,418	9,299
1995	550	678	731	786		3,943	2,069	7,971
1996	1,620	2,011	1,810	1,201		7,720	5,415	18,576
1997	1,360	1,148	943	648		6,095	3,655	13,201
1998	473	675	807	360		2,720	1,294	5,969
1999	561	431	527	221		1,900	532	3,951
2000	702	953	482	160		2,907	728	5,772
2001	1,050	1,024	479	202		1,552	935	5,040
2002	945	1,145	834	192		4,066	1,099	8,089
2003	850	1,000	644	436		2,126	861	5,481
2004	828	1,396	1,036	906		4,091	1,787	9,138
2005	833	1,146	318	215		1,213	471	3,981
2006	1,180	908	395	199		1,900	955	5,338
2007	262	390	4	199		NA	277	933
2008	690	1,083	480	497		1,437	1,121	4,811
2009	408	633	272	145		1,698	1,033	4,044
2010	716	821	561	128		1,730	1,018	4,846
2011	377	917	301	128		1,380	808	3,783
2012	402	660	126			1,300	726	3,214
2013	708	438	166		148	1,623	527	3,462
2014	384	376	193		100	1,040	304	2,297
2015	622	434	289		134	1,340	612	3,297
2016	303	92	156		80	800	379	1,730
2017	272	179	37		30	301	134	923
2018	202	121	363		76	765	268	1,719
85-17	712	906	521	358	98	3,203	1,359	6,605
08-17	488	563	258	225	98	1,265	666	3,241
	0.41	0.21	1.41	0.00	0.77	0.60	0.40	0.53

[a] Stopped flying index area 4 on the Nakina after 2009.

Appendix D. 7. Annual sockeye salmon harvest in the Alaskan District 111 fisheries, includes estimates of Taku wild and enhanced fish in the gillnet, seine, and personal use fisheries, 1967–2018.

Personal Use wild/enhanced estimates are based on the Canadian lower river commerical fishery.

	D111 Gillnet harvest				D111 Amalga Seine harvest			PU Taku harvest		
	All	Traditional D111 Gillnet without 111-34 for stock comp			All					
Year	D111 Gillnet	harvest	Wild Taku	EnhancedTaku	D111 Seine	Wild Taku	EnhancedTaku	All Taku	Wild Taku	EnhancedTaku
1967	17,735	15,282						103	103	
1968	19,501	17,721						41	41	
1969	41,169	40,053						122	122	
1970	50,922	49,951						304	304	
1971	66,181	62,593						512	512	
1972	80,404	76,478						554	554	
1973	85,317	81,149						1,227	1,227	
1974	38,670	33,934						1,431	1,431	
1975	32,513	32,271						170	170	
1976	61,749	54,456						351	351	
1977	70,097	66,844								
1978	55,398	54,305								
1979	122,148	115,192								
1980	123,451	116,861								
1981	49,942	48,912								
1982	83,625	80,161								
1983	31,821	31,073								
1984	77,233	76,015								
1985	88,077	87,550						920	920	
1986	73,061	72,713								
1987	75,212	76,377								
1988	38,923	38,885								
1989	74,019	73,991						562	562	
1990	126,884	126,876						793	793	
1991	109,877	111,002						800	800	
1992	135,411	132,669						1,217	1,217	
1993	171,556	171,373						1,201	1,201	
1994	105,861	105,758						1,111	1,111	
1995	103,377	103,361	86,929	4,065				990	950	40
1996	199,014	198,303	181,776	4,762				1,189	1,168	21
1997	94,745	94,486	76,043	2,031				1,053	1,024	29
1998	69,677	68,462	47,824	806				1,202	1,165	37
1999	79,425	77,515	61,205	599				1,254	1,236	18
2000	168,272	166,248	128,567	1,561				1,134	1,116	18
2001	290,450	284,786	194,091	8,880				1,462	1,405	57
2002	178,488	176,042	114,460	651				1,289	1,287	2
2003	205,433	177,903	134,957	767				1,218	1,208	10
2004	241,254	177,830	75,186	676				1,150	1,135	15
2005	87,254	71,472	44,360	579				1,150	1,136	14
2006	134,781	99,622	62,814	2,210				804	773	31
2007	112,241	107,129	60,879	3,684				566	508	58
2008	116,693	116,693	63,002	11,680				1,010	903	107
2009	62,070	62,070	35,121	240				871	863	8
2010	61,947	61,947	44,837	910				1,020	987	33
2011	100,400	100,049	65,090	5,604				1,111	1,024	87
2012	140,898	124,830	45,410	4,039				1,287	1,149	138
2013	207,231	137,739	84,567	12,779	4,429	1,054	372	1,371	1,152	219
2014	126,738	84,529	30,672	859	1,440	536	26	1,133	1,098	35
2015	83,431	51,286	40,904	194	912			955	948	7
2016	215,049	131,025	66,980	6,710	2,684			1,184	1,051	133
2017	113,818	111,409	67,706	6,042	2,689			856	775	81
2018	92,889	63,043	24,472	1,431	2,300			1,612	1,527	85
Averages										
95-17	138,812	121,075	78,843	3,493				1,098	1,046	52
08-17	122,828	98,158	54,429	4,906				1,080	995	85

Appendix D. 8. Stock proportions and harvest of sockeye salmon in the traditional Alaska District 111 commercial drift gillnet fishery, 1983–2018.

Data based on SPA, otolith marks, and incidence of brain parasites 1983-2011; based on GSI 2012 to present; does not include harvest inside Port Snettisham; Wild Snet = Crescent+Speel

	D111 Gillnet harvest										Amalga Seine harvest	
			Tatsamenie		Little Trapper	King Salmon	Taku	Total	Wild Snet/	U.S.	Stikine	Taku	
Week	Taku Lakes	Mainstem	Wild	Enhanced	Enhanced	Enhanced	Wild	Taku	Wild other	Enhanced	Enhanced	Wild	Enhance
1983							0.755	0.755					
1984							0.758	0.758					
1985							0.838	0.838					
1986	0.328	0.303	0.204				0.834	0.834	0.166				
1987	0.312	0.376	0.031				0.720	0.720	0.280				
1988	0.276	0.305	0.082				0.663	0.663	0.337				
1989[a]							0.849	0.849	0.152				
1990	0.232	0.336	0.286				0.855	0.855	0.145				
1991	0.337	0.373	0.232				0.941	0.941	0.059				
1992	0.269	0.445	0.191				0.904	0.904	0.096				
1993	0.391	0.308	0.123				0.822	0.822	0.178				
1994	0.466	0.361	0.091				0.917	0.917	0.058	0.025			
1995	0.260	0.428	0.153	0.029	0.010		0.841	0.880	0.093	0.026			
1996	0.186	0.499	0.232	0.014	0.010		0.917	0.941	0.045	0.014			
1997	0.237	0.282	0.286	0.011	0.011		0.805	0.826	0.053	0.120			
1998	0.245	0.209	0.245	0.004	0.008		0.699	0.710	0.033	0.257			
1999	0.436	0.235	0.119	0.005	0.003		0.790	0.797	0.072	0.131			
2000	0.412	0.211	0.151	0.008	0.002		0.773	0.783	0.058	0.160			
2001	0.206	0.268	0.207	0.031	0.000		0.682	0.713	0.046	0.241			
2002	0.352	0.173	0.126	0.004	0.000		0.650	0.654	0.047	0.299			
2003	0.328	0.398	0.033	0.004	0.000		0.759	0.763	0.056	0.181			
2004	0.148	0.233	0.042	0.004	0.000		0.423	0.427	0.051	0.522			
2005	0.125	0.456	0.040	0.008	0.000		0.621	0.629	0.145	0.226			
2006	0.110	0.361	0.159	0.022	0.000		0.631	0.653	0.060	0.288			
2007	0.124	0.355	0.089	0.034	0.000		0.568	0.603	0.106	0.291			
2008	0.119	0.267	0.154	0.100	0.000		0.540	0.640	0.082	0.278			
2009	0.114	0.343	0.109	0.004	0.000		0.566	0.570	0.140	0.288	0.002		
2010	0.046	0.523	0.155	0.012	0.002		0.724	0.738	0.152	0.109	0.001		
2011	0.118	0.397	0.135	0.040	0.016		0.651	0.707	0.045	0.246	0.003		
2012	0.122	0.242		0.028	0.005		0.364	0.396	0.090	0.512	0.002		
2013	0.322	0.292		0.090	0.003		0.614	0.707	0.135	0.154	0.004	0.238	0.084
2014	0.079	0.268	0.016	0.010	0.000		0.363	0.373	0.176	0.448	0.003	0.372	0.018
2015	0.219	0.575	0.004	0.004	0.000		0.798	0.801	0.063	0.131	0.005		
2016	0.102	0.264	0.145	0.046		0.005	0.511	0.562	0.054	0.383	0.001		
2017	0.093	0.245	0.270	0.050		0.004	0.608	0.662	0.042	0.293	0.003		
2018	0.103	0.222	0.063	0.017		0.006	0.388	0.411	0.051	0.536	0.002		
Averages													
86-17	0.229	0.333	0.142				0.700	0.720	0.104				
08-17	0.133	0.342	0.124				0.574	0.616	0.098				
1983							23,460	23,460					
1984							57,619	57,619					
1985							73,367	73,367					
1986	23,816	21,999	14,829				60,644	60,644	12,069				
1987	23,851	28,724	2,388				54,963	54,963	21,414				
1988	10,741	11,854	3,191				25,785	25,785	13,100				
1989[a]							62,804	62,804	11,210				
1990	29,489	42,673	36,330				108,492	108,492	18,384				
1991	37,359	41,376	25,736				104,471	104,471	6,531				
1992	35,625	59,004	25,329				119,959	119,959	12,709				
1993	66,952	52,820	21,116				140,888	140,888	30,485				
1994	49,234	38,142	9,576				96,952	96,952	6,172	2,634			
1995	26,893	44,271	15,765	3,049	1,017		86,929	90,994	9,641	2,727			
1996	36,917	98,876	45,983	2,849	1,913		181,776	186,538	8,928	2,838			
1997	22,389	26,621	27,033	1,003	1,028		76,043	78,074	5,054	11,358			
1998	16,775	14,306	16,743	246	560		47,824	48,630	2,244	17,588			
1999	33,780	18,231	9,194	358	241		61,205	61,804	5,556	10,155			
2000	68,500	35,025	25,042	1,285	276		128,567	130,128	9,592	26,528			
2001	58,736	76,418	58,937	8,880	0		194,091	202,971	13,166	68,649			
2002	61,922	30,397	22,141	651	0		114,460	115,111	8,224	52,708			
2003	58,280	70,801	5,876	767	0		134,957	135,724	9,983	32,196			
2004	26,314	41,366	7,505	676	0		75,186	75,862	9,157	92,810			
2005	8,909	32,591	2,860	579	0		44,360	44,939	10,371	16,161			
2006	10,995	35,993	15,825	2,210	0		62,814	65,024	5,940	28,659			
2007	13,311	38,084	9,484	3,684	0		60,879	64,563	11,353	31,213			
2008	13,833	31,170	17,999	11,680	0		63,002	74,682	9,544	32,467			
2009	7,050	21,275	6,796	240	0		35,121	35,361	8,674	17,888	148		
2010[a]	2,833	32,407	9,597	760	150		44,837	45,747	9,390	6,759	79		
2011	11,799	39,743	13,548	4,047	1,557		65,090	70,694	4,473	24,595	288		
2012	15,221	30,189	0	3,453	587		45,410	49,449	11,210	63,963	208		
2013	44,412	40,155	0	12,373	406		84,567	97,346	18,641	21,172		1,054	372
2014	6,694	22,622	1,356	859	0		30,672	31,531	14,868	37,880		536	26
2015	11,254	29,467	183	194	0		40,904	41,099	3,238	6,698	250		
2016	13,357	34,570	19,053	6,039		671	66,980	73,690	7,027	50,150	154		
2017	10,330	27,340	30,035	5,576		466	67,706	73,748	4,655	32,645	361		
2018	6,508	14,010	3,954	1,060		370	24,472	25,902	3,184	33,804	152		
Average[a]													
86-17	27,664	37,694	16,111				80,885	83,396	10,406	28,768			
08-17	13,678	30,894	9,857	4,522	337		54,429	59,335	9,172	29,422			

[a] The Trapper and Mainstem groups were combined in the 1989 and 2010 analyses.

Appendix D. 9. Proportion of wild Taku River sockeye salmon in the Alaskan District 111 commercial drift gillnet harvest by week, 1983–2018.

Data based on SPA and incidence of brain parasites 1983-2011; based on GSI 2012 to present. Does not include enhanced fish.

	Week										
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	0.720
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
1992		0.978	0.985	0.956	0.916	0.943	0.893	0.858	0.766	0.766	0.904
1993		0.961	0.901	0.837	0.856	0.781	0.790	0.829	0.738	0.706	0.822
1994		1.000	0.981	0.973	0.967	0.870	0.835	0.938	0.804	0.901	0.917
1995	0.942	0.889	0.903	0.858	0.872	0.868	0.761	0.759	0.705	0.740	0.841
1996	1.000	0.998	0.909	0.974	0.950	0.991	0.914	0.945	0.879	0.804	0.953
1997	0.992	0.970	0.910	0.926	0.951	0.939	0.939	0.925	0.872	0.906	0.938
1998		0.964	0.974	0.978	0.971	0.949	0.948	0.942	0.997	0.857	0.955
1999		0.966	0.988	0.953	0.934	0.917	0.878	0.833	0.732	0.665	0.917
2000		0.973	0.962	0.958	0.929	0.898	0.872	0.907	0.908	0.858	0.931
2001	0.995	0.998	0.948	0.888	0.908	0.930	0.961	0.945	0.858	0.858	0.936
2002	0.986	0.989	0.993	0.970	0.872	0.946	0.829	0.880	0.851	0.851	0.933
2003	1.000	0.987	0.961	0.994	0.970	0.929	0.883	0.795	0.236	0.236	0.931
2004		0.968	0.950	0.930	0.939	0.884	0.731	0.799	0.909	0.891	0.891
2005	0.973	0.973	0.953	0.947	0.932	0.924	0.881	0.885	0.786	0.767	0.905
2006	0.957	0.957	0.912	0.856	0.896	0.819	0.802	0.842	0.970	0.970	0.914
2007	1.000	0.992	0.934	0.807	0.716	0.821	0.879	0.824	0.812	0.786	0.925
2008	0.975	0.900	0.695	0.632	0.589	0.470	0.424	0.488	0.489	0.489	0.868
2009	0.902	0.902	0.715	0.683	0.552	0.542	0.528	0.416	0.382	0.382	0.566
2010		0.964	0.955	0.960	0.737	0.637	0.754	0.636	0.529	0.764	0.723
2011		0.988	0.943	0.797	0.766	0.699	0.683	0.606	0.365	0.228	0.651
2012	0.938	0.720	0.909	0.828	0.632	0.321	0.389	0.085	0.298	0.298	0.364
2013	0.960	0.927	0.865	0.794	0.467	0.477	0.457	0.457	0.457	0.457	0.614
2014	0.756	0.825	0.695	0.355	0.568	0.445	0.206	0.199	0.107	0.014	0.363
2015	0.000	0.910	0.969	0.927	0.830	0.815	0.823	0.723	0.693	0.693	0.798
2016	0.000	0.889	0.894	0.877	0.681	0.599	0.436	0.525	0.335	0.319	0.511
2017	0.914	0.930	0.656	0.640	0.709	0.608	0.591	0.512	0.450	0.510	0.608
2018	0.962	0.936	0.731	0.492	0.310	0.412	0.451	0.228	0.228	0.252	0.388
Average											
83-17		0.950	0.902	0.858	0.803	0.750	0.746	0.727	0.681	0.657	0.797
08-17		0.895	0.830	0.749	0.653	0.561	0.529	0.465	0.410	0.415	0.606

Appendix D. 10. Annual sockeye salmon harvest estimates of wild and enhanced fish in the Canadian fisheries in the Taku River, 1979–2018.

	Total harvest					Wild			Enhanced		
	Commercial										
Year	Allharvest	TakuOnly	Aborginal	Test	test released	Commercial	Aboriginal	Test	Commercial	Aboriginal	Test
1979	13,578					13,578					
1980	22,602		150			22,602	150				
1981	10,922					10,922					
1982	3,144					3,144					
1983	17,056		0			17,056	0				
1984	27,242		50			27,242	50				
1985	14,244		167			14,244	167				
1986	14,739		200			14,739	200				
1987	13,554		96	237		13,554	96	237			
1988	12,014		245	708		12,014	245	708			
1989	18,545		53	207		18,545	53	207			
1990	21,100		89	285		21,100	89	285			
1991	25,067		150	163		25,067	150	163			
1992	29,472		352	38		29,472	352	38			
1993	33,217		140	166		33,217	140	166			
1994	28,762		239			28,762	239				
1995	32,640		71			31,306	68		1,334	3	0
1996	41,665		360			40,933	354		732	6	0
1997	24,003		349		1	23,346	339		657	10	0
1998	19,038		239			18,449	232		589	7	0
1999	20,681		382	88		20,384	377	87	297	5	1
2000	28,009		140	319		27,573	138	314	436	2	5
2001	47,660		210	247	82	45,792	202	237	1,868	8	10
2002	31,053		155	518	161	31,004	155	517	49	0	1
2003	32,730		267	27	197	32,463	265	27	267	2	0
2004	20,148		120	91		19,883	118	90	265	2	1
2005	21,697		161	244		21,440	159	241	257	2	3
2006	21,099		85	262		20,294	82	252	805	3	10
2007	16,714	16,589	159	376		14,988	143	337	1,726	16	39
2008	19,284	19,147	215	10	32	17,241	192	9	2,043	23	1
2009	10,980	10,955	106	174		10,875	105	172	105	1	2
2010	20,211	20,180	184	297		19,554	178	287	626	6	10
2011	24,032	23,898	124	521		22,145	114	480	1,753	10	41
2012	30,056	29,938	169	6		26,830	151	5	3,108	18	1
2013	25,125	25,074	99	0		21,107	83	0	3,966	16	0
2014	17,645	17,568	219	8		17,106	212	8	462	7	0
2015	19,747	19,715	85	49		19,592	84	49	123	1	0
2016	37,301	37,120	191	123		33,112	170	109	4,007	21	14
2017	30,209	30,150	229	0		27,345	207	0	2,805	22	0
2018	17,974	17,948	14	0		17,024	13	0	923	1	0
Averages											
86-17	24,631		184			23,726	178				
08-17	23,459	23,374	162	119		21,491	150	112	1,900	12	7

Appendix D. 11. Annual sockeye salmon stock proportions and harvest by stock in the Canadian commercial fishery on the Taku River, 1986–2018.

Data based on SPA, brain parasite, and thermal mark analyses 1986-2011;based on GSI 2012 to present.

											Wild lake stocks based on SPA		
	Taku		Tatsamenie		Little Trapper	King Salmon	Taku		Stikine	US		King	Little Trapper
Year	Lakes other	Mainstem	Wild	Enhance	Enhance	Enhance	Wild	Enhance	Enhance	Enhance	Kuthai	Salmon	Wild
1986	0.508	0.350	0.143				1.000				0.111		0.397
1987	0.263	0.649	0.088				1.000				0.062		0.201
1988	0.559	0.343	0.098				1.000				0.143		0.417
1989[a]							1.000				0.053		[a]
1990	0.499	0.338	0.163				1.000				0.112		0.388
1991	0.372	0.452	0.176				1.000				0.064		0.308
1992	0.332	0.569	0.099				1.000				0.092		0.240
1993	0.519	0.432	0.049				1.000				0.126		0.392
1994	0.640	0.302	0.058				1.000				0.158		0.482
1995	0.474	0.373	0.112	0.031	0.010		0.959	0.041			0.047		0.427
1996	0.325	0.442	0.215	0.010	0.008		0.982	0.018			0.105		0.221
1997	0.402	0.277	0.294	0.008	0.019		0.973	0.027			0.120		0.282
1998	0.432	0.254	0.283	0.003	0.028		0.969	0.031			0.225		0.207
1999	0.694	0.145	0.147	0.006	0.008		0.986	0.014			0.389		0.305
2000	0.377	0.326	0.282	0.016	0.000		0.984	0.016			0.172		0.205
2001	0.352	0.364	0.246	0.039	0.000		0.961	0.039			0.184		0.168
2002	0.745	0.192	0.062	0.002	0.000		0.998	0.002			0.316		0.428
2003	0.633	0.271	0.089	0.008	0.000		0.992	0.008			0.231	0.023	0.378
2004	0.370	0.586	0.031	0.013	0.000		0.987	0.013			0.168	0.071	0.132
2005	0.340	0.505	0.143	0.012	0.000		0.988	0.012			0.098	0.038	0.204
2006	0.259	0.474	0.229	0.038	0.000		0.962	0.038			0.055	0.028	0.176
2007	0.203	0.524	0.170	0.096	0.000		0.897	0.096	0.007		0.102	0.000	0.101
2008	0.373	0.222	0.299	0.099	0.000		0.894	0.099	0.007		0.308	0.007	0.058
2009	0.569	0.276	0.145	0.007	0.000		0.990	0.007	0.002		0.155	0.000	0.414
2010	0.195	0.605	0.167	0.017	0.014		0.967	0.031	0.002		0.162	0.033	[a]
2011	0.171	0.422	0.329	0.056	0.017		0.921	0.073	0.004	0.001	0.058	0.083	0.030
2012	0.175	0.570	0.148	0.095	0.009		0.893	0.103	0.004				
2013	0.246	0.395	0.199	0.157	0.002		0.840	0.158	0.000	0.002			
2014	0.259	0.679	0.032	0.026	0.000		0.969	0.026	0.004	0.001			
2015	0.204	0.776	0.013	0.006	0.000		0.992	0.006	0.002	0.000			
2016				0.090		0.017	0.888	0.107	0.002	0.003			
2017				0.089		0.004	0.905	0.093	0.002	0.000			
2018				0.028		0.023	0.947	0.051	0.001	0.000			
Averages													
86-17							0.966						
08-17				0.064	0.005		0.926	0.070					
1986	7,484	5,152	2,103				14,739				1,629		5,855
1987	3,562	8,793	1,199				13,554				834		2,728
1988	6,720	4,122	1,172				12,014				1,715		5,005
1989[a]	0		0				18,545				990		
1990	10,538	7,131	3,431				21,100				2,355		8,183
1991	9,322	11,327	4,418				25,067				1,601		7,721
1992	9,784	16,764	2,924				29,472				2,699		7,085
1993	17,229	14,347	1,641				33,217				4,192		13,036
1994	18,402	8,684	1,676				28,762	0			4,544		13,858
1995	15,462	12,185	3,659	1,003	331		31,306	1,334			1,528		13,934
1996	13,552	18,422	8,959	401	331		40,933	732			4,357		9,195
1997	9,649	6,637	7,060	201	456		23,346	657			2,891		6,758
1998	8,223	4,829	5,397	56	533		18,449	589			4,279		3,944
1999	14,358	2,992	3,034	126	171		20,384	297			8,044		6,314
2000	10,554	9,122	7,897	436	0		27,573	436			4,809		5,745
2001	16,753	17,330	11,709	1,868	0		45,792	1,868			8,748		8,005
2002	23,131	5,948	1,925	49	0		31,004	49			9,826		13,305
2003	20,706	8,855	2,902	267	0		32,463	267			7,568	755	12,383
2004	7,464	11,799	620	266	0		19,883	266			3,381	1,430	2,653
2005	7,382	10,950	3,108	257	0		21,440	257			2,120	829	4,433
2006	5,461	9,993	4,840	805	0		20,294	805			1,168	589	3,704
2007	3,391	8,759	2,838	1,602	0		14,988	1,602	125		1,697	0	1,694
2008	7,202	4,276	5,763	1,905	0		17,241	1,905	137		5,949	139	1,114
2009	6,252	3,035	1,588	80	0		10,875	80	25		1,703	0	4,549
2010[a]	3,950	12,235	3,369	334	290		19,554	624	31	0	3,274	676	
2011	4,099	10,140	7,906	1,347	406		22,145	1,753	106	28	1,387	1,990	723
2012	5,254	17,143	4,434	2,852	257		26,830	3,109	118	0			
2013	6,189	9,922	4,997	3,934	40		21,107	3,974	11	40			
2014	4,570	11,981	565	462	0		17,106	462	66	11			
2015	4,028	15,324	257	123	0		19,592	123	32	0			
2016				3,361	0	646	33,112	4,007	57	124			
2017				2,690		115	27,345	2,805	59	0			
2018				508		416	17,024	923	26	0			
Averages													
86-17							23,726						
08-17				1,709	110		21,491	1,884					

[a] The Trapper and Mainstem groups were combined in the 1989 and 2010 analyses.

Appendix D. 12. Annual sockeye salmon weir counts, escapements, and samples at the Tatsamenie Lake weir, 1984–2018.

Broodstock taken includes all fish used for gametes, holding mortalities, and fish held and released unspawned.

Generally otolith samples are a proportion of the broodstock samples. Biological samples are part of spawning escapement used for otolith samples to provide wild/enhanced data.

	Weir Count (Total escapement)			Broodstock taken			Broodstock otoliths			Carcasses otolith samples			Natual Spawning escapement		
Year	Wild	Enhanced	Total	Wild	Enhanced	Total	Wild	Enhanced	Total	Wild	Enhanced	Total	Wild	Enhanced	Total
1984															
1985[a]															
1986															
1987[a]															
1988															
1989															
1990															
1991															
1992															
1993															
1994															
1995	4,536	1,244	5,780	1,093	300	1,393							3,443	944	4,387
1996	9,936	445	10,381	2,254	101	2,355							7,682	344	8,026
1997	8,131	232	8,363	2,316	66	2,382							5,815	166	5,981
1998	5,861	136	5,997	1,233	29	1,262	389	9	398				4,628	107	4,735
1999	2,067	37	2,104	212	4	216	167	3	170				1,855	33	1,888
2000	6,575	1,000	7,575	1,740	265	2,005	342	52	394				4,835	735	5,570
2001	18,822	3,753	22,575	2,498	498	2,996	336	67	403				16,324	3,255	19,579
2002	4,836	659	**5,495**	982	134	1,116	345	47	392				3,854	525	**4,379**
2003	3,175	1,340	4,515	1,090	460	1,550	256	108	364				2,085	880	2,965
2004	1,237	714	1,951	377	217	594	220	127	347				860	497	1,357
2005	2,703	669	3,372	743	184	927	311	77	388				1,960	485	2,445
2006	19,984	2,491	22,475	2,361	294	2,655	369	46	415				17,623	2,197	19,820
2007	7,999	3,188	11,187	2,004	799	2,803	276	110	386				5,995	2,389	8,384
2008	4,809	4,167	8,976	1,500	1,300	2,800	210	182	392				3,309	2,867	6,176
2009	1,679	353	2,032	611	129	740	328	69	397				1,067	225	1,292
2010	2,807	706	3,513	1,119	281	1,400	318	80	398				1,688	425	2,113
2011	5,806	2,074	7,880	958	342	1,300	294	105	399				4,848	1,732	6,580
2012	9,363	6,242	15,605	780	520	1,300	240	160	400				8,583	5,722	14,305
2013	5,548	4,698	10,246	704	596	1,300	209	177	386				4,844	4,102	8,946
2014	1,213	893	2,106	437	321	758	201	148	349				776	572	1,348
2015	868	669	1,537	338	260	598	188	145	333				530	409	939
2016	26,890	6,044	32,934	1,225	275	1,500	396	89	485			100	25,666	5,768	31,434
2017	22,023	5,214	27,237	1,245	295	1,540	321	76	397	141	20	161	20,778	4,919	25,697
2018	3,614	1,472	5,086	927	377	1,304	280	114	394	0	0	0	2,688	1,094	3,782
Averages															
08-17	8,101	3,106	11,207	892	432	1,324	271	123	394				7,209	2,674	9,883

[a] Weir count plus spawning ground survey; Trapper 1983, 1985, 1987

Appendix D. 13. Annual sockeye salmon weir counts, escapements, and samples at the Little Trapper weir, 1983–2018.

Broodstock estimate is based on commercial ratio with Tatsamenie River weir data					
			Wild spawning escapement		
Year	Weir count	ɔodstock tak	Total	wild	enhanced
1983	7,402	0	7,402	7,402	
1984	13,084	0	13,084	13,084	
1985	14,889	0	14,889	14,889	
1986	13,820	0	13,820	13,820	
1987	12,007	0	12,007	12,007	
1988	10,637	0	10,637	10,637	
1989	9,606	0	9,606	9,606	
1990	9,443	1,666	7,777	7,777	
1991	22,942	1,941	21,001	21,001	
1992	14,372	1,640	12,732	12,732	
1993	17,432	747	16,685	16,685	
1994	13,438	747	12,691	12,691	
1995	11,524	0	11,524	11,067	457
1996	5,483	0	5,483	5,292	191
1997	5,924	0	5,924	5,543	381
1998	8,717	0	8,717	7,698	1,019
1999	11,805	0	11,805	11,760	45
2000	11,551	0	11,551	11,551	0
2001	16,860	0	16,860	16,860	0
2002	7,973	0	7,973	7,973	0
2003	31,227	0	31,227	31,227	0
2004	9,613	0	9,613	9,613	0
2005	16,009	0	16,009	16,009	0
2006	25,265	708	24,557	24,557	0
2007	7,153	813	6,340	6,340	0
2008	3,831	1,040	2,791	2,791	0
2009	5,552	109	5,443	5,443	0
2010	3,347		3,387	3,084	303
2011	3,809		3,809	3,521	288
2012	10,015		10,015	9,522	493
2013	4,840		4,840	4,809	31
2014	6,607		6,707	6,707	0
2015	13,253		13,253	13,253	
2016	7,771		7,594	7,594	
2017	6,552		6,376	6,376	
2018	8,249		8,249	8,249	
Averages					
83-17	11,250				
08-17	6,558				

Appendix D. 14. Annual sockeye salmon weir counts, escapements, and samples at the King Salmon weir, 1983–2018.

Spawning escapement is based harvest rates and projections of King Salmon inriver run estimate

			Wild spawning escapement		
Year	Weir count	ɔodstock tak	Total	wild	enhanced
2004	5005		5,005	5,005	
2005	1046		1,046	1,046	
2006	2177		2,177	2,177	
2007	5		5	5	
2008	888		888	888	
2009	1100		1,100	1,100	
2010	2977		2,977	2,977	
2011	2899		2,899	2,899	
2012	6913	150	6,763	6,763	
2013	470		470	470	
2014	1061	151	910	910	
2015	1683		1,683	1,683	
2016	6404		6,404	3,378	3,026
2017	439		**439**	**439**	
2018	3375		3,375	2,471	904

Appendix D. 15. Taku River sockeye salmon run size, 1984–2018.

Run estimate does not include spawning escapements below the U.S./Canada border.

The early season sockeye salmon expansion is based on the proportion of fish wheel sockeye salmon catch that occurs before the fishery opens.

	Above Border MR				Expanded					Total
	Run	Start	Expansion		Above Border	Canadian		U.S.	Terminal	Harvest
Year	Estimate	Date	Method	Factor	Run Estimate	harvest	Escape.	Harvest	Run	Rate
1984	133,414	17-Jun	Ave.(88-90&95-96) FW CPUE	0.056	141,254	27,292	113,962	57,619	198,873	43%
1985	118,160	16-Jun	Ave.(88-90&95-96) FW CPUE	0.047	123,974	14,411	109,563	74,287	198,261	45%
1986	104,162	22-Jun	Ave.(88-90&95-96) FW CPUE	0.095	115,045	14,939	100,106	60,644	175,689	43%
1987	87,554	21-Jun	Ave.(88-90&95-96) FW CPUE	0.088	96,023	13,887	82,136	54,963	150,986	46%
1988	86,629	19-Jun	1988 FW CPUE	0.065	92,641	12,967	79,674	25,785	118,427	33%
1989	99,467	18-Jun	1989 FW CPUE	0.128	114,068	18,805	95,263	63,366	177,434	46%
1990	117,385	10-Jun	1990 CPUE	0.002	117,573	21,474	96,099	109,285	226,858	58%
1991	153,773	9-Jun	Ave.(88-90&95-96) FW CPUE	0.007	154,873	25,380	129,493	105,271	260,143	50%
1992	162,003	21-Jun	Ave.(88-90&95-96) FW CPUE	0.032	167,376	29,862	137,514	121,176	288,551	52%
1993	138,523	13-Jun	Ave.(88-90&95-96) FW CPUE	0.026	142,148	33,523	108,625	142,089	284,236	62%
1994	129,119	12-Jun	Ave.(88-90&95-96) FW CPUE	0.019	131,580	29,001	102,579	98,063	229,642	55%
1995	145,264	11-Jun	1995 FW CPUE	0.008	146,450	32,711	113,739	91,984	238,434	52%
1996	132,322	9-Jun	1996 FW CPUE	0.017	134,651	42,025	92,626	187,727	322,379	71%
1997	93,816	3-May	1997 FW CPUE	0.017	95,438	24,352	71,086	79,127	174,565	59%
1998	89,992	2-May	No Expansion		89,992	19,277	70,715	49,832	139,824	49%
1999	113,706	14-May	No Expansion		113,706	21,151	92,555	63,058	176,764	48%
2000	115,693	14-May	No Expansion		115,693	28,468	87,225	131,262	246,954	65%
2001	192,245	27-May	No Expansion		192,245	48,117	144,128	204,433	396,678	64%
2002	135,233	19-May	No Expansion		135,233	31,726	103,507	116,400	251,633	59%
2003	193,390	20-May	No Expansion		193,390	33,024	160,366	136,942	330,332	51%
2004	127,047	12-May	No Expansion		127,047	20,359	106,688	77,012	204,059	48%
2005	142,155	5-May	No Expansion		142,155	22,102	120,053	46,089	188,244	36%
2006	167,597	20-May	No Expansion		167,597	21,446	146,151	65,828	233,425	37%
2007	104,815	19-May	FW CPUE	0.002	105,012	17,124	87,888	65,129	170,141	48%
2008	84,073	17-May	FW CPUE after week 34	0.040	87,568	19,372	68,196	75,692	163,260	58%
2009	83,028	12-May	FW CPUE after week 34	0.001	83,097	11,235	71,862	36,232	119,329	40%
2010	103,257	19-May	FW CPUE	0.053	109,028	20,661	88,367	46,767	155,795	43%
2011	139,926	25-Apr	No Expansion		139,926	24,543	115,383	71,805	211,731	46%
2012	155,590	25-Apr	FW CPUE for SW 23 and 24	0.008	156,877	30,113	126,764	50,736	207,612	39%
2013	96,928	15-May	FW CPUE for SW 23,24, and 37	0.089	106,350	25,173	81,177	100,144	206,493	61%
2014	109,984	25-Apr	No Expansion		109,984	17,795	92,189	33,226	143,210	36%
2015	150,483	25-Apr	FW CPUE for SW 23 and 24	0.012	152,372	19,849	132,523	42,054	194,426	32%
2016	213,851	25-Apr	FW CPUE for SW 23 and 24	0.012	216,536	37,434	179,103	74,874	291,410	39%
2017	138,518	18-May	Historical FW CPUE for SW 38-40	0.002	138,796	30,379	108,416	74,604	213,399	49%
2018	135,351	7-Jun	Historical FW CPUE for SW 37-40	0.012	136,995	17,962	119,033	27,514	164,509	28%
Averages										
84-17	128,209	24-May			131,050	24,705	106,345	83,338	214,388	49%
08-17	127,564	5-May			130,053	23,655	106,398	60,613	190,667	43%

Appendix D. 16. Taku River sockeye salmon run size adjusted estimates, 1984–2018.

Run estimate does not include spawning escapements below the U.S./Canada border.

The early season sockeye salmon expansion is based on the proportion of fish wheel sockeye salmon catch that occurs before the fishery opens.

	Above Border MR				Expanded					Total		
	Run	Start	Expansion		Above Border	Canadian	Total	U.S.	Terminal	Harvest	Wild	Wild
Year	Estimate	Date	Method	Factor	Run Estimate	harvest	Escape.	Harvest	Run	Rate	Escapement	Terminal Run
2018	115,036	7-Jun	Historical FW CPUE for SW 37-40	0.012	116,427	17,962	98,465	27,514	143,941	32%	96,089	139,126

Appendix D. 17. The terminal run reconstruction of Taku wild and enhanced sockeye salmon—unadjusted estimates, 1984–2018.

	Wild Terminal Run					Enhanced Terminal Run				
	Canadian			US	Terminal	Canadian			US	Terminal
Year	harvest	test	escapement	harvest	Run	Commercial	test	escapement	harvest	Run
1984	27,292	0	113,962	57,619	198,873					
1985	14,411	0	109,563	74,287	198,261					
1986	14,939	0	100,106	60,644	175,689					
1987	13,650	237	82,136	54,963	150,986					
1988	12,259	708	79,674	25,785	118,427					
1989	18,598	207	95,263	63,366	177,434					
1990	21,189	285	96,099	109,285	226,858					
1991	25,217	163	129,493	105,271	260,143					
1992	29,824	38	137,514	121,176	288,551					
1993	33,357	166	108,625	142,089	284,236					
1994	29,001	0	102,579	98,063	229,642					
1995	31,374	0	112,039	87,878	231,291	1,337	0	1,700	4,106	7,143
1996	41,287	0	91,991	182,944	316,222	738	0	636	4,783	6,157
1997	23,685	0	70,474	77,067	171,226	667	0	612	2,060	3,339
1998	18,681	0	69,560	48,989	137,230	596	0	1,155	843	2,594
1999	20,761	87	92,473	62,441	175,761	302	1	82	617	1,003
2000	27,711	314	86,225	129,683	243,933	438	5	1,000	1,579	3,022
2001	45,994	237	140,375	195,496	382,101	1,876	10	3,753	8,938	14,577
2002	31,159	517	102,848	115,747	250,271	49	1	659	653	1,362
2003	32,728	27	159,026	136,165	327,946	269	0	1,340	777	2,386
2004	20,001	90	105,974	76,321	202,386	267	1	714	692	1,673
2005	21,599	241	119,384	45,496	186,720	259	3	669	593	1,524
2006	20,376	252	143,660	63,587	227,875	808	10	2,491	2,241	5,550
2007	15,131	337	84,700	61,387	161,554	1,742	39	3,188	3,742	8,712
2008	17,433	9	64,029	63,905	145,376	2,066	1	4,167	11,787	18,021
2009	10,980	172	71,509	35,984	118,645	106	2	353	248	709
2010	19,732	287	87,358	45,824	153,201	632	10	1,009	943	2,594
2011	22,259	480	113,022	66,113	201,875	1,762	41	2,362	5,691	9,856
2012	26,981	5	120,029	46,559	193,574	3,126	1	6,735	4,177	14,038
2013	21,190	0	76,447	86,773	184,411	3,982	0	4,730	13,371	22,083
2014	17,318	8	91,296	32,306	140,929	468	0	893	919	2,281
2015	19,676	49	131,854	41,852	193,431	124	0	669	202	995
2016	33,282	109	170,033	68,031	271,455	4,029	14	9,069	6,843	19,955
2017	27,552	0	103,202	68,480	199,235	2,827	0	5,214	6,123	14,164
2018	17,038	0	116,658	25,999	159,694	924	0	2,376	1,516	4,815
Averages										
84-17	23,724	148	104,780	80,929	209,581					
08-17	21,641	112	102,878	55,583	180,213	1,912	7	3,520	5,031	10,470

Appendix D. 18. Annual sockeye salmon escapement estimates of Taku River and Port Snettisham sockeye salmon stocks, 1979–2018.

Spawners equals escapement to the weir minus fish collected for brood stock.

	Little Trapper		Little Tatsamenie		Tatsamenie		King Salmon		Kuthai Lake	Nahlin River
Year	Count	Escape.	Count	Escape.	Count	Escape.	count	escape	Weir	Weir
1980									1,658	
1981									2,299	
1982										
1983	7,402	7,402								
1984	13,084	13,084								
1985	14,889	14,889	13,093	13,093						
1986	13,820	13,820	11,446	11,446						
1987	12,007	12,007	2,794	2,794		25				
1988	10,637	10,637	2,063	2,063						**138**
1989	9,606	9,606	3,039	3,039						
1990	9,443	7,777	5,736	4,929						2,515
1991	22,942	21,001	8,381	7,585						
1992	14,372	12,732	6,576	5,681					**1,457**	**297**
1993	17,432	16,685	5,028	4,230					**6,312**	2,463
1994	13,438	12,691	4,371	3,578					5,427	960
1995	11,524	11,524			5,780	4,387			3,310	3,711
1996	5,483	5,483			10,381	8,026			4,243	2,538
1997	5,924	5,924			8,363	5,981			5,746	1,857
1998	8,717	8,717			5,997	4,735			1,934	345
1999	11,805	11,805			2,104	1,888			10,042	
2000	11,551	11,551			7,575	5,570			4,096	
2001	16,860	16,860			22,575	19,579			1,663	935
2002	**7,973**	**7,973**			**5,495**	**4,379**			7,697	
2003	31,227	31,227			4,515	2,965			7,769	
2004	9,613	9,613			1,951	1,357	5,005	5,005	1,578	
2005	16,009	16,009			3,372	2,445	1,046	1,046	6,004	
2006	25,265	24,557			22,475	19,820	2,177	2,177	1,015	
2007	7,153	6,340			11,187	8,384	5		204	
2008	3,831	2,791			8,976	6,176	888	888	1,547	
2009	5,552	5,443			2,032	1,292	**1,100**	**1,100**	1,442	
2010	3,347	3,387			3,513	2,113	2,977	2,977	1,626	
2011	3,809	3,809			7,880	6,580	**2,899**	**2,899**	811	
2012	10,015	10,015			15,605	**14,305**	6,913	6,746	182	
2013	4,840	4,840			10,246	8,946	470	470	1,195	
2014	6,607	6,707			2,106	1,348	1,061	894	208	
2015	13,253	13,253			1,537	939	1,683	1,683	341	
2016	7,771	7,594			32,934	31,434	6,404	6,404	1,476	
2017	6,552	6,376			27,237	25,697	439	**439**	299	
2018	8,249	8,249			5,086	3,386	3,375	3,375	13	
Averages										
83-17	11,250	10,975								
07-18	6,558	6,422			11,207	9,883	2,483	2,450	913	

Appendix D. 19. Historical Taku River coho salmon harvested in D111 terminal fisheries, 1992–2018.

Sportfish estimate is based on all landings made in Juneau (not just District 111)						
	D111 Gillnet		Juneau Sport Fish			
Year	Harvest	SE	Harvest	SE	PU	Total
1992	74,226	23,030	431	380	88	74,745
1993	32,456	8,515	3,222	3,048	25	35,703
1994	82,181	14,117	19,018	8,674	93	101,292
1995	51,286	7,263	7,857	2,920	97	59,240
1996	14,491	2,762	2,461	1,162	67	17,019
1997	1,489	412	4,963	1,674	27	6,479
1998	12,972	2,015	3,984	1,084	86	17,042
1999	5,572	913	3,393	997	44	9,009
2000	7,352	1,355	4,137	1,148	31	11,520
2001	9,212	1,523	2,505	813	22	11,739
2002	26,981	4,257	6,189	1,346	68	33,238
2003	19,659	6,937	5,421	1,727	59	25,139
2004	13,058	2,937	12,720	3,528	120	25,898
2005	18,011	5,679	3,573	1,830	134	21,718
2006	32,051	4,020	3,985	1,017	134	36,170
2007	15,753	2,416	804	488	60	16,617
2008	23,806	5,028	493	362	91	24,390
2009	36,757	5,033	5,949	2,445	240	42,946
2010	41,695	8,703	13,301	4,491	258	55,254
2011	4,829	1,237	4,340	977	224	9,393
2012	10,760	2,674	662	465	132	11,554
2013	23,269	3,330	1,793	716	238	25,300
2014	28,297	5,127	2,628	1,445	224	31,149
2015	6,239	2,163	3,063	1,699	256	9,558
2016	12,717	2,737	1,044	604	169	13,930
2017	7,446	2,724	5,892	2,424	178	13,516
2018	11,346	2,391	1,035	490	246	12,627
average						
08-17	19,233	3,743	3,634	1,465	188	23,055

Appendix D. 20. Historical coho salmon harvested in the Canadian fisheries in the Taku River, 1987–2018.

	Commercial					
Year	Total	Before SW34	SW34 to end	Aboriginal	Test	Test released
1979	6,006					
1980	6,405			0		
1981	3,607					
1982	51					
1983	8,390			0		
1984	5,357			15		
1985	1,770			22		
1986	1,783			50		
1987	5,599			113	807	
1988	3,123			98	422	
1989	2,876			146	1,011	
1990	3,207			6	472	
1991	3,415			20	2,004	
1992	4,077			187	1,277	
1993	3,033			8	1,593	
1994	14,531			162		
1995	13,629			109		
1996	5,028			24		39
1997	2,594			96		
1998	5,090			0		
1999	4,416			471	688	
2000	4,395			342	710	
2001	2,568			500	31	2,976
2002	3,082			688	32	3,767
2003	3,168			416	59	4,031
2004	5,966	2,387	3,579	450	3,268	
2005	4,924	1,412	3,512	162	3,173	
2006	8,567	4,947	3,620	300	2,802	
2007	5,244	2,229	3,015	155	2,674	
2008	3,906	2,802	1,104	67	0	1,012
2009	5,649	2,379	3,270	154	3,963	
2010	10,349	3,283	7,066	59	4,000	
2011	8,446	2,353	6,093	30	4,002	
2012	11,548	2,883	8,665	324	2,200	
2013	10,264	2,406	7,858	111	0	
2014	14,464	2,696	11,768	104	2,000	
2015	7,886	2,427	5,459	299	1,998	
2016	9,466	1,983	7,483	47	2,007	
2017	7,726	2,847	4,879	76	0	686
2018	9,503	2,258	7,245	2	0	244
Averages						
83-17	6,158			166		
08-17	8,970			127	2,017	

Appendix D. 21. Historic Taku River coho salmon run size, 1987–2018.

The run estimates do not include spawning escapements below the U.S./Canada border. Estimates are expanded if mark-recapture activities terminate prior to run completion.

	Above Border M-R							Terminal			
	Run	End	Expansion		Expanded	Canadian		U.S.		Harvest	Total
Year	Estimate	Date	Method	Factor	Estimate	Harvest	Escape.	Harvest	Run	Rate	Run
1987	43,750	20-Sep	Test Fish CPUE	1.42	61,976	6,519	55,457				
1988	43,093	18-Sep		1.00	43,093	3,643	39,450				
1989	60,841	1-Oct		1.00	60,841	4,033	56,808				
1990	75,881			1.00	75,881	3,685	72,196				
1991	132,923			1.00	132,923	5,439	127,484				
1992	49,928	5-Sep	District 111-32 CPUE	1.79	89,270	5,541	83,729	74,745	164,015	0.490	212,798
1993	67,448	11-Sep	District 111-32 CPUE	1.84	123,964	4,634	119,330	35,703	159,667	0.253	249,320
1994	98,643	24-Sep	District 111-32 CPUE	1.13	111,036	14,693	96,343	101,292	212,328	0.546	339,736
1995	61,738	30-Sep	District 111-32 CPUE	1.12	69,448	13,738	55,710	59,240	128,688	0.567	181,116
1996	44,172	28-Sep	District 111-32 CPUE	1.12	49,687	5,052	44,635	17,019	66,706	0.331	94,283
1997	35,035	27-Sep	District 111-32 CPUE	1.00	35,035	2,690	32,345	6,479	41,514	0.221	50,886
1998	49,290	26-Sep	District 111-32 CPUE	1.35	66,472	5,090	61,382	17,042	83,514	0.265	119,925
1999	59,052	3-Oct	Troll CPUE	1.12	66,343	5,575	60,768	9,009	75,352	0.194	117,176
2000	70,147	2-Oct	no expansion	1.00	70,147	5,447	64,700	11,520	81,667	0.208	109,148
2001	107,493	5-Oct	no expansion	1.00	107,493	3,099	104,394	11,739	119,232	0.124	162,777
2002	223,162	7-Oct	no expansion	1.00	223,162	3,802	219,360	33,238	256,400	0.144	303,275
2003	186,755	8-Oct	no expansion	1.00	186,755	3,643	183,112	25,139	211,894	0.136	265,090
2004	139,011	8-Oct	no expansion	1.00	139,011	9,684	129,327	25,898	164,909	0.216	251,537
2005	143,817	8-Oct	no expansion	1.00	143,817	8,259	135,558	21,718	165,535	0.181	222,997
2006	134,053	8-Oct	no expansion	1.00	134,053	11,669	122,384	36,170	170,223	0.281	226,694
2007	82,319	8-Oct	no expansion	1.00	82,319	8,073	74,246	16,617	98,936	0.250	133,301
2008	99,199	8-Oct	no expansion	1.00	99,199	3,973	95,226	24,390	123,589	0.229	174,070
2009	113,716	8-Oct	no expansion	1.00	113,716	9,766	103,950	42,946	156,662	0.336	224,010
2010	141,238	8-Oct	no expansion	1.00	141,238	14,408	126,830	55,254	196,492	0.355	246,822
2011	83,349	9-Oct	no expansion	1.00	83,349	12,478	70,871	9,393	92,742	0.236	129,939
2012	61,797	15-Sep	CYI run timing	1.37	84,847	14,072	70,775	11,554	96,401	0.266	112,947
2013	55,161	12-Sep	CYI run timing	1.42	78,492	10,375	68,117	25,300	103,792	0.344	143,410
2014	140,739	9-Oct	no expansion	1.00	140,739	16,568	124,171	31,149	171,888	0.278	189,655
2015	70,361	9-Oct	no expansion	1.00	70,361	10,183	60,178	9,558	79,919	0.247	104,344
2016	99,224	9-Oct	no expansion	1.00	99,224	11,520	87,704	13,930	113,154	0.225	125,323
2017	65,670	4-Oct	no expansion	1.00	65,670	7,802	57,868	13,516	79,186	0.269	108,263
2018	60,678	3-Oct	no expansion	1.00	60,678	9,505	51,173	12,627	73,305	0.302	82,675
Averages											
87-17	92,444	30-Sep		1.12	98,373	7,908	90,465	28,445	131,323	0.28	176,879
07-18	93,045	3-Oct		1.08	97,683	11,115	86,569	23,699	121,382	0.28	155,878

Appendix D. 22. Historical effort in the Alaskan District 111 and Subdistrict 111-32 (Taku Inlet) commercial drift gillnet fishery, 1960–2018.

Days open are for the entire district and include openings to
spawner chinook salmon, 1960-1975.

	D111		D111-32		
Year	Boat Days	Days Open	Boat Days	Days Open	PU Permits
1960		60.00	1,680	60.00	
1961		62.00	2,901	62.00	
1962		52.00	1,568	52.00	
1963		54.00	1,519	51.00	
1964		56.00	1,491	56.00	
1965		63.00	1,332	60.00	
1966		64.00	1,535	58.00	
1967		53.00	1,663	50.00	
1968		60.00	2,420	60.00	
1969	1,518	41.50	1,413	42.00	
1970	2,688	53.00	2,425	53.00	
1971	3,053	55.00	2,849	55.00	
1972	3,103	51.00	2,797	51.00	
1973	3,286	41.00	3,135	41.00	
1974	2,315	29.50	1,741	30.00	
1975	1,084	15.50	986	15.00	
1976	1,914	25.00	1,582	23.00	
1977	2,258	27.00	1,879	27.00	
1978	2,174	26.00	1,738	24.00	
1979	2,269	28.83	2,011	29.00	
1980	4,123	30.92	3,634	31.00	
1981	2,687	30.00	1,740	22.00	
1982	2,433	35.50	2,130	36.00	
1983	1,274	33.00	1,065	31.00	
1984	2,757	52.50	2,120	39.00	
1985	3,264	48.00	2,116	37.00	54
1986	2,129	32.83	1,413	30.00	
1987	2,514	34.75	1,517	30.00	
1988	2,135	32.00	1,213	29.00	
1989	2,333	41.00	1,909	36.00	75
1990	3,188	38.33	2,879	38.00	95
1991	4,145	57.00	3,324	52.00	88
1992	4,550	50.00	3,407	43.00	125
1993	3,827	43.00	3,372	43.00	128
1994	5,078	66.00	3,960	60.00	116
1995	4,034	49.00	3,061	45.00	106
1996	3,229	46.00	2,685	41.00	130
1997	2,107	33.00	1,761	30.00	123
1998	3,070	48.00	2,007	39.00	130
1999	2,841	59.00	2,563	58.00	147
2000	2,919	40.00	2,325	38.00	128
2001	4,731	54.00	3,635	55.00	163
2002	4,095	62.00	2,792	54.00	136
2003	3,977	73.50	2,685	64.50	133
2004	3,342	59.00	1,627	50.00	131
2005	3,427	68.00	2,947	65.00	132
2006	3,517	89.00	2,470	81.00	105
2007	3,505	64.00	2,941	64.00	91
2008	3,116	49.00	2,223	46.00	125
2009	3,438	62.00	2,524	57.00	113
2010	2,764	54.00	2,357	54.00	120
2011	3,303	46.00	2,669	46.00	133
2012	2,463	43.00	1,620	42.00	153
2013	3,311	62.00	2,375	61.00	158
2014	3,164	65.00	2,422	65.00	135
2015	2,096	44.00	1,745	43.00	119
2016	2,850	56.00	2,022	52.00	138
2017	3,388	43.00	1,986	36.00	106
2018	3,080	44.00	1,877	39.00	110
Averages					
60-17	2,987	49	2,244	46	
08-17	2,989	52	2,194	50	130

Appendix D. 23. Historical effort in the Canadian commercial fishery in the Taku River, 1979–2018.

	Commercial	
Year	Boat Days	Days Open
1979	599	50
1980	476	39
1981	243	31
1982	38	13
1983	390	64
1984	288	30
1985	178	16
1986	148	17
1987	280	26
1988	185	15
1989	271	25
1990	295	28
1991	284	25
1992	291	27
1993	363	34
1994	497	74
1995	428	51
1996	415	65
1997	394	47
1998	299	42
1999	300	34
2000	351	39
2001	382	42
2002	286	33
2003	275	44
2004	294	40
2005	561	68
2006	518	77
2007	313	55
2008	245	33
2009	459	98
2010	396	62
2011	440	63
2012	330	50
2013	346	53
2014	437	53
2015	271	35
2016	314	60
2017	260	37
2018	237	38
Averages		
79-17	337	43
08-17	350	54

Appendix D. 24. Canyon Island fish wheel salmon counts and periods of operation on the Taku River, 1984–2018.

Total counts from both fish wheels and supplemental gillnets when water is low.
In 2018 caution for comparisons to long-term average; fish wheels not run 24hrs due to change in sample methods to hourly checks with nightime fish wheel stops.

		Catch												
	Period of	Traditional - CYI Fish Wheel 1 and 2					Pink		Downriver Fish Wheel 3					
Year	Operation	Chinook	Sockeye	Coho	Pink	Chum	even year	odd year	Chinook	Sockeye	Coho	Pink	Chum	Steelhead
1984	6/15-9/18	138	2,334	889	20,751	316	20,751							
1985	6/16-9/21	184	3,601	1,207	27,670	1,376		27,670						
1986	6/14-8/25	571	5,808	758	7,256	80	7,256							
1987	6/15-9/20	285	4,307	2,240	42,786	1,533		42,786						34
1988	5/11-9/19	1,436	3,292	2,168	3,982	1,089	3,982							34
1989	5/05-10/01	1,811	5,650	2,243	31,189	645		31,189						38
1990	5/03-9/23	1,972	6,091	1,860	13,358	748	13,358							43
1991	6/08-10/15	680	5,102	4,922	23,553	1,063		23,553						138
1992	6/20-9/24	212	6,279	2,103	9,252	189	9,252							22
1993	6/12-9/29	562	8,975	2,552	1,625	345		1,625						16
1994	6/10-9/21	906	6,485	4,792	27,100	367	27,100							107
1995	5/4-9/27	1,535	6,228	2,535	1,712	218		1,712						61
1996	5/3-9/20	1,904	5,919	1,895	21,583	388	21,583							68
1997	5/3-10/1	1,321	5,708	1,665	4,962	485		4,962						103
1998	5/2-9/15	894	4,230	1,777	23,347	179	23,347							119
1999	5/3-10/3	440	4,636	1,848	23,503	164		23,503						119
2000	4/23-10/3	1,211	5,865	1,877	6,529	423	6,529							160
2001	4/23-10/5	1,262	6,201	2,380	9,134	250		9,134						125
2002	4/24-10/7	1,578	5,812	3,766	5,672	205	5,672							87
2003	4/20-10/08	1,351	5,970	3,002	15,492	268		15,492						93
2004	4/30-10/06	2,234	6,255	3,163	8,464	414	8,464							63
2005	4/25-10/05	517	3,953	1,476	15,839	258		15,839						79
2006	4/27-10/03	544	5,296	2,811	21,725	466	21,725							47
2007	4/27-10/01	430	7,698	2,117	12,405	482		12,405						57
2008	4/23-10/03	1,298	3,736	2,213	4,704	350	4,704							
2009	4/24-9/27	688	3,489	3,051	9,234	231		9,225						52
2010	4/24-9/27	778	3,244	2,123	8,868	94	8,868							176
2011	4/25-10/02	728	3,671	1,843	17,775	177		17,775						93
2012	5/21-9/15	598	4,441	965	5,826	232	5,826							24
2013	6/16-9/9	796	4,240	1,132	4,666	269		4,666						11
2014	4/25-10/3	609	5,342	3,646	2,436	310	2,436							
2015	4/29-10/3	627	5,069	1,889	24,246	95		24,246						47
2016	5/3-9/27	142	4,942	981	1,369	66	1,369		164	1,419	148	1,838	15	
2017	5/18-9/30	293	4,771	875	18,520	236		18,520	30	1,085	256	13,507	21	
2018	6/3-9/23	155	3,239	798	1,604	32	1,604							12
Averages														
84-17		877	5,082	2,159	13,661	401	11,307	16,724						
08-17		656	4,295	1,872	9,764	206	4,641	14,886						

Appendix E. 1. Weekly salmon harvest and effort in the lower Alsek River fisheries, 2018.

						Effort		
SW	Chinook	Sockeye	Coho	Pink	Chum	Boats	Days Open	Boat Days
	No Test fishery in 2018							
Commercial Fishery								
23								0.0
24								0.0
25	15	59				9	1.0	9.0
26	70	322				9	1.0	9.0
27	0	0				0	0.0	0.0
28	3	397				8	0.5	4.0
29		0				0	0.0	0.0
30		471				10	1.0	10.0
31-35	0	114	2	0	0	5	11	7.0
36						0	3.0	0.0
37						0	3.0	0.0
38						0	3.0	0.0
39						0	3.0	0.0
40						0	3.0	0.0
41						0	3.0	0.0
Total	88	1,363	2	0	0	10	32.5	39

Appendix E. 2. Weekly salmon harvest and effort in the Canadian Aboriginal and sport fisheries in the Alsek River, 2018.

Aboriginal includes estimates of sport catch (kept and released) in Takhanne and Blanchard rivers; estimates based on salmon catch card information. All Klukshu harvest is included in the Alsek River harvest totals.

	Chinook				Sockeye				Coho			
	Recreational			Total	Recreational			Total	Recreational			Total
SW	Kept	Released	Aboriginal	harvest	Kept	Released	Aboriginal	harvest	Kept	Released	Aboriginal	harvest
Klukshu harvest												
Village Creek food fish			NA				NA				NA	
Harvest at Klukshu weir												
Food fish above Klukshu weir												
Alsek River												
24												
25												
26												
27												
28		7	Weekly Data Not Available				Weekly Data Not Available		Weekly Data Not Available		Weekly Data Not Available	
29												
30												
31												
32												
33												
34												
35												
36												
37												
38												
39												
40												
41												
Total	0	7		0	0	0		0	0	0		0

Appendix E. 3. Daily counts of salmon passing through Klukshu River weir, 2018.

	All Chinook			Sockeye			Coho		
		Cumulative			Cumulative			Cumulative	
Date	Daily	Daily	Prop.	Daily	Daily	Prop.	Daily	Daily	Prop.
14-Jun	weir installed		0.00	weir installed		0.00	weir installed		0.00
15-Jun	0	0	0.00	0	0	0.00	0	0	0.00
16-Jun	1	1	0.00	0	0	0.00	0	0	0.00
17-Jun	0	1	0.00	0	0	0.00	0	0	0.00
18-Jun	0	1	0.00	0	0	0.00	0	0	0.00
19-Jun	0	1	0.00	0	0	0.00	0	0	0.00
20-Jun	0	1	0.00	0	0	0.00	0	0	0.00
21-Jun	0	1	0.00	0	0	0.00	0	0	0.00
22-Jun	0	1	0.00	0	0	0.00	0	0	0.00
23-Jun	0	1	0.00	0	0	0.00	0	0	0.00
24-Jun	0	1	0.00	0	0	0.00	0	0	0.00
25-Jun	0	1	0.00	0	0	0.00	0	0	0.00
26-Jun	0	1	0.00	0	0	0.00	0	0	0.00
27-Jun	0	1	0.00	0	0	0.00	0	0	0.00
28-Jun	0	1	0.00	0	0	0.00	0	0	0.00
29-Jun	0	1	0.00	0	0	0.00	0	0	0.00
30-Jun	0	1	0.00	0	0	0.00	0	0	0.00
1-Jul	0	1	0.00	0	0	0.00	0	0	0.00
2-Jul	0	1	0.00	0	0	0.00	0	0	0.00
3-Jul	0	1	0.00	0	0	0.00	0	0	0.00
4-Jul	1	2	0.00	0	0	0.00	0	0	0.00
5-Jul	4	6	0.01	0	0	0.00	0	0	0.00
6-Jul	0	6	0.01	0	0	0.00	0	0	0.00
7-Jul	3	9	0.01	0	0	0.00	0	0	0.00
8-Jul	6	15	0.01	0	0	0.00	0	0	0.00
9-Jul	1	16	0.01	0	0	0.00	0	0	0.00
10-Jul	3	19	0.02	0	0	0.00	0	0	0.00
11-Jul	2	21	0.02	0	0	0.00	0	0	0.00
12-Jul	2	23	0.02	0	0	0.00	0	0	0.00
13-Jul	8	31	0.03	0	0	0.00	0	0	0.00
14-Jul	7	38	0.03	0	0	0.00	0	0	0.00
15-Jul	5	43	0.04	0	0	0.00	0	0	0.00
16-Jul	4	47	0.04	0	0	0.00	0	0	0.00
17-Jul	20	67	0.06	1	1	0.00	0	0	0.00
18-Jul	19	86	0.08	1	2	0.00	0	0	0.00
19-Jul	17	103	0.09	0	2	0.00	0	0	0.00
20-Jul	18	121	0.11	1	3	0.00	0	0	0.00
21-Jul	41	162	0.15	0	3	0.00	0	0	0.00
22-Jul	55	217	0.20	0	3	0.00	0	0	0.00
23-Jul	46	263	0.24	1	4	0.00	0	0	0.00
24-Jul	58	321	0.30	4	8	0.00	0	0	0.00
25-Jul	64	385	0.35	5	13	0.00	0	0	0.00
26-Jul	45	430	0.40	5	18	0.00	0	0	0.00
27-Jul	67	497	0.46	9	27	0.00	0	0	0.00
28-Jul	49	546	0.50	4	31	0.00	0	0	0.00
29-Jul	42	588	0.54	7	38	0.01	0	0	0.00
30-Jul	56	644	0.59	5	43	0.01	0	0	0.00
31-Jul	35	679	0.62	5	48	0.01	0	0	0.00
1-Aug	42	721	0.66	7	55	0.01	0	0	0.00
2-Aug	22	743	0.68	3	58	0.01	0	0	0.00
3-Aug	16	759	0.70	1	59	0.01	0	0	0.00
4-Aug	18	777	0.71	6	65	0.01	0	0	0.00
5-Aug	11	788	0.72	2	67	0.01	0	0	0.00
6-Aug	1	789	0.73	4	71	0.01	0	0	0.00
7-Aug	12	801	0.74	1	72	0.01	0	0	0.00
8-Aug	15	816	0.75	2	74	0.01	0	0	0.00
9-Aug	10	826	0.76	1	75	0.01	0	0	0.00
10-Aug	5	831	0.76	0	75	0.01	0	0	0.00
11-Aug	12	843	0.78	1	76	0.01	0	0	0.00
12-Aug	1	844	0.78	4	80	0.01	0	0	0.00

- Continued –

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	All Chinook			Sockeye			Coho		
		Cumulative			Cumulative			Cumulative	
Date	Daily	Daily	Prop.	Daily	Daily	Prop.	Daily	Daily	Prop.
13-Aug	12	856	0.79	3	83	0.01	0	0	0.00
14-Aug	17	873	0.80	7	90	0.01	0	0	0.00
15-Aug	21	894	0.82	7	97	0.01	0	0	0.00
16-Aug	30	924	0.85	6	103	0.01	0	0	0.00
17-Aug	17	941	0.87	3	106	0.01	0	0	0.00
18-Aug	15	956	0.88	4	110	0.02	0	0	0.00
19-Aug	25	981	0.90	11	121	0.02	0	0	0.00
20-Aug	26	1,007	0.93	12	133	0.02	0	0	0.00
21-Aug	7	1,014	0.93	12	145	0.02	0	0	0.00
22-Aug	12	1,026	0.94	32	177	0.02	0	0	0.00
23-Aug	15	1,041	0.96	43	220	0.03	0	0	0.00
24-Aug	11	1,052	0.97	53	273	0.04	0	0	0.00
25-Aug	8	1,060	0.98	75	348	0.05	0	0	0.00
26-Aug	2	1,062	0.98	107	455	0.06	0	0	0.00
27-Aug	3	1,065	0.98	111	566	0.08	0	0	0.00
28-Aug	5	1,070	0.98	66	632	0.09	0	0	0.00
29-Aug	0	1,070	0.98	55	687	0.10	0	0	0.00
30-Aug	2	1,072	0.99	131	818	0.11	0	0	0.00
31-Aug	0	1,072	0.99	132	950	0.13	0	0	0.00
1-Sep	3	1,075	0.99	310	1,260	0.18	1	1	0.00
2-Sep	3	1,078	0.99	321	1,581	0.22	0	1	0.00
3-Sep	2	1,080	0.99	202	1,783	0.25	0	1	0.00
4-Sep	1	1,081	0.99	322	2,105	0.29	0	1	0.00
5-Sep	0	1,081	0.99	472	2,577	0.36	0	1	0.00
6-Sep	3	1,084	1.00	272	2,849	0.40	0	1	0.00
7-Sep	0	1,084	1.00	327	3,176	0.44	0	1	0.00
8-Sep	3	1,087	1.00	370	3,546	0.50	0	1	0.00
9-Sep	0	1,087	1.00	451	3,997	0.56	0	1	0.00
10-Sep	0	1,087	1.00	383	4,380	0.61	0	1	0.00
11-Sep	0	1,087	1.00	552	4,932	0.69	1	2	0.00
12-Sep	0	1,087	1.00	314	5,246	0.73	0	2	0.00
13-Sep	0	1,087	1.00	491	5,737	0.80	1	3	0.00
14-Sep	0	1,087	1.00	324	6,061	0.85	0	3	0.00
15-Sep	0	1,087	1.00	230	6,291	0.88	1	4	0.01
16-Sep	0	1,087	1.00	133	6,424	0.90	0	4	0.01
17-Sep	0	1,087	1.00	104	6,528	0.91	0	4	0.01
18-Sep	0	1,087	1.00	74	6,602	0.92	1	5	0.01
19-Sep	0	1,087	1.00	77	6,679	0.94	2	7	0.01
20-Sep	0	1,087	1.00	108	6,787	0.95	4	11	0.02
21-Sep	0	1,087	1.00	69	6,856	0.96	5	16	0.02
22-Sep	0	1,087	1.00	63	6,919	0.97	9	25	0.03
23-Sep	0	1,087	1.00	54	6,973	0.98	37	62	0.09
24-Sep	0	1,087	1.00	38	7,011	0.98	50	112	0.15
25-Sep	0	1,087	1.00	39	7,050	0.99	87	199	0.27
26-Sep	0	1,087	1.00	32	7,082	0.99	94	293	0.40
27-Sep	0	1,087	1.00	34	7,116	1.00	86	379	0.52
28-Sep	0	1,087	1.00	11	7,127	1.00	52	431	0.59
29-Sep	0	1,087	1.00	1	7,128	1.00	66	497	0.68
30-Sep	0	1,087	1.00	6	7,134	1.00	56	553	0.76
1-Oct	0	1,087	1.00	4	7,138	1.00	44	597	0.82
2-Oct	0	1,087	1.00	1	7,139	1.00	49	646	0.89
3-Oct	0	1,087	1.00	2	7,141	1.00	45	691	0.95
4-Oct	weir removed	1,087	1.00	2	7,143	1.00	37	728	1.00
Total Count		1,087			7,143			728	
Adjustments									
Harvest at weir									
Harvest above weir									
Total Escapement		1,087			7,143			728	

Appendix E. 4. Chinook salmon harvest in the U.S. fisheries in the Alsek River, 1960–2018.

Year	Commercial	Test	Subsistence
1960			
1961	2,120		
1962			
1963	131		
1964	591		
1965	719		
1966	934		
1967	225		
1968	215		
1969	685		
1970	1,128		
1971	1,222		
1972	1,827		
1973	1,757		
1974	1,162		
1975	1,379		
1976	512		13
1977	1,402		18
1978	2,441		
1979	2,525		80
1980	1,382		57
1981	779		32
1982	532		87
1983	94		31
1984	60		
1985	213		16
1986	481		22
1987	347		27
1988	223		13
1989	228		20
1990	78		85
1991	103		38
1992	301		15
1993	300		38
1994	805		60
1995	670		51
1996	772		60
1997	568		38
1998	550		63
1999	482		44
2000	677		73
2001	541		19
2002	700		60
2003	937		24
2004	656		51
2005	286	423	31
2006	530	135	47
2007	400	347	79
2008	128	465	34
2009	602	421	57
2010	273		70
2011	546		44
2012	510	251	63
2013	469		20
2014	1,074		40
2015	243		23
2016	132		11
2017	127		7
2018	88		28
Averages			
61-16	703		41
07-16	438		44

Appendix E. 5. Klukshu River counts, harvest, and escapement of Chinook salmon, 1976-2018.

A portion of Klukshu River sockeye salmon harvested below weir are accounted for in drainagewide harvest estimate see E.6.

	Weir	Harvest		
Year	Count	At weir	Above weir	Escapement
1976	1,278		125	1,153
1977	3,144		250	2,894
1978	2,976		300	2,676
1979	4,404		1,950	2,454
1980	2,637		150	2,487
1981	2,113		150	1,963
1982	2,369		400	1,969
1983	2,537		300	2,237
1984	1,672		100	1,572
1985	1,458		175	1,283
1986	2,709		102	2,607
1987	2,616		125	2,491
1988	2,037		43	1,994
1989	2,456		167	2,289
1990	1,915		173	1,742
1991	2,489		241	2,248
1992	1,367		125	1,242
1993	3,302		82	3,220
1994	3,727		99	3,628
1995	5,678		284	5,394
1996	3,599		217	3,382
1997	2,989		160	2,829
1998	1,364		17	1,347
1999	2,193		25	2,168
2000	1,365		44	1,321
2001	1,825		87	1,738
2002	2,240		106	2,134
2003	1,737		76	1,661
2004	2,525		80	2,445
2005	1,070		107	963
2006	568		2	566
2007	677		1	676
2008	466		0	466
2009	1,571	1	52	1,518
2010	2,358	0	99	2,259
2011	1,671	3	58	1,610
2012	693	0	0	693
2013	1,261	0	34	1,227
2014	841	0	9	832
2015	1,432	0	44	1,388
2016	651	0	5	646
2017	448	0	5	443
2018	1,087	0	0	1,087
Averages				
76-17	2,058		156	1,901
08-17	1,139		31	1,108

2012 weir count was adjusted to account for high water years when weir was disabled

Appendix E. 6. Chinook salmon harvest in the Canadian Aboriginal and recreational fisheries in the Alsek River, 1976-2018.

All Klukshu harvest is included in the Alsek River harvest totals.

	Harvest		
Year	Aboriginal	Recreational	Total
1976	150	200	350
1977	350	300	650
1978	350	300	650
1979	1,300	650	1,950
1980	150	200	350
1981	150	315	465
1982	400	224	624
1983	300	312	612
1984	100	475	575
1985	175	250	425
1986	102	165	267
1987	125	367	492
1988	43	249	292
1989	234	272	506
1990	202	555	757
1991	509	388	897
1992	148	103	251
1993	152	171	323
1994	289	197	486
1995	580	1,044	1,624
1996	448	650	1,098
1997	232	298	530
1998	171	175	346
1999	238	174	412
2000	65	77	142
2001	120	157	277
2002	120	197	317
2003	90	138	228
2004	139	46	185
2005	58	56	114
2006	2	17	19
2007	1	40	41
2008	0	7	7
2009	105	20	125
2010	197	97	294
2011	119	95	214
2012	0	85	85
2013	67	5	72
2014	17	26	43
2015	87	44	131
2016	10	80	90
2017	10	41	51
2018	0	0	0
Averages			
76-17	193	221	414
08-17	61	50	111

Appendix E. 7. Chinook salmon above border run and harvest in the Canadian Aboriginal and recreational fisheries in the Alsek River, 1976–2018.

All Klukshu harvest is included in the Alsek River harvest totals.

			CI		Harvest				Total
Year	Above border run	Method[a]	Lower	Upper	Aboriginal	Recreational	Total	Escapement	Inriver run
1998	7,179	Mark-recapture	3,027	9,765	171	175	346	6,833	7,929
1999	15,027	Mark-recapture	8,243	22,035	238	174	412	14,615	15,587
2000	8,047	Mark-recapture	6,805	14,308	65	77	142	7,905	8,807
2001	6,982	Mark-recapture	9,146	14,303	120	157	277	6,705	7,943
2002	5,886	Mark-recapture	8,345	10,790	120	197	317	5,569	6,593
2003	6,132	Mark-recapture	4,302	6,310	90	138	228	5,904	6,872
2004	7,268	Mark-recapture			139	46	185	7,083	7,980

Appendix E. 8. Aerial survey index counts of Alsek River Chinook salmon escapements, 1984–2018.

Takhanne River aerial surveys 1984-2008, snorkel surveys from 2018-present			
Year	Blanchard River	Takhanne River	Goat Creek
1984	304	158	28
1985	232	184	
1986	556	358	142
1987	624	395	85
1988	437	169	54
1989	No survey	158	34
1990	No survey	325	32
1991	121	86	63
1992	86	77	16
1993	326	351	50
1994	349	342	67
1995	338	260	[a]
1996	132	230	12
1997	109	190	
1998	71	136	39
1999	371	194	51
2000	163	152	33
2001	543	287	21
2002	351	220	86
2003	127	105	10
2004	84	46	No survey
2005	112	47	7
2006	98	28	9
2007	39	32	45
2008	65	41	11
2009	No surveys		
2010	No surveys		
2011	No surveys		
2012	No surveys		
2013	No surveys		
2014	No surveys		
2015	No surveys		
2016	No surveys		
2017	No surveys		
2018	No survey	127	No survey

[a] Late survey date which missed the peak of spawning.

Appendix E. 9. Sockeye salmon harvest in the U.S. fisheries in the Alsek River, 1960–2018.

Year	Commercial	Test	Subsistence
1960			
1961	23,339		
1962			
1963	6,055		
1964	14,127		
1965	28,487		
1966	29,091		
1967	11,108		
1968	26,918		
1969	29,259		
1970	22,654		
1971	25,314		
1972	18,717		
1973	26,523		
1974	16,747		
1975	13,842		
1976	19,741		51
1977	40,780		113
1978	50,580		
1979	41,449		35
1980	25,522		41
1981	23,641		50
1982	27,443		75
1983	18,293		25
1984	14,326		
1985	5,792		95
1986	24,791		241
1987	11,393		173
1988	6,286		148
1989	13,513		131
1990	17,013		144
1991	17,542		104
1992	19,298		37
1993	20,043		96
1994	19,639		47
1995	33,112		167
1996	15,182		67
1997	25,879		273
1998	15,007		158
1999	11,441		152
2000	9,522		146
2001	13,995		72
2002	16,918		232
2003	39,698		176
2004	18,030		224
2005	7,572	222	63
2006	9,842	224	272
2007	19,795	367	298
2008	2,815	55	200
2009	12,906		252
2010	12,668		259
2011	24,169	157	230
2012	18,217	90	275
2013	7,517		147
2014	33,668		179
2015	16,104		163
2016	6,709		181
2017	4,883		125
2018	1,363		142
Averages			
61-17	19,373		148
08-17	13,966		201

Appendix E. 10. Klukshu River sockeye salmon weir count, weir harvest, and escapement, 1976–2018.

A portion of Klukshu River sockeye salmon harvested below weir are accounted for in drainagewide estimate see E.10.

			Weir	Harvest		
Year	Early (to August 16)	Late	Count	At weir	Above weir	Escapement
1976	181	11,510	11,691		3,750	7,941
1977	8,931	17,860	26,791		11,350	15,441
1978	2,508	24,359	26,867		7,850	19,017
1979	977	11,334	12,311		5,260	7,051
1980	1,008	10,742	11,750		900	10,850
1981	997	19,351	20,348		1,900	18,448
1982	7,758	25,941	33,699		4,800	28,899
1983	6,047	14,445	20,492		2,475	18,017
1984	2,769	9,958	12,727		2,500	10,227
1985	539	18,081	18,620		1,361	17,259
1986	416	24,434	24,850		1,914	22,936
1987	3,269	7,235	10,504		1,158	9,346
1988	585	8,756	9,341		1,604	7,737
1989	3,400	20,142	23,542		1,906	21,636
1990	1,316	24,679	25,995		1,388	24,607
1991	1,924	17,053	18,977		1,332	17,645
1992	11,339	8,428	19,767		1,498	18,269
1993	5,369	11,371	16,740		1,819	14,921
1994	3,247	11,791	15,038		1,146	13,892
1995	2,289	18,407	20,696		879	19,817
1996	1,502	6,818	8,320		429	7,891
1997	6,565	4,931	11,496		193	11,303
1998	597	12,994	13,591		11	13,580
1999	371	5,010	5,381		280	5,101
2000	237	5,314	5,551		129	5,422
2001	908	9,382	10,290		961	9,329
2002	11,904	13,807	25,711		2,124	23,587
2003	3,084	31,278	34,362		2,242	32,120
2004	3,464	11,884	15,348		1,627	13,721
2005	994	2,379	3,373		206	3,167
2006	247	13,208	13,455		565	12,890
2007	2,725	6,231	8,956		646	8,310
2008	43	2,698	2,741		0	2,741
2009	1,247	4,484	5,731	75	128	5,528
2010	5,073	13,887	18,960	91	323	18,546
2011	5,635	15,767	21,402	262	358	20,782
2012	5,969	11,725	17,694	214	304	17,176
2013	312	3,581	3,893	0	101	3,792
2014	2,732	9,652	12,384	10	226	12,148
2015	2,604	8,984	11,588	10	215	11,363
2016	1,405	6,179	7,584	37	156	7,391
2017	1,087	2,802	3,889	77	101	3,711
2018	97	7,046	7,143	0	0	7,143
Averages						
76-17	2,942	12,354	15,296			13,656
08-17	2,611	7,976	10,587			10,318

2012 weir count was adjusted to account for high water years when weir was disabled

Appendix E. 11. Sockeye salmon harvest in the Canadian Aboriginal and recreational fisheries in the Alsek River, 1976–2018.

All Klukshu harvest is included in the Alsek River harvest totals.

	Harvest		
Year	Aboriginal	Recreational	Total
1976	4,000	600	4,600
1977	10,000	500	10,500
1978	8,000	500	8,500
1979	7,000	750	7,750
1980	800	600	1,400
1981	2,000	808	2,808
1982	5,000	755	5,755
1983	2,550	732	3,282
1984	2,600	289	2,889
1985	1,361	100	1,461
1986	1,914	307	2,221
1987	1,158	383	1,541
1988	1,604	322	1,926
1989	1,851	319	2,170
1990	2,314	392	2,706
1991	2,111	303	2,414
1992	2,592	582	3,174
1993	2,361	329	2,690
1994	1,745	261	2,006
1995	1,745	682	2,427
1996	1,204	157	1,361
1997	484	36	520
1998	567	18	585
1999	554	0	554
2000	745	0	745
2001	1,173	4	1,177
2002	2,194	61	2,255
2003	2,734	61	2,795
2004	1,875	247	2,122
2005	581	13	594
2006	1,321	6	1,327
2007	1,330	10	1,340
2008	0	0	0
2009	715	2	717
2010	1,704	12	1,716
2011	2,053	57	2,110
2012	1,734	52	1,786
2013	508	0	508
2014	1,140	0	1,140
2015	1,084	0	1,084
2016	815	0	815
2017	584	38	622
2018	0	0	0
Averages			
76-17	2,091	245	2,336
08-17	1,034	16	1,050

Appendix E. 12. Alsek River sockeye salmon escapement, 2000–2006, 2012–2018.

The 2000-2004 estimates are based on a mark-recapture study; starting in 2005 estimates based on GSI analysis and the expansion of the Klukshu River weir count.

	Above border Run	CI		Canadian	Spawning	U.S.	Total	Spawning Escapement
Year	Estimate	Lower	Upper	Harvest	Escapement	Harvest	Inriver Run	Percent Klukshu
2000	37,887	23,410	52,365	745	37,142	9,668	47,555	14.6%
2001	31,164	23,143	39,185	1,177	29,987	14,067	45,231	31.1%
2002	95,427	55,893	134,961	2,255	93,172	17,150	112,577	25.3%
2003	103,507	74,350	132,664	2,795	100,712	39,874	143,381	31.9%
2004	83,703	39,566	127,841	2,122	81,581	18,254	101,957	16.8%
2005	57,817	21,907	93,727	594	57,223	7,857	65,674	5.5%
2006	48,901	41,234	56,569	1,327	47,574	10,338	59,239	27.1%
2011	86,009	72,970	99,049	2,110	83,899	24,556	110,565	24.8%
2012	78,384	64,311	92,456	1,786	76,598	18,582	96,966	22.4%
2013	84,279	16,466	152,091	508	83,771	7,664	91,943	4.5%
2014	88,233	69,508	106,958	1,140	87,093	33,847	122,080	13.9%
2015	64,793	47,474	82,111	1,084	63,709	16,267	81,060	17.8%
2016	59,651	43,558	75,743	815	58,836	6,890	66,541	12.6%
2017	102,186	57,832	146,540	622	101,564	5,008	107,194	3.7%
2018	Not enough US fishing to get sufficient samples to produce estimate							
Averages								
11-17	80,505			1,152	79,353	16,116	96,621	14.2%

Appendix E. 13. Alsek River sockeye counts from U.S. and Canada, 1985–2018.

Surveys not made every year at each tributary. Canadian surveys-include several streams from Lo-Fog to Goat Creek.
Village Creek counter 1986-2013 conductivity counter; 2014 video counter

	U.S. Aerial Surveys				Canada Aerial Surveys		
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**
1989	320			680	1,689	1,700	9,569
1990	275	300		3,500			**5,313**
1991				800			**86**
1992	1,000	10		50			**7,447**
1993	4,800			900			**2,104**
1994	250			600	366		**3,921**
1995	2,700			350			4,042
1996	325			650			1,583
1997	600			350			2,267
1998				130			826
1999[a]	30			800			**NA**
2000	25			180			1,860
2001				700			**1,897**
2002	No surveys flown						2,765
2003	No surveys flown						**2,778**
2004	No surveys flown						**1,968**
2005	No surveys flown						1,408
2006	No surveys flown						979
2007	No surveys flown						10,254
2008[a]	No surveys flown					1,000	NA
2009	No surveys flown					4,500	**887**
2010	No surveys flown					2,500	**2,305**
2011	No surveys flown					150	355
2012	No surveys flown					2,038	**1,372**
2013	No surveys flown						129
2014	No surveys flown					700	**189**
2015	No surveys flown						Not conducted
2016	No surveys flown						410
2017	No surveys flown						**240**
2018							**97**
Averages							
86-17							2,440
08-17							736

[a]No counts due to malfunction of the counter

Appendix E. 14. Coho, pink, and chum salmon harvest in the U.S. fisheries in the Alsek River, 1960–2018.

				Effort		Subsistence
	Coho	Pink	Chum	Boat Days	Days Open	coho
1960						
1961	7,679	84	86	1,436	80.0	
1962						
1963	7,164	42	34	692	68.0	
1964	9,760	144	367	592	68.0	
1965	9,638	10	72	1,016	72.0	
1966	2,688	22	240	500	64.0	
1967	10,090	107	30	600	68.0	
1968	10,586	82	240	664	68.0	
1969	2,493	38	61	807	61.0	
1970	2,188	6	26	670	52.3	
1971	4,730	3	120	794	60.5	
1972	7,296	37	280	640	65.0	
1973	4,395	26	283	894	52.0	
1974	7,046	13	107	699	46.0	
1975	2,230	16	261	738	58.0	
1976	4,883	0	368	550	58.5	5
1977	11,817	689	483	882	57.0	0
1978	13,913	59	233	929	57.0	
1979	6,158	142	263	1,110	51.0	70
1980	7,863	21	1,005	773	42.0	62
1981	10,232	65	816	588	40.0	74
1982	6,534	6	358	552	33.0	50
1983	5,253	20	432	487	38.0	50
1984	7,868	24	1,610	429	33.0	
1985	5,490	3	427	277	33.0	0
1986	1,344	13	462	517	34.0	45
1987	2,517	0	1,924	388	40.5	31
1988	4,986	7	908	324	34.0	9
1989	5,972	2	1,031	378	38.0	34
1990	1,437	0	495	374	38.0	12
1991	5,956	0	105	530	49.0	0
1992	3,116	1	120	372	46.0	44
1993	1,215	0	49	372	40.0	28
1994	4,182	0	32	403	61.0	20
1995	14,184	13	347	879	53.5	53
1996	5,514	0	165	419	51.0	28
1997	11,427	0	34	611	59.0	26
1998	4,925	1	145	358	41.0	42
1999	5,660	0	112	319	44.0	21
2000	5,103	5	130	307	37.0	31
2001	2,909	8	17	234	50.0	45
2002	9,525	0	1	270	73.0	35
2003	47	0	0	271	60.0	27
2004	2,475	0	2	280	76.5	21
2005	1,196	0	0	171	41.0	62
2006	701	2	3	248	45.0	23
2007	134	0	0	199	47.0	27
2008	2,668	0	0	177	34.0	28
2009	3,454	0	20	200	44.0	17
2010	1,884	0	9	192	37.0	24
2011	1,614	0	11	235	46.0	18
2012	536	0	1	459	39.0	22
2013	17	0	5	285	46.0	14
2014	3	0	12	239	47.0	10
2015	11	0	0	227	57.0	6
2016	655	0	3	296	65.5	18
2017	114	0	0	114	47.0	7
2018	2	0	0	39	32.5	0
Averages						
76-17	4,883	31	256	499	51	28
08-17	1,096	0	6	242	46	16

Appendix E. 15. Klukshu River weir counts, harvest, and escapement of coho salmon, 1976–2018.

Coho salmon counts are partial counts; weir is removed prior to the end of the run.

Year	Count	harvest	Escapement
1976	1,572		
1977	2,758		
1978	30		
1979	175		
1980	704		
1981	1,170		
1982	189		
1983	303		
1984	1,402		
1985	350		
1986	71		
1987	202		
1988	2,774		
1989	2,219		
1990	315		
1991	8,540	62	8,478
1992	1,145	0	1,145
1993	788	0	788
1994	1,232	0	1,232
1995	3,614	50	3,564
1996	3,465	0	3,465
1997	307	5	302
1998	1,961	0	1,961
1999	2,531	0	2,531
2000	4,832	41	4,791
2001	748	2	746
2002	9,921	0	9,921
2003	3,689	0	3,689
2004	750	0	750
2005	683	20	663
2006	420	0	420
2007	300	1	299
2008	4,275	26	4,249
2009	424	3	421
2010	2,365	4	2,361
2011	2,119	9	2,110
2012	1,272	0	1,272
2013	7,462	140	7,322
2014	341	0	341
2015	1,810	0	1,810
2016	2,141	0	2,141
2017	966	0	966
2018	728	0	728
Averages			
76-17	1,960		
08-17	2,318	18	2,299

2012 weir count was adjusted to account for high water years when weir was disabled

Appendix F. 1. Tahltan Lake egg collection, fry plants, and survivals, 1989–2018.

Numbers for eggs and fry are millions.

Eggs collected from Tahltan broodstock are used for outplants to both Tahltan and Tuya Lakes.

	Egg Take		Designated	Fry	Percent Survival			Thermal Mark
Brood Year	Target	Collected	Tahltan	Planted	Green to Eyed Egg	Eyed Egg to Fry	Green Egg to Fry	Pattern
1989	3.000	2.955	2.955	1.042	70%	0.501	0.353	1:1.4
1990	5.000	4.511	4.511	3.585	82%	0.964	0.795	1:1.3
1991	5.000	4.246	1.514	1.415	95%	0.759	0.935	1:1.4
1992	5.400	4.901	2.154	1.947	92%	0.869	0.904	1:1.4+2.3
1993	6.000	6.140	0.969	0.904	92%	0.994	0.933	1:1.6+2.5n
1994	6.000	4.183	1.418	1.143	89%	0.916	0.806	1:1.6
1995	6.000	6.891	3.008	2.296	84%	0.821	0.763	1:1.7
1996	6.000	6.402	3.169	2.248	93%	0.818	0.709	1:1.6
1997	6.000	3.221	2.700	1.900	83%	0.875	0.704	2:1.6
1998	6.000	4.022	1.998	1.671	91%	0.891	0.836	1:1.7
1999	6.000	3.826	2.773	2.228	92%	0.883	0.804	2:1.6
2000	6.000	2.388	2.388	1.873	92%	0.853	0.784	1:1.7
2001	6.000	3.306	3.306	2.533	83%	0.924	0.766	2:1.6
2002	6.000	4.050	2.780	2.623	92%	1.006	0.943	1:1.7
2003	6.000	5.391	2.661	2.226	91%	0.949	0.836	1:1.6&1:1.5+2.4
2004	6.000	5.701	1.966	1.226	88%	0.882	0.624	1:1.6+2.6
2005	6.000	4.552	1.809	1.280	86%	0.872	0.708	1:1.4+2.2
2006	6.000	4.364	2.954	2.466	91%	0.923	0.835	1:1.3n,2.2
2007	6.000	4.060	2.209	1.540	80%	0.946	0.697	1,2n,3H
2008	6.000	3.386	2.398	1.395	85%	0.774	0.582	1,4H
2009	6.000	4.469	2.609	1.830	78%	0.802	0.701	5,2H
2010	6.000	5.949	3.097	1.230	82%	0.507	0.397	4,3H
2011	6.000	6.481	3.383	2.130	86%	0.669	0.630	3,2n,2H
2012[a]	6.000	5.597	3.674	1.349	72%	0.525	0.367	1,4H
2013	6.000	4.218	3.517	2.066	75%	0.794	0.587	4,3H&6,3H
2014[b]	6.000	3.898	3.898	2.684	76%	0.911	0.689	3,2n,2H&3,2n,2H3
2015[c]	6.000	4.509	4.509	3.399	84%	0.899	0.754	1,4H &14H4
2016	4.910	5.310	5.310	3.136	76%	0.780	0.591	4,3H & 3n,3H
2017	5.000	3.850	3.850	2.634	79%	0.792	0.684	3,2n,2H
2018	5.000	2.251	2.251	1.858	94%	0.878	0.825	1,4H
Averages								
89-18	5.710	4.501	2.858	2.000	0.851	0.831	0.714	
09-18	5.691	4.653	3.610	2.185	0.801	0.745	0.598	

[a] A low weir count resulted in a bilateral inseason adjustment of the egg take target to 5.5 million

[b] The original goal of 6.0 million eggs at Tahltan Lake was reduced to 5.0 million by Canada due to domestic issues

[c] The original goal of 6.0 million eggs at Tahltan Lake was reduced to 5.5 million by Canada due to domestic issues

Appendix F. 2. Tuya Lake fry plants and survivals, 1991–2018.

Numbers for eggs and fry are millions.

Brood Year	Egg Take Designated Tuya	Fry Planted	Percent Fertilized	Survival Fertilized Egg to Fry	Survival Green Egg to Fry	Thermal Mark Pattern
1991	2.732	1.632	0.944	0.633	0.597	1:1.6
1992	2.747	1.990	0.929	0.780	0.724	1:1.7
1993	5.171	4.691	0.911	0.996	0.907	1:1.4+2.5n
1994	2.765	2.267	0.870	0.943	0.820	1:1.4
1995	3.883	2.474	0.795	0.802	0.637	1:1.4+2.4
1996	3.233	2.611	0.932	0.867	0.808	1:1.4
1997	0.521	0.433	0.911	0.912	0.830	2:1.4
1998	2.024	1.603	0.917	0.864	0.792	1:1.4
1999	1.053	0.867	0.960	0.857	0.823	2:1.4
2000	All eggs collected in 2000 and 2001 were for backplant into Tahltan Lake.					
2001						
2002	1.271	1.124	0.904	0.978	0.885	1:1.7+2.3
2003	2.730	2.445	0.927	0.966	0.895	1:1.4
2004	3.734	3.200	0.921	0.931	0.857	1:1.6+2.4
2005	2.744	2.138	0.900	0.866	0.779	1:1.4+2.4
2006	1.410	1.201	0.920	0.926	0.852	1:1.3,2.3
2007	1.852	1.537	0.856	0.970	0.830	2,1,3H
2008	0.988	0.832	0.856	0.984	0.842	6H
2009	1.860	0.976	0.794	0.661	0.525	3,4H
2010	2.852	1.240	0.819	0.531	0.435	3n,3H
2011	3.098	1.600	0.865	0.597	0.516	6H
2012	1.924	0.755	0.816	0.481	0.392	4n,3H
2013	0.701	0.462	0.737	0.894	0.659	3n,3H
2014	Fry plants into Tuya Lake discontinued					
Averages						
91-13	2.347	1.718	0.880	0.830	0.734	
04-13	2.116	1.394	0.848	0.784	0.669	

Appendix F. 3. Tatsamenie Lake egg collection, fry plants, and survivals, 1989–2018.

Numbers for eggs and fry are millions.

	Egg Take			Fry	Percent	Survival		Thermal	Last
						Fertilized	Green	Mark	Date
Brood Year	Target	Collected	Transport	Planted	Fertilized	Egg to Fry	Egg to Fry	Pattern(s)	Released
1990	2.500	0.985	0.673	0.673	0.775	0.684	0.683	1:1.3	22-Jun
1991	1.500	1.360	1.232	1.232	0.927	0.906	0.906	2:1.4	26-Jun
1992	1.750	1.486	0.909	0.909	0.858	0.612	0.612	1:1.5	14-Jul
1993	2.500	1.144	0.521	0.521	0.619	0.455	0.455	2:1.5	14-Jul
1994	2.500	1.229	0.898	0.898	0.801	0.731	0.730	1:1.5	21-Jul
1995	2.500	2.407	1.724	1.724	0.843	0.716	0.716	1:1.5	25-Jun
1996	5.000	4.934	3.941	3.941	0.849	0.800	0.799	1:1.5&1:1.5,2.3	27-Jun
1997	5.000	4.651	3.597	3.597	0.910	0.773	0.773	2:1&2:1.5,2.3	9-Jul
1998	2.500	2.414	1.769	1.769	0.897	0.733	0.733	1:1.4+2.5&1:1.4+2.3	30-Jun
1999	2.500	0.461	0.350	0.350	0.922	0.742	0.760	2:1.5	4-Jul
2000[ab]	3.000	2.816	2.320	2.320	0.943	0.902	0.824	1.1.5+2.3&1.1.5	26-Jun
2001[ab]	4.800	4.364	2.233	2.233	0.900	0.638	0.512	2:1.5&2:1.5,2.3	25-Jun
2002[ab]	3.000	2.498	1.353	0.911	0.823	0.588	0.365	1:1.4&1:1.4+2.3	27-May
2003[ab]	5.000	2.642	2.141	2.141	0.919	0.873	0.810	1.1.5+2.3&1.1.5	27-May
2004	5.000	0.750	0.628	0.628	0.933	0.837	0.837	1:1.4+2.5n&1:1.4+2.3,3.3	20-May
2005	5.000	1.811	1.471	1.471	0.936	0.813	0.813	1:1.4+2.3&1:1.4+2.5	8-Jun
2006	5.000	4.810	3.705	3.705	0.920	0.770	0.770	1:1.2,2.1,3.2&1:1.2,2.2,3.3&1:1.2,2.2,3.1	13-Jun
2007	5.000	3.673	2.522	2.122	0.885	0.687	0.578	2n3&2,3n,1&1,3n,2&3,2n,1	6-Jun
2008	5.000	4.902	3.874	3.871	0.892	0.900	0.790	3,2H & 3,3H	3-Jun
2009	5.000	1.224	0.717	0.716	0.852	0.586	0.585	6,2H & 3n,2H	22-May
2010	2.000	1.896	1.599	1.599	0.919	0.842	0.843	2,1,2H & 2,2,3H	29-May
2011	2.000	2.190	1.893	1.893	0.912	0.864	0.864	3n,5H&6,2H	29-May
2012	2.000	1.836	1.636	1.636	0.955	0.933	0.891	3n,2H & 3,3H	1-Jun
2013	2.000	1.812	1.325	1.321	0.758	0.590	0.587	2,1,2H & 2,2,3H	6-Jun
2014	2.000	1.289	0.918	0.918	0.869	0.716	0.712	3n,5H&6,2H	30-May
2015	2.000	0.731	0.471	0.471	0.801	0.646	0.644	3,2H & 3,3H	27-May
2016	2.000	1.773	1.201	1.201	0.734	0.923	0.678	2,1,2H & 2,2,3H	20-Jun
2017	2.000	1.959	1.477	1.477	0.840	0.898	0.754	3n,5H&6,2H	31-May
2018	2.500	2.304	1.760	1.760	0.787	0.939	0.764	3n,2H & 4,4H & 8H	
Averages									
90-18	3.191	2.288	1.682	1.652	0.861	0.756	0.715		
08-17	2.600	1.961	1.511	1.510	0.853	0.790	0.735		

Multiple Release Treatments

	Treatment 1				Treatment 2			
Brood Year	Mark	Treatment	Number Released	Last Date Released	Mark	Treatment	Number Released	Last Date Released
1996	1:1.5	onshore	3.441	27-Jun	1:1.5,2.3	onshore	0.500	27-Jun
1997	2:1.5	onshore	3.202	29-Jun	2:1.5,2.3	fed at lake	0.394	9-Jul
1998	1:1.4+2.5	unfed	0.751	9-Jun	1:1.4+2.3	fed at lake	1.018	30-Jun
1999	2:1.5	fed at lake	0.350	4-Jul				
2000	1.1.5+2.3	fed early	1.265	15-Jun	1.1.5	fed late	1.054	26-Jun
2001	2:1.5	unfed early	0.727	30-May	2:1.5,2.3	fed	1.432	25-Jun
2002	1:1.4	direct release early	0.911	27-May	1:1.4+2.3	fed - IHN loss	0.000	none
2003	1.1.5+2.3	unfed early south	1.005	27-May	1.1.5	unfed early north	1.136	24-May
2004	1:1.4+2.5N	unfed early south	0.367	20-May	1:1.4+2/3,3.3	unfed early north	0.261	20-May
2005	1:1.4+2.3	unfed early south	0.775	8-Jun	1:1.4+2.5	unfed early north	0.696	8-Jun
2006	1:1.2,2.1,3.2	unfed early south	1.808	7-Jun	1:1.2,2.2,3.3	1:1.2,2.2,3.1 unfed early north	1.897	13-Jun
2007	1,3n,2	unfed early midlake	0.971	6-Jun	2n3	2,3n1 unfed early north	1.150	5-Jun
2007	3,2n,1	extended rearing[c]	0.400	8-Jun				
2008	3,2H	unfed early north	0.115	3-Jun	3,3H	extended rearing	0.115	26-Jul
2009	6,2H	unfed early north	0.506	22-May	3n,2H	extended rearing	0.210	12-Aug
2010	2,1,2H	unfed early north	1.398	29-May	2,2,3H	extended rearing	0.198	14-Aug
2011	3n,5H	unfed early north	1.649	29-May	6,2H	extended rearing	0.242	21-Aug
2012	3n,2H	unfed early north	1.419	1-Jun	3,3H	extended rearing	0.216	9-Aug
2013	2,1,2H	unfed early north	1.136	6-Jun	2,2,3H	extended rearing	0.185	10-Aug
2014	3n,5H	unfed early north	0.731	22-May	6,2H	extended rearing	0.187	6-Jul
2015	3n,2H	unfed early north	0.384	14-May	3,3H	extended rearing	0.086	12-Aug
2016	2,1,2H	unfed early north	1.019	29-May	2,2,3H	net pen rearing	0.144	27-Jul
2017	3n,5H	unfed early north	1.263	31-May	6,2H	net pen rearing	0.214	28-Jun
2018	3n,2H	unfed early north	1.497	19-May	4,4H & 8H	net pen rearing	0.379	5-Jul
Averages								
96-17			1.129				0.532	
08-17			0.962				0.198	

[a] Eggs not transported but placed in inlake incubator; 2000 = 244,000, 2001 = 865,000, 2002 196,000, 2003 = 190,000.

[b] Survival rates are for hatchery eggs and hatchery fry plants and do not inlcude the lake incubators.

[c] All died to IHNV

Appendix F.4. Trapper and King Salmon lakes egg collection, fry plants, and survivals, 1990–2018.

Numbers for eggs and fry are millions.

		Egg Take					Survival		Thermal	Last
Brood Year	Lake	Target	Collect	Transport	Fry Planted	Percent Fertilized	Fertilized Egg to Fry	Green Egg to Fry	Mark Pattern	Date Released
1990	Trapper	2.500	2.314	0.934	0.934			0.404	5H	22-Jun
1991	Trapper	2.500	2.953	1.811	1.811			0.613	6H	11-Jun
1992	Trapper	2.500	2.521	1.113	1.113			0.442	7H3	22-Jun
1993	Trapper		1.174	0.916	0.916			0.781	5H5n	24-Jun
1994	Trapper		1.117	0.773	0.773			0.692	7H	3-Jul
2006	Trapper	1.000	1.109	0.897	0.897	0.897	0.905	0.808	6H	20-Jun
2007	Trapper	1.000	0.900	0.353	0.353	0.604	0.650	0.393	4,2nH	5-Jun
2012	King Salmon	0.250	0.238	0.197	0.197	0.896	0.949	0.850	6,2H3	2-Jun
2014	King Salmon	0.250	0.199	0.169	0.169	0.893	0.930	0.893	6,3H	23-May
2016	Trapper	0.250	0.271	0.212	0.212	0.873	0.782	0.683	4,4n,3H	29-May
2017	Trapper	0.250	0.280	0.187	0.187	0.816	0.818	0.668	4,2,3H	29-May
2018[a]	Trapper	0.500	0.000							

[a] Insufficient female broodstock

Appendix G. 1. Annual stock proportion estimates (mean) of Chinook salmon harvested in the Alaskan District 108 commercial drift gillnet, 2004–2018.

		2 Reporting Groups	
Year	Sample Size	Taku/Stikine	Other
2004	119	0.299	0.701
2005	254	0.887	0.113
2006	350	0.642	0.358
2007	292	0.489	0.511
2008	293	0.387	0.613
2009	177	0.128	0.872
2010	72	0.215	0.785
2011	70	0.346	0.654
2012	202	0.248	0.752
2013	164	0.068	0.932
2014	273	0.043	0.957
2015	272	0.047	0.953
2016	293	0.220	0.780
2017	246	0.008	0.992
2018	114	0.006	0.994

Appendix G. 2. Annual stock proportion estimates (mean) of Chinook salmon harvested in the Alaskan District 108 sport fisheries, 2004–2018.

		2 Reporting Groups	
Year	Sample Size	Taku/Stikine	Other
2004	189	0.655	0.345
2005	226	0.738	0.262
2006	201	0.718	0.282
2007	200	0.604	0.396
2008	200	0.614	0.386
2009	190	0.517	0.483
2010	201	0.546	0.454
2011	199	0.509	0.491
2012	201	0.423	0.577
2013	223	0.490	0.510
2014	205	0.354	0.646
2015	297	0.449	0.551
2016	251	0.304	0.696
2017	182	0.212	0.788
2018	0		

Appendix G. 3. Annual stock proportion estimates (mean) of Chinook salmon harvested in the Alaskan District 108 commercial troll, 2018.

No estimates in 2018

Appendix G. 4. Annual stock proportion estimates (mean) of Chinook salmon harvested in the Alaskan District 111 commercial drift gillnet, 2018.

		2 Reporting Groups	
Year	Sample Size	Taku/Stikine	Other
2004	111	0.859	0.141
2005	247	0.919	0.081
2006	209	0.905	0.095
2007	96	0.492	0.508
2008	104	0.483	0.517
2009	257	0.813	0.187
2010	152	0.539	0.461
2011	70	0.809	0.191
2012	206	0.876	0.124
2013	86	0.753	0.247
2014	78	0.635	0.365
2015	88	0.592	0.408
2016	49	*0.749*	*0.251*
2017	48	*0.464*	*0.536*
2018	100	0.118	0.882

Appendix G. 4. Annual stock proportion estimates (mean) of Chinook salmon harvested in the Alaskan District 111 sport fisheries, 2018.

		2 Reporting Groups	
Year	Sample Size	Taku/Stikine	Other
2004	159	0.538	0.462
2005	264	0.578	0.422
2006	269	0.652	0.348
2007	237	0.451	0.549
2008	218	0.226	0.774
2009	239	0.255	0.745
2010	200	0.453	0.547
2011	200	0.454	0.546
2012	200	0.494	0.506
2013	224	0.125	0.875
2014	221	0.396	0.604
2015	297	0.486	0.514
2016	211	0.587	0.413
2017	147	0.031	0.969
2018	178	0.007	0.993

Appendix G. 5. Weekly stock proportion estimates (mean) of sockeye salmon harvested in the Alaskan Subdistrict 106-41/42 (Sumner Strait) commercial drift gillnet fishery, 2018.

	Sample Sizes									
SW	Total	Genotyped	Aged (not genotyped)	Otolith Marked (not genotyped)	Reporting group	MEAN	SD	CI5%	CI95%	P0
25	240	95	97	48	Enhanced Tahltan	0.171	0.025	0.132	0.214	0.000
					Enhanced Tuya	0.030	0.011	0.015	0.049	0.000
					Non-Stikine	0.454	0.044	0.383	0.527	0.000
					Stikine/Taku Mainstem	0.230	0.038	0.171	0.296	0.000
					Wild Tahltan	0.115	0.028	0.073	0.164	0.000
26	140	101	0	39	Enhanced Tahltan	0.237	0.037	0.178	0.300	0.000
					Enhanced Tuya	0.037	0.015	0.015	0.065	0.000
					Non-Stikine	0.521	0.045	0.444	0.595	0.000
					Stikine/Taku Mainstem	0.071	0.025	0.033	0.116	0.000
					Wild Tahltan	0.135	0.030	0.091	0.187	0.000
27					No estimate					
28	300	164	118	18	Enhanced Tahltan	0.041	0.011	0.024	0.060	0.000
					Enhanced Tuya	0.014	0.007	0.005	0.027	0.000
					Non-Stikine	0.797	0.031	0.743	0.845	0.000
					Stikine/Taku Mainstem	0.077	0.022	0.043	0.116	0.000
					Wild Tahltan	0.071	0.020	0.042	0.104	0.000
29	300	184	110	6	Enhanced Tahltan	0.008	0.005	0.002	0.017	0.002
					Enhanced Tuya	0.001	0.001	0.000	0.003	0.640
					Non-Stikine	0.833	0.028	0.786	0.875	0.000
30	300	142	138	20	Stikine/Taku Mainstem	0.123	0.024	0.085	0.166	0.000
					Wild Tahltan	0.036	0.014	0.018	0.062	0.000
					Enhanced Tahltan	0.017	0.007	0.007	0.031	0.000
					Enhanced Tuya	0.004	0.004	0.000	0.011	0.040
					Non-Stikine	0.897	0.024	0.853	0.935	0.000
					Stikine/Taku Mainstem	0.081	0.023	0.046	0.121	0.000
					Wild Tahltan	0.001	0.003	0.000	0.007	0.577
31	302	182	115	5	Enhanced Tahltan	0.001	0.002	0.000	0.004	0.644
					Enhanced Tuya	0.001	0.001	0.000	0.003	0.649
					Non-Stikine	0.953	0.018	0.921	0.980	0.000
					Stikine/Taku Mainstem	0.039	0.017	0.015	0.069	0.000
					Wild Tahltan	0.007	0.006	0.000	0.019	0.030
32	300	185	113	2	Enhanced Tahltan	0.007	0.005	0.001	0.017	0.001
					Enhanced Tuya	0.001	0.002	0.000	0.003	0.665
					Non-Stikine	0.963	0.016	0.934	0.985	0.000
					Stikine/Taku Mainstem	0.023	0.014	0.004	0.048	0.005
					Wild Tahltan	0.006	0.006	0.000	0.018	0.031
33	300	186	114	0	Enhanced Tahltan	0.001	0.002	0.000	0.003	0.671
					Enhanced Tuya	0.001	0.001	0.000	0.003	0.680
					Non-Stikine	0.989	0.011	0.967	1.000	0.000
					Stikine/Taku Mainstem	0.008	0.010	0.000	0.030	0.262
					Wild Tahltan	0.001	0.002	0.000	0.005	0.614
34	228	95	133	0	Enhanced Tahltan	0.001	0.002	0.000	0.005	0.719
					Enhanced Tuya	0.001	0.002	0.000	0.004	0.742
					Non-Stikine	0.906	0.032	0.852	0.953	0.000
					Stikine/Taku Mainstem	0.090	0.031	0.044	0.145	0.000
					Wild Tahltan	0.002	0.004	0.000	0.010	0.636
35	291	89	202	0	Enhanced Tahltan	0.001	0.002	0.000	0.004	0.892
					Enhanced Tuya	0.001	0.002	0.000	0.004	0.886
					Non-Stikine	0.990	0.012	0.967	1.000	0.000
					Stikine/Taku Mainstem	0.006	0.010	0.000	0.027	0.580
					Wild Tahltan	0.002	0.005	0.000	0.013	0.732

Appendix G. 6. Weekly stock proportion estimates (mean) of sockeye salmon harvested in the Alaskan Subdistrict 106-30 (Clarence Strait) commercial drift gillnet fishery, 2018.

	Sample Sizes									
SW	Total	Genotyped	Aged (not genotyped)	Otolith Marked (not genotyped)	Reporting Group	MEAN	SD	CI5%	CI95%	P0
26	81	79	2	0	Enhanced Tahltan	0.002	0.005	0.000	0.012	0.640
					Enhanced Tuya	0.002	0.006	0.000	0.013	0.632
					Non-Stikine	0.916	0.034	0.854	0.963	0.000
					Stikine/Taku Mainstem	0.051	0.028	0.013	0.103	0.001
					Wild Tahltan	0.027	0.019	0.006	0.062	0.001
27	189	183	6	0	Enhanced Tahltan	0.001	0.002	0.000	0.006	0.693
					Enhanced Tuya	0.001	0.002	0.000	0.005	0.699
					Non-Stikine	0.900	0.027	0.855	0.942	0.000
					Stikine/Taku Mainstem	0.091	0.026	0.050	0.137	0.000
					Wild Tahltan	0.007	0.006	0.000	0.018	0.063
28	80	75	5	0	Enhanced Tahltan	0.002	0.005	0.000	0.012	0.600
					Enhanced Tuya	0.002	0.006	0.000	0.012	0.616
					Non-Stikine	0.897	0.039	0.826	0.954	0.000
					Stikine/Taku Mainstem	0.082	0.036	0.032	0.146	0.000
					Wild Tahltan	0.016	0.014	0.001	0.044	0.026
29	171	169	2	0	Enhanced Tahltan	0.001	0.002	0.000	0.005	0.672
					Enhanced Tuya	0.001	0.003	0.000	0.006	0.666
					Non-Stikine	0.926	0.025	0.881	0.963	0.000
					Stikine/Taku Mainstem	0.059	0.023	0.025	0.101	0.000
					Wild Tahltan	0.013	0.008	0.003	0.029	0.003
30	300	181	119	0	Enhanced Tahltan	0.001	0.002	0.000	0.003	0.649
					Enhanced Tuya	0.001	0.002	0.000	0.004	0.645
					Non-Stikine	0.938	0.019	0.905	0.966	0.000
					Stikine/Taku Mainstem	0.060	0.019	0.031	0.093	0.000
					Wild Tahltan	0.001	0.002	0.000	0.006	0.580
31	300	169	131	0	Enhanced Tahltan	0.001	0.002	0.000	0.004	0.668
					Enhanced Tuya	0.001	0.001	0.000	0.003	0.666
					Non-Stikine	0.974	0.014	0.949	0.992	0.000
					Stikine/Taku Mainstem	0.018	0.012	0.002	0.039	0.025
					Wild Tahltan	0.007	0.006	0.001	0.019	0.028
32	260	188	72	0	Enhanced Tahltan	0.001	0.002	0.000	0.004	0.658
					Enhanced Tuya	0.001	0.002	0.000	0.004	0.658
					Non-Stikine	0.971	0.014	0.945	0.991	0.000
					Stikine/Taku Mainstem	0.026	0.014	0.007	0.051	0.005
					Wild Tahltan	0.001	0.003	0.000	0.006	0.623
33	215	187	28	0	Enhanced Tahltan	0.001	0.002	0.000	0.005	0.704
					Enhanced Tuya	0.001	0.002	0.000	0.005	0.697
					Non-Stikine	0.995	0.006	0.984	1.000	0.000
					Stikine/Taku Mainstem	0.002	0.004	0.000	0.010	0.587
					Wild Tahltan	0.001	0.002	0.000	0.006	0.679
34	142	139	3	0	Enhanced Tahltan	0.001	0.003	0.000	0.007	0.688
					Enhanced Tuya	0.001	0.003	0.000	0.006	0.670
					Non-Stikine	0.962	0.019	0.925	0.988	0.000
					Stikine/Taku Mainstem	0.035	0.019	0.009	0.069	0.004
					Wild Tahltan	0.001	0.003	0.000	0.007	0.687
35	84	84	0	0	Enhanced Tahltan	0.002	0.005	0.000	0.013	0.648
					Enhanced Tuya	0.002	0.006	0.000	0.012	0.651
					Non-Stikine	0.931	0.035	0.866	0.979	0.000
					Stikine/Taku Mainstem	0.062	0.034	0.016	0.125	0.004
					Wild Tahltan	0.002	0.005	0.000	0.012	0.676

Appendix G. 7. Weekly stock proportion estimates (mean) of sockeye salmon harvested in the Alaskan District 108 commercial drift gillnet fishery, 2018.

	Sample Sizes									
SW	Total	Genotyped	Aged (not genotyped)	Otolith Marked (not genotyped)	Reporting Group	MEAN	SD	CI5%	CI95%	P0
27	60	41	0	19	Enhanced Tahltan	*0.299*	*0.059*	*0.208*	*0.401*	*0.000*
					Enhanced Tuya	*0.019*	*0.018*	*0.001*	*0.056*	*0.042*
					Non-Stikine	*0.069*	*0.033*	*0.023*	*0.128*	*0.000*
					Stikine/Taku Mainstem	*0.223*	*0.055*	*0.141*	*0.319*	*0.000*
					Wild Tahltan	*0.390*	*0.061*	*0.292*	*0.494*	*0.000*
28	302	186	62	54	Enhanced Tahltan	0.150	0.023	0.114	0.190	0.000
					Enhanced Tuya	0.025	0.010	0.011	0.044	0.000
					Non-Stikine	0.366	0.033	0.312	0.420	0.000
					Stikine/Taku Mainstem	0.308	0.028	0.263	0.354	0.000
					Wild Tahltan	0.150	0.024	0.113	0.192	0.000
29	421	300	33	88	Enhanced Tahltan	0.149	0.017	0.122	0.178	0.000
					Enhanced Tuya	0.015	0.006	0.007	0.026	0.000
					Non-Stikine	0.291	0.024	0.253	0.332	0.000
					Stikine/Taku Mainstem	0.422	0.026	0.380	0.465	0.000
					Wild Tahltan	0.122	0.017	0.095	0.151	0.000
30	310	223	48	39	Enhanced Tahltan	0.074	0.015	0.052	0.100	0.000
					Enhanced Tuya	0.015	0.007	0.006	0.027	0.000
					Non-Stikine	0.159	0.018	0.131	0.190	0.000
					Stikine/Taku Mainstem	0.681	0.025	0.638	0.723	0.000
					Wild Tahltan	0.071	0.016	0.046	0.098	0.000
31	148	110	22	16	Enhanced Tahltan	0.057	0.017	0.032	0.088	0.000
					Enhanced Tuya	0.004	0.007	0.000	0.017	0.481
					Non-Stikine	0.361	0.039	0.296	0.422	0.000
					Stikine/Taku Mainstem	0.546	0.041	0.479	0.615	0.000
					Wild Tahltan	0.031	0.014	0.012	0.058	0.000
32,33,34	82	65	37	28	Enhanced Tahltan	*0.026*	*0.024*	*0.004*	*0.076*	*0.012*
					Enhanced Tuya	*0.019*	*0.022*	*0.001*	*0.063*	*0.117*
					Non-Stikine	*0.718*	*0.081*	*0.583*	*0.849*	*0.000*
					Stikine/Taku Mainstem	*0.202*	*0.078*	*0.086*	*0.335*	*0.000*

Appendix G. 8. Weekly stock proportion estimates (mean) of sockeye salmon harvested in the Alaskan District 111 traditional commercial drift gillnet fishery by week, 2018.

	Sample Sizes									
SW	Total	Genotyped	Aged (not genotyped)	Otolith Marked (not genotyped)	Reporting Group	MEAN	SD	CI5%	CI95%	P0
25	66	63	2	1	Enhanced King Salmon	*0.016*	*0.015*	*0.001*	*0.046*	*0.106*
					Enhanced Snettisham	*0.002*	*0.004*	*0.000*	*0.009*	*0.833*
					Enhanced Stikine	*0.002*	*0.005*	*0.000*	*0.009*	*0.843*
					Enhanced Tatsamenie	*0.001*	*0.005*	*0.000*	*0.008*	*0.857*
					Other	*0.013*	*0.019*	*0.000*	*0.050*	*0.422*
					Speel Wild	*0.004*	*0.009*	*0.000*	*0.019*	*0.750*
					Stikine/Taku Mainstem	*0.527*	*0.064*	*0.423*	*0.636*	*0.000*
					Taku Lakes	*0.433*	*0.063*	*0.331*	*0.535*	*0.000*
					Tatsamenie Wild	*0.002*	*0.005*	*0.000*	*0.010*	*0.836*
26	268	187	66	15	Enhanced King Salmon	0.049	0.013	0.029	0.071	0.000
					Enhanced Snettisham	0.000	0.001	0.000	0.002	0.836
					Enhanced Stikine	0.008	0.005	0.002	0.018	0.005
					Enhanced Tatsamenie	0.000	0.001	0.000	0.002	0.838
					Other	0.006	0.006	0.000	0.019	0.054
					Speel Wild	0.001	0.002	0.000	0.004	0.813
					Stikine/Taku Mainstem	0.385	0.034	0.330	0.442	0.000
					Taku Lakes	0.548	0.034	0.491	0.603	0.000
					Tatsamenie Wild	0.002	0.004	0.000	0.010	0.584
27	334	188	88	58	Enhanced King Salmon	0.049	0.018	0.030	0.080	0.000
					Enhanced Snettisham	0.149	0.040	0.091	0.219	0.000
					Enhanced Stikine	0.011	0.014	0.001	0.039	0.002
					Enhanced Tatsamenie	0.011	0.015	0.001	0.039	0.001
					Other	0.037	0.028	0.006	0.092	0.000
					Speel Wild	0.012	0.018	0.000	0.049	0.234
					Stikine/Taku Mainstem	0.334	0.042	0.278	0.416	0.000
					Taku Lakes	0.383	0.048	0.315	0.469	0.000
					Tatsamenie Wild	0.014	0.017	0.000	0.045	0.091
28	476	188	104	184	Enhanced King Salmon	0.012	0.005	0.006	0.020	0.000
					Enhanced Snettisham	0.419	0.028	0.372	0.466	0.000
					Enhanced Stikine	0.006	0.004	0.002	0.012	0.000
					Enhanced Tatsamenie	0.013	0.005	0.007	0.022	0.000
					Other	0.039	0.017	0.014	0.069	0.000
					Speel Wild	0.019	0.012	0.002	0.042	0.012
					Stikine/Taku Mainstem	0.286	0.029	0.239	0.338	0.000
					Taku Lakes	0.192	0.019	0.162	0.223	0.000
					Tatsamenie Wild	0.014	0.006	0.006	0.025	0.000
29	908	257	36	615	Enhanced King Salmon	0.002	0.001	0.000	0.005	0.008
					Enhanced Snettisham	0.631	0.017	0.601	0.658	0.000
					Enhanced Stikine	0.000	0.000	0.000	0.001	0.485
					Enhanced Tatsamenie	0.017	0.005	0.010	0.025	0.000
					Other	0.015	0.006	0.006	0.026	0.000
					Speel Wild	0.025	0.007	0.015	0.038	0.000
					Stikine/Taku Mainstem	0.185	0.016	0.159	0.211	0.000
					Taku Lakes	0.095	0.012	0.076	0.115	0.000
					Tatsamenie Wild	0.031	0.007	0.020	0.043	0.000

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	Sample Sizes									
SW	Total	Genotyped	Aged (not genotyped)	Otolith Marked (not genotyped)	Reporting Group	MEAN	SD	CI5%	CI95%	P0
30	400	179	3	218	Enhanced King Salmon	0.003	0.003	0.000	0.008	0.010
					Enhanced Snettisham	0.519	0.025	0.480	0.560	0.000
					Enhanced Stikine	0.003	0.003	0.000	0.008	0.014
					Enhanced Tatsamenie	0.020	0.007	0.010	0.033	0.000
					Other	0.011	0.008	0.001	0.026	0.020
					Speel Wild	0.031	0.012	0.014	0.052	0.000
					Stikine/Taku Mainstem	0.232	0.024	0.193	0.271	0.000
					Taku Lakes	0.092	0.016	0.067	0.120	0.000
					Tatsamenie Wild	0.089	0.014	0.067	0.114	0.000
31	400	184	18	198	Enhanced King Salmon	0.005	0.004	0.001	0.012	0.000
					Enhanced Snettisham	0.459	0.025	0.417	0.499	0.000
					Enhanced Stikine	0.000	0.001	0.000	0.002	0.720
					Enhanced Tatsamenie	0.030	0.008	0.018	0.045	0.000
					Other	0.027	0.010	0.012	0.045	0.000
					Speel Wild	0.028	0.010	0.013	0.046	0.000
					Stikine/Taku Mainstem	0.268	0.024	0.230	0.305	0.000
					Taku Lakes	0.067	0.013	0.047	0.090	0.000
					Tatsamenie Wild	0.116	0.017	0.090	0.146	0.000
32,33	101	21	2	78	Enhanced King Salmon	0.004	0.008	0.000	0.022	0.216
					Enhanced Snettisham	0.662	0.046	0.586	0.740	0.000
					Enhanced Stikine	0.004	0.008	0.000	0.019	0.234
					Enhanced Tatsamenie	0.004	0.009	0.000	0.021	0.208
					Other	0.048	0.029	0.011	0.102	0.000
					Speel Wild	0.050	0.030	0.012	0.105	0.000
					Stikine/Taku Mainstem	0.159	0.039	0.098	0.224	0.000
					Taku Lakes	0.005	0.010	0.000	0.023	0.207
					Tatsamenie Wild	0.064	0.031	0.021	0.122	0.000
34	328	100	2	226	Enhanced King Salmon	0.000	0.001	0.000	0.002	0.842
					Enhanced Snettisham	0.680	0.026	0.639	0.721	0.000
					Enhanced Stikine	0.000	0.001	0.000	0.002	0.839
					Enhanced Tatsamenie	0.006	0.004	0.001	0.015	0.006
					Other	0.030	0.011	0.015	0.051	0.000
					Speel Wild	0.031	0.011	0.015	0.051	0.000
					Stikine/Taku Mainstem	0.130	0.020	0.098	0.163	0.000
					Taku Lakes	0.009	0.005	0.002	0.019	0.006
					Tatsamenie Wild	0.113	0.018	0.085	0.144	0.000
35	300	42	2	256	Enhanced King Salmon	0.000	0.001	0.000	0.002	0.880
					Enhanced Snettisham	0.841	0.021	0.807	0.875	0.000
					Enhanced Stikine	0.004	0.003	0.000	0.010	0.176
					Enhanced Tatsamenie	0.007	0.005	0.001	0.016	0.013
					Other	0.003	0.004	0.000	0.011	0.312
					Speel Wild	0.012	0.007	0.002	0.025	0.012
					Stikine/Taku Mainstem	0.074	0.016	0.049	0.101	0.000
					Taku Lakes	0.011	0.006	0.003	0.023	0.001
					Tatsamenie Wild	0.048	0.012	0.029	0.069	0.000

Only samples from 111-32 were available for Stat Weeks 26 - 27, 30 - 31, and 34 - 35. There were only a total of 113 samples available for genotyping for 111-31 with the largest portion of those in SW29 (n = 86).