

**PACIFIC SALMON COMMISSION  
JOINT TRANSBOUNDARY TECHNICAL COMMITTEE**

**FINAL ESTIMATES OF TRANSBOUNDARY RIVER  
SALMON PRODUCTION, HARVEST AND  
ESCAPEMENT AND A REVIEW OF JOINT  
ENHANCEMENT ACTIVITIES IN 2000**

**TCTR (11)-4**

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## ACRONYMS

ADF&G	Alaska Department of Fish and Game
AF	Aboriginal Fishery
CAFN	Champagne Aishihik First Nation
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)
IHN	Infectious Hematopoietic Necrosis (a virus which infects sockeye salmon)
LCM	Latent Class Model
MEF	Mid-Eye-Fork (fish length measurement)
POH	Post-Orbital-Hyperal (fish length measurement)
PSC	Pacific Salmon Commission
SMM	Stikine Management Model
SPA	Scale Pattern Analysis
TAC	Total Allowable Catch
TRTFN	Taku River Tlingit First Nation
TBR	Transboundary River
TTC	Transboundary Technical Committee
YSC	Yukon Salmon Committee

## TABLE OF CONTENTS

	<u>Page</u>
ACRONYMS .....	ii
LIST OF TABLES .....	v
LIST OF FIGURES .....	vi
LIST OF APPENDICES .....	vii
ACRONYMS .....	xi
CALENDAR OF STATISTICAL WEEKS .....	xii
EXECUTIVE SUMMARY .....	1
Stikine .....	1
Taku .....	2
Alsek .....	2
Enhancement .....	3
INTRODUCTION .....	4
STIKINE RIVER .....	4
Harvest Regulations and the Joint Management Model .....	4
U.S. Fisheries .....	9
Canadian Fisheries .....	11
Lower Stikine Commercial Fishery .....	12
Upper Stikine Commercial Fishery .....	15
Aboriginal Fishery .....	15
Escapement .....	15
Sockeye .....	15
Chinook .....	16
Coho .....	16
Sockeye Run Reconstruction .....	17
TAKU RIVER .....	17
Harvest Regulations .....	17
U.S. Fisheries .....	19
Canadian Fisheries .....	22
Escapement .....	25
Sockeye .....	25
Chinook .....	25
Coho .....	25
Pink .....	26
Chum .....	26
Steelhead .....	26
Sockeye Run Reconstruction .....	26
ALSEK RIVER .....	27
Harvest Regulations & Management Objectives .....	28
Preseason Forecasts .....	28
U.S. Fisheries .....	30
Canadian Fisheries .....	31
Escapement .....	32
Sockeye .....	33
Chinook .....	33
Coho .....	34
Run Reconstruction .....	34

ENHANCEMENT ACTIVITIES .....	34
Egg Collection .....	34
Tahltan Lake: Target 6.0 million eggs.....	34
Tatsamenie Lake: Target 3.0 million eggs .....	34
Incubation, thermal marking, and Fry Plants (1998 Brood Year) .....	35
Tahltan Lake.....	35
Tuya Lake.....	35
Tatsamenie Lake.....	35
Outplant Evaluation Surveys .....	35
Acoustic and Trawl, Beach seine and Limnological Sampling.....	35
ADF&G Thermal Mark Laboratory .....	35
Canadian Thermal Mark Laboratory .....	36

## LIST OF TABLES

	<u>Page</u>
Table 1.	Weekly forecasts of run size and total allowable catch for Stikine River sockeye salmon as estimated inseason by the Stikine Management Model, 2000..... 8
Table 2.	Run reconstruction for Stikine sockeye salmon, 2000..... 13
Table 3.	U.S. inseason forecasts of total run size, inriver run size, TAC, and the U.S. harvest of Taku River sockeye salmon for 2000. .... 21
Table 4.	Canadian inseason forecasts of total run size, total allowable catch (TAC), and spawning escapement of Taku sockeye salmon, 2000. .... 22
Table 5.	Taku sockeye salmon run reconstruction, 2000. Estimates do not include spawning escapements below the U.S./Canada border. .... 27
Table 6.	Catch and Klukshu index escapement data for Alsek sockeye, Chinook, and coho salmon for 2000..... 32

## LIST OF FIGURES

	<u>Page</u>
Figure 1.	The Stikine River and principal U.S. and Canadian fishing areas. .... 5
Figure 2.	The Taku River and principal U.S. and Canadian fishing areas. .... 18
Figure 3.	The Alsek River and principal U.S. and Canadian fishing areas. .... 29

## LIST OF APPENDICES

	<u>Page</u>
Appendix A. 1. Weekly salmon catch in the Alaskan District 106 commercial drift gillnet fisheries, 2000. ....	38
Appendix A. 2. Weekly stock proportions of sockeye salmon harvested in the Alaskan District 106 commercial drift gillnet fisheries, 2000. ....	39
Appendix A. 3. Weekly salmon catch and effort in the Alaskan Subdistrict 106-41&42 (Sumner Strait) commercial drift gillnet fishery, 2000. ....	40
Appendix A. 4. Weekly stock proportions and catches of sockeye salmon harvested in the Alaskan Subdistrict 106-41&42 (Sumner Strait) commercial drift gillnet fishery, 2000. ....	41
Appendix A. 5. Weekly salmon catch and effort in the Alaskan Subdistrict 106-30 (Clarence Strait) commercial drift gillnet fishery, 2000. ....	42
Appendix A. 6. Weekly stock proportions and catches of sockeye salmon harvested in the Alaskan Subdistrict 106-30 (Clarence Strait) commercial drift gillnet fishery, 2000. ....	43
Appendix A. 7. Weekly salmon catch and effort in the Alaskan District 108 commercial drift gillnet fishery, 2000. ....	44
Appendix A. 8. Weekly stock proportions and stock-specific catch of sockeye salmon in the Alaskan District 108 commercial drift gillnet fishery, 2000. ....	45
Appendix A. 9. Weekly salmon catch and effort and sockeye salmon stock composition in the Alaskan District 108 test fishery, 2000. ....	46
Appendix A. 11. Weekly sockeye salmon stock proportions and catch by stock in the Canadian commercial fishery in the lower Stikine River, 2000. ....	47
Appendix A. 12. Weekly salmon and steelhead trout catch and effort in the Canadian commercial fishery in the upper Stikine River, 2000. ....	47
Appendix A. 13. Weekly salmon and steelhead trout catch and effort in the Canadian Aboriginal fishery located at Telegraph Creek, on the Stikine River, 2000. ....	48
Appendix A. 14. Catch by stock and week for sockeye salmon harvested in the Canadian upper river commercial and Aboriginal fisheries in the Stikine River, 2000. ....	48
Appendix A. 15. Weekly salmon and steelhead trout catch and effort in the Canadian test fishery in the Stikine River, 2000. ....	49
Appendix A. 15. Page 2 of 2. ....	50
Appendix A. 16. Weekly catch, CPUE, and migratory timing of Tahltan, Tuya, and mainstem sockeye salmon stocks in the Stikine test fishery, 2000. ....	51
Appendix A. 16. Page 2 of 2. ....	52
Appendix A. 17. Daily counts of adult sockeye salmon passing through Tahltan Lake weir, 2000. ....	53
Appendix A. 18. Daily counts of sockeye salmon smolt migrating through Tahltan Lake smolt weir, 2000. ....	54
Appendix A. 19. Daily counts of adult Chinook salmon passing through Little Tahltan weir, 2000. ....	55
Appendix B. 1. Salmon catch and effort in the Alaskan District 106 commercial drift gillnet fisheries, 1960-2000. ....	56
Appendix B. 2. Stock proportions and catches of sockeye salmon in the Alaskan District 106 commercial drift gillnet fisheries, 1982-2000. ....	58
Appendix B. 3. Salmon catch and effort in the Alaskan Subdistrict 106-41/42 (Sumner Strait) commercial drift gillnet fishery, 1960-2000. ....	59
Appendix B. 4. Stock proportions and catches of sockeye salmon in the Alaskan Subdistrict 106-41/42 (Sumner Strait) commercial drift gillnet fishery, 1985-2000. ....	60
Appendix B. 5. Salmon catch and effort in the Alaskan Subdistrict 106-30 (Clarence Strait) commercial drift gillnet fishery, 1960-2000. ....	61
Appendix B. 6. Stock proportions and catches of sockeye salmon in the Alaskan Subdistrict 106-30 (Clarence Strait) commercial drift gillnet fishery, 1985-2000. ....	62

Appendix B. 7. Salmon catch and effort in the Alaskan District 108 commercial drift gillnet fishery, 1960-2000.....	63
Appendix B. 8. Stock proportions and catches of sockeye salmon in the Alaskan District 108 commercial drift gillnet fishery, 1985-2000.....	65
Appendix B. 9. Salmon catch in the Alaskan District 106 and 108 test fisheries, 1984-2000.....	66
Appendix B. 10. Stock proportions of sockeye salmon in the Alaskan District 106 and 108 test fisheries, 1984-2000.....	67
Appendix B. 11. Stock specific catches of sockeye salmon in the Alaskan District 106 and 108 test fisheries, 1984-2000.....	68
Appendix B. 12. Salmon and steelhead trout catch and effort in the Canadian commercial fishery in the lower Stikine River, 1979-2000.....	69
Appendix B. 13. Sockeye salmon stock proportions and catch by stock in the Canadian commercial fishery in the lower Stikine River, 1979-2000.....	70
Appendix B. 14. Salmon and steelhead trout catch and effort in the Canadian commercial fishery in the upper Stikine River, 1975-2000.....	71
Appendix B. 15. Salmon and steelhead trout catch in the Canadian Aboriginal fishery located at Telegraph Creek, on the Stikine River, 1972-2000.....	72
Appendix B. 16. Stock specific sockeye salmon catches in the Canadian upper river commercial and Aboriginal fisheries in the Stikine River, 1972-2000.....	73
Appendix B. 17. Salmon and steelhead trout catch in the combined Canadian net fisheries in the Stikine River, 1972-2000.....	74
Appendix B. 18. Salmon catches in the Stikine River harvested under Canadian ESSR licenses, 1992-2000.....	75
Appendix B. 19. Salmon and steelhead trout catches and effort in Canadian test fisheries in the Stikine River, 1985-2000.....	76
Appendix B. 20. Sockeye salmon stock proportions and catch by stock in the test fishery in the lower Stikine River, 1985-2000.....	78
Appendix B. 21. Estimated proportion of inriver run comprised of Tahltan, Tuya, and mainstem sockeye salmon stocks, 1979-2000.....	79
Appendix B. 22. Counts of adult sockeye salmon migrating through Tahltan Lake weir, 1959-2000.....	80
Appendix B. 23. Aerial survey counts of Mainstem sockeye salmon stocks in the Stikine River drainage, 1984-2000.....	81
Appendix B. 24. Estimates of sockeye salmon smolt migrating through Tahltan Lake smolt weir, 1984-2000.....	82
Appendix B. 25. Weir counts of Chinook salmon at Little Tahltan River, 1985-2000.....	83
Appendix B. 26. Index counts of Stikine Chinook salmon escapements, 1979-2000.....	84
Appendix B. 27. Index counts of Stikine coho salmon escapements, 1984-2000.....	84
Appendix B. 28. Stikine River sockeye salmon run size, 1979-2000.....	85
Appendix C. 1. Weekly salmon catch and effort in the Alaskan District 111 and Subdistrict 111-32 (Taku Inlet), commercial drift gillnet fishery, 2000.....	87
Appendix C. 2. Estimate of the proportion of natural and planted sockeye salmon stock groups harvested in the Alaskan District 111 commercial drift gillnet fishery by week, 2000....	89
Appendix C. 3. Weekly stock-specific catch of wild and planted Taku River and Port Snettisham sockeye salmon harvested in the Alaskan District 111 commercial drift gillnet fishery, 2000.....	89
Appendix C. 4. Weekly salmon and steelhead trout catch and effort in the Canadian commercial fishery in the Taku River, 2000.....	90
Appendix C. 5. Weekly stock proportions of sockeye salmon harvested in the Canadian commercial fishery in the Taku River, 2000.....	90
Appendix C. 6. Weekly stock-specific catch of sockeye salmon in the Canadian commercial fishery in the Taku River, 2000.....	91



Appendix C. 7.	Weekly salmon and steelhead trout catch and effort in the Canadian test and stock assessment fisheries in the Taku River, 2000. ....	91
Appendix C. 8.	Mark-recapture estimate of above border run of sockeye, and coho salmon in the Taku River, 2000.....	92
Appendix C. 9.	Daily counts of adult sockeye salmon passing through Tatsamenie weir, 2000. ....	93
Appendix C. 10.	Daily counts of adult sockeye salmon passing through Little Trapper Lake weir, 2000.	94
Appendix C. 11.	Daily counts of adult sockeye salmon passing through the Kuthai Lake weir, 2000. ...	95
Appendix C. 12.	Daily counts of large (>659mm MEF length) Chinook salmon carcasses at the Nakina River weir, 2000. ....	96
Appendix D. 1.	Salmon catches and effort in the Alaskan District 111 and Subdistrict 111-32 (Taku Inlet) commercial drift gillnet fishery, 1960-2000.....	97
Appendix D. 2.	Stock proportions and catches of sockeye salmon in the Alaska District 111 commercial drift gillnet fishery, 1983-2000.....	99
Appendix D. 3.	Proportion of wild Taku River sockeye salmon in the Alaskan District 111 commercial drift gillnet catch by week, 1983-2000. ....	100
Appendix D. 4.	Salmon catch in the U.S. subsistence and personal use fisheries in the Taku River, 1967-2000. ....	101
Appendix D. 5.	Salmon and steelhead trout catch and effort in the Canadian commercial fishery in the Taku River, 1979-2000. ....	102
Appendix D. 6.	Sockeye salmon stock proportions and catch by stock in the Canadian commercial fishery on the Taku River, 1986-2000. ....	103
Appendix D. 7.	Salmon catches in the Canadian Aboriginal fishery on the Taku River, 1980-2000. ...	104
Appendix D. 8.	Salmon and steelhead trout catch in the Canadian test fishery in the Taku River, 1987-2000. ....	105
Appendix D. 9.	Taku River sockeye salmon run size, 1984-2000.....	105
Appendix D. 10.	Sockeye salmon escapement estimates of Taku River and Port Snettisham sockeye salmon stocks, 1979-2000.....	106
Appendix D. 11.	Taku River Chinook salmon run size, 1989-2000.....	107
Appendix D. 12.	Aerial survey index escapement counts of Taku River Chinook salmon, 1975-2000..	108
Appendix D. 13.	Taku River (above border) coho salmon run size, 1987-2000. ....	109
Appendix D. 14.	Escapement counts of Taku River coho salmon, 1984-2000. ....	109
Appendix D. 15.	Canyon Island fish wheel salmon counts and periods of operation on the Taku River, 1983-2000. ....	110
Appendix E. 1.	Weekly salmon catch and effort in the lower Alsek River fisheries, 2000.....	111
Appendix E. 2.	Weekly salmon catch and effort in the Canadian Aboriginal and sport fisheries in the Alsek River, 2000. ....	111
Appendix E. 3.	Daily counts of salmon passing through Klukshu River weir, 2000. ....	112
Appendix E. 4.	Salmon catch and effort in the U.S. Commercial fishery in the Alsek River, 1960 to 2000. ....	114
Appendix E. 5.	Salmon catch in the U.S. subsistence and personal use fisheries in the Alsek River, 1976-2000. ....	115
Appendix E. 6.	Salmon catches in the Canadian Aboriginal and sport fisheries in the Alsek River, 1976 to 2000. ....	116
Appendix E. 7.	Annual Klukshu River weir counts of Chinook, sockeye, and coho salmon, 1976 to 2000. ....	117
Appendix E. 8.	Alsek River sockeye salmon counts from U.S. and Canadian aerial surveys and from the electronic counter at Village Creek, 1985-2000. ....	118
Appendix E. 9.	Aerial survey index counts of Alsek River Chinook salmon escapements, 1984 to 2000.	119
Appendix E. 10.	Alsek River run of large (=>660 mef) Chinook salmon, 1997-2004. Estimates are based on a mark-recapture study and include the percent of Chinook salmon. ....	119

Appendix E. 11. Aerial survey counts of coho salmon from U.S. lower Alsek River tributaries, 1985-2000. .... 120

Appendix F. 1. Tahltan Lake egg collection, fry plants, and survivals, 1989-2000. .... 121

Appendix F. 2. Tuya Lake fry plants and survivals, 1991-2000. .... 121

Appendix F. 3. Tatsamenie Lake egg collection, fry plants, and survivals, 1989-2000. .... 122

## ACRONYMS

ADF&G	Alaska Department of Fish and Game
AF	Aboriginal Fishery
CAFN	Champagne Aishihik First Nation
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)
IHN	Infectious Hematopoietic Necrosis (a virus which infects sockeye salmon)
LCM	Latent Class Model
MEF	Mid-Eye-Fork (fish length measurement)
POH	Post-Orbital-Hyperal (fish length measurement)
PSC	Pacific Salmon Commission
SMM	Stikine Management Model
SPA	Scale Pattern Analysis
TAC	Total Allowable Catch
TRTFN	Taku River Tlingit First Nation
TBR	Transboundary River
TTC	Transboundary Technical Committee
YSC	Yukon Salmon Committee

## CALENDAR OF STATISTICAL WEEKS

Statistical Week	Date		Statistical Week	Date	
	Begin	End		Begin	End
1	1-Jan	1-Jan	28	2-Jul	8-Jul
2	2-Jan	8-Jan	29	9-Jul	15-Jul
3	9-Jan	15-Jan	30	16-Jul	22-Jul
4	16-Jan	22-Jan	31	23-Jul	29-Jul
5	23-Jan	29-Jan	32	30-Jul	5-Aug
6	30-Jan	5-Feb	33	6-Aug	12-Aug
7	6-Feb	12-Feb	34	13-Aug	19-Aug
8	13-Feb	19-Feb	35	20-Aug	26-Aug
9	20-Feb	26-Feb	36	27-Aug	2-Sep
10	27-Feb	4-Mar	37	3-Sep	9-Sep
11	5-Mar	11-Mar	38	10-Sep	16-Sep
12	12-Mar	18-Mar	39	17-Sep	23-Sep
13	19-Mar	25-Mar	40	24-Sep	30-Sep
14	26-Mar	1-Apr	41	1-Oct	7-Oct
15	2-Apr	8-Apr	42	8-Oct	14-Oct
16	9-Apr	15-Apr	43	15-Oct	21-Oct
17	16-Apr	22-Apr	44	22-Oct	28-Oct
18	23-Apr	29-Apr	45	29-Oct	4-Nov
19	30-Apr	6-May	46	5-Nov	11-Nov
20	7-May	13-May	47	12-Nov	18-Nov
21	14-May	20-May	48	19-Nov	25-Nov
22	21-May	27-May	49	26-Nov	2-Dec
23	28-May	3-Jun	50	3-Dec	9-Dec
24	4-Jun	10-Jun	51	10-Dec	16-Dec
25	11-Jun	17-Jun	52	17-Dec	23-Dec
26	18-Jun	24-Jun	53	24-Dec	30-Dec
27	25-Jun	1-Jul	54	31-Dec	31-Dec

## EXECUTIVE SUMMARY

Estimates of catches and escapements of Pacific salmon returning to the transboundary Stikine, Taku, and Alsek Rivers for 2000 are presented and compared with historical patterns. Average, unless stated differently, refers to the 1990-1999 average. Relevant information pertaining to the management of appropriate U.S. and Canadian fisheries is presented and the use of inseason management models is discussed. Results from transboundary river sockeye salmon *Oncorhynchus nerka* enhancement projects are also reviewed.

### Stikine

The 2000 Stikine sockeye salmon run was estimated at 78,500 fish, of which 55,200 fish were harvested in various fisheries including test fisheries. An estimated 19,900 Stikine fish escaped to spawn, including 5,800 fish that migrated to the Tuya block that were not harvested. The catch and the run were below the average and the lowest since 1990. Spawning escapements were also below goals. The estimated U.S. commercial catch of Stikine sockeye salmon in Districts 106 and 108 was 21,700 fish and the Canadian inriver commercial, aboriginal, and ESSR fishery catches were 21,400, 6,100, and 1,300 fish, respectively. A U.S. test fishery in District 108 harvested 3,600 Stikine sockeye salmon and the Canadian inriver test fishery catch included 2,400 sockeye salmon. The postseason estimate of 78,500 sockeye salmon was below the preseason forecast of 138,000 fish. The Stikine Management Model over forecasted the run throughout the season. Weekly inseason model forecasts ranged from 95,000 to 183,000 sockeye salmon and the final inseason estimates were 54,000 (U.S.) and 47,000 (Canada) fish. Based on the inseason model estimates, both Parties harvested below their 50% target of the TAC. However, the final postseason run size estimate decreased to no allowable catch therefore both countries exceeded their 50% portion of the TAC: Canada harvested 14,762 (mainstem and Tahltan) and the U.S. harvested 9,983 (mainstem and Tahltan).

The broodstock collection and otolith sampling removed 1,700 and 400 sockeye salmon, respectively from the escapement to Tahltan Lake leaving a spawning escapement of 4,000 fish; below the spawning escapement goal of 20,000 fish. The estimated spawning escapement of 10,100 mainstem Stikine sockeye salmon was also below the objective of 20,000 to 40,000 fish for this stock group.

The Chinook salmon *O. tshawytscha* catch in Canadian commercial and aboriginal fisheries in the Stikine River was 3,100 large fish and 600 jacks; both above the average. An additional 700 large and 20 jack Chinook salmon were taken in the Canadian inriver test fishery. The U.S. marine catch of Chinook salmon (all stocks) in the District 106 and 108 mixed stock gillnet fisheries was 2,900 fish and was above average; the contribution of Stikine Chinook stocks is unknown. The U.S. District 108 test fishery harvested 20 Chinook salmon. The Chinook salmon spawning escapement of 6,600 large adults through the Little Tahltan River weir in 2000 was above average and above the revised joint U.S./Canada escapement goal range 2,700 to 5,300 fish. The total Stikine River Chinook salmon escapement as estimated from a mark recapture study was 27,500 fish and was above average (1996-1999).

As with Chinook salmon, the U.S. marine harvest of Stikine coho salmon *O. kisutch* was unknown since there is no stock identification program for this species. Mixed stock coho salmon catches in Districts 106 and 108 were 96,200 and 5,700 fish, respectively, and both were below average. Alaskan hatchery fish comprised 50% (51,000 fish) of the coho salmon harvest from the two districts. The Canadian inriver coho salmon catch of 300 fish was below average. Test fishery coho salmon catch per unit effort (CPUE) indicated the inriver coho salmon run was 20% lower than the inriver sockeye salmon run. This suggests

the total coho salmon escapement was well below the interim escapement goal range of 30,000 to 50,000 fish. Aerial surveys of coho salmon spawning index sites also indicated a below average escapement, as did the total coho salmon run size of 25,500 fish (range: 13,700 to 55,800) as generated from a pilot, mark-recapture study.

### **Taku**

The postseason estimate of the 2000 Taku sockeye salmon run was 236,400 fish, including an estimated catch of 161,100 fish and an above-border spawning escapement of 75,300 sockeye salmon. The run size was average, the total catch was above average, and the escapement was within the escapement goal range of 71,000 to 80,000 fish. An estimated 131,700 Taku sockeye salmon was harvested in the District 111 commercial fishery and was above average. An estimated 900 sockeye salmon was harvested in the U.S. inriver personal use fishery. Canadian inriver commercial and aboriginal fishery catches included 28,000 and 150 sockeye salmon, respectively. The commercial catch was average, whereas the aboriginal catch was below average. Since the escapement goal was expressed as a range, the resulting total allowable catch was also expressed as a range. In 2000, Canada harvested an estimated 17-18% and the U.S. harvested 80-85% of the total allowable catch.

The catch of large Chinook salmon in the Canadian commercial fishery in the Taku River was 1,600 fish, and was average; the harvest of 90 jack Chinook salmon was below average. The Canadian aboriginal fishery in the Taku River harvested 50 large Chinook salmon. The Chinook salmon catch in the District 111 mixed stock gillnet fishery was 1,100 fish and was below average. An estimate 40% of the catch was Alaska hatchery origin. The escapement of 6,000 Chinook salmon counted in Taku River index areas was below average but within the recently revised index escapement goal range of 5,800 to 10,500 fish.

The estimated above border run of Taku coho salmon in 2000 was 70,100 fish which was below average. The Canadian inriver commercial catch included 4,400 coho salmon which was below average. After upriver Canadian catches are subtracted from the inriver run, the above-border-spawning escapement was estimated at 64,700 coho salmon, which exceeds the minimum escapement goal of 38,000 fish. The U.S. harvest of 7,500 coho salmon in the District 111 mixed stock fishery which below average. Alaskan hatcheries contributed an estimated 7% of the District 111 harvest, or 500 fish.

The harvest of 54,700 pink salmon *O. gorbuscha* in District 111 was below average. Pink salmon were not retained in the Canadian commercial inriver fishery in 2000. The escapement of pink salmon to the Taku River was likely below average as evidenced by the fish wheel, catch and release of 6,500 pink salmon which was below average.

The catch of chum salmon *O. keta* in the District 111 fishery was 668,600 fish, composed of 665,600 summer run fish (prior to mid-August) and 3,000 fall run fish. The catch of summer chum salmon, primarily Alaskan hatchery stocks, was 2.9 times average and was the highest on record. The catch of fall chum salmon, composed of wild Taku River and Port Snettisham stocks, was below average. As with pink salmon, there was non-retention of chum salmon in the Canadian inriver fishery and the reported catch was 0 fish in 2000. Although spawning escapement was not known the Canyon Island fish wheel catch of 400 chum salmon was average.

### **Alsek**

The Alsek sockeye salmon harvest of 9,500 fish in the U.S. commercial fishery was below average and was the fourth lowest on record. The Canadian inriver catch of 700 fish was below average and was also the fourth lowest on record. There were no fish retained in the sport fishery. The low catches were the result restrictions and closures in the commercial, sport, and aboriginal fisheries due to conservation

concerns. The Klukshu River weir count of 5,600 sockeye salmon was below average and the second lowest on record.

The Chinook salmon run to the Alsek River seemed average to below average. The U.S. Dry Bay catch of 700 Chinook salmon was above average. The combined Canadian sport and aboriginal fishery catch of 100 Chinook salmon was below average. The 1,400 Chinook salmon counted through the Klukshu River weir was below average. Of the total count, 1,300 Chinook salmon were estimated to have spawned, thus achieving the escapement goal range of 1,100 to 2,300 Chinook salmon, established by the TTC for 2000. Aerial survey index counts of other spawning systems were below average.

Current stock assessment programs prevent an accurate comparison of Alsek coho salmon runs with historical runs. The U.S. Dry Bay catch of 5,100 coho salmon was average, while the combined Canadian inriver aboriginal and sport fishery catch of 50 fish was below of average. The low catches were due to closures in the fisheries due to sockeye salmon conservation concerns. The operation of the Klukshu weir does not provide a complete enumeration of coho salmon into this system since it was removed before the run was over; however, it does provide a suitable annual index. The count of 4,800 coho salmon was twice the average.

### **Enhancement**

Eggs and milt were collected from the year 2000 sockeye salmon escapements at Tahltan and Tatsamenie Lakes. For the fourth year in a row the 6.0 million egg-take goal was not achieved at Tahltan Lake due to low escapement. A total of 2.4 million eggs was collected at Tahltan Lake. At Tatsamenie Lake, the 3.0 million egg collection goal was achieved; however this goal was lower than the 5.0 million-egg target specified in the treaty. The committee had set a lower goal as they seek to improve the low survivals of fry planted in the lake.

Outplants of 1999 brood-year sockeye salmon fry in May and June 2000 included 2.2 million fry into Tahltan Lake, 0.9 million fry of Tahltan Lake origin into Tuya Lake, and 0.4 million fry into Tatsamenie Lake. Green-egg to planted-fry survivals were 80%, 82%, and 76% for these outplants, respectively. Survival to emergence was generally at, or above, expected levels and there were no losses to Infectious Hematopoietic Necrosis (IHN). Losses from IHN have occurred in the past at Snettisham Hatchery and are expected in sockeye salmon culture.

Outmigrant smolt sampling was conducted at Tahltan and Tatsamenie Lakes in 2000. Total emigration from Tahltan Lake was estimated at 619,300 smolts with 43% (266,000 smolt) from past fry plants. Sampling at Tuya Lake was conducted to estimate age and size composition of the outmigrants but outmigration magnitude was not estimated. Sample size was limited due to logistics and timing. The Tatsamenie Lake mark-recapture program estimated that 191,400 smolts out-migrated from that system with planted fish contributing about 20% (39,000 smolts).

The egg incubation and thermal-marking program was continued at Snettisham Hatchery in 2000. Snettisham hatchery is operated by DIPAC (Douglas Island Pink and Chum, Inc.), a private aquaculture organization in Juneau. A co-operative agreement between ADF&G and DIPAC provides for Snettisham hatchery to serve the needs of the joint TBR enhancement projects.

Adult sockeye salmon otoliths were processed inseason by the ADF&G otolith lab to estimate the weekly contribution of fish from U.S./Canada TBR fry planting programs to the District 106, 108, and 111 gillnet fisheries and to Canadian commercial fisheries in the Stikine and Taku Rivers. Contribution estimates of planted fish to Alaskan catches were 12,500 Stikine sockeye salmon to District 106 and 108 (13% of catch) and 1,600 Taku sockeye salmon to District 111 (1% of catch). Final estimates of contributions to

Canadian fisheries included 13,600 sockeye salmon (49% of catch) to Stikine fisheries and 400 sockeye salmon to the Taku fisheries (2% of catch).

## INTRODUCTION

This report presents estimates of the 2000 catch and escapement data for Pacific salmon runs to the transboundary Stikine, Taku, and Alsek Rivers and discusses management actions taken during the season. Catch and effort data are presented by management week (U.S. statistical week) for each river for both U.S. and Canadian fisheries. Spawning escapement data for most species are reported from weir counts or other escapement monitoring techniques. Joint enhancement activities on the Stikine and Taku Rivers are also summarized.

The Transboundary Technical Committee (TTC) met prior to the season to update joint management, stock assessment and enhancement plans and determine forecasts for run strengths and initial total allowable catch (TAC) estimates for the various species and rivers. The results of this meeting are summarized in: **Pacific Salmon Commission Transboundary Technical Committee. 2000. *Salmon Management and Enhancement Plans for the Stikine, Taku and Alsek Rivers, 2000. Report TCTR 00-2.***

Run reconstruction analyses are conducted on the sockeye salmon *Oncorhynchus nerka* runs to the 3 rivers for the purpose of evaluating the stocks and the fisheries managed for these stocks. No estimates of marine catch are made for Alaskan fisheries outside of District 106 and 108 for Stikine stocks, District 111 for Taku stocks and Subdistrict 182-30 & 31 for Alsek stocks.

## STIKINE RIVER

Stikine River salmon are harvested by U.S. commercial gillnet fisheries in Alaskan Districts 106 and 108, by Canadian commercial gillnet fisheries located in the lower and upper Stikine River, and by a Canadian aboriginal fishery in the upper portion of the river. In addition, a Canadian terminal area fishery was operated in the lower Tuya River and/or at Tahltan Lake when escapements are estimated to be surplus to spawning requirements (ESSR) (Figure 1). A small sport fishery also exists in the Canadian sections of the Stikine drainage. In 1995, a United States personal use fishery was established in the lower Stikine River; no catches were reported in this fishery in 1995 through 2000. Additional catches of unknown quantity are taken in U.S. troll and seine fisheries and in sport fisheries near Wrangell and Petersburg. In 1996, the spring experimental troll area in the District 9 portion of Frederick Sound was expanded to target hatchery Chinook salmon *O.tshawytscha*; 4 previous areas were combined into 1 large area that also included previously unopened waters. This area was the same in 2000.

### Harvest Regulations and the Joint Management Model

Negotiations between Canada and the United States to replace expired portions of Annex IV, Chapter 1 of the Pacific Salmon Treaty resulted in the following arrangements for Stikine salmon which are expected to be in place for the 1999 to 2008 period:

1. General:

The Parties shall improve procedures for coordinated or cooperative management of the fisheries on transboundary river stocks. To this end, the Parties affirm their intent to



develop and implement abundance-based management regimes for transboundary Chinook, sockeye and coho salmon *O. kisutch* no later than May 1, 2004.

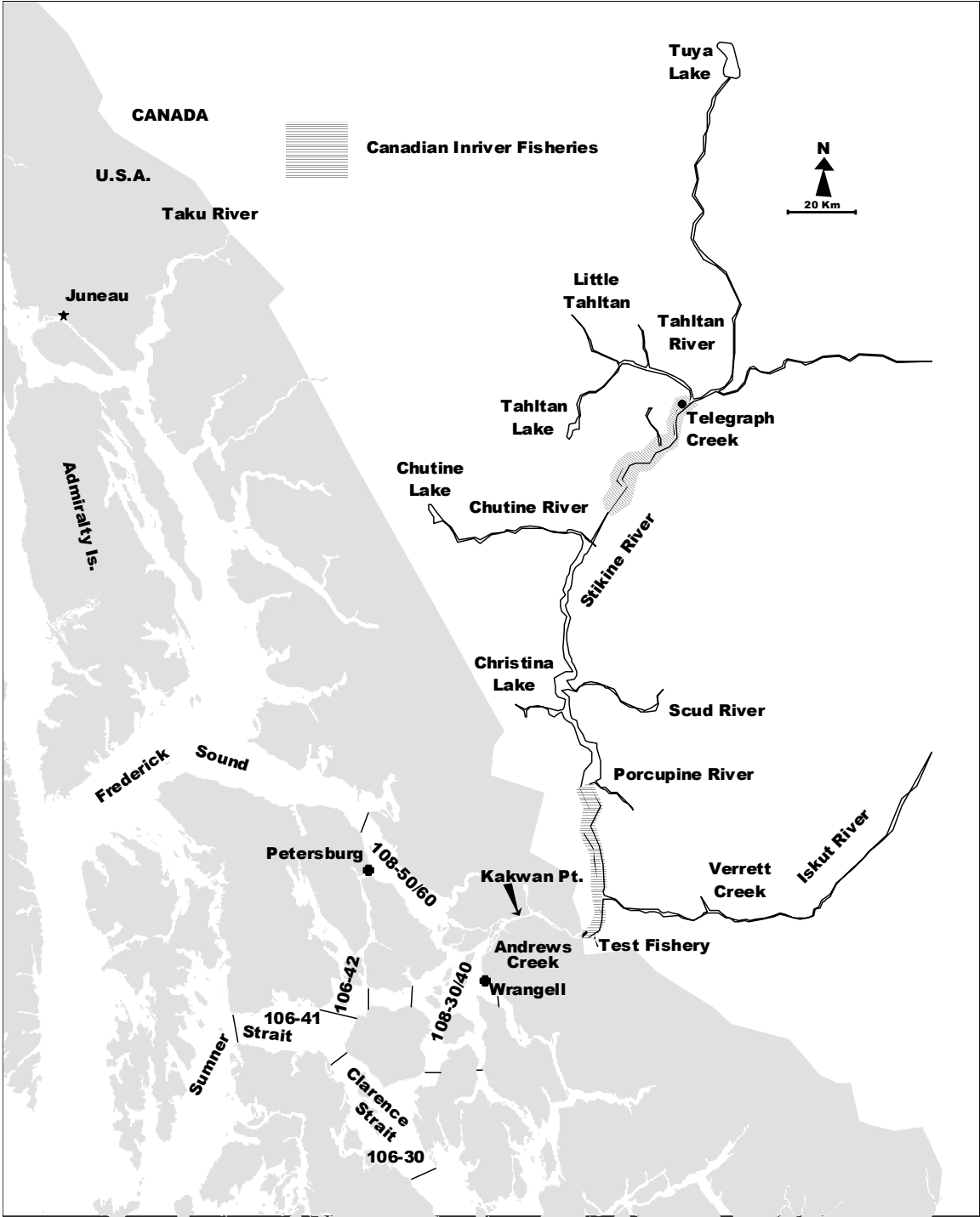


Figure 1. The Stikine River and principal U.S. and Canadian fishing areas.

2. Sockeye Salmon:

(i) Assessment of the annual run of Stikine River sockeye salmon shall be made as follows:

a. a preseason forecast of the Stikine River sockeye salmon run will be made by the Committee prior to April 1 of each year. This forecast may be modified by the Committee prior to the opening of the fishing season;

b. inseason estimates of the Stikine River sockeye salmon run and the Total Allowable Catch (TAC) shall be made under the guidelines of an agreed Stikine Management Plan and using a forecast model developed by the Committee. Both U.S. and Canadian fishing patterns shall be based on current weekly estimates of the TAC. At the beginning of the season and up to an agreed date, the weekly estimates of the TAC shall be determined from the pre-season forecast of the run strength. After that date, the TAC shall be determined from the inseason forecast model;

c. modifications to the Stikine Management Plan and forecast model may be made prior to June 1 of each year by agreement of both Parties. Failure to reach agreement in modifications shall result in use of the model and parameters used in the previous year; and

d. estimates of the TAC may be adjusted in-season only by concurrence of both Parties' respective managers. Reasons for such adjustments must be provided to the Committee.

(ii) The Parties desire to maximize the harvest of planted Tahltan/Tuya sockeye salmon in their existing fisheries while considering the conservation needs of wild salmon runs. The Parties agree to manage the runs of Stikine River sockeye salmon to ensure that each country obtains 50% of the TAC in their existing fisheries. Canada will endeavor to harvest all fish surplus to escapement and broodstock needs returning to the Tuya and Tahltan Lake systems.

(iii) The Parties agree to continue the existing joint enhancement programs designed to produce annually 100,000 returning sockeye salmon.

(2) Coho salmon:

(i) Consistent with paragraph 1 above, the Parties agree to develop and implement an abundance-based approach to managing coho salmon on the Stikine River. Assessment programs need to be further developed before a MSY escapement goal can be established.

(ii) In the interim, the United States' management intent is to ensure that sufficient coho salmon enter the Canadian section of the Stikine River to meet the agreed spawning objective, plus an annual Canadian catch of 4,000 coho salmon in a directed coho salmon fishery.

(3) Chinook salmon:

(i) Both Parties shall take the appropriate management action to ensure that the necessary escapement goals for Chinook salmon bound for the Canadian portions of the Stikine River are achieved.

(ii) The Parties agree that new fisheries on Stikine Chinook salmon will not be developed without the consent of both Parties. Consistent with paragraph 2, management of new directed fisheries will be abundance-based through an approach to be developed by the Committee. The Parties agree to implement assessment programs in support of the development of an abundance-based management regime.

(iii) The Parties shall review an appropriate MSY escapement goal for Stikine Chinook salmon by May 1999 and establish a new goal as soon as practicable thereafter.

As in most previous years, TTC met prior to the season to update joint management and enhancement plans, develop run forecasts and determine new parameters for input into the inseason run forecast model, referred to as the Stikine Management Model (SMM). The model was upgraded to provide inseason forecasts of the total Stikine sockeye salmon run as well as the following components of the run: the Tahltan stock (wild and planted combined); the planted Tuya stock; and the mainstem stocks. The model for 2000 was based on catch per unit effort (CPUE) data from 1985 to 1999 from District 106 and the Canadian commercial fishery in the lower river and from 1986 to 1999 from the lower Stikine test fishery. Linear regression was used to predict run size from cumulative CPUE for each week of the fisheries beginning in week 26 for all 3 fisheries. As in 1999, the intercept was forced to be zero in order to correct for a tendency to overestimate the run size in the earlier weeks during years of low abundance. New for the model in 2000 was a refinement to the lower Stikine commercial CPUE, which excluded catch and effort data from the Flood Glacier area, i.e. the new area introduced in 1997. In addition, the annual weekly CPUE values were increased by a factor of 1/0.75 for years prior to 1994 to account for the extra gear allowed starting in that year. This made the historical CPUE data more comparable with the post-1993 era. These modifications helped to correct the model for 1999, which overestimated the run significantly.

In 2000, the preseason forecasts were used during week 26 (June 18-24) through week 27 (June 25 to July 01). After week 27, inseason forecasts of total run size and TAC, produced by the SMM and based on CPUE data, were used to assist in determining weekly fishing plans (Table 1). The weekly inputs to the model included: the catch, effort, and stock composition (proportion Tahltan/Tuya from egg diameters, proportion planted Tuya from thermal mark analyses of otoliths) in the Canadian lower river test and commercial fisheries; the upper river catch in the aboriginal fishery (AF) and upper river commercial fishery; the catch, effort and assumed stock composition in Subdistrict 106-41; and, the catch and assumed stock composition in District 108 and Subdistrict 106-30. Results of thermal mark analyses were available inseason for the lower river fisheries to account for Tuya production in the model and reduce the risk of over-estimating the TAC of Tahltan sockeye salmon, which was predicted to be below average in 2000.

Initially, average stock proportions in District 106 and 108 catches, from historical postseason scale pattern analysis (SPA), were assumed for weekly catches; the averages used each week depended upon whether the run was judged to be below average, average, or above average. The Tahltan/Tuya stock proportions were subsequently adjusted inseason based on the analysis of otolith samples taken in Districts 106 and 108. Inseason otolith sampling was conducted to estimate the contribution of planted Tahltan and Tuya Lake sockeye salmon to catches in these areas. The weekly estimate of Tuya fish in District 106-41 was added to the historical proportion of Tahltan fish in the SMM since this stock was not present in the historical database. No adjustments were made in District 108. Because different

proportions of Tahltan fish were observed in subdistricts of District 108, the overall contribution estimates for District 108 were weighted according to catches in the subdistricts.

Table 1. Weekly forecasts of run size and total allowable catch for Stikine River sockeye salmon as estimated inseason by the Stikine Management Model, 2000.

Stat. Week	Start Date	Forecast Run Size	TAC			Cumulative Catches	
			Total	U.S.	Canada	U.S.	Canada
Model runs generated by Canada							
26	18-Jun	138,000	64,882	32,441	32,441	1,907	0
27	25-Jun	138,000	64,882	32,441	32,441	11,376	3,591
28	2-Jul	94,699	19,699	9,626	9,626	14,057	9,455
29	9-Jul	179,566	77,508	38,754	38,754	22,134	15,131
30	16-Jul	177,143	68,234	34,117	34,117	25,829	18,839
31	23-Jul	173,037	70,317	35,159	35,159	29,657	23,382
32	30-Jul	159,808	57,645	28,822	28,822	28,043	26,367
33	6-Aug	156,735	53,585	26,793	26,793	29,531	27,343
34	13-Aug	153,635	50,935	25,467	25,467	29,531	27,585
35	20-Aug	149,574	46,870	23,435	23,435	29,531	27,585
Model runs generated by the U.S.							
26	18-Jun	138,000	64,882	32,441	32,441	2,900	
27	25-Jun	138,000	64,882	32,441	32,441	16,321	3,595
28	2-Jul	140,980	62,655	31,328	31,328	18,895	9,455
29	9-Jul	182,956	99,409	49,705	49,705	24,413	13,258
30	16-Jul	177,766	71,731	35,866	35,866	20,798	16,233
31	23-Jul	168,736	55,931	27,965	27,965	26,430	17,775
32	30-Jul	159,795	57,130	28,565	28,565	28,043	24,652
33	6-Aug	157,594	53,879	26,939	26,939		
Postseason Final			78,504				

<sup>a</sup> does not include test fishery catches

The preseason forecast for the Stikine was 138,000 sockeye salmon, which indicated a run size below the average of 200,691 fish (Appendix B.28). The forecast included 44,000 natural Tahltan sockeye salmon (32%), 7,000 planted Tahltan fish (5%), 21,000 planted Tuya sockeye salmon (15%), and 66,000 mainstem fish (26%). Canadian inseason predictions of total run ranged from 94,699 to 179,566 sockeye salmon; U.S. forecasts ranged from 140,980 to 182,956 sockeye salmon (Table 1). All forecasts indicated a below average run and the forecasts derived from inriver test fishery data were consistently well below those derived from commercial CPUE. The preseason forecast was more accurate than inseason forecasts in 2000. U.S. and Canadian weekly predictions differed due to different catch data input used for the updates.

Inseason management was influenced substantially by forecasts derived from the SMM, which was updated and refined by the TTC prior to the season. The model is based on the historical relationship between cumulative CPUE and run size and provides 3 sets of independently generated forecasts: 1 set based on US District 106 CPUE, another based on Canadian inriver commercial CPUE and the last based on Canadian test fishery CPUE. Each CPUE and run size dataset was significantly correlated; the forecasts used inseason each week are those derived from the dataset that has the highest correlation

coefficient for that particular statistical week. Unfortunately, the inseason forecasts exhibited a very wide range in 2000; the forecasts generated from the District 106 CPUE data were consistently higher than those derived from inriver CPUE data. The forecasts derived from the inriver test fishery data were consistently the lowest. However, historically the forecast that statistically has the best fit is the one derived from the inriver commercial fishery and it was this forecast that was used inseason (except for week 28 when the test fishery data was used). There was some comfort in using the forecasts derived from the inriver commercial CPUE since they tended to be mid-way between those developed from the other datasets.

Although the postseason estimates of run size and TAC were below the predictions that were used inseason for management. For example, the final inseason forecast generated by the SMM indicated a run size of 149,600 sockeye salmon and a TAC for Canada of 23,400 sockeye salmon. Run size and TAC projections from the SMM progressively decreased throughout the season from peak inseason estimates of 179,600 total run and 38,800 Canadian TAC in week 29 (July 09-15). The run forecasts during the peak of the fisheries (weeks 29 and 30) were more than twice the postseason run estimate. The TTC will review SMM performance prior to the 2001 fisheries and evaluate additional management tools.

### **U.S. Fisheries**

The 2000 harvest in the District 106 commercial gillnet fishery included 1,220 Chinook, 90,076 sockeye, 96,207 coho, 156,619 pink *O. gorbuscha*, and 199,836 chum salmon *O. keta* (Appendices A.1 and B.1). In the District 108 fishery, 1,671 Chinook, 15,833 sockeye, 5,651 coho, 9,497 pink, and 40,337 chum salmon were harvested (Appendix A.7 and B.7). The District 106 Chinook and chum salmon catches were average while the sockeye, coho, and pink salmon catches were below average (Appendix B.1). The District 108 Chinook salmon catch was above average and catches of the other species were below average. Alaskan hatchery fish contributed 1,724 fish (59.6%) to the Chinook salmon catch, and 50,971 coho salmon (50.0%) to the harvest from the 2 districts. The test fishery in District 108 caught 21 Chinook, 4,686 sockeye, 140 coho, 53 pink, and 724 chum salmon (Appendix A.9). Catches of each species in Districts 106 and 108 consist of fish of mixed stock origin; the contribution of Stikine stocks was estimated only for sockeye salmon. The proportions of Stikine sockeye salmon in the District 106 and 108 catches were estimated inseason using both the historical proportions of each stock and the proportions of thermally marked fish from fry plants to Tahltan and Tuya Lakes.

The postseason estimate of the contribution of Stikine sockeye salmon to the District 106 and 108 catches was 21,733 fish or 20.5% of the catch (Appendices A.2 and A.8). The Sumner Strait fishery (Subdistricts 106-41 & 106-42) harvested 9,661 Stikine sockeye salmon (Appendices A.4 and B.4), 16.7% of the total sockeye salmon harvest in that subdistrict, and the Clarence Strait fishery (Subdistrict 106-30) harvested 1,484 Stikine fish (Appendices A.6 and B.6), 4.6% of the total sockeye salmon catch in that subdistrict. The District 108 fishery harvested 10,588 Stikine sockeye salmon (Appendix A.8), 66.9% of the District 108 sockeye salmon catch.

The Districts 106 and 108 fishing seasons began on June 18 (week 26) and continued through September 19 (week 39). The initial opening in week 26 was for 2 days in both districts. The initial opening in District 106 was normally 2 days and any decision to extend fishing was based on fishery catch rates estimated by management biologists on site in the fishery. The estimated sockeye salmon CPUE in District 108 was above average for this week, but the District 106 sockeye salmon CPUE was half the average. Only 5 boats were fishing in Clarence Strait during this opening. The preseason forecast was used for the SMM and the otolith analysis in the prior week District 108 test fishery showed a Tuya:Tahltan ratio of approx. 50:50. The fishery was limited to 2 days in both districts because of the poor catch combined with the low preseason forecast of 51,000 Tahltan fish.

During week 27 (June 25–July 01) the fishery was open for 2 days. The sockeye salmon catches and CPUEs in both districts were above average. The effort in Clarence Strait was very low again this week with only 15 vessels reporting catches from that area. The good catches under normal, historical circumstances would have warranted a fishing time extension in both districts. However, the decision to not extend the fishing period was again based on the low Tahltan sockeye salmon forecast. Management remained conservative to lower the risk of overfishing the Tahltan stock if the inseason SMM overestimated the Tahltan sockeye salmon abundance.

During week 28 (July 02-08) District 106 and the southern portion of District 108 were open for 2 days. The northern section of District 108 (Frederick Sound) was closed. The decision to keep this portion of District 108 closed was based on the otolith analysis from both the District 108 test and commercial fisheries. Analysis indicated that Tahltan sockeye salmon were present at a higher proportion in the northern section of District 108 than in the southern section. The closed area would allow unimpeded migration of the Tahltan stock through a portion of the U.S. gillnet fishery in order to increase inriver escapement. The sockeye salmon CPUE in District 108 was above average and the District 106 CPUE was average. Under a less conservative fishing regime an extension or mid-week opening would have been allowed at this time to harvest the U.S. share of the Tahltan TAC which at this time was 14,664 fish. However, because of shortfalls in the Tahltan escapement during the past 3 years, no fishery extensions or mid-week openings were allowed.

During week 29 (July 09-15) 3 days were allowed in both districts. At the time the opening was announced the otolith sampling showed that there were no thermally marked Tahltan sockeye salmon in the Sumner Strait gillnet catch samples during the previous week and that Tuya sockeye salmon stock was still available in the fisheries. Three fishing days were given this week because abundance information indicated that the Tahltan run was large enough to ensure adequate escapement and that the majority of the fish had moved through the US fisheries. Also, with the low number of vessels fishing in District 106, it was likely that the US Tahltan TAC of 14,665 would not be exceeded.

During week 30 (July 16-22) both districts were open for 3 days. The 3-day opening was based on the low number of marked Tahltan sockeye salmon in the catch, the low district effort, the inseason forecast of the Tahltan sockeye salmon escapement of 15,000 fish, and the U.S. total Stikine sockeye salmon TAC was 35,900 fish. The total U.S. Stikine sockeye salmon catch through week 29 was estimated to be 24,400 fish. A mid-week opening in District 108 was considered because of the high catches of mainstem sockeye salmon in the Canadian inriver fishery. However, no mid-week opening was allowed because the SMM Tahltan sockeye salmon run estimate had dropped to 29,580 fish since week 28 and the risk of overharvesting Tahltan sockeye salmon was too great.

During week 31 (July 23-29) both districts were initially open for 2 days. The sockeye salmon CPUE in Sumner Strait was slightly above average. However, with the low effort in District 106 the CPUE should have been even higher so an extension of both districts was not warranted. A 2-day mid-week opening was allowed in District 108. The SMM mainstem sockeye salmon run forecast was 90,000 fish and the U.S. TAC was 30,000 fish. Up to this time the combined district mainstem sockeye salmon catch was estimated at 6,850 and the otolith analysis showed no marked Tahltan sockeye salmon in any district catch since week 30 so a mid-week opening was justified.

Week 32 (July 30-August 05) was the final week of directed sockeye salmon fishing in Districts 106 and 108. Both districts were open for 2 days. The sockeye salmon catch in District 106 was near the average for this week, however, no extensions or mid-week openings were allowed because with the low effort the sockeye salmon CPUE should have been much greater.

The test fishery that was initiated in District 108 during 1998 and 1999 was undertaken again in 2000. Six gillnet vessels (3 in Frederick Sound and 3 in the Sumner Strait portion of District 108) were contracted to fish for up to 3 days for 3 consecutive weeks at specific locations of their choosing beginning on Tuesday, 16 June. Due to low catches during the first week an additional fourth fishing period was allowed to collect additional samples needed for adequate statistical analysis. Each of the vessels at each location fished different mesh sizes. The 3 sizes fished were: 4.625 in. to 4.875 in. (11.81 cm to 12.38 cm); 5.375 in. to 5.25 in. (12.7 cm to 13.65 cm); and 5.375 in. to 5.625 in. (13.65 cm to 14.29 cm). The objective of the fishery was to see if the Tuya sockeye salmon stock was more susceptible to capture in a particular gillnet mesh size than other stocks were. This is of interest because age 2.2 fish are very rare in the Tahltan stock while they may represent 25% or more of the Tuya marine catch. Two-ocean age sockeye salmon are generally smaller than the 3-ocean fish and as such may be more susceptible to catch in smaller gillnets. If it could be shown that the Tahltan and Tuya stocks could be harvested at different rates then it may be possible to institute mesh size restrictions during years of low Tahltan runs to minimize the Tahltan stock catch while still fishing for the planted Tuya stock. Results after the first season did show a slight difference in the catch of age 2.2 sockeye salmon between mesh sizes with the smallest mesh size catching a higher percentage than either of the other mesh sizes. A total of 4,686 sockeye salmon were caught during the test fishery (Appendices A.9 and B.9). Planted Tahltan fish made up 5.7%, Tuya made up 31.0% and wild stocks made up the remaining 63.3% of the catch.

The management emphasis changed from sockeye salmon to pink salmon in week 33 (August 01-07). Pink salmon catches in both districts are not always a true reflection of abundance because the low pink salmon price, along with a high abundance of sockeye and coho salmon affect the fishing patterns and methods. During the 2000 season, the fishing effort in boat-days was 50% of average due to high chum salmon catches in other districts. Therefore, the total pink salmon catch also reflects low effort in Districts 106 and 108. Three-day fishing periods were allowed during weeks 33 and 34 (August 06-19) and a 2-day fishery was allowed for week 35 (August 20-26).

Coho salmon management in both the District 106 and 108 gillnet fisheries usually commences in late August or early September. During week 36 (August 27-September 02) the management emphasis changed from pink to coho salmon. The coho salmon catches prior to week 36 were below average due to a combination of late timing of the coho salmon run into inside waters, low coho salmon abundance, and low fishing effort in the districts. Two day openings were allowed in both districts from week 37 through week 39 (September 03-September 23). Both districts were closed for the season after week 39. Prior to the change to coho salmon management, the sockeye and pink salmon fisheries harvested 57,806 coho salmon, or 60% of the total District 106 coho salmon catch.

During the 2000 season, the District 106 gillnet fishery was open for a total of 33 days (Appendix A.5), and District 108 for 35 days (Appendix A.7). These were below the Districts 106 and 108 respective averages of 40 and 49 days (Appendices B.5 and B.7). District 106 fishing effort in numbers of vessels was below average for the entire season. The number of vessels fishing in District 108 was below or near average for all openings except during week 31 (July 23-29) when a mid-week opening was allowed. The highest effort in number of boat-days in District 106 (282) and the greatest number of boats fishing occurred in week 29 when 94 boats fished for 3 days. The effort of 2,409 boat-days in District 106 was below average (4,213 boat-days; Appendix B.1). The 714 boat-days fished in District 108 were below average (1,522 boat-days; Appendix B.7). The low effort in both districts was due to a combination of low sockeye salmon catches and restricted fishing time in both districts and very good chum salmon fishing in other fishing districts near Juneau and Sitka.

## **Canadian Fisheries**

Catches from the combined Canadian commercial and aboriginal gillnet fisheries in the Stikine River in 2000 included: 3,086 large Chinook, 628 jack Chinook, 27,468 sockeye, 301 coho, 181 pink, and 144 chum salmon, and 103 steelhead trout *O. mykiss* (Appendices A.10, A.12, A.13, and B.17). In addition to these catches, 1,283 sockeye salmon were taken in an ESSR harvest in the Tuya River and 406 sockeye salmon were taken for samples at Tahltan Lake. Catches of all species except Chinook and pink salmon were below average (Appendices B.12, B.14 and B.15). The final estimate of the total contribution of sockeye salmon from the Canada/U.S. fry-planting program to the combined Canadian aboriginal and commercial fisheries was 13,559 fish, 49.4% of the catch.

Three test fisheries (Chinook, sockeye and coho salmon) were conducted in the lower Stikine River in 2000, just upstream from the Canada/U.S. border. Combined test fishery catches included: 933 large Chinook (of which 226 were released alive), 18 jack Chinook, 2,378 sockeye, 436 coho, 34 pink, and 174 chum salmon, and 76 steelhead trout (Appendix A.15 and B. 19). The objectives of the Chinook and coho salmon test fisheries were to obtain data for respective mark-recapture programs and to collect information about run timing. Additional 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 into the SMM to forecast 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 and coho salmon run sizes.

### **Lower Stikine Commercial Fishery**

Canadian commercial fishers in the lower Stikine harvested 1,970 large Chinook, 240 jack Chinook, 20,472 sockeye, 298 coho, 181 pink, and 144 chum salmon, and 89 steelhead trout in 2000 (Appendix A.10). The sockeye, coho, chum salmon and steelhead trout catch was below average (Appendix B.12). The catch of large Chinook and pink salmon was above average. The stock composition of the lower river sockeye salmon catch was: 801 planted Tahltan fish, 3.9% of the sockeye salmon catch; 4,364 wild Tahltan fish, 21.0% of the catch; 7,171 mainstem fish, 35.0% of the catch; and 8,136 planted Tuya fish, 39.7% of the catch (Table 2, Appendices A.11 and B.13).

Weekly guideline harvests, based on SMM forecasts of the (TAC) apportioned by average run timing and domestic and international allocation agreements, were developed each week to guide management decisions during the sockeye salmon season. Particular attention was directed at the inriver run and escapement forecasts of the various stock groupings. Management through week 31 was focused primarily on the Tahltan sockeye salmon stock after which it switched to Mainstem sockeye salmon stocks through the end of August, and then to coho salmon. The Tahltan sockeye salmon stock was of particular concern given the preseason forecast of a below average run.

The fishery commenced at noon on Sunday, June 25 (week 27) for a scheduled opening of 2 days. The opening week for the fishery was roughly 1 week later than normal due to conservation concerns for Tahltan sockeye salmon. Although the overall sockeye salmon CPUE measured in sockeye/fisher/day (s/f/d) was above average, fishing time was kept to 48 hours due to the expectation of a below average run of Tahltan sockeye salmon. Stock composition data by the end of week 27 confirmed that the CPUE of Tahltan sockeye salmon was below average.



Table 2. Run reconstruction for Stikine sockeye salmon, 2000.

	Tahltan	Mainstem	Total	Tuya	Tahltan		Total Stikine	All Planted	All Wild
					Wild	Hatchery			
Escapement a	6,076	10,132	16,208	7,091	4,845	1,231	23,299	8,322	14,977
ESSR Catch b				1,283			1,283	1,283	0
Biological Samples	406		406		324	82	406	82	324
Broodstock	1,717		1,717		1,370	347	1,717	347	1,370
Natural Spawning	3,953	10,132	14,085		3,152	801	14,085	801	13,284
Excess c			0	5,808			5,808	5,808	
Canadian Harvest									
Indian Food	1,733	385	2,118	3,989	1,681	52	6,107	4,041	2,066
Upper Commercial	224	84	308	581	224	0	889	581	308
Lower Commercial	5,165	7,171	12,336	8,136	4,364	801	20,472	8,937	11,535
Total	7,122	7,640	14,762	12,706	6,269	853	27,468	13,559	13,909
% Harvest	64.5%	55.8%	59.7%	52.0%					
Test Fishery Catch	605	791	1,396	982	511	94	2,378	1,076	1,302
Inriver Run	13,803	18,563	32,366	20,779	11,625	2,178	53,145	22,957	30,188
U.S. Harvest a									
106-41&42	1,617	1,317	2,934	6,727	1,363	254	9,661	6,981	2,680
106-30	210	389	599	885	210	0	1,484	885	599
108	2,097	4,353	6,450	4,138	1,591	506	10,588	4,644	5,944
Total	3,924	6,059	9,983	11,750	3,163	761	21,733	12,511	9,222
% Harvest	35.5%	44.2%	40.3%	48.0%					
Test Fishery Catch	1,416	705	2,121	1,505	1,125	291	3,626	1,796	1,830
<b>Total Run</b>	<b>19,143</b>	<b>25,327</b>	<b>44,470</b>	<b>34,034</b>	<b>15,913</b>	<b>3,230</b>	<b>78,504</b>	<b>37,264</b>	<b>41,240</b>
Escapement Goal	24,000	30,000	54,000	0					
Terminal Excess d				34,034					
Total TAC	0	0	0	0					
Total Harvest e	13,067	15,195	28,262	28,226			56,488	30,225	26,263
Canada TAC	0	0	0	0					
Actual Catch f	7,122	7,640	14,762	12,706			27,468	13,559	13,909
% of total TAC									
U.S. TAC	0	0	0	0					
Actual Catch fg	3,924	6,059	9,983	11,750			21,733	12,511	9,222
% of total TAC									

a Escapement into terminal and spawning areas from traditional fisheries.

b Catch 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 pass 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 catches.

f Does not include ESSR or test fishery catches.

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

Sockeye salmon catches increased in week 28 (July 02-08) and the commercial CPUE increased to 257 s/f/d, which was a record high value for this week, and the highest of the season. Again, concern over a potentially weak Tahltan sockeye salmon run kept fishing time to 2 days. The SMM forecast for week 28, based on the inriver test fishery CPUE indicated a TAC of only 3,000 Tahltan Lake sockeye salmon, which was to be split 50/50 between Canada and the U.S. Stock ID information indicated the CPUE of Tahltan sockeye salmon was slightly above average, 105 s/f/d vs 101 s/f/d average. However, updated

forecasts of the total inriver Tahltan run from the SMM ranged from 32,000 sockeye salmon based on test fishing data, to 47,000 sockeye salmon based on commercial fishery data. Run size projections in this range indicated an allowable lower river catch range of 0 to 13,000 Tahltan sockeye salmon for the season and a guideline catch through week 28 of 0 to 7,600 fish. The estimated cumulative Tahltan sockeye salmon catch through week 28 was 2,400 fish, which was towards the lower end of this range.

In week 29 (July 09-15), fishing time was again limited to 2 days. Results from otolith analyses from samples collected over the previous weeks continued to indicate a high contribution of Tuya sockeye salmon to the lower Stikine catches. This meant the excellent catches and high CPUE observed to date were wholly attributed to sockeye salmon production from the Tuya Lake fry plants. The overall sockeye salmon CPUE in week 29 was again above average, although it dropped to 167 s/f/d from the peak value in week 28. Forecasts of the inriver Tahltan sockeye salmon run were updated with information gathered just prior to the opening. The inriver run forecast decreased to a range of 15,000 to 33,000 Tahltan sockeye salmon. The cumulative harvest of 3,100 Tahltan fish through week 29 continued to fall well within the guideline harvest range of 0 to 4,900 sockeye salmon.

Concern over decreasing inriver Tahltan run forecasts and decreasing Tahltan Lake weir projections lead to a reduction in fishing time in week 30 (July 16-22) to a total of 30 hours. The overall sockeye salmon CPUE for the first 24 hours was above average and rising, and the proportion of small-egged fish (Tahltan and Tuya sockeye salmon) dropped to 38%. Prior to this week, the Tahltan/Tuya contribution was 75% or higher. Because of the declining Tahltan/Tuya contribution to the catch and a Mainstem sockeye salmon CPUE that was above average, a 6-hour extension was given to target mainstem stocks, which normally peak in week 30. Projections of the inriver Tahltan run continued to decrease to the range of 14,000 to 27,000 sockeye salmon and forecasts of the number of fish to reach the Tahltan Lake weir ranged from 5,000 to 17,000 sockeye salmon. The estimated cumulative catch of Tahltan sockeye salmon in the lower river through week 30 was 3,700 fish out of a total catch of 16,100 sockeye salmon. Normally, 90% of the Tahltan run was through the lower river fishery by the end of week 30.

In week 31 (July 23-29), the fishery was initially posted for 30 hours to obtain data regarding the Tahltan/Tuya composition and the strength of the Mainstem run. The catch for the first 24 hours was 750 sockeye salmon for 11.5 fishers and the proportion of Mainstem fish had increased to 79%. The fishery was extended to 3 days as a result of the decreasing contribution of Tahltan/Tuya stocks, and an opportunity to make up some of the apparent shortfall in the Mainstem catch. Inriver forecasts of the Mainstem run ranged from 28,000 (test fish data) to 70,000 (commercial data) and the guideline harvest range through week 31 for mainstem sockeye salmon was 5,000 to 25,000 fish. Through week 31, the cumulative catch stood at 5,114 mainstem sockeye salmon

Weekly fishing times continued to be restricted to 2 days/week for weeks 32 through 36 (July 30-September 02) as attention shifted to Mainstem stocks. Weekly forecasts of the inriver Mainstem run showed a broad range, for example 38,000 to 68,000 fish in week 33, depending upon which input data was used, i.e. test fish CPUE vs commercial CPUE. Low sockeye salmon counts a Tahltan Lake weir suggested the forecasts derived from commercial data, which were to be the preferred forecasts in 2000 according to the joint Canada/US management plan, were grossly overestimating the inriver run strength. As a result, conservative openings were maintained through the remainder of the season even as fishing effort dropped to 6 fishers, from week 35 on. Below average coho salmon catches provided little incentive for fishers to remain in the fishery after week 37 (September 03-09) which marked the end of the season.

Based on sockeye salmon CPUE in the lower river, the overall sockeye salmon run timing appeared to be about normal; the run peaked in week 28, similar to average. The Tahltan stock peaked in weeks 27 and 28, and the Tuya stock peaked in week 28; normally they peak over weeks 27 and 28. Mainstem sockeye salmon peaked in week 30, again normal timing for this stock conglomerate.

As in recent years, Excess Salmon to Spawning Requirements (ESSR) fishing activities again focused on the lower Tuya River to harvest fish returning from the fry-planting program. A total of 1,283 sockeye salmon was harvested in this area (Table 2, Appendix B.18). However, due to the low numbers of fish at Tahltan Lake, there was no ESSR harvest of sockeye salmon at Tahltan Lake in 2000. A total of 406 sockeye salmon was sampled at the weir for stock ID data; after sampling, these fish were given to the Tahltan FN.

Out of 18 licenses available for the lower river, 13 licenses were issued in 2000 with a maximum of 12 licenses being active in any one week. The total effort in terms of boat-days was 227, below average of 394 boat-days (Appendix B.12). As in 1999, each fisher was allowed the use of two gillnets of which one could be a drift net. A maximum mesh size restriction of 150 mm through July 16 was implemented to reduce the incidental catch of Chinook salmon. In 1997, the upstream fishing boundary for the lower river fishery was moved 25 km upstream to Flood River to increase the fishing area over previous years. The same area has been fished since that time.

### **Upper Stikine Commercial Fishery**

A small commercial fishery has existed near Telegraph Creek on the upper Stikine River since 1975. The catches recorded in 2000 included: 7 large Chinook salmon, 2 Chinook jacks, and 889 sockeye salmon which were all below average (Appendices A.12 and B.14). The fishing effort was below average with an average of only 2 fishers fishing 1 to 2 days per week. A total of 9.3 days was fished and the total effort amounted to 19.8 boat-days. For comparison, the average fishing time was 25 days with an average effort of 38 boat-days.

### **Aboriginal Fishery**

The Stikine aboriginal fishery, which is located near Telegraph Creek, harvested 1,109 large Chinook, 386 jack Chinook, and 6,107 sockeye salmon (Appendix A 13, B 15); all were above average (Appendix B 15). As in past years, fishing times were not restricted in this fishery.

## **Escapement**

### **Sockeye**

A total of 6,076 sockeye salmon was counted through the Tahltan Lake weir in 2000 which was below average of (Appendices A.17 and B.22). An estimated 1,230 fish (20.2%) originated from the fry planting program. The estimate of planted fish in 2000 was based on the proportion of thermal marked Tahltan sockeye salmon as determined from otoliths from a random sampling of 406 fish collected at the weir. In addition, 1,717 sockeye salmon were collected for broodstock for the fry-planting project. This leaves a spawning escapement of 3,953 sockeye salmon (Table 2) of which 3,152 were wild fish and 801 were thermally marked. The weir count was well below the goal of 24,000 sockeye salmon.

The spawning escapements for the Mainstem and the Tuya stock groups are estimated indirectly by computing the ratio of Tahltan to Mainstem and Tuya components in the total inriver sockeye salmon run. Stock identification data are collected in the lower river commercial and test fisheries. The ratios of Tahltan:Mainstem and Tahltan:Tuya are applied to the estimated inriver Tahltan run size to develop an estimate of the total inriver sockeye salmon run. The escapements are estimated by subtracting the inriver catches from the inriver run estimate. The escapement estimates are 10,132 Mainstem and 7,091 Tuya sockeye salmon. The Mainstem sockeye salmon stocks spawn in tributaries and the mainstem of the

Stikine River. The Mainstem spawning escapement was below the escapement goal range of 20,000 to 40,000 fish. Aerial survey results also indicated a below average escapement of mainstem sockeye salmon; however, survey conditions were very poor at several of the spawning sites. The Tuya fish are blocked from entering potential spawning grounds of the Tuya tributary by natural barriers and are targeted in the ESSR fishery, which caught 1,283 fish in 2000. The fate of the remaining 5,808 Tuya fish is uncertain. In 1998, 28 Tuya sockeye salmon were radio tagged and released at the ESSR fishing site, located near the mouth of the Tuya River. All but 1 tagged fish moved downstream. Several fish were tracked to the Tahltan River. The majority of fish were tracked downstream to a final location near the mouth of the Scud and Porcupine rivers. One fish was tracked downstream to a location below the Canada/US boundary. It was not known if any of the tagged fish successfully spawned.

A new sockeye salmon mark-recapture program was initiated in 2000 to explore the feasibility of developing an alternate abundance-based management regime for Stikine sockeye salmon stocks. The estimate of the above-border run using a Darroch estimate was 121,746 sockeye salmon  $SE=12,936$   $CI = 96,391-147,100$ . The mark-recapture estimate is higher than the inriver run estimate of 53,145 sockeye salmon, which is based on the traditional method of reconstructing the inriver Tahltan run then expanding it using stock ID and run timing data. Further analysis is required to investigate why the estimates are so far apart.

### **Chinook**

Chinook salmon escapement was enumerated at the Little Tahltan weir; 6,631 large fish and 108 jack Chinook salmon were counted between June 23 and August 18 (Appendices A.19 and B.25). The escapement for large Chinook salmon was above the upper end of the escapement goal range; 3,300 point goal, with a range of 2,700 to 5,400 fish.

Aerial surveys of the Tahltan River and Beatty Creek have been discontinued. The peak survey count at Andrew Creek was 583 large Chinook (Appendix B.26), salmon well within the escapement goal range of 325 to 750 fish. The aerial survey count for the Little Tahltan River was 2,720 or 41.0% of the weir count.

A mark-recapture study was conducted again in 2000. The escapement estimate for large (non jacks) Stikine River Chinook salmon was 27,531 fish ( $m=612$ ,  $C=3,657$ ,  $R= 73$ ) (Appendix B.26). The Little Tahltan escapement of 6,631 represents 24% of the total escapement. The escapement goal for the Stikine River Chinook salmon (revised in 1999) is 17,500 fish, with a range of 14,000 to 28,000 Chinook salmon.

### **Coho**

Test fishery cumulative weekly CPUE of coho salmon was close to record low and 20% of the cumulative weekly sockeye salmon CPUE, thus indicating the coho salmon run to be 20% of the estimated sockeye salmon run of 69,700 fish or 13,900 coho salmon. Based on these analyses, the total inriver escapement of Stikine River coho salmon was 13,212 fish. This escapement was below the interim escapement goal range of 30,000 to 50,000 and represents 45% of the average escapement of 29,300 fish. Coho salmon aerial surveys were incomplete due to extremely poor viewing conditions at several of the spawning sites. Using only the spawning sites where reliable counts were taken, the runs were near record low with only 306 coho salmon observed.

A new coho salmon mark-recapture program was initiated in 2000 to explore the feasibility of developing an alternate abundance-based management regime for Stikine coho salmon. The estimated total escapement using a modified Peterson estimate ( $m=609$ ,  $r=15$ ,  $c=686$ ) was 25,500 coho salmon, ranging from 13,700 to 55,812 fish. The low catch in both the test and commercial fisheries in tandem with the low number of tagged fish recovered, resulted in the very wide range of coho salmon escapements as

indicated above. Increased fishing effort both at the tagging and recovery site (commercial and test fishing grounds) are recommended for future studies.

### **Sockeye Run Reconstruction**

The postseason estimate of the Stikine sockeye salmon run size was 78,504 fish, of which 19,143 are of Tahltan origin (wild & planted), 34,034 are of Tuya origin (fry from Tahltan broodstock planted into Tuya Lake), and 25,327 are Mainstem stocks (Table 2, Appendix B.28). These estimates are based on postseason data including otolith recovery and analysis in the U.S. Districts 106 and 108 catches; scale pattern analysis of marine harvests; otolith analysis, egg-diameter stock-composition estimates for inriver catches from the Canadian commercial, aboriginal, ESSR, and test fishery catches; and escapement data. The 2000 total run was below the average run of 200,691 sockeye salmon and 56.9% of the preseason forecast of 138,000 sockeye salmon (Table 1).

### **TAKU RIVER**

Taku River salmon are harvested in the U.S. gillnet fishery in the Alaskan District 111, in northern Southeast Alaska seine and troll fisheries, and in the Juneau area sport fishery and inriver personal use fishery (Figure 2). Canadian fisheries for Taku River salmon include a commercial gillnet fishery located in the river near the Canada/U.S. border, an aboriginal fishery, and a sport fishery.

### **Harvest Regulations**

New fishing arrangements were in place in 1999 as a result of negotiations between Canada and the United States of Annex IV, Chapter 1 of the Pacific Salmon Treaty. The arrangements that are expected to apply to the Taku River for the 1999 to 2008 period are as follows:

(1) Sockeye salmon:

(i) Except as noted below, Canada shall harvest no more than 18% of the TAC of the wild sockeye salmon originating in the Canadian portion of the Taku River each year;

(ii) If the projected inriver escapement is greater than 100,000 sockeye salmon, Canada may, in addition, harvest 20% of the projected inriver escapement above 100,000 sockeye salmon;

(iii) The Parties agree to manage the runs of Taku River sockeye salmon to ensure that each country obtains catches in their existing fisheries equivalent to each country's share of wild sockeye salmon and a 50% share of fish originating from Taku fry plants;

(iv) The Parties agree to continue the existing joint Taku enhancement program designed to produce annually 100,000 returning sockeye salmon.

(2) Coho salmon:

(i) The Parties agree to develop and implement an abundance-based approach to managing coho salmon on the Taku River no later than May 1, 2004. The Parties commit to developing a revised MSY escapement goal to be implemented no later than May 1, 2004.

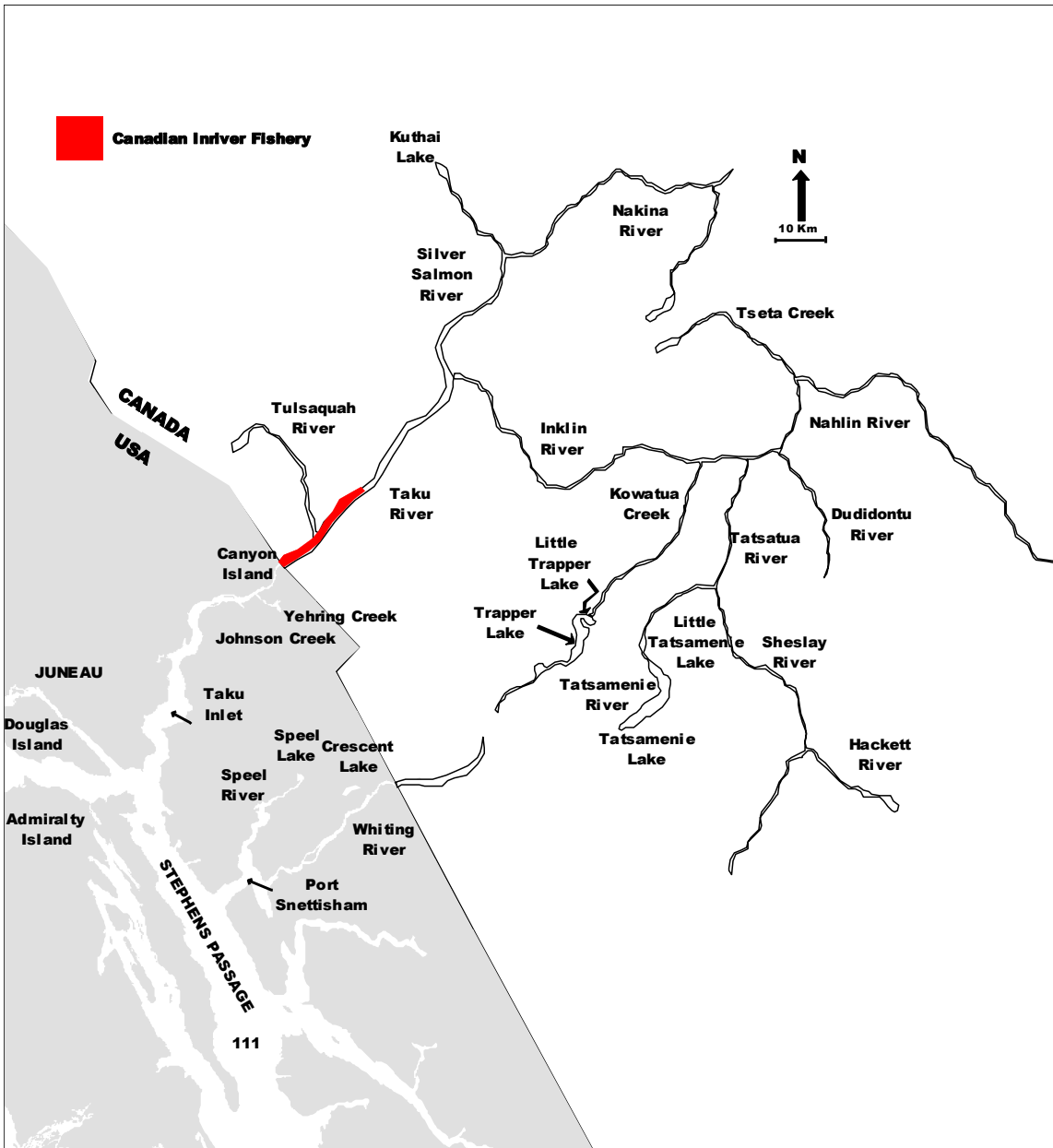


Figure 2. The Taku River and principal U.S. and Canadian fishing areas.

(ii) Until a new abundance-based approach is developed, the management intent of the United States is to ensure a minimum above-border inriver run of 38,000 coho salmon, and the following arrangements will apply:

a. no numerical limit on the Taku River coho salmon catch will apply in Canada during the directed sockeye salmon fishery (through week 33);

b. if in-season projections of above-border run size are less than 50,000 coho salmon, a directed Canadian harvest of up to 3,000 coho salmon is allowed for assessment purposes as part of the joint Canada/US Taku River mark-recapture program;

- c. if in-season projections of above-border run size exceed 50,000 coho salmon, a directed Canadian harvest of 5,000 coho salmon is allowed;
- d. if in-season projections of above-border run size exceed 60,000 coho salmon, a directed Canadian harvest of 7,500 coho salmon is allowed;
- e. if in-season projections of above border run size exceed 75,000 coho salmon, a directed Canadian harvest of 10,000 coho salmon is allowed.

(3) Chinook salmon:9

- (i) Both Parties shall take the appropriate management action to ensure that the necessary escapement goals for Chinook salmon bound for the Canadian portions of the Taku River are achieved.
- (ii) The Parties agree that new fisheries on Taku River Chinook salmon will not be developed without the consent of both Parties. Management of new directed fisheries will be abundance-based through an approach to be developed by the Committee no later than May 01, 2004. The Parties agree to implement assessment programs in support of the development of an abundance-based management regime.
- (iii) The Parties shall review an appropriate MSY escapement goal for Taku River Chinook salmon by May 1999 and thereafter establish a new goal as soon as practicable.

### **U.S. Fisheries**

The 2000 traditional District 111 drift gillnet salmon fishery was open for a total of 40 days from June 18 through September 26 (Appendix C.1). Effort levels were very high during the summer fishery, including a record 152 boats fishing in week 30. As a result of low effort in the fall fishery, fishing effort for the entire season totaled 2,915 boat-days and was below of average (Appendix D.1). Actual on-the-grounds fishing effort was less as the result of industry decisions; processors imposed catch limits for chum salmon on individual boats in weeks 28 and 29, forcing some fishermen to miss fishing time in those weeks.

The commercial salmon harvests in the traditional fishery totaled 1,137 Chinook, 168,272 sockeye, 7,546 coho, 54,716 pink, and 668,595 chum salmon (Appendix C.1). Catches of Chinook, coho, and pink salmon were all below average (Appendix D.1). The sockeye salmon catch was above average and was the third largest on record and the chum salmon catch was nearly 3 times the average.

Hatchery stocks contributed substantially to the harvests of both sockeye and chum salmon and minor numbers to the harvest of other species. Sockeye salmon from joint U.S./Canada Taku River fry planting programs contributed an estimated 1,580 fish (1.0%) to the traditional District 111 fishery harvest (Appendices C.3 and D.2). U.S. domestic hatchery sockeye salmon stocks contributed an estimated 26,851 fish (16.0%), and included a small number of thermally marked fish from a fry-planting program at Chilkat Lake in upper Lynn Canal. Wild sockeye salmon contributed an estimated 130,132 fish (77.3%) from the Taku River and 9,709 fish (5.8%) from Port Snettisham. Sockeye salmon harvests in the Speel Arm THA were composed almost entirely of domestic hatchery fish. Alaskan hatchery Chinook salmon contribution was 465 fish as estimated by coded wire tag (CWT) analysis; 40.9% of the harvest.

The harvest of 168,272 sockeye salmon in the traditional fishery was above average. Weekly sockeye salmon catches were above average throughout the summer season. Domestic hatchery sockeye salmon started to contribute to the traditional fishery in mid-July (week 29) and peaked from late July through mid-August. Fishing effort in Stephens Passage was above average as a result of fishermen targeting hatchery sockeye and Limestone Inlet chum salmon.

The catch of 668,595 chum salmon in the traditional fishery was composed almost entirely (>99%) of summer chum salmon (Appendix D.1). The summer chum salmon catch of 665,582 was the highest on record and 2.9 times the average. The summer chum salmon run is considered to last through mid-August (week 33) and is composed mostly of domestic hatchery fish, with small numbers of wild stock fish contributing to the harvest. Chum salmon returning to Douglas Island Pink and Chum, Inc. (DIPAC) hatcheries in Gastineau Channel and to the DIPAC remote release site at Limestone Inlet contributed a major portion of the catch but quantitative contribution estimates are not available. The catch of 3,013 fall chum salmon (i.e., chum salmon caught after week 33) was below average. Most of these chum salmon are of wild origin.

The 2000 season was the first year of large returns of adult hatchery sockeye salmon back to DIPAC Snettisham Hatchery located inside Port Snettisham. These fish contributed substantially to the catches in the traditional District 111 gillnet fishery and to catches in extended openings in the Speel Arm Terminal Harvest Area (THA) near the hatchery. The THA was open for 23 days and catches totaled 29 Chinook, 17,656 sockeye, 282 coho, 3,980 pink, and 1,399 chum salmon. Due to the terminal nature of THA catches, harvests and effort from the THA are not included elsewhere in this report.

The District 111 pink salmon harvest of 54,716 fish was below average (Appendix D.1). Runs of pink salmon to most streams in the district, including the Taku River, were poor.

Coho salmon stocks harvested in District 111 include runs to the Taku River, Port Snettisham, Stephens Passage, and local Juneau area streams as well as Alaska hatchery fish. The coho salmon catch of 7,546 fish in the traditional fishery was below average (Appendix D.1). Coho salmon catches were well below average during each week of the fishing season and were the lowest on record for a number of weeks in the early portion of the fishery. Alaskan hatchery coho salmon contributed 519 fish or 6.9% of the District 111 harvest (Appendix C.1), a similar percentage to 1999 but down substantially from previous years even though runs to local Alaska hatcheries were good. Although inriver Taku coho salmon abundance estimates were below average during most of the season, post-season analysis indicates the escapement goal was surpassed.

Management actions used to conduct the District 111 drift gillnet fishery were limited to imposing restrictions in time, area and gear. In the first week of the season, week 26, 3 days fishing time was allowed in both Taku Inlet (Subdistrict 111-32) and Stephens Passage (Subdistrict 111-31). The sockeye salmon catch in week 26 was a record respective to the week, so fishing time was increased to 4 days for the next week. Fishing time remained at 4 days for week 28 because the mark-recapture estimate of the above border Taku sockeye salmon run size was well above average. Projections of the run size decreased beginning late that week and, with the exception of the Speel Arm THA, fishing time was limited to 2 or 3 days per week for the remaining 5 weeks of the summer fishing season in order to keep the cumulative catch within the projected U.S. TAC of Taku sockeye salmon (Table 3).

In order to increase sockeye salmon spawning escapements to Tatsamenie Lake, which experienced low escapements in 1998 and 1999, U.S. and Canadian fishery managers agreed during preseason management consultations to limit fishing time in the drift gillnet fishery in Taku Inlet and in the



Table 3. U.S. inseason forecasts of total run size, inriver run size, TAC, and the U.S. harvest of Taku River sockeye salmon for 2000.

Stat Week	Total Run	Inriver Run	Total TAC	U.S. TAC	Projected U.S. Harvest
26	253,468	89,110	178,468	146,344	164,358
27	326,359	146,997	251,359	206,114	179,362
28	255,710	101,461	180,710	148,182	152,749
29	248,237	106,398	173,237	142,054	140,339
30	236,941	110,245	161,941	132,792	125,196
31	220,912	103,938	145,912	119,648	115,474
32	220,695	109,146	145,695	119,470	110,050
33	240,900	125,953	165,900	136,038	113,447

Inseason U.S. TAC calculated as 82% of the total TAC.

Canadian inriver gillnet fishery to a maximum of 3 days per week during weeks 31 through 33. Extensions of fishing time in these areas could occur but only after consultation and agreement between fishery managers of the two countries. Management of the fishery in Taku Inlet in 2000 abided by this agreement, with fishing time limited to 2 days per week in weeks 31 and 32 and 3 days in week 33.

During the summer fishing season, fishing time and gear allowed in Stephens Passage south of Circle Point differed slightly from that in Taku Inlet in order to offer additional opportunity to harvest the large run of hatchery summer chum salmon. A 6-inch minimum mesh size restriction was employed during July in Section 11-B south of Circle Point. This allowed harvest of hatchery chum salmon from the Limestone Inlet remote releases while limiting harvest rates on wild sockeye salmon stocks. Lower Stephens Passage (Subdistrict 111-20) was not opened to fishing this year because there was not a harvestable surplus of pink salmon. Port Snettisham (Subdistricts 111-33/-34/-35) was closed to fishing through August 7 to limit harvest rates on wild Crescent and Speel sockeye salmon runs. By early August, assessment programs indicated good escapements to both Crescent and Speel Lakes and, beginning August 8 portions of Port Snettisham were opened to fishing each week to harvest sockeye salmon returning to the Snettisham Hatchery. The Speel Arm THA was opened continuously from August 10 until September 5.

The fall fishing season in District 111 lasted seven weeks, from August 13 (week 34) through September 26 (week 40). In the first week of the fall season, fishing time was set at 3 days in Stephens Passage and 2 days in Taku Inlet in order to minimize fishing on a perceived weak Taku coho salmon run and yet continue to allow additional opportunity to harvest hatchery sockeye salmon in Stephens Passage and inside Port Snettisham. With the exception of extended fishing time in the Speel Arm THA, fishing time throughout the district was limited to 2 days per week for the remainder of the season. This course of action was taken to conserve both Taku coho and fall chum salmon stocks, and continued even when mark-recapture estimates of the Taku River coho salmon run size indicated the escapement goal would likely be met or exceeded.

Several other fisheries in the Juneau area harvested transboundary Taku stocks in 2000. Personal use harvests reported for the Taku River included 21 Chinook, 930 sockeye, 25 coho, 59 pink and 5 chum salmon (Appendix D.4). The spring Juneau-area sport fishery harvested an estimated 2,613 large Chinook (28 inches or longer) and 122 small Chinook salmon. Of the large fish, 911 (35%) were wild mature, none were wild immature and 1,702 (65%) were hatchery fish (CWT estimate). A number of stocks are thought to contribute to the sport fishery, including those from the Taku, Chilkat, and King Salmon rivers, and local hatchery stocks, but the major contributor of large, mature fish is believed to be the Taku River. The July Hawk Inlet shoreline purse seine fishery north of Point Marsden in Chatham Strait was not opened this year due to weak returns of early run pink salmon to the Juneau area.

## Canadian Fisheries

Taku River commercial fishery harvest was 28,009 sockeye, 4,395 coho, 1,576 large Chinook, 87 jack Chinook (fish less than 2.3 kg), and 192 steelhead salmon in 2000 (Appendix C.4). Catches of steelhead trout and Chinook salmon were above average, catches of sockeye salmon were average, and catches of coho and Chinook jack salmon were below average. Sockeye salmon originating from fry plants contributed an estimated 436 fish to the catch, comprising 1.6% of the total sockeye salmon harvest (Appendix D.6). A total of 39 days was fished and seasonal fishing effort of 351 boat-days; both were average. Both set and drift gill netting techniques were used with the majority of the catch taken in drift gillnets. Mesh sizes were restricted to less than 150 mm through July 16 to minimize the incidental catch of Chinook salmon. In addition to gillnetting, 1 fish wheel was in operation for a small portion of the fishing season.

In addition to the commercial catches, 50 Chinook, 140 sockeye and 342 coho salmon were harvested in the aboriginal fishery in 2000 (Appendix D.7). The average catches in the Taku aboriginal fishery have included 61 Chinook, 237 sockeye, 108 coho, and 1 chum salmon and 2 steelhead trout.

The Canadian preseason forecast was for a run of 273,000 sockeye salmon, which was the average of a sibling-based forecast of 311,600 sockeye salmon and a forecast of 234,700 sockeye salmon based on stock-recruitment data. The point estimate was above the previous average run (Canadian estimate). The preseason forecast was used to guide weekly management actions for the first week of the season; thereafter, inseason forecasts based on the joint Canada/U.S mark-recapture program at Canyon Island were used (Table 4).

Table 4. Canadian inseason forecasts of total run size, total allowable catch (TAC), and spawning escapement of Taku sockeye salmon, 2000.

Stat.	Projected		Canadian	Inseason	Actual	
Week	Total Run	TAC	Escapeme	TAC	guideline	Catch
25	273,000	198,000	75,000	35,640	1,705	0
26	273,000	198,000	75,000	35,640	3,622	980
27	200,710	125,710	111,233	24,874	4,735	4,498
28	193,739	118,739	84,163	21,373	6,406	6,776
29	251,875	176,875	93,641	31,838	12,782	10,025
30	253,799	178,799	96,603	32,184	17,163	15,119
31	244,855	169,855	98,032	30,574	19,778	15,850
32	265,621	190,621	93,161	34,312	26,592	21,354
33	282,285	207,285	87,459	37,311	32,678	26,044
34	282,285	207,285	97,982	37,311	34,811	27,186

According to the postseason run estimate of 236,377 sockeye salmon the Canadian catch (excluding test fishery catches) of 28,149 sockeye salmon represented 18.0% of the TAC.

For coho salmon, the preseason outlook was for an average run due to good smolt numbers encountered in the 1999 coded-wire tagging program. The final inseason forecast of the inriver run ranged from 70,005 to 82,276 coho salmon. According to PST provisions, the Canadian allowable catch after week 33 was 7,500 to 10,000 salmon. Of the total commercial catch, 3,326 coho salmon were caught after week 33

(Appendix C.4); all of the coho salmon catch in the Aboriginal fishery occurred after week 33. The combined commercial and AF post week 33 catch was 3,668 coho salmon.

DFO funded a creel census on the Nakina River in 2000 to obtain information on the sport catch and effort on this system. Results indicate a total catch of 688 Chinook of which 604 (87.8%) were released and 8 steelhead salmon which were all released.

Two test fisheries were in operation in 2000: 1 which operated May 1 to June 17 to sample for tagged Chinook salmon, and the other, which operated September 14 to October 6 to sample for tagged coho salmon. Total test fishery landings included 1,312 large Chinook, 87 jack Chinook, 319 sockeye, 710 coho salmon, and 19 steelhead trout (Appendices C.7 and D.8). An additional 493 large female Chinook salmon were released.

The commercial fishery commenced at noon on Sunday, June 18 (week 26) for a scheduled opening of two days. Although the commercial sockeye salmon CPUE was slightly above average, the fishing period was kept to 48 hours to reduce the incidental catch of Chinook salmon.

As in previous years, cumulative guideline harvests were developed each week to guide weekly management decisions so that: a) the catch was consistent with conservation and Treaty goals; and b) management was responsive to changes in forecasts of abundance, i.e. abundance based. The guidelines were based on current inseason forecasts of the Canadian sockeye salmon TAC (based on mark-recapture estimates) apportioned by historical run timing. In weeks 27 and 28 (June 25-July 01 and July 02-08), fishing times were scheduled for 3 days per week in response to the weekly guidelines. Total run forecasts for these weeks were 200,710 and 193,739 sockeye salmon, respectively. The cumulative harvest through week 28 was 6,776 versus the cumulative guideline of 6,406 sockeye salmon. CPUE values for these weeks ranged from above average in week 27 to below average in week 28.

The run forecasts used in week 29 (July 09-15) and week 30 (July 16-22) increased to a range of 251,875 to 253,799 sockeye salmon, respectively, and total season spawning escapement predictions ranged from 96,603 to 99,034 sockeye salmon. Weekly fishing times were initially posted at 3 days, however a 1-day extension was provided in each week to attempt to harvest some of the surpluses indicated by the weekly guideline harvests. Additional time over and above the 4 days was not fished because of below average CPUE in the last day of fishing in each week. By the end of week 30, the cumulative catch of 15,119 sockeye salmon (Appendix C.4) was below the guideline of 17,163 sockeye salmon.

In preseason planning consultations with the US, it was agreed that special efforts would be undertaken by both Parties in 2000 to increase the spawning escapement of Tatsamenie sockeye salmon over recent years. The Canadian management plan specified that for weeks 31 through 33, fishing time would be limited to a maximum of 3 days/week. This management action was to be accompanied by similar restrictions in the U.S. District 11 fishery. Extensions of fishing time above prescribed levels in each country's fisheries would only be considered after consultation and agreement between fishery managers of the two countries. So, as per the plan, fishing times were limited to 3 days/week for weeks 31-33. A Tulsequah flood essentially washed out the fishery in week 31 (July 23-29). Effort levels dropped from 10 fishers in day 1 to 4 fishers in day 3 and catches were poor due to high water and heavy debris loads. The peak weekly catch (5,504 sockeye salmon) and CPUE (149 sockeye/fisher/day) of the season occurred the following week at which time the CPUE was above average and above average CPUE continued through week 33. After week 33 (August 06-12), the cumulative catch was 26,044 sockeye salmon compared to the guideline harvest of 32,678 sockeye salmon. During this period, the catch had fallen further below the guideline harvest because of the Tulsequah flood and because of the commitment to limit fishing time to address Tatsamenie escapement rebuilding.

Despite the overall shortfall in the catch compared to the guideline harvest, fishing time was kept to 3 days in week 34 (August 13-19) due to declining sockeye salmon abundance as evidenced by below average commercial sockeye salmon CPUE, declining fish wheel catches of sockeye at Canyon Island and concerns over below average early season coho salmon abundance. Week 34 essentially marked the end of the sockeye salmon season.

The cumulative commercial sockeye salmon CPUE over the season totaled 848 sockeye/fisher/day and was average. Overall run timing appeared to be normal to slightly later than normal, and there appeared to be 3 distinctive peaks in weeks 27, 30 and 32. The peak CPUE of the season occurred in week 32, which was two weeks later than normal. The strength of the peak in week 32 and its later than normal timing were likely attributable to the Tulsequah flood which occurred in week 31. Typically, the Tulsequah flood causes a pause in upstream migration and a buildup of sockeye salmon in the lower reaches of the river that pulses up the river after the floodwaters subside.

After week 34, management attention shifted to coho salmon and to forecasts of the inriver run into Canada. The fishery in week 35 (August 20-26) was open for 4 days; effort level had dropped to 8 fishers and fishing conditions were adversely affected by high water. The catch of 874 coho salmon this opening was within the guideline harvest range of 490 to 1,469 coho salmon developed for this week. Through week 35, the weekly CPUE in the commercial fishery was consistently below average and inriver run projections assuming the run was on time or 1 week late, ranged from 31,250 to 61,419 coho salmon. According to the PST harvest sharing arrangements, this meant that the Canadian seasonal quota after week 33 was in the range of 3,000 to 7,500 coho salmon.

There was no significant change in the inriver run forecasts used for management in week 36 (August 27-September 02); it ranged from 40,619 to 60,271 coho salmon. Fishing time was initially posted at 2 days due to uncertainty about run timing and below average CPUE the previous week. However, improvements in CPUE early in the opening lead to a 1-day extension. This brought the post week 33 cumulative catch to 2,775 coho salmon, which was within the range suggested by the guideline harvest (1,671-5,012). At this point, it appeared that the run timing was somewhat later than normal and therefore, the upper range of the inriver forecast and guideline harvest range, which were derived from a "one-week late scenario" indicated additional fishing time was warranted after week 36.

With fishing effort reduced to 3 fishers, fishing time during week 37 (September 03-09) was increased to 4 days, although there was no fishing activity on day 4. The coho salmon CPUE during this last opening dropped by 45% over the previous week and was below average. Although the inriver run forecasts justified additional fishing periods after week 37, the fishery was vacated due to the lack of a buying operation.

The cumulative coho salmon CPUE through week 37 was below average. The strength of the early part of the run, through week 35, appeared to be below average, whereas, after the end of August, run strength appeared to be about average.

## **Escapement**

### **Sockeye**

Spawning escapement of sockeye salmon in the Canadian portion of the Taku River drainage was estimated from the joint Canada/U.S. mark-recapture program. Counting weirs operated by Department of Fisheries and Oceans, Canada (DFO) at Little Trapper and Tatsamenie lakes provide information on the distribution and abundance of discrete spawning stocks within the watershed. The Taku River Tlingit First Nation (TRTFN) additionally conducted a sockeye salmon enumeration program at Kuthai Lake.

A mark-recapture program has been operated annually from 1984 to 2000 to estimate the above-border run size (i.e., border escapement); spawning escapement was then estimated by subtracting the inriver catch. The 2000 estimate of above-border run was 103,735 sockeye salmon and the spawning escapement was estimated at 75,267 fish (Table 1; Appendices C.8 and D.9). This spawning escapement was below average and was close to the mid-point of the interim escapement goal range of 71,000 to 80,000 sockeye salmon.

The escapement through the Little Trapper Lake weir was 11,551 sockeye salmon and was average (Appendices C.10 and D.10). The run was comprised of 4,921 females (42.6% of total) and 6,630 males (n=740).

The Tatsamenie Lake weir count in 2000 was 7,575 sockeye salmon (Appendix C.9) and the spawning escapement was 5,570. This was above the average (Appendix D.10). The sex composition was 65.8% female i.e. 4,990 fish (n=750). A total of 1,119 females and 886 males were held for broodstock; eggs/milt were taken from 765 females and 684 males. The total broodstock holding mortality was 18 females and 14 males. On October 16, 336 females and 188 males were released because the egg take target had been exceeded. The spawning success of the released fish is unknown.

The sockeye salmon count through the Kuthai Lake weir was 4,096 fish (Appendix C.11) and was below average (Appendix D.10). An estimated 2,607 females contributed to the run (n=610), which equates to a sex composition of 64% female.

### **Chinook**

Aerial surveys of large Chinook salmon (3-ocean and larger) to the 6 escapement index areas annually surveyed by ADF&G were as follows: Nakina 2,907 fish, Kowatua 702 fish, Tatsatua, 953 fish, Dudidontu 482 fish, Tseta 160 fish, and Nahlin 728 fish (Appendix D.12). The total of 5,932 large Chinook salmon observed was below average and was the second lowest count obtained during this period.

A carcass weir was again operated by the TRTFN on the Nakina River to obtain tag and age-length-sex data on Chinook salmon. A total of 658 Chinook salmon was observed at the weir. As in 1999, the Nahlin River weir was not installed in 2000 due to concerns that it would impede Chinook salmon migration.

### **Coho**

Spawning escapement of coho salmon in the Canadian portion of the Taku drainage was estimated from the joint Canada/U.S. mark-recapture program. Tag application and recovery occurred through the early part of week 41 (October 01-07). The recovery effort consisted of commercial, test, and aboriginal fisheries. The above-border escapement was estimated to be 70,147 fish and the spawning escapement

was estimated at 64,700 fish (Appendix C.7 and D.13). The spawning escapement was below average but above the interim escapement goal of 27,500 to 35,000 fish.

### **Pink**

A total of 6,529 pink salmon was counted at the Canyon Island fish wheels in 2000. (Appendix D.15). There was no program in place to estimate the escapement of pink salmon to the Taku River in 2000. The pink salmon count at the fish wheels was below average.

### **Chum**

There was no program in place to estimate the system-wide escapement of chum salmon. A total of 423 chum salmon was captured in the Canyon Island fish wheels and was average (Appendix D.15).

The Taku River fall chum salmon run has been depressed since 1988. It is unlikely that the spawning escapement goal of 50,000 to 80,000 chum salmon was achieved in 2000.

### **Steelhead**

There was no program in place to estimate the system-wide steelhead salmon escapement. An escapement goal has not been set for this species. A total of 160 steelhead salmon were caught in the Canyon Island fish wheels in 2000; above average (Appendix D.15).

## **Sockeye Run Reconstruction**

The postseason estimate of 130,132 wild Taku sockeye salmon in the District 111 fishery (Table 5) was estimated from the analysis of scale patterns, brain parasite prevalence, and thermal marks. The estimate of 279 marked Trapper Lake and 1,301 marked Tatsamenie Lake sockeye salmon in the District 111 catch was based on expansion of otolith marked sockeye salmon recovered in the District 111 fishery. The U.S. inriver personal use fishery harvested an additional 930 sockeye salmon. The otolith mark rate in the inriver sockeye salmon fishery during the month of July, when the personal use fishery is open, was applied to this catch, indicating that 11 of these fish were marked. The estimated total U.S. harvest of Taku sockeye salmon was 132,642 fish (Table 5).

The estimate of the magnitude of the above-border sockeye salmon run in 2000, based on the joint Canada/U.S. mark-recapture program, was 103,735 fish (Table 5). By subtracting the Canadian inriver catch of 28,468 sockeye salmon (in commercial, aboriginal and test fisheries) from the above-border run estimate results in an above-border escapement estimate of 75,267 fish.

The run size estimate, determined by summing the estimated U.S. harvest and the above-border run, was 236,377 sockeye salmon, which was average. Based on the escapement goal range of 71,000 to 80,000 fish, the TAC was 156,377-165,377 sockeye salmon, of which the U.S. harvested 84.8% and Canada harvested 18.0% (Table 5). The overall exploitation rate was estimated to be 67.1% in 2000.

Table 5. Taku sockeye salmon run reconstruction, 2000. Estimates do not include spawning escapements below the U.S./Canada border.

	Taku			Snettisham Stocks		
	Total	Wild	Planted	Total	Wild	Hatchery
Escapement	75,267	74,096	1,172			
Canadian Harvest						
Commercial	28,009	27,573	436			
Food Fishery	140	138	2			
Total	28,149	27,711	438			
% Harvest	17.5%					
Test Fishery Catch	319	314	5			
Above Border Run	103,735	102,121	1,615			
U.S. Harvest a						
District 111	131,712	130,132	1,580	36,560	9,709	26,851
Personal Use	930	919	11			
Total	132,642	131,051	1,591			
% Harvest	82.5%					
Test Fishery Catch	0					
<b>Total Run</b>	<b>236,377</b>	<b>233,171</b>	<b>3,206</b>			
Taku Harvest Plan	Minimum			Maximum		
Escapement Goal	71,000			80,000		
TAC	165,377			156,377		
Canadian portion	17.0%			18.0%		
U.S. Portion	80.2%			84.8%		

<sup>a</sup> U.S. harvest estimate differs from Joint Interception Committee estimate because no estimates are made for catches other than the listed fisheries.

## ALSEK RIVER

Alsek River salmon stocks contribute to the U.S. commercial gillnet fisheries located in Dry Bay, at the mouth of the Alsek River (Figure 3). Unknown quantities of Alsek origin fish are also 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.

## **Harvest Regulations & Management Objectives**

Although catch sharing of Alsek 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 Chinook, sockeye and coho salmon. Interim escapement goal ranges for Alsek sockeye and coho salmon were initially set by the TTC at 33,000 to 58,000 sockeye salmon, and 5,400 to 25,000 coho salmon. However, stock assessment projects to determine system-wide escapements have not yet been developed. Instead, the principle escapement-monitoring tool for Chinook, sockeye, and coho salmon stocks on the Alsek River is the Klukshu weir, operated by DFO and the Champagne-Aishihik First Nation. The weir has been in operation since 1976. To make the management objectives of Chinook and sockeye salmon better defined in terms of Klukshu stocks, revised goals, expressed in terms of Klukshu stocks only, were established for 2000.

The initiative to establish a specific Klukshu Chinook salmon spawning goal began in 1991 when the TTC set an interim spawning objective of 4,700 Klukshu Chinook salmon. This goal was based more on manager's intuition than on science. From 1995 through 1997, the TTC reviewed this escapement level and concluded that goal of 4,700 Chinook salmon was not supported by the data. A new goal range of 1,100 to 2,300 fish was proposed based on joint analyses of stock-recruitment data. The Parties conducted independent internal reviews of the analyses. Although there was not unanimous support for the proposal, there was agreement on establishing a minimum goal consistent with the lower end of the proposed range. As a result, Canadian and U.S. managers agreed to a minimum spawning escapement goal of 1,100 Chinook salmon for the Klukshu system for the 2000 season.

The principal escapement-monitoring tool for Chinook salmon stocks on the Alsek River is the Klukshu weir, operated by DFO and the Champagne-Aishihik First Nation (CAFN). A joint report that recommends a biologically-based escapement goal for the Klukshu stock was completed in June, 2000. Based on that report Canadian and U.S. managers have set a spawning escapement goal range of 7,500 to 15,000 sockeye salmon for 2000.

Since 1998, mark-recapture estimates of total inriver abundance of Alsek River Chinook salmon are available. A pilot mark-recapture program was initiated for Alsek River sockeye salmon in 2000.

## **Preseason Forecasts**

The overall sockeye salmon run to the Klukshu River in 2000 was predicted to be below average in strength. Principal contributing brood years to the 2000 run were 1995 (Klukshu escapement of 19,817 sockeye salmon) and 1996 (Klukshu escapement of 7,891 sockeye salmon); average Klukshu escapement was 14,703 fish. Based on historical stock-recruitment analysis, the range of Klukshu escapements that appear most likely to produce maximum sustained yields is 7,500 to 15,000 sockeye salmon.

The 2000 overall Alsek sockeye salmon run was forecast to be 40,000 sockeye salmon. This estimate was based on: a predicted run of 22,300 Klukshu sockeye salmon derived from historical Klukshu stock-recruitment data; an assumed Klukshu contribution to the total run of 35%; and an adjustment factor of 0.64 to account for the tendency of the method to over predict the Klukshu weir counts since 1995. A run size of this magnitude is below the average of 64,000 sockeye salmon (based on the Klukshu weir count expanded by 1/0.35 to account for other inriver escapement and an assumed U.S. harvest rate of 0.20).



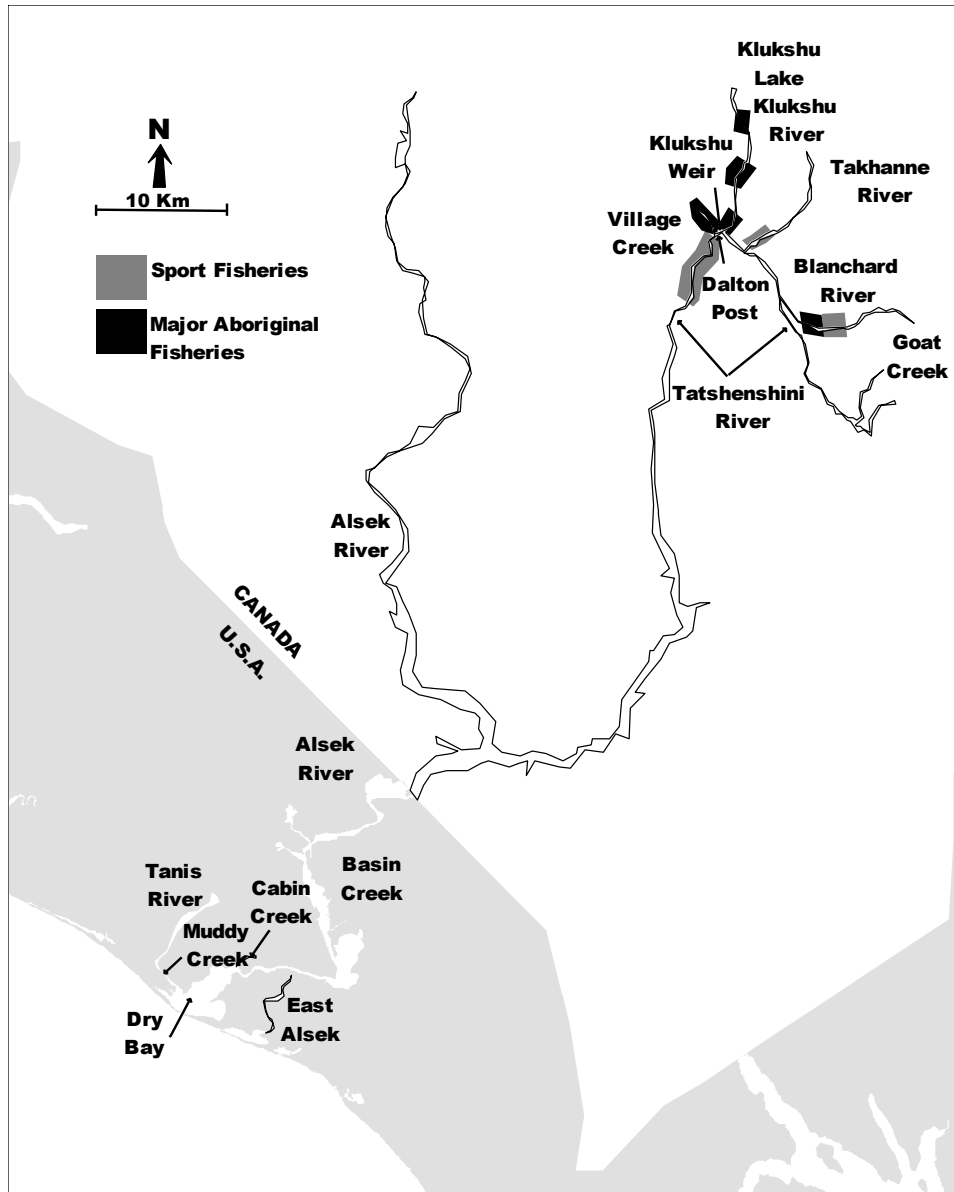


Figure 3. The Alsek River and principal U.S. and Canadian fishing areas.

The Klukshu early sockeye salmon run escapements in 1995 and 1996 were 2,289 and 1,502, respectively. Both years were below average but the predominant brood year (1995) was close to the optimum level of 2,500 sockeye salmon spawners as determined through separate stock-recruitment analyses by DFO of the early run. Normally this would support an expectation for an above average run. However, returns in 1998 and 1999 were far below expectations that were developed in a similar manner. Therefore the early run was predicted to be at best, average.

The Klukshu Chinook salmon escapements in 1995 and 1996, 5,400 and 3,400 Chinook salmon, respectively, were above average with the 1995 escapement being the highest on record. However, the escapements were above the optimum escapement range of 1,100 to 2,300 Chinook salmon as determined from current stock-recruitment analysis. As a result, the preliminary outlook was for a below average run.

The coho salmon escapements observed at the Klukshu River in 1996 (3,500 coho salmon) and 1997 (300 coho salmon but incomplete count) suggests the run in 2000 would be average to above average. The average escapement was 2,607 coho salmon.

### **U.S. Fisheries**

The Dry Bay commercial set-gillnet fishery harvested 677 Chinook, 9,522 sockeye, 5,103 coho, 5 pink and 130 chum salmon (Appendix E.1). The fishery was open for 37 days which was below average (Appendix E.4). The majority of fishing time (24 days) occurred late in the season (mid-August through early October) after the sockeye salmon run had largely passed through the fishery. The total number of days fished during the bulk of the sockeye salmon run was 13. The total effort expended in the fishery was 307 boat-days; below average. The estimate of subsistence harvests included 36 Chinook, 81 sockeye, and 29 coho salmon (Appendix E.5).

The Alsek sockeye salmon harvest of 9,522 fish was below average (Appendix E.4). There was no reported harvest from the Alsek surf area in 2000. Adjustments to the weekly fishing periods during the sockeye salmon season relied heavily on fishery performance data; the decision of whether or not to extend any given period was initially based on catch and CPUE data gathered inseason during that particular period. From week 30 through 34, management was also based on Klukshu weir sockeye salmon counts. The Alsek management model was not used this year as a management tool because of unreliable run estimates produced in recent years.

Historically, a set-gillnet fishery targeting on Chinook salmon was conducted during May and early June. Due to depressed runs, the directed fishery has been closed since 1963 and Chinook salmon have only been harvested incidentally during the sockeye salmon fishery in early June. From 1963 through 1997, the early June periods were limited in time in order to reduce the impact on Chinook salmon. With the advent of the new Chinook salmon escapement goal concern for incidentally caught Chinook salmon has diminished so the management of the early June periods was based on sockeye salmon CPUE. Gillnet mesh size was restricted to a maximum of 6 inches through July 1. The Chinook salmon harvest of 677 fish was above average (Appendix E.4); 94% of the Chinook salmon catch (636 fish) was taken during the first 3 weeks of the season.

The Alsek River was opened to commercial fishing during week 25, the second Monday in June (June 12). The fishery typically opens by regulation on the first Monday in June but based on the preseason projection and poor sockeye salmon returns in 1999 the fishery was managed very conservatively in 2000. The initial opening in week 25 was limited to 24 hours in order to evaluate Chinook and sockeye salmon run strengths. Fishery performance (CPUE) indicated that the sockeye salmon harvest was well above historical levels and fishing time was extended 1 day. Week 26 (June 18-24), CPUE continued well above average so fishing time was again extended to 48 hours. Fishing time was decreased to 24 hours during weeks 27 (June 25-July 01) and 28 (July 02-08) in spite of well above average CPUE specifically to protect Klukshu River sockeye salmon. Fishing time was limited to 24 hours during each of the next 3 weeks due to below average CPUE. In early August, during week 32 (July 30-August 05) fishing time was increased to 48 hours due to above average CPUE values. Fishing time was again restricted to 1 day during weeks 33 (August 06-12) and 34 (August 13-19) due to below average CPUE values.

The coho salmon harvest of 5,103 fish was below average (Appendix E.4). Escapement of coho salmon at the Klukshu weir was well above average early in the season and fishing periods ranged from 3 to 4 days during weeks 35 through 41.

## Canadian Fisheries

The aboriginal fishery harvested an estimated 65 Chinook and 745 sockeye salmon (Appendices E.2 and E.6). The catch of Chinook salmon was the second lowest on record and the sockeye salmon catch was the fourth lowest on record. The catch of 51 coho salmon was above average.

Catches in the Tatshenshini recreational fishery were also below average with an estimated 44 Chinook, 129 sockeye, and 0 coho salmon being harvested (Appendices E.2 and E.6). The low Chinook salmon catches were attributed to usually high water conditions throughout the summer fishing season. In addition, extensive closures implemented to address conservation concerns for sockeye salmon resulted in the low catch of sockeye and coho salmon. The catch data was derived from a creel census program conducted in the Dalton Post area by the Klukshu weir personnel.

Management of salmon in the Yukon is a shared responsibility between DFO and the Yukon Salmon Committee (YSC). The YSC 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 10 members, 70% of which are appointed by Yukon First Nations. Two CAFN members sit on the YSC. 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.

The 2000 Alsek-Tatshenshini management plan, adopted by CAFN, YSC, and DFO, was based on the objectives described in the *Harvest Regulations & Management Objectives* section above. For Chinook and early sockeye salmon management, the status of the Klukshu weir counts was to be reviewed on or about July 18 to ensure weir and spawning escapement targets were on track. The status of the late sockeye salmon run would be reviewed the first week of September. Adjustments to inseason fishing regimes in the sport and aboriginal fisheries would be made if deemed necessary. Other key elements of the plan are described below.

The center of aboriginal fishing activity in the Alsek drainage occurs at the Champagne/Aishihik First Nation village of Klukshu, on the Haines road, about 60 km south of Haines Junction. Salmon are harvested by means of gaff and traditional fish traps as the fish migrate up the Klukshu River into Klukshu Lake. The fishing plan for the aboriginal fishery in the Klukshu River for the period prior to August 15 allowed fishing by means of fish traps for 2 days per week. After August 15, it was planned that the traps would be fished 3 days per week. Conservation thresholds that might invoke restrictions in the Aboriginal fishery were projected Klukshu weir counts of <1,100 Chinook and <1,500 early sockeye salmon. Gaff fisheries also exist 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 gaff fishery other than to reserve Goat Creek, Stanley Creek, and the Parton River for elders only.

The majority of the sport fishing effort on this drainage occurs on the Tatshenshini River, at and just downstream of the mouth of the Klukshu River in the vicinity of the abandoned settlement of Dalton Post. The management plan prohibited the retention of sockeye salmon in the recreational fishery prior to August 15 unless the weir count projection for the early run was >4,500 sockeye salmon. The Chinook salmon daily catch limit was 1 fish and the possession limit was 2 Chinook salmon. For other salmon species, the daily catch and possession limits were 2, and 4, respectively. However, the aggregate limit for all salmon combined was 2 salmon per daily, 4 in possession. Sport fishing in the Dalton Post area was initially to be open from 6:00 am Saturday to 12:00 noon Tuesday each week. Headwater areas upstream of the British Columbia/Yukon border were to be closed for the season to protect spawning Chinook salmon. Conservation thresholds that were expected to invoke additional restrictions in the sport fishery

were projected Klukshu weir counts of <1,500 Chinook and < 10,600 sockeye salmon (early and late runs combined).

The Yukon Salmon Committee introduced a mandatory Yukon Salmon Conservation Catch Card (YSCCC) 1999, which was required by all salmon sport fishers in 2000. 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 sport fishery. Anglers are required to report their catch via mail by the late fall. Information requested includes: the number, sex, size, date and location of salmon caught and released.

Stock status reviews conducted mid-late July raised conservation concerns for sockeye salmon when projections, based on weir counts to date and historic timing data, suggested that the weir objectives for sockeye salmon were not likely to be achieved. As a result of these concerns, the non-retention for sockeye salmon in the sport fishery was extended, initially through September 30, and then to October 31.

CAFN also imposed substantial closures in the aboriginal fishery. The trap fishery did not open in 2000 and on September 12, fishing in the lower Klukshu River downstream of the weir was closed weekly from 12:00 noon Tuesdays to 06:00 am Saturdays. For the fourth consecutive year, depleted runs and closures in the aboriginal fishery seriously impacted CAFN fishers, resulting in basic needs levels not being achieved. In addition to poor salmon abundance, fishing conditions throughout the season were hampered by usually high water conditions.

### Escapement

It is currently not possible to accurately assess whether the system-wide escapement goals for Alsek Chinook, sockeye, and coho salmon are being met because total drainage enumeration programs are not established. An unknown and presumably variable proportion of the escapement of each species is enumerated at the weir on the Klukshu River (Appendices E.3 and E.7). Current escapement monitoring programs including the Klukshu weir, Village Creek electronic counter, and aerial surveys do, however, allow annual comparisons of escapement indices (Appendices E.8-E.10). The most reliable comparative escapement index for Alsek drainage salmon stocks is the Klukshu River weir count. Escapements for 2000 are given in Table 6.

Table 6. Catch and Klukshu index escapement data for Alsek sockeye, Chinook, and coho salmon for 2000.

	sockeye	Chinook	Coho
<b>Escapement Index<sup>a</sup></b>			
Klukshu Weir Count	5,551	1,365	4,832
Klukshu Escapement	5,422	1,321	4,791
<b>Harvest<sup>b</sup></b>			
U.S. Commercial	9,522	677	5,103
U.S. Subsistence	81	36	29
Canadian Sport	0	58	1
Canadian Aboriginal	745	65	51
<b>Total</b>	<b>10,348</b>	<b>836</b>	<b>5,184</b>

<sup>a</sup> Klukshu River salmon stocks represent an assumed large and variable portion of the total Alsek River salmon escapement.

<sup>b</sup> U.S. harvest estimate differs from Joint Interception Committee estimate because no estimates are made for catches other than the listed fisheries.

A mark-recapture program to estimate the drainage wide escapement of Chinook salmon in the Alsek River was initiated in 1998 and has been conducted each year since that time. During the first year of the program a radio telemetry program was also conducted in addition to the mark-recapture program to estimate spawning distribution. Data from these programs will substantially improve our knowledge of the overall escapement and distribution of Alsek River Chinook salmon stocks.

A new pilot-level mark-recapture program for sockeye salmon was initiated in the Alsek River in 2000. The objective of this program was to obtain postseason estimates of total sockeye salmon abundance for the Alsek River. Sockeye salmon were captured in the lower river, just above the uppermost commercial fishery site, tagged, and released. Tag recovery efforts were conducted in upriver spawning areas including Klukshu River weir, Neskataheen Lake, and other known sockeye salmon spawning sites located in the Tatshenshini River drainage.

### **Sockeye**

Klukshu River sockeye salmon weir count was 5,551 with an escapement of 5,422 fish (Table 6, Appendix E.7), and consisted of a below average count of 237 early-run fish (count through August 15) and a below average count of 5,314 late-run sockeye salmon. The total escapement was 72.2% of the lower end of the recommend escapement goal range of 7,500 to 15,000 fish. The sockeye salmon count at Village Creek was 2,222 fish which was below average (Appendix E.8).

A new sockeye salmon mark-recapture program was initiated in 2000 to explore the feasibility of developing an abundance-based management regime for Alsek sockeye salmon. The final estimate of the inriver run using a modified Peterson estimate was 37,887 sockeye salmon ( $m=956$ ,  $r=21$ ,  $c=885$ ), with a 95% CI of 23,410 to 52,365 fish. The spawning escapement was estimated to be 37,142 fish. The Klukshu escapement therefore represents 15% of the total Alsek River escapement, substantially below previously published contributions that ranged from 37% to 60%. The estimated contribution of Neskataheen sockeye salmon to the total Alsek run was 6%. It is recommended for future studies that increased effort be directed at recovering Alsek sockeye salmon on the spawning grounds, thus providing for a more reliable escapement estimate.

Aerial surveys of 3 Alsek index tributaries were conducted and all were below average. The mainstem Tatshenshini, from the Alsek and Tatshenshini rivers confluence up to the water survey station immediately below Village Creek, count was 176 sockeye salmon. The count was 25 sockeye salmon in Basin Creek and 180 sockeye salmon in the Tanis River.

### **Chinook**

The most reliable comparative Chinook salmon escapement index for the Alsek drainage is the Klukshu weir count. The Chinook salmon weir count was 1,365 and escapement count was 1,300 fish (Table 6, Appendix E.3) and both were below average (Appendix E.7). The escapement count was within the escapement goal range of 1,100 to 2,300 Klukshu Chinook salmon and represents 15% of the total escapement.

Based on mark-recapture study, the spawning escapement estimate for Alsek River large Chinook salmon was 9,182 fish ( $m= 469$ ,  $C=509$ ,  $R=24$ ; Appendix E.10). The inriver run past Dry Bay was estimated to be 8,432 (6,805-14,308) fish.

Three aerial Chinook salmon surveys were conducted and all were below average (Appendix E.9). The Chinook salmon counts were 152 in the Takhanne River, 163 in Blanchard River, and 33 Goat Creek. Surveys were conducted during poor viewing conditions.

### **Coho**

The Kluksu weir count was 4,832 and escapements count was 4,791 coho salmon were both above average of (Table 6, Appendix E.7). The weir was removed prior to the completion of the coho salmon return and typically does not include fish that migrate after mid-October. (Appendix E.3)

### **Run Reconstruction**

Estimates of the Kluksu contribution to the sockeye salmon run to the Alsek drainage vary from 15% based on mark-recapture results, 37%, as estimated from an ADF&G mark-recapture study in 1983, to 60%, based on Canadian fishery managers' professional judgment. The Kluksu weir count divided by the estimated proportion of Kluksu fish that constitute the total Alsek run, minus the recreational and aboriginal fishery catches, yields an escapement estimate for the Alsek River. The estimated escapement added to the U.S. commercial and subsistence catches yields an estimate of the entire Alsek run. The mark-recapture estimate of 38,000 fish for the entire Alsek drainage was within the escapement goal range. Using the 37% to 60% contribution range, the estimated sockeye salmon escapement in the Alsek River was on the order of 8,200 (Canada) to 13,800 (U.S.) fish and the estimated Alsek sockeye salmon run was on the order of 17,700 (Canada) to 23,300 (U.S.) sockeye salmon. The sockeye salmon escapement estimate falls well below the low range of the sockeye salmon escapement goal range of from 33,000 (U.S.) to 58,000 (Canada) for the Alsek River.

## **ENHANCEMENT ACTIVITIES**

### **Egg Collection**

In 2000, sockeye salmon eggs were collected at Tahltan Lake on the Stikine River for the thirteenth year, and in the Tatsamenie Lake system on the Taku River, for the eleventh year. No eggs have been collected at Little Trapper Lake on the Taku River since 1994.

#### **Tahltan Lake: Target 6.0 million eggs**

The egg collection was contracted to Arc Environmental Ltd. for the fifth consecutive year. Lower than average escapement in year 2000 made capture of broodstock relatively difficult in comparison with previous years that had higher escapement levels. An estimated 2.39 million eggs were collected from 841 females and 825 males. The total estimated egg collection is based on an average historical fecundity of 2,900 eggs per female. An additional 27 females and 12 males were rejected due to spent gametes (males), immature eggs (females), internal bleeding and disease symptoms. The broodstock was collected by beach seine at the major spawning site as has been done in previous years. The eggs were collected over the course of eleven egg-take days of which 4 loads of eggs were delayed in shipment to the hatchery.

#### **Tatsamenie Lake: Target 3.0 million eggs**

Egg collection was again contracted to B. Mercer and Associates Ltd. A total of 765 females and 684 males were spawned. An estimated 2.62 million eggs were collected from the 765 females (based on a

measured average fecundity of 4,083 eggs per female). Of the total fertilized eggs collected, 2.57 million were delivered to Snettisham hatchery in 6 shipments, and 244,000 were placed in a passive flow incubator at Tatsamenie Lake.

Tatsamenie Lake broodstock was again captured at an adult enumeration weir that was located at the outlet of Tatsamenie Lake. This was the seventh year that all of the Tatsamenie broodstock was captured at this location. The required broodstock was collected between August 19 and September 5. A total of 1,119 females and 886 males were held prior to the first egg take on September 17. On Oct. 16, 336 females and 188 males were released after the egg take goal was reached. The spawning success of the released fish is unknown.

### **Incubation, thermal marking, and Fry Plants (1998 Brood Year)**

The egg incubation and thermal-marking program at Snettisham Hatchery went smoothly in year 2000. Snettisham hatchery is operated by DIPAC, a private aquaculture organization in Juneau. A co-operative agreement between ADF&G and DIPAC provides for Snettisham hatchery to serve the needs of the joint TBR enhancement projects.

Incubation of 1999 brood eggs took place at Snettisham Hatchery and the resultant fry were transported to the appropriate systems from May 20 to June 26, 2000. The infectious hematopoietic necrosis (IHN) virus was not detected during the incubation period for the Tahltan and Tatsamenie fry.

#### **Tahltan Lake**

A total of 2.2 million fry from the 1999 Tahltan sockeye salmon egg take was planted back into Tahltan Lake in 2000. Survival from green-egg to outplanted fry was 80.4%. Fry outplanting took place from May 20 through May 27.

#### **Tuya Lake**

A total of 0.9 million fry from the 1999 Tahltan sockeye salmon egg take were planted into Tuya Lake in 2000. Survival from green-egg to outplanted-fry was 82.3%. Fry outplanting took place from June 23 to June 26.

#### **Tatsamenie Lake**

A total of 0.35 million fry from the 1999 egg-take was planted into Tatsamenie Lake in 2000. Survival from green-egg to outplanted-fry was 75.9%. Outplanting took place on June 1.

### **Outplant Evaluation Surveys**

#### **Acoustic and Trawl, Beach seine and Limnological Sampling**

Standard limnological surveys were conducted at Tatsamenie, Tuya, and King Salmon Lakes by B. Mercer & Associates Ltd. and by PBS personnel. Limnological and beach seine surveys were performed at Nakina Lake by Brian Mercer and at Tahltan Lake by onsite DFO personnel.

#### **ADF&G Thermal Mark Laboratory**

During the 2000 season, ADF&G Thermal mark lab received 16,888 sockeye salmon otoliths collected by ADF&G port sampling staff as part of the U.S./Canada Enhancement program. These collections came

from commercial and test fisheries in U.S. waters and in Canadian fisheries on the Taku and Stikine Rivers over a 13-week period. In addition, cost recovery and rack samples from Snettisham Hatchery as well as several escapement samples were examined. Combined, the laboratory processed 15,252 of the otoliths received (90.3%) and provided estimates on hatchery contribution for 136 distinct sampling collections. Of these totals, 4,422 otoliths were identified and classified as belonging to 1 of 36 marking groups. Contribution estimates on the percentage of enhanced fish in the commercial openings were provided to ADF&G and Canadian fisheries managers within 24 to 48 hours after sampling.

### **Canadian Thermal Mark Laboratory**

Sub-samples of juvenile and adult otolith samples that were collected during the 2000 season were analyzed at the DFO otolith lab in Whitehorse.



## APPENDICES

## Appendix A. 1. Weekly salmon catch in the Alaskan District 106 commercial drift gillnet fisheries, 2000.

Catches do not include Blind Slough terminal area harvests.

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

Large Chinook are MEF length  $\geq$  660.

Week	Start Date	Catch					Effort		
		Chinook	Sockeye	Coho	Pink	Chum	Permits	Days	Permit Days
26	18-Jun	215	3,345	857	433	1,291	42	2.0	84
27	25-Jun	298	12,282	3,444	1,176	10,068	71	2.0	142
28	2-Jul	237	12,998	6,393	4,286	22,476	90	2.0	180
29	9-Jul	277	19,234	14,542	9,772	52,398	94	3.0	282
30	16-Jul	121	18,564	10,308	7,793	38,591	93	3.0	279
31	23-Jul	22	10,795	7,453	14,220	29,197	85	2.0	170
32	30-Jul	8	5,317	3,815	19,960	14,403	73	2.0	146
33	6-Aug	15	5,108	6,718	43,648	9,833	63	3.0	189
34	13-Aug	19	1,502	4,276	25,124	3,275	62	3.0	186
35	20-Aug	0	388	8,206	18,812	3,655	65	3.0	195
36	27-Aug	0	301	6,327	7,671	4,118	74	2.0	148
37	3-Sep	5	197	8,401	2,905	4,740	79	2.0	158
38	10-Sep	2	37	9,740	770	4,251	73	2.0	146
39	17-Sep	1	8	5,727	49	1,540	52	2.0	104
Total		1,220	90,076	96,207	156,619	199,836		33.0	2,409
Alaska Hatchery Contributions									
26	18-Jun	72	25	562		810			
27	25-Jun	254	137	3,064		2,094			
28	2-Jul	163	339	4,541		4,965			
29	9-Jul	288	202	10,535		30,730			
30	16-Jul	0	239	5,756		9,982			
31	23-Jul	0	123	2,168		14,453			
32	30-Jul	0	70	756		6,389			
33	6-Aug	0	0	1,231		0			
34	13-Aug	0	0	588		0			
35	20-Aug	0	0	2,309		0			
36	27-Aug	0	0	2,494		0			
37	3-Sep	13	0	4,494		1,883			
38	10-Sep	0	0	5,543		0			
39	17-Sep	0	0	4,128		0			
Total		790	1,134	48,169		71,306			
Catches not including Alaska hatchery contributions									
26	18-Jun	143	3,320	295	433	481	42	2.0	84
27	25-Jun	44	12,145	380	1,176	7,974	71	2.0	142
28	2-Jul	74	12,659	1,852	4,286	17,511	90	2.0	180
29	9-Jul	-11	19,032	4,007	9,772	21,668	94	3.0	282
30	16-Jul	121	18,325	4,552	7,793	28,609	93	3.0	279
31	23-Jul	22	10,672	5,285	14,220	14,744	85	2.0	170
32	30-Jul	8	5,247	3,059	19,960	8,014	73	2.0	146
33	6-Aug	15	5,108	5,487	43,648	9,833	63	3.0	189
34	13-Aug	19	1,502	3,688	25,124	3,275	62	3.0	186
35	20-Aug	0	388	5,897	18,812	3,655	65	3.0	195
36	27-Aug	0	301	3,833	7,671	4,118	74	2.0	148
37	3-Sep	-8	197	3,907	2,905	2,857	79	2.0	158
38	10-Sep	2	37	4,197	770	4,251	73	2.0	146
39	17-Sep	1	8	1,599	49	1,540	52	2.0	104
Total		430	88,942	48,038	156,619	128,530	1,016	33.0	2,409

Appendix A. 2. Weekly stock proportions of sockeye salmon harvested in the Alaskan District 106 commercial drift gillnet fisheries, 2000.

Data based on scale pattern analysis.

Week	Alaska	Canada	Stikine				Planted	CPUE of Stikine Fish			
			Tahltan <sup>a</sup>	Tuya	Mainstem	Total		Tahltan <sup>a</sup>	Tuya	Mainstem	Total
Proportions											
26	0.573	0.121	0.043	0.251	0.012	0.306	0.083	0.151	0.192	0.052	0.168
27	0.433	0.175	0.081	0.282	0.029	0.392	0.089	0.620	0.471	0.274	0.469
28	0.613	0.183	0.003	0.190	0.011	0.204	0.089	0.017	0.264	0.089	0.204
29	0.782	0.164	0.030	0.017	0.006	0.053	0.058	0.184	0.023	0.043	0.050
30	0.659	0.301	0.002	0.009	0.028	0.040	0.043	0.014	0.012	0.206	0.037
31	0.676	0.250	0.000	0.029	0.044	0.074	0.007	0.003	0.036	0.306	0.065
32	0.655	0.333	0.004	0.003	0.005	0.012	0.000	0.012	0.002	0.020	0.006
33	0.664	0.336	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
34	0.522	0.471	0.000	0.000	0.007	0.007	0.000	0.000	0.000	0.007	0.001
35	0.649	0.350	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000
36	0.458	0.534	0.000	0.000	0.008	0.008	0.000	0.000	0.000	0.002	0.000
37	0.455	0.536	0.000	0.000	0.008	0.008	0.000	0.000	0.000	0.001	0.000
38	0.467	0.525	0.000	0.000	0.008	0.008	0.000	0.000	0.000	0.000	0.000
39	0.451	0.540	0.000	0.000	0.009	0.009	0.000	0.000	0.000	0.000	0.000
Total	0.643	0.233	0.020	0.085	0.019	0.124	0.003				
Catches											
26	1,917	406	143	839	40	1,022	0	1.7	10.0	0.5	12.2
27	5,315	2,147	994	3,469	357	4,820	186	7.0	24.4	2.5	33.9
28	7,970	2,376	34	2,471	147	2,652	32	0.2	13.7	0.8	14.7
29	15,042	3,163	586	331	112	1,029	36	2.1	1.2	0.4	3.6
30	12,233	5,590	45	167	529	741	0	0.2	0.6	1.9	2.7
31	7,300	2,694	5	318	478	801	0	0.0	1.9	2.8	4.7
32	3,484	1,769	20	17	27	64	0	0.1	0.1	0.2	0.4
33	3,390	1,718	0	0	0	0	0	0.0	0.0	0.0	0.0
34	784	707	0	0	11	11	0	0.0	0.0	0.1	0.1
35	252	136	0	0	0	0	0	0.0	0.0	0.0	0.0
36	138	161	0	0	2	2	0	0.0	0.0	0.0	0.0
37	90	106	0	0	2	2	0	0.0	0.0	0.0	0.0
38	17	19	0	0	0	0	0	0.0	0.0	0.0	0.0
39	4	4	0	0	0	0	0	0.0	0.0	0.0	0.0
Total	57,935	20,996	1,827	7,612	1,706	11,145	254	11.3	51.9	9.2	72.4

<sup>a</sup> All Tahltan includes wild and thermally marked fish.

Appendix A. 3. Weekly salmon catch and effort in the Alaskan Subdistrict 106-41&42 (Sumner Strait) commercial drift gillnet fishery, 2000.

Chinook are MEF length  $\geq$  660.

Week	Start Date	Catch					Effort		
		Chinook	Sockeye	Coho	Pink	Chum	Permits	Days	Permit Days
26	18-Jun	163	2,982	717	306	1,225	37	2.0	74
27	25-Jun	235	10,726	2,332	881	9,594	56	2.0	112
28	2-Jul	63	9,171	2,822	2,952	16,083	57	2.0	114
29	9-Jul	64	10,307	5,219	4,086	31,221	53	3.0	159
30	16-Jul	13	9,636	3,920	3,199	18,934	51	3.0	153
31	23-Jul	12	7,820	4,351	6,622	17,680	53	2.0	106
32	30-Jul	1	3,189	2,302	9,795	5,415	43	2.0	86
33	6-Aug	3	2,800	4,462	24,604	6,211	36	3.0	108
34	13-Aug	1	540	1,712	9,393	1,334	35	3.0	105
35	20-Aug	0	301	6,515	12,396	2,596	47	3.0	141
36	27-Aug	0	216	4,618	3,963	2,941	55	2.0	110
37	3-Sep	2	144	5,376	1,308	2,989	47	2.0	94
38	10-Sep	0	25	6,238	476	2,836	45	2.0	90
39	17-Sep	1	6	3,648	33	1,052	35	2.0	70
<b>Total</b>		<b>558</b>	<b>57,863</b>	<b>54,232</b>	<b>80,014</b>	<b>120,111</b>		<b>33.0</b>	<b>1,522</b>

Appendix A. 4. Weekly stock proportions and catches of sockeye salmon harvested in the Alaskan Subdistrict 106-41&42 (Sumner Strait) commercial drift gillnet fishery, 2000.

Data based on scale pattern analysis.

Week	Alaska	Canada	Stikine			Planted Tahltan	CPUE of Stikine Fish				
			Tahltan <sup>a</sup>	Tuya Mainstem	Total		Tahltan <sup>a</sup>	Tuya	Mainstem	Total	
Proportions											
26	0.560	0.112	0.045	0.273	0.010	0.328	0.000	0.131	0.174	0.037	0.150
27	0.397	0.172	0.089	0.313	0.029	0.431	0.017	0.615	0.476	0.255	0.470
28	0.578	0.188	0.004	0.221	0.009	0.234	0.003	0.022	0.282	0.068	0.214
29	0.774	0.157	0.043	0.015	0.011	0.069	0.004	0.203	0.015	0.064	0.051
30	0.700	0.251	0.003	0.010	0.036	0.049	0.000	0.013	0.010	0.209	0.035
31	0.651	0.264	0.000	0.034	0.051	0.085	0.000	0.000	0.040	0.342	0.071
32	0.604	0.380	0.006	0.005	0.004	0.016	0.000	0.017	0.003	0.015	0.007
33	0.646	0.354	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
34	0.369	0.617	0.000	0.000	0.015	0.015	0.000	0.000	0.000	0.007	0.001
35	0.661	0.339	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
36	0.399	0.591	0.000	0.000	0.010	0.010	0.000	0.000	0.000	0.002	0.000
37	0.399	0.591	0.000	0.000	0.010	0.010	0.000	0.000	0.000	0.001	0.000
38	0.399	0.591	0.000	0.000	0.010	0.010	0.000	0.000	0.000	0.000	0.000
39	0.399	0.591	0.000	0.000	0.010	0.010	0.000	0.000	0.000	0.000	0.000
Total	0.611	0.223	0.028	0.116	0.023	0.167	0.004	0.158	0.717	0.125	1.000
Catches											
26	1,670	335	134	813	30	977	0	1.8	11.0	0.4	13.2
27	4,257	1,843	955	3,357	314	4,626	186	8.5	30.0	2.8	41.3
28	5,303	1,721	34	2,028	85	2,147	32	0.3	17.8	0.7	18.8
29	7,975	1,623	447	150	112	709	36	2.8	0.9	0.7	4.5
30	6,744	2,419	27	95	351	473	0	0.2	0.6	2.3	3.1
31	5,087	2,067	0	267	399	666	0	0.0	2.5	3.8	6.3
32	1,927	1,211	20	17	14	51	0	0.2	0.2	0.2	0.6
33	1,810	990	0	0	0	0	0	0.0	0.0	0.0	0.0
34	199	333	0	0	8	8	0	0.0	0.0	0.1	0.1
35	199	102	0	0	0	0	0	0.0	0.0	0.0	0.0
36	86	128	0	0	2	2	0	0.0	0.0	0.0	0.0
37	57	85	0	0	1	1	0	0.0	0.0	0.0	0.0
38	10	15	0	0	0	0	0	0.0	0.0	0.0	0.0
39	2	4	0	0	0	0	0	0.0	0.0	0.0	0.0
Total	35,327	12,875	1,617	6,727	1,317	9,661	254	13.9	63.0	11.0	87.9

<sup>a</sup> All Tahltan includes wild and thermally marked fish.

Appendix A. 5. Weekly salmon catch and effort in the Alaskan Subdistrict 106-30 (Clarence Strait) commercial drift gillnet fishery, 2000.

Chinook are MEF length  $\geq$  660.

Week	Start Date	Catch					Effort		
		Chinook	Sockeye	Coho	Pink	Chum	Permits	Days	Permit Days
26	18-Jun	52	363	140	127	66	5	2	10
27	25-Jun	63	1,556	1,112	295	474	15	2	30
28	2-Jul	174	3,827	3,571	1,334	6,393	33	2	66
29	9-Jul	213	8,927	9,323	5,686	21,177	45	3	135
30	16-Jul	108	8,928	6,388	4,594	19,657	46	3	138
31	23-Jul	10	2,975	3,102	7,598	11,517	33	2	66
32	30-Jul	7	2,128	1,513	10,165	8,988	30	2	60
33	6-Aug	12	2,308	2,256	19,044	3,622	27	3	81
34	13-Aug	18	962	2,564	15,731	1,941	28	3	84
35	20-Aug	0	87	1,691	6,416	1,059	22	3	66
36	27-Aug	0	85	1,709	3,708	1,177	20	2	40
37	3-Sep	3	53	3,025	1,597	1,751	33	2	66
38	10-Sep	2	12	3,502	294	1,415	28	2	56
39	17-Sep	0	2	2,079	16	488	18	2	36
Total		662	32,213	41,975	76,605	79,725		33	934

Appendix A. 6. Weekly stock proportions and catches of sockeye salmon harvested in the Alaskan Subdistrict 106-30 (Clarence Strait) commercial drift gillnet fishery, 2000.

Data based on scale pattern analysis.

Week	Alaska	Canada	Stikine			Planted	CPUE of Stikine Fish				
			Tahltan <sup>a</sup>	Tuya Mainstem	Total		Tahltan <sup>a</sup>	Tuya Mainstem	Total		
Proportions											
26	0.680	0.195	0.025	0.072	0.028	0.125	0.000	0.264	0.000	0.164	0.179
27	0.680	0.195	0.025	0.072	0.028	0.125	0.000	0.377	0.000	0.234	0.256
28	0.697	0.171	0.000	0.116	0.016	0.132	0.000	0.000	0.000	0.153	0.303
29	0.792	0.173	0.016	0.020	0.000	0.036	0.000	0.299	0.000	0.000	0.094
30	0.615	0.355	0.002	0.008	0.020	0.030	0.000	0.038	0.000	0.210	0.077
31	0.744	0.211	0.002	0.017	0.027	0.045	0.000	0.022	0.000	0.195	0.081
32	0.732	0.262	0.000	0.000	0.006	0.006	0.000	0.000	0.000	0.035	0.009
33	0.685	0.315	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
34	0.608	0.389	0.000	0.000	0.003	0.003	0.000	0.000	0.000	0.006	0.002
35	0.608	0.389	0.000	0.000	0.003	0.003	0.000	0.000	0.000	0.001	0.000
36	0.608	0.389	0.000	0.000	0.003	0.003	0.000	0.000	0.000	0.001	0.000
37	0.608	0.389	0.000	0.000	0.003	0.003	0.000	0.000	0.000	0.000	0.000
38	0.608	0.389	0.000	0.000	0.003	0.003	0.000	0.000	0.000	0.000	0.000
39	0.608	0.389	0.000	0.000	0.003	0.003	0.000	0.000	0.000	0.000	0.000
Total	0.702	0.252	0.007	0.027	0.012	0.046	0.000	0.136	0.621	0.243	1.000
Catches											
26	247	71	9	26	10	45	0	0.9	2.6	1.0	4.5
27	1,058	304	39	112	43	194	0	1.3	3.7	1.4	6.5
28	2,667	655	0	443	62	505	0	0.0	6.7	0.9	7.7
29	7,067	1,540	139	181	0	320	0	1.0	1.3	0.0	2.4
30	5,489	3,171	18	72	178	268	0	0.1	0.5	1.3	1.9
31	2,213	627	5	51	79	135	0	0.1	0.8	1.2	2.0
32	1,557	558	0	0	13	13	0	0.0	0.0	0.2	0.2
33	1,580	728	0	0	0	0	0	0.0	0.0	0.0	0.0
34	585	374	0	0	3	3	0	0.0	0.0	0.0	0.0
35	53	34	0	0	0	0	0	0.0	0.0	0.0	0.0
36	52	33	0	0	0	0	0	0.0	0.0	0.0	0.0
37	32	21	0	0	0	0	0	0.0	0.0	0.0	0.0
38	7	5	0	0	0	0	0	0.0	0.0	0.0	0.0
39	1	1	0	0	0	0	0	0.0	0.0	0.0	0.0
Total	22,608	8,121	210	885	389	1,484	0	3.4	15.7	6.1	25.3

<sup>a</sup> All Tahltan includes wild and thermally marked fish.

Appendix A. 7. Weekly salmon catch and effort in the Alaskan District 108 commercial drift gillnet fishery, 2000.

Permit days: adjusted for boats that did not fish the entire opening and are less than the sum of the permits times the days  
Chinook are MEF length  $\geq$  660.

Week	Start Date	Catch					Effort		Permit Days
		Chinook	Sockeye	Coho	Pink <sup>a</sup>	Chum	Permits	Days	
26	18-Jun	266	1,322	62	5	86	18	2.0	36.0
27	25-Jun	529	4,872	238	35	1,214	37	2.0	74.0
28	2-Jul	649	2,327	201	56	1,450	19	2.0	38.0
29	9-Jul	164	2,979	180	535	2,923	21	3.0	63.0
30	16-Jul	12	2,191	253	1,483	4,861	16	3.0	48.0
31	23-Jul	27	1,446	422	3,272	14,248	60	4.0	240.0
32	30-Jul	16	459	222	2,176	8,750	21	2.0	42.0
33	6-Aug	6	185	239	876	5,448	12	3.0	36.0
34	13-Aug	0	21	158	473	610	7	3.0	21.0
35	20-Aug	0	9	424	454	68	8	3.0	24.0
36	27-Aug	1	15	769	81	121	10	2.0	20.0
37	3-Sep	1	3	926	32	43	13	2.0	26.0
38	10-Sep	0	4	1,284	19	447	14	2.0	28.0
39	17-Sep	0	0	273	0	68	9	2.0	18.0
Total		1,671	15,833	5,651	9,497	40,337	265	35	714
Alaska Hatchery Contributions									
26	18-Jun	296	0	0		0			
27	25-Jun	355	0	0		0			
28	2-Jul	0	0	0		0			
29	9-Jul	234	0	1802		686			
30	16-Jul	3	0	526		0			
31	23-Jul	0	0	196		3870			
32	30-Jul	46	0	19		0			
33	6-Aug	0	0	0		0			
34	13-Aug	0	0	0		0			
35	20-Aug	0	0	191		0			
36	27-Aug	0	0	0		0			
37	3-Sep	0	0	0		0			
38	10-Sep	0	0	0		0			
39	17-Sep	0	0	68		0			
Total		934	0	2,802		4,556			
Catches not including Alaska hatchery contributions									
26	18-Jun	-30	1,322	62	5	86	18	2.0	36
27	25-Jun	174	4,872	238	35	1,214	37	2.0	74
28	2-Jul	649	2,327	201	56	1,450	19	2.0	38
29	9-Jul	-70	2,979	-1,622	535	2,237	21	3.0	63
30	16-Jul	9	2,191	-273	1,483	4,861	16	3.0	48
31	23-Jul	27	1,446	226	3,272	10,378	60	4.0	240
32	30-Jul	-30	459	203	2,176	8,750	21	2.0	42
33	6-Aug	6	185	239	876	5,448	12	3.0	36
34	13-Aug	0	21	158	473	610	7	3.0	21
35	20-Aug	0	9	233	454	68	8	3.0	24
36	27-Aug	1	15	769	81	121	10	2.0	20
37	3-Sep	1	3	926	32	43	13	2.0	26
38	10-Sep	0	4	1,284	19	447	14	2.0	28
39	17-Sep	0	0	205	0	68	9	2.0	18
Total		737	15,833	2,849	9,497	35,781	265	35.0	714

<sup>a</sup> Data not available to estimate contributions of pink salmon from Alaska hatcheries.



Appendix A. 8. Weekly stock proportions and stock-specific catch of sockeye salmon in the Alaskan District 108 commercial drift gillnet fishery, 2000.

Data based on scale pattern analysis.

Week	Alaska	Canada	Stikine			Planted	CPUE of Stikine Fish				
			Tahltan <sup>a</sup>	Tuya Mainstem	Total		Tahltan	Tahltan <sup>a</sup>	Tuya Mainstem	Total	
Proportions											
26	0.092	0.042	0.407	0.229	0.229	0.865	0.043	0.376	0.104	0.113	0.163
27	0.098	0.127	0.225	0.394	0.156	0.775	0.052	0.372	0.321	0.139	0.262
28	0.128	0.087	0.101	0.658	0.027	0.786	0.042	0.155	0.499	0.022	0.247
29	0.176	0.056	0.047	0.126	0.594	0.768	0.034	0.056	0.074	0.379	0.187
30	0.451	0.076	0.026	0.001	0.445	0.473	0.000	0.030	0.001	0.274	0.111
31	0.382	0.376	0.015	0.002	0.224	0.241	0.000	0.002	0.000	0.018	0.007
32	0.382	0.376	0.015	0.002	0.224	0.241	0.000	0.004	0.000	0.033	0.014
33	0.382	0.376	0.015	0.002	0.224	0.241	0.000	0.002	0.000	0.016	0.006
34	0.382	0.376	0.015	0.002	0.224	0.241	0.000	0.000	0.000	0.003	0.001
35	0.382	0.376	0.015	0.002	0.224	0.241	0.000	0.000	0.000	0.001	0.000
36	0.382	0.376	0.015	0.002	0.224	0.241	0.000	0.000	0.000	0.002	0.001
37	0.382	0.376	0.015	0.002	0.224	0.241	0.000	0.000	0.000	0.000	0.000
38	0.382	0.376	0.015	0.002	0.224	0.241	0.000	0.000	0.000	0.000	0.000
39	0.382	0.376	0.015	0.002	0.224	0.241	0.000	0.000	0.000	0.000	0.000
Total	0.204	0.128	0.132	0.261	0.275	0.669	0.032	0.204	0.415	0.381	1.000
Catch											
26	122	56	538	303	303	1,144	57	14.9	8.4	8.4	31.8
27	476	621	1,094	1,919	762	3,775	252	14.8	25.9	10.3	51.0
28	297	202	234	1,532	62	1,828	97	6.2	40.3	1.6	48.1
29	523	168	141	376	1,771	2,288	101	2.2	6.0	28.1	36.3
30	989	166	58	3	975	1,036	0	1.2	0.1	20.3	21.6
31	553	544	22	3	324	349	0	0.1	0.0	1.4	1.5
32	176	173	7	1	103	111	0	0.2	0.0	2.4	2.6
33	71	70	3	0	41	45	0	0.1	0.0	1.2	1.2
34	8	8	0	0	5	5	0	0.0	0.0	0.2	0.2
35	3	3	0	0	2	2	0	0.0	0.0	0.1	0.1
36	6	6	0	0	3	4	0	0.0	0.0	0.2	0.2
37	1	1	0	0	1	1	0	0.0	0.0	0.0	0.0
38	2	2	0	0	1	1	0	0.0	0.0	0.0	0.0
39	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
Total	3,226	2,019	2,097	4,138	4,353	10,588	506	39.7	80.8	74.3	194.7

<sup>a</sup> All Tahltan includes wild and thermally marked fish.

Appendix A. 9. Weekly salmon catch and effort and sockeye salmon stock composition in the Alaskan District 108 test fishery, 2000.

Chinook are MEF length $\geq$ 660.							
Week	Start Date	Catch					
		Chinook	Sockeye	Coho	Pink	Chum	Steelhead
Catches							
25	11-Jun	21	265	3	0	10	
26	18-Jun	0	1,856	27	1	57	
27	25-Jun	0	1,819	88	19	227	
28	2-Jul	0	746	22	33	430	
Total		21	4,686	140	53	724	0
Sockeye stock compositions							
Week	Alaska	Canada	Stikine			Planted	
			Tahltan	Tuya	Mainstem	Total	Tahltan
Proportions							
25	0.094	0.038	0.434	0.166	0.268	0.868	0.045
26	0.059	0.085	0.321	0.331	0.204	0.856	0.057
27	0.109	0.155	0.266	0.350	0.121	0.736	0.080
28	0.247	0.126	0.298	0.283	0.047	0.627	0.038
Total	0.110	0.116	0.302	0.321	0.150	0.774	0.062
Catch							
25	25	10	115	44	71	230	12
26	109	158	596	614	379	1,589	106
27	198	282	483	636	220	1,339	145
28	184	94	222	211	35	468	28
Total	516	544	1,416	1,505	705	3,626	291

Appendix A. 10. Weekly salmon and steelhead trout catch and effort in the Canadian commercial fishery in the lower Stikine River, 2000.

Large Chinook are MEF length $\geq$ 660.											
Week	Start Date	Catch							Effort		
		Chinook		Sockeye	Coho	Pink	Chum	Steelhead <sup>b</sup>	Permits	Days	Permit Days
27	25-Jun	820	132								
28	2-Jul	586	64	5,909	0	0	0	0	11.50	2.0	23.0
29	9-Jul	371	23	3,830	0	1	4	1	11.50	2.0	23.0
30	16-Jul	90	10	2,817	0	30	10	0	12.00	1.3	15.0
31	23-Jul	64	4	1,948	0	44	27	2	11.83	3.0	35.5
32	30-Jul	14	7	1,671	14	70	31	14	12.50	2.0	25.0
33	6-Aug	24	0	626	83	29	39	17	12.00	2.0	24.0
34	13-Aug	1	0	117	138	7	30	50	8.50	2.0	17.0
35	20-Aug	0	0	15	59	0	1	5	6.00	2.0	12.0
36	27-Aug	0	0	0	2	0	2	0	6.00	2.0	12.0
37	3-Sep	0	0	0	2	0	0	0	6.00	3.0	18.0
Total		240	1,970	20,472	298	181	144	89		23.3	227.0

Appendix A. 11. Weekly sockeye salmon stock proportions and catch by stock in the Canadian commercial fishery in the lower Stikine River, 2000.

Sex specific age compositions were calculated and the stock composition of the females sampled for egg diameters was expanded to the catch by age.

Week	Proportion				Planted Tahltan	Catch			Tahltan	
	Small Egg	Tahltan <sup>a</sup>	Tuya	Mainstem		Tahltan <sup>a</sup>	Tuya	Mainstem	Wild	Planted
27	0.935	0.384	0.551	0.065	0.076	1,359	1,949	231	1,090	269
28	0.866	0.218	0.648	0.134	0.056	1,289	3,828	792	958	331
29	0.720	0.278	0.442	0.280	0.048	1,063	1,694	1,073	881	182
30	0.428	0.289	0.140	0.572	0.000	814	393	1,610	814	0
31	0.239	0.131	0.107	0.761	0.007	256	209	1,483	243	13
32	0.182	0.155	0.027	0.818	0.000	259	45	1,367	259	0
33	0.187	0.168	0.019	0.813	0.010	105	12	509	99	6
34	0.205	0.154	0.051	0.795	0.000	18	6	93	18	0
35	0.133	0.133	0.000	0.867	0.000	2	0	13	2	0
Total						5,165	8,136	7,171	4,364	801
Proportion						0.252	0.397	0.350	0.213	0.039

Week	Total CPUE	CPUE			Tahltan	
		Tahltan <sup>a</sup>	Tuya	Mainstem	Wild	Planted
24	157.289	60.400	86.622	10.267	48.444	11.956
25	256.913	56.043	166.435	34.435	41.652	14.391
26	166.522	46.217	73.652	46.652	38.304	7.913
27	187.800	54.267	26.200	107.333	54.267	0.000
28	54.873	7.211	5.887	41.775	6.845	0.366
29	66.840	10.360	1.800	54.680	10.360	0.000
30	26.083	4.375	0.500	21.208	4.125	0.250
31	6.882	1.059	0.353	5.471	1.059	0.000
32	1.250	0.167	0.000	1.083	0.167	0.000
Total	924.453	240.099	361.449	322.904	205.223	34.876
Proportion		0.260	0.391	0.349	0.222	0.038

Appendix A. 12. Weekly salmon and steelhead trout catch and effort in the Canadian commercial fishery in the upper Stikine River, 2000.

Large Chinook are MEF length  $\geq 660$ .

Week	Start Date	Catch							Effort		
		Chinook		Sockeye	Coho	Pink	Chum	Steelhead	Permits	Days	Permit Days
29	9-Jul	4	2								
30	16-Jul	0	0	368	0	0	0	0	2.0	2.0	4.0
31	23-Jul	3	0	223	0	0	0	0	3.0	1.3	3.8
32	30-Jul	0	0	166	0	0	0	0	3.0	2.0	6.0
33	6-Aug	0	0	128	0	0	0	0	2.0	2.0	4.0
Total		2	7	889	0	0	0	0	11.0	9.3	19.8

Appendix A. 13. Weekly salmon and steelhead trout catch and effort in the Canadian Aboriginal fishery located at Telegraph Creek, on the Stikine River, 2000.

Week	Start Date	Catch							Effort		
		Chinook		Sockeye	Coho	Pink	Chum	Steel-head	Permits	Days	Permit Days
		Large	Jacks								
21	14-May	9	0	0	0	0	0	0	1.2	5.0	6.0
22	21-May	28	5	0	0	0	0	0	2.1	7.0	15.0
23	28-May	65	22	0	0	0	0	0	3.6	7.0	25.0
24	4-Jun	2	0	0	0	0	0	0	1.0	1.0	1.0
25	11-Jun	5	1	0	0	0	0	0	0.0	1.0	0.0
26	18-Jun	129	51	6	0	0	0	0	3.6	7.0	25.0
27	25-Jun	104	25	16	0	0	0	0	2.5	6.0	15.0
28	2-Jul	162	38	157	0	0	0	0	5.3	7.0	37.0
29	9-Jul	308	162	1,534	0	0	0	0	14.6	7.0	102.0
30	16-Jul	172	39	2,766	0	0	0	0	16.9	7.0	118.0
31	23-Jul	45	4	746	0	0	0	0	5.9	7.0	41.0
32	30-Jul	59	30	482	0	0	0	0	5.6	7.0	39.0
33	6-Aug	20	9	333	0	0	0	0	3.3	7.0	23.0
34	13-Aug	0	0	59	0	0	0	0	1.0	3.0	3.0
35	20-Aug	1	0	8	1	0	0	2	1.0	1	1.0
36	27-Aug	0	0	0	2	0	0	12	1.3	4	5.0
Total		1,109	386	6,107	3	0	0	14			

Appendix A. 14. Catch by stock and week for sockeye salmon harvested in the Canadian upper river commercial and Aboriginal fisheries in the Stikine River, 2000.

Week	Start Date	Stock			Tahltan	
		Tahltan <sup>ab</sup>	Tuya Mainstem		Wild	Planted
Catch by stock for upper river commercial fishery						
29	9-Jul	1	3	0	1	0
30	16-Jul	95	267	6	95	0
31	23-Jul	51	153	19	51	0
32	30-Jul	56	75	35	56	0
33	6-Aug	21	83	24	21	0
Total		224	581	84	224	0
Catch by stock for upper river aboriginal fishery						
26	18-Jun	3	3	0	3	0
27	25-Jun	13	3	0	13	0
28	2-Jul	83	74	0	54	29
29	9-Jul	518	919	97	495	23
30	16-Jul	717	2,001	48	717	0
31	23-Jul	171	509	66	171	0
32	30-Jul	164	224	94	164	0
33	6-Aug	56	213	64	56	0
34	13-Aug	7	36	16	7	0
35	20-Aug	1	7	0	1	0
Total		1,733	3,989	385	1,681	52

Appendix A. 15. Weekly salmon and steelhead trout catch and effort in the Canadian test fishery in the Stikine River, 2000.

Large Chinook are MEF length $\geq$ 660.									
Week	Start Date	Catch						# Drifts/ Set Hours	
		Chinook Large	Jacks	Sockeye	Coho	Pink	Chum Steelhead <sup>a</sup>		
Drift gillnet									
27	25-Jun	20	4	34	0	0	0	0	45
28	2-Jul	15	0	105	0	0	1	0	50
29	9-Jul	14	0	74	0	0	0	0	50
30	16-Jul	5	0	59	0	4	4	0	59
31	23-Jul	1	0	44	0	1	5	0	40
32	30-Jul	4	0	38	0	1	9	6	50
33	6-Aug	0	0	17	11	1	7	2	50
34	13-Aug	0	0	1	9	1	5	3	45
35	20-Aug	0	0	0	9	0	7	3	50
36	27-Aug	0	0	1	9	1	6	4	50
37	3-Sep	0	0	0	13	0	0	2	30
38	10-Sep	0	0	0	3	0	1	0	30
39	17-Sep	0	0	0	1	0	0	2	30
40	24-Sep	0	0	1	3	0	0	0	30
41	1-Oct	0	0	0	2	0	0	1	30
42	8-Oct	0	0	0	0	0	0	0	30
43	15-Oct	0	0	0	0	0	0	0	25
Total		59	4	374	60	9	45	23	694
Set gillnet									
20	7-May	0	0	0	0	0	0	0	0
21	14-May	0	0	0	0	0	0	0	0
22	21-May	8	0	0	0	0	0	0	36
23	28-May	7	0	0	0	0	0	0	108
24	4-Jun	0	0	0	0	0	0	0	0
25	11-Jun	14	0	2	0	0	0	0	108
26	18-Jun	10	0	2	0	0	0	0	104
27	25-Jun	12	0	122	0	0	0	0	168
28	2-Jul	21	0	361	0	0	0	0	228
29	9-Jul	7	0	234	0	6	14	0	240
30	16-Jul	1	0	178	0	5	41	0	234
31	23-Jul	0	0	45	0	5	16	0	120
32	30-Jul	3	0	36	5	2	8	0	168
33	6-Aug	1	0	25	20	3	24	0	168
34	13-Aug	3	0	3	11	2	4	3	204
35	20-Aug	0	0	0	15	0	4	1	156
36	27-Aug	0	0	1	9	0	2	5	168
37	3-Sep	0	0	2	33	2	0	7	144
38	10-Sep	0	0	3	60	0	5	7	266
39	17-Sep	0	0	0	17	0	2	3	219
40	24-Sep	0	0	1	8	0	0	1	248
41	1-Oct	0	0	0	3	0	0	0	215
42	8-Oct	0	0	0	0	0	0	0	222
43	15-Oct	0	0	0	0	0	0	0	192
Total		87	0	1,015	181	25	120	27	3,715

Appendix A. 15. Page 2 of 2.

Additional drifts									
20	7-May	7	0	0	0	0	0	0	96
21	14-May	0	0	0	0	0	0	0	58
22	21-May	30	1	0	0	0	0	0	130
23	28-May	55	4	0	0	0	0	0	119
24	4-Jun	38	9	1	0	0	0	0	112
25	11-Jun	98	0	1	0	0	0	0	112
26	18-Jun	253	0	152	0	0	0	0	118
27	25-Jun	25	0	133	0	0	0	0	20
28	2-Jul	28	0	305	0	0	0	0	22
29	9-Jul	25	0	272	0	0	0	0	21
30	16-Jul	2	0	120	0	0	7	0	15
37	3-Sep	0	0	1	27	0	1	4	18
38	10-Sep	0	0	4	65	0	0	6	105
39	17-Sep	0	0	0	43	0	1	8	113
40	24-Sep	0	0	0	28	0	0	4	98
41	1-Oct	0	0	0	25	0	0	2	97
42	8-Oct	0	0	0	5	0	0	2	95
43	15-Oct	0	0	0	2	0	0	0	78
Total		561	14	989	195	0	9	26	1,427
Total Test Fishery Catch									
20	7-May	7	0	0	0	0	0	0	0
21	14-May	0	0	0	0	0	0	0	0
22	21-May	38	1	0	0	0	0	0	0
23	28-May	62	4	0	0	0	0	0	0
24	4-Jun	38	9	1	0	0	0	0	0
25	11-Jun	112	0	3	0	0	0	0	0
26	18-Jun	263	0	154	0	0	0	0	0
27	25-Jun	57	4	289	0	0	0	0	45
28	2-Jul	64	0	771	0	0	1	0	50
29	9-Jul	46	0	580	0	6	14	0	50
30	16-Jul	8	0	357	0	9	52	0	59
31	23-Jul	1	0	89	0	6	21	0	40
32	30-Jul	7	0	74	5	3	17	6	50
33	6-Aug	1	0	42	31	4	31	2	50
34	13-Aug	3	0	4	20	3	9	6	45
35	20-Aug	0	0	0	24	0	11	4	50
36	27-Aug	0	0	2	18	1	8	9	50
37	3-Sep	0	0	3	73	2	1	13	30
38	10-Sep	0	0	7	128	0	6	13	30
39	17-Sep	0	0	0	61	0	3	13	30
40	24-Sep	0	0	2	39	0	0	5	30
41	1-Oct	0	0	0	30	0	0	3	30
42	8-Oct	0	0	0	5	0	0	2	30
43	15-Oct	0	0	0	2	0	0	0	25
Total Test Catch		933	18	2,378	436	34	174	76	5,836

<sup>a</sup> Catch of large fish includes 226 released fish in 2000.

Appendix A. 16. Weekly catch, CPUE, and migratory timing of Tahltan, Tuya, and mainstem sockeye salmon stocks in the Stikine test fishery, 2000.

Sex specific age compositions were calculated and the smoothed stock compositions of the females sampled for egg diameters was expanded to the catch by age.													
Week	Proportions			Catch			CPUE			Migratory Timing			
	Tahltan	Tuya	Mainstem	Tahltan	Tuya	Mainstem	Tahltan	Tuya	Mainstem	Total	Tahltan	Tuya	Mainstem
Drift gillnet													
27	0.401	0.533	0.066	14	18	2	0.303	0.403	0.050	0.756	0.040	0.053	0.007
28	0.222	0.655	0.123	23	69	13	0.466	1.375	0.259	2.100	0.061	0.181	0.034
29	0.267	0.329	0.403	20	24	30	0.396	0.487	0.597	1.480	0.052	0.064	0.078
30	0.193	0.132	0.675	11	8	40	0.193	0.132	0.675	1.000	0.025	0.017	0.089
31	0.180	0.011	0.809	8	0	36	0.198	0.012	0.890	1.100	0.026	0.002	0.117
32	0.135	0.000	0.865	5	0	33	0.103	0.000	0.657	0.760	0.013	0.000	0.086
33	0.071	0.000	0.929	1	0	16	0.024	0.000	0.316	0.340	0.003	0.000	0.041
34	0.000	0.000	1.000	0	0	1	0.000	0.000	0.022	0.022	0.000	0.000	0.003
35	0.000	0.000	1.000	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
36	0.000	0.000	1.000	0	0	1	0.000	0.000	0.020	0.020	0.000	0.000	0.003
37	0.000	0.000	1.000	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
38	0.000	0.000	1.000	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
39	0.000	0.000	1.000	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	1.000	0	0	1	0.000	0.000	0.033	0.033	0.000	0.000	0.004
Total				82	120	172	1.683	2.409	3.519	7.611			
Proportion <sup>a</sup>				0.220	0.320	0.460					0.221	0.317	0.462
Set gillnet													
25	0.410	0.533	0.057	1	1	0	0.008	0.010	0.001	0.019	0.002	0.002	0.000
26	0.410	0.533	0.057	1	1	0	0.008	0.010	0.001	0.019	0.002	0.002	0.000
27	0.401	0.533	0.066	49	65	8	0.291	0.387	0.048	0.726	0.060	0.079	0.010
28	0.222	0.655	0.123	80	236	44	0.351	1.037	0.195	1.583	0.072	0.213	0.040
29	0.267	0.329	0.403	63	77	94	0.261	0.321	0.393	0.975	0.053	0.066	0.081
30	0.193	0.132	0.675	34	23	120	0.147	0.100	0.515	0.762	0.030	0.021	0.106
31	0.180	0.011	0.809	8	1	36	0.067	0.004	0.303	0.375	0.014	0.001	0.062
32	0.135	0.000	0.865	5	0	31	0.029	0.000	0.185	0.214	0.006	0.000	0.038
33	0.071	0.000	0.929	2	0	23	0.011	0.000	0.138	0.149	0.002	0.000	0.028
34	0.000	0.000	1.000	0	0	3	0.000	0.000	0.015	0.015	0.000	0.000	0.003
35	0.000	0.000	1.000	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
36	0.000	0.000	1.000	0	0	1	0.000	0.000	0.006	0.006	0.000	0.000	0.001
37	0.000	0.000	1.000	0	0	2	0.000	0.000	0.014	0.014	0.000	0.000	0.003
38	0.000	0.000	1.000	0	0	3	0.000	0.000	0.011	0.011	0.000	0.000	0.002
39	0.000	0.000	1.000	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	1.000	0	0	1	0.000	0.000	0.004	0.004	0.000	0.000	0.001
Total				242	405	368	1.173	1.870	1.830	4.873			
Proportion				0.239	0.399	0.363					0.241	0.384	0.376
Additional Drifts													
24	0.410	0.533	0.057	0	1	0	0.004	0.005	0.001	0.009	0.000	0.000	0.000
25	0.410	0.533	0.057	0	1	0	0.004	0.005	0.001	0.009	0.000	0.000	0.000
26	0.410	0.533	0.057	62	81	9	0.528	0.686	0.073	1.288	0.012	0.016	0.002
27	0.401	0.533	0.066	53	71	9	2.669	3.544	0.437	6.650	0.062	0.083	0.010
28	0.222	0.655	0.123	68	200	38	3.075	9.081	1.708	13.864	0.072	0.212	0.040
29	0.267	0.329	0.403	73	90	110	3.461	4.265	5.226	12.952	0.081	0.100	0.122
30	0.193	0.132	0.675	23	16	81	1.546	1.053	5.401	8.000	0.036	0.025	0.126
37	0.000	0.000	1.000	0	0	1	0.000	0.000	0.056	0.056	0.000	0.000	0.001
38	0.000	0.000	1.000	0	0	4	0.000	0.000	0.038	0.038	0.000	0.000	0.001
39	0.000	0.000	1.000	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	1.000	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total				280	458	251	11.287	18.639	12.846	42.772			
Proportion				0.283	0.463	0.254					0.264	0.436	0.303

Appendix A. 16. Page 2 of 2.

Total Test Fishery Catches										
	Proportions			Catch			Tahltan		Wild	Planted
	Tahltan	Tuya Mainstem		Tahltan	Tuya Mainstem		Wild	Planted		
24	0.410	0.533	0.057	0	1	0	0.332	0.000	0	0
25	0.410	0.533	0.057	1	2	0	0.332	0.000	1	0
26	0.410	0.533	0.057	63	82	9	0.332	0.000	63	0
27	0.401	0.533	0.066	116	154	19	0.332	0.069	96	20
28	0.222	0.655	0.123	171	505	95	0.182	0.040	140	31
29	0.267	0.329	0.403	155	191	234	0.231	0.036	134	21
30	0.193	0.132	0.675	69	47	241	0.193	0.000	69	0
31	0.180	0.011	0.809	16	1	72	0.180	0.000	16	0
32	0.135	0.000	0.865	10	0	64	0.135	0.000	10	0
33	0.071	0.000	0.929	3	0	39	0.071	0.000	3	0
34	0.000	0.000	1.000	0	0	4	0.000	0.000	0	0
35	0.000	0.000	1.000	0	0	0	0.000	0.000	0	0
36	0.000	0.000	1.000	0	0	2	0.000	0.000	0	0
37	0.000	0.000	1.000	0	0	3	0.000	0.000	0	0
38	0.000	0.000	1.000	0	0	7	0.000	0.000	0	0
39	0.000	0.000	1.000	0	0	0	0.000	0.000	0	0
40	0.000	0.000	1.000	0	0	2	0.000	0.000	0	0
Total				885	1,441	1,042			546	115
Proportion				0.263	0.428	0.309				



Appendix A. 17. Daily counts of adult sockeye salmon passing through Tahltan Lake weir, 2000.

Date	Cumulative			Date	Cumulative		
	Count <sup>a</sup>	Count	Percent		Count	Count	Percent
9-Jul	0	0	0.0	13-Aug	7	5,757	94.7
10-Jul	0	0	0.0	14-Aug	5	5,762	94.8
11-Jul	0	0	0.0	15-Aug	4	5,766	94.9
12-Jul	0	0	0.0	16-Aug	5	5,771	95.0
13-Jul	0	0	0.0	17-Aug	7	5,778	95.1
14-Jul	0	0	0.0	18-Aug	33	5,811	95.6
15-Jul	0	0	0.0	19-Aug	6	5,817	95.7
16-Jul	0	0	0.0	20-Aug	17	5,834	96.0
17-Jul	0	0	0.0	21-Aug	4	5,838	96.1
18-Jul	0	0	0.0	22-Aug	59	5,897	97.1
19-Jul	0	0	0.0	23-Aug	33	5,930	97.6
20-Jul	0	0	0.0	24-Aug	10	5,940	97.8
21-Jul	3	3	0.0	25-Aug	50	5,990	98.6
22-Jul	565	568	9.3	26-Aug	3	5,993	98.6
23-Jul	1,230	1,798	29.6	27-Aug	2	5,995	98.7
24-Jul	1,159	2,957	48.7	28-Aug	23	6,018	99.0
25-Jul	456	3,413	56.2	29-Aug	0	6,018	99.0
26-Jul	677	4,090	67.3	30-Aug	1	6,019	99.1
27-Jul	282	4,372	72.0	31-Aug	0	6,019	99.1
28-Jul	295	4,667	76.8	1-Sep	0	6,019	99.1
29-Jul	287	4,954	81.5	2-Sep	0	6,019	99.1
30-Jul	72	5,026	82.7	3-Sep	0	6,019	99.1
31-Jul	154	5,180	85.3	4-Sep	57	6,076	100.0
1-Aug	156	5,336	87.8	5-Sep	0	6,076	100.0
2-Aug	42	5,378	88.5	6-Sep	0	6,076	100.0
3-Aug	88	5,466	90.0	7-Sep	0	6,076	100.0
4-Aug	45	5,511	90.7	8-Sep	0	6,076	100.0
5-Aug	9	5,520	90.8	9-Sep	0	6,076	100.0
6-Aug	53	5,573	91.7	10-Sep	0	6,076	100.0
7-Aug	25	5,598	92.1	11-Sep	0	6,076	100.0
8-Aug	11	5,609	92.3	12-Sep	0	6,076	100.0
9-Aug	55	5,664	93.2	13-Sep	0	6,076	100.0
10-Aug	49	5,713	94.0	14-Sep	0	6,076	100.0
11-Aug	33	5,746	94.6	15-Sep	0	6,076	100.0
12-Aug	4	5,750	94.6	16-Sep	0	6,076	100.0
			Hatchery <sup>a</sup>	Wild	Total		
Total Counted					6,076		
Fish removed for broodstock <sup>a</sup>			-347	-1,370	-1,717		
Fish removed for otolith samples <sup>b</sup>			-82	-324	-406		
Total Spawners <sup>c</sup>			801	3,152	3,953		

<sup>a</sup> A total of 842 females and 836 males was taken for broodstock ( 39 rejects included in the broodstock total).

<sup>b</sup> 406 fish were sacrificed for otolith analysis.

<sup>c</sup> weighted proportion of wild to hatchery Tahltan fish from the weir samples applied to number of spawners

Appendix A. 18. Daily counts of sockeye salmon smolt migrating through Tahltan Lake smolt weir, 2000.

Date	Cumulative			Date	Cumulative		
	Count	Count	Percent		Count	Count	Percent
7-May		0	0.0	3-Jun	17,476	434,419	70.1
8-May		0	0.0	4-Jun	1,490	435,909	70.4
9-May	17	17	0.0	5-Jun	1,941	437,850	70.7
10-May	38	55	0.0	6-Jun	633	438,483	70.8
11-May	28	83	0.0	7-Jun	69,511	507,994	82.0
12-May	57	140	0.0	8-Jun	3,119	511,113	82.5
13-May	42	182	0.0	9-Jun	887	512,000	82.7
14-May	26	208	0.0	10-Jun	7,137	519,137	83.8
15-May	96	304	0.0	11-Jun	736	519,873	83.9
16-May	34	338	0.1	12-Jun	6,342	526,215	85.0
17-May	6,112	6,450	1.0	13-Jun	9,625	535,840	86.5
18-May	273,470	279,920	45.2	14-Jun	6,470	542,310	87.6
19-May	1,215	281,135	45.4	15-Jun	8,460	550,770	88.9
20-May	6,814	287,949	46.5	16-Jun	477	551,247	89.0
21-May	8,625	296,574	47.9	17-Jun	39,111	590,358	95.3
22-May	66,283	362,857	58.6	18-Jun	1,388	591,746	95.6
23-May	3,305	366,162	59.1	19-Jun	788	592,534	95.7
24-May	1,655	367,817	59.4	20-Jun	245	592,779	95.7
25-May	2,658	370,475	59.8	21-Jun	335	593,114	95.8
26-May	17,746	388,221	62.7	22-Jun	1,157	594,271	96.0
27-May	2,035	390,256	63.0	23-Jun	246	594,517	96.0
28-May	733	390,989	63.1	24-Jun	301	594,818	96.1
29-May	425	391,414	63.2	25-Jun	10,748	605,566	97.8
30-May	1,834	393,248	63.5	26-Jun	12,314	617,880	99.8
31-May	3,658	396,906	64.1	27-Jun	1,107	618,987	100.0
1-Jun	2,869	399,775	64.6	28-Jun	250	619,237	100.0
2-Jun	17,168	416,943	67.3	29-Jun	37	619,274	100.0
	<u>Hatchery</u>	<u>Wild</u>	<u>Total</u>				
	532,700	870,295	1,402,995				

Appendix A. 19. Daily counts of adult Chinook salmon passing through Little Tahltan weir, 2000.

Date	Large Chinook			Chinook Jacks		
	Cumulative			Cumulative		
	Count	Count	Percent	Count	Count	Percent
19-Jun	0	0	0.0	0	0	0.0
20-Jun	0	0	0.0	0	0	0.0
21-Jun	0	0	0.0	0	0	0.0
22-Jun	0	0	0.0	0	0	0.0
23-Jun	9	9	0.1	1	1	0.9
24-Jun	7	16	0.2	0	1	0.9
25-Jun	0	16	0.2	0	1	0.9
26-Jun	0	16	0.2	0	1	0.9
27-Jun	0	16	0.2	0	1	0.9
28-Jun	4	20	0.3	0	1	0.9
29-Jun	3	23	0.3	2	3	2.8
30-Jun	18	41	0.6	0	3	2.8
1-Jul	78	119	1.8	1	4	3.7
2-Jul	75	194	2.9	5	9	8.3
3-Jul	75	269	4.1	3	12	11.1
4-Jul	173	442	6.7	7	19	17.6
5-Jul	299	741	11.2	2	21	19.4
6-Jul	188	929	14.0	2	23	21.3
7-Jul	72	1,001	15.1	0	23	21.3
8-Jul	29	1,030	15.5	0	23	21.3
9-Jul	76	1,106	16.7	0	23	21.3
10-Jul	99	1,205	18.1	0	23	21.3
11-Jul	134	1,339	20.2	2	25	23.1
12-Jul	100	1,439	21.7	2	27	25.0
13-Jul	80	1,519	22.9	0	27	25.0
14-Jul	106	1,625	24.5	0	27	25.0
15-Jul	52	1,677	25.3	2	29	26.9
16-Jul	220	1,897	28.6	1	30	27.8
17-Jul	221	2,118	31.9	0	30	27.8
18-Jul	443	2,561	38.6	8	38	35.2
19-Jul	355	2,916	43.9	10	48	44.4
20-Jul	367	3,283	49.4	9	57	52.8
21-Jul	280	3,563	53.7	3	60	55.6
22-Jul	210	3,773	56.8	5	65	60.2
23-Jul	265	4,038	60.8	2	67	62.0
24-Jul	159	4,197	63.2	1	68	63.0
25-Jul	339	4,536	68.3	3	71	65.7
26-Jul	198	4,734	71.3	3	74	68.5
27-Jul	232	4,966	74.8	2	76	70.4
28-Jul	166	5,132	77.3	7	83	76.9
29-Jul	59	5,191	78.2	0	83	76.9
30-Jul	145	5,336	80.4	2	85	78.7
31-Jul	120	5,456	82.2	5	90	83.3
1-Aug	137	5,593	84.2	3	93	86.1
2-Aug	178	5,771	86.9	2	95	88.0
3-Aug	55	5,826	87.7	0	95	88.0
4-Aug	139	5,965	89.8	2	97	89.8
5-Aug	158	6,123	92.2	2	99	91.7
6-Aug	133	6,256	94.2	1	100	92.6
7-Aug	131	6,387	96.2	1	101	93.5
8-Aug	14	6,401	96.4	1	102	94.4
9-Aug	59	6,460	97.3	1	103	95.4
10-Aug	57	6,517	98.1	1	104	96.3
11-Aug	56	6,573	99.0	2	106	98.1
12-Aug	4	6,577	99.1	0	106	98.1
13-Aug	25	6,602	99.4	0	106	98.1
14-Aug	9	6,611	99.6	1	107	99.1
15-Aug	15	6,626	99.8	0	107	99.1
16-Aug	8	6,634	99.9	1	108	100.0
17-Aug	5	6,639	100.0	0	108	100.0
18-Aug	1	6,640	100.0	0	108	100.0
19-Aug	0	6,640	100.0	0	108	100.0
Total Counted		6,640			108	
Broodstock <sup>a</sup>		-9				
Escapement		6,631			108	

<sup>a</sup> 9 females were taken for egg take

Appendix B. 1. Salmon catch and effort in the Alaskan District 106 commercial drift gillnet fisheries, 1960-2000.

Effort may be less than the sum of effort from 106-41/42 and 106-30 since some boats fished in more than one subdist  
Large Chinook are MEF length  $\geq$  660.

Year	Catch					Effort	
	Chinook	Sockeye	Coho	Pink <sup>a</sup>	Chum Steelhead	Permit Days	Days Open
1960	46	10,354	336	1,246	502	369	17
1961	416	20,614	14,934	124,236	64,479	1,737	57
1962	1,308	47,033	42,276	256,620	59,119	4,693	52
1963	1,560	80,767	52,103	514,596	90,103	5,589	51
1964	2,082	76,541	64,654	443,086	44,218	5,383	49
1965	1,802	87,749	75,728	625,848	27,658	4,507	51
1966	1,665	89,847	62,823	400,932	40,756	4,978	74
1967	1,318	86,385	17,670	91,609	26,370	2,511	27
1968	1,316	64,671	67,151	169,107	61,366	4,965	52
1969	877	70,318	10,280	197,073	10,903	559	31
1970	785	42,778	35,470	94,892	32,231	473	1,863
1971	1,336	53,202	48,085	527,975	37,680	585	2,774
1972	2,573	101,338	93,427	89,467	72,382	692	3,321
1973	1,931	71,995	38,447	303,621	87,729	500	3,300
1974	1,926	57,346	45,651	104,403	50,309	335	2,179
1975	2,587	32,051	30,962	203,015	23,968	222	1,649
1976	384	15,481	19,126	139,439	6,868	128	827
1977	671	67,023	8,401	419,107	13,300	65	1,381
1978	274	41,574	55,578	224,715	16,545	203	1,510
1979	2,720	66,373	28,083	648,212	35,507	319	2,703
1980	580	107,422	16,666	45,662	26,291	91	1,324
1981	1,565	182,001	22,614	437,573	34,296	187	2,926
1982	1,648	193,798	31,481	25,533	18,646	282	1,700
1983	567	48,842	62,442	208,290	20,144	261	1,453
1984	892	91,653	41,359	343,255	70,258	498	1,890
1985	1,687	264,987	91,188	584,953	69,673	1,003	2,673
1986	1,704	145,709	194,912	308,484	82,289	1,314	3,510
1987	836	136,427	34,534	243,482	42,025	489	1,767
1988	1,104	92,529	13,103	69,559	69,620	587	1,495
1989	1,544	192,734	92,385	1,101,194	67,351	394	3,222
1990	2,108	185,805	164,235	319,186	73,232	960	3,502
1991	2,055	144,104	198,160	133,566	124,630	198	3,620
1992	1,355	203,155	298,935	94,248	140,468	187	4,230
1993	992	205,955	231,038	537,960	134,601	125	4,353
1994	754	211,048	267,862	179,994	176,026	95	4,468
1995	951	207,298	170,561	448,163	300,078	110	3,657
1996	644	311,100	223,640	188,035	283,290	130	5,290
1997	1,075	168,518	77,550	789,051	186,456		3,668
1998	518	113,435	273,197	502,655	332,022		4,398
1999	518	104,878	203,262	490,716	448,367		4,943
Averages							
60-99	1,327	112,371	88,008	315,769	87,544	393	3,061
90-99	1,097	185,530	210,844	368,357	219,917	258	4,213
2000	1,220	90,076	96,207	156,619	199,836		2,409

Appendix B.1. Page 2 of 2.

Alaska Hatchery Contribution								
Year	Catch					Effort		
	Chinook	Sockeye	Coho	Pink <sup>a</sup>	Chum Steelhead	Permit Days	Days Open	
1989	512		5,029		20,277			
1990	1,009	33	50,354		27,259			
1991	608	182	64,067		47,731			
1992	658	55	112,824		47,503			
1993	305	53	77,914		42,206			
1994	402	1,580	36,805		67,111			
1995	353	4,548	27,333		72,417			
1996	324	5,799	55,218		108,764			
1997	369	1,435	19,479		79,990			
1998	290	706	101,129		118,096			
1999	189	2,257	82,828		211,082			
Averages								
90-99	451	1,665	62,795		82,216			
2000	790	1,134	48,169		71,306			
Catches not including Alaska hatchery contributions								
1989	1,032	192,734	87,356	1,101,194	47,074	394	3,222	34
1990	1,099	185,772	113,881	319,186	45,973	960	3,502	34
1991	1,447	143,922	134,093	133,566	76,899	198	3,620	39
1992	697	203,100	186,111	94,248	92,965	187	4,230	40
1993	687	205,902	153,124	537,960	92,395	125	4,353	38
1994	352	209,468	231,057	179,994	108,915	95	4,468	43
1995	598	202,750	143,228	448,163	227,661	110	3,657	34
1996	320	305,301	168,422	188,035	174,526	130	5,290	46
1997	706	167,083	58,071	789,051	106,466	0	3,668	39
1998	228	112,729	172,068	502,655	213,926	0	4,398	43
1999	329	102,621	120,434	490,716	237,285	0	4,943	50
Averages								
90-99	961	184,691	145,555	434,979	146,232	200	4,123	40.0
2000	430	88,942	48,038	156,619	128,530	0	2,409	33

Appendix B. 2. Stock proportions and catches of sockeye salmon in the Alaskan District 106 commercial drift gillnet fisheries, 1982-2000.

Catches do not include Blind Slough terminal area harvest. Data based on SPA.								
Year	Alaska	Canada	Stikine			Tahltan		
			Tahltan <sup>a</sup>	Tuya Mainstem	Total	Wild	Planted	
<b>Proportions</b>								
1982	0.486	0.319			0.194			
1983	0.668	0.217	0.103	0.013	0.116			
1984	0.658	0.269	0.029	0.044	0.074			
1985	0.479	0.419	0.091	0.011	0.102			
1986	0.689	0.293	0.014	0.004	0.018			
1987	0.827	0.155	0.010	0.007	0.017			
1988	0.874	0.106	0.020	0.001	0.020			
1989	0.657	0.311	0.006	0.026	0.032			
1990	0.608	0.371	0.005	0.016	0.021			
1991	0.545	0.331	0.100	0.024	0.124			
1992	0.595	0.232	0.070	0.102	0.172			
1993	0.400	0.338	0.098	0.164	0.262			
1994	0.579	0.254	0.142	0.025	0.167	0.108	0.033	
1995	0.316	0.560	0.081	0.001	0.124	0.044	0.036	
1996	0.531	0.268	0.166	0.028	0.201	0.147	0.019	
1997	0.576	0.271	0.058	0.079	0.153	0.037	0.021	
1998	0.598	0.307	0.015	0.080	0.095	0.013	0.002	
1999	0.671	0.092	0.057	0.061	0.237	0.054	0.003	
<b>Averages</b>								
83-99	0.604	0.282	0.063	0.037	0.114			
90-99	0.542	0.302	0.079	0.050	0.156	0.067	0.019	
2000	0.643	0.233	0.020	0.085	0.124	0.017	0.003	
<b>Catches</b>								
1982	94,275	61,853			37,670			
1983	32,603	10,589	5,020	631	5,650			
1984	60,278	24,624	2,673	4,078	6,751			
1985	126,914	111,015	24,045	3,013	27,058			
1986	100,337	42,685	2,081	606	2,687			
1987	112,893	21,190	1,376	968	2,344			
1988	80,868	9,784	1,813	64	1,877			
1989	126,603	59,959	1,111	5,061	6,172			
1990	112,983	68,921	915	2,986	3,901			
1991	78,533	47,707	14,364	3,501	17,864			
1992	120,977	47,207	14,187	20,784	34,971			
1993	82,300	69,617	20,204	33,833	54,037			
1994	122,118	53,683	29,876	5,371	35,247	22,857	7,019	
1995	65,544	116,075	16,715	125	8,839	25,679	9,182	7,533
1996	165,221	83,271	51,598	8,821	2,189	62,608	45,826	5,772
1997	97,101	45,665	9,764	13,232	2,756	25,752	6,281	3,483
1998	67,890	34,811	1,678	9,020	36	10,734	1,477	201
1999	70,363	9,696	5,988	6,427	12,404	24,819	5,700	288
<b>Averages</b>								
83-99	95,501	50,382	11,965	6,301	20,480			
90-99	98,303	57,665	16,529	7,525	9,270	29,561	15,221	4,049
2000	57,935	20,996	1,827	7,612	1,706	11,145	1,573	254

Appendix B. 3. Salmon catch and effort in the Alaskan Subdistrict 106-41/42 (Sumner Strait) commercial drift gillnet fishery, 1960-2000.

Large Chinook are MEF length  $\geq$  660.

Year	Catch					Effort		
	Chinook	Sockeye	Coho	Pink	Chum Steelhead	Permit Days	Days Open	
1960	24	9,005	277	1,103	362	251	17	
1961	75	9,488	1,851	26,435	9,657	359	48	
1962	131	19,692	6,548	45,987	9,544	811	44	
1963	310	45,305	15,727	135,503	50,380	2,311	47	
1964	316	52,943	27,338	183,402	22,913	2,344	49	
1965	679	58,736	30,570	162,271	15,763	1,658	51	
1966	690	65,721	30,792	96,287	24,235	2,080	74	
1967	668	60,148	10,573	52,284	19,626	1,463	27	
1968	1,010	50,212	46,111	82,012	39,001	2,997	52	
1969	607	46,258	6,094	92,075	6,393	482	1,147	31
1970	420	26,812	15,153	29,102	18,092	366	905	41
1971	671	33,991	24,727	283,739	19,329	363	1,619	50
1972	1,747	74,745	60,827	40,644	46,511	515	2,152	41
1973	1,540	55,254	24,921	160,297	62,486	375	2,253	26
1974	1,342	46,760	28,889	57,296	38,045	238	1,579	28
1975	467	19,319	4,650	29,340	7,762	112	515	17
1976	237	9,319	10,367	20,251	2,301	71	366	19
1977	202	47,408	1,819	51,038	4,240	33	447	17
1978	274	1,422	26,762	9,546	3,142	70	389	27
1979	458	34,807	12,087	176,395	16,816	154	952	25
1980	205	48,434	10,894	17,068	15,176	39	596	16
1981	598	132,293	13,161	220,194	25,682	156	1,732	25
1982	648	121,563	21,193	10,392	11,891	199	1,083	22
1983	268	28,153	41,208	74,347	13,001	198	875	32
1984	136	27,372	19,124	99,807	28,461	268	587	32
1985	538	172,088	50,577	319,379	45,566	664	1,726	38
1986	421	85,247	104,328	105,347	48,471	684	1,896	32
1987	441	79,165	17,776	117,059	25,877	318	978	20
1988	452	57,337	6,349	10,894	42,210	341	815	18
1989	581	107,886	55,671	418,044	40,156	268	1,716	34
1990	759	104,922	94,526	84,543	42,474	767	1,827	34
1991	844	89,355	136,990	64,334	85,435	135	2,118	39
1992	743	146,608	190,885	38,483	100,666	138	2,630	40
1993	458	129,859	134,902	296,986	96,995	107	2,728	38
1994	456	157,526	191,695	66,225	125,826	59	2,988	43
1995	663	133,713	109,613	154,004	189,369	100	2,349	34
1996	487	223,784	159,319	70,620	162,872	97	3,623	46
1997	829	118,675	52,917	414,619	100,612		2,402	39
1998	334	79,052	175,124	196,403	200,892		2,999	43
1999	397	73,378	130,083	277,194	284,807		3,294	50
Averages								
60-99	553	72,094	52,560	119,774	52,576	261	1,639	35.1
90-99	597	125,687	137,605	166,341	138,995	200	2,696	40.6
2000	558	57,863	54,232	80,014	120,111		1,522	33

Appendix B. 4. Stock proportions and catches of sockeye salmon in the Alaskan Subdistrict 106-41/42 (Sumner Strait) commercial drift gillnet fishery, 1985-2000.

Data based on scale pattern analysis.								
Year	Alaska	Canada	Stikine			Tahltan		
			Tahltan <sup>a</sup>	Tuya Mainstem	Total	Wild	Planted	
<b>Proportions</b>								
1985	0.480	0.401	0.109		0.010	0.119		
1986	0.662	0.308	0.024		0.006	0.030		
1987	0.816	0.166	0.015		0.003	0.018		
1988	0.868	0.112	0.019		0.001	0.020		
1989	0.653	0.303	0.009		0.036	0.044		
1990	0.579	0.395	0.008		0.018	0.026		
1991	0.460	0.377	0.129		0.034	0.163		
1992	0.582	0.241	0.088		0.089	0.177		
1993	0.369	0.327	0.134		0.169	0.304		
1994	0.531	0.271	0.166		0.032	0.198	0.127	0.040
1995	0.287	0.565	0.099	0.001	0.048	0.149	0.049	0.051
1996	0.479	0.245	0.228	0.039	0.009	0.276	0.203	0.025
1997	0.538	0.269	0.079	0.101	0.014	0.193	0.056	0.023
1998	0.550	0.337	0.017	0.096	0.000	0.113	0.014	0.003
1999	0.618	0.101	0.074	0.079	0.128	0.281	0.070	0.004
<b>Averages</b>								
90-99	0.499	0.313	0.102	0.063	0.054	0.188	0.086	0.024
2000	0.611	0.223	0.028	0.116	0.023	0.167	0.024	0.004
<b>Catches</b>								
1985	82,563	68,962	18,801		1,762	20,563		
1986	56,462	26,214	2,070		501	2,571		
1987	64,582	13,170	1,155		258	1,413		
1988	49,776	6,426	1,071		64	1,135		
1989	70,436	32,663	957		3,830	4,787		
1990	60,795	41,415	801		1,911	2,712		
1991	41,123	33,644	11,541		3,048	14,588		
1992	85,364	35,277	12,961		13,005	25,967		
1993	47,970	42,450	17,446		21,992	39,438		
1994	83,692	42,620	26,164		5,050	31,214	19,934	6,230
1995	38,343	75,505	13,292	125	6,448	19,865	6,514	6,778
1996	107,193	54,823	50,924	8,731	2,113	61,768	45,340	5,584
1997	63,827	31,892	9,327	11,937	1,692	22,956	6,594	2,733
1998	43,479	26,661	1,326	7,555	31	8,912	1,125	201
1999	45,335	7,420	5,425	5,786	9,412	20,623	5,159	266
<b>Averages</b>								
90-99	61,712	39,171	14,921	6,827	6,470	24,804	14,111	3,632
2000	35,327	12,875	1,617	6,727	1,317	9,661	1,363	254



Appendix B. 5. Salmon catch and effort in the Alaskan Subdistrict 106-30 (Clarence Strait) commercial drift gillnet fishery, 1960-2000.

Chinook are MEF length  $\geq$  660.

Year	Catch						Effort	
	Chinook	Sockeye	Coho	Pink	Chum Steelhead	Permit Days	Days Open	
1960	22	1,349	59	143	140	118	13	
1961	341	11,126	13,083	97,801	54,822	1,378	57	
1962	1,177	27,341	35,728	210,633	49,575	3,882	52	
1963	1,250	35,462	36,376	379,093	39,723	3,278	51	
1964	1,766	23,598	37,316	259,684	21,305	3,039	49	
1965	1,123	29,013	45,158	463,577	11,895	2,849	51	
1966	975	24,126	32,031	304,645	16,521	2,898	74	
1967	650	26,237	7,097	39,325	6,744	1,048	27	
1968	306	14,459	21,040	87,095	22,365	1,968	52	
1969	270	24,060	4,186	104,998	4,510	77	1,026	31
1970	365	15,966	20,317	65,790	14,139	107	1,025	41
1971	665	19,211	23,358	244,236	18,351	222	1,517	50
1972	826	26,593	32,600	48,823	25,871	177	1,276	41
1973	391	16,741	13,526	143,324	25,243	125	1,303	26
1974	584	10,586	16,762	47,107	12,264	97	712	28
1975	2,120	12,732	26,312	173,675	16,206	110	1,159	9
1976	147	6,162	8,759	119,188	4,567	57	527	21
1977	469	19,615	6,582	368,069	9,060	32	940	21
1978		40,152	28,816	215,169	13,403	133	1,148	16
1979	2,262	31,566	15,996	471,817	18,691	165	1,848	25
1980	375	58,988	5,772	28,594	11,115	52	749	25
1981	967	49,708	9,453	217,379	8,614	31	1,321	26
1982	1,000	72,235	10,288	15,141	6,755	83	647	21
1983	299	20,689	21,234	133,943	7,143	63	589	37
1984	756	64,281	22,235	243,448	41,797	230	1,236	24
1985	1,149	92,899	40,611	265,574	24,107	339	1,372	36
1986	1,283	60,462	90,584	203,137	33,818	630	1,664	31
1987	395	57,262	16,758	126,423	16,148	171	799	20
1988	652	35,192	6,754	58,665	27,410	246	682	19
1989	963	84,848	36,714	683,150	27,195	126	1,583	34
1990	1,349	80,883	69,709	234,643	30,758	193	1,676	34
1991	1,211	54,749	61,170	69,232	39,195	63	1,505	39
1992	612	56,547	108,050	55,765	39,802	49	1,603	40
1993	534	76,096	96,136	240,974	37,606	18	1,646	38
1994	298	53,522	76,167	113,769	50,200	36	1,606	43
1995	288	73,585	60,948	294,159	110,709	10	1,422	34
1996	157	87,316	64,321	117,415	120,418	33	1,580	39
1997	246	49,843	24,633	374,432	85,844		1,329	38
1998	184	34,383	98,073	306,252	131,130		1,522	43
1999	121	31,500	73,179	213,522	163,560		1,766	49
Averages								
60-99	774	40,277	35,447	195,995	34,968	131	1,481	35.1
90-99	500	59,842	73,239	202,016	80,922	57	1,566	39.7
2000	662	32,213	41,975	76,605	79,725		934	33

Appendix B. 6. Stock proportions and catches of sockeye salmon in the Alaskan Subdistrict 106-30 (Clarence Strait) commercial drift gillnet fishery, 1985-2000.

Data based on scale pattern analysis.								
Year	Alaska	Canada	Stikine			Tahltan		
			Tahltan <sup>a</sup>	Tuya Mainstem	Total	Wild	Planted	
Proportions								
1985	0.477	0.453	0.056		0.013	0.070		
1986	0.726	0.272	0.000		0.002	0.002		
1987	0.844	0.140	0.004		0.012	0.016		
1988	0.883	0.095	0.021		0.000	0.021		
1989	0.662	0.322	0.002		0.015	0.016		
1990	0.645	0.340	0.001		0.013	0.015		
1991	0.683	0.257	0.052		0.008	0.060		
1992	0.630	0.211	0.022		0.138	0.159		
1993	0.451	0.357	0.036		0.156	0.192		
1994	0.718	0.207	0.069		0.006	0.075	0.055	0.015
1995	0.370	0.551	0.047	0.000	0.032	0.079	0.036	0.010
1996	0.665	0.326	0.008	0.001	0.001	0.010	0.006	0.002
1997	0.668	0.276	0.009	0.026	0.021	0.056	-0.006	0.015
1998	0.710	0.237	0.010	0.043	0.000	0.053	0.010	0.000
1999	0.795	0.072	0.018	0.020	0.095	0.133	0.017	0.001
Average								
85-99	0.662	0.274	0.024	0.018	0.034	0.064		
90-99	0.633	0.283	0.027	0.018	0.047	0.083	0.020	0.007
2000	0.702	0.252	0.007	0.027	0.012	0.046	0.007	0.000
Catch								
1985	44,351	42,053	5,244		1,251	6,495		
1986	43,875	16,471	11		105	116		
1987	48,311	8,020	221		710	931		
1988	31,092	3,358	742		0	742		
1989	56,167	27,296	154		1,231	1,385		
1990	52,188	27,506	114		1,075	1,189		
1991	37,410	14,063	2,823		453	3,277		
1992	35,613	11,930	1,226		7,778	9,004		
1993	34,330	27,167	2,758		11,841	14,599		
1994	38,426	11,063	3,712		321	4,033	2,923	789
1995	27,201	40,570	3,423	0	2,391	5,814	2,668	755
1996	58,028	28,448	674	90	76	840	486	188
1997	33,274	13,773	437	1,295	1,064	2,796	-313	750
1998	24,411	8,150	352	1,465	5	1,822	352	0
1999	25,028	2,276	563	641	2,992	4,196	541	22
Average								
85-99	39,314	18,810	1,497		2,086	3,816	1,110	417
90-99	36,591	18,495	1,608	698	2,800	4,757	1,110	417
2000	22,608	8,121	210	885	389	1,484	210	0

<sup>a</sup> All Tahltan includes wild and thermally marked fish.

Appendix B. 7. Salmon catch and effort in the Alaskan District 108 commercial drift gillnet fishery, 1960-2000.

Permit days: adjusted for boats that did not fish the entire opening and are less than the sum of the permits times the days  
Chinook are MEF length  $\geq$  660.

Year	Catch					Effort		
	Chinook	Sockeye	Coho	Pink <sup>a</sup>	Chum Steelhead	Permit Days	Days Open	
1962	618	4,430	3,921	2,889	2,035		27	
1963	1,430	9,979	11,612	10,198	11,024		53	
1964	2,911	20,299	29,388	114,555	10,771		62	
1965	3,106	21,419	8,301	4,729	2,480		48	
1966	4,516	36,710	16,493	61,908	17,730		62	
1967	6,372	29,226	6,747	4,713	5,955		40	
1968	4,604	14,594	36,407	91,028	14,537		61	
1969	5,021	19,209	5,790	11,877	2,311	238	967	46
1970	3,207	15,120	18,403	20,523	12,305	109	1,222	51
1971	3,717	18,143	14,876	21,806	4,665	62	1,070	57
1972	9,332	51,734	38,520	17,153	17,363	193	2,095	64
1973	9,254	21,387	5,837	6,585	6,680	67	1,519	39
1974	8,199	2,428	16,021	4,188	2,107	57	1,178	29
1975	1,534	0	0	0	1	5	258	8
1976	1,123	18	6,056	722	124	20	372	19
1977	1,443	48,374	14,405	16,253	4,233	24	742	23
1978	531	56	32,650	1,157	1,001	60	565	12
1979	91	2,158	234	13,478	1,064	3	94	5
1980	631	14,053	2,946	7,224	6,910	8	327	22
1981	283	8,833	1,403	1,466	3,594	9	177	9
1982	1,033	6,911	19,971	16,988	741	32	494	21
1983	47	178	15,369	4,171	675	81	263	17
1984	14	1,290	5,141	4,960	1,892	4	56	9
1985	20	1,060	1,926	5,325	1,892		70	14
1986	102	4,185	7,439	4,901	5,928	5	246	25
1987	149	1,629	1,015	3,343	949	4	81	13
1988	206	1,246	12	144	3,109	9	66	8
1989	310	10,083	4,261	27,640	3,375	10	216	28
1990	557	11,574	8,218	13,822	9,382	29	359	34
1991	1,504	22,275	15,864	10,935	11,402	11	643	49
1992	967	52,717	22,127	66,742	15,458	27	1,246	51
1993	1,628	76,874	14,307	39,661	22,504	29	1,569	48
1994	1,996	97,224	44,891	35,405	27,658	47	2,199	57
1995	1,702	76,756	17,834	37,788	54,296	18	1,729	50
1996	1,717	154,150	19,059	37,651	135,623	40	2,396	57
1997	2,566	93,039	2,140	65,745	38,913		1,699	44
1998	460	22,031	19,206	39,246	41,057		947	45
1999	1,049	36,548	28,437	48,550	117,196		1,675	54
Averages								
60-99	2,209	26,525	13,611	23,039	16,288	44	880	35.8
90-99	1,415	64,319	19,208	39,555	47,349	29	1,522	48.8
2000	1,671	15,833	5,651	9,497	40,337		606	35

Appendix B.7. Page 2 of 2.

Permit days: adjusted for boats that did not fish the entire opening and are less than the sum of the permits times the days

Year	Catch					Effort		
	Chinook		Coho	Pink <sup>a</sup>	Chum Steelhead	Permit	Days	Open
Large	Sockeye	Days						
Alaska Hatchery Contribution								
1989	83		55		257			
1990	249		2,536		813			
1991	490		3,442		141			
1992	439		7,067		500			
1993	762		890		282			
1994	594		2,043		2,159			
1995	757	268	1,087		18,334			
1996	839	420	1,269		41,706			
1997	731		161		14,461			
1998	302	62	3,042		15,016			
1999	361	792	6,361		21,640			
Averages								
90-99	595	257	2,788		18,788			
2000	934	0	2,802		4,556			
Catches not including Alaska hatchery contributions								
1989	227	10,083	4,206	27,640	3,118	10	216	28
1990	308	11,574	5,682	13,822	8,569	29	359	34
1991	1,014	22,275	12,422	10,935	11,261	11	643	49
1992	528	52,717	15,060	66,742	14,958	27	1,246	51
1993	866	76,874	13,417	39,661	22,222	29	1,569	48
1994	1,402	97,224	42,848	35,405	25,499	47	2,199	57
1995	945	76,488	16,747	37,788	35,962	18	1,729	50
1996	878	153,730	17,790	37,651	93,917	40	2,396	57
1997	1,835	93,039	1,979	65,745	24,452	0	1,699	44
1998	158	21,969	16,164	39,246	26,041	0	947	45
1999	688	35,756	22,076	48,550	95,556	0	1,675	54
Averages								
90-99	1,057	64,164	16,420	39,555	36,076	20	1,522	48.8
2000	737	15,833	2,850	9,497	35,781	0	606	35

<sup>a</sup> Data not available to estimate contributions of pink salmon from Alaska hatcheries.

Appendix B. 8. Stock proportions and catches of sockeye salmon in the Alaskan District 108 commercial drift gillnet fishery, 1985-2000.

Data based on scale pattern analysis.

Year	Alaska	Canada	Stikine			Tahltan		
			Tahltan <sup>a</sup>	Tuya Mainstem	Total	Wild	Planted	
1985	0.064	0.000	0.292		0.644	0.936		
1986	0.206	0.017	0.094		0.683	0.777		
1987 <sup>b</sup>	0.125	0.000	0.438		0.437	0.875		
1988	0.213	0.039	0.178		0.571	0.749		
1989	0.117	0.054	0.034		0.795	0.829		
1990	0.395	0.128	0.111		0.366	0.477		
1991	0.173	0.118	0.395		0.314	0.709		
1992	0.163	0.051	0.258		0.528	0.786		
1993	0.231	0.114	0.256		0.399	0.655		
1994	0.326	0.208	0.362		0.103	0.466	0.246	0.116
1995	0.135	0.204	0.455	0.006	0.200	0.661	0.198	0.257
1996	0.102	0.082	0.622	0.069	0.125	0.816	0.552	0.070
1997	0.058	0.131	0.362	0.261	0.189	0.812	0.260	0.102
1998	0.115	0.108	0.189	0.244	0.343	0.777	0.182	0.008
1999	0.144	0.036	0.414	0.201	0.205	0.820	0.390	0.024
Averages								
85-99	0.171	0.086	0.297	0.156	0.393	0.743	0.305	0.096
90-99	0.184	0.118	0.342	0.156	0.277	0.698	0.305	0.096
2000	0.204	0.128	0.132	0.261	0.275	0.669	0.100	0.032
Catch								
1985	68	0	310		683	992		
1986	862	71	393		2,858	3,252		
1987	204	0	714		712	1,425		
1988	265	48	222		711	933		
1989	1,180	545	341		8,017	8,358		
1990	4,576	1,479	1,280		4,239	5,519		
1991	3,859	2,622	8,807		6,987	15,794		
1992	8,604	2,696	13,599		27,818	41,417		
1993	17,758	8,742	19,688		30,686	50,374		
1994	31,715	20,250	35,222		10,037	45,259	23,936	11,286
1995	10,374	15,641	34,950	461	15,330	50,741	15,224	19,726
1996	15,755	12,618	95,837	10,621	19,319	125,777	85,041	10,796
1997	5,381	12,152	33,644	24,288	17,574	75,506	24,144	9,500
1998	2,541	2,376	4,170	5,383	7,561	17,114	4,000	170
1999	5,255	1,313	15,134	7,360	7,486	29,980	14,258	876
Averages								
85-99	7,226	5,370	17,621	9,623	10,668	31,496	27,767	8,726
90-99	10,582	7,989	26,233	9,623	14,704	45,748	27,767	8,726
2000	3,226	2,019	2,097	4,138	4,353	10,588	1,591	506

<sup>a</sup> All Tahltan includes wild and thermally marked fish.

<sup>b</sup> There was no data available to determine the ratio of Tahltan to mainstem Stikine stocks; a 1:1 ratio was assumed.

Appendix B. 9. Salmon catch in the Alaskan District 106 and 108 test fisheries, 1984-2000.

Chinook are MEF length  $\geq$  660.

Table only includes years when test fisheries were operated.

Year	Catch					Boat Hours
	Chinook	Sockeye	Coho	Pink	Chum	
Sub-district 106-41 (Summer Strait)						
1984	13	1,370	101	975	793	5.94
1985	16	4,345	301	3,230	746	6.51
1986	23	982	177	60	248	4.14
1987	24	2,659	799	4,117	741	21.17
1988	11	1,020	89	137	772	5.04
1989	11	2,043	275	6,069	856	2.51
1990	13	2,256	432	372	552	0.29
1994	0	12	1	0	16	0.46
Sub-district 106-30 (Clarence Strait)						
1986	24	363	95	80	58	0.97
1987	1	899	589	1,705	467	16.00
1988	10	16	412	112	598	4.99
1989	4	37	464	431	329	
Total District 106						
1984	13	1,370	101	975	793	5.94
1985	16	4,345	301	3,230	746	6.51
1986	47	1,345	272	140	306	5.11
1987	25	3,558	1,388	5,822	1,208	37.17
1988	21	1,036	501	249	1,370	10.03
1989	15	2,080	739	6,500	1,185	2.51
1990	13	2,256	432	372	552	0.29
1994	0	12	1	0	16	0.46
District 108						
1984	37	641	11	822	813	
1985	33	1,258	11	465	381	2.99
1986	79	564	3	36	315	3.01
1987	30	290	13	1,957	488	3.20
1988	65	451	9	1,091	1,009	5.28
1989	15	1,038	45	2,459	283	2.64
1990	19	866	45	942	643	0.29
1991	21	893	18	390	455	6.46
1992	26	1,299	23	855	252	3.29
1993	30	303	0	18	31	1.88
1998	0	3,510	142	61	235	1.88
1999	29	4,801	217	429	1,368	1.88
2000	21	4,686	140	53	724	

Appendix B. 10. Stock proportions of sockeye salmon in the Alaskan District 106 and 108 test fisheries, 1984-2000.

Table only includes years when test fisheries were operated and catches included sockeye salmon.  
Data based on scale pattern analysis.

Year	Alaska	Canada	Stikine			Tahltan	
			Tahltan <sup>a</sup>	Tuya Mainstem	Total	Wild	Planted
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	0.167	0.083
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		
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	0.250	0.000
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	0.336
1999	0.162	0.019	0.481	0.298	0.041	0.820	0.453
2000	0.110	0.116	0.302	0.321	0.150	0.774	0.240

<sup>a</sup> All Tahltan includes thermally marked fish.

Appendix B. 11. Stock specific catches of sockeye salmon in the Alaskan District 106 and 108 test fisheries, 1984-2000.

Table only includes years when test fisheries were operated.

Data based on scale pattern analysis

Year	Alaska	Canada	Stikine			Tahltan		
			Tahltan <sup>a</sup>	Tuya Mainstem	Total	Wild	Planted	
Sub-district 106-41 (Sumner Strait) Catches								
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			
Subdistrict 106-30 (Clarence Strait) Catches								
1986	263	99	0	1	1			
1987	758	126	3	11	15			
1988	12	4	0	0	0			
1989	19	18	0	0	0			
District 106 Catches								
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	3	0	
District 108 Catches								
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	1,181	57
1999	776	89	2,309	1,430	197	3,936	2,174	135
2000	516	544	1,416	1,505	705	3,626	1,125	291

<sup>a</sup> All Tahltan includes thermally marked fish.



Appendix B. 12. Salmon and steelhead trout catch and effort in the Canadian commercial fishery in the lower Stikine River, 1979-2000.

Large Chinook are MEF length  $\geq$  660.

Year	Catch							Effort	
	Chinook		Sockeye	Coho	Pink	Chum	Steelhead	Permit	
	Large	Jacks <sup>a</sup>						Days	Days
1979 <sup>c</sup>	712	63	10,534	10,720	1,994	424	264	756.0	42.0
1980	1,488		18,119	6,629	736	771	362	668.0	41.0
1981	664		21,551	2,667	3,713	1,128	280	522.0	32.0
1982	1,693		15,397	15,904	1,782	722	828	1,063.0	71.0
1983	492	430	15,857	6,170	1,043	274	667	434.0	54.0
1984 <sup>b</sup>									
1985	256	91	17,093	2,172	2,321	532	231	145.5	22.5
1986	806	365	12,411	2,278	107	295	192	239.0	13.5
1987	909	242	6,138	5,728	646	432	217	287.0	20.0
1988	1,007	201	12,766	2,112	418	730	258	320.0	26.5
1989	1,537	157	17,179	6,092	825	674	127	325.0	23.0
1990	1,569	680	14,530	4,020	496	499	188	328.0	29.0
1991	641	318	17,563	2,638	394	208	71	282.4	39.0
1992	873	89	21,031	1,850	122	231	129	235.4	55.0
1993	830	164	38,464	2,616	29	395	63	483.8	58.0
1994	1,016	158	38,462	3,377	89	173	75	430.1	74.0
1995	1,067	599	45,622	3,418	48	256	208	534.0	59.0
1996	1,708	221	66,262	1,402	25	229	153	439.2	81.0
1997	3,283	186	56,995	401	269	222	33	569.4	89.0
1998	1,614	328	37,310	726	55	13	209	374.0	46.5
1999	2,127	789	32,556	181	11	8	14	261.3	31.0
Averages									
79-99	1,215		25,792	4,055	756	411	228	435	45
90-99	1,473	353	36,880	2,063	154	223	114	394	56
2000	1,970	240	20,472	298	181	144	89	227.0	23.3

<sup>a</sup> The lower river commercial catch in 1979 includes the upper river commercial catch.

<sup>b</sup> There was no commercial fishery in 1984.

<sup>c</sup> Chinook average for 1979-1999 is for jacks and large fish combined.

Appendix B. 13. Sockeye salmon stock proportions and catch by stock in the Canadian commercial fishery in the lower Stikine River, 1979-2000.

Stock compositions based on: scale circuli counts 1970-1983; scale pattern analysis in 1985; average of scale pattern analysis and GPA 1986; scale pattern analysis in 1987 and 1988; egg diameter and otolith thermal marks in 1989-2000.

Year	Proportions			Planted Tahltan	Catch			Tahltan	
	Tahltan	Tuya Mainstem			Tahltan	Tuya Mainstem		Wild	Planted
1979	0.433		0.567		4,561		5,973		
1980	0.309		0.691		5,599		12,520		
1981	0.476		0.524		10,258		11,293		
1982	0.624		0.376		9,608		5,789		
1983	0.422		0.578		6,692		9,165		
1984 <sup>a</sup>									
1985	0.623		0.377		10,649		6,444		
1986	0.489		0.511		6,069		6,342		
1987	0.225		0.775		1,380		4,758		
1988	0.161		0.839		2,062		10,704		
1989	0.164		0.836		2,813		14,366		
1990	0.346		0.654		5,029		9,501		
1991	0.634		0.366		11,136		6,427		
1992	0.482		0.518		10,134		10,897		
1993	0.537		0.463		20,662		17,802		
1994	0.616		0.384		23,678		14,784		
1995	0.676	0.020	0.304	0.195	30,848	893	13,881	21,936	8,912
1996	0.537	0.113	0.350	0.066	35,584	7,465	23,213	31,197	4,387
1997	0.356	0.272	0.372	0.072	20,269	15,513	21,213	16,175	4,094
1998	0.335	0.352	0.313	0.020	12,498	13,137	11,675	11,751	747
1999	0.576	0.241	0.183	0.021	18,742	7,862	5,952	18,046	696
Averages									
79-99	0.451		0.499		12,414		11,135		
90-99	0.509	0.200	0.391	0.075	18,858	8,974	13,535	19,821	3,767
2000	0.252	0.397	0.350	0.039	5,165	8,136	7,171	4,364	801

<sup>a</sup> There was no commercial fishery in 1984.

Appendix B. 14. Salmon and steelhead trout catch and effort in the Canadian commercial fishery in the upper Stikine River, 1975-2000.

Large Chinook are MEF length  $\geq$  660.

Year	Catch							Effort	
	Chinook		Sockeye	Coho	Pink	Chum	Steelhead	Permit	
	Large	Jacks <sup>a</sup>						Days	Days
1975	178		270	45	0	0	0		
1976	236		733	13	0	0	0		
1977	62		1,975	0	0	0	0		
1978	100		1,500	0	0	0	0		
1979 <sup>b</sup>									
1980	156		700	40	20	0	0		
1981	154		769	0	0	0	0	11.0	5.0
1982	76		195	0	0	0	0	8.0	4.0
1983	75		614	0	0	4	1	10.0	8.0
1984 <sup>c</sup>									
1985	62		1,084	0	0	0	0	14.0	6.0
1986	104	41	815	0	0	0	0	19.0	7.0
1987	109	19	498	0	0	19	0	20.0	7.0
1988	175	46	348	0	0	0	0	21.5	6.5
1989	54	17	493	0	0	0	0	14.0	7.0
1990	48	20	472	0	0	0	0	15.0	7.0
1991	117	32	761	0	0	0	0	13.0	6.0
1992	56	19	822	0	0	0	0	28.0	13.0
1993	44	2	1,692	0	0	0	2	48.0	22.0
1994	76	1	2,466	0	1	0	0	68.0	50.0
1995	9	17	2,355	0	0	0	0	54.0	25.0
1996	41	44	1,101	0	0	0	0	75.0	59.0
1997	45	6	2,199	0	0	0	0	42.0	29.0
1998	12	0	907	0	0	0	0	19.0	19.0
1999	24	12	625	0	0	0	0	19.0	18.0
Averages									
75-99	95		1,017	4	1	1	0	28	17
90-99	47	15	1,340	0	0	0	0	38	25
2000	7	2	889	0	0	0	0	19.8	9.3

<sup>a</sup> Jacks as reported by fishery and loosely based on "small" fish ~2.5-3.0 kg; the jack catch may or may not correspond with the actual catch of jacks. A jack is defined as a fish measuring 660<MEF or <735 FL.

<sup>b</sup> Catches in 1979 were included in the lower river commercial catches.

<sup>c</sup> There was no commercial fishery in 1984.

<sup>d</sup> Chinook averages only since 1986 when large fish and jacks were recorded separately.

Appendix B. 15. Salmon and steelhead trout catch in the Canadian Aboriginal fishery located at Telegraph Creek, on the Stikine River, 1972-2000.

Large Chinook are MEF length  $\geq$  660.

Year	Catch						
	Chinook		Sockeye	Coho	Pink	Chum Steelhead	
	Large	Jacks <sup>a</sup>					
1972			4,373	0	0	0	0
1973	200		3,670	0	0	0	0
1974	100		3,500	0	0	0	0
1975	1,024		1,982	5	0	0	0
1976	924		2,911	0	0	0	0
1977	100		4,335	0	0	0	0
1978	400		3,500	0	0	0	0
1979	850		3,000	0	0	0	0
1980	587		2,100	100	0	0	0
1981	586		4,697	200	144	0	4
1982	618		4,948	40	60	0	0
1983	851	215	4,649	3	77	26	46
1984	643	59	5,327	1	62	0	2
1985	793	94	7,287	3	35	4	9
1986	1,026	569	4,208	2	0	12	2
1987	1,183	183	2,979	3	0	8	2
1988	1,178	197	2,177	5	0	3	3
1989	1,078	115	2,360	6	0	0	0
1990	633	259	3,022	17	0	0	11
1991	753	310	4,439	10	0	0	0
1992	911	131	4,431	5	0	0	3
1993	929	142	7,041	0	0	0	2
1994	698	191	4,167	4	0	0	9
1995	570	244	5,490	0	0	7	62
1996	722	156	6,918	2	0	3	30
1997	1,155	94	6,365	0	0	0	0
1998	538	95	5,586	0	0	0	0
1999	765	463	4,874	0	0	0	0
2000	1,109	386	6,107	3	0	0	14
Averages							
72-99	833		4,298	15	14	2	7
90-99	767	209	5,233	4	0	1	12
2000	1,109	386	6,107	3	0	0	14

<sup>a</sup> Jacks as reported by fishery and loosely based on "small" fish ~2.5-3.0 kg; the jack catch may or may not correspond with the actual catch of jacks. A jack is defined as a fish measuring 660<MEF or <735 FL.

<sup>b</sup> Chinook averages only since 1983 when large fish and jacks were recorded separately.

Appendix B. 16. Stock specific sockeye salmon catches in the Canadian upper river commercial and Aboriginal fisheries in the Stikine River, 1972-2000.

Year	Upper River Commercial					Aboriginal Fishery				
	Tahltan		Tahltan			Tahltan		Tahltan		
			Wild	Planted	Wild			Planted		
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 <sup>a</sup>						2,700		300		
1980	630		70			1,890		210		
1981	692		77			4,227		470		
1982	176		20			4,453		495		
1983	553		61			4,184		465		
1984 <sup>b</sup>						4,794		533		
1985	976		108			6,558		729		
1986	734		82			3,787		421		
1987	448		50			2,681		298		
1988	313		35			1,959		218		
1989	444		49			2,124		236		
1990	425		47			2,720		302		
1991	685		76			3,995		444		
1992	740		82			3,988		443		
1993	1,523		169			6,337		704		
1994	2,219		247	1,904	315	3,750		417	3,217	533
1995	2,120	60	176	1,508	612	4,941	139	410	3,514	1,427
1996	945	150	6	824	121	5,802	972	144	4,931	871
1997	1,152	834	213	914	238	3,318	2,403	644	2,631	687
1998	363	517	27	336	27	2,352	3,103	131	2,227	125
1999	359	206	60	356	3	3,038	1,423	413	2,903	135
Averages										
72-99	849		91			3,623		388		
90-99	1,053	353	110	974	219	4,024	1,608	405	3,237	630
2000	224	581	84	224	0	1,733	3,989	385	1,681	52

<sup>a</sup> Catches in 1979 were included in the lower river commercial catches.

<sup>b</sup> There was no commercial fishery in 1984.

Appendix B. 17. Salmon and steelhead trout catch in the combined Canadian net fisheries in the Stikine River, 1972-2000.

Year	Catch						
	Chinook		Sockeye	Coho	Pink	Chum	Steelhead
	Large	Jacks <sup>b</sup>					
1972	0		4,373	0	0	0	0
1973	200		3,670	0	0	0	0
1974	100		3,500	0	0	0	0
1975	1,202		2,252	50	0	0	0
1976	1,160		3,644	13	0	0	0
1977	162		6,310	0	0	0	0
1978	500		5,000	0	0	0	0
1979	1,562	63	13,534	10,720	1,994	424	264
1980	2,231		20,919	6,769	756	771	362
1981	1,404		27,017	2,867	3,857	1,128	284
1982	2,387		20,540	15,944	1,842	722	828
1983	1,418	645	21,120	6,173	1,120	304	714
1984 <sup>a</sup>	643	59	5,327	1	62	0	2
1985	1,111	185	25,464	2,175	2,356	536	240
1986	1,936	975	17,434	2,280	107	307	194
1987	2,201	444	9,615	5,731	646	459	219
1988	2,360	444	15,291	2,117	418	733	261
1989	2,669	289	20,032	6,098	825	674	127
1990	2,250	959	18,024	4,037	496	499	199
1991	1,511	660	22,763	2,648	394	208	71
1992	1,840	239	26,284	1,855	122	231	132
1993	1,803	308	47,197	2,616	29	395	67
1994	1,790	350	45,095	3,381	90	173	84
1995	1,646	860	53,467	3,418	48	263	270
1996	2,471	421	74,281	1,404	25	232	183
1997	4,483	286	65,559	401	269	222	33
1998	2,164	423	43,803	726	55	13	209
1999	2,916	1,264	38,055	181	11	8	14
Averages							
72-99	1,964		23,556	2,914	554	297	170
90-99	2,287	577	43,453	2,067	154	224	126
2000	3,086	628	27,468	301	181	144	103

<sup>a</sup> There was no commercial fishery in 1984.

<sup>b</sup> Chinook averages only since 1983 when large fish and jacks were recorded separately.

Appendix B. 18. Salmon catches in the Stikine River harvested under Canadian ESSR licenses, 1992-2000.

Year	Tahltan Area			Tuya Area				
	Catch			Tahltan	Tuya Mainstem	Tahltan		Total
	Total	Wild	Planted			Wild	Planted	
1993	1,752	1,714	38					0
1994	6,852	5,682	1,170					0
1995	10,740	6,680	4,060					0
1996	14,339	12,667	1,672		216			216
1997					2,015			2,015
1998					6,103			6,103
1999					2,822			2,822
2000					1,283			1,283
Salmon taken for otolith samples when ESSR not operated.								
1997	378	302	76					
1998	390	364	26					
1999	429	404	25					
2000	406	324	82					

Appendix B. 19. Salmon and steelhead trout catches and effort in Canadian test fisheries in the Stikine River, 1985-2000.

Large Chinook are MEF length $\geq$ 660.								
Year	Catches							Effort
	Chinook		Sockeye	Coho	Pink	Chum	Steelhead	Drift=#
Large	Jacks <sup>a</sup>	Set=hr.						
Drift Test Fishery Catches								
1985								
1986	27	12	412	226	8	25	0	405
1987 <sup>b</sup>	128		385	162	111	61	0	845
1988	168	14	325	75	9	33	7	720
1989	116	4	364	242	41	46	5	870
1990	167	6	447	134	5	29	6	673
1991	90	1	503	118	37	30	3	509
1992	135	27	393	75	13	23	7	312
1993	94	11	440	37	6	18	7	304
1994	43	4	179	71	6	20	7	175
1995	18	13	297	35	4	12	4	285
1996	42	5	262	55	4	55	10	245
1997	30	7	245	11	9	15	2	210
1998	25	11	190	207	20	40	24	820
1999	53	43	410	312	11	17	25	1,006
Averages								
85-99	81	12	347	126	20	30	8	527
90-99	70	13	337	106	12	26	10	454
2000	59	4	374	60	9	45	23	694
Set Test Fishery Catches								
1985			1,340					
1986								
1987 <sup>b</sup>	61		1,283	620	587	193	0	1,456
1988	101	15	922	130	23	65	14	1,380
1989	101	20	1,243	502	249	103	17	1,392
1990	64	12	1,493	271	42	48	18	1,212
1991	77	15	1,872	127	197	48	1	1,668
1992	62	21	1,971	193	56	43	19	1,249
1993	85	11	1,384	136	6	63	6	1,224
1994	74	34	414	0	0	0	0	456
1995	61	35	850	166	5	41	14	888
1996	64	40	338	0	0	0	1	312
1997								
1998								
1999	49	16	803	64	6	10	11	1,577
Averages								
85-99	73	22	1,159	201	106	56	9	1,165
90-99	67	23	1,141	120	39	32	9	1,073
2000	87	0	1,015	181	25	120	27	3,715



Appendix B.19. Page 2 of 2.

Year	Catches							Effort Drift=# Set=hr.
	Chinook		Sockeye	Coho	Pink	Chum Steelhead		
	Large	Jacks <sup>a</sup>						
Additional Test Fishery Catches								
1992	417	134	594	0	0	0	0	85
1993	389	65	1,925	2	1	3	2	266
1994	178	40	840	0	0	0	0	131
1995	169	136	1,423	26	1	9	1	222
1996	192	31	712	0	0	0	0	138
1997								
1998								
1999	751	38	4,683	16	18	2	7	531
Averages								
92-99	349	74	1,696	7	3	2	2	172
2000	787	14	989	195	0	9	26	1,427
Total Test Fishery Catches								
1985	0	0	1,340	0	0	0	0	
1986	27	12	412	226	8	25	0	
1987	189	30	1,668	782	698	254	0	
1988	269	29	1,247	205	32	98	21	
1989	217	24	1,607	744	290	149	22	
1990	231	18	1,940	405	47	77	24	
1991	167	16	2,375	245	234	78	4	
1992	614	182	2,958	268	69	66	26	
1993	568	87	3,749	175	13	84	15	
1994	295	78	1,433	71	6	20	7	
1995	248	184	2,570	227	10	62	19	
1996	298	76	1,312	55	4	55	11	
1997	30	7	245	11	9	15	2	
1998	25	11	190	207	20	40	24	
1999	853	97	5,896	392	35	29	43	
Averages								
85-99	269	57	1,929	268	98	70	15	
90-99	333	76	2,267	206	45	53	18	
2000 <sup>c</sup>	933	18	2,378	436	34	174	76	

<sup>a</sup> Jacks as reported by fishery and loosely based on "small" fish ~2.5-3.0 kg until 2000.

Estimated jack catch based on sampling, i.e. jack<660 mef or <735 fl. Post 2000 the jack catch was based on sampling. A jack chinook is defined as a chinook <660 MEF or 735 FL

<sup>b</sup> 1987 jack chinook catch was for both set and drift nets.

<sup>c</sup> Catch of large fish includes 226 released fish in 2000.

Appendix B. 20. Sockeye salmon stock proportions and catch by stock in the test fishery in the lower Stikine River, 1985-2000.

Stock composition date from; scale pattern analysis 1985; average of scale pattern analysis and GPA 1986-1988; egg diameter and thermal mark otoliths 1989-2000.

Year	Catch					Proportions			
	Tahltan		Tuya Mainstem	Marked Tahltan	Tahltan		Average <sup>a</sup>		Tuya Mainstem
	U.S.	Canada			U.S.	Canada	Tahltan	Tuya Mainstem	
1985	560	439		841	0.418	0.328	0.372	0.628	
1986	164	127		267	0.398	0.308	0.352	0.648	
1987	513	397		1,213	0.308	0.238	0.273	0.727	
1988	408	295		895	0.327	0.237	0.282	0.718	
1989		414		1,192		0.258	0.258	0.742	
1990		822		1,058		0.454	0.454	0.546	
1991		1,443		931		0.608	0.608	0.392	
1992		1,912		1,046		0.646	0.646	0.354	
1993		2,184		1,564		0.583	0.583	0.417	
1994		1,228		205		0.857	0.857	0.143	
1995		2,064	20	486	729	0.803	0.803	0.008	0.189
1996		875	116	321	108	0.667	0.667	0.088	0.245
1997		97	54	94	20	0.396	0.396	0.220	0.384
1998		70	51	69	4	0.368	0.368	0.268	0.363
1999		3,031	1,564	1,301	113	0.514	0.514	0.265	0.221
Averages									
85-99							0.496	0.170	0.448
90-99							0.590	0.170	0.325
2000		605	982	791	94	0.254	0.254	0.413	0.333

<sup>a</sup> Average proportions were from averages of weekly estimates.

Appendix B. 21. Estimated proportion of inriver run comprised of Tahltan, Tuya, and mainstem sockeye salmon stocks, 1979-2000.

Stock compositions based on: scale circuli counts 1979-1983; SPA in 1985; avg of SPA and GPA 1986-1988; and egg diameter and otolith analysis in 1989-2000. 1994-2000 data from comm catch.

Year	Tahltan		Average <sup>a</sup>		
	U.S.	Canada	Tahltan	Tuya	Mainstem
1979	0.433		0.433		0.567
1980	0.305		0.305		0.695
1981	0.475		0.475		0.525
1982	0.618		0.618		0.382
1983	0.489	0.423	0.456		0.544
1984	0.635	0.394	0.493		0.507
1985	0.621	0.363	0.466		0.534
1986	0.398	0.500	0.449		0.551
1987	0.338	0.257	0.304		0.696
1988	0.209	0.122	0.172		0.828
1989		0.188	0.188		0.812
1990		0.417	0.417		0.583
1991		0.561	0.561		0.439
1992		0.496	0.496		0.504
1993		0.477	0.477		0.523
1994		0.606	0.606		0.394
1995		0.578	0.578	0.016	0.406
1996		0.519	0.519	0.104	0.377
1997		0.297	0.297	0.229	0.474
1998		0.309	0.309	0.348	0.344
1999		0.545	0.545	0.245	0.209
Averages					
79-99			0.436		0.519
90-99			0.481	0.188	0.425
2000		0.260	0.260	0.391	0.349

<sup>a</sup> Average proportions were from averages of weekly stock composition and migratory timing (from drift test fishery) estimates.

Appendix B. 22. Counts of adult sockeye salmon migrating through Tahltan Lake weir, 1959-2000.

Year	Weir Installed	Date of Arrival			Total Count	Brood-stock	Samples or ESSR	Otolith Samples	Spawners		
		First	50%	90%					Total	Natural Hatchery	
1959	30-Jun	2-Aug	12-Aug	16-Aug	4,311						
1960	15-Jul	2-Aug	24-Aug	27-Aug	6,387						
1961	20-Jul	9-Aug	11-Aug	15-Aug	16,619						
1962	1-Aug	2-Aug	5-Aug	8-Aug	14,508						
1963 <sup>a</sup>	3-Aug				1,780						
1964	23-Jul	26-Jul	14-Aug	25-Aug	18,353						
1965 <sup>b</sup>	19-Jul	18-Jul	2-Sep	7-Sep	1,471						
1966	12-Jul	3-Aug	13-Aug	21-Aug	21,580						
1967	11-Jul	14-Jul	21-Jul	28-Jul	38,801						
1968	11-Jul	21-Jul	25-Jul	8-Aug	19,726						
1969	7-Jul	11-Jul	18-Jul	31-Jul	11,805						
1970	5-Jul	25-Jul	1-Aug	11-Aug	8,419						
1971	12-Jul	19-Jul	28-Jul	12-Aug	18,523						
1972	13-Jul	13-Jul	19-Jul	31-Aug	52,545						
1973	10-Jul	24-Jul	30-Jul	7-Aug	2,877						
1974	3-Jul	28-Jul	3-Aug	17-Aug	8,101						
1975	10-Jul	25-Jul	8-Aug	17-Aug	8,159						
1976	16-Jul	29-Jul	1-Aug	6-Aug	24,111						
1977	6-Jul	11-Jul	16-Jul	10-Aug	42,960						
1978	10-Jul	10-Jul	20-Jul	29-Jul	22,788						
1979	9-Jul	23-Jul	1-Aug	11-Aug	10,211						
1980	4-Jul	15-Jul	22-Jul	12-Aug	11,018						
1981	30-Jun	16-Jul	26-Jul	3-Aug	50,790						
1982	2-Jul	10-Jul	19-Jul	29-Jul	28,257						
1983	27-Jun	5-Jul	22-Jul	5-Aug	21,256						
1984	20-Jun	19-Jul	24-Jul	3-Aug	32,777						
1985	28-Jun	18-Jul	31-Jul	6-Aug	67,326						
1986	10-Jul	26-Jul	4-Aug	11-Aug	20,280						
1987	14-Jul	21-Jul	4-Aug	13-Aug	6,958						
1988	16-Jul	16-Jul	6-Aug	14-Aug	2,536						
1989	7-Jul	9-Jul	1-Aug	14-Aug	8,316	2,210			6,106		
1990	6-Jul	15-Jul	26-Jul	3-Aug	14,927	3,302			11,625		
1991	30-Jun	17-Jul	25-Jul	7-Aug	50,135	3,552			46,583		
1992	9-Jul	18-Jul	25-Jul	3-Aug	59,907	3,694			56,213		
1993	7-Jul	10-Jul	28-Jul	10-Aug	53,362	4,506	1,752		47,104	46,074	1,030
1994	7-Jul	14-Jul	30-Jul	9-Aug	46,363	3,378	6,852		36,133	29,961	6,172
1995	8-Jul	9-Jul	24-Jul	12-Aug	42,317	4,902	10,740		26,675	16,591	10,084
1996	6-Jul	14-Jul	22-Jul	4-Aug	52,500	4,402	14,339		33,759	29,823	3,936
1997	9-Jul	15-Jul	25-Jul	26-Aug	12,483	2,294		378	9,811	7,829	1,982
1998	9-Jul	11-Jul	25-Jul	26-Aug	12,658	3,099		390	9,169	8,553	616
1999	10-Jul	19-Jul	31-Jul	13-Aug	10,748	2,870		429	7,449	6,952	497
Averages											
59-99	11-Jul	19-Jul	30-Jul	11-Aug	23,389						
90-99	11-Jul	14-Jul	26-Jul	11-Aug	35,540	3,600	4,983		28,452	20,826	3,474
2000	9-Jul	21-Jul	25-Jul	3-Aug	6,076	1,717		406	3,953	3,152	801

<sup>a</sup> Daily counts unavailable.

<sup>b</sup> A slide occurred blocking the entrance for a while.

Appendix B. 23. Aerial survey counts of Mainstem sockeye salmon stocks in the Stikine River drainage, 1984-2000.

The index represents the combined counts from eight spawning areas.

Year	Chutine River	Scud River	Porcupine Slough	Christina Creek	Craig River	Bronson Slough	Verrett Creek	Verrett Slough <sup>b</sup>	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
Averages									
84-99	132	367	68	34	25	50	193	95	894
90-99	115	369	73	27	7	49	140	98	853
2000 <sup>a</sup>	47	86	86			32	0	90	341

<sup>a</sup> Survey conditions were exceptionally poor; therefore, the counts probably did reflect relative abundance.

<sup>b</sup> Verrett Slough inundated with turbid Iskut water in 2002-2004.

Appendix B. 24. Estimates of sockeye salmon smolt migrating through Tahltan Lake smolt weir, 1984-2000.

Year	Weir Installed	Date of Arrival			Total Count	Total Estimate	Date and Expansion	Smolt	
		First	50%	90%				Natural	Hatchery
1984	10-May	11-May	23-May	6-Jun		218,702			
1985	25-Apr	23-May	31-May	28-May		613,531			
1986	8-May	10-May	31-May	7-Jun		244,330			
1987 <sup>a</sup>	7-May	15-May	23-May	24-May		810,432			
1988	1-May	8-May	20-May	6-Jun		1,170,136			
1989	5-May	8-May	22-May	6-Jun		580,574			
1990 <sup>b</sup>	5-May	15-May	29-May	5-Jun	595,147	610,407	6/14 97.5%		
1991 <sup>c</sup>	5-May	14-May	21-May	30-May	1,439,676	1,487,265	6/13 96.8%	1,220,397	266,868
1992 <sup>d</sup>	7-May	13-May	21-May	27-May	1,516,150	1,555,026	6/14 97.5%	750,702	804,324
1993	7-May	11-May	17-May	22-May		3,255,045		2,855,562	399,483
1994	8-May	8-May	16-May	12-Jun		915,119		620,809	294,310
1995	5-May	6-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	7-May	11-May	23-May	30-May		518,202		348,685	169,517
1998	7-May	8-May	25-May	5-Jun		540,866		326,420	214,446
1999	6-May	10-May	9-Jun	15-Jun		762,033		468,488	293,545
Averages									
84-99	05-May	11-May	23-May	02-Jun		978,949		974,012	294,330
90-99	06-May	10-May	22-May	02-Jun		1,202,548		974,012	294,330
2000	7-May	9-May	22-May	17-Jun		619,274		355,618	263,656

<sup>a</sup> Estimate includes approximately 30,000 mortalities from overcrowding on May 22, 1987.

<sup>b</sup> Estimate of 595,147 on June 14 expanded by average % of outmigration by date (97.5%) from historical data.

<sup>c</sup> Estimate of 1,439,673 on June 13 expanded by average % of outmigration by date (96.8%) from historical data.

<sup>d</sup> Estimate of 1,516,150 on June 14 expanded by average % of outmigration by date (97.5%) from historical data.

Appendix B. 25. Weir counts of Chinook salmon at Little Tahltan River, 1985-2000.

Large Chinook are MEF length  $\geq$  660.

Year	Weir Installed	Date of Arrival			Total Broodstock Count	Natural and Other Spawners	Total Natural Spawners
		First	50%	90%			
Large Chinook							
1985	3-Jul	4-Jul	30-Jul	6-Aug	3,114		3,114
1986	28-Jun	29-Jun	21-Jul	5-Aug	2,891		2,891
1987	28-Jun	4-Jul	24-Jul	2-Aug	4,783		4,783
1988	26-Jun	27-Jun	18-Jul	3-Aug	7,292		7,292
1989	25-Jun	26-Jun	23-Jul	2-Aug	4,715		4,715
1990	22-Jun	29-Jun	23-Jul	4-Aug	4,392		4,392
1991	23-Jun	25-Jun	20-Jul	3-Aug	4,506		4,506
1992	24-Jun	4-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	2-Aug	6,387	-14	6,373
1995	17-Jun	20-Jun	17-Jul	4-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
Averages							
85-99	22-Jun	27-Jun	20-Jul	01-Aug	5,282		5,278
90-99	18-Jun	25-Jun	18-Jul	31-Jul	5,643		5,637
2000	19-Jun	23-Jun	21-Jul	5-Aug	6,640	-9	6,631
Jack Chinook							
1985	3-Jul	4-Jul	31-Jul	10-Aug	316		3,430
1986	28-Jun	3-Jul	25-Jul	6-Aug	572		3,463
1987	28-Jun	3-Jul	26-Jul	6-Aug	365		5,148
1988	26-Jun	27-Jun	17-Jul	2-Aug	327		7,619
1989	25-Jun	26-Jun	23-Jul	2-Aug	199		4,914
1990	22-Jun	5-Jul	22-Jul	30-Jul	417		4,809
1991	23-Jun	3-Jul	24-Jul	7-Aug	313		4,819
1992	24-Jun	12-Jul	22-Jul	30-Jul	131		6,758
1993	20-Jun	30-Jun	14-Jul	1-Aug	60		11,509
1994	18-Jun	2-Jul	22-Jul	5-Aug	121		6,508
1995	17-Jun	22-Jun	28-Jul	10-Aug	135		3,207
1996	17-Jun	12-Jul	25-Jul	5-Aug	22		4,843
1997	14-Jun	26-Jun	21-Jul	1-Aug	54		5,611
1998	13-Jun	26-Jun	20-Jul	7-Aug	37		4,916
1999	18-Jun	1-Jul	23-Jul	6-Aug	202		4,940
Averages							
85-99	21-Jun	01-Jul	22-Jul	04-Aug	218		5,500
90-99	18-Jun	01-Jul	22-Jul	04-Aug	149		5,792
2000	19-Jun	23-Jun	20-Jul	5-Aug	108		6,748

## Appendix B. 26. Index counts of Stikine Chinook salmon escapements, 1979-2000.

Chinook are MEF length  $\geq$  660; index does not include jacks.

Year	Inriver		Marine	Total	% to	Little Tahltan		Tahltan	Beatty	Andrew Creek		
	Run <sup>a</sup>	Invrier <sup>b</sup> Catches Escapement <sup>a</sup>				Catch <sup>b</sup>	Run <sup>c</sup>	Little Tahltan	Weir	Aerial	Aerial	Aerial
1979							1,166	2,118			327	
1980							2,137	960	122		282	
1981							3,334	1,852	558		536	
1982							2,830	1,690	567		672	
1983							594	453	83		366	
1984							1,294		126		389	
1985							3,114	1,598	1,490	147	320	
1986							2,891	1,201	1,400	183	708	
1987							4,783	2,706	1,390	312	788	
1988							7,292	3,796	4,384	593	564	
1989							4,715	2,527		362	530	
1990							4,392	1,755	2,134	271	664	
1991							4,506	1,768	2,445	193	400	
1992							6,627	3,607	1,891	362	778	
1993							11,437	4,010	2,249	757	1,060	
1994							6,373	2,422		184	572	
1995							3,072	1,117	696	152	343	
1996	31,718	2,769	28,949		0.167		4,821	1,920	772	218	335	664
1997	31,509	4,513	26,996		0.205		5,547	1,907	260	218	293	478
1998	28,133	2,165	25,968		0.188		4,873	1,385	587	125	487	974
1999	23,716	3,769	19,947		0.237		4,733	1,379			605	1,210
Averages												
79-99							5,278	2,117	1,575	291	553	
90-99			25,465				5,638	2,127	1,379	276	554	
2000	30,301	2,770	27,531		0.241		6,631	2,720			690	1,380

<sup>a</sup> Generated from a mark-recapture study (ADF&G fisheries data series)

<sup>b</sup> As reported in the mark-recapture reports

<sup>c</sup> From jointly accepted US and Canadian catch estimates

<sup>d</sup> Terminal run does not included chinook catches taken beyond the Stikine River or District 108.

## Appendix B. 27. Index counts of Stikine coho salmon escapements, 1984-2000.

Missing data due to poor survey conditions.

Year	Date	Katete		Craig	Verrett	Bronson		Scud		Total
		West	Katete			Slough	Slough	Porcupine	Christina	
1984	30-Oct	147	313	0	15	42				517
1985	25-Oct	590	1,217	735	39	0	924	365		3,870
1988	28-Oct	32	227		175		97	53	0	584
1989	29-Oct	336	896	992	848	120	707	90	55	4,044
1990	30-Oct	94	548	810	494		664	430		3,040
1991	29-Oct	302	878	985	218		221	352		2,956
1992	29-Oct	295	1,346	949	320		462	316		3,688
1993	30-Oct						206	324		
1994	1-Nov	28	652	1,026	466		448	1,105		3,725
1995	30-Oct	211	208	1,419	574		621	719		3,752
1996	30-Oct	163	232	205	549		630	1,466		3,245
1997	1-Nov	2	0	19	116		272	648		1,057
1998	30-Oct	14	63	141	282		143	450		1,093
1999	5-Nov	163	773	891	490		661	894		3,872
Average										
84-99	30-Oct	183	566	681	353		466	555		2,726
90-99	30-Oct	141	522	716	390		433	670		2,936
2000	2-Nov				5		95	206		306



Appendix B. 28. Stikine River sockeye salmon run size, 1979-2000.

Catches include test fishery catches.

Year	Inriver Run			Inriver		Marine	Total
	Canada	U.S.	Average <sup>a</sup>	Catch	Escapement <sup>b</sup>	Catch	Run
1979		40,353	40,353	13,534	26,819	8,299	48,652
1980		62,743	62,743	20,919	41,824	23,206	85,949
1981		138,879	138,879	27,017	111,862	27,538	166,417
1982		68,761	68,761	20,540	48,221	42,408	111,169
1983	77,260	66,838	71,683	21,120	50,563	5,772	77,455
1984	95,454	59,168	76,211	5,327	70,884	7,736	83,947
1985	237,261	138,498	184,747	26,804	157,943	29,747	214,494
1986			69,036	17,846	51,190	6,420	75,456
1987			39,264	11,283	27,981	4,085	43,350
1988			41,915	16,538	25,377	3,181	45,096
1989			75,054	21,639	53,415	15,492	90,546
1990			57,386	19,964	37,422	9,856	67,242
1991			120,152	25,138	95,014	34,323	154,476
1992			154,542	29,242	125,300	77,394	231,936
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
1996			184,400	90,148	94,252	188,385	372,785
1997			125,657	67,819	57,838	101,258	226,915
1998			90,459	50,096	40,363	30,989	121,448
1999			65,879	46,773	19,106	58,735	124,614
Averages							
79-99			100,622	33,609	67,012	44,613	145,234
90-99			124,441	50,323	74,118	76,250	200,691
2000			53,145	31,129	22,016	25,359	78,504
Tahltan sockeye run size							
1979			17,472	7,261	10,211	5,076	22,548
1980			19,137	8,119	11,018	11,239	30,376
1981			65,968	15,178	50,790	16,189	82,157
1982			42,493	14,236	28,257	20,918	63,412
1983			32,684	11,428	21,256	5,073	37,758
1984			37,571	4,794	32,777	3,102	40,673
1985			86,008	18,682	67,326	25,197	111,205
1986			31,015	10,735	20,280	2,757	33,771
1987			11,923	4,965	6,958	2,259	14,182
1988			7,222	4,686	2,536	2,129	9,351
1989			14,110	5,794	8,316	1,561	15,671
1990			23,923	8,996	14,927	2,307	26,230
1991			67,394	17,259	50,135	23,612	91,006
1992			76,681	16,774	59,907	28,218	104,899
1993			84,068	32,458	51,610	40,036	124,104
1994			77,239	37,728	39,511	65,101	142,340
1995			82,290	50,713	31,577	51,665	133,955
1996			95,706	57,545	38,161	147,435	243,141
1997			37,319	24,836	12,483	43,408	80,727
1998			27,941	15,283	12,658	7,086	35,027
1999			35,918	25,170	10,748	23,431	59,349
Averages							
79-99			46,385	18,754	27,631	25,132	71,516
90-99			60,848	28,796	32,052	43,230	104,078
2000			13,803	7,727	6,076	5,340	19,143

Appendix B.28. Page 2 of 2.

Year	Inriver Run			Inriver		Marine	Total
	Canada	U.S.	Average <sup>a</sup>	Catch	Escapement <sup>b</sup>	Catch	Run
Tuya sockeye run size							
1995			2,216	1,112	1,104	586	2,802
1996			19,158	8,919	10,239	19,442	38,600
1997			28,738	20,819	7,919	37,520	66,258
1998			31,442	22,911	8,531	15,941	47,383
1999			16,165	13,877	2,288	15,217	31,382
Averages							
95-99			19,544	13,528	6,016	17,741	37,285
2000			20,779	14,971	5,808	13,255	34,034
Mainstem sockeye run size							
1979			22,880	6,273	16,608	3,223	26,103
1980			43,606	12,800	30,806	11,967	55,573
1981			72,911	11,839	61,072	11,349	84,260
1982			26,267	6,304	19,964	21,490	47,757
1983			38,999	9,692	29,307	699	39,698
1984			38,640	533	38,107	4,634	43,274
1985			98,739	8,122	90,617	4,550	103,289
1986			38,022	7,111	30,910	3,663	41,685
1987			27,342	6,318	21,023	1,826	29,168
1988			34,693	11,852	22,841	1,052	35,745
1989			60,944	15,845	45,099	13,931	74,875
1990			33,464	10,968	22,495	7,549	41,013
1991			52,758	7,879	44,879	10,712	63,470
1992			77,861	12,468	65,393	49,176	127,037
1993			92,033	20,240	71,792	64,594	156,627
1994			50,288	15,652	34,636	15,408	65,696
1995			57,802	14,953	42,850	24,169	81,971
1996			69,536	23,684	45,852	21,508	91,044
1997			59,600	22,164	37,436	20,330	79,930
1998			31,077	11,902	19,175	7,962	39,039
1999			13,797	7,726	6,071	20,087	33,884
Averages							
79-99			49,584	11,635	37,949	15,257	64,841
90-99			53,822	14,764	39,058	24,149	77,971
2000			18,563	8,431	10,132	6,764	25,327

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

<sup>b</sup> Escapement includes fish later captured for broodstock and biological samples

Appendix C. 1. Weekly salmon catch and effort in the Alaskan District 111 and Subdistrict 111-32 (Taku Inlet), commercial drift gillnet fishery, 2000.

Chinook are MEF length $\geq$ 660.									
Week	Start Date	Catch					Effort		
		Chinook	Sockeye	Coho	Pink	Chum	Boats	Days Open	Boat Days
District 111 catches									
26	20-Jun	313	17,358	1	0	2,398	69	3.0	207
27	27-Jun	215	15,927	1	4	54,593	90	4.0	360
28	4-Jul	387	28,747	7	830	115,139	106	4.0	424
29	11-Jul	38	26,315	7	2,311	201,063	134	4.0	536
30	18-Jul	95	28,739	204	6,922	170,214	152	3.0	456
31	25-Jul	45	17,093	45	6,129	83,796	134	2.0	268
32	1-Aug	11	20,404	148	16,077	30,175	117	2.0	234
33	8-Aug	25	11,436	1,336	19,191	8,204	64	3.0	192
34	15-Aug	4	1,985	844	3,089	1,869	32	3.0	96
35	22-Aug	1	184	221	133	152	11	2.0	22
36	29-Aug	0	71	1,945	28	699	25	2.0	50
37	5-Sep	0	10	965	2	185	10	2.0	20
38	12-Sep	1	1	830	0	65	12	2.0	24
39	19-Sep	2	1	815	0	38	9	2.0	18
40	26-Sep	0	1	177	0	5	4	2.0	8
Total		1,137	168,272	7,546	54,716	668,595		40.0	2,915
District 111 Alaskan hatchery contribution for chinook and coho salmon. <sup>a</sup>									
26	20-Jun	0		0					
27	27-Jun	172		0					
28	4-Jul	182		0					
29	11-Jul	16		0					
30	18-Jul	59		0					
31	25-Jul	3		0					
32	1-Aug	32		0					
33	8-Aug	0		24					
34	15-Aug	1		3					
35	22-Aug	0		0					
36	29-Aug	0		104					
37	5-Sep	0		309					
38	12-Sep	0		32					
39	19-Sep	0		47					
40	26-Sep	0		0					
Total		465		519					

Appendix C.1. Page 2. of 2.

Week	Start Date	Catch					Effort		
		Chinook	Sockeye	Coho	Pink	Chum	Boats	Days Open	Boat Days
District 111 catches not including Alaskan hatchery contribution:									
26	20-Jun	313		1					
27	27-Jun	43		1					
28	4-Jul	205		7					
29	11-Jul	22		7					
30	18-Jul	36		204					
31	25-Jul	42		45					
32	1-Aug	-21		148					
33	8-Aug	25		1,312					
34	15-Aug	3		841					
35	22-Aug	1		221					
36	29-Aug	0		1,841					
37	5-Sep	0		656					
38	12-Sep	1		798					
39	19-Sep	2		768					
40	26-Sep	0		177					
41	3-Oct	0		0					
42	10-Oct	0		0					
Total		672		7,027					
Subdistrict 111-32 Catches (Taku Inlet), including hatchery contributions:									
26	20-Jun	297	16,877	1	0	2,235	67	3.0	201
27	27-Jun	181	14,084	1	4	48,915	89	4.0	356
28	4-Jul	384	25,705	2	782	100,653	103	4.0	412
29	11-Jul	34	22,829	7	1,873	159,375	125	3.0	375
30	18-Jul	83	23,276	199	6,340	111,843	137	3.0	411
31	25-Jul	40	8,581	33	4,826	21,397	90	2.0	180
32	1-Aug	1	11,916	97	6,351	6,710	60	2.0	120
33	8-Aug	8	3,410	897	4,936	2,019	34	3.0	102
34	15-Aug	0	460	387	500	434	19	2.0	38
35	22-Aug	1	67	198	87	85	8	2.0	16
36	29-Aug	0	57	1,778	28	549	23	2.0	46
37	5-Sep	0	9	895	2	141	9	2.0	18
38	12-Sep	1	1	812	0	59	12	2.0	24
39	19-Sep	2	1	815	0	38	9	2.0	18
40	26-Sep	0	1	177	0	5	4	2.0	8
Total		1,032	127,274	6,299	25,729	454,458		38.0	2,325
Subdistrict 111-34 Catches (Port Snettisham)									
33	8-Aug	2	1,375	85	1,900	679	17	1.0	17
34	15-Aug	4	559	130	719	354	6	3.0	18
35	22-Aug	0	83	0	7	1	1	2.0	2
36	29-Aug	0	7	60	0	75	1	2.0	2
Total		6	2,024	275	2,626	1,109		8	39

<sup>a</sup> Chum Salmon are not included because of the difficulty of making an accurate estimate, the majority of the summer chum catch was of hatchery origin.

Appendix C. 2. Estimate of the proportion of natural and planted sockeye salmon stock groups harvested in the Alaskan District 111 commercial drift gillnet fishery by week, 2000.

Stock composition estimates are historical (1997-1999) averages, except for planted which are based on marked fish expansions.

Does not include Port Snettisham harvests.

Week	Little Trapper			Mainstem	Tatsamenie		Total			Wild	U.S.
	Kuthai	Wild	Planted		Wild	Planted	Taku	Crescent	Speel	Snett.	Hatchery
26	0.724	0.175	0.000	0.054	0.005	0.003	0.961	0.010	0.017	0.027	0.012
27	0.346	0.446	0.000	0.072	0.065	0.000	0.929	0.006	0.031	0.036	0.034
28	0.099	0.538	0.008	0.163	0.140	0.004	0.951	0.002	0.039	0.042	0.008
29	0.061	0.395	0.000	0.238	0.165	0.004	0.862	0.000	0.065	0.065	0.073
30	0.030	0.214	0.002	0.344	0.175	0.010	0.775	0.008	0.079	0.087	0.138
31	0.000	0.118	0.000	0.268	0.163	0.016	0.564	0.000	0.081	0.081	0.355
32	0.000	0.049	0.000	0.248	0.286	0.016	0.600	0.002	0.058	0.060	0.340
33	0.000	0.063	0.000	0.224	0.150	0.014	0.451	0.000	0.045	0.045	0.504
34	0.000	0.035	0.000	0.157	0.205	0.000	0.397	0.015	0.051	0.066	0.537
35	0.000	0.035	0.000	0.157	0.205	0.000	0.397	0.015	0.051	0.066	0.537
36	0.000	0.035	0.000	0.157	0.205	0.000	0.397	0.015	0.051	0.066	0.537
37	0.000	0.035	0.000	0.157	0.205	0.000	0.397	0.015	0.051	0.066	0.537
38	0.000	0.035	0.000	0.157	0.205	0.000	0.397	0.015	0.051	0.066	0.537
39	0.000	0.035	0.000	0.157	0.205	0.000	0.397	0.015	0.051	0.066	0.537
40	0.000	0.035	0.000	0.157	0.205	0.000	0.397	0.015	0.051	0.066	0.537
Total	0.139	0.273	0.002	0.211	0.151	0.008	0.783	0.004	0.054	0.058	0.160

Appendix C. 3. Weekly stock-specific catch of wild and planted Taku River and Port Snettisham sockeye salmon harvested in the Alaskan District 111 commercial drift gillnet fishery, 2000.

Stock composition estimates are historical (1997-1999) averages, except for planted which are based on marked fish expansions.

Does not include Port Snettisham harvests.

Week	Kuthai	Little Trapper			Mainstem	Tatsamenie		Total			Wild	U.S.
		Wild	Planted	Wild		Planted	Taku	Crescent	Speel	Snett.	Hatchery	
26	12,571	3,045	0	936	91	44	16,687	165	299	464	207	
27	5,507	7,109	0	1,149	1,039	0	14,804	89	491	580	543	
28	2,836	15,453	220	4,675	4,035	112	27,331	71	1,127	1,198	218	
29	1,594	10,383	0	6,254	4,355	98	22,684	0	1,715	1,715	1,916	
30	849	6,161	59	9,875	5,031	295	22,270	218	2,271	2,489	3,980	
31	0	2,012	0	4,587	2,778	266	9,643	0	1,381	1,381	6,069	
32	0	1,009	0	5,056	5,840	330	12,235	45	1,180	1,225	6,944	
33	0	726	0	2,565	1,716	156	5,163	0	509	509	5,764	
34	0	70	0	312	407	0	789	29	101	130	1,066	
35	0	6	0	29	38	0	73	3	9	12	99	
36	0	2	0	11	15	0	28	1	4	5	38	
37	0	0	0	2	2	0	4	0	1	1	5	
38	0	0	0	0	0	0	0	0	0	0	1	
39	0	0	0	0	0	0	0	0	0	0	1	
40	0	0	0	0	0	0	0	0	0	0	1	
Total	23,357	45,977	279	35,451	25,347	1,301	131,712	621	9,088	9,709	26,851	

Appendix C. 4. Weekly salmon and steelhead trout catch and effort in the Canadian commercial fishery in the Taku River, 2000.

Large Chinook are MEF length  $\geq$  660.

Week	Start Date	Catch							Effort		
		Chinook		Sockeye	Coho	Pink	Chum	Steelhead	Average Permits	Days Fished	Permit Days
		Large <sup>a</sup>	Small								
26	20-Jun	860	25	980	0	0	0	0	9.00	2.00	18.00
27	27-Jun	306	34	3,518	0	0	0	0	11.00	3.00	33.00
28	4-Jul	213	21	2,278	0	0	0	0	11.00	3.00	33.00
29	11-Jul	151	6	3,249	12	0	0	0	10.00	4.00	40.00
30	18-Jul	29	1	5,094	59	0	0	0	10.75	4.00	43.00
31	25-Jul	5	0	731	37	0	0	1	6.67	3.00	20.00
32	1-Aug	6	0	5,504	375	0	0	1	12.33	3.00	37.00
33	8-Aug	4	0	4,690	586	0	0	10	13.00	3.00	39.00
34	15-Aug	2	0	1,142	874	0	0	26	10.33	3.00	31.00
35	22-Aug	0	0	500	667	0	0	13	7.50	4.00	30.00
36	29-Aug	0	0	231	1,234	0	0	73	5.00	3.00	15.00
37	5-Sep	0	0	92	551	0	0	68	3.00	4.00	12.00
Total		1,576	87	28,009	4,395	0	0	192		39.00	351.00

Appendix C. 5. Weekly stock proportions of sockeye salmon harvested in the Canadian commercial fishery in the Taku River, 2000.

Planted proportions based on preliminary mark recovery.

Week	Start Date	Kuthai	Little Trapper			Tatsamenie	
			Wild	Planted	Mainstem	Wild	Planted
26	20-Jun	0.868	0.000	0.000	0.074	0.057	0.000
27	27-Jun	0.738	0.067	0.000	0.084	0.111	0.000
28	4-Jul	0.393	0.418	0.000	0.071	0.119	0.000
29	11-Jul	0.085	0.539	0.000	0.214	0.162	0.000
30	18-Jul	0.037	0.337	0.000	0.373	0.254	0.000
31	25-Jul	0.000	0.157	0.000	0.555	0.287	0.000
32	1-Aug	0.000	0.064	0.000	0.528	0.391	0.017
33	8-Aug	0.000	0.050	0.000	0.425	0.465	0.060
34	15-Aug	0.000	0.194	0.000	0.377	0.395	0.033
35	22-Aug	0.000	0.204	0.000	0.318	0.450	0.028
36	29-Aug	0.000	0.204	0.000	0.318	0.450	0.028
37	5-Sep	0.000	0.204	0.000	0.318	0.450	0.028
Total		0.172	0.205	0.000	0.326	0.282	0.016

Appendix C. 6. Weekly stock-specific catch of sockeye salmon in the Canadian commercial fishery in the Taku River, 2000.

Planted numbers based on preliminary recovery of marks.

Week	Start Date	Kuthai	Little Trapper			Tatsamenie	
			Wild	Planted	Mainstem	Wild	Planted
26	20-Jun	851	0	0	73	56	0
27	27-Jun	2,598	236	0	294	390	0
28	4-Jul	895	952	0	161	270	0
29	11-Jul	277	1,751	0	694	527	0
30	18-Jul	188	1,715	0	1,899	1,292	0
31	25-Jul	0	115	0	406	210	0
32	1-Aug	0	350	0	2,907	2,152	95
33	8-Aug	0	236	0	1,995	2,179	280
34	15-Aug	0	222	0	431	451	38
35	22-Aug	0	102	0	159	225	14
36	29-Aug	0	47	0	74	104	6
37	5-Sep	0	19	0	29	41	3
Total		4,809	5,745	0	9,122	7,897	436

Appendix C. 7. Weekly salmon and steelhead trout catch and effort in the Canadian test and stock assessment fisheries in the Taku River, 2000.

Large Chinook are MEF length  $\geq$  660.

Week	Start Date	Catch							Effort		
		Chinook		Sockeye	Coho	Pink	Chum	Steelhead	Average Permits	Days Fished	Permit Days
Large	Small										
22	23-May	113			0	0	0	0			
23	30-May	193			0	0	0	0			
24	6-Jun	289	7		0	0	0	0			
25	13-Jun	195	1		0	0	0	0			
26	20-Jun	162	43								
27	27-Jun	197	23	44							
28	4-Jul	163	13	265							
38	12-Sep	0	0	6	195						5
39	19-Sep	0	0	3	242						12
40	26-Sep	0	0	1	241						2
41	3-Oct	0	0		32						
Total		1,312	87	319	710	0	0	19			

<sup>a</sup> There was no test fishing during statistical weeks 29-37 inclusive.

Appendix C. 8. Mark-recapture estimate of above border run of sockeye, and coho salmon in the Taku River, 2000.

Recovery Week	Start Date	Above Border Run	Canadian Harvests				Above Border Escapement
			Commercial	Test	Aboriginal <sup>a</sup>	Recreational	
<b>Sockeye</b>							
24-25	4-Jul	3,675	980				2,695
26	18-Jul	4,431	3,518				913
27	25-Jul	12,312	2,278	44			9,990
28	1-Aug	8,393	3,249	265			4,879
29	8-Aug	12,590	5,094				7,496
30	15-Aug	13,842	731				13,111
31	22-Aug	9,516	5,504				4,012
32	29-Aug	15,062	4,690				10,372
33	5-Sep	12,317	1,142				11,175
34	12-Sep	3,298	500				2,798
35	19-Sep	3,139	231				2,908
36-40	26-Sep	5,161	92	10			5,059
M-R Estimate		103,735					
95% C.I.	97,863	110,568					
Total Estimate		103,735	28,009	319	140		75,267
<b>Coho</b>							
29-35	1-Aug	10,966	2,610				8,356
36-37	22-Aug	22,898	1,785				21,113
38-41	12-Sep	36,282		710	342		35,230
M-R Estimate		70,146					
95% C.I.	59,048	81,244					
Total Estimate		70,146	4,395	710	342		64,699

<sup>a</sup> Aboriginal catch by week is not available.



Appendix C. 9. Daily counts of adult sockeye salmon passing through Tatsamenie weir, 2000.

Date	Sockeye			Coho		
	Count	Cumulative Count	Percent	Count	Cumulative Count	Percent
16-Aug	---- Weir Fish Tight ----					
17-Aug	not opened					
18-Aug	218	218	2.9	0	0	0.0
19-Aug	220	438	5.8	0	0	0.0
20-Aug	653	1,091	14.4	0	0	0.0
21-Aug	370	1,461	19.3	0	0	0.0
22-Aug	637	2,098	27.7	0	0	0.0
23-Aug	260	2,358	31.1	0	0	0.0
24-Aug	247	2,605	34.4	0	0	0.0
25-Aug	327	2,932	38.7	0	0	0.0
26-Aug	632	3,564	47.0	0	0	0.0
27-Aug	242	3,806	50.2	0	0	0.0
28-Aug	197	4,003	52.8	0	0	0.0
29-Aug	122	4,125	54.5	0	0	0.0
30-Aug	337	4,462	58.9	0	0	0.0
31-Aug	372	4,834	63.8	0	0	0.0
1-Sep	242	5,076	67.0	0	0	0.0
2-Sep	156	5,232	69.1	0	0	0.0
3-Sep	272	5,504	72.7	0	0	0.0
4-Sep	92	5,596	73.9	0	0	0.0
5-Sep	451	6,047	79.8	1	1	25.0
6-Sep	159	6,206	81.9	0	1	25.0
7-Sep	206	6,412	84.6	0	1	25.0
8-Sep	65	6,477	85.5	0	1	25.0
9-Sep	96	6,573	86.8	0	1	25.0
10-Sep	45	6,618	87.4	0	1	25.0
11-Sep	38	6,656	87.9	0	1	25.0
12-Sep	20	6,676	88.1	0	1	25.0
13-Sep	40	6,716	88.7	0	1	25.0
14-Sep	115	6,831	90.2	0	1	25.0
15-Sep	34	6,865	90.6	0	1	25.0
16-Sep	0	6,865	90.6	0	1	25.0
17-Sep	66	6,931	91.5	0	1	25.0
18-Sep	254	7,185	94.9	0	1	25.0
19-Sep	81	7,266	95.9	0	1	25.0
20-Sep	22	7,288	96.2	0	1	25.0
21-Sep	26	7,314	96.6	0	1	25.0
22-Sep	14	7,328	96.7	0	1	25.0
23-Sep	39	7,367	97.3	0	1	25.0
24-Sep	28	7,395	97.6	0	1	25.0
25-Sep	6	7,401	97.7	0	1	25.0
26-Sep	30	7,431	98.1	0	1	25.0
27-Sep	33	7,464	98.5	0	1	25.0
28-Sep	4	7,468	98.6	0	1	25.0
29-Sep	6	7,474	98.7	0	1	25.0
30-Sep	34	7,508	99.1	0	1	25.0
1-Oct	0	7,508	99.1	0	1	25.0
2-Oct	8	7,516	99.2	0	1	25.0
3-Oct	5	7,521	99.3	0	1	25.0
4-Oct	7	7,528	99.4	0	1	25.0
5-Oct	3	7,531	99.4	0	1	25.0
6-Oct	19	7,550	99.7	0	1	25.0
7-Oct	22	7,572	100.0	2	3	75.0
8-Oct	0	7,572	100.0	0	3	75.0
9-Oct	0	7,572	100.0	0	3	75.0
10-Oct	0	7,572	100.0	0	3	75.0
11-Oct	3	7,575	100.0	1	4	100.0
11-Oct	---- Weir Pulled ----					
Counts	7,575					
Outlet spawners	<15					
Broodstock a	-2,005					
Spawners	5,570					

\* Broodstock include 765 females/ 684 males which were spawned successfully, and 18 females/ 14 males that did not survive holding. An additional 336 females and 188 males were released unspawned, the spawning success of these fish is unknown.

Appendix C. 10. Daily counts of adult sockeye salmon passing through Little Trapper Lake weir, 2000.

Date	Cumulative		Percent
	Count	Count	
20-Jul	----Weir Fish Tight ----		
21-Jul	0	0	0.00
22-Jul	0	0	0.00
23-Jul	0	0	0.00
24-Jul	0	0	0.00
25-Jul	0	0	0.00
26-Jul	0	0	0.00
27-Jul	0	0	0.00
28-Jul	0	0	0.00
29-Jul	4	4	0.03
30-Jul	4	8	0.07
31-Jul	180	188	1.63
1-Aug	345	533	4.61
2-Aug	430	963	8.34
3-Aug	557	1,520	13.16
4-Aug	1,210	2,730	23.63
5-Aug	1,605	4,335	37.53
6-Aug	255	4,590	39.74
7-Aug	914	5,504	47.65
8-Aug	670	6,174	53.45
9-Aug	411	6,585	57.01
10-Aug	243	6,828	59.11
11-Aug	100	6,928	59.98
12-Aug	304	7,232	62.61
13-Aug	322	7,554	65.40
14-Aug	485	8,039	69.60
15-Aug	591	8,630	74.71
16-Aug	474	9,104	78.82
17-Aug	471	9,575	82.89
18-Aug	529	10,104	87.47
19-Aug	202	10,306	89.22
20-Aug	207	10,513	91.01
21-Aug	169	10,682	92.48
22-Aug	401	11,083	95.95
23-Aug	122	11,205	97.00
24-Aug	126	11,331	98.10
25-Aug	47	11,378	98.50
26-Aug	40	11,418	98.85
27-Aug	15	11,433	98.98
28-Aug	10	11,443	99.07
29-Aug	3	11,446	99.09
30-Aug	6	11,452	99.14
31-Aug	4	11,456	99.18
1-Sep	2	11,458	99.19
2-Sep	9	11,467	99.27
3-Sep	4	11,471	99.31
4-Sep	2	11,473	99.32
5-Sep	30	11,503	99.58
6-Sep	13	11,516	99.70
7-Sep	5	11,521	99.74
8-Sep	12	11,533	99.84
9-Sep	2	11,535	99.86
10-Sep	4	11,539	99.90
11-Sep	7	11,546	99.96
12-Sep	5	11,551	100.00
13-Sep	---- Weir Pulled ----		
Count	11,551		
Spawners	11,551		

Appendix C. 11. Daily counts of adult sockeye salmon passing through the Kuthai Lake weir, 2000.

Date	Cumulative		
	Count	Count	Percent
13-Jul	3	3	0.07
14-Jul	0	3	0.07
15-Jul	0	3	0.07
16-Jul	30	33	0.81
17-Jul	245	278	6.79
18-Jul	188	466	11.38
19-Jul	130	596	14.55
20-Jul	140	736	17.97
21-Jul	61	797	19.46
22-Jul	336	1,133	27.66
23-Jul	168	1,301	31.76
24-Jul	338	1,639	40.01
25-Jul	409	2,048	50.00
26-Jul	199	2,247	54.86
27-Jul	233	2,480	60.55
28-Jul	163	2,643	64.53
29-Jul	197	2,840	69.34
30-Jul	96	2,936	71.68
31-Jul	121	3,057	74.63
1-Aug	21	3,078	75.15
2-Aug	64	3,142	76.71
3-Aug	91	3,233	78.93
4-Aug	64	3,297	80.49
5-Aug	80	3,377	82.45
6-Aug	4	3,381	82.54
7-Aug	24	3,405	83.13
8-Aug	28	3,433	83.81
9-Aug	50	3,483	85.03
10-Aug	26	3,509	85.67
11-Aug	181	3,690	90.09
12-Aug	113	3,803	92.85
13-Aug	51	3,854	94.09
14-Aug	2	3,856	94.14
15-Aug	26	3,882	94.78
16-Aug	84	3,966	96.83
17-Aug	26	3,992	97.46
18-Aug	0	3,992	97.46
19-Aug	28	4,020	98.14
20-Aug	8	4,028	98.34
21-Aug	2	4,030	98.39
22-Aug	0	4,030	98.39
23-Aug	6	4,036	98.54
24-Aug	13	4,049	98.85
25-Aug	2	4,051	98.90
26-Aug	5	4,056	99.02
27-Aug	24	4,080	99.61
28-Aug	6	4,086	99.76
29-Aug	10	4,096	100.00
Total	4,096		

Appendix C. 12. Daily counts of large (>659mm MEF length) Chinook salmon carcasses at the Nakina River weir, 2000.

Chinook are MEF length $\geq$ 660.					
Date	Count			Cumulative	
	Female	Male	Combined	Count	Percent
3-Aug	1	0	1	1	0.00
4-Aug	3	3	6	7	0.01
5-Aug	11	15	26	33	0.05
6-Aug	0	2	2	35	0.05
7-Aug	7	13	20	55	0.08
8-Aug	12	16	28	83	0.13
9-Aug	22	40	62	145	0.22
10-Aug	0	1	1	146	0.22
11-Aug	3	10	13	159	0.24
12-Aug	12	33	45	204	0.31
13-Aug	19	42	61	265	0.40
14-Aug	14	21	35	300	0.46
15-Aug	17	42	59	359	0.55
16-Aug	17	30	47	406	0.62
17-Aug	5	10	15	421	0.64
18-Aug	51	100	151	572	0.87
19-Aug	16	25	41	613	0.93
20-Aug	4	9	13	626	0.95
21-Aug	2	4	6	632	0.96
22-Aug	5	12	17	649	0.99
23-Aug	3	5	8	657	1.00
24-Aug	0	1	1	658	1.00
Total	224	434	658		

Appendix D. 1. Salmon catches and effort in the Alaskan District 111 and Subdistrict 111-32 (Taku Inlet) commercial drift gillnet fishery, 1960-2000.

Chinook are MEF length  $\geq$  660.

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

Year	Catch							Effort	
	Chinook	Sockeye	Coho	Pink	S. Chum <sup>a</sup>	F. Chum <sup>a</sup>	Steelhead	Boat Days	Days Open
District 111 Catches									
1960	8,810	42,819	22,374	33,155	8,754	33,098			60.0
1961	7,434	45,981	15,486	41,455	8,578	15,855			62.0
1962	5,931	36,745	15,661	17,280	7,453	13,182			52.0
1963	2,652	24,119	10,855	21,392	12,335	7,779			54.0
1964	2,509	34,140	29,315	26,593	4,970	7,883			56.0
1965	4,170	27,569	32,667	2,768	3,842	7,691			63.0
1966	4,829	33,925	26,065	23,833	5,015	30,118			64.0
1967	5,417	17,735	40,391	12,372	2,183	20,651			53.0
1968	4,904	19,501	39,103	67,365	5,747	16,143			60.0
1969	6,986	41,169	10,802	73,927	4,851	10,198	369	1,518	41.5
1970	3,357	50,922	44,960	197,017	19,593	90,797	1,055	2,688	53.0
1971	6,958	66,181	41,830	31,484	31,813	59,332	631	3,053	55.0
1972	10,955	80,404	49,780	144,339	67,126	80,831	574	3,103	51.0
1973	9,799	85,317	35,453	58,186	33,296	75,949	554	3,286	41.0
1974	2,908	38,670	38,667	57,731	11,263	75,423	465	2,315	29.5
1975	2,182	32,513	1,185	9,567	2,091	587	89	1,084	15.5
1976	1,757	61,749	41,729	14,962	6,027	75,776	499	1,914	25.0
1977	1,068	70,097	54,917	88,578	8,995	52,107	359	2,258	27.0
1978	1,926	55,398	31,944	51,385	9,076	27,178	397	2,174	26.0
1979	3,701	122,148	16,194	152,836	5,936	55,261	243	2,269	28.8
1980	2,251	123,451	41,677	296,572	33,627	159,020	363	4,123	30.9
1981	1,721	49,942	26,711	254,856	22,546	53,892	262	2,687	30.0
1982	3,057	83,625	29,072	109,297	14,867	22,741	476	2,433	35.5
1983	888	31,821	21,455	66,239	6,160	9,104	183	1,274	33.0
1984	1,773	77,233	33,836	145,971	45,811	40,930	366	2,757	52.5
1985	2,636	88,077	55,597	311,248	58,972	47,748	499	3,264	48.0
1986	2,584	73,061	30,512	16,568	29,909	28,883	529	2,129	32.8
1987	2,076	75,212	35,219	363,439	57,280	64,380	272	2,514	34.8
1988	1,779	38,923	44,881	157,831	80,307	59,271	226	2,135	32.0
1989	1,811	74,019	51,812	180,597	18,022	18,955	215	2,333	41.0
1990	3,480	126,884	67,530	153,036	112,336	33,463	310	3,188	38.3
1991	3,217	109,877	126,436	74,183	147,404	13,771	69	4,145	57.0
1992	2,341	135,411	172,662	314,445	97,725	14,802	166	4,550	50.0
1993	6,748	171,556	65,536	17,081	156,033	10,447	52	3,827	43.0
1994	5,047	105,861	188,501	401,525	198,002	16,169	459	5,078	66.0
1995	4,660	103,377	83,626	41,269	339,178	10,920	128	4,034	49.0
1996	2,659	199,014	33,633	12,660	347,612	6,455	240	3,229	46.0
1997	2,804	94,745	3,515	51,424	173,804	3,060		2,107	33.0
1998	794	69,677	28,713	168,283	291,416	4,695		3,070	48.0
1999	1,841	79,425	17,273	59,316	429,213	4,639		2,841	59.0
Averages									
60-99	3,811	72,457	43,939	108,052	72,863	34,483	359	2,801	44.43
90-99	3,359	119,583	78,743	129,322	228,808	11,857	203	3,605	48.93
2000	1,137	168,272	7,546	54,716	665,582	3,013		2,915	40.00

Appendix D.1. Page 2 of 2.

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

Year	Catch							Effort	
	Chinook	Sockeye	Coho	Pink	S. Chum <sup>a</sup>	F. Chum <sup>a</sup>	Steelhead	Boat Days	Days Open
Subdistrict 111-32 Catches (Taku Inlet)									
1960	8,763	26,641	20,282	26,777	4,566	28,720		1,680	60.0
1961	7,269	30,805	14,618	34,615	6,863	14,876		2,901	62.0
1962	5,719	25,969	13,699	10,006	5,418	11,812		1,568	52.0
1963	2,547	16,079	9,406	18,102	8,085	7,071		1,519	51.0
1964	2,482	28,873	28,603	22,177	3,919	7,822		1,491	56.0
1965	4,146	23,828	32,382	2,641	3,604	7,691		1,332	60.0
1966	4,817	28,301	24,153	22,490	4,350	27,327		1,535	58.0
1967	5,351	14,537	39,983	11,619	1,569	20,463		1,663	50.0
1968	4,862	16,952	37,570	55,527	4,646	15,597		2,420	60.0
1969	6,874	38,260	10,131	66,991	4,233	9,926	366	1,413	42.0
1970	3,073	41,476	37,587	143,886	14,208	76,795	996	2,425	53.0
1971	6,753	62,459	38,571	30,765	31,110	54,696	627	2,849	55.0
1972	9,633	62,877	38,568	78,673	45,955	60,097	544	2,797	51.0
1973	9,525	80,063	29,770	55,234	30,817	61,025	513	3,135	41.0
1974	2,280	26,256	27,670	32,684	6,469	51,063	378	1,741	30.0
1975	1,998	28,201	429	8,084	1,639	31	77	986	15.0
1976	1,693	51,674	31,641	11,868	3,766	42,674	450	1,582	23.0
1977	754	47,512	48,403	67,072	5,436	43,595	318	1,879	27.0
1978	1,642	43,795	21,620	41,624	7,142	18,101	314	1,738	24.0
1979	3,016	103,043	12,741	114,324	4,317	46,142	225	2,011	29.0
1980	1,986	108,577	35,814	241,085	25,779	131,126	337	3,634	31.0
1981	1,325	39,963	20,936	98,524	10,407	40,212	233	1,740	22.0
1982	2,841	75,012	24,761	77,942	11,558	18,363	447	2,130	36.0
1983	689	25,957	17,665	40,996	3,171	7,813	172	1,065	31.0
1984	1,414	59,229	25,951	83,028	28,214	27,967	315	2,120	39.0
1985	2,152	70,160	45,106	176,710	35,897	40,530	436	2,116	37.0
1986	1,877	60,106	26,474	9,772	14,646	24,790	485	1,413	30.0
1987	1,534	54,436	23,342	200,203	31,992	28,891	197	1,517	30.0
1988	949	23,752	33,159	41,625	25,969	27,010	174	1,213	29.0
1989	1,606	68,104	44,034	141,385	15,254	15,491	183	1,909	36.0
1990	2,432	110,006	60,078	101,168	88,350	29,099	286	2,879	38.0
1991	2,614	96,006	118,902	44,347	97,577	12,279	63	3,324	52.0
1992	1,672	103,238	152,598	180,340	57,153	11,649	135	3,407	43.0
1993	4,413	144,982	58,062	8,801	101,356	7,760	46	3,372	43.0
1994	3,051	88,625	156,314	198,507	129,350	12,280	422	3,960	60.0
1995	3,497	81,266	70,826	18,469	192,557	8,786	119	3,061	45.0
1996	2,412	188,412	31,828	12,123	294,890	5,245	236	2,685	41.0
1997	2,724	84,115	2,993	38,794	143,354	1,936		1,761	30.0
1998	634	47,413	24,606	85,269	192,057	2,800		2,007	39.0
1999	1,762	68,914	14,086	43,958	327,706	2,643		2,563	58.0
Averages									
60-99	3,370	59,897	37,634	67,455	50,634	26,555	325	2,164	41.73
90-99	2,521	101,298	69,029	73,178	162,435	9,448	187	2,902	44.90
2000	1,032	127,274	6,299	25,729	453,147	1,311		2,325	38.00

<sup>a</sup> S. Chum and F. Chum refer to Summer and Fall runs of these fish, fish harvested prior to week 34 are considered summer chum, and fish harvested in week 34 and beyond are considered fall chum.

Appendix D. 2. Stock proportions and catches of sockeye salmon in the Alaska District 111 commercial drift gillnet fishery, 1983-2000.

Data based on analysis of scale patterns, otolith marks, and incidence of brain parasites. Does not include catches inside Port Snettisham

Week	Little Trapper			Mainstem	Tatsamenie		Total			Wild	U.S.
	Kuthai	Wild	Planted		Wild	Planted	Taku	Crescent	Speel	Snett.	Planted
Proportions											
1983							0.755				0.245
1984							0.758				0.242
1985							0.838				0.162
1986	0.061	0.266		0.303	0.204		0.834	0.090	0.076		0.166
1987	0.078	0.234		0.376	0.031		0.720	0.157	0.123		0.280
1988	0.118	0.158		0.305	0.082		0.663	0.266	0.071		0.337
1989 <sup>a</sup>	0.077				0.156		0.849	0.051	0.100		0.152
1990	0.036	0.197		0.336	0.286		0.855	0.112	0.033		0.145
1991	0.039	0.297		0.373	0.232		0.941	0.059	0.000		0.059
1992	0.048	0.220		0.445	0.191		0.904	0.036	0.060		0.096
1993	0.062	0.328		0.308	0.123		0.822	0.069	0.109		0.178
1994	0.110	0.356		0.361	0.091		0.917	0.036	0.022	0.058	0.025
1995	0.046	0.214	0.010	0.428	0.153	0.029	0.880	0.018	0.075	0.093	0.026
1996	0.069	0.117	0.010	0.499	0.232	0.014	0.941	0.013	0.032	0.045	0.014
1997	0.067	0.170	0.011	0.282	0.286	0.011	0.826	0.027	0.026	0.053	0.120
1998	0.087	0.158	0.008	0.209	0.245	0.004	0.710	0.026	0.007	0.033	0.257
1999	0.176	0.259	0.003	0.235	0.119	0.005	0.797	0.049	0.023	0.072	0.131
Averages											
86-99	0.077	0.229		0.343	0.174		0.833	0.072	0.054	0.126	0.096
90-99	0.074	0.232	0.008	0.348	0.196	0.013	0.859	0.045	0.039	0.083	0.096
2000	0.139	0.273	0.002	0.211	0.151	0.008	0.783	0.004	0.054	0.058	0.160
Catches											
1983							24,025			7,796	
1984							58,543			18,690	
1985							73,809			14,268	
1986	4,489	19,441		22,104	14,900		60,934	6,610	5,516	12,127	
1987	5,893	17,594		28,286	2,352		54,124	11,814	9,274	21,088	
1988	4,598	6,153		11,865	3,194		25,811	10,365	2,748	13,112	
1989 <sup>a</sup>	5,696				11,536		62,805	3,789	7,425	11,214	
1990	4,539	24,952		42,676	36,332		108,499	14,242	4,143	18,385	
1991	4,295	32,685		40,957	25,475		103,412	6,465	0	6,465	
1992	6,543	29,818		60,224	25,853		122,438	4,912	8,060	12,972	
1993	10,673	56,350		52,876	21,139		141,038	11,877	18,641	30,518	
1994	11,638	37,644		38,179	9,585		97,046	3,859	2,319	6,178	2,637
1995	4,788	22,109	1,017	44,278	15,767	3,049	91,008	1,901	7,741	9,642	2,727
1996	13,742	23,307	1,920	99,231	46,148	2,859	187,207	2,544	6,416	8,960	2,848
1997	6,345	16,105	1,031	26,694	27,107	1,006	78,288	2,558	2,510	5,068	11,389
1998	6,055	11,018	570	14,560	17,040	250	49,493	1,784	500	2,284	17,900
1999	14,016	20,596	247	18,680	9,421	367	63,327	3,879	1,814	5,693	10,405
Average <sup>b</sup>											
86-99	7,379	24,414	390	41,064	19,191	2,458	93,187	5,108	5,865	10,559	27,535
90-99	8,263	24,365	35	45,216	18,587	2,933	96,069	3,058	6,686	9,036	39,266
2000	23,357	45,977	279	35,451	25,347	1,301	131,712	621	9,088	9,709	26,851

<sup>a</sup> The Trapper and Mainstem groups were combined in the 1989 analysis and were 45,573 fish.

<sup>b</sup> Averages for individual stocks do not include 1989.

Appendix D. 3. Proportion of wild Taku River sockeye salmon in the Alaskan District 111 commercial drift gillnet catch by week, 1983-2000.

Data based on scale patterns and incidence of brain parasites and includes only wild fish.

Year	Week										Total
	25	26	27	28	29	30	31	32	33	34	
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
Average											
83-99	0.961	0.969	0.921	0.893	0.848	0.793	0.821	0.819	0.788	0.761	0.851
90-99	0.959	0.964	0.941	0.921	0.915	0.905	0.884	0.886	0.826	0.808	0.904
2000		0.973	0.962	0.958	0.929	0.898	0.872	0.907	0.908	0.858	0.931



Appendix D. 4. Salmon catch in the U.S. subsistence and personal use fisheries in the Taku River, 1967-2000.

The subsistence fishery was open 1967 to 1976 and 1985 and the personal use fishery was open 1989-2010.

The harvests are minimum estimates because not all permits are filled out and returned.

Year	Catch					Permits
	Chinook	Sockeye	Coho	Pink	Chum	
1967	0	103	221	9	25	
1968	3	41	196	19	10	
1969	0	122	8	11	0	
1970	0	304	0	20	8	
1971	0	512	0	42	0	
1972	0	554	0	103	7	
1973	0	1,227	0	64	14	
1974	0	1,431	0	118	5	
1975	0	170	0	3	0	
1976	0	351	4	22	0	
1985	0	920	35	16	1	54
1989	25	562	57	591	16	75
1990	26	793	103	111	46	95
1991	25	800	86	97	2	88
1992	21	1,217	88	100	0	125
1993	9	1,201	25	93	3	128
1994	21	1,111	93	76	3	116
1995	18	990	97	40	6	106
1996	33	1,189	67	110	5	130
1997	16	1,053	27	86	1	123
1998	15	1,153	86	225	2	130
1999	22	1,254	44	105	3	147
Averages						
67-99	21	1,315	93	179	12	
90-99	40	2,020	138	201	15	
2000	21	930	25	59	5	

Appendix D. 5. Salmon and steelhead trout catch and effort in the Canadian commercial fishery in the Taku River, 1979-2000.

Large Chinook are MEF length  $\geq$  660.

Year	Catch							Effort	
	Chinook		Sockeye	Coho	Pink	Chum	Steelhead	Boat Days	Days Open
	Large	Small							
1979	97		13,578	6,006	13,661	15,474	254	599	50.0
1980	225		22,602	6,405	26,821	18,516	457	476	39.0
1981	159		10,922	3,607	10,771	5,591	108	243	31.3
1982	54		3,144	51	202	3	1	38	13.0
1983	156	400	17,056	8,390	1,874	1,760	213	390	64.0
1984	294	221	27,242	5,357	6,964	2,492	367	288	30.0
1985	326	24	14,244	1,770	3,373	136	32	178	16.0
1986	275	77	14,739	1,783	58	110	48	148	17.0
1987	127	106	13,554	5,599	6,250	2,270	223	280	26.0
1988	555	186	12,014	3,123	1,030	733	86	185	14.7
1989	895	139	18,545	2,876	695	42	24	271	25.3
1990	1,258	128	21,100	3,207	378	12	22	295	28.3
1991	1,177	432	25,067	3,415	296	2	5	284	25.0
1992	1,445	147	29,472	4,077	0	7	15	291	27.0
1993	1,619	171	33,217	3,033	16	15	11	363	34.0
1994	2,065	235	28,762	14,531	168	18	232	497	74.0
1995	1,577	298	32,640	13,629	2	1	205	428	51.1
1996	3,331	144	41,665	5,028	0	0	98	415	65.0
1997	2,731	84	24,003	2,594	0	1	160	394	47.0
1998	1,107	227	19,038	5,090	0	2	176	299	42.0
1999	908	257	20,681	4,416	0	0	81	300	34.0
Averages									
79-99	193	971	21,109	4,952	3,455	2,247	134	317	36
90-99	212	1,722	27,565	5,902	86	6	101	357	43
2000	1,576	87	28,009	4,395	0	0	192	351	39

Appendix D. 6. Sockeye salmon stock proportions and catch by stock in the Canadian commercial fishery on the Taku River, 1986-2000.

Data based on scale pattern, brain parasite								
Year	Kuthai	Little Trapper		Mainstem	Tatsamenie		Total Wild	Total Planted
		Wild	Planted		Wild	Planted		
Proportions								
1986	0.111	0.397		0.350	0.143		1.000	
1987	0.062	0.201		0.649	0.088		1.000	
1988	0.143	0.417		0.343	0.098		1.000	
1989 <sup>a</sup>	0.053				0.203		1.000	
1990	0.112	0.388		0.338	0.163		1.000	
1991	0.064	0.308		0.452	0.176		1.000	
1992	0.092	0.240		0.569	0.099		1.000	
1993	0.126	0.392		0.432	0.049		1.000	
1994	0.158	0.482		0.302	0.058		1.000	
1995	0.047	0.427	0.010	0.373	0.112	0.031	0.959	0.041
1996	0.105	0.221	0.008	0.442	0.215	0.010	0.982	0.018
1997	0.120	0.282	0.019	0.277	0.294	0.008	0.973	0.027
1998	0.225	0.207	0.028	0.254	0.283	0.003	0.969	0.031
1999	0.389	0.305	0.008	0.145	0.147	0.006	0.986	0.014
Averages <sup>b</sup>								
86-99	0.129	0.328		0.379	0.152		0.991	
90-99	0.144	0.325	0.015	0.358	0.160	0.012	0.987	0.026
2000	0.172	0.205	0.000	0.326	0.282	0.016	0.984	0.016
Catch								
1986	1,629	5,855		5,152	2,103		14,739	
1987	834	2,728		8,793	1,199		13,554	
1988	1,715	5,005		4,122	1,172		12,014	
1989 <sup>a</sup>	990				3,763		18,545	
1990	2,355	8,183		7,131	3,431		21,100	
1991	1,601	7,721		11,327	4,418		25,067	
1992	2,699	7,085		16,764	2,924		29,472	
1993	4,192	13,036		14,347	1,641		33,217	
1994	4,544	13,858		8,684	1,676		28,762	
1995	1,528	13,934	331	12,185	3,659	1,003	31,306	1,334
1996	4,357	9,195	331	18,422	8,959	401	40,933	732
1997	2,891	6,758	456	6,637	7,060	201	23,346	657
1998	4,279	3,944	533	4,829	5,397	56	18,449	589
1999	8,044	6,314	171	2,992	3,034	126	20,384	297
Averages <sup>b</sup>								
86-99		21						
86-99	2,976	7,970		9,337	3,603		23,635	
90-99	3,649	9,003	364	10,332	4,220	357	27,204	722
2000	4,809	5,745	0	9,122	7,897	436	27,573	436

<sup>a</sup>The Trapper and Mainstem groups were combined in the 1989 analysis with 13,792 fish or .744 proportion.

<sup>b</sup>Averages do not include 1989.

Appendix D. 7. Salmon catches in the Canadian Aboriginal fishery on the Taku River, 1980-2000.

Chinook are MEF length $\geq$ 660.						
Year	Chinook	Sockeye	Coho	Pink	Chum	Steelhead
1980	85	150	0	0	15	0
1983	9	0	0	0	0	0
1984	0	50	15	0	0	0
1985	4	167	22	0	0	0
1986	10	200	50	0	0	0
1987	0	96	113	0	0	0
1988	27	245	98	0	0	0
1989	6	53	146	0	0	0
1990	0	89	6	0	0	0
1991	0	150	20	0	0	0
1992	121	352	187	0	0	16
1993	25	140	8	0	0	0
1994	119	239	162	4	0	1
1995	70	71	109	0	7	4
1996	63	360	24	0	0	0
1997	103	349	96	0	0	0
1998	60	239	0	0	0	0
1999	50	382	471	0	0	0
Averages						
80-99	42	185	85	0	1	1
90-99	61	237	108	0	1	2
2000	50	140	342	0	0	0

Appendix D. 8. Salmon and steelhead trout catch in the Canadian test fishery in the Taku River, 1987-2000.

Large Chinook are MEF length  $\geq$  660.

Year	Catch						Steelhead
	Chinook		Sockeye	Coho	Pink	Chum	
	Large	Small					
1987			237	807			
1988	72		708	422	52	222	14
1989	31		207	1,011	0	13	26
1990	48		285	472	0	0	20
1991	0		163	2,004	3	295	41
1992	0		38	1,277	0	76	88
1993 <sup>a</sup>	0		166	1,593	0	50	13
1994	There was no Canadian test fishery in 1994.						
1995	There was no Canadian test fishery in 1995.						
1996	There was no Canadian test fishery in 1996.						
1997	The 1 sockeye and 39 coho salmon caught in 1997 were released live.						
1998	There was no Canadian test fishery in 1998.						
1999 <sup>b</sup>	577	2	88	688	0	0	48
Averages							
2000 <sup>c</sup>	1,312	87	319	710	0	0	19

<sup>a</sup> Incomplete harvest data.

<sup>b</sup> In addition to these fish, 180 adult female chinook, one adult male chinook and four steelhead were captured and released live.

<sup>c</sup> In addition to these fish 439 adult female chinook were captured and released live.

Appendix D. 9. Taku River sockeye salmon run size, 1984-2000.

Run estimate does not include spawning escapements below the U.S./Canada border. The early season sockeye expansion is based on the proportion of fish wheel sockeye catch that occurs before the fishery opens.

Year	Above Border M-R		Expansion	Factor	Expanded Run			U.S. Catch a	Total Run
	Run Estimate	Start Date			Run Estimate	Canadian Catch	Escape.		
1984	133,414	17-Jun	Ave.(88-90&95-96) FW CPUE	0.056	141,254	27,292	113,962	58,543	199,796
1985	118,160	16-Jun	Ave.(88-90&95-96) FW CPUE	0.047	123,974	14,411	109,563	74,729	198,703
1986	104,162	22-Jun	Ave.(88-90&95-96) FW CPUE	0.095	115,045	14,939	100,106	60,934	175,980
1987	87,554	21-Jun	Ave.(88-90&95-96) FW CPUE	0.088	96,023	13,887	82,136	55,154	151,178
1988	86,629	19-Jun	1988 FW CPUE	0.065	92,641	12,967	79,674	25,811	118,452
1989	99,467	18-Jun	1989 FW CPUE	0.128	114,068	18,805	95,263	63,367	177,435
1990	117,385	10-Jun	1990 CPUE	0.002	117,573	21,474	96,099	109,292	226,865
1991	153,773	9-Jun	Ave.(88-90&95-96) FW CPUE	0.007	154,873	25,380	129,493	104,931	260,103
1992	162,003	21-Jun	Ave.(88-90&95-96) FW CPUE	0.032	167,376	29,862	137,514	123,655	291,031
1993	138,523	13-Jun	Ave.(88-90&95-96) FW CPUE	0.026	142,148	33,523	108,625	142,239	284,387
1994	129,119	12-Jun	Ave.(88-90&95-96) FW CPUE	0.019	131,580	29,001	102,579	98,157	229,737
1995	145,264	11-Jun	1995 FW CPUE	0.008	146,450	32,711	113,739	91,998	238,448
1996	132,322	9-Jun	1996 FW CPUE	0.017	134,651	42,025	92,626	188,396	323,047
1997	93,816	3-May	1997 FW CPUE	0.017	95,438	24,352	71,086	79,341	174,779
1998	89,992	2-May	No Expansion		89,992	19,277	70,715	50,646	140,638
1999	113,706	14-May	No Expansion		113,706	21,151	92,555	64,581	178,287
Averages									
84-99					124,133	23,816	100,317	87,727	211,860
90-99					130,312	27,876	102,436	106,267	236,579
2000	103,735		No expansion in 2000		103,735	28,468	75,267	132,642	236,377

Appendix D. 10. Sockeye salmon escapement estimates of Taku River and Port Snettisham sockeye salmon stocks, 1979-2000.

Spawners equals escapement to the weir minus fish collected for brood stock.										
Year	Little Trapper		Tatsamenie		Kuthai	Nahlin	Crescent Lake		Speel Lake	
	Count	Escapement	Escapement	Spawners	Lake Weir	River Weir	Escapement	Spawners	Escapement	Spawners
1980					1,658					
1981					2,299					
1982										
1983 <sup>b</sup>	7,402	7,402					19,422	19,422	10,484	10,484
1984	13,084	13,084					6,707	6,707	9,764	9,764
1985 <sup>b</sup>	14,889	14,889	13,093	13,093			7,249	7,249	7,073	7,006
1986	13,820	13,820	11,446	11,446			3,414	3,414	5,857	5,457
1987 <sup>b</sup>	12,007	12,007	2,794	2,794			7,839	7,839	9,319	9,319
1988 <sup>cd</sup>	10,637	10,637	2,063	2,063		138	1,199	1,199	969	710
1989 <sup>d</sup>	9,606	9,606	3,039	3,039			1,109	775	12,229	10,114
1990 <sup>d</sup>	9,443	7,777	5,736	4,929		2,515	1,262	757	18,064	16,867
1991 <sup>a</sup>	22,942	21,001	8,381	7,585			9,208	8,666	299	299
1992 <sup>ac</sup>	14,372	12,732	6,576	5,681	1,457	297	22,674	21,849	9,439	8,136
1993 <sup>d</sup>	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 <sup>ac</sup>	11,524	11,524	8,000	6,607	3,310	3,711			16,208	14,260
1996 <sup>ef</sup>	5,483	5,483	10,381	8,026	4,243	2,538			20,000	18,610
1997 <sup>g</sup>	5,924	5,924	8,363	5,981	5,746	1,857			4,999	i
1998 <sup>h</sup>	8,717	8,717	5,997	4,735	1,934	345			13,358	i
1999	11,805	11,805	2,104	1,888	10,042				10,277	i
Averages										
83-99	11,913	11,517	6,491	5,712	4,809	1,647	8,008	7,788	9,889	9,252
90-99	12,108	11,434	6,494	5,324	4,809	1,836	11,048	10,424	11,581	11,634
2000	11,551	11,551	7,575	5,570	4,096				6,764	i

<sup>a</sup> Mark-recapture estimates for Crescent 91, 92 Speel 95

<sup>b</sup> Weir count plus spawning ground survey. Trapper 83, 85, 87

<sup>c</sup> Weir counts are incomplete. Kuthai 92, Nahlin 88, 92

<sup>d</sup> Counts may be low due to uncounted fish passage past weir. Crescent 88-90, Speel 90, Kuthai 93

<sup>e</sup> In 1995 the weir was moved upstream to Tatsamenie Lake, the count of 8,000 is an expansion (based on past experience) of the 5,780 fish counted there.

<sup>f</sup> The estimated return of 10,381 through the Tatsamenie Lake weir in 1996 is thought to represent approximately 80% of the sockeye run past the old weir location at Little Tatsamenie Lake. This results in a potential run of 12,976 sockeye salmon.

<sup>g</sup> The estimated return of 8,363 through the Tatsamenie Lake weir in 1997 is thought to represent approximately 80% of the sockeye run past the old weir location at L. Tatsamenie Lake resulting in a potential run of 10,454 sockeye.

<sup>h</sup> The estimated count of 5,997 fish through Tatsamenie Lake weir in 1998 does not include an estimated 1,499 fish spawning in the outlet stream i.e. total estimate 7,496.

<sup>i</sup> Minimum estimates of run size

Appendix D. 11. Taku River Chinook salmon run size, 1989-2000.

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

Large Chinook are MEF length  $\geq$  660.

Year	Above Border M-R		Confidence Intervals		Canadian Catch <sup>a</sup>	Spawning Escapement	U.S. Catch <sup>b</sup>	Total Run
	Run Estimate	Start Date	Lower	Upper				
Large Fish Only								
1989	41,464		29,263	51,395	1,135	40,329		
1990	53,561		33,863	70,421	1,419	52,142		
1991					1,555			
1992					1,636			
1993					1,716			
1994					2,187			
1995	35,622		23,887	43,723	1,817	33,805	2,791	38,413
1996	82,079		61,285	96,753	3,060	79,019	6,399	88,478
1997	117,514	3-May	79,878	149,998	2,576	114,938	7,214	124,728
1998	32,426	3-May	6,108	55,970	1,387	31,039	2,361	34,787
1999	21,431	3-May	11,978	27,490	1,697	19,734	3,179	24,610
Averages								
95-99	57,814		36,627	74,787	2,107	55,707	4,389	62,203
2000	33,494	24-Apr	19,912	41,146	2,965	30,529	1,971	35,464

<sup>a</sup>From 1999-2000 to determine the number of large fish in the Canadian harvest, the average % of large fish (75%) was applied to all catches except the recreational catch, which is assumed to be 100% large and comprise 300 fish annually.

<sup>b</sup> U.S. catch includes D111 commercial gillnet and Juneau area sport fishery harvests; the estimate of large fish for the commercial fishery includes age-1.3 and older fish; all sport harvests are assumed to be large fish.

Appendix D. 12. Aerial survey index escapement counts of Taku River Chinook salmon, 1975-2000.

Chinook are MEF length  $\geq$  660.

Year	Kowatua	Tatsatua	Dudidontu	Tseta	Nakina	Nahlin	Total Index
							Count without Tseta
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 <sup>ab</sup>	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
Averages							
75-99	648	908	478	356	3,975	1,651	8,016
90-99	852	1,140	880	503	5,294	2,277	10,946
2000	702	953	482	160	2,907	728	5,932

<sup>a</sup> Partial survey. Tseta 84

<sup>b</sup> Extrapolated results. Nahlin 84



### Appendix D. 13. Taku River (above border) coho salmon run size, 1987-2000.

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.

Year	Above Border M-R		Expansion		Expanded Estimate	Canadian Catch	Escape.	U.S. Catch	Total Run	Total Exploitation Rate
	Run Estimate	End Date	Method	Factor						
	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	50,557	5-Sep	District 111-32 CPUE	1.79	90,394	5,541	84,853	96,283	186,677	0.545
1993	62,076	11-Sep	District 111-32 CPUE	1.84	114,091	4,634	109,457	97,758	211,849	0.483
1994	98,643	24-Sep	District 111-32 CPUE	1.13	111,036	14,693	96,343	228,607	339,643	0.716
1995	61,738	30-Sep	District 111-32 CPUE	1.12	69,448	13,738	55,710	111,571	181,019	0.692
1996	44,172	28-Sep	District 111-32 CPUE	1.12	49,687	5,052	44,635	44,529	94,216	0.526
1997	35,035	27-Sep	District 111-32 CPUE	1.00	35,035	2,690	32,345	15,825	50,860	0.364
1998	49,290	26-Sep	District 111-32 CPUE	1.35	66,472	5,090	61,382	53,368	119,840	0.488
1999	59,052	3-Oct	Troll CPUE	1.12	66,343	5,575	60,768	50,789	117,132	0.481
Averages										
90-99	66,937	267		1.25	81,131	6,614	74,517	87,341	162,655	0.537
2000	70,147	2-Oct	no expansion	1.00	70,147	5,447	64,700	35,390	105,537	0.387

### Appendix D. 14. Escapement counts of Taku River coho salmon, 1984-2000.

Counts are for age-1 fish and do not include smalls. Because of variability between methods, visibility, observers, and timing, these counts are not an index of run strength.

Year	Yehring Creek		Sockeye Creek	Johnson Creek	Fish Creek	Flannigan Slough	Tatsamenie River	Hackett River	Dudidontu River	Upper Nahlin River	
	Weir	Aerial	Aerial	Ar/Foot	Aerial	Aerial	Weir	Weir	Aerial	Aerial	Weir
	1984		2,900	275	235	700	1,480				
1985		560	740	150	1,000	2,320	201 <sup>b</sup>	1,031			
1986	2,116 <sup>a</sup>	1,200	174 <sup>c</sup>	70	53 <sup>c</sup>	1,095 <sup>c</sup>	344 <sup>b</sup>	2,723	108	318	
1987	1,627 <sup>a</sup>	565 <sup>c</sup>	980 <sup>c</sup>	150	250	2,100 <sup>c</sup>	173 <sup>b</sup>	1,715	276	165	
1988	1,423	658 <sup>c</sup>	585 <sup>c</sup>	500	1,215 <sup>c</sup>	1,308 <sup>c</sup>	663 <sup>a</sup>	1,260	367	694	1,322
1989	1,570 <sup>d</sup>	600	400	400	235	1,670	712 <sup>a</sup>		115	322	
1990	2,522 <sup>d</sup>	220	193 <sup>c</sup>		425 <sup>c</sup>	414 <sup>c</sup>	669 <sup>a</sup>		25	256	
1991		475 <sup>c</sup>	399 <sup>c</sup>	120	1,378 <sup>c</sup>	1,348 <sup>c</sup>	1,101		458	176 <sup>c</sup>	
1992		1267 <sup>cf</sup>	594 <sup>f</sup>	654	478	1,288	730				970 <sup>ab</sup>
1993		250	130	90	380	70	88 <sup>b</sup>				326 <sup>e</sup>
1994		500	60	450	200	50	168				2112 <sup>e</sup>
1995		70	230	170	132	421	62 <sup>b</sup>				
1996		35	28	50	250	278	21 <sup>b</sup>				
1997		500	10	550	600						
1998		280		300	450						
1999		1,050			400						
Averages											
84-99	1,852	696	343	278	509	1,065	411	1,682	225	322	1,183
90-99	2,522	465	206	298	469	553	406		242	216	1,136
2000		450		500	1,800						

<sup>a</sup> Weir count combined with spawning ground count. Tatsamenie 88-90, Yehring 86-87, Nahlin 92.

<sup>b</sup> Incomplete weir count. Tatsamenie 85-87, 93, 95, 96; and Nahlin 92

<sup>c</sup> Count is an average of surveys by different observers. Flannigan 86, 87, 88, 90, 91; sockeye 86, 87, 88, 90, 91; Fish 86, 88, 90, 91; Yehring 87, 88, 91, 92

<sup>d</sup> Includes mark-recapture estimate. Yehring 89, 90

<sup>e</sup> Poor survey conditions. Nahlin 91.

<sup>f</sup> Foot survey. Yehring 92, Sockeye 92

<sup>g</sup> Surveys conducted before peak abundance on spawning grounds Flannigan 93, 94

Appendix D. 15. Canyon Island fish wheel salmon counts and periods of operation on the Taku River, 1983-2000.

Year	Period of Operation	Catch							
		Chinook	Sockeye	Coho	Pink	Chum	Pink		Steelhead
							even year	odd year	
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 <sup>a</sup>	894	4,230	1,777	23,347	179	23,347		119
1999	5/3-10/3 <sup>b</sup>	440	4,636	1,848	23,503	164		23,503	119
Averages									
84-99		928	5,290	2,216	17,727	574	15,829	19,625	69
90-99		1,043	5,965	2,595	15,000	415	18,928	11,071	80
2000	4/23-10/3b	1,211	5,865	1,877	6,529	423	6,529		160

<sup>a</sup> gillnetting was used to supplement catches from September 16-23

<sup>b</sup> gillnetting was used to supplement catches from April 24 - June 23 and September 3 - October 3.

Appendix E. 1. Weekly salmon catch and effort in the lower Alsek River fisheries, 2000.

Chinook are MEF length  $\geq$  660.

Week	Start Date	Catch					Effort		
		Chinook	Sockeye	Coho	Pink	Chum	Boats	Days Open	Boat Days
25	11-Jun	354	1,290	0	0	0	13	2.0	26.0
26	18-Jun	240	1,591	0	0	0	14	2.0	28.0
27	25-Jun	42	825	0	0	0	13	1.0	13.0
28	2-Jul	18	891	0	0	0	14	1.0	14.0
29	9-Jul	10	847	0	0	0	14	1.0	14.0
30	16-Jul	5	719	0	0	0	13	1.0	13.0
31	23-Jul	6	593	0	0	1	14	1.0	14.0
32	30-Jul	2	2,199	71	1	5	14	2.0	28.0
33	6-Aug	0	263	5	0	0	8	1.0	8.0
34	13-Aug	0	163	61	0	0	7	1.0	7.0
35	20-Aug	0	89	747	2	1	9	3.0	27.0
36	27-Aug	0	33	1,418	2	4	7	4.0	28.0
37	3-Sep	0	17	1,119	0	42	7	4.0	28.0
38	10-Sep	0	2	738	0	39	5	4.0	20.0
39	17-Sep	0	0	594	0	33	6	3.0	18.0
40	24-Sep	0	0	270	0	5	5	3.0	15.0
41	1-Oct	0	0	80	0	0	2	3.0	6.0
Total		677	9,522	5,103	5	130		40.0	307.0

Appendix E. 2. Weekly salmon catch and effort in the Canadian Aboriginal and sport fisheries in the Alsek River, 2000.

Week	Date	Chinook				Sockeye				Coho			
		Recreational		Aborigina	Total <sup>b</sup>	Recreational		Aborigina	Total <sup>b</sup>	Recreational		Aborigina	Total <sup>b</sup>
Kept <sup>a</sup>	Released <sup>a</sup>	Kept	Released			Kept	Released			Kept	Released		
25	11-Jun	0	0	0	0	0	0	0	0	0	0	0	0
26	18-Jun	0	0	0	0	0	0	0	0	0	0	0	0
27	25-Jun	0	0	0	0	0	0	0	0	0	0	0	0
28	2-Jul	0	0	0	0	0	0	0	0	0	0	0	0
29	9-Jul	5	3	2	7	0	2	1	1	0	0	0	0
30	16-Jul	16	21	8	24	0	4	0	0	0	0	0	0
31	23-Jul	15	12	31	46	0	0	6	6	0	0	0	0
32	30-Jul	3	3	14	17	0	2	15	15	0	0	0	0
33	6-Aug	0	0	4	4	0	1	13	13	0	0	0	0
34	13-Aug	0	0	0	0	0	0	0	0	0	0	0	0
35	20-Aug	0	0	3	3	0	0	82	82	0	0	0	0
36	27-Aug	0	0	3	3	0	0	62	62	0	0	0	0
37	3-Sep	0	0	0	0	0	29	34	34	0	0	0	0
38	10-Sep	0	0	0	0	0	22	185	185	0	0	0	0
39	17-Sep	0	0	0	0	0	0	165	165	0	0	6	6
40	24-Sep	0	0	0	0	0	0	55	55	0	0	12	12
41	1-Oct	0	0	0	0	0	0	115	115	0	0	22	22
42	8-Oct	0	0	0	0	0	0	12	12	1	40	11	12
Total		39	39	65	104	0	61	745	745	1	40	51	52
Commercial Sport		19	75		19		4		0				0
Total		58	114	65	123	0	65	745	745	1	40	51	52
Village Creek food fish <sup>c</sup>												0	0
Harvest at Klukshu River weir													
Food fish above Klukshu Weir <sup>d</sup>				44				129				41	

<sup>a</sup> Includes estimates of sport catch (kept and released) in Takhanne and Blanchard rivers; estimates based on salmon catch card information.

<sup>b</sup> Does not include released recreational or aboriginal fish.

<sup>c</sup> The total food fish catch above the Klukshu Weir and at Village Creek are included in the weekly aboriginal catches.

Appendix E. 3. Daily counts of salmon passing through Klukshu River weir, 2000.

Small Chinook included in the catch.									
Date	Chinook <sup>a</sup>			Sockeye			Coho		
	Daily	Cumulative		Daily	Cumulative		Daily	Cumulative	
		Daily	Prop.		Daily	Prop.		Daily	Prop.
10-Jun	0	0	0.000	0	0	0.000	0	0	0.000
11-Jun	0	0	0.000	0	0	0.000	0	0	0.000
12-Jun	0	0	0.000	0	0	0.000	0	0	0.000
13-Jun	0	0	0.000	0	0	0.000	0	0	0.000
14-Jun	0	0	0.000	0	0	0.000	0	0	0.000
15-Jun	0	0	0.000	0	0	0.000	0	0	0.000
16-Jun	0	0	0.000	0	0	0.000	0	0	0.000
17-Jun	0	0	0.000	0	0	0.000	0	0	0.000
18-Jun	0	0	0.000	0	0	0.000	0	0	0.000
19-Jun	0	0	0.000	0	0	0.000	0	0	0.000
20-Jun	0	0	0.000	0	0	0.000	0	0	0.000
21-Jun	0	0	0.000	0	0	0.000	0	0	0.000
22-Jun	0	0	0.000	0	0	0.000	0	0	0.000
23-Jun	0	0	0.000	0	0	0.000	0	0	0.000
24-Jun	1	1	0.001	0	0	0.000	0	0	0.000
25-Jun	0	1	0.001	0	0	0.000	0	0	0.000
26-Jun	6	7	0.005	0	0	0.000	0	0	0.000
27-Jun	6	13	0.010	0	0	0.000	0	0	0.000
28-Jun	1	14	0.010	0	0	0.000	0	0	0.000
29-Jun	1	15	0.011	0	0	0.000	0	0	0.000
30-Jun	0	15	0.011	0	0	0.000	0	0	0.000
1-Jul	0	15	0.011	0	0	0.000	0	0	0.000
2-Jul	0	15	0.011	0	0	0.000	0	0	0.000
3-Jul	0	15	0.011	0	0	0.000	0	0	0.000
4-Jul	0	15	0.011	0	0	0.000	0	0	0.000
5-Jul	2	17	0.012	0	0	0.000	0	0	0.000
6-Jul	0	17	0.012	0	0	0.000	0	0	0.000
7-Jul	2	19	0.014	0	0	0.000	0	0	0.000
8-Jul	3	22	0.016	0	0	0.000	0	0	0.000
9-Jul	3	25	0.018	0	0	0.000	0	0	0.000
10-Jul	10	35	0.026	0	0	0.000	0	0	0.000
11-Jul	8	43	0.032	0	0	0.000	0	0	0.000
12-Jul	4	47	0.034	0	0	0.000	0	0	0.000
13-Jul	3	50	0.037	0	0	0.000	0	0	0.000
14-Jul	17	67	0.049	0	0	0.000	0	0	0.000
15-Jul	12	79	0.058	0	0	0.000	0	0	0.000
16-Jul	4	83	0.061	0	0	0.000	0	0	0.000
17-Jul	9	92	0.067	0	0	0.000	0	0	0.000
18-Jul	11	103	0.075	0	0	0.000	0	0	0.000
19-Jul	11	114	0.084	0	0	0.000	0	0	0.000
20-Jul	15	129	0.095	1	1	0.000	0	0	0.000
21-Jul	17	146	0.107	3	4	0.001	0	0	0.000
22-Jul	45	191	0.140	5	9	0.002	0	0	0.000
23-Jul	229	420	0.308	8	17	0.003	0	0	0.000
24-Jul	51	471	0.345	2	19	0.003	0	0	0.000
25-Jul	28	499	0.366	4	23	0.004	0	0	0.000
26-Jul	90	589	0.432	2	25	0.005	0	0	0.000
27-Jul	128	717	0.525	38	63	0.011	0	0	0.000
28-Jul	136	853	0.625	10	73	0.013	0	0	0.000
29-Jul	27	880	0.645	0	73	0.013	0	0	0.000
30-Jul	87	967	0.708	3	76	0.014	0	0	0.000
31-Jul	43	1,010	0.740	3	79	0.014	0	0	0.000
1-Aug	21	1,031	0.755	18	97	0.017	0	0	0.000
2-Aug	20	1,051	0.770	1	98	0.018	0	0	0.000
3-Aug	23	1,074	0.787	31	129	0.023	0	0	0.000
4-Aug	33	1,107	0.811	6	135	0.024	0	0	0.000
5-Aug	49	1,156	0.847	7	142	0.026	0	0	0.000
6-Aug	24	1,180	0.864	32	174	0.031	0	0	0.000
7-Aug	16	1,196	0.876	7	181	0.033	0	0	0.000
8-Aug	55	1,251	0.916	4	185	0.033	0	0	0.000
9-Aug	9	1,260	0.923	3	188	0.034	0	0	0.000

Appendix E.3. Page 2 of 2.

10-Aug	5	1,265	0.927	9	197	0.035	0	0	0.000
11-Aug	6	1,271	0.931	1	198	0.036	0	0	0.000
12-Aug	16	1,287	0.943	2	200	0.036	0	0	0.000
13-Aug	15	1,302	0.954	2	202	0.036	0	0	0.000
14-Aug	7	1,309	0.959	10	212	0.038	0	0	0.000
15-Aug	1	1,310	0.960	25	237	0.043	0	0	0.000
16-Aug	5	1,315	0.963	0	237	0.043	0	0	0.000
17-Aug	2	1,317	0.965	1	238	0.043	0	0	0.000
18-Aug	4	1,321	0.968	25	263	0.047	0	0	0.000
19-Aug	2	1,323	0.969	3	266	0.048	0	0	0.000
20-Aug	4	1,327	0.972	8	274	0.049	0	0	0.000
21-Aug	2	1,329	0.974	0	274	0.049	0	0	0.000
22-Aug	2	1,331	0.975	22	296	0.053	0	0	0.000
23-Aug	8	1,339	0.981	10	306	0.055	0	0	0.000
24-Aug	1	1,340	0.982	6	312	0.056	0	0	0.000
25-Aug	6	1,346	0.986	3	315	0.057	0	0	0.000
26-Aug	4	1,350	0.989	5	320	0.058	0	0	0.000
27-Aug	2	1,352	0.990	3	323	0.058	0	0	0.000
28-Aug	3	1,355	0.993	6	329	0.059	0	0	0.000
29-Aug	3	1,358	0.995	0	329	0.059	0	0	0.000
30-Aug	1	1,359	0.996	5	334	0.060	0	0	0.000
31-Aug	2	1,361	0.997	11	345	0.062	0	0	0.000
1-Sep	0	1,361	0.997	4	349	0.063	0	0	0.000
2-Sep	1	1,362	0.998	2	351	0.063	0	0	0.000
3-Sep	0	1,362	0.998	2	353	0.064	0	0	0.000
4-Sep	0	1,362	0.998	2	355	0.064	0	0	0.000
5-Sep	0	1,362	0.998	27	382	0.069	0	0	0.000
6-Sep	0	1,362	0.998	128	510	0.092	0	0	0.000
7-Sep	1	1,363	0.999	135	645	0.116	0	0	0.000
8-Sep	0	1,363	0.999	39	684	0.123	0	0	0.000
9-Sep	2	1,365	1.000	17	701	0.126	0	0	0.000
10-Sep	0	1,365	1.000	6	707	0.127	0	0	0.000
11-Sep	0	1,365	1.000	2	709	0.128	2	2	0.000
12-Sep	0	1,365	1.000	5	714	0.129	1	3	0.001
13-Sep	0	1,365	1.000	1	715	0.129	1	4	0.001
14-Sep	0	1,365	1.000	11	726	0.131	5	9	0.002
15-Sep	0	1,365	1.000	160	886	0.160	28	37	0.008
16-Sep	0	1,365	1.000	267	1,153	0.208	36	73	0.015
17-Sep	0	1,365	1.000	685	1,838	0.331	78	151	0.031
18-Sep	0	1,365	1.000	1,245	3,083	0.555	92	243	0.050
19-Sep	0	1,365	1.000	192	3,275	0.590	42	285	0.059
20-Sep	0	1,365	1.000	172	3,447	0.621	70	355	0.073
21-Sep	0	1,365	1.000	100	3,547	0.639	63	418	0.087
22-Sep	0	1,365	1.000	844	4,391	0.791	219	637	0.132
23-Sep	0	1,365	1.000	568	4,959	0.893	181	818	0.169
24-Sep	0	1,365	1.000	457	5,416	0.976	217	1,035	0.214
25-Sep	0	1,365	1.000	54	5,470	0.985	186	1,221	0.253
26-Sep	0	1,365	1.000	23	5,493	0.990	144	1,365	0.282
27-Sep	0	1,365	1.000	3	5,496	0.990	165	1,530	0.317
28-Sep	0	1,365	1.000	4	5,500	0.991	140	1,670	0.346
29-Sep	0	1,365	1.000	3	5,503	0.991	103	1,773	0.367
30-Sep	0	1,365	1.000	0	5,503	0.991	27	1,800	0.373
1-Oct	0	1,365	1.000	0	5,503	0.991	15	1,815	0.376
2-Oct	0	1,365	1.000	0	5,503	0.991	11	1,826	0.378
3-Oct	0	1,365	1.000	4	5,507	0.992	156	1,982	0.410
4-Oct	0	1,365	1.000	0	5,507	0.992	76	2,058	0.426
5-Oct	0	1,365	1.000	0	5,507	0.992	162	2,220	0.459
6-Oct	0	1,365	1.000	1	5,508	0.992	333	2,553	0.528
7-Oct	0	1,365	1.000	20	5,528	0.996	445	2,998	0.620
8-Oct	0	1,365	1.000	1	5,529	0.996	116	3,114	0.644
9-Oct	0	1,365	1.000	2	5,531	0.996	121	3,235	0.669
10-Oct	0	1,365	1.000	7	5,538	0.998	229	3,464	0.717
11-Oct	0	1,365	1.000	2	5,540	0.998	206	3,670	0.760
12-Oct	0	1,365	1.000	7	5,547	0.999	513	4,183	0.866
13-Oct	0	1,365	1.000	1	5,548	0.999	162	4,345	0.899
14-Oct	0	1,365	1.000	1	5,549	1.000	136	4,481	0.927
15-Oct	0	1,365	1.000	1	5,550	1.000	84	4,565	0.945
16-Oct	0	1,365	1.000	0	5,550	1.000	111	4,676	0.968
17-Oct	0	1,365	1.000	1	5,551	1.000	154	4,830	1.000
18-Oct	0	1,365	1.000	0	5,551	1.000	2	4,832	1.000
Total Count		1,365			5,551			4,832	
Catch above weir		44			129			41	
Total Escapement		1,321			5,422			4,791	

Appendix E. 4. Salmon catch and effort in the U.S. Commercial fishery in the Alsek River, 1960 to 2000.

Year	Catch					Effort	
	Chinook	Sockeye	Coho	Pink	Chum	Boat Days	Days Open
1960							
1961	2,120	23,339	7,679	84	86	1,436	80.0
1962							
1963	131	6,055	7,164	42	34	692	68.0
1964	591	14,127	9,760	144	367	592	68.0
1965	719	28,487	9,638	10	72	1,016	72.0
1966	934	29,091	2,688	22	240	500	64.0
1967	225	11,108	10,090	107	30	600	68.0
1968	215	26,918	10,586	82	240	664	68.0
1969	685	29,259	2,493	38	61	807	61.0
1970	1,128	22,654	2,188	6	26	670	52.3
1971	1,222	25,314	4,730	3	120	794	60.5
1972	1,827	18,717	7,296	37	280	640	65.0
1973	1,757	26,523	4,395	26	283	894	52.0
1974	1,162	16,747	7,046	13	107	699	46.0
1975	1,379	13,842	2,230	16	261	738	58.0
1976	512	19,741	4,883	0	368	550	58.5
1977	1,402	40,780	11,817	689	483	882	57.0
1978	2,441	50,580	13,913	59	233	929	57.0
1979	2,525	41,449	6,158	142	263	1,110	51.0
1980	1,382	25,522	7,863	21	1,005	773	42.0
1981	779	23,641	10,232	65	816	588	40.0
1982	532	27,443	6,534	6	358	552	33.0
1983	94	18,293	5,253	20	432	487	38.0
1984	60	14,326	7,868	24	1,610	429	33.0
1985	213	5,792	5,490	3	427	277	33.0
1986	481	24,791	1,344	13	462	517	34.0
1987	347	11,393	2,517	0	1,924	388	40.5
1988	223	6,286	4,986	7	908	324	34.0
1989	228	13,513	5,972	2	1,031	378	38.0
1990	78	17,013	1,437	0	495	374	38.0
1991	103	17,542	5,956	0	105	530	49.0
1992	301	19,298	3,116	1	120	378	46.0
1993	300	20,043	1,215	0	49	386	40.0
1994	805	19,639	4,182	0	32	423	61.0
1995	670	33,112	14,184	13	347	934	53.5
1996	772	15,182	5,514	0	165	441	47.5
1997	568	25,879	11,427	0	34	653	56.0
1998	550	15,007	4,925	1	145	399	41.0
1999	511	11,441	5,660	0	112	330	37.0
Averages							
60-99	789	21,313	6,327	45	372	626	51.1
90-99	466	19,416	5,762	2	160	485	46.9
2000	677	9,522	5,103	5	130	307	37.0

Appendix E. 5. Salmon catch in the U.S. subsistence and personal use fisheries in the Alsek River, 1976-2000.

Catches are those reported on returned permits			
Year	Catch		
	Chinook	Sockeye	Coho
1976	13	51	5
1977	18	113	0
1978			
1979	80	35	70
1980	57	41	62
1981	32	50	74
1982	87	75	50
1983	31	25	50
1984			
1985	16	95	0
1986	22	241	45
1987	27	173	31
1988	13	148	9
1989	20	131	34
1990	85	144	12
1991	38	104	0
1992	15	37	44
1993	38	96	28
1994	60	47	20
1995	51	167	53
1996	60	67	28
1997	38	273	26
1998	63	158	42
1999	44	152	21
Averages			
76-99	41	110	32
90-99	49	125	27
2000	73	146	31

Appendix E. 6. Salmon catches in the Canadian Aboriginal and sport fisheries in the Alsek River, 1976 to 2000.

Year	Chinook			Sockeye			Coho		
	Aboriginal	Recreational	Total	Aboriginal	Recreational	Total	Aboriginal	Recreational	Total
1976	150	200	350	4,000	600	4,600	0	100	100
1977	350	300	650	10,000	500	10,500	0	200	200
1978	350	300	650	8,000	500	8,500	0	200	200
1979	1,300	650	1,950	7,000	750	7,750	0	100	100
1980	150	200	350	800	600	1,400	0	200	200
1981	150	315	465	2,000	808	2,808	0	109	109
1982	400	224	624	5,000	755	5,755	0	109	109
1983	300	312	612	2,550	732	3,282	0	16	16
1984	100	475	575	2,600	289	2,889	0	20	20
1985	175	250	425	1,361	100	1,461	50	100	150
1986	102	165	267	1,914	307	2,221	0	9	9
1987	125	367	492	1,158	383	1,541	0	49	49
1988	43	249	292	1,604	322	1,926	0	192	192
1989	234	272	506	1,851	319	2,170	0	227	227
1990	202	555	757	2,314	392	2,706	0	75	75
1991	509	388	897	2,111	303	2,414	0	227	227
1992	148	103	251	2,592	582	3,174	0	213	213
1993	152	171	323	2,361	329	2,690	0	37	37
1994	289	197	486	1,745	261	2,006	8	69	77
1995	580	1,044	1,624	1,745	682	2,427	83	527	610
1996	448	650	1,098	1,204	157	1,361	56	9	65
1997	232	298	530	484	36	520	5	0	5
1998	171	175	346	567	18	585	72	40	112
1999	238	174	412	554	0	554	0	28	28
Averages									
76-99	287	335	622	2,730	405	3,135	11	119	130
90-99	297	375	672	1,568	276	1,844	22	123	145
2000	65	77	142	745	0	745	51	1	52



Appendix E. 7. Annual Klukshu River weir counts of Chinook, sockeye, and coho salmon, 1976 to 2000.

The escapement count equals the weir count minus the aboriginal fishery catch above the weir and broodstock taken.

Year	Chinook <sup>a</sup>		Sockeye			Coho <sup>b</sup>		
	Count	Escape. <sup>c</sup>	Early <sup>d</sup>	Late	Total	Escape.	Count	Escape. <sup>c</sup>
1976	1,278	1,153	181	11,510	11,691	7,941	1,572	
1977	3,144	2,894	8,931	17,860	26,791	15,441	2,758	
1978	2,976	2,676	2,508	24,359	26,867	19,017	30	
1979	4,404	2,454	977	11,334	12,311	7,051	175	
1980	2,637	2,487	1,008	10,742	11,750	10,850	704	
1981	2,113	1,963	997	19,351	20,348	18,448	1,170	
1982	2,369	1,969	7,758	25,941	33,699	28,899	189	
1983	2,537	2,237	6,047	14,445	20,492	18,017	303	
1984	1,672	1,572	2,769	9,958	12,727	10,227	1,402	
1985	1,458	1,283	539	18,081	18,620	17,259	350	
1986	2,709	2,607	416	24,434	24,850	22,936	71	
1987	2,616	2,491	3,269	7,235	10,504	9,346	202	
1988	2,037	1,994	585	8,756	9,341	7,737	2,774	
1989	2,456	2,289	3,400	20,142	23,542	21,636	2,219	
1990	1,915	1,742	1,316	24,679	25,995	24,607	315	
1991	2,489	2,248	1,924	17,053	18,977	17,645	8,540	8,478
1992	1,367	1,242	11,339	8,428	19,767	18,269	1,145	1,145
1993	3,302	3,220	5,369	11,371	16,740	14,921	788	788
1994	3,727	3,628	3,247	11,791	15,038	13,892	1,232	1,232
1995	5,678	5,394	2,289	18,407	20,696	19,817	3,614	3,564
1996	3,599	3,382	1,502	6,818	8,320	7,891	3,465	3,465
1997	2,989	2,829	6,565	4,931	11,496	11,303	307	302
1998	1,364	1,347	597	12,994	13,591	13,580	1,961	1,961
1999	2,193	2,168	371	5,010	5,381	5,101	2,531	2,531
Averages								
76-99	2,626	2,386	3,079	14,401	17,481	15,076	1,572	
90-99	2,862	2,720	3,452	12,148	15,600	14,703	2,381	2,607
2000	1,365	1,321	237	5,314	5,551	5,422	4,832	4,791

<sup>a</sup> Counts include small Chinook salmon.

<sup>b</sup> Weir was removed prior to the end of the coho run.

<sup>c</sup> The chinook and sockeye escapements into Klukshu Lake are calculated from the weir count minus fish harvested above the weir site minus broodstock taken. The remainder of the food fishery harvest occurred below the weir, at Village Creek, and Blanchard and Takhanne Rivers.

<sup>d</sup> Includes sockeye counts up to and including August 15.

Appendix E. 8. Alek River sockeye salmon counts from U.S. and Canadian aerial surveys and from the electronic counter at Village Creek, 1985-2000.

Year	U.S. Aerial Surveys <sup>a</sup>				Canada Aerial Surveys <sup>b</sup>		Village Creek Counter
	Basin Creek	Cabin Creek	Muddy Creek	Tanis River	Tatshenshini River	Neskataheen Lake	
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 <sup>c</sup>
1989	320			680	1,689	1,700	9,569
1990	275	300		3,500			5,313 <sup>c</sup>
1991				800			86 <sup>c</sup>
1992	1,000	10		50			7,447 <sup>c</sup>
1993	4,800			900			2,104 <sup>c</sup>
1994	250			600	366		3,921 <sup>c</sup>
1995	2,700			350			4,042
1996	325			650			1,583
1997	600			350			2,267
1998				130			826
1999	30			800			NA <sup>d</sup>
Averages							
85-99	1,065	177	300	1,071	756	969	4,116
90-99	1,248	155		813	366		4,461
2000	25			180	176		1,860

<sup>a</sup> Surveys not made every year at each tributary.

<sup>b</sup> Includes several streams from Lo-Fog to Goat Creek.

<sup>c</sup> Incomplete count due to machine malfunction.

<sup>d</sup> No counts due to malfunction of the counter.

Appendix E. 9. Aerial survey index counts of Alsek River Chinook salmon escapements, 1984 to 2000.

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 -Poor Cond.	158	34
1990	No Survey -Poor Cond.	325	32
1991	121	86	63
1992	86	77	16
1993	326	351	50
1994	349	342	67 <sup>a</sup>
1995	338	260	
1996	132	230	12
1997	109	190	
1998	71	136	39
1999	371	194	51
Averages			
84-99	290	226	52
90-99	211	219	41
2000	163	152	33

<sup>a</sup>Late survey date which missed the peak of spawning.

Appendix E. 10. Alsek River run of large ( $\geq 660$  mef) Chinook salmon, 1997-2004. Estimates are based on a mark-recapture study and include the percent of Chinook salmon.

Estimates are based on a mark-recapture study and include the percent of Chinook salmon spawning in Klukshu River. Chinook are MEF length  $\geq 660$ .

Year	Inriver Run			U.S. Catch		Total Inriver Run	Canadian Catch		
	Dry Bay	Past Confidence Interval		Dry Bay			Aboriginal	Sport Escapement	
		Lower	Upper	Commercial	subsistence	Sport		Escapement	
1997	15,250	9,081	21,418	568	38	15,856	232	298	14,720
1998	4,967	3,027	9,765	550	63	5,580	171	175	4,621
1999	11,969	8,243	22,035	482	44	12,495	238	174	11,557
1999	11,969	8,243	22,035	511	44	12,524	238	192	11,539
2000	8,432	6,805	14,308	677	36	9,145	65	58	8,309

Klukshu weir count of large chinook;MEF length  $\geq 660$  salmon as a percent of the Alsek escapement of large chinook salmon

Year	Weir Count		Percent Klukshu
	All	Large	
1997	2,989	2,864	19.5%
1998	1,364	1,184	25.6%
1999	2,193	1,663	14.4%
2000	1,365	1,218	14.7%

Appendix E. 11. Aerial survey counts of coho salmon from U.S. lower Alsek River tributaries, 1985-2000.

Year	Combined U.S. Tributary Counts
1985	450
1986	1,100
1987	100
1988	1,900
1989	1,990
1990	1,600
1991	500 <sup>a</sup>
1992	1010 <sup>a</sup>
1993	800 <sup>a</sup>
1994	975 <sup>a</sup>
1995	1,050
1996	1,550
1997	No surveys due to poor weather conditions
1998	500
1999	No surveys due to poor weather conditions
1999	No surveys due to poor weather conditions
<hr/>	
Averages	
85-99	1,040
90-99	998
<hr/>	
2000	620
<hr/>	

<sup>a</sup> Few systems surveyed.

Appendix F. 1. Tahltan Lake egg collection, fry plants, and survivals, 1989-2000.

Number for eggs and fry are millions. Eggs collected from Tahltan broodstock are used for outplants to both Tahltan and Tuya Lakes.

Brood Year	Egg Take		Designated Tahltan	Fry Planted	Percent Fertilized	Survival		Thermal Mark Pattern
	Target	Collected <sup>a</sup>				Fertilized Egg to Fry	Green Egg to Fry	
1989 <sup>a</sup>	3.000	2.955	2.955	1.042	0.704	0.501	0.353	1:1.4
1990	5.000	4.511	4.511	3.585	0.824	0.964	0.795	1:1.3
1991	5.000	4.246	1.514	1.415	0.949	0.984	0.935	1:1.4
1992	5.400	4.901	2.154	1.947	0.919	0.983	0.904	1:1.5+2.3
1993	6.000	6.140	0.969	0.904	0.946	0.986	0.933	1:1.6+2.5N
1994	6.000	4.183	1.418	1.143	0.929	0.868	0.806	1:1.6
1995	6.000	6.891	3.008	2.296	0.906	0.843	0.763	1:1.7
1996	6.000	6.402	3.169	2.313	0.923	0.791	0.730	1:1.6
1997	6.000	3.221	2.700	1.900	0.812	0.867	0.704	2:1.6
1998	6.000	4.022	1.998	1.671	0.911	0.918	0.836	1:1.7
1999	6.000	3.505	2.773	2.228	0.901	0.892	0.803	2:1.6
Averages								
90-99	5.740	4.802	2.421	1.940	0.902	0.910	0.821	
2000	6.000	2.388	2.388	1.873	0.920	0.853	0.784	1:1.7

Appendix F. 2. Tuya Lake fry plants and survivals, 1991-2000.

Numbers for eggs and fry are millions

Brood Year	Egg Take		Percent Fertilized	Survival		Thermal Mark Pattern
	Designated Tuya	Fry Planted		Fertilized Egg to Fry	Green Egg to Fry	
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	2.614	0.932	0.868	0.809	1:1.4
1997	0.521	0.433	0.911	0.912	0.831	2:1.4
1998	2.024	1.603	0.917	0.864	0.792	1:1.4
1999	1.053	0.867	0.960	0.858	0.823	2:1.4
Averages						
91-99	2.681	2.063	0.908	0.850	0.771	
2000 <sup>a</sup>	0.000	0.000				

<sup>a</sup> All eggs collected in 2000 were for backplant into Tahltan Lake.

Appendix F. 3. Tatsamenie Lake egg collection, fry plants, and survivals, 1989-2000.

Brood Year	Egg Take			Fry Planted	Percent Fertilized	Survival <sup>b</sup>		Thermal Mark Pattern	Last Date Released
	Target	Collected <sup>a</sup>	Transport			Fertilized Egg to Fry	Green Egg to Fry		
1990	2.500	0.985	0.985	0.673	0.775	0.882	0.683	1:1.3	22-Jun
1991	1.500	1.360	1.360	1.232	0.927	0.977	0.906	2:1.4	26-Jun
1992	1.750	1.486	1.486	0.909	0.858	0.713	0.612	1:1.5	14-Jul
1993	2.500	1.144	1.144	0.521	0.619	0.735	0.455	2:1.5	14-Jul
1994	2.500	1.229	1.229	0.898	0.801	0.912	0.731	1:1.5	21-Jul
1995	2.500	2.407	2.407	1.724	0.843	0.850	0.716	1:1.5	25-Jun
1996	5.000	4.934	4.934	3.945	0.849	0.942	0.800	1:1.5&1:1.5,2,3	27-Jun
1997	5.000	4.651	4.651	3.597	0.910	0.850	0.773	2:1&2:1.5,2,3	9-Jul
1998	2.500	2.414	2.414	1.769	0.897	0.817	0.733	1:1.4+2.5&1:1.4+2.3	30-Jun
1999	2.500	0.461	0.461	0.350	0.922	0.824	0.759	2:1.5	4-Jul
Averages									
90-99	2.825	2.107	2.107	1.562	0.840	0.850	0.717		3-Jul
2000	3.000	2.816	2.572	2.320	0.943	0.956	0.902	1.1.5+2.3&1.1.5	26-Jun

Multiple Release Treatments

Brood Year	Treatment 1				Treatment 2			
	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

<sup>a</sup> Eggs not transported but placed in inlake incubator; 2000 = 244,000

<sup>b</sup> Survival rates are for hatchery eggs and hatchery fry plants and do not include the lake incubators.