

**DISTRIBUTION OF RADIO TAGGED SOCKEYE AND CHINOOK SALMON
IN THE STIKINE RIVER DRAINAGE, 2005**

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January, 2006

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1.0 Introduction

The Stikine River drainage covers about 52,000 km² (Bigelow et al. 1995), much of which is inaccessible to anadromous fish because of natural barriers. Principal tributaries include the Tahltan, Chutine, Scud, Porcupine, Tanzilla, Iskut, and Tuya rivers (Figure 1). The lower river and most tributaries are glacially occluded (e.g., Chutine, Scud, Porcupine, and Iskut rivers). Only 2% of the drainage is in Alaska (Beak Consultants Limited 1981). The upper drainage of the Stikine is accessible via the Telegraph Creek Road and the Stewart Cassiar Highway.

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 (Figure 1). In addition, Canadian terminal area fisheries are operated in the lower Tuya River and/or at Tahltan Lake when escapements are estimated to include excess salmon to spawning requirements (ESSR). A small sport fishery also exists in the Canadian sections of the Stikine River 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; approximately 30 sockeye salmon were harvested in 2001; and the personal use fishery on the Stikine River was not open in 2002 and 2003. A US Stikine River subsistence fishery was opened in 2004 to harvest sockeye. In 2005, subsistence fishers were permitted to harvest Chinook (*O. tshawytscha*) and coho (*O. kisutch*) salmon. 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 110 portion of Frederick Sound was expanded to target hatchery Chinook salmon. The majority of the TAC was harvested in gillnet fisheries; however, a component of the catch was taken in troll and sport fisheries. In 2005, Canada and the U.S. prosecuted new directed Chinook commercial fisheries which targeted Stikine River stocks. This new fishery was agreed to under the auspices of the PSC February 2005 negotiation session. (TTC 2005).

There are several stocks (demes) of both sockeye and Chinook in the Stikine River watershed. Canadian and US fisheries management strategies serve to deliver the requisite spawners to Stikine River Chinook and sockeye salmon spawning beds. The two spawning groups of Stikine sockeye that serve as the target spawning escapement goals are Tahltan Lake sockeye and mainstem sockeye. The former group is one single demes or family; the latter group consists of a composite of stocks or demes scattered throughout the drainage, including some to the tributaries of the mainstem Stikine River. Chinook salmon spawning groups consist of the Tahltan demes and, similar to sockeye, a composite of other spawning groups or demes scattered throughout the the Stikine River drainage, including the Iskut River tributary which is assumed to produce a significant proportion of the Stikine River Chinook salmon.

Although there is a minor amount of behaviour information (age, run timing, run size) pertaining to non Tahltan Lake sockeye and non Little Tahltan River Chinook salmon, the information base may fairly be characterized as relatively weak in nature. For example, there is a lack of information as to when and how fast specific demes/families migration through the commercial and First Nations fisheries. Managers are therefore uncertain when specific

groups of the sockeye and Chinook clear the confines of net fisheries and are therefore free to travel to and spawn at their specific spawning sites.

In order to provide behaviour traits and spawning sites of specific demes or families of Chinook and sockeye salmon, a radio tagging proposal was submitted to the Northern Fund under the auspices of the Pacific Salmon Commission (PSC) in 2004. The proposal was accepted and the project proceeded in the spring of 2005. The following paper presents a preliminary report of the 2005 radio tagging activities. A final report will be prepared by the autumn of 2006 By LGL consultants for the PSC.

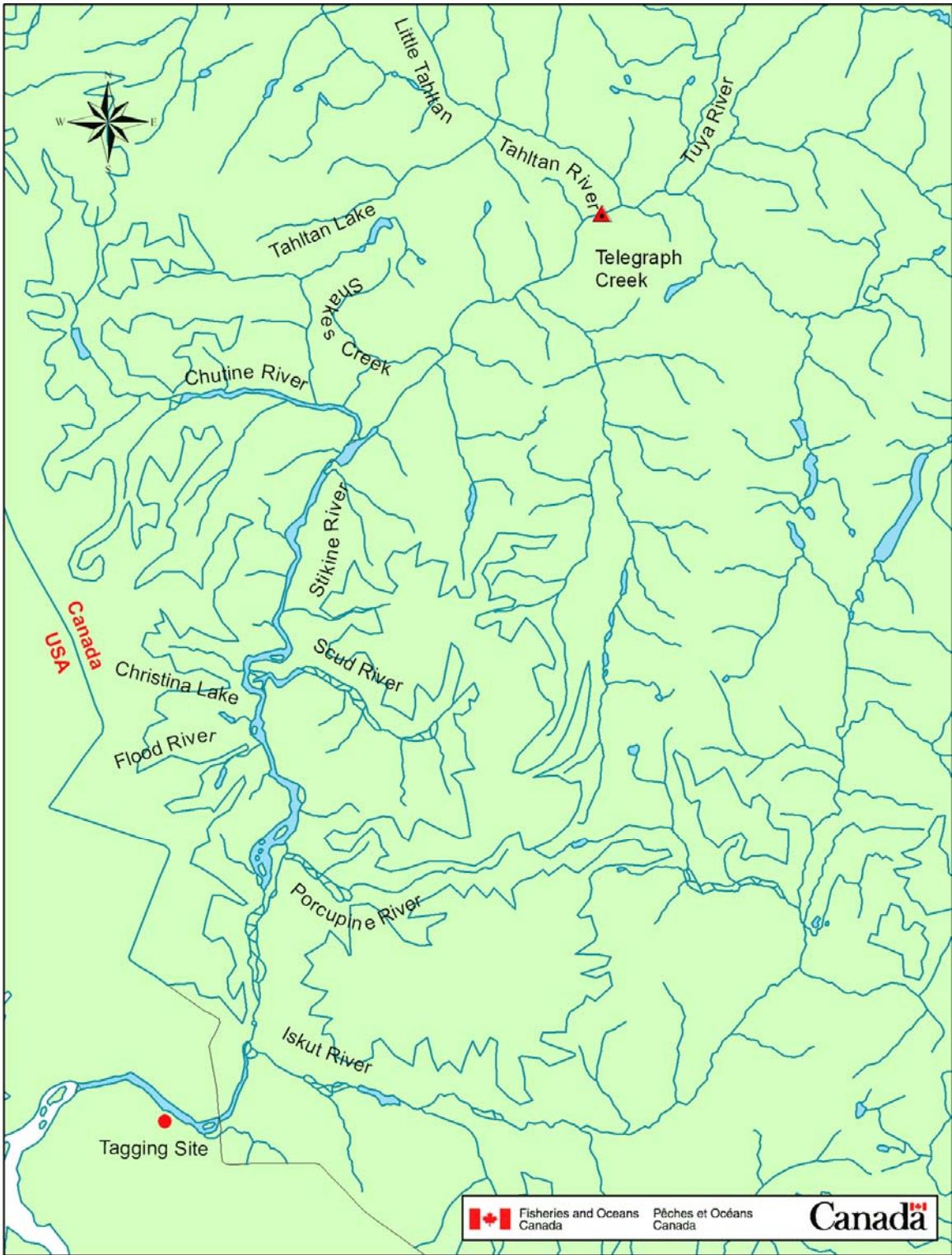


Figure 1. Stikine River drainage area.

2.0 Objectives

The objectives of the 2005 Stikine River sockeye and chinook telemetry program was:

To assess sockeye and chinook salmon contributions to the overall Stikine River production;

To assess the distribution and habitat utilization of spawning sockeye and chinook salmon stocks within the Stikine River drainage and thereby, determine the completeness of stock ID baselines and;

To assess stock specific run timing of sockeye and chinook salmon through the various fisheries and arrival on the spawning grounds in the Stikine River. In addition, migration rates of the various sockeye and chinook stocks will also be determined.

3.0 Methods

3.1 Radio Tag Application

Radio tags from Lotek Wireless INC. (500 sockeye and 260 chinook) were applied to Chinook and sockeye salmon caught in set and drift gillnets. The majority of the Chinook salmon were captured in the mainstem Stikine River at a site locally known as Shakes Slough (~ 20km upstream from the mouth of the Stikine River). The capture gear consisted of drift gillnets measuring 36m (120') by 5.5m (18') and a mesh size of 20cm (8"). Two crews fished for approximately 240 minutes of soak time per day. All of the sockeye salmon were captured in the mainstem Stikine River at a site locally known as Rock Island (~ 25km upstream from the mouth of the Stikine River). The capture gear consisted of set gillnets measuring 36m (120') by 5.5m (18') and a mesh size of 13cm (5"). One crew fished for approximately 360 minutes of soak time per day. Chinook salmon caught at Rock Island were also radio tagged.. The crews were part of the joint Canada/US mark-recapture programmes to determine the drainage wide abundance of sockeye and chinook salmon.

3.2 Radio Tag Tracking

Radio tags were tracked using 12 ground towers for sockeye and 13 for chinook. These towers were equipped with a Lotek SRX-400 radio receiver. The ground receivers had two antennas for each receiver, one pointing upstream and one downstream. The receivers were programmed to scan the frequencies 149.320 to 149.740 for sockeye and 148.380 to 148.540 for chinook. The receivers scanned the frequency ranges for 3.0 seconds a frequency and logged any signals that were decoded. These data logs were downloaded 4 times throughout the season whenever a survey flight was done. Dates for the flights were June 22, July 18, August 29, and September 28. Receivers used during the flights were the same model as the radio towers however they did not log the signal. Instead a waypoint taken of the location with a GPS was linked to the frequency and code. These waypoints were then downloaded to a computer for analysis at a later date.

3.3 Analysis

Waypoints from the GPS were downloaded and compiled in Ozi explorer. The waypoints were then converted into a format that could be used in Microsoft Excel.

Final destination was determined by assembling all of the tower and flight data in Microsoft Excel and using the final flight date (Sept 28) from the aerial surveys. If the radio tag had no data associated with it on this date then the next closest date from the towers and flight data combined was used to determine its end fate. The waypoints were then assigned an area according to their geographical location

4.0 Results

4.1 Sockeye

4.1.1 Sockeye stock composition and distribution

A total of 493 radio tags was applied to sockeye at Rock Island located approximately 17 kilometres below the Canada/US border. 216 of these were recovered in the lower river commercial fishery and one was recovered in the lower river test fishery. The recovered tags were reapplied in a coho telemetry study that ran in conjunction with this study. Of the remaining tags 253 were recorded at least once and 22 were considered drop outs (5 were recorded well below the tag site and considered to be non-spawners and 17 were never recorded after application.) While the majority of the fish (n=110, 42%) were distributed throughout the mainstem of the Stikine River, 101(40%) fish returned to the Tahltan drainage with 78 (31%) of those returning to Tahltan Lake 13 (5%) were found in the Tahltan River and 10 (4%) recorded at the confluence of the Little Tahltan River. 20 tags were recorded in the Iskut River, 16 in the Chutine River, 4 in the Craig River, and 4 in the Katete River and 1 tag each was recorded at the Tuya, Scud, and Katake.(Figure 2)(Figure 3).

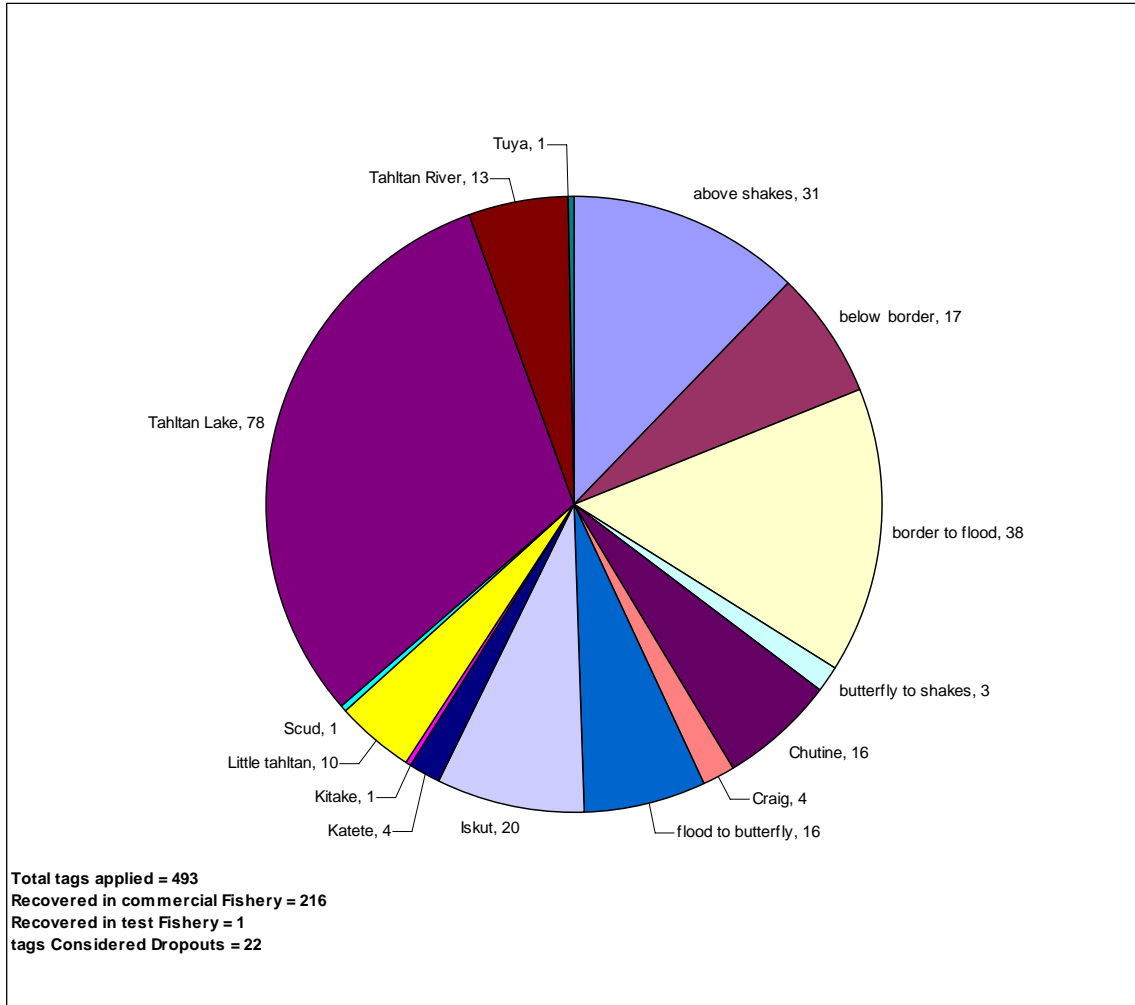


Figure 2. Stock composition of radio tagged sockeye in Stikine River drainage, 2005.

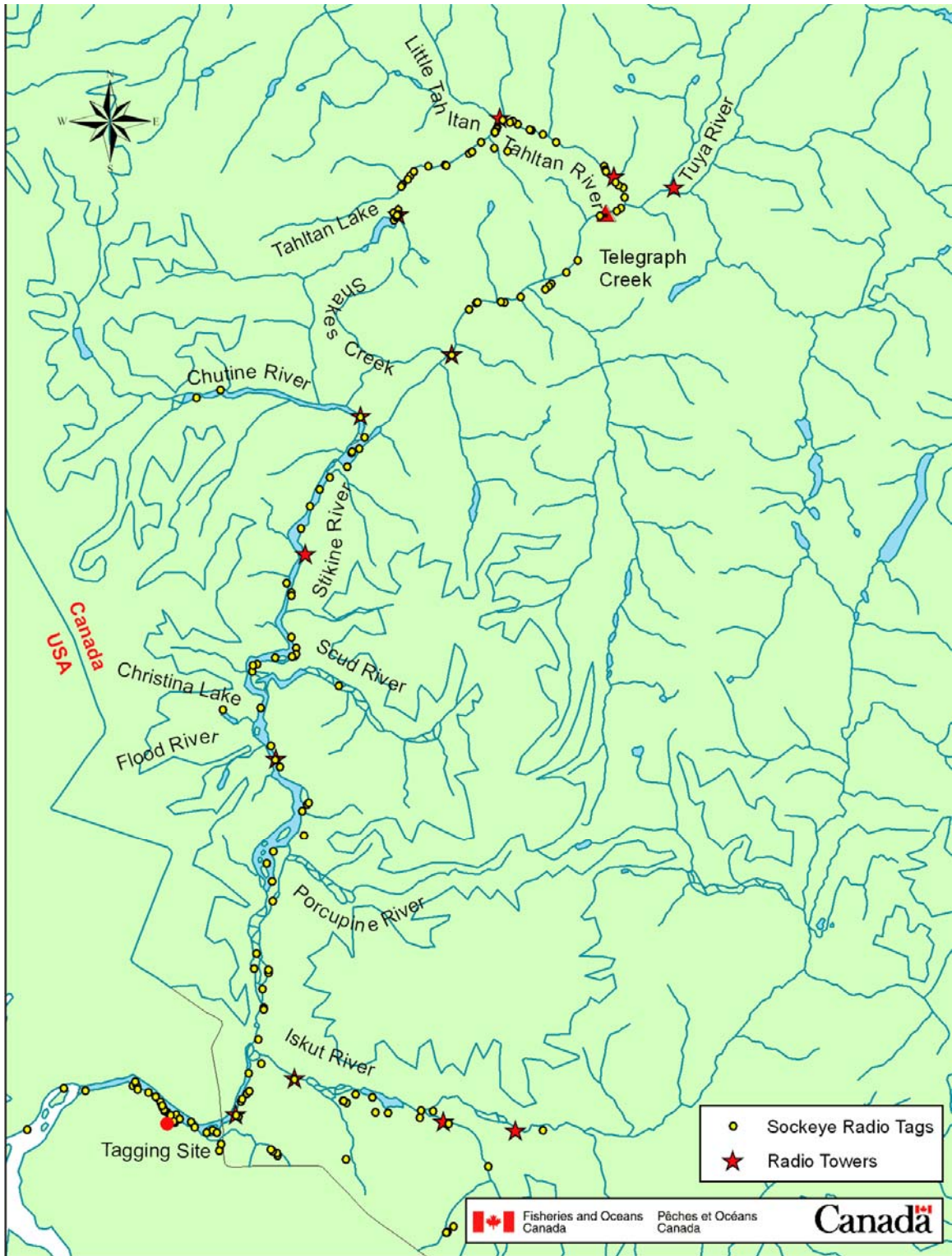


Figure 3. Distribution of sockeye in the Stikine River drainage, 2005.

4.1.2 Sockeye Migration Rates

Migration rates for various stocks could be accurately determined using the date radio tags were applied at Rock Island and when they passed by the various towers. Migratory rates were determined for the Boundary House tower, Craig River, Iskut River (Snip), Chutine River and Tahltan Lake towers (Table 1). Migration rates were also determined from the Boundary House tower in case of any delays from tag application (Table 2).

Table 1. Migration rates for Stikine River sockeye stocks from Rock Island, 2005.

	Boundary House	Craig River	Iskut Snip	Chutine River	Tahltan Lake
Days In Transit					
Max	32	25	32	38	49
Min	1	14	12	15	20
Average	7	20	23	27	29
Km/day					
Max	15	3	2	10	14
Min	1	5	6	4	6
Average	4	3	3	6	10

Table 2. Migration rates for Stikine River sockeye stocks from Boundary House tower, 2005.

	Craig River	Iskut Snip	Chutine River	Tahltan Lake
Days In Transit				
max	25	26	33	43
Min	10	9	13	13
Average	18	18	21	23
Km/day				
max	4	6	11	19
Min	2	2	4	6
Average	3	3	7	11

4.1.3 Sockeye Run Timing

Run timing of the individual sockeye stocks was calculated by grouping the tags according to their end fate then determining what stat week they passed by Rock Island. Tahltan Lake sockeye were one of the first to pass by Rock Island and Migrated through Stat weeks 25-33 (week ending Aug-13), peaking on Stat week 28 (week ending Jul-09). Craig river was the second stock to pass by and the migrated through weeks 25-27 (week ending Jul-07), peak was in week 25 (week ending Jun-18). Chutine River stocks passed by in weeks 26-35 (week ending Aug-27), peaking in week 27 (week ending Jul-02). Iskut River fish migrated past Rock Island weeks 26-35 (week ending Aug-27) peaking in week 30 (week ending Jul-23).

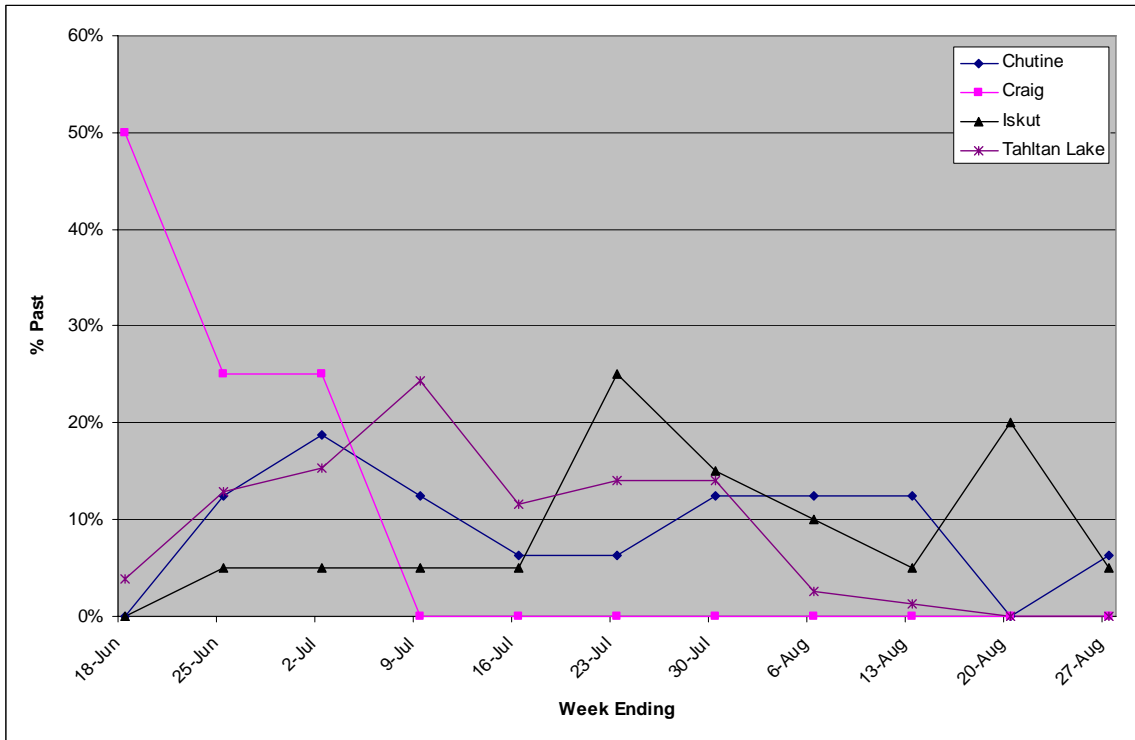


Figure 4. Run timing of Stikine River sockeye stocks past Rock Island, 2005.

4.2 Chinook

4.2.1 Chinook stock composition and distribution

Chinook salmon at Kakwan Point had a total of 369 radio tags applied to them. Of these tags, 260 were unique and 109 were reapplied as they were recovered in the lower river commercial fishery. A total of 138 tags were recovered in the Canadian lower river commercial fishery, 10 were harvested in the U.S. District 8 gillnet fishery and 4 were recovered in the upper Stikine gillnet fishery for a total of 152 tags recovered. Of the remaining tags, 204 were recorded at least once, 6 were considered mortalities, and 4 were never recorded after application of the tag. Three tags had no record of recovery but were reapplied a second time at the tagging site. It is assumed that they were caught in one of the gillnet fisheries. The majority of the fish (n=93, 46%) returned to the Tahltan River, and 37(18%) fish returned to the Little Tahltan River. 1 tag was recorded at the Andrew Creek, 14 at Christina Creek, 8 at the Chutine River, and 24 in the Iskut drainage. Twenty-seven tags were recorded on the Stikine River main stem, 7 on the lower portion and 20 tags on the upper portion. (Figure 5)(Figure 6)

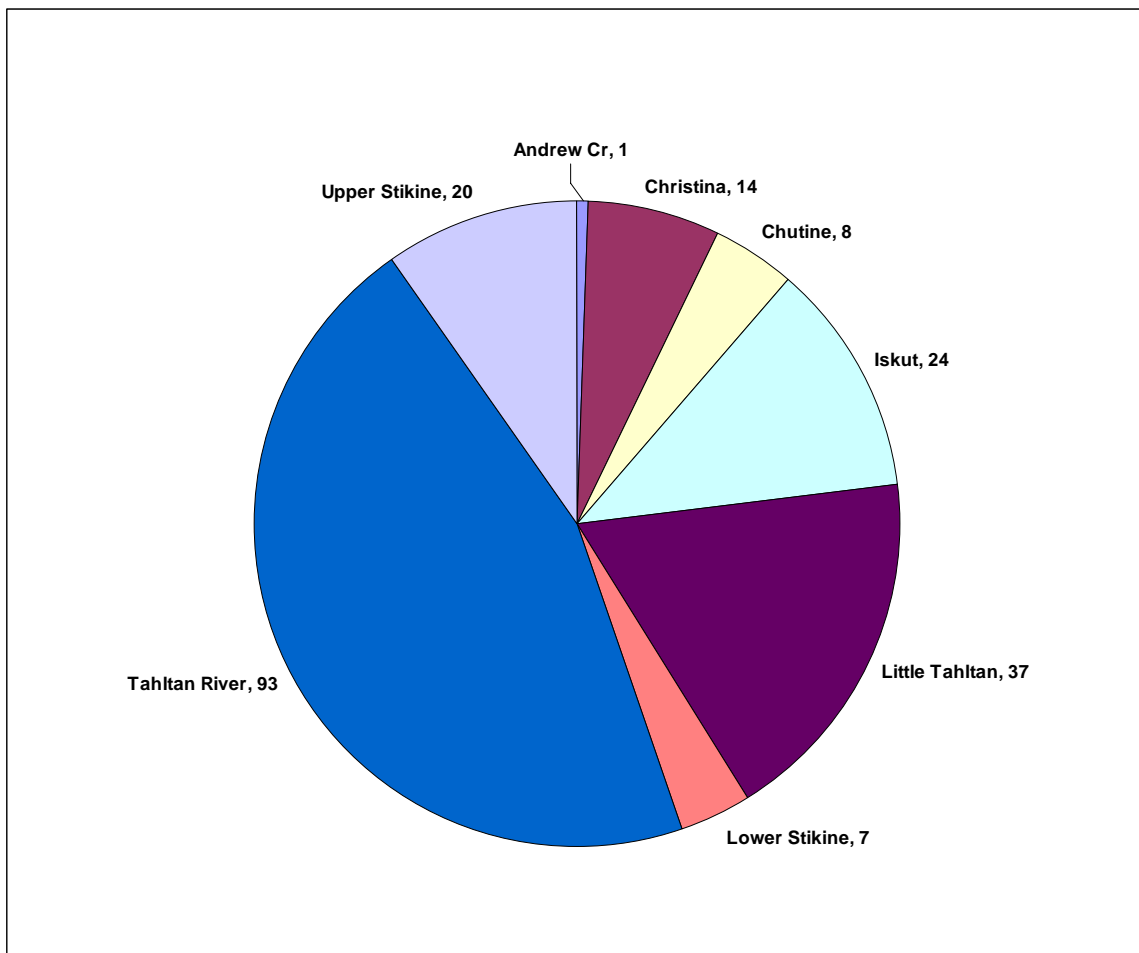


Figure 5. Stock composition of radio tagged chinook in the Stikine River drainage, 2005.

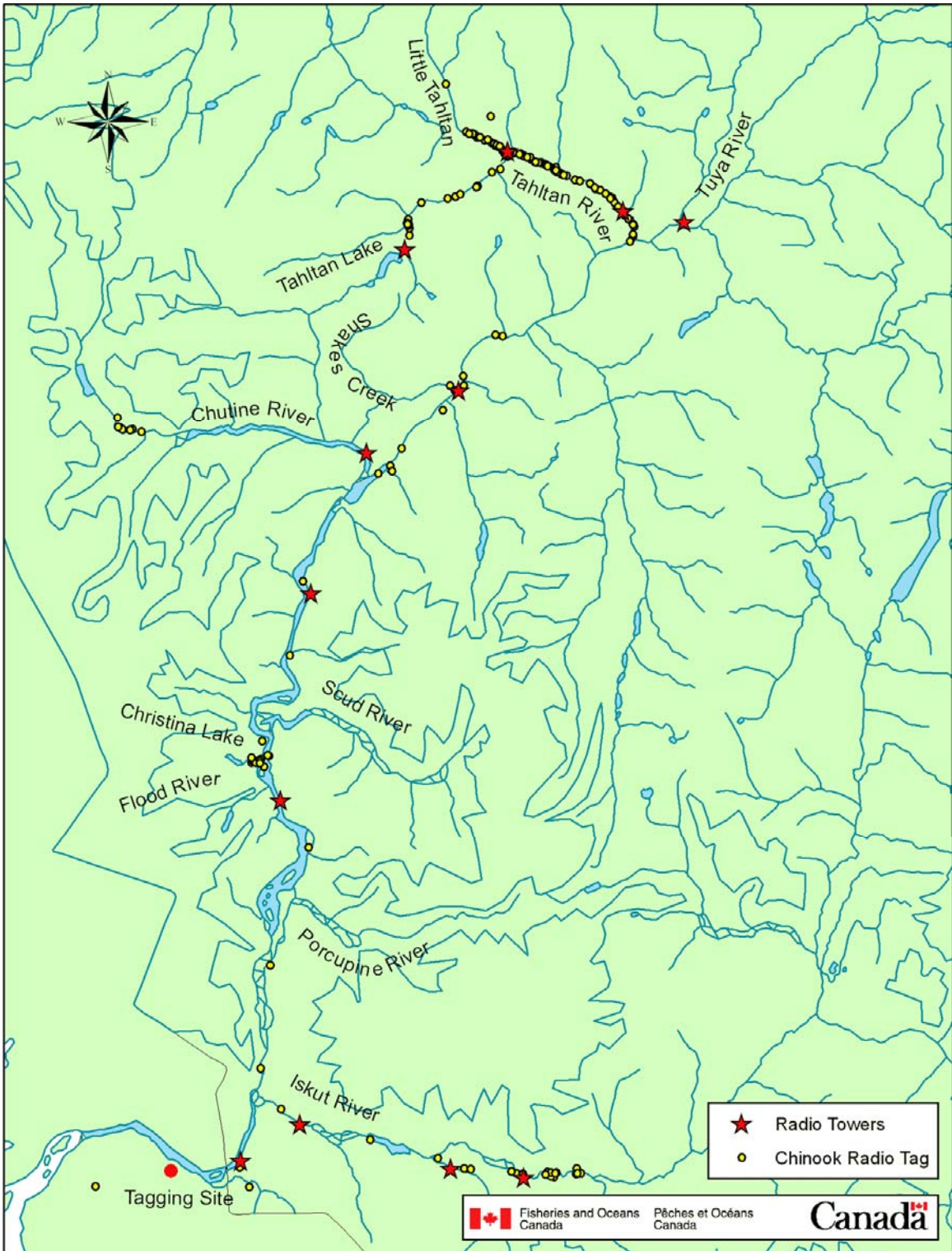


Figure 6. Distribution of chinook in the Stikine River drainage, 2005.

4.2.2 Chinook Migration Rates

Migration rates for Chinook salmon were determined from dates the tags were applied at Kakwan Point and when they passed by individual towers. Migration rates for the Boundary House tower, Iskut River (Snip), Chutine River, Tahltan River and Little Tahltan River towers were used (Table 3). Migration rates were also determined from the Boundary House tower to various locations in case there was any delay from the tag application. (Table 4).

Table 3. Migration rates for Stikine River chinook stocks from Kakwan Point tagging site, 2005.

	Boundary House	Iskut WS Tower	Iskut Snip Tower	Chutine River Tower	Tahltan River	Little Tahltan River
Days In Transit						
Min	0.7	9.1	17.2	22.8	18.0	10.8
Max	31.5	31.1	36.9	40.0	88.8	72.4
Average	12.7	16.5	24.6	32.5	36.4	40.1
km/day						
Min	0.6	1.2	1.7	3.9	2.5	3.3
Max	26.8	4.1	3.5	6.8	12.2	22.4
Average	2.2	2.4	2.6	5.1	6.5	6.6

Table 4. Migration rates for Stikine River chinook from the Boundary House tower, 2005

	Iskut WS Tower	Iskut Snip Tower	Chutine River Tower	Tahltan River	Little Tahltan River
Days In Transit					
Min	0.6	5.5	8.7	11.1	5.8
Max	18.5	24.7	28.8	62.3	52.1
Average	6.8	14.7	21.3	23.0	28.7
km/day					
Min	0.9	1.7	4.7	3.2	4.3
Max	26.3	7.4	15.6	18.0	38.3
Average	4.6	3.3	7.4	9.8	9.0

4.2.3 Chinook Run Timing

Run timing of the individual chinook stocks were calculated by grouping the tags according to their end fate then determining what stat week they passed by Kakwan Point. Christina Creek, Little Tahltan River and Tahltan River main-stem chinook were the first to pass by Kakwan Point in stat week 20 (week ending may-14). Christina Creek peaked in week 22 (week ending may-28) and migrated through Stat weeks 20-24 (week ending Jun-11), Little Tahltan River stocks migrated weeks 20 thru 28 (week ending Jul-09) and peaked in week 23 (week ending Jun-04) and Tahltan River main-stem chinook migrated from weeks 20-28 (week ending Jul-09) and peaked in week 23 (week ending Jun-04). Chutine, Iskut and Upper Stikine River chinook stocks passed by in week 21 (week ending may-21) with Chutine fish migrating by in weeks 21-23 (week ending Jun-04), Iskut River Chinook passed by weeks 21-27 (week ending Jul-02) and Upper Stikine fish during weeks 21-27 (week ending Jul-02). Andrew Creek chinook went by in week 26 (week ending Jun 25).(Figure 7)

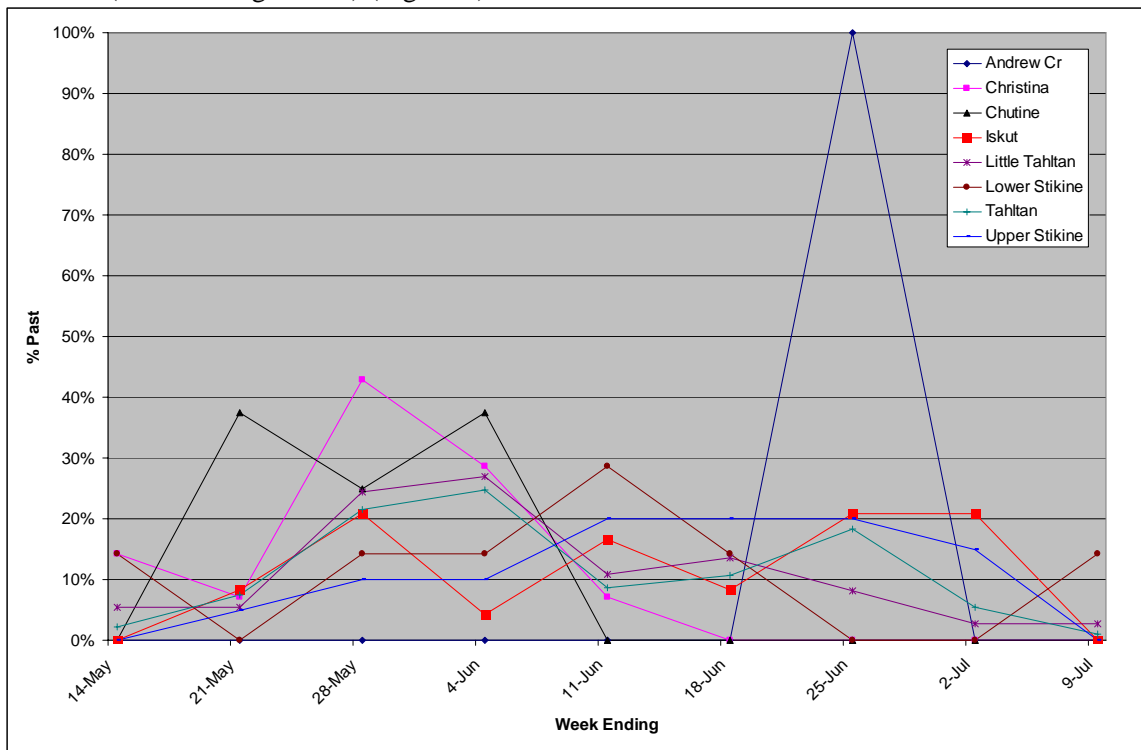


Figure 7. Run timing of Stikine River chinook stocks past Kakwan Point, 2005.

7.0 Acknowledgements

Many individuals and groups contributed to the Stikine River telemetry study. Fisheries and Oceans Canada, Alaska department of Fish and Game and Tahltan First nations helped apply the tags. Peter Etherton and Bill Waugh, DFO stock Assessment Division Whitehorse, provided technical, logistical, and administrative input throughout the program. Jim Reed of Pacific Western Helicopters, Dease Lake, provided excellent service for all the aerial survey phases of the projects. And Tung Ho, DFO Whitehorse, assisted with the GIS map preparation.

Code-Freq	Date Applied	Stat week	Site #1 (Boundary House)	Site #2 (Iskut W.S.)	Site #3 (Craig River)	Site #4 (Iskut Snip)	Site #5 (Flood R.)	Site #6 (Butterfly Cr.)	Site #7 (Chutine R.)	Site #8 (Shakes Cr.)	Site #9 (Tahtitan River)	Site #10 (Tahtitan Lake)	Site #11 (Tuya R.)	Site #12 (Little Tahtitan R.)	Grouping (Fate)
69-10	4-Jul	28	14-Jul												border to flood
70-1	5-Jul	28	9-Jul				20-Jul	22-Jul		26-Jul	28-Jul	6-Aug		31-Jul	Tahtitan Lake
70-7	5-Jul	28	14-Jul												border to flood
71-2	5-Jul	28	12-Jul					19-Jul	21-Jul	23-Jul	26-Jul			28-Jul	Little tahtitan
71-3	5-Jul	28	9-Jul					13-Jul	15-Jul	17-Jul	19-Jul	28-Jul		21-Jul	Tahtitan Lake
71-4	6-Jul	28	9-Jul					13-Jul	16-Jul	17-Jul	19-Jul	27-Jul		22-Jul	Tahtitan Lake
71-6	6-Jul	28	10-Jul					15-Jul	19-Jul	22-Jul	25-Jul	7-Aug		28-Jul	Tahtitan Lake
71-8	6-Jul	28	11-Jul					19-Jul	21-Jul	23-Jul					above shakes
71-10	6-Jul	28	14-Jul					20-Jul	23-Jul	25-Jul	27-Jul	6-Aug		31-Jul	Tahtitan Lake
72-3	6-Jul	28	9-Jul					19-Jul	21-Jul	25-Jul	27-Jul	6-Aug		31-Jul	Tahtitan Lake
72-5	6-Jul	28	11-Jul					15-Jul	17-Jul	19-Jul	21-Jul	29-Jul		23-Jul	Tahtitan Lake
72-6	6-Jul	28	13-Jul												border to flood
72-9	6-Jul	28													below border
72-10	7-Jul	28	13-Jul				22-Jul	25-Jul		28-Jul	31-Jul	8-Aug		3-Aug	Tahtitan Lake
73-2	7-Jul	28	13-Jul				17-Jul	20-Jul		23-Jul					above shakes
73-6	7-Jul	28													below border
73-7	7-Jul	28	10-Jul				13-Jul	16-Jul		17-Jul					above shakes
73-9	7-Jul	28	11-Jul				18-Jul	21-Jul		24-Jul	27-Jul	6-Aug		31-Jul	Tahtitan Lake
74-2	7-Jul	28	10-Jul				15-Jul	17-Jul		19-Jul					above shakes
74-3	8-Jul	28	12-Jul				21-Jul	24-Jul		26-Jul			31-Jul		flood to butterfly
74-6	8-Jul	28	12-Jul				22-Jul	23-Jul		25-Jul	27-Jul	7-Aug		31-Jul	Tahtitan Lake
74-8	8-Jul	28	13-Jul				17-Jul	20-Jul		22-Jul					flood to butterfly
74-9	8-Jul	28	16-Jul				27-Jul	1-Aug		3-Aug	6-Aug				Tahtitan River
74-10	8-Jul	28	12-Jul				17-Jul	19-Jul		26-Jul	27-Jul	4-Aug		30-Jul	Tahtitan Lake
75-3	8-Jul	28	12-Jul				17-Jul	20-Jul		23-Jul	27-Jul	4-Aug		29-Jul	Tahtitan Lake
75-4	8-Jul	28	11-Jul				16-Jul	20-Jul		22-Jul	25-Jul	4-Aug		28-Jul	Tahtitan Lake
75-6	8-Jul	28	15-Jul				19-Jul	21-Jul		24-Jul	26-Jul	4-Aug		29-Jul	Tahtitan Lake
75-7	10-Jul	29	20-Jul				24-Jul	26-Jul		27-Jul					above shakes
75-10	10-Jul	29	12-Jul				16-Jul	18-Jul		20-Jul					above shakes
76-3	10-Jul	29	16-Jul				21-Jul								flood to butterfly
76-7	10-Jul	29	13-Jul				18-Jul	20-Jul		21-Jul	24-Jul	3-Aug		27-Jul	Tahtitan Lake
76-8	10-Jul	29	17-Jul				21-Jul	23-Jul		25-Jul	27-Jul	4-Aug		29-Jul	Tahtitan Lake
76-10	11-Jul	29	16-Jul				23-Jul								flood to butterfly
77-1	11-Jul	29	14-Jul				17-Jul	19-Jul		21-Jul	24-Jul	1-Aug		26-Jul	Tahtitan Lake
77-2	11-Jul	29	14-Jul				18-Jul	20-Jul		22-Jul					Above Shakes
77-5	11-Jul	29	12-Aug												border to flood
77-9	11-Jul	29	17-Jul				25-Jul	28-Jul		1-Aug	3-Aug			6-Aug	Tahtitan River
77-10	11-Jul	29	14-Jul				20-Jul	21-Jul		24-Jul					above shakes
78-1	11-Jul	29	16-Jul												border to flood
79-1	12-Jul	29													Drop Out
79-4	12-Jul	29	18-Jul				29-Jul	31-Jul		2-Aug	4-Aug	13-Aug		7-Aug	Tahtitan Lake
79-6	13-Jul	29	19-Jul				22-Jul	24-Jul		26-Jul	28-Jul	6-Aug		1-Aug	Tahtitan Lake
80-1	13-Jul	29	15-Jul												border to flood
80-2	13-Jul	29	18-Jul				24-Jul	26-Jul		27-Jul	31-Jul	9-Aug		3-Aug	Tahtitan Lake
80-10	14-Jul	29	16-Jul												recovered commercial fishery
81-6	14-Jul	29	21-Jul	23-Jul											Iskut
81-7	14-Jul	29	20-Jul				25-Jul	26-Jul		28-Jul	31-Jul	8-Aug		3-Aug	Tahtitan Lake
81-8	14-Jul	29	21-Jul				24-Jul	26-Jul		28-Jul					Above Shakes
81-9	14-Jul	29													below border
82-3	15-Jul	29	20-Jul				26-Jul	29-Jul	22-Aug						Chutine
82-4	15-Jul	29	21-Jul				25-Jul	26-Jul		28-Jul	30-Jul	6-Aug		2-Aug	Tahtitan Lake
82-5	15-Jul	29	20-Jul				27-Jul	30-Jul		1-Aug	4-Aug	13-Aug		6-Aug	Tahtitan Lake
82-6	15-Jul	29	18-Jul												recovered commercial fishery
82-7	15-Jul	29													below border
83-2	15-Jul	29	21-Jul												recovered commercial fishery
83-3	15-Jul	29	22-Jul				30-Jul	2-Aug		4-Aug					above shakes
83-7	17-Jul	30	20-Jul				31-Jul	2-Aug		4-Aug	6-Aug	13-Aug		8-Aug	Tahtitan Lake
83-9	17-Jul	30					27-Jul	4-Aug	10-Aug						Chutine
84-1	17-Jul	30	20-Jul				29-Jul	1-Aug		3-Aug	5-Aug	14-Aug		8-Aug	Tahtitan Lake
84-3	17-Jul	30	21-Jul				27-Jul	30-Jul		1-Aug	4-Aug	14-Aug		6-Aug	Tahtitan Lake
84-10	18-Jul	30	23-Jul				29-Jul	31-Jul		2-Aug	4-Aug	13-Aug		7-Aug	Tahtitan Lake
85-2	18-Jul	30													below border
85-5	19-Jul	30	23-Jul				31-Jul	2-Aug		3-Aug			6-Aug		Tuya
85-6	19-Jul	30													below border
85-7	19-Jul	30	21-Jul				26-Jul	29-Jul		31-Jul	2-Aug	11-Aug		5-Aug	Tahtitan Lake
85-8	19-Jul	30													below border
85-9	19-Jul	30													below border
86-2	19-Jul	30													below border
86-4	19-Jul	30	27-Jul				5-Aug	12-Aug	18-Aug						border to flood
86-7	20-Jul	30	22-Jul				27-Jul	30-Jul		1-Aug	3-Aug	11-Aug		5-Aug	Tahtitan Lake
86-8	20-Jul	30	23-Jul				10-Aug					23-Jul			flood to butterfly
86-9	20-Jul	30	24-Jul				1-Aug	2-Aug		4-Aug	7-Aug	16-Aug		9-Aug	Tahtitan Lake
87-1	20-Jul	30	23-Jul	30-Jul		10-Aug									Iskut
87-2	20-Jul	30	23-Jul				8-Aug								flood to butterfly
87-3	20-Jul	30	25-Jul				2-Aug	18-Aug		24-Aug	26-Aug	6-Sep		29-Aug	Tahtitan Lake
87-5	21-Jul	30	26-Jul	7-Aug											Iskut
87-7	21-Jul	30	28-Jul				7-Aug								flood to butterfly
87-8	21-Jul	30	25-Jul				4-Aug	5-Aug		7-Aug	9-Aug	18-Aug		12-Aug	Tahtitan Lake
87-9	21-Jul	30	26-Jul				31-Jul	2-Aug		5-Aug	7-Aug	17-Aug		10-Aug	Tahtitan Lake
88-2	21-Jul	30	29-Jul				3-Aug	6-Aug		8-Aug	10-Aug	23-Aug		13-Aug	Tahtitan Lake
88-3	21-Jul	30	27-Jul	1-Aug											Iskut
88-4	21-Jul	30	25-Jul				8-Aug	28-Aug							butterfly to shakes
88-7	22-Jul	30	27-Jul				1-Aug	2-Aug		4-Aug					Drop Out
88-8	22-Jul	30													above shakes
88-9	22-Jul	30	30-Jul	7-Aug											below border
88-10	22-Jul	30	27-Jul	3-Aug		22-Aug									iskut
89-1	22-Jul	30	26-Jul				7-Aug								Iskut
89-3	22-Jul	30	30-Jul												border to flood
89-4	22-Jul	30	1-Aug				4-Aug								flood to butterfly
89-5	24-Jul	31													Drop Out
89-6	24-Jul	31	27-Jul				3-Aug	5-Aug		6-Aug	9-Aug	19-Aug		12-Aug	Tahtitan Lake

Code-Freq	Date Applied	Stat week	Site #1 (Boundary House)	Site #2 (Iskut W.S.)	Site #3 (Craig River)	Site #4 (Iskut Snip)	Site #5 (Flood R.)	Site #6 (Butterfly Cr.)	Site #7 (Chutine R.)	Site #8 (Shakes Cr.)	Site #9 (Tahtlan River)	Site #10 (Tahtlan Lake)	Site #11 (Tuya R.)	Site #12 (Little Tahtlan R.)	Grouping (Fate)
69-10	4-Jul	28	14-Jul												border to flood
89-7	24-Jul	31	6-Aug				18-Aug	23-Aug		25-Aug	27-Aug			2-Sep	Little tahtlan
89-8	24-Jul	31	27-Jul	5-Aug											Iskut
89-9	24-Jul	31	6-Aug				22-Aug	24-Aug		26-Aug	30-Aug			2-Sep	Little tahtlan
89-10	24-Jul	31	31-Jul												Katete
90-2	24-Jul	31	21-Aug												border to flood
90-3	24-Jul	31	1-Aug				23-Aug								flood to butterfly
90-5	25-Jul	31	30-Jul				5-Aug	7-Aug		9-Aug	11-Aug	18-Aug		13-Aug	Tahtlan Lake
90-7	25-Jul	31	31-Jul				10-Aug	17-Aug	24-Aug						Chutine
90-8	25-Jul	31	1-Aug												border to flood
90-9	25-Jul	31	28-Jul				1-Aug	2-Aug		4-Aug	6-Aug	13-Aug		7-Aug	Tahtlan Lake
90-10	25-Jul	31	1-Aug				6-Aug	9-Aug		12-Aug					border to flood
91-1	25-Jul	31													Kitake
91-2	26-Jul	31	1-Aug				5-Aug	7-Aug		10-Aug	12-Aug	23-Aug		14-Aug	Tahtlan Lake
91-3	26-Jul	31	30-Jul				2-Aug	4-Aug		6-Aug	10-Aug	24-Aug		13-Aug	Tahtlan Lake
91-4	26-Jul	31	28-Jul				3-Aug	5-Aug		7-Aug	9-Aug	17-Aug		12-Aug	Tahtlan Lake
91-5	26-Jul	31	1-Aug				3-Aug	5-Aug		6-Aug	8-Aug	14-Aug		10-Aug	Tahtlan Lake
91-6	26-Jul	31	1-Aug				9-Aug	23-Aug		26-Aug	1-Sep				Tahtlan River
91-7	26-Jul	31	1-Aug				6-Aug	9-Aug		11-Aug	14-Aug	24-Aug		17-Aug	Tahtlan Lake
92-1	27-Jul	31	30-Jul	1-Aug		16-Aug									Iskut
92-2	27-Jul	31													Drop Out
92-4	27-Jul	31	17-Aug												border to flood
92-5	27-Jul	31													Drop Out
92-8	28-Jul	31	31-Jul				4-Aug	6-Aug		7-Aug	10-Aug			12-Aug	above shakes
92-9	28-Jul	31													border to flood
92-10	28-Jul	31	1-Aug				6-Aug	8-Aug		10-Aug	11-Aug	18-Aug		13-Aug	Tahtlan Lake
93-1	28-Jul	31													Katete
93-3	28-Jul	31	1-Aug				4-Aug	6-Aug		8-Aug	10-Aug	17-Aug		12-Aug	Tahtlan Lake
93-4	28-Jul	31	3-Aug				18-Aug	22-Aug	25-Aug						Chutine
93-5	29-Jul	31	1-Aug	14-Aug											Iskut
93-7	29-Jul	31	1-Aug				8-Aug	10-Aug		12-Aug	14-Aug			27-Aug	Little tahtlan
93-8	29-Jul	31	2-Aug				6-Aug	9-Aug		10-Aug	12-Aug	22-Aug		14-Aug	Tahtlan Lake
93-9	29-Jul	31	10-Aug												border to flood
94-2	29-Jul	31													Drop Out
94-3	31-Jul	32	7-Aug												border to flood
94-6	31-Jul	32	6-Aug				10-Aug	12-Aug		17-Aug	20-Aug	29-Aug		23-Aug	Tahtlan Lake
94-7	31-Jul	32													Drop Out
94-8	1-Aug	32	3-Aug				11-Aug	16-Aug	22-Aug						Chutine
94-9	1-Aug	32	8-Aug				20-Aug	23-Aug	3-Sep						Chutine
94-10	1-Aug	32	2-Aug				8-Aug	16-Aug		18-Aug	28-Aug	8-Sep		1-Sep	Tahtlan Lake
95-1	1-Aug	32									21-Jul				Drop Out
95-2	1-Aug	32	10-Aug												border to flood
96-1	2-Aug	32	1-Sep												border to flood
96-3	2-Aug	32	4-Aug	14-Aug											Iskut
96-5	2-Aug	32	7-Aug				17-Aug	18-Aug		22-Aug	25-Aug			28-Aug	Tahtlan River
96-6	3-Aug	32	7-Aug				22-Aug	24-Aug		26-Aug	31-Aug			3-Sep	Little tahtlan
96-7	3-Aug	32													Drop Out
96-8	3-Aug	32													Drop Out
96-10	4-Aug	32	10-Aug				28-Aug	31-Aug	4-Sep						flood to butterfly
97-1	4-Aug	32	18-Aug	25-Aug											Iskut
97-2	4-Aug	32	12-Aug												Border to Flood
97-3	4-Aug	32													below border
97-4	4-Aug	32													Drop Out
97-5	4-Aug	32													below border
97-6	5-Aug	32													Drop Out
97-9	5-Aug	32	18-Aug												Katete
97-10	5-Aug	32	9-Aug				22-Aug	24-Aug		25-Aug	27-Aug			29-Aug	Tahtlan River
98-1	7-Aug	33	18-Aug												border to flood
98-3	7-Aug	33	13-Aug				30-Aug								flood to butterfly
98-4	8-Aug	33	13-Aug				25-Aug								Scud
98-5	8-Aug	33	12-Aug												Border to Flood
98-6	8-Aug	33	17-Aug				25-Aug	27-Aug		3-Sep	6-Sep				Tahtlan river
98-7	9-Aug	33	17-Aug												border to flood
98-8	9-Aug	33	11-Aug				21-Aug	23-Aug	24-Aug						Chutine
98-9	9-Aug	33	15-Aug	18-Aug			30-Aug	2-Sep		6-Sep					Above Shakes
98-10	10-Aug	33													Drop Out
99-1	10-Aug	33	18-Aug												Katete
99-2	10-Aug	33													Below Border
99-3	11-Aug	33	18-Aug				28-Aug	30-Aug		31-Aug	2-Sep	16-Sep		6-Sep	Tahtlan Lake
99-4	11-Aug	33	17-Aug	29-Aug											Iskut
99-5	11-Aug	33	18-Aug				25-Aug	29-Aug	5-Sep						Chutine
99-6	12-Aug	33													Drop Out
99-7	12-Aug	33	18-Aug												border to flood
99-8	12-Aug	33	17-Aug												border to flood
99-9	14-Aug	34	25-Aug												border to flood
99-10	15-Aug	34													Drop Out
100-1	15-Aug	34	23-Aug												border to flood
100-2	15-Aug	34	19-Aug	5-Sep											Iskut
100-3	16-Aug	34	25-Aug				30-Aug								flood to butterfly
100-4	16-Aug	34	24-Aug												border to flood
100-5	17-Aug	34	29-Aug	5-Sep											Iskut
100-6	17-Aug	34	24-Aug	29-Aug											Iskut
100-7	18-Aug	34													Drop Out
100-8	18-Aug	34	24-Aug	12-Sep											Iskut
100-9	22-Aug	35	28-Aug												border to flood
100-10	23-Aug	35	29-Aug	31-Aug											Iskut

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Code-Freq	Date Applied	Stat week	18-Jul				29-Aug				28-Sep			
			Latitude	Longitude	River Km.	River	Latitude	Longitude	River Km	River	latitude	Longitude	River Km	River
52-1	19-Jun	26												
52-4	19-Jun	26												
52-5	19-Jun	26												
52-9	20-Jun	26												
53-2	20-Jun	26												
53-3	20-Jun	26												
53-5	20-Jun	26												
54-2	21-Jun	26												
54-3	21-Jun	26												
54-4	21-Jun	26												
54-6	22-Jun	26												
54-7	22-Jun	26												
55-5	22-Jun	26												
55-7	22-Jun	26												
55-8	22-Jun	26												
56-1	23-Jun	26												
56-6	23-Jun	26	57 7.343	-131 42.565	95	Stikine								
56-8	23-Jun	26												
56-10	24-Jun	26												
57-1	24-Jun	26												
57-2	24-Jun	26												
57-5	24-Jun	26												
57-8	26-Jun	27												
57-9	26-Jun	27												
57-10	26-Jun	27												
58-2	26-Jun	27												
58-4	26-Jun	27												
58-6	26-Jun	27												
58-8	26-Jun	27					56 47.015	-131 46.563	51	Stikine				
58-9	26-Jun	27	56 41.645	-131 48.417	40	Stikine				56 41.951	-132 11.03	11	Stikine	
58-10	26-Jun	27												
59-1	26-Jun	27												
59-2	26-Jun	27												
59-3	27-Jun	27												
59-6	27-Jun	27												
59-8	27-Jun	27												
59-9	27-Jun	27												
60-10	28-Jun	27												
61-1	28-Jun	27												
61-2	28-Jun	27												
61-3	28-Jun	27												
61-5	28-Jun	27												
61-7	28-Jun	27												
61-8	28-Jun	27												
61-9	28-Jun	27												
62-1	28-Jun	27												
62-2	28-Jun	27												
62-3	28-Jun	27												
62-4	28-Jun	27												
62-5	29-Jun	27												
62-6	29-Jun	27												
62-7	29-Jun	27												
62-9	29-Jun	27												
63-1	29-Jun	27												
63-2	29-Jun	27												
63-6	29-Jun	27												
63-8	29-Jun	27												
63-9	29-Jun	27												
64-1	30-Jun	27												
64-2	30-Jun	27												
64-6	30-Jun	27												
64-7	30-Jun	27	57 9.213	-131 45.333	101	Stikine								
64-8	30-Jun	27												
64-9	30-Jun	27												
64-10	30-Jun	27												
65-1	30-Jun	27												
65-3	30-Jun	27												
65-6	30-Jun	27												
65-8	1-Jul	27												
66-4	1-Jul	27	56 39.067	-131 51.566	34	Stikine								

Code-Freq	Date Applied	Stat week	18-Jul				29-Aug				28-Sep			
			Latitude	Longitude	River Km.	River	Latitude	Longitude	River Km	River	latitude	Longitude	River Km	River
68-4	3-Jul	28												
68-5	3-Jul	28												
68-6	3-Jul	28												
68-10	4-Jul	28												
69-6	4-Jul	28												
69-7	4-Jul	28												
69-9	4-Jul	28												
70-2	5-Jul	28												
70-3	5-Jul	28												
70-4	5-Jul	28												
70-5	5-Jul	28												
70-6	5-Jul	28												
70-8	5-Jul	28												
70-9	5-Jul	28												
70-10	5-Jul	28												
71-1	5-Jul	28	56 39.067	-131 51.566	34	Stikine								
71-5	6-Jul	28												
71-7	6-Jul	28												
71-9	6-Jul	28												
72-1	6-Jul	28												
72-2	6-Jul	28												
72-4	6-Jul	28												
72-7	6-Jul	28												
72-8	7-Jul	28												
73-1	7-Jul	28												
73-3	7-Jul	28												
73-4	7-Jul	28												
73-5	7-Jul	28												
73-8	7-Jul	28	57 15.628	-131 51.128	113	Stikine								
73-10	7-Jul	28	57 21.969	-131 46.594	134	Stikine								
74-1	7-Jul	28												
74-4	8-Jul	28												
74-5	8-Jul	28												
74-7	8-Jul	28												
75-1	8-Jul	28												
75-2	8-Jul	28												
75-5	8-Jul	28												
75-8	10-Jul	29	57 9.247	-131 45.476	101	Stikine								
75-9	10-Jul	29												
76-1	10-Jul	29	56 49.79	-131 46.168	56	Stikine								
76-2	10-Jul	29												
76-4	10-Jul	29												
76-5	10-Jul	29												
76-6	10-Jul	29												
76-9	10-Jul	29	56 54.277	-131 47.882	65	Stikine								
77-3	11-Jul	29												
77-4	11-Jul	29	56 51.023	-131 46.274	58	Stikine								
77-6	11-Jul	29												
77-7	11-Jul	29												
77-8	11-Jul	29												
78-2	11-Jul	29												
78-3	12-Jul	29												
78-4	12-Jul	29												
78-5	12-Jul	29	57 9.547	-131 42.956	101	Stikine								
78-6	12-Jul	29												
78-7	12-Jul	29												
78-8	12-Jul	29												
78-9	12-Jul	29												
78-10	12-Jul	29	56 42.229	-132 2.968	20	Stikine								
79-2	12-Jul	29												
79-3	12-Jul	29												
79-5	12-Jul	29												
79-7	13-Jul	29	56 40.271	-131 49.172	38	Stikine								
79-8	13-Jul	29												
79-9	13-Jul	29												
79-10	13-Jul	29												
80-3	13-Jul	29												
80-4	13-Jul	29	56 55.163	-131 47.925	67	Stikine								
80-5	13-Jul	29												
80-6	13-Jul	29												

Code-Freq	Date Applied	Stat week	18-Jul				29-Aug				28-Sep			
			Latitude	Longitude	River Km.	River	Latitude	Longitude	River Km	River	latitude	Longitude	River Km	River
82-8	15-Jul	29												
82-9	15-Jul	29	56 42.332	-132 8.806	14	Stikine								
82-10	15-Jul	29	56 39.115	-131 52.885	33	Stikine								
83-1	15-Jul	29												
83-4	15-Jul	29												
83-5	17-Jul	30	56 42.539	-132 7.025	16	Stikine								
83-6	17-Jul	30												
83-8	17-Jul	30	56 41.563	-132 1.415	22	Stikine								
83-10	17-Jul	30	56 40.38	-131 59.373	25	Stikine								
84-2	17-Jul	30	56 41.83	-132 11.522	11	Stikine								
84-4	18-Jul	30	56 39.067	-131 51.566	34	Stikine								
84-5	18-Jul	30	56 40.567	-132 0.158	24	Stikine								
84-6	18-Jul	30	56 40.345	-131 59.105	25	Stikine								
84-7	18-Jul	30	56 41.107	-132 0.562	23	Stikine								
84-8	18-Jul	30	56 40.82	-132 0.352	23	Stikine								
84-9	18-Jul	30	56 40.178	-131 56.555	28	Stikine								
85-1	18-Jul	30	56 39.067	-131 51.566	34	Stikine								
85-3	18-Jul	30												
85-4	18-Jul	30	56 39.067	-131 51.566	34	Stikine								
85-10	19-Jul	30	56 41.137	-132 0.643	23	Stikine								
86-1	19-Jul	30												
86-3	19-Jul	30	56 39.067	-131 51.566	34	Stikine								
86-5	20-Jul	30												
86-6	20-Jul	30												
86-10	20-Jul	30												
87-4	20-Jul	30												
87-6	21-Jul	30												
87-10	21-Jul	30												
88-1	21-Jul	30												
88-6	22-Jul	30												
89-2	22-Jul	30												
90-1	24-Jul	31												
90-4	25-Jul	31												
90-6	25-Jul	31												
91-8	26-Jul	31												
91-9	27-Jul	31												
91-10	27-Jul	31												
92-3	27-Jul	31												
92-6	27-Jul	31												
92-7	28-Jul	31												
93-2	28-Jul	31												
93-6	29-Jul	31												
93-10	29-Jul	31												
94-1	29-Jul	31												
94-4	31-Jul	32												
94-5	31-Jul	32												
96-2	2-Aug	32												
96-4	2-Aug	32												
96-9	4-Aug	32												
97-7	5-Aug	32												
97-8	5-Aug	32												
98-2	7-Aug	33												
51-1	16-Jun	25	56 39.623	-132 17.193	3	Stikine	56 39.238	-132 17.826	3	Stikine	56 39.061	-132 16.885	3	Stikine
51-2	16-Jun	25												
51-3	16-Jun	25	56 31.864	-131 14.44	28	Craig					56 34.69	-131 11.925	21	Craig
51-4	17-Jun	25	56 41.926	-131 48.207	41	Stikine	56 40.843	-131 48.686	33	Stikine				
51-5	17-Jun	25	58 2.002	-131 33.414	47	tahltan								
51-6	18-Jun	25	56 31.329	-131 15.332	28	Craig								
51-7	18-Jun	25												
51-8	18-Jun	25	58 6.715	-131 14.22	23	tahltan								
51-9	18-Jun	25												
51-10	18-Jun	25	56 39.005	-131 53.183	33	Stikine	56 39.155	-131 52.525	31	Stikine				
52-2	19-Jun	26												
52-3	19-Jun	26												
52-6	19-Jun	26	57 55.37	-131 5.84	219	Stikine	57 55.917	-131 5.12	220	Stikine				
52-7	19-Jun	26					58 7.144	-131 16.555	26	Tahltan	58 7.115	-131 15.911	25	Tahltan River
52-8	20-Jun	26												
52-10	20-Jun	26												
53-1	20-Jun	26												
53-4	20-Jun	26												

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Code-Freq	Date Applied	Stat week	18-Jul				29-Aug				28-Sep			
			Latitude	Longitude	River Km.	River	Latitude	Longitude	River Km	River	latitude	Longitude	River Km	River
55-2	22-Jun	26					56 42.478	-132 5.076	18	Stikine				
55-3	22-Jun	26					57 25.612	-131 47.012	140	Stikine				
55-4	22-Jun	26	56 41.597	-130 58.753	52	Iskut	56 41.636	-130 58.779	55	Iskut	56 37.759	-131 31.06	1	Verret
55-6	22-Jun	26	57 7.106	-131 42.374	95	Stikine	57 2.762	-131 47.707	84	Stikine	57 3.136	-131 46.837	85	Stikine
55-9	23-Jun	26												
55-10	23-Jun	26												
56-2	23-Jun	26	58 7.18	-131 16.746	25	tahltan	58 4.912	-131 20.065	31	Tahltan				
56-3	23-Jun	26												
56-4	23-Jun	26	58 1.68	-131 33.698	47	tahltan								
56-5	23-Jun	26	58 6.578	-131 19.869	30	tahltan								
56-7	24-Jun	26												
56-9	24-Jun	26												
57-3	24-Jun	26												
57-4	24-Jun	26												
57-6	24-Jun	26	58 5.823	-131 10.081	20	tahltan								
57-7	26-Jun	27					57 53.734	-131 9.163	214	Stikine				
58-1	26-Jun	27					58 3.145	-131 27.687	41	Tahltan				
58-3	26-Jun	27					57 14.438	-131 54.839						
58-5	26-Jun	27												
58-7	26-Jun	27	58 6.259	-131 20.189	30	tahltan								
59-4	27-Jun	27	56 40.395	-131 48.89	37	Stikine	56 42.626	-131 47.421	43	Stikine	56 41.641	-131 48.469	40	Stikine
59-5	27-Jun	27												
59-7	27-Jun	27	57 49.923	-131 23.614	196	Stikine								
59-10	27-Jun	27					58 4.508	-131 23.576	36	Tahltan	58 4.283	-131 24.071	36	tahltan River
60-1	27-Jun	27												
60-2	27-Jun	27	56 40.629	-131 48.368	37	Stikine	56.67685	-131.81216	37	Stikine				
60-3	27-Jun	27	58 6.44	-131 12.339	20	tahltan								
60-4	27-Jun	27												
60-5	27-Jun	27					57 58.805	-131 34.875	55	Tahltan				
60-6	27-Jun	27					58 5.376	-131 22.321	34	Tahltan	58 5.662	-131 21.688	33	Tahltan River
60-7	27-Jun	27	57 51.61	-131 21.073	200	Stikine								
60-8	27-Jun	27					57 53.532	-131 9.535	214	Stikine				
60-9	28-Jun	27	58 6.726	-131 14.533	23	tahltan								
61-4	28-Jun	27					58 4.485	-131 23.615	36	Tahltan				
61-6	28-Jun	27	57 53.336	-131 13.022	210	Stikine					58 4.754	-131 17.854	30	Tahltan River
61-10	28-Jun	27	58 2.771	-130 59.946	5	tahltan	58 1.113	-130 58.345	1	Tahltan	58 1.523	-130 58.349	2	tahltan River
62-8	29-Jun	27	57 12.452	-131 48.178	106	Stikine								
62-10	29-Jun	27												
63-3	29-Jun	27	58 6.341	-131 20.164	30	tahltan								
63-4	29-Jun	27									56 38.062	-131 8.655	14	Craig
63-5	29-Jun	27												
63-7	29-Jun	27												
63-10	30-Jun	27	57 0.845	-131 46.196	79	Stikine								
64-3	30-Jun	27	57 7.604	-131 41.95	95	Stikine	58 7.343	-131 17.48	27	Tahltan				
64-4	30-Jun	27					57.8922	-131.15892	213	Stikine				
64-5	30-Jun	27	56 41.039	-132 0.518	23	Stikine	56 41.044	-132 0.587	23	Stikine				
65-2	30-Jun	27					56 42.479	-132 5.395	18	Stikine	56 42.617	-132 5.902	17	Stikine
65-4	30-Jun	27	56 42.801	-131 10.558	39	Iskut	56 41.422	-131 3.982	47	Iskut	56 37.759	-131 31.06	1	Verret
65-5	30-Jun	27												
65-7	1-Jul	27	58 2.383	-130 58.598	3	tahltan								
65-9	1-Jul	27					57 20.291	-131 45.574	130	Stikine				
65-10	1-Jul	27												
66-1	1-Jul	27					57 36.975	-131 39.34	167	Stikine	57 36.737	-131 39.767	167	Stikine
66-2	1-Jul	27	57 19.995	-131 48.726	126	Stikine								
66-3	1-Jul	27												
66-7	1-Jul	27	57 51.68	-131 20.893	200	Stikine	57 38.209	-131 38.057	169	Stikine				
66-8	1-Jul	27	56 41.678	-132 1.621	22	Stikine	56 41.361	-132 0.937	21	Stikine	56 41.3	-132 0.83	23	Stikine
67-1	1-Jul	27	57 51.878	-131 17.067	205	Stikine								
67-2	1-Jul	27					56 37.504	-132 20.063	-7	Stikine				
67-4	3-Jul	28					56 41.617	-131 0.31	50	Iskut	56 37.759	-131 31.06	1	Verret
67-5	3-Jul	28	57 52.415	-131 13.962	207	Stikine								
67-8	3-Jul	28												
67-9	3-Jul	28	57 51.017	-131 22.105	199	Stikine								
68-7	4-Jul	28												
68-8	4-Jul	28	57 37.947	-131 39.223	167	Stikine								
68-9	4-Jul	28												
69-1	4-Jul	28	57 19.271	-131 51.505	127	Stikine								
69-2	4-Jul	28												
69-3	4-Jul	28	57 12.66	-131 48.459	107	Stikine	57 59	-131 34.838	54	Tahltan				
69-4	4-Jul	28	57 33.094	-131 45.201	156	Stikine								

Code-Freq	Date Applied	Stat week	18-Jul				29-Aug				28-Sep			
			Latitude	Longitude	River Km.	River	Latitude	Longitude	River Km	River	latitude	Longitude	River Km	River
72-3	6-Jul	28												
72-5	6-Jul	28												
72-6	6-Jul	28												
72-9	6-Jul	28												
72-10	7-Jul	28												
73-2	7-Jul	28	56 53.298	-131 47.901	63	Stikine	56 40.298	-131 58.082	25	Stikine	56 39.651	-131 58.301	27	Stikine
73-6	7-Jul	28												
73-7	7-Jul	28	57 54.789	-131 6.806	217	Stikine	58 2.103	-131 1.048		Tahltan	58 0.348	-130 59.383	231	Stikine
73-9	7-Jul	28												
74-2	7-Jul	28												
74-3	8-Jul	28	56 58.286	-131 45.775	75	Stikine	56 41.705	-132 1.604	22	Stikine				
74-6	8-Jul	28												
74-8	8-Jul	28	57 20.934	-131 45.467	130	Stikine								
74-9	8-Jul	28					58 4.097	-131 1.964	9	Tahltan				
74-10	8-Jul	28									58 3.772	-131 1.706	8	tahltan River
75-3	8-Jul	28	57 20.432	-131 45.451	128	Stikine								
75-4	8-Jul	28	57 21.81	-131 46.397	132	Stikine								
75-6	8-Jul	28					57 59.205	-131 34.646	44	Tahltan	58 1.053	-131 34.691	50	Tahltan River
75-7	10-Jul	29	56 39.838	-131 55.764	29	Stikine								
75-10	10-Jul	29	57 35.696	-131 42.391	162	Stikine								
76-3	10-Jul	29					57.288193	-131.82288	117	stikine				
76-7	10-Jul	29	57 18.613	-131 52.207	122	Stikine								
76-8	10-Jul	29												
76-10	11-Jul	29					57 25.346	-131 46.97	140	Stikine				
77-1	11-Jul	29	57 22.251	-131 47.152	134	Stikine	57 58.685	-131 34.798	55	Tahltan				
77-2	11-Jul	29	57 15.559	-131 50.35	113	Stikine								
77-5	11-Jul	29	56 41.62	-132 1.507	22	Stikine								
77-9	11-Jul	29					56 59.142	-131 45.834	76	Stikine	56 57.6	-131 45.467	73	Stikine
77-10	11-Jul	29					58 2.405	-131 32.89	47	Tahltan				
78-1	11-Jul	29	56 41.734	-132 16.15	5	Stikine								
79-1	12-Jul	29												
79-4	12-Jul	29									57 58.103	-131 35.463		tahltan lake
79-6	13-Jul	29												
80-1	13-Jul	29									56 41.703	-132 12.755	10	Stikine
80-2	13-Jul	29												
80-10	14-Jul	29												recover
81-6	14-Jul	29												
81-7	14-Jul	29												
81-8	14-Jul	29												
81-9	14-Jul	29	56 42.438	-132 4.705	18	Stikine								
82-3	15-Jul	29												
82-4	15-Jul	29												
82-5	15-Jul	29	56 40.303	-131 58.154	26	Stikine								
82-6	15-Jul	29												recover
82-7	15-Jul	29	56 42.857	-132 5.057	18	Stikine								
83-2	15-Jul	29									56 37.502	-131 45.557	2	West Fork
83-3	15-Jul	29												
83-7	17-Jul	30	56 40.01	-131 57.541	27	Stikine								
83-9	17-Jul	30									57 41.588	-132 4.916	33	Chutine
84-1	17-Jul	30												
84-3	17-Jul	30												
84-10	18-Jul	30												
85-2	18-Jul	30	56 39.067	-131 51.566	34	Stikine	56 40.204	-131 56.356	28	Stikine	56 39.935	-131 55.912	29	Stikine
85-5	19-Jul	30	56 40.916	-132 0.404	23	Stikine								
85-6	19-Jul	30	56 40.442	-131 59.631	25	Stikine								
85-7	19-Jul	30	56 40.529	-131 59.95	25	Stikine								
85-8	19-Jul	30	56 40.907	-132 0.439	23	Stikine								
85-9	19-Jul	30					56 40.613	-132 0.172	24	Stikine	56 40.666	-132 0.169	24	Stikine
86-2	19-Jul	30	56 39.067	-131 51.566	34	Stikine								
86-4	19-Jul	30												
86-7	20-Jul	30					57 58.52	-131 34.828	55	Tahltan	57 58.534	-131 34.843	55	Tahltan River
86-8	20-Jul	30												
86-9	20-Jul	30												
87-1	20-Jul	30					56 41.103	-131 4.1	47	Iskut	56 37.759	-131 31.06	1	Verret
87-2	20-Jul	30					57 11.291	-131 47.33	105	Stikine	57 10.564	-131 46.427	103	Stikine
87-3	20-Jul	30					58 3.68	-131 20.415	32	Tahltan	57 58.701	-131 35.669		tahltan lake
87-5	21-Jul	30					56 41.966	-131 24.992	23	Iskut				
87-7	21-Jul	30					57 7.114	-131 41.957	94	Stikine	57 15.156	-131 56.356	7	Christina Cree
87-8	21-Jul	30												
87-9	21-Jul	30					57 58.663	-131 34.867	55	Tahltan				

Line Object Summary - project 58767
2005 Stikine Radio Tag Tracking

Deposits	\$126,000.00
Salaries and Wages	\$33,114.51
Travel in Canada	\$2,568.50
Air Charters	\$55,308.17
Surface Freight and Cargo	\$729.62
Air Freight and Cargo	\$527.34
Long Distance Services	\$571.01
Satellite Communication	\$202.06
Rental - Telephone Equipment	\$12,955.95
Rental - Pump	\$500.00
Repairs and Betterment to Bldgs	\$496.54
Repairs to Road Motor Vehicles	\$3,893.53
Misc Vehicle Repair	\$357.45
GPS	\$148.83
Battery Enclosures	\$1,341.48
Electrical Equipment	\$800.00
Tellecommunications System Equip	\$1,492.65
Computer Equipment/Parts	\$290.00
Carpentry	\$153.85
Fuel for Aircraft	\$890.80
Hardware	\$1,955.91
Protective Clothing	\$99.99
Fishing Equipment	\$13.37
Office/Stationaly Supplies	\$19.85
Scientific Supplies	\$2,684.48
Groceries/Provisions	\$341.46
TOTAL EXPENSES TO DATE	\$121,457.35
BALANCE DUE PSC	\$4,542.65